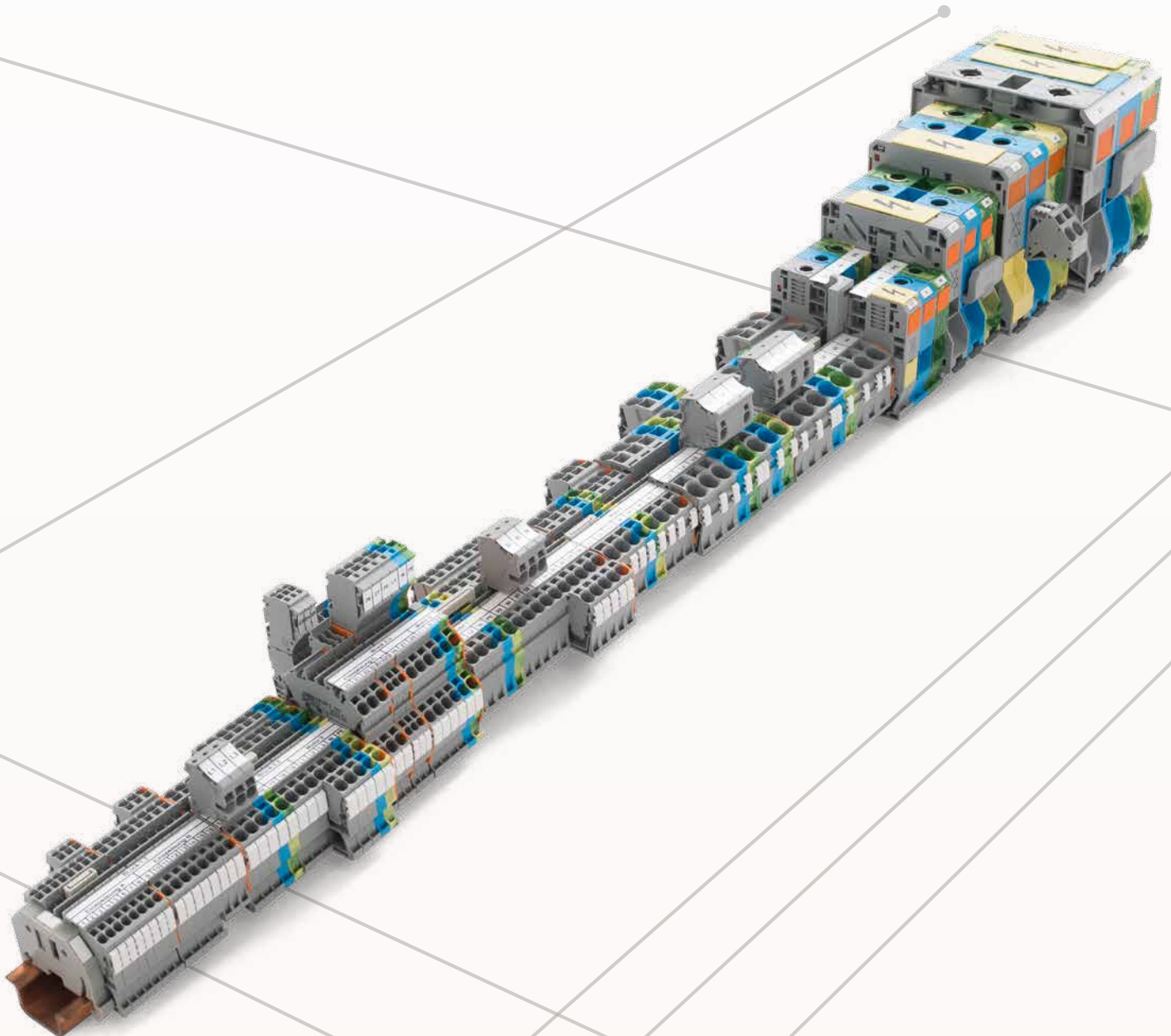


# Rail-Mount Terminal Block Systems

Full Line Catalog, Volume 1 – Edition 2017/2018

1



# WAGO Full Line Catalogs



## Volume 1, Rail-Mount Terminal Block Systems

- Rail-Mount Terminal Blocks
- Rail-Mount Terminal Blocks with Pluggable Connector (X-COM®-SYSTEM)
- Patchboard Systems
- Terminal Strips
- PUSH WIRE® Connectors for Junction Boxes
- Lighting Connectors
- Shield Connecting System



## Volume 2, PCB Terminal Blocks and Connectors

- PCB Terminal Blocks
- SMD PCB Terminal Blocks
- *MULTI CONNECTION SYSTEM (MCS)*
- Pluggable PCB Terminal Blocks
- Feedthrough Terminal Blocks
- Specialty Connectors
- Empty Housings



## Volume 3, Automation Technology

- Software
- Operating & Monitoring
- Controllers
- Modular I/O-SYSTEM, IP20/IP67
- Industrial Switches
- Radio Technology, *TO-PASS®* Telecontrol Technology
- IP67 Sensor/Actuator Boxes, IP67 Cables and Connectors



## Volume 4, Interface Electronic

- Relay and Optocoupler Modules
- *JUMPFLEX®* Signal Conditioners and Isolation Amplifiers
- Current and Energy Measurement Technology
- *EPSITRON®* Power Supply System
- Interface Modules and System Wiring
- Overvoltage Protection
- Empty Housings



## Volume 5, *WINSTA®* - The Pluggable Connection System

- Pluggable Connectors
- Snap-In Device Connectors
- Pluggable PCB Connectors
- Distribution Connectors
- Cable Assemblies
- Flat Cable Systems
- Distribution Boxes



## Volume 6, Marking

- Terminal Block Marking
- Cable and Conductor Marking
- Device Marking
- Printer
- Software
- Marker Carriers

# Volume 1, Rail-Mount Terminal Block Systems

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	<b>Rail-Mount Terminal Blocks, TOPJOB® S</b> Front-entry wiring	Push-in CAGE CLAMP® 1 ... 16 (25 "fst") mm <sup>2</sup> (16 ... 4 AWG) for DIN-35 rail	21	<b>1</b>
	<b>Rail-Mount Terminal Blocks with a Pluggable Connector, X-COM®S-SYSTEM</b> Front-entry wiring	Push-in CAGE CLAMP® 1 ... 2.5 (4) mm <sup>2</sup> (16 ... 12 AWG) for DIN-35 rail	147	<b>2</b>
	<b>Installation Rail-Mount Terminal Blocks, TOPJOB® S</b> Front-entry wiring	Push-in CAGE CLAMP® 1 ... 4 (6) mm <sup>2</sup> (16 ... 10 AWG) for DIN-35 rail	185	<b>3</b>
	<b>High-current, Rail-Mount Terminal Blocks High-Current Connectors</b> Side-entry wiring	POWER CAGE CLAMP 35 ... 185 mm <sup>2</sup> (2 AWG ... 350 kcmil), 1500 V nominal voltage, for DIN-35 rail	201	<b>4</b>
	<b>Rail-Mount Terminal Blocks, Classic Installation Rail-Mount Terminal Blocks, TOPJOB®, Classic</b> Front-entry wiring	CAGE CLAMP® 1.5 ... 35 mm <sup>2</sup> (16 ... 2 AWG) for DIN-35 rail	215	<b>5</b>
	<b>Rail-Mount Terminal Blocks with a Pluggable Connector, X-COM®-SYSTEM, Classic</b> Front-entry wiring	CAGE CLAMP® 2.5 (4) mm <sup>2</sup> (12 AWG) for DIN-35 rail	335	<b>6</b>
	<b>Rail-Mount Terminal Blocks, Miniature Rail-Mount Terminal Blocks, Compact</b> Front-entry wiring	CAGE CLAMP® 2.5 mm <sup>2</sup> (4 mm <sup>2</sup> ) (12 AWG) for DIN-35 and DIN-15 rails	405	<b>7</b>
	<b>Modular Terminal Blocks and Terminal Strips</b> Side-/front-entry wiring	CAGE CLAMP® 1.5 ... 4 mm <sup>2</sup> (16 ... 12 AWG) for panel mounting	429	<b>8</b>
	<b>Field-Wiring Terminal Blocks and Chassis-Mount Terminal Strips</b> Side-entry wiring	Push-in CAGE CLAMP® 2.5 mm <sup>2</sup> (22 AWG), 4 mm <sup>2</sup> (12 AWG) for panel mounting	459	<b>9</b>
	<b>Rail-Mount Terminal Blocks, Classic</b> Side-entry wiring	CAGE CLAMP® 1.5 ... 16 mm <sup>2</sup> (16 ... 6 AWG) for DIN-35 rail	487	<b>10</b>
	<b>Terminal Blocks for Matrix Patching and Potential Distribution, Busbar Terminal Blocks</b>	CAGE CLAMP® 1.5 ... 16 mm <sup>2</sup> (16 ... 6 AWG)	499	<b>11</b>
	<b>Lighting Connectors, PUSH WIRE® Connectors for Junction Boxes, Splicing Connectors for All Conductor Types</b>		523	<b>12</b>
	<b>Accessories and Tools</b>		553	<b>13</b>
	<b>Technical Section</b>		609	<b>14</b>
	<b>Index and Addresses</b>		657	<b>15</b>

## Operating WAGO Connection Technologies

Please follow the applicable product-specific termination instructions.

### PUSH-IN CAGE CLAMP®



Push-in CAGE CLAMP® terminates the following copper conductors: solid



stranded



fine-stranded, also with tinned single strands



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

The universal connection with an additional advantage:

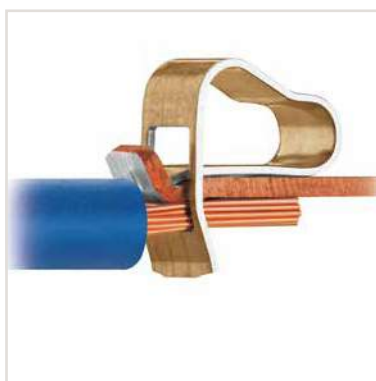
**Push-in connection**

Terminate solid and stranded (Class B 7 strands or less), as well as ferruled conductors, by simply pushing them in – no tools required.

Termination for all conductor types:

- Open clamping unit.
- Insert the conductor.
- Release clamp – done!

### CAGE CLAMP®



CAGE CLAMP® terminates the following copper conductors: solid



stranded



fine-stranded, also with tinned single strands



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

The universal connection for solid, stranded and fine-stranded conductors

Termination:

- Open clamping unit.
- Insert the conductor.
- Release clamp – done!

## Operating WAGO Connection Technologies

Please follow the applicable product-specific termination instructions.

### POWER CAGE CLAMP®



**POWER CAGE CLAMP** terminates the following copper conductors:  
solid



stranded



fine-stranded,  
also with tinned  
single strands



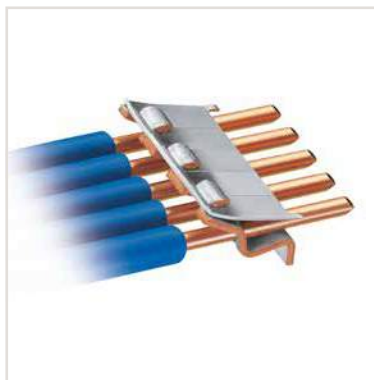
fine-stranded,  
with ferrule  
(gastight crimped)

**The universal connection for conductors larger than 35 mm<sup>2</sup> (2 AWG)**

Termination:

- Open clamp by turning a T-wrench counter-clockwise.
- Press the integrated latch to open clamping unit for hands-free wiring.
- Insert the conductor.
- A small counter-clockwise rotation closes the clamp, securing conductor.

### PUSH WIRE®



**PUSH WIRE®** terminates the following copper conductors:  
solid

**PUSH WIRE® connection for solid and stranded conductors (depending on the model used)**

Termination:

Tool-free, twist-free terminations for solid and rigid stranded conductors – simply push into the unit.

# Product Overview

## TOPJOB® S

### Rail-Mount Terminal Blocks with Push-in CAGE CLAMP® Connection


#### Through terminal blocks



 Page 28


#### Ground conductor terminal blocks



 Page 28

#### Shield terminal blocks

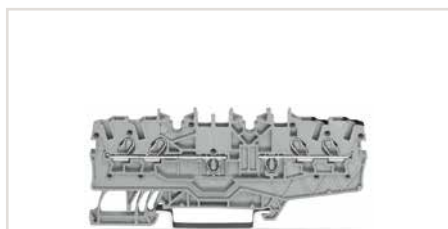



 Page 30

## TOPJOB® S

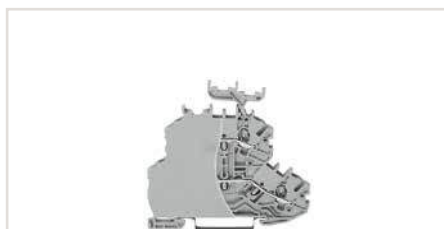
### Rail-Mount Terminal Blocks with Push-in CAGE CLAMP® Connection

#### Double-potential terminal blocks



 Page 29

#### Double-deck terminal blocks



 Page 42

#### Double-deck disconnect terminal blocks

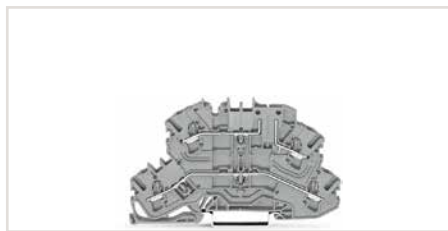


 Page 56

## TOPJOB® S

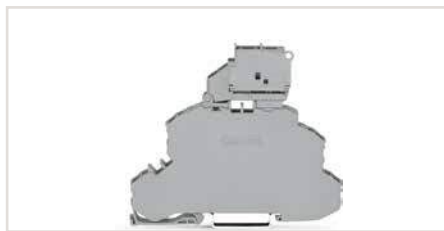
### Rail-Mount Terminal Blocks with Push-in CAGE CLAMP® Connection

#### Double-deck carrier terminal blocks



 Page 56


#### Double-deck fuse terminal blocks



 Page 57

#### Triple-deck terminal blocks




 Page 58

## TOPJOB® S

### Rail-Mount Terminal Blocks with Push-in CAGE CLAMP® Connection

#### Quadruple-deck, rail-mount terminal blocks for electric motor wiring



 Page 60


#### Disconnect/test terminal blocks



 Page 64

#### Disconnect/test terminal blocks for current and voltage transformer circuits



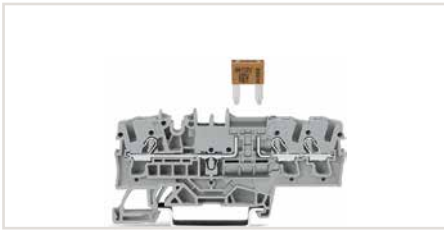
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# Product Overview

## TOPJOB® S

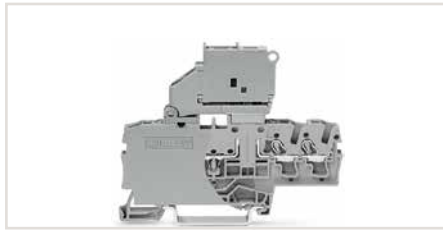
### Rail-Mount Terminal Blocks with Push-in CAGE CLAMP® Connection

Fuse terminal blocks for automotive blade-style fuses



Page 70

Fuse disconnect terminal blocks with a pivoting fuse holder



Page 72

Fuse plugs and carrier terminal blocks

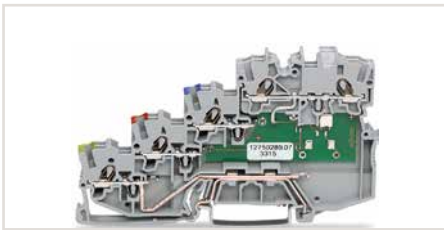


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## TOPJOB® S

### Rail-Mount Terminal Blocks with Push-in CAGE CLAMP® Connection

Sensor terminal blocks



Page 102

Actuator terminal blocks



Page 104

Sensor and actuator supply terminal blocks



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## TOPJOB® S

### Rail-Mount Terminal Blocks with Push-in CAGE CLAMP® Connection

Diode terminal blocks



Page 110

LED terminal blocks



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Multilevel diode and LED terminal blocks



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## TOPJOB® S

### Rail-Mount Terminal Blocks with Push-in CAGE CLAMP® Connection

Diode modules



Page 120

LED modules



Page 122

Empty component plug housings



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# Product Overview

## X-COM®S-SYSTEM-MINI

### Rail-Mount Terminal Blocks with a Pluggable Connector

#### Carrier terminal blocks



 Page 150

#### Ground carrier terminal blocks



 Page 150

#### Double-deck carrier terminal blocks

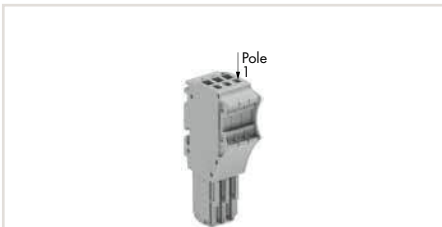


 Page 152

## X-COM®S-SYSTEM-MINI

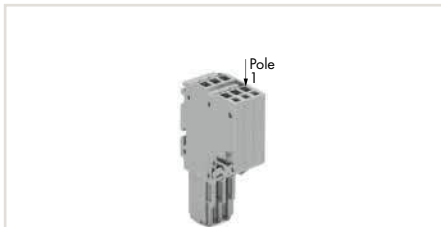
### Rail-Mount Terminal Blocks with a Pluggable Connector

#### 1-conductor female plugs



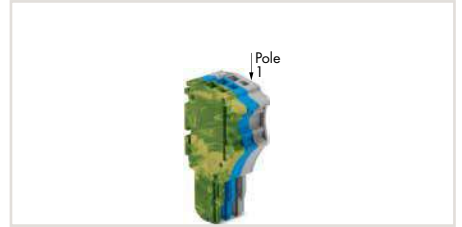
 Page 154

#### 2-conductor female plugs



 Page 154

#### Pre-assembled female plugs



 Page 158

## X-COM®S-SYSTEM-MINI

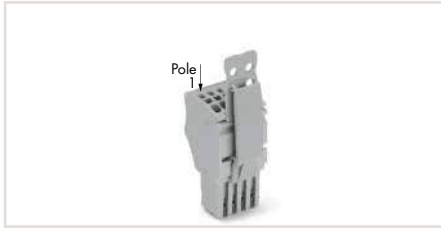
### Rail-Mount Terminal Blocks with a Pluggable Connector

#### Female plugs for self-assembly



 Page 156

#### Female plugs with locking levers and strain relief plates




 Page 162

## X-COM®S-SYSTEM

### Rail-Mount Terminal Blocks with a Pluggable Connector


#### Carrier terminal blocks



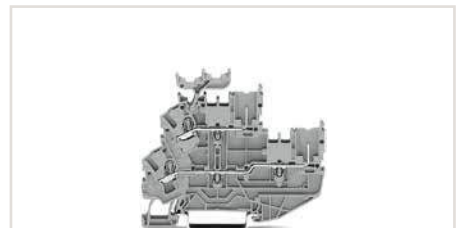
 Page 166


#### Ground carrier terminal blocks



 Page 166

#### Double-deck carrier terminal blocks



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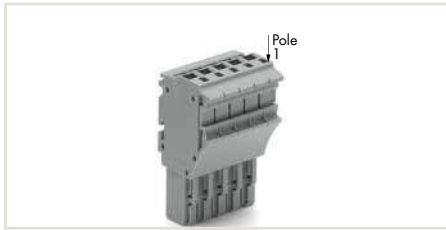


# Product Overview

## X-COM®S-SYSTEM

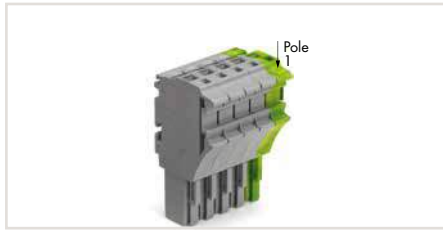
### Rail-Mount Terminal Blocks with a Pluggable Connector

#### Female plugs



Page 170

#### Pre-assembled female plugs



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#### Female plugs for self-assembly

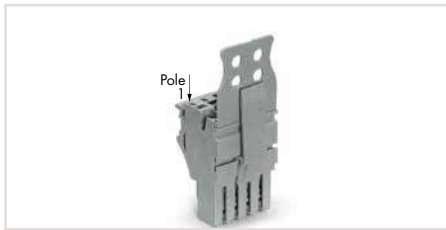


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## X-COM®S-SYSTEM

### Rail-Mount Terminal Blocks with a Pluggable Connector

#### Female plugs with locking levers and strain relief plates

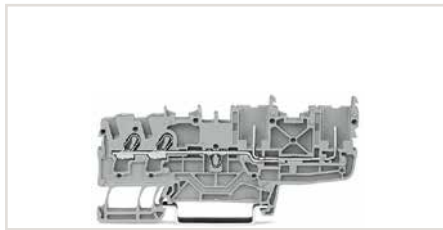


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## X-COM®S-SYSTEM

### Rail-Mount Terminal Blocks with a Pluggable Connector for Ex Applications

#### Carrier terminal blocks for Ex nA applications



Page 178

#### Ground carrier terminal blocks for Ex nA applications

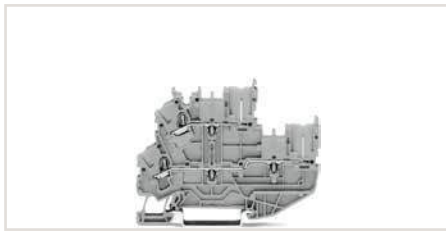


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## X-COM®S-SYSTEM

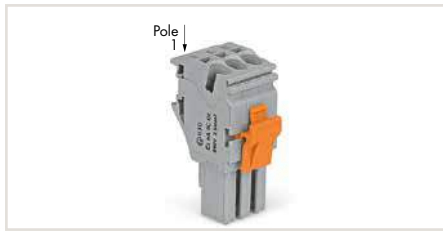
### Rail-Mount Terminal Blocks with a Pluggable Connector for Ex Applications

#### Double-deck carrier terminal blocks for Ex nA applications



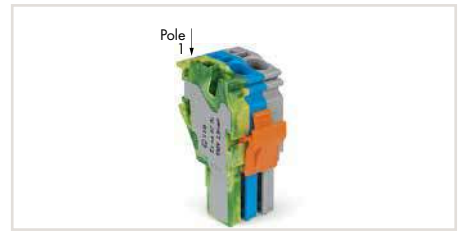
Page 180

#### Female plugs for Ex nA applications



Page 182

#### Pre-assembled female plugs for Ex nA applications



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## Product Overview

### TOPJOB® S

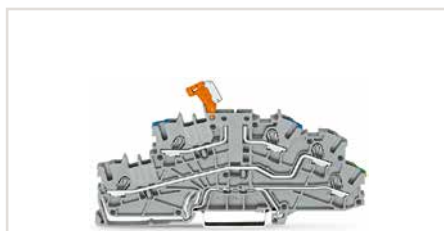
#### Installation Rail-Mount Terminal Blocks with Push-in CAGE CLAMP® Connection

Multilevel installation terminal blocks with an N-disconnect slide link, 2.5 (4) mm<sup>2</sup> (12 AWG)



Page 188

Multilevel installation terminal blocks with an internal N-disconnection



Page 190

Double-fuse plugs



Page 192

### TOPJOB® S

#### Installation Rail-Mount Terminal Blocks with Push-in CAGE CLAMP® Connection

Multilevel installation terminal blocks with an N-disconnect slide link, 4 (6) mm<sup>2</sup> (10 AWG)



Page 194

N-conductor disconnect terminal blocks and power distribution disconnect terminal blocks



Page 196

Distribution supply terminal blocks



Page 198

### High-Current, Rail-Mount Terminal Blocks

Through terminal blocks, 35 mm<sup>2</sup> (2 AWG)



Page 204

Ground conductor terminal blocks, 35 mm<sup>2</sup> (2 AWG)



Page 204

Power taps for 35 mm<sup>2</sup> (2 AWG) terminal blocks



Page 204

### High-Current, Rail-Mount Terminal Blocks

Through terminal blocks, 50 mm<sup>2</sup> (1/0 AWG)



Page 208

Ground conductor terminal blocks, 50 mm<sup>2</sup> (1/0 AWG)



Page 208

Power taps for 50 mm<sup>2</sup> (1/0 AWG) terminal blocks



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# Product Overview

## High-Current, Rail-Mount Terminal Blocks

Through terminal blocks with mounting flanges, 50 mm<sup>2</sup> (1/0 AWG)



Page 209

Through terminal blocks with mounting flanges, 50 mm<sup>2</sup> (1/0 AWG)



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## High-Current, Rail-Mount Terminal Blocks

Through terminal blocks, 95 mm<sup>2</sup> (4/0 AWG)



Page 210

Through terminal blocks with mounting flanges, 95 mm<sup>2</sup> (4/0 AWG)



Page 211

Power taps for 95 mm<sup>2</sup> (4/0 AWG) terminal blocks



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## High-Current, Rail-Mount Terminal Blocks

Through terminal blocks, 185 mm<sup>2</sup> (350 kcmil)



Page 212

Ground conductor terminal blocks, 185 mm<sup>2</sup> (350 kcmil)



Page 212

Power taps for 185 mm<sup>2</sup> (350 kcmil) terminal blocks



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## High-Current, Rail-Mount Terminal Blocks

Through terminal blocks with mounting flanges, 185 mm<sup>2</sup> (350 kcmil)



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Through terminal blocks with mounting flanges, 185 mm<sup>2</sup> (350 kcmil)



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# Product Overview

## Rail-Mount Terminal Blocks with CAGE CLAMP® Connection, Front-Entry Wiring

Through terminal blocks



Page 218

Ground conductor terminal blocks



Page 218

Shield terminal blocks



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## Rail-Mount Terminal Blocks with CAGE CLAMP® Connection, Front-Entry Wiring

Double-potential terminal blocks



Page 219

Distribution terminal blocks



Page 233

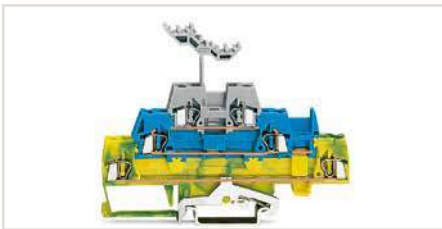
Double-deck terminal blocks



Page 236

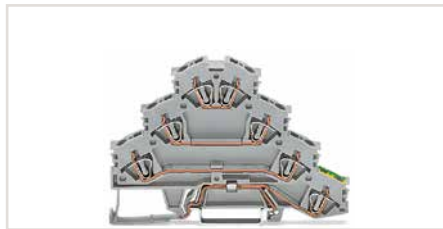
## Rail-Mount Terminal Blocks with CAGE CLAMP® Connection, Front-Entry Wiring

Triple-deck terminal blocks



Page 246

Quadruple-deck, rail-mount terminal blocks for electric motor wiring



Page 248

Disconnect/test terminal blocks



Page 262

## Rail-Mount Terminal Blocks with CAGE CLAMP® Connection, Front-Entry Wiring

Disconnect/test terminal blocks



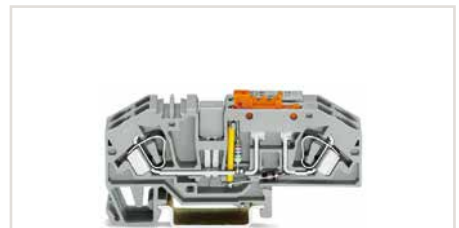
Page 260

Disconnect/test terminal blocks for current and voltage transformer circuits



Page 270

Ground conductor disconnect terminal blocks

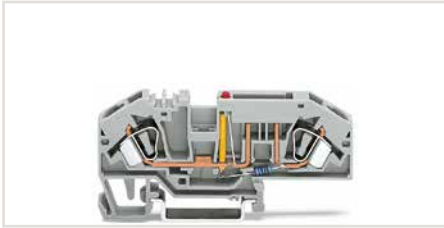


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# Product Overview

## Rail-Mount Terminal Blocks with CAGE CLAMP® Connection, Front-Entry Wiring

Fuse terminal blocks for automotive blade-style fuses



Page 278

Fuse disconnect terminal blocks with a pivoting fuse holder



Page 282

Fuse terminal blocks for class CC fuses and 10 x 38 mm (1 3/32" x 1 1/2") cylindrical fuses



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## Rail-Mount Terminal Blocks with CAGE CLAMP® Connection, Front-Entry Wiring

Fuse plugs and carrier terminal blocks



Page 286

Diode terminal blocks



Page 312

LED terminal blocks



Page 312

## Rail-Mount Terminal Blocks with CAGE CLAMP® Connection, Front-Entry Wiring

Diode modules



Page 322

LED modules



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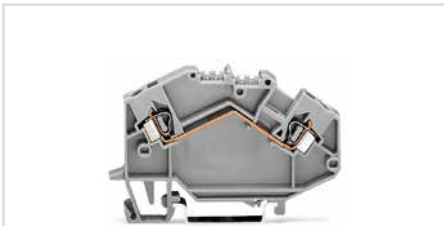
Sensor and actuator terminal blocks



Page 296

## TOPJOB® Classic Rail-Mount Terminal Blocks with CAGE CLAMP® Connection

Through terminal blocks



Page 251

Ground conductor terminal blocks



Page 251

N-conductor disconnect terminal blocks and power distribution disconnect terminal blocks



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# Product Overview

## X-COM®-SYSTEM, Classic Rail-Mount Terminal Blocks with a Pluggable Connector

### Carrier terminal blocks



Page 342

### Ground carrier terminal blocks



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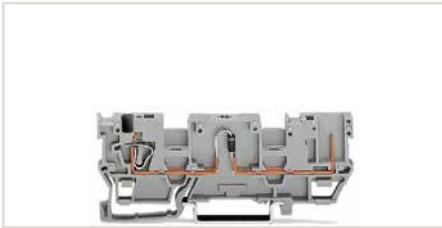
### Disconnect carrier terminal blocks



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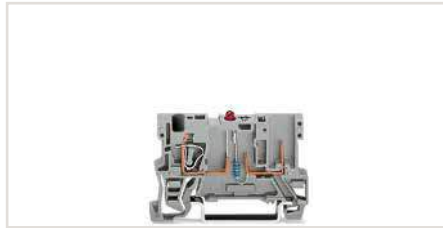
## X-COM®-SYSTEM, Classic Rail-Mount Terminal Blocks with a Pluggable Connector

### Diode carrier terminal blocks



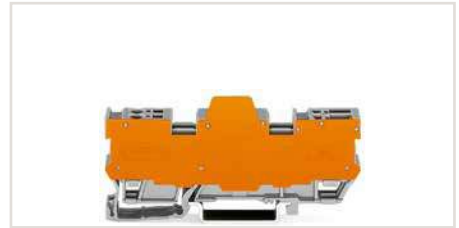
Page 356

### LED carrier terminal blocks



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### Carrier terminal blocks for pluggable modules



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## X-COM®-SYSTEM, Classic Rail-Mount Terminal Blocks with a Pluggable Connector

### Double-deck carrier terminal blocks



Page 372

### Male connectors with CAGE CLAMP® connection



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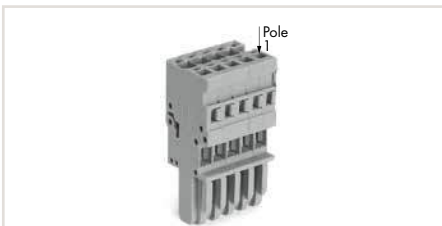
### Male headers with solder pins



Page 386

## X-COM®-SYSTEM, Classic Rail-Mount Terminal Blocks with a Pluggable Connector

### Female plugs with and without lateral locking levers



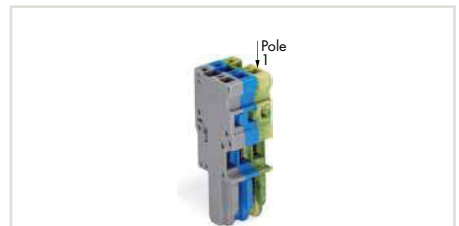
Page 392

### Female plugs for self-assembly



Page 396

### Pre-assembled female plugs



Page 398

# Product Overview

## Miniature Rail-Mount Terminal Blocks with CAGE CLAMP® Connection

Through terminal blocks for DIN-35 rail



Page 408

Ground conductor terminal blocks for DIN-35 rail



Page 408

Ex e II through terminal blocks for DIN-35 rail



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## Miniature Rail-Mount Terminal Blocks with CAGE CLAMP® Connection

Through terminal blocks for DIN-15 rail



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Ground conductor terminal blocks for DIN-15 rail



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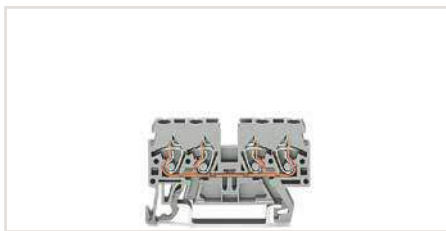
Ex e II through terminal blocks for DIN-15 rail



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## Compact Rail-Mount Terminal Blocks with CAGE CLAMP COMPACT Connection

Through terminal blocks for DIN-35 rail



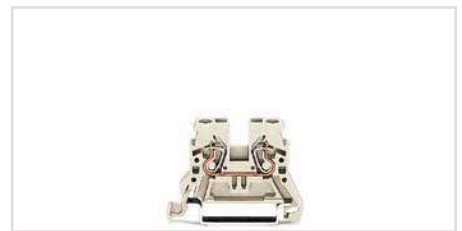
Page 412

Ground conductor terminal blocks for DIN-35 rail



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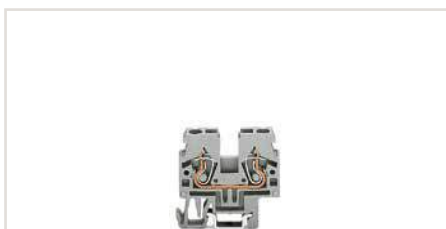
Ex e II through terminal blocks for DIN-35 rail



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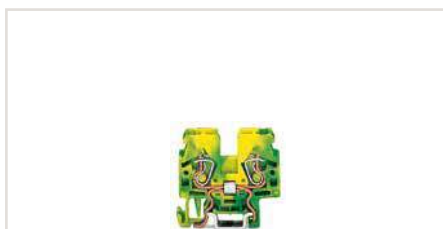
## Compact Rail-Mount Terminal Blocks with CAGE CLAMP COMPACT Connection

Through terminal blocks for DIN-15 rail



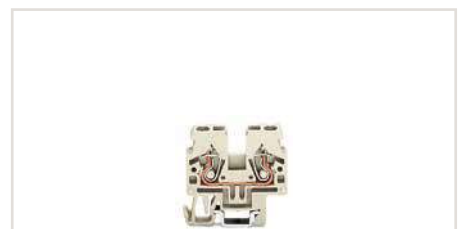
Page 413

Ground conductor terminal blocks for DIN-15 rail



Page 413

Ex e II through terminal blocks for DIN-15 rail



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## Product Overview

### Compact Rail-Mount Terminal Blocks with CAGE CLAMP COMPACT Connection

#### Double-potential terminal blocks



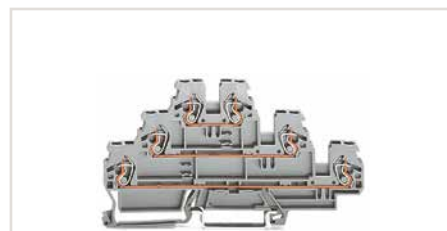
 Page 413

#### Double-deck terminal blocks



 Page 414

#### Triple-deck terminal blocks



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### Compact Rail-Mount Terminal Blocks with CAGE CLAMP COMPACT Connection

#### Sensor and actuator terminal blocks



 Page 425

#### Sensor and actuator supply terminal blocks



 Page 425

### Accessories (Selection)

#### Pluggable tap-off modules



 Page 423

### Modular Terminal Blocks and Terminal Strips

#### Modular terminal blocks



 Page 432


#### Terminal strips with mounting flanges



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#### Terminal strips with snap-in mounting feet




 Page 431

### Modular Terminal Blocks and Terminal Strips


#### Modular terminal blocks



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#### Terminal strips with mounting flanges



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#### Terminal strips with snap-in mounting feet



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# Product Overview

## Modular Terminal Blocks and Terminal Strips

### Modular terminal blocks



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### Terminal strips with mounting flanges



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### Terminal strips with snap-in mounting feet



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## Chassis-Mount Terminal Strips and Field-Wiring Terminal Blocks

### 4-conductor, chassis-mount terminal strips



Page 462

### Field-wiring terminal blocks



Page 473

### Field-wiring terminal blocks for fluorescent lighting fixtures



Page 484

## Rail-Mount Terminal Blocks with CAGE CLAMP® Connection, Side-Entry Wiring

### Through terminal blocks



Page 491

### Ground conductor terminal blocks



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### Disconnect/test terminal blocks



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## Rail-Mount Terminal Blocks with CAGE CLAMP® Connection, Side-Entry Wiring

### Ground conductor disconnect terminal blocks



Page 495

### Fuse terminal blocks for miniature fuses



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# Product Overview

## Patchboard Systems

### Matrix patchboards



 Page 502

### Matrix patchboards with push-buttons



 Page 508

### Additional modules



 Page 510

## Patchboard Systems

### Terminal blocks for matrix patching



 Page 514

### Common potential terminal blocks



 Page 515

### 3-conductor, double-potential terminal blocks or terminal blocks for matrix patching



 Page 519

## Busbar Terminal Blocks

### Busbar terminal blocks



 Page 521

### Ground busbar terminal blocks



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### Insulated busbar carriers



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## PUSH WIRE® Connectors for Junction Boxes

### COMPACT PUSH WIRE® connectors for junction boxes



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### COMPACT PUSH WIRE® connectors for junction boxes



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### Mounting carriers



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# Product Overview

## PUSH WIRE® Connectors for Junction Boxes

**PUSH WIRE®** connectors for junction boxes



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**Ex PUSH WIRE®** connectors for junction boxes



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Mounting carriers



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## PUSH WIRE® Connectors for Junction Boxes

**MICRO PUSH WIRE®** connectors for junction boxes



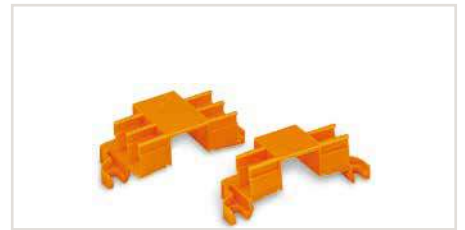
Page 534

**MICRO PUSH WIRE®** connectors for junction boxes



Page 534

Mounting carriers



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## Splicing Connectors for All Conductor Types

**COMPACT** splicing connectors for all conductor types



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**COMPACT** splicing connectors for all conductor types



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Mounting carriers



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## Splicing Connectors for All Conductor Types

**CLASSIC** splicing connectors for all conductor types



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**CLASSIC** splicing connectors for all conductor types



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Mounting carriers



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# Product Overview

## Lighting Connectors

### Lighting connectors



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### Lighting connectors



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### Luminaire disconnect connectors



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### Vario-T-BOXX



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### L-BOXX® 102



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## Shield Connecting System

### Shield clamping saddles



Page 559

### Shield clamping saddles



Page 556

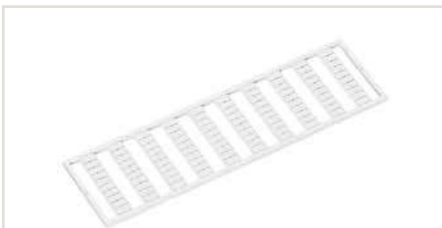
### Busbar carriers



Page 562

## Marking Accessories

### Marking cards



Page 580

### Marker carriers



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### Marking cards



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# Product Overview

## Mounting Accessories

### Screwless end stops



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### DIN-35 rails



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### Collective jumper carriers



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## Mounting Accessories

### Covers



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### DIN-15 rails



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## Tools

### Operating tools



Page 596

### Cable strippers



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### Stripping tools



Page 599

## Tools

### Crimping tools



Page 600

### Ferrules

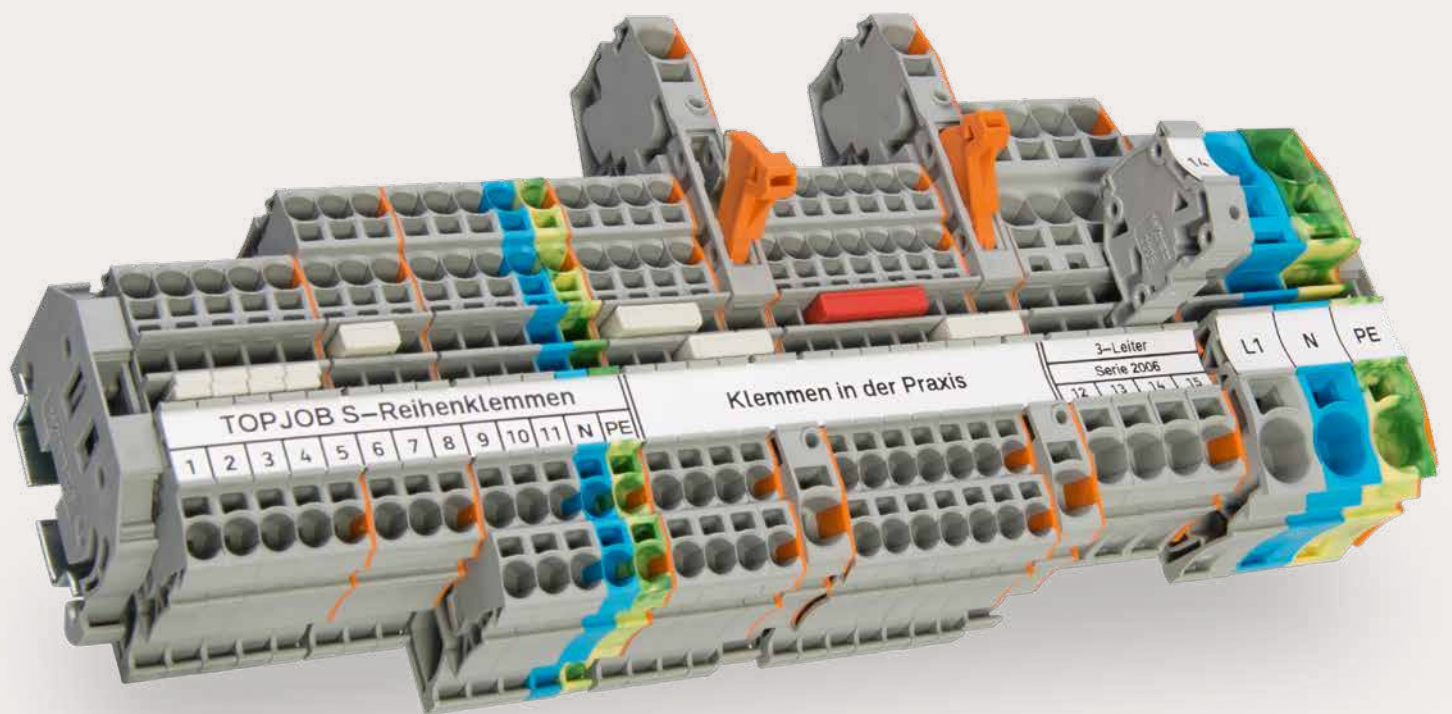


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### Measurement devices



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## Rail-Mount Terminal Blocks, TOPJOB<sup>®</sup> S

# Rail-Mount Terminal Blocks, TOPJOB® S with Push-in CAGE CLAMP® Connection

## Front-Entry Wiring

			Page
	<b>Through, Ground Conductor, Shield and Ex Terminal Blocks</b> 0.14 ... 16 (25 "f-st") mm <sup>2</sup> (24 ... 4 AWG)	2000 ... 2016 Series	28
	<b>Multilevel Rail-Mount Terminal Blocks</b> 1 (1.5) mm <sup>2</sup> (16 AWG) and 2.5 (4) mm <sup>2</sup> (12 AWG)	2000/2002 Series	42
	<b>Disconnect/Test/Fuse Terminal Blocks and Through Terminal Blocks of Same Profile</b> 0.25 ... 2.5 (4) mm <sup>2</sup> (22 ... 12 AWG)	2002 Series	62
	<b>Fuse Disconnect Terminal Blocks with a Pivoting Fuse Holder</b> 0.25 ... 2.5 (4) mm <sup>2</sup> (22 ... 12 AWG)	2002 Series	72
	<b>Disconnect, Ground Conductor Disconnect Terminal Blocks and Fuse Terminal Blocks</b> 0.5 ... 6 (10) mm <sup>2</sup> (20 ... 8 AWG)	2006 Series	80
	<b>Disconnect/Test Terminal Blocks for Current and Voltage Transformer Circuits</b> 0.5 ... 6 (10) mm <sup>2</sup> (20 ... 8 AWG)	2007 Series	92
	<b>Fuse Plugs on Carrier Terminal Blocks</b>	2004/2006 Series	96
	<b>Sensor and Actuator Terminal Blocks</b> 0.14 ... 1 (1.5) mm <sup>2</sup> (24 ... 16 AWG)	2000/2020 Series	102
	<b>Diode and LED Terminal Blocks</b> 0.25 ... 4 (6) mm <sup>2</sup> (22 ... 10 AWG)	2001/2002/2004 Series	110
	<b>Multilevel Diode and LED Terminal Blocks</b> 0.25 ... 2.5 (4) mm <sup>2</sup> (22 ... 12 AWG)	2002 Series	116
	<b>Diode, LED Modules and Empty Component Plug Housings</b>	2002 Series	120
	<b>Accessories for TOPJOB® S Rail-Mount Terminal Blocks</b>		128

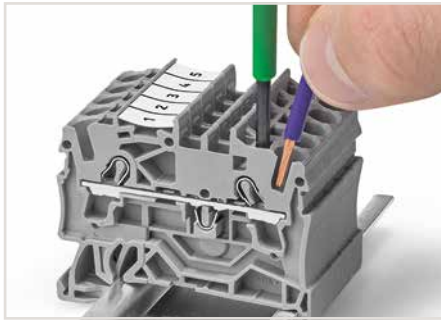
# Push-in CAGE CLAMP® Rail-Mount Terminal Blocks 2000 to 2016 Series

## Description and Installation

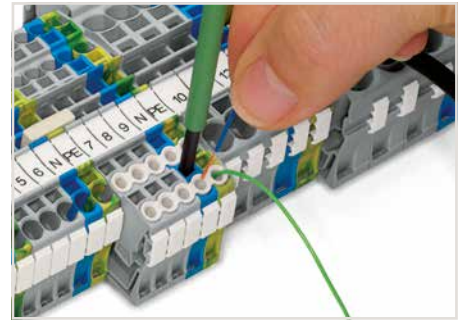
1



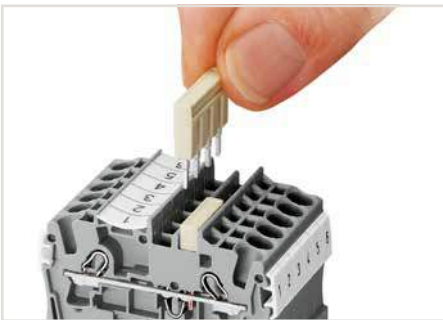
Inserting solid and ferruled conductors via push-in connection.



Inserting fine-stranded conductors via operating tool.



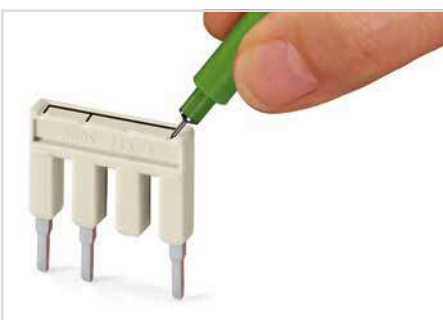
Conductor termination - Insulation stop.



Insert push-in type jumper bar and push down firmly until it hits the backstop.



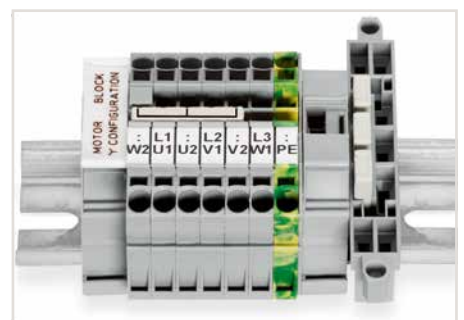
Custom jumpers are created by breaking and removing jumper contacts (2000, 2001, 2002, 2004 Series).



Marking a push-in type jumper bar using a felt-tip pen.



Commoning with a step-down jumper.



This star point jumper has been specially developed to create a "star point" and is used on motor terminal boards equipped with TOPJOB® S rail-mount terminal blocks.



Push-in CAGE CLAMP® terminates the following copper conductors:  
solid



stranded



fine-stranded,  
also with tinned  
single strands





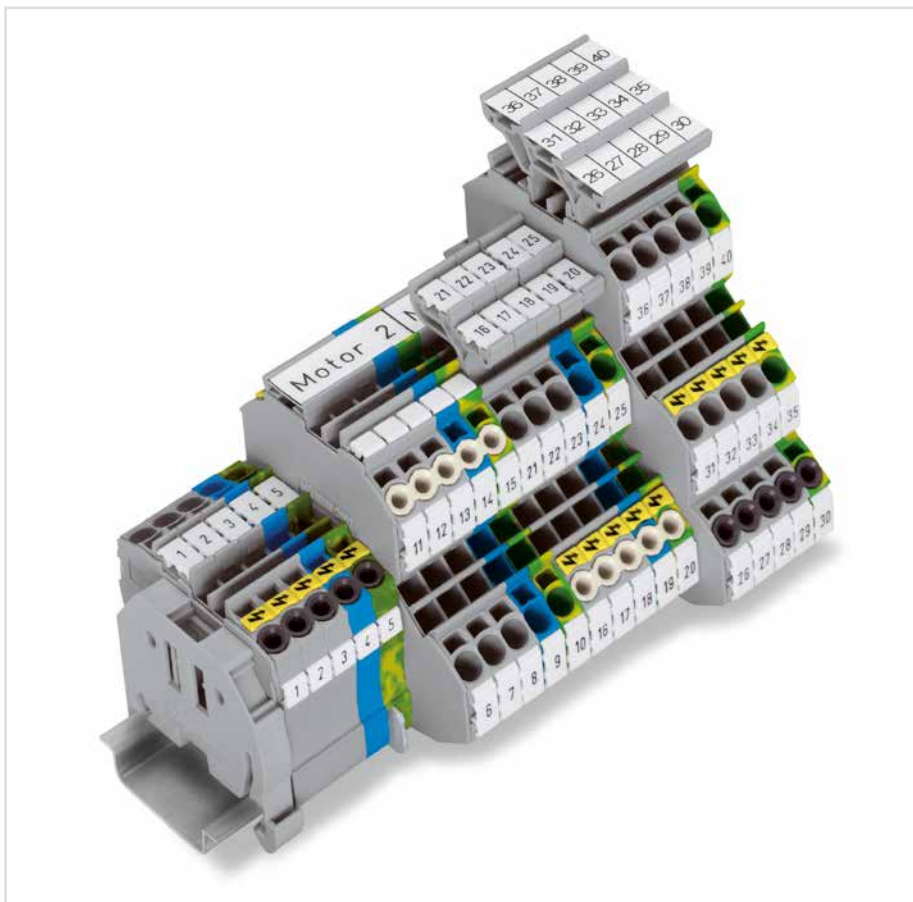
Rail-mount terminal block assembly for electric motor wiring



L-type test plug modules fitted in a triple-deck terminal block



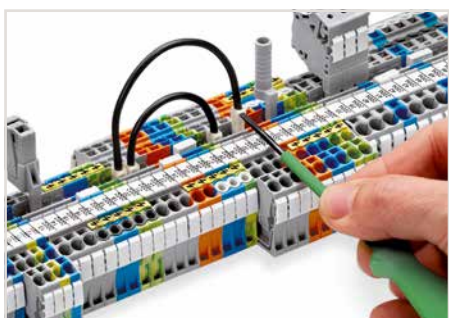
Testing tap (2009-182) for tool-free connection of test cables up to 2.5 mm<sup>2</sup> (12 AWG) – compatible with 2000 to 2016 Series



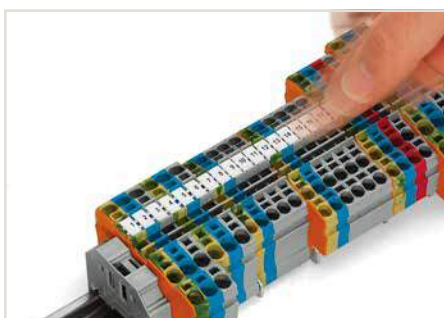
Test plug adapter (2009-174, CAT I) for 4 mm Ø plugs – compatible with 2000 to 2016 Series



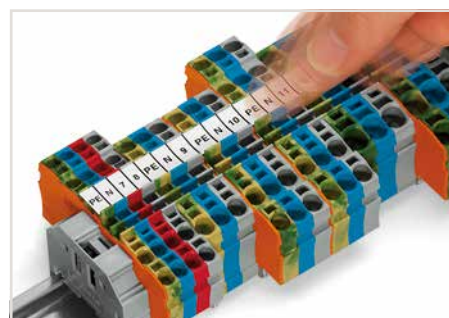
Group marker carrier (2009-163) for marking strips (2009-110)



Push down the wire jumper until fully inserted. Lift the jumper with an operating tool for rewiring.



WMB Inline: Snapping a strip into the marker slots.



Marking strips: Snapping a strip into the marker slots.



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

# TOPJOB® S

## Conductor Insertion/Removal

### Installation

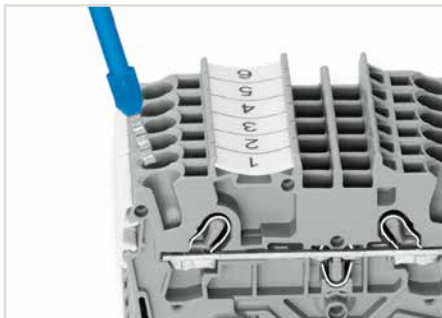
1



#### Inserting conductors via push-in termination.

Stripped solid, ferruled or ultrasonically "bonded" conductors can be simply pushed in - without tools.

This advantage significantly reduces wiring costs for conductors rated 0.5 mm<sup>2</sup> (20 AWG) to 16 mm<sup>2</sup> (4 AWG) in applications such as electrical installations or factory wiring.



**Fine-stranded conductors with ferrules** from at least two sizes below the rated cross-section up to the rated cross-section can also be simply pushed in - without tools.



#### Inserting conductors via push-in termination.

**Solid conductors** with cross-sections from either one size above, or up to two sizes below, the rated cross-section can be simply pushed in - no tools needed.



#### Inserting a conductor via operating tool.

Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® - just use an operating tool.

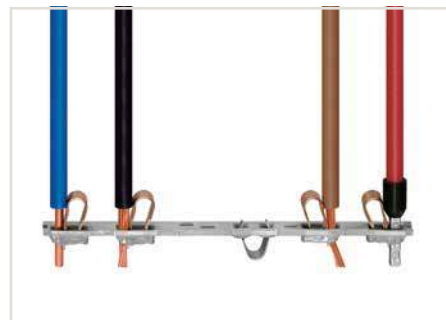
#### The smart feature:

To open the clamp, the operating tool is inserted vertically. The conductor entry is less than 15 degrees for easier wiring.



#### Removing a conductor.



Conductor removal is performed with an operating tool, just like CAGE CLAMP®.

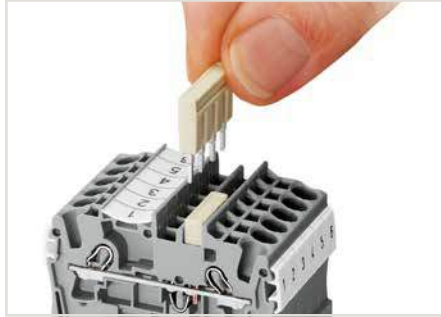


#### All conductor types at a glance

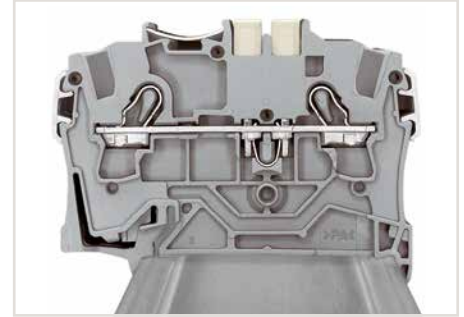
## TOPJOB® S Push-In Type Jumper Bars Installation



**Push-in type jumper bars (2000 to 2016 Series)**  
800 V  
600 V   
550 V 



The push-in type jumper bar system is based on the common plug and socket principle. Each terminal block is spring-loaded with a double socket and a resilient CrNi steel spring. The jumper contact material is pure electrolytic copper, which allows for an extremely small design capable of carrying the full-rated current of the terminal block. Ground terminal blocks can also be commoned using the same jumper system. Custom jumpers are created by breaking and removing jumper contacts (2000, 2001, 2002, 2004 Series).

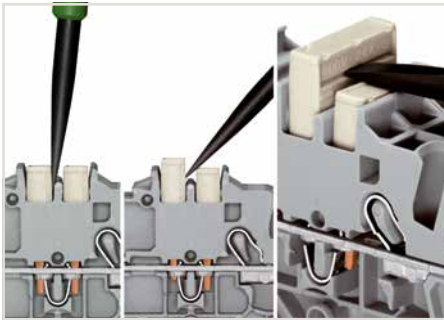


### The smart feature:

The integrated sockets can be used for:

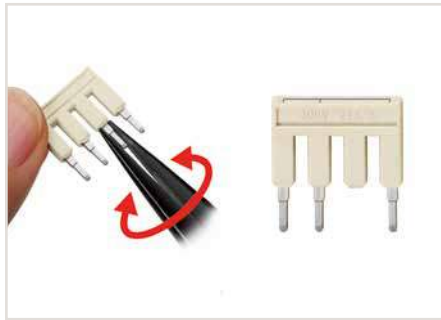
- Jumpers
- Test plug adapters and testing taps
- Preharnessed plugs for subassembly connections

1



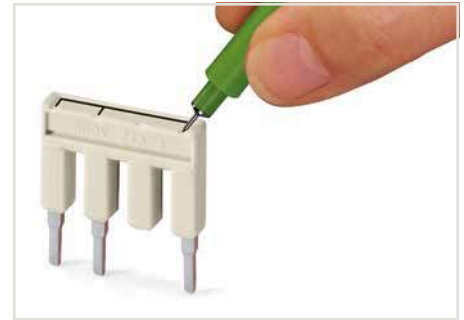
### Removing a push-in type jumper bar.

Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper. Place the operating tool in the center of jumpers up to five contacts (see above), or alternately on both sides for jumpers with more than five contacts.



### Custom push-in type jumper bars are created by breaking off jumper contacts.

500 V  
300 V 

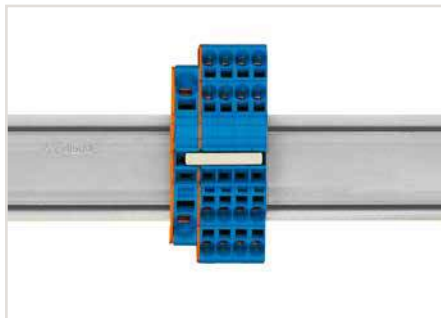


Marking a push-in type jumper bar using a felt-tip pen.



### Stepping down via push-in type jumper bar.

Commoning via open terminal side with end plate allows jumpering over two cross-section sizes for 16 mm<sup>2</sup> (6 AWG) and 10 mm<sup>2</sup> (8 AWG) and one cross-section size for 6/4/2.5 mm<sup>2</sup> (10/12/14 AWG). An example: from 16 mm<sup>2</sup> (6 AWG) to 6 mm<sup>2</sup> (10 AWG) (see illustration above) or from 10 mm<sup>2</sup> (8 AWG) to 4 mm<sup>2</sup> (12 AWG).



### Stepping down via push-in type jumper bar.

Commoning via closed terminal side with end plate allows jumpering over two cross-section sizes, e.g., from 16 mm<sup>2</sup> (6 AWG) to 6 mm<sup>2</sup> (10 AWG) or from 6 mm<sup>2</sup> (10 AWG) to 2.5 mm<sup>2</sup> (14 AWG) (see illustration above).



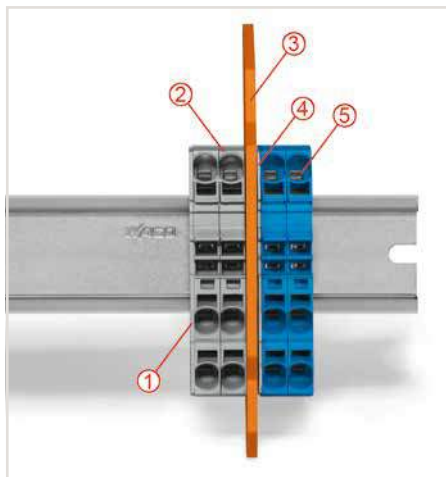
An application example: colored push-in type jumper bars are used with sensor terminal blocks.

# TOPJOB® S

## Separators for Ex e/Ex Applications

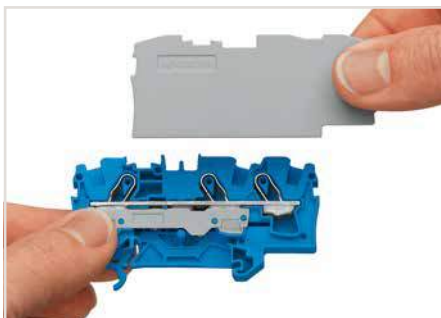
### Installation

1



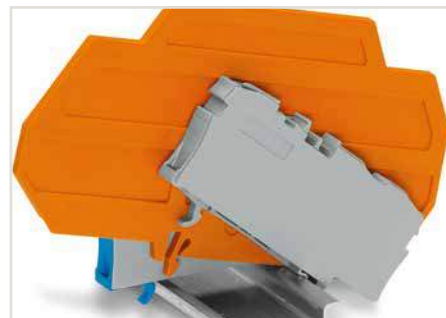
Separator located between Ex e II and Ex i terminal strip

- ① End plate
- ② Ex e II terminal blocks
- ③ Separator for Ex e/Ex applications
- ④ End plate
- ⑤ Ex i terminal blocks



#### Separator for Ex e/Ex applications

An end plate must be applied to the terminal block located directly behind an Ex e/Ex i separator plate.



#### Ex e II/Ex i terminal strip

##### Notice:

The movable feet of terminal blocks and separator plates must face the same direction.

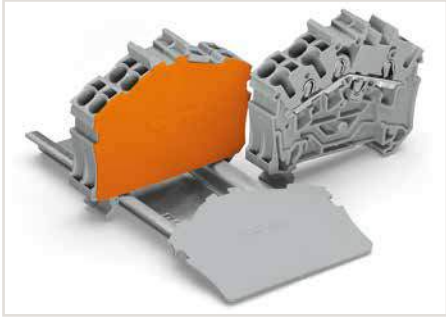


#### Example of marking (rear):

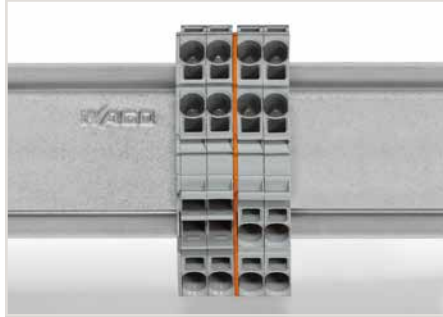
The embossed details on the terminal blocks show the manufacturer's name, the series no., the type of protection Ex e II, the approval no., the approval data and the name of the test authority.

## TOPJOB® S Angle-Type Rail-Mount Terminal Blocks

### Installation



An end plate must be applied when changing from a 3-conductor terminal block to a 4-conductor terminal block (angled type) and vice versa.






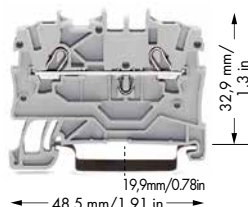
With continuous terminal strips, an end plate must be used when changing from 3- to 4-conductor terminal blocks.

# TOPJOB® S Through/Ground Conductor/Ex and Double-Potential Terminal Blocks

1 (1.5) mm<sup>2</sup>, 2000 Series

1














0.14 ... 1 (1.5) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 13.5 A (18 A)  Terminal block width 3.5 mm / 0.138 inch  9 ... 11 mm / 0.35 ... 0.43 inch	24 ... 16 AWG 600 V, 10 A ③ 600 V, 10 A ④	0.14 ... 1 (1.5) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 13.5 A (18 A)  Terminal block width 3.5 mm / 0.138 inch  9 ... 11 mm / 0.35 ... 0.43 inch	24 ... 16 AWG 600 V, 10 A ③ 600 V, 10 A ④	0.14 ... 1 (1.5) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 13.5 A (18 A)  Terminal block width 3.5 mm / 0.138 inch  9 ... 11 mm / 0.35 ... 0.43 inch	24 ... 16 AWG 600 V, 10 A ③ 600 V, 10 A ④
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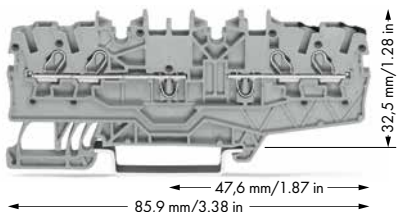
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block		3-conductor through terminal block		4-conductor through terminal block	
gray ⑤	2000-1201 ④ 100	gray ⑤	2000-1301 ④ 100	gray ⑤	2000-1401 ④ 100
blue ⑤	2000-1204 ④ 100	blue ⑤	2000-1304 ④ 100	blue ⑤	2000-1404 ④ 100
orange ⑤	2000-1202 ④ 100	orange ⑤	2000-1302 ④ 100	orange ⑤	2000-1402 ④ 100
red ⑤	2000-1203 ④ 100	red ⑤	2000-1303 ④ 100	red ⑤	2000-1403 ④ 100
black ⑤	2000-1205 ④ 100	black ⑤	2000-1305 ④ 100	black ⑤	2000-1405 ④ 100
yellow ⑤	2000-1206 ④ 100	yellow ⑤	2000-1306 ④ 100	yellow ⑤	2000-1406 ④ 100
2-conductor ground terminal block		3-conductor ground terminal block		4-conductor ground terminal block	
green-yellow ⑤	2000-1207 ④ 100	green-yellow ⑤	2000-1307 ④ 100	green-yellow ⑤	2000-1407 ④ 100
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 0.7 mm thick		End and intermediate plate, 0.7 mm thick		End and intermediate plate, 0.7 mm thick	
orange	2000-1292 100 (4x25)	orange	2000-1392 100 (4x25)	orange	2000-1492 100 (4x25)
gray	2000-1291 100 (4x25)	gray	2000-1391 100 (4x25)	gray	2000-1491 100 (4x25)
Separator for Ex e/Ex i applications, orange, 3 mm thick		Separator for Ex e/Ex i applications, orange, 3 mm thick		Separator for Ex e/Ex i applications, orange, 3 mm thick	
90 mm	209-190 50 (2x25)	120 mm	209-191 50 (2x25)	120 mm	209-191 50 (2x25)

## 2000 Series Accessories

Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

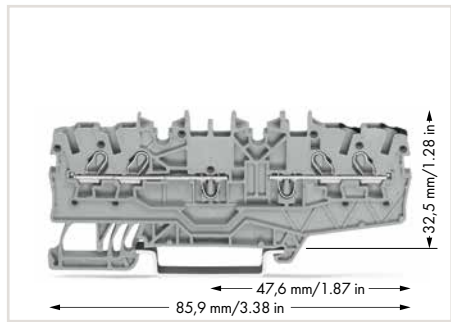
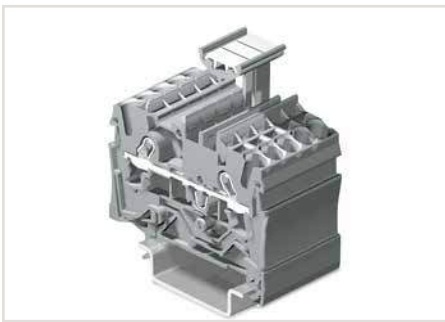
Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray  <ul style="list-style-type: none"> <li>2-way 2000-402 200 (8x25)</li> <li>3-way 2000-403 200 (8x25)</li> <li>4-way 2000-404 200 (8x25)</li> <li>5-way 2000-405 100 (4x25)</li> <li>6-way 2000-406 100 (4x25)</li> <li>7-way 2000-407 100 (4x25)</li> <li>8-way 2000-408 100 (4x25)</li> <li>9-way 2000-409 100 (4x25)</li> <li>10-way 2000-410 100 (4x25)</li> </ul>	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  <ul style="list-style-type: none"> <li>yellow 2000-115 100 (4x25)</li> </ul>	Modular TOPJOB® S connector, snaps together, for jumper contact slot  <ul style="list-style-type: none"> <li>gray 2000-510 100 (4x25)</li> </ul>
Delta jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray  <ul style="list-style-type: none"> <li>1-2 3-4 5-6 2000-406/020-000 100 (4x25)</li> </ul>	Star point jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray  <ul style="list-style-type: none"> <li>gray 1-3-5 2000-405/011-000 100 (4x25)</li> </ul>	Spacer module, snaps together, bridges commoned terminal blocks  <ul style="list-style-type: none"> <li>gray 2000-549 100 (4x25)</li> </ul>
Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray  <ul style="list-style-type: none"> <li>from 1 to 3 2000-433 200 (8x25)</li> <li>from 1 to 4 2000-434 200 (8x25)</li> <li>from 1 to 5 2000-435 100 (4x25)</li> <li>from 1 to 6 2000-436 100 (4x25)</li> <li>from 1 to 7 2000-437 100 (4x25)</li> <li>from 1 to 8 2000-438 100 (4x25)</li> <li>from 1 to 9 2000-439 100 (4x25)</li> <li>from 1 to 10 2000-440 100 (4x25)</li> </ul>	Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A  <ul style="list-style-type: none"> <li>L = 60 mm 2009-402 100 (10x10)</li> <li>L = 110 mm 2009-404 100 (10x10)</li> <li>L = 250 mm 2009-406 100 (10x10)</li> </ul>	End plate, for modular TOPJOB® S connector, 1.5 mm thick  <ul style="list-style-type: none"> <li>gray 2002-541 100 (4x25)</li> </ul>
	Modular TOPJOB® S connector, snaps together, for jumper contact slot  <ul style="list-style-type: none"> <li>Terminal block width: 5 mm / 0.197 inch gray 2000-511 100 (4x25)</li> </ul>	Test plug adapter, for 4 mm Ø test plug  <ul style="list-style-type: none"> <li>gray 2009-174 100 (4x25)</li> </ul>
		Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow  <ul style="list-style-type: none"> <li>215-111 50</li> </ul>
		Testing tap, for max. 2.5 mm <sup>2</sup>  <ul style="list-style-type: none"> <li>gray 2009-182 100 (4x25)</li> </ul>

0.14 ... 1 (1.5) mm<sup>2</sup> ① | 24 ... 16 AWG  
 800 V/8 kV/3 ②  
 I<sub>N</sub> 13.5 A (18 A)  
 Terminal block width 3.5 mm / 0.138 inch  
 9 ... 11 mm / 0.35 ... 0.43 inch



- ① Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + f-st"; Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s" and 0.5 ... 0.75 mm<sup>2</sup> "insulated ferrule, 10 mm"
- ② 800 V = rated voltage  
 8 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ③ Suitable for Ex i applications
- ④ Suitable for Ex e II applications  
 550 V, 13 A  
 Jumper 12 A  
 (see Section 14)
- ⑤ See application notes for:  
 Separator for Ex e/Ex i applications, page 37  
 Colored push-in type jumper bar, page 134  
 Delta jumper, page 135  
 Star point jumper, page 135  
 Push-in type wire jumper, page 138  
 TOPJOB® S connector, page 128  
 Banana plug, page 330

Item No.	Pack. Unit
Double-potential terminal block, both potentials can be commoned	
○ gray	2000-2141 50



**TOPJOB® S group marker carrier** equipped with WMB Multi marking system.  
 Suitable for all 2000 ... 2016 Series TOPJOB® S rail-mount terminal blocks  
 Do not use on an end plate!

Double-potential terminal blocks are space savers. Two independent feedthrough circuits are placed in one insulated housing on one level in just 3.5 mm. This achieves a width of just 1.75 mm/0.069 inch versus standard through terminal blocks. Input and output contacts of one circuit are placed on the same side of the terminal block. Both circuits can be individually marked according to input and output.

**Item-Specific Accessories**

End and intermediate plate, 0.7 mm thick		
orange	2000-2196	100 (4x25)
gray	2000-2195	100 (4x25)


Test plug, with 500 mm cable, 2 mm Ø, max. 42 V		
red	210-136	50

Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V		
yellow	210-137	50

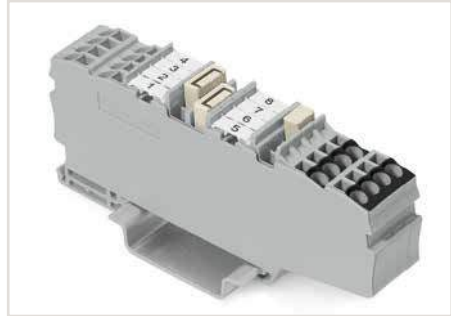
WMB Inline, plain, 2,300 WMB markers (3.5 mm) per reel		
white	2009-113	1

WMB Multi marking system, white, 10 strips with 10 markers per card, for 3.5 mm terminal block width		
plain	793-3501	5

Marking strip, plain, 11 mm wide, 50 m reel		
white	2009-110	1



**Standard and quick marking options:**  
 Three marker slots are available for both individual markers and marking strips.






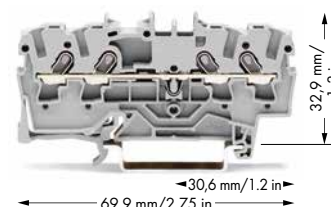
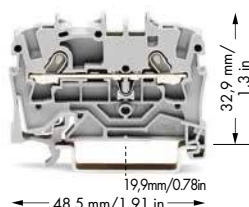
**Standard and fast marking options:**  
 Four marker slots (double-potential terminal blocks) are available for both individual markers and marking strips.

# TOPJOB® S Through/Ground Conductor/Shield and Ex Terminal Blocks

1.5 (2.5) mm<sup>2</sup>, 2001 Series

1

0.25 ... 1.5 (2.5) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 18 A (24 A)	22 ... 14 AWG 600 V, 15 A ③ 600 V, 15 A ④	0.25 ... 1.5 (2.5) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 18 A (24 A)	22 ... 14 AWG 600 V, 15 A ③ 600 V, 15 A ④	0.25 ... 1.5 (2.5) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 18 A (24 A)	22 ... 14 AWG 600 V, 15 A ③ 600 V, 15 A ④
Terminal block width 4.2 mm / 0.165 inch  9 ... 11 mm / 0.35 ... 0.43 inch		Terminal block width 4.2 mm / 0.165 inch  9 ... 11 mm / 0.35 ... 0.43 inch		Terminal block width 4.2 mm / 0.165 inch  9 ... 11 mm / 0.35 ... 0.43 inch	



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
<b>2-conductor through terminal block</b>		<b>3-conductor through terminal block</b>		<b>4-conductor through terminal block</b>	
gray ④ 2001-1201 ④ 100		gray ④ 2001-1301 ④ 100		gray ④ 2001-1401 ④ 100	
blue ④ 2001-1204 ④ 100		blue ④ 2001-1304 ④ 100		blue ④ 2001-1404 ④ 100	
orange ④ 2001-1202 ④ 100		orange ④ 2001-1302 ④ 100		orange ④ 2001-1402 ④ 100	
red ④ 2001-1203 ④ 100		red ④ 2001-1303 ④ 100		red ④ 2001-1403 ④ 100	
black ④ 2001-1205 ④ 100		black ④ 2001-1305 ④ 100		black ④ 2001-1405 ④ 100	
yellow ④ 2001-1206 ④ 100		yellow ④ 2001-1306 ④ 100		yellow ④ 2001-1406 ④ 100	
<b>2-conductor ground terminal block</b>		<b>3-conductor ground terminal block</b>		<b>4-conductor ground terminal block</b>	
green-yellow ④ 2001-1207 ④ 100		green-yellow ④ 2001-1307 ④ 100		green-yellow ④ 2001-1407 ④ 100	
<b>2-conductor shield terminal block</b>		<b>3-conductor shield terminal block</b>		<b>4-conductor shield terminal block</b>	
white 2001-1208 100		white 2001-1308 100		white 2001-1408 100	
<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>	
Diode 2001-1211/1000-411 Page 110		Diode 2001-1311/1000-411 Page 110		Diode 2001-1411/1000-411 Page 110	
		LED 2001-1321/1000-434 Page 110		LED 2001-1421/1000-434 Page 110	
				Double-potential 2001-1441 Page 31	

Item-Specific Accessories	Item-Specific Accessories	Item-Specific Accessories
<b>End and intermediate plate, 0.8 mm thick</b> orange 2002-1292 100 (4x25) gray 2002-1291 100 (4x25)	<b>End and intermediate plate, 0.8 mm thick</b> orange 2002-1392 100 (4x25) gray 2002-1391 100 (4x25)	<b>End and intermediate plate, 0.8 mm thick</b> orange 2002-1492 100 (4x25) gray 2002-1491 100 (4x25)
<b>Separator, oversized, 2 mm thick</b> orange 2002-1294 100 (4x25) gray 2002-1293 100 (4x25)	<b>Separator, oversized, 2 mm thick</b> orange 2002-1394 100 (4x25) gray 2002-1393 100 (4x25)	<b>Separator, oversized, 2 mm thick</b> orange 2002-1494 100 (4x25) gray 2002-1493 100 (4x25)
<b>Separator for Ex e/Ex i applications, orange, 3 mm thick</b> ⑤ 90 mm 209-190 50 (2x25) 120 mm 209-191 50 (2x25)	<b>Separator for Ex e/Ex i applications, orange, 3 mm thick</b> ⑤ 120 mm 209-191 50 (2x25)	<b>Separator for Ex e/Ex i applications, orange, 3 mm thick</b> ⑤ 120 mm 209-191 50 (2x25)

**2001 Series Accessories**  
 Appropriate marking systems: WMB/WMB Inline/Marking strips  
 (see Section 13)

<b>Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup></b> light gray 2001-171 200 (8x25)	<b>Push-in type jumper bar, insulated, I<sub>N</sub> 18 A, light gray</b> 2-way 2001-402 200 (8x25) 3-way 2001-403 200 (8x25) 4-way 2001-404 200 (8x25) 5-way 2001-405 100 (4x25) 6-way 2001-406 100 (4x25) 7-way 2001-407 100 (4x25) 8-way 2001-408 100 (4x25) 9-way 2001-409 100 (4x25) 10-way 2001-410 100 (4x25)	<b>Push-in type jumper bar, insulated, I<sub>N</sub> 18 A, light gray</b> from 1 to 3 2001-433 200 (8x25) from 1 to 4 2001-434 200 (8x25) from 1 to 5 2001-435 100 (4x25) from 1 to 6 2001-436 100 (4x25) from 1 to 7 2001-437 100 (4x25) from 1 to 8 2001-438 100 (4x25) from 1 to 9 2001-439 100 (4x25) from 1 to 10 2001-440 100 (4x25)
<b>Step-down jumper, insulated, commons 6/4 mm<sup>2</sup></b> ⑤ (10/12 AWG) to 4/2.5/1.5 mm <sup>2</sup> (12/14/16 AWG), I <sub>N</sub> 32 A light gray 2006-499 50 (2x25)		
<b>Protective warning marker, with black high-voltage symbol, for 5 terminal blocks</b> yellow 2001-115 100 (4x25)		



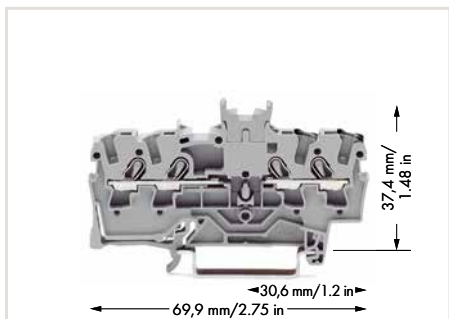
# TOPJOB® S

## Double-Potential Terminal Blocks

### 1.5 (2.5) mm<sup>2</sup>, 2001 Series

1

- ❶ Conductor range: 0.25 ... 2.5 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.5 ... 2.5 mm<sup>2</sup> "s"  
and 0.75 ... 1.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ❷ 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ Suitable for Ex i applications
- ❹ Suitable for Ex e II applications  
550 V, 17 A  
Jumper 16 A  
(see Section 14)
- ❺ See application notes for:  
Separator for Ex e/Ex i applications, page 37  
Step-down jumper, page 41  
Delta jumper, page 135  
Star point jumper, page 135  
Push-in type wire jumper, page 138  
TOPJOB® S connector, page 128  
Banana plug, page 330




















Double-potential terminal block with double marker slot centered on terminal block  
gray 2001-1441  
Packing unit: 100 pcs

Notice: These double potential terminal blocks cannot be commoned with push-in type jumper bars!  
Double-potential terminal blocks save space. Two independent feedthrough circuits are placed in one insulated housing on one level in just 4.2 mm. This achieves a width of just 2.1 mm (0.083 inch) versus standard through terminal blocks. Input and output contacts of one circuit are placed on the same side of the terminal block. Both circuits can be individually marked according to input and output.

For technical data and accessories, see [www.wago.com](http://www.wago.com)

### 2001 Series Accessories




Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

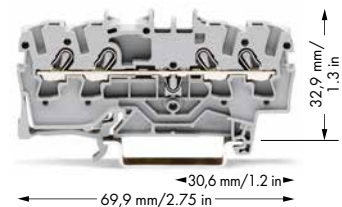
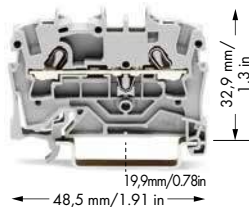
❶ Delta jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray  1-2 3-4 5-6 <b>2001-406/020-000</b> 100 (4x25)	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V  red <b>210-136</b> 50
❶ Star point jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray  1-3-5 <b>2001-405/011-000</b> 100 (4x25)	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  yellow <b>210-137</b> 50
❶ Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A 	WMB Inline, plain, 2,000 WMB markers (4 mm) per reel, 4 ... 4.2 mm stretchable  white <b>2009-114</b> 1
L = 60 mm <b>2009-412</b> 100 (10x10) L = 110 mm <b>2009-414</b> 100 (10x10) L = 250 mm <b>2009-416</b> 100 (10x10)	WMB Multi marking system, white, 10 strips with 10 markers per card, 4 ... 4.2 mm stretchable  plain <b>793-4501</b> 5
❶ Modular TOPJOB® S connector, snaps together, for jumper contact slot  gray <b>2001-511</b> 100 (4x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 4 ... 4.2 mm stretchable  yellow <b>793-4501/000-002</b> red <b>793-4501/000-005</b> blue <b>793-4501/000-006</b> gray <b>793-4501/000-007</b> orange <b>793-4501/000-012</b> light green <b>793-4501/000-017</b> green <b>793-4501/000-023</b> violet <b>793-4501/000-024</b> 5
❶ Spacer module, snaps together, bridges commoned terminal blocks  gray <b>2001-549</b> 100 (4x25)	
❶ End plate, for modular TOPJOB® S connector, 1.5 mm thick  gray <b>2002-541</b> 100 (4x25)	
❶ Test plug adapter, for 4 mm Ø test plug  gray <b>2009-174</b> 100 (4x25)	Marking strip, plain, 11 mm wide, 50 m reel  white <b>2009-110</b> 1
❶ Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow  <b>215-111</b> 50	Screwless end stop, for DIN-35 rail, 6 mm wide  gray <b>249-116</b> 100 (4x25)
❶ Testing tap, for max. 2.5 mm <sup>2</sup>  gray <b>2009-182</b> 100 (4x25)	Screwless end stop, for DIN-35 rail, 10 mm wide  gray <b>249-117</b> 50 (2x25)

# TOPJOB® S Through/Ground Conductor/Shield and Ex Terminal Blocks

2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 24 A (32 A)	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 24 A (32 A)	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 24 A (32 A)	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④
Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
<b>2-conductor through terminal block</b>		<b>3-conductor through terminal block</b>		<b>4-conductor through terminal block</b>	
gray ④ 2002-1201 ④ 100		gray ④ 2002-1301 ④ 100		gray ④ 2002-1401 ④ 100	
blue ④ 2002-1204 ④ ④ 100		blue ④ 2002-1304 ④ ④ 100		blue ④ 2002-1404 ④ ④ 100	
orange ④ 2002-1202 ④ 100		orange ④ 2002-1302 ④ 100		orange ④ 2002-1402 ④ 100	
red ④ 2002-1203 ④ 100		red ④ 2002-1303 ④ 100		red ④ 2002-1403 ④ 100	
black ④ 2002-1205 ④ 100		black ④ 2002-1305 ④ 100		black ④ 2002-1405 ④ 100	
yellow ④ 2002-1206 ④ 100		yellow ④ 2002-1306 ④ 100		yellow ④ 2002-1406 ④ 100	
<b>2-conductor ground terminal block</b>		<b>3-conductor ground terminal block</b>		<b>4-conductor ground terminal block</b>	
green-yellow ④ 2002-1207 ④ 100		green-yellow ④ 2002-1307 ④ 100		green-yellow ④ 2002-1407 ④ 100	
<b>2-conductor shield terminal block</b>		<b>3-conductor shield terminal block</b>		<b>4-conductor shield terminal block</b>	
white 2002-1208 100		white 2002-1308 100		white 2002-1408 100	
<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>	
Diode 2002-1211/1000-411 Page 112		Diode 2002-1311/1000-411 Page 112		Diode 2002-1411/1000-411 Page 112	
		LED 2002-1321/1000-434 Page 112		LED 2002-1421/1000-434 Page 112	
				Double-potential 2002-1441 Page 33	

Item-Specific Accessories	Item-Specific Accessories	Item-Specific Accessories
<b>End and intermediate plate, 0.8 mm thick</b> orange 2002-1292 100 (4x25) gray 2002-1291 100 (4x25)	<b>End and intermediate plate, 0.8 mm thick</b> orange 2002-1392 100 (4x25) gray 2002-1391 100 (4x25)	<b>End and intermediate plate, 0.8 mm thick</b> orange 2002-1492 100 (4x25) gray 2002-1491 100 (4x25)
<b>Separator, oversized, 2 mm thick</b> orange 2002-1294 100 (4x25) gray 2002-1293 100 (4x25)	<b>Separator, oversized, 2 mm thick</b> orange 2002-1394 100 (4x25) gray 2002-1393 100 (4x25)	<b>Separator, oversized, 2 mm thick</b> orange 2002-1494 100 (4x25) gray 2002-1493 100 (4x25)
<b>Separator for Ex e/Ex i applications, orange, 3 mm thick</b> ⑤ 90 mm 209-190 50 (2x25) 120 mm 209-191 50 (2x25)	<b>Separator for Ex e/Ex i applications, orange, 3 mm thick</b> ⑤ 120 mm 209-191 50 (2x25)	<b>Separator for Ex e/Ex i applications, orange, 3 mm thick</b> ⑤ 120 mm 209-191 50 (2x25)

**2002 Series Accessories**

Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)

Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray 2002-171 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray ⑤ 2-way 2002-402 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray from 1 to 3 2002-433 200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray 2002-172 200 (8x25)	3-way 2002-403 200 (8x25) 4-way 2002-404 200 (8x25) 5-way 2002-405 100 (4x25) 6-way 2002-406 100 (4x25) 7-way 2002-407 100 (4x25)	from 1 to 4 2002-434 200 (8x25) from 1 to 5 2002-435 100 (4x25) from 1 to 6 2002-436 100 (4x25) from 1 to 7 2002-437 100 (4x25)
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow 2002-115 100 (4x25)	8-way 2002-408 100 (4x25) 9-way 2002-409 100 (4x25) 10-way 2002-410 100 (4x25)	from 1 to 8 2002-438 100 (4x25) from 1 to 9 2002-439 100 (4x25) from 1 to 10 2002-440 100 (4x25)

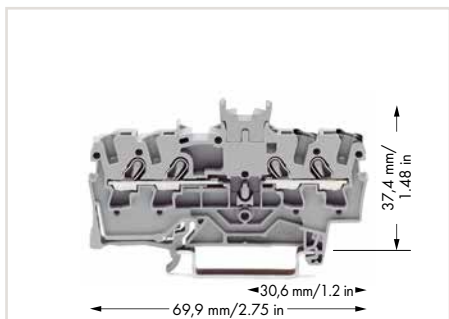
# TOPJOB® S

## Double-Potential Terminal Blocks

### 2.5 (4) mm<sup>2</sup>, 2002 Series

1

- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ❷ 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ Suitable for Ex i applications
- ❹ Suitable for Ex e II applications  
550 V, 22 A  
Jumper 20 A  
(see Section 14)
- ❺ See application notes for:  
Separator for Ex e/Ex i applications, page 37  
Colored push-in type jumper bar, page 134  
Staggered jumper, page 136  
Delta jumper, page 135  
Star point jumper, page 135  
Step-down jumper, page 41  
Adjacent jumper for continuous commoning, page 137  
Push-in type wire jumper, page 138  
TOPJOB® S connector, page 128  
TOPJOB® S L-type test plug module, page 132

















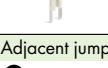



Double-potential terminal block with double marker slot centered on terminal block  
gray 2002-1441  
Packing unit: 100 pcs

Notice: These double potential terminal blocks cannot be commoned with push-in type jumper bars!  
Double-potential terminal blocks save space. Two independent feedthrough circuits are placed in one insulated housing on one level in just 5.2 mm. This achieves a width of just 2.6 mm (0.103 inch) versus standard through terminal blocks. Input and output contacts of one circuit are placed on the same side of the terminal block. Both circuits can be individually marked according to input and output.

For technical data and accessories, see [www.wago.com](http://www.wago.com)

### 2002 Series Accessories

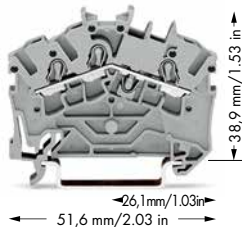
Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

 <p>❶ Staggered jumper, insulated, I<sub>N</sub> 25 A, light gray</p>	 <p>❶ Push-in type wire jumper, insulated, I<sub>N</sub> 18 A, wire size 1.5 mm<sup>2</sup></p>																																										
<table border="1"> <tr><td>2-way</td><td><b>2002-472</b></td><td>100 (4x25)</td></tr> <tr><td>3-way</td><td><b>2002-473</b></td><td>100 (4x25)</td></tr> <tr><td>4-way</td><td><b>2002-474</b></td><td>100 (4x25)</td></tr> <tr><td>5-way</td><td><b>2002-475</b></td><td>50 (2x25)</td></tr> <tr><td>6-way</td><td><b>2002-476</b></td><td>50 (2x25)</td></tr> <tr><td>7-way</td><td><b>2002-477</b></td><td>50 (2x25)</td></tr> <tr><td>8-way</td><td><b>2002-478</b></td><td>50 (2x25)</td></tr> <tr><td>9-way</td><td><b>2002-479</b></td><td>50 (2x25)</td></tr> <tr><td>10-way</td><td><b>2002-480</b></td><td>50 (2x25)</td></tr> <tr><td>11-way</td><td><b>2002-481</b></td><td>50 (2x25)</td></tr> <tr><td>12-way</td><td><b>2002-482</b></td><td>50 (2x25)</td></tr> </table>	2-way	<b>2002-472</b>	100 (4x25)	3-way	<b>2002-473</b>	100 (4x25)	4-way	<b>2002-474</b>	100 (4x25)	5-way	<b>2002-475</b>	50 (2x25)	6-way	<b>2002-476</b>	50 (2x25)	7-way	<b>2002-477</b>	50 (2x25)	8-way	<b>2002-478</b>	50 (2x25)	9-way	<b>2002-479</b>	50 (2x25)	10-way	<b>2002-480</b>	50 (2x25)	11-way	<b>2002-481</b>	50 (2x25)	12-way	<b>2002-482</b>	50 (2x25)	<table border="1"> <tr><td>L = 60 mm</td><td><b>2009-412</b></td><td>100 (10x10)</td></tr> <tr><td>L = 110 mm</td><td><b>2009-414</b></td><td>100 (10x10)</td></tr> <tr><td>L = 250 mm</td><td><b>2009-416</b></td><td>100 (10x10)</td></tr> </table>	L = 60 mm	<b>2009-412</b>	100 (10x10)	L = 110 mm	<b>2009-414</b>	100 (10x10)	L = 250 mm	<b>2009-416</b>	100 (10x10)
2-way	<b>2002-472</b>	100 (4x25)																																									
3-way	<b>2002-473</b>	100 (4x25)																																									
4-way	<b>2002-474</b>	100 (4x25)																																									
5-way	<b>2002-475</b>	50 (2x25)																																									
6-way	<b>2002-476</b>	50 (2x25)																																									
7-way	<b>2002-477</b>	50 (2x25)																																									
8-way	<b>2002-478</b>	50 (2x25)																																									
9-way	<b>2002-479</b>	50 (2x25)																																									
10-way	<b>2002-480</b>	50 (2x25)																																									
11-way	<b>2002-481</b>	50 (2x25)																																									
12-way	<b>2002-482</b>	50 (2x25)																																									
L = 60 mm	<b>2009-412</b>	100 (10x10)																																									
L = 110 mm	<b>2009-414</b>	100 (10x10)																																									
L = 250 mm	<b>2009-416</b>	100 (10x10)																																									
	 <p>❶ Modular TOPJOB® S connector, snaps together, for jumper contact slot gray <b>2002-511</b> 100 (4x25)</p>																																										
	 <p>Spacer module, snaps together, bridges commoned terminal blocks gray <b>2002-549</b> 100 (4x25)</p>																																										
 <p>❶ Customized staggered jumper, insulated, with contact lugs broken off at the factory and circuit printing, I<sub>N</sub> 25 A, light gray</p>	 <p>End plate, for modular TOPJOB® S connector, 1.5 mm thick gray <b>2002-541</b> 100 (4x25)</p>																																										
<table border="1"> <tr><td>1-3</td><td><b>2002-473/011-000</b></td><td>100 (4x25)</td></tr> <tr><td>1-3-5</td><td><b>2002-475/011-000</b></td><td></td></tr> <tr><td>1-3-5-7</td><td><b>2002-477/011-000</b></td><td></td></tr> <tr><td>1-3-5-7-9</td><td><b>2002-479/011-000</b></td><td></td></tr> <tr><td>1-3-5-7-9-11</td><td><b>2002-481/011-000</b></td><td>50 (2x25)</td></tr> </table>	1-3	<b>2002-473/011-000</b>	100 (4x25)	1-3-5	<b>2002-475/011-000</b>		1-3-5-7	<b>2002-477/011-000</b>		1-3-5-7-9	<b>2002-479/011-000</b>		1-3-5-7-9-11	<b>2002-481/011-000</b>	50 (2x25)	 <p>Test plug adapter, for 4 mm Ø test plug gray <b>2009-174</b> 100 (4x25)</p>																											
1-3	<b>2002-473/011-000</b>	100 (4x25)																																									
1-3-5	<b>2002-475/011-000</b>																																										
1-3-5-7	<b>2002-477/011-000</b>																																										
1-3-5-7-9	<b>2002-479/011-000</b>																																										
1-3-5-7-9-11	<b>2002-481/011-000</b>	50 (2x25)																																									
	 <p>Testing tap, for max. 2.5 mm<sup>2</sup> gray <b>2009-182</b> 100 (4x25)</p>																																										
 <p>❶ Delta jumper, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block, light gray 1-2 3-4 5-6 <b>2002-406/020-000</b> 100 (4x25)</p>	 <p>❶ TOPJOB® S L-type test plug module, snaps together gray <b>2002-611</b> 100 (4x25)</p>																																										
 <p>❶ Star point jumper, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block, light gray gray 1-3-5 <b>2002-405/011-000</b> 100 (4x25)</p>	 <p>❶ TOPJOB® S L-type spacer module, snaps together, bridges commoned terminal blocks gray <b>2002-649</b> 100 (4x25)</p>																																										
 <p>❶ Step-down jumper, insulated, commons 6/4 mm<sup>2</sup> (10/12 AWG) to 4/2.5/1.5 mm<sup>2</sup> (12/14/16 AWG), I<sub>N</sub> 32 A light gray <b>2006-499</b> 50 (2x25)</p>	 <p>End plate, for modular TOPJOB® S test plugs, 1.5 mm thick gray <b>2002-641</b> 100 (4x25)</p>																																										
 <p>❶ Adjacent jumper for continuous commoning, insulated, I<sub>N</sub> 25 A, light gray 2-way <b>2002-400</b> 100 (4x25)</p>	 <p>WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5</p>																																										
 <p>❶ Adjacent jumper for continuous commoning, insulated, I<sub>N</sub> 25 A, light gray 1 to 3 <b>2002-423</b> 100 (4x25)</p>	 <p>WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable white <b>2009-115</b> 1</p>																																										


















# TOPJOB® S Through/Ground Conductor/Shield and Ex Terminal Blocks

## 2.5 (4) mm<sup>2</sup>, 2002 Series

0.25 ... 2.5 (4) mm <sup>2</sup> ①	22 ... 12 AWG
800 V/8 kV/3 ②	600 V, 20 A ③
I <sub>N</sub> 24 A (32 A)	600 V, 20 A ④
Terminal block width 5.2 mm / 0.205 inch	
10 ... 12 mm / 0.39 ... 0.47 inch	



- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ② 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Suitable for Ex i applications
- ④ Suitable for Ex e II applications  
550 V, 22 A  
Jumper 20 A  
(see Section 14)
- ⑤ See application notes for:  
Separator for Ex e/Ex i applications, page 37  
Colored push-in type jumper bar, page 134  
Adjacent jumper for continuous commoning, page 137  
Delta jumper, page 135  
Star point jumper, page 135  
Staggered jumper, page 136  
Push-in type wire jumper, page 138  
TOPJOB® S connector, page 128  
TOPJOB® S L-type test plug module, page 132  
Marker carrier, page 143

Item No.	Pack. Unit	2002 Series Accessories	
3-conductor through terminal block		Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)	
gray ⑤	2002-6301 ④	100	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 
blue ⑤	2002-6304 ⑤ ④	100	
orange ⑤	2002-6302 ④	100	
red ⑤	2002-6303 ④	100	
black ⑤	2002-6305 ④	100	
yellow ⑤	2002-6306 ④	100	
3-conductor ground terminal block		Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A 	
green-yellow ⑤	2002-6307 ④	100	L = 60 mm 2009-412 100 (10x10) L = 110 mm 2009-414 100 (10x10) L = 250 mm 2009-416 100 (10x10)
3-conductor shield terminal block		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks 	
white	2002-6308	100	yellow 2002-115 100 (4x25)
2002 Series Accessories		Delta jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray 	
End and intermediate plate, 0.8 mm thick		Modular TOPJOB® S connector, snaps together, for jumper contact slot 	
orange	2002-6392 100 (4x25)	1-2 3-4 5-6	2002-406/020-000 100 (4x25)
gray	2002-6391 100 (4x25)	Star point jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray 	
Separator for Ex e/Ex i applications, 3 mm thick, orange 		TOPJOB® S L-type test plug module, snaps together 	
120 mm	209-191 50 (2x25)	1-3-5	2002-405/011-000 100 (4x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> 		Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray 	
light gray	2002-171 200 (8x25)	Test plug adapter, for 4 mm Ø test plug 	
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> 		2-way	2002-472 100 (4x25)
dark gray	2002-172 200 (8x25)	3-way	2002-473 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 		4-way	2002-474 100 (4x25)
2-way	2002-402 200 (8x25)	5-way	2002-475 50 (2x25)
3-way	2002-403 200 (8x25)	6-way	2002-476 50 (2x25)
4-way	2002-404 200 (8x25)	7-way	2002-477 50 (2x25)
5-way	2002-405 100 (4x25)	8-way	2002-478 50 (2x25)
6-way	2002-406 100 (4x25)	9-way	2002-479 50 (2x25)
7-way	2002-407 100 (4x25)	10-way	2002-480 50 (2x25)
8-way	2002-408 100 (4x25)	11-way	2002-481 50 (2x25)
9-way	2002-409 100 (4x25)	12-way	2002-482 50 (2x25)
10-way	2002-410 100 (4x25)	Customized staggered jumper, insulated, with contact lugs broken off at the factory and circuit printing, I <sub>N</sub> 25 A, light gray 	
Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 		1-3	2002-473/011-000 100 (4x25)
2-way	2002-400 100 (4x25)	1-3-5	2002-475/011-000 50 (2x25)
2002 Series Accessories		Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 	
2002 Series Accessories		1 to 3	2002-423 100 (4x25)
2002 Series Accessories		Marker carrier, for jumper slots 2002 Series, 5 mm wide 	
2002 Series Accessories		gray	2002-161 100 (4x25)

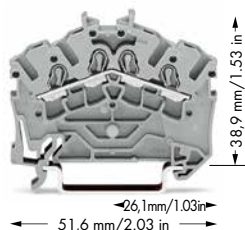
# TOPJOB® S

## Through/Ground Conductor and Ex Terminal Blocks

### 2.5 (4) mm<sup>2</sup>, 2002 Series

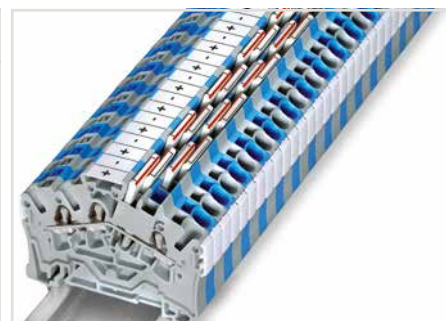
0.25 ... 2.5 (4) mm<sup>2</sup> ① 22 ... 12 AWG  
 800 V/8 kV/3 ② 600 V, 20 A ③  
 I<sub>N</sub> 24 A (32 A) 600 V, 20 A ④

Terminal block width 5.2 mm / 0.205 inch  
 10 ... 12 mm / 0.39 ... 0.47 inch



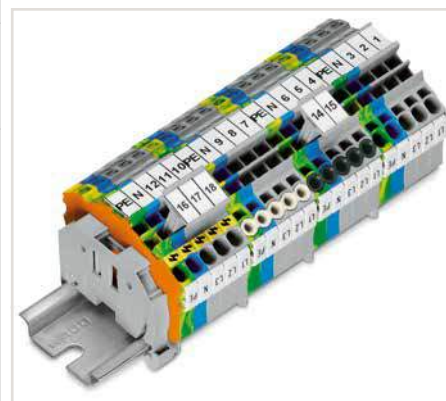
- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ② 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Suitable for Ex i applications
- ④ Suitable for Ex e II applications  
550 V, 22 A  
Jumper 20 A  
(see Section 14)
- ⑤ See application notes for:  
Separator for Ex e/Ex i applications, page 37

Item No.	Pack. Unit
4-conductor through terminal block	
gray ☒ 2002-6401 ④	100
blue ☒ 2002-6404 ③ ④	100
orange ☒ 2002-6402 ④	100
red ☒ 2002-6403 ④	100
black ☒ 2002-6405 ④	100
yellow ☒ 2002-6406 ④	100
4-conductor ground terminal block	
green-yellow ☒ 2002-6407 ④	100
<b>Notice:</b> These terminal blocks cannot be commoned with push-in type jumper bars.	



**3- and 4-conductor terminal blocks (angled type)**  
 WAGO's TOPJOB® S Rail-Mount Terminal Blocks have a 35-degree conductor entry angle permitting a very small bend radius and an extremely short wiring distance to the cable duct. These are space- and cost-saving solutions for switchgear and control cabinet applications that use the LSC wiring system from Lütze. The design allows cable duct to be placed very close to the terminal blocks, keeping its height relatively low.

2002 Series Accessories	
Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)	
<b>End and intermediate plate</b> , 0.8 mm thick	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
orange 2002-6392 100 (4x25)	plain 793-5501 5
gray 2002-6391 100 (4x25)	
<b>Separator for Ex e/Ex i applications</b> , 3 mm thick, orange	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
⑤ 120 mm 209-191 50 (2x25)	yellow 793-5501/000-002
<b>Insulation stop</b> , 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>	red 793-5501/000-005
light gray 2002-171 200 (8x25)	blue 793-5501/000-006
<b>Insulation stop</b> , 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>	gray 793-5501/000-007
dark gray 2002-172 200 (8x25)	orange 793-5501/000-012
<b>Protective warning marker</b> , with black high-voltage symbol, for 5 terminal blocks	light green 793-5501/000-017
yellow 2002-115 100 (4x25)	green 793-5501/000-023
<b>WMB Inline</b> , plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable	violet 793-5501/000-024
white 2009-115 1	
<b>Marking strip</b> , plain, 11 mm wide, 50 m reel	
white 2009-110 1	



#### Product features:

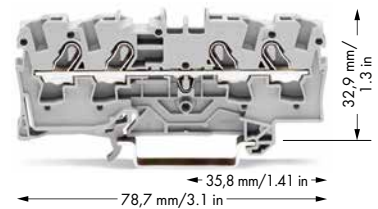
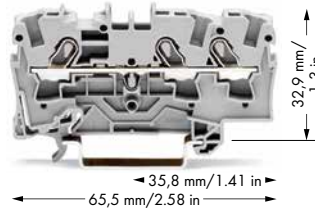
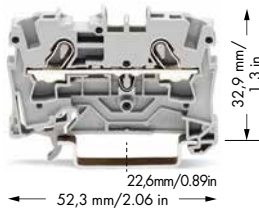
- Push-in CAGE CLAMP® connection for all conductor types, with the additional benefit of solid, stranded and fine-stranded conductors with ferrules being simply pushed in
- Vibration-proof, fast, maintenance-free
- 3-conductor through and ground conductor terminal blocks equipped with a dual jumper slot
- 4-conductor terminal blocks permit potential multiplication – no additional jumpers or terminal blocks needed
- 3- and 4-conductor terminal blocks have the same dimensions
- An end plate must be applied when changing from a 3-conductor terminal block to a 4-conductor terminal block and vice versa.

# TOPJOB® S Through/Ground Conductor/Shield and Ex Terminal Blocks

4 (6) mm<sup>2</sup>, 2004 Series

1

<b>0.5 ... 4 (6) mm<sup>2</sup> ①</b> <b>800 V/8 kV/3 ②</b> I <sub>N</sub> 32 A (41 A)  Terminal block width 6.2 mm / 0.244 inch 11 ... 13 mm / 0.43 ... 0.51 inch	<b>20 ... 10 AWG</b> <b>600 V, 30 A ③</b> <b>600 V, 30 A ④</b>	<b>0.5 ... 4 (6) mm<sup>2</sup> ①</b> <b>800 V/8 kV/3 ②</b> I <sub>N</sub> 32 A (41 A)  Terminal block width 6.2 mm / 0.244 inch 11 ... 13 mm / 0.43 ... 0.51 inch	<b>20 ... 10 AWG</b> <b>600 V, 30 A ③</b> <b>600 V, 30 A ④</b>	<b>0.5 ... 4 (6) mm<sup>2</sup> ①</b> <b>800 V/8 kV/3 ②</b> I <sub>N</sub> 32 A (41 A)  Terminal block width 6.2 mm / 0.244 inch 11 ... 13 mm / 0.43 ... 0.51 inch	<b>20 ... 10 AWG</b> <b>600 V, 30 A ③</b> <b>600 V, 30 A ④</b>
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block		3-conductor through terminal block		4-conductor through terminal block	
gray ⑤ <b>2004-1201</b> ④	50	gray ⑤ <b>2004-1301</b> ④	50	gray ⑤ <b>2004-1401</b> ④	50
blue ⑤ <b>2004-1204</b> ③ ④	50	blue ⑤ <b>2004-1304</b> ③ ④	50	blue ⑤ <b>2004-1404</b> ③ ④	50
orange ⑤ <b>2004-1202</b> ④	50	orange ⑤ <b>2004-1302</b> ④	50	orange ⑤ <b>2004-1402</b> ④	50
red ⑤ <b>2004-1203</b> ④	50	red ⑤ <b>2004-1303</b> ④	50	red ⑤ <b>2004-1403</b> ④	50
black ⑤ <b>2004-1205</b> ④	50	black ⑤ <b>2004-1305</b> ④	50	black ⑤ <b>2004-1405</b> ④	50
yellow ⑤ <b>2004-1206</b> ④	50	yellow ⑤ <b>2004-1306</b> ④	50	yellow ⑤ <b>2004-1406</b> ④	50
2-conductor ground terminal block		3-conductor ground terminal block		4-conductor ground terminal block	
green-yellow ⑤ <b>2004-1207</b> ④	50	green-yellow ⑤ <b>2004-1307</b> ④	50	green-yellow ⑤ <b>2004-1407</b> ④	50
Other terminal blocks with the same profile:		Other terminal blocks with the same profile:		Other terminal blocks with the same profile:	
Diode <b>2004-1211/1000-401</b> Page 114		Diode <b>2004-1311/1000-401</b> Page 114		Diode <b>2004-1411/1000-401</b> Page 114	

Item-Specific Accessories	Item-Specific Accessories	Item-Specific Accessories
End and intermediate plate, 1 mm thick	End and intermediate plate, 1 mm thick	End and intermediate plate, 1 mm thick
orange <b>2004-1292</b> 100 (4x25)	orange <b>2004-1392</b> 100 (4x25)	orange <b>2004-1492</b> 100 (4x25)
gray <b>2004-1291</b> 100 (4x25)	gray <b>2004-1391</b> 100 (4x25)	gray <b>2004-1491</b> 100 (4x25)
Separator, oversized, 2 mm thick	Separator, oversized, 2 mm thick	Separator, oversized, 2 mm thick
orange <b>2004-1294</b> 100 (4x25)	orange <b>2004-1394</b> 100 (4x25)	orange <b>2004-1494</b> 100 (4x25)
gray <b>2004-1293</b> 100 (4x25)	gray <b>2004-1393</b> 100 (4x25)	gray <b>2004-1493</b> 100 (4x25)
Separator for Ex e/Ex i applications, 3 mm thick, orange	Separator for Ex e/Ex i applications, 3 mm thick, orange	Separator for Ex e/Ex i applications, 3 mm thick, orange
90 mm <b>209-190</b> 50 (2x25)	120 mm <b>209-191</b> 50 (2x25)	120 mm <b>209-191</b> 50 (2x25)
120 mm <b>209-191</b> 50 (2x25)		

## 2004 Series Accessories

Appropriate marking systems: WMB/Marking strips  
(see Section 13)

Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>	Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>	Delta jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray
light gray <b>2004-171</b> 200 (8x25)	dark gray <b>2004-172</b> 200 (8x25)	⑤ 1-2 3-4 5-6 <b>2004-406/020-000</b> 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 32 A, light gray	Push-in type jumper bar, insulated, I <sub>N</sub> 32 A, light gray	Star point jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray
2-way <b>2004-402</b> 200 (8x25)	from 1 to 3 <b>2004-433</b> 200 (8x25)	⑤ gray 1-3-5 <b>2004-405/011-000</b> 100 (4x25)
3-way <b>2004-403</b> 200 (8x25)	from 1 to 4 <b>2004-434</b> 200 (8x25)	Step-down jumper, insulated, commons 6/4 mm <sup>2</sup>
4-way <b>2004-404</b> 100 (4x25)	from 1 to 5 <b>2004-435</b> 100 (4x25)	⑤ (10/12 AWG) to 4/2.5/1.5 mm <sup>2</sup>
5-way <b>2004-405</b> 100 (4x25)	from 1 to 6 <b>2004-436</b> 100 (4x25)	(12/14/16 AWG), I <sub>N</sub> 32 A
6-way <b>2004-406</b> 100 (4x25)	from 1 to 7 <b>2004-437</b> 100 (4x25)	light gray <b>2006-499</b> 50 (2x25)
7-way <b>2004-407</b> 100 (4x25)	from 1 to 8 <b>2004-438</b> 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks
8-way <b>2004-408</b> 100 (4x25)	from 1 to 9 <b>2004-439</b> 100 (4x25)	⑤ yellow <b>2004-115</b> 100 (4x25)
9-way <b>2004-409</b> 100 (4x25)	from 1 to 10 <b>2004-440</b> 100 (4x25)	
10-way <b>2004-410</b> 100 (4x25)		

# TOPJOB® S

## Terminal Blocks for Ex i or Ex e II Applications

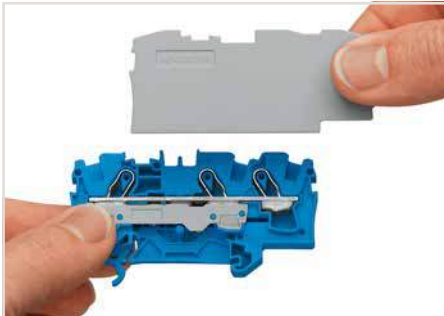


Through terminal blocks with a blue insulated housing are suitable for Ex i applications.



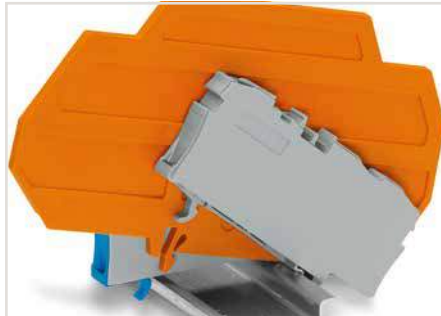
All through and ground conductor terminal blocks are suitable for Ex e II applications.

- ❶ Conductor range: 0.5 ... 6 mm<sup>2</sup> "s + f-st";  
Push-in termination: 1 ... 6 mm<sup>2</sup> "s"  
and 0.75 ... 4 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ❷ 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ Suitable for Ex i applications
- ❹ Suitable for Ex e II applications  
550 V, 30 A  
(see Section 14)
- ❺ See application notes for:  
Delta jumper, page 135  
Star point jumper, page 135  
Step-down jumper, page 41  
TOPJOB® S connector, page 130  
Banana plug, page 330  
TOPJOB® S group marker carrier, page 143



### Separator for Ex e/Ex applications

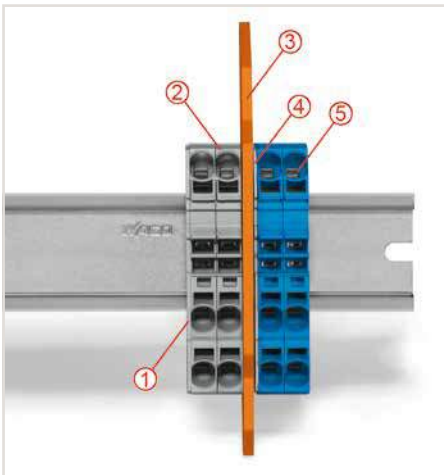
An end plate must be applied to the terminal block located directly behind a separator for Ex e/Ex i applications.



### Ex e II/Ex i terminal strip

#### Notice:

The movable feet of terminal blocks and separator plates must face the same direction.



Separator located between Ex e II and Ex i terminal strip

- ❶ End plate
- ❷ Ex e II terminal blocks
- ❸ Separator for Ex e/Ex i applications
- ❹ End plate
- ❺ Ex i terminal blocks




### Example of marking (rear):

The embossed details on the terminal blocks show the manufacturer's name, the series no., the type of protection Ex e II, the approval no., the approval data and the name of the test authority.

## 2004 Series Accessories

Modular TOPJOB® S connector, snaps together, for jumper contact slot

❺  gray **2004-511** 100 (4x25)

Spacer module, snaps together, bridges commoned terminal blocks

 gray **2004-549** 100 (4x25)


End plate, for modular TOPJOB® S connector, 1.5 mm thick

 gray **2004-541** 100 (4x25)


Test plug adapter, for 4 mm Ø test plug

 gray **2009-174** 100 (4x25)

Banana plug, for 4 mm socket diameter, color mixed, 10 x

❺  orange, white, black, blue, yellow **215-111** 50

Testing tap, for max. 2.5 mm<sup>2</sup>

 gray **2009-182** 100 (4x25)

Test plug, with 500 mm cable, 2 mm Ø, max. 42 V

 red **210-136** 50

Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V

 yellow **210-137** 50


WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable

 plain **793-5501** 5

Marking strip, plain, 11 mm wide, 50 m reel

 white **2009-110** 1

TOPJOB® S group marker carrier, snap-on type for jumper slot, 5 mm wide

❺  gray **2009-191** 50 (2x25)

Screwless end stop, for DIN-35 rail, 6 mm wide

 gray **249-116** 100 (4x25)

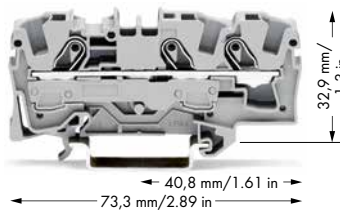
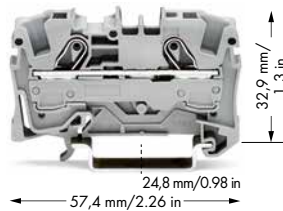
# TOPJOB® S

## Through/Ground Conductor/Shield and Ex Terminal Blocks

### 6 (10) mm<sup>2</sup> 2006 Series

1

0.5 ... 6 (10) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 41 A (57 A)	20 ... 8 AWG 600 V, 50 A <sup>III</sup> 600 V, 50 A <sup>Ⓔ</sup>	0.5 ... 6 (10) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 41 A (57 A)	20 ... 8 AWG 600 V, 50 A <sup>III</sup> 600 V, 50 A <sup>Ⓔ</sup>
Terminal block width 7.5 mm / 0.295 inch 13 ... 15 mm / 0.51 ... 0.59 inch		Terminal block width 7.5 mm / 0.295 inch 13 ... 15 mm / 0.51 ... 0.59 inch	



- ① Conductor range: 0.5 ... 10 mm<sup>2</sup> "s + f-st"; Push-in termination: 1 ... 10 mm<sup>2</sup> "s" and 1.5 ... 6 mm<sup>2</sup> "insulated ferrule, 12 mm"
- ② 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Suitable for Ex i applications
- ④ Suitable for Ex e II applications  
550 V, 38 A for 2-conductor terminal blocks  
550 V, 36 A for 3-conductor terminal blocks  
Jumper 33 A  
(see Section 14)
- ⑤ See application notes for:  
Separator for Ex e/Ex i applications, page 37  
Star point jumper, page 135  
Step-down jumper, page 41  
TOPJOB® S connector, page 130

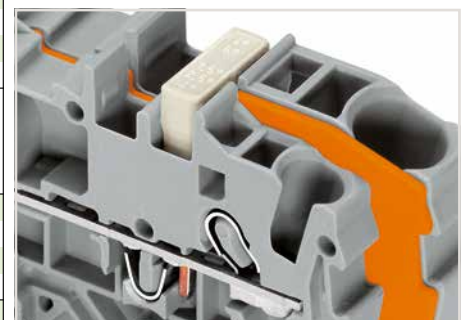
Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block		3-conductor through terminal block	
gray ⑤ <b>2006-1201</b> ④	50	gray ⑤ <b>2006-1301</b> ④	25
blue ⑤ <b>2006-1204</b> ③ ④	50	blue ⑤ <b>2006-1304</b> ③ ④	25
orange ⑤ <b>2006-1202</b> ④	50	orange ⑤ <b>2006-1302</b> ④	25
2-conductor ground terminal block		3-conductor ground terminal block	
green-yellow ⑤ <b>2006-1207</b> ④	50	green-yellow ⑤ <b>2006-1307</b> ④	25
2-conductor shield terminal block			
white ⑤ <b>2006-1208</b> ④	50		



Cover (2006-191) seals unused conductor entry.

Item-Specific Accessories	Item-Specific Accessories
End and intermediate plate, 1 mm thick	End and intermediate plate, 1 mm thick
orange <b>2006-1292</b> 100 (4x25)	orange <b>2006-1392</b> 100 (4x25)
gray <b>2006-1291</b> 100 (4x25)	gray <b>2006-1391</b> 100 (4x25)
Separator, oversized, 2 mm thick	Separator, oversized, 2 mm thick
orange <b>2006-1294</b> 100 (4x25)	orange <b>2006-1394</b> 100 (4x25)
gray <b>2006-1293</b> 100 (4x25)	gray <b>2006-1393</b> 100 (4x25)

2006 Series Accessories	
Appropriate marking systems: WMB/Marking strips (see Section 13)	
Separator for Ex e/Ex i applications, 3 mm thick, orange ⑤ 120 mm <b>209-191</b> 50 (2x25)	Step-down jumper, insulated, commons 6/4 mm <sup>2</sup> (10/12 AWG) to 4/2.5/1.5 mm <sup>2</sup> (12/14/16 AWG), I <sub>N</sub> 32 A light gray <b>2006-499</b> 50 (2x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 41 A, light gray 2-way <b>2006-402</b> 50 (2x25) 3-way <b>2006-403</b> 50 (2x25) 4-way <b>2006-404</b> 50 (2x25) 5-way <b>2006-405</b> 50 (2x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>2006-115</b> 100 (4x25)
	Lockout cap, for conductor entry and operating slot gray <b>2006-191</b> 25
Push-in type jumper bar, insulated, I <sub>N</sub> 41 A, light gray from 1 to 3 <b>2006-433</b> 50 (2x25) from 1 to 4 <b>2006-434</b> 50 (2x25) from 1 to 5 <b>2006-435</b> 50 (2x25)	Modular TOPJOB® S connector, snaps together, for jumper contact slot ⑤ gray <b>2006-511</b> 50 (2x25)
	Test plug adapter, for 4 mm Ø test plug gray <b>2009-174</b> 100 (4x25)
Star point jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray ⑤ 1-3-5 <b>2006-405/011-000</b> 50 (2x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5





Commoning with step-down jumper.

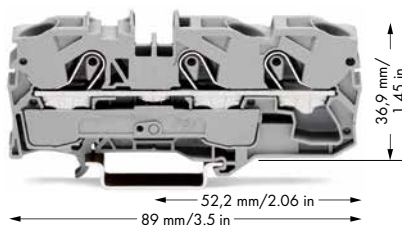
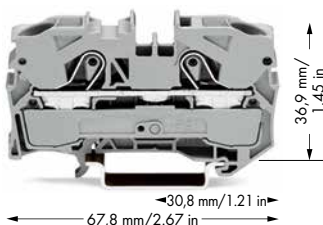


# TOPJOB® S

## Through/Ground Conductor/Shield and Ex Terminal Blocks

### 10 (16) mm<sup>2</sup> 2010 Series

0.5 ... 10 (16) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 57 A (76 A)	20 ... 6 AWG 600 V, 65 A ③ 600 V, 65 A ④	0.5 ... 10 (16) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 57 A (76 A)	20 ... 6 AWG 600 V, 65 A ③ 600 V, 65 A ④
Terminal block width 10 mm / 0.394 inch  17 ... 19 mm / 0.67 ... 0.91 inch		Terminal block width 10 mm / 0.394 inch  17 ... 19 mm / 0.67 ... 0.91 inch	


















- ① Conductor range: 0.5 ... 16 mm<sup>2</sup> "s + fst"; Push-in termination: 2.5 ... 16 mm<sup>2</sup> "s" and 2.5 ... 10 mm<sup>2</sup> "insulated ferrule, 18 mm"
- ② 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Suitable for Ex i applications
- ④ Suitable for Ex e II applications  
550 V, 51 A for 2-conductor terminal blocks  
550 V, 50 A for 3-conductor terminal blocks  
(see Section 14)
- ⑤ See application notes for:  
Separator for Ex e/Ex i applications, page 37  
Star point jumper, page 135  
Step-down jumper, page 41  
TOPJOB® S connector, page 130

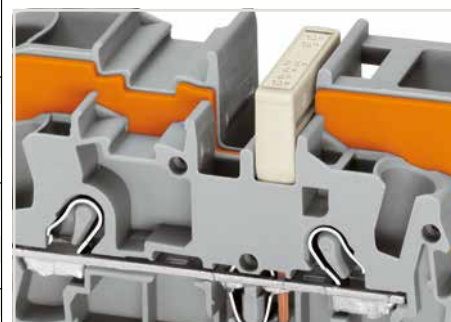
Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block		3-conductor through terminal block	
gray ☒ 2010-1201 ④	25	gray ☒ 2010-1301 ④	25
blue ☒ 2010-1204 ③ ④	25	blue ☒ 2010-1304 ③ ④	25
orange ☒ 2010-1202 ④	25	orange ☒ 2010-1302 ④	25
2-conductor ground terminal block		3-conductor ground terminal block	
green-yellow ☒ 2010-1207 ④	25	green-yellow ☒ 2010-1307 ④	25
2-conductor shield terminal block			
white 2010-1208 ④	25		



**Commoning with step-down jumpers:**  
An end plate must be inserted between the terminal blocks to be commoned. Step-down jumpers (2016-499) common 16/10 mm<sup>2</sup> (16/8 AWG) terminal blocks (2016/2010 Series) with 10/6/4/2.5 mm<sup>2</sup> (8/10/12/14 AWG) terminal blocks (2010/2006/2004/2002 Series). Step-down jumpers are simply pushed down for full insertion, similar to other push-in type jumper bars.  
**Note:**  
The total current of the outgoing circuits shall not exceed the nominal current of the step-down jumper/push-in type jumper bar.

Item-Specific Accessories	Item-Specific Accessories
<b>End and intermediate plate, 1 mm thick</b>	<b>End and intermediate plate, 1 mm thick</b>
orange 2010-1292 100 (4x25)	orange 2010-1392 100 (4x25)
gray 2010-1291 100 (4x25)	gray 2010-1391 100 (4x25)
<b>Separator for Ex e/Ex i applications, 3 mm thick,</b>	
⑤ orange 120 mm 209-191 50 (2x25)	

2010 Series Accessories		Appropriate marking systems: WMB/Marking strips (see Section 13)	
Push-in type jumper bar, insulated, I <sub>N</sub> 57 A, light gray	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		
 2-way 2010-402 50 (2x25)	 yellow 2010-115 50 (2x25)		
 3-way 2010-403 50 (2x25)	Finger guard, touch-proof cover protects unused conductor entries		
 4-way 2010-404 50 (2x25)	 yellow 2010-100 100 (4x25)		
 5-way 2010-405 50 (2x25)	Modular TOPJOB® S connector, snaps together, for jumper contact slot		
Push-in type jumper bar, insulated, I <sub>N</sub> 57 A, light gray	⑤  gray 2010-511 50 (2x25)		
 from 1 to 3 2010-433 50 (2x25)	Test plug adapter, for 4 mm Ø test plug		
 from 1 to 4 2010-434 50 (2x25)	 gray 2009-174 100 (4x25)		
 from 1 to 5 2010-435 50 (2x25)			
Star point jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable		
⑤  1-3-5 2010-405/011-000 50 (2x25)	 plain 793-5501 5		
Step-down jumper, insulated, commons 16/10 mm <sup>2</sup>	Marking strip, plain, 11 mm wide, 50 m reel		
⑤  (8/10 AWG) to 10/6/4/2.5 mm <sup>2</sup> (8/10/12/14 AWG), I <sub>N</sub> 57 A light gray 2016-499 50 (2x25)	 white 2009-110 1		



Commoning with a step-down jumper.

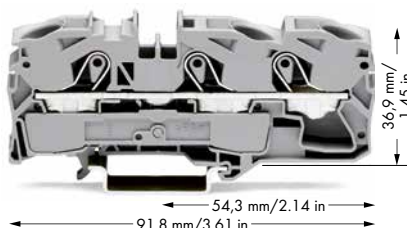
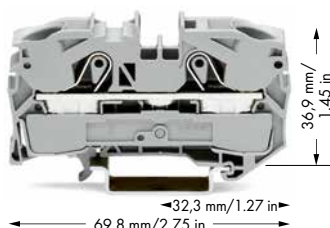
# TOPJOB® S

## Through/Ground Conductor/Shield and Ex Terminal Blocks

### 16 (25 "f-st") mm<sup>2</sup>, 2016 Series

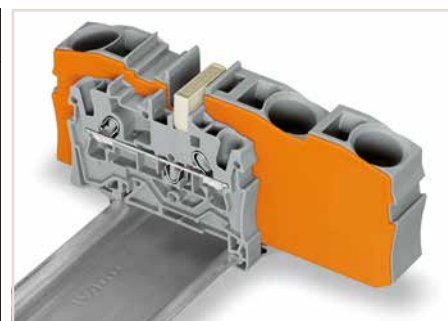
1

0.5 ... 16 (25 "f-st") mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 76 A (90 A)	20 ... 4 AWG 600 V, 85 A ③ 600 V, 85 A ④	0.5 ... 16 (25 "f-st") mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 76 A (90 A)	20 ... 4 AWG 600 V, 85 A ③ 600 V, 85 A ④
Terminal block width 12 mm / 0.472 inch 18 ... 20 mm / 0.71 ... 0.79 inch		Terminal block width 12 mm / 0.472 inch 18 ... 20 mm / 0.71 ... 0.79 inch	



- ① Conductor range: 0.5 ... 16 mm<sup>2</sup> "s + f-st", 25 mm<sup>2</sup> "f-st"; Push-in termination: 2.5 ... 16 mm<sup>2</sup> "s" and 2.5 ... 16 mm<sup>2</sup> "insulated ferrule, 18 mm"
- ② 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Suitable for Ex i applications
- ④ Suitable for Ex e II applications  
550 V, 70 A for 2-conductor terminal blocks  
550 V, 67 A for 3-conductor terminal blocks  
Jumper 65 A  
(see Section 14)
- ⑤ See application notes for:  
Separator for Ex e/Ex i applications, page 37  
Star point jumper, page 135  
TOPJOB® S connector, page 131

Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block		3-conductor through terminal block	
gray ④ 2016-1201 ④ 20		gray ④ 2016-1301 ④ 20	
blue ④ 2016-1204 ③ ④ 20		blue ④ 2016-1304 ③ ④ 20	
orange ④ 2016-1202 ④ 20		orange ④ 2016-1302 ④ 20	
2-conductor ground terminal block		3-conductor ground terminal block	
15 mm high DIN-35 rails shall be used for a current load higher than 76 A!		15 mm high DIN-35 rails shall be used for a current load higher than 76 A!	
green-yellow ④ 2016-1207 ④ 20		green-yellow ④ 2016-1307 ④ 20	
2-conductor shield terminal block			
15 mm high DIN-35 rails shall be used for a current load higher than 76 A!			
white 2016-1208 ④ 20			
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 1 mm thick		End and intermediate plate, 1 mm thick	
orange 2016-1292 100 (4x25)		orange 2016-1392 100 (4x25)	
gray 2016-1291 100 (4x25)		gray 2016-1391 100 (4x25)	
Separator for Ex e/Ex i applications, 3 mm thick, orange ⑤			
120 mm 209-191 50 (2x25)			
<b>2016 Series Accessories</b>			
Appropriate marking systems: WMB/Marking strips (see Section 13)			
Push-in type jumper bar, insulated, I <sub>N</sub> 76 A, light gray		Step-down jumper, insulated, commons 16/10 mm <sup>2</sup> (8/10 AWG) to 10/6/4/2.5 mm <sup>2</sup> (8/10/12/14 AWG), I <sub>N</sub> 57 A	
2-way 2016-402 50 (2x25)		light gray 2016-499 50 (2x25)	
3-way 2016-403 50 (2x25)		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks	
4-way 2016-404 50 (2x25)		yellow 2016-115 50 (2x25)	
5-way 2016-405 50 (2x25)		Modular TOPJOB® S connector, snaps together, for jumper contact slot ⑤	
Push-in type jumper bar, insulated, I <sub>N</sub> 76 A, light gray		gray 2016-511 50 (2x25)	
from 1 to 3 2016-433 50 (2x25)		Finger guard, touch-proof cover protects unused conductor entries	
from 1 to 4 2016-434 50 (2x25)		yellow 2016-100 100 (4x25)	
from 1 to 5 2016-435 50 (2x25)		Test plug adapter, for 4 mm Ø test plug	
gray 1-3-5 2016-405/011-000 50 (2x25)		gray 2009-174 100 (4x25)	



Step-down jumpers common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point. Commoning may be made in either direction using the special thin end plate to cover the open side. Additional through terminal blocks having a smaller cross-section may be commoned using push-in type jumper bars.



Finger guard seals unused conductor entry.

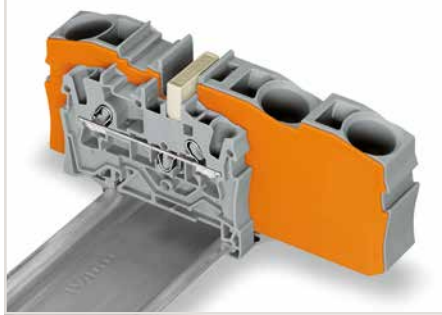
## TOPJOB® S

### Step-Down Jumpers

#### Installation



Step-down jumpers (2006-499 and 2016-499)

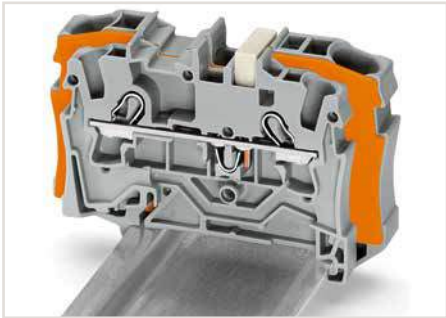


Step-down jumpers may common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drops may be problematic. A large conductor can be easily connected to smaller conductors at the distribution point. Commoning may be made in either direction using the special thin end plate to cover the open side. Additional through terminal blocks having a smaller cross-section may be commoned using push-in type jumper bars.



Using step-down jumpers, an end plate must be inserted between the terminal blocks to be commoned.

1



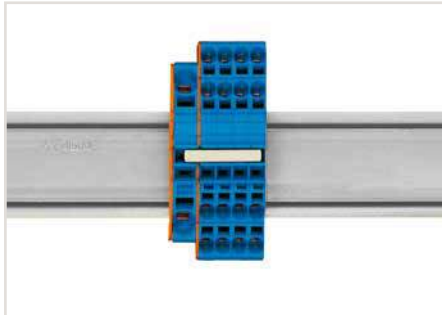
**Step-down jumper (2006-499)** commons 6/4 mm<sup>2</sup> (10/12 AWG) terminal blocks (2006/2004 Series) with 4/2.5/1.5 mm<sup>2</sup> (12/14/16 AWG) terminal blocks (2004/2002/2001 Series).



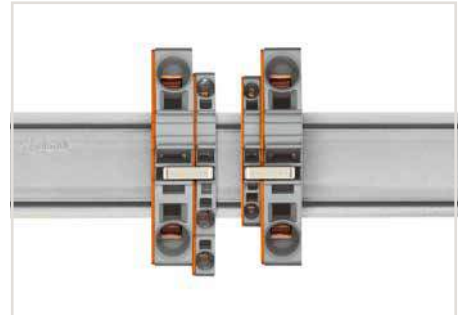
**Step-down jumper (2016-499)** commons 16/10 mm<sup>2</sup> (16/8 AWG) terminal blocks (2016/2010 Series) with 10/6/4/2.5 mm<sup>2</sup> (8/10/12/14 AWG) terminal blocks (2010/2006/2004/2002 Series).



**Stepping down via push-in type jumper bar.** Commoning via open terminal side with end plate allows jumpering over two cross-section sizes for 16 mm<sup>2</sup> (6 AWG) and 10 mm<sup>2</sup> (8 AWG) and one cross-section size for 6/4/2.5 mm<sup>2</sup> (10/12/14 AWG). An example: from 16 mm<sup>2</sup> (6 AWG) to 6 mm<sup>2</sup> (10 AWG) (see illustration above) or from 10 mm<sup>2</sup> (8 AWG) to 4 mm<sup>2</sup> (12 AWG).



**Stepping down via push-in type jumper bar.** Commoning via closed terminal side with end plate allows jumpering over two cross-section sizes. e.g., from 16 mm<sup>2</sup> (6 AWG) to 6 mm<sup>2</sup> (10 AWG) or from 6 mm<sup>2</sup> (10 AWG) to 2.5 mm<sup>2</sup> (14 AWG) (see illustration above).









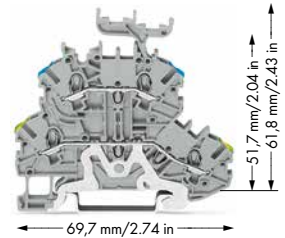
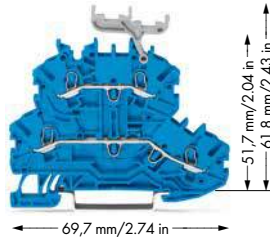
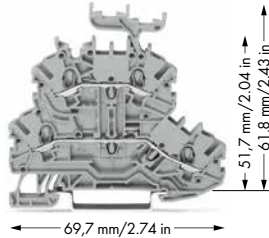
**Note:** The total current of the outgoing circuits shall not exceed the nominal current of the step-down jumper/push-in type jumper bar.













# TOPJOB® S Double-Deck Terminal Blocks

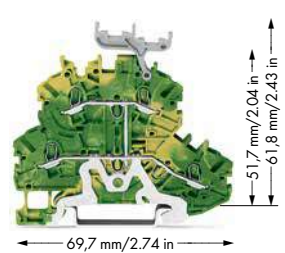
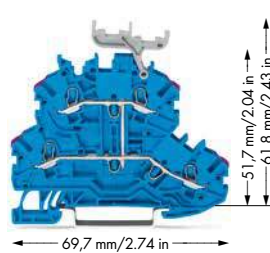
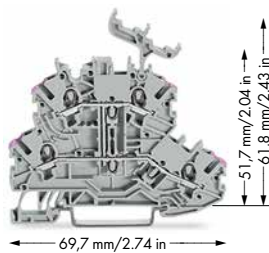
1 (1.5) mm<sup>2</sup>, 2000 Series







1

0.14 ... 1 (1.5) mm <sup>2</sup> ① 24 ... 16 AWG 500 V/6 kV/3 ② 600 V, 10 A  I <sub>N</sub> 13.5 A (16 A)  Terminal block width 3.5 mm / 0.138 inch  9 ... 11 mm / 0.35 ... 0.43 inch	0.14 ... 1 (1.5) mm <sup>2</sup> ① 24 ... 16 AWG 500 V/6 kV/3 ② 600 V, 10 A  I <sub>N</sub> 13.5 A (16 A)  Terminal block width 3.5 mm / 0.138 inch  9 ... 11 mm / 0.35 ... 0.43 inch	0.14 ... 1 (1.5) mm <sup>2</sup> ① 24 ... 16 AWG 500 V/6 kV/3 ② 600 V, 10 A  I <sub>N</sub> 13.5 A (16 A)  Terminal block width 3.5 mm / 0.138 inch  9 ... 11 mm / 0.35 ... 0.43 inch
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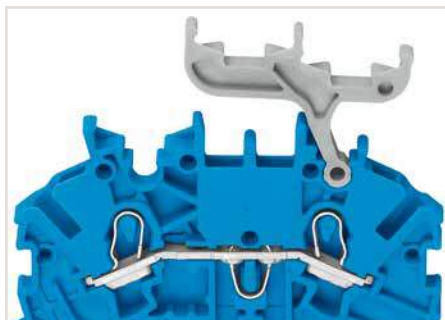
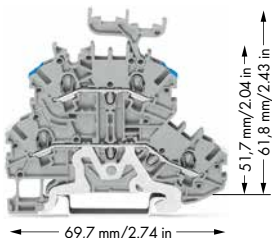


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, through/through terminal block, with marker carrier, gray housing		Double-deck terminal block, through/through terminal block, with marker carrier, blue housing		Double-deck terminal block, ground conductor/through terminal block, with marker carrier, gray housing	
 L/L	<b>2000-2231</b>	50	 N/N	<b>2000-2234</b>	50
 N/L	<b>2000-2232</b>	50		 PE/N	<b>2000-2247</b>
 L/N	<b>2000-2233</b>	50		 PE/L	<b>2000-2257</b>
Double-deck terminal block, through/through terminal block, without marker carrier, gray housing		Double-deck terminal block, through/through terminal block, without marker carrier, blue housing		Double-deck terminal block, ground conductor/through terminal block, without marker carrier, gray housing	
 L/L	<b>2000-2201</b>	50	 N/N	<b>2000-2204</b>	50
 N/L	<b>2000-2202</b>	50		 PE/N	<b>2000-2217</b>
 L/N	<b>2000-2203</b>	50		 PE/L	<b>2000-2227</b>



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, 4-conductor through terminal block, with marker carrier, internally commoned, violet conductor entry, gray housing		Double-deck terminal block, 4-conductor through terminal block, with marker carrier, internally commoned, violet conductor entry, blue housing		Double-deck terminal block, 4-conductor ground terminal block, with marker carrier, internally commoned, green-yellow housing	
 L	<b>2000-2238</b>	50	 N	<b>2000-2239</b>	50
				 PE	<b>2000-2237</b>
Double-deck terminal block, 4-conductor through terminal block, without marker carrier, internally commoned, violet conductor entry, gray housing		Double-deck terminal block, 4-conductor through terminal block, without marker carrier, internally commoned, violet conductor entry, blue housing		Double-deck terminal block, 4-conductor ground terminal block, without marker carrier, internally commoned, green-yellow housing	
 L	<b>2000-2208</b>	50	 N	<b>2000-2209</b>	50
				 PE	<b>2000-2207</b>

0.14 ... 1 (1.5) mm<sup>2</sup> ① 24 ... 16 AWG  
 500 V/6 kV/3 ② 600 V, 10 A ③  
 I<sub>N</sub> 13.5 A (16 A)  
 Terminal block width 3.5 mm / 0.138 inch  
 9 ... 11 mm / 0.35 ... 0.43 inch



**Double-Deck Terminal Blocks**  
 A double-deck marker carrier (2000-121) can be retrofitted to double-deck terminal blocks without a marker carrier.

- ① Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + f-st";  
 Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s"  
 and 0.5 ... 0.75 mm<sup>2</sup> "insulated ferrule, 10 mm"
- ② 500 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ③ See application notes for:  
 Colored push-in type jumper bar, page 134  
 Vertical jumper, page 139

Item No.	Pack. Unit	2000 Series Accessories	
Double-deck terminal block, shield conductor/through terminal block, with marker carrier, gray housing		Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)	
Shield/N	2000-2248	50	
Shield/L	2000-2258	50	
Double-deck terminal block, shield conductor/through terminal block, without marker carrier, gray housing		End and intermediate plate, 0.7 mm thick	
Shield/N	2000-2218	50	
Shield/L	2000-2228	50	
Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray		Double-deck marker carrier, pivoting	
2-way		2000-402	200 (8x25)
3-way		2000-403	200 (8x25)
4-way		2000-404	200 (8x25)
5-way		2000-405	100 (4x25)
6-way		2000-406	100 (4x25)
7-way		2000-407	100 (4x25)
8-way		2000-408	100 (4x25)
9-way		2000-409	100 (4x25)
10-way		2000-410	100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray		WMB Inline, plain, 2,300 WMB markers (3.5 mm) per reel	
from 1 to 3		2000-433	200 (8x25)
from 1 to 4		2000-434	200 (8x25)
from 1 to 5		2000-435	100 (4x25)
from 1 to 6		2000-436	100 (4x25)
from 1 to 7		2000-437	100 (4x25)
from 1 to 8		2000-438	100 (4x25)
from 1 to 9		2000-439	100 (4x25)
from 1 to 10		2000-440	100 (4x25)
Double-deck vertical jumper, insulated, I <sub>N</sub> 13.5 A		WMB Multi marking system, white, 10 strips with 10 markers per card, for 3.5 mm terminal block width	
light gray		2000-492	100 (4x25)
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		WMB Inline, plain, 2,300 WMB markers (3.5 mm) per reel	
yellow		2000-115	100 (4x25)
Test plug adapter, for 4 mm Ø test plug		Marking strip, plain, 11 mm wide, 50 m reel	
gray		2009-174	100 (4x25)
Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow		white	
		215-111	50
Testing tap, for max. 2.5 mm <sup>2</sup>		white	
gray		2009-182	100 (4x25)

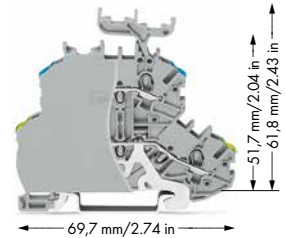
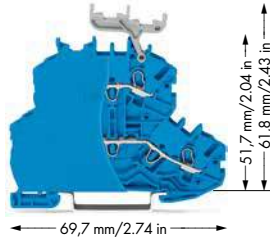
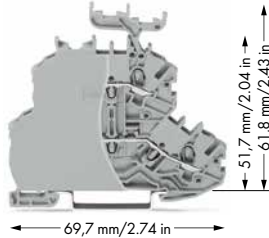
# TOPJOB® S

## Double-Deck Terminal Blocks with End Plate, 800 V

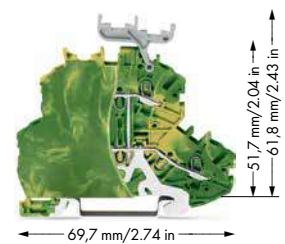
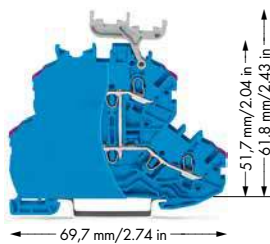
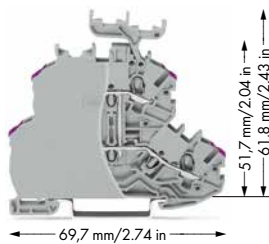
### 1 (1.5) mm<sup>2</sup>, 2000 Series

1

0.14 ... 1 (1.5) mm <sup>2</sup> ①   24 ... 16 AWG 800 V/8 kV/3 ②   600 V, 10 A I <sub>N</sub> 13.5 A (16 A)  Terminal block width 4.2 mm / 0.165 inch 9 ... 11 mm / 0.35 ... 0.43 inch	0.14 ... 1 (1.5) mm <sup>2</sup> ①   24 ... 16 AWG 800 V/8 kV/3 ②   600 V, 10 A I <sub>N</sub> 13.5 A (16 A)  Terminal block width 4.2 mm / 0.165 inch 9 ... 11 mm / 0.35 ... 0.43 inch	0.14 ... 1 (1.5) mm <sup>2</sup> ①   24 ... 16 AWG 800 V/8 kV/3 ②   600 V, 10 A I <sub>N</sub> 13.5 A (16 A)  Terminal block width 4.2 mm / 0.165 inch 9 ... 11 mm / 0.35 ... 0.43 inch
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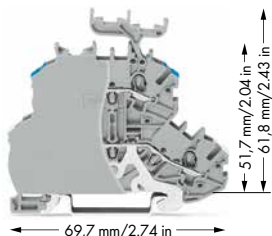


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, through/through terminal block, with end plate, with marker carrier, gray housing		Double-deck terminal block, through/through terminal block, with end plate, with marker carrier, blue housing		Double-deck terminal block, ground conductor/through terminal block, with end plate, with marker carrier, gray housing	
L/L	2000-2231/099-000 50	N/N	2000-2234/099-000 50	PE/N	2000-2247/099-000 50
N/L	2000-2232/099-000 50			PE/L	2000-2257/099-000 50
L/N	2000-2233/099-000 50				
Double-deck terminal block, through/through terminal block, with end plate, without marker carrier, gray housing		Double-deck terminal block, through/through terminal block, with end plate, without marker carrier, blue housing		Double-deck terminal block, ground conductor/through terminal block, with end plate, without marker carrier, gray housing	
L/L	2000-2201/099-000 50	N/N	2000-2204/099-000 50	PE/N	2000-2217/099-000 50
N/L	2000-2202/099-000 50			PE/L	2000-2227/099-000 50
L/N	2000-2203/099-000 50				















Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, 4-conductor through terminal block, with end plate, with marker carrier, internally commoned, violet conductor entry, gray housing		Double-deck terminal block, 4-conductor through terminal block, with end plate, with marker carrier, internally commoned, violet conductor entry, blue housing		Double-deck terminal block, 4-conductor ground terminal block, with end plate, with marker carrier, internally commoned, green-yellow housing	
L	2000-2238/099-000 50	N	2000-2239/099-000 50	PE	2000-2237/099-000 50
Double-deck terminal block, 4-conductor through terminal block, with end plate, without marker carrier, internally commoned, violet conductor entry, gray housing		Double-deck terminal block, 4-conductor through terminal block, with end plate, without marker carrier, internally commoned, violet conductor entry, blue housing		Double-deck terminal block, 4-conductor ground terminal block, with end plate, without marker carrier, internally commoned, green-yellow housing	
L	2000-2208/099-000 50	N	2000-2209/099-000 50	PE	2000-2207/099-000 50

0.14 ... 1 (1.5) mm<sup>2</sup> ① 24 ... 16 AWG  
 800 V/8 kV/3 ② 600 V, 10 A ③  
 I<sub>N</sub> 13.5 A (16 A)  
 Terminal block width 4.2 mm / 0.165 inch  
 9 ... 11 mm / 0.35 ... 0.43 inch



**Double-Deck Terminal Blocks**  
 A double-deck marker carrier (2000-121) can be retrofitted to double-deck terminal blocks without a marker carrier.

- ① Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + f-st"; Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s" and 0.5 ... 0.75 mm<sup>2</sup> "insulated ferrule, 10 mm"
- ② 800 V = rated voltage  
 8 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ③ See application notes for:  
 Vertical jumper, page 139

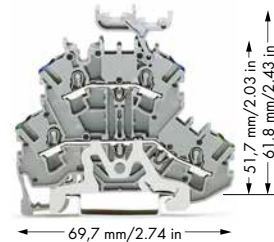
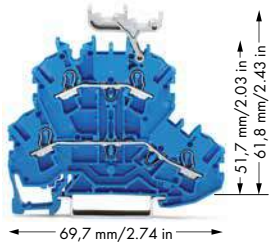
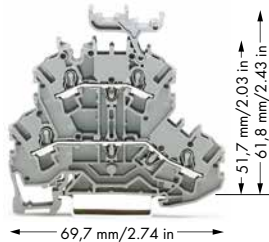
Item No.	Pack. Unit	2000 Series Accessories	
Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)			
Double-deck terminal block, shield conductor/through terminal block, with end plate, with marker carrier, gray housing		End and intermediate plate, 0.7 mm thick	Double-deck marker carrier, pivoting
○ Shield/N	2000-2248/099-000 50	orange 2000-2292 25	 gray 2000-121 50 (2x25)
○ Shield/L	2000-2258/099-000 50	gray 2000-2291 25	
Double-deck terminal block, shield conductor/through terminal block, with end plate, without marker carrier, gray housing		Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray	WMB Inline, plain, 2,000 WMB markers (4 mm) per reel, 4 ... 4.2 mm stretchable
○ Shield/N	2000-2218/099-000 50	 2-way 2001-402 200 (8x25)	 white 2009-114 1
○ Shield/L	2000-2228/099-000 50	3-way 2001-403 200 (8x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 4 ... 4.2 mm stretchable
		4-way 2001-404 200 (8x25)	 plain 793-4501 5
		5-way 2001-405 100 (4x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 4 ... 4.2 mm stretchable
		6-way 2001-406 100 (4x25)	 yellow 793-4501/000-002
		7-way 2001-407 100 (4x25)	red 793-4501/000-005
		8-way 2001-408 100 (4x25)	blue 793-4501/000-006
		9-way 2001-409 100 (4x25)	gray 793-4501/000-007
		10-way 2001-410 100 (4x25)	orange 793-4501/000-012
			light green 793-4501/000-017
			green 793-4501/000-023
			violet 793-4501/000-024
		Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray	Marking strip, plain, 11 mm wide, 50 m reel
		 from 1 to 3 2001-433 200 (8x25)	 white 2009-110 1
		from 1 to 4 2001-434 200 (8x25)	
		from 1 to 5 2001-435 100 (4x25)	
		from 1 to 6 2001-436 100 (4x25)	
		from 1 to 7 2001-437 100 (4x25)	
		from 1 to 8 2001-438 100 (4x25)	
		from 1 to 9 2001-439 100 (4x25)	
		from 1 to 10 2001-440 100 (4x25)	
		Double-deck vertical jumper, insulated, I <sub>N</sub> 13.5 A	
		③  light gray 2000-492 100 (4x25)	
		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks	
		 yellow 2001-115 100 (4x25)	
		Test plug adapter, for 4 mm Ø test plug	
		 gray 2009-174 100 (4x25)	
		Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow	
		 215-111 50	
		Testing tap, for max. 2.5 mm <sup>2</sup>	
		 gray 2009-182 100 (4x25)	

# TOPJOB® S Double-Deck Terminal Blocks

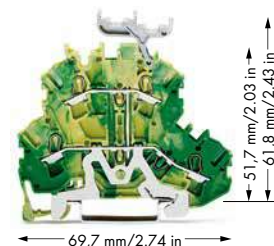
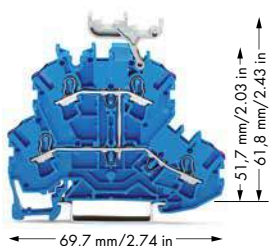
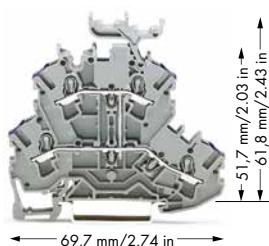
## 2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A (28 A)	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A (28 A)	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A (28 A)	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④
Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	




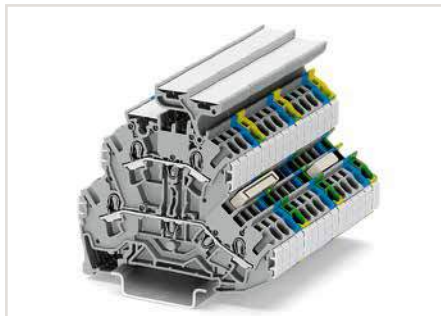
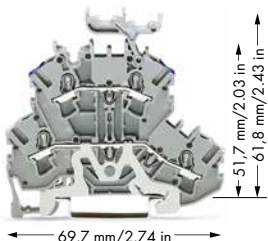
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, through/through terminal block, with marker carrier, gray housing		Double-deck terminal block, through/through terminal block, with marker carrier, blue housing		Double-deck terminal block, ground conductor/through terminal block, with marker carrier, gray housing	
○ L/L ⑤	<b>2002-2231</b> ④ 50	● N/N ⑤	<b>2002-2234</b> ③ ④ 50	○ PE/N ⑤	<b>2002-2247</b> ④ 50
○ N/L ⑤	<b>2002-2232</b> ④ 50			○ PE/L ⑤	<b>2002-2257</b> ④ 50
○ L/N ⑤	<b>2002-2233</b> ④ 50				
Double-deck terminal block, through/through terminal block, without marker carrier, gray housing		Double-deck terminal block, through/through terminal block, without marker carrier, blue housing		Double-deck terminal block, ground conductor/through terminal block, without marker carrier, gray housing	
○ L/L ⑤	<b>2002-2201</b> ④ 50	● N/N ⑤	<b>2002-2204</b> ③ ④ 50	○ PE/N ⑤	<b>2002-2217</b> ④ 50
○ N/L ⑤	<b>2002-2202</b> ④ 50			○ PE/L ⑤	<b>2002-2227</b> ④ 50
○ L/N ⑤	<b>2002-2203</b> ④ 50				
<b>Other terminal blocks with the same profile:</b>					
Diode	<b>2002-2211/1000-410</b> Page 116				
LED	<b>2002-2221/1000-434</b> Page 116				



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, 4-conductor through terminal block, with marker carrier, internally commoned, violet conductor entry, gray housing		Double-deck terminal block, 4-conductor through terminal block, with marker carrier, internally commoned, violet conductor entry, blue housing		Double-deck terminal block, 4-conductor ground terminal block, with marker carrier, internally commoned, green-yellow housing	
○ L ⑤	<b>2002-2238</b> ④ 50	● N ⑤	<b>2002-2239</b> ③ ④ 50	● PE ⑤	<b>2002-2237</b> ④ 50
Double-deck terminal block, 4-conductor through terminal block, without marker carrier, internally commoned, violet conductor entry, gray housing		Double-deck terminal block, 4-conductor through terminal block, without marker carrier, internally commoned, violet conductor entry, blue housing		Double-deck terminal block, 4-conductor ground terminal block, without marker carrier, internally commoned, green-yellow housing	
○ L ⑤	<b>2002-2208</b> ④ 50	● N ⑤	<b>2002-2209</b> ③ ④ 50	● PE ⑤	<b>2002-2207</b> ④ 50



0.25 ... 2.5 (4) mm<sup>2</sup> ① 22 ... 12 AWG  
 500 V/6 kV/3 ② 600 V, 20 A ③  
 I<sub>N</sub> 24 A (28 A) 600 V, 20 A ④  
 Terminal block width 5.2 mm / 0.205 inch  
 10 ... 12 mm / 0.39 ... 0.47 inch



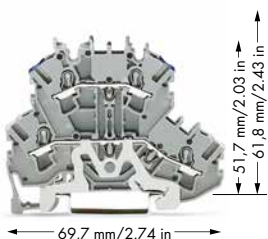
Double-deck terminal block assembly












- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ② 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Suitable for Ex i applications
- ④ Suitable for Ex e II applications  
440 V, 20 A  
Jumper 18 A  
(see Section 14)
- ⑤ See application notes for:  
Colored push-in type jumper bar, page 134  
Vertical jumper, page 139

Item No.	Pack. Unit
Double-deck terminal block, shield conductor/through terminal block, with marker carrier, gray housing	
Shield/N 2002-2248	50
Shield/L 2002-2258	50

Both ground and shield conductor terminal blocks have a contact foot in the bottom level, automatically establishing direct contact to the carrier rail or busbar.  
 The flexible double-deck marker carrier, which is placed above the wiring level, can be pushed aside during wiring. The carrier has two staggered levels for WMB markers that perfectly line up to the terminal block decks.  
 With a terminal block width of just 5.2 mm, an effective width of just 2.6 mm for terminal blocks of same or different potentials can be realized for conductors ranging 0.25 mm<sup>2</sup> ... 4 mm<sup>2</sup> (22 ... 12 AWG).  
 Shielded control cables are becoming an increasingly common solution to external signal interference. Front-entry shield conductor terminal blocks are ideally suited to connect braided cables. Like front-entry ground conductor terminal blocks, they are equipped with a grounding foot for direct electrical connection to the rail, however they differ significantly by their white insulated housing. Front-entry shield conductor terminal blocks can be directly mounted beside signal-conductor terminal blocks, providing excellent deflection of interfering signals.



Item No.	Pack. Unit
Double-deck terminal block, shield conductor/through terminal block, without marker carrier, gray housing	
Shield/N 2002-2218	50
Shield/L 2002-2228	50




2002 Series Accessories			
Appropriate marking system (see Section 13)			
End and intermediate plate, 0.8 mm thick			
	orange	2002-2292	100 (4x25)
	gray	2002-2291	100 (4x25)
Separator for Ex e/Ex i applications, 3 mm thick, orange			
	125.5 mm	209-192	50 (2x25)
Double-deck marker carrier, pivoting			
	gray	2002-121	50 (2x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
	light gray	2002-171	200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>			
	dark gray	2002-172	200 (8x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray			
	2-way	2002-402	200 (8x25)
	3-way	2002-403	200 (8x25)
	4-way	2002-404	200 (8x25)
	5-way	2002-405	100 (4x25)
	6-way	2002-406	100 (4x25)
	7-way	2002-407	100 (4x25)
	8-way	2002-408	100 (4x25)
	9-way	2002-409	100 (4x25)
	10-way	2002-410	100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray			
	from 1 to 3	2002-433	200 (8x25)
	from 1 to 4	2002-434	200 (8x25)
	from 1 to 5	2002-435	100 (4x25)
	from 1 to 6	2002-436	100 (4x25)
	from 1 to 7	2002-437	100 (4x25)
	from 1 to 8	2002-438	100 (4x25)
	from 1 to 9	2002-439	100 (4x25)
	from 1 to 10	2002-440	100 (4x25)
Double-deck vertical jumper, insulated, I <sub>N</sub> 24 A			
	light gray	2002-492	100 (4x25)
	orange	2002-492/000-012	

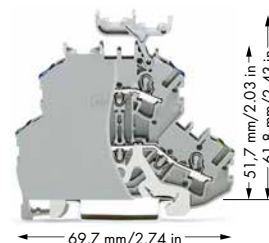
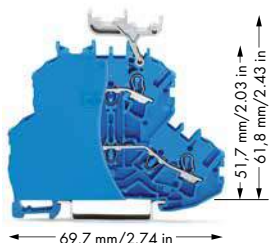
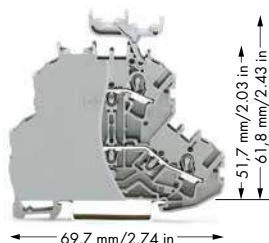
# TOPJOB® S

## Double-Deck Terminal Blocks with End Plate, 800 V

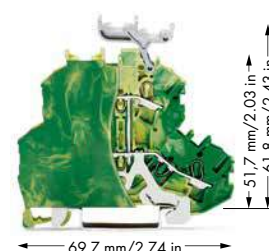
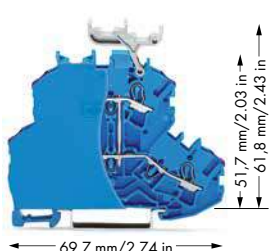
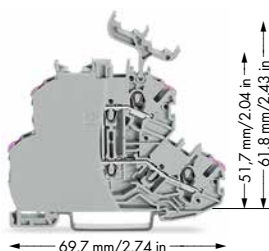
### 2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 24 A  Terminal block width 6.2 mm / 0.244 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 24 A  Terminal block width 6.2 mm / 0.244 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 24 A  Terminal block width 6.2 mm / 0.244 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④
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


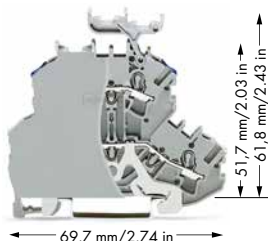
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, through/through terminal block, with end plate, with marker carrier, gray housing		Double-deck terminal block, through/through terminal block, with end plate, with marker carrier, blue housing		Double-deck terminal block, ground conductor/through terminal block, with end plate, with marker carrier, gray housing	
○ L/L	2002-2231/099-000 50	● N/N	2002-2234/099-000 ③ 50	○ PE/N	2002-2247/099-000 50
○ N/L	2002-2232/099-000 50			○ PE/L	2002-2257/099-000 50
○ L/N	2002-2233/099-000 50				
Double-deck terminal block, through/through terminal block, with end plate, without marker carrier, gray housing		Double-deck terminal block, through/through terminal block, with end plate, without marker carrier, blue housing		Double-deck terminal block, ground conductor/through terminal block, with end plate, without marker carrier, gray housing	
○ L/L	2002-2201/099-000 50	● N/N	2002-2204/099-000 ③ 50	○ PE/N	2002-2217/099-000 50
○ N/L	2002-2202/099-000 50			○ PE/L	2002-2227/099-000 50
○ L/N	2002-2203/099-000 50				
<b>Other terminal blocks with the same profile:</b>					
Diode	2002-2211/1000-410 Page 116				
LED	2002-2221/1000-434 Page 116				



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, 4-conductor through terminal block, with end plate, with marker carrier, internally commoned, violet conductor entry, gray housing		Double-deck terminal block, 4-conductor through terminal block, with end plate, with marker carrier, internally commoned, violet conductor entry, blue housing		Double-deck terminal block, 4-conductor ground terminal block, with end plate, with marker carrier, internally commoned, green-yellow housing	
○ L	2002-2238/099-000 50	● N	2002-2239/099-000 ③ 50	● PE	2002-2237/099-000 50
Double-deck terminal block, 4-conductor through terminal block, with end plate, without marker carrier, internally commoned, violet conductor entry, gray housing		Double-deck terminal block, 4-conductor through terminal block, with end plate, without marker carrier, internally commoned, violet conductor entry, blue housing		Double-deck terminal block, 4-conductor ground terminal block, with end plate, without marker carrier, internally commoned, green-yellow housing	
○ L	2002-2208/099-000 50	● N	2002-2209/099-000 ③ 50	● PE	2002-2207/099-000 50

0.25 ... 2.5 (4) mm<sup>2</sup> ① 22 ... 12 AWG  
 800 V/8 kV/3 ② 600 V, 20 A ③  
 I<sub>N</sub> 24 A 600 V, 20 A ④

Terminal block width 6.2 mm / 0.244 inch  
 10 ... 12 mm / 0.39 ... 0.47 inch



Protective warning marker and insulation stop must be applied individually. Due to the 6.2 mm width of double-deck terminal blocks with end plate, 2004 Series jumpers must be used.

- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst"; Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s" and 0.75 ... 2.5 mm<sup>2</sup> "insulated ferrule, 12 mm"
- ② 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Suitable for Ex i applications
- ④ See application notes for:  
Vertical jumper, page 139



Item No.	Pack. Unit	2002 Series Accessories	
Double-deck terminal block, shield conductor/through terminal block, with end plate, with marker carrier, gray housing		Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)	
○ Shield/N	2002-2248/099-000 50	End and intermediate plate, 0.8 mm thick orange	Test plug adapter, for 4 mm Ø test plug
○ Shield/L	2002-2258/099-000 50	gray	gray
Double-deck terminal block, shield conductor/through terminal block, with end plate, without marker carrier, gray housing		gray	Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow
○ Shield/N	2002-2218/099-000 50	2002-121 50 (2x25)	215-111 50
○ Shield/L	2002-2228/099-000 50	Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain
		2002-171 200 (8x25)	793-5501 5
		Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable yellow
		2002-172 200 (8x25)	793-5501/000-002
		Push-in type jumper bar, insulated, I <sub>N</sub> 32 A, light gray	red
		2-way	793-5501/000-005
		3-way	793-5501/000-006
		4-way	793-5501/000-007
		5-way	793-5501/000-012
		6-way	793-5501/000-017
		7-way	793-5501/000-023
		8-way	793-5501/000-024
		9-way	
		10-way	Marking strip, plain, 11 mm wide, 50 m reel white
		Push-in type jumper bar, insulated, I <sub>N</sub> 32 A, light gray	2009-110 1
		from 1 to 3	
		from 1 to 4	
		from 1 to 5	
		from 1 to 6	
		from 1 to 7	
		from 1 to 8	
		from 1 to 9	
		from 1 to 10	
		Double-deck vertical jumper, insulated, I <sub>N</sub> 24 A	
		light gray	
		orange	
		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks	
		yellow	
		2002-115 100 (4x25)	

# TOPJOB® S

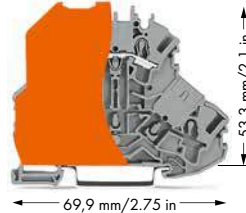
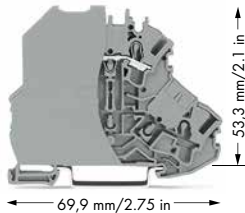
## Double-Deck Terminal Blocks

2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG AC/DC 1000 V/ DC 1500 V/12 kV/3 ② I <sub>N</sub> 24 A  Terminal block width 7.2 mm / 0.283 inch  10 ... 12 mm / 0.39 ... 0.47 inch	0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG AC/DC 1000 V/ DC 1500 V/12 kV/3 ② I <sub>N</sub> 24 A  Terminal block width 7.2 mm / 0.283 inch  10 ... 12 mm / 0.39 ... 0.47 inch
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Protective warning marker and insulation stop must be applied individually.














- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ② AC/DC 1000 V = rated voltage  
DC 1500 V  
12 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)

Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, contact insert only on upper deck, gray separator, oversized, gray housing		Double-deck terminal block, contact insert only on upper deck, orange separator, oversized, gray housing	
⊙ L <b>2002-2201/097-000</b> 50		⊙ L <b>2002-2201/098-000</b> 50	

### 2002 Series Accessories

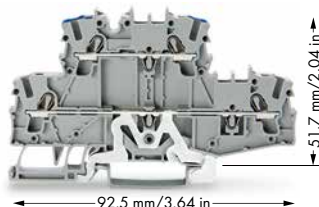
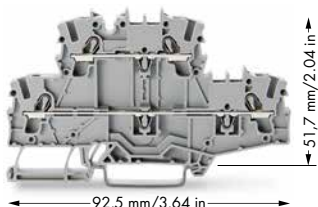
Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

Separator, oversized upper deck, snap-on type, 2 mm thick	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks
 orange <b>2002-2296</b> 100 (4x25)  gray <b>2002-2295</b> 100 (4x25)	 yellow <b>2002-115</b> 100 (4x25)
Double-deck marker carrier, pivoting	Test plug adapter, for 4 mm Ø test plug
 gray <b>2002-121</b> 50 (2x25)	 gray <b>2009-174</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>	Testing tap, for max. 2.5 mm <sup>2</sup>
 light gray <b>2002-171</b> 200 (8x25)	 gray <b>2009-182</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
 dark gray <b>2002-172</b> 200 (8x25)	 plain <b>793-5501</b> 50
	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
	 yellow <b>793-5501/000-002</b> 5 red <b>793-5501/000-005</b> blue <b>793-5501/000-006</b> gray <b>793-5501/000-007</b> orange <b>793-5501/000-012</b> light green <b>793-5501/000-017</b> green <b>793-5501/000-023</b> violet <b>793-5501/000-024</b>
	Marking strip, plain, 11 mm wide, 50 m reel
	 white <b>2009-110</b> 5

# TOPJOB® S Double-Deck Terminal Blocks with Vertical Conductor Entries

2.5 (4) mm<sup>2</sup>, 2002 Series

0.25 ... 2.5 (4) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 24 A (28 A)	22 ... 12 AWG	0.25 ... 2.5 (4) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 24 A (28 A)	22 ... 12 AWG
Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	



- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ② 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ See application notes for:  
Colored push-in type jumper bar, page 134  
Vertical jumper, page 139  
Adjacent jumper for continuous commoning, page 137

Item No.	Pack. Unit	Item No.	Pack. Unit		
Double-deck terminal block, through/through terminal block, with vertical conductor entry, without marker carrier, gray housing		Double-deck terminal block, ground conductor/through terminal block, with vertical conductor entry, without marker carrier, gray housing			
○ L/L	2002-2701	50	○ PE/N	2002-2717	50
○ N/L	2002-2702	50	○ PE/L	2002-2727	50
○ L/N	2002-2703	50			
Double-deck terminal block, through/through terminal block, with vertical conductor entry, without marker carrier, blue housing					
● N/N	2002-2704	50			

### 2002 Series Accessories

Appropriate marking systems:  
(see Section 13)

End and intermediate plate, 1 mm thick

	orange	2002-2792	100 (4x25)
	gray	2002-2791	100 (4x25)

Double-deck marker carrier, pivoting

	gray	2002-121	50 (2x25)
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Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup>

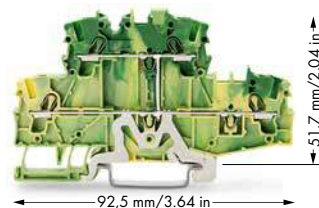
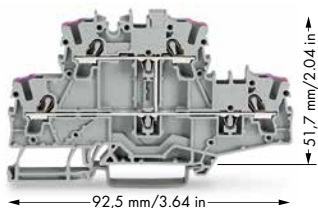
	light gray	2002-171	200 (8x25)
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Insulation stop, 5 pcs/strip, 0.75 ... 1 mm<sup>2</sup>

	dark gray	2002-172	200 (8x25)
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Push-in type jumper bar, insulated, I<sub>N</sub> 25 A, light gray

	③ 2-way	2002-402	200 (8x25)
	3-way	2002-403	200 (8x25)
	4-way	2002-404	200 (8x25)
	5-way	2002-405	100 (4x25)
	6-way	2002-406	100 (4x25)
	7-way	2002-407	100 (4x25)
	8-way	2002-408	100 (4x25)
	9-way	2002-409	100 (4x25)
	10-way	2002-410	100 (4x25)



Item No.	Pack. Unit	Item No.	Pack. Unit		
Double-deck terminal block, 4-conductor through terminal block, with vertical conductor entry, without marker carrier, internally commoned, violet conductor entry, gray housing		Double-deck terminal block, 4-conductor ground terminal block, with vertical conductor entry, without marker carrier, internally commoned, green-yellow housing			
○ L	2002-2708	50	● PE	2002-2707	50
Double-deck terminal block, 4-conductor through terminal block, with vertical conductor entry, without marker carrier, internally commoned, violet conductor entry, blue housing					
● N	2002-2709	50			

Push-in type jumper bar, insulated, I<sub>N</sub> 25 A, light gray

	from 1 to 3	2002-433	200 (8x25)
	from 1 to 4	2002-434	200 (8x25)
	from 1 to 5	2002-435	100 (4x25)
	from 1 to 6	2002-436	100 (4x25)
	from 1 to 7	2002-437	100 (4x25)
	from 1 to 8	2002-438	100 (4x25)
	from 1 to 9	2002-439	100 (4x25)
	from 1 to 10	2002-440	100 (4x25)

Double-deck vertical jumper, insulated, I<sub>N</sub> 24 A

	light gray	2002-492	100 (4x25)
	orange	2002-492/000-012	

Adjacent jumper for continuous commoning, insulated, I<sub>N</sub>

	25 A, light gray		
	2-way	2002-400	100 (4x25)

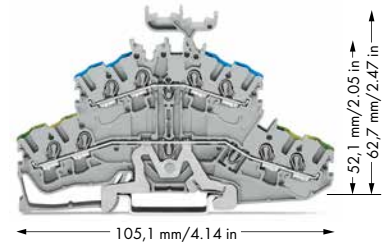
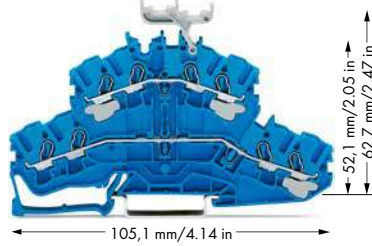
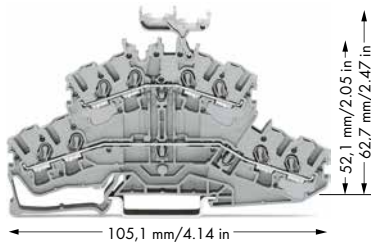
# TOPJOB® S

## 4-Conductor, Double-Deck Terminal Blocks

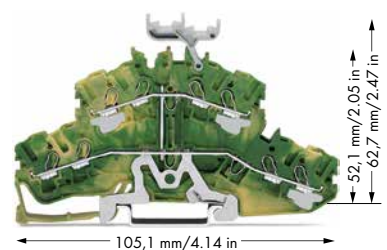
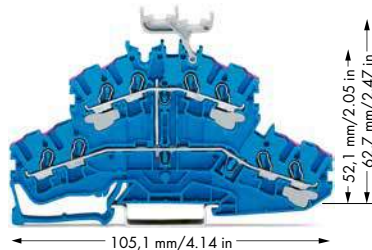
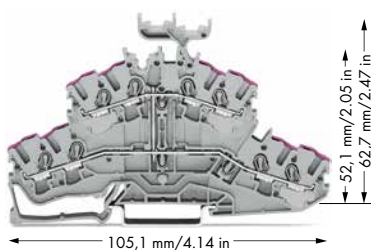
2.5 (4) mm<sup>2</sup>, 2002 Series

1


0.25 ... 2.5 (4) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 24 A (28 A)	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 24 A (28 A)	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 24 A (28 A)	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④
Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	

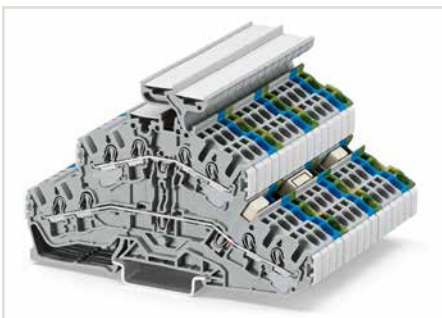


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
4-conductor, double deck terminal block, through/through terminal block, with marker carrier, gray housing		4-conductor, double deck terminal block, through/through terminal block, with marker carrier, blue housing		4-conductor, double deck terminal block, ground conductor/through terminal block, with marker carrier, gray housing	
○ L/L	2002-2431	50	● N/N	2002-2434 ③	50
○ N/L	2002-2432	50			
○ L/N	2002-2433	50			
4-conductor, double deck terminal block, through/through terminal block, without marker carrier, gray housing		4-conductor, double deck terminal block, through/through terminal block, without marker carrier, blue housing		4-conductor, double deck terminal block, ground conductor/through terminal block, without marker carrier, gray housing	
○ L/L	2002-2401	50	● N/N	2002-2404 ③	50
○ N/L	2002-2402	50			
○ L/N	2002-2403	50			
Ex Approvals are pending					

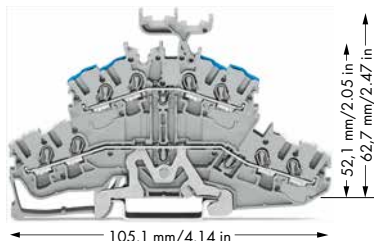


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
4-conductor, double deck terminal block, 8-conductor through terminal block, with marker carrier, internally commoned, conductor entry position colored in violet, gray housing		4-conductor, double deck terminal block, 8-conductor through terminal block, with marker carrier, internally commoned, conductor entry position colored in violet, blue housing		4-conductor, double deck terminal block, 8-conductor ground terminal block, with marker carrier, internally commoned, green-yellow housing	
○ L	2002-2438	50	● N	2002-2439 ③	50
4-conductor, double deck terminal block, 8-conductor through terminal block, without marker carrier, internally commoned, conductor entry position colored in violet, gray housing		4-conductor, double deck terminal block, 8-conductor through terminal block, without marker carrier, internally commoned, conductor entry position colored in violet, blue housing		4-conductor, double deck terminal block, 8-conductor ground terminal block, without marker carrier, internally commoned, green-yellow housing	
○ L	2002-2408	50	● N	2002-2409 ③	50

0.25 ... 2.5 (4) mm<sup>2</sup> ① 22 ... 12 AWG  
 800 V/8 kV/3 ② 600 V, 20 A ③  
 I<sub>N</sub> 24 A (28 A) 600 V, 20 A ④  
 Terminal block width 5.2 mm / 0.205 inch  
 10 ... 12 mm / 0.39 ... 0.47 inch



Double-deck terminal block assembly






- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst";  
 Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
 and 0.75 ... 2.5 mm<sup>2</sup>  
 "insulated ferrule, 12 mm"
- ② 800 V = rated voltage  
 8 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ③ Suitable for Ex i applications
- ④ See application notes for:  
 Colored push-in type jumper bar, page 134  
 Adjacent jumper for continuous commoning, page 137  
 Vertical jumper, page 139  
 Banana plug, page 330  
 TOPJOB® S group marker carrier, page 143

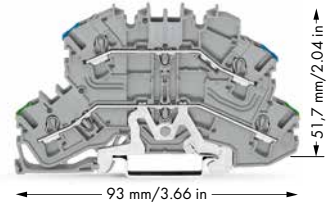
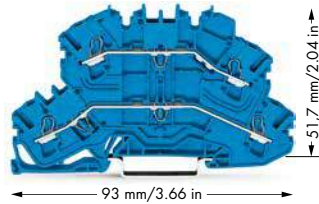
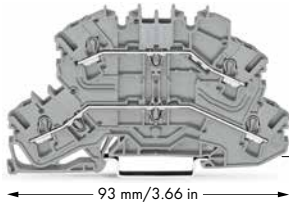
Item No.	Pack. Unit	2002 Series Accessories	
4-conductor, double deck terminal block, shield conductor/through terminal block, with marker carrier, gray housing		Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)	
○ Shield/N	2002-2448	50	End and intermediate plate, 0.8 mm thick orange 2002-2492 100 (4x25) gray 2002-2491 100 (4x25)
○ Shield/L	2002-2458	50	
4-conductor, double deck terminal block, shield conductor/through terminal block, without marker carrier, gray housing		Double-deck marker carrier, pivoting gray 2002-121 50 (2x25)	
○ Shield/N	2002-2418	50	Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray 2002-171 200 (8x25)
○ Shield/L	2002-2428	50	
		Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray 2002-172 200 (8x25)	
		Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray ④ 2-way 2002-402 200 (8x25) 3-way 2002-403 200 (8x25) 4-way 2002-404 200 (8x25) 5-way 2002-405 100 (4x25) 6-way 2002-406 100 (4x25) 7-way 2002-407 100 (4x25) 8-way 2002-408 100 (4x25) 9-way 2002-409 100 (4x25) 10-way 2002-410 100 (4x25)	
		Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray ④ from 1 to 3 2002-433 200 (8x25) from 1 to 4 2002-434 200 (8x25) from 1 to 5 2002-435 100 (4x25) from 1 to 6 2002-436 100 (4x25) from 1 to 7 2002-437 100 (4x25) from 1 to 8 2002-438 100 (4x25) from 1 to 9 2002-439 100 (4x25) from 1 to 10 2002-440 100 (4x25)	
		Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray ④ 2-way 2002-400 100 (4x25)	
		Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray ④ 1 to 3 2002-423 100 (4x25)	
		Double-deck vertical jumper, insulated, I <sub>N</sub> 24 A ④ light gray 2002-492 100 (4x25) orange 2002-492/000-012	
		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow 2002-115 100 (4x25)	
		Testing tap, for max. 2.5 mm <sup>2</sup> gray 2009-182 100 (4x25)	
		WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain 793-5501	
		WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable yellow 793-5501/000-002 5 red 793-5501/000-005 blue 793-5501/000-006 gray 793-5501/000-007 orange 793-5501/000-012 1 light green 793-5501/000-017 green 793-5501/000-023 violet 793-5501/000-024 1	
		WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable white 2009-115	
		Marking strip, plain, 11 mm wide, 50 m reel white 2009-110	
		TOPJOB® S group marker carrier, snap-on type for jumper slot, 5 mm wide ④ gray 2009-191 50 (2x25)	

# TOPJOB® S Double-Deck Terminal Blocks

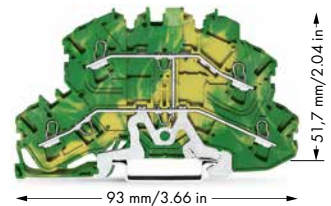
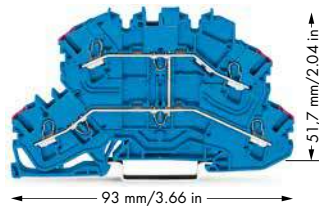
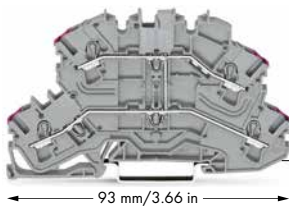
## 2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A (28 A)  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 20 A ③	0.25 ... 2.5 (4) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A (28 A)  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 20 A ③	0.25 ... 2.5 (4) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A (28 A)  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 20 A ③
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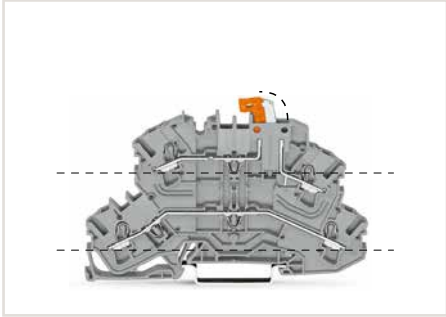


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, through/through terminal block, same profile as double-deck disconnect terminal block, without marker carrier, gray housing		Double-deck terminal block, through/through terminal block, same profile as double-deck disconnect terminal block, without marker carrier, blue housing		Double-deck terminal block, ground conductor/through terminal block, same profile as double-deck disconnect terminal block, without marker carrier, gray housing	
○ L/L	<b>2002-2601</b>	50	● N/N	<b>2002-2604</b> ③	50
○ N/L	<b>2002-2602</b>	50			
○ L/N	<b>2002-2603</b>	50			
<b>Other terminal blocks with the same profile:</b>					
Carrier	<b>2002-2661</b>	Page 56			
Disconnect	<b>2002-2671</b>	Page 56			
Fuse	<b>2002-2611</b>	Page 57			

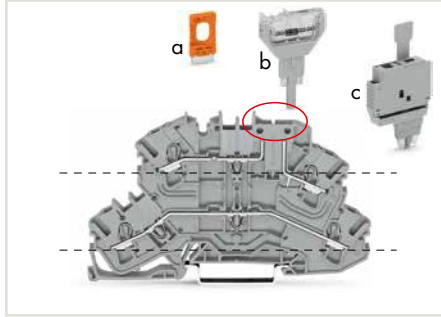


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, 4-conductor through terminal block, same profile as double-deck disconnect terminal block, without marker carrier, internally commoned, conductor entry position colored in violet, gray housing		Double-deck terminal block, 4-conductor through terminal block, same profile as double-deck disconnect terminal block, without marker carrier, internally commoned, conductor entry position colored in violet, blue housing		Double-deck terminal block, through/through terminal block, same profile as double-deck disconnect terminal block, without marker carrier, internally commoned, green-yellow housing	
○ L	<b>2002-2608</b>	50	● N	<b>2002-2609</b> ③	50





Double-deck disconnect terminal blocks with a pivoting knife disconnect (2002-2671) can be used as through terminal blocks on the lower deck and as disconnect terminal blocks on the upper deck. Besides disconnection and measurement, double-deck carrier terminal blocks (2002-2667) also provide ground conductor functionality.

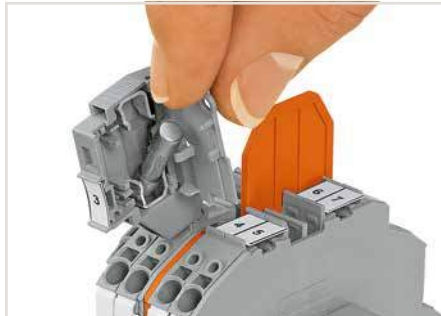


Carrier terminal blocks (2002-2661) have the same design as disconnect terminal blocks. The following components may be used:  
 - Disconnect plug (a: 2002-401)  
 - Pluggable diode (b: 2002-800/1000-411)  
 - LED module (2002-800/1000-541, no illustration)  
 - Fuse plug (c: 2004-911)

- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st"; Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s" and 0.75 ... 2.5 mm<sup>2</sup> "insulated ferrule, 12 mm"
- ❷ 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ Suitable for Ex i applications
- ❹ See application notes for:  
Colored push-in type jumper bar, page 134  
Vertical jumper, page 139  
Adjacent jumper for continuous commoning, page 137



Double-deck fuse disconnect terminal blocks with a pivoting fuse holder (2002-2611, gray) are compatible with disconnect, carrier, through and ground conductor terminal blocks. The fuse holder is also available with a blown fuse LED indicator. (e.g., 2002-2611/1000-541 for 12 ... 30 V).

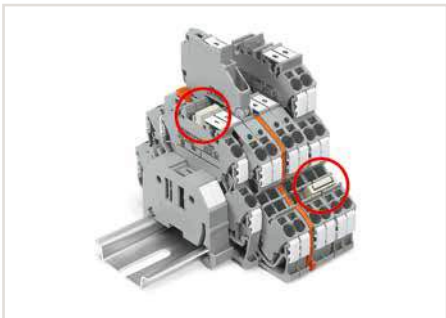


An end plate for fuse disconnect terminal blocks (shown in 2002-1092, orange) is used for additional protection, preventing the fuse holder from being opened. The fuse cannot be replaced until disconnecting the fuse holder from the power supply.

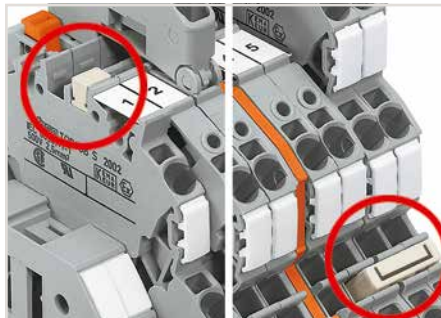
**2002 Series Accessories**

Appropriate marking systems:  
(see Section 13)

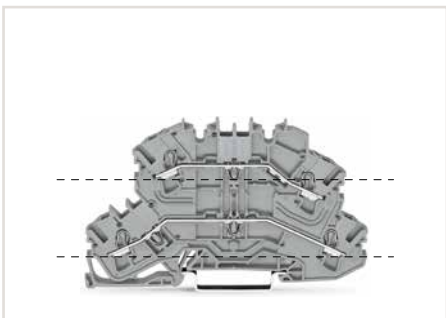
End and intermediate plate, 1 mm thick			
	orange	<b>2002-2692</b>	100 (4x25)
	gray	<b>2002-2691</b>	100 (4x25)
Double-deck marker carrier, pivoting			
	gray	<b>2002-121</b>	50 (2x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
	light gray	<b>2002-171</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>			
	dark gray	<b>2002-172</b>	200 (8x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray			
	2-way	<b>2002-402</b>	200 (8x25)
	3-way	<b>2002-403</b>	200 (8x25)
	4-way	<b>2002-404</b>	200 (8x25)
	5-way	<b>2002-405</b>	100 (4x25)
	6-way	<b>2002-406</b>	100 (4x25)
	7-way	<b>2002-407</b>	100 (4x25)
	8-way	<b>2002-408</b>	100 (4x25)
	9-way	<b>2002-409</b>	100 (4x25)
	10-way	<b>2002-410</b>	100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 24 A			
	from 1 to 3	<b>2002-433</b>	200 (8x25)
	from 1 to 4	<b>2002-434</b>	200 (8x25)
	from 1 to 5	<b>2002-435</b>	100 (4x25)
	from 1 to 6	<b>2002-436</b>	100 (4x25)
	from 1 to 7	<b>2002-437</b>	100 (4x25)
	from 1 to 8	<b>2002-438</b>	100 (4x25)
	from 1 to 9	<b>2002-439</b>	100 (4x25)
	from 1 to 10	<b>2002-440</b>	100 (4x25)
Double-deck vertical jumper, insulated, I <sub>N</sub> 24 A			
	light gray	<b>2002-492</b>	100 (4x25)
	orange	<b>2002-492/000-012</b>	
Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray			
	2-way	<b>2002-400</b>	100 (4x25)



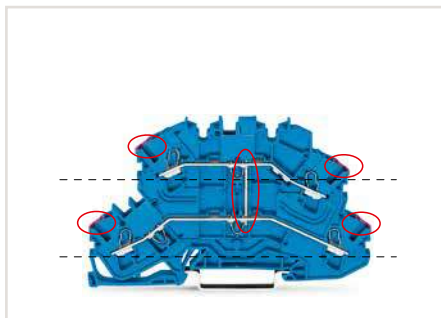
The same profile allows for commoning with TOPJOB® S double-deck terminal blocks (upper deck) and with triple-deck terminal blocks (lower deck).



Left picture - Vertical jumper (2002-492)  
 Right picture - Push-in type jumper bar (2002 Series)



Through terminal blocks (2002-2601) feature two independent current bars on both lower and upper deck, sharing the same profile as disconnect terminal blocks. These terminal blocks can be commoned via double-deck vertical jumpers (2002-492).



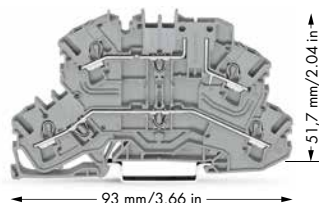
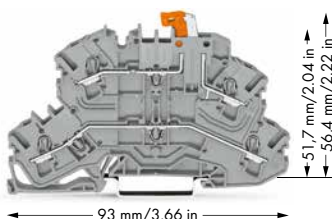
4-conductor through terminal blocks (2002-2609) with internal commoning can be immediately identified via violet conductor entry.

# TOPJOB® S Double-Deck Disconnect Terminal Blocks and Carrier Terminal Blocks

## 2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A  Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 20 A ③	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A  Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 20 A ③
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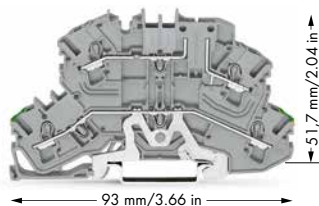
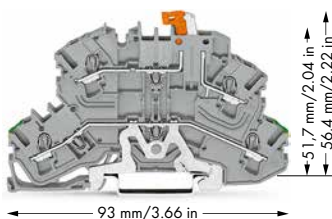


- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ② 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ See application notes for:  
Colored push-in type jumper bar, page 134  
Vertical jumper, page 139  
Adjacent jumper for continuous commoning, page 137



Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck disconnect terminal block, with a pivoting knife disconnect, gray housing		Double-deck carrier terminal block, upper-deck base, gray housing	
○ L/L <b>2002-2671</b>	50	○ L/L <b>2002-2661</b>	50
○ N/L <b>2002-2672</b>	50	○ N/L <b>2002-2662</b>	50

### 2002 Series Accessories


Appropriate marking systems:  
(see Section 13)



End and intermediate plate, 1 mm thick

 orange	<b>2002-2692</b>	100 (4x25)
 gray	<b>2002-2691</b>	100 (4x25)


Double-deck marker carrier, pivoting

 gray	<b>2002-121</b>	50 (2x25)
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Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup>

 light gray	<b>2002-171</b>	200 (8x25)
--	-----------------	------------


Insulation stop, 5 pcs/strip, 0.75 ... 1 mm<sup>2</sup>

 dark gray	<b>2002-172</b>	200 (8x25)
---	-----------------	------------


Push-in type jumper bar, insulated, I<sub>N</sub> 25 A, light gray

		
2-way	<b>2002-402</b>	200 (8x25)
3-way	<b>2002-403</b>	200 (8x25)
4-way	<b>2002-404</b>	200 (8x25)
5-way	<b>2002-405</b>	100 (4x25)
6-way	<b>2002-406</b>	100 (4x25)
7-way	<b>2002-407</b>	100 (4x25)
8-way	<b>2002-408</b>	100 (4x25)
9-way	<b>2002-409</b>	100 (4x25)
10-way	<b>2002-410</b>	100 (4x25)


Push-in type jumper bar, insulated, I<sub>N</sub> 25 A, light gray

		
from 1 to 3	<b>2002-433</b>	200 (8x25)
from 1 to 4	<b>2002-434</b>	200 (8x25)
from 1 to 5	<b>2002-435</b>	100 (4x25)
from 1 to 6	<b>2002-436</b>	100 (4x25)
from 1 to 7	<b>2002-437</b>	100 (4x25)
from 1 to 8	<b>2002-438</b>	100 (4x25)
from 1 to 9	<b>2002-439</b>	100 (4x25)
from 1 to 10	<b>2002-440</b>	100 (4x25)

Double-deck vertical jumper, insulated, I<sub>N</sub> 24 A

		
light gray	<b>2002-492</b>	100 (4x25)
orange	<b>2002-492/000-012</b>	



Adjacent jumper for continuous commoning, insulated, I<sub>N</sub>

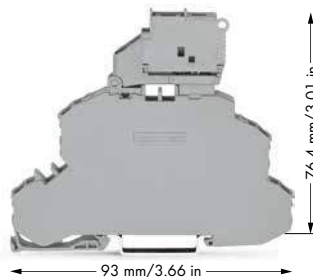
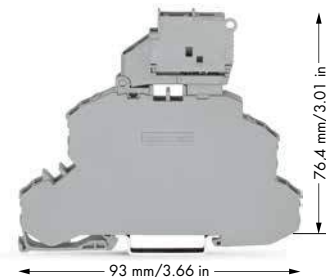
		
25 A, light gray		
2-way	<b>2002-400</b>	100 (4x25)

# TOPJOB® S

## Double-Deck Fuse Disconnect Terminal Blocks with Pivoting Fuse Holder

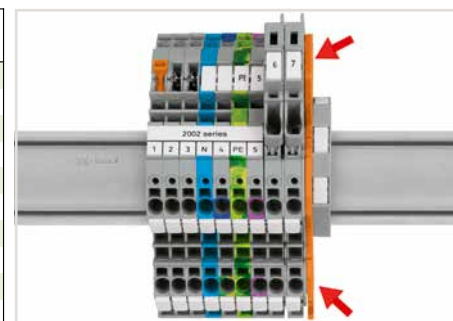
### 2.5 (4) mm<sup>2</sup>, 2002 Series

0.25 ... 2.5 (4) mm <sup>2</sup> ① 250 V/6 kV/3 ② I <sub>N</sub> 6.3 A Terminal block width 6.2 mm / 0.244 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 6.3 A ③	0.25 ... 2.5 (4) mm <sup>2</sup> ① 250 V/6 kV/3 ② I <sub>N</sub> 6.3 A Terminal block width 6.2 mm / 0.244 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 30 V, 6.3 A ③
---	---------------------------------	---	--------------------------------



- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst"; Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s" and 0.75 ... 2.5 mm<sup>2</sup> "insulated ferrule, 12 mm"
- ② 250 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ See application notes for: Vertical jumper, page 139
- ④ Protective warning marker and insulation stop must be applied individually.
- ⑤ Due to the 6.2 mm width of fuse terminal blocks with pivoting fuse holder, 2004 Series jumpers must be used.












Item No.	Pack. Unit	Item No.	Pack. Unit		
Double-deck fuse disconnect terminal block with a pivoting fuse holder, through/fuse terminal block, for (5 x 20) mm miniature metric fuse, without blown fuse indication, gray Electrical ratings are given by the fuse.		Double-deck fuse disconnect terminal block with a pivoting fuse holder, through/fuse terminal block, for (5 x 20) mm miniature metric fuse, with blown fuse indication by LED, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of a blown fuse: LED 2 mA			
○ L/L	<b>2002-2611</b>	25	○ 12 ... 30 V	<b>2002-2611/1000-541</b>	25
○ N/L	<b>2002-2612</b>	25	○ 30 ... 65 V	<b>2002-2611/1000-542</b>	25
			○ 230 V	<b>2002-2611/1000-836</b>	25

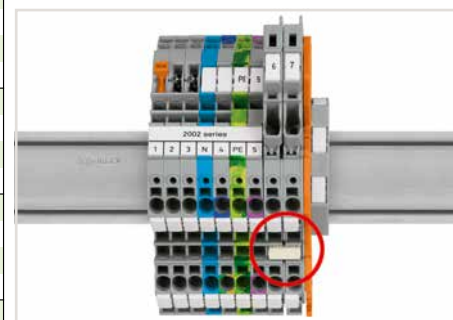


Additionally, an end plate for fuse terminal blocks (e.g., 2002-1092, orange) must be used at the end of an assembly or if there is no adjacent fuse terminal block.

#### 2002 Series Accessories

Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick	End plate for fuse terminal blocks, 2 mm thick
 orange <b>2002-2692</b> 100 (4x25) gray <b>2002-2691</b> 100 (4x25)	 orange <b>2002-1092</b> 100 (4x25) gray <b>2002-1091</b> 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 32 A, light gray	Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>
⑤  2-way <b>2004-402</b> 200 (8x25) 3-way <b>2004-403</b> 200 (8x25) 4-way <b>2004-404</b> 100 (4x25) 5-way <b>2004-405</b> 100 (4x25) 6-way <b>2004-406</b> 100 (4x25) 7-way <b>2004-407</b> 100 (4x25) 8-way <b>2004-408</b> 100 (4x25) 9-way <b>2004-409</b> 100 (4x25) 10-way <b>2004-410</b> 100 (4x25)	④  light gray <b>2002-171</b> 200 (8x25)
	Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>
	 dark gray <b>2002-172</b> 200 (8x25)
	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks
	①  yellow <b>2002-115</b> 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 32 A, light gray	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V
 from 1 to 3 <b>2004-433</b> 200 (8x25) from 1 to 4 <b>2004-434</b> 200 (8x25) from 1 to 5 <b>2004-435</b> 100 (4x25) from 1 to 6 <b>2004-436</b> 100 (4x25) from 1 to 7 <b>2004-437</b> 100 (4x25) from 1 to 8 <b>2004-438</b> 100 (4x25) from 1 to 9 <b>2004-439</b> 100 (4x25) from 1 to 10 <b>2004-440</b> 100 (4x25)	 red <b>210-136</b> 50
	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V
	 yellow <b>210-137</b> 50
	Marking strip, plain, 11 mm wide, 50 m reel
	 white <b>2009-110</b> 1
Double-deck vertical jumper, insulated, I <sub>N</sub> 24 A	
③  light gray <b>2002-492</b> 100 (4x25) orange <b>2002-492/000-012</b>	



An intermediate plate is supplied with all 6.2 mm wide fuse disconnect terminal blocks. Due to the 6.2 mm width of fuse disconnect terminal blocks with a pivoting fuse holder, 2004 Series Push-In Type Jumper Bars must be used.

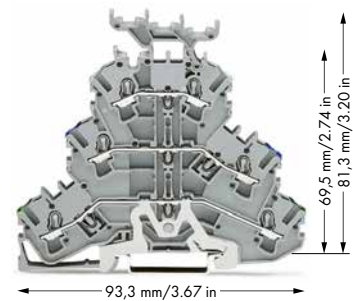
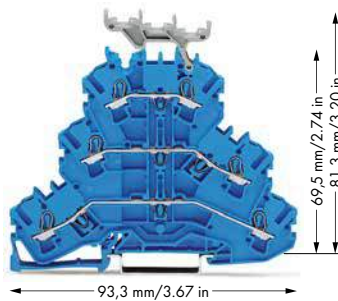
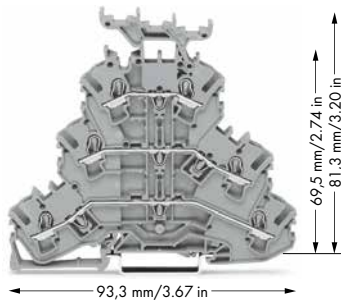
# TOPJOB® S

## Triple-Deck Terminal Blocks

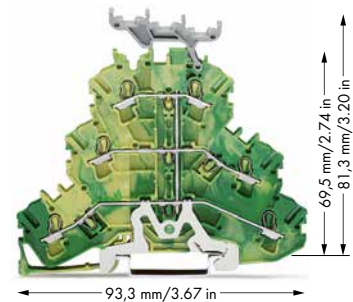
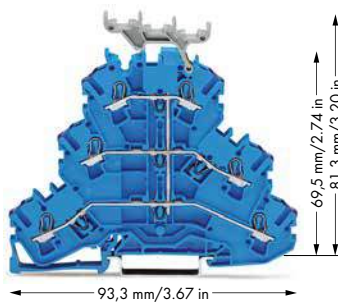
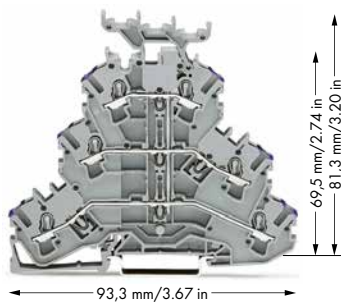
### 2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A (28 A)	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A (28 A)	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A (28 A)	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④
Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	

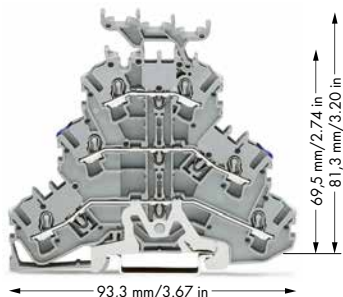


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Triple-deck terminal block, through/through/through terminal block, with marker carrier, gray housing		Triple-deck terminal block, through/through/through terminal block, with marker carrier, blue housing		Triple-deck terminal block, ground conductor/through/through terminal block, with marker carrier, gray housing	
○ L/L/L ⑤	<b>2002-3231</b> ④ 50	● N/N/N ⑤	<b>2002-3234</b> ③ ④ 50	○ PE/N/L ⑤	<b>2002-3247</b> ④ 50
○ L/L/N ⑤	<b>2002-3233</b> ④ 50			○ PE/L/L ⑤	<b>2002-3257</b> ④ 50
Triple-deck terminal block, through/through/through terminal block, without marker carrier, gray housing		Triple-deck terminal block, through/through/through terminal block, without marker carrier, blue housing		Triple-deck terminal block, ground conductor/through/through terminal block, without marker carrier, gray housing	
○ L/L/L ⑤	<b>2002-3201</b> ④ 50	● N/N/N ⑤	<b>2002-3204</b> ③ ④ 50	○ PE/N/L ⑤	<b>2002-3217</b> ④ 50
○ L/L/N ⑤	<b>2002-3203</b> ④ 50			○ PE/L/L ⑤	<b>2002-3227</b> ④ 50
<b>Other terminal blocks with the same profile:</b>					
Diode	<b>2002-3211/1000-410</b> Page 118				
LED	<b>2002-3221/1000-434</b> Page 118				



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Triple-deck terminal block, 6-conductor through terminal block, with marker carrier, internally commoned, conductor entry position colored in violet, gray housing		Triple-deck terminal block, 6-conductor through terminal block, with marker carrier, internally commoned, conductor entry position colored in violet, blue housing		Triple-deck terminal block, 6-conductor ground terminal block, with marker carrier, internally commoned, green-yellow housing	
○ L ⑤	<b>2002-3238</b> ④ 50	● N ⑤	<b>2002-3239</b> ③ ④ 50	● PE ⑤	<b>2002-3237</b> ④ 50
Triple-deck terminal block, 6-conductor through terminal block, without marker carrier, internally commoned, conductor entry position colored in violet, gray housing		Triple-deck terminal block, 6-conductor through terminal block, without marker carrier, internally commoned, conductor entry position colored in violet, blue housing		Triple-deck terminal block, 6-conductor ground terminal block, without marker carrier, internally commoned, green-yellow housing	
○ L ⑤	<b>2002-3208</b> ④ 50	● N ⑤	<b>2002-3209</b> ③ ④ 50	● PE ⑤	<b>2002-3207</b> ④ 50

0.25 ... 2.5 (4) mm <sup>2</sup> ①	22 ... 12 AWG
500 V/6 kV/3 ②	600 V, 20 A ③
I <sub>N</sub> 24 A (28 A)	600 V, 20 A ④
Terminal block width 5.2 mm / 0.205 inch	
10 ... 12 mm / 0.39 ... 0.47 inch	



- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst"; Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s" and 0.75 ... 2.5 mm<sup>2</sup> "insulated ferrules, 12 mm"
- ② 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Suitable for Ex i applications
- ④ Suitable for Ex e II applications  
440 V, 19 A  
Jumper 17 A  
(see Section 14)
- ⑤ See application notes for:  
Colored push-in type jumper bar, page 134  
Vertical jumper, page 139










Item No.	Pack. Unit
Triple-deck terminal block, shield/through/through terminal block, with marker carrier, gray housing	
○ Shield/N/L <b>2002-3248</b>	50
○ Shield/L/L <b>2002-3258</b>	50
Triple-deck terminal block, Shield/through/through terminal block, without marker carrier, gray housing	
○ Shield/N/L <b>2002-3218</b>	50
○ Shield/L/L <b>2002-3228</b>	50



Triple-deck vertical jumpers (2002-493) connect the three levels of triple-deck terminal blocks.



Combining multilevel terminal blocks.




2002 Series Accessories		
Appropriate marking systems: (see Section 13)		
End and intermediate plate, 0.8 mm thick		
	orange <b>2002-3292</b>	100 (4x25)
	gray <b>2002-3291</b>	100 (4x25)
Triple-deck marker carrier, pivoting		
	gray <b>2002-131</b>	50 (2x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>		
	light gray <b>2002-171</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>		
	dark gray <b>2002-172</b>	200 (8x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray		
		
	2-way <b>2002-402</b>	200 (8x25)
	3-way <b>2002-403</b>	200 (8x25)
	4-way <b>2002-404</b>	200 (8x25)
	5-way <b>2002-405</b>	100 (4x25)
	6-way <b>2002-406</b>	100 (4x25)
	7-way <b>2002-407</b>	100 (4x25)
	8-way <b>2002-408</b>	100 (4x25)
	9-way <b>2002-409</b>	100 (4x25)
	10-way <b>2002-410</b>	100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray		
		
	from 1 to 3 <b>2002-433</b>	200 (8x25)
	from 1 to 4 <b>2002-434</b>	200 (8x25)
	from 1 to 5 <b>2002-435</b>	100 (4x25)
	from 1 to 6 <b>2002-436</b>	100 (4x25)
	from 1 to 7 <b>2002-437</b>	100 (4x25)
	from 1 to 8 <b>2002-438</b>	100 (4x25)
	from 1 to 9 <b>2002-439</b>	100 (4x25)
	from 1 to 10 <b>2002-440</b>	100 (4x25)
Triple-deck vertical jumper, insulated, I <sub>N</sub> 24 A		
	light gray <b>2002-493</b>	100 (4x25)
Double-deck vertical jumper, insulated, I <sub>N</sub> 24 A		
	light gray <b>2002-492</b>	100 (4x25)
	orange <b>2002-492/000-012</b>	

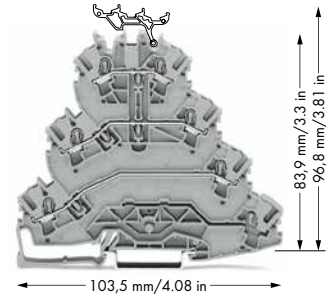
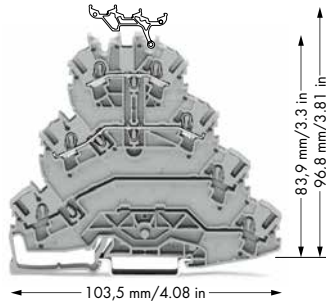
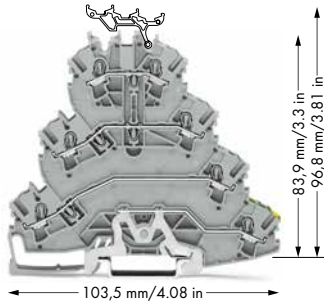
# TOPJOB® S

## Quadruple-Deck, Rail-Mount Terminal Blocks for Electric Motor Wiring

### 2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG 800 V/8 kV/3 ② I <sub>N</sub> 20 A (25 A)  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG 800 V/8 kV/3 ② I <sub>N</sub> 20 A (25 A)  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG 800 V/8 kV/3 ② I <sub>N</sub> 20 A (25 A)  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch
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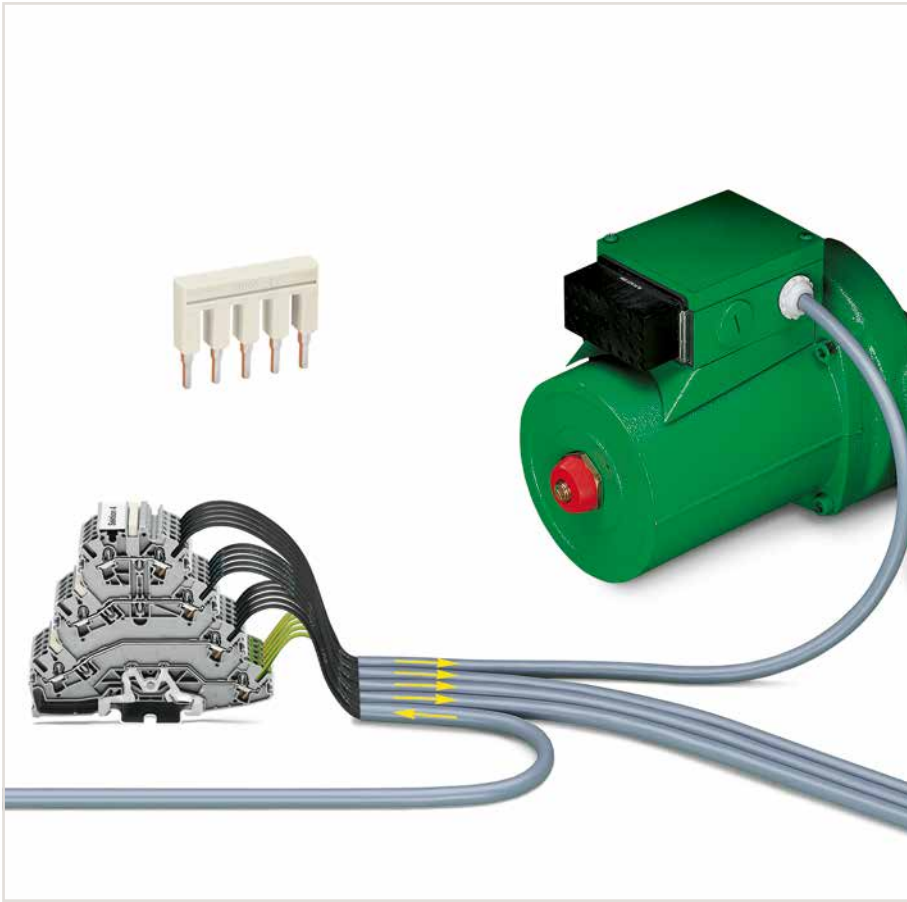


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Quadruple-deck, rail-mount terminal block, electric motor wiring rail-mount terminal block, without marker carrier, gray ○ L1 - L2 - L3 - PE <b>2002-4127</b>	25	Quadruple-deck, rail-mount terminal block, electric motor wiring rail-mount terminal block, without marker carrier, gray ○ L1 - L2 <b>2002-4111</b>	25	Quadruple-deck, rail-mount terminal block, electric motor wiring rail-mount terminal block, without marker carrier, gray ○ L1 - L2 - L3 <b>2002-4101</b>	25
Quadruple-deck, rail-mount terminal block, electric motor wiring rail-mount terminal block, with marker carrier, gray ○ L1 - L2 - L3 - PE <b>2002-4157</b>	25	Quadruple-deck, rail-mount terminal block, electric motor wiring rail-mount terminal block, with marker carrier, gray ○ L1 - L2 <b>2002-4141</b>	25	Quadruple-deck, rail-mount terminal block, electric motor wiring rail-mount terminal block, with marker carrier, gray ○ L1 - L2 - L3 <b>2002-4131</b>	25

#### 2002 Series Accessories

Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

End and intermediate plate, 1 mm thick orange <b>2002-4192</b> 100 (4x25) gray <b>2002-4191</b> 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>2002-115</b> 100 (4x25)	Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray ③
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>2002-171</b> 200 (8x25)	Lockout cap, for conductor entry hole and operating slot orange <b>2002-192</b> 25 gray <b>2002-191</b> 25 blue <b>2002-194</b> 25	2-way <b>2002-472</b> 100 (4x25) 3-way <b>2002-473</b> 100 (4x25) 4-way <b>2002-474</b> 100 (4x25) 5-way <b>2002-475</b> 50 (2x25) 6-way <b>2002-476</b> 50 (2x25) 7-way <b>2002-477</b> 50 (2x25) 8-way <b>2002-478</b> 50 (2x25) 9-way <b>2002-479</b> 50 (2x25) 10-way <b>2002-480</b> 50 (2x25) 11-way <b>2002-481</b> 50 (2x25) 12-way <b>2002-482</b> 50 (2x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>2002-172</b> 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray ③	Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A ③ L = 60 mm <b>2009-412</b> 100 (10x10) L = 110 mm <b>2009-414</b> 100 (10x10) L = 250 mm <b>2009-416</b> 100 (10x10)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray ③ 2-way <b>2002-402</b> 200 (8x25) 3-way <b>2002-403</b> 200 (8x25) 4-way <b>2002-404</b> 200 (8x25) 5-way <b>2002-405</b> 100 (4x25) 6-way <b>2002-406</b> 100 (4x25) 7-way <b>2002-407</b> 100 (4x25) 8-way <b>2002-408</b> 100 (4x25) 9-way <b>2002-409</b> 100 (4x25) 10-way <b>2002-410</b> 100 (4x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray ③ from 1 to 3 <b>2002-433</b> 200 (8x25) from 1 to 4 <b>2002-434</b> 200 (8x25) from 1 to 5 <b>2002-435</b> 100 (4x25) from 1 to 6 <b>2002-436</b> 100 (4x25) from 1 to 7 <b>2002-437</b> 100 (4x25) from 1 to 8 <b>2002-438</b> 100 (4x25) from 1 to 9 <b>2002-439</b> 100 (4x25) from 1 to 10 <b>2002-440</b> 100 (4x25)	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable white <b>2009-115</b> 1
Delta jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray ③ 1-2 3-4 5-6 <b>2002-406/020-000</b> 100 (4x25)	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray ③ 2-way <b>2002-400</b> 100 (4x25)	Triple-deck marker carrier, pivoting gray <b>2002-131</b> 50 (2x25)
Star point jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray ③ gray 1-3-5 <b>2002-405/011-000</b> 100 (4x25)	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray ③ 1 to 3 <b>2002-423</b> 100 (4x25)	



- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ❷ 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ See application notes for:  
Colored push-in type jumper bar, page 134  
Staggered jumper, page 136  
Delta jumper, page 135  
Star point jumper, page 135  
Adjacent jumper for continuous commoning, page 137  
Push-in type wire jumper, page 138

In addition to rail-mount terminal blocks for electric motor wiring, special versions are also available.

- Version **without** ground contact and only two potentials:

These terminal blocks were custom designed to support additional functions, such as engine brakes or temperature sensors. Sharing a common profile, this terminal block version can be put next to the appropriate electric motor wiring terminal block without using intermediate plates. That makes the rail assembly easier to understand and wire. This also prevents wiring errors as no conductor entry is unused.

- Version **without** ground contact and with three potentials:

Clearly designated clamping units are the primary advantage to this terminal block design. When using devices with protective insulation for example, there are no open ground clamping units that could create confusion.



Creating spacer housings for electric motor wiring rail-mount terminal blocks via lockout caps (2002-192) for conductor entry and operating slot.



Testing with voltage tester.



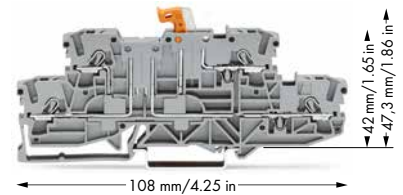
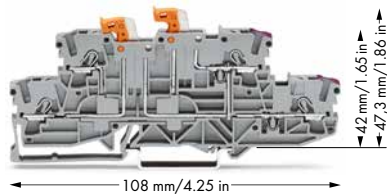
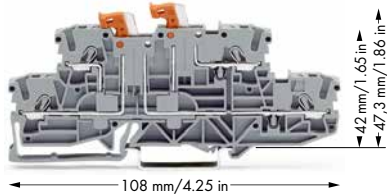
Marking clamping points via WMB Multi Marking System. Marking a group of terminal blocks via marking strip.

# TOPJOB® S Double-Deck Disconnect Terminal Blocks for Test and Measurement

2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A	22 ... 12 AWG 300 V, 15 A ③ 300 V, 15 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A	22 ... 12 AWG 300 V, 15 A ③ 300 V, 15 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A	22 ... 12 AWG 300 V, 15 A ③ 300 V, 15 A ④
Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck, double-disconnect terminal block, with two pivoting knife disconnects, gray housing		Double-deck, double-disconnect terminal block, with two pivoting knife disconnects, lower and upper decks internally commoned on right side, violet conductor entry, gray housing		Double-deck disconnect terminal block, with pivoting knife disconnect, same profile as double-deck, double-disconnect terminal block, gray housing	
○ L/L <b>2002-2951</b> 50		○ L/L <b>2002-2958</b> 50		○ L/L <b>2002-2971</b> 50	
○ N/L <b>2002-2952</b> 50				○ N/L <b>2002-2972</b> 50	
Double-deck, double-disconnect terminal block, with two pivoting knife disconnects, blue housing		Double-deck, double-disconnect terminal block, with two pivoting knife disconnects, lower and upper decks internally commoned on right side, violet conductor entry, blue housing		Double-deck disconnect terminal block, with pivoting knife disconnect, same profile as double-deck, double-disconnect terminal block, blue housing	
● N/N <b>2002-2954</b> 50		● N/N <b>2002-2959</b> 50		● N/N <b>2002-2974</b> 50	

### 2002 Series Accessories

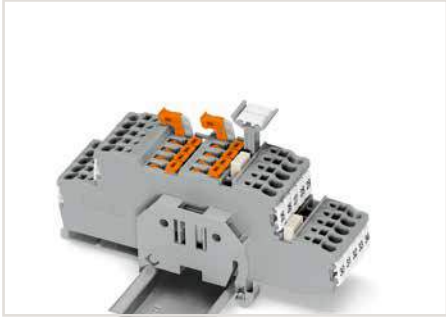
Appropriate marking systems: WMB/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick orange <b>2002-2992</b> 100 (4x25) gray <b>2002-2991</b> 100 (4x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray from 1 to 3 <b>2002-433</b> 200 (8x25) from 1 to 4 <b>2002-434</b> 200 (8x25) from 1 to 5 <b>2002-435</b> 100 (4x25) from 1 to 6 <b>2002-436</b> 100 (4x25) from 1 to 7 <b>2002-437</b> 100 (4x25) from 1 to 8 <b>2002-438</b> 100 (4x25) from 1 to 9 <b>2002-439</b> 100 (4x25) from 1 to 10 <b>2002-440</b> 100 (4x25)	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 2-way <b>2002-400</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>2002-171</b> 200 (8x25)		Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 1 to 3 <b>2002-423</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>2002-172</b> 200 (8x25)		Modular TOPJOB® S connector, snaps together, for jumper contact slot gray <b>2002-511</b> 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 2-way <b>2002-402</b> 200 (8x25) 3-way <b>2002-403</b> 200 (8x25) 4-way <b>2002-404</b> 200 (8x25) 5-way <b>2002-405</b> 100 (4x25) 6-way <b>2002-406</b> 100 (4x25) 7-way <b>2002-407</b> 100 (4x25) 8-way <b>2002-408</b> 100 (4x25) 9-way <b>2002-409</b> 100 (4x25) 10-way <b>2002-410</b> 100 (4x25)	Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray 2-way <b>2002-472</b> 100 (4x25) 3-way <b>2002-473</b> 100 (4x25) 4-way <b>2002-474</b> 100 (4x25) 5-way <b>2002-475</b> 50 (2x25) 6-way <b>2002-476</b> 50 (2x25) 7-way <b>2002-477</b> 50 (2x25) 8-way <b>2002-478</b> 50 (2x25) 9-way <b>2002-479</b> 50 (2x25) 10-way <b>2002-480</b> 50 (2x25) 11-way <b>2002-481</b> 50 (2x25) 12-way <b>2002-482</b> 50 (2x25)	Spacer module, snaps together, bridges commoned terminal blocks gray <b>2002-549</b> 100 (4x25)
Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A L = 60 mm <b>2009-412</b> 100 (10x10) L = 110 mm <b>2009-414</b> 100 (10x10) L = 250 mm <b>2009-416</b> 100 (10x10)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>2002-115</b> 100 (4x25)	End plate, for modular TOPJOB® S connector, 1.5 mm thick gray <b>2002-541</b> 100 (4x25)
		Test plug adapter, for 4 mm Ø test plug gray <b>2009-174</b> 100 (4x25)
		Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow <b>215-111</b> 50
		Testing tap, for max. 2.5 mm <sup>2</sup> gray <b>2009-182</b> 100 (4x25)

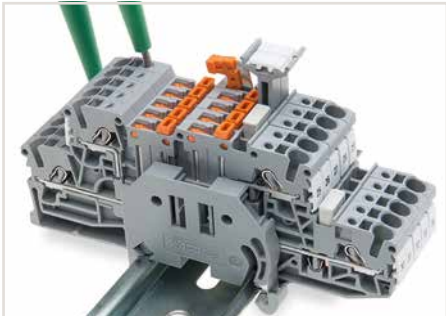


# TOPJOB® S Double-Deck Disconnect Terminal Blocks with Pivoting Knife Disconnect

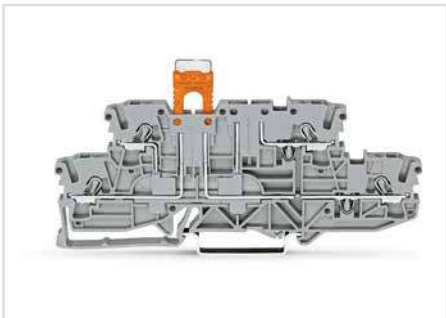
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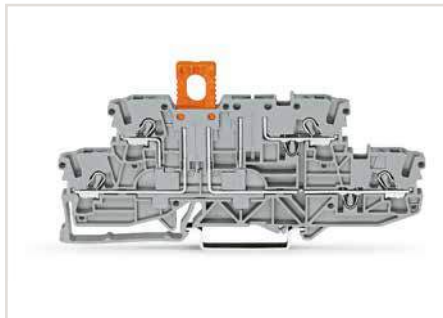
Double-deck, double-disconnect terminal blocks (2002-2951) with group marker carrier accommodated in jumper contact slot



Testing with voltage tester.









Carrier terminal block (2002-2941) with disconnect plug (2002-401) in parked position



Carrier terminal block (2002-2941) with disconnect plug (2002-401) in operating position

- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrules, 12 mm"
- ❷ 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ See application notes for:  
Colored push-in type jumper bar, page 134  
Push-in type wire jumper, page 138  
Staggered jumper, page 136  
Adjacent jumper for continuous commoning, page 137  
TOPJOB® S connector, page 128  
Banana plug, page 330  
TOPJOB® S group marker carrier, page 143

### Accessories

WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable			
	plain	<b>793-5501</b>	5
WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable			
	yellow	<b>793-5501/000-002</b>	
	red	<b>793-5501/000-005</b>	
	blue	<b>793-5501/000-006</b>	
	gray	<b>793-5501/000-007</b>	
	orange	<b>793-5501/000-012</b>	
	light green	<b>793-5501/000-017</b>	
	green	<b>793-5501/000-023</b>	
	violet	<b>793-5501/000-024</b>	5
WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable			
	white	<b>2009-115</b>	1
TOPJOB® S group marker carrier, snap-on type for jumper slot, 5 mm wide			
❸ 	gray	<b>2009-191</b>	50 (2x25)
Screwless end stop, for DIN-35 rail, 6 mm wide			
	gray	<b>249-116</b>	100 (4x25)
Screwless end stop, for DIN-35 rail, 10 mm wide			
	gray	<b>249-117</b>	50 (2x25)

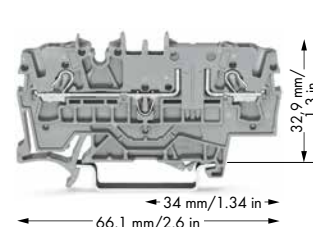
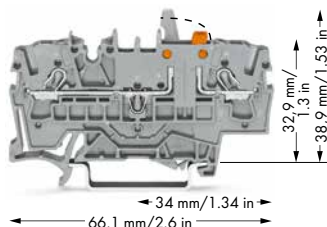
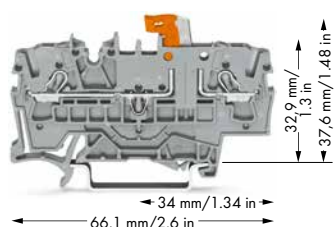
# TOPJOB® S

## Disconnect/Test Terminal Blocks and Through Terminal Blocks of Same Profile

### 2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 15 A ③ 300 V, 10 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 15 A ③ 300 V, 10 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 15 A ③ 300 V, 10 A ④
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor disconnect/test terminal block, with test point, orange disconnect link		2-conductor disconnect/test terminal block, with mechanical interlock, with test point, orange disconnect link		2-conductor through terminal block, with test point, same profile as 2-conductor disconnect terminal block	
gray 2002-1671 50		gray 2002-1671/401-000 50		gray 2002-1601 50	
blue 2002-1674 50		blue 2002-1674/401-000 50		blue 2002-1604 50	
orange 2002-1672 50		orange 2002-1672/401-000 50		orange 2002-1602 50	
<b>Other terminal blocks with the same profile:</b>					
Carrier		2002-1661	Page 96		
Fuse		2002-1681	Page 70		

### 2002 Series Accessories

Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick orange 2002-1692 100 (4x25) gray 2002-1691 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow 2002-115 100 (4x25)	Customized staggered jumper, insulated, with contact lugs broken off at the factory and circuit printing, I <sub>N</sub> 25 A, light gray 1-3 2002-473/011-000 100 (4x25) 1-3-5 2002-475/011-000 1-3-5-7 2002-477/011-000 1-3-5-7-9 2002-479/011-000 1-3-5-7-9-11 2002-481/011-000 50 (2x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray 2002-171 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray from 1 to 3 2002-433 200 (8x25) from 1 to 4 2002-434 200 (8x25) from 1 to 5 2002-435 100 (4x25) from 1 to 6 2002-436 100 (4x25) from 1 to 7 2002-437 100 (4x25) from 1 to 8 2002-438 100 (4x25) from 1 to 9 2002-439 100 (4x25) from 1 to 10 2002-440 100 (4x25)	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-400 100 (4x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray 2002-172 200 (8x25)	Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-472 100 (4x25) 3-way 2002-473 100 (4x25) 4-way 2002-474 100 (4x25) 5-way 2002-475 50 (2x25) 6-way 2002-476 50 (2x25) 7-way 2002-477 50 (2x25) 8-way 2002-478 50 (2x25) 9-way 2002-479 50 (2x25) 10-way 2002-480 50 (2x25) 11-way 2002-481 50 (2x25) 12-way 2002-482 50 (2x25)	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 1 to 3 2002-423 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-402 200 (8x25) 3-way 2002-403 200 (8x25) 4-way 2002-404 200 (8x25) 5-way 2002-405 100 (4x25) 6-way 2002-406 100 (4x25) 7-way 2002-407 100 (4x25) 8-way 2002-408 100 (4x25) 9-way 2002-409 100 (4x25) 10-way 2002-410 100 (4x25)	Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A L = 60 mm 2009-412 100 (10x10) L = 110 mm 2009-414 100 (10x10) L = 250 mm 2009-416 100 (10x10)	Modular TOPJOB® S connector, snaps together, for jumper contact slot gray 2002-511 100 (4x25)
		Spacer module, snaps together, bridges commoned terminal blocks gray 2002-549 100 (4x25)
		End plate, for modular TOPJOB® S connector, 1.5 mm thick gray 2002-541 100 (4x25)

- ❶ Conductor range: 0.25 ... 4 mm² "s + f-st";  
Push-in termination: 0.75 ... 4 mm² "s"  
and 0.75 ... 2.5 mm²  
"insulated ferrules, 12 mm"
- ❷ 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ See application notes for:  
Colored push-in type jumper bar, page 134  
Push-in type wire jumper, page 138  
Staggered jumper, page 136  
Adjacent jumper for continuous commoning, page 137  
TOPJOB® S connector, page 128  
TOPJOB® S L-type test plug module, page 132  
Banana plug, page 330

**Accessories**

TOPJOB® S L-type test plug module, snaps together



gray 2002-611 100 (4x25)

Test plug adapter, for 4 mm Ø test plug



gray 2009-174 100 (4x25)

Testing tap, for max. 2.5 mm²



gray 2009-182 100 (4x25)

Banana plug, for 4 mm socket diameter, color mixed, 10 x  
orange, white, black, blue, yellow



215-111 50

Double-deck marker carrier, pivoting



gray 2002-121 50 (2x25)

WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable



plain 793-5501 5

WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable



white 2009-115 1

Marking strip, plain, 11 mm wide, 50 m reel



white 2009-110 1



Testing with voltage tester.



Carrier terminal block (2002-1661) with disconnect plug (2002-401) in parked position






Carrier terminal block (2002-1661) with disconnect plug (2002-401) in operating position

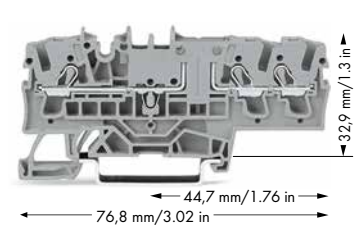
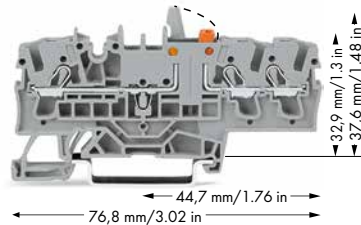
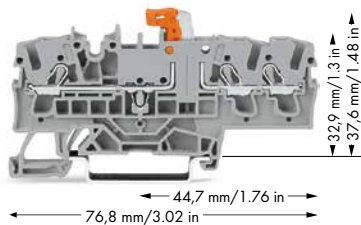
# TOPJOB® S

## Disconnect/Test Terminal Blocks and Through Terminal Blocks of Same Profile

### 2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 15 A ③ 300 V, 10 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 15 A ③	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 15 A ③ 300 V, 10 A ④
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
3-conductor disconnect/test terminal block, with test point, orange disconnect link		3-conductor disconnect/test terminal block, with mechanical interlock, with test point, orange disconnect link		3-conductor through terminal block, with test point, same profile as 3-conductor disconnect terminal block	
● gray <b>2002-1771</b> 50 ● blue <b>2002-1774</b> 50 ● orange <b>2002-1772</b> 50		● gray <b>2002-1771/401-000</b> 50 ● blue <b>2002-1774/401-000</b> 50 ● orange <b>2002-1772/401-000</b> 50		● gray <b>2002-1701</b> 50 ● blue <b>2002-1704</b> 50 ● orange <b>2002-1702</b> 50	
				3-conductor ground terminal block	
				● green-yellow <b>2002-1707</b> 50	
				<b>Other terminal blocks with the same profile:</b>	
				Carrier <b>2002-1761</b> Page 96	
				Fuse <b>2002-1781</b> Page 70	









### 2002 Series Accessories

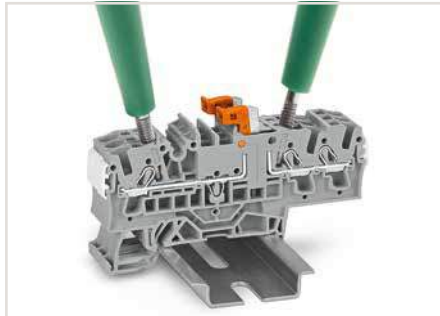
Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick orange <b>2002-1792</b> 100 (4x25) gray <b>2002-1791</b> 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>2002-115</b> 100 (4x25)	Customized staggered jumper, insulated, with contact lugs broken off at the factory and circuit printing, I <sub>N</sub> 25 A, light gray 1-3 <b>2002-473/011-000</b> 100 (4x25) 1-3-5 <b>2002-475/011-000</b> 100 (4x25) 1-3-5-7 <b>2002-477/011-000</b> 100 (4x25) 1-3-5-7-9 <b>2002-479/011-000</b> 100 (4x25) 1-3-5-7-9-11 <b>2002-481/011-000</b> 50 (2x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>2002-171</b> 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray from 1 to 3 <b>2002-433</b> 200 (8x25) from 1 to 4 <b>2002-434</b> 200 (8x25) from 1 to 5 <b>2002-435</b> 100 (4x25) from 1 to 6 <b>2002-436</b> 100 (4x25) from 1 to 7 <b>2002-437</b> 100 (4x25) from 1 to 8 <b>2002-438</b> 100 (4x25) from 1 to 9 <b>2002-439</b> 100 (4x25) from 1 to 10 <b>2002-440</b> 100 (4x25)	
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>2002-172</b> 200 (8x25)	Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray 2-way <b>2002-472</b> 100 (4x25) 3-way <b>2002-473</b> 100 (4x25) 4-way <b>2002-474</b> 100 (4x25) 5-way <b>2002-475</b> 50 (2x25) 6-way <b>2002-476</b> 50 (2x25) 7-way <b>2002-477</b> 50 (2x25) 8-way <b>2002-478</b> 50 (2x25) 9-way <b>2002-479</b> 50 (2x25) 10-way <b>2002-480</b> 50 (2x25) 11-way <b>2002-481</b> 50 (2x25) 12-way <b>2002-482</b> 50 (2x25)	
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 2-way <b>2002-402</b> 200 (8x25) 3-way <b>2002-403</b> 200 (8x25) 4-way <b>2002-404</b> 200 (8x25) 5-way <b>2002-405</b> 100 (4x25) 6-way <b>2002-406</b> 100 (4x25) 7-way <b>2002-407</b> 100 (4x25) 8-way <b>2002-408</b> 100 (4x25) 9-way <b>2002-409</b> 100 (4x25) 10-way <b>2002-410</b> 100 (4x25)		Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 2-way <b>2002-400</b> 100 (4x25)
Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A L = 60 mm <b>2009-412</b> 100 (10x10) L = 110 mm <b>2009-414</b> 100 (10x10) L = 250 mm <b>2009-416</b> 100 (10x10)		Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 1 to 3 <b>2002-423</b> 100 (4x25)
		Modular TOPJOB® S connector, snaps together, for jumper contact slot gray <b>2002-511</b> 100 (4x25)
		Spacer module, snaps together, bridges commoned terminal blocks gray <b>2002-549</b> 100 (4x25)
		End plate, for modular TOPJOB® S connector, 1.5 mm thick gray <b>2002-541</b> 100 (4x25)

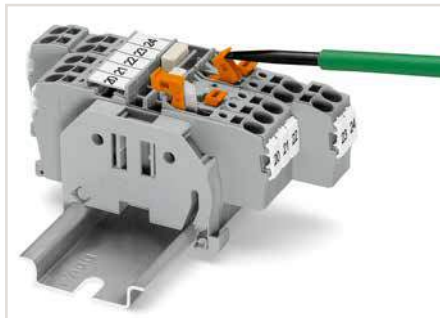
- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrules, 12 mm"
- ❷ 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ See application notes for:  
Colored push-in type jumper bar, page 134  
Push-in type wire jumper, page 138  
Staggered jumper, page 136  
Adjacent jumper for continuous commoning, page 137  
TOPJOB® S connector, page 128  
TOPJOB® S L-type test plug module, page 132  
Banana plug, page 330

**Accessories**

TOPJOB® S L-type test plug module, snaps together			
❸ 	gray	<b>2002-611</b>	100 (4x25)
Test plug adapter, for 4 mm Ø test plug			
	gray	<b>2009-174</b>	100 (4x25)
Testing tap, for max. 2.5 mm <sup>2</sup>			
	gray	<b>2009-182</b>	100 (4x25)
Banana plug, for 4 mm socket diameter, color mixed, 10 x			
❸ 	orange, white, black, blue, yellow	<b>215-111</b>	50
Double-deck marker carrier, pivoting			
	gray	<b>2002-121</b>	50 (2x25)
WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable			
	plain	<b>793-5501</b>	5
WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable			
	white	<b>2009-115</b>	1
Marking strip, plain, 11 mm wide, 50 m reel			
	white	<b>2009-110</b>	1



Disconnect/test terminal block with pivoting knife disconnect – testing with voltage tester.



Disconnect/test terminal block with pivoting knife disconnect – opening the knife disconnect.






Disconnect/test terminal block with pivoting knife disconnect – closing the knife disconnect.

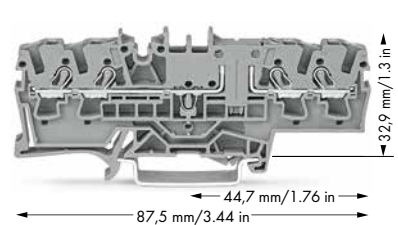
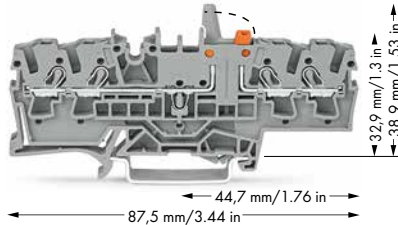
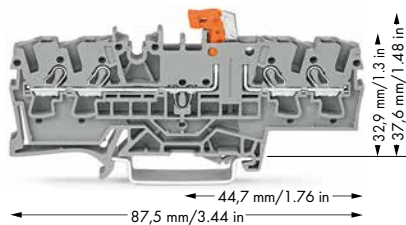
# TOPJOB® S

## Disconnect/Test Terminal Blocks and Through Terminal Blocks of Same Profile

### 2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 15 A ③ 300 V, 15 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 15 A ③	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 15 A ③ 300 V, 15 A ④
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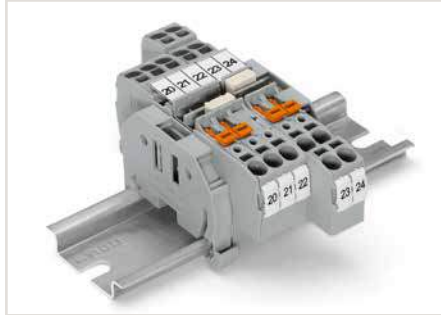


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
4-conductor disconnect/test terminal block, with test point, orange disconnect link		4-conductor disconnect/test terminal block, with mechanical interlock, with test point, orange disconnect link		4-conductor through terminal block, with test point, same profile as 4-conductor disconnect terminal block	
gray 2002-1871 50		gray 2002-1871/401-000 50		gray 2002-1801 50	
blue 2002-1874 50		blue 2002-1874/401-000 50		blue 2002-1804 50	
orange 2002-1872 50		orange 2002-1872/401-000 50		orange 2002-1802 50	
<b>Other terminal blocks with the same profile:</b>					
Carrier		2002-1861	Page 96		
Fuse		2002-1881	Page 70		

### 2002 Series Accessories









Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick orange 2002-1892 100 (4x25) gray 2002-1891 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow 2002-115 100 (4x25)	Customized staggered jumper, insulated, with contact lugs broken off at the factory and circuit printing, I <sub>N</sub> 25 A, light gray 1-3 2002-473/011-000 100 (4x25) 1-3-5 2002-475/011-000 1-3-5-7 2002-477/011-000 1-3-5-7-9 2002-479/011-000 1-3-5-7-9-11 2002-481/011-000 50 (2x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray 2002-171 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray from 1 to 3 2002-433 200 (8x25) from 1 to 4 2002-434 200 (8x25) from 1 to 5 2002-435 100 (4x25) from 1 to 6 2002-436 100 (4x25) from 1 to 7 2002-437 100 (4x25) from 1 to 8 2002-438 100 (4x25) from 1 to 9 2002-439 100 (4x25) from 1 to 10 2002-440 100 (4x25)	
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray 2002-172 200 (8x25)	Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-472 100 (4x25) 3-way 2002-473 100 (4x25) 4-way 2002-474 100 (4x25) 5-way 2002-475 50 (2x25) 6-way 2002-476 50 (2x25) 7-way 2002-477 50 (2x25) 8-way 2002-478 50 (2x25) 9-way 2002-479 50 (2x25) 10-way 2002-480 50 (2x25) 11-way 2002-481 50 (2x25) 12-way 2002-482 50 (2x25)	
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-402 200 (8x25) 3-way 2002-403 200 (8x25) 4-way 2002-404 200 (8x25) 5-way 2002-405 100 (4x25) 6-way 2002-406 100 (4x25) 7-way 2002-407 100 (4x25) 8-way 2002-408 100 (4x25) 9-way 2002-409 100 (4x25) 10-way 2002-410 100 (4x25)	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-400 100 (4x25)	
Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A L = 60 mm 2009-412 100 (10x10) L = 110 mm 2009-414 100 (10x10) L = 250 mm 2009-416 100 (10x10)	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 1 to 3 2002-423 100 (4x25)	Modular TOPJOB® S connector, snaps together, for jumper contact slot gray 2002-511 100 (4x25)
	Spacer module, snaps together, bridges commoned terminal blocks gray 2002-549 100 (4x25)	End plate, for modular TOPJOB® S connector, 1.5 mm thick gray 2002-541 100 (4x25)



- One center and two side marker slots for WMB markers or marking strips
- Dual jumper slots in the same location as other 2002 Series terminal blocks
- Commoning options in front of or behind the knife disconnect, depending on the power supply direction

- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrules, 12 mm"
- ❷ 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ See application notes for:  
Colored push-in type jumper bar, page 134  
Push-in type wire jumper, page 138  
Staggered jumper, page 136  
Adjacent jumper for continuous commoning, page 137  
TOPJOB® S connector, page 128  
TOPJOB® S L-type test plug module, page 132  
Banana plug, page 330

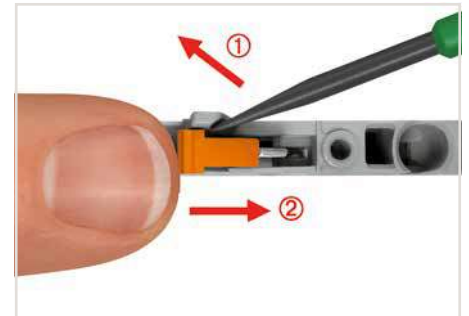
Accessories				
TOPJOB® S L-type test plug module, snaps together ❸		gray	2002-611	100 (4x25)
Test plug adapter, for 4 mm Ø test plug		gray	2009-174	100 (4x25)
Testing tap, for max. 2.5 mm <sup>2</sup>		gray	2009-182	100 (4x25)
Banana plug, for 4 mm socket diameter, color mixed, 10 x ❸		orange, white, black, blue, yellow	215-111	50
Double-deck marker carrier, pivoting		gray	2002-121	50 (2x25)
WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable		plain	793-5501	5
WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable		white	2009-115	1
Marking strip, plain, 11 mm wide, 50 m reel		white	2009-110	1



Disconnect/test terminal block with pivoting knife disconnect and mechanical interlock – knife disconnect in open position.



Disconnect/test terminal block with pivoting knife disconnect and mechanical interlock – top view



Disconnect/test terminal block with pivoting knife disconnect and mechanical interlock – closing the knife disconnect.

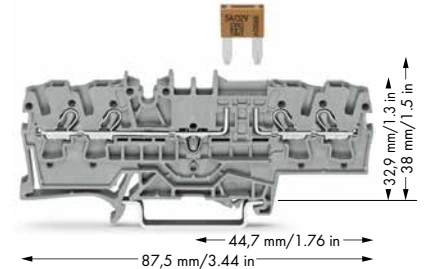
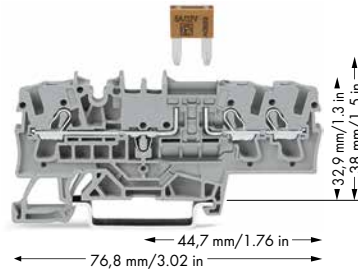
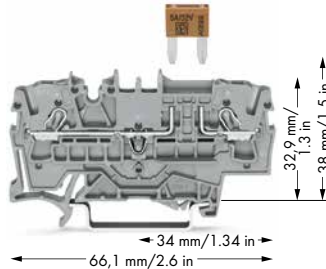
# TOPJOB® S

## Fuse terminal blocks for Mini-Automotive Blade-Style Fuses

2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 10 A ③ Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 10 A ③ Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 10 A ③ Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 10 A ④ 300 V, 10 A ⑤
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor fuse terminal block, with test point, for mini-automotive blade-style fuses		3-conductor fuse terminal block, with test point, for mini-automotive blade-style fuses		4-conductor fuse terminal block, with test point, for mini-automotive blade-style fuses	
○ gray	<b>2002-1681</b> 50	○ gray	<b>2002-1781</b> 50	○ gray	<b>2002-1881</b> 50
<b>Blade-style fuses are not offered by WAGO</b>		<b>Blade-style fuses are not offered by WAGO</b>		<b>Blade-style fuses are not offered by WAGO</b>	
<b>Other terminal blocks with the same profile:</b> Through <b>2002-1601</b> Page 64		<b>Other terminal blocks with the same profile:</b> Through <b>2002-1701</b> Page 66		<b>Other terminal blocks with the same profile:</b> Through <b>2002-1801</b> Page 68	
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 1 mm thick orange <b>2002-1692</b> 100 (4x25) gray <b>2002-1691</b> 100 (4x25)		End and intermediate plate, 1 mm thick orange <b>2002-1792</b> 100 (4x25) gray <b>2002-1791</b> 100 (4x25)		End and intermediate plate, 1 mm thick orange <b>2002-1892</b> 100 (4x25) gray <b>2002-1891</b> 100 (4x25)	

### 2002 Series Accessories

Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>2002-171</b> 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray from 1 to 3 <b>2002-433</b> 200 (8x25) from 1 to 4 <b>2002-434</b> 200 (8x25) from 1 to 5 <b>2002-435</b> 100 (4x25) from 1 to 6 <b>2002-436</b> 100 (4x25) from 1 to 7 <b>2002-437</b> 100 (4x25) from 1 to 8 <b>2002-438</b> 100 (4x25) from 1 to 9 <b>2002-439</b> 100 (4x25) from 1 to 10 <b>2002-440</b> 100 (4x25)	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray ④ 2-way <b>2002-400</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>2002-172</b> 200 (8x25)	Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray ④ 2-way <b>2002-472</b> 100 (4x25) 3-way <b>2002-473</b> 100 (4x25) 4-way <b>2002-474</b> 100 (4x25) 5-way <b>2002-475</b> 50 (2x25) 6-way <b>2002-476</b> 50 (2x25) 7-way <b>2002-477</b> 50 (2x25) 8-way <b>2002-478</b> 50 (2x25) 9-way <b>2002-479</b> 50 (2x25) 10-way <b>2002-480</b> 50 (2x25) 11-way <b>2002-481</b> 50 (2x25) 12-way <b>2002-482</b> 50 (2x25)	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray ④ 1 to 3 <b>2002-423</b> 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray ④ 2-way <b>2002-402</b> 200 (8x25) 3-way <b>2002-403</b> 200 (8x25) 4-way <b>2002-404</b> 200 (8x25) 5-way <b>2002-405</b> 100 (4x25) 6-way <b>2002-406</b> 100 (4x25) 7-way <b>2002-407</b> 100 (4x25) 8-way <b>2002-408</b> 100 (4x25) 9-way <b>2002-409</b> 100 (4x25) 10-way <b>2002-410</b> 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>2002-115</b> 100 (4x25)	Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A ④ L = 60 mm <b>2009-412</b> 100 (10x10) L = 110 mm <b>2009-414</b> 100 (10x10) L = 250 mm <b>2009-416</b> 100 (10x10)
Double-deck marker carrier, pivoting gray <b>2002-121</b> 50 (2x25)		












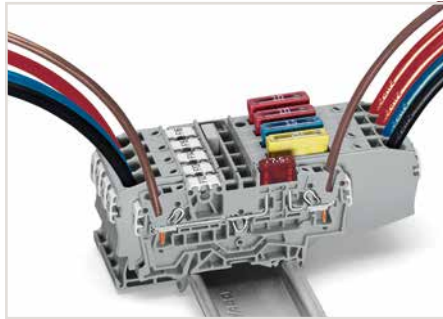
# TOPJOB® S

## Safety Information

- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrules, 12 mm"
- ② 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Protection against direct contact must be observed for 42 V and higher voltages
  - Individual arrangement: 10 A
  - Block arrangement: 5 A
- ④ See application notes for:  
Colored push-in type jumper bar, page 134  
Staggered jumper, page 136  
Adjacent jumper for continuous commoning, page 137  
Push-in type wire jumper, page 138  
TOPJOB® S connector, page 128  
TOPJOB® S L-type test plug module, page 132  
Banana plug, page 330

### Accessories

 <p>④ Modular TOPJOB® S connector, snaps together, for jumper contact slot</p>	gray	2002-511	100 (4x25)
 <p>Spacer module, snaps together, bridges commoned terminal blocks</p>	gray	2002-549	100 (4x25)
 <p>End plate, for modular TOPJOB® S connector, 1.5 mm thick</p>	gray	2002-541	100 (4x25)
 <p>④ TOPJOB® S L-type test plug module, snaps together</p>	gray	2002-611	100 (4x25)
 <p>Test plug adapter, for 4 mm Ø test plug</p>	gray	2009-174	100 (4x25)
 <p>④ Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow</p>		215-111	50
 <p>Testing tap, for max. 2.5 mm<sup>2</sup></p>	gray	2009-182	100 (4x25)
 <p>Test plug, with 500 mm cable, 2 mm Ø, max. 42 V</p>	red	210-136	50
 <p>WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable</p>	plain	793-5501	5



Selecting the correct fuse cartridge is important for product safety within applications, as well as for fuse cartridge service life and reliability. Fuse cartridges can operate perfectly as protection (break-off point) if they are properly selected and used according to manufacturer specifications.

Nominal current ratings for fuse cartridges are defined differently in international standards. This is why the recommended continuous current-carrying capacity of the fuses is a max. 80 % of their nominal current according to DIN 72581/Part 3 (for an ambient operating temperature of 23 °C).

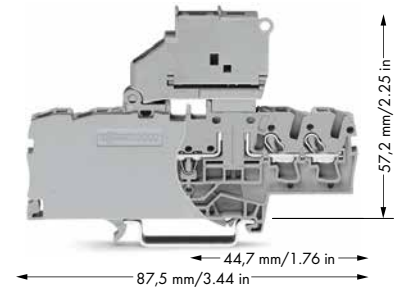
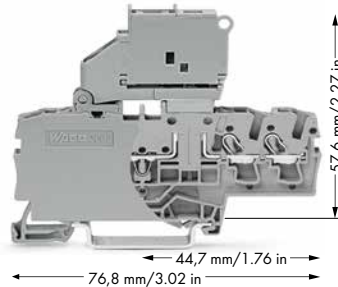
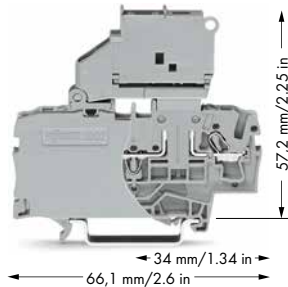
**With regard to product safety, fuse cartridges must generally be tested both under normal and faulty operating conditions within your application.**

# TOPJOB® S – Fused Disconnect Terminal Blocks with a Pivoting Fuse Holder for (5 x 20) mm Miniature Metric Fuses

2.5 (4) mm<sup>2</sup>, 2002 Series

1

<p>0.25 ... 2.5 (4) mm<sup>2</sup> ①</p> <p>22 ... 12 AWG</p> <p>250 V/6 kV/3 ②</p> <p>I<sub>N</sub> 6.3 A</p> <p>Terminal block width 6.2 mm / 0.244 inch</p> <p>10 ... 12 mm / 0.39 ... 0.47 inch</p>	<p>0.25 ... 2.5 (4) mm<sup>2</sup> ①</p> <p>22 ... 12 AWG</p> <p>250 V/6 kV/3 ②</p> <p>I<sub>N</sub> 6.3 A</p> <p>Terminal block width 6.2 mm / 0.244 inch</p> <p>10 ... 12 mm / 0.39 ... 0.47 inch</p>	<p>0.25 ... 2.5 (4) mm<sup>2</sup> ①</p> <p>22 ... 12 AWG</p> <p>250 V/6 kV/3 ②</p> <p>I<sub>N</sub> 6.3 A</p> <p>Terminal block width 6.2 mm / 0.244 inch</p> <p>10 ... 12 mm / 0.39 ... 0.47 inch</p>
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor fused disconnect terminal block with a pivoting fuse holder, for (5 x 20) mm miniature metric fuse, without blown fuse indication Electrical ratings are given by the fuse.		3-conductor fused disconnect terminal block with a pivoting fuse holder, for (5 x 20) mm miniature metric fuse, without blown fuse indication Electrical ratings are given by the fuse.		4-conductor fused disconnect terminal block with a pivoting fuse holder, for (5 x 20) mm miniature metric fuse, without blown fuse indication Electrical ratings are given by the fuse.	
gray 2002-1611	50	gray 2002-1711	50	gray 2002-1811	50
2-conductor fused disconnect terminal block with a pivoting fuse holder, for (5 x 20) mm miniature metric fuse, with blown fuse indication by LED, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of a blown fuse: LED 2 mA		3-conductor fused disconnect terminal block with a pivoting fuse holder, for (5 x 20) mm miniature metric fuse, with blown fuse indication by LED, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of a blown fuse: LED 2 mA		4-conductor fused disconnect terminal block with a pivoting fuse holder, for (5 x 20) mm miniature metric fuse, with blown fuse indication by LED, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of a blown fuse: LED 2 mA	
12 ... 30 V 2002-1611/1000-541	50	12 ... 30 V 2002-1711/1000-541	50	12 ... 30 V 2002-1811/1000-541	50
30 ... 65 V 2002-1611/1000-542	50	30 ... 65 V 2002-1711/1000-542	50	30 ... 65 V 2002-1811/1000-542	50
230 V 2002-1611/1000-836	50	230 V 2002-1711/1000-836	50	230 V 2002-1811/1000-836	50
120 V 2002-1611/1000-867	50	120 V 2002-1711/1000-867	50	120 V 2002-1811/1000-867	50
<b>Other terminal blocks with the same profile:</b> Through 2002-1601 Page 64		<b>Other terminal blocks with the same profile:</b> Through 2002-1701 Page 66		<b>Other terminal blocks with the same profile:</b> Through 2002-1801 Page 68	

## Accessories

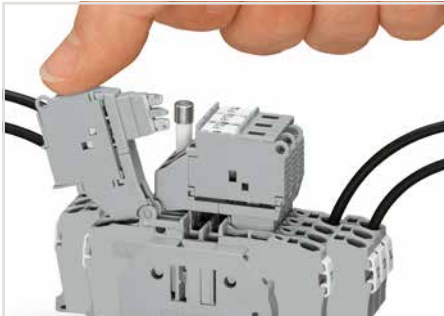
Appropriate marking systems: WMB/Marking strips (see Section 13)

<p>End plate for fuse terminal blocks, 2 mm thick</p> <p>orange 2002-992 100 (4x25)</p> <p>gray 2002-991 100 (4x25)</p>	<p>Push-in type jumper bar, insulated, I<sub>N</sub> 32 A, light gray</p> <p>2-way 2004-402 200 (8x25)</p> <p>3-way 2004-403 200 (8x25)</p> <p>4-way 2004-404 100 (4x25)</p> <p>5-way 2004-405 100 (4x25)</p> <p>6-way 2004-406 100 (4x25)</p> <p>7-way 2004-407 100 (4x25)</p> <p>8-way 2004-408 100 (4x25)</p> <p>9-way 2004-409 100 (4x25)</p> <p>10-way 2004-410 100 (4x25)</p>	<p>Push-in type jumper bar, insulated, I<sub>N</sub> 32 A, light gray</p> <p>from 1 to 3 2004-433 200 (8x25)</p> <p>from 1 to 4 2004-434 200 (8x25)</p> <p>from 1 to 5 2004-435 100 (4x25)</p> <p>from 1 to 6 2004-436 100 (4x25)</p> <p>from 1 to 7 2004-437 100 (4x25)</p> <p>from 1 to 8 2004-438 100 (4x25)</p> <p>from 1 to 9 2004-439 100 (4x25)</p> <p>from 1 to 10 2004-440 100 (4x25)</p>
<p>Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup></p> <p>light gray 2002-171 200 (8x25)</p>		
<p>Insulation stop, 5 pcs/strip, 0.75 ... 1 mm<sup>2</sup></p> <p>dark gray 2002-172 200 (8x25)</p>		
<p>Push-in type wire jumper, insulated, wire size 1.5 mm<sup>2</sup>, I<sub>N</sub> 18 A</p> <p>L = 60 mm 2009-412 100 (10x10)</p> <p>L = 110 mm 2009-414 100 (10x10)</p> <p>L = 250 mm 2009-416 100 (10x10)</p>	<p>Protective warning marker, with black high-voltage symbol, for 5 terminal blocks</p> <p>yellow 2002-115 100 (4x25)</p>	



Fuse terminal blocks with a width of 6.2 mm can be assembled adjacently. If there is no adjacent fuse terminal block at the end of the assembly, an end plate must be used.

- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ❷ 250 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ See application notes for:  
Push-in type wire jumper, page 138



**Fused disconnect terminal block with a pivoting fuse holder**  
Pivoting the fuse holder in the locked open position.

#### Miniature fuses 5 x 20

Series Item No.	Overload and short circuit protection		Short circuit protection only	
	Individual argmt.	Group argmt.	Individual argmt.	Group argmt.
Fuse terminal blocks				
2002-1611	1.6 W	1.6 W	2.5 W	2.5 W
2002-1811				
2002-1611/.....	1.6 W	1.6 W	2.5 W	2.5 W
2002-1811/.....				

When selecting miniature metric fuses, make sure that the maximum power loss listed above is not exceeded. The power loss is determined according to IEC or EN 60947-7-3/VDE 0611-6 at 23 °C. The temperature rise of the terminal blocks must be checked according to their application and mounting. Higher ambient temperatures place additional strain on fuse cartridges. Therefore, in such applications, the rated current must be reduced if necessary. More details are available from the fuse manufacturers.



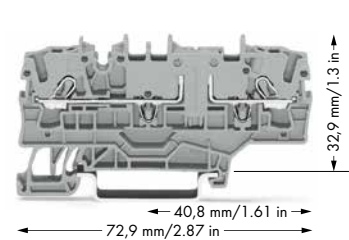
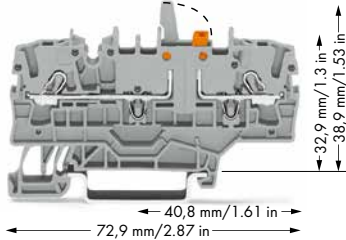
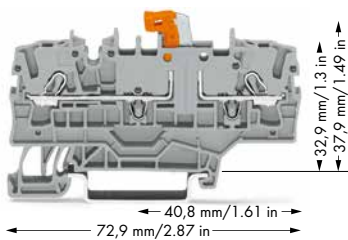
**Fused disconnect terminal block with a pivoting fuse holder – replacing a fuse.**

# TOPJOB® S – Disconnect/Test Terminal Blocks and Through/Ground Terminal Blocks with Additional Jumper Slot

2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A  Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 15 A ③	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A  Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 15 A ③	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 16 A  Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 300 V, 15 A ③
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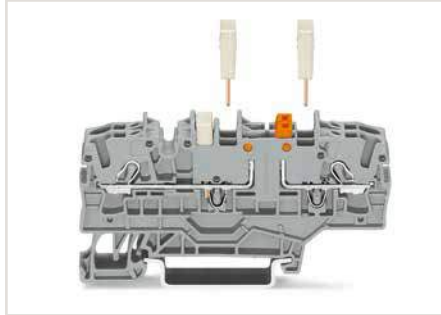


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor disconnect/test terminal block, with test point, orange disconnect link and additional jumper slot		2-conductor disconnect/test terminal block, with mechanical interlock, with test point, orange disconnect link and additional jumper slot		2-conductor through terminal block, with test point and additional jumper slot, same profile as 2-conductor disconnect terminal block	
gray 2002-1971 50		gray 2002-1971/401-000 50		gray 2002-1901 50	
blue 2002-1974 50		orange 2002-1972/401-000 50		blue 2002-1904 50	
orange 2002-1972 50		blue 2002-1974/401-000 50		orange 2002-1902 50	
				2-conductor ground terminal block	
				green-yellow 2002-1907 50	
				<b>Other terminal blocks with the same profile:</b>	
				Carrier 2002-1961	Page 96
				Fuse 2002-1981	Page 77

## 2002 Series Accessories

Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick orange 2002-1992 100 (4x25) gray 2002-1991 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow 2002-115 100 (4x25)	Customized staggered jumper, insulated, with contact lugs broken off at the factory and circuit printing, I <sub>N</sub> 25 A, light gray 1-3 2002-473/011-000 100 (4x25) 1-3-5 2002-475/011-000 1-3-5-7 2002-477/011-000 1-3-5-7-9 2002-479/011-000 1-3-5-7-9-11 2002-481/011-000 50 (2x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray 2002-171 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray from 1 to 3 2002-433 200 (8x25) from 1 to 4 2002-434 200 (8x25) from 1 to 5 2002-435 100 (4x25) from 1 to 6 2002-436 100 (4x25) from 1 to 7 2002-437 100 (4x25) from 1 to 8 2002-438 100 (4x25) from 1 to 9 2002-439 100 (4x25) from 1 to 10 2002-440 100 (4x25)	
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray 2002-172 200 (8x25)	Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-472 100 (4x25) 3-way 2002-473 100 (4x25) 4-way 2002-474 100 (4x25) 5-way 2002-475 50 (2x25) 6-way 2002-476 50 (2x25) 7-way 2002-477 50 (2x25) 8-way 2002-478 50 (2x25) 9-way 2002-479 50 (2x25) 10-way 2002-480 50 (2x25) 11-way 2002-481 50 (2x25) 12-way 2002-482 50 (2x25)	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-400 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-402 200 (8x25) 3-way 2002-403 200 (8x25) 4-way 2002-404 200 (8x25) 5-way 2002-405 100 (4x25) 6-way 2002-406 100 (4x25) 7-way 2002-407 100 (4x25) 8-way 2002-408 100 (4x25) 9-way 2002-409 100 (4x25) 10-way 2002-410 100 (4x25)		Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 1 to 3 2002-423 100 (4x25)
Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A L = 60 mm 2009-412 100 (10x10) L = 110 mm 2009-414 100 (10x10) L = 250 mm 2009-416 100 (10x10)		Modular TOPJOB® S connector, snaps together, for jumper contact slot gray 2002-511 100 (4x25)
		Spacer module, snaps together, bridges commoned terminal blocks gray 2002-549 100 (4x25)
		End plate, for modular TOPJOB® S connector, 1.5 mm thick gray 2002-541 100 (4x25)



Three jumper slots available

- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrules, 12 mm"
- ❷ 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ See application notes for:  
Colored push-in type jumper bar, page 134  
Push-in type wire jumper, page 138  
Staggered jumper, page 136  
Adjacent jumper for continuous commoning, page 137  
TOPJOB® S connector, page 128  
TOPJOB® S L-type test plug module, page 132  
Banana plug, page 330

**Accessories**

TOPJOB® S L-type test plug module, snaps together			
❸		gray	2002-611 100 (4x25)

Test plug adapter, for 4 mm Ø test plug			
		gray	2009-174 100 (4x25)

Testing tap, for max. 2.5 mm <sup>2</sup>			
		gray	2009-182 100 (4x25)

Banana plug, for 4 mm socket diameter, color mixed, 10 x			
❸		orange, white, black, blue, yellow	215-111 50

Double-deck marker carrier, pivoting			
		gray	2002-121 50 (2x25)

WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable			
		plain	793-5501 5

WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable			
		white	2009-115 1

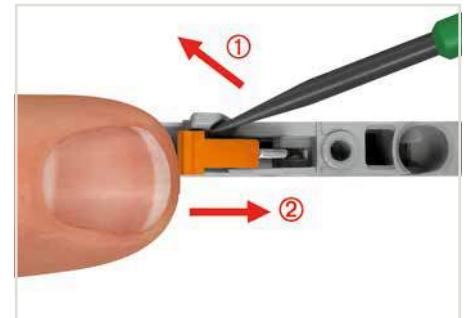
Marking strip, plain, 11 mm wide, 50 m reel			
		white	2009-110 1



Disconnect/test terminal block with pivoting knife disconnect and mechanical interlock – knife disconnect in open position



Disconnect/test terminal block with pivoting knife disconnect and mechanical interlock – top view



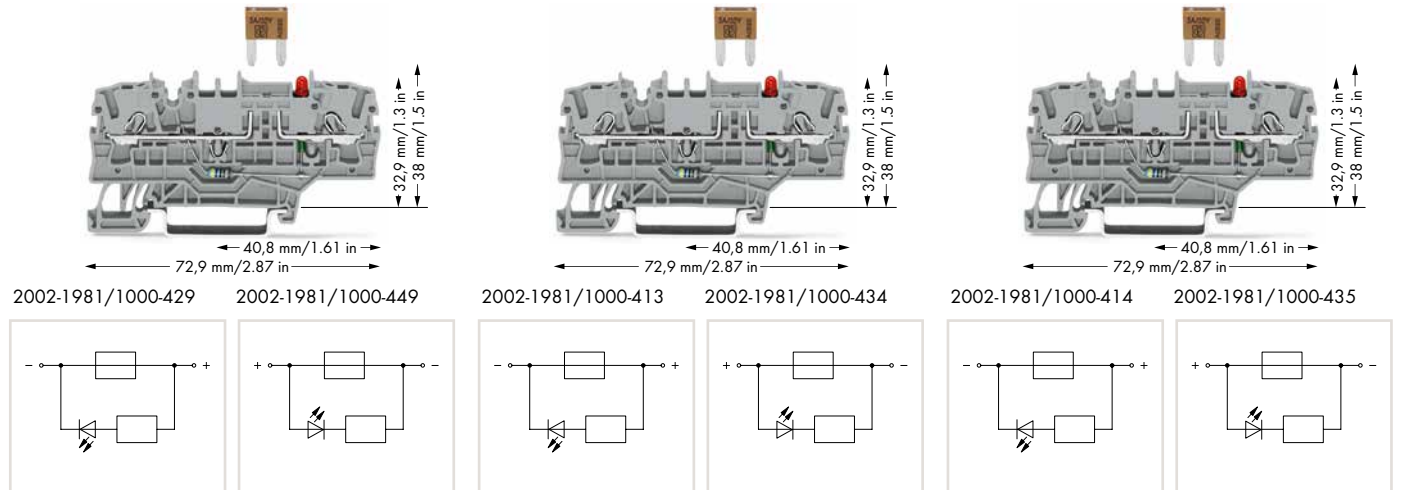
Disconnect/test terminal block with pivoting knife disconnect and mechanical interlock – closing the knife disconnect.

# TOPJOB® S – Fuse Terminal Blocks with Additional Jumper Slot for Mini-Automotive Blade-Style Fuses

## 2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 10 A	22 ... 12 AWG 12 V, 10 A ③	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 10 A	22 ... 12 AWG 24 V, 10 A ③	0.25 ... 2.5 (4) mm <sup>2</sup> ① 400 V/6 kV/3 ② I <sub>N</sub> 10 A	22 ... 12 AWG 48 V, 10 A ③
Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	




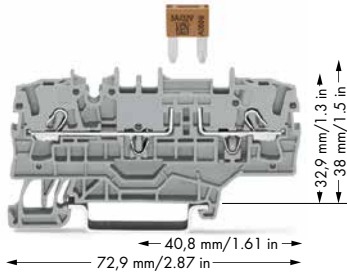
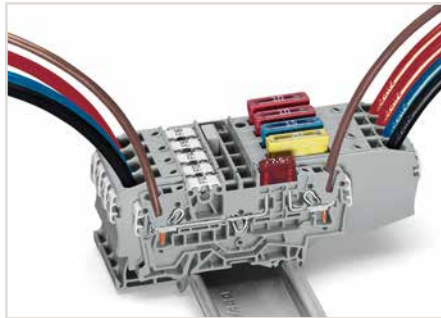
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor fuse terminal block, with test option, for mini-automotive blade-style fuses, 12 V, with blown fuse indication by LED, power consumption LED: 4.8 mA Electrical ratings are given by the fuse and blown fuse indication. Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!		2-conductor fuse terminal block, with test option, for mini-automotive blade-style fuses, 24 V, with blown fuse indication by LED, power consumption LED: 4.8 mA Electrical ratings are given by the fuse and blown fuse indication. Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!		2-conductor fuse terminal block, with test option, for mini-automotive blade-style fuses, 48 V, with blown fuse indication by LED, power consumption LED: 4.8 mA Electrical ratings are given by the fuse and blown fuse indication. Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!	
○ gray	<b>2002-1981/1000-429</b> 50	○ gray	<b>2002-1981/1000-413</b> 50	○ gray	<b>2002-1981/1000-414</b> 50
○ gray	<b>2002-1981/1000-449</b> 50	○ gray	<b>2002-1981/1000-434</b> 50	○ gray	<b>2002-1981/1000-435</b> 50
<b>Other terminal blocks with the same profile:</b>					
Through		<b>2002-1901</b>		Page 74	

### 2002 Series Accessories

Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)





End and intermediate plate, 1 mm thick orange <b>2002-1992</b> 100 (4x25) gray <b>2002-1991</b> 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>2002-115</b> 100 (4x25)	Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray ③
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>2002-171</b> 200 (8x25)	Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A ③ L = 60 mm <b>2009-412</b> 100 (10x10) L = 110 mm <b>2009-414</b> 100 (10x10) L = 250 mm <b>2009-416</b> 100 (10x10)	2-way <b>2002-472</b> 100 (4x25) 3-way <b>2002-473</b> 100 (4x25) 4-way <b>2002-474</b> 100 (4x25) 5-way <b>2002-475</b> 50 (2x25) 6-way <b>2002-476</b> 50 (2x25) 7-way <b>2002-477</b> 50 (2x25) 8-way <b>2002-478</b> 50 (2x25) 9-way <b>2002-479</b> 50 (2x25) 10-way <b>2002-480</b> 50 (2x25) 11-way <b>2002-481</b> 50 (2x25) 12-way <b>2002-482</b> 50 (2x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>2002-172</b> 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray ③	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray ③ 2-way <b>2002-400</b> 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray ③	from 1 to 3 <b>2002-433</b> 200 (8x25) from 1 to 4 <b>2002-434</b> 200 (8x25) from 1 to 5 <b>2002-435</b> 100 (4x25) from 1 to 6 <b>2002-436</b> 100 (4x25) from 1 to 7 <b>2002-437</b> 100 (4x25) from 1 to 8 <b>2002-438</b> 100 (4x25) from 1 to 9 <b>2002-439</b> 100 (4x25) from 1 to 10 <b>2002-440</b> 100 (4x25)	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray ③ 1 to 3 <b>2002-423</b> 100 (4x25)
2-way <b>2002-402</b> 200 (8x25)		
3-way <b>2002-403</b> 200 (8x25)		
4-way <b>2002-404</b> 200 (8x25)		
5-way <b>2002-405</b> 100 (4x25)		
6-way <b>2002-406</b> 100 (4x25)		
7-way <b>2002-407</b> 100 (4x25)		
8-way <b>2002-408</b> 100 (4x25)		
9-way <b>2002-409</b> 100 (4x25)		
10-way <b>2002-410</b> 100 (4x25)		

0.25 ... 2.5 (4) mm<sup>2</sup> ① 22 ... 12 AWG  
 400 V/6 kV/3 ② 250 V, 10 A<sub>IN</sub>  
 I<sub>N</sub> 10 A  
 Terminal block width 5.2 mm / 0.205 inch  
 10 ... 12 mm / 0.39 ... 0.47 inch



Selecting the correct fuse cartridge is important for product safety within applications, as well as for fuse cartridge service life and reliability. Fuse cartridges can operate perfectly as protection (break-off point) if they are properly selected and used according to manufacturer specifications. Nominal current ratings for fuse cartridges are defined differently in international standards. This is why the recommended continuous current-carrying capacity of the fuses a max. 80 % of their nominal current according to DIN 72581/Part 3 (for an ambient operating temperature of 23 °C). With regard to product safety, fuse cartridges must generally be tested both under normal and faulty operating conditions within your application.



- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st"; Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s" and 0.75 ... 2.5 mm<sup>2</sup> "insulated ferrules, 12 mm"
- ② 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ See application notes for:  
Colored push-in type jumper bar, page 134  
Push-in type wire jumper, page 138  
Staggered jumper, page 136  
Adjacent jumper for continuous commoning, page 137

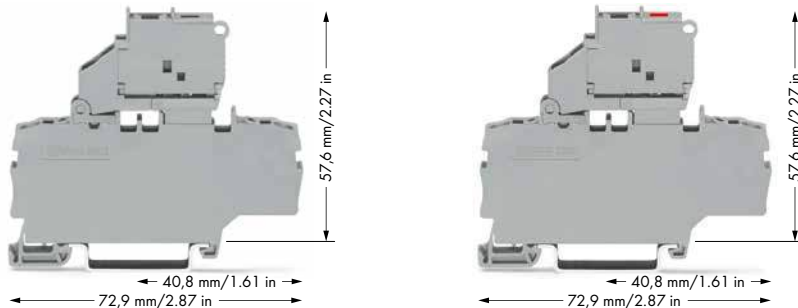
Item No.	Pack. Unit
2-conductor fuse terminal block, with test option, for mini-automotive blade-style fuses, with additional jumper position, without blown fuse indication Electrical ratings are given by the fuse. Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!	
 gray 2002-1981	50
<b>Blade-style fuses are not offered by WAGO</b>	
WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable 	
white 2009-115	1
WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable 	
plain 793-5501	5
Double-deck marker carrier, pivoting 	
gray 2002-121	50 (2x25)

# TOPJOB® S – Fused Disconnect Terminal Blocks with a Pivoting Fuse Holder for 5 x 20 mm Miniature Metric Fuses and Additional Jumper Slot

2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ① 250 V/6 kV/3 ② I <sub>N</sub> 6.3 A	22 ... 12 AWG 600 V, 6,3 A ③	0.25 ... 2.5 (4) mm <sup>2</sup> ① 250 V/6 kV/3 ② I <sub>N</sub> 6.3 A	22 ... 12 AWG 30 V, 6,3 A ③
Terminal block width 6.2 mm / 0.244 inch  10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 6.2 mm / 0.244 inch  10 ... 12 mm / 0.39 ... 0.47 inch	



- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ② 250 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ See application notes for:  
Push-in type wire jumper, page 138

Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor fused disconnect terminal block with a pivoting fuse holder for (5 x 20) mm miniature metric fuse, with additional jumper slot, without blown fuse indication Electrical ratings are given by the fuse.		2-conductor fused disconnect terminal block with a pivoting fuse holder for (5 x 20) mm miniature metric fuse, with additional jumper slot, with blown fuse indication by LED, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of a blown fuse: LED 2 mA	
● gray	2002-1911	50	<ul style="list-style-type: none"> <li>● 12 ... 30 V     2002-1911/1000-541     50</li> <li>● 30 ... 65 V     2002-1911/1000-542     50</li> <li>● 120 V           2002-1911/1000-867     50</li> <li>● 230 V           2002-1911/1000-836     50</li> </ul>
<b>Other terminal blocks with the same profile:</b>			
Through	2002-1901	Page 74	









### Miniature fuses 5 x 20

Series Item No.	Overload and short circuit protection		Short circuit protection only	
	Individual argmt.	Group argmt.	Individual argmt.	Group argmt.
Fuse terminal blocks				
2002-1911	1.6 W	1.6 W	2.5 W	2.5 W
2002-1911/.....	1.6 W	1.6 W	2.5 W	2.5 W

When selecting miniature metric fuses, make sure that the maximum power loss listed above is not exceeded. The power loss is determined according to IEC or EN 60947-7-3/VDE 0611-6 at 23 °C. The temperature rise of the terminal blocks must be checked according to their application and mounting. Higher ambient temperatures place additional strain on fuse cartridges. Therefore, in such applications, the rated current must be reduced if necessary. More details are available from the fuse manufacturers.

### 2002 Series Accessories

Appropriate marking systems: WMB/Marking strips  
(see Section 13)

End plate for fuse terminal blocks, 2 mm thick 	orange     2002-992     100 (4x25) gray        2002-991     100 (4x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 32 A, light gray 	from 1 to 3     2004-433     200 (8x25) from 1 to 4     2004-434     200 (8x25) from 1 to 5     2004-435     100 (4x25) from 1 to 6     2004-436     100 (4x25) from 1 to 7     2004-437     100 (4x25) from 1 to 8     2004-438     100 (4x25) from 1 to 9     2004-439     100 (4x25) from 1 to 10    2004-440     100 (4x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> 	light gray     2002-171     200 (8x25)	Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A 	2-way     2004-402     200 (8x25) 3-way     2004-403     200 (8x25) 4-way     2004-404     100 (4x25) 5-way     2004-405     100 (4x25) 6-way     2004-406     100 (4x25) 7-way     2004-407     100 (4x25) 8-way     2004-408     100 (4x25) 9-way     2004-409     100 (4x25) 10-way    2004-410     100 (4x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> 	dark gray    2002-172     200 (8x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks 	yellow     2002-115     100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 32 A, light gray 		Test plug, with 500 mm cable, 2 mm Ø, max. 42 V 	red        210-136     50

A protective warning marker and an insulation stop must be applied individually. Due to the 6.2 mm width of fuse disconnect terminal blocks with pivoting fuse holder, 2004 Series Push-In Type Jumper Bars must be used.

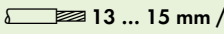
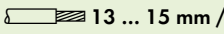
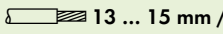


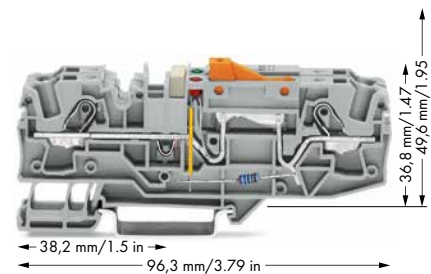
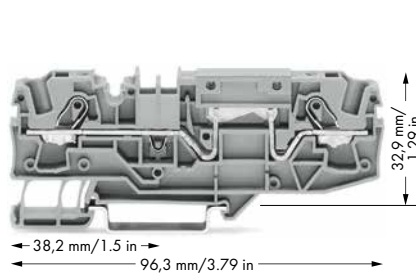
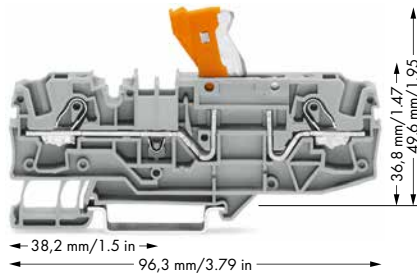


# TOPJOB® S – Disconnect and Ground Conductor Disconnect Terminal Blocks (30 A) and Through Terminal Blocks of Same Profile










6 (10) mm<sup>2</sup>, 2006 Series

1

0.5 ... 6 (10) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 30 A  Terminal block width 7.5 mm / 0.295 inch  13 ... 15 mm / 0.51 ... 0.59 inch	20 ... 8 AWG 600 V, 15 A ③ 600 V, 30 A ④	0.5 ... 6 (10) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 30 A  Terminal block width 7.5 mm / 0.295 inch  13 ... 15 mm / 0.51 ... 0.59 inch	20 ... 8 AWG 600 V, 30 A ③ 600 V, 30 A ④	0.5 ... 6 (10) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 30 A  Terminal block width 15 mm / 0.591 inch  13 ... 15 mm / 0.51 ... 0.59 inch	20 ... 8 AWG 600 V, 30 A ③ 600 V, 30 A ④
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor disconnect terminal block, with test point, orange disconnect link		2-conductor through terminal block, with test point, same profile as 2-conductor disconnect terminal block		Ground conductor disconnect terminal block, with test point, orange disconnect link, gray	
○ gray <b>2006-1671</b> 25		○ gray <b>2006-1601</b> 25		○ 24 V <b>2006-1671/1000-848</b> 12	
● blue <b>2006-1674</b> 25		● blue <b>2006-1604</b> 25		○ 48 V <b>2006-1671/1000-849</b> 12	
				○ 120 V <b>2006-1671/1000-850</b> 12	
				○ 230 V <b>2006-1671/1000-851</b> 12	
<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>	
Through <b>2006-1601</b> Page 80		Carrier <b>2006-1661</b> Page 98		Through <b>2006-1601</b> Page 80	
Fuse <b>2006-1681</b> Page 82					

Item-Specific Accessories	Item-Specific Accessories	Item-Specific Accessories																											
Push-in type jumper bar, insulated, I <sub>N</sub> 41 A, light gray  <table border="0"> <tr><td>2-way</td><td><b>2006-402</b></td><td>50 (2x25)</td></tr> <tr><td>3-way</td><td><b>2006-403</b></td><td>50 (2x25)</td></tr> <tr><td>4-way</td><td><b>2006-404</b></td><td>50 (2x25)</td></tr> <tr><td>5-way</td><td><b>2006-405</b></td><td>50 (2x25)</td></tr> </table>	2-way	<b>2006-402</b>	50 (2x25)	3-way	<b>2006-403</b>	50 (2x25)	4-way	<b>2006-404</b>	50 (2x25)	5-way	<b>2006-405</b>	50 (2x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 41 A, light gray  <table border="0"> <tr><td>2-way</td><td><b>2006-402</b></td><td>50 (2x25)</td></tr> <tr><td>3-way</td><td><b>2006-403</b></td><td>50 (2x25)</td></tr> <tr><td>4-way</td><td><b>2006-404</b></td><td>50 (2x25)</td></tr> <tr><td>5-way</td><td><b>2006-405</b></td><td>50 (2x25)</td></tr> </table>	2-way	<b>2006-402</b>	50 (2x25)	3-way	<b>2006-403</b>	50 (2x25)	4-way	<b>2006-404</b>	50 (2x25)	5-way	<b>2006-405</b>	50 (2x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 41 A, light gray  <table border="0"> <tr><td>2-way</td><td><b>2006-402</b></td><td>50 (2x25)</td></tr> </table>	2-way	<b>2006-402</b>	50 (2x25)
2-way	<b>2006-402</b>	50 (2x25)																											
3-way	<b>2006-403</b>	50 (2x25)																											
4-way	<b>2006-404</b>	50 (2x25)																											
5-way	<b>2006-405</b>	50 (2x25)																											
2-way	<b>2006-402</b>	50 (2x25)																											
3-way	<b>2006-403</b>	50 (2x25)																											
4-way	<b>2006-404</b>	50 (2x25)																											
5-way	<b>2006-405</b>	50 (2x25)																											
2-way	<b>2006-402</b>	50 (2x25)																											
Push-in type jumper bar, insulated, I <sub>N</sub> 41 A, light gray  <table border="0"> <tr><td>from 1 to 3</td><td><b>2006-433</b></td><td>50 (2x25)</td></tr> <tr><td>from 1 to 4</td><td><b>2006-434</b></td><td>50 (2x25)</td></tr> <tr><td>from 1 to 5</td><td><b>2006-435</b></td><td>50 (2x25)</td></tr> </table>	from 1 to 3	<b>2006-433</b>	50 (2x25)	from 1 to 4	<b>2006-434</b>	50 (2x25)	from 1 to 5	<b>2006-435</b>	50 (2x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 41 A, light gray  <table border="0"> <tr><td>from 1 to 3</td><td><b>2006-433</b></td><td>50 (2x25)</td></tr> <tr><td>from 1 to 4</td><td><b>2006-434</b></td><td>50 (2x25)</td></tr> <tr><td>from 1 to 5</td><td><b>2006-435</b></td><td>50 (2x25)</td></tr> </table>	from 1 to 3	<b>2006-433</b>	50 (2x25)	from 1 to 4	<b>2006-434</b>	50 (2x25)	from 1 to 5	<b>2006-435</b>	50 (2x25)										
from 1 to 3	<b>2006-433</b>	50 (2x25)																											
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from 1 to 5	<b>2006-435</b>	50 (2x25)																											
Star point jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray  <table border="0"> <tr><td>1-3-5</td><td><b>2006-405/011-000</b></td><td>50 (2x25)</td></tr> </table>	1-3-5	<b>2006-405/011-000</b>	50 (2x25)	Star point jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray  <table border="0"> <tr><td>1-3-5</td><td><b>2006-405/011-000</b></td><td>50 (2x25)</td></tr> </table>	1-3-5	<b>2006-405/011-000</b>	50 (2x25)																						
1-3-5	<b>2006-405/011-000</b>	50 (2x25)																											
1-3-5	<b>2006-405/011-000</b>	50 (2x25)																											
	Disconnect plug for carrier terminal blocks, suitable when using a carrier terminal block as disconnect terminal block  <table border="0"> <tr><td>orange</td><td><b>2006-401</b></td><td>100 (4x25)</td></tr> </table>	orange	<b>2006-401</b>	100 (4x25)																									
orange	<b>2006-401</b>	100 (4x25)																											
	Blind plug for carrier terminal blocks, indicates a disconnection  <table border="0"> <tr><td>red</td><td><b>2006-451</b></td><td>100 (4x25)</td></tr> </table>	red	<b>2006-451</b>	100 (4x25)																									
red	<b>2006-451</b>	100 (4x25)																											

## 2006 Series Accessories

Appropriate marking systems: WMB/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick <table border="0"> <tr><td>orange</td><td><b>2006-1692</b></td><td>100 (4x25)</td></tr> <tr><td>gray</td><td><b>2006-1691</b></td><td>100 (4x25)</td></tr> </table>	orange	<b>2006-1692</b>	100 (4x25)	gray	<b>2006-1691</b>	100 (4x25)	Double-deck marker carrier, pivoting  <table border="0"> <tr><td>gray</td><td><b>2002-121</b></td><td>50 (2x25)</td></tr> </table>	gray	<b>2002-121</b>	50 (2x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  <table border="0"> <tr><td>yellow</td><td><b>2006-115</b></td><td>100 (4x25)</td></tr> </table>	yellow	<b>2006-115</b>	100 (4x25)
orange	<b>2006-1692</b>	100 (4x25)												
gray	<b>2006-1691</b>	100 (4x25)												
gray	<b>2002-121</b>	50 (2x25)												
yellow	<b>2006-115</b>	100 (4x25)												

# TOPJOB® S

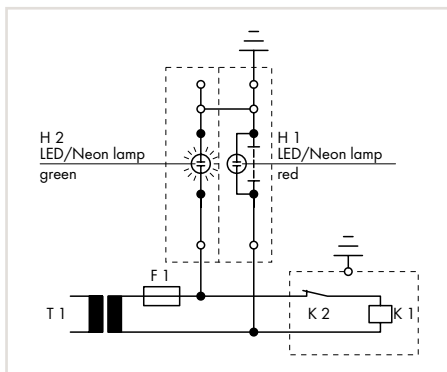
## Disconnect and Ground Conductor Disconnect Terminal Blocks

1

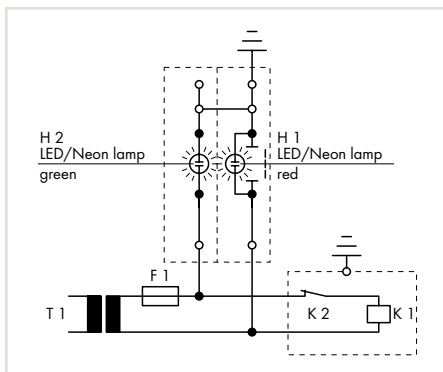


Ground conductor disconnect terminal block – top view

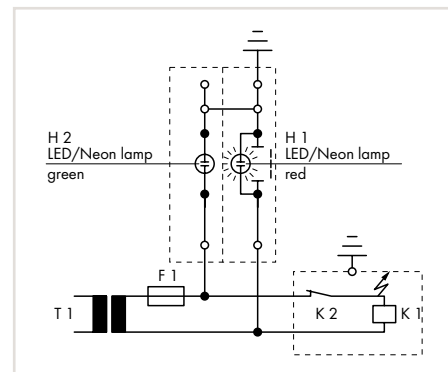
- ❶ Conductor range: 0.5 ... 10 mm<sup>2</sup> "s + f-st";  
Push-in termination: 1 ... 10 mm<sup>2</sup> "s"  
and 1.5 ... 6 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ❷ 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)

**Operating condition**

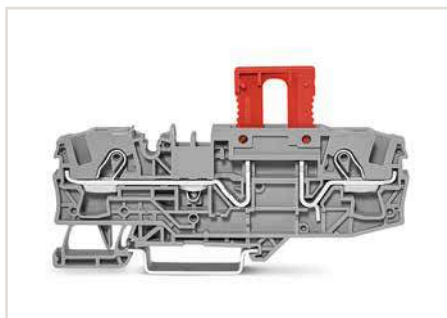
Slide link closed, auxiliary circuit grounded, green LED/ neon lamp illuminates.

**Test condition – no grounding**

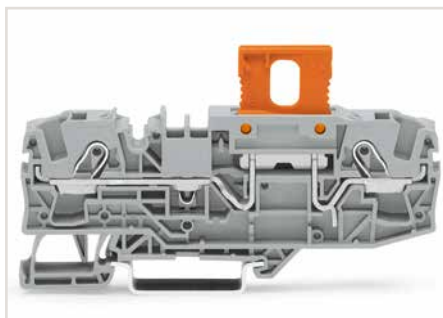
Slide link open, auxiliary circuit not grounded.

**Test condition – grounding**

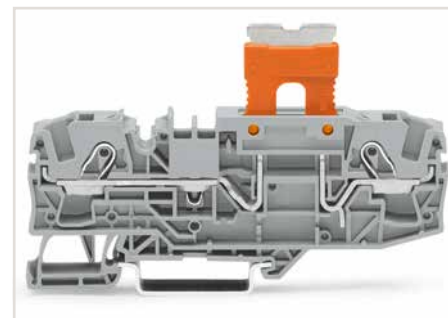
Slide link open, auxiliary circuit not grounded, red LED/ neon lamp illuminates.



Carrier terminal block with blind plug in disconnect position.



Carrier terminal block (2006-401) with disconnect plug (2006-1661) in operating position



Carrier terminal block (2006-401) with disconnect plug (2002-1661) in parked position

IEC 60204/DIN VDE 0113 "Safety of machinery – Electrical equipment of machines – Part 1: General requirements," Section 9.4.3.1:

Ground faults on control circuits shall not cause unintentional starting, hazardous movements or prevent stopping of the machine.

In order to fulfill this requirement, bonding to the protective bonding circuit shall be provided in accordance with Section 8.2 and the devices shall be connected as described in Section 9.1.4. Control circuits fed from a transformer and not connected to the protective bonding circuit shall be provided with an insulation monitoring device (e.g., residual current device), which either indicates a ground fault or interrupts the circuit automatically after a ground fault.

In the case of electronic circuits, the connection of one side of the control circuit to the protective bonding circuit in accordance with Section 9.1.4 can prevent unintentional operation. When this does not help, or if due to other reasons that electronic circuits cannot be connected to the protective bonding circuit, other measures shall be taken to achieve the same level of safety.




Multipole control switches that interrupt all live conductors shall be used where the control circuit is directly connected between the phase conductors of the supply or between a phase conductor and a neutral conductor, which is either not grounded or grounded through a high impedance. This is required for starting or stopping those machine functions, which can cause a hazardous situation including: damaging the machine or halting work in progress in the event of unintentional starting or failure to stop.

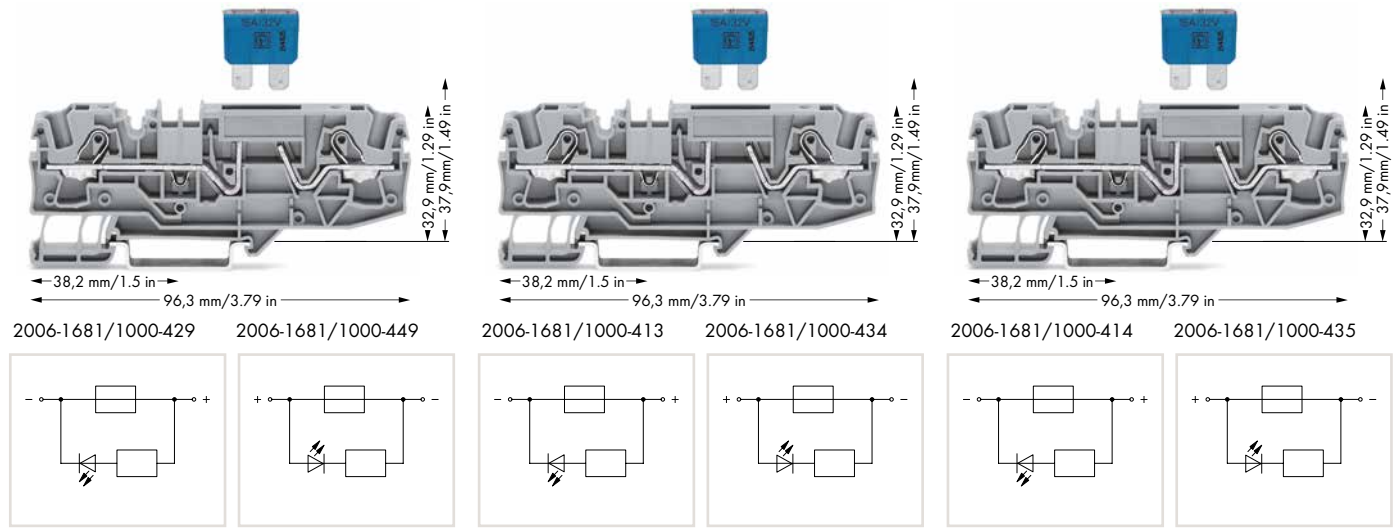
# TOPJOB® S

## Fuse Terminal Blocks for Automotive Blade-Style Fuses

### 6 (10) mm<sup>2</sup>, 2006 Series

1

<b>0.5 ... 6 (10) mm<sup>2</sup> ①</b> <b>500 V/8 kV/3 ②</b> <b>I<sub>N</sub> 25 A (30 A) ③</b>  Terminal block width 7.5 mm / 0.295 inch  13 ... 15 mm / 0.51 ... 0.59 inch	<b>20 ... 8 AWG</b> <b>12 V, 15 A ④</b> <b>12 V, 30 A ⑤</b>	<b>0.5 ... 6 (10) mm<sup>2</sup> ①</b> <b>500 V/8 kV/3 ②</b> <b>I<sub>N</sub> 25 A (30 A) ③</b>  Terminal block width 7.5 mm / 0.295 inch  13 ... 15 mm / 0.51 ... 0.59 inch	<b>20 ... 8 AWG</b> <b>24 V, 15 A ④</b> <b>24 V, 30 A ⑤</b>	<b>0.5 ... 6 (10) mm<sup>2</sup> ①</b> <b>500 V/8 kV/3 ②</b> <b>I<sub>N</sub> 25 A (30 A) ③</b>  Terminal block width 7.5 mm / 0.295 inch  13 ... 15 mm / 0.51 ... 0.59 inch	<b>20 ... 8 AWG</b> <b>48 V, 30 A ④</b> <b>48 V, 30 A ⑤</b>
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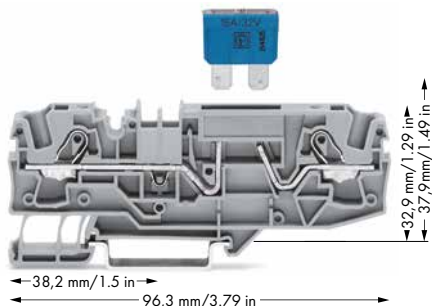
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor fuse terminal block for automotive blade-style fuses, 12 V, with test point, with blown fuse indication by LED, power consumption LED: 4.8 mA Electrical ratings are given by the fuse and blown fuse indication. Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!		2-conductor fuse terminal block for automotive blade-style fuses, 24 V, with test point, with blown fuse indication by LED, power consumption LED: 4.8 mA Electrical ratings are given by the fuse and blown fuse indication. Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!		2-conductor fuse terminal block for automotive blade-style fuses, 48 V, with test point, with blown fuse indication by LED, power consumption LED: 4.8 mA Electrical ratings are given by the fuse and blown fuse indication. Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!	
<ul style="list-style-type: none"> <li>gray <b>2006-1681/1000-429</b> 25</li> <li>gray <b>2006-1681/1000-449</b> 25</li> </ul>		<ul style="list-style-type: none"> <li>gray <b>2006-1681/1000-413</b> 25</li> <li>gray <b>2006-1681/1000-434</b> 25</li> </ul>		<ul style="list-style-type: none"> <li>gray <b>2006-1681/1000-414</b> 25</li> <li>gray <b>2006-1681/1000-435</b> 25</li> </ul>	
<b>Other terminal blocks with the same profile:</b>					
Through	<b>2006-1601</b>				Page 80

### 2006 Series Accessories

Appropriate marking systems: WMB/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick orange <b>2006-1692</b> 100 (4x25) gray <b>2006-1691</b> 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>2006-115</b> 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 41 A, light gray 2-way <b>2006-402</b> 50 (2x25) 3-way <b>2006-403</b> 50 (2x25) 4-way <b>2006-404</b> 50 (2x25) 5-way <b>2006-405</b> 50 (2x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5 Marking strip, plain, 11 mm wide, 50 m reel white <b>2009-110</b> 1
Push-in type jumper bar, insulated, I <sub>N</sub> 41 A, light gray from 1 to 3 <b>2006-433</b> 50 (2x25) from 1 to 4 <b>2006-434</b> 50 (2x25) from 1 to 5 <b>2006-435</b> 50 (2x25)	Double-deck marker carrier, pivoting gray <b>2002-121</b> 50 (2x25)

0.5 ... 6 (10) mm <sup>2</sup> ①	20 ... 8 AWG
500 V/8 kV/3 ②	600 V, 15 A ②
I <sub>N</sub> 25 A (30 A) ③	600 V, 30 A ③
Terminal block width 7.5 mm / 0.295 inch	
13 ... 15 mm / 0.51 ... 0.59 inch	



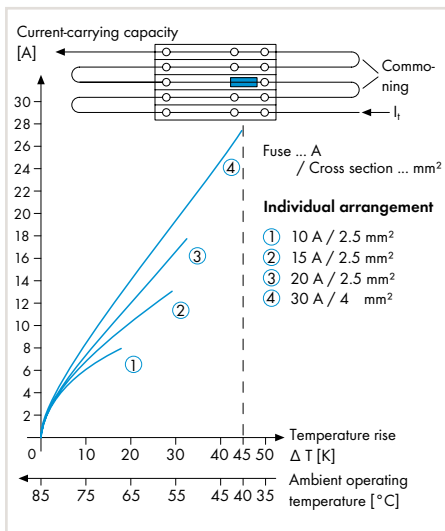
- ① Conductor range: 0.5 ... 10 mm<sup>2</sup> "s + fst"; Push-in termination: 1 ... 10 mm<sup>2</sup> "s" and 1.5 ... 6 mm<sup>2</sup> "insulated ferrule, 12 mm"
- ② 500 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Power consumption LED: 4.8 mA

Item No.	Pack. Unit
2-conductor fuse terminal block for automotive blade-style fuses, with test point, without blown fuse indication	
Electrical ratings are given by the fuse. Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!	
gray	2006-1681 25

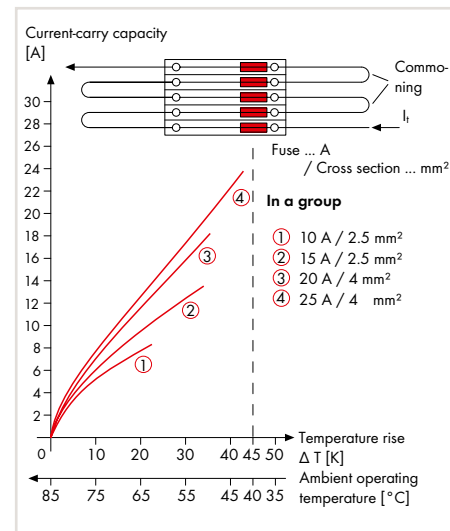
Blade-style fuses (not offered by WAGO)

Excess-current circuit-breaker, thermal (not offered by WAGO)

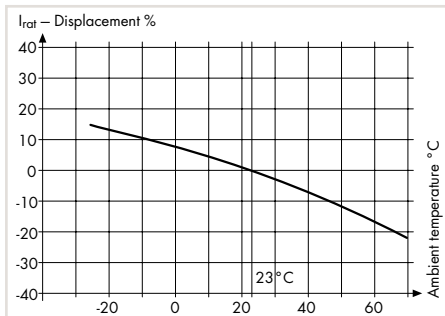
Recommended excess-current circuit-breakers from ETA



Application Notes on Terminal Blocks for Miniature Metric Fuses  
Diagram: Individual arrangement



Application Notes on Terminal Blocks for Miniature Metric Fuses  
Diagram: Block arrangement



Application Notes on Terminal Blocks for Miniature Metric Fuses

Nominal current ratings for fuse cartridges are defined differently in international standards. This is why the recommended continuous current-carrying capacity of the fuses is max. 80 % of their nominal current according to DIN 72581/Part 3 (for an ambient operating temperature of 23 °C).  
Selecting the correct fuse cartridge is important for product safety within applications, as well as for fuse cartridge service life and reliability. Fuse cartridges will only operate perfectly as protection components (break-off point) if they are properly selected and used as intended (i.e., according to the state of the technology and valid specifications, as well as data sheet characteristics), according to basic safety requirements (i.e., persons, animals and property must be protected against hazards).

Information from the mini-automotive, blade-type fuse manufacturers

Derating T <sub>amb</sub> / °C	%	F <sub>T</sub>
-25	14	0.877
-20	13	0.885
-15	12	0.893
-10	11	0.901
-5	10	0.909
0	9	0.917
5	8	0.926
10	6	0.943
15	4	0.962
20	2	0.980
23	0	1.000
30	-2	1.020
35	-4	1.042
40	-6	1.064
45	-8	1.087
50	-10	1.111
55	-13	1.149
60	-16	1.190
65	-19	1.235
70	-22	1.282

For product safety, fuse cartridges must generally be tested both under normal and faulty operating conditions within your application.

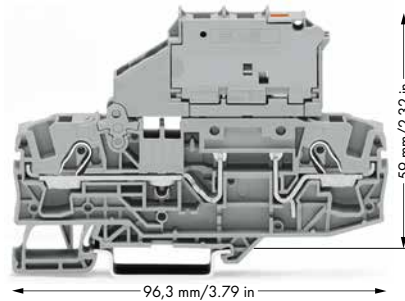
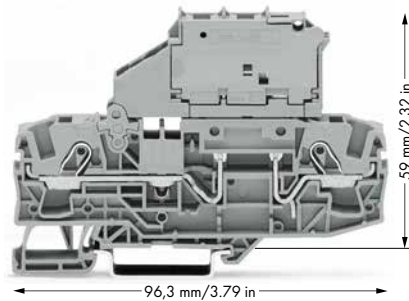
**PUSH-IN CAGE CLAMP®**

# TOPJOB® S – Fused Disconnect Terminal Blocks with a Pivoting Fuse Holder for 5 x 20 mm, 5 x 30 mm and 1/4" x 1 1/4" Miniature Metric Fuses

6 (10) mm<sup>2</sup>, 2006 Series

1

0.5 ... 6 (10) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 10 A Terminal block width 7.5 mm / 0.295 inch 13 ... 15 mm / 0.51 ... 0.59 inch	20 ... 8 AWG 600 V, 15 A ③ 600 V, 15 A ③	0.5 ... 6 (10) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 10 A Terminal block width 7.5 mm / 0.295 inch 13 ... 15 mm / 0.51 ... 0.59 inch	20 ... 8 AWG 30 V, 15 A ③ 30 V, 15 A ③
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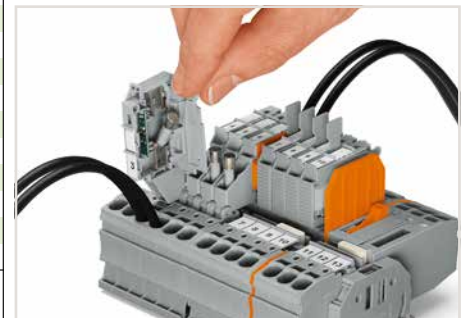


- ① Conductor range: 0.5 ... 10 mm<sup>2</sup> "s + f-st";  
Push-in termination: 1 ... 10 mm<sup>2</sup> "s"  
and 1.5 ... 6 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ② 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ See application notes for:  
Star point jumper, page 135

Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor fused disconnect terminal block with a pivoting fuse holder, without blown fuse indication Electrical ratings are given by the fuse.		2-conductor fused disconnect terminal block with a pivoting fuse holder, with blown fuse indication by LED, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of a blown fuse: LED 2 mA	
for (5 x 20) mm miniature metric fuse		for (5 x 20) mm miniature metric fuse	
○ gray 2006-1611	25	○ 12 ... 30 V 2006-1611/1000-541	25
		○ 30 ... 65 V 2006-1611/1000-542	25
		○ 120 V 2006-1611/1000-867	25
		○ 230 V 2006-1611/1000-836	25
for (5 x 30) mm miniature metric fuse		for (5 x 30) mm miniature metric fuse	
○ gray 2006-1621	25	○ 12 ... 30 V 2006-1621/1000-541	25
		○ 30 ... 65 V 2006-1621/1000-542	25
		○ 120 V 2006-1621/1000-867	25
		○ 230 V 2006-1621/1000-836	25
		○ 380 ... 500 V 2006-1621/1000-859	25
for 1/4" x 1 1/4" miniature metric fuse		for 1/4" x 1 1/4" miniature metric fuse	
○ gray 2006-1631	25	○ 12 ... 30 V 2006-1631/1000-541	25
		○ 30 ... 65 V 2006-1631/1000-542	25
		○ 120 V 2006-1631/1000-867	25
		○ 230 V 2006-1631/1000-836	25
		○ 380 ... 500 V 2006-1631/1000-859	25



Fused disconnect terminal block with a pivoting fuse holder  
Pivot the fuse holder into the locked open position.



Fused disconnect terminal block with a pivoting fuse holder  
Fuse replacement:  
Opening the cover to replace the fuse

### 2006 Series Accessories

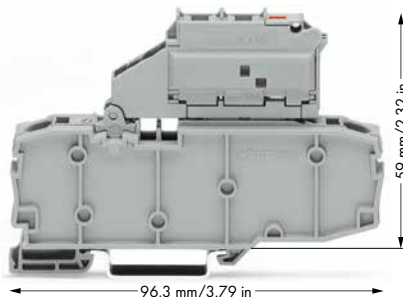
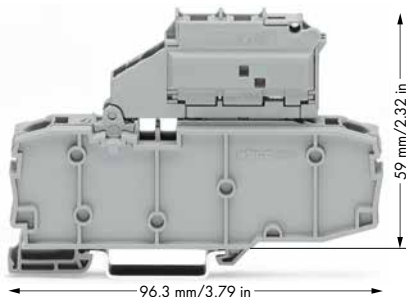
Appropriate marking systems: WMB/Marking strips  
(see Section 13)

End and intermediate plate, 1 mm thick orange 2006-1692 100 (4x25) gray 2006-1691 100 (4x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 41 A, light gray from 1 to 3 2006-433 50 (2x25) from 1 to 4 2006-434 50 (2x25) from 1 to 5 2006-435 50 (2x25)
End plate for fuse terminal blocks, 2 mm thick orange 2006-992 100 (4x25) gray 2006-991 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow 2006-115 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 41 A, light gray 2-way 2006-402 50 (2x25) 3-way 2006-403 50 (2x25) 4-way 2006-404 50 (2x25) 5-way 2006-405 50 (2x25)	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V red 210-136 50
Star point jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray 1-3-5 2006-405/011-000 50 (2x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain 793-5501 5

# TOPJOB® S – Fused Disconnect Terminal Blocks with a Pivoting Fuse Holder for 1/4" x 1 1/4" Miniature Metric Fuses

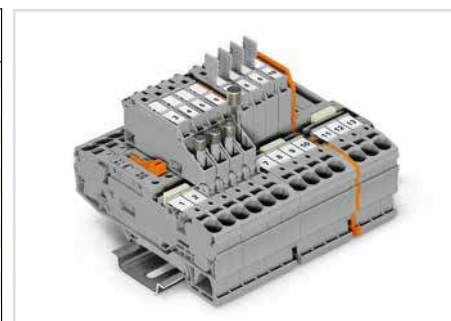
6 (10) mm<sup>2</sup>, 2006 Series

0.5 ... 6 (10) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 10 A  Terminal block width 10.4 mm / 0.409 inch 13 ... 15 mm / 0.51 ... 0.59 inch	20 ... 8 AWG 600 V, 15 A ③ 600 V, 15 A ③	0.5 ... 6 (10) mm <sup>2</sup> ① 800 V/8 kV/3 ② I <sub>N</sub> 10 A  Terminal block width 10.4 mm / 0.409 inch 13 ... 15 mm / 0.51 ... 0.59 inch	20 ... 8 AWG 30 V, 15 A ③ 30 V, 15 A ③
---	--	---	--



- ① Conductor range: 0.5 ... 10 mm<sup>2</sup> "s + f-st"; Push-in termination: 1 ... 10 mm<sup>2</sup> "s" and 1.5 ... 6 mm<sup>2</sup> "insulated ferrule, 12 mm"
- ② 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ See application notes for: Star point jumper, page 135

Item No.	Pack. Unit	Item No.	Pack. Unit
Fused disconnect terminal block with a pivoting fuse holder and end plate, without blown fuse indication Electrical ratings are given by the fuse.		Fused disconnect terminal block with a pivoting fuse holder and end plate, for 1/4" x 1 1/4" miniature metric fuse, with blown fuse indication by LED, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of a blown fuse: LED 2 mA for 1/4" x 1 1/4" miniature metric fuse	
for 1/4" x 1 1/4" miniature metric fuse			
○ gray	2006-1631/099-000 25	○ 12 ... 30 V	2006-1631/1099-541 25
		○ 30 ... 65 V	2006-1631/1099-542 25
		○ 120 V	2006-1631/1099-867 25
		○ 230 V	2006-1631/1099-836 25
		○ 380 ... 500 V	2006-1631/1099-859 25



Pivoting fuse holder with spare fuse holder

## 2006 Series Accessories

Appropriate marking systems: WMB/Marking strips (see Section 13)

End plate for fuse terminal blocks, 2 mm thick	Screwless end stop, for DIN-35 rail, 6 mm wide
orange 2006-992 100 (4x25)	gray 249-116 100 (4x25)
gray 2006-991 100 (4x25)	
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray	Screwless end stop, for DIN-35 rail, 10 mm wide
from 1 to 3 2002-433 200 (8x25)	gray 249-117 50 (2x25)
from 1 to 5 2002-435 100 (4x25)	
from 1 to 7 2002-437 100 (4x25)	
from 1 to 9 2002-439 100 (4x25)	
Star point jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray ③	
1-3-5 2002-405/011-000 100 (4x25)	
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks	
yellow 2006-115 100 (4x25)	
WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable	
plain 793-5501 5	
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V	
red 210-136 50	

## Miniature fuses

Series Item No.	Overload and short circuit protection		Short circuit protection only	
	Individual argmt.	Group argmt.	Individual argmt.	Group argmt.
Fused disconnect terminal blocks				
2006-1611	7.5	1.6 W	1.6 W	2.5 W
2006-1621	7.5	1.6 W	1.6 W	2.5 W
2006-1631	7.5	1.6 W	1.6 W	2.5 W
2006-1631 /099...	10.4	2.5 W	2.5 W	2.5 W
2006-1631 /1099...	10.4	2.5 W	2.5 W	2.5 W

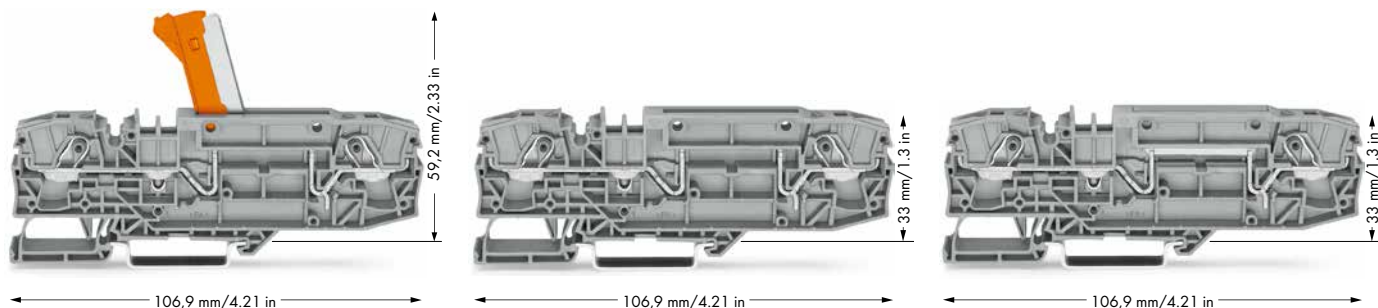
When selecting miniature metric fuses, make sure that the maximum power loss listed above is not exceeded. The power loss is determined according to IEC or EN 60947-7-3/VDE 0611-6 at 23 °C. The temperature rise of the terminal blocks must be checked according to their application and mounting. Higher ambient temperatures place additional strain on fuse cartridges. Therefore, in such applications, the rated current must be reduced if necessary. More details are available from the fuse manufacturers.

# TOPJOB® S – Disconnect/Test Terminal Blocks (30 A) and Through/Carrier Terminal Blocks of Same Profile

6 (10) mm<sup>2</sup>, 2006 Series

1

<p>0.5 ... 6 (10) mm<sup>2</sup> ①   20 ... 8 AWG AC/DC 1000 V/ DC 1500 V/12 kV/3 ② I<sub>N</sub> 30 A      600 V, 30 A ③, 1000 V, 30 A ④</p> <p>Terminal block width 15 mm / 0.591 inch 13 ... 15 mm / 0.51 ... 0.59 inch</p>	<p>0.5 ... 6 (10) mm<sup>2</sup> ①   20 ... 8 AWG AC/DC 1000 V/ DC 1500 V/12 kV/3 ② I<sub>N</sub> 30 A      600 V, 30 A ③, 1000 V, 30 A ④</p> <p>Terminal block width 15 mm / 0.591 inch 13 ... 15 mm / 0.51 ... 0.59 inch</p>	<p>0.5 ... 6 (10) mm<sup>2</sup> ①   20 ... 8 AWG AC/DC 1000 V/ DC 1500 V/12 kV/3 ② I<sub>N</sub> 30 A      600 V, 30 A ③, 1000 V, 30 A ④</p> <p>Terminal block width 15 mm / 0.591 inch 13 ... 15 mm / 0.51 ... 0.59 inch</p>
--	--	--



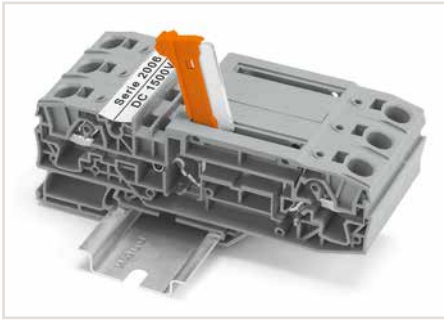
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor disconnect/test terminal block, with test point, orange disconnect link		2-conductor carrier terminal block, with test point		2-conductor through terminal block, with test point, same profile as 2-conductor disconnect terminal block	
gray	2006-8671	12	gray	2006-8661	12
blue	2006-8674	12	blue	2006-8664	12
<b>Item-Specific Accessories</b>					
Disconnect plug for carrier terminal blocks, suited when using a carrier terminal block as disconnect terminal block					
		orange	2006-8401	48 (4x12)	

## 2006 Series Accessories

Appropriate marking systems: WMB/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick	WMB Multi marking system, white, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm
orange      2006-8692    48 (4x12)	plain      793-501            5
gray      2006-8691    48 (4x12)	
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks	WMB Multi marking system, plain, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm
yellow      2006-115    100 (4x25)	yellow      793-501/000-002
Push-in type jumper bar, insulated, I <sub>N</sub> 41 A, light gray	red      793-501/000-005
from 1 to 3      2006-433    50 (2x25)	blue      793-501/000-006
from 1 to 5      2006-435    50 (2x25)	gray      793-501/000-007
	orange      793-501/000-012
	light green      793-501/000-017
	green      793-501/000-023
	violet      793-501/000-024
	5
Lockout cap, for conductor entry and operating slot	Marking strip, plain, 11 mm wide, 50 m reel
gray      2006-191    25	white      2009-110            1
	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable
	white      2009-115            1



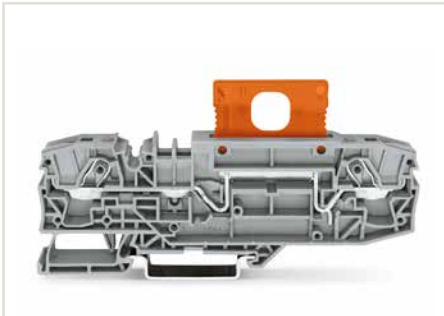


Disconnect/test terminal block with knife disconnect (2006-8671) in disconnect position

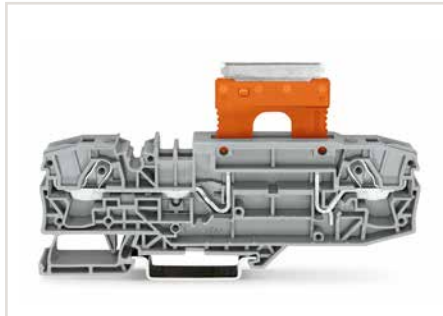
Both 2006-8671 and 2006-8661 TOPJOB® S disconnect terminal blocks have been specially designed for use in photovoltaic and wind power systems, where voltages exceeding 1,000 V (IEC) and 600 V (UL) are required (e.g., generator junction boxes).

- Ideal for high voltages in renewable energy applications
- **Disconnect terminal blocks with two alternative disconnect options:**
  - with orange knife disconnect (2006-8671)
  - with orange disconnect plug (2006-8661)
- This 2006 Series terminal blocks are approved for 30 A/1,500 VDC (IEC) or 1,000 VDC (UL)
- With a terminal block width of 15 mm, the maximum cross-section for solid and fine-stranded conductors is 10 mm<sup>2</sup> (8 AWG) and 6 mm<sup>2</sup> (10 AWG) for ferruled conductors.
- Equipped with test slots
- Compatible with through terminal blocks of the same profile and all other TOPJOB® S terminal blocks

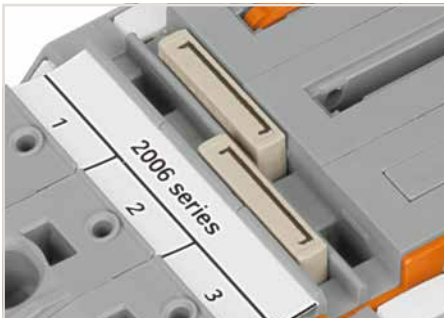
- 1 Conductor range: 0.5 ... 10 mm<sup>2</sup> "s + fst";  
Push-in termination: 1 ... 10 mm<sup>2</sup> "s"  
and 1.5 ... 6 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- 2 AC/DC 1000 V = rated voltage  
DC 1500 V  
12 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- 4 Protective warning marker must be applied individually.



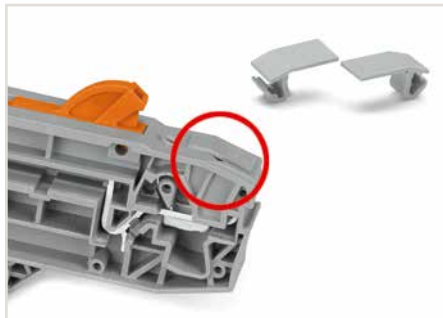
Carrier terminal block with disconnect plug (2006-8401) in operating position



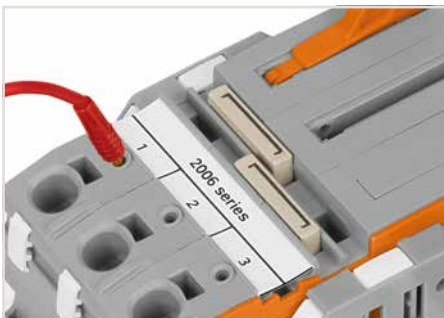
Carrier terminal block with disconnect plug (2006-8401) in parked position



Commoning a 15 mm-wide terminal block via push-in type jumper bars: 1 to 3 (2006-433) and 1 to 5 (2006-435).



Lockout cap (2006-191) seals unused conductor entry.



Test slots on both terminal block sides allow for direct measurement.



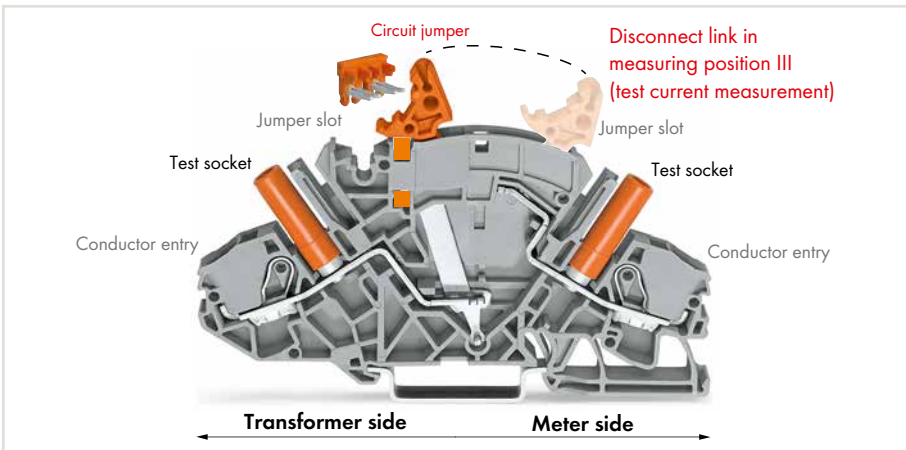
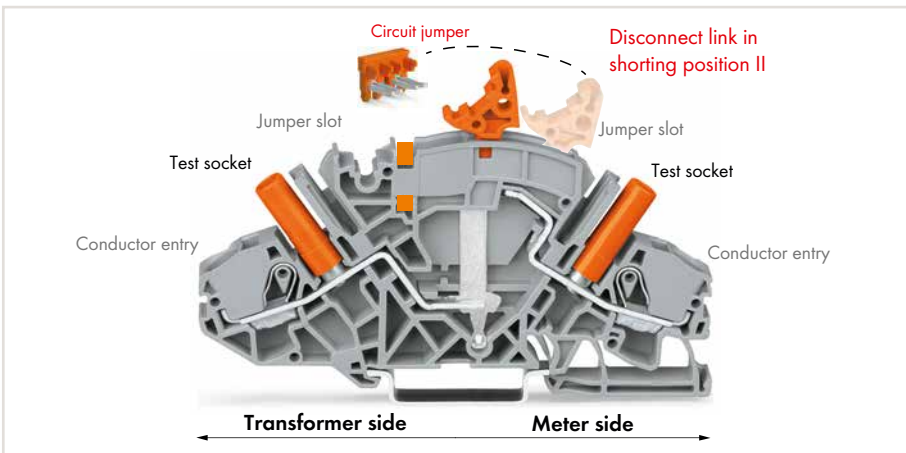
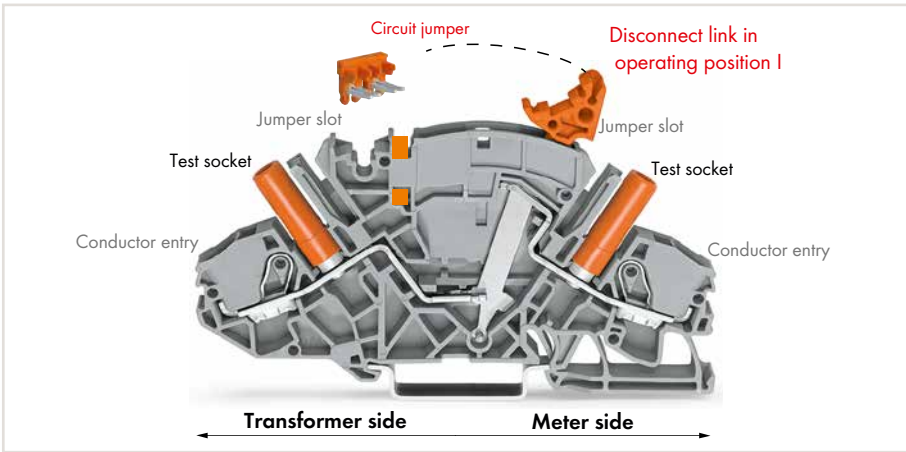
Test slots on both terminal block sides allow for direct measurement.



Alternatively, measurement can also be performed using TOPJOB® S Connectors (2006-511) from terminal block 1 to 2. Spacer modules (2006-549) must be used to compensate for the 15 mm terminal block width.

# TOPJOB® S Current Transformer Terminal Blocks, 2007-8821 (Orange Disconnect Link)

1



WAGO's TOPJOB® S Current Transformer (Disconnect/Test) Terminal Block (2007-8821) is designed for current transformer circuits.

First, the current transformer is shorted via disconnect link and circuit jumper (insert jumper, move disconnect link from operating position I to shorting position II, activate shorting path). Connecting a measurement device via test socket on the meter side can only be performed once circuit disconnection is complete (disconnect link in measuring position III).

- Features top-of-unit circuit jumper slot for shorting path activation.
- Disconnect link provides intuitive and easy operation, as well as exact switching status indication.
- Combines high functionality with compact design (99.6 mm long and 8 mm wide).
- All 2007 Series terminal blocks are rated at 30 A/500 V (IEC) and 300 V (UL).
- With a terminal block width of 8 mm, the maximum cross-section for solid and fine-stranded conductors is 10 mm<sup>2</sup> (8 AWG) and 6 mm<sup>2</sup> (10 AWG) for ferruled conductors.
- Touch-proof test sockets for 4 mm Ø test plugs on transformer and meter side.
- Compatible with through and ground conductor terminal blocks having the same profile.



Preparing shorting path for the current transformer circuits.



Insert insulated, touch-proof circuit jumpers into jumper slot.

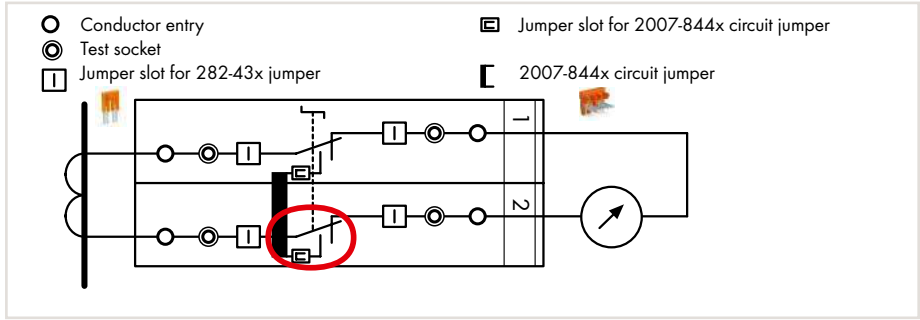


Using locking covers or profiles for adjacent terminal blocks allows disconnect links to be operated simultaneously.

# TOPJOB® S Implementing a Current and Voltage Transformer Circuit



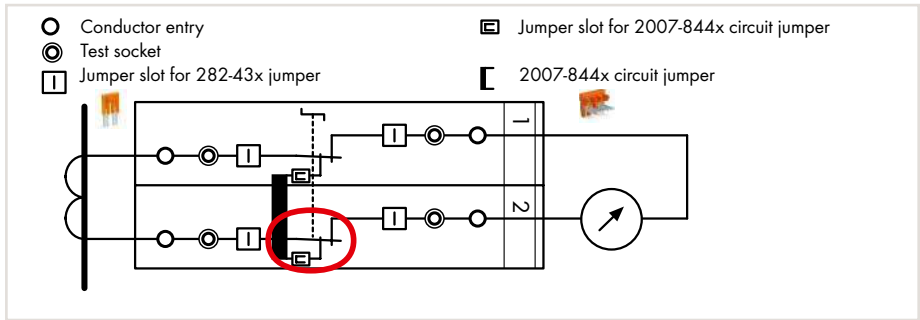
**Disconnect link in operating position I**  
Terminal blocks required:  
2 x disconnect/test terminal block (2007-8821)  
1 x circuit jumper, orange (2007-8442)  
Locking covers or interlocking links (option)



In the operating position, the measurement device is connected to the transformer, the circuit jumper is inserted and the disconnect link is in position I.



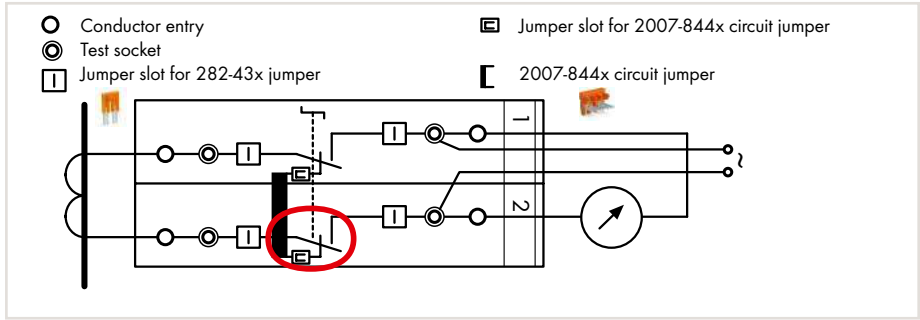
**Disconnect link in shorting position II**



The transformer is not disconnected from the measuring device yet, the shorting path is activated by moving the disconnect link into shorting position II and the transformer is safely shorted.



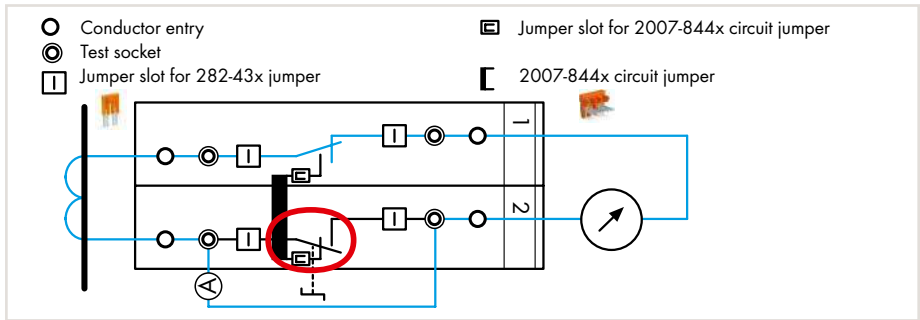
**Test current measurement: Disconnect link in measuring position III**



The measuring device is electrically disconnected from the transformer. If required, an external voltage can be applied to the measuring device via the test socket.



**Measurement testing (using both test sockets)**  
Terminal block 1: Disconnect link in operating position I  
Terminal block 2: Disconnect link in measuring position III



Measurement testing: First insert the reference current meter (A) into the test socket, then move the disconnect link into measurement position III (test current measurement).

## Examples for Current Transformer Circuits

1



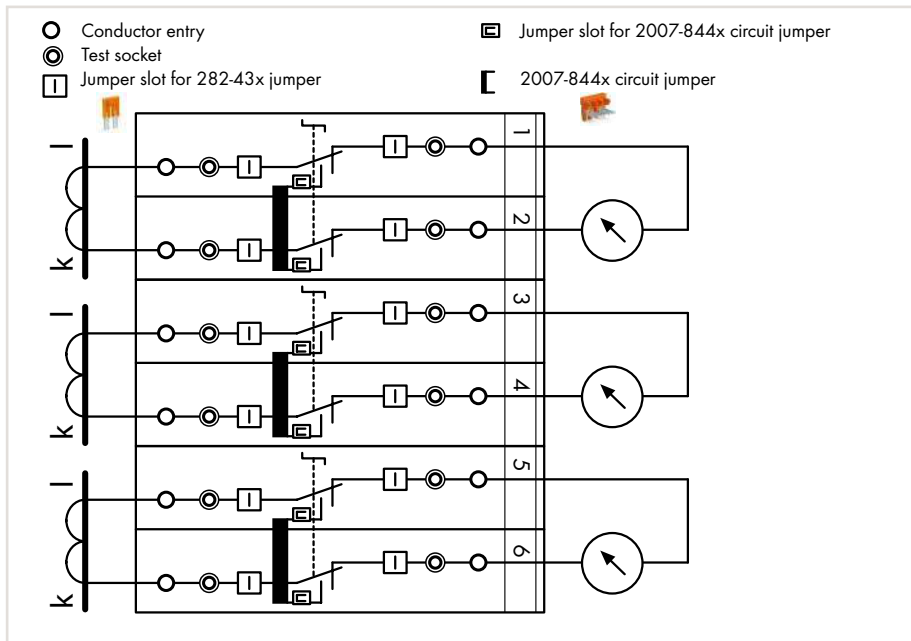
### Measuring set for a three-phase current transformer

Terminal blocks required:

6 x disconnect/test terminal block (2007-8821)

3 x circuit jumper, orange (2007-8442)

In addition: interlocking links, locking covers, lock-outs



Pairs of disconnect links are interconnected via locking cover or interlocking link. Measurement testing is performed after the interlocking is released.



### Measuring set for a three-phase current transformer with 'Y' point

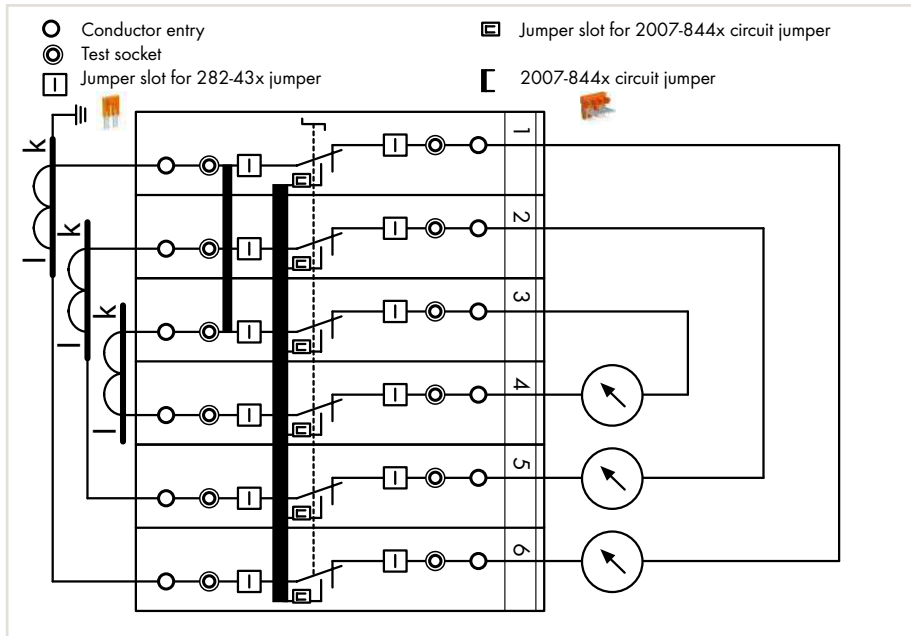
Terminal blocks required:

6 x disconnect/test terminal block (2007-8821)

1 x circuit jumper, orange (2007-8446)

1 x jumper, orange (282-433)

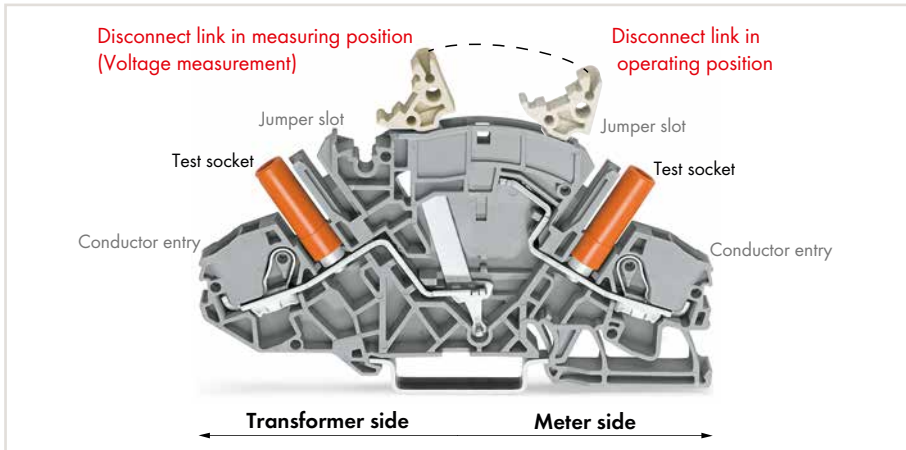
In addition: interlocking links, locking covers, lock-outs



All six disconnect links are interconnected via locking cover or interlocking link.

# TOPJOB® S 2007-8811 Voltage Transformer Terminal Blocks (Light Gray Disconnect Link)

1



WAGO's TOPJOB® S Voltage Transformer (Disconnect/Test) Terminal Block (2007-8811) is designed for current transformer circuits.

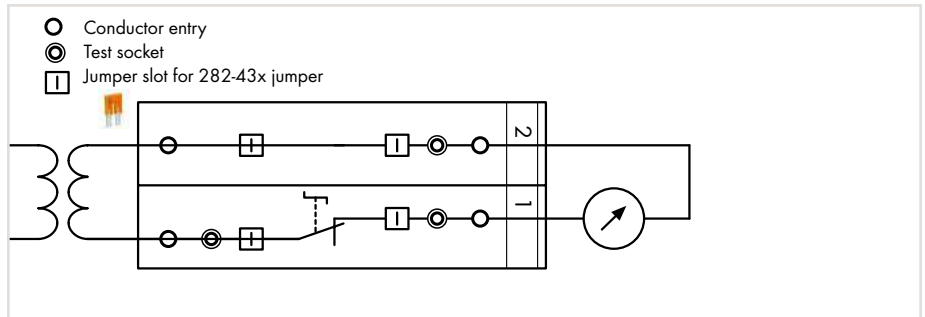
First, disconnect the voltage transformer from the circuit (move disconnect link from operating position to measuring position). Connecting a measurement device via test socket on the meter side can only be performed after disconnection is complete (measuring position).

- For voltage transformer circuits (no circuit jumper slot required as with 2007-8821 Current Transformer Terminal Block)
- Disconnect link provides intuitive and easy operation, as well as exact switching status indication.
- Combines high functionality with compact design (99,6 mm long and 8 mm wide).
- All 2007 Series terminal blocks are rated at 30 A/500 V (IEC) and 300 V (UL).
- With a terminal block width of 8 mm, the maximum cross-section for solid and fine-stranded conductors is 10 mm<sup>2</sup> (8 AWG) and 6 mm<sup>2</sup> (10 AWG) for ferruled conductors.
- Touch-proof test sockets for 4 mm Ø test plugs on transformer and meter side.
- Compatible with through and ground conductor terminal blocks of same profile.



### Example for voltage transformer testing Measuring set for single-phase voltage transformer testing

- Terminal blocks required:
- 1 x disconnect/test terminal block (2007-8811)
  - 1 x through terminal block (2007-8801)
  - 1 x end plate, orange (2007-8892)
- In addition: locking cover, lock-out



Disconnecting the voltage transformer from the circuit: Move disconnect link from operating position to measuring position.  
Voltage measurement: Connecting a measurement device via test socket on the meter side can only be performed after disconnection is complete (measuring position).



Marking via WMB Multi markers or marking strips.



Additional commoning option on the transformer side



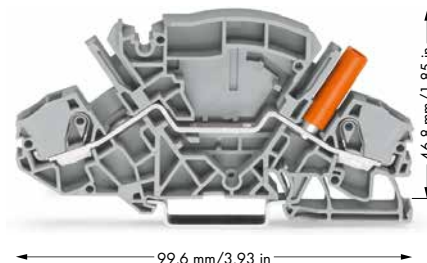
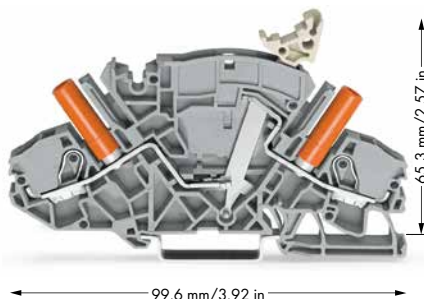
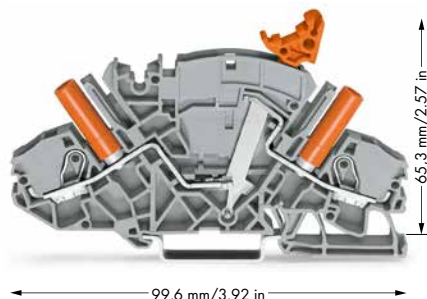
Multipole switching via snap-on type, transparent (locking) cover for disconnect links.


# TOPJOB® S – Disconnect/Test Terminal Blocks (30 A) and Through/Ground Conductor Terminal Blocks for Current and Voltage Transformer Circuits

6 (10) mm<sup>2</sup>, 2007 Series

1










0.5 ... 6 (10) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 30 A Terminal block width 8 mm / 0.315 inch 13 ... 15 mm / 0.51 ... 0.59 inch	20 ... 8 AWG 300 V, 30 A ③	0.5 ... 6 (10) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 30 A Terminal block width 8 mm / 0.315 inch 13 ... 15 mm / 0.51 ... 0.59 inch	20 ... 8 AWG 300 V, 10 A ③	0.5 ... 6 (10) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 30 A Terminal block width 8 mm / 0.315 inch 13 ... 15 mm / 0.51 ... 0.59 inch	20 ... 8 AWG 300 V, 30 A ③
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor disconnect/test terminal block, e.g., current transformer circuits, with circuit jumper slot, with touch-proof test sockets, for 4 mm Ø test plugs		2-conductor disconnect/test terminal block, e.g., voltage transformer circuits, with touch-proof test sockets, for 4 mm Ø test plugs		2-conductor through terminal block, with touch-proof test socket, for 4 mm Ø test plugs	
○ gray	<b>2007-8821</b> 20	○ gray	<b>2007-8811</b> 20	○ gray	<b>2007-8801</b> 20
				● blue	<b>2007-8804</b> 20
<b>Item-Specific Accessories</b>					
Adjacent jumper for switch lever, insulated, orange, I <sub>N</sub> 30 A					
	2-way	<b>2007-8442</b>	50 (5x10)		
	3-way	<b>2007-8443</b>	50 (5x10)		
	4-way	<b>2007-8444</b>	50 (5x10)		
	5-way	<b>2007-8445</b>	50 (5x10)		
	6-way	<b>2007-8446</b>	50 (5x10)		
	7-way	<b>2007-8447</b>	50 (5x10)		
	8-way	<b>2007-8448</b>	50 (5x10)		

## 2006 Series Accessories

Appropriate marking systems: WMB/Marking strips (see Section 13)

End and separator plate, 1.5 mm thick, without use of lock-out seal orange <b>2007-8892</b> 50 (5x10) gray <b>2007-8891</b> 50 (5x10)	Jumper, insulated, I <sub>N</sub> 30 A, orange  2-way <b>282-432</b> 50 (5x10) 3-way <b>282-433</b> 50 (5x10) 4-way <b>282-434</b> 50 (5x10) 5-way <b>282-435</b> 50 (5x10) 6-way <b>282-436</b> 50 (5x10) 7-way <b>282-437</b> 50 (5x10) 8-way <b>282-438</b> 50 (5x10) 9-way <b>282-439</b> 50 (5x10) 10-way <b>282-440</b> 50 (5x10)	Jumper, special design, I <sub>N</sub> 30 A, orange  1-3-5 <b>282-435/011-000</b> 1-4-5 <b>282-435/301-000</b> 1-2-4-6 <b>282-436/301-000</b> 1-4-6 <b>282-436/304-000</b> 1-3-5-7 <b>282-437/011-000</b> 1-4-7 <b>282-437/012-000</b> 1-2-5-8 <b>282-438/300-000</b> 1-4-7-8 <b>282-438/301-000</b> 1-3-5-7-9 <b>282-439/011-000</b> 50 (5x10)
End and separator plate, 1.5 mm thick, for use of lock-out seal orange <b>2007-8894</b> 50 (5x10) gray <b>2007-8893</b> 50 (5x10)	Lock-out, for disconnect link  yellow <b>2007-8899</b> 100 (5x20)	Locking cover, mechanically locks multiple links, transparent  1-pole <b>282-881</b> 50 (5x10) 2-pole <b>282-882</b> 50 (5x10) 3-pole <b>282-883</b> 50 (5x10) 4-pole <b>282-884</b> 50 (5x10) 5-pole <b>282-885</b> 50 (5x10) 6-pole <b>282-886</b> 50 (5x10) 7-pole <b>282-887</b> 50 (5x10) 8-pole <b>282-888</b> 50 (5x10)
Jumper with safety lid, insulated, I <sub>N</sub> 30 A, orange  2-way <b>282-432/100-000</b> 3-way <b>282-433/100-000</b> 4-way <b>282-434/100-000</b> 50 (5x10)	Interlocking link, mechanically locks multiple links, 1 m/3'3" long  transparent <b>210-254</b> 1	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  yellow <b>2006-115</b> 100 (4x25)
		WMB Multi marking system, white, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm  plain <b>793-501</b> 5
		Marking strip, plain, 11 mm wide, 50 m reel  white <b>2009-110</b> 1

0.5 ... 6 (10) mm² ① | 20 ... 8 AWG

Terminal block width 8 mm / 0.315 inch  
 13 ... 15 mm / 0.51 ... 0.59 inch



Marking via WMB Multi markers or marking strips.

- ① Conductor range: 0.5 ... 10 mm² "s + f-st";  
 Push-in termination: 1 ... 10 mm² "s"  
 and 1.5 ... 6 mm²  
 "insulated ferrule, 12 mm"
- ② 500 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)

Item No.	Pack. Unit
2-conductor ground terminal block, with touch-proof test socket, for 4 mm Ø test plugs	
green-yellow	2007-8807 20
WMB Multi marking system, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm, yellow	
	k/1 (50x) 794-5553/000-002 5
WMB Multi marking system, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm, blue	
	U/V (50x) 794-5554/000-006 5



Lock-out prevents accidental operation of disconnect link.



Lock-out snaps into one of two notched positions.



Interlocking link mechanically locks multiple links for multi-pole switching applications.

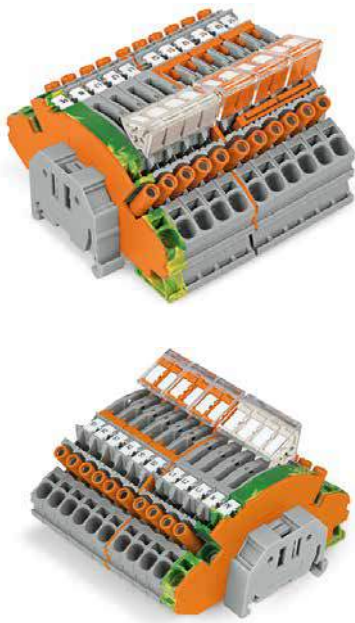


A lock-out seal can be used on the disconnect link in operating position I in combination with an end and separator plate (2007-8893 or 2007-8894).

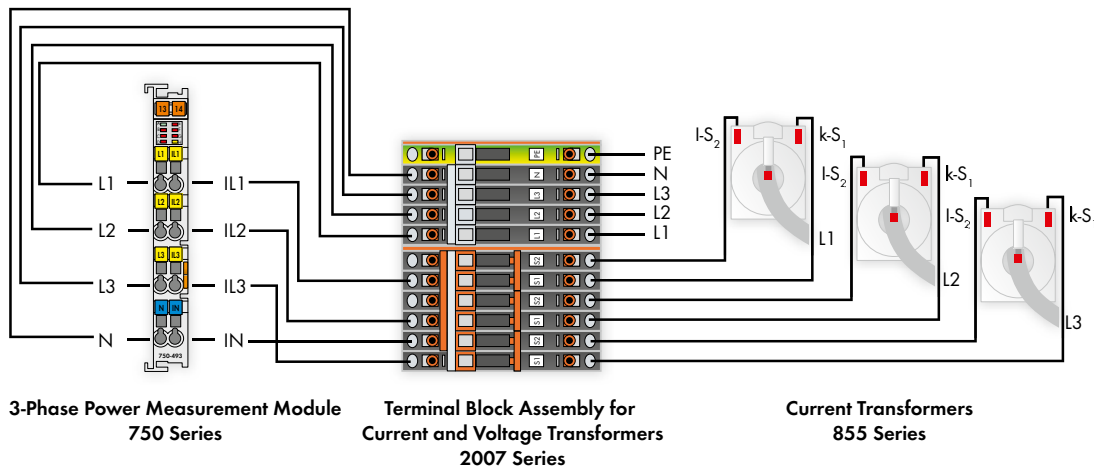
# TOPJOB® S Terminal Block Assemblies for Current and Voltage Transformers

6 (10) mm<sup>2</sup>, 2007 Series

1



Item No. for 2007-8873	Description	Quantity
249-117	Screwless end stop, 10 mm wide	2
282-882	Locking cover, mechanically locks multiple links, 2-pole	3
282-884	Locking cover, mechanically locks multiple links, 4-pole	1
2007-8442	Adjacent jumper for switch lever, insulated, 2-way	3
2007-8807	2-conductor ground terminal block, with touch-proof test socket, for 4 mm Ø test plug	1
2007-8811	2-conductor disconnect terminal block for test and measurement, with touch-proof test sockets, for 4 mm Ø test plug	4
2007-8821	2-conductor disconnect terminal block for test and measurement, with touch-proof test sockets, for 4 mm Ø test plug	6
2007-8892	End and separator plate, 1.5 mm thick, without use of lock-out seal	2
209-115	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable	21 Markers
282-435/O11-000	Jumper, insulated, 1-3-5	1
Assembly width incl. end stop		11.2 cm



3-Phase Power Measurement Module  
750 Series

Terminal Block Assembly for  
Current and Voltage Transformers  
2007 Series

Current Transformers  
855 Series





Item No. for 2007-8876	Quantity
<b>Description</b>	
249-117 Screwless end stop, 10 mm wide	2
282-369 Collective carrier for jumpers, for DIN-35 rail, for jumpers for transverse switching terminal block (282-811) and longitudinal switching disconnect terminal block (282-821)	1
282-882 Locking cover, mechanically locks multiple links, 2-pole	3
2007-8442 Adjacent jumper for switch lever, insulated, 2-way	3
2007-8821 2-conductor disconnect terminal block for test and measurement, with touch-proof test sockets, for 4 mm Ø test plug	6
2007-8892 End and separator plate, 1.5 mm thick, without use of lock-out seal	1
2009-115 WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable	12 Markers
282-435/011-000 Jumper, insulated, 1-3-5	1
Assembly width incl. end stop	8.5 cm

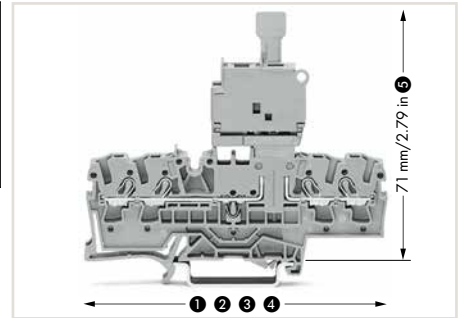
# TOPJOB® S

## Fuse Plugs on 2.5 (4) mm<sup>2</sup> Carrier Terminal Blocks

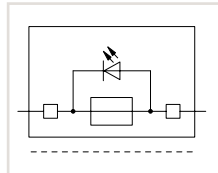
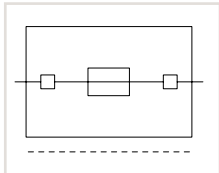
1

Fuse plug with pull-tab for miniature fuses 5 x 20 mm 250 V / I<sub>N</sub> 6.3 A  
Plug width 6.1 mm / 0.24 inch

Fuse plug with pull-tab for miniature fuses 5 x 20 mm 250 V / I<sub>N</sub> 6.3 A  
Plug width 6.1 mm / 0.24 inch



Fuse plug dimensions:  
 ① 66.1 mm / 2.62 inch for 2002-1661  
 ② 76.8 mm / 3.02 inch for 2002-1761  
 ③ 87.5 mm / 3.45 inch for 2002-1861  
 ④ 72.9 mm / 2.87 inch for 2002-1961  
 ⑤ with inserted fuse plug



### Accessories

WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable		
	plain	<b>793-5501</b> 5
WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable		
	yellow	<b>793-5501/000-002</b>
	red	<b>793-5501/000-005</b>
	blue	<b>793-5501/000-006</b>
	gray	<b>793-5501/000-007</b>
	orange	<b>793-5501/000-012</b>
	light green	<b>793-5501/000-017</b>
	green	<b>793-5501/000-023</b>
	violet	<b>793-5501/000-024</b> 5

Item No.	Pack. Unit	Item No.	Pack. Unit
Fuse plug with pull-tab, for (5 x 20) mm miniature metric fuses Electrical ratings are given by the fuse.		Fuse plug with pull-tab, for (5 x 20) mm miniature metric fuses, with LED, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of a blown fuse: LED 2 mA	
○ gray	<b>2004-911</b> 50	○ 12 ... 30 V	<b>2004-911/1000-541</b> 50
		○ 30 ... 65 V	<b>2004-911/1000-542</b> 50
		○ 120 V	<b>2004-911/1000-867</b> 50
		○ 230 V	<b>2004-911/1000-836</b> 50

### Accessories

Appropriate marking systems: WMB/Marking strips (see Section 13)

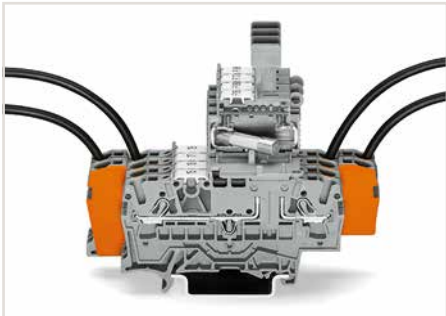
<b>①</b> 2-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1661</b> 50	<b>④</b> 2-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1961</b> 50
End and intermediate plate, 1 mm thick orange <b>2002-1692</b> 100 (4x25) gray <b>2002-1691</b> 100 (4x25)	End and intermediate plate, 1 mm thick orange <b>2002-1992</b> 100 (4x25) gray <b>2002-1991</b> 100 (4x25)
<b>②</b> 3-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1761</b> 50	Double-deck carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch L/L <b>2002-2961</b> 50
End and intermediate plate, 1 mm thick orange <b>2002-1792</b> 100 (4x25) gray <b>2002-1791</b> 100 (4x25)	Double-deck carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch L/N <b>2002-2963</b> 50
<b>③</b> 4-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1861</b> 50	End and intermediate plate, 1 mm thick orange <b>2002-2992</b> 100 (4x25) gray <b>2002-2991</b> 100 (4x25)
End and intermediate plate, 1 mm thick orange <b>2002-1892</b> 100 (4x25) gray <b>2002-1891</b> 100 (4x25)	End plate for fuse terminal blocks, 2 mm thick orange <b>2002-992</b> 100 (4x25) gray <b>2002-991</b> 100 (4x25)
	Shorting link, (5 x 20) mm, allows the fuse plug to be used as a disconnect plug I <sub>N</sub> 6.3 A <b>281-503</b> 250 (10x25)

# TOPJOB® S

## Fuse Plugs on 2.5 (4) mm<sup>2</sup> Carrier Terminal Blocks

### Technical Information

1



Using fuse plugs with rail-mount terminal blocks for control circuit protection is highly advantageous because the function and wiring levels are separated:

- No additional cost for assembly and wiring
- No risk of accidental contact with live parts when disconnecting the fuse plug
- The fuse plug is completely separated from the carrier terminal block when replacing a fuse – away from current carrying parts
- The fuse plug can be removed by service personnel
- No unintentional reclosing of the circuit by another person
- Quickly exchange a fuse by using a prepared “stand-by plug”

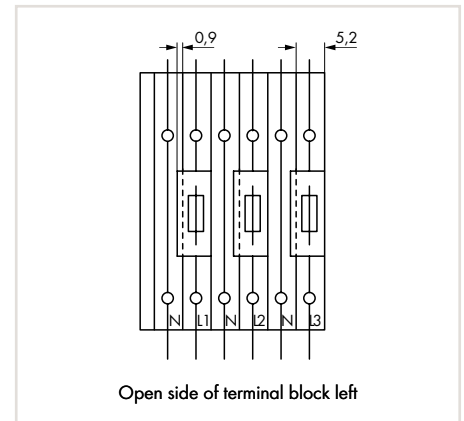
Fuse plug features for quick and safe applications:

- Optional LED indicates blown fuse
- Top-of-unit marking slot provides clear carrier terminal block identification
- Two test slots with touch contacts
- High density with only 5.2 mm width of terminal block and fuse plug width 6.1 mm
- May be used as a disconnect plug in combination with a shorting link

#### Miniature fuses 5 x 20

Series Item No.	Overload and short circuit protection		Short circuit protection only	
	Individual argmt.	Group argmt.	Individual argmt.	Group argmt.
Fuse terminal blocks				
2004-911				
2004-911/.....	1.6 W	1.6 W	2.5 W	2.5 W

When selecting miniature metric fuses, make sure that the maximum power loss listed above is not exceeded. The power loss is determined according to IEC or EN 60947-7-3/VDE 0611-6 at 23 °C. The temperature rise of the terminal blocks must be checked according to their application and mounting. Higher ambient temperatures place additional strain on fuse cartridges. Therefore, in such applications, the rated current must be reduced if necessary. More details are available from the fuse manufacturers.



#### Please note:

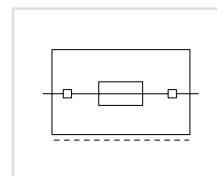
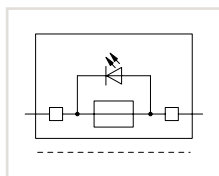
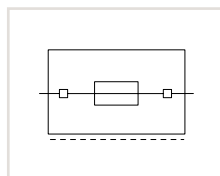
The extra width of the plug (6.1 mm compared to 5.2 mm for carrier terminal blocks) must be compensated for with intermediate plates (1 mm) when building an assembly of carrier terminal blocks equipped with fuse plugs.

# TOPJOB® S

## Fuse Plugs on 6 (10) mm<sup>2</sup> Carrier Terminal Blocks

1

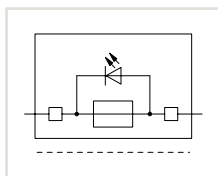
<b>Fuse plug with pull-tab</b> 800 V / I <sub>N</sub> 10 A Plug width 7.4 mm / 0.291 inch	<b>Fuse plug with pull-tab</b> 800 V / I <sub>N</sub> 10 A Plug width 7.4 mm / 0.291 inch	<b>Fuse plug with pull-tab</b> 800 V / I <sub>N</sub> 10 A Plug width 10.4 mm / 0.409 inch
---	---	--



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Fuse plug with pull-tab Electrical ratings are given by the fuse.		Fuse plug with pull-tab, with indicator lamp, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: LED 2mA		Fuse plug with pull-tab Electrical ratings are given by the fuse.	
for (5 x 20) mm miniature metric fuses		for (5 x 20) mm miniature metric fuses		for ¼" x 1¼" miniature metric fuses	
○ gray <b>2006-911</b> 25		○ 12 ... 30 V <b>2006-911/1000-541</b> 25 ○ 30 ... 65 V <b>2006-911/1000-542</b> 25 ○ 120 V <b>2006-911/1000-867</b> 25 ○ 230 V <b>2006-911/1000-836</b> 25		○ gray <b>2006-931/099-000</b> 25	
for (5 x 30) mm miniature metric fuses		for miniature fuses 5 x 30 mm			
○ gray <b>2006-921</b> 25		○ 12 ... 30 V <b>2006-921/1000-541</b> 25 ○ 30 ... 65 V <b>2006-921/1000-542</b> 25 ○ 120 V <b>2006-921/1000-867</b> 25 ○ 230 V <b>2006-921/1000-836</b> 25 ○ 380 ... 500 V <b>2006-921/1000-859</b> 25			
for ¼" x 1¼" miniature metric fuses		for ¼" x 1¼" miniature metric fuses			
○ gray <b>2006-931</b> 25		○ 12 ... 30 V <b>2006-931/1000-541</b> 25 ○ 30 ... 65 V <b>2006-931/1000-542</b> 25 ○ 120 V <b>2006-931/1000-867</b> 25 ○ 230 V <b>2006-931/1000-836</b> 25 ○ 380 ... 500 V <b>2006-931/1000-859</b> 25			
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 1 mm thick orange <b>2006-1692</b> 100 (4x25) gray <b>2006-1691</b> 100 (4x25)		End and intermediate plate, 1 mm thick orange <b>2006-1692</b> 100 (4x25) gray <b>2006-1691</b> 100 (4x25)		Intermediate plate, 2.9 mm thick orange <b>2006-1696</b> 100 (4x25) gray <b>2006-1695</b> 100 (4x25)	
<b>Accessories fuse plugs</b>					
Appropriate marking systems: WMB/Marking strips (see Section 13)					
End plate for fuse terminal blocks, 2 mm thick orange <b>2006-992</b> 100 (4x25) gray <b>2006-991</b> 100 (4x25)		Shorting link, (5 x 20) mm, allows the fuse plug to be used as a disconnect plug I <sub>N</sub> 6.3 A <b>281-503</b> 250 (10x25)		Screwless end stop, for DIN-35 rail, 6 mm wide gray <b>249-116</b> 100 (4x25)	
2-conductor carrier terminal block, 0.5 ... 6 (10) mm <sup>2</sup> / 20 ... 8 AWG Terminal block width 7.5 mm / 0.295 inch gray <b>2006-1661</b> 25		WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5		Screwless end stop, for DIN-35 rail, 10 mm wide gray <b>249-117</b> 50 (2x25)	

**Fuse plug with pull-tab**

**800 V / I<sub>N</sub> 10 A**  
**Plug width 10.4 mm / 0.409 inch**



**Miniature fuses**



Series Item No.	Overload and short circuit protection		Short circuit protection only	
	Individual argmt.	Group argmt.	Individual argmt.	Group argmt.
Fused disconnect terminal blocks				
2006-911	7.5	1.6 W	1.6 W	2.5 W
2006-921	7.5	1.6 W	1.6 W	2.5 W
2006-931	7.5	1.6 W	1.6 W	2.5 W
2006-931 /099...	10.4	2.5 W	2.5 W	2.5 W
2006-931 /1099...	10.4	2.5 W	2.5 W	2.5 W

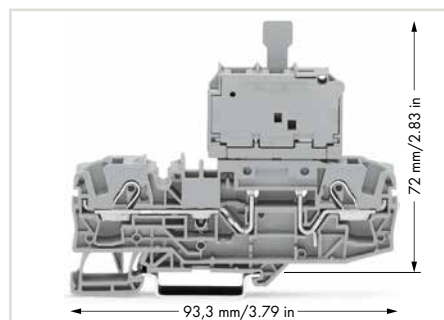
Using pluggable fuse holders with rail-mount terminal blocks for control circuit protection is highly advantageous for the user, as the function and the wiring are accomplished by two separate parts:

- No additional cost for assembly and wiring
- No risk of accidental contact with live parts during disconnection of fuse plug
- If exchanging a defective fuse, the fuse plug is completely separated from the carrier terminal block. This provides changeout away from current carrying parts.
- The fuse plug can be removed by service personnel, avoiding unintentional reclosing of the circuit by another person
- Quick replacement a fuse by using a prepared "stand-by plug."

The following features of the fuse plug ensure quick and safe use:

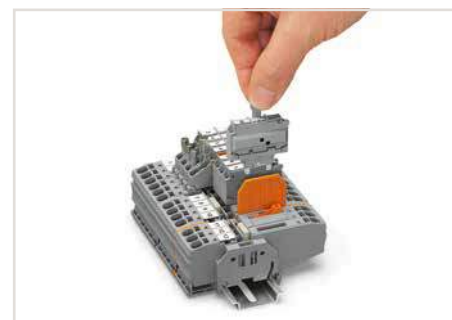
- Optional LED indicates blown fuse
- Markable fuse plug for clear coordination to the correct carrier terminal block
- Two touch-proof test slots
- High density with only 7.5 mm width of terminal block and fuse plug width 7.4 (10.4) mm
- Instead of a fuse, a shorting link may be used as a disconnect plug

Item No.	Pack. Unit
Fuse plug with pull-tab, with indicator lamp, gray	
Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: LED 2mA	
for ¼" x 1¼" miniature metric fuses	
○ 12 ... 30 V <b>2006-931/1099-541</b>	25
○ 30 ... 65 V <b>2006-931/1099-542</b>	25
○ 120 V <b>2006-931/1099-867</b>	25
○ 230 V <b>2006-931/1099-836</b>	25
○ 380 ... 500 V <b>2006-931/1099-859</b>	25
<b>Item-Specific Accessories</b>	
Intermediate plate, 2.9 mm thick	
 orange	<b>2006-1696</b> 100 (4x25)
 gray	<b>2006-1695</b> 100 (4x25)

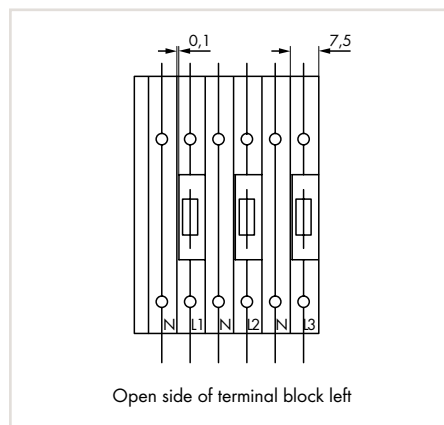


**Fuse plug dimensions**

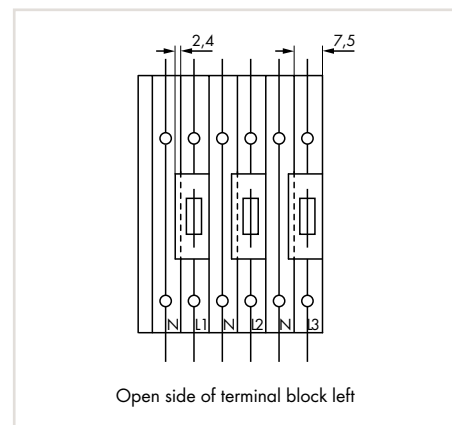
Pivoting fuse holder with spare fuse holder



The end plate ensures that the fuse can only be removed when the fuse plug is pulled out.



Open side of terminal block left



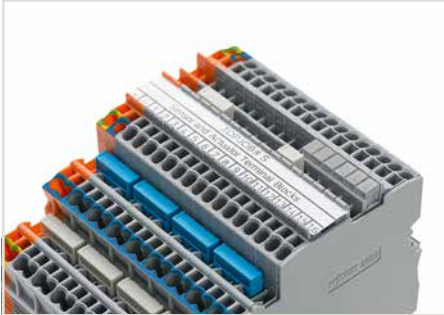
Open side of terminal block left

**When using 10.4 mm wide plugs, please note:**  
 The extra width of the plug (10.4 mm compared to 7.5 mm for carrier terminal blocks) must be compensated for with intermediate plates (2.9 mm) when building an assembly of carrier terminal blocks equipped with fuse plugs.

# TOPJOB® S Sensor and Actuator Terminal Blocks, 2000 Series

## Description and Installation

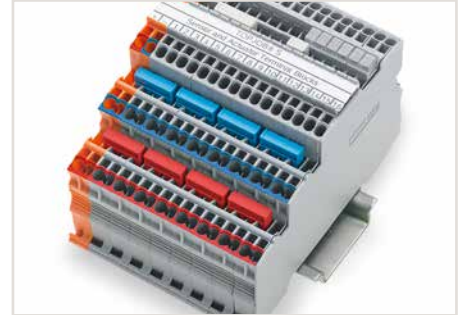
1



**Commoning (signal level):**  
Commoning the signal level with push-in type jumper bars (2000 Series). Models with an LED can only be commoned in one jumper slot. TOPJOB® S Test Plug Adapters can be used in all jumper slots.



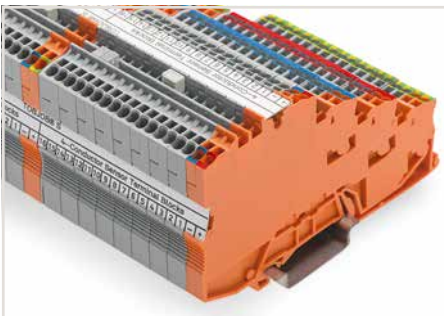
**Upper level:** two independent signal pathways



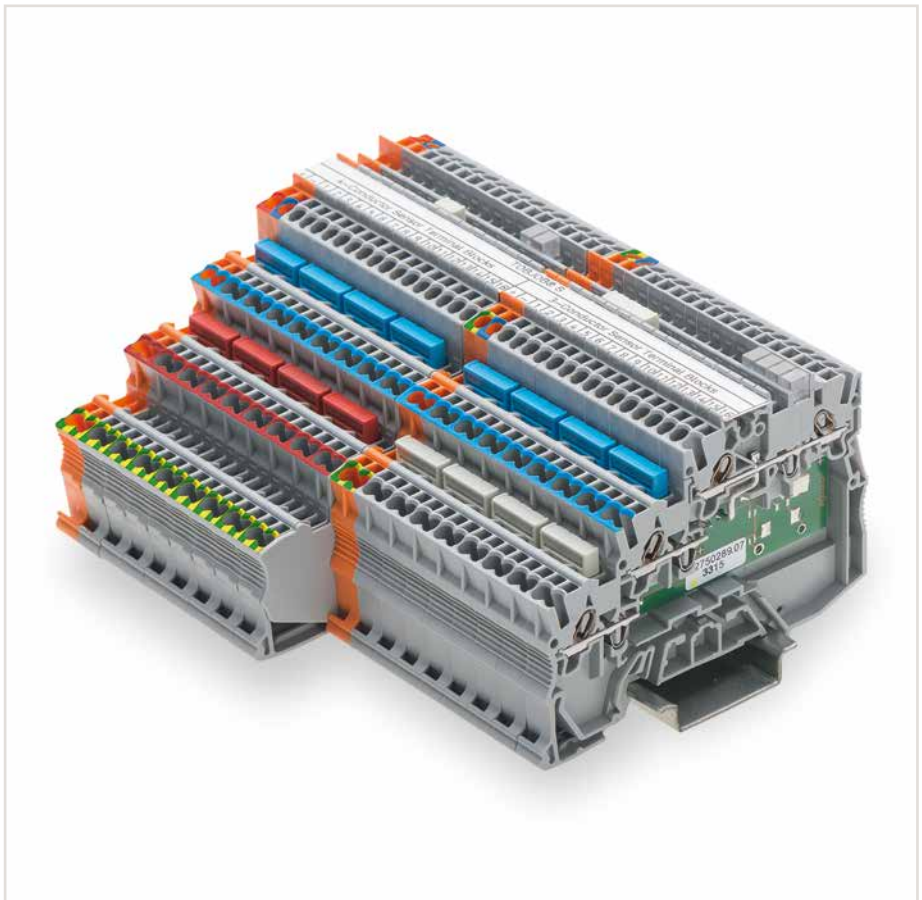
**Commoning (potential level):**  
Commoning potential levels via push-in type jumper bars (2000 Series).



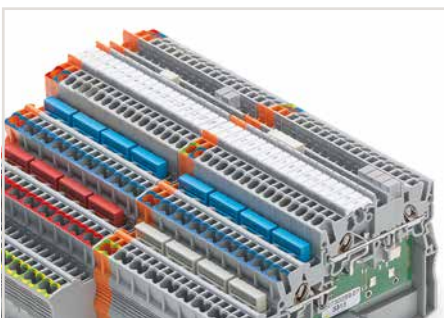
Power supply via orange supply terminal block of same profile from both the cabinet and sensor sides



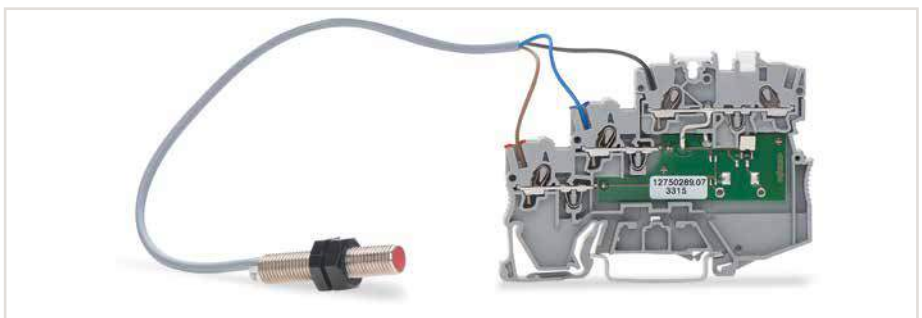
**Labeling**  
Labeling via marking strips (2009-110) – from the top or the side.



Terminal block assembly with 4-conductor sensor terminal blocks and 3-conductor actuator terminal blocks



**Labeling**  
Labeling via 3.5 mm WMB markers (793-35xx) from the top or the side – additional marking option via marker carrier.



3-conductor sensor LED terminal block with a connected sensor

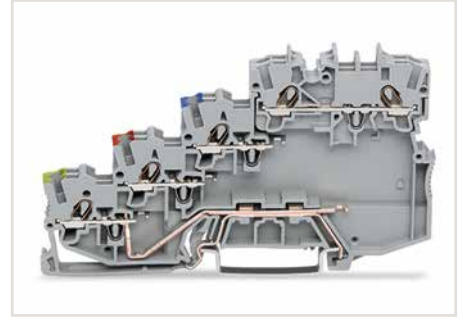
1



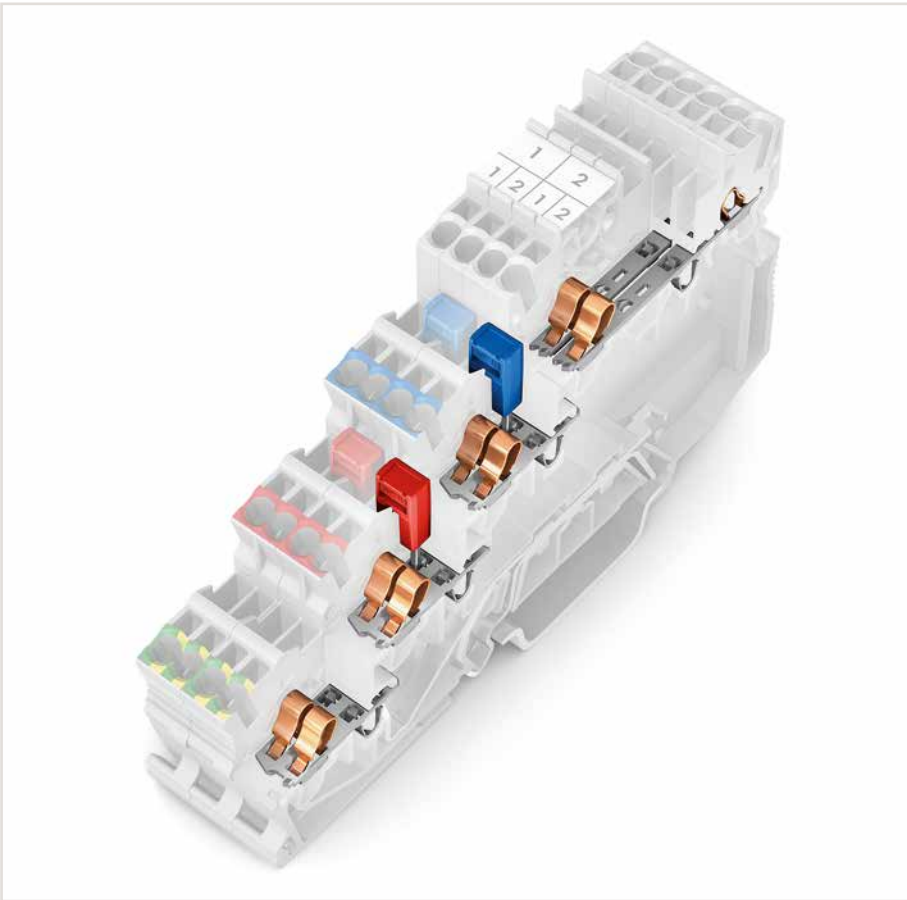
**Commoning (potential level):**  
Continuous commoning in the potential levels via push-in type jumper bars for even pole numbers (2000 Series)



**Potential levels:** two adjacent commoning options on a current bar



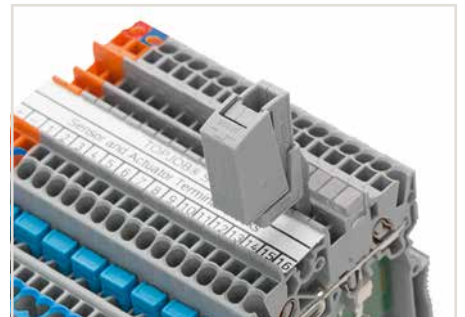
4-conductor sensor terminal block with ground contact



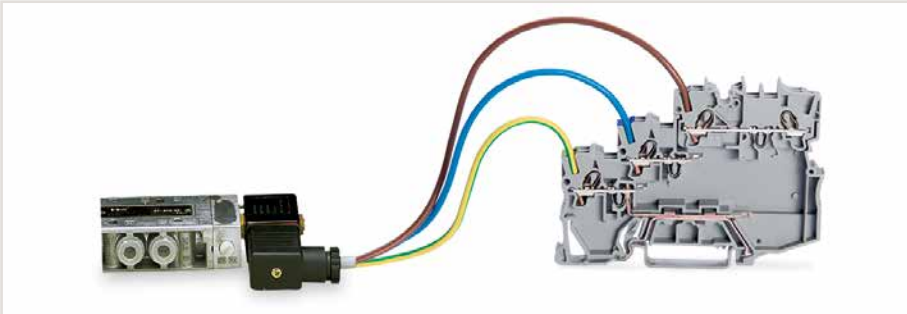
Upper level: two independent signal pathways, in 3.5 mm spacing per pole, with a dual jumper slot  
Lower levels: two interconnected potential clamping units, with a single jumper slot, can be commoned in both directions



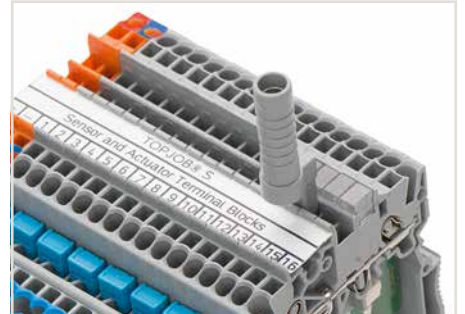
**Ground commoning:**  
For sensor and actuator terminal blocks without ground connection to the DIN-rail, the ground connection can be performed by commoning to the terminal block with a ground foot.



Testing via testing tap (2009-182) (up to max. 42 V).



3-conductor actuator LED terminal block with a connected actuator



Testing via test plug adapter (2009-174) (up to max. 42 V).

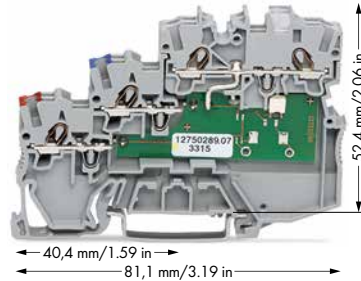
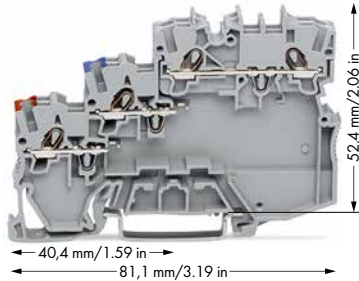
# TOPJOB® S 3-Conductor Sensor Terminal Blocks

1 (1.5) mm<sup>2</sup>, 2000 Series

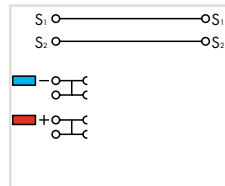
1

0.14 ... 1 (1.5) mm <sup>2</sup> ① 250 V/4 kV/3 ② I <sub>N</sub> 13.5 A	24 ... 16 AWG 300 V, 10 A	0.14 ... 1 (1.5) mm <sup>2</sup> ① 24 VDC I <sub>N</sub> 13.5 A	24 ... 16 AWG 24 VDC, 10 A
Terminal block width 7 mm / 0.276 inch ③ 9 ... 11 mm / 0.35 ... 0.43 inch		Terminal block width 7 mm / 0.276 inch ③ 9 ... 11 mm / 0.35 ... 0.43 inch	

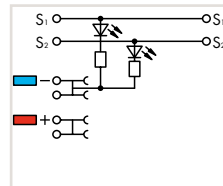
**Note:**  
The double spacing per pole of this terminal block series maximizes connectivity. For example **ten** sensors may be connected using only **five** sensor terminal blocks plus a power supply terminal block.



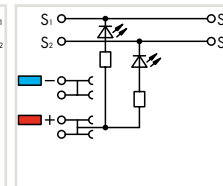
2000-5311



2000-5311/1102-950



2000-5311/1101-951



- ① Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + fst"; Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s" and 0.5 ... 0.75 mm<sup>2</sup> "insulated ferrule, 10 mm"
- ② 250 V = rated voltage  
4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ 3.5 mm pin spacing per signal (2 x 3.5 mm = 7 mm)
- ④ See application notes for:  
Colored push-in type jumper bar, page 134  
Push-in type wire jumper, page 138

### Accessories for 3-Conductor Terminal Blocks

WMB/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick, for 3-conductor terminal blocks	gray	<b>2000-5391</b>	100 (4x25)
---	------	------------------	------------

Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray			
④	2-way	<b>2000-402</b>	200 (8x25)
	3-way	<b>2000-403</b>	200 (8x25)
	4-way	<b>2000-404</b>	200 (8x25)
	5-way	<b>2000-405</b>	100 (4x25)
	6-way	<b>2000-406</b>	100 (4x25)
	7-way	<b>2000-407</b>	100 (4x25)
	8-way	<b>2000-408</b>	100 (4x25)
	9-way	<b>2000-409</b>	100 (4x25)
	10-way	<b>2000-410</b>	100 (4x25)

Colored push-in type jumper bars,			
	red	.../000-005	
	blue	.../000-006	

Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray			
	from 1 to 3	<b>2000-433</b>	200 (8x25)
	from 1 to 4	<b>2000-434</b>	200 (8x25)
	from 1 to 5	<b>2000-435</b>	100 (4x25)
	from 1 to 6	<b>2000-436</b>	100 (4x25)
	from 1 to 7	<b>2000-437</b>	100 (4x25)
	from 1 to 8	<b>2000-438</b>	100 (4x25)
	from 1 to 9	<b>2000-439</b>	100 (4x25)
	from 1 to 10	<b>2000-440</b>	100 (4x25)

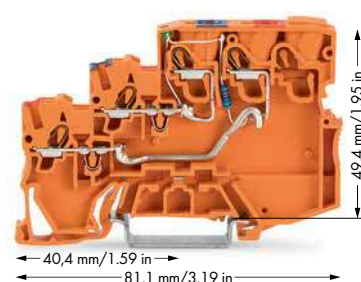
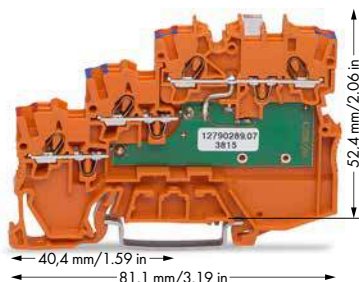
Double-deck marker carrier, pivoting	gray	<b>2000-121</b>	50 (2x25)
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Marking strip, plain, 11 mm wide, 50 m reel	white	<b>2009-110</b>	1
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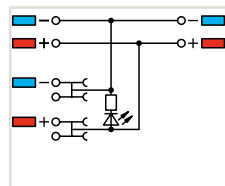
WMB Multi marking system, white, 10 strips with 10 markers per card, for 3.5 mm terminal block	width		
	plain	<b>793-3501</b>	5

Operating tool with partially insulated shaft, type 1, (2.5 x 0.4) mm blade		<b>210-719</b>	1
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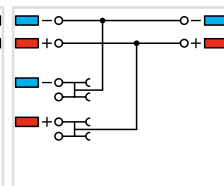
Item No.	Pack. Unit	Item No.	Pack. Unit
3-conductor sensor terminal block		3-conductor sensor LED terminal block, for PNP (high-side) switching sensors, yellow LED	
gray <b>2000-5311</b>	50	gray <b>2000-5311/1102-950</b>	50
		3-conductor sensor LED terminal block, for NPN (low-side) switching sensors, yellow LED	
		gray <b>2000-5311/1101-951</b>	50



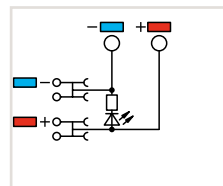
2000-5372/1102-953



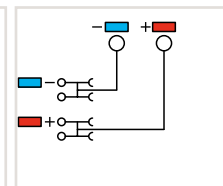
2000-5372



2000-5352/1102-953



2000-5352



Item No.	Pack. Unit	Item No.	Pack. Unit
3-conductor sensor LED supply terminal block, 24 VDC, green LED		3-conductor sensor LED supply terminal block, 24 VDC, green LED, control panel side: 2.5 (4) mm <sup>2</sup> , max. 28 A	
orange <b>2000-5372/1102-953</b>	15	orange <b>2000-5352/1102-953</b>	15
3-conductor sensor supply terminal block, max. 250 V, internally commoned		3-conductor sensor supply terminal block, max. 250 V, control panel side: 2.5 (4) mm <sup>2</sup> , max. 28 A	
orange <b>2000-5372</b>	15	<b>2000-5352</b>	15



# TOPJOB® S 4-Conductor Sensor Terminal Blocks

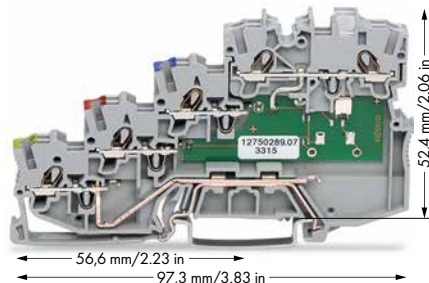
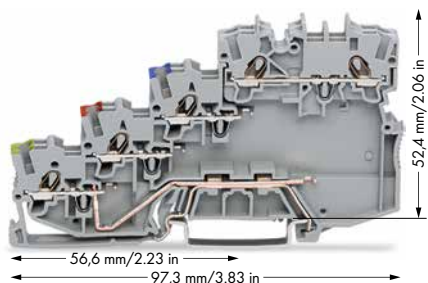
1 (1.5) mm<sup>2</sup>, 2000 Series

0.14 ... 1 (1.5) mm <sup>2</sup> ① 250 V/4 kV/3 ② I <sub>N</sub> 13.5 A	24 ... 16 AWG 300 V, 10 A	0.14 ... 1 (1.5) mm <sup>2</sup> ① 24 VDC I <sub>N</sub> 13.5 A	24 ... 16 AWG 24 VDC, 10 A
Terminal block width 7 mm / 0.276 inch ③ 9 ... 11 mm / 0.35 ... 0.43 inch		Terminal block width 7 mm / 0.276 inch ③ 9 ... 11 mm / 0.35 ... 0.43 inch	

**Note:**

The double spacing per pole of this terminal block series maximizes connectivity. For example **ten** sensors may be connected using only **five** sensor terminal blocks plus a power supply terminal block.

- ① Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + fst"; Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s" and 0.5 ... 0.75 mm<sup>2</sup> "insulated ferrule, 10 mm"
- ② 250 V = rated voltage  
4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ 3.5 mm pin spacing per signal (2 x 3.5 mm = 7 mm)
- ④ See application notes for:  
Colored push-in type jumper bar, page 134  
Push-in type wire jumper, page 138
- ⑤ Ground connection via commoning to terminal blocks with ground foot

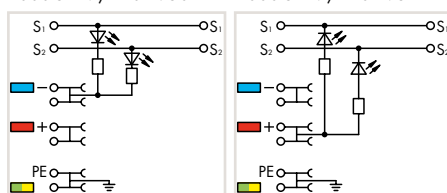
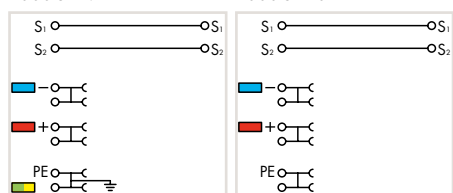


2000-5417

2000-5410

2000-5417/1102-950

2000-5417/1101-951



### Accessories for 4-Conductor Terminal Blocks

WMB/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick, for 4-conductor terminal blocks	gray	<b>2000-5491</b>	100 (4x25)
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Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray			
④	2-way	<b>2000-402</b>	200 (8x25)
	3-way	<b>2000-403</b>	200 (8x25)
	4-way	<b>2000-404</b>	200 (8x25)
	5-way	<b>2000-405</b>	100 (4x25)
	6-way	<b>2000-406</b>	100 (4x25)
	7-way	<b>2000-407</b>	100 (4x25)
	8-way	<b>2000-408</b>	100 (4x25)
	9-way	<b>2000-409</b>	100 (4x25)
	10-way	<b>2000-410</b>	100 (4x25)

Colored push-in type jumper bars,			
	red	.../000-005	
	blue	.../000-006	
	yellow-green	.../000-018	

Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray			
	from 1 to 3	<b>2000-433</b>	200 (8x25)
	from 1 to 4	<b>2000-434</b>	200 (8x25)
	from 1 to 5	<b>2000-435</b>	100 (4x25)
	from 1 to 6	<b>2000-436</b>	100 (4x25)
	from 1 to 7	<b>2000-437</b>	100 (4x25)
	from 1 to 8	<b>2000-438</b>	100 (4x25)
	from 1 to 9	<b>2000-439</b>	100 (4x25)
	from 1 to 10	<b>2000-440</b>	100 (4x25)

Double-deck marker carrier, pivoting	gray	<b>2000-121</b>	50 (2x25)
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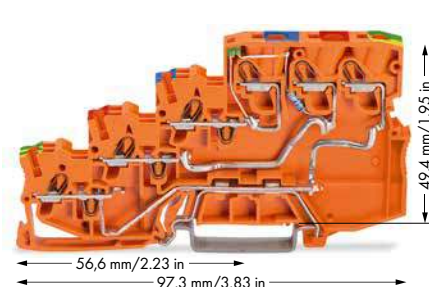
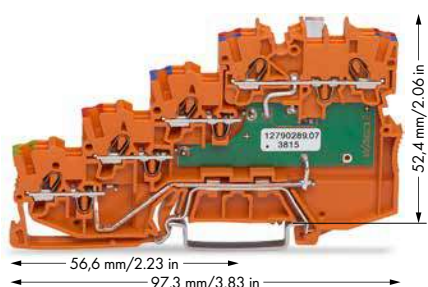
Marking strip, plain, 11 mm wide, 50 m reel			
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	white	<b>2009-110</b>	1
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WMB Multi marking system, white, 10 strips with 10 markers per card, for 3.5 mm terminal block			
	width		
	plain	<b>793-3501</b>	5

Operating tool with partially insulated shaft, type 1, (2.5 x 0.4) mm blade		<b>210-719</b>	1
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Item No.	Pack. Unit	Item No.	Pack. Unit
4-conductor sensor terminal block, with ground connection		4-conductor sensor LED terminal block, yellow LED, for PNP (high-side) switching sensors, with ground connection	
gray <b>2000-5417</b>	50	gray <b>2000-5417/1102-950</b>	50
gray <b>2000-5410</b>	50 ⑤	gray <b>2000-5410/1102-950</b>	50 ⑤
		4-conductor sensor LED terminal block, yellow LED, for NPN (low-side) switching sensors, with ground connection	
		gray <b>2000-5417/1101-951</b>	50
		gray <b>2000-5410/1101-951</b>	50 ⑤

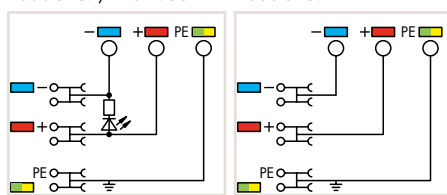
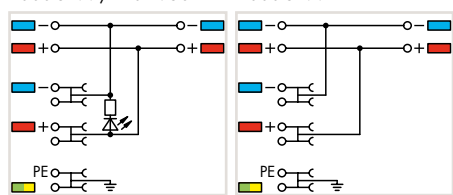


2000-5477/1102-953

2000-5477

2000-5457/1102-953



2000-5457

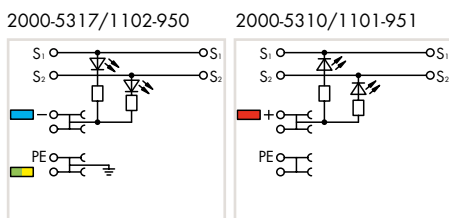
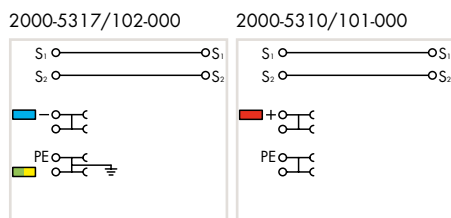
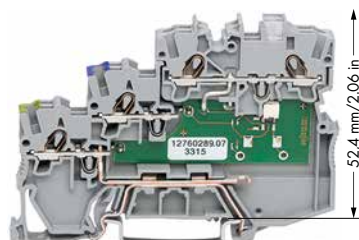
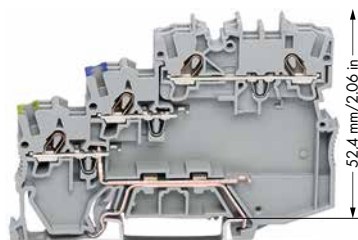


Item No.	Pack. Unit	Item No.	Pack. Unit
4-conductor sensor LED supply terminal block, 24 VDC, green LED, with ground connection		4-conductor sensor LED supply terminal block, 24 VDC, green LED, with ground connection, control panel side: 2.5 (4) mm <sup>2</sup> , max. 28 A	
orange <b>2000-5477/1102-953</b>	15	orange <b>2000-5457/1102-953</b>	15
4-conductor sensor supply terminal block, max. 250 V, internally commoned, with ground connection		4-conductor sensor supply terminal block, max. 250 V, with ground connection, control panel side: 2.5 (4) mm <sup>2</sup> , max. 28 A	
orange <b>2000-5477</b>	15	orange <b>2000-5457</b>	15

# TOPJOB® S 3-Conductor Actuator Terminal Blocks

1 (1.5) mm<sup>2</sup>, 2000 Series

<b>0.14 ... 1 (1.5) mm<sup>2</sup> ①</b> <b>24 ... 16 AWG</b> <b>250 V/4 kV/3 ②</b> <b>I<sub>N</sub> 13.5 A</b>  <b>Terminal block width 7 mm / 0.276 inch ③</b>  <b>9 ... 11 mm / 0.35 ... 0.43 inch</b>	<b>0.14 ... 1 (1.5) mm<sup>2</sup> ①</b> <b>24 ... 16 AWG</b> <b>24 VDC</b> <b>I<sub>N</sub> 13.5 A</b>  <b>Terminal block width 7 mm / 0.276 inch ③</b>  <b>9 ... 11 mm / 0.35 ... 0.43 inch</b>
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**Note:**


The double spacing per pole of this terminal block series maximizes connectivity. For example **ten** sensors may be connected using only **five** sensor terminal blocks plus a power supply terminal block.

- ① Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + f-st"; Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s" and 0.5 ... 0.75 mm<sup>2</sup> "insulated ferrule, 10 mm"
- ② 250 V = rated voltage  
4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ 3.5 mm pin spacing per signal (2 x 3.5 mm = 7 mm)
- ④ See application notes for:  
Colored push-in type jumper bar, page 134  
Push-in type wire jumper, page 138
- ⑤ Ground connection via commoning to terminal blocks with ground foot



**Accessories for 3-Conductor Terminal Blocks** WMB/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick, for 3-conductor terminal blocks	gray	<b>2000-5391</b>	100 (4x25)
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Push-in type jumper bar, insulated, I<sub>N</sub> 14 A, light gray

	2-way	<b>2000-402</b>	200 (8x25)
	3-way	<b>2000-403</b>	200 (8x25)
	4-way	<b>2000-404</b>	200 (8x25)
	5-way	<b>2000-405</b>	100 (4x25)
	6-way	<b>2000-406</b>	100 (4x25)
	7-way	<b>2000-407</b>	100 (4x25)
	8-way	<b>2000-408</b>	100 (4x25)
	9-way	<b>2000-409</b>	100 (4x25)
	10-way	<b>2000-410</b>	100 (4x25)


Colored push-in type jumper bars,

	red	.../000-005
	blue	.../000-006
	yellow-green	.../000-018

Push-in type jumper bar, insulated, I<sub>N</sub> 14 A, light gray


	from 1 to 3	<b>2000-433</b>	200 (8x25)
	from 1 to 4	<b>2000-434</b>	200 (8x25)
	from 1 to 5	<b>2000-435</b>	100 (4x25)
	from 1 to 6	<b>2000-436</b>	100 (4x25)
	from 1 to 7	<b>2000-437</b>	100 (4x25)
	from 1 to 8	<b>2000-438</b>	100 (4x25)
	from 1 to 9	<b>2000-439</b>	100 (4x25)
	from 1 to 10	<b>2000-440</b>	100 (4x25)


Double-deck marker carrier, pivoting









	gray	<b>2000-121</b>	50 (2x25)
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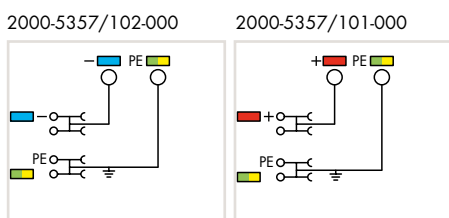
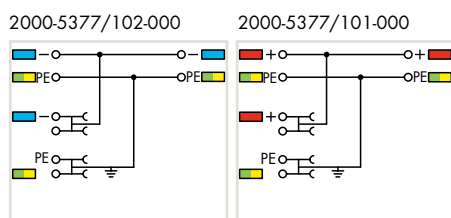
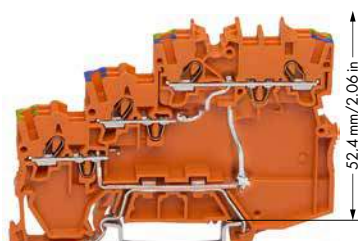
Marking strip, plain, 11 mm wide, 50 m reel





	white	<b>2009-110</b>	1
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	WMB Multi marking system, white, 10 strips with 10 markers per card, for 3.5 mm terminal block		
	width	<b>793-3501</b>	5

	Operating tool with partially insulated shaft, type 1, (2.5 x 0.4) mm blade		
		<b>210-719</b>	1

Item No.	Pack. Unit	Item No.	Pack. Unit
3-conductor actuator terminal block, for PNP (high-side) switching actuators, with ground connection		3-conductor actuator terminal block, yellow LED, for PNP (high-side) switching actuators, with ground connection	
 gray	<b>2000-5317/102-000</b> 50	 gray	<b>2000-5317/1102-950</b> 50
 gray	<b>2000-5310/102-000</b> 50 ⑤	 gray	<b>2000-5310/1102-950</b> 50 ⑤
3-conductor actuator terminal block, for NPN (low-side) switching actuators, with ground connection		3-conductor actuator terminal block, yellow LED, for NPN (low-side) switching actuators, with ground connection	
 gray	<b>2000-5317/101-000</b> 50	 gray	<b>2000-5317/1101-951</b> 50
 gray	<b>2000-5310/101-000</b> 50 ⑤	 gray	<b>2000-5310/1101-951</b> 50 ⑤



Item No.	Pack. Unit	Item No.	Pack. Unit
3-conductor actuator supply terminal block, max. 250 V, for PNP (high-side) switching actuators, with ground connection, internally commoned		3-conductor actuator supply terminal block, max. 250 V, control panel side: 2.5 (4) mm <sup>2</sup> , max. 28 A, for PNP (high-side) switching actuators, with ground connection	
 orange	<b>2000-5377/102-000</b> 15	 orange	<b>2000-5357/102-000</b> 15
3-conductor actuator supply terminal block, max. 250 V, for NPN (low-side) switching actuators, with ground connection		3-conductor actuator supply terminal block, max. 250 V, control panel side: 2.5 (4) mm <sup>2</sup> , max. 28 A, for NPN (low-side) switching actuators, with ground connection	
 orange	<b>2000-5377/101-000</b> 15	 orange	<b>2000-5357/101-000</b> 15

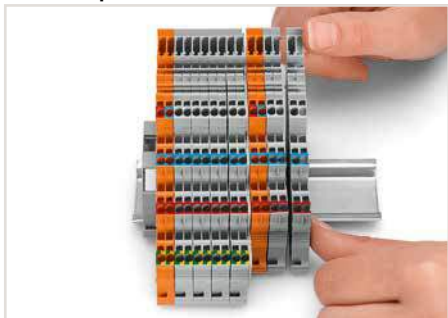


# TOPJOB® S

## Sensor and Actuator Terminal Blocks with a Pluggable Signal Level, 2020 Series

### Description and Installation

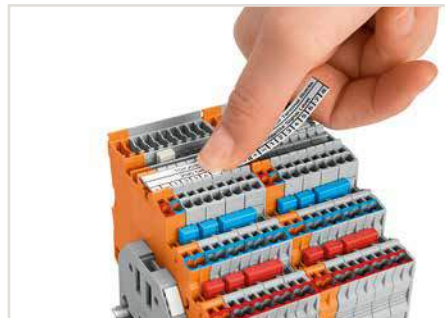
1



Snap individual terminal blocks onto the carrier rail and slide together.



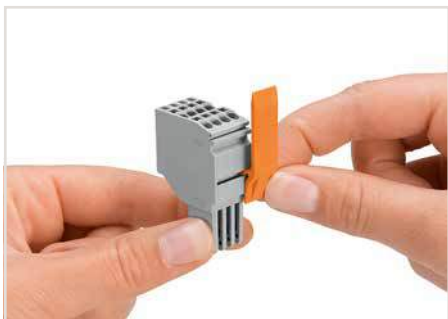
Separate terminal block assembly and slide individual terminal blocks laterally using an operating tool.



Labeling terminal blocks via marking strips (2009-110) or 3.5 mm wide WMB markers (793-35xx) - from the top or the side.



Removing a female plug via conductor bundle provided with strain relief plate.



Slide the locking lever into position.



Testing via testing tap (2009-182) or test plug adapter (2009-174) (up to max. 42 V).



Insert coding pin into the corresponding slot and twist it off.



Remove the coding finger using a cutting tool.

# TOPJOB® S 3-Conductor Sensor Terminal Blocks, with a Pluggable Signal Level

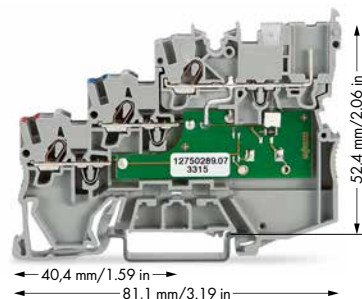
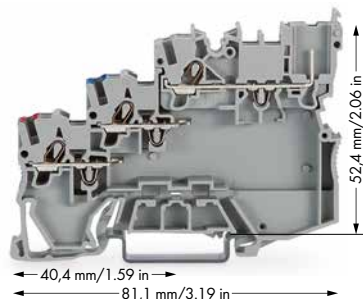
1 (1.5) mm<sup>2</sup>, 2020 Series

0.14 ... 1 (1.5) mm <sup>2</sup> ① 250 V/4 kV/3 ② I <sub>N</sub> 13.5 A	24 ... 16 AWG 300 V, 10 A	0.14 ... 1 (1.5) mm <sup>2</sup> ① 24 VDC I <sub>N</sub> 13.5 A	24 ... 16 AWG 24 VDC, 10 A
Terminal block width 7 mm / 0.276 inch ③ 9 ... 11 mm / 0.35 ... 0.43 inch		Terminal block width 7 mm / 0.276 inch ③ 9 ... 11 mm / 0.35 ... 0.43 inch	

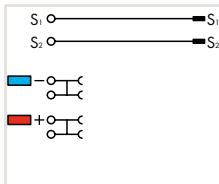
**Note:**

The double spacing per pole of this terminal block series maximizes connectivity. For example **ten** sensors may be connected using only **five** sensor terminal blocks plus a power supply terminal block.

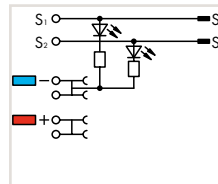
1



2020-5311



2020-5311/1102-950



- ① Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + fst"; Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s" and 0.5 ... 0.75 mm<sup>2</sup> "insulated ferrule, 10 mm"
- ② 250 V = rated voltage  
4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ 3.5 mm pin spacing per signal (2 x 3.5 mm = 7 mm)
- ④ See application notes for:  
Colored push-in type jumper bar, page 134  
Push-in type wire jumper, page 138

**Accessories for 3-Conductor Terminal Blocks** WMB/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick, for 3-conductor terminal blocks  
gray **2020-5391** 100 (4x25)

Push-in type jumper bar, insulated, I<sub>N</sub> 14 A, light gray

④	2-way	<b>2000-402</b>	200 (8x25)
	3-way	<b>2000-403</b>	200 (8x25)
	4-way	<b>2000-404</b>	200 (8x25)
	5-way	<b>2000-405</b>	100 (4x25)
	6-way	<b>2000-406</b>	100 (4x25)
	7-way	<b>2000-407</b>	100 (4x25)
	8-way	<b>2000-408</b>	100 (4x25)
	9-way	<b>2000-409</b>	100 (4x25)
	10-way	<b>2000-410</b>	100 (4x25)

Colored push-in type jumper bars,

- red .../000-005
- blue .../000-006

Push-in type jumper bar, insulated, I<sub>N</sub> 14 A, light gray

	from 1 to 3	<b>2000-433</b>	200 (8x25)
	from 1 to 4	<b>2000-434</b>	200 (8x25)
	from 1 to 5	<b>2000-435</b>	100 (4x25)
	from 1 to 6	<b>2000-436</b>	100 (4x25)
	from 1 to 7	<b>2000-437</b>	100 (4x25)
	from 1 to 8	<b>2000-438</b>	100 (4x25)
	from 1 to 9	<b>2000-439</b>	100 (4x25)
	from 1 to 10	<b>2000-440</b>	100 (4x25)

Carrier with 6 coding pins, for coding female plugs

orange **2020-100** 100 (4x25)

Locking lever, 4.8 mm wide

	orange	<b>2022-142</b>	100 (4x25)
	gray	<b>2022-141</b>	100 (4x25)

Locking lever, 9.6 mm wide

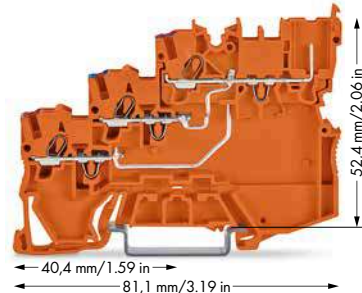
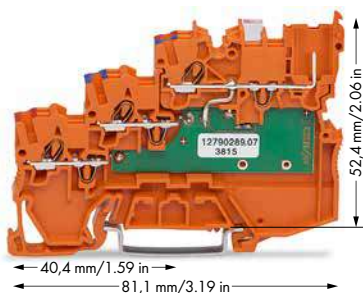
	orange	<b>2022-152</b>	100 (4x25)
	gray	<b>2022-151</b>	100 (4x25)

Test plug adapter, for 4 mm Ø test plug

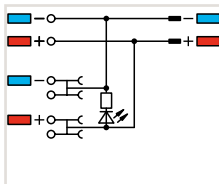
gray **2009-174** 100 (4x25)

Item No.	Pack. Unit	Item No.	Pack. Unit
3-conductor sensor terminal block, with pluggable signal level		3-conductor sensor LED terminal block, for PNP (high-side) switching sensors, yellow LED, with pluggable signal level	
gray <b>2020-5311</b>	50	gray <b>2020-5311/1102-950</b>	50

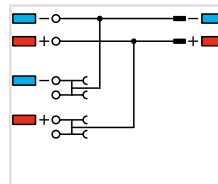
**Note:**  
According to EN 61984, pluggable connectors without current interrupting capacity must not be mated or unmated when live or under load. An appropriate end plate must be applied to the carrier terminal blocks after each female plug.



2020-5372/1102-953



2020-5372



Item No.	Pack. Unit	Item No.	Pack. Unit
3-conductor sensor LED supply terminal block, 24 VDC, green LED, with pluggable signal level		3-conductor sensor supply terminal block, max. 250 V, internally commoned, with pluggable signal level	
orange <b>2020-5372/1102-953</b>	15	orange <b>2020-5372</b>	15

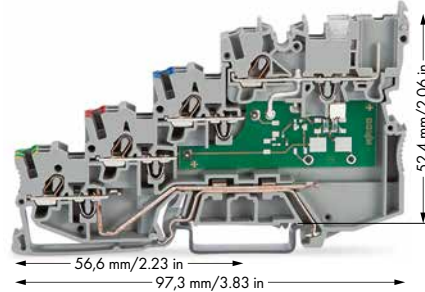
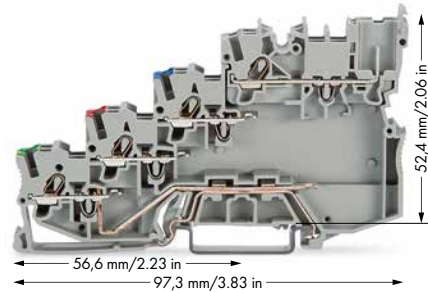
# TOPJOB® S 4-Conductor Sensor Terminal Blocks, with a Pluggable Signal Level

1 (1.5) mm<sup>2</sup>, 2020 Series

1

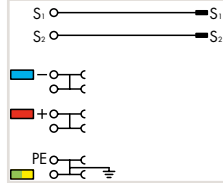
0.14 ... 1 (1.5) mm <sup>2</sup> ① 250 V/4 kV/3 ② I <sub>N</sub> 13.5 A	24 ... 16 AWG 300 V, 10 A	0.14 ... 1 (1.5) mm <sup>2</sup> ① 24 VDC I <sub>N</sub> 13.5 A	24 ... 16 AWG 24 VDC, 10 A
Terminal block width 7 mm / 0.276 inch ③ 9 ... 11 mm / 0.35 ... 0.43 inch		Terminal block width 7 mm / 0.276 inch ③ 9 ... 11 mm / 0.35 ... 0.43 inch	

**Note:**  
The double spacing per pole of this terminal block series maximizes connectivity. For example **ten** sensors may be connected using only **five** sensor terminal blocks plus a power supply terminal block.

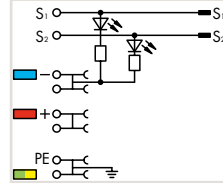


- ① Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + fst"; Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s" and 0.5 ... 0.75 mm<sup>2</sup> "insulated ferrule, 10 mm"
- ② 250 V = rated voltage  
4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ 3.5 mm pin spacing per signal (2 x 3.5 mm = 7 mm)
- ④ See application notes for:  
Colored push-in type jumper bar, page 134  
Push-in type wire jumper, page 138


2020-5417




2020-5417/1102-950






### Accessories for 4-Conductor Terminal Blocks WMB/Marking strips (see Section 13)


End and intermediate plate, 1 mm thick, for 4-conductor terminal blocks	
	gray <b>2020-5491</b> 100 (4x25)


Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray	
	2-way <b>2000-402</b> 200 (8x25)
	3-way <b>2000-403</b> 200 (8x25)
	4-way <b>2000-404</b> 200 (8x25)
	5-way <b>2000-405</b> 100 (4x25)
	6-way <b>2000-406</b> 100 (4x25)
	7-way <b>2000-407</b> 100 (4x25)
	8-way <b>2000-408</b> 100 (4x25)
	9-way <b>2000-409</b> 100 (4x25)
	10-way <b>2000-410</b> 100 (4x25)


Item No.	Pack. Unit	Item No.	Pack. Unit
4-conductor sensor terminal block, with ground connection, with pluggable signal level		4-conductor sensor LED terminal block, yellow LED, for PNP (high-side) switching sensors, with ground connection, with pluggable signal level	
● gray <b>2020-5417</b>	50	● gray <b>2020-5417/1102-950</b>	50


**Note:**  
According to EN 61984, pluggable connectors without current interrupting capacity must not be mated or unmated when live or under load. An appropriate end plate must be applied to the carrier terminal blocks after each female plug.


Colored push-in type jumper bars,	
	red .../000-005
	blue .../000-006
	yellow-green .../000-018

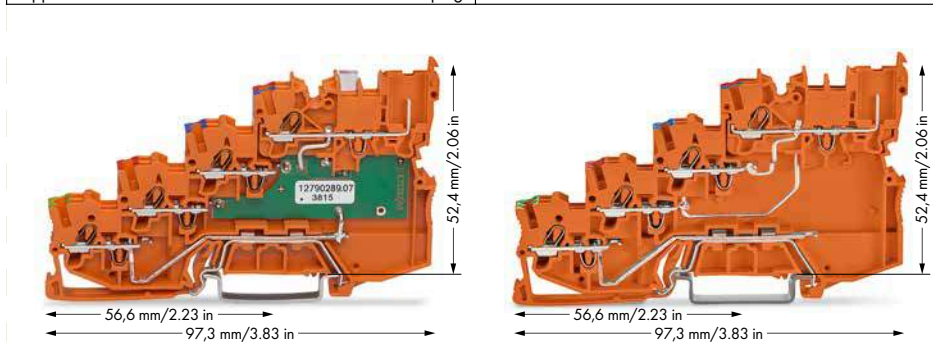
Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray	
	from 1 to 3 <b>2000-433</b> 200 (8x25)
	from 1 to 4 <b>2000-434</b> 200 (8x25)
	from 1 to 5 <b>2000-435</b> 100 (4x25)
	from 1 to 6 <b>2000-436</b> 100 (4x25)
	from 1 to 7 <b>2000-437</b> 100 (4x25)
	from 1 to 8 <b>2000-438</b> 100 (4x25)
	from 1 to 9 <b>2000-439</b> 100 (4x25)
	from 1 to 10 <b>2000-440</b> 100 (4x25)

Carrier with 6 coding pins, for coding female plugs	
	orange <b>2020-100</b> 100 (4x25)

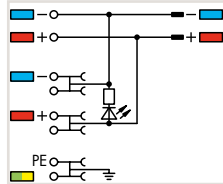
Locking lever, 4.8 mm wide	
	orange <b>2022-142</b> 100 (4x25)
	gray <b>2022-141</b> 100 (4x25)

Locking lever, 9.6 mm wide	
	orange <b>2022-152</b> 100 (4x25)
	gray <b>2022-151</b> 100 (4x25)

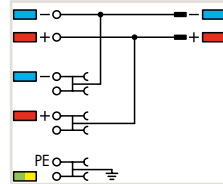
Test plug adapter, for 4 mm Ø test plug	
	gray <b>2009-174</b> 100 (4x25)



2020-5477/1102-953



2020-5477

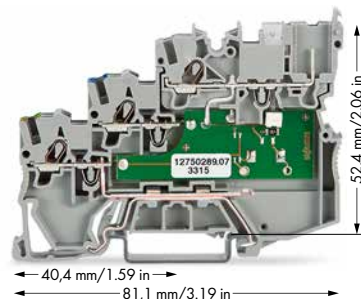
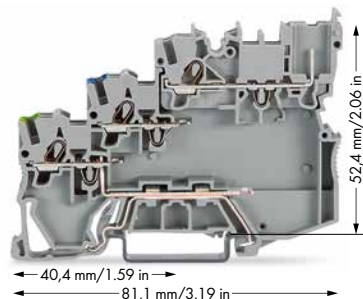


Item No.	Pack. Unit	Item No.	Pack. Unit
4-conductor sensor LED supply terminal block, 24 VDC, green LED, with ground connection, with pluggable signal level		4-conductor sensor supply terminal block, max. 250 V, internally commoned, with ground connection, with pluggable signal level	
● orange <b>2020-5477/1102-953</b>	15	● orange <b>2020-5477</b>	15

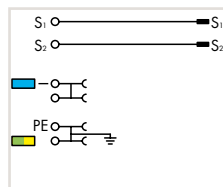
# TOPJOB® S 3-Conductor Actuator Terminal Blocks, with a Pluggable Signal Level

1 (1.5) mm<sup>2</sup>, 2020 Series

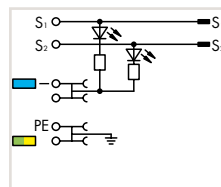
0.14 ... 1 (1.5) mm <sup>2</sup> ① 250 V/4 kV/3 ② I <sub>N</sub> 13.5 A	24 ... 16 AWG 300 V, 10 A	0.14 ... 1 (1.5) mm <sup>2</sup> ① 24 VDC I <sub>N</sub> 13.5 A	24 ... 16 AWG 24 VDC, 10 A
Terminal block width 7 mm / 0.276 inch ③ 9 ... 11 mm / 0.35 ... 0.43 inch		Terminal block width 7 mm / 0.276 inch ③ 9 ... 11 mm / 0.35 ... 0.43 inch	



2020-5317/102-000

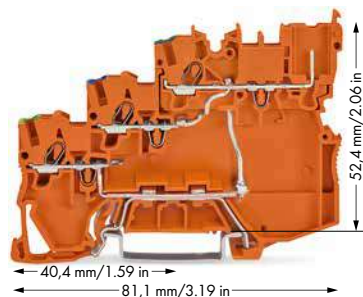


2020-5317/1102-950

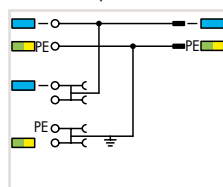


Item No.	Pack. Unit	Item No.	Pack. Unit
3-conductor actuator terminal block, for PNP (high-side) switching actuators, with ground connection, with pluggable signal level ● gray	<b>2020-5317/102-000</b> 50	3-conductor actuator terminal block, yellow LED, for PNP (high-side) switching actuators, with ground connection, with pluggable signal level ● gray	<b>2020-5317/1102-950</b> 50

**Note:**  
According to EN 61984, pluggable connectors without current interrupting capacity must not be mated or unmated when live or under load. An appropriate end plate must be applied to the carrier terminal blocks after each female plug.



2020-5377/102-000



Item No.	Pack. Unit
3-conductor actuator supply terminal block, for PNP (high-side) switching actuators, with ground connection, internally commoned, with pluggable signal level ● orange	<b>2020-5377/102-000</b> 15

**Note:**

The double spacing per pole of this terminal block series maximizes connectivity. For example **ten** sensors may be connected using only **five** sensor terminal blocks plus a power supply terminal block.

- ① Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + fst"; Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s" and 0.5 ... 0.75 mm<sup>2</sup> "insulated ferrule, 10 mm"
- ② 250 V = rated voltage  
4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ 3.5 mm pin spacing per signal (2 x 3.5 mm = 7 mm)
- ④ See application notes for:  
Colored push-in type jumper bar, page 134  
Push-in type wire jumper, page 138

**Accessories for 3-Conductor Terminal Blocks** WMB/Marking strips (see Section 13)

End and intermediate plate, 1 mm thick, for 3-conductor terminal blocks	gray	<b>2020-5391</b> 100 (4x25)
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Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray		
④	2-way	<b>2000-402</b> 200 (8x25)
	3-way	<b>2000-403</b> 200 (8x25)
	4-way	<b>2000-404</b> 200 (8x25)
	5-way	<b>2000-405</b> 100 (4x25)
	6-way	<b>2000-406</b> 100 (4x25)
	7-way	<b>2000-407</b> 100 (4x25)
	8-way	<b>2000-408</b> 100 (4x25)
	9-way	<b>2000-409</b> 100 (4x25)
	10-way	<b>2000-410</b> 100 (4x25)

Colored push-in type jumper bars,		
● red	.../000-005	
● blue	.../000-006	
● yellow-green	.../000-018	

Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray		
	from 1 to 3	<b>2000-433</b> 200 (8x25)
	from 1 to 4	<b>2000-434</b> 200 (8x25)
	from 1 to 5	<b>2000-435</b> 100 (4x25)
	from 1 to 6	<b>2000-436</b> 100 (4x25)
	from 1 to 7	<b>2000-437</b> 100 (4x25)
	from 1 to 8	<b>2000-438</b> 100 (4x25)
	from 1 to 9	<b>2000-439</b> 100 (4x25)
	from 1 to 10	<b>2000-440</b> 100 (4x25)

Carrier with 6 coding pins, for coding female plugs	orange	<b>2020-100</b> 100 (4x25)
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Locking lever, 4.8 mm wide	orange	<b>2022-142</b> 100 (4x25)
	gray	<b>2022-141</b> 100 (4x25)

Locking lever, 9.6 mm wide	orange	<b>2022-152</b> 100 (4x25)
	gray	<b>2022-151</b> 100 (4x25)

Test plug adapter, for 4 mm Ø test plug	gray	<b>2009-174</b> 100 (4x25)
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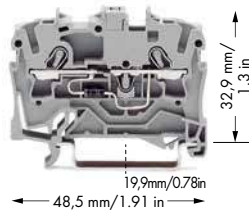
# TOPJOB® S

## Diode Terminal Blocks and LED Terminal Blocks

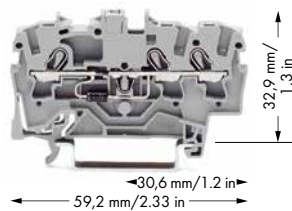
### 1.5 (2.5) mm<sup>2</sup>, 2001 Series

1

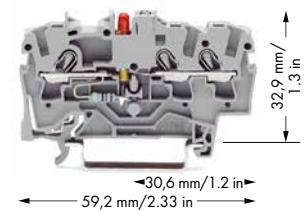
0.25 ... 1.5 (2.5) mm <sup>2</sup> ①   22 ... 14 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 4.2 mm / 0.165 inch 9 ... 11 mm / 0.35 ... 0.43 inch	0.25 ... 1.5 (2.5) mm <sup>2</sup> ①   22 ... 14 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 4.2 mm / 0.165 inch 9 ... 11 mm / 0.35 ... 0.43 inch	0.25 ... 1.5 (2.5) mm <sup>2</sup> ①   22 ... 14 AWG 24 VDC I <sub>F</sub> 0.025 A max. Terminal block width 4.2 mm / 0.165 inch 9 ... 11 mm / 0.35 ... 0.43 inch
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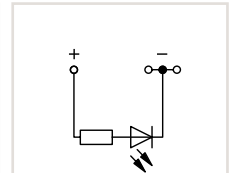
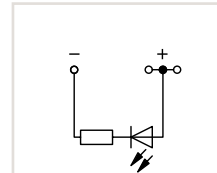
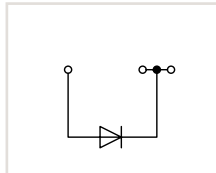
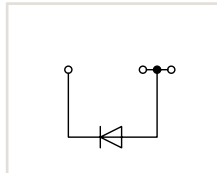
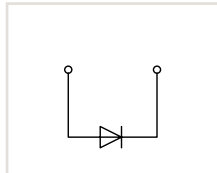
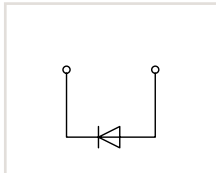
2001-1211/1000-411    2001-1211/1000-410



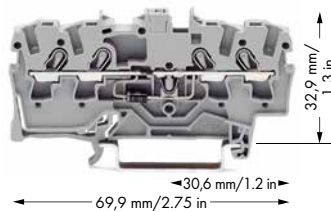
2001-1311/1000-411    2001-1311/1000-410



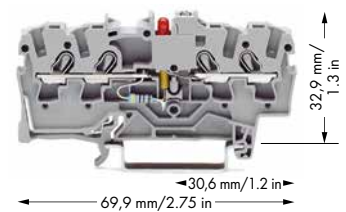
2001-1321/1000-413    2001-1321/1000-434



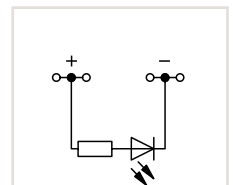
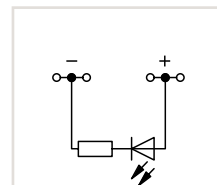
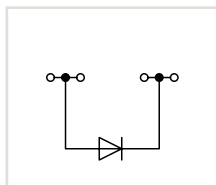
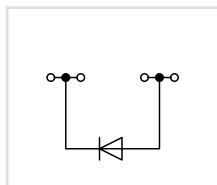
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor diode terminal block, with 1N4007 diode		3-conductor diode terminal block, with 1N4007 diode		3-conductor LED terminal block, with red LED	
				Notice: This LED terminal block cannot be commoned with push-in type jumper bars!	
○ gray	2001-1211/1000-411	100	○ gray	2001-1311/1000-411	100
○ gray	2001-1211/1000-410	100	○ gray	2001-1311/1000-410	100
○ gray	2001-1321/1000-413	100	○ gray	2001-1321/1000-434	100



2001-1411/1000-411    2001-1411/1000-410



2001-1421/1000-413    2001-1421/1000-434



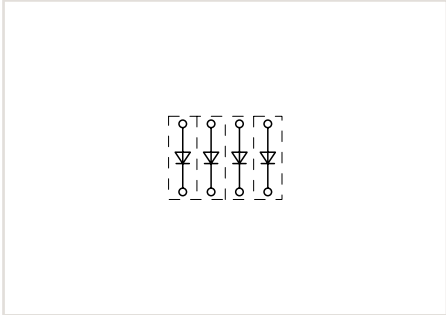
Item No.	Pack. Unit	Item No.	Pack. Unit		
Through terminal blocks with same profile, see page 30		4-conductor diode terminal block, with 1N4007 diode			
		4-conductor LED terminal block, with red LED			
		Notice: This LED terminal block cannot be commoned with push-in type jumper bars!			
○ gray	2001-1411/1000-411	100	○ gray	2001-1421/1000-413	100
○ gray	2001-1411/1000-410	100	○ gray	2001-1421/1000-434	100



# TOPJOB® S

## Diode Terminal Blocks and LED Terminal Blocks

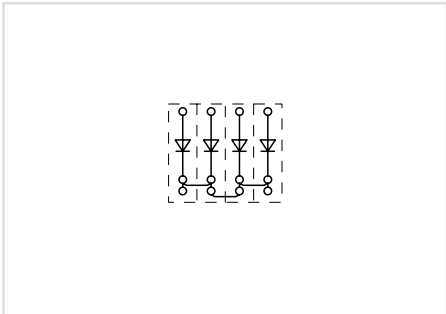
### Circuit Configuration Examples



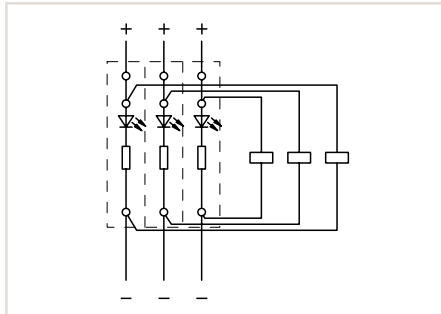
Open diode gates can be created using the following terminal blocks:  
2001-1211/1000-410 or 2001-1211/1000-411



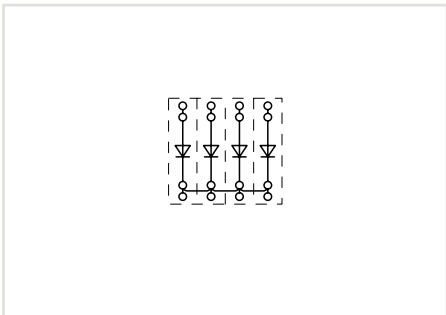
These diode terminal blocks have been specially developed for custom diode circuits, such as lamp test and collective fault signal circuits.



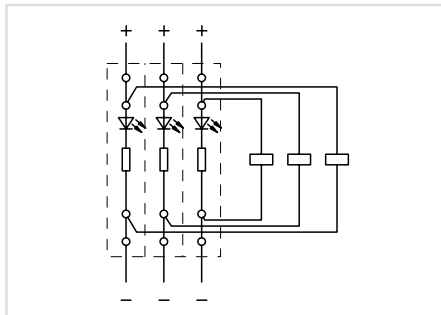
Polarized diode gates with a common cathode can be created using the following terminal blocks:  
2001-1311/1000-410 or 2001-1311/1000-411



Circuit-related voltage indications can be created using the following terminal blocks:  
2001-1321/1000-434 or 2001-1321/1000-413



Polarized diode gates with a common cathode can be created using the following terminal blocks:  
2001-1411/1000-410 or 2001-1411/1000-411



Circuit-related voltage indications can be created using the following terminal blocks:  
2001-1421/1000-434 or 2001-1421/1000-413

- ① Conductor range: 0.25 ... 2.5 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.5 ... 2.5 mm<sup>2</sup> "s"  
and 0.75 ... 1.5 mm<sup>2</sup>  
"insulated ferrules, 12 mm"

### 2001 Series Accessories

Appropriate marking system  
(see Section 13)

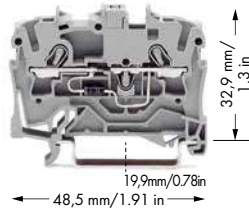
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
	light gray	<b>2001-171</b>	200 (8x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray			
	2-way	<b>2001-402</b>	200 (8x25)
	3-way	<b>2001-403</b>	200 (8x25)
	4-way	<b>2001-404</b>	200 (8x25)
	5-way	<b>2001-405</b>	100 (4x25)
	6-way	<b>2001-406</b>	100 (4x25)
	7-way	<b>2001-407</b>	100 (4x25)
	8-way	<b>2001-408</b>	100 (4x25)
	9-way	<b>2001-409</b>	100 (4x25)
	10-way	<b>2001-410</b>	100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray			
	from 1 to 3	<b>2001-433</b>	200 (8x25)
	from 1 to 4	<b>2001-434</b>	200 (8x25)
	from 1 to 5	<b>2001-435</b>	100 (4x25)
	from 1 to 6	<b>2001-436</b>	100 (4x25)
	from 1 to 7	<b>2001-437</b>	100 (4x25)
	from 1 to 8	<b>2001-438</b>	100 (4x25)
	from 1 to 9	<b>2001-439</b>	100 (4x25)
	from 1 to 10	<b>2001-440</b>	100 (4x25)

# TOPJOB® S Diode Terminal Blocks and LED Terminal Blocks

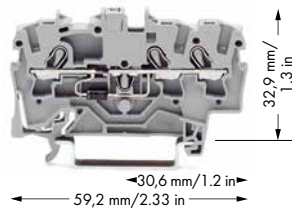
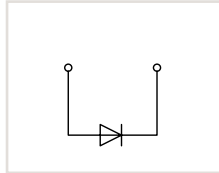
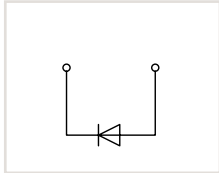
## 2.5 (4) mm<sup>2</sup>, 2002 Series

1

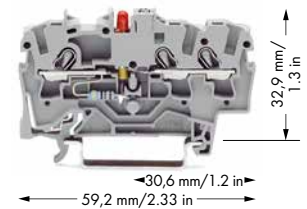
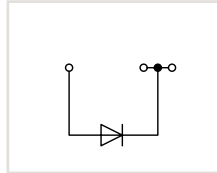
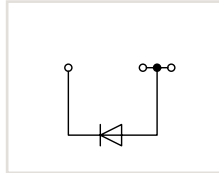
0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG 24 VDC I <sub>F</sub> 0.025 A max. Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch
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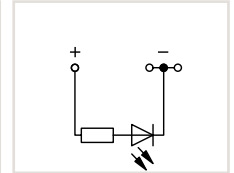
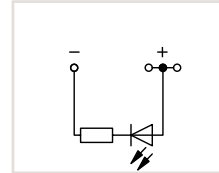
2002-1211/1000-411    2002-1211/1000-410



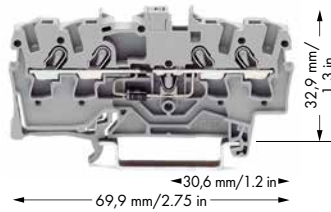
2002-1311/1000-411    2002-1311/1000-410



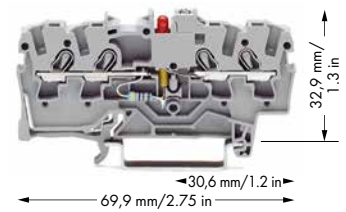
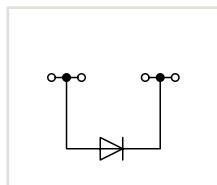
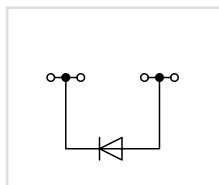
2002-1321/1000-413    2002-1321/1000-434



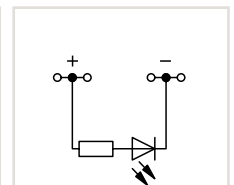
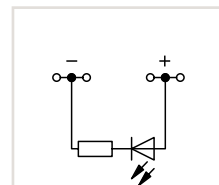
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor diode terminal block, with 1N4007 diode		3-conductor diode terminal block, with 1N4007 diode		3-conductor LED terminal block, with red LED Notice: This LED terminal block cannot be commoned with push-in type jumper bars!	
○ gray	<b>2002-1211/1000-411</b> 100	○ gray	<b>2002-1311/1000-411</b> 100	○ gray	<b>2002-1321/1000-413</b> 100
○ gray	<b>2002-1211/1000-410</b> 100	○ gray	<b>2002-1311/1000-410</b> 100	○ gray	<b>2002-1321/1000-434</b> 100



2002-1411/1000-411    2002-1411/1000-410



2002-1421/1000-413    2002-1421/1000-434

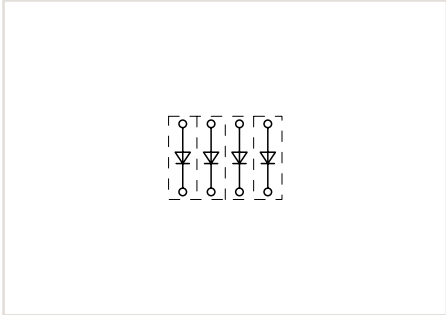


Item No.	Pack. Unit	Item No.	Pack. Unit
Through terminal blocks with same profile, see page 32		4-conductor LED terminal block, with red LED Notice: This LED terminal block cannot be commoned with push-in type jumper bars!	
○ gray	<b>2002-1411/1000-411</b> 100	○ gray	<b>2002-1421/1000-413</b> 100
○ gray	<b>2002-1411/1000-410</b> 100	○ gray	<b>2002-1421/1000-434</b> 100

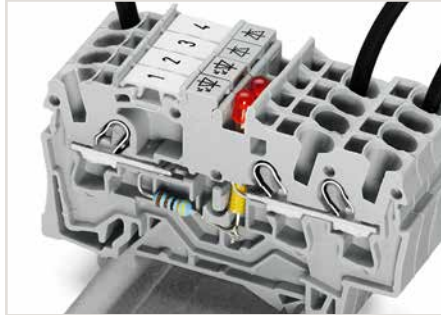
# TOPJOB® S

## Diode Terminal Blocks and LED Terminal Blocks

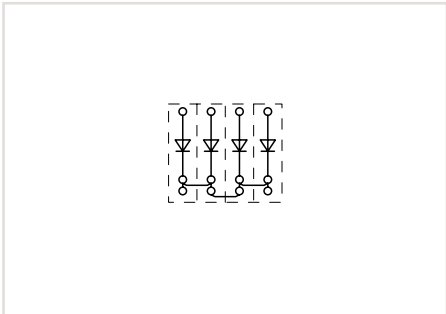
### Circuit Configuration Examples



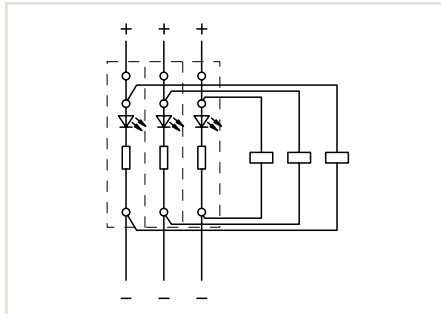
Open diode gates can be created using the following terminal blocks:  
2002-1211/1000-410 or 2002-1211/1000-411



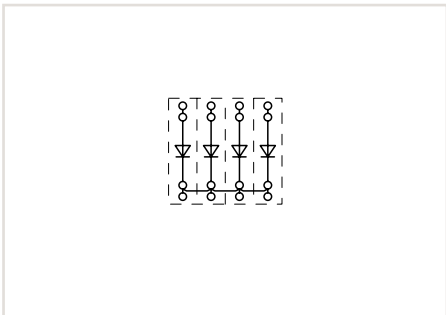
Designing monitoring units via LED terminal blocks (e.g., for control and operating circuits).



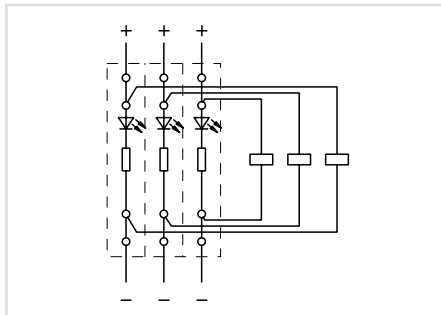
Polarized diode gates with a common cathode can be created using the following terminal blocks:  
2002-1311/1000-410 or 2002-1311/1000-411



Circuit-related voltage indications can be created using the following terminal blocks:  
2002-1321/1000-434 or 2002-1321/1000-413



Polarized diode gates with a common cathode can be created using the following terminal blocks:  
2002-1411/1000-410 or 2002-1411/1000-411



Circuit-related voltage indications can be created using the following terminal blocks:  
2002-1421/1000-434 or 2002-1421/1000-413

- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrules, 12 mm"



2002 Series Accessories			
Appropriate marking system (see Section 13)			
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
	light gray	<b>2002-171</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>			
	dark gray	<b>2002-172</b>	200 (8x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray			
	2-way	<b>2002-402</b>	200 (8x25)
	3-way	<b>2002-403</b>	200 (8x25)
	4-way	<b>2002-404</b>	200 (8x25)
	5-way	<b>2002-405</b>	100 (4x25)
	6-way	<b>2002-406</b>	100 (4x25)
	7-way	<b>2002-407</b>	100 (4x25)
	8-way	<b>2002-408</b>	100 (4x25)
	9-way	<b>2002-409</b>	100 (4x25)
	10-way	<b>2002-410</b>	100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray			
	from 1 to 3	<b>2002-433</b>	200 (8x25)
	from 1 to 4	<b>2002-434</b>	200 (8x25)
	from 1 to 5	<b>2002-435</b>	100 (4x25)
	from 1 to 6	<b>2002-436</b>	100 (4x25)
	from 1 to 7	<b>2002-437</b>	100 (4x25)
	from 1 to 8	<b>2002-438</b>	100 (4x25)
	from 1 to 9	<b>2002-439</b>	100 (4x25)
	from 1 to 10	<b>2002-440</b>	100 (4x25)

# TOPJOB® S

## Diode Terminal Blocks

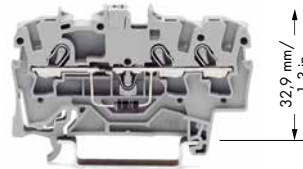
### 4 (6) mm<sup>2</sup>, 2004 Series

1

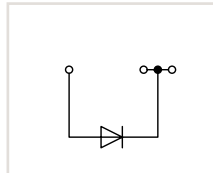
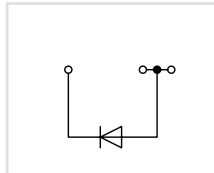
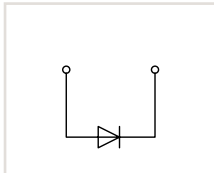
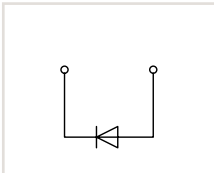
0.5 ... 4 (6) mm <sup>2</sup> ①   20 ... 10 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N5408 - 1.5 A continuous current Terminal block width 6.2 mm / 0.244 inch  11 ... 13 mm / 0.43 ... 0.51 inch	0.5 ... 4 (6) mm <sup>2</sup> ①   20 ... 10 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N5408 - 1.5 A continuous current Terminal block width 6.2 mm / 0.244 inch  11 ... 13 mm / 0.43 ... 0.51 inch
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2004-1211/1000-401    2004-1211/1000-400



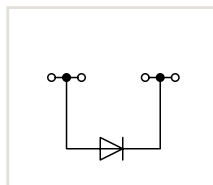
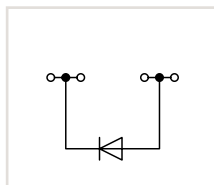
2004-1311/1000-401    2004-1311/1000-400



Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor diode terminal block, with 1N5408 diode		3-conductor diode terminal block, with 1N5408 diode	
○ gray <b>2004-1211/1000-401</b>	50	○ gray <b>2004-1311/1000-401</b>	50
○ gray <b>2004-1211/1000-400</b>	50	○ gray <b>2004-1311/1000-400</b>	50



2004-1411/1000-401    2004-1411/1000-401

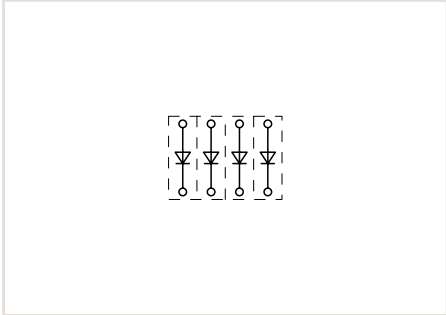


Item No.	Pack. Unit
Through terminal blocks with same profile, see page 36	
4-conductor diode terminal block, with 1N5408 diode	
○ gray <b>2004-1411/1000-401</b>	50
○ gray <b>2004-1411/1000-400</b>	50

# TOPJOB® S

## Diode Terminal Blocks

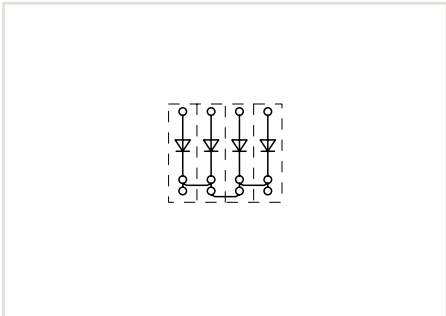
### Circuit Configuration Examples



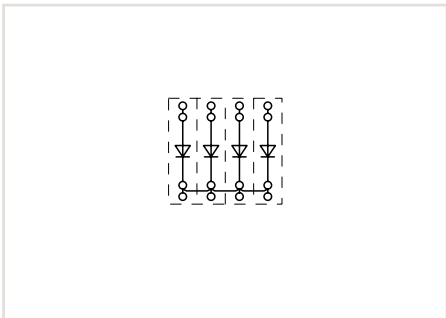
Open diode gates can be created using the following terminal blocks:  
2004-1211/1000-400 or 2004-1211/1000-401



These diode terminal blocks have been specially developed for custom diode circuits, such as lamp test and collective fault signal circuits.



Open diode gates can be created using the following terminal blocks:  
2004-1311/1000-400 or 2004-1311/1000-401



Open diode gates can be created using the following terminal blocks:  
2004-1411/1000-400 or 2004-1411/1000-401




- 1 Conductor range: 0.5 ... 6 mm<sup>2</sup> "s + f-st";  
Push-in termination: 1 ... 6 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"

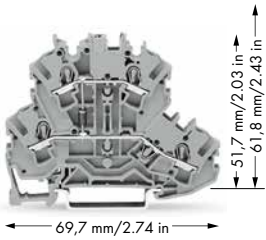
2004 Series Accessories			
Appropriate marking system (see Section 13)			
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
	light gray	<b>2004-171</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>			
	dark gray	<b>2004-172</b>	200 (8x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 32 A, light gray			
	2-way	<b>2004-402</b>	200 (8x25)
	3-way	<b>2004-403</b>	200 (8x25)
	4-way	<b>2004-404</b>	100 (4x25)
	5-way	<b>2004-405</b>	100 (4x25)
	6-way	<b>2004-406</b>	100 (4x25)
	7-way	<b>2004-407</b>	100 (4x25)
	8-way	<b>2004-408</b>	100 (4x25)
	9-way	<b>2004-409</b>	100 (4x25)
	10-way	<b>2004-410</b>	100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 32 A, light gray			
	from 1 to 3	<b>2004-433</b>	200 (8x25)
	from 1 to 4	<b>2004-434</b>	200 (8x25)
	from 1 to 5	<b>2004-435</b>	100 (4x25)
	from 1 to 6	<b>2004-436</b>	100 (4x25)
	from 1 to 7	<b>2004-437</b>	100 (4x25)
	from 1 to 8	<b>2004-438</b>	100 (4x25)
	from 1 to 9	<b>2004-439</b>	100 (4x25)
	from 1 to 10	<b>2004-440</b>	100 (4x25)
Wire commoning chain, 50 connections, insulated, I <sub>N</sub> 8 A			
	black	<b>210-103</b>	1
Wire commoning chain, 50 connections, insulated, I <sub>N</sub> 8 A			
	blue	<b>210-123</b>	1

# TOPJOB® S Double-Deck Diode Terminal Blocks and LED Terminal Blocks

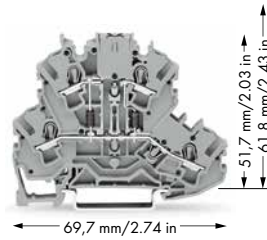
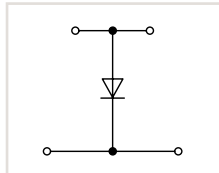
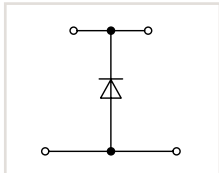
2.5 (4) mm<sup>2</sup>, 2002 Series

1

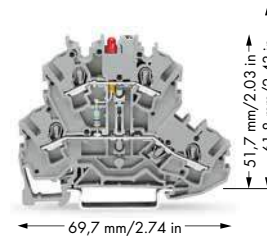
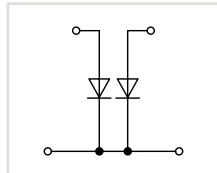
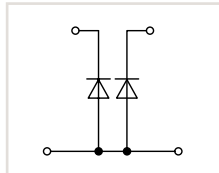
0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG 24 VDC I <sub>F</sub> 0.025 A max. Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch
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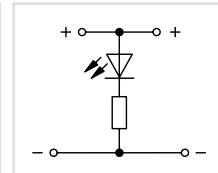
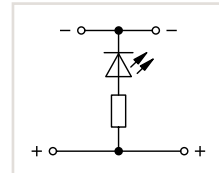
2002-2211/1000-410    2002-2211/1000-411



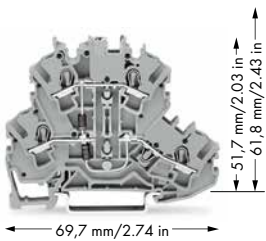
2002-2213/1000-487    2002-2213/1000-488



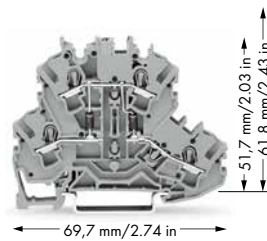
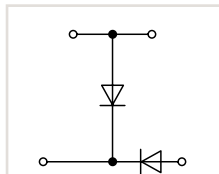
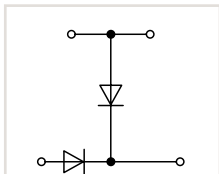
2002-2221/1000-434    2002-2221/1000-413



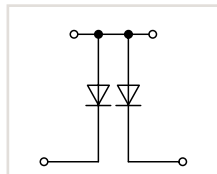
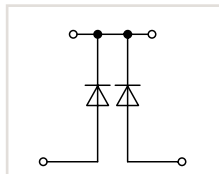
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck diode terminal block, with 1N4007 diode		Double-deck diode terminal block, with two 1N4007 diodes		Double-deck LED terminal block, with red LED	
○ gray	<b>2002-2211/1000-410</b> 50	○ gray	<b>2002-2213/1000-487</b> 50	○ gray	<b>2002-2221/1000-434</b> 50
● gray	<b>2002-2211/1000-411</b> 50	● gray	<b>2002-2213/1000-488</b> 50	● gray	<b>2002-2221/1000-413</b> 50



2002-2214/1000-492    2002-2214/1000-491



2002-2214/1000-489    2002-2214/1000-490



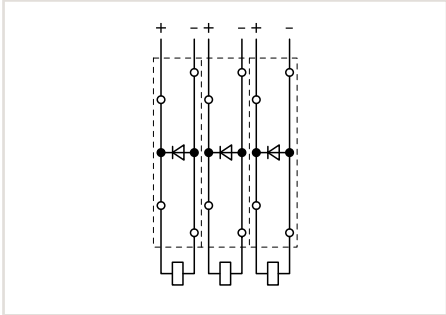
Item No.	Pack. Unit	Item No.	Pack. Unit	
Double-deck diode terminal block, with two 1N4007 diodes		Double-deck diode terminal block, with two 1N4007 diodes		<b>Through terminal blocks with same profile,</b> see page 46
○ gray	<b>2002-2214/1000-492</b> 50	○ gray	<b>2002-2214/1000-489</b> 50	
● gray	<b>2002-2214/1000-491</b> 50	● gray	<b>2002-2214/1000-490</b> 50	

# TOPJOB® S

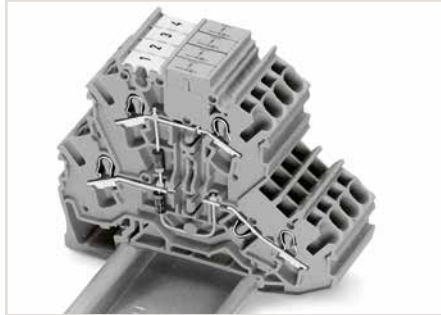
## Double-Deck Diode Terminal Blocks and LED Terminal Blocks

### Circuit Configuration Examples

1

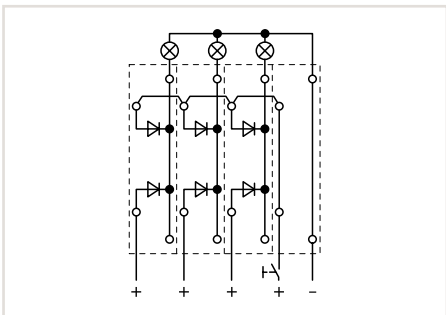


Recovery diodes can be created using the following terminal blocks:  
2002-2211/1000-410 or 2002-2211/1000-411

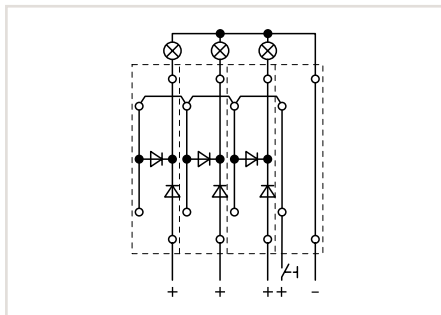


Double-deck diode terminal blocks were specifically developed for custom diode circuits, such as lamp test and collective fault signal circuits. These terminal blocks provide high-density wiring in a width of just 5.2 mm. Push-in type jumper bars provide additional options for custom circuit design.

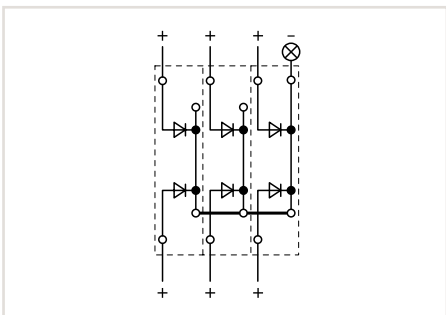
- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrules, 12 mm"



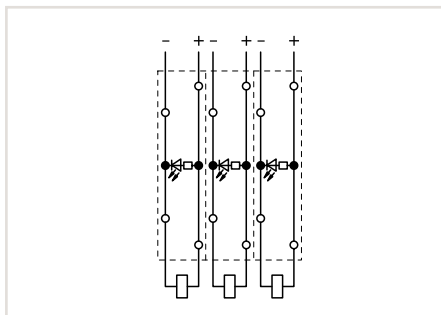
Lamp test circuits can be created using the following terminal blocks:  
2002-2213/1000-487 or 2002-2213/1000-488



Lamp test circuits can be created using the following terminal blocks:  
2002-2214/1000-492 or 2002-2214/1000-491










Collective fault signals can be created using the following terminal blocks:  
2002-2214/1000-489 or 2002-2214/1000-490



Circuit-related voltage indications can be created using the following terminal blocks:  
2002-2221/1000-434 or 2002-2221/1000-413

### 2002 Series Accessories




Appropriate marking system  
(see Section 13)




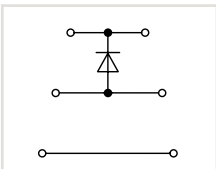
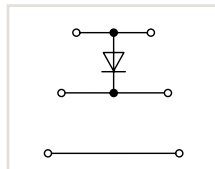
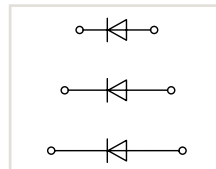
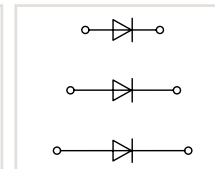
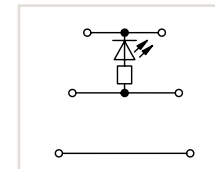
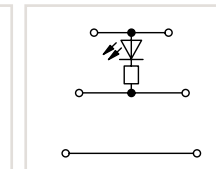
End and intermediate plate, 0.8 mm thick			
	orange	<b>2002-2292</b>	100 (4x25)
	gray	<b>2002-2291</b>	100 (4x25)
Double-deck marker carrier, pivoting			
	gray	<b>2002-121</b>	50 (2x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
	light gray	<b>2002-171</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>			
	dark gray	<b>2002-172</b>	200 (8x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray			
	2-way	<b>2002-402</b>	200 (8x25)
	3-way	<b>2002-403</b>	200 (8x25)
	4-way	<b>2002-404</b>	200 (8x25)
	5-way	<b>2002-405</b>	100 (4x25)
	6-way	<b>2002-406</b>	100 (4x25)
	7-way	<b>2002-407</b>	100 (4x25)
	8-way	<b>2002-408</b>	100 (4x25)
	9-way	<b>2002-409</b>	100 (4x25)
	10-way	<b>2002-410</b>	100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray			
	from 1 to 3	<b>2002-433</b>	200 (8x25)
	from 1 to 4	<b>2002-434</b>	200 (8x25)
	from 1 to 5	<b>2002-435</b>	100 (4x25)
	from 1 to 6	<b>2002-436</b>	100 (4x25)
	from 1 to 7	<b>2002-437</b>	100 (4x25)
	from 1 to 8	<b>2002-438</b>	100 (4x25)
	from 1 to 9	<b>2002-439</b>	100 (4x25)
	from 1 to 10	<b>2002-440</b>	100 (4x25)

# TOPJOB® S Trible-Deck Diode Terminal Blocks and LED Terminal Blocks


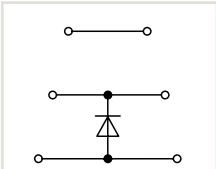
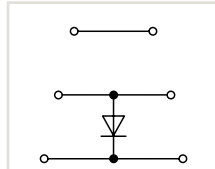
2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG 24 VDC I <sub>F</sub> 0.025 A max. Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch
---	--	--

 93,3 mm / 3.67 in 69,5 mm / 2.74 in 81,3 mm / 3.20 in 2002-3211/1000-410    2002-3211/1000-411	 93,3 mm / 3.67 in 69,5 mm / 2.74 in 81,3 mm / 3.20 in 2002-3212/1000-673    2002-3212/1000-674	 93,3 mm / 3.67 in 69,5 mm / 2.74 in 81,3 mm / 3.20 in 2002-3221/1000-434    2002-3221/1000-413
 	 	 

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Triple-deck diode terminal block, with 1N4007 diode		Triple-deck diode terminal block, with three 1N4007 diodes		Triple-deck LED terminal block, with red LED	
○ gray	<b>2002-3211/1000-410</b> 50	○ gray	<b>2002-3212/1000-673</b> 50	○ gray	<b>2002-3221/1000-434</b> 50
○ gray	<b>2002-3211/1000-411</b> 50	○ gray	<b>2002-3212/1000-674</b> 50	○ gray	<b>2002-3221/1000-413</b> 50

 93,3 mm / 3.67 in 69,5 mm / 2.74 in 81,3 mm / 3.20 in 2002-3211/1000-675    2002-3211/1000-676	 
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Item No.	Pack. Unit	
Triple-deck diode terminal block, with 1N4007 diode		<b>Through terminal blocks with same profile,</b> see page 58
○ gray	<b>2002-3211/1000-675</b> 50	
○ gray	<b>2002-3211/1000-676</b> 50	



# TOPJOB® S

## Triple-Deck Diode Terminal Blocks

### Circuit Configuration Examples



#### Double- and triple-deck LED terminal blocks

Designing monitoring units via LED terminal blocks (e.g., for control and operating circuits).

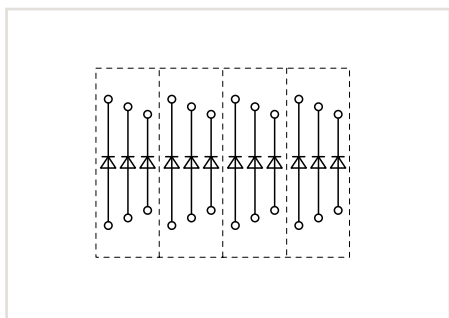
- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrules, 12 mm"



Triple-deck diode terminal blocks were specifically developed for custom diode circuits, such as lamp test and collective fault signal circuits.

These terminal blocks provide high-density wiring in a width of just 5.2 mm.

Push-in type jumper bars provide additional options for custom circuit design.



Open diode gates can be created and connected individually using the following terminal blocks:

2002-3212/1000-673 or 2002-3212/1000-674

Using push-in type jumper bars, individual levels can be turned into polarized diode gates.

#### 2002 Series Accessories

Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

End and intermediate plate, 0.8 mm thick orange <b>2002-3292</b> 100 (4x25) gray <b>2002-3291</b> 100 (4x25)	End plate, for modular TOPJOB® S connector, 1.5 mm thick gray <b>2002-541</b> 100 (4x25)
Triple-deck marker carrier, pivoting gray <b>2002-131</b> 50 (2x25)	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V red <b>210-136</b> 50
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>2002-171</b> 200 (8x25)	Test plug adapter, for 4 mm Ø test plug gray <b>2009-174</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>2002-172</b> 200 (8x25)	Testing tap, for max. 2.5 mm <sup>2</sup> gray <b>2009-182</b> 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 2-way <b>2002-402</b> 200 (8x25) 3-way <b>2002-403</b> 200 (8x25) 4-way <b>2002-404</b> 200 (8x25) 5-way <b>2002-405</b> 100 (4x25) 6-way <b>2002-406</b> 100 (4x25) 7-way <b>2002-407</b> 100 (4x25) 8-way <b>2002-408</b> 100 (4x25) 9-way <b>2002-409</b> 100 (4x25) 10-way <b>2002-410</b> 100 (4x25)	Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow <b>215-111</b> 50
	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5
	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable white <b>2009-115</b> 1
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray from 1 to 3 <b>2002-433</b> 200 (8x25) from 1 to 4 <b>2002-434</b> 200 (8x25) from 1 to 5 <b>2002-435</b> 100 (4x25) from 1 to 6 <b>2002-436</b> 100 (4x25) from 1 to 7 <b>2002-437</b> 100 (4x25) from 1 to 8 <b>2002-438</b> 100 (4x25) from 1 to 9 <b>2002-439</b> 100 (4x25) from 1 to 10 <b>2002-440</b> 100 (4x25)	Marking strip, plain, 11 mm wide, 50 m reel white <b>2009-110</b> 1
Modular TOPJOB® S connector, snaps together, for jumper contact slot gray <b>2002-511</b> 100 (4x25)	TOPJOB® S group marker carrier, snap-on type for jumper slot, 5 mm wide gray <b>2009-191</b> 50 (2x25)
Spacer module, snaps together, bridges commoned terminal blocks gray <b>2002-549</b> 100 (4x25)	Screwless end stop, for DIN-35 rail, 6 mm wide gray <b>249-116</b> 100 (4x25)
	Screwless end stop, for DIN-35 rail, 10 mm wide gray <b>249-117</b> 50 (2x25)

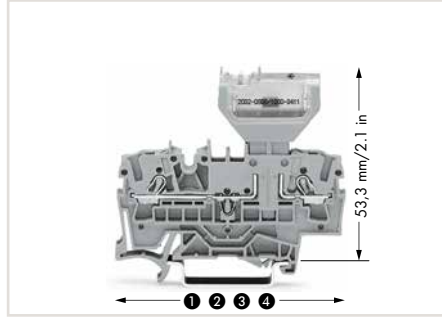
# TOPJOB® S

## Pluggable Diode Modules on Carrier Terminal Blocks, 2.5 (4) mm<sup>2</sup>

### 2002 Series

1

Diode module with 1N4007 diode  
 $U_N$  250 V,  $U_{RM}$  1000 V  
 $I_N$  1 A  
 Plug width 5.2 mm / 0.205 inch



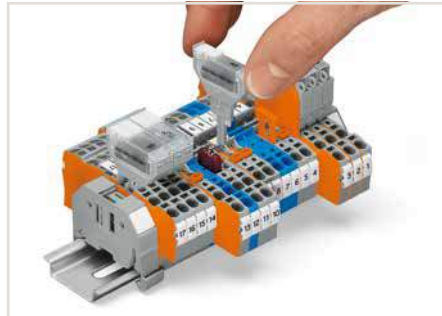
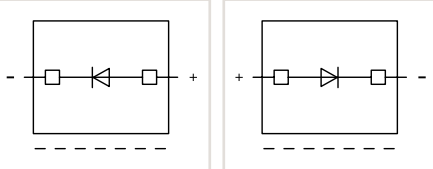
Dimensions of carrier terminal blocks with a pluggable diode module:

- ① 66.1 mm / 2.62 inch for 2002-1661
- ② 76.8 mm / 3.02 inch for 2002-1761
- ③ 87.5 mm / 3.45 inch for 2002-1861
- ④ 72.9 mm / 2.87 inch for 2002-1961

- ⑤ See application notes for:  
 Push-in type wire jumper, page 138  
 Colored push-in type jumper bar, page 134  
 Staggered jumper, page 136

2002-800/1000-411

2002-800/1000-410



These diode modules are ideal for custom diode circuits (e.g., lamp test and collective fault signal circuits) and offer the following advantages:

- Separation into functional and wiring levels
- Polarized switching direction
- Quick and easy exchange of modules
- Terminal blocks/modules provide high-density wiring in a width of just 5.2 mm

### Accessories

Push-in type wire jumper, insulated, wire size 1.5 mm<sup>2</sup>,

⑤  $I_N$  18 A



L = 60 mm	<b>2009-412</b>	100 (10x10)
L = 110 mm	<b>2009-414</b>	100 (10x10)
L = 250 mm	<b>2009-416</b>	100 (10x10)

Push-in type jumper bar, insulated,  $I_N$  25 A, light gray

⑤



2-way	<b>2002-402</b>	200 (8x25)
3-way	<b>2002-403</b>	200 (8x25)
4-way	<b>2002-404</b>	200 (8x25)
5-way	<b>2002-405</b>	100 (4x25)
6-way	<b>2002-406</b>	100 (4x25)
7-way	<b>2002-407</b>	100 (4x25)
8-way	<b>2002-408</b>	100 (4x25)
9-way	<b>2002-409</b>	100 (4x25)
10-way	<b>2002-410</b>	100 (4x25)

Push-in type jumper bar, insulated,  $I_N$  25 A, light gray

⑤



from 1 to 3	<b>2002-433</b>	200 (8x25)
from 1 to 4	<b>2002-434</b>	200 (8x25)
from 1 to 5	<b>2002-435</b>	100 (4x25)
from 1 to 6	<b>2002-436</b>	100 (4x25)
from 1 to 7	<b>2002-437</b>	100 (4x25)
from 1 to 8	<b>2002-438</b>	100 (4x25)
from 1 to 9	<b>2002-439</b>	100 (4x25)
from 1 to 10	<b>2002-440</b>	100 (4x25)

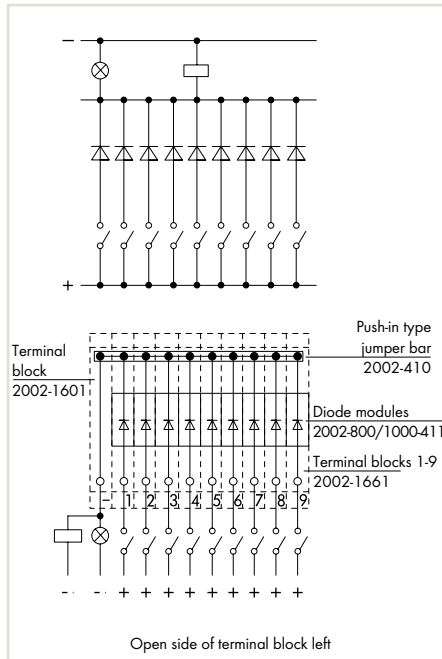
Staggered jumper, insulated,  $I_N$  25 A, light gray

⑤



2-way	<b>2002-472</b>	100 (4x25)
3-way	<b>2002-473</b>	100 (4x25)
4-way	<b>2002-474</b>	100 (4x25)
5-way	<b>2002-475</b>	50 (2x25)
6-way	<b>2002-476</b>	50 (2x25)
7-way	<b>2002-477</b>	50 (2x25)
8-way	<b>2002-478</b>	50 (2x25)
9-way	<b>2002-479</b>	50 (2x25)
10-way	<b>2002-480</b>	50 (2x25)
11-way	<b>2002-481</b>	50 (2x25)
12-way	<b>2002-482</b>	50 (2x25)

Item No.	Pack. Unit
Diode module, with 1N4007 diode, max. operating temperature: 85°C, 5.2 mm wide	
gray <b>2002-800/1000-411</b>	100
gray <b>2002-800/1000-410</b>	100
<b>Carrier Term. Blocks and Accessories</b>	
Appropriate marking system: WMB/Marking strips	
2-conductor carrier terminal block,	
①	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1661</b>
	50
End and intermediate plate, 1 mm thick	
	orange <b>2002-1692</b> 100 (4x25)
	gray <b>2002-1691</b> 100 (4x25)
3-conductor carrier terminal block,	
②	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1761</b>
	50
End and intermediate plate, 1 mm thick	
	orange <b>2002-1792</b> 100 (4x25)
	gray <b>2002-1791</b> 100 (4x25)
4-conductor carrier terminal block,	
③	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1861</b>
	50
End and intermediate plate, 1 mm thick	
	orange <b>2002-1892</b> 100 (4x25)
	gray <b>2002-1891</b> 100 (4x25)
2-conductor carrier terminal block,	
④	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1961</b>
	50
End and intermediate plate, 1 mm thick	
	orange <b>2002-1992</b> 100 (4x25)
	gray <b>2002-1991</b> 100 (4x25)



Diode module (2002-800/1000-411)  
 Diode gate for collective fault indication

# TOPJOB® S – Pluggable Diode Modules and Empty Component Plug Housings on Through Terminal Blocks, 2.5 (4) mm<sup>2</sup>

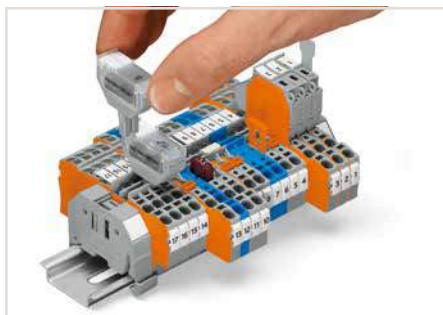
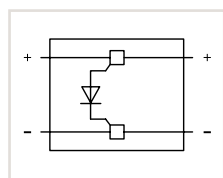
## 2002 Series

**Diode module with 1N4007 diode as free-wheeling diode**  
 $U_N$  250 V,  $U_{RM}$  1000 V  
 $I_N$  1 A  
 Plug width 10.4 mm / 0.409 inch



Dimensions of through terminal blocks with a pluggable diode module:

- ① 48.5 mm / 1.91 inch for 2002-1201
- ② 59.2 mm / 2.33 inch for 2002-1301
- ③ 69.9 mm / 2.75 inch for 2002-1401



Similar to push-in type jumpers, these diode modules are simply pushed into the current bar's contact slots of two adjacent through terminal blocks, providing the following advantages:

- Compatible with all 2001 to 2006 Series Through Terminal Blocks equipped with jumper slots (note the module's width)
  - Easily retrofit existing systems
- Additional advantages:
- Separation into functional and wiring levels
  - Fast replacement of other functional units
  - Solder-free assembly of diodes, resistors, etc.



Opening the cover via operating tool (2.5 mm blade).

Item No.	Pack. Unit
Diode module, with 1N4007 diode as free-wheeling diode, max. operating temperature: 85 °C, 10.4 mm wide	
gray 2002-880/1000-411	50
<b>Empty component plug housing type 4, 2-pole, 10.4 mm wide</b>	
gray 2002-880	50

Through Term. Blocks and Accessories	
Appropriate marking system: WMB/Marking strips	
2-conductor through terminal block,	
①	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray 2002-1201 100
End and intermediate plate, 0.8 mm thick	
	orange 2002-1292 100 (4x25) gray 2002-1291 100 (4x25)
3-conductor through terminal block,	
②	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray 2002-1301 100
End and intermediate plate, 0.8 mm thick	
	orange 2002-1392 100 (4x25) gray 2002-1391 100 (4x25)
4-conductor through terminal block,	
③	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray 2002-1401 100
End and intermediate plate, 0.8 mm thick	
	orange 2002-1492 100 (4x25) gray 2002-1491 100 (4x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>	
	light gray 2002-171 200 (8x25)

- ④ See application notes for:  
 Push-in type wire jumper, page 138  
 Colored push-in type jumper bar, page 134  
 Staggered jumper, page 136

### Accessories

Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>	
	dark gray 2002-172 200 (8x25)
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks	
	yellow 2002-115 100 (4x25)
Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A	
④	
	L = 60 mm 2009-412 100 (10x10)
	L = 110 mm 2009-414 100 (10x10)
	L = 250 mm 2009-416 100 (10x10)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray	
④	
	2-way 2002-402 200 (8x25)
	3-way 2002-403 200 (8x25)
	4-way 2002-404 200 (8x25)
	5-way 2002-405 100 (4x25)
	6-way 2002-406 100 (4x25)
	7-way 2002-407 100 (4x25)
	8-way 2002-408 100 (4x25)
	9-way 2002-409 100 (4x25)
	10-way 2002-410 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray	
	from 1 to 3 2002-433 200 (8x25)
	from 1 to 4 2002-434 200 (8x25)
	from 1 to 5 2002-435 100 (4x25)
	from 1 to 6 2002-436 100 (4x25)
	from 1 to 7 2002-437 100 (4x25)
	from 1 to 8 2002-438 100 (4x25)
	from 1 to 9 2002-439 100 (4x25)
	from 1 to 10 2002-440 100 (4x25)
Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray	
④	
	2-way 2002-472 100 (4x25)
	3-way 2002-473 100 (4x25)
	4-way 2002-474 100 (4x25)
	5-way 2002-475 50 (2x25)

# TOPJOB® S

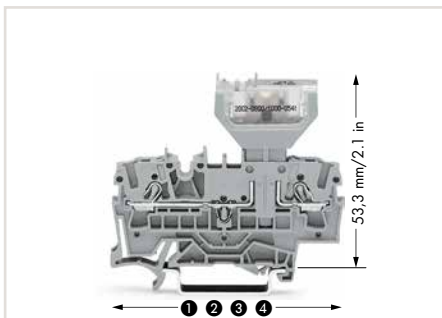
## Pluggable LED Modules on Carrier Terminal Blocks, 2.5 (4) mm<sup>2</sup>

### 2002 Series

1

LED module  
I<sub>N</sub> ≤ 3 mA

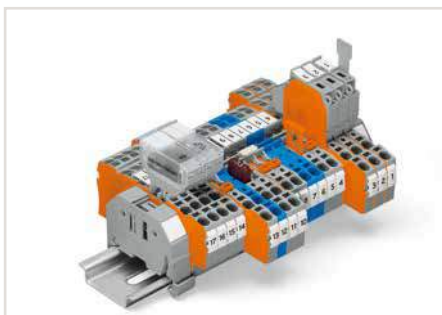
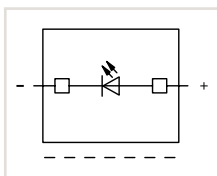
Plug width 5.2 mm / 0.205 inch



Dimensions of carrier terminal blocks with a pluggable LED module:

- ① 66.1 mm / 2.62 inch for 2002-1661
- ② 76.8 mm / 3.02 inch for 2002-1761
- ③ 87.5 mm / 3.45 inch for 2002-1861
- ④ 72.9 mm / 2.87 inch for 2002-1961

- ⑤ See application notes for:  
Push-in type wire jumper, page 138  
Colored push-in type jumper bar, page 134  
Staggered jumper, page 136



The monitoring of control and operating current circuits with LED modules on rail-mount terminal blocks provides several advantages:

- No additional cost for assembly and wiring
  - Separation into functional and wiring levels
  - Fast and easy replacement of other functional units
- Additional advantages:
- Polarized switching direction
  - Terminal blocks/modules provide high-density wiring in a width of just 5.2 mm

### Accessories

Push-in type wire jumper, insulated, wire size 1.5 mm<sup>2</sup>,



L = 60 mm	<b>2009-412</b>	100 (10x10)
L = 110 mm	<b>2009-414</b>	100 (10x10)
L = 250 mm	<b>2009-416</b>	100 (10x10)

Push-in type jumper bar, insulated, I<sub>N</sub> 25 A, light gray



2-way	<b>2002-402</b>	200 (8x25)
3-way	<b>2002-403</b>	200 (8x25)
4-way	<b>2002-404</b>	200 (8x25)
5-way	<b>2002-405</b>	100 (4x25)
6-way	<b>2002-406</b>	100 (4x25)
7-way	<b>2002-407</b>	100 (4x25)
8-way	<b>2002-408</b>	100 (4x25)
9-way	<b>2002-409</b>	100 (4x25)
10-way	<b>2002-410</b>	100 (4x25)

Push-in type jumper bar, insulated, I<sub>N</sub> 25 A, light gray



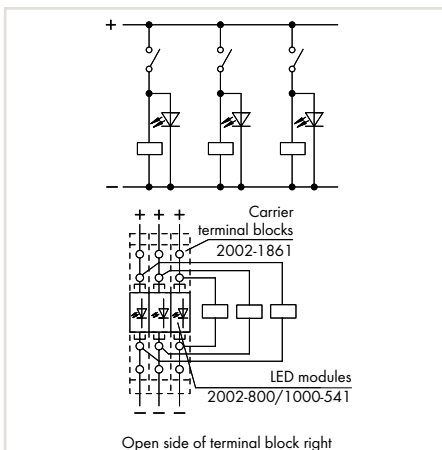
from 1 to 3	<b>2002-433</b>	200 (8x25)
from 1 to 4	<b>2002-434</b>	200 (8x25)
from 1 to 5	<b>2002-435</b>	100 (4x25)
from 1 to 6	<b>2002-436</b>	100 (4x25)
from 1 to 7	<b>2002-437</b>	100 (4x25)
from 1 to 8	<b>2002-438</b>	100 (4x25)
from 1 to 9	<b>2002-439</b>	100 (4x25)
from 1 to 10	<b>2002-440</b>	100 (4x25)

Staggered jumper, insulated, I<sub>N</sub> 25 A, light gray



2-way	<b>2002-472</b>	100 (4x25)
3-way	<b>2002-473</b>	100 (4x25)
4-way	<b>2002-474</b>	100 (4x25)
5-way	<b>2002-475</b>	50 (2x25)
6-way	<b>2002-476</b>	50 (2x25)
7-way	<b>2002-477</b>	50 (2x25)
8-way	<b>2002-478</b>	50 (2x25)
9-way	<b>2002-479</b>	50 (2x25)
10-way	<b>2002-480</b>	50 (2x25)
11-way	<b>2002-481</b>	50 (2x25)
12-way	<b>2002-482</b>	50 (2x25)

Item No.	Pack. Unit
LED module, with red LED, max. operating temperature: 85°C, 5.2 mm wide	
○ 12 ... 30 V	<b>2002-800/1000-541</b> 100
○ 30 ... 65 V	<b>2002-800/1000-542</b> 100
○ 230 V	<b>2002-800/1000-836</b> 100
<b>Carrier Term. Blocks and Accessories</b>	
Appropriate marking system: WMB/Marking strips	
2-conductor carrier terminal block,	
①	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1661</b> 50
End and intermediate plate, 1 mm thick	
	orange <b>2002-1692</b> 100 (4x25)
	gray <b>2002-1691</b> 100 (4x25)
32-conductor carrier terminal block,	
②	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1761</b> 50
End and intermediate plate, 1 mm thick	
	orange <b>2002-1792</b> 100 (4x25)
	gray <b>2002-1791</b> 100 (4x25)
4-conductor carrier terminal block,	
③	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1861</b> 50
End and intermediate plate, 1 mm thick	
	orange <b>2002-1892</b> 100 (4x25)
	gray <b>2002-1891</b> 100 (4x25)
2-conductor carrier terminal block,	
④	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1961</b> 50
End and intermediate plate, 1 mm thick	
	orange <b>2002-1992</b> 100 (4x25)
	gray <b>2002-1991</b> 100 (4x25)



LED module (2002-800/1000-541)  
Voltage control refers to current circuits.

# TOPJOB® S

## Pluggable LED Modules on Through Terminal Blocks, 2.5 (4) mm<sup>2</sup>

### 2002 Series

1

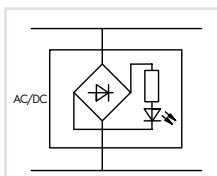
**LED module**  
 $I_N \leq 3 \text{ mA}$

**Plug width 10.4 mm / 0.409 inch**



Dimensions of through terminal blocks with a pluggable LED module:

- ❶ 48.5 mm / 1.91 inch for 2002-1201
- ❷ 59.2 mm / 2.33 inch for 2002-1301
- ❸ 69.9 mm / 2.75 inch for 2002-1401



Item No.	Pack. Unit
LED module, with red LED, max. operating temperature: 85°C, 10.4 mm wide	
○ 12 ... 30 V	<b>2002-880/1000-541</b> 50
○ 30 ... 65 V	<b>2002-880/1000-542</b> 50
○ 230 V	<b>2002-880/1000-836</b> 50

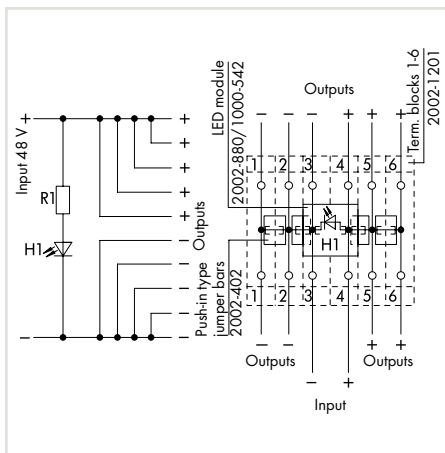


Labelling via WMB Multi markers and marking strips.

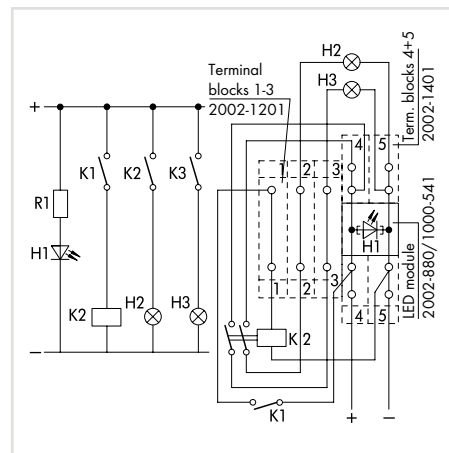


Testing can also be performed via 2-pole test plugs.

Through Term. Blocks and Accessories	
Appropriate marking system: WMB/Marking strips	
2-conductor through terminal block,	
❶	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1201</b> 100
End and intermediate plate, 0.8 mm thick	
	orange <b>2002-1292</b> 100 (4x25)
	gray <b>2002-1291</b> 100 (4x25)
3-conductor through terminal block,	
❷	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1301</b> 100
End and intermediate plate, 0.8 mm thick	
	orange <b>2002-1392</b> 100 (4x25)
	gray <b>2002-1391</b> 100 (4x25)
4-conductor through terminal block,	
❸	0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1401</b> 100
End and intermediate plate, 0.8 mm thick	
	orange <b>2002-1492</b> 100 (4x25)
	gray <b>2002-1491</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>	
	light gray <b>2002-171</b> 200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>	
	dark gray <b>2002-172</b> 200 (8x25)



LED module (2002-880/1000-541)  
Multiple outputs with indicator lamp



LED module (2002-880/1000-541)  
Control unit

# TOPJOB® S

## Empty Component Plug Housings on Carrier Terminal Blocks, 2.5 (4) mm<sup>2</sup>

### 2002 Series

1

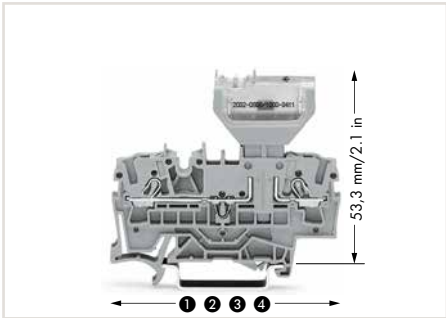
Empty component plug housing	Empty component plug housing
Plug width 5.2 mm / 0.205 inch	Plug width 10.4 mm / 0.409 inch



5 See application notes for:  
 Push-in type wire jumper, page 138  
 Colored push-in type jumper bar, page 134  
 Staggered jumper, page 10

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
Empty component plug housing type 1, 2-pole, 5.2 mm wide		Empty component plug housing type 2, 2-pole, 10.4 mm wide		
○ gray <b>2002-800</b>	100	○ gray <b>2002-810</b>	50	
		Empty component plug housing type 3, 4-pole, 10.4 mm wide		
		○ gray <b>2002-820</b>	50	
<b>Carrier Term. Blocks and Accessories</b>				
Appropriate marking system: WMB/Marking strips (see Section 13)				
2-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG		Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A		Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray
Terminal block width 5.2 mm / 0.205 inch				
gray <b>2002-1661</b>	50			
End and intermediate plate, 1 mm thick		L = 60 mm <b>2009-412</b>	100 (10x10)	
orange <b>2002-1692</b>	100 (4x25)	L = 110 mm <b>2009-414</b>	100 (10x10)	
gray <b>2002-1691</b>	100 (4x25)	L = 250 mm <b>2009-416</b>	100 (10x10)	
3-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG		Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray		WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
Terminal block width 5.2 mm / 0.205 inch				
gray <b>2002-1761</b>	50			plain <b>793-5501</b>
End and intermediate plate, 1 mm thick				5
orange <b>2002-1792</b>	100 (4x25)			WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
gray <b>2002-1791</b>	100 (4x25)			
4-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG				yellow <b>793-5501/000-002</b>
Terminal block width 5.2 mm / 0.205 inch				red <b>793-5501/000-005</b>
gray <b>2002-1861</b>	50			blue <b>793-5501/000-006</b>
End and intermediate plate, 1 mm thick				gray <b>793-5501/000-007</b>
orange <b>2002-1892</b>	100 (4x25)			orange <b>793-5501/000-012</b>
gray <b>2002-1891</b>	100 (4x25)			light green <b>793-5501/000-017</b>
2-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG				green <b>793-5501/000-023</b>
Terminal block width 5.2 mm / 0.205 inch				violet <b>793-5501/000-024</b>
gray <b>2002-1961</b>	50			5
End and intermediate plate, 1 mm thick				
orange <b>2002-1992</b>	100 (4x25)			
gray <b>2002-1991</b>	100 (4x25)			
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		Multi-purpose operating tool, for component plugs		
yellow <b>2002-115</b>	100 (4x25)			
		<b>2002-116</b>	5	

# Technical Information



Dimensions of carrier terminal blocks with a plugable diode module:

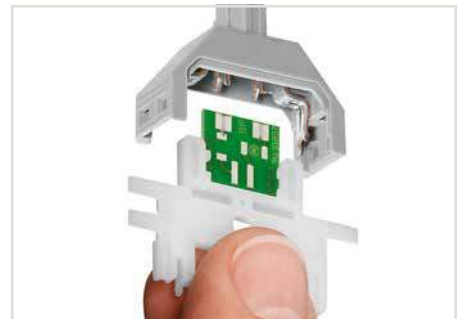
- ① 66.1 mm / 2.62 inch for 2002-1661
- ② 76.8 mm / 3.02 inch for 2002-1761
- ③ 87.5 mm / 3.45 inch for 2002-1861
- ④ 72.9 mm / 2.87 inch for 2002-1961



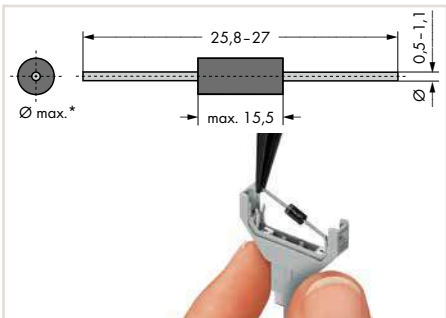
Cutting component to the proper length.



Pressing component into plug contact via operating tool.



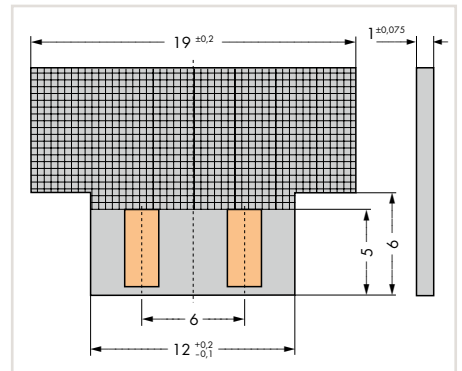
Pushing PCB into plug contact via operating tool.



\*max. 3.4 mm Ø at 5.2 mm module width  
 \*max. 5.4 mm Ø at 10.4 mm module width  
**Notice:** Reconnection only possible with similar or larger wire diameter.  
 Solder-free assembly of diodes, resistors, etc.  
 Illustration shows a 1N4007 diode.



Component plugs for building custom circuits - solder-free assembly of diodes, resistors, etc. Illustration shows a 1N4007 diode.



Dimensions of self-assembled PCBs:  
 Module height: 2 mm at 5.2 mm module width  
 Module height: 3.3 mm at 10.4 mm module width



When closing the cover, please insert cover as shown in the illustration.



Opening the cover via operating tool (2.5 mm blade).



Opening the cover via multi-purpose operating tool for component plugs.

# TOPJOB® S

## Component Plugs on Carrier Terminal Blocks 2.5 (4) mm<sup>2</sup>

### 2042 Series

1

Component plug	Component plug
Plug width 20.7 mm / 0.815 inch	Plug width 25.9 mm / 1.02 inch



















- ❶ Length of 2002-1661: 66.5 mm / 2.62 inch  
2-conductor carrier terminal block
- ❷ Length of 2002-1761: 76.8 mm / 3.02 inch  
3-conductor carrier terminal block
- ❸ Length of 2002-1861: 87.5 mm / 3.45 inch  
4-conductor carrier terminal block
- ❹ Length of 2002-1961: 72.9 mm / 2.87 inch  
2-conductor carrier terminal block, with additional  
jumper position
- ❺ See application notes for:  
Push-in type wire jumper, page 138  
Colored push-in type jumper bar, page 134  
Staggered jumper, page 136

Item No.	Pack. Unit	Item No.	Pack. Unit
Component plug, with fiber optics, 8-pole, 20.7 mm wide		Component plug, with fiber optics, 10-pole, 25.9 mm wide	
❶ <b>2042-341</b>	5	❶ <b>2042-351</b>	5

### Accessories for Carrier Terminal Blocks

Appropriate marking system: WMB/Mini-WSB/Marking strips (see Section 13)

❶ 2-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1661</b> 50 	❺ Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A 	❺ Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray 
End and intermediate plate, 1 mm thick orange <b>2002-1692</b> 100 (4x25) gray <b>2002-1691</b> 100 (4x25) 	L = 60 mm <b>2009-412</b> 100 (10x10) L = 110 mm <b>2009-414</b> 100 (10x10) L = 250 mm <b>2009-416</b> 100 (10x10)	2-way <b>2002-472</b> 100 (4x25) 3-way <b>2002-473</b> 100 (4x25) 4-way <b>2002-474</b> 100 (4x25) 5-way <b>2002-475</b> 50 (2x25) 6-way <b>2002-476</b> 50 (2x25) 7-way <b>2002-477</b> 50 (2x25) 8-way <b>2002-478</b> 50 (2x25) 9-way <b>2002-479</b> 50 (2x25) 10-way <b>2002-480</b> 50 (2x25) 11-way <b>2002-481</b> 50 (2x25) 12-way <b>2002-482</b> 50 (2x25)
❷ 3-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1761</b> 50 	❺ Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 	
End and intermediate plate, 1 mm thick orange <b>2002-1792</b> 100 (4x25) gray <b>2002-1791</b> 100 (4x25) 	2-way <b>2002-402</b> 200 (8x25) 3-way <b>2002-403</b> 200 (8x25) 4-way <b>2002-404</b> 200 (8x25) 5-way <b>2002-405</b> 100 (4x25) 6-way <b>2002-406</b> 100 (4x25) 7-way <b>2002-407</b> 100 (4x25) 8-way <b>2002-408</b> 100 (4x25) 9-way <b>2002-409</b> 100 (4x25) 10-way <b>2002-410</b> 100 (4x25)	
❸ 4-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1861</b> 50 		WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable 
End and intermediate plate, 1 mm thick orange <b>2002-1892</b> 100 (4x25) gray <b>2002-1891</b> 100 (4x25) 	❺ Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 	WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable 
❹ 2-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1961</b> 50 	from 1 to 3 <b>2002-433</b> 200 (8x25) from 1 to 4 <b>2002-434</b> 200 (8x25) from 1 to 5 <b>2002-435</b> 100 (4x25) from 1 to 6 <b>2002-436</b> 100 (4x25) from 1 to 7 <b>2002-437</b> 100 (4x25) from 1 to 8 <b>2002-438</b> 100 (4x25) from 1 to 9 <b>2002-439</b> 100 (4x25) from 1 to 10 <b>2002-440</b> 100 (4x25)	yellow <b>793-5501/000-002</b> red <b>793-5501/000-005</b> blue <b>793-5501/000-006</b> gray <b>793-5501/000-007</b> orange <b>793-5501/000-012</b> light green <b>793-5501/000-017</b> green <b>793-5501/000-023</b> violet <b>793-5501/000-024</b>
End and intermediate plate, 1 mm thick orange <b>2002-1992</b> 100 (4x25) gray <b>2002-1991</b> 100 (4x25) 		
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>2002-115</b> 100 (4x25) 	❺ Multi-purpose operating tool, for component plugs 	



















# TOPJOB® S Modular Connectors and Connector Strips

1 (1.5) mm<sup>2</sup>, 2000 Series and 1.5 (2.5) mm<sup>2</sup>, 2001 Series and 2.5 (4) mm<sup>2</sup>, 2002 Series

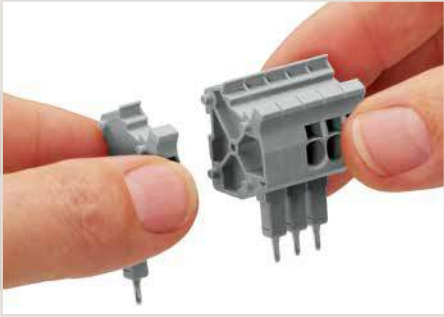
1

1.14 ... 1 (1.5) mm <sup>2</sup> ①   24 ... 16 AWG 500 V/6 kV/3 ④ I <sub>N</sub> 13.5 A  Terminal block width 3.5 mm / 0.138 inch  9 ... 11 mm / 0.35 ... 0.43 inch	0.25 ... 1.5 (2.5) mm <sup>2</sup> ②   22 ... 14 AWG 500 V/6 kV/3 ④ I <sub>N</sub> 18 A  Terminal block width 4.2 mm / 0.165 inch  9 ... 11 mm / 0.35 ... 0.43 inch ⑤	0.25 ... 2.5 (4) mm <sup>2</sup> ③   22 ... 12 AWG 500 V/6 kV/3 ④ I <sub>N</sub> 24 A  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch ⑥
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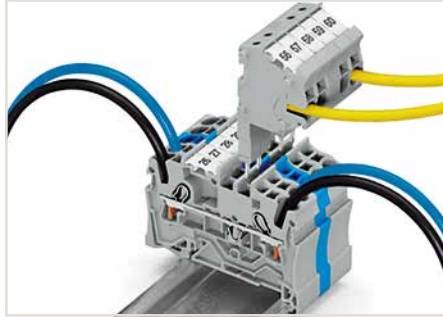


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Modular TOPJOB® S connector, for jumper contact slot, snaps together, gray ○ 1-pole <b>2000-510</b>	100 (4x25)	Modular TOPJOB® S connector, for jumper contact slot, snaps together, gray ○ 1-pole <b>2001-511</b>	100 (4x25)	Modular TOPJOB® S connector, for jumper contact slot, snaps together, gray ○ 1-pole <b>2002-511</b>	100 (4x25)
Modular TOPJOB® S connector, for jumper contact slot, snaps together, gray Terminal block width: 5 mm / 0.197 inch ○ 1-pole <b>2000-511</b>	100 (4x25)				
Spacer module, snaps together, bridges commoned terminal blocks ○ gray <b>2000-549</b>	100 (4x25)	Spacer module, snaps together, bridges commoned terminal blocks ○ gray <b>2001-549</b>	100 (4x25)	Spacer module, snaps together, bridges commoned terminal blocks ○ gray <b>2002-549</b>	100 (4x25)
TOPJOB® S connector strip, for jumper contact slot, gray ○ 2-pole <b>2000-552</b> ○ 3-pole <b>2000-553</b> ○ 4-pole <b>2000-554</b> ○ 5-pole <b>2000-555</b> ○ 6-pole <b>2000-556</b> ○ 7-pole <b>2000-557</b> ○ 8-pole <b>2000-558</b> ○ 9-pole <b>2000-559</b> ○ 10-pole <b>2000-560</b>	25 25 25 10 10 10 10 10 10	TOPJOB® S connector strip, for jumper contact slot, gray ○ 2-pole <b>2001-552</b> ○ 3-pole <b>2001-553</b> ○ 4-pole <b>2001-554</b> ○ 5-pole <b>2001-555</b> ○ 6-pole <b>2001-556</b> ○ 7-pole <b>2001-557</b> ○ 8-pole <b>2001-558</b> ○ 9-pole <b>2001-559</b> ○ 10-pole <b>2001-560</b>	25 25 25 10 10 10 10 10 10	TOPJOB® S connector strip, for jumper contact slot, gray ○ 2-pole <b>2002-552</b> ○ 3-pole <b>2002-553</b> ○ 4-pole <b>2002-554</b> ○ 5-pole <b>2002-555</b> ○ 6-pole <b>2002-556</b> ○ 7-pole <b>2002-557</b> ○ 8-pole <b>2002-558</b> ○ 9-pole <b>2002-559</b> ○ 10-pole <b>2002-560</b>	25 25 25 10 10 10 10 10 10
Item-Specific Accessories		Item-Specific Accessories		Item-Specific Accessories	
End plate, for modular TOPJOB® S connector, 1.5 mm thick  gray <b>2002-541</b>	100 (4x25)	End plate, for modular TOPJOB® S connector, 1.5 mm thick  gray <b>2002-541</b>	100 (4x25)	End plate, for modular TOPJOB® S connector, 1.5 mm thick  gray <b>2002-541</b>	100 (4x25)
WMB Inline, plain, 2,300 WMB markers (3.5 mm) per reel  white <b>2009-113</b>	1	WMB Inline, plain, 2,000 WMB markers (4 mm) per reel, 4 ... 4.2 mm stretchable  white <b>2009-114</b>	1	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable  white <b>2009-115</b>	1
WMB Multi marking system, white, 10 strips with 10 markers per card, for 3.5 mm terminal block width  plain <b>793-3501</b>	5	WMB Multi marking system, white, 10 strips with 10 markers per card, 4 ... 4.2 mm stretchable  plain <b>793-4501</b>	5	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable  plain <b>793-5501</b>	5
		WMB Multi marking system, plain, 10 strips with 10 markers per card, 4 ... 4.2 mm stretchable  yellow <b>793-4501/000-002</b> red <b>793-4501/000-005</b> blue <b>793-4501/000-006</b> gray <b>793-4501/000-007</b> orange <b>793-4501/000-012</b> light green <b>793-4501/000-017</b> green <b>793-4501/000-023</b> violet <b>793-4501/000-024</b>	5	WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable  yellow <b>793-5501/000-002</b> red <b>793-5501/000-005</b> blue <b>793-5501/000-006</b> gray <b>793-5501/000-007</b> orange <b>793-5501/000-012</b> light green <b>793-5501/000-017</b> green <b>793-5501/000-023</b> violet <b>793-5501/000-024</b>	5

# TOPJOB® S Modular Connectors and Connector Strips Installation

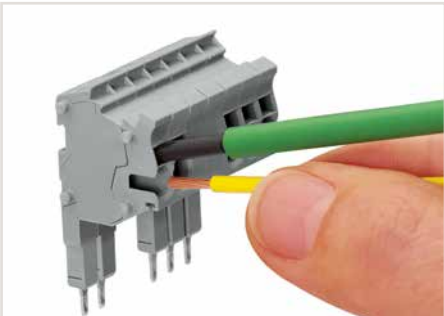


Snapping connectors and spacers together to assemble a multipole connector.



The modular TOPJOB® S connectors also connect conductors of the same size as the terminal blocks being used.

- ❶ Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s"  
and 0.5 ... 0.75 mm<sup>2</sup>  
"insulated ferrule, 10 mm"
- ❷ Conductor range: 0.25 ... 2.5 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.5 ... 2.5 mm<sup>2</sup> "s"  
and 0.75 ... 1.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ❸ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ❹ 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)



**Conductor termination via:**

- Operating tool for fine-stranded conductors without ferrules
- Push-in connection of solid conductors



TOPJOB® S Connectors with a 2 mm Ø test socket for testing voltage via 2-pole voltage tester

**Accessories**

Appropriate marking systems:  
WMB/Marking

Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V			
	yellow	<b>210-137</b>	50
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V			
	red	<b>210-136</b>	50
Strain relief plate, gray			
	35 mm wide	<b>734-326</b>	100 (4x25)
	6 mm wide	<b>734-327</b>	100 (4x25)
	12.5 mm wide	<b>734-328</b>	100 (4x25)
	25 mm wide	<b>734-329</b>	100 (4x25)
Marking strip, plain, 11 mm wide, 50 m reel			
	white	<b>2009-110</b>	1



Snapping on a strain relief plate.



Rail-mount terminal block assembly for electric motor wiring

**Note:**

According to EN 61984, pluggable connectors without current interrupting capacity shall not be mated and unmated when live or under load.





# TOPJOB® S – L-Type Test Plug Modules for Testing Rail-Mount Terminal Blocks

## Terminal Block Width 5.2 mm via Conductor Wire Opening

2.5 (4) mm<sup>2</sup>, 2002 Series

1

0.25 ... 2.5 (4) mm<sup>2</sup> ① | 22 ... 12 AWG  
500 V/6 kV/3 ②  
I<sub>N</sub> 18 A

Terminal block width 5.2 mm / 0.205 inch  
10 ... 12 mm / 0.39 ... 0.47 inch



TOPJOB® S L-type test plug assembly:  
 • L-type test plug modules  
 • L-type spacer modules (max. 10-pole) to skip terminal blocks

- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup> "insulated ferrule, 12 mm"
- ② 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)



Item No.	Pack. Unit
TOPJOB® S L-type test plug module, snaps together, gray According to EN 61984, pluggable connectors without current interrupting capacity shall not be mated and unmated when live or under load.	
○ 1-pole <b>2002-611</b>	100 (4x25)
TOPJOB® S L-type spacer module, snaps together, bridges commoned terminal blocks	
○ gray <b>2002-649</b>	100 (4x25)



L-type test plug modules fitted in a triple-deck terminal block




TOPJOB® S L-type test plugs for testing rail-mount terminal blocks via conductor entries


### Accessories L-Type Test Plug Modules

Appropriate marking systems:  
WMB/WMB Inline/Mini-WSB


End plate, for modular TOPJOB® S test plugs, 1.5 mm thick


 gray **2002-641** 100 (4x25)

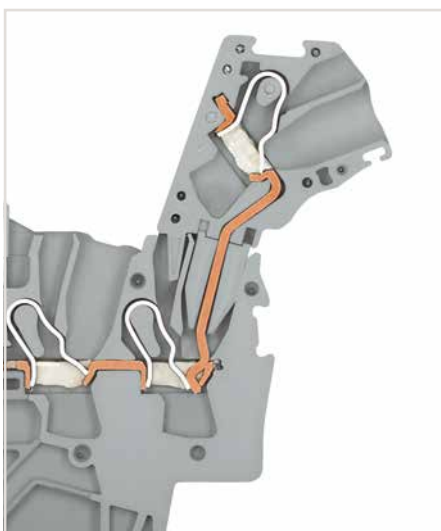
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V  
 red **210-136** 50

Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  
 yellow **210-137** 50

Strain relief plate, gray  
35 mm wide **734-326** 100 (4x25)  
6 mm wide **734-327** 100 (4x25)  
12.5 mm wide **734-328** 100 (4x25)  
25 mm wide **734-329** 100 (4x25)

WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable  
 white **2009-115** 1

WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable  
 plain **793-5501** 5



L-type test plug module – cross-sectional view of contacts



# TOPJOB® S

## Colored Push-In Type Jumper Bars

### 2000 Series and 2002 Series

1

Push-in type jumper bar	Push-in type jumper bar	Push-in type jumper bar
-------------------------	-------------------------	-------------------------



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, red		Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, blue		Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, green-yellow	
● 2-way	2000-402/000-005 200 (8x25)	● 2-way	2000-402/000-006 200 (8x25)	● 2-way	2000-402/000-018 200 (8x25)
● 3-way	2000-403/000-005 200 (8x25)	● 3-way	2000-403/000-006 200 (8x25)		
● 4-way	2000-404/000-005 200 (8x25)	● 4-way	2000-404/000-006 200 (8x25)		
● 5-way	2000-405/000-005 100 (4x25)	● 5-way	2000-405/000-006 100 (4x25)		
● 6-way	2000-406/000-005 100 (4x25)	● 6-way	2000-406/000-006 100 (4x25)		
● 7-way	2000-407/000-005 100 (4x25)	● 7-way	2000-407/000-006 100 (4x25)		
● 8-way	2000-408/000-005 100 (4x25)	● 8-way	2000-408/000-006 100 (4x25)		
● 9-way	2000-409/000-005 100 (4x25)	● 9-way	2000-409/000-006 100 (4x25)		
● 10-way	2000-410/000-005 100 (4x25)	● 10-way	2000-410/000-006 100 (4x25)		
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, red		Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, blue			
● 2-way	2002-402/000-005 200 (8x25)	● 2-way	2002-402/000-006 200 (8x25)		
● 3-way	2002-403/000-005 200 (8x25)	● 3-way	2002-403/000-006 200 (8x25)		
● 4-way	2002-404/000-005 200 (8x25)	● 4-way	2002-404/000-006 200 (8x25)		
● 5-way	2002-405/000-005 100 (4x25)	● 5-way	2002-405/000-006 100 (4x25)		
● 6-way	2002-406/000-005 100 (4x25)	● 6-way	2002-406/000-006 100 (4x25)		
● 7-way	2002-407/000-005 100 (4x25)	● 7-way	2002-407/000-006 100 (4x25)		
● 8-way	2002-408/000-005 100 (4x25)	● 8-way	2002-408/000-006 100 (4x25)		
● 9-way	2002-409/000-005 100 (4x25)	● 9-way	2002-409/000-006 100 (4x25)		
● 10-way	2002-410/000-005 100 (4x25)	● 10-way	2002-410/000-006 100 (4x25)		



An application example: colored push-in type jumper bars are used with sensor terminal blocks.



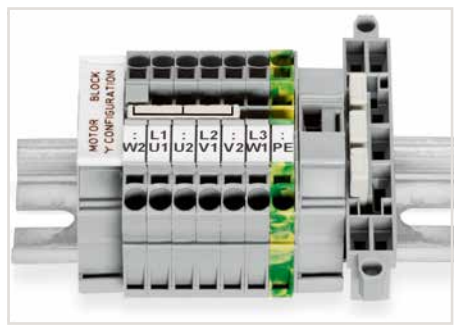
# TOPJOB® S

## Star Point Jumpers and Delta Jumpers

Star point jumper 800 V/8 kV/3 $I_N = I_N$ terminal block	Delta jumper 800 V/8 kV/3 $I_N = I_N$ terminal block
---	--



Item No.	Pack. Unit	Item No.	Pack. Unit
Star point jumper, insulated, 1-3-5, light gray		Delta jumper, insulated, 1-2 3-4 5-6, light gray	
○	2000-405/011-000 100 (4x25)	○	2000-406/020-000 100 (4x25)
○	2001-405/011-000 100 (4x25)	○	2001-406/020-000 100 (4x25)
○	2002-405/011-000 100 (4x25)	○	2002-406/020-000 100 (4x25)
○	2004-405/011-000 100 (4x25)	○	2004-406/020-000 100 (4x25)
○	2006-405/011-000 50 (2x25)		
○	2010-405/011-000 50 (2x25)		
○	2016-405/011-000 50 (2x25)		



This star point jumper has been specially developed to create a "star point" and is used on motor terminal boards equipped with TOPJOB® S rail-mount terminal blocks.



This delta jumper has been specially developed to create a delta configuration and is used on motor terminal boards equipped with TOPJOB® S rail-mount terminal blocks.

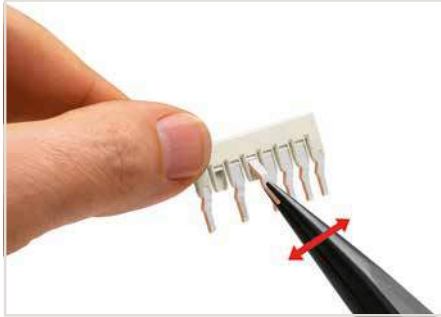
# TOPJOB® S

## Staggered Jumpers

### 2002 Series

1

Staggered jumper  
400 V/6 kV/3  
I<sub>N</sub> 25 A



**Staggered jumper (seven contacts)**  
Individual jumper contacts can be broken off by bending them. The remaining piece of insulation will meet requirements for clearances and creepage distances.

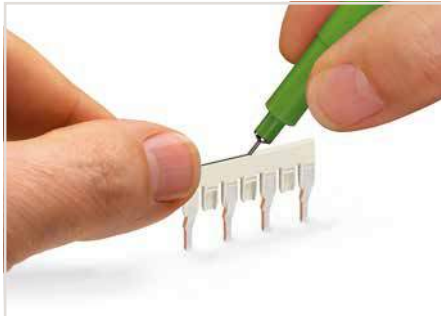


Staggered jumpers (seven contacts)

	Item No.	Pack. Unit
	Staggered jumper, insulated, for 2002, 2003 and 2022 Series rail-mount terminal blocks, light gray	
○	2-way	2002-472 100 (4x25)
○	3-way	2002-473 100 (4x25)
○	4-way	2002-474 100 (4x25)
○	5-way	2002-475 50 (2x25)
○	6-way	2002-476 50 (2x25)
○	7-way	2002-477 50 (2x25)
○	8-way	2002-478 50 (2x25)
○	9-way	2002-479 50 (2x25)
○	10-way	2002-480 50 (2x25)
○	11-way	2002-481 50 (2x25)
○	12-way	2002-482 50 (2x25)

**Commoning using staggered jumpers**

Individual jumper contacts can be broken off by bending them. The remaining piece of insulation will meet the requirements for clearances and creepage distances. This makes it possible to create custom staggered jumpers, e.g. for bridging over a terminal block with a different potential. When creating the jumpers, ensure only one contact lug is in contact with the terminal block. The contact lugs of the customized staggered jumpers contact the terminal blocks via the gaps created in the second jumper. Insert and press jumper into the jumper slot until it hits the backstop.



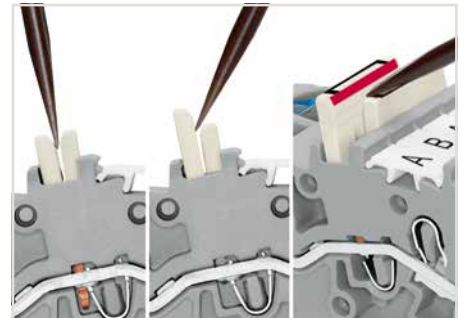
Marking a staggered jumper using a felt-tip pen.



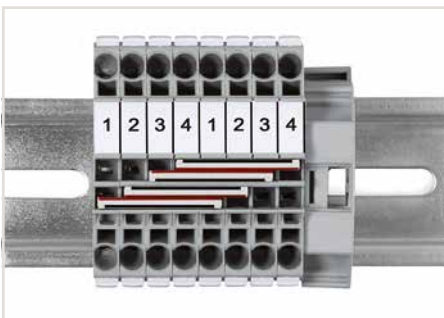
Locate red stripes of the staggered jumpers on the inside. Insert staggered jumper and push down until it hits backstop.



**Staggering jumpers in a single jumper slot.**  
When creating custom staggered jumpers (e.g., for bridging over a terminal block with a different potential), make sure that only one contact lug is in contact with the terminal block. The contact lugs of the customized staggered jumpers contact the terminal blocks via the gaps created in the second jumper. Insert and press the ready-made jumper assembly into the jumper slot until it hits backstop.



**Removing a staggered jumper:**  
Insert the operating tool between the staggered jumpers, then lift up the jumper.



Commoning two potentials in one single jumper slot via extremely slim staggered jumpers.

# TOPJOB® S

## Adjacent Jumpers for Continuous Commoning and Collective Jumper Carrier

### 2002 Series and 2009 Series

1

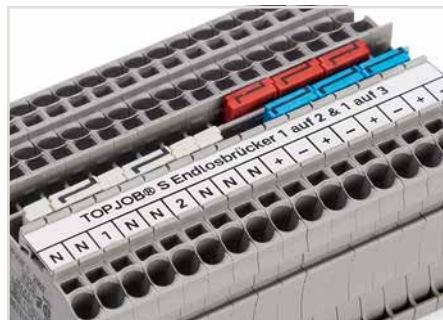
Adjacent jumper for continuous commoning	Adjacent jumper for continuous commoning	Collective jumper carrier
--	--	---------------------------



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray		Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, 1 to 3		Collective jumper carrier, for DIN-35 rail, compatible with 2000 to 2016 Series jumpers	
○ 2-way <b>2002-400</b>	100 (4x25)	○ light gray <b>2002-423</b>	100 (4x25)	○ gray <b>2009-180</b>	25
		● red <b>2002-423/000-005</b>	100 (4x25)		
		● blue <b>2002-423/000-006</b>	100 (4x25)		



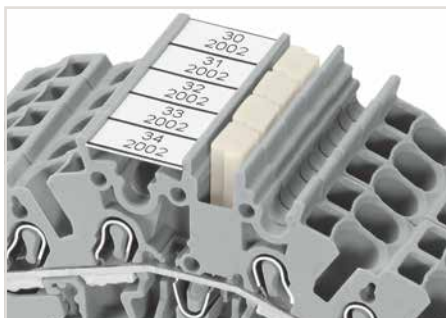
Continuous jumpers (2002 Series) readily connect an endless number of terminal blocks to each other via a single jumper slot. Use the second jumper slot for additional commoning or testing.



The 1-to-3 adjacent jumper for continuous commoning enables every other terminal block to be commoned. For example, positive and negative potentials can be accommodated alongside each other.



Collective carrier for TOPJOB® S jumpers



Adjacent jumpers for continuous commoning (2002-400)

# TOPJOB® S

## Push-In Type Wire Jumpers

### 2009 Series

1

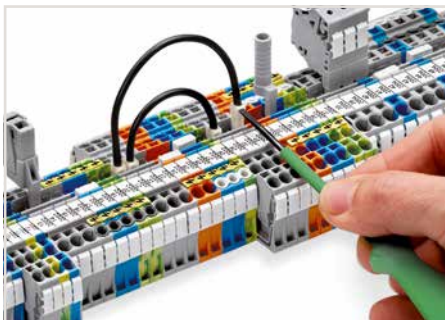
<p>Push-in type wire jumper</p> <p>I<sub>N</sub> 9 A</p> <p>Conductor size 0.75 mm<sup>2</sup></p>	<p>Push-in type wire jumper</p> <p>I<sub>N</sub> 18 A</p> <p>Conductor size 1.5 mm<sup>2</sup></p>
--	--



Item No.	Pack. Unit	Item No.	Pack. Unit
Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , for 2000 and 2020 Series rail-mount terminal blocks		Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , for 2001, 2002, 2003 and 2022 Series rail-mount terminal blocks	
L = 60 mm	<b>2009-402</b> 100 (10x10)	L = 60 mm	<b>2009-412</b> 100 (10x10)
L = 110 mm	<b>2009-404</b> 100 (10x10)	L = 110 mm	<b>2009-414</b> 100 (10x10)
L = 250 mm	<b>2009-406</b> 100 (10x10)	L = 250 mm	<b>2009-416</b> 100 (10x10)



Push-in type wire jumpers common terminal blocks over longer distances and across multiple levels.



Push down the wire jumper until fully inserted. Lift the jumper with an operating tool for rewiring.



# TOPJOB® S

## Vertical Jumpers

### 2000 Series and 2002 Series

<b>Double-deck vertical jumper</b> 500 V/6 kV/3 I <sub>N</sub> 13.5 A	<b>Double-deck vertical jumper</b> 500 V/6 kV/3 I <sub>N</sub> 24 A	<b>Triple-deck vertical jumper</b> 500 V/6 kV/3 I <sub>N</sub> 24 A
---	---	---

1



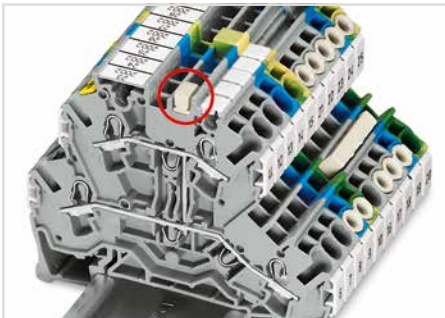
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck vertical jumper, insulated		Double-deck vertical jumper, insulated		Triple-deck vertical jumper, insulated	
○ light gray	<b>2000-492</b>	100 (4x25)	○ light gray	<b>2002-492</b>	100 (4x25)
			● orange	<b>2002-492/000-012</b>	100 (4x25)



Created for double- and triple-deck TOPJOB® S Terminal Blocks, the vertical jumpers can common two or three levels. Clearly marked numerals ("2" and "3") distinguish the double-deck (2002-492) and triple-deck vertical jumpers (2002-493), even when inserted.



Commoning two levels via double-deck vertical jumper (2000-492).



Commoning two levels via double-deck vertical jumper (2002-492).



Commoning three levels via triple-deck vertical jumper (2002-493).

# TOPJOB® S

## Disconnect Plugs and Blind Plugs for Carrier Terminal Blocks

### 2002 Series and 2006 Series

1

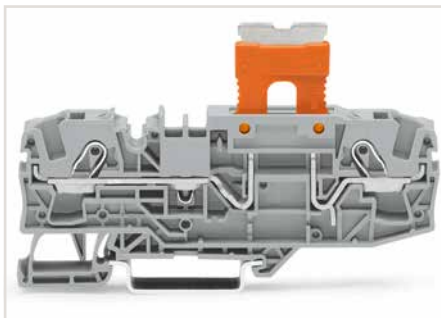
Disconnect plug for carrier terminal blocks 400 V/6 kV/3 I <sub>N</sub> 10 A	Disconnect plug for carrier terminal blocks 800 V/8 kV/3 I <sub>N</sub> 30 A	Blind plug for carrier terminal blocks
--	--	--



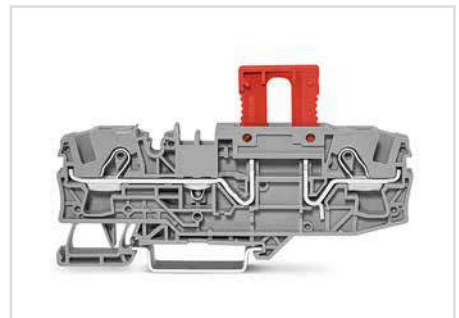
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Disconnect plug for carrier terminal blocks, suitable when using a carrier terminal block as disconnect terminal block		Disconnect plug for carrier terminal blocks, suitable when using a carrier terminal block as disconnect terminal block		Blind plug for carrier terminal blocks, indicates a disconnection	
● orange	<b>2002-401</b>	100 (4x25)	● orange	<b>2006-401</b>	100 (4x25)
			○ white	<b>2006-401/000-050</b>	100 (4x25)
				● orange	<b>2006-451</b>
					100 (4x25)



Carrier terminal block (2002-1661) with disconnect plug (2002-401) in operating position



Carrier terminal block (2006-1661) with disconnect plug (2006-401) in parked position



Carrier terminal block with blind plug (2006-451) in disconnect position

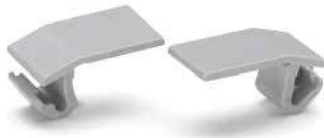
# TOPJOB® S

## Lockout Caps

### 2006 Series

Lockout cap

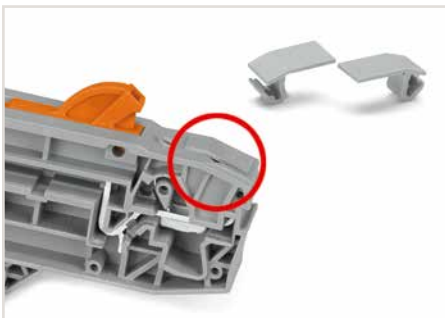
1



Item No.	Pack. Unit
Lockout cap, for conductor entry and operating slot	
● gray 2006-191	25



Lockout cap (2006-191) seals unused conductor entry.



Lockout cap (2006-191) seals unused conductor entry.

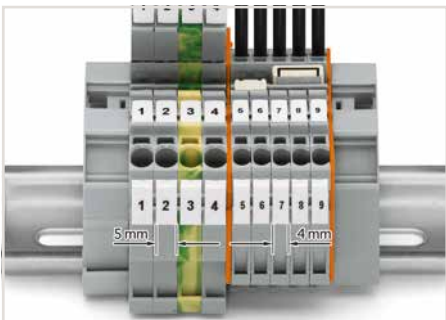
# TOPJOB® S WMB Inline, Mini-WSB Inline and Marking Strips 2009 Series

1

WMB Inline	Mini-WSB Inline	Marking strip
------------	-----------------	---------------



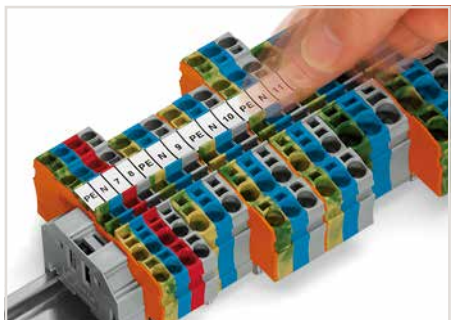
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable		Mini-WSB Inline, plain, 1,700 WMB markers, 5 mm, on roll, 5 ... 5.2 mm stretchable		Marking strip, plain, 11 mm wide, white	
○ white 2009-115 1		○ white 2009-145 1		○ 50 m reel 2009-110 1	
WMB Inline, plain, 2,000 WMB markers (4 mm) per reel, 4 ... 4.2 mm stretchable					
○ white 2009-114 1					
WMB Inline, plain, 2,300 WMB markers (3.5 mm) per reel					
○ white 2009-113 1					



**WMB Inline markers**  
2009-115 Markers for 5 ... 5.2 mm wide terminal blocks compared to 2009-114 Markers for 4 ... 4.2 mm wide terminal blocks



Printing WMB markers via **smartPRINTER**.

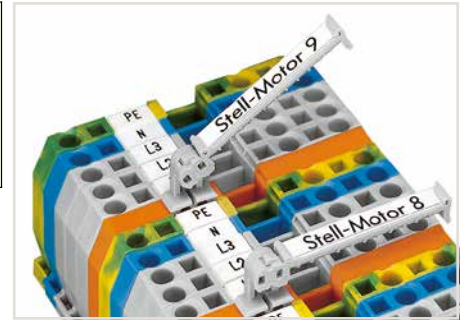


Marking strips:  
Snapping a strip into the marker slots.



# TOPJOB® S Group Marker Carriers and Marker Carriers

Group marker carrier	Marker carrier
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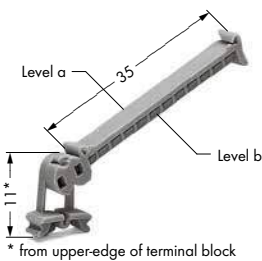
This pivoting group marker carrier has been developed for group marking of rail-mount terminal blocks to satisfy several customer requirements:

- Can be used in all multiprofile marker slots for rail-mount terminal blocks from 5 mm on or in spacer housings as shown above.
- Improves marking visibility due to difficult mounting conditions by pivoting into one of seven stable positions.

Item No.	Pack. Unit	Item No.	Pack. Unit
TOPJOB® S group marker carrier, snap-on type for jumper slot, gray		Marker carrier, for jumper slots 2002 Series, 5 mm wide	
○ 5 mm wide	<b>2009-191</b>	○ gray	<b>2002-161</b>
○ 10 mm wide	<b>2009-192</b>		
○ 15 mm wide	<b>2009-193</b>		
TOPJOB® S group marker carrier, snap-on type for jumper slot, gray			
○ 10 mm wide	<b>2009-196</b>		



Using marker carriers for marking strips (2002-161) in jumper slots.



Using marker carriers for marking strips (2009-198) in lateral marker slots.

Item No.	Pack. Unit	Item No.	Pack. Unit
Pivoting group marker carrier		Marker carrier, for lateral marker receptacle, 5 mm wide	
○ gray	<b>249-105</b>	○ gray	<b>2009-198</b>
Marker card, 4 x 30 markers/sheet			
○ white	<b>209-183</b>		
Protection marker cover transparent			
	<b>209-184</b>		

## TOPJOB® S Crimping Tools

1

Variocrimp 4 crimping tool  
for insulated and uninsulated ferrules  
0.25 ... 4 mm<sup>2</sup> / 24 ... 12 AWG

Variocrimp 16 crimping tool  
for insulated and uninsulated ferrules  
6 ... 16 mm<sup>2</sup> / 10 ... 6 AWG



Item No.	Pack. Unit	Item No.	Pack. Unit
"Variocrimp 4" crimping tool, 0.25 ... 4 mm <sup>2</sup> / 24 ... 12 AWG		"Variocrimp 16" crimping tool, 6 ... 16 mm <sup>2</sup> / 10 ... 6 AWG	
<b>206-204</b>	1	<b>206-216</b>	1
Return spring for Variocrimp 4		Return spring for Variocrimp 16	
<b>206-203</b>	1	<b>206-213</b>	1
Ratchet spring		Ratchet spring	
<b>206-210</b>	1	<b>206-210</b>	1



Insert the ferruled conductor into the crimping station.

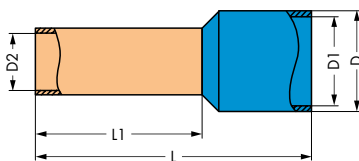


Squeeze handles until ratchet mechanism is released.

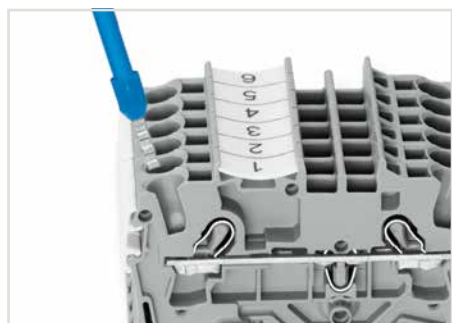
# TOPJOB® S

## Ferrules for Rail-mount Terminal Blocks

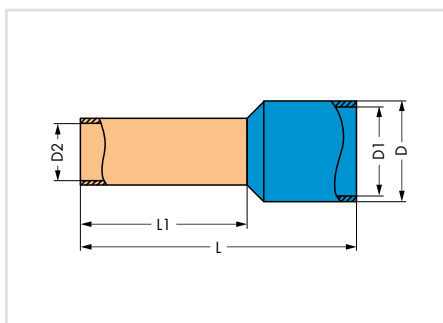
1



Ferrule, insulated, electro-tin-plated, electrolytic copper, gastight crimped, per DIN 46288, Part 4/09.09									
Conductor Size	Color	Strip Length	L	L 1	D	D 1	D 2	Item No.	Pack. Unit
0.5 mm <sup>2</sup> / 20 AWG	○ white	12 mm / 0.47 inch	16	10	3,1	2,6	1	<b>216-241</b>	1000
0.75 mm <sup>2</sup> / 18 AWG	○ gray	12 mm / 0.47 inch	16	10	3,3	2,8	1,2	<b>216-242</b>	1000
0.75 mm <sup>2</sup> / 18 AWG	○ gray	14 mm / 0.55 inch	18	12	3,3	2,8	1,2	<b>216-262</b>	1000
1 mm <sup>2</sup> / 18 AWG	● red	12 mm / 0.47 inch	16	10	3,5	3	1,4	<b>216-243</b>	1000
1 mm <sup>2</sup> / 18 AWG	● red	14 mm / 0.55 inch	18	12	3,5	3	1,4	<b>216-263</b>	1000
1.5 mm <sup>2</sup> / 16 AWG	● black	12 mm / 0.47 inch	16	10	4	3,5	1,7	<b>216-244</b>	1000
1.5 mm <sup>2</sup> / 16 AWG	● black	14 mm / 0.55 inch	18	12	4	3,5	1,7	<b>216-264</b>	1000
1.5 mm <sup>2</sup> / 16 AWG	● black	20 mm / 0.79 inch	24	18	4	3,5	1,7	<b>216-284</b>	1000
2.5 mm <sup>2</sup> / 14 AWG	● blue	12 mm / 0.47 inch	17	10	4,7	4,2	2,2	<b>216-246</b>	1000
2.5 mm <sup>2</sup> / 14 AWG	● blue	14 mm / 0.55 inch	19	12	4,7	4,2	2,2	<b>216-266</b>	1000
2.5 mm <sup>2</sup> / 14 AWG	● blue	20 mm / 0.79 inch	25	18	4,7	4,2	2,2	<b>216-286</b>	500
4 mm <sup>2</sup> / 12 AWG	○ gray	14 mm / 0.55 inch	20	12	5,4	4,8	2,8	<b>216-267</b>	500
4 mm <sup>2</sup> / 12 AWG	○ gray	20 mm / 0.79 inch	26	18	5,4	4,8	2,8	<b>216-287</b>	100
6 mm <sup>2</sup> / 10 AWG	● yellow	14 mm / 0.55 inch	20	12	6,5	6,3	3,5	<b>216-208</b>	100
6 mm <sup>2</sup> / 10 AWG	● yellow	20 mm / 0.79 inch	26	18	6,9	6,3	3,5	<b>216-288</b>	100
10 mm <sup>2</sup> / 8 AWG	● blue	20 mm / 0.79 inch	28	18	8,4	7,6	4,5	<b>216-289</b>	100
16 mm <sup>2</sup> / 6 AWG	● blue	23 mm / 0.91 inch	28	18	9,6	8,8	5,8	<b>216-210</b>	100



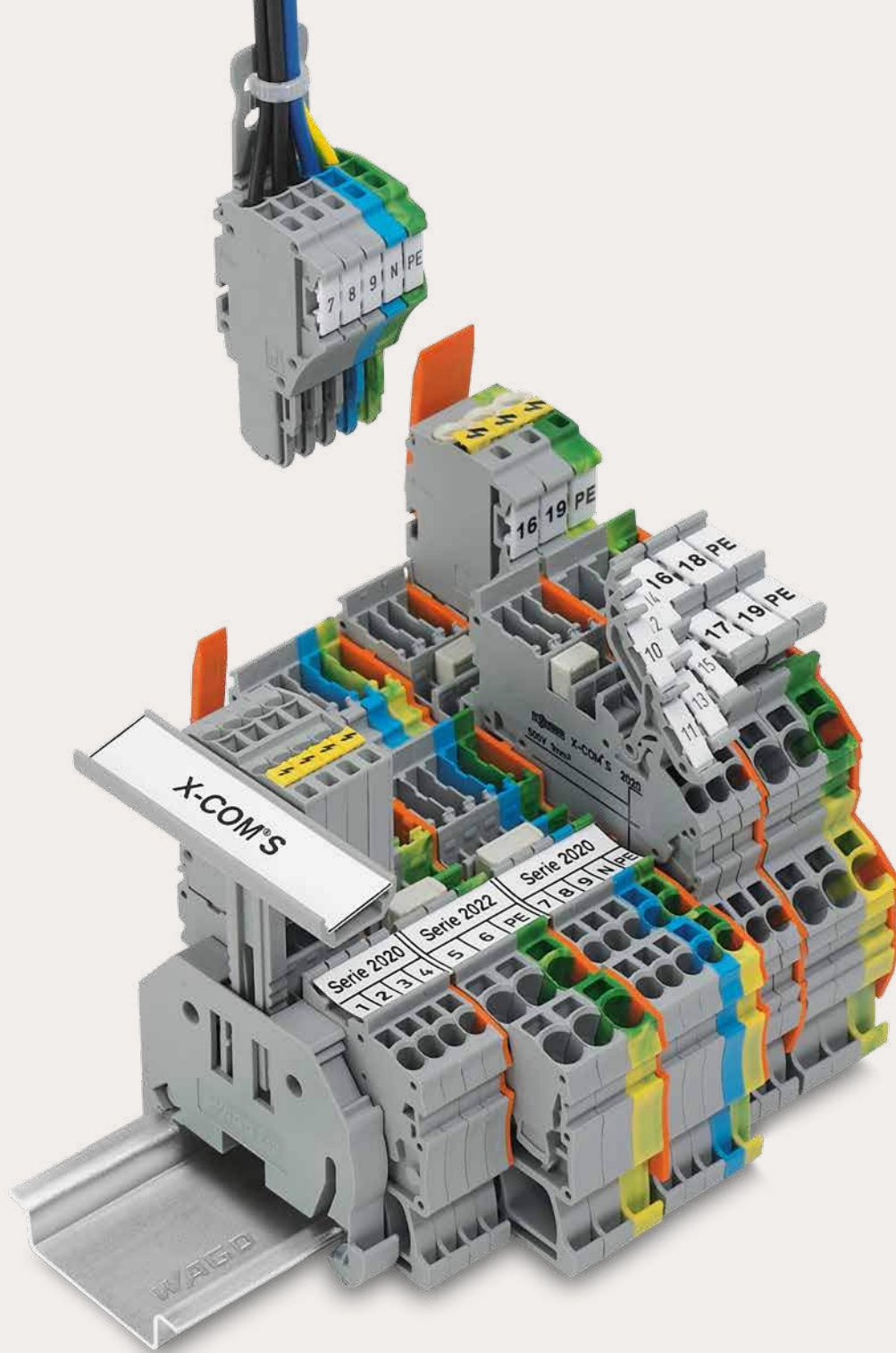
Fine-stranded conductors with ferrules from at least two sizes below the rated cross-section up to the rated cross-section can also be simply pushed in – without tools.



Dimensions in mm

### Application notes:

- With "Variocrimp 4," the built-in crimping pressure control automatically adjusts force to the conductor cross section used. With "Variocrimp 16," it is necessary to select the wire gauge on the tool before crimping.
- Only one crimping station is needed to handle the specified conductor size range.
- Uniform compact crimping from all four sides for high conductor retention.
- No need to center the conductor into the ferrule.
- Conductor and ferrule insertion possible from both sides (for left- and right-handers).
- Built-in ratchet mechanism ensures gastight crimp connection.
- Crimping tools open automatically after crimping operation is complete.
- Comfortable handles for operator.



## Rail-Mount Terminal Blocks with a Pluggable Connector, X-COM<sup>®</sup>S-SYSTEM

# Rail-Mount Terminal Blocks with a Pluggable Connector, X-COM®S-SYSTEM with Push-in CAGE CLAMP® Connection

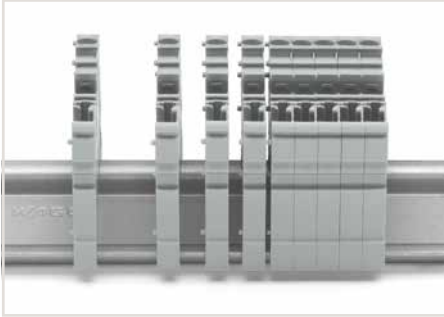
## Front-Entry Wiring

			Page
	<b>X-COM®S-SYSTEM-MINI</b> <b>Through and Ground Conductor Carrier Terminal Blocks</b> 0.14 ... 1 (1.5) mm <sup>2</sup> (24 ... 16 AWG)	2020 Series	150
	<b>Double-Deck Carrier Terminal Blocks</b> 0.14 ... 1 (1.5) mm <sup>2</sup> (24 ... 16 AWG)	2020 Series	152
	<b>1- and 2-Conductor Female Plugs</b> 0.14 ... 1 (1.5) mm <sup>2</sup> (24 ... 16 AWG)	2020 Series	154
	<b>Female Plugs for Self-Assembly</b> 0.14 ... 1 (1.5) mm <sup>2</sup> (24 ... 16 AWG)	2020 Series	156
	<b>1- and 2-Conductor Female Plugs with Locking Levers and Strain Relief Plates</b> 0.14 ... 1 (1.5) mm <sup>2</sup> (24 ... 16 AWG)	2020 Series	162
	<b>X-COM®S-SYSTEM</b> <b>Through and Ground Conductor Carrier Terminal Blocks</b> 0.25 ... 2.5 (4) mm <sup>2</sup> (22 ... 12 AWG)	2022 Series	166
	<b>Double-Deck Carrier Terminal Blocks</b> 0.25 ... 2.5 (4) mm <sup>2</sup> (22 ... 12 AWG)	2022 Series	168
	<b>1-Conductor Female Plugs</b> 0.25 ... 2.5 (4) mm <sup>2</sup> (22 ... 12 AWG)	2022 Series	170
	<b>Female Plugs for Self-Assembly</b> 0.25 ... 2.5 (4) mm <sup>2</sup> (22 ... 12 AWG)	2022 Series	172
	<b>1-Conductor Female Plugs with Locking Levers and Strain Relief Plates</b> 0.25 ... 2.5 (4) mm <sup>2</sup> (22 ... 12 AWG)	2022 Series	176
	<b>X-COM®S-SYSTEM, for Ex Applications</b> <b>Through/Ground Conductor Carrier Terminal Blocks and Double-Deck Carrier Terminal Blocks</b> 0.25 ... 2.5 (4) mm <sup>2</sup> (22 ... 12 AWG)	2022 Series	178
	<b>1-Conductor Female Plugs</b> 0.25 ... 2.5 (4) mm <sup>2</sup> (22 ... 12 AWG)	2022 Series	182

# X-COM®S-SYSTEM-MINI, 2020 Series X-COM®S-SYSTEM, 2022 Series

## Description and Installation

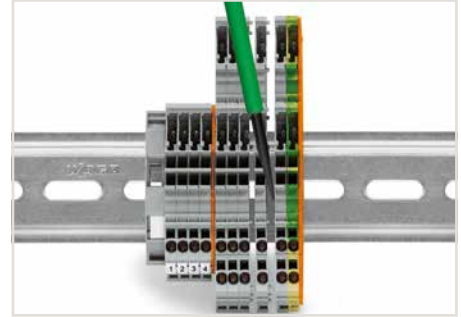
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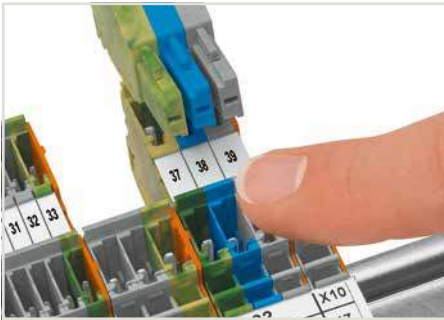
Snap individual carrier terminal blocks onto the carrier rail and slide together.



Open the assembly by laterally sliding a block via operating tool (3.5 x 0.5 mm blade).



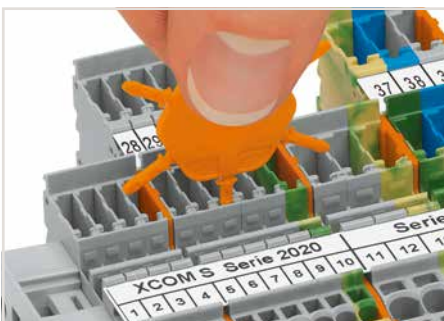
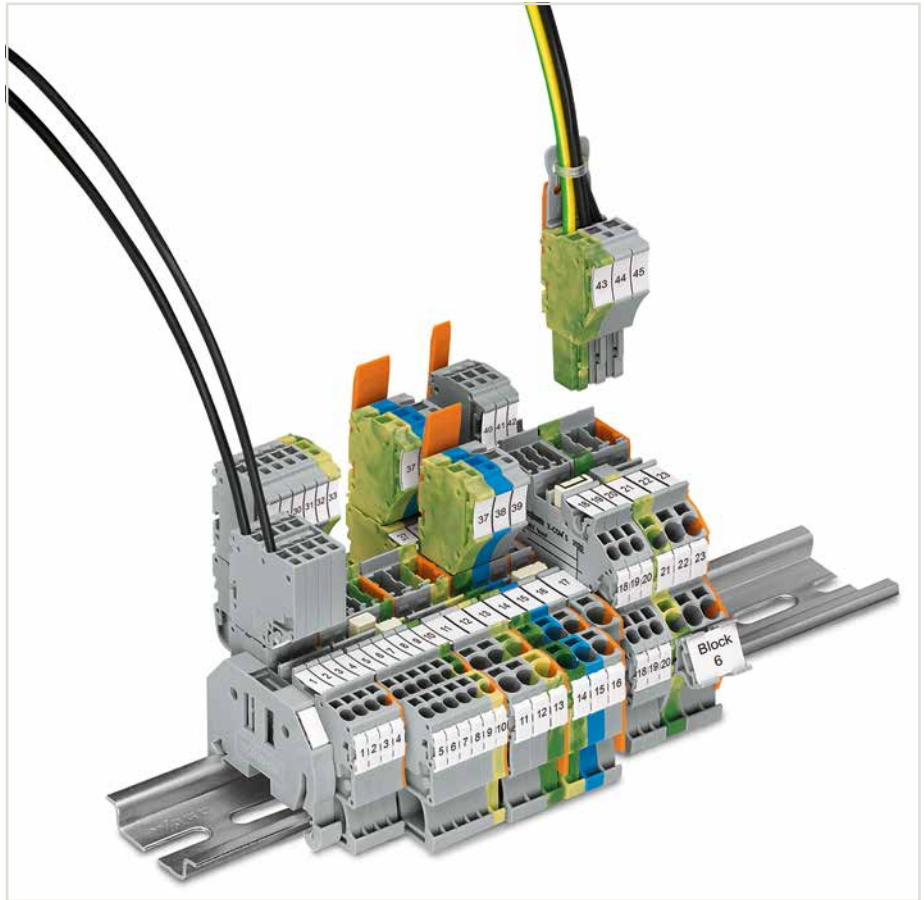
Separate terminal block assembly and slide individual terminal blocks laterally using an operating tool.



Carrier terminal blocks and female plugs are touch-proof.



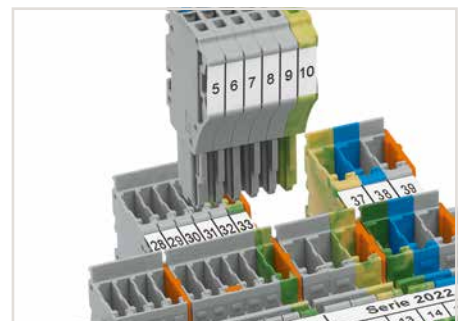
Push-in CAGE CLAMP® enables solid conductors and fine-stranded conductors with ferrules to be connected by simply pushing them into the unit.



Insert coding pin into the corresponding slot and twist it off.



Coding a female plug: remove coding finger using a suitable tool.



Insert coded female connector into X-COM®S-SYSTEM terminal block assembly.



**Push-in CAGE CLAMP® terminates the following copper conductors:**  
solid



stranded

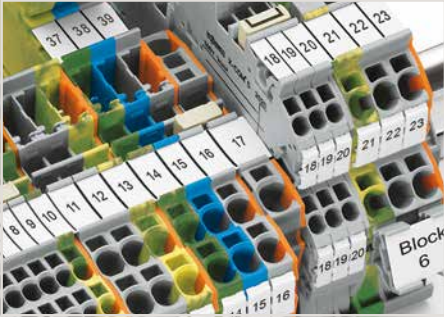


fine-stranded, also with tinned single strands

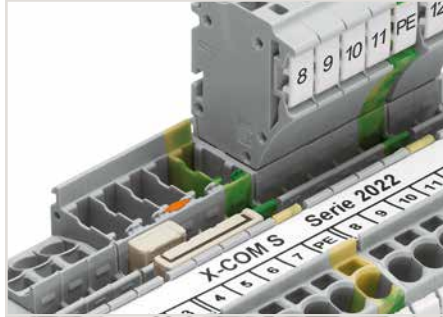
# X-COM®S-SYSTEM-MINI, 2020 Series X-COM®S-SYSTEM, 2022 Series

## Installation

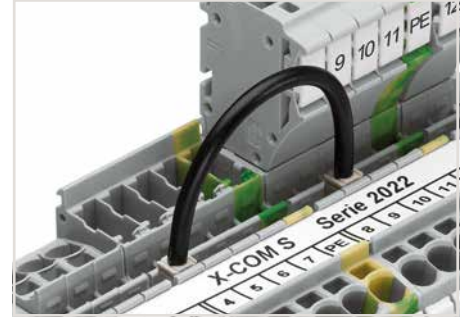
2



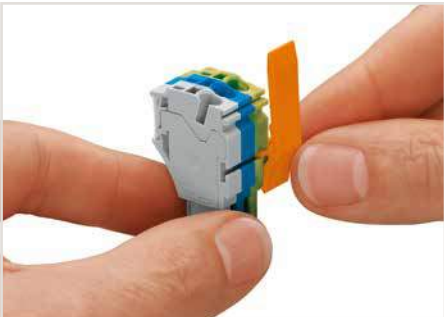
Commoning X-COM®S-SYSTEM Terminal Blocks using jumpers for TOPJOB® S Terminal Blocks. An end plate provides connection to TOPJOB® S Terminal Blocks. 2020 and 2022 Series Terminal Blocks are combinable. Jumper slots are on the same level for both series.



Pairing push-in comb style jumpers.



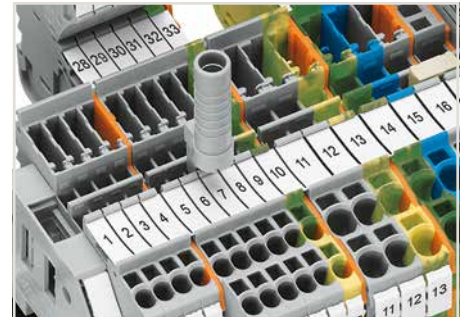
Commoning with push-in type wire jumper.



Slide the locking lever into position.



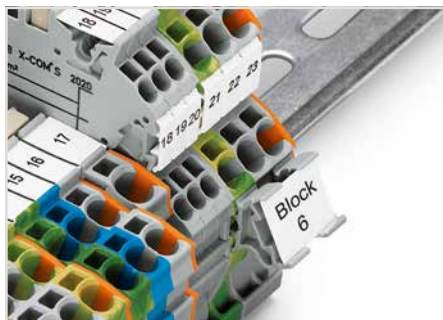
Female plugs can be individually locked.



Test plug adapter (2009-174) for 4 mm test plugs or banana plugs – also suitable for X-COM®S-SYSTEM-MINI Terminal Blocks.



Clear marking via large marking area



Marker carrier (2009-198)



fine-stranded, tip-bonded






fine-stranded, with ferrule (gas-tight crimped)



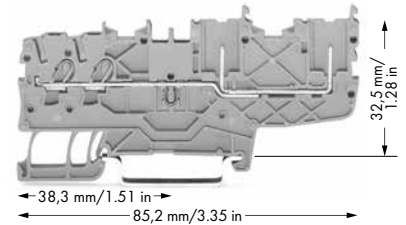
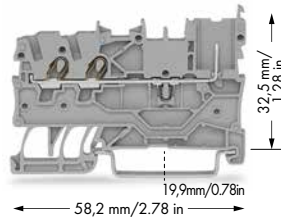
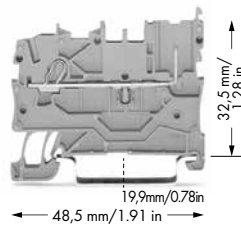
fine-stranded, with pin terminal (gas-tight crimped)

# X-COM®S-SYSTEM-MINI – 1-Conductor/1-Pin, 2-Conductor/1-Pin and 2-Conductor/2-Pin Carrier Terminal Blocks

1 (1.5) mm<sup>2</sup>, 2020 Series

0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤
Terminal block width 3.5 mm / 0.138 inch  9 ... 11 mm / 0.35 ... 0.43 inch		Terminal block width 3.5 mm / 0.138 inch  9 ... 11 mm / 0.35 ... 0.43 inch		Terminal block width 3.5 mm / 0.138 inch  9 ... 11 mm / 0.35 ... 0.43 inch	














2



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor/1-pin carrier terminal block		2-conductor/1-pin carrier terminal block		2-conductor/2-pin carrier terminal block	
gray 2020-1201 50		gray 2020-1301 50		gray 2020-1401 50	
blue 2020-1204 50		blue 2020-1304 50		blue 2020-1404 50	
1-conductor/1-pin ground carrier terminal block		2-conductor/1-pin ground carrier terminal block		2-conductor/2-pin ground carrier terminal block	
green-yellow 2020-1207 50		green-yellow 2020-1307 50		green-yellow 2020-1407 50	
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 1 mm thick		End and intermediate plate, 1 mm thick		End and intermediate plate, 1 mm thick	
orange 2020-1292 100 (4x25)		orange 2020-1392 100 (4x25)		orange 2020-1492 100 (4x25)	
gray 2020-1291 100 (4x25)		gray 2020-1391 100 (4x25)		gray 2020-1491 100 (4x25)	

## 2020 Series Accessories

Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray  <ul style="list-style-type: none"> <li>2-way 2000-402 200 (8x25)</li> <li>3-way 2000-403 200 (8x25)</li> <li>4-way 2000-404 200 (8x25)</li> <li>5-way 2000-405 100 (4x25)</li> <li>6-way 2000-406 100 (4x25)</li> <li>7-way 2000-407 100 (4x25)</li> <li>8-way 2000-408 100 (4x25)</li> <li>9-way 2000-409 100 (4x25)</li> <li>10-way 2000-410 100 (4x25)</li> </ul>	Star point jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray  <ul style="list-style-type: none"> <li>1-3-5 2000-405/011-000 100 (4x25)</li> </ul>	Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow  <ul style="list-style-type: none"> <li>215-111 50</li> </ul>
	Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A  <ul style="list-style-type: none"> <li>L = 60 mm 2009-402 100 (10x10)</li> <li>L = 110 mm 2009-404 100 (10x10)</li> <li>L = 250 mm 2009-406 100 (10x10)</li> </ul>	Testing tap, for max. 2.5 mm <sup>2</sup>  <ul style="list-style-type: none"> <li>gray 2009-182 100 (4x25)</li> </ul>
Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray  <ul style="list-style-type: none"> <li>from 1 to 3 2000-433 200 (8x25)</li> <li>from 1 to 4 2000-434 200 (8x25)</li> <li>from 1 to 5 2000-435 100 (4x25)</li> <li>from 1 to 6 2000-436 100 (4x25)</li> <li>from 1 to 7 2000-437 100 (4x25)</li> <li>from 1 to 8 2000-438 100 (4x25)</li> <li>from 1 to 9 2000-439 100 (4x25)</li> <li>from 1 to 10 2000-440 100 (4x25)</li> </ul>	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  <ul style="list-style-type: none"> <li>yellow 2000-115 100 (4x25)</li> </ul>	1-conductor female plug  <ul style="list-style-type: none"> <li>gray 2020-102 100</li> </ul>
	Carrier with 6 coding pins, for coding female plugs  <ul style="list-style-type: none"> <li>orange 2020-100 100 (4x25)</li> </ul>	2-conductor female plug  <ul style="list-style-type: none"> <li>gray 2020-202 100</li> </ul>
	Test pin, 1 mm Ø  <ul style="list-style-type: none"> <li>859-500 1</li> </ul>	
Delta jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray  <ul style="list-style-type: none"> <li>1-2 3-4 5-6 2000-406/020-000 100 (4x25)</li> </ul>	Test plug adapter, for 4 mm Ø test plug  <ul style="list-style-type: none"> <li>gray 2009-174 100 (4x25)</li> </ul>	





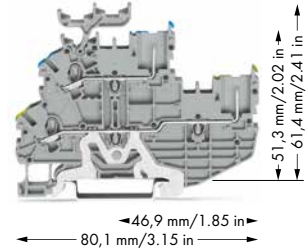
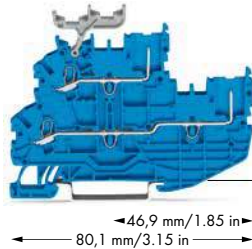
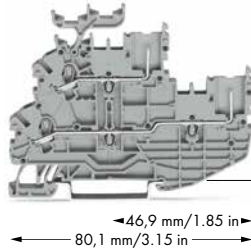
# X-COM®S-SYSTEM-MINI

## 1-Conductor/1-Pin Double-Deck Carrier Terminal Blocks

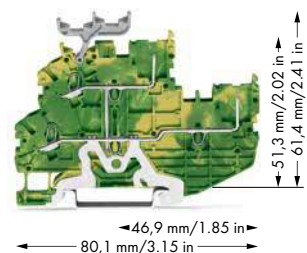
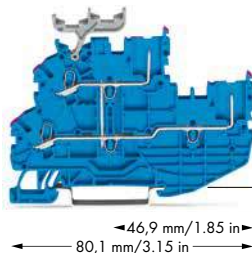
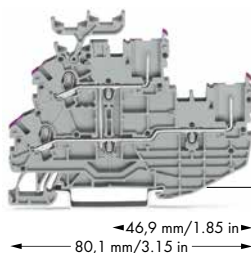
1 (1.5) mm<sup>2</sup>, 2020 Series

2

0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤
Terminal block width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch		Terminal block width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch		Terminal block width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch	



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, with marker carrier, gray housing		1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, with marker carrier, blue housing		1-conductor/1-pin double-deck carrier terminal block, ground conductor/through terminal block, with marker carrier, gray housing	
○ L/L	2020-2231	50	● N/N	2020-2234	50
○ N/L	2020-2232	50			
○ L/N	2020-2233	50			
1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, without marker carrier, gray housing		1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, without marker carrier, blue housing		1-conductor/1-pin double-deck carrier terminal block, ground conductor/through terminal block, without marker carrier, gray housing	
○ L/L	2020-2201	50	● N/N	2020-2204	50
○ N/L	2020-2202	50			
○ L/N	2020-2203	50			





















Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor/2-pin double-deck carrier terminal block, 2-conductor/2-pin through terminal block, with marker carrier, internally commoned, violet conductor entry, gray housing		2-conductor/2-pin double-deck carrier terminal block, 2-conductor/2-pin through terminal block, with marker carrier, internally commoned, violet conductor entry, blue housing		2-conductor/2-pin double-deck carrier terminal block, 2-conductor/2-pin ground conductor terminal block, with marker carrier, internally commoned, green-yellow housing	
○ L	2020-2238	50	● N	2020-2239	50
2-conductor/2-pin double-deck carrier terminal block, 2-conductor/2-pin through terminal block, without marker carrier, internally commoned, violet conductor entry, gray housing		2-conductor/2-pin double-deck carrier terminal block, 2-conductor/2-pin through terminal block, without marker carrier, internally commoned, violet conductor entry, blue housing		2-conductor/2-pin double-deck carrier terminal block, 2-conductor/2-pin ground conductor terminal block, without marker carrier, internally commoned, green-yellow housing	
○ L	2020-2208	50	● N	2020-2209	50

## Note:

When used as intended, female plugs shall not be connected/disconnected when live or under load.

An appropriate end plate must be applied to the carrier terminal blocks after each female plug (2020 Series).

- ❶ Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s"  
and 0.5 ... 0.75 mm<sup>2</sup>  
"insulated ferrule, 10 mm"
- ❷ 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ Current-carrying capacity curves upon request
- ❹ See application notes for:  
Colored push-in type jumper bar, page 134  
Vertical jumper, page 139  
Banana plug, page 330

2020 Series Accessories		Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)	
End and intermediate plate, 1 mm thick  orange <b>2020-2292</b> 100 (4x25) gray <b>2020-2291</b> 100 (4x25)	2-conductor female plug  gray <b>2020-202</b> 100		
Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray  ❹	Test plug adapter, for 4 mm Ø test plug  gray <b>2009-174</b> 100 (4x25)		
2-way <b>2000-402</b> 200 (8x25) 3-way <b>2000-403</b> 200 (8x25) 4-way <b>2000-404</b> 200 (8x25) 5-way <b>2000-405</b> 100 (4x25) 6-way <b>2000-406</b> 100 (4x25) 7-way <b>2000-407</b> 100 (4x25) 8-way <b>2000-408</b> 100 (4x25) 9-way <b>2000-409</b> 100 (4x25) 10-way <b>2000-410</b> 100 (4x25)	Banana plug, for 4 mm socket diameter, color mixed, 10 x ❹ orange, white, black, blue, yellow  <b>215-111</b> 50		
	Testing tap, for max. 2.5 mm <sup>2</sup>  gray <b>2009-182</b> 100 (4x25)		
Push-in type jumper bar, insulated, I <sub>N</sub> 14 A, light gray 	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V  red <b>210-136</b> 50		
from 1 to 3 <b>2000-433</b> 200 (8x25) from 1 to 4 <b>2000-434</b> 200 (8x25) from 1 to 5 <b>2000-435</b> 100 (4x25) from 1 to 6 <b>2000-436</b> 100 (4x25) from 1 to 7 <b>2000-437</b> 100 (4x25) from 1 to 8 <b>2000-438</b> 100 (4x25) from 1 to 9 <b>2000-439</b> 100 (4x25) from 1 to 10 <b>2000-440</b> 100 (4x25)	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  yellow <b>210-137</b> 50		
	Double-deck marker carrier, pivoting  gray <b>2000-121</b> 50 (2x25)		
Double-deck vertical jumper, insulated, I <sub>N</sub> 13.5 A  ❹ light gray <b>2000-492</b> 100 (4x25)	WMB Inline, plain, 2,300 WMB markers (3.5 mm) per reel  white <b>2009-113</b> 1		
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  yellow <b>2000-115</b> 100 (4x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, for 3.5 mm terminal block width  plain <b>793-3501</b> 5		
Carrier with 6 coding pins, for coding female plugs  orange <b>2020-100</b> 100 (4x25)	Marking strip, plain, 11 mm wide, 50 m reel  white <b>2009-110</b> 1		
Test pin, 1 mm Ø  <b>859-500</b> 1			
1-conductor female plug  gray <b>2020-102</b> 100			



Size comparison:  
Double-deck carrier terminal blocks with 3.5 mm and 5.2 mm terminal block width

# X-COM®S-SYSTEM-MINI 1- and 2-Conductor Female Plugs

1 (1.5) mm<sup>2</sup>, 2020 Series

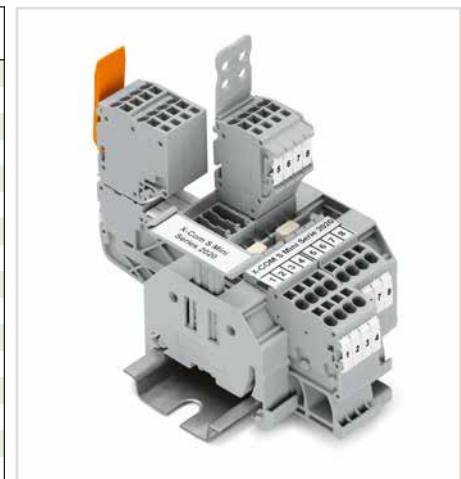
0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ④	0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ④
Module width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch		Module width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch	

2

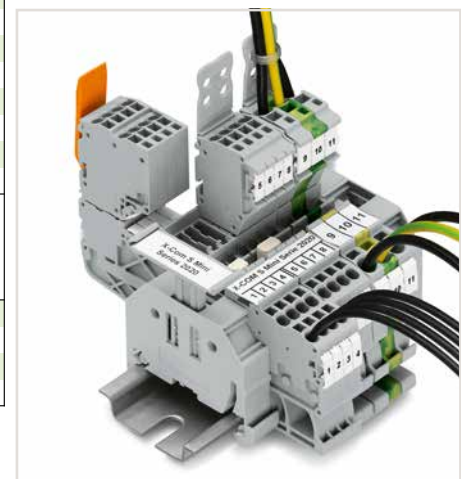


- ① Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s"  
and 0.5 ... 0.75 mm<sup>2</sup>  
"insulated ferrule, 10 mm"
- ② 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Current-carrying capacity curves upon request
- ④ Item-no. suffix  
blue .../000-006  
green-yellow .../000-016

Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
1-conductor female plug, for insertion into carrier terminal blocks, with coding fingers, gray According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.			2-conductor female plug, for insertion into carrier terminal blocks, with coding fingers, gray According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.		
2	2020-102	100	2	2020-202	100
3	2020-103	50	3	2020-203	50
4	2020-104	50	4	2020-204	50
5	2020-105	50	5	2020-205	50
6	2020-106	50	6	2020-206	25
7	2020-107	25	7	2020-207	25
8	2020-108	25	8	2020-208	25
9	2020-109	25	9	2020-209	25
10	2020-110	25	10	2020-210	25
11	2020-111	20	11	2020-211	20
12	2020-112	20	12	2020-212	20
13	2020-113	10	13	2020-213	10
14	2020-114	10	14	2020-214	10
15	2020-115	10	15	2020-215	10
<b>Notice:</b> An end plate must be applied to the carrier terminal blocks after each female plug.			<b>Notice:</b> An end plate must be applied to the carrier terminal blocks after each female plug.		

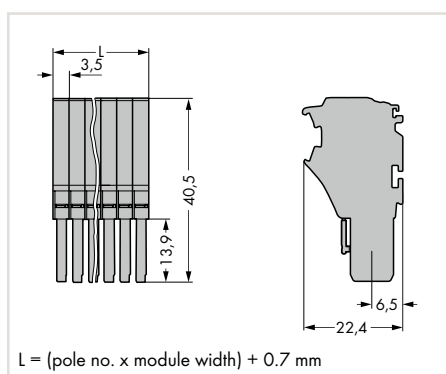


X-COM®S-SYSTEM-MINI terminal block assembly

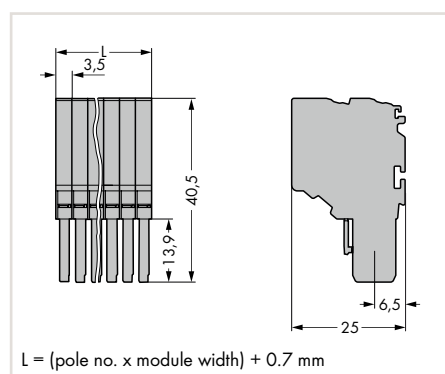


X-COM®S-SYSTEM-MINI terminal block assembly

Accessories Female Plugs							
Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)							
Locking lever, 4.8 mm wide			Locking lever, 9.6 mm wide				
	orange	2022-142	100 (4x25)		orange	2022-152	100 (4x25)
	gray	2022-141	100 (4x25)		gray	2022-151	100 (4x25)



Dimensions in mm



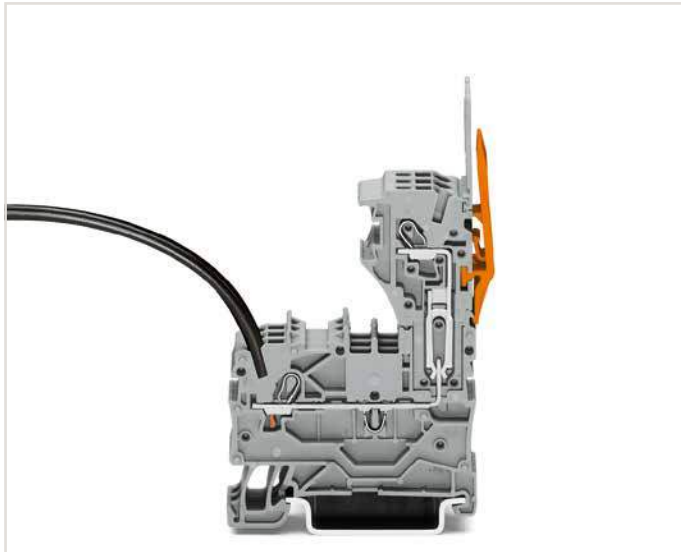
Dimensions in mm

# X-COM®S-SYSTEM-MINI

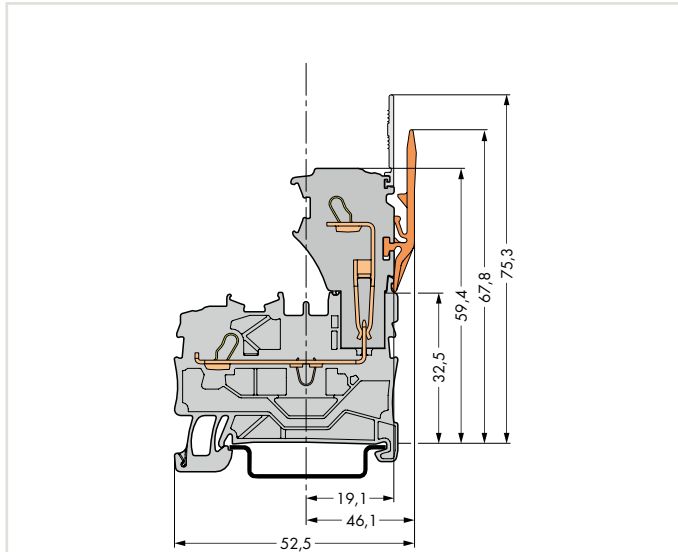
## Carrier Terminal Blocks and 1-/2-Conductor Female Plugs

### Assembly Types

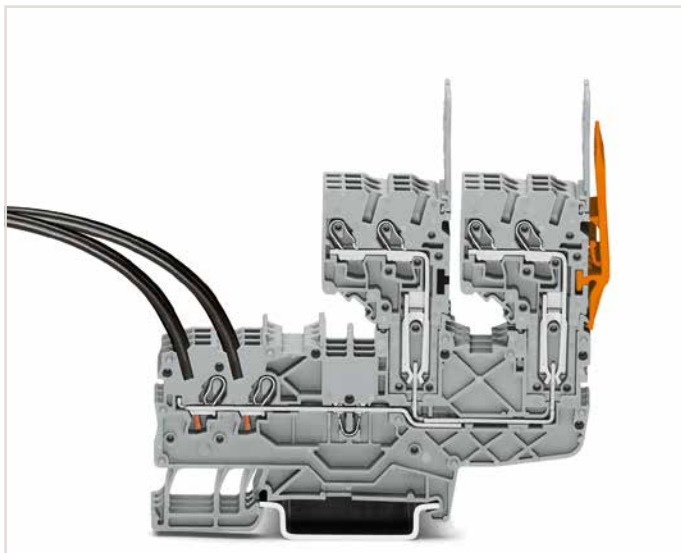
2



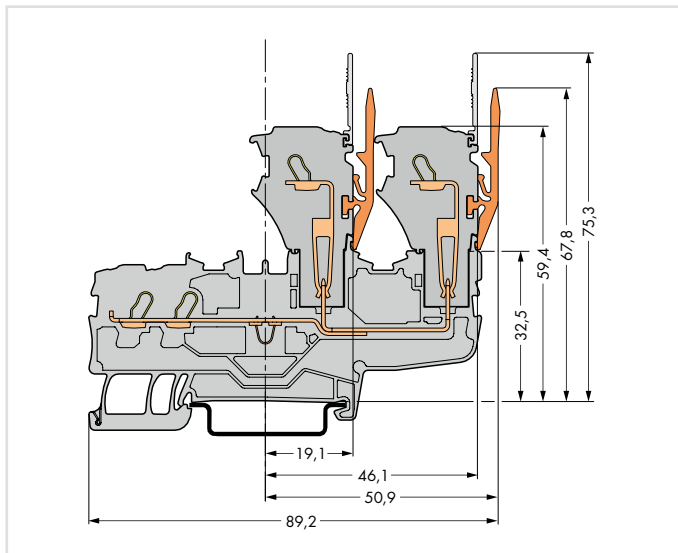
1-conductor female plug  
Carrier terminal blocks can be commoned via 2000 Series Push-In Type Jumper Bars and tested via 859-500 Test Pin.



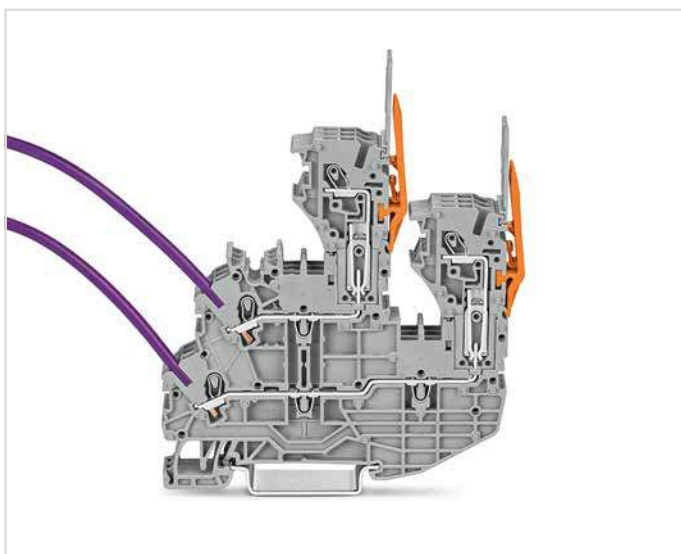
Carrier terminal block



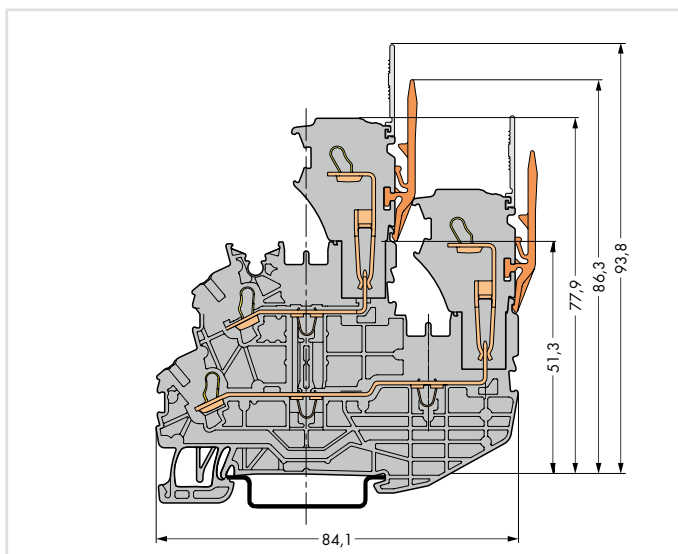
2-conductor female connector  
Carrier terminal blocks can be commoned via 2000 Series Push-In Type Jumper Bars and tested via 859-500 Test Pin.



Carrier terminal block



1-conductor female plug  
Double-deck carrier terminal blocks can be commoned via 2000 Series Push-In Type Jumper Bars and tested via 859-500 Test Pin.





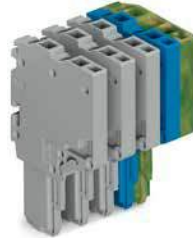
Double-deck carrier terminal block













# X-COM®S-SYSTEM-MINI

## Female Plugs for Self-Assembly

### 1 (1.5) mm<sup>2</sup>, 2020 Series








0.14 ... 1 (1.5) mm <sup>2</sup> ①	24 ... 16 AWG	0.14 ... 1 (1.5) mm <sup>2</sup> ①	24 ... 16 AWG
500 V/6 kV/3 ②	300 V, 10 A ④	500 V/6 kV/3 ②	300 V, 10 A ④
I <sub>N</sub> 13.5 A ③	300 V, 10 A ④	I <sub>N</sub> 13.5 A ③	300 V, 10 A ④
Terminal block width 3.5 mm / 0.138 inch		Terminal block width 3.5 mm / 0.138 inch	
 9 ... 11 mm / 0.35 ... 0.43 inch		 9 ... 11 mm / 0.35 ... 0.43 inch	



Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor end module, with coding fingers		2-conductor end module, with coding fingers	
 gray	<b>2020-181</b> 250	 gray	<b>2020-281</b> 250
 blue	<b>2020-184</b> 250	 blue	<b>2020-284</b> 250
 green-yellow	<b>2020-187</b> 250	 green-yellow	<b>2020-287</b> 250
1-conductor base module with end plate, with coding fingers		2-conductor base module with end plate, with coding fingers	
 gray	<b>2020-161</b> 250	 gray	<b>2020-261</b> 250
 blue	<b>2020-164</b> 250	 blue	<b>2020-264</b> 250
 green-yellow	<b>2020-167</b> 250	 green-yellow	<b>2020-267</b> 250

### Accessories Female Plugs

Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  yellow	<b>2000-115</b> 100 (4x25)		
Locking lever, 9.6 mm wide 	orange <b>2022-152</b> 100 (4x25) gray <b>2022-151</b> 100 (4x25)		
Locking lever, 4.8 mm wide 	orange <b>2022-142</b> 100 (4x25) gray <b>2022-141</b> 100 (4x25)		
Strain relief plate, gray 	35 mm wide <b>734-326</b> 100 (4x25) 6 mm wide <b>734-327</b> 100 (4x25) 12.5 mm wide <b>734-328</b> 100 (4x25) 25 mm wide <b>734-329</b> 100 (4x25)		
WMB Inline, plain, 2,300 WMB markers (3.5 mm) per reel 	white <b>2009-113</b> 1		
WMB Multi marking system, white, 10 strips with 10 markers per card, for 3.5 mm terminal block width 	plain <b>793-3501</b> 5		
Marking strip, plain, 11 mm wide, 50 m reel 	white <b>2009-110</b> 1		

**Customizing Modular Female Plugs**

WAGO's modular X-COM®S-SYSTEM female plugs can be customized for applications requiring varying numbers of poles (e.g., when designing prototypes).

**Modules and Pole Numbers**

A customized X-COM®S-SYSTEM-MINI female plug consists of:

- One base module with end plate
- Up to 14 end modules

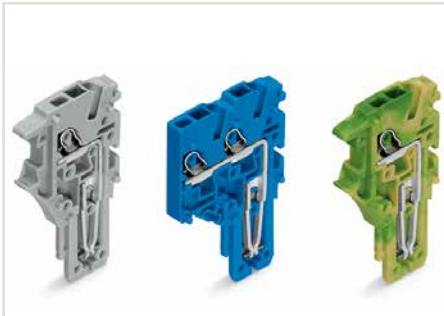
**Intended Use**

According to EN 61984, pluggable connectors without current interrupting capacity shall not be mated and unmated when live or under load.

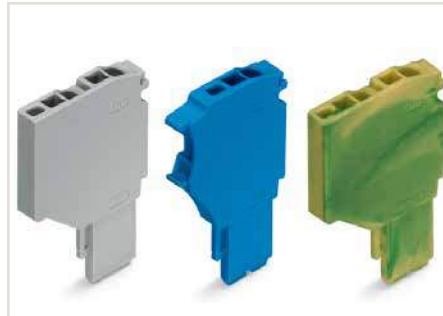
**Assembly**

The appropriate mounting tool shall be used in order to guarantee that the individual modules are properly attached to each other without damaging the locking latches.

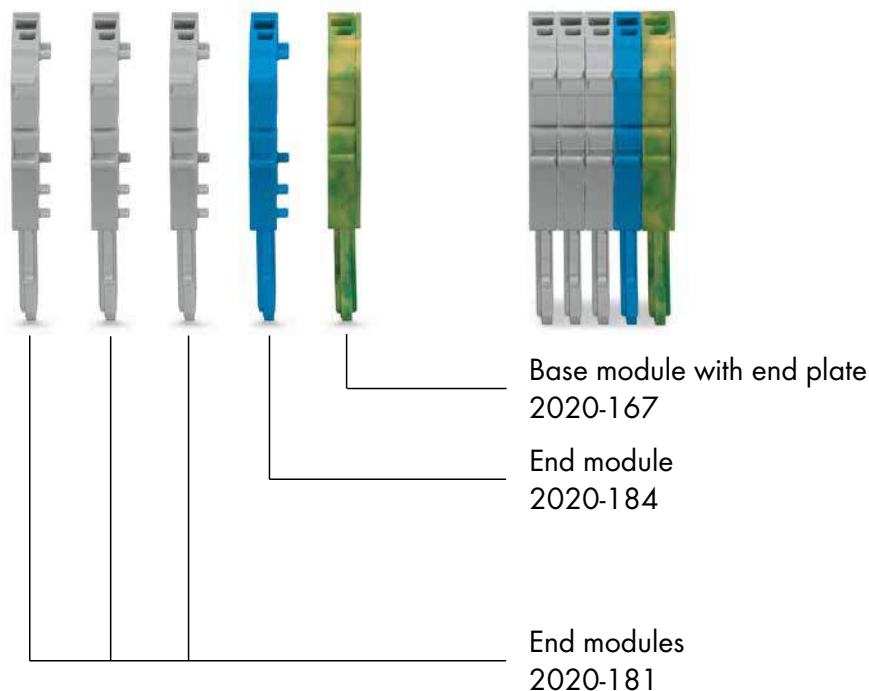
- 1 Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s"  
and 0.5 ... 0.75 mm<sup>2</sup>  
"insulated ferrule, 10 mm"
- 2 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- 3 Current-carrying capacity curves upon request



End module






Base module

**Example: 5-Pole, 1-Conductor Female Plug**

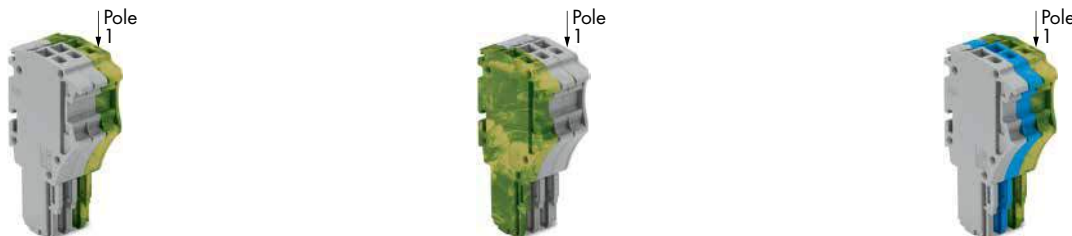
# X-COM<sup>®</sup>S-SYSTEM-MINI

## Pre-Assembled 1-Conductor Female Plugs

1 (1.5) mm<sup>2</sup>, 2020 Series

0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③  Module width 3.5 mm / 0.138 inch  9 ... 11 mm / 0.35 ... 0.43 inch	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③  Module width 3.5 mm / 0.138 inch  9 ... 11 mm / 0.35 ... 0.43 inch	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③  Module width 3.5 mm / 0.138 inch  9 ... 11 mm / 0.35 ... 0.43 inch	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤
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2



Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
1-conductor female plug, with ground base module (green-yellow), for insertion into carrier terminal blocks, with coding fingers			1-conductor female plug, with ground end module (green-yellow), for insertion into carrier terminal blocks, with coding fingers			1-conductor female plug, with ground base module (green-yellow), for insertion into carrier terminal blocks, with coding fingers		
3	2020-103/000-036	50	3	2020-103/000-037	50	3	2020-103/000-038	50
4	2020-104/000-036	50	4	2020-104/000-037	50	4	2020-104/000-038	50
5	2020-105/000-036	50	5	2020-105/000-037	50	5	2020-105/000-038	50
6	2020-106/000-036	50	6	2020-106/000-037	50	6	2020-106/000-038	50
7	2020-107/000-036	25	7	2020-107/000-037	25	7	2020-107/000-038	25
8	2020-108/000-036	25	8	2020-108/000-037	25	8	2020-108/000-038	25
9	2020-109/000-036	25	9	2020-109/000-037	25	9	2020-109/000-038	25
10	2020-110/000-036	25	10	2020-110/000-037	25	10	2020-110/000-038	25
11	2020-111/000-036	20	11	2020-111/000-037	20	11	2020-111/000-038	20
12	2020-112/000-036	20	12	2020-112/000-037	20	12	2020-112/000-038	20
13	2020-113/000-036	10	13	2020-113/000-037	10	13	2020-113/000-038	10
14	2020-114/000-036	10	14	2020-114/000-037	10	14	2020-114/000-038	10
15	2020-115/000-036	10	15	2020-115/000-037	10	15	2020-115/000-038	10

### Accessories Female Plugs


Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  yellow <b>2000-115</b> 100 (4x25)	Strain relief plate, gray  35 mm wide <b>734-326</b> 100 (4x25) 6 mm wide <b>734-327</b> 100 (4x25) 12.5 mm wide <b>734-328</b> 100 (4x25) 25 mm wide <b>734-329</b> 100 (4x25)	WMB Inline, plain, 2,300 WMB markers (3.5 mm) per reel  white <b>2009-113</b> 1
Locking lever, 9.6 mm wide  orange <b>2022-152</b> 100 (4x25) gray <b>2022-151</b> 100 (4x25)		WMB Multi marking system, white, 10 strips with 10 markers per card, for 3.5 mm terminal block width  plain <b>793-3501</b> 5
Locking lever, 4.8 mm wide  orange <b>2022-142</b> 100 (4x25) gray <b>2022-141</b> 100 (4x25)		Marking strip, plain, 11 mm wide, 50 m reel  white <b>2009-110</b> 1



0.14 ... 1 (1.5) mm² ①    24 ... 16 AWG  
 500 V/6 kV/3 ②    300 V, 10 A ③  
 I<sub>N</sub> 13.5 A ③    300 V, 10 A ③

Module width 3.5 mm / 0.138 inch

 9 ... 11 mm / 0.35 ... 0.43 inch



- ① Conductor range: 0.14 ... 1.5 mm² "s + f-st";  
 Push-in termination: 0.5 ... 1.5 mm² "s"  
 and 0.5 ... 0.75 mm²  
 "insulated ferrule, 10 mm"
- ② 500 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ③ Current-carrying capacity curves upon request

Pole No.	Item No.	Pack. Unit
1-conductor female plug, with ground end module (green-yellow), for insertion into carrier terminal blocks, with coding fingers		
3	2020-103/000-039	50
4	2020-104/000-039	50
5	2020-105/000-039	50
6	2020-106/000-039	50
7	2020-107/000-039	25
8	2020-108/000-039	25
9	2020-109/000-039	25
10	2020-110/000-039	25
11	2020-111/000-039	20
12	2020-112/000-039	20
13	2020-113/000-039	10
14	2020-114/000-039	10
15	2020-115/000-039	10

# X-COM®S-SYSTEM-MINI

## Pre-Assembled 2-Conductor Female Plugs

1 (1.5) mm<sup>2</sup>, 2020 Series

2

0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤
Module width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch		Module width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch		Module width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch	



Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
2-conductor female plug, with ground base module (green-yellow), for insertion into carrier terminal blocks, with coding fingers			2-conductor female plug, with ground end module (green-yellow), for insertion into carrier terminal blocks, with coding fingers			2-conductor female plug, with ground base module (green-yellow), for insertion into carrier terminal blocks, with coding fingers		
3	2020-203/000-036	50	3	2020-203/000-037	50	3	2020-203/000-038	50
4	2020-204/000-036	50	4	2020-204/000-037	50	4	2020-204/000-038	50
5	2020-205/000-036	50	5	2020-205/000-037	50	5	2020-205/000-038	50
6	2020-206/000-036	25	6	2020-206/000-037	25	6	2020-206/000-038	25
7	2020-207/000-036	25	7	2020-207/000-037	25	7	2020-207/000-038	25
8	2020-208/000-036	25	8	2020-208/000-037	25	8	2020-208/000-038	25
9	2020-209/000-036	25	9	2020-209/000-037	25	9	2020-209/000-038	25
10	2020-210/000-036	25	10	2020-210/000-037	25	10	2020-210/000-038	25
11	2020-211/000-036	20	11	2020-211/000-037	20	11	2020-211/000-038	20
12	2020-212/000-036	20	12	2020-212/000-037	20	12	2020-212/000-038	20
13	2020-213/000-036	10	13	2020-213/000-037	10	13	2020-213/000-038	10
14	2020-214/000-036	10	14	2020-214/000-037	10	14	2020-214/000-038	10
15	2020-215/000-036	10	15	2020-215/000-037	10	15	2020-215/000-038	10

### Accessories Female Plugs

Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>2000-115</b> 100 (4x25)	Strain relief plate, gray 35 mm wide <b>734-326</b> 100 (4x25) 6 mm wide <b>734-327</b> 100 (4x25) 12.5 mm wide <b>734-328</b> 100 (4x25) 25 mm wide <b>734-329</b> 100 (4x25)	WMB Inline, plain, 2,300 WMB markers (3.5 mm) per reel white <b>2009-113</b> 1
Locking lever, 9.6 mm wide orange <b>2022-152</b> 100 (4x25) gray <b>2022-151</b> 100 (4x25)		WMB Multi marking system, white, 10 strips with 10 markers per card, for 3.5 mm terminal block width plain <b>793-3501</b> 5
Locking lever, 4.8 mm wide orange <b>2022-142</b> 100 (4x25) gray <b>2022-141</b> 100 (4x25)		Marking strip, plain, 11 mm wide, 50 m reel white <b>2009-110</b> 1



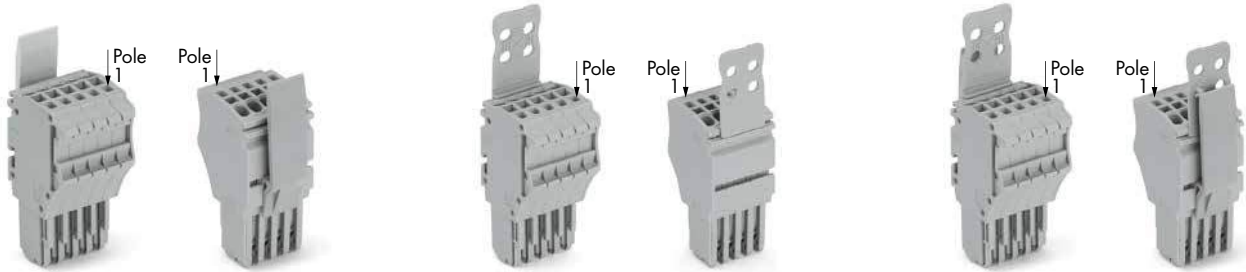
# X-COM®S-SYSTEM-MINI

## 1-Conductor Female Plugs with Locking Levers and Strain Relief Plates

1 (1.5) mm<sup>2</sup>, 2020 Series

0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤
Module width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch		Module width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch		Module width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch	

2



Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
1-conductor female plug, with locking lever, for insertion into carrier terminal blocks, with coding fingers, gray According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.			1-conductor female plug, with strain relief plate, for insertion into carrier terminal blocks, with coding fingers, gray According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.			1-conductor female plug, with strain relief plate and locking lever, for insertion into carrier terminal blocks, with coding fingers, gray According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.		
2	2020-102/122-000	100	2	2020-102/132-000	100	2	2020-102/142-000	100
3	2020-103/122-000	50	3	2020-103/132-000	50	3	2020-103/142-000	50
4	2020-104/124-000	50	4	2020-104/133-000	50	4	2020-104/143-000	50
5	2020-105/124-000	50	5	2020-105/133-000	50	5	2020-105/143-000	50
6	2020-106/124-000	25	6	2020-106/133-000	25	6	2020-106/143-000	25
7	2020-107/124-000	25	7	2020-107/134-000	25	7	2020-107/144-000	25
8	2020-108/124-000	25	8	2020-108/134-000	25	8	2020-108/144-000	25
9	2020-109/124-000	25	9	2020-109/134-000	25	9	2020-109/144-000	25
10	2020-110/125-000	25	10	2020-110/135-000	25	10	2020-110/145-000	25
11	2020-111/125-000	20	11	2020-111/135-000	20	11	2020-111/145-000	20
12	2020-112/125-000	20	12	2020-112/135-000	20	12	2020-112/145-000	20
13	2020-113/125-000	10	13	2020-113/135-000	10	13	2020-113/145-000	10
14	2020-114/125-000	10	14	2020-114/135-000	10	14	2020-114/145-000	10
15	2020-115/125-000	10	15	2020-115/135-000	10	15	2020-115/145-000	10

### Accessories Female Plugs

Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

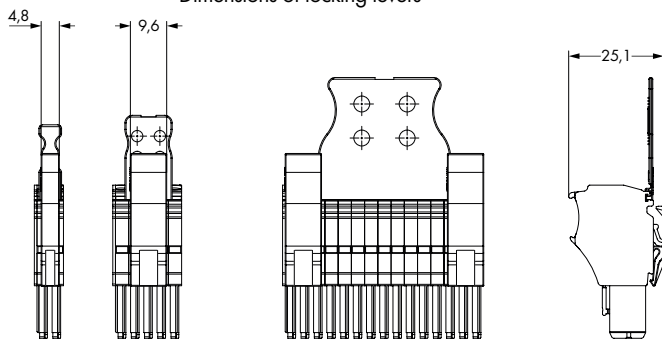
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow 2000-115 100 (4x25)	WMB Inline, plain, 2,300 WMB markers (3.5 mm) per reel white 2009-113 1
Locking lever, 9.6 mm wide orange 2022-152 100 (4x25) gray 2022-151 100 (4x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, for 3.5 mm terminal block width plain 793-3501 5
Locking lever, 4.8 mm wide orange 2022-142 100 (4x25) gray 2022-141 100 (4x25)	Marking strip, plain, 11 mm wide, 50 m reel white 2009-110 1
Strain relief plate, gray 35 mm wide 734-326 100 (4x25) 6 mm wide 734-327 100 (4x25) 12.5 mm wide 734-328 100 (4x25) 25 mm wide 734-329 100 (4x25)	

- ❶ Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s"  
and 0.5 ... 0.75 mm<sup>2</sup>  
"insulated ferrule, 10 mm"
- ❷ 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ Current-carrying capacity curves upon request

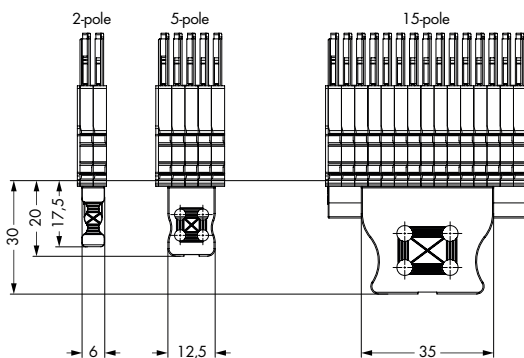
Strain Relief Plate (SRP), Gray				Locking Lever (LL), Gray				SRP and LL, Gray
Assembled				Assembled				Assembled
SRP				Pole No.	Quantity	1-Way	2-Way	
Item No. Suffix				Item No. Suffix				Item No. Suffix
Item No.	Color	Width						
734-327	gray	6mm	/132-0xx	2 to 3	1	/122-0xx	-	/142-0xx
734-328	gray	12.5mm	/133-0xx	4 to 6	1	-	/124-0xx	/143-0xx
734-329	gray	25mm	/134-0xx	7 to 9	1	-	/124-0xx	/144-0xx
734-326	gray	35mm	/135-0xx	10 to 15	2	-	/125-0xx	/145-0xx

For colored female plugs, the item number suffix "xx" must be replaced by the blue "-006" and the green-yellow "-016" color suffix.

Dimensions of locking levers



Description	Color	Item No.	Suffix No.
1-conductor female plug	gray	2020-102	none
2- to 15-pole	blue green-yellow	to 2020-115	/000-006 /000-016



Dimensions of strain relief plates

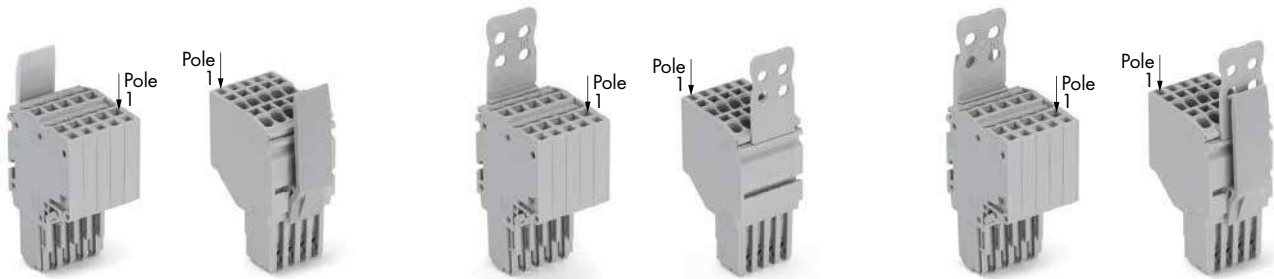
# X-COM®S-SYSTEM-MINI

## 2-Conductor Female Plugs with Locking Levers and Strain Relief Plates

1 (1.5) mm<sup>2</sup>, 2020 Series

0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③ Module width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③ Module width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤	0.14 ... 1 (1.5) mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 13.5 A ③ Module width 3.5 mm / 0.138 inch 9 ... 11 mm / 0.35 ... 0.43 inch	24 ... 16 AWG 300 V, 10 A ④ 300 V, 10 A ⑤
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2



Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
2-conductor female plug, with locking lever, for insertion into carrier terminal blocks, with coding fingers, gray According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.			2-conductor female plug, with strain relief plate, for insertion into carrier terminal blocks, with coding fingers, gray According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.			2-conductor female plug, with strain relief plate and locking lever, for insertion into carrier terminal blocks, with coding fingers, gray According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.		
2	2020-202/122-000	100	2	2020-202/132-000	100	2	2020-202/142-000	100
3	2020-203/122-000	50	3	2020-203/132-000	50	3	2020-203/142-000	50
4	2020-204/124-000	50	4	2020-204/133-000	50	4	2020-204/143-000	50
5	2020-205/124-000	50	5	2020-205/133-000	50	5	2020-205/143-000	50
6	2020-206/124-000	25	6	2020-206/133-000	25	6	2020-206/143-000	25
7	2020-207/124-000	25	7	2020-207/134-000	25	7	2020-207/144-000	25
8	2020-208/124-000	25	8	2020-208/134-000	25	8	2020-208/144-000	25
9	2020-209/124-000	25	9	2020-209/134-000	25	9	2020-209/144-000	25
10	2020-210/125-000	25	10	2020-210/135-000	25	10	2020-210/145-000	25
11	2020-211/125-000	20	11	2020-211/135-000	20	11	2020-211/145-000	20
12	2020-212/125-000	20	12	2020-212/135-000	20	12	2020-212/145-000	20
13	2020-213/125-000	10	13	2020-213/135-000	10	13	2020-213/145-000	10
14	2020-214/125-000	10	14	2020-214/135-000	10	14	2020-214/145-000	10
15	2020-215/125-000	10	15	2020-215/135-000	10	15	2020-215/145-000	10

### Accessories Female Plugs

Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow 2000-115 100 (4x25)	WMB Inline, plain, 2,300 WMB markers (3.5 mm) per reel white 2009-113 1
Locking lever, 9.6 mm wide orange 2022-152 100 (4x25) gray 2022-151 100 (4x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, for 3.5 mm terminal block width plain 793-3501 5
Locking lever, 4.8 mm wide orange 2022-142 100 (4x25) gray 2022-141 100 (4x25)	Marking strip, plain, 11 mm wide, 50 m reel white 2009-110 1
Strain relief plate, gray 35 mm wide 734-326 100 (4x25) 25 mm wide 734-329 100 (4x25) 6 mm wide 734-327 100 (4x25) 12.5 mm wide 734-328 100 (4x25)	

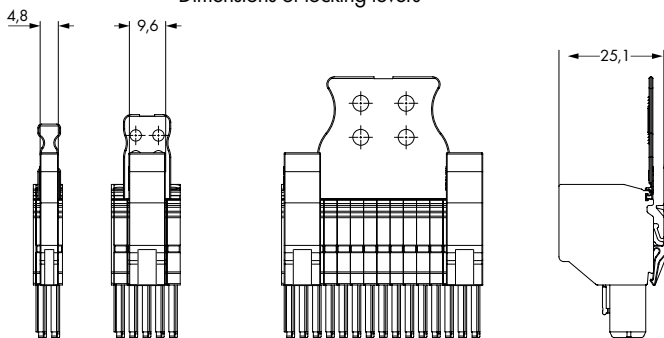
**PUSH-IN CAGE CLAMP®**

- ❶ Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.5 ... 1.5 mm<sup>2</sup> "s"  
and 0.5 ... 0.75 mm<sup>2</sup>  
"insulated ferrule, 10 mm"
- ❷ 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ Current-carrying capacity curves upon request

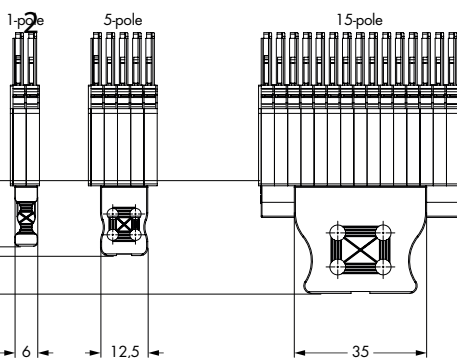
Strain Relief Plate (SRP), Gray				Locking Lever (LL), Gray				SRP and LL, Gray
Assembled				Assembled				Assembled
SRP				Pole No.	Quantity	1-Way	2-Way	
Item No. Suffix				Item No. Suffix				Item No. Suffix
Item No.	Color	Width						
734-327	gray	6mm	/132-0xx	2 to 3	1	/122-0xx	-	/142-0xx
734-328	gray	12.5mm	/133-0xx	4 to 6	1	-	/124-0xx	/143-0xx
734-329	gray	25mm	/134-0xx	7 to 9	1	-	/124-0xx	/144-0xx
734-326	gray	35mm	/135-0xx	10 to 15	2	-	/125-0xx	/145-0xx

For colored female plugs, the item number suffix "xx" must be replaced by the blue "-006" and the green-yellow "-016" color suffix.

Dimensions of locking levers



Description	Color	Item No.	Suffix No.
2-conductor female plug	gray	2020-202	none
2- to 15-pole	blue	to	/000-006
	green-yellow	2020-215	/000-016

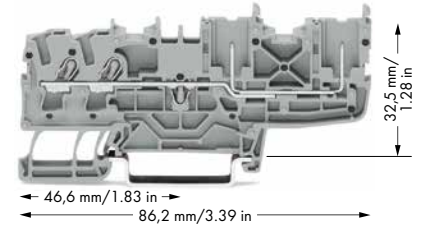
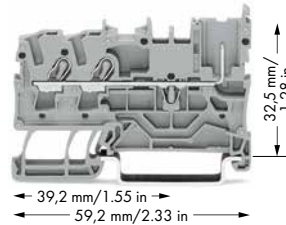
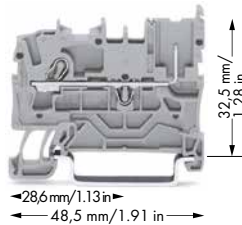


Dimensions of strain relief plates

# X-COM®S-SYSTEM-MINI – 1-Conductor/1-Pin, 2-Conductor/1-Pin and 2-Conductor/2-Pin Carrier Terminal Blocks

2.5 (4) mm<sup>2</sup>, 2022 Series

0.25 ... 2.5 (4) mm <sup>2</sup> ① 690 V/6 kV/3 ② I <sub>N</sub> 24 A (32 A) ③	22 ... 12 AWG 600 V, 20 A ④ 600 V, 20 A ⑤	0.25 ... 2.5 (4) mm <sup>2</sup> ① 690 V/6 kV/3 ② I <sub>N</sub> 24 A (32 A) ③	22 ... 12 AWG 600 V, 20 A ④ 600 V, 20 A ⑤	0.25 ... 2.5 (4) mm <sup>2</sup> ① 690 V/6 kV/3 ② I <sub>N</sub> 24 A (32 A) ③	22 ... 12 AWG 600 V, 20 A ④ 600 V, 20 A ⑤
Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor/1-pin carrier terminal block		2-conductor/1-pin carrier terminal block		2-conductor/2-pin carrier terminal block	
gray 2022-1201 100		gray 2022-1301 100		gray 2022-1401 50	
blue 2022-1204 100		blue 2022-1304 100		blue 2022-1404 50	
orange 2022-1202 100		orange 2022-1302 100		orange 2022-1402 50	
1-conductor/1-pin ground carrier terminal block		2-conductor/1-pin ground carrier terminal block		2-conductor/2-pin ground carrier terminal block	
green-yellow 2022-1207 100		green-yellow 2022-1307 100		green-yellow 2022-1407 50	
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 1 mm thick		End and intermediate plate, 1 mm thick		End and intermediate plate, 1 mm thick	
orange 2022-1292 100 (4x25)		orange 2022-1392 100 (4x25)		orange 2022-1492 100 (4x25)	
gray 2022-1291 100 (4x25)		gray 2022-1391 100 (4x25)		gray 2022-1491 100 (4x25)	

## 2022 Series Accessories

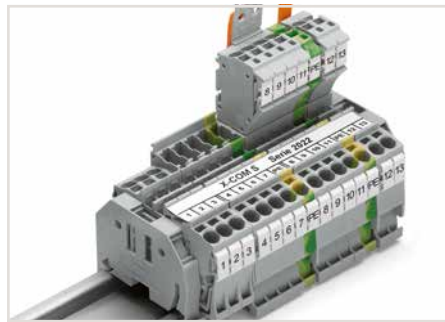
Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)

Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray 2002-171 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray from 1 to 3 2002-433 200 (8x25)	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-400 100 (4x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray 2002-172 200 (8x25)	from 1 to 4 2002-434 200 (8x25)	Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 1 to 3 2002-423 100 (4x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-402 200 (8x25)	from 1 to 5 2002-435 100 (4x25)	Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A L = 60 mm 2009-412 100 (10x10)
3-way 2002-403 200 (8x25)	from 1 to 6 2002-436 100 (4x25)	L = 110 mm 2009-414 100 (10x10)
4-way 2002-404 200 (8x25)	from 1 to 7 2002-437 100 (4x25)	L = 250 mm 2009-416 100 (10x10)
5-way 2002-405 100 (4x25)	from 1 to 8 2002-438 100 (4x25)	Carrier with 6 coding pins, for coding female plugs orange 2022-100 100 (4x25)
6-way 2002-406 100 (4x25)	from 1 to 9 2002-439 100 (4x25)	Test pin, 1 mm Ø 859-500 1
7-way 2002-407 100 (4x25)	from 1 to 10 2002-440 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow 2002-115 100 (4x25)
8-way 2002-408 100 (4x25)	Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-472 100 (4x25)	
9-way 2002-409 100 (4x25)	3-way 2002-473 100 (4x25)	
10-way 2002-410 100 (4x25)	4-way 2002-474 100 (4x25)	
Delta jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray 1-2 3-4 5-6 2002-406/020-000 100 (4x25)	5-way 2002-475 50 (2x25)	
Star point jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block, light gray 1-3-5 2002-405/011-000 100 (4x25)	6-way 2002-476 50 (2x25)	
	7-way 2002-477 50 (2x25)	
	8-way 2002-478 50 (2x25)	
	9-way 2002-479 50 (2x25)	
	10-way 2002-480 50 (2x25)	
	11-way 2002-481 50 (2x25)	
	12-way 2002-482 50 (2x25)	



- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup> "insulated ferrule, 12 mm"
- ❷ 690 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ Current-carrying capacity curves upon request
- ❹ See application notes for:  
Colored push-in type jumper bar, page 134  
Delta jumper, page 135  
Star point jumper, page 135  
Staggered jumper, page 136  
Adjacent jumper for continuous commoning, page 137  
Push-in type wire jumper, page 138

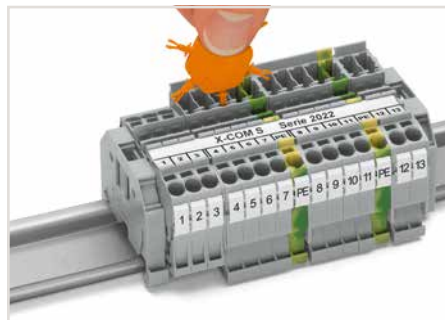
Accessories			
1-conductor female plug		gray	2022-101 200
WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable		plain	793-5501 5
WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable		yellow	793-5501/000-002
		red	793-5501/000-005
		blue	793-5501/000-006
		gray	793-5501/000-007
		orange	793-5501/000-012
		light green	793-5501/000-017
		green	793-5501/000-023
		violet	793-5501/000-024
WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable		white	2009-115 1
Marking strip, plain, 11 mm wide, 50 m reel		white	2009-110 1
Screwless end stop, for DIN-35 rail, 6 mm wide		gray	249-116 100 (4x25)
Screwless end stop, for DIN-35 rail, 10 mm wide		gray	249-117 50 (2x25)



2022 Series X-COM®S-SYSTEM Carrier Terminal Blocks combined with 2002 Series Through Terminal Blocks



Carrier terminal blocks and female plugs are touch-proof.



Insert coding pin into the corresponding slot and twist it off.

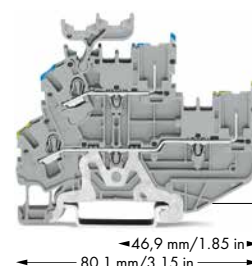
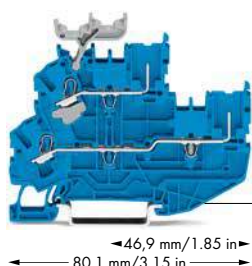
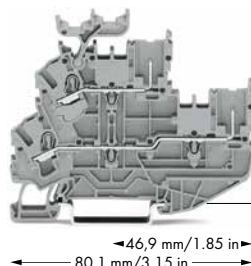


# X-COM®S-SYSTEM

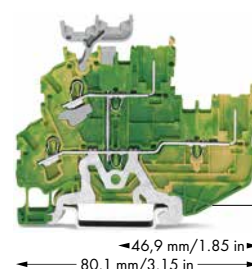
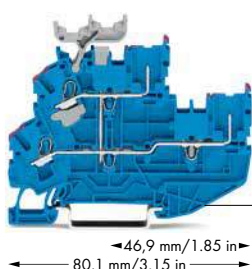
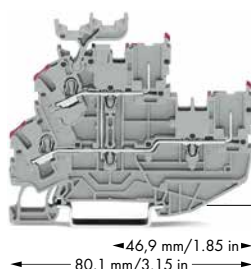
## 1-Conductor/1-Pin Double-Deck Carrier Terminal Blocks

2.5 (4) mm<sup>2</sup>, 2022 Series

0.25 ... 2.5 (4) mm <sup>2</sup> ① 690 V/6 kV/3 ② I <sub>N</sub> 24 A (28 A) ③	AWG 22 ... 12 600 V, 20 A ④ 600 V, 20 A ⑤	0.25 ... 2.5 (4) mm <sup>2</sup> ① 690 V/6 kV/3 ② I <sub>N</sub> 24 A (28 A) ③	AWG 22 ... 12 600 V, 20 A ④ 600 V, 20 A ⑤	0.25 ... 2.5 (4) mm <sup>2</sup> ① 690 V/6 kV/3 ② I <sub>N</sub> 24 A (28 A) ③	AWG 22 ... 12 600 V, 20 A ④ 600 V, 20 A ⑤
Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch		Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	




















Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	
1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, with marker carrier, gray housing		1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, with marker carrier, blue housing		1-conductor/1-pin double-deck carrier terminal block, ground conductor/through terminal block, with marker carrier, gray housing		
○ L/L	2022-2231	50	● N/N	2022-2234	50	
○ N/L	2022-2232	50				
○ L/N	2022-2233	50				
1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, without marker carrier, gray housing		1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, without marker carrier, blue housing		1-conductor/1-pin double-deck carrier terminal block, ground conductor/through terminal block, without marker carrier, gray housing		
○ L/L	2022-2201	50	● N/N	2022-2204	50	
○ N/L	2022-2202	50				
○ L/N	2022-2203	50				
				○ PE/N	2022-2247	50
				○ PE/L	2022-2257	50



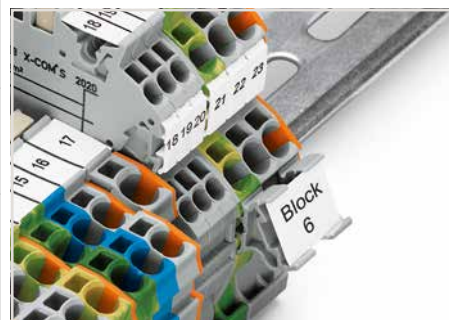
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	
2-conductor/2-pin double-deck carrier terminal block, 2-conductor/2-pin through terminal block, with marker carrier, internally commoned, violet conductor entry, gray housing		2-conductor/2-pin double-deck carrier terminal block, 2-conductor/2-pin through terminal block, with marker carrier, internally commoned, violet conductor entry, blue housing		2-conductor/2-pin double-deck carrier terminal block, 2-conductor/2-pin ground conductor terminal block, with marker carrier, internally commoned, green-yellow housing		
○ L	2022-2238	50	● N	2022-2239	50	
2-conductor/2-pin double-deck carrier terminal block, 2-conductor/2-pin through terminal block, without marker carrier, internally commoned, violet conductor entry, gray housing		2-conductor/2-pin double-deck carrier terminal block, 2-conductor/2-pin through terminal block, without marker carrier, internally commoned, violet conductor entry, blue housing		2-conductor/2-pin double-deck carrier terminal block, 2-conductor/2-pin ground conductor terminal block, without marker carrier, internally commoned, green-yellow housing		
○ L	2022-2208	50	● N	2022-2209	50	
				● PE	2022-2237	50
				● PE	2022-2207	50

- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ❷ 690 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ Current-carrying capacity curves upon request
- ❹ See application notes for:  
Colored push-in type jumper bar, page 134  
Vertical jumper, page 139  
Adjacent jumper for continuous commoning, page 137

2022 Series Accessories		Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)	
End and intermediate plate, 1 mm thick orange <b>2022-2292</b> 100 (4x25) gray <b>2022-2291</b> 100 (4x25)		Carrier with 6 coding pins, for coding female plugs orange <b>2022-100</b> 100 (4x25)	
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>2002-171</b> 200 (8x25)		Test pin, 1 mm Ø <b>859-500</b> 1	
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>2002-172</b> 200 (8x25)		1-conductor female plug gray <b>2022-101</b> 200	
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray ❹		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>2002-115</b> 100 (4x25)	
2-way <b>2002-402</b> 200 (8x25)		Double-deck marker carrier, pivoting gray <b>2002-121</b> 50 (2x25)	
3-way <b>2002-403</b> 200 (8x25)		WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5	
4-way <b>2002-404</b> 200 (8x25)		WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable yellow <b>793-5501/000-002</b>	
5-way <b>2002-405</b> 100 (4x25)		red <b>793-5501/000-005</b>	
6-way <b>2002-406</b> 100 (4x25)		blue <b>793-5501/000-006</b>	
7-way <b>2002-407</b> 100 (4x25)		gray <b>793-5501/000-007</b>	
8-way <b>2002-408</b> 100 (4x25)		orange <b>793-5501/000-012</b>	
9-way <b>2002-409</b> 100 (4x25)		light green <b>793-5501/000-017</b>	
10-way <b>2002-410</b> 100 (4x25)		green <b>793-5501/000-023</b>	
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray		WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable violet <b>793-5501/000-024</b>	
from 1 to 3 <b>2002-433</b> 200 (8x25)		5	
from 1 to 4 <b>2002-434</b> 200 (8x25)			
from 1 to 5 <b>2002-435</b> 100 (4x25)			
from 1 to 6 <b>2002-436</b> 100 (4x25)			
from 1 to 7 <b>2002-437</b> 100 (4x25)			
from 1 to 8 <b>2002-438</b> 100 (4x25)			
from 1 to 9 <b>2002-439</b> 100 (4x25)			
from 1 to 10 <b>2002-440</b> 100 (4x25)			
Double-deck vertical jumper, insulated, I <sub>N</sub> 24 A ❹		WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable white <b>2009-115</b> 1	
light gray <b>2002-492</b> 100 (4x25)			
orange <b>2002-492/000-012</b>			
Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> ❹ 25 A, light gray		Marking strip, plain, 11 mm wide, 50 m reel white <b>2009-110</b> 1	
2-way <b>2002-400</b> 100 (4x25)			
Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> ❹ 25 A, light gray			
1 to 3 <b>2002-423</b> 100 (4x25)			



Size comparison:  
Double-deck carrier terminal blocks with 3.5 mm and  
5.2 mm terminal block widths



Marker carrier (2009-198)

# X-COM®S-SYSTEM

## 1-Conductor Female Plugs

### 2.5 (4) mm<sup>2</sup>, 2022 Series

0.25 ... 2.5 (4) mm<sup>2</sup> ① 22 ... 12 AWG  
 690 V/6 kV/3 ② 600 V, 20 A ③  
 I<sub>N</sub> 24 A (32 A) ③ 600 V, 20 A ③

Module width 5.2 mm / 0.205 inch

10 ... 12 mm / 0.39 ... 0.47 inch



① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
 Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
 and 0.75 ... 2.5 mm<sup>2</sup> "insulated ferrule, 12 mm"

② 690 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)

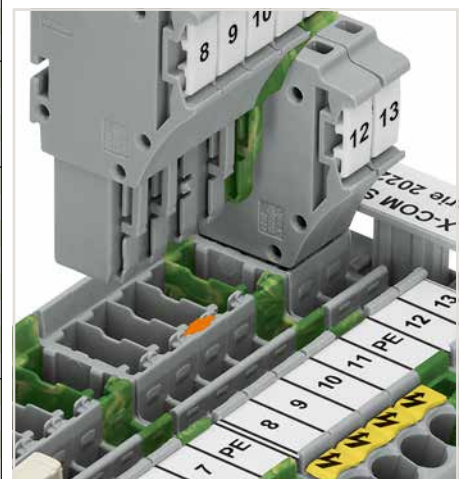
③ Current-carrying capacity curves upon request

④ Item-no. suffix  
 blue .../000-006  
 orange .../000-012

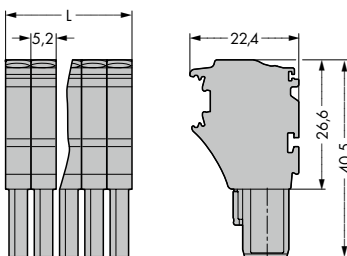
Pole No.	Item No.	Pack. Unit	Accessories
1-conductor female plug, for insertion into carrier terminal blocks, with coding fingers, gray			Appropriate marking systems: (see Section 13)
According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.			Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>
○ 1	2022-101	200	light gray <b>2002-171</b> 200 (8x25)
○ 2	2022-102	200	Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>
○ 3	2022-103	100	
○ 4	2022-104	100	Locking lever, 4.8 mm wide
○ 5	2022-105	50	
○ 6	2022-106	50	gray <b>2022-141</b> 100 (4x25)
○ 7	2022-107	50	
○ 8	2022-108	50	orange <b>2022-152</b> 100 (4x25)
○ 9	2022-109	50	
○ 10	2022-110	25	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks
○ 11	2022-111	25	
○ 12	2022-112	25	Carrier with 6 coding pins, for coding female plugs
○ 13	2022-113	25	
○ 14	2022-114	25	Strain relief plate, gray
○ 15	2022-115	25	
1-conductor female plug, for insertion into carrier terminal blocks, with coding fingers, green-yellow			6 mm wide <b>734-327</b> 100 (4x25)
According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.			12.5 mm wide <b>734-328</b> 100 (4x25)
● 1	2022-101/000-016	200	25 mm wide <b>734-329</b> 100 (4x25)
● 2	2022-102/000-016	200	55 mm wide <b>734-430</b> 50 (2x25)
			75 mm wide <b>734-431</b> 50 (2x25)
			WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
			plain <b>793-5501</b> 5
			WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable
			white <b>2009-115</b> 1
			Marking strip, plain, 11 mm wide, 50 m reel
			white <b>2009-110</b> 1



Coding a female plug: remove coding finger using a suitable tool.



Insert a coding pin (2022 100) into the corresponding location of the carrier terminal block.



L = pole no. x module width

Dimensions in mm

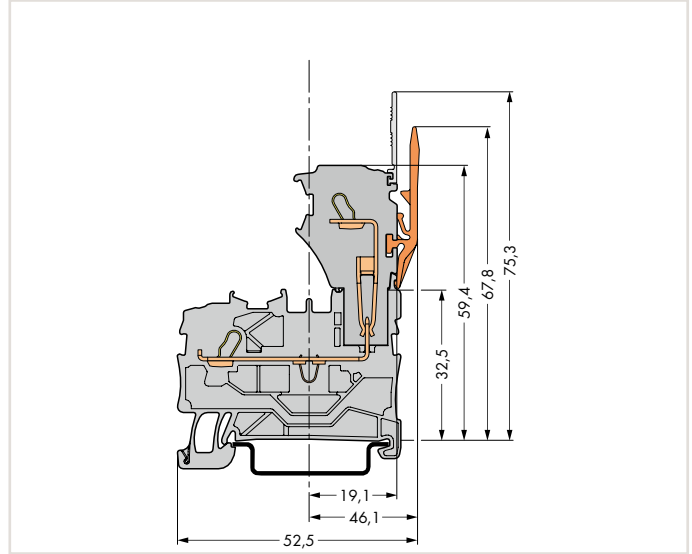
# X-COM®S-SYSTEM-MINI

## Carrier Terminal Blocks and 1-Conductor Female Plugs

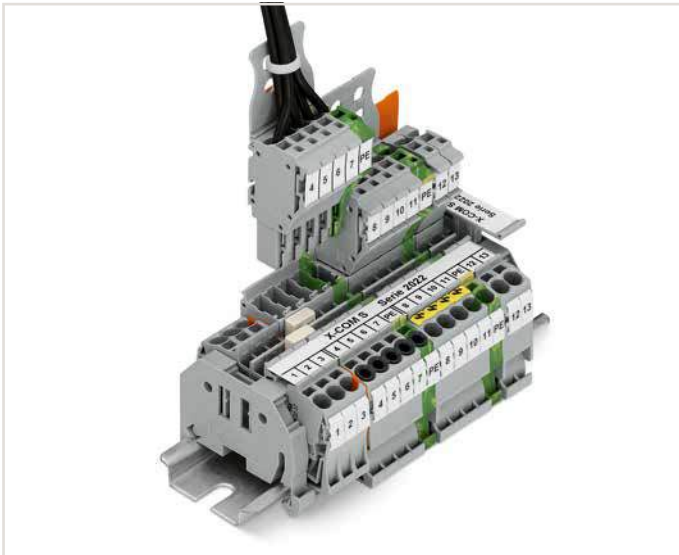
### Assembly Types



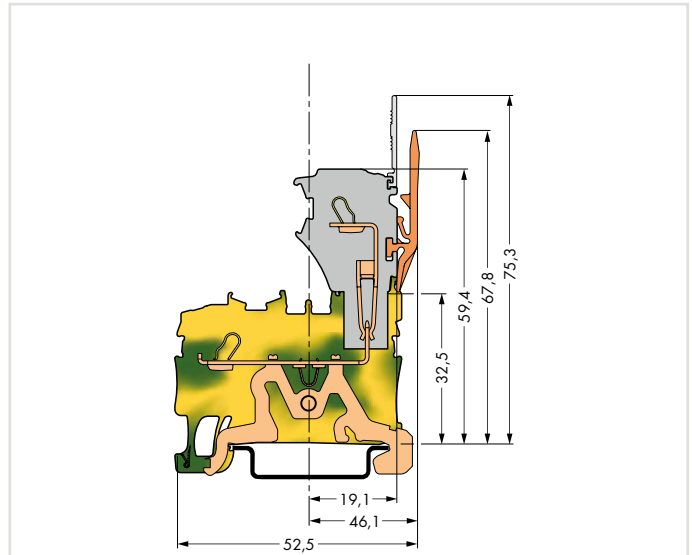
1-conductor female plug  
Carrier terminal blocks can be commoned via 2002 Series Push-In Type Jumper Bars and tested via 859-500 Test Pin.



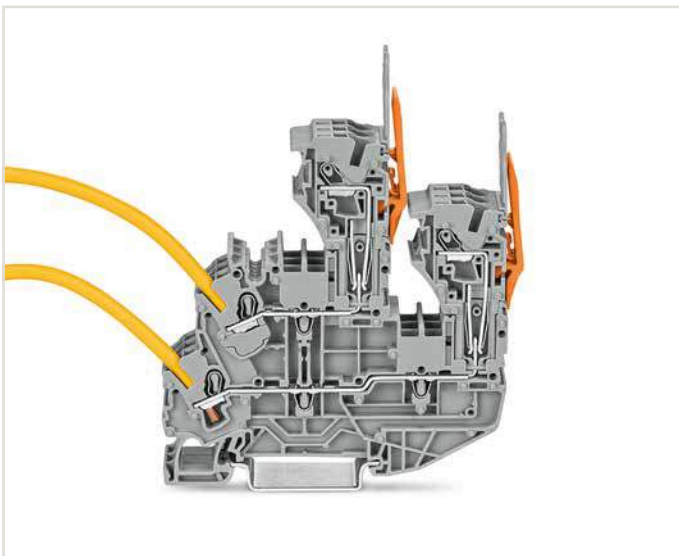
Carrier terminal block



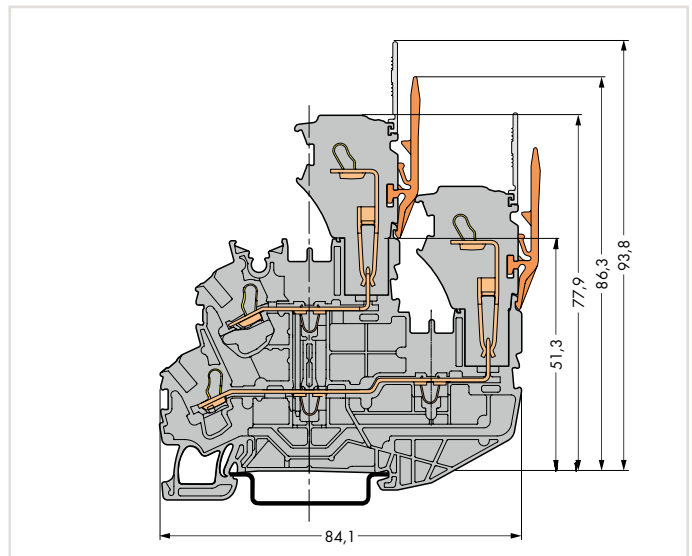
X-COM®S-SYSTEM terminal block assembly



Ground carrier terminal block



1-conductor female plug  
Double-deck carrier terminal blocks can be commoned via 2002 Series Push-In Type Jumper Bars and tested via 859-500 Test Pin.



Double-deck carrier terminal block

# X-COM®S-SYSTEM

## Female Plugs for Self-Assembly

### 2.5 (4) mm<sup>2</sup>, 2022 Series

0.25 ... 2.5 (4) mm<sup>2</sup> ① 22 ... 12 AWG  
 690 V/6 kV/3 ② 600 V, 20 A ③  
 I<sub>N</sub> 24 A (32 A) ③ 600 V, 20 A ④

Terminal block width 5.2 mm / 0.205 inch  
 10 ... 12 mm / 0.39 ... 0.47 inch



Item No.	Pack. Unit	
1-conductor end module, with coding fingers		
gray	<b>2022-181</b>	250
blue	<b>2022-184</b>	250
orange	<b>2022-182</b>	250
green-yellow	<b>2022-187</b>	250
1-conductor center module, with coding fingers		
gray	<b>2022-171</b>	250
blue	<b>2022-174</b>	250
orange	<b>2022-172</b>	250
green-yellow	<b>2022-177</b>	250
1-conductor base module, with integrated end plate, with coding fingers		
gray	<b>2022-161</b>	250
blue	<b>2022-164</b>	250
orange	<b>2022-162</b>	250
green-yellow	<b>2022-167</b>	250
<b>Accessories Female Plugs</b>		
Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)		
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks	
light gray <b>2002-171</b> 200 (8x25)	yellow <b>2002-115</b> 100 (4x25)	
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable	
dark gray <b>2002-172</b> 200 (8x25)	plain <b>793-5501</b> 5	
Locking lever, 4.8 mm wide	WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable	
orange <b>2022-142</b> 100 (4x25)	yellow <b>793-5501/000-002</b>	
gray <b>2022-141</b> 100 (4x25)	red <b>793-5501/000-005</b>	
Locking lever, 9.6 mm wide	blue <b>793-5501/000-006</b>	
orange <b>2022-152</b> 100 (4x25)	gray <b>793-5501/000-007</b>	
gray <b>2022-151</b> 100 (4x25)	orange <b>793-5501/000-012</b>	
Strain relief plate, gray	light green <b>793-5501/000-017</b>	
35 mm wide <b>734-326</b> 100 (4x25)	green <b>793-5501/000-023</b>	
6 mm wide <b>734-327</b> 100 (4x25)	violet <b>793-5501/000-024</b>	5
12.5 mm wide <b>734-328</b> 100 (4x25)		
25 mm wide <b>734-329</b> 100 (4x25)	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable	
55 mm wide <b>734-430</b> 50 (2x25)	white <b>2009-115</b> 1	
75 mm wide <b>734-431</b> 50 (2x25)		

**Customizing Modular Female Plugs**

WAGO's modular X-COM®S-SYSTEM female plugs can be customized for applications requiring varying numbers of poles (e.g., when designing prototypes).

**Modules and Pole Numbers**

A customized X-COM®S-SYSTEM-MINI female plug consists of:

- One base module with an integrated end plate
- Up to 13 center modules (corresponding to a 15-pole female plug = maximum pole number)
- One end module

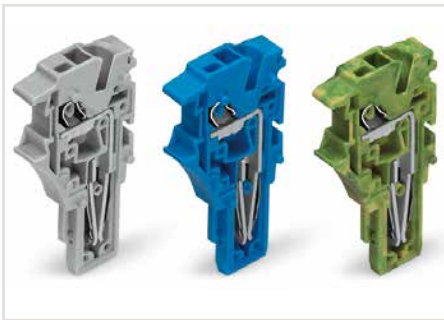
**Intended Use**

According to EN 61984, pluggable connectors without current interrupting capacity shall not be mated and unmated when live or under load.

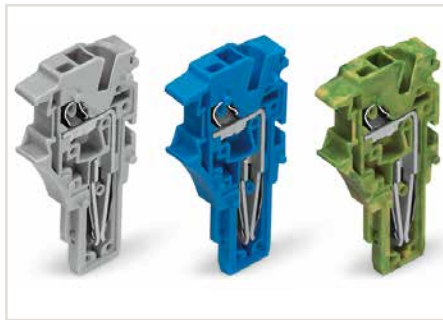
**Assembly**

The appropriate mounting tool shall be used in order to guarantee that the individual modules are properly attached to each other without damaging the locking latches.

- 1 Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- 2 690 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- 3 Current-carrying capacity curves upon request



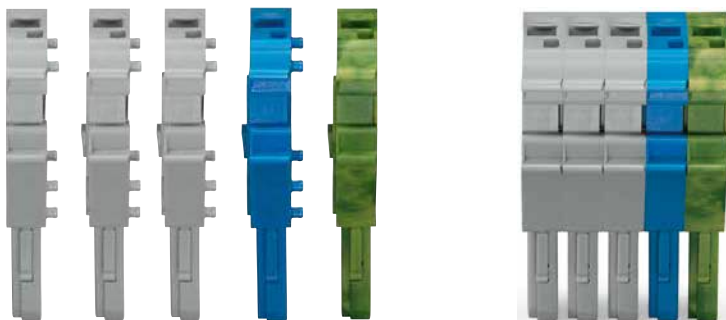
End module



Center module



Base module

**Example: 5-Pole, 1-Conductor Female Plug**

Base module with integrated end plate  
2022-167

Center module  
2022-174

Center modules  
2022-171

End module  
2022-181

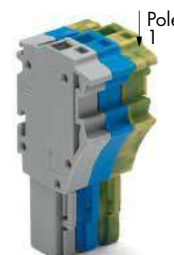
# X-COM®S-SYSTEM

## Pre-Assembled 1-Conductor Female Plugs

2.5 (4) mm<sup>2</sup>, 2022 Series

2

0.25 ... 2.5 (4) mm <sup>2</sup> ① 690 V/6 kV/3 ② I <sub>N</sub> 24 A (32 A) ③ Module width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ④ 600 V, 20 A ⑤	0.25 ... 2.5 (4) mm <sup>2</sup> ① 690 V/6 kV/3 ② I <sub>N</sub> 24 A (32 A) ③ Module width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ④ 600 V, 20 A ⑤	0.25 ... 2.5 (4) mm <sup>2</sup> ① 690 V/6 kV/3 ② I <sub>N</sub> 24 A (32 A) ③ Module width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ④ 600 V, 20 A ⑤
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Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
1-conductor female plug, with ground base module (green-yellow), for insertion into carrier terminal blocks, with coding fingers			1-conductor female plug, with ground end module (green-yellow), for insertion into carrier terminal blocks, with coding fingers			1-conductor female plug, with ground base module (green-yellow), for insertion into carrier terminal blocks, with coding fingers		
3	2022-103/000-036	100	3	2022-103/000-037	100	3	2022-103/000-038	100
4	2022-104/000-036	100	4	2022-104/000-037	100	4	2022-104/000-038	100
5	2022-105/000-036	50	5	2022-105/000-037	50	5	2022-105/000-038	50
6	2022-106/000-036	50	6	2022-106/000-037	50	6	2022-106/000-038	50
7	2022-107/000-036	50	7	2022-107/000-037	50	7	2022-107/000-038	50
8	2022-108/000-036	50	8	2022-108/000-037	50	8	2022-108/000-038	50
9	2022-109/000-036	50	9	2022-109/000-037	50	9	2022-109/000-038	50
10	2022-110/000-036	25	10	2022-110/000-037	25	10	2022-110/000-038	25
11	2022-111/000-036	25	11	2022-111/000-037	25	11	2022-111/000-038	25
12	2022-112/000-036	25	12	2022-112/000-037	25	12	2022-112/000-038	25
13	2022-113/000-036	25	13	2022-113/000-037	25	13	2022-113/000-038	25
14	2022-114/000-036	25	14	2022-114/000-037	25	14	2022-114/000-038	25
15	2022-115/000-036	25	15	2022-115/000-037	25	15	2022-115/000-038	25

### Accessories Female Plugs

Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)

Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray 2002-171 200 (8x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow 2002-115 100 (4x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain 793-5501 5
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray 2002-172 200 (8x25)	Strain relief plate, gray 35 mm wide 734-326 100 (4x25) 6 mm wide 734-327 100 (4x25) 12.5 mm wide 734-328 100 (4x25) 25 mm wide 734-329 100 (4x25) 55 mm wide 734-430 50 (2x25) 75 mm wide 734-431 50 (2x25)	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable white 2009-115 1
Locking lever, 4.8 mm wide orange 2022-142 100 (4x25) gray 2022-141 100 (4x25)		Marking strip, plain, 11 mm wide, 50 m reel white 2009-110 1
Locking lever, 9.6 mm wide orange 2022-152 100 (4x25) gray 2022-151 100 (4x25)		



0.25 ... 2.5 (4) mm<sup>2</sup> ❶ | 22 ... 12 AWG  
 690 V/6 kV/3 ❷ | 600 V, 20 A ❸  
 I<sub>N</sub> 24 A (32 A) ❸ | 600 V, 20 A ❸

Module width 5.2 mm / 0.205 inch  
 10 ... 12 mm / 0.39 ... 0.47 inch



- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
 Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
 and 0.75 ... 2.5 mm<sup>2</sup>  
 "insulated ferrule, 12 mm"
- ❷ 690 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ❸ Current-carrying capacity curves upon request

Pole No.	Item No.	Pack. Unit
1-conductor female plug, with ground end module (green-yellow), for insertion into carrier terminal blocks, with coding fingers		
3	2022-103/000-039	100
4	2022-104/000-039	100
5	2022-105/000-039	50
6	2022-106/000-039	50
7	2022-107/000-039	50
8	2022-108/000-039	50
9	2022-109/000-039	50
10	2022-110/000-039	25
11	2022-111/000-039	25
12	2022-112/000-039	25
13	2022-113/000-039	25
14	2022-114/000-039	25
15	2022-115/000-039	25

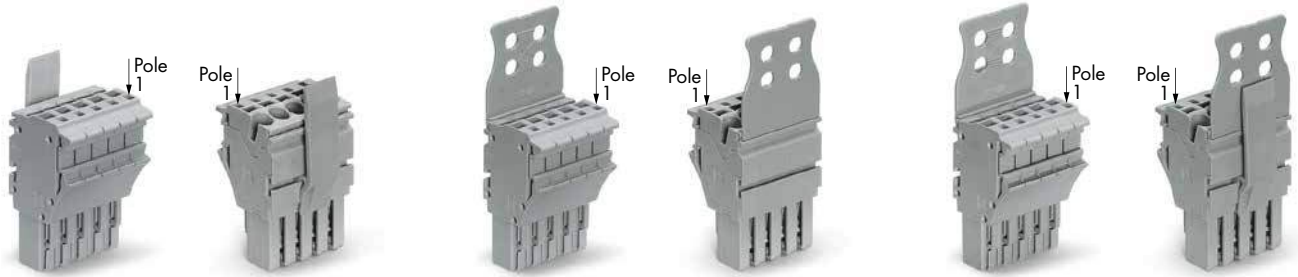
# X-COM®S-SYSTEM

## 1-Conductor Female Plugs with Locking Levers and Strain Relief Plates

2.5 (4) mm<sup>2</sup>, 2022 Series

2

0.25 ... 2.5 (4) mm <sup>2</sup> ① 690 V/6 kV/3 ② I <sub>N</sub> 24 A (32 A) ③ Module width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ④ 600 V, 20 A ⑤	0.25 ... 2.5 (4) mm <sup>2</sup> ① 690 V/6 kV/3 ② I <sub>N</sub> 24 A (32 A) ③ Module width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ④ 600 V, 20 A ⑤	0.25 ... 2.5 (4) mm <sup>2</sup> ① 690 V/6 kV/3 ② I <sub>N</sub> 24 A (32 A) ③ Module width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ④ 600 V, 20 A ⑤
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Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
1-conductor female plug, with locking lever, for insertion into carrier terminal blocks, with coding fingers, gray According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.			1-conductor female plug, with strain relief plate, for insertion into carrier terminal blocks, with coding fingers, gray According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.			1-conductor female plug, with strain relief plate and locking lever, for insertion into carrier terminal blocks, with coding fingers, gray According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.		
1	2022-101/122-000	200	1	2022-101/132-000	200	1	2022-101/142-000	200
2	2022-102/122-000	100	2	2022-102/132-000	100	2	2022-102/142-000	100
3	2022-103/123-000	100	3	2022-103/133-000	100	3	2022-103/143-000	100
4	2022-104/123-000	50	4	2022-104/133-000	50	4	2022-104/143-000	50
5	2022-105/123-000	50	5	2022-105/134-000	50	5	2022-105/144-000	50
6	2022-106/123-000	50	6	2022-106/134-000	50	6	2022-106/144-000	50
7	2022-107/123-000	25	7	2022-107/135-000	25	7	2022-107/145-000	25
8	2022-108/123-000	25	8	2022-108/135-000	25	8	2022-108/145-000	25
9	2022-109/123-000	25	9	2022-109/135-000	25	9	2022-109/145-000	25
10	2022-110/123-000	25	10	2022-110/135-000	25	10	2022-110/145-000	25
11	2022-111/126-000	25	11	2022-111/136-000	25	11	2022-111/146-000	25
12	2022-112/126-000	20	12	2022-112/136-000	20	12	2022-112/146-000	20
13	2022-113/126-000	20	13	2022-113/136-000	20	13	2022-113/146-000	20
14	2022-114/126-000	15	14	2022-114/136-000	15	14	2022-114/146-000	15
15	2022-115/127-000	15	15	2022-115/137-000	15	15	2022-115/147-000	15
1-conductor female plug, with locking lever, for insertion into carrier terminal blocks, with coding fingers According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.			1-conductor female plug, with strain relief plate, for insertion into carrier terminal blocks, with coding fingers According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.			1-conductor female plug, with strain relief plate and locking lever, for insertion into carrier terminal blocks, with coding fingers, According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.		
1 blue	2022-101/122-006	200	1 blue	2022-101/132-006	200	1 blue	2022-101/142-006	200
1 green-yellow	2022-101/122-016	200	1 green-yellow	2022-101/132-016	200	1 green-yellow	2022-101/142-016	200

### Accessories Female Plugs

Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

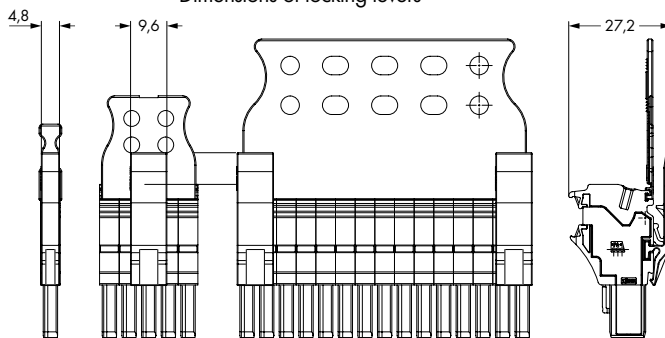
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray 2002-171 200 (8x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain 793-5501 5	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable white 2009-115 1
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray 2002-172 200 (8x25)	WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable yellow 793-5501/000-002 red 793-5501/000-005 blue 793-5501/000-006 gray 793-5501/000-007 orange 793-5501/000-012 light green 793-5501/000-017 green 793-5501/000-023 violet 793-5501/000-024	Marking strip, plain, 11 mm wide, 50 m reel white 2009-110 1
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow 2002-115 100 (4x25)		

- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ❷ 690 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ Current-carrying capacity curves upon request

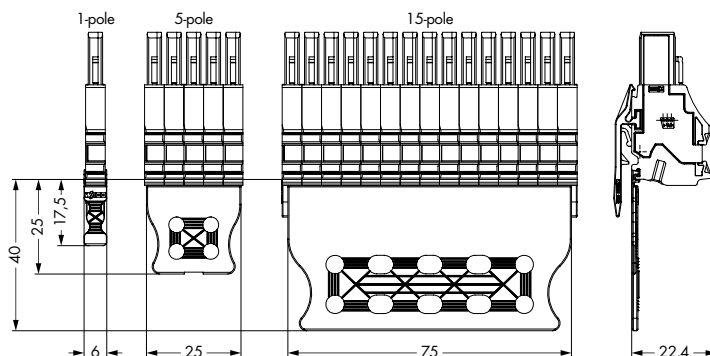
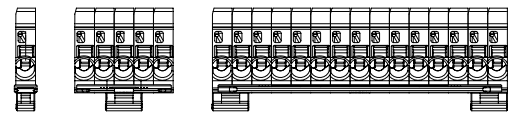
Strain Relief Plate (SRP), Gray			Locking Lever (LL), Gray				SRP and LL, Gray	
Assembled			Assembled				Assembled	
SRP			Pole No.	Quantity	1-Way	2-Way		
Item No. Suffix			Item No. Suffix				Item No. Suffix	
Item No.	Color	Width						
734-327	gray	6mm	/132-0xx	1 to 2	1	/122-0xx	-	/142-0xx
734-328	gray	12.5mm	/133-0xx	3 to 4	1	-	/123-0xx	/143-0xx
734-329	gray	25mm	/134-0xx	5 to 6	1	-	/123-0xx	/144-0xx
734-326	gray	35mm	/135-0xx	7 to 10	1	-	/123-0xx	/145-0xx
734-430	gray	55mm	/136-0xx	11 to 14	2	-	/126-0xx	/146-0xx
734-431	gray	75mm	/137-0xx	15	2	-	/127-0xx	/147-0xx

For colored female plugs, the item number suffix "xx" must be replaced by the blue "-006" and the green-yellow "-016" color suffix.

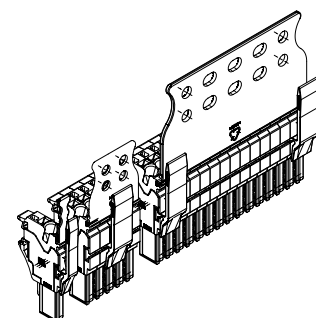
Dimensions of locking levers



Description	Color	Item No.	Suffix No.
1-conductor female plug	gray	2022-101	none
1- to 15-pole	blue	to	/000-006
	green-yellow	2022-115	/000-016






Dimensions of strain relief plates

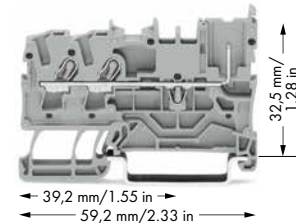
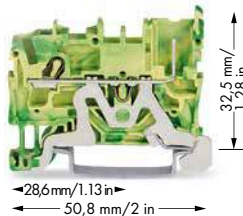
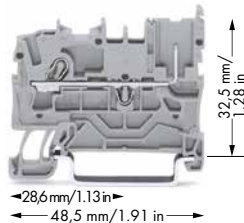


# X-COM®S-SYSTEM-MINI – 1-Conductor/1-Pin, 2-Conductor/1-Pin and 2-Conductor/2-Pin Carrier Terminal Blocks for Ex nA Applications

2.5 (4) mm<sup>2</sup>, 2022 Series

2

0.25 ... 2.5 (4) mm <sup>2</sup> ① 630 V ② I <sub>N</sub> 20 A Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④	0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG 630 V ② I <sub>N</sub> 20 A Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ③ 600 V, 20 A ④
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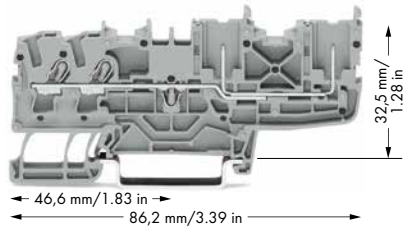
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor/1-pin carrier terminal block, suitable for Ex nA applications		1-conductor/1-pin ground carrier terminal block, suitable for Ex nA applications		2-conductor/1-pin carrier terminal block, suitable for Ex nA applications	
○ gray 2022-1201/999-953 100		● green-yellow 2022-1207/999-953 100		○ gray 2022-1301/999-953 100	
● blue 2022-1204/999-953 100				● blue 2022-1304/999-953 100	
				2-conductor/1-pin ground carrier terminal block, suitable for Ex nA applications	
				● green-yellow 2022-1307/999-953 100	
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 1 mm thick		End and intermediate plate, 1 mm thick		End and intermediate plate, 1 mm thick	
orange 2022-1292 100 (4x25)		orange 2022-1292 100 (4x25)		orange 2022-1392 100 (4x25)	
gray 2022-1291 100 (4x25)		gray 2022-1291 100 (4x25)		gray 2022-1391 100 (4x25)	

**2022 Series Accessories**

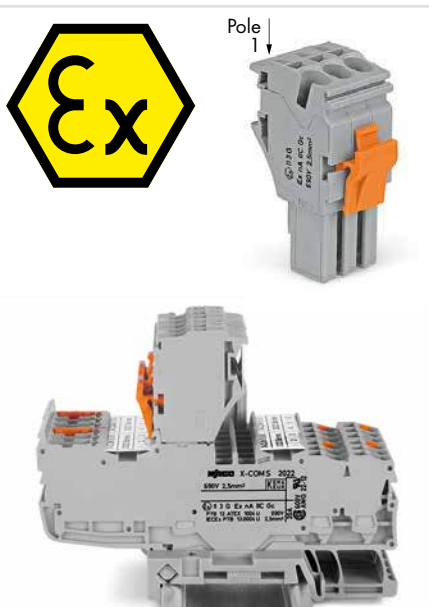
Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)

Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray 2002-171 200 (8x25)	Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-472 100 (4x25) 3-way 2002-473 100 (4x25) 4-way 2002-474 100 (4x25) 5-way 2002-475 50 (2x25) 6-way 2002-476 50 (2x25) 7-way 2002-477 50 (2x25) 8-way 2002-478 50 (2x25) 9-way 2002-479 50 (2x25) 10-way 2002-480 50 (2x25) 11-way 2002-481 50 (2x25) 12-way 2002-482 50 (2x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow 2002-115 100 (4x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray 2002-172 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 2-way 2002-402 200 (8x25) 3-way 2002-403 200 (8x25) 4-way 2002-404 200 (8x25) 5-way 2002-405 100 (4x25) 6-way 2002-406 100 (4x25) 7-way 2002-407 100 (4x25) 8-way 2002-408 100 (4x25) 9-way 2002-409 100 (4x25) 10-way 2002-410 100 (4x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain 793-5501 5
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray from 1 to 3 2002-433 200 (8x25) from 1 to 4 2002-434 200 (8x25) from 1 to 5 2002-435 100 (4x25) from 1 to 6 2002-436 100 (4x25) from 1 to 7 2002-437 100 (4x25) from 1 to 8 2002-438 100 (4x25) from 1 to 9 2002-439 100 (4x25) from 1 to 10 2002-440 100 (4x25)	Push-in type wire jumper, insulated, wire size 1.5 mm <sup>2</sup> , I <sub>N</sub> 18 A L = 60 mm 2009-412 100 (10x10) L = 110 mm 2009-414 100 (10x10) L = 250 mm 2009-416 100 (10x10)	WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable yellow 793-5501/000-002 red 793-5501/000-005 blue 793-5501/000-006 gray 793-5501/000-007 orange 793-5501/000-012 light green 793-5501/000-017 green 793-5501/000-023 violet 793-5501/000-024 5
	Carrier with 6 coding pins, for coding female plugs orange 2022-100 100 (4x25)	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable white 2009-115 1
	Test pin, 1 mm Ø 859-500 1	Marking strip, plain, 11 mm wide, 50 m reel white 2009-110 1
		Screwless end stop, for DIN-35 rail, 6 mm wide gray 249-116 100 (4x25)

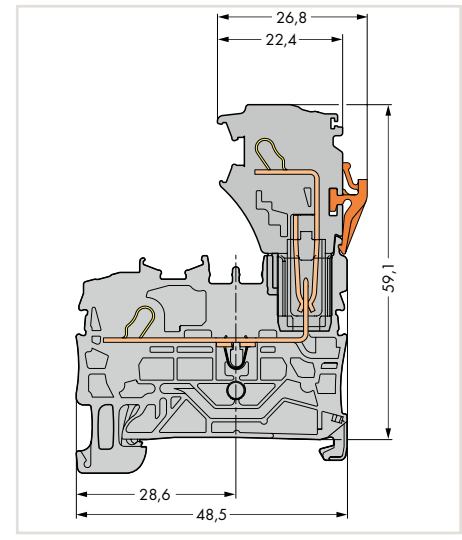
0.25 ... 2.5 (4) mm <sup>2</sup> ①	22 ... 12 AWG
630 V ②	600 V, 20 A ③
I <sub>N</sub> 20 A	600 V, 20 A ③
Terminal block width 5.2 mm / 0.205 inch	
10 ... 12 mm / 0.39 ... 0.47 inch	



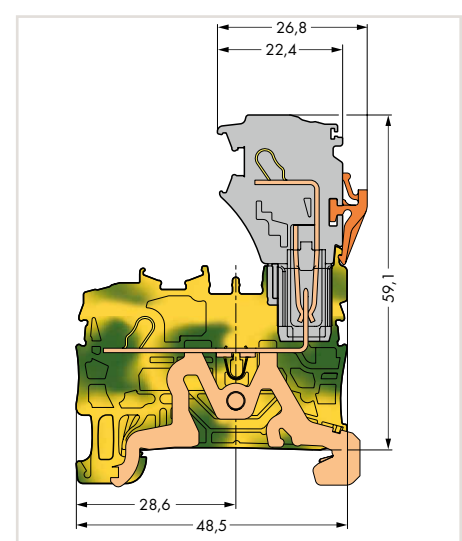
Item No.	Pack. Unit
2-conductor/2-pin carrier terminal block, suitable for Ex nA applications	
gray 2022-1401/999-953	50
blue 2022-1404/999-953	50
2-conductor/2-pin ground carrier terminal block, suitable for Ex nA applications	
green-yellow 2022-1407/999-953	50
<b>Item-Specific Accessories</b>	
End and intermediate plate, 1 mm thick	
orange 2022-1492	100 (4x25)
gray 2022-1491	100 (4x25)



- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst"; Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s" and 0.75 ... 2.5 mm<sup>2</sup> "insulated ferrule, 1.2 mm"
- ② 630 V = rated voltage for Ex nA applications (see Section 14)
- ③ See application notes for: Colored push-in type jumper bar, page 134 Staggered jumper, page 136 Push-in type wire jumper, page 138



Carrier terminal block



Ground carrier terminal block

630 V = rated voltage for use in Zone 2 hazardous areas, "nA" type of protection

**"n" refers to an ignition protection class in Zone 2:** This zone covers areas in which a dangerous, explosive atmosphere consisting of gases, vapors or dust is unlikely to exist and will only persist for a short period if it does.

**"A" means:** non-sparking (function modules without relays/switches)

**Ex marking:** "Ex" sign and extended item number ".../999 953" are printed on the side of both carrier terminal blocks and female plugs with Ex approval. Shorter locking lever (factory-mounted) makes accidental disconnection more difficult.

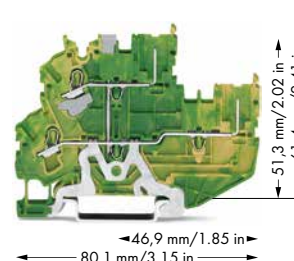
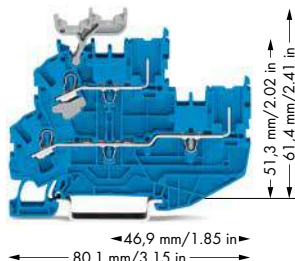
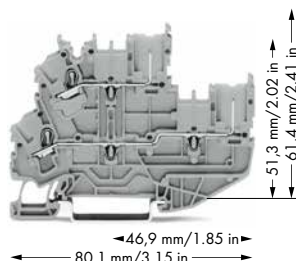
### X-COM®S-SYSTEM

## 1-Conductor/1-Pin Double-Deck Carrier Terminal Blocks for Ex nA Applications

### 2.5 (4) mm², 2022 Series















2

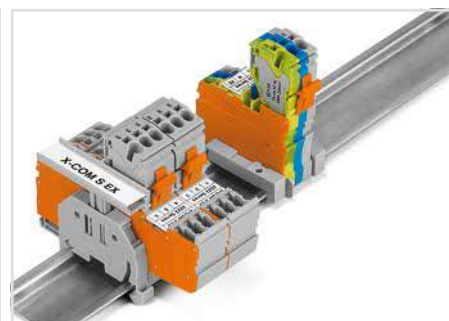
0.25 ... 2.5 (4) mm <sup>2</sup> ❶ 630 V ❷ I <sub>N</sub> 20 A ❸  Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ❶ 600 V, 20 A ❸	0.25 ... 2.5 (4) mm <sup>2</sup> ❶ 630 V ❷ I <sub>N</sub> 20 A ❸  Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ❶ 600 V, 20 A ❸	0.25 ... 2.5 (4) mm <sup>2</sup> ❶   22 ... 12 AWG  Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, without marker carrier, gray housing, suitable for Ex nA applications		1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, with marker carrier, blue housing, suitable for Ex nA applications		2-conductor/2-pin double-deck carrier terminal block, 2-conductor/2-pin ground conductor terminal block, without marker carrier, internally commoned, green-yellow housing, suitable for Ex nA applications	
○ L/L	2022-2201/999-953	50	● N/N	2022-2234/999-953	50
				● PE	2022-2207/999-953

- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ❷ 630 V = rated voltage for Ex nA applications  
(see Section 14)
- ❸ with double-deck vertical jumper 19 A
- ❹ See application notes  
Colored push-in type jumper bar, page 134  
Vertical jumper, page 139

2022 Series Accessories		Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)	
End and intermediate plate, 1 mm thick 	orange <b>2022-2292</b> 100 (4x25) gray <b>2022-2291</b> 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks 	yellow <b>2002-115</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> 	light gray <b>2002-171</b> 200 (8x25)	Double-deck marker carrier, pivoting 	gray <b>2002-121</b> 50 (2x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> 	dark gray <b>2002-172</b> 200 (8x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable 	plain <b>793-5501</b> 5
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 	2-way <b>2002-402</b> 200 (8x25) 3-way <b>2002-403</b> 200 (8x25) 4-way <b>2002-404</b> 200 (8x25) 5-way <b>2002-405</b> 100 (4x25) 6-way <b>2002-406</b> 100 (4x25) 7-way <b>2002-407</b> 100 (4x25) 8-way <b>2002-408</b> 100 (4x25) 9-way <b>2002-409</b> 100 (4x25) 10-way <b>2002-410</b> 100 (4x25)	WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable 	yellow <b>793-5501/000-002</b> red <b>793-5501/000-005</b> blue <b>793-5501/000-006</b> gray <b>793-5501/000-007</b> orange <b>793-5501/000-012</b> light green <b>793-5501/000-017</b> green <b>793-5501/000-023</b> violet <b>793-5501/000-024</b> 5
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 	from 1 to 3 <b>2002-433</b> 200 (8x25) from 1 to 4 <b>2002-434</b> 200 (8x25) from 1 to 5 <b>2002-435</b> 100 (4x25) from 1 to 6 <b>2002-436</b> 100 (4x25) from 1 to 7 <b>2002-437</b> 100 (4x25) from 1 to 8 <b>2002-438</b> 100 (4x25) from 1 to 9 <b>2002-439</b> 100 (4x25) from 1 to 10 <b>2002-440</b> 100 (4x25)	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable 	white <b>2009-115</b> 1
		Marking strip, plain, 11 mm wide, 50 m reel 	white <b>2009-110</b> 1
Double-deck vertical jumper, insulated, I <sub>N</sub> 24 A 	light gray <b>2002-492</b> 100 (4x25) orange <b>2002-492/000-012</b>		
Carrier with 6 coding pins, for coding female plugs 	orange <b>2022-100</b> 100 (4x25)		
Test pin, 1 mm Ø 	<b>859-500</b> 1		



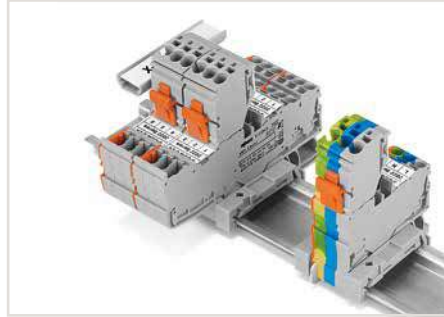
Group marking with height-adjustable group marker carrier (2009-163)

# X-COM®S-SYSTEM

## 1-Conductor Female Plugs for Ex nA Applications

2.5 (4) mm<sup>2</sup>, 2022 Series

0.25 ... 2.5 (4) mm <sup>2</sup> ①	22 ... 12 AWG
630 V ②	600 V, 20 A ③
I <sub>N</sub> 20 A	600 V, 20 A ③
Module width 5.2 mm / 0.205 inch	
10 ... 12 mm / 0.39 ... 0.47 inch	



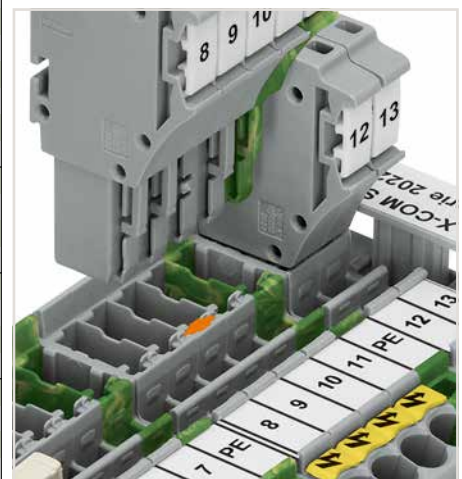
Each female plug is supplied with a locking lever.

- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st"; Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s" and 0.75 ... 2.5 mm<sup>2</sup> "insulated ferrule, 12 mm"
- ② 630 V = rated voltage for Ex nA applications (see Section 14)

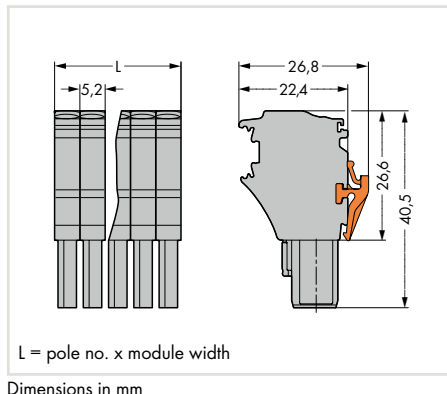
Pole No.	Item No.	Pack. Unit	Accessories
1-conductor female plug with shorter locking lever, suitable for Ex nA applications, for insertion into carrier terminal blocks, with coding fingers, gray			Appropriate marking systems: (see Section 13)
According to EN 61984, connectors without current interrupting capacity shall not be mated and unmated when live or under load.			Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>
○ 2	2022-102/999-953	200	light gray 2002-171 200 (8x25)
○ 3	2022-103/999-953	100	Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>
○ 4	2022-104/999-953	100	dark gray 2002-172 200 (8x25)
○ 5	2022-105/999-953	50	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks
○ 6	2022-106/999-953	50	yellow 2002-115 100 (4x25)
○ 7	2022-107/999-953	50	Carrier with 6 coding pins, for coding female plugs
○ 8	2022-108/999-953	50	orange 2002-100 100 (4x25)
			Strain relief plate, gray
			35 mm wide 734-326 100 (4x25)
			6 mm wide 734-327 100 (4x25)
			12.5 mm wide 734-328 100 (4x25)
			25 mm wide 734-329 100 (4x25)
			55 mm wide 734-430 50 (2x25)
			75 mm wide 734-431 50 (2x25)
			WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
			plain 793-5501 5
			WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable
			white 2009-115 1
			Marking strip, plain, 11 mm wide, 50 m reel
			white 2009-110 1



Coding a female plug: remove coding finger using a suitable tool.



Insert a coding pin (2022 100) into the corresponding location of the carrier terminal block.





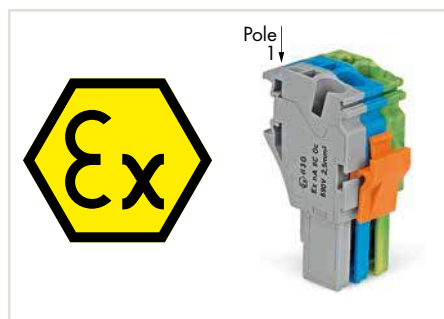
**X-COM®S-SYSTEM****Pre-Assembled 1-Conductor Female Plugs for Ex nA Applications**2.5 (4) mm<sup>2</sup>, 2022 Series

0.25 ... 2.5 (4) mm <sup>2</sup> ① 630 V ② I <sub>N</sub> 20 A  Module width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ② 600 V, 20 A ③	0.25 ... 2.5 (4) mm <sup>2</sup> ① 630 V ② I <sub>N</sub> 20 A  Module width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch	22 ... 12 AWG 600 V, 20 A ② 600 V, 20 A ③
---	---	---	---



- ① Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ② 630 V = rated voltage for Ex nA applications  
(see Section 14)








Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
1-conductor female plug with shorter locking lever, with ground base module (green-yellow), suitable for Ex nA applications, for insertion into carrier terminal blocks, with coding fingers			1-conductor female plug with shorter locking lever, with ground end module (green-yellow), suitable for Ex nA applications, for insertion into carrier terminal blocks, with coding fingers		
3	2022-103/000-038/999-953	100	3	2022-103/000-039/999-953	100
4	2022-104/000-038/999-953	100	4	2022-104/000-039/999-953	100
5	2022-105/000-038/999-953	50	5	2022-105/000-039/999-953	50
6	2022-106/000-038/999-953	50	6	2022-106/000-039/999-953	50

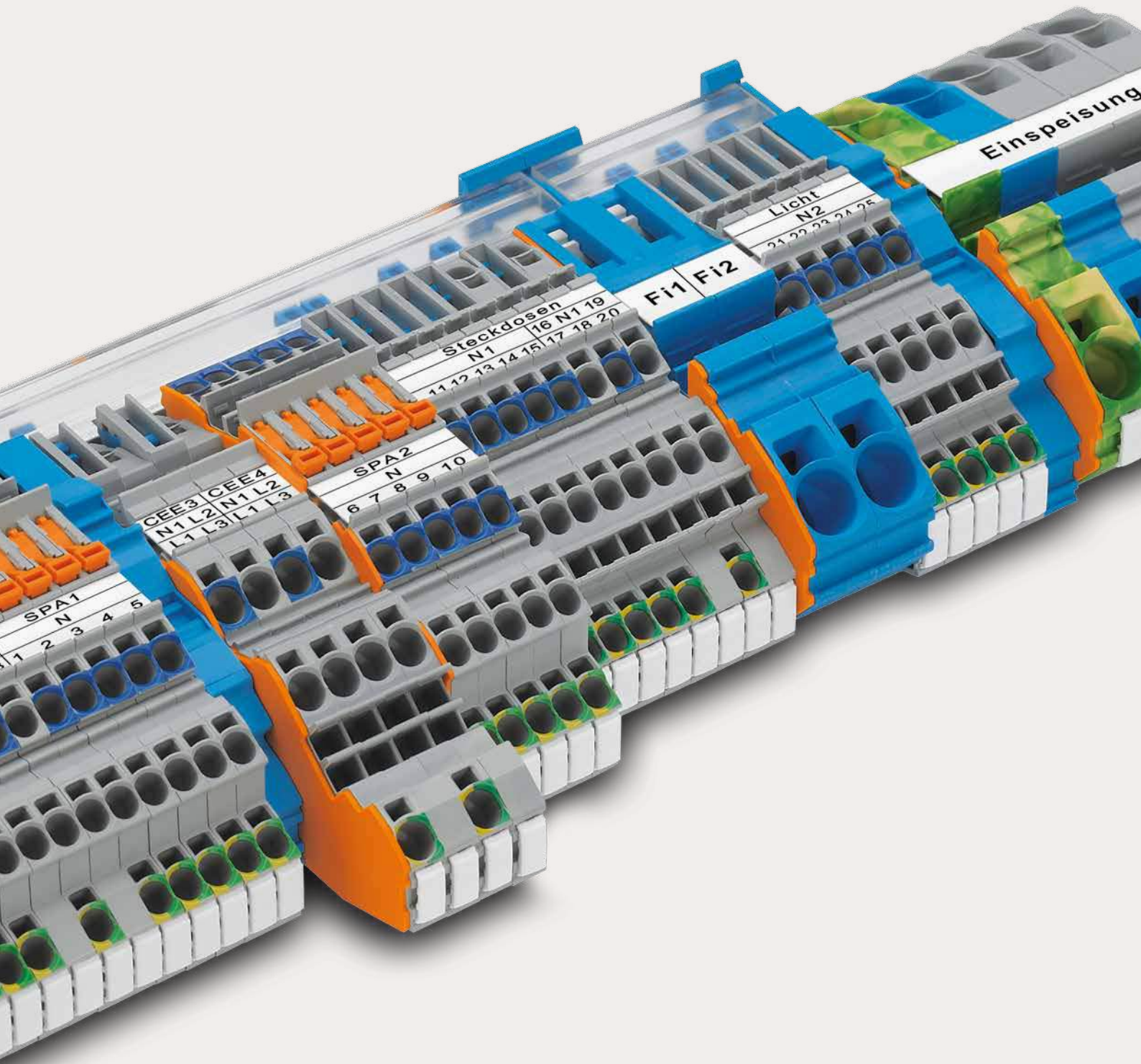


**Ex marking:**  
"Ex" sign and extended item number ".../999 953" are printed on the side of both carrier terminal blocks and female plugs with Ex approval.  
Shorter locking lever (factory-mounted) makes accidental disconnection more difficult.

**Accessories Female Plugs**




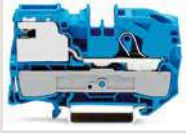

Appropriate marking systems: WMB/WMB Inline/Marking strips  
(see Section 13)

Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>  light gray <b>2002-171</b> 200 (8x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable  plain <b>793-5501</b> 5
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>  dark gray <b>2002-172</b> 200 (8x25)	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable  white <b>2009-115</b> 1
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  yellow <b>2002-115</b> 100 (4x25)	Marking strip, plain, 11 mm wide, 50 m reel  white <b>2009-110</b> 1
Strain relief plate, gray  35 mm wide <b>734-326</b> 100 (4x25) 6 mm wide <b>734-327</b> 100 (4x25) 12.5 mm wide <b>734-328</b> 100 (4x25) 25 mm wide <b>734-329</b> 100 (4x25) 55 mm wide <b>734-430</b> 50 (2x25) 75 mm wide <b>734-431</b> 50 (2x25)	



## Installation Rail-Mount Terminal Blocks, TOPJOB® S

## Installation Rail-Mount Terminal Blocks, TOPJOB® S with Push-in CAGE CLAMP® Connection Front-Entry Wiring

			Page
	<b>Multilevel Installation Terminal Blocks with N-Disconnect Slide Links</b> 0.25 ... 2.5 (4) mm <sup>2</sup> (22 ... 12 AWG)	2003 Series	188
	<b>Multilevel Installation Terminal Blocks with Internal N-Disconnection</b> 0.25 ... 2.5 (4) mm <sup>2</sup> (22 ... 12 AWG)	2003 Series	190
	<b>Multilevel Installation Terminal Blocks with N-Disconnect Slide Links</b> 0.5 ... 4 (6) mm <sup>2</sup> (20 ... 10 AWG)	2005 Series	194
	<b>N-Conductor and Power Distribution Disconnect Terminal Blocks</b> 0.5 ... 16 (25 "f-st") mm <sup>2</sup> (20 ... 4 AWG)	2002/2006/2016 Series	196
	<b>Distribution Supply Terminal Blocks</b> 0.5 ... 16 (25 "f-st") mm <sup>2</sup> (20 ... 4 AWG)	2016 Series	198

# TOPJOB® S Installation Rail-Mount Terminal Blocks

## Installation

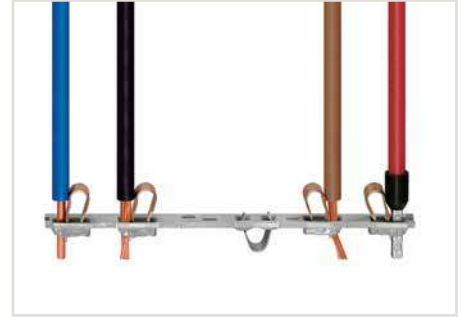
3



**Inserting conductors via push-in termination.**  
Solid conductors with cross-sections from either one size above, or up to two sizes below, the rated cross-section can be simply pushed in - no tools needed.



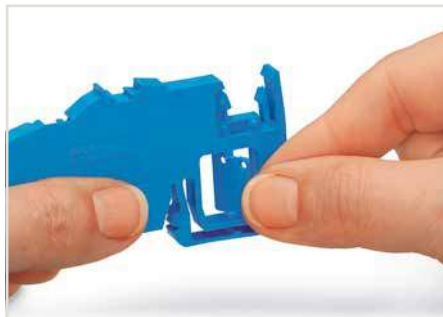
**Inserting a conductor via operating tool.**  
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® - just use an operating tool.



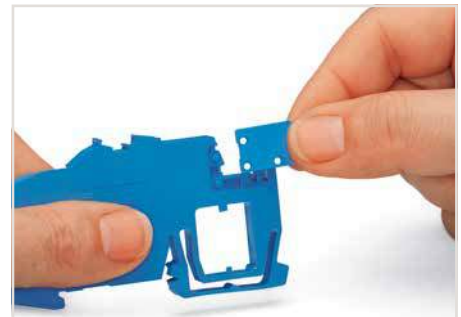
All conductor types at a glance



Mounting busbars on busbar carriers: Insert busbar ends onto large busbar carriers (2009-305) or onto supply terminal blocks with an integrated busbar carrier.



Removing the separator plate from the busbar carrier or from the N-disconnect terminal block.



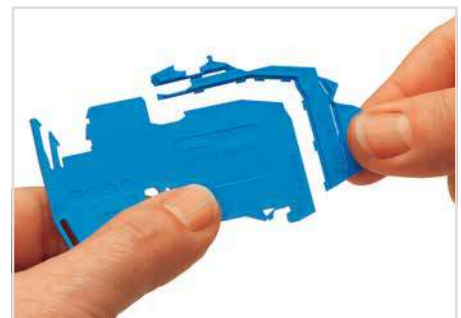
Inserting the separator plate into the busbar carrier to protect the N-busbar against accidental contact.



Inserting separator plate removed from N-disconnect terminal block.



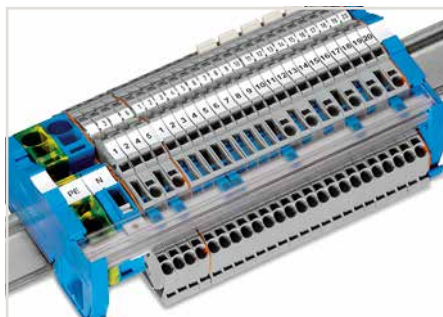
Touch-proof N-busbar via inserted separator plate



Perforations make it possible to fit the carrier to all TOPJOB® S Installation Rail-Mount Terminal Blocks using a single part.



The compact busbar carrier (1.5 mm thick), which is placed every 200 mm, provides additional busbar support for longer assemblies.



The busbar transparent cover (Item No. 777-303) protects the busbar against accidental contact and makes it easy to see which terminal blocks are connected to the busbar.



N-potential disconnection within a rail assembly via N-disconnect slide link



Push-in CAGE CLAMP® terminates the following copper conductors:  
solid



stranded



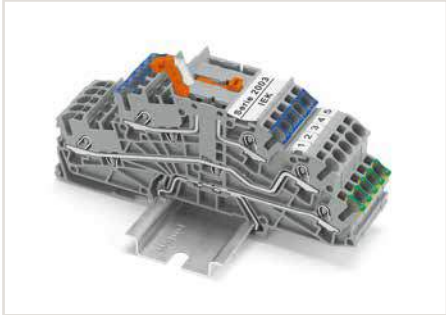
fine-stranded, also with tinned single strands

# TOPJOB® S

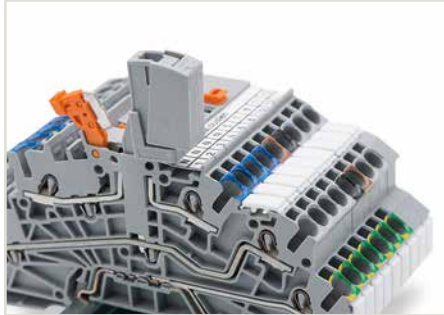
## Installation Rail-Mount Terminal Blocks

### Installation

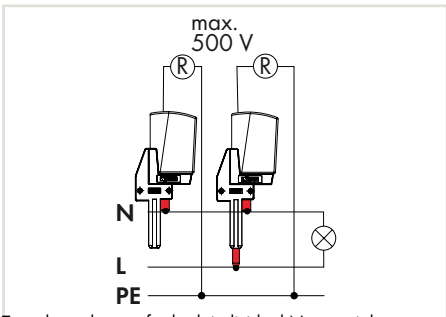
3



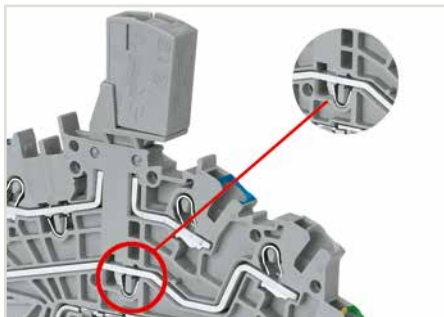
N-potential disconnection via N-knife disconnect within a terminal block assembly without a busbar.



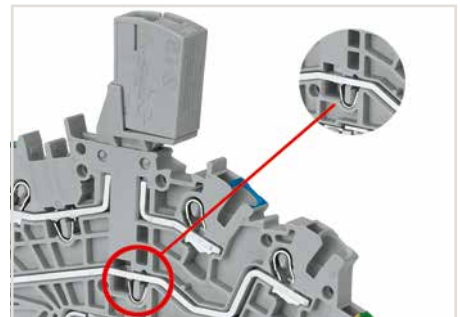
For multilevel installation terminal blocks with internal N-disconnection, test plug adapters can be inserted into the free vertical test slot when the N-potential is disconnected.



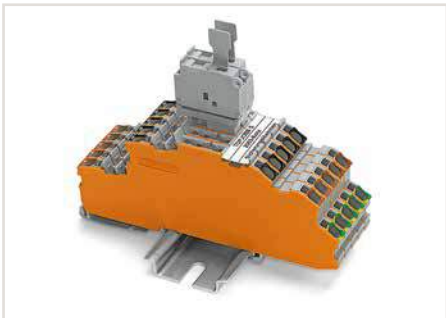
Test plug adapters for both individual N-potential measurement and insulation resistance measurement of the connected N- and L-potentials are available.



Multilevel installation terminal block fitted with an N/L-test plug adapter for quick and safe insulation resistance measurement of the connected N- and L-potentials



Multilevel installation terminal block fitted with an N-test plug adapter for insulation resistance measurement of the N-potential



Single-fuse plugs can be used in combination with 1 mm thick end and intermediate plates on carrier terminal blocks without N-knife disconnect.



Double-fuse plugs with (5 x 25) mm miniature metric fuses can be used on carrier terminal blocks without N-knife disconnect in standard terminal block width.



fine-stranded, tip-bonded





fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

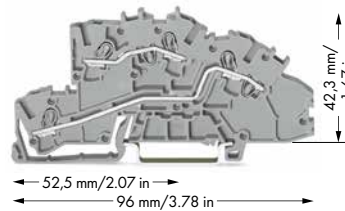
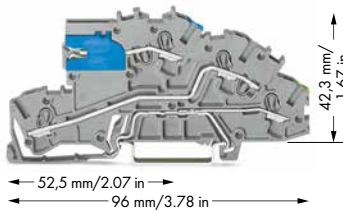
# TOPJOB® S Multilevel Installation Terminal Blocks with N-Disconnect Slide Links

2.5 (4) mm<sup>2</sup>, 2003 Series

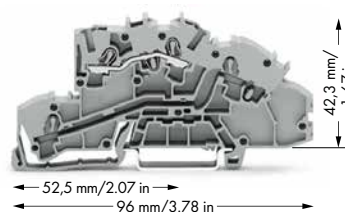
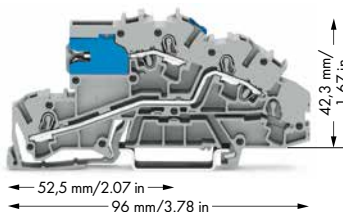
0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG 250 V/4 kV/3; 32 A (32 A) ② ③ 400 V/6 kV/3; 32 A (32 A) ② ④  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch	0.25 ... 2.5 (4) mm <sup>2</sup> ①   22 ... 12 AWG 400 V/6 kV/3 ② I <sub>N</sub> 32 A  Terminal block width 5.2 mm / 0.205 inch  10 ... 12 mm / 0.39 ... 0.47 inch
--	--

For the construction and operation of power installations in fire-prone, hazardous locations or public buildings – such as conference centers, stores, hospitals, schools, theaters or hotels – the DIN VDE 0100-710 or DIN VDE 0100-718 standards shall be observed. DIN VDE 0100-482 shall also be observed for fire-prone, hazardous locations. These VDE regulations mandate that every neutral conductor must be provided with a disconnection device so, e.g., insulation resistance measurement is possible for every circuit without disconnecting the N-conductor. WAGO N-disconnect terminal blocks meet this requirement.








3









Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
Multilevel installation terminal block, with N-disconnect slide link, gray		Multilevel installation terminal block, gray		
○ NT/L/PE <b>2003-7641</b>	50	○ L/L <b>2003-7642</b>	50	Straight busbar, tin-plated, 1000 mm long, copper (10 x 3) mm I <sub>N</sub> 140 A <b>210-133</b> 1
		○ N/L <b>2003-7649</b>	50	

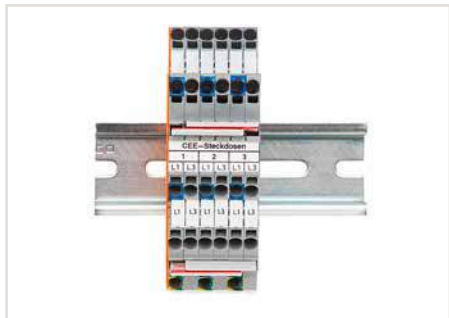


Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
Multilevel installation terminal block, with N-disconnect slide link, gray		Multilevel installation terminal block, gray		
○ NT/L <b>2003-7640</b>	50	○ L <b>2003-7650</b>	50	Connector, for N-busbar, 2.5 ... 35 mm <sup>2</sup>  unplated <b>209-105</b> 50
○ LT/L <b>2003-7659</b>	50	○ N <b>2003-7651</b>	50	

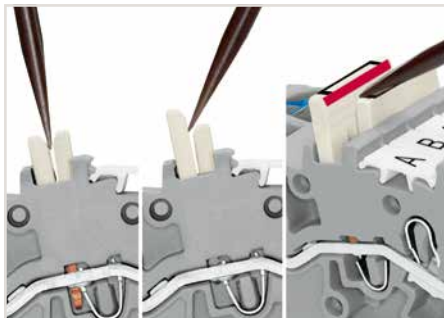
Multilevel installation terminal block, gray				N-supply terminal block, I <sub>N</sub> 76 A, 16 mm <sup>2</sup> , 12 mm wide  blue <b>2016-7714</b> 20
○ N/L/PE <b>2003-7646</b>	50			Ground supply terminal block, 16 mm <sup>2</sup> , 12 mm wide  green-yellow <b>2016-7607</b> 20
○ L/L/PE <b>2003-7645</b>	50			Connector, for N-busbar, with blue cover, 2.5 ... 16 mm <sup>2</sup>  blue <b>210-281</b> 100 (2x50)
				Connector, for N-busbar, 2.5 ... 35 mm <sup>2</sup>  unplated <b>209-105</b> 50
				Lock-out, prevents reclosing of slide link, snap-on type  orange <b>2003-7300</b> 100 (4x25)
				Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>  light gray <b>2002-171</b> 200 (8x25)
				Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>  dark gray <b>2002-172</b> 200 (8x25)

2003 Series Accessories				
Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)				
Busbar carrier, not suitable as end stop, snaps onto DIN-35 rail, 1.5 mm thick  blue <b>2009-304</b> 100 (4x25)	Busbar carrier, can replace end bracket, with detachable separator plate, snaps onto DIN-35 rail, 7.5 mm thick  blue <b>2009-305</b> 25	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V  red <b>210-136</b> 50		
		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  yellow <b>210-137</b> 50		
End and intermediate plate, 0.8 mm thick  orange <b>2003-7692</b> 100 (4x25)	Busbar cover, 1000 mm long  transparent <b>777-303</b> 1			

# TOPJOB® S Multilevel Installation Terminal Block Accessories









Commoning two potentials in one single jumper slot via extremely slim staggered jumpers.

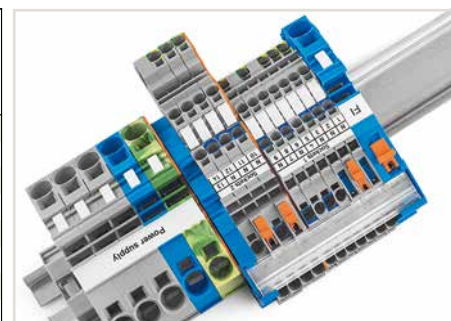


Insert the operating tool between the staggered jumpers, then lift up the jumper.

- 1 Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrules, 12 mm"
- 2 250 V/  
400 V = rated voltage  
4 kV/  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- 3 250 V/4 kV potential - ground
- 4 400 V/6 kV potential - potential
- 5 See application notes for:  
Colored push-in type jumper bar, page 134  
Push-in type wire jumper, page 138  
Staggered jumper, page 136  
Adjacent jumper for continuous commoning, page 137

3

Accessories Multilevel Installation Terminal Block																																																													
Push-in type jumper bars and staggered jumpers, see 2002 Series																																																													
<b>5</b>  Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray	<b>5</b>  Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray																																																												
<table border="1"> <tr><td>2-way</td><td><b>2002-402</b></td><td>200 (8x25)</td></tr> <tr><td>3-way</td><td><b>2002-403</b></td><td>200 (8x25)</td></tr> <tr><td>4-way</td><td><b>2002-404</b></td><td>200 (8x25)</td></tr> <tr><td>5-way</td><td><b>2002-405</b></td><td>100 (4x25)</td></tr> <tr><td>6-way</td><td><b>2002-406</b></td><td>100 (4x25)</td></tr> <tr><td>7-way</td><td><b>2002-407</b></td><td>100 (4x25)</td></tr> <tr><td>8-way</td><td><b>2002-408</b></td><td>100 (4x25)</td></tr> <tr><td>9-way</td><td><b>2002-409</b></td><td>100 (4x25)</td></tr> <tr><td>10-way</td><td><b>2002-410</b></td><td>100 (4x25)</td></tr> </table>	2-way	<b>2002-402</b>	200 (8x25)	3-way	<b>2002-403</b>	200 (8x25)	4-way	<b>2002-404</b>	200 (8x25)	5-way	<b>2002-405</b>	100 (4x25)	6-way	<b>2002-406</b>	100 (4x25)	7-way	<b>2002-407</b>	100 (4x25)	8-way	<b>2002-408</b>	100 (4x25)	9-way	<b>2002-409</b>	100 (4x25)	10-way	<b>2002-410</b>	100 (4x25)	<table border="1"> <tr><td>2-way</td><td><b>2002-472</b></td><td>100 (4x25)</td></tr> <tr><td>3-way</td><td><b>2002-473</b></td><td>100 (4x25)</td></tr> <tr><td>4-way</td><td><b>2002-474</b></td><td>100 (4x25)</td></tr> <tr><td>5-way</td><td><b>2002-475</b></td><td>50 (2x25)</td></tr> <tr><td>6-way</td><td><b>2002-476</b></td><td>50 (2x25)</td></tr> <tr><td>7-way</td><td><b>2002-477</b></td><td>50 (2x25)</td></tr> <tr><td>8-way</td><td><b>2002-478</b></td><td>50 (2x25)</td></tr> <tr><td>9-way</td><td><b>2002-479</b></td><td>50 (2x25)</td></tr> <tr><td>10-way</td><td><b>2002-480</b></td><td>50 (2x25)</td></tr> <tr><td>11-way</td><td><b>2002-481</b></td><td>50 (2x25)</td></tr> <tr><td>12-way</td><td><b>2002-482</b></td><td>50 (2x25)</td></tr> </table>	2-way	<b>2002-472</b>	100 (4x25)	3-way	<b>2002-473</b>	100 (4x25)	4-way	<b>2002-474</b>	100 (4x25)	5-way	<b>2002-475</b>	50 (2x25)	6-way	<b>2002-476</b>	50 (2x25)	7-way	<b>2002-477</b>	50 (2x25)	8-way	<b>2002-478</b>	50 (2x25)	9-way	<b>2002-479</b>	50 (2x25)	10-way	<b>2002-480</b>	50 (2x25)	11-way	<b>2002-481</b>	50 (2x25)	12-way	<b>2002-482</b>	50 (2x25)
2-way	<b>2002-402</b>	200 (8x25)																																																											
3-way	<b>2002-403</b>	200 (8x25)																																																											
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6-way	<b>2002-406</b>	100 (4x25)																																																											
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10-way	<b>2002-480</b>	50 (2x25)																																																											
11-way	<b>2002-481</b>	50 (2x25)																																																											
12-way	<b>2002-482</b>	50 (2x25)																																																											
<b>5</b>  Push-in type wire jumper, insulated, I <sub>N</sub> 16 A, wire size 1.5 mm <sup>2</sup>	<b>5</b>  Customized staggered jumper, insulated, with contact lugs broken off at the factory and circuit printing, I <sub>N</sub> 25 A, light gray																																																												
<table border="1"> <tr><td>from 1 to 3</td><td><b>2002-433</b></td><td>200 (8x25)</td></tr> <tr><td>from 1 to 4</td><td><b>2002-434</b></td><td>200 (8x25)</td></tr> <tr><td>from 1 to 5</td><td><b>2002-435</b></td><td>100 (4x25)</td></tr> <tr><td>from 1 to 6</td><td><b>2002-436</b></td><td>100 (4x25)</td></tr> <tr><td>from 1 to 7</td><td><b>2002-437</b></td><td>100 (4x25)</td></tr> <tr><td>from 1 to 8</td><td><b>2002-438</b></td><td>100 (4x25)</td></tr> <tr><td>from 1 to 9</td><td><b>2002-439</b></td><td>100 (4x25)</td></tr> <tr><td>from 1 to 10</td><td><b>2002-440</b></td><td>100 (4x25)</td></tr> </table>	from 1 to 3	<b>2002-433</b>	200 (8x25)	from 1 to 4	<b>2002-434</b>	200 (8x25)	from 1 to 5	<b>2002-435</b>	100 (4x25)	from 1 to 6	<b>2002-436</b>	100 (4x25)	from 1 to 7	<b>2002-437</b>	100 (4x25)	from 1 to 8	<b>2002-438</b>	100 (4x25)	from 1 to 9	<b>2002-439</b>	100 (4x25)	from 1 to 10	<b>2002-440</b>	100 (4x25)	<table border="1"> <tr><td>1-3</td><td><b>2002-473/011-000</b></td><td>100 (4x25)</td></tr> <tr><td>1-3-5</td><td><b>2002-475/011-000</b></td><td>50 (2x25)</td></tr> <tr><td>1-3-5-7</td><td><b>2002-477/011-000</b></td><td>50 (2x25)</td></tr> <tr><td>1-3-5-7-9</td><td><b>2002-479/011-000</b></td><td>50 (2x25)</td></tr> <tr><td>1-3-5-7-9-11</td><td><b>2002-481/011-000</b></td><td>50 (2x25)</td></tr> </table>	1-3	<b>2002-473/011-000</b>	100 (4x25)	1-3-5	<b>2002-475/011-000</b>	50 (2x25)	1-3-5-7	<b>2002-477/011-000</b>	50 (2x25)	1-3-5-7-9	<b>2002-479/011-000</b>	50 (2x25)	1-3-5-7-9-11	<b>2002-481/011-000</b>	50 (2x25)																					
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1-3	<b>2002-473/011-000</b>	100 (4x25)																																																											
1-3-5	<b>2002-475/011-000</b>	50 (2x25)																																																											
1-3-5-7	<b>2002-477/011-000</b>	50 (2x25)																																																											
1-3-5-7-9	<b>2002-479/011-000</b>	50 (2x25)																																																											
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<b>5</b>  Push-in type wire jumper, insulated, I <sub>N</sub> 16 A, wire size 1.5 mm <sup>2</sup>	<b>5</b>  Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray																																																												
<table border="1"> <tr><td>L = 60 mm</td><td><b>2009-412</b></td><td>100 (10x10)</td></tr> <tr><td>L = 110 mm</td><td><b>2009-414</b></td><td>100 (10x10)</td></tr> <tr><td>L = 250 mm</td><td><b>2009-416</b></td><td>100 (10x10)</td></tr> </table>	L = 60 mm	<b>2009-412</b>	100 (10x10)	L = 110 mm	<b>2009-414</b>	100 (10x10)	L = 250 mm	<b>2009-416</b>	100 (10x10)	<table border="1"> <tr><td>2-way</td><td><b>2002-400</b></td><td>100 (4x25)</td></tr> </table>	2-way	<b>2002-400</b>	100 (4x25)																																																
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L = 110 mm	<b>2009-414</b>	100 (10x10)																																																											
L = 250 mm	<b>2009-416</b>	100 (10x10)																																																											
2-way	<b>2002-400</b>	100 (4x25)																																																											
Test plug adapter, for 4 mm Ø test plug gray <b>2009-174</b> 100 (4x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5																																																												
Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow <b>215-111</b> 50	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable white <b>2009-115</b> 1																																																												
Testing tap, for max. 2.5 mm <sup>2</sup> gray <b>2009-182</b> 100 (4x25)	Marking strip, plain, 11 mm wide, 50 m reel white <b>2009-110</b> 1																																																												
Operating tool, 3.5 mm and 5.5 mm blade width, for TOPJOB® S installation terminal blocks <b>2009-310</b> 1	Operating tool, 3.5 mm and 2.5 mm blade width, for TOPJOB® S installation terminal blocks <b>2009-309</b> 1																																																												



### TOPJOB® S – Terminal Blocks for Every Application

- Push-in termination of solid conductors in small distribution boards saves time and money.
- Operating errors can be prevented as all TOPJOB® S Terminal Blocks for building installations are equipped with push-in connection technology.
- The use of standard accessories reduces order-processing and warehousing costs.
- The busbar position is the same, making TOPJOB® S Installation Terminal Blocks compatible with standard TOPJOB® Installation Terminal Blocks.

#### Application note:

N-disconnect slide links, used in installation terminal blocks, consist of switch contacts that are opened and then closed as part of the regular circuit testing. To guarantee a reliable connection, a corrosion-resistant contact area is required on the N-busbar.

Historically, uninsulated copper busbars, that have been cleaned/stripped of any possible corrosion prior to install, can be used in dry, pollution-free locations.

According to DIN VDE 0100-520 (VDE 0100, Part 520), installation equipment exposed to contamination or corrosive substances (e.g., water) that promote corrosion or deterioration, must be protected or made of a corrosion- or wear-resistant material. In these cases, tinned copper busbars guarantee a reliable connection.

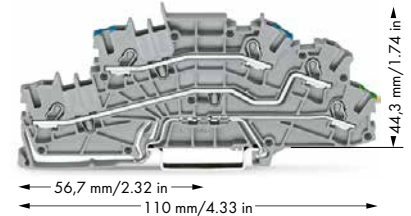
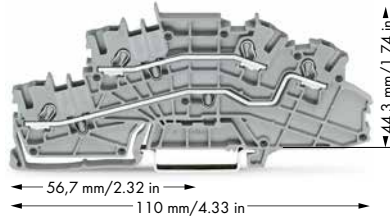
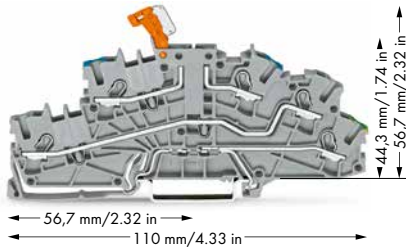
WAGO only offers tinned copper busbars.



# TOPJOB® S Multilevel Installation Terminal Blocks with Internal N-Disconnection

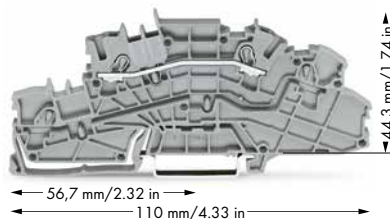
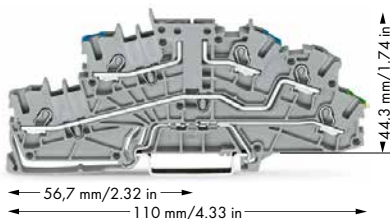
## 2.5 (4) mm<sup>2</sup>, 2003 Series



<p>0.25 ... 2.5 (4) mm<sup>2</sup> ①   22 ... 12 AWG 250 V/4 kV/3; 20 A (25 A) ② ③ 400 V/6 kV/3; 20 A (25 A) ② ④</p> <p>Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch</p>	<p>0.25 ... 2.5 (4) mm<sup>2</sup> ①   22 ... 12 AWG 400 V/6 kV/3 ② I<sub>N</sub> 24 A (28 A)</p> <p>Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch</p>	<p>0.25 ... 2.5 (4) mm<sup>2</sup> ①   22 ... 12 AWG 250 V/4 kV/3; 24 A (28 A) ② ③ 400 V/6 kV/3; 24 A (28 A) ② ④</p> <p>Terminal block width 5.2 mm / 0.205 inch 10 ... 12 mm / 0.39 ... 0.47 inch</p>
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3



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Multilevel installation terminal block, with pivoting knife disconnect, gray		Multilevel installation terminal block, gray		Multilevel installation terminal block, gray	
○ NTi/L/PE <b>2003-6641</b>	50	○ L/L <b>2003-6642</b>	50	○ N/L/PE <b>2003-6646</b>	50
○ LTi/L/PE <b>2003-6644</b>	50	○ N/L <b>2003-6649</b>	50	○ L/L/PE <b>2003-6645</b>	50
<b>Item-Specific Accessories</b>					
Test plug adapter N/L, for vertical test slot, gray					
	2-pole <b>2003-499</b>	100 (4x25)			
Test plug adapter N, for vertical test slot, gray					
	1-pole <b>2003-500</b>	100 (4x25)			

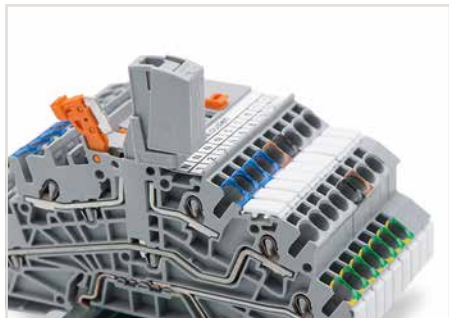


Item No.	Pack. Unit	Item No.	Pack. Unit
Multilevel installation terminal block, carrier terminal block without knife disconnect, gray, I <sub>N</sub> 10 A Maximum current depends on accessories used.		Multilevel installation terminal block, gray	
○ N/L/PE <b>2003-6640</b>	50	○ L <b>2003-6650</b>	50
Black upper-deck, brown middle-deck, green-yellow lower-deck printing		○ N <b>2003-6651</b>	50
○ P2/P1/PE <b>2003-6643</b>	50		
Brown upper-deck, black middle-deck, green-yellow lower-deck printing			
○ P1/P2/PE <b>2003-6660</b>	50		
<b>Item-Specific Accessories</b>			
Fuse plug with pull-tab, for (5 x 20) mm miniature metric fuses			
	Electrical ratings are given by the fuse. gray <b>2004-911</b>	50	
End and intermediate plate, only for use with fuse plugs, 1 mm thick			
	orange <b>2003-6693</b>	100 (4x25)	

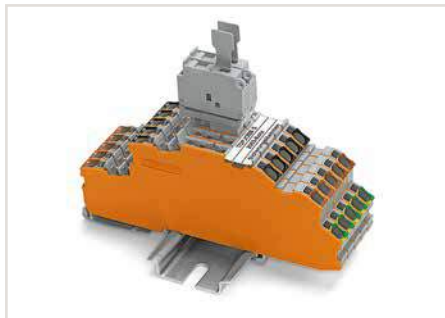


# TOPJOB® S

## Multilevel Installation Terminal Block Accessories



For multilevel installation terminal blocks with internal N-disconnection, test plug adapters can be inserted into the free vertical test slot when the N-potential is disconnected.



















Single-fuse plugs can be used in combination with 1 mm thick end and intermediate plates on carrier terminal blocks without N-knife disconnect.

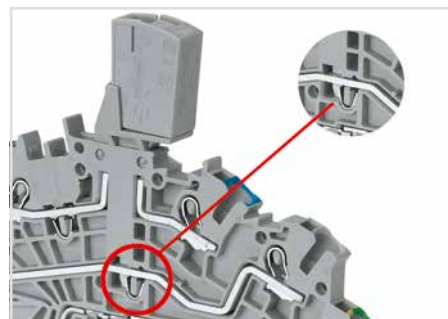
- 1 Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + fst";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrules, 12 mm"
- 2 250 V/  
400 V = rated voltage  
4 kV/  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- 3 250 V/4 kV potential - ground
- 4 400 V/6 kV potential - potential
- 5 See application notes for:  
Colored push-in type jumper bar, page 134  
Adjacent jumper for continuous commoning, page 137  
Staggered jumper, page 136  
Push-in type wire jumper, page 138

3

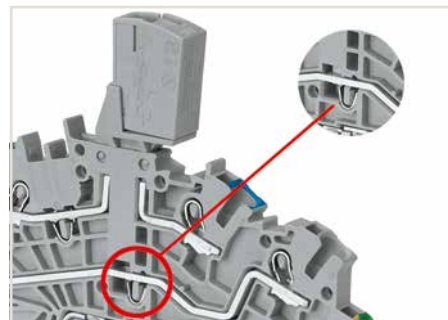
### Accessories Multilevel Installation Terminal Block

Push-in type jumper bars and staggered jumpers, see 2002 Series

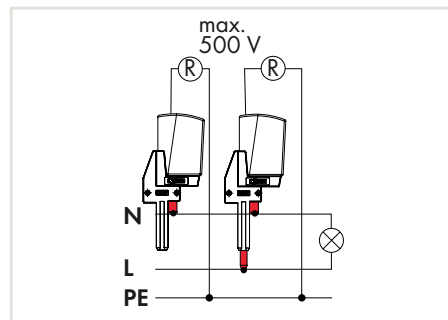
End and intermediate plate, for use without fuse plug, 0.8 mm thick 	Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> 
orange <b>2003-6692</b> 100 (4x25)	light gray <b>2002-171</b> 200 (8x25)
Busbar carrier, not suitable as end stop, snaps onto DIN-35 rail, 1.5 mm thick 	Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> 
blue <b>2009-304</b> 100 (4x25)	dark gray <b>2002-172</b> 200 (8x25)
Busbar carrier, can replace end bracket, with detachable separator plate, snaps onto DIN-35 rail, 7.5 mm thick 	Staggered jumper, insulated, I <sub>N</sub> 25 A, light gray 
blue <b>2009-305</b>	5
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 	2-way <b>2002-472</b> 100 (4x25)
4	3-way <b>2002-473</b> 100 (4x25)
2-way <b>2002-402</b> 200 (8x25)	4-way <b>2002-474</b> 100 (4x25)
3-way <b>2002-403</b> 200 (8x25)	5-way <b>2002-475</b> 50 (2x25)
4-way <b>2002-404</b> 200 (8x25)	6-way <b>2002-476</b> 50 (2x25)
5-way <b>2002-405</b> 100 (4x25)	7-way <b>2002-477</b> 50 (2x25)
6-way <b>2002-406</b> 100 (4x25)	8-way <b>2002-478</b> 50 (2x25)
7-way <b>2002-407</b> 100 (4x25)	9-way <b>2002-479</b> 50 (2x25)
8-way <b>2002-408</b> 100 (4x25)	10-way <b>2002-480</b> 50 (2x25)
9-way <b>2002-409</b> 100 (4x25)	11-way <b>2002-481</b> 50 (2x25)
10-way <b>2002-410</b> 100 (4x25)	12-way <b>2002-482</b> 50 (2x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 25 A, light gray 	Push-in type wire jumper, insulated, I <sub>N</sub> 16 A, wire size 1.5 mm <sup>2</sup> 
from 1 to 3 <b>2002-433</b> 200 (8x25)	L = 60 mm <b>2009-412</b> 100 (10x10)
from 1 to 4 <b>2002-434</b> 200 (8x25)	L = 110 mm <b>2009-414</b> 100 (10x10)
from 1 to 5 <b>2002-435</b> 100 (4x25)	L = 250 mm <b>2009-416</b> 100 (10x10)
from 1 to 6 <b>2002-436</b> 100 (4x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable 
from 1 to 7 <b>2002-437</b> 100 (4x25)	plain <b>793-5501</b> 5
from 1 to 8 <b>2002-438</b> 100 (4x25)	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable 
from 1 to 9 <b>2002-439</b> 100 (4x25)	white <b>2009-115</b> 1
from 1 to 10 <b>2002-440</b> 100 (4x25)	Marking strip, plain, 11 mm wide, 50 m reel 
Adjacent jumper for continuous commoning, insulated, I <sub>N</sub> 25 A, light gray 	white <b>2009-110</b> 1
5	Operating tool, 3.5 mm and 5.5 mm blade width, for TOPJOB® S installation terminal blocks 
2-way <b>2002-400</b> 100 (4x25)	Operating tool, 3.5 mm and 2.5 mm blade width, for TOPJOB® S installation terminal blocks 
Operating tool, 3.5 mm and 2.5 mm blade width, for TOPJOB® S installation terminal blocks 	<b>2009-309</b> 1
	<b>2009-310</b> 1



Multilevel installation terminal block fitted with an N/L-test plug adapter for quick and safe insulation resistance measurement of the connected N- and L-potentials



Multilevel installation terminal block fitted with an N-test plug adapter for insulation resistance measurement of the N-potential



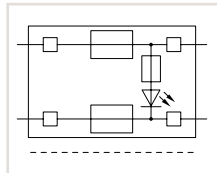
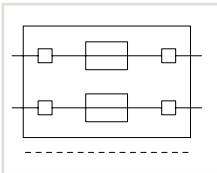
# TOPJOB® S Double-Fuse Plugs (2003 Series) on Carrier Terminal Blocks (2002 and 2003 Series)

<p><b>Double fuse plug for (5 x 25) mm miniature metric fuse</b></p> <p>250 V / I<sub>N</sub> 6.3 A Plug width 10.4 mm / 0.409 inch</p>	<p><b>Double fuse plug for (5 x 25) mm miniature metric fuse</b></p> <p>250 V / I<sub>N</sub> 6.3 A Plug width 10.4 mm / 0.409 inch</p>
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- ❶ Length of 2002-1661: 66.5 mm / 2.62 inch  
2-conductor carrier terminal block
- ❷ Length of 2002-1761: 76.8 mm / 3.02 inch  
3-conductor carrier terminal block
- ❸ Length of 2002-1861: 87.5 mm / 3.45 inch  
4-conductor carrier terminal block
- ❹ Length of 2002-1961: 72.9 mm / 2.87 inch  
2-conductor carrier terminal block with additional jumper position
- ❺ Length of 2002-2961: 108 mm / 4.25 inch  
Double-deck carrier terminal block
- ❻ Length of 2003-6640: 110 mm / 4.33 inch  
Multilevel installation terminal block



### Accessories

Item No.	Pack. Unit	Item No.	Pack. Unit
Double-fuse plug, for (5 x 20) mm miniature metric fuse, 10.4 mm wide Electrical ratings are given by the fuse.		Double-fuse plug, for (5 x 20) mm miniature metric fuse, with LED, gray Electrical ratings are given by the fuse and blown fuse indication. LED 0.25 mA	
○ gray <b>2003-911</b>	25	○ 230 V <b>2003-911/1000-923</b>	25

Multilevel installation terminal block, gray ❻ 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch N/L/PE <b>2003-6640</b> 50
Multilevel installation terminal block, gray 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch P2/P1/PE <b>2003-6643</b> 50
Multilevel installation terminal block, gray 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch P1/P2/PE <b>2003-6660</b> 50
End and intermediate plate, 1 mm thick orange <b>2003-6692</b> 100 (4x25)
End and intermediate plate, 1 mm thick, only for use with double-fuse plugs orange <b>2003-6694</b> 100 (4x25)

### Accessories

Appropriate marking systems: WMB/Marking strips  
(see Section 13)

❶ 2-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1661</b> 50	❷ 2-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1961</b> 50	End plate for fuse terminal blocks, 2 mm thick orange <b>2002-992</b> 100 (4x25) gray <b>2002-991</b> 100 (4x25)
End and intermediate plate, 1 mm thick orange <b>2002-1692</b> 100 (4x25) gray <b>2002-1691</b> 100 (4x25)	End and intermediate plate, 1 mm thick orange <b>2002-1992</b> 100 (4x25) gray <b>2002-1991</b> 100 (4x25)	Shorting link, (5 x 20) mm, allows the fuse plug to be used as a disconnect plug I <sub>N</sub> 6.3 A <b>281-503</b> 250 (10x25)
❸ 3-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1761</b> 50	❹ Double-deck carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch L/L <b>2002-2961</b> 50	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5
End and intermediate plate, 1 mm thick orange <b>2002-1792</b> 100 (4x25) gray <b>2002-1791</b> 100 (4x25)	Double-deck carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch L/N <b>2002-2963</b> 50	WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable yellow <b>793-5501/000-002</b> red <b>793-5501/000-005</b> blue <b>793-5501/000-006</b> gray <b>793-5501/000-007</b> orange <b>793-5501/000-012</b> light green <b>793-5501/000-017</b> green <b>793-5501/000-023</b> violet <b>793-5501/000-024</b>
❹ 4-conductor carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch gray <b>2002-1861</b> 50	Double-deck carrier terminal block, 0.25 ... 2.5 (4) mm <sup>2</sup> / 22 ... 12 AWG Terminal block width 5.2 mm / 0.205 inch L/L <b>2002-2941</b> 50	End and intermediate plate, 1 mm thick orange <b>2002-2992</b> 100 (4x25) gray <b>2002-2991</b> 100 (4x25)
End and intermediate plate, 1 mm thick orange <b>2002-1892</b> 100 (4x25) gray <b>2002-1891</b> 100 (4x25)	End and intermediate plate, 1 mm thick orange <b>2002-2992</b> 100 (4x25) gray <b>2002-2991</b> 100 (4x25)	



Double-fuse plugs with (5 x 25) mm miniature metric fuses can be used on carrier terminal blocks without N-knife disconnect in standard terminal block width.

**Miniature metric fuses 5 x 20**



Series Item No.	Overload and short circuit protection		Short circuit protection only	
	Individual argmt.	Group argmt.	Individual argmt.	Group argmt.
Fuse terminal blocks				
2003-911				
2003-911/.....	1.6 W	1.6 W	2.5 W	2.5 W

When selecting miniature metric fuses, make sure that the maximum power loss listed above is not exceeded. The power loss is determined according to IEC or EN 60947-7-3/VDE 0611-6 at 23 °C. The temperature rise of the terminal blocks must be checked according to their application and mounting. Higher ambient temperatures place additional strain on fuse cartridges. Therefore, in such applications, the rated current must be reduced if necessary. More details are available from the fuse manufacturers.

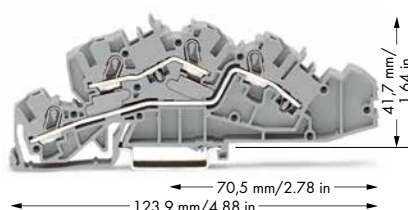
# TOPJOB® S


## Multilevel Installation Terminal Blocks with N-Disconnect Slide Links

### 4 (6) mm<sup>2</sup>, 2005 Series



0.5 ... 4 (6) mm <sup>2</sup> ①   20 ... 10 AWG 250 V/4 kV/3; 36 A (36 A) ② ③ 400 V/6 kV/3; 36 A (36 A) ② ④ Terminal block width 6.2 mm / 0.244 inch  11 ... 13 mm / 0.43 ... 0.51 inch	0.5 ... 4 (6) mm <sup>2</sup> ①   20 ... 10 AWG 400 V/6 kV/3 ② I <sub>N</sub> 36 A Terminal block width 6.2 mm / 0.244 inch  11 ... 13 mm / 0.43 ... 0.51 inch
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3



Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
Multilevel installation terminal block, with N-disconnect slide link, gray		Multilevel installation terminal block, gray		
○ NT/L/PE <b>2005-7641</b>	50	○ L/L <b>2005-7642</b>	50	N-supply terminal block, I <sub>N</sub> 76 A, 16 mm <sup>2</sup> , 12 mm wide
		○ N/L <b>2005-7649</b>	50	 blue <b>2016-7714</b> 20

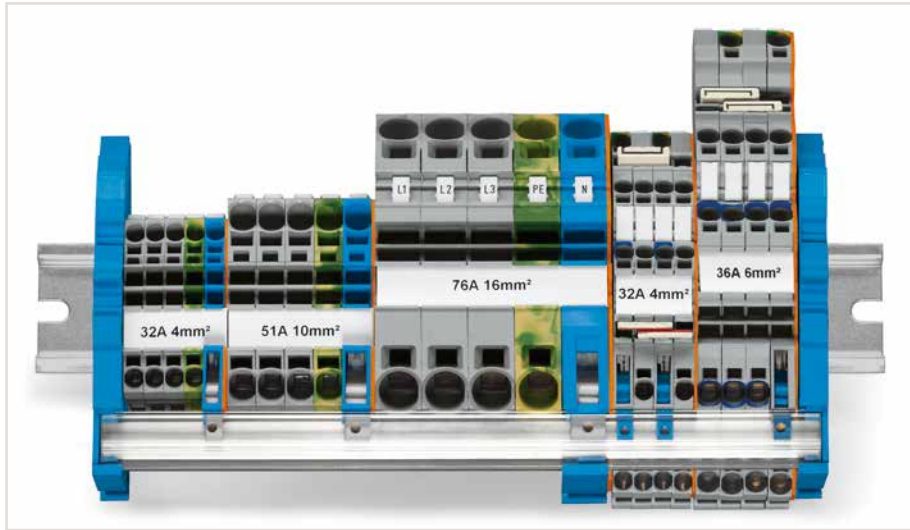


Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
Multilevel installation terminal block, gray				Ground supply terminal block, 16 mm <sup>2</sup> , 12 mm wide
○ N/L/PE <b>2005-7646</b>	50			 green-yellow <b>2016-7607</b> 20
Multilevel installation terminal block, gray				Connector, for N-busbar, with blue cover, 2.5 ... 16 mm <sup>2</sup>
○ L/L/PE <b>2005-7645</b>	50			 blue <b>210-281</b> 100 (2x50)

2005 Series Accessories				Accessories
Appropriate marking systems: WMB/Marking strips (see Section 13)				Connector, for N-busbar, 2.5 ... 35 mm <sup>2</sup>
				 unplated <b>209-105</b> 50






End and intermediate plate, 1 mm thick orange <b>2005-7692</b> 100 (4x25)	Busbar carrier, not suitable as end stop, snaps onto DIN-35 rail, 1.5 mm thick blue <b>2009-304</b> 100 (4x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 32 A, light gray
Straight busbar, tin-plated, 1000 mm long, copper (10 x 3) mm I <sub>N</sub> 140 A <b>210-133</b> 1	Busbar carrier, can replace end bracket, with detachable separator plate, snaps onto DIN-35 rail, 7.5 mm thick blue <b>2009-305</b> 25	2-way <b>2004-402</b> 200 (8x25)
Busbar cover, 1000 mm long transparent <b>777-303</b> 1		3-way <b>2004-403</b> 200 (8x25)
		4-way <b>2004-404</b> 100 (4x25)
		5-way <b>2004-405</b> 100 (4x25)
		6-way <b>2004-406</b> 100 (4x25)
		7-way <b>2004-407</b> 100 (4x25)
		8-way <b>2004-408</b> 100 (4x25)
		9-way <b>2004-409</b> 100 (4x25)
		10-way <b>2004-410</b> 100 (4x25)

# TOPJOB® S Multilevel Installation Terminal Block Accessories



- ❶ Conductor range: 0.5 ... 6 mm² "s + f-st";  
Push-in termination: 1 ... 6 mm² "s"  
and 0.75 ... 4 mm²  
"insulated ferrules, 12 mm"
- ❷ 250 V/  
400 V = rated voltage  
4 kV/  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ 250 V/4 kV potential - ground
- ❹ 400 V/6 kV potential - potential

**3**

Accessories	
Appropriate marking systems: WMB/Marking strips (see Section 13)	
Push-in type jumper bar, insulated, I <sub>N</sub> 32 A, light gray 	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5
from 1 to 3 <b>2004-433</b> 200 (8x25) from 1 to 4 <b>2004-434</b> 200 (8x25) from 1 to 5 <b>2004-435</b> 100 (4x25) from 1 to 6 <b>2004-436</b> 100 (4x25) from 1 to 7 <b>2004-437</b> 100 (4x25) from 1 to 8 <b>2004-438</b> 100 (4x25) from 1 to 9 <b>2004-439</b> 100 (4x25) from 1 to 10 <b>2004-440</b> 100 (4x25)	Marking strip, plain, 11 mm wide, 50 m reel white <b>2009-110</b> 1 gray <b>2009-191</b> 50 (2x25)
Test plug adapter, for 4 mm Ø test plug 	Screwless end stop, for DIN-35 rail, 6 mm wide gray <b>249-116</b> 100 (4x25)
Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow <b>215-111</b> 50	Screwless end stop, for DIN-35 rail, 10 mm wide gray <b>249-117</b> 50 (2x25)
Testing tap, for max. 2.5 mm² 	Operating tool, 3.5 mm and 5.5 mm blade width, for TOPJOB® S installation terminal blocks <b>2009-310</b> 1
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V 	Operating tool, 3.5 mm and 2.5 mm blade width, for TOPJOB® S installation terminal blocks <b>2009-309</b> 1
Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V 	

**Application note:**  
N-disconnect slide links, used in installation terminal blocks, consist of switch contacts that are opened and then closed as part of the regular circuit testing. To guarantee a reliable connection, a corrosion-resistant contact area is required on the N-busbar.

Historically, uninsulated copper busbars, that have been cleaned/stripped of any possible corrosion prior to install, can be used in dry, pollution-free locations.




According to DIN VDE 0100-520 (VDE 0100, Part 520), installation equipment exposed to contamination or corrosive substances (e.g., water) that promote corrosion or deterioration, must be protected or made of a corrosion- or wear-resistant material. In these cases, tinned copper busbars guarantee a reliable connection.

WAGO only offers tinned copper busbars.

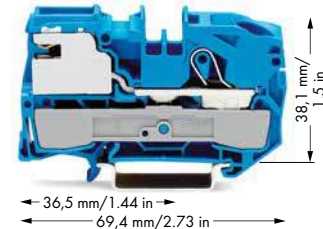
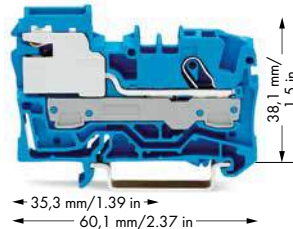
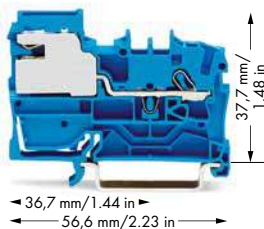
# TOPJOB® S

## N-Conductor and Power Distribution Disconnect Terminal Blocks

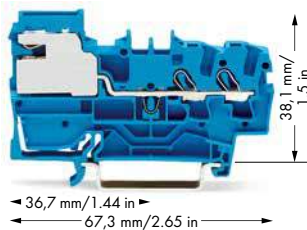
2.5 (4) mm<sup>2</sup>, 2002 Series and 4 (6) mm<sup>2</sup>, 2006 Series and 16 (25 "f-st") mm<sup>2</sup>, 2016 Series

<p>0.25 ... 2.5 (4) mm<sup>2</sup> ①   22 ... 12 AWG 250 V/4 kV/3 ④ I<sub>N</sub> 32 A</p> <p>Terminal block width 5.2 mm / 0.205 inch   10 ... 12 mm / 0.39 ... 0.47 inch</p>	<p>0.5 ... 6 (10) mm<sup>2</sup> ②   20 ... 8 AWG 250 V/4 kV/3 ④ I<sub>N</sub> 51 A</p> <p>Terminal block width 7.5 mm / 0.295 inch   13 ... 15 mm / 0.51 ... 0.59 inch</p>	<p>0.5 ... 16 (25 "f-st") mm<sup>2</sup> ③   20 ... 4 AWG 250 V/4 kV/3 ④ I<sub>N</sub> 76 A</p> <p>Terminal block width 12 mm / 0.472 inch   18 ... 20 mm / 0.71 ... 0.79 inch</p>
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3



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor N-disconnect terminal block ● blue <b>2002-7114</b> ⑤	50	1-conductor N-disconnect terminal block ● blue <b>2006-7114</b> ⑤	50	1-conductor N-disconnect terminal block ● blue <b>2016-7114</b> ⑤	25
1-conductor power distribution disconnect terminal block ○ gray <b>2002-7111</b> ⑥	50	1-conductor power distribution disconnect terminal block ○ gray <b>2006-7111</b> ⑥	50	1-conductor power distribution disconnect terminal block ○ gray <b>2016-7111</b> ⑥	25
Appropriate through and ground conductor terminal blocks, see page 32		Appropriate through and ground conductor terminal blocks, see page 38		Appropriate through and ground conductor terminal blocks, see page 40	
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 0.8 mm thick orange <b>2002-7192</b> 100 (4x25)		End and intermediate plate, 1 mm thick orange <b>2006-7192</b> 100 (4x25)		End and intermediate plate, 1 mm thick orange <b>2016-7192</b> 100 (4x25)	
Lock-out, prevents reclosing of slide link, snap-on type orange <b>2005-7300</b> 100 (4x25)		Lock-out, prevents reclosing of slide link, snap-on type orange <b>2006-7300</b> 100 (4x25)		Lock-out, prevents reclosing of slide link, snap-on type orange <b>2006-7300</b> 100 (4x25)	



### Accessories for N-Conductor and Power Distribution Disconnect Terminal Blocks

Appropriate marking systems: WMB/Marking strips (see Section 13)

2-conductor N-disconnect terminal block ● blue <b>2002-7214</b> ⑤	50	Busbar carrier, not suitable as end stop, snaps onto DIN-35 rail, 1.5 mm thick blue <b>2009-304</b> 100 (4x25)	25	Connector, for N-busbar, 2.5 ... 35 mm <sup>2</sup> unplated <b>209-105</b> 50
2-conductor power distribution disconnect terminal block ○ gray <b>2002-7211</b> ⑥	50	Busbar carrier, can replace end bracket, with detachable separator plate, snaps onto DIN-35 rail, 7.5 mm thick blue <b>2009-305</b>	25	Connector, for N-busbar, with blue cover, 2.5 ... 16 mm <sup>2</sup> blue <b>210-281</b> 100 (2x50)
<b>Item-Specific Accessories</b>		Straight busbar, tin-plated, 1000 mm long, copper (10 x 3) mm I <sub>N</sub> 140 A <b>210-133</b> 1		Test plug, with 500 mm cable, 2 mm Ø, max. 42 V red <b>210-136</b> 50
End and intermediate plate, 0.8 mm thick orange <b>2002-7292</b> 100 (4x25)		Busbar cover, 1000 mm long transparent <b>777-303</b> 1		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V yellow <b>210-137</b> 50
				WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5

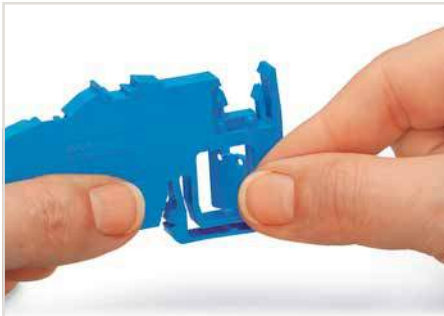
# TOPJOB® S

## Busbar Carrier

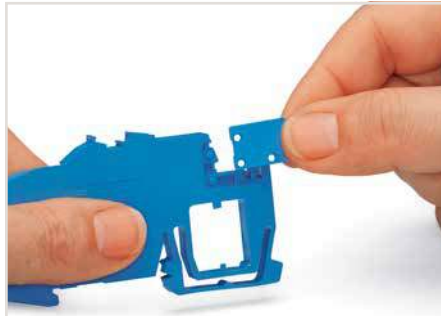
### Installation

3

- ❶ Conductor range: 0.25 ... 4 mm<sup>2</sup> "s + f-st";  
Push-in termination: 0.75 ... 4 mm<sup>2</sup> "s"  
and 0.75 ... 2.5 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ❷ Conductor range: 0.5 ... 10 mm<sup>2</sup> "s + f-st";  
Push-in termination: 1.5 ... 10 mm<sup>2</sup> "s"  
and 1.5 ... 6 mm<sup>2</sup>  
"insulated ferrule, 12 mm"
- ❸ Conductor range: 0.5 ... 16 mm<sup>2</sup> "s + f-st",  
25 mm<sup>2</sup> "f-st";  
Push-in termination: 2.5 ... 16 mm<sup>2</sup> "s"  
and 2.5 ... 16 mm<sup>2</sup>  
"insulated ferrule, 18 mm"
- ❹ 250 V = rated voltage  
4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❺ See column 4
- ❻ See column 5



Removing the separator plate from the busbar carrier or from the N-disconnect terminal block.





Inserting the separator plate into the busbar carrier to protect the N-busbar against accidental contact.

❺ For the construction and operation of power installations in fire-prone, hazardous locations or public buildings – such as conference centers, stores, hospitals, schools, theaters or hotels – the DIN VDE 0100-710 or DIN VDE 0100-718 standards shall be observed. DIN VDE 0100-482 shall also be observed for fire-prone, hazardous locations. These VDE regulations mandate that every neutral conductor must be provided with a disconnection device so, e.g., insulation testing is possible for every circuit without disconnecting the N-conductor. WAGO N-disconnect terminal blocks meet this requirement.

❻ According to DIN VDE 0100-710 "Requirements for operating facilities, rooms and special installations – medical facilities," equipotential bonding conductors shall be run on a potential equalization busbar. The potential equalization busbar and the protective ground conductor busbar must be mounted in a common housing and be connected to each other using a disconnectable copper conductor of minimum 16 mm<sup>2</sup> (6 AWG). Furthermore, all equipotential bonding conductors must be connected to the potential equalization busbar and clearly arranged so they can be disconnected individually and accessed at any time. Depending on their function, they must also be provided with captive marking. WAGO power distribution disconnect terminal blocks meet these requirements.

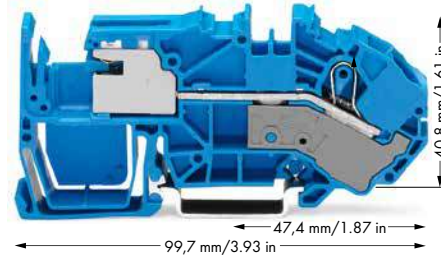
# TOPJOB® S – Supply Terminal Blocks for Distribution Boxes/ Ground/N-Conductor and Power Distribution Disconnect Terminal Blocks













## 16 (25 "f") mm<sup>2</sup>, 2016 Series

0.5 ... 16 (25 "f-st") mm <sup>2</sup> ❶   20 ... 4 AWG 800 V/8 kV/3 ❷ I <sub>N</sub> 76 A Terminal block width 12 mm / 0.472 inch  18 ... 20 mm / 0.71 ... 0.79 inch	0.5 ... 16 (25 "f-st") mm <sup>2</sup> ❶   20 ... 4 AWG 250 V/4 kV/3 ❸ I <sub>N</sub> 76 A Terminal block width 12 mm / 0.472 inch  18 ... 20 mm / 0.71 ... 0.79 inch
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- ❶ Conductor range: 0.5 ... 16 mm<sup>2</sup> "s + f-st", 25 mm<sup>2</sup> "f-st";  
Push-in termination: 2.5 ... 16 mm<sup>2</sup> "s" and 0.25 ... 16 mm<sup>2</sup> "insulated ferrule, 18 mm"
- ❷ 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ 250 V = rated voltage  
4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❹ See column 4
- ❺ See column 5

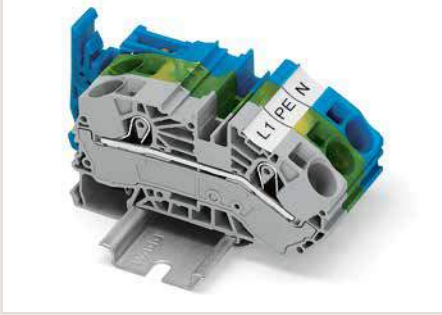
3



Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
2-conductor supply terminal blocks for distribution boxes		1-conductor N-disconnect terminal block		
○ gray	<b>2016-7601</b> 20	● blue	<b>2016-7714</b> ❹ 20	Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow
● blue	<b>2016-7604</b> 20			 <b>215-111</b> 50
2-conductor ground conductor terminal block 15 mm high DIN-35 rails shall be used for a current load higher than 76 A!		1-conductor power distribution disconnect terminal block		WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
● green-yellow	<b>2016-7607</b> 20	○ gray	<b>2016-7711</b> ❺ 20	plain <b>793-5501</b> 5
				Marking strip, plain, 11 mm wide, 50 m reel
				 white <b>2009-110</b> 1
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		
End and intermediate plate, 1 mm thick		End and intermediate plate, 1 mm thick		
orange	<b>2016-7692</b> 100 (4x25)	orange	<b>2016-7792</b> 100 (4x25)	
gray	<b>2016-7691</b> 100 (4x25)			
		Lock-out, prevents reclosing of slide link, snap-on type		
		orange	<b>2006-7300</b> 100 (4x25)	
<b>2016 Series Accessories</b>				
Appropriate marking systems: WMB/Marking strips (see Section 13)				
Push-in type jumper bar, insulated, I <sub>N</sub> 76 A, light gray		Straight busbar, tin-plated, 1000 mm long, copper (10 x 3) mm		
	2-way <b>2016-402</b> 50 (2x25)		I <sub>N</sub> 140 A <b>210-133</b> 1	
	3-way <b>2016-403</b> 50 (2x25)	Busbar cover, 1000 mm long		
	4-way <b>2016-404</b> 50 (2x25)		transparent <b>777-303</b> 1	
	5-way <b>2016-405</b> 50 (2x25)			
Push-in type jumper bar, insulated, I <sub>N</sub> 76 A, light gray		Testing tap, for max. 2.5 mm <sup>2</sup>		
	from 1 to 3 <b>2016-433</b> 50 (2x25)		gray <b>2009-182</b> 100 (4x25)	
	from 1 to 4 <b>2016-434</b> 50 (2x25)	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V		
	from 1 to 5 <b>2016-435</b> 50 (2x25)		red <b>210-136</b> 50	
Protective warning marker, with high-voltage symbol, black, for 5 terminal blocks		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V		
	yellow <b>2016-115</b> 50 (2x25)		yellow <b>210-137</b> 50	
Finger guard, touch-proof cover protects unused conductor entries		Test plug adapter, for 4 mm Ø test plug		
	yellow <b>2016-100</b> 100 (4x25)		gray <b>2009-174</b> 100 (4x25)	



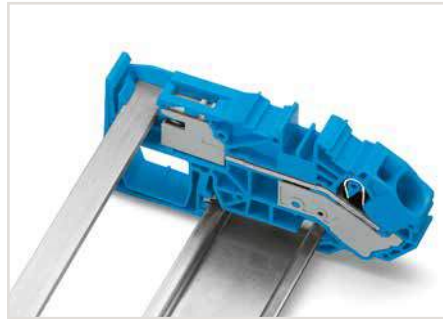
## TOPJOB® S Supply Terminal Block Assembly



With an angled conductor entry, the 2016 Series Supply Terminal Blocks simplify the wiring of solid conductors in distribution boxes. Solid conductors of the largest cross section can be connected easily, enabling the distribution box cover to fit without interfering with the conductors.



Inserting separator plate removed from N-disconnect terminal block.



Touch-proof N-busbar via inserted separator plate

④ For the construction and operation of power installations in fire-prone, hazardous locations or public buildings – such as conference centers, stores, hospitals, schools, theaters or hotels – the DIN VDE 0100-710 or DIN VDE 0100-718 standards shall be observed. DIN VDE 0100-482 shall also be observed for fire-prone, hazardous locations. These VDE regulations mandate that every neutral conductor must be provided with a disconnection device so, e.g., insulation testing is possible for every circuit without disconnecting the N-conductor. WAGO N-disconnect terminal blocks meet this requirement.

⑤ According to DIN VDE 0100-710 "Requirements for operating facilities, rooms and special installations – medical facilities," equipotential bonding conductors shall be run on a potential equalization busbar. The potential equalization busbar and the protective ground conductor busbar must be mounted in a common housing and be connected to each other using a disconnectable copper conductor of minimum 16 mm<sup>2</sup> (6 AWG). Furthermore, all equipotential bonding conductors must be connected to the potential equalization busbar and clearly arranged so they can be disconnected individually and accessed at any time. Depending on their function, they must also be provided with captive marking. WAGO power distribution disconnect terminal blocks meet these requirements.



# High-Current, Rail-Mount Terminal Blocks

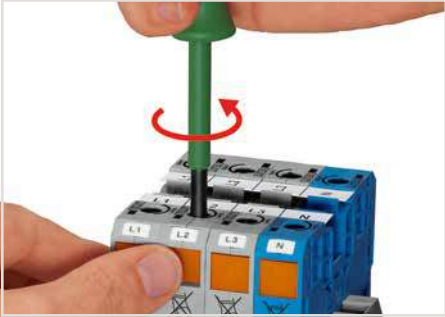
## High-Current, Rail-Mount Terminal Blocks

### Side-Entry Wiring

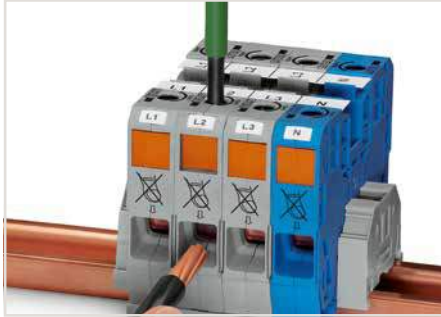
			Page
	<b>Through and Ground Conductor Terminal Blocks</b> 6 ... 35 mm <sup>2</sup> (10 ... 2 AWG)	285 Series	204
	<b>Power Tap for 35 mm<sup>2</sup> (2 AWG) Terminal Blocks</b> 0.2 ... 6 mm <sup>2</sup> (24 ... 10 AWG)	285 Series	204
	<b>Through and Ground Conductor Terminal Blocks</b> 10 ... 50 (70) mm <sup>2</sup> (8 ... 1/0 AWG)	285 Series	208
	<b>Power Tap for 50 mm<sup>2</sup> (1/0 AWG) Terminal Blocks</b> 0.2 ... 6 mm <sup>2</sup> (24 ... 10 AWG)	285 Series	208
	<b>Through Terminal Blocks with Mounting Flanges</b> 10 ... 50 (70) mm <sup>2</sup> (8 ... 2/0 AWG)	285 Series	209
	<b>Through and Ground Conductor Terminal Blocks</b> 25 ... 95 mm <sup>2</sup> (4 ... 4/0 AWG)	285 Series	210
	<b>Power Tap for 95 mm<sup>2</sup> (4/0 AWG) Terminal Blocks</b> 0.2 ... 10 mm <sup>2</sup> (24 ... 8 AWG)	285 Series	210
	<b>Through Terminal Blocks with Mounting Flanges</b> 25 ... 95 mm <sup>2</sup> (4 ... 4/0 AWG)	285 Series	211
	<b>Through and Ground Conductor Terminal Blocks</b> 50 ... 185 mm <sup>2</sup> (1/0 AWG ... 350 kcmil)	285 Series	212
	<b>Power Tap for 185 mm<sup>2</sup> (350 kcmil) Terminal Blocks</b> 0.2 ... 10 (16) mm <sup>2</sup> (24 ... 8 AWG)	285 Series	212
	<b>Through Terminal Blocks with Mounting Flanges</b> 50 ... 185 mm <sup>2</sup> (1/0 AWG ... 350 kcmil)	285 Series	213

# High-Current, Rail-Mount Terminal Blocks, 35 mm<sup>2</sup>, 285 Series

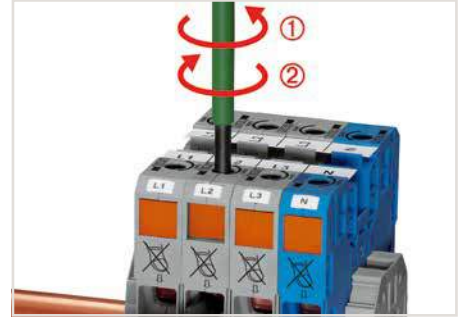
## Description and Installation



**Conductor termination – step 1**  
Rotate the operating tool (5.5 mm blade width) counter-clockwise. Next, push in the orange locking tab. The clamp is locked open for hands-free wiring.



**Conductor termination – step 2**  
Insert a stripped conductor into the clamping unit until it hits backstop. Hold in this position.



**Conductor termination – step 3**  
A small counter-clockwise rotation closes the clamp, securing conductor ①. When unlocked, allow operating tool to rotate clockwise ② to securely terminate the conductor.

4



The power tap is inserted into the jumper contact slot. It can be fitted with a strain relief plate.



Testing



Testing with test plug adapter (283-404)



High-Current, Rail-Mount Terminal Blocks, 35 mm<sup>2</sup> (2 AWG) and 50 mm<sup>2</sup> (2/0 AWG)



**POWER CAGE CLAMP** terminates the following copper conductors:  
solid



stranded



fine-stranded, also with tinned single strands



Commoning adjacent terminal blocks using a centrally positioned push-in jumper.

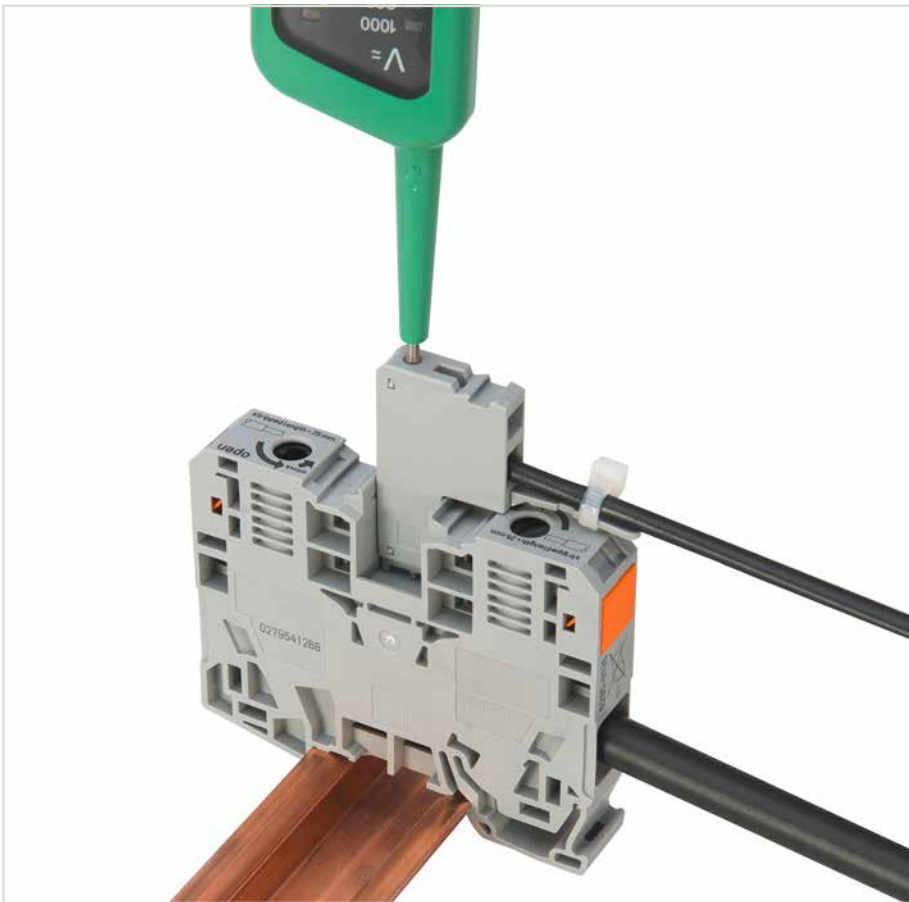


Slide the marking strip laterally to remove the jumper.



Commoning 35 mm<sup>2</sup> (2 AWG) POWER CAGE CLAMP Terminal Blocks with 10/16 mm<sup>2</sup> (8/6 AWG) 2010 and 2016 Series TOPJOB® S Terminal Blocks using step-down jumpers (not valid for 2016-76xx and 2016-77xx).

4



Step-down jumpers may common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drops may be problematic. A large conductor can be easily connected to smaller conductors at the distribution point.

Step-down jumpers are simply pushed down for full insertion, similar to adjacent jumpers. Commoning may be made in either direction using the special thin end plate to cover the open side. Additional through terminal blocks having a smaller cross-section may be commoned using adjacent jumpers.

In this case, pay attention that:  
The total current of the outgoing circuits does not exceed the nominal current of the step-down jumper.



Side-entry wiring means that even larger conductors, which have limited flexibility, can be easily connected.



WMB markers or self-adhesive, printable marking strips can be accommodated on 35, 50 and 95 mm<sup>2</sup> high-current terminal blocks.



Marker carrier for marking strip or 2 x WMB markers for 285-13x, 285-15x and 285-19x terminal blocks

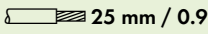
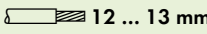


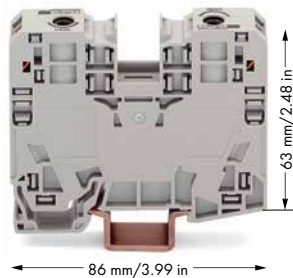
fine-stranded, with ferrule (gastight crimped)



# High-Current, Through/Ground Conductor and Ex Terminal Blocks

## 35 mm<sup>2</sup>, 285 Series

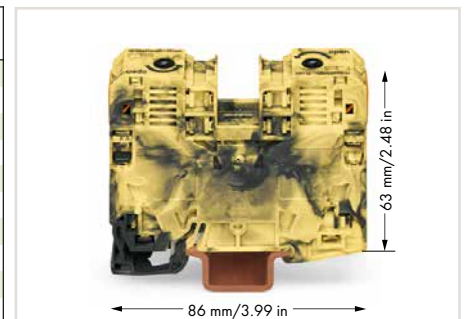
<b>6 ... 35 mm<sup>2</sup></b> <b>1000 V/8 kV/3 ❶</b> <b>I<sub>N</sub> 125 A</b>  <b>Terminal block width 16 mm / 0.63 inch</b>  <b>25 mm / 0.98 inch</b>	<b>10 ... 2 AWG</b> <b>600 V, 115 A ❷</b> <b>600 V, 115 A ❸</b>	<b>0.2 ... 6 mm<sup>2</sup></b> <b>800 V/8 kV/3 ❷</b> <b>I<sub>N</sub> 32 A</b>  <b>Module width 8 mm / 0.315 inch</b>  <b>12 ... 13 mm / 0.47 ... 0.51 inch</b>	<b>24 ... 10 AWG</b> <b>600 V, 30 A ❷</b> <b>600 V, 32 A ❸</b>
--	---	--	--



- ❶ 1000 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❷ 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ Suitable for Ex e II applications  
800 V, 101 A  
(see Section 14)
- ❹ See application notes for:  
Step-down jumper, page 203

4

Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block, only on DIN-35 x 15 rail		Power tap, for 35 mm <sup>2</sup> high-current terminal blocks	
○ gray	<b>285-135</b> 15	○ gray	<b>285-427</b> 5
● blue	<b>285-134</b> 15		
○ light gray ❸	<b>285-935</b> 15		
○ dark gray/yellow	<b>285-131</b> 15		
2-conductor ground terminal block, only on DIN-35 x 15 rail; 2.3 mm thick			
● green-yellow	<b>285-137</b> 15		
● green-yellow ❸	<b>285-137/999-950</b> 15		
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
Adjacent jumper, insulated, I <sub>N</sub> 85 A		Strain relief plate, gray	
	gray <b>285-435</b> 50 (2x25)		1-pole <b>769-410</b> 100 (4x25)
Step-down jumper, insulated, I <sub>N</sub> 90 A		Test plug, with 500 mm cable, 2 mm Ø, max. 42 V	
	gray <b>285-430</b> 50 (2x25)		red <b>210-136</b> 50
Protective warning marker, with black high-voltage symbol		WMB Multi marking system, white, 10 strips with 10 markers per card, for 5 ... 17.5 mm terminal width	
	yellow <b>285-420</b> 100 (4x25)		plain <b>793-501</b> 5
Finger guard, touch-proof cover protects unused conductor entries		WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable	
	yellow <b>285-421</b> 100 (4x25)		plain <b>793-5501</b> 5
Test plug adapter, 11.6 mm wide, for 4 mm Ø test plug, for 1.5 ... 16 mm <sup>2</sup> terminal blocks			
	gray <b>283-404</b> 25		
Operating tool with a partially insulated shaft, type 3, (5.5 x 0.8) mm blade			
	<b>210-721</b> 1		
Three-phase set, with 35mm <sup>2</sup> high-current terminal blocks			
	<b>285-139</b> 1		
Power tap, I <sub>N</sub> 24 A, with 500 mm cable, for terminal blocks 16 mm <sup>2</sup> (283/783 Series) and 35 mm <sup>2</sup> (285/785 Series)			
	gray <b>283-407</b> 25		
Copper carrier rail, per EN 60715, 35 x 15 mm, 2.3 mm, 2 m long			
	unslotted <b>210-198</b> 10		



2-conductor through terminal block, dark gray/yellow (285-131)



Always push power tap (283-407) down into the terminal block until fully inserted!



# High-Current, Rail-Mount Terminal Blocks, 50 ... 185 mm<sup>2</sup>, 285 Series

## Description and Installation



**Conductor termination – step 1**  
Rotate the T-wrench counter-clockwise to the stop ①. Next, push in the orange locking tab. The clamp is locked open for hands-free wiring.



**Conductor termination – step 2**  
Insert a stripped conductor into the clamping unit until it hits backstop. Hold in this position.



**Conductor termination – step 3**  
A short counter-clockwise rotation ② releases the locking tab. When unlocked, the T-wrench rotates clockwise, securely clamping the conductor.

4



For the optimal clamping force:

- Bend conductor.
- Cut conductor to length (conductor end must be straight).
- Strip conductor.



Always observe the printed strip length!



**Grounding foot**  
Ground conductor terminal blocks (limited to max. 120 mm<sup>2</sup>/250 kcmil per EN 60947-7-2) must be snapped onto a 2.3 mm thick copper carrier rail.



Protective warning marker may indicate:  
Notice: Power is still on even after switching off the main switch!



**Risk of Injury!**  
Do not insert fingers in the conductor entry!



Yellow, detachable finger guards provide touch-proof safety by shielding jumper contact slots and/or unused conductor entries.



**POWER CAGE CLAMP** terminates the following copper conductors:  
solid



stranded

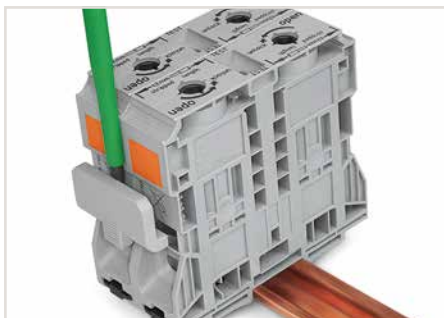


fine-stranded, also with tinned single strands





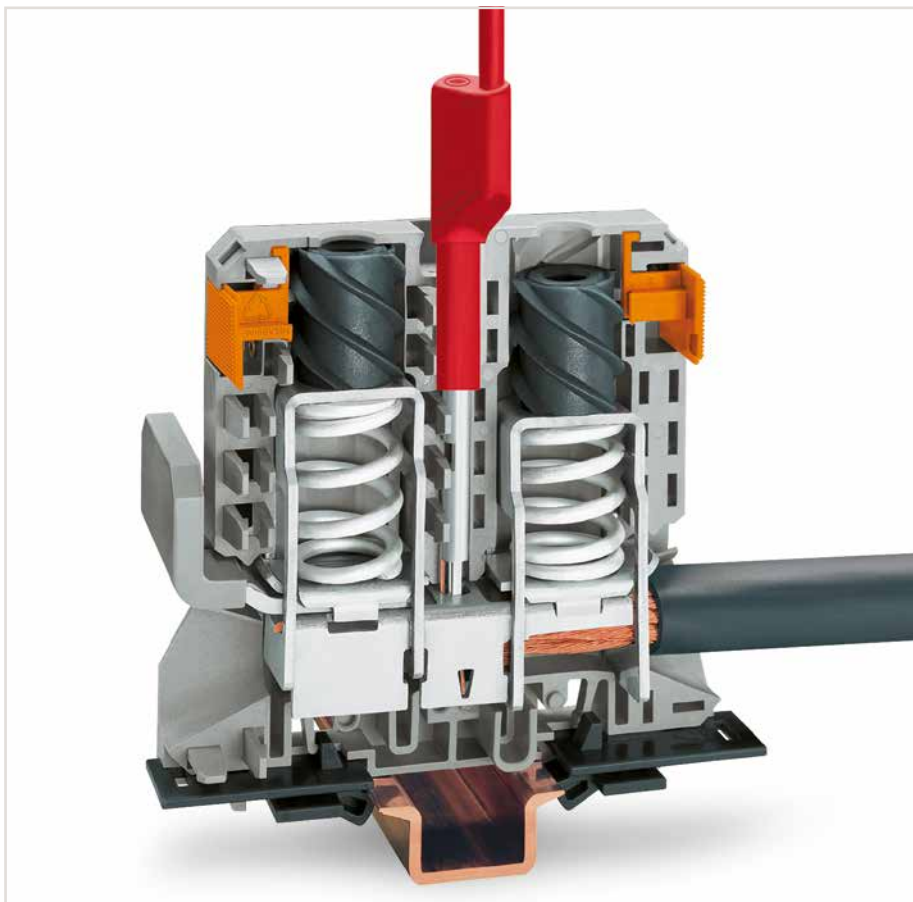
Commoning with an adjacent jumper: Insert the jumper above the conductor entry hole – prior to conductor termination. The nominal cross-section remains unchanged.



Removing jumper via operating tool.



Reliably and easily tap directly into the power supply. Insert the unwired tap before opening the clamping unit.



Testing via touch-proof 4 mm Ø test plugs (not available from WAGO, but offered by industry suppliers such as, Multi-Contact Deutschland GmbH).



Testing



WMB markers or self-adhesive, printable marking strips can be accommodated on 35, 50 and 95 mm<sup>2</sup> high-current terminal blocks.



In addition to WMB markers, marking strips can be directly applied to 185 mm<sup>2</sup> (350 kcmil) high-current terminal blocks.



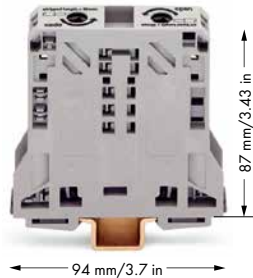
fine-stranded, with ferrule (gastight crimped)



# High-Current, Through/Ground Conductor and Ex Terminal Blocks

## 50 (70 "f-st") mm<sup>2</sup>, 285 Series

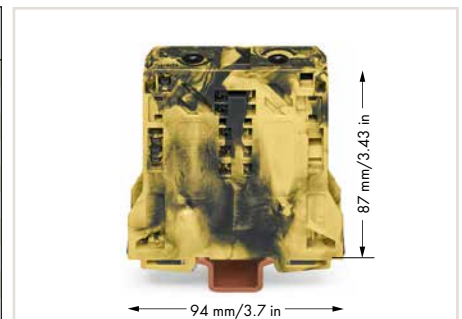
10 ... 50 (70 "f-st") mm <sup>2</sup> 1000 V/8 kV/3 ① I <sub>N</sub> 150 A	8 ... 1/0 AWG 600 V, 150 A ② 600 V, 150 A ③	0.2 ... 6 mm <sup>2</sup> 1000 V/8 kV/3 ① I <sub>N</sub> 41 A	24 ... 10 AWG 600 V, 30 A ② 600 V, 41 A ③
Terminal block width 20 mm / 0.787 inch 30 mm / 1.18 inch	Module width 16 mm / 0.63 inch 12 ... 13 mm / 0.47 ... 0.51 inch		



- ① 1000 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex e II applications  
800 V, 134 A  
(see Section 14)
- ③ Jumper can only be removed or inserted when the clamp is closed.

4

Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block, only on DIN-35 x 15 rail		Power tap, for 50 mm <sup>2</sup> high-current terminal blocks	
○ gray <b>285-150</b>	5	○ gray <b>285-447</b>	5
● blue <b>285-154</b>	5		
○ light gray ③ <b>285-950</b> ②	5		
○ dark gray/yellow <b>285-151</b>	5		
2-conductor ground terminal block, only on DIN-35 x 15 rail; 2.3 mm thick, copper			
● green-yellow <b>285-157</b>	5		
● green-yellow ③ <b>285-157/999-950</b> ②	5		
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
Adjacent jumper, insulated, ③ I <sub>N</sub> 150 A for 1 jumper, I <sub>N</sub> 130 A for 2 ... 4 jumpers gray <b>285-450</b>	100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>282-415</b>	50 (2x25)
Protective warning marker, with black high-voltage symbol yellow <b>285-440</b>	50 (2x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, for 5 ... 17.5 mm terminal width plain <b>793-501</b>	5
Finger guard, touch-proof cover protects unused conductor entries and jumper slots yellow <b>285-441</b>	100 (4x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b>	5
T-wrench with a partially insulated shaft <b>285-172</b>	1		
Three-phase set, with 50 mm <sup>2</sup> high-current terminal blocks <b>285-159</b>	1		
WMB Multi marking system, white, 10 strips with 10 markers per card, for 5 ... 17.5 mm terminal width plain <b>793-501</b>	5		
WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b>	5		
Marking strip, plain, 11 mm wide, 50 m reel white <b>2009-110</b>	1		
Copper carrier rail, per EN 60715, 35 x 15 mm, 2.3 mm, 2 m long unslotted <b>210-198</b>	10		





2-conductor through terminal block, dark gray/yellow (285-151)

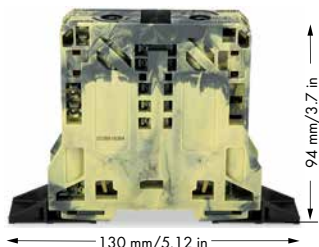


Marker carrier for marking strip or 2 x WMB markers for 285-13x, 285-15x and 285-19x terminal blocks

# High-Current, Through Terminal Blocks with Mounting Flanges

## 50 (70 "f-st") mm<sup>2</sup>, 285 Series

10 ... 50 (70 "f-st") mm <sup>2</sup>   8 ... 1/0 AWG 1000 V/8 kV/3 ① I <sub>N</sub> 150 A Terminal block width 20 mm / 0.787 inch  30 mm / 1.18 inch	10 ... 50 (70 "f-st") mm <sup>2</sup>   8 ... 1/0 AWG 1000 V/8 kV/3 ① I <sub>N</sub> 150 A Terminal block width 20 mm / 0.787 inch  30 mm / 1.18 inch
--	--









- ① 1000 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Jumper can only be removed or inserted when the clamp is closed.

4

Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block, with mounting flanges		2-conductor through terminal block, with mounting flanges	
○ gray	<b>285-141</b>	5	dark gray/yellow
● blue	<b>285-144</b>	5	<b>285-147</b>

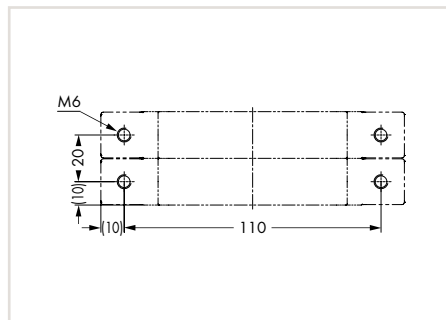


Optionally, insert block-to-block connector (285-448) into housing slot.

285 Series Accessories			
Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)			
Adjacent jumper, insulated, ②  I <sub>N</sub> 150 A for 1 jumper, I <sub>N</sub> 130 A for 2 ... 4 jumpers gray <b>285-450</b> 100 (4x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, for 5 ... 17.5 mm terminal width plain <b>793-501</b> 5		
Block-to-block connector, for 50 mm <sup>2</sup> high-current terminal blocks  yellow <b>285-448</b> 50 (2x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5		
Protective warning marker, with black high-voltage symbol  yellow <b>285-440</b> 50 (2x25)	Marking strip, plain, 11 mm wide, 50 m reel white <b>2009-110</b> 1		
Finger guard, touch-proof cover protects unused conductor entries and jumper slots  yellow <b>285-441</b> 100 (4x25)	Marker carrier, for POWER CAGE CLAMP 35/50/95 mm <sup>2</sup> , 10.4 mm wide gray <b>285-442</b> 25		
T-wrench with a partially insulated shaft  <b>285-172</b> 1			
Three-phase set, with 50 mm <sup>2</sup> high-current terminal blocks  <b>285-148</b> 1			



Align and snap high-current, through terminal blocks together.



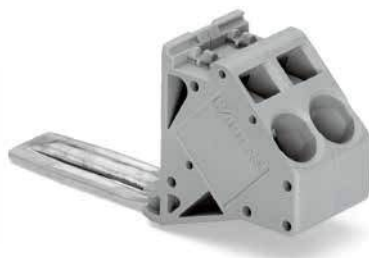
Dimensions (in mm)  
Drill hole separation distance



# High-Current, Through/Ground Conductor and Ex Terminal Blocks

## 95 mm<sup>2</sup>, 285 Series

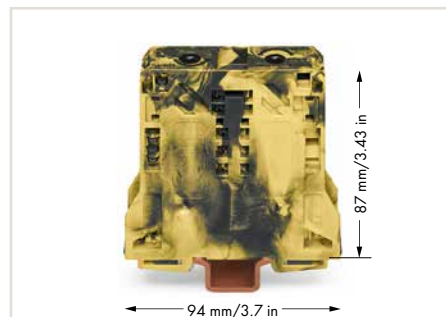
25 ... 95 mm <sup>2</sup> 1000 V/8 kV/3 ② I <sub>N</sub> 232 A	4 ... 4/0 AWG 600 V, 200 A ③ 600 V, 210 A ③	0.2 ... 10 (16) mm <sup>2</sup> ① 1000 V/8 kV/3 ② I <sub>N</sub> 57 A	24 ... 8 AWG 600 V, 50 A ③
Terminal block width 25 mm / 0.984 inch 35 mm / 1.38 inch		Module width 20 mm / 0.787 inch 12 ... 13 mm / 0.47 ... 0.51 inch	



- ① Max. connector size: 16 mm<sup>2</sup>
- ② 1000 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Suitable for Ex e II applications  
25 ... 95 mm<sup>2</sup> / 4 ... 4/0 AWG  
880 V, 211 A  
1 jumper 211 A  
2 ... 4 jumpers 175 A  
35 ... 70 mm<sup>2</sup> / 2 ... 2/0 AWG  
for ground conductor terminal blocks  
(see Section 14)

4

Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block, only on DIN-35 x 15 rail		Power tap, for 95 mm <sup>2</sup> high-current terminal blocks	
○ gray	285-195 5	○ gray	285-407 5
● blue	285-194 5		
○ light gray ③	285-995 ③ 5		
○ dark gray/yellow	285-191 5		
2-conductor ground terminal block, only on DIN-35 x 15 rail; 2.3 mm thick, copper			
● green-yellow	285-197 5		
● green-yellow ③	285-197/999-950 ③ 5		



2-conductor through terminal block, dark gray/yellow (285-191)

Item-Specific Accessories		Item-Specific Accessories	
Adjacent jumper, insulated, I <sub>N</sub> 232 A for 1 jumper, I <sub>N</sub> 192 A for 2 ... 4 jumpers gray	285-495 25	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow	284-415 50 (2x25)
Protective warning marker, with black high-voltage symbol yellow	285-170 50 (2x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, for 5 ... 17.5 mm terminal width plain	793-501 5
Finger guard, touch-proof cover protects unused conductor entries and jumper slots yellow	285-169 25	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain	793-5501 5
T-wrench with a partially insulated shaft 	285-172 1		
Three-phase set, with 95mm <sup>2</sup> high-current terminal blocks 	285-199 1		
Steel carrier rail, per EN 60715, 35 x 15 mm, 2.3 mm, 2 m long unslotted	210-118 10		
Copper carrier rail, per EN 60715, 35 x 15 mm, 2.3 mm, 2 m long unslotted	210-198 10		
WMB Multi marking system, white, 10 strips with 10 markers per card, for 5 ... 17.5 mm terminal width plain	793-501 5		
Marker carrier, for POWER CAGE CLAMP 35/50/95 mm <sup>2</sup> , 10.4 mm wide gray	285-442 25		



Marker carrier for marking strip or 2 x WMB markers for 285-13x, 285-15x and 285-19x terminal blocks

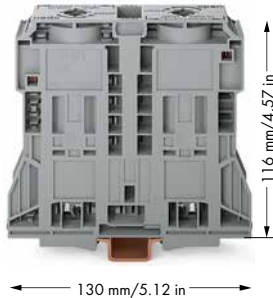




# High-Current, Through/Ground Conductor and Ex Terminal Blocks

## 185 mm<sup>2</sup>, 285 Series

50 ... 185 mm <sup>2</sup>   1/0 AWG ... 350 kcmil 1000 V AC/DC/1500 VDC/12 kV/3 ❶ I <sub>N</sub> 353 A	0.2 ... 10 (16) mm <sup>2</sup>   24 ... 8 AWG 1000 V/8 kV/3 ❷ I <sub>N</sub> 57 A
Terminal block width 32 mm / 1.26 inch 45 ... 47 mm / 1.77 ... 1.85 inch	Module width 20 mm / 0.787 inch 12 ... 13 mm / 0.47 ... 0.51 inch



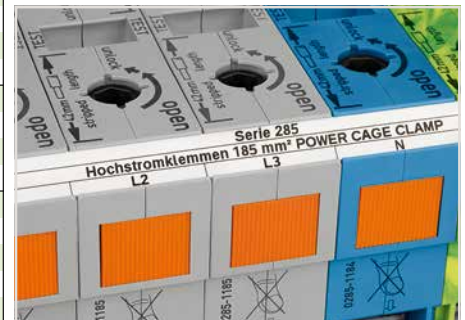
- ❶ AC/DC up to 1000 V = rated voltage  
DC up to 1500 V  
12 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❷ 1000 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❸ 50 ... 120 mm<sup>2</sup> / 1/0 AWG ... 250 kcmil for ground conductor terminal blocks

4

Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block, only on DIN-35 x 15 rail		Power tap, for 185 mm <sup>2</sup> high-current terminal blocks	
○ gray <b>285-1185</b>	5	○ gray <b>285-1175</b>	5
● blue <b>285-1184</b>	5		
dark gray/yellow <b>285-1181</b>	5		
2-conductor ground terminal block, only on DIN-35 x 15 rail; 2.3 mm thick, copper			
● green-yellow <b>285-1187</b> ❸	5		
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
Adjacent jumper, insulated, I <sub>N</sub> 309 A for 1 jumper, I <sub>N</sub> 265 A for 3 jumpers, I <sub>N</sub> 240 A for 4 jumpers		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks	
gray <b>285-1171</b>	25	yellow <b>284-415</b>	50 (2x25)
Protective warning marker, with black high-voltage symbol		WMB Multi marking system, white, 10 strips with 10 markers per card, for 5 ... 17.5 mm terminal width	
yellow <b>285-1177</b>	50 (2x25)	plain <b>793-501</b>	5
Finger guard, touch-proof cover protects unused conductor entries and jumper slots		WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable	
yellow <b>285-1178</b>	25	plain <b>793-5501</b>	5
T-wrench with a partially insulated shaft			
<b>285-172</b>	1		
Three-phase set, with 185mm <sup>2</sup> high-current terminal blocks			
<b>285-1169</b>	1		
Copper carrier rail, per EN 60715, 35 x 15 mm, 2.3 mm, 2 m long			
unslotted <b>210-198</b>	10		
WMB Multi marking system, white, 10 strips with 10 markers per card, for 5 ... 17.5 mm terminal width			
plain <b>793-501</b>	5		
Marking strip, plain, 11 mm wide, 50 m reel			
white <b>2009-110</b>	1		
Screwless end stop, for DIN-35 rail, 14 mm wide			
gray <b>249-197</b>	10		



Tapping directly into the power supply.

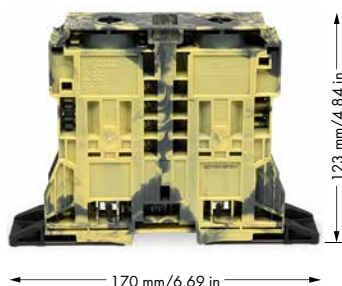
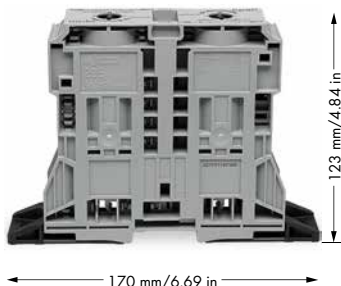


In addition to WMB markers, marking strips can be directly applied to 185 mm<sup>2</sup> (350 kcmil) high-current terminal blocks.

# High-Current, Through Terminal Blocks with Mounting Flanges

## 185 mm<sup>2</sup>, 285 Series

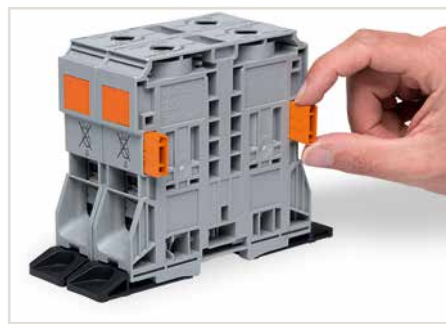
50 ... 185 mm <sup>2</sup> 1000 V AC/DC/1500 VDC/12 kV/3 ① I <sub>N</sub> 353 A Terminal block width 32 mm / 1.26 inch 45 ... 47 mm / 1.77 ... 1.85 inch	50 ... 185 mm <sup>2</sup> 1000 V AC/DC/1500 VDC/12 kV/3 ① I <sub>N</sub> 353 A Terminal block width 32 mm / 1.26 inch 45 ... 47 mm / 1.77 ... 1.85 inch
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① AC/DC up to 1000 V = rated voltage  
DC up to 1500 V  
12 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)

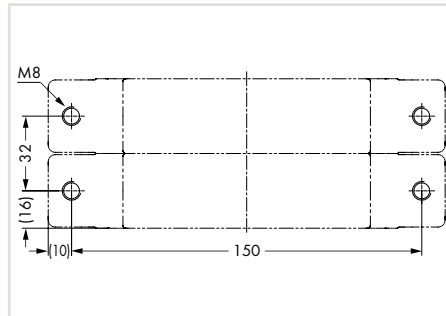
4

Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block, with mounting flanges		2-conductor through terminal block, with mounting flanges	
gray 285-1161	4	dark gray/yellow 285-1167	4
blue 285-1164	4		



Optionally, insert block-to-block connector (285-1179) into housing slot.

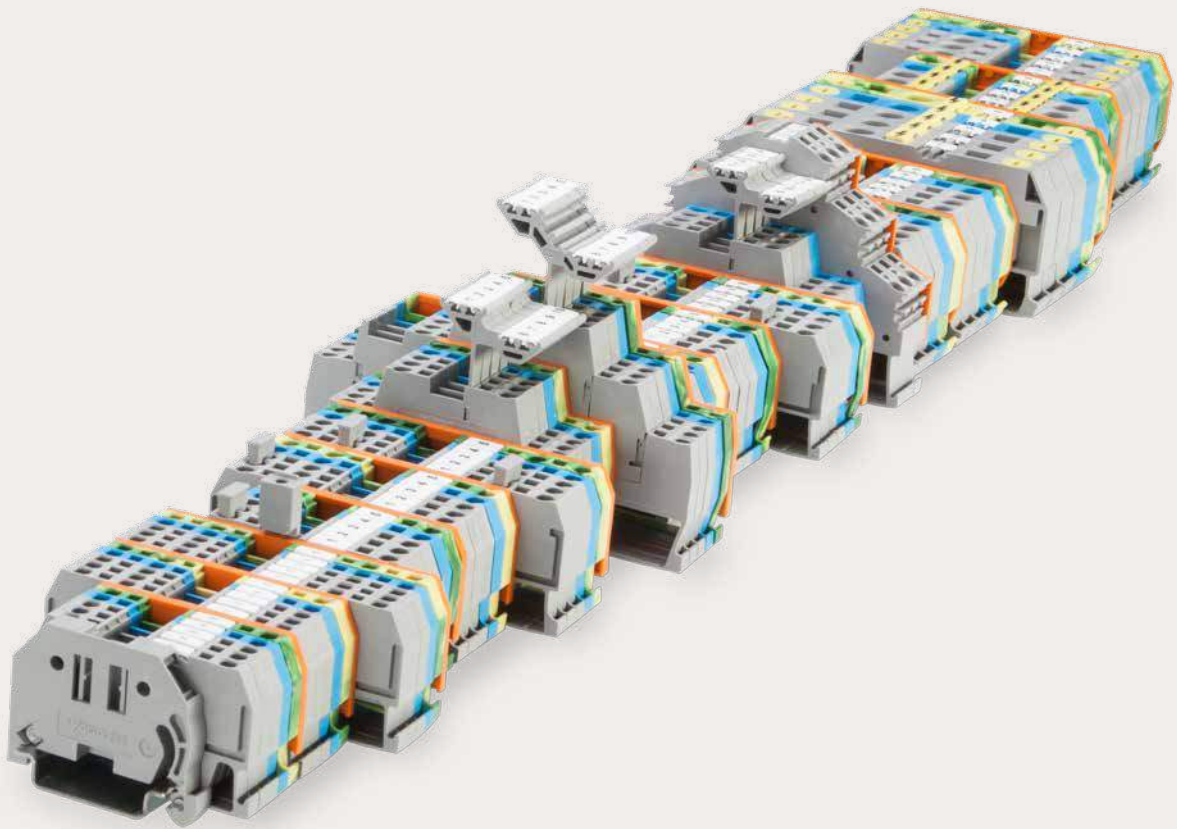
Accessories			
Appropriate marking systems: WMB/WMB Inline/Marking strips (see Section 13)			
Adjacent jumper, insulated, I <sub>N</sub> 309 A for 1 jumper, I <sub>N</sub> 265 A for 3 jumpers, I <sub>N</sub> 240 A for 4 jumpers gray 285-1171	25	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable white 2009-115	1
Block-to-block connector, for 185 mm <sup>2</sup> high-current terminal blocks yellow 285-1179	50 (2x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, for 5 ... 17.5 mm terminal width plain 793-501	5
Protective warning marker, with black high-voltage symbol yellow 285-1177	50 (2x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain 793-5501	5
Finger guard, touch-proof cover protects unused conductor entries and jumper slots yellow 285-1178	25	Marking strip, plain, 11 mm wide, 50 m reel white 2009-110	1
T-wrench with a partially insulated shaft 285-172	1		
Three-phase set, with 185mm <sup>2</sup> high-current terminal blocks 285-1165	1		



Dimensions (in mm)  
Drill hole separation distance



Secure the terminal block to a mounting plate using two M8 cylinder-head screws and appropriate washers.



## Rail-Mount Terminal Blocks, Classic



# Rail-Mount Terminal Blocks, Classic

## Installation Rail-Mount Terminal Blocks, TOPJOB®, Classic

### Front-Entry Wiring

			Page
	<b>Through, Ground/Shield Conductor, Ex Terminal Blocks</b> 0.08 ... 35 mm <sup>2</sup> (28 ... 2 AWG)	279 ... 285/880 Series	218
	<b>Distribution Terminal Blocks</b> 10 mm <sup>2</sup> /35 mm <sup>2</sup> (8/2 AWG)	284 Series	233
	<b>Multilevel Rail-Mount Terminal Blocks</b> 1.5/2.5/4 mm <sup>2</sup> (16/12 AWG)	279/280/281 Series	236
	<b>TOPJOB®, Classic</b> <b>Through, Ground/Shield Conductor and Ex Terminal Blocks</b> 0.08 ... 35 mm <sup>2</sup> (28 ... 2 AWG)	780 ... 785 Series	251
	<b>Disconnect/Test Terminal Blocks</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG) and 0.2 ... 6 mm <sup>2</sup> (24 ... 10 AWG)	280/281 and 282 Series	260
	<b>Disconnect, Ground Conductor Disconnect and Fuse Terminal Blocks</b> 0.2 ... 6 mm <sup>2</sup> (24 ... 10 AWG)	282 Series	276
	<b>Fused Disconnect Terminal Blocks with a Pivoting Fuse Holder</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG)	281 Series	282
	<b>Fuse Plugs on Carrier Terminal Blocks</b>	281/280 Series	286
	<b>Sensor and Actuator Terminal Blocks</b> 0.08 ... 2.5 mm <sup>2</sup> (28 ... 12 AWG)	280 Series	296
	<b>Diode and LED Terminal Blocks</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG)	279 ... 281 Series	312
	<b>Multilevel Diode and LED Terminal Blocks</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG)	280/281 Series	318
	<b>Diode and LED Modules</b>	280 Series	322
	<b>Accessories for Rail-Mount Terminal Blocks</b>		326

# Rail-Mount Terminal Blocks, 279 ... 285 and 880 Series

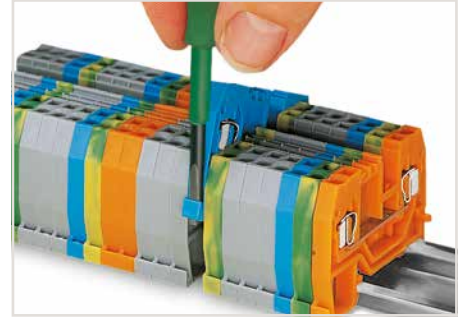
## Description and Installation



By snapping a ground conductor terminal block onto the carrier rail, a direct electrical connection is automatically made to the rail.

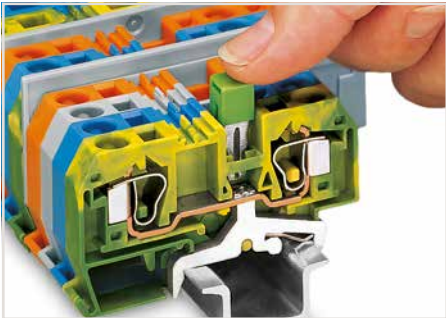


Quick assembly keys prevent reverse mounting.

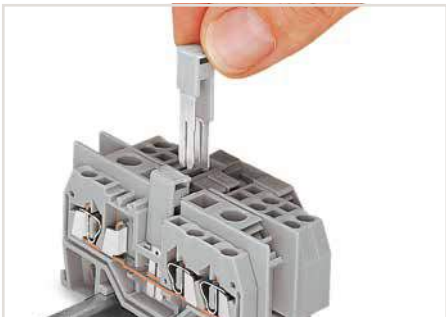


Removing a terminal block from the assembly.

5



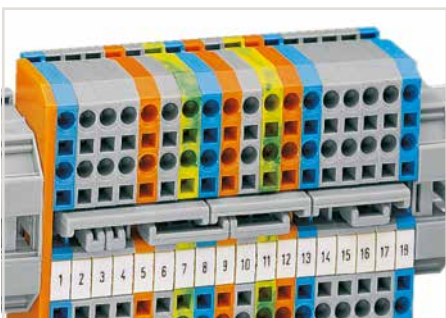
Commoning ground conductor terminal blocks with through terminal blocks is possible in one direction only (via rear side of terminal block) using adjacent jumpers. In addition to the required marking of these blocks, use yellow-green adjacent jumpers.



Commoning terminal blocks of different sizes via step-down jumpers.



Steel carrier rails are not suited for PEN (ground and N-conductor) applications per EN 60947-7-2 (VDE 0611, Part 3).



Staggered jumpers for sophisticated circuit requirements – push jumpers down until fully inserted.



880 Series terminal blocks have an additional test slot for 2-pole voltage tester



Protective warning markers inserted into the operating slots.



**CAGE CLAMP®** terminates the following copper conductors:  
solid



stranded



fine-stranded, also with tinned single strands



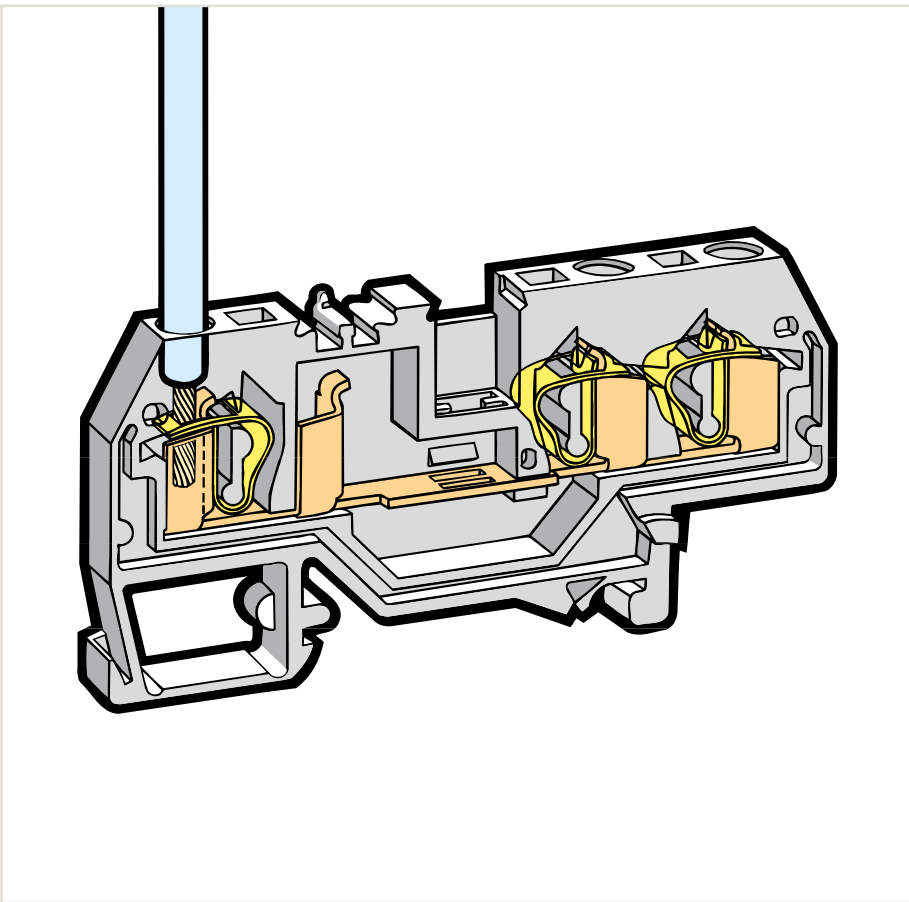
**CAGE CLAMP® connection**  
Inserting a conductor.



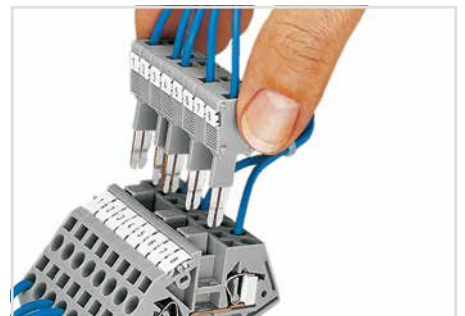
**CAGE CLAMP® connection**  
Inserting a conductor.  
With ferruled conductors, it is necessary to use a terminal block one size larger than the conductor's nominal cross-section.



Testing with a test plug  
(picture shows a test plug fitted with CAGE CLAMP®).



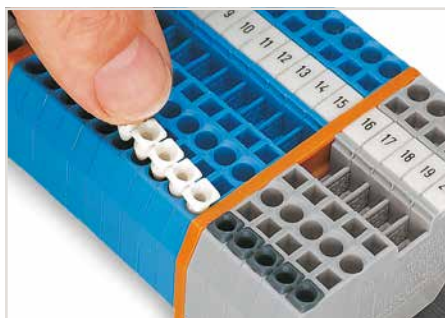
L-type test plug modules fitted with CAGE CLAMP®



B-type test plug modules fitted with CAGE CLAMP®



Marking via WMB Multi Marking System.



Inserting insulation stops.



Testing with a test plug  
(picture shows 209-170 Test Plug Adapter).



fine-stranded,  
tip-bonded



fine-stranded,  
with ferrule  
(gastight crimped)



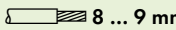


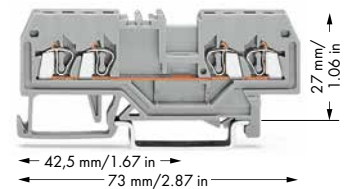
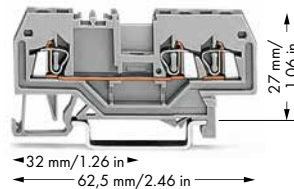
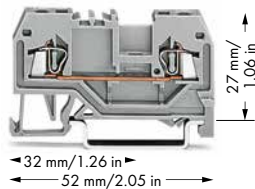
fine-stranded,  
with pin terminal  
(gastight crimped)

5

# Through/Ground Conductor/Shield and Ex Terminal Blocks

## 1.5 mm<sup>2</sup>, 279 Series

<p>0.08 ... 1.5 mm<sup>2</sup>                  28 ... 16 AWG                  800 V/8 kV/3 ①                  I<sub>N</sub> 18 A</p> <p>Terminal block width 4 mm / 0.157 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 1.5 mm<sup>2</sup>                  28 ... 16 AWG                  800 V/8 kV/3 ①                  I<sub>N</sub> 18 A</p> <p>Terminal block width 4 mm / 0.157 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 1.5 mm<sup>2</sup>                  28 ... 16 AWG                  800 V/8 kV/3 ①                  I<sub>N</sub> 18 A</p> <p>Terminal block width 4 mm / 0.157 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>
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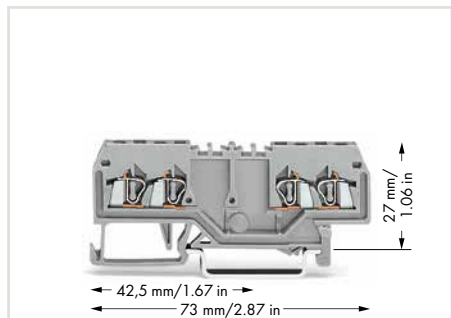


5

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block		3-conductor through terminal block		4-conductor through terminal block	
gray 279-901	100	gray 279-681	100	gray 279-831	100
blue 279-904 ②	100	blue 279-684 ②	100	blue 279-834 ②	100
orange 279-902	100	orange 279-682	100	orange 279-832	100
red 279-903	100	red 279-683	100	red 279-833	100
black 279-905	100	black 279-685	100	black 279-835	100
yellow 279-906	100	yellow 279-686	100	yellow 279-836	100
light gray ⑤ 279-992 ③	100	light gray ⑤ 279-993 ③	100	light gray ⑤ 279-994 ③	100
2-conductor ground terminal block		3-conductor ground terminal block		4-conductor ground terminal block	
green-yellow 279-907	100	green-yellow 279-687	100	green-yellow 279-837	100
green-yellow ⑤ 279-907/999-950 ③	100	green-yellow ⑤ 279-687/999-950 ③	100	green-yellow ⑤ 279-837/999-950 ③	100
Other terminal blocks with the same profile:		Other terminal blocks with the same profile:		Other terminal blocks with the same profile:	
Diode 279-915/281-410	Page 312	Diode 279-673/281-410	Page 312	Diode 279-815/281-410	Page 312
		LED 279-674/281-434	Page 312	LED 279-809/281-434	Page 312
				Double-potential 279-826	Page 219
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2 mm thick		End and intermediate plate, 2 mm thick		End and intermediate plate, 2 mm thick	
orange 279-328	100 (4x25)	orange 279-339	100 (4x25)	orange 279-346	100 (4x25)
gray 279-325	100 (4x25)	gray 279-308	100 (4x25)	gray 279-344	100 (4x25)
light gray 279-330	100 (4x25)	light gray 279-341	100 (4x25)	light gray 279-348	100 (4x25)
Separator, oversized, 2 mm thick		Separator, oversized, 2 mm thick		Separator, oversized, 2 mm thick	
orange 279-329	100 (4x25)	orange 279-340	100 (4x25)	orange 279-347	100 (4x25)
gray 279-326	100 (4x25)	gray 279-309	100 (4x25)	gray 279-345	100 (4x25)
light gray 279-331	100 (4x25)	light gray 279-342	100 (4x25)	light gray 279-349	100 (4x25)
Separator for Ex e/Ex i applications, 3 mm thick, orange		Separator for Ex e/Ex i applications, 3 mm thick, orange		Separator for Ex e/Ex i applications, 3 mm thick, orange	
90 mm 209-190	50 (2x25)	120 mm 209-191	50 (2x25)	120 mm 209-191	50 (2x25)
120 mm 209-191	50 (2x25)				
				Step-down cover plate, 1 mm thick	
				gray 284-336	100 (4x25)
				orange 284-346	100 (4x25)
<b>279 Series Accessories</b>					
Appropriate marking systems: WMB/WMB Inline/WFB (see Section 13)					
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")		Adjacent jumper, insulated, I <sub>N</sub> 15 A		Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A	
white 279-470	200 (8x25)	gray 279-402	200 (8x25)	L = 60 mm 249-125	10
		yellow-green 279-422	200 (8x25)	L = 110 mm 249-126	10
Insulation stop, 5 pcs/strip, 0.25 mm <sup>2</sup>		Alternate jumper, insulated, I <sub>N</sub> 15 A		L = 250 mm 249-127	10
dark gray 279-471	200 (8x25)	gray 279-409	100 (4x25)		

## Double-Potential and Ex Terminal Blocks

### 1.5 mm<sup>2</sup>, 279 Series and 2.5 mm<sup>2</sup>, 280 Series



**Double-potential terminal blocks**, with double marker slot centered on terminal block  
 gray 279-826  
 light gray 279-995  
 Packing unit: 100 pcs

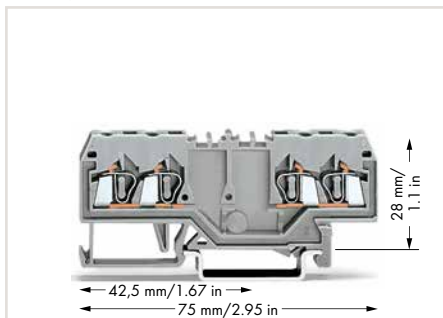
**Notice: These double potential terminal blocks cannot be commoned via adjacent jumpers.**

Double-potential terminal blocks save space.

Two independent feedthrough circuits are placed in one insulated housing on one level in just 4 mm. This achieves a width of just 2 mm versus standard through terminal blocks.

Input and output of a circuit are placed on the same side of the terminal block. Both circuits can be individually marked according to input and output.

For technical data and accessories, see [www.wago.com](http://www.wago.com)



**Double-potential terminal blocks**, with double marker slot centered on terminal block  
 gray 280-826  
 light gray 280-995  
 Packing unit: 100 pcs

**Notice: These double potential terminal blocks cannot be commoned via adjacent jumpers.**

Double-potential terminal blocks save space.

Two independent feedthrough circuits are placed in one insulated housing on one level in just 5 mm. This achieves a width of just 2.5 mm versus standard through terminal blocks.

Input and output of a circuit are placed on the same side of the terminal block. Both circuits can be individually marked according to input and output.

For technical data and accessories, see [www.wago.com](http://www.wago.com)

- 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- Suitable for Ex i applications
- Suitable for Ex e II applications  
0.2 ... 1.5 mm<sup>2</sup> / 24 ... 16 AWG  
550 V, 15 A  
(see Section 14)
- See application notes for:  
Insulation stop, page 331  
Push-in type wire jumper, page 333  
Step-down jumper, page 234  
Banana plug, page 330  
Comb-style jumper bar, page 332  
Operating tool, page 332

### 279 Series Accessories

Step-down jumper, insulated, commons 10/6 mm<sup>2</sup> (8/10 AWG) down to 4/2.5/1.5 mm<sup>2</sup> (12/14/16 AWG), I<sub>N</sub> 15 A  
 gray **284-414** 50 (2x25)

Step-down cover plate, 1 mm thick

gray **284-334** 100 (4x25)  
 orange **284-344** 100 (4x25)

Protective warning marker, with black high-voltage symbol, for 5 terminal blocks

yellow **279-415** 100 (4x25)

Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm<sup>2</sup> terminal blocks

gray **209-170** 50 (2x25)

Banana plug, for 4 mm socket diameter, color mixed, 10 x 4  
 orange, white, black, blue, yellow

**215-111** 50

Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm<sup>2</sup> terminal blocks

gray **280-404** 100 (4x25)

Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V

yellow **210-137** 50

Comb-style jumper bar, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block

2-way **279-482** 200 (8x25)

3-way **279-483** 200 (8x25)

Comb-style jumper bar, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block

10-way **279-490** 50 (2x25)

Alternate comb-style jumper bar, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block

2-way **279-492** 200 (8x25)

Operating tool, of insulating material

2-way **279-432** 1

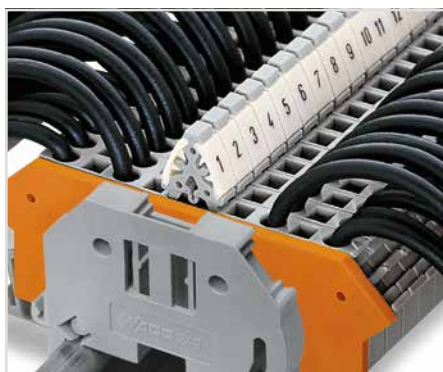
3-way **279-433** 1

Operating tool, of insulating material

10-way **279-440** 1

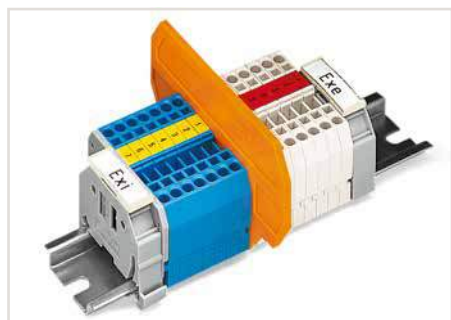


WMB markers provide marking directly on terminal block.



Terminal block marking with double marker carriers (209-128)

For terminal blocks with side marking, see online catalog at [www.wago.com](http://www.wago.com)



#### Separator for Ex e/Ex i applications

According to EN 50020, a minimum distance of 50 mm must be kept between live parts of Ex e and Ex i circuits. The use of Ex e/Ex i separators is a space-saving solution when Ex e and Ex i terminal blocks are mounted on a common carrier rail.

Compatible with 279 to 282 Series:

209-190 for 2-conductor terminal blocks

209-191 for 2-, 3-, 4-conductor terminal blocks



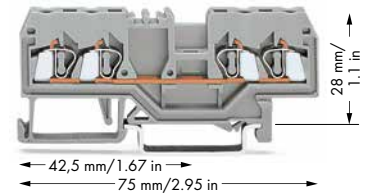
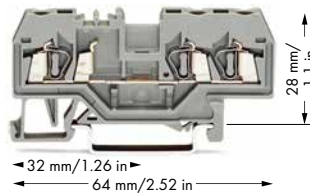
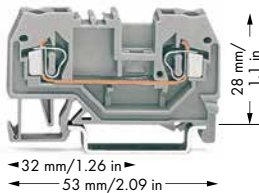
#### End and intermediate plate

In order to meet creepage and clearance requirements for Ex e applications, it is necessary to insert an end or intermediate plate between a through and a ground conductor terminal block.

# Through/Ground Conductor/Shield and Ex Terminal Blocks

## 2.5 mm<sup>2</sup>, 280 Series

<p>0.08 ... 2.5 mm<sup>2</sup> 800 V/8 kV/3 ① I<sub>N</sub> 24 A</p> <p>Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 12 AWG* 600 V, 20 A ② 600 V, 25 A ③</p>	<p>0.08 ... 2.5 mm<sup>2</sup> 800 V/8 kV/3 ① I<sub>N</sub> 24 A</p> <p>Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 12 AWG* 600 V, 20 A ② 600 V, 15 A ③</p>	<p>0.08 ... 2.5 mm<sup>2</sup> 800 V/8 kV/3 ① I<sub>N</sub> 20 A</p> <p>Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 12 AWG* 600 V, 20 A ② 600 V, 25 A ③</p>
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5

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
<b>2-conductor through terminal block</b>		<b>3-conductor through terminal block</b>		<b>4-conductor through terminal block</b>	
gray 280-901	100	gray 280-681	100	gray 280-833	100
blue 280-904 ②	100	blue 280-684 ②	100	blue 280-834 ②	100
orange 280-902	100	orange 280-650	100	orange 280-835	100
red 280-903	100	red 280-653	100	red 280-830	100
black 280-905	100	black 280-671	100	black 280-831	100
yellow 280-906	100	yellow 280-672	100	yellow 280-832	100
light gray ③ 280-992 ③	100	light gray ③ 280-993 ③	100	light gray ③ 280-994 ③	100
<b>2-conductor ground terminal block</b>		<b>3-conductor ground terminal block</b>		<b>4-conductor ground terminal block</b>	
green-yellow 280-907	100	green-yellow 280-687	100	green-yellow 280-837	100
green-yellow ③ 280-907/999-950 ③	100	green-yellow ③ 280-687/999-950 ③	100	green-yellow ③ 280-837/999-950 ③	100
<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>	
Diode 280-915/281-410	Page 314	Diode 280-673/281-410	Page 314	Diode 280-815/281-410	Page 314
Disconnect 280-912	Page 262	Disconnect 280-683	Page 262	LED 280-809/281-434	Page 314
Carrier 280-916	Page 288	Carrier 280-610	Page 288	Disconnect 280-836	Page 262
				Disc., test & meas. 280-829	Page 262
				Carrier 280-816	Page 288
				Double-potential 280-826	Page 219
<b>4-conductor shield terminal block</b>					
white 280-838				100	
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
<b>End and intermediate plate, 2.5 mm thick</b>		<b>End and intermediate plate, 2.5 mm thick</b>		<b>End and intermediate plate, 2.5 mm thick</b>	
orange 280-309	100 (4x25)	orange 280-326	100 (4x25)	orange 280-315	100 (4x25)
gray 280-308	100 (4x25)	gray 280-324	100 (4x25)	gray 280-314	100 (4x25)
light gray 280-356	100 (4x25)	light gray 280-358	100 (4x25)	light gray 280-352	100 (4x25)
<b>Separator, oversized, 2 mm thick</b>		<b>Separator, oversized, 2 mm thick</b>		<b>Separator, oversized, 2 mm thick</b>	
orange 280-311	100 (4x25)	orange 280-346	100 (4x25)	orange 280-335	100 (4x25)
gray 280-310	100 (4x25)	gray 280-344	100 (4x25)	gray 280-334	100 (4x25)
light gray 280-357	100 (4x25)	light gray 280-359	100 (4x25)	light gray 280-353	100 (4x25)
<b>Separator for Ex e/Ex i applications, 3 mm thick, orange</b>		<b>Separator for Ex e/Ex i applications, 3 mm thick, orange</b>		<b>Separator for Ex e/Ex i applications, 3 mm thick, orange</b>	
90 mm 209-190	50 (2x25)	120 mm 209-191	50 (2x25)	120 mm 209-191	50 (2x25)
120 mm 209-191	50 (2x25)				
<b>Spacer with same profile, for 2-conductor terminal blocks of horizontal type, 5 mm thick</b>		<b>Spacer with same profile, for 3-conductor terminal blocks of horizontal type, 5 mm thick</b>		<b>Spacer with same profile, for 4-conductor terminal blocks of horizontal type, 5 mm thick</b>	
orange 280-902/056-000	100 (4x25)	orange 280-650/056-000	100	orange 280-835/056-000	100 (4x25)
				<b>Step-down cover plate, 1 mm thick</b>	
				gray 284-336	100 (4x25)
				orange 284-346	100 (4x25)

## Accessories for 280 Series

\* 12 AWG: THHN, THWN

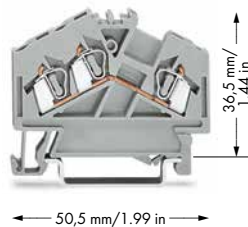
- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ Suitable for Ex e II applications  
0.2 ... 2.5 mm<sup>2</sup> / 24 ... 12 AWG\*  
550 V  
23 A for 2-conductor terminal blocks  
22 A for 3-conductor terminal blocks  
20 A for 4-conductor terminal blocks  
(see Section 14)  
Using staggered jumpers reduces the maximum rated voltage to 275 V.
- ④ See application notes for:  
Insulation stop, page 331  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Comb-style jumper bar, page 332  
Operating tool, page 332  
Step-down jumper, page 234  
Test plug modules, page 326  
Banana plug, page 330

280 Series Accessories			Appropriate marking systems: WMB/WMB Inline/WFB (see Section 13)		
④ Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st") white <b>280-470</b> 200 (8x25)	Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block 2-way <b>280-492</b> 200 (8x25)	④ Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow <b>215-111</b> 50			
④ Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>280-471</b> 200 (8x25)	Operating tool, of insulating material 2-way <b>280-432</b> 1 3-way <b>280-433</b> 1	Test plug adapter, 6 mm wide, with CAGE CLAMP®, for 0.08 ... 2.5 mm <sup>2</sup> I <sub>N</sub> 24 A <b>281-407</b> 100 (4x25)			
④ Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>280-472</b> 200 (8x25)	Operating tool, of insulating material 10-way <b>280-440</b> 1	WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable white <b>2009-115</b> 1			
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block gray <b>280-402</b> 200 (8x25) yellow-green <b>280-422</b> 200 (8x25)	④ Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 4/2.5/1.5 mm <sup>2</sup> (12/14/16 AWG), I <sub>N</sub> 15 A gray <b>284-414</b> 50 (2x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5			
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block gray <b>280-409</b> 100 (4x25)	Step-down cover plate, 1 mm thick gray <b>284-334</b> 100 (4x25) orange <b>284-344</b> 100 (4x25)	WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable yellow <b>793-5501/000-002</b> red <b>793-5501/000-005</b> blue <b>793-5501/000-006</b> gray <b>793-5501/000-007</b> orange <b>793-5501/000-012</b> light green <b>793-5501/000-017</b> green <b>793-5501/000-023</b> violet <b>793-5501/000-024</b> 5			
④ Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A from 1 to 2 <b>780-452</b> 100 (4x25) from 1 to 3 <b>780-453</b> 100 (4x25) from 1 to 4 <b>780-454</b> 100 (4x25) from 1 to 5 <b>780-455</b> 50 (2x25) from 1 to 6 <b>780-456</b> 50 (2x25) from 1 to 7 <b>780-457</b> 50 (2x25) from 1 to 8 <b>780-458</b> 50 (2x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>280-415</b> 100 (4x25)				
	④ Test plug module, snaps together, 5 mm wide gray <b>280-418</b> 100 (4x25)				
	Spacer module, snaps together, 5 mm wide gray <b>280-419</b> 100 (4x25)	Screwless end stop, for DIN-35 rail, 6 mm wide gray <b>249-116</b> 100 (4x25)			
④ Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A L = 60 mm <b>249-125</b> 10 L = 110 mm <b>249-126</b> 10 L = 250 mm <b>249-127</b> 10	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V red <b>210-136</b> 50	Screwless end stop, for DIN-35 rail, 10 mm wide gray <b>249-117</b> 50 (2x25)			
	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V yellow <b>210-137</b> 50				
④ Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block 2-way <b>280-482</b> 200 (8x25) 3-way <b>280-483</b> 200 (8x25)	Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks gray <b>280-404</b> 100 (4x25)				
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block 10-way <b>280-490</b> 50 (2x25)	Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks gray <b>209-170</b> 50 (2x25)				

# Through/Ground Conductor/Shield and Ex Terminal Blocks

## 2.5 mm<sup>2</sup>, 280 Series






















0.08 ... 2.5 mm <sup>2</sup>	28 ... 12 AWG*
800 V/8 kV/3 ①	600 V, 20 A ②
I <sub>N</sub> 24 A	
Terminal block width 5 mm / 0.197 inch	
8 ... 9 mm / 0.31 ... 0.35 inch	



\* 12 AWG: THHN, THWN

- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ Suitable for Ex e II applications  
0.2 ... 2.5 mm<sup>2</sup> / 24 ... 12 AWG\*  
550 V, 23 A  
(see Section 14)  
Using staggered jumpers reduces the maximum rated voltage to 275 V.
- ④ See application notes for:  
Insulation stop, page 331  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Comb-style jumper bar, page 332  
Operating tool, page 332  
Test plug modules, page 326  
Banana plug, page 330

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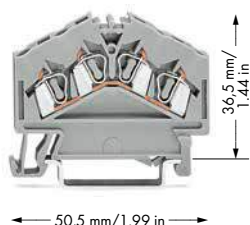
Item No.	Pack. Unit	280 Series Accessories	
		Appropriate marking systems: WMB/WMB Inline/WFB (see Section 13)	
3-conductor through terminal block		Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V
○ gray <b>280-641</b>	100	 gray <b>280-409</b> 100 (4x25)	 red <b>210-136</b> 50
● blue <b>280-651</b> ②	100		
● orange <b>280-654</b>	100		
○ light gray ④ <b>280-998</b> ③	100		
3-conductor ground terminal block		Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V
● green-yellow <b>280-637</b>	100	④ 	 yellow <b>210-137</b> 50
● green-yellow ④ <b>280-637/999-950</b> ③	100		
3-conductor shield terminal block		from 1 to 2 <b>780-452</b> 100 (4x25)	Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks
○ white <b>280-640</b>	100	from 1 to 3 <b>780-453</b> 100 (4x25)	 gray <b>280-404</b> 100 (4x25)
<b>280 Series Accessories</b>		from 1 to 4 <b>780-454</b> 100 (4x25)	Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks
		from 1 to 5 <b>780-455</b> 50 (2x25)	 gray <b>209-170</b> 50 (2x25)
		from 1 to 6 <b>780-456</b> 50 (2x25)	
		from 1 to 7 <b>780-457</b> 50 (2x25)	
		from 1 to 8 <b>780-458</b> 50 (2x25)	
End and intermediate plate, 2.5 mm thick		Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A	Banana plug, for 4 mm socket diameter, color mixed, 10 x
● orange <b>280-313</b> 100 (4x25)		④ 	④ orange, white, black, blue, yellow
● gray <b>280-312</b> 100 (4x25)			<b>215-111</b> 50
● light gray <b>280-354</b> 100 (4x25)			
Separator, oversized, 2.5 mm thick		L = 60 mm <b>249-125</b> 10	Test plug adapter, 6 mm wide, with CAGE CLAMP®, for 0.08 ... 2.5 mm <sup>2</sup>
● orange <b>280-318</b> 100 (4x25)		L = 110 mm <b>249-126</b> 10	 I <sub>N</sub> 24 A <b>281-407</b> 100 (4x25)
● gray <b>280-348</b> 100 (4x25)		L = 250 mm <b>249-127</b> 10	
● light gray <b>280-355</b> 100 (4x25)			
Separator for Ex e/Ex i applications, 3 mm thick, orange		Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
 120 mm <b>209-191</b> 50 (2x25)		④ 	plain <b>793-5501</b> 5
		2-way <b>280-482</b> 200 (8x25)	
		3-way <b>280-483</b> 200 (8x25)	
Spacer with same profile, for 3- and 4-conductor terminal blocks of angled type, 5 mm thick		Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
● orange <b>280-654/056-000</b> 100 (4x25)			yellow <b>793-5501/000-002</b>
		2-way <b>280-492</b> 200 (8x25)	red <b>793-5501/000-005</b>
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")		Operating tool, of insulating material	blue <b>793-5501/000-006</b>
④ 			gray <b>793-5501/000-007</b>
		2-way <b>280-432</b> 1	orange <b>793-5501/000-012</b>
		3-way <b>280-433</b> 1	light green <b>793-5501/000-017</b>
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks	green <b>793-5501/000-023</b>
④ 			violet <b>793-5501/000-024</b> 5
		yellow <b>280-415</b> 100 (4x25)	
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>		Test plug module, snaps together, 5 mm wide	Screwless end stop, for DIN-35 rail, 6 mm wide
④ 		④ 	 gray <b>249-116</b> 100 (4x25)
		dark gray <b>280-472</b> 200 (8x25)	
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Spacer module, snaps together, 5 mm wide	Screwless end stop, for DIN-35 rail, 10 mm wide
 gray <b>280-402</b> 200 (8x25)			 gray <b>249-117</b> 50 (2x25)
		gray <b>280-419</b> 100 (4x25)	



# Through and Ex Terminal Blocks

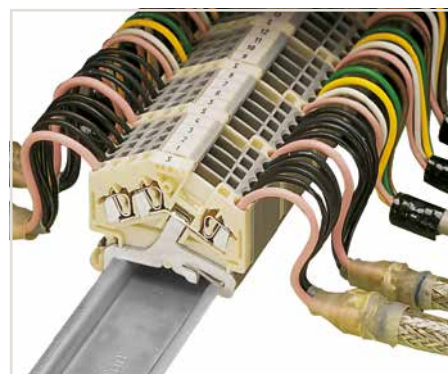
## 2.5 mm<sup>2</sup>, 280 Series

0.08 ... 2.5 mm <sup>2</sup>	28 ... 12 AWG*
800 V/8 kV/3 ①	600 V, 20 A ②
I <sub>N</sub> 24 A	600 V, 25 A ③
Terminal block width 5 mm / 0.197 inch	
8 ... 9 mm / 0.31 ... 0.35 inch	



- \* 12 AWG: THHN, THWN
- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ Suitable for Ex e II applications  
0.2 ... 2.5 mm<sup>2</sup> / 24 ... 12 AWG\*  
550 V, 23 A  
(see Section 14)
- ④ See application notes for:  
Insulation stop, page 331  
Comb-style jumper bar, page 332  
Operating tool, page 332  
Test plug module, page 326

Item No.	Pack. Unit	280 Series Accessories
4-conductor through terminal block		Appropriate marking systems (see Section 13)
○ gray <b>280-646</b>	100	Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block
● blue <b>280-656</b> ②	100	
● orange <b>280-946</b>	100	
○ light gray ④ <b>280-996</b> ③	100	
<b>Notice:</b> These terminal blocks cannot be commoned using adjacent jumpers		2-way <b>280-492</b> 200 (8x25)
<b>280 Series Accessories</b>		Operating tool, of insulating material
		2-way <b>280-432</b> 1
		3-way <b>280-433</b> 1
End and intermediate plate, 2.5 mm thick		Operating tool, of insulating material
		10-way <b>280-440</b> 1
orange <b>280-313</b> 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks	yellow <b>280-415</b> 100 (4x25)
gray <b>280-312</b> 100 (4x25)		
light gray <b>280-354</b> 100 (4x25)		
Separator, oversized, 2.5 mm thick		L-type test plug module, snaps together, 5 mm wide
orange <b>280-318</b> 100 (4x25)	④	gray <b>249-141</b> 100 (4x25)
gray <b>280-348</b> 100 (4x25)		
light gray <b>280-355</b> 100 (4x25)		
Separator for Ex e/Ex i applications, 3 mm thick, orange		WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable
120 mm <b>209-191</b> 50 (2x25)		white <b>2009-115</b> 1
Spacer with same profile, for 3- and 4-conductor terminal blocks of angled type, 5 mm thick		WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
orange <b>280-654/056-000</b> 100 (4x25)		plain <b>793-5501</b> 5
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")		WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
white <b>280-470</b> 200 (8x25)		yellow <b>793-5501/000-002</b>
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>		red <b>793-5501/000-005</b>
light gray <b>280-471</b> 200 (8x25)		blue <b>793-5501/000-006</b>
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>		gray <b>793-5501/000-007</b>
dark gray <b>280-472</b> 200 (8x25)		orange <b>793-5501/000-012</b>
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		light green <b>793-5501/000-017</b>
2-way <b>280-482</b> 200 (8x25)	④	green <b>793-5501/000-023</b>
3-way <b>280-483</b> 200 (8x25)		violet <b>793-5501/000-024</b>
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Screwless end stop, for DIN-35 rail, 6 mm wide
10-way <b>280-490</b> 50 (2x25)		gray <b>249-116</b> 100 (4x25)
		Screwless end stop, for DIN-35 rail, 10 mm wide
		gray <b>249-117</b> 50 (2x25)



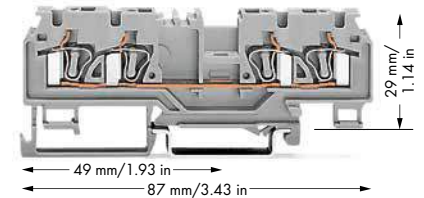
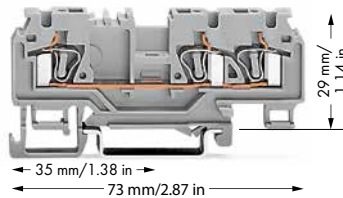
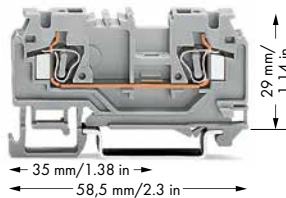
Application example for shield conductor terminal blocks

Shielded control cables are becoming an increasingly common solution to external signal interference. Front-entry shield conductor terminal blocks are ideal for connecting braided cables. Like front-entry ground conductor terminal blocks, they are equipped with a grounding foot for direct electrical connection to the rail, however they differ significantly by their white insulated housing. Shield conductor terminal blocks for front-entry wiring can be directly mounted beside signal-conductor terminal blocks, providing excellent deflection of interfering signals.

# Through and Ground Conductor Terminal Blocks, 5 mm Wide, for 12 AWG Specialty Conductors with Ferrules (216-206)

4 mm<sup>2</sup>, 880 Series

<p>0.08 ... 4 mm<sup>2</sup> 28 ... 12 AWG 800 V/8 kV/3 ① I<sub>N</sub> 25 A</p> <p>Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 4 mm<sup>2</sup> 28 ... 12 AWG 800 V/8 kV/3 ① I<sub>N</sub> 25 A</p> <p>Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 4 mm<sup>2</sup> 28 ... 12 AWG 800 V/8 kV/3 ① I<sub>N</sub> 20 A</p> <p>Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block, no shield contact, with test slot for 2 and 2.3 mm Ø test plugs, for specialty conductors, 4.4 mm insulation diameter (max.)		3-conductor through terminal block, no shield contact, with test slot for 2 and 2.3 mm Ø test plugs, for specialty conductors, 4.4 mm insulation diameter (max.)		4-conductor through terminal block, no shield contact, with test slot for 2 and 2.3 mm Ø test plugs, for specialty conductors, 4.4 mm insulation diameter (max.)	
gray 880-901/999-940 100		gray 880-681/999-940 100		gray 880-831/999-940 50	
blue 880-904/999-940 ② 100		blue 880-684/999-940 ② 100		blue 880-834/999-940 ② 50	
orange 880-902/999-940 100		orange 880-682/999-940 100		orange 880-832/999-940 50	
2-conductor through terminal block with shield contact on request		3-conductor through terminal block with shield contact on request			
2-conductor ground terminal block		3-conductor ground terminal block		4-conductor ground terminal block	
green-yellow 880-907/999-940 100		green-yellow 880-687/999-940 100		green-yellow 880-837/999-940 50	
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick	
orange 880-328 100 (4x25)		orange 880-339 100 (4x25)		orange 880-346 100 (4x25)	
gray 880-325 100 (4x25)		gray 880-308 100 (4x25)		gray 880-344 100 (4x25)	
Separator, oversized, 2 mm thick		Separator, oversized, 2 mm thick		Separator, oversized, 2 mm thick	
orange 880-329 100 (4x25)		orange 880-340 100 (4x25)		orange 880-347 100 (4x25)	
gray 880-326 100 (4x25)		gray 880-309 100 (4x25)		gray 880-345 100 (4x25)	

## 880 Series Accessories

Appropriate marking systems: WMB/WMB Inline/Mini-WSB/Mini-WSB Inline/WFB (see Section 13)

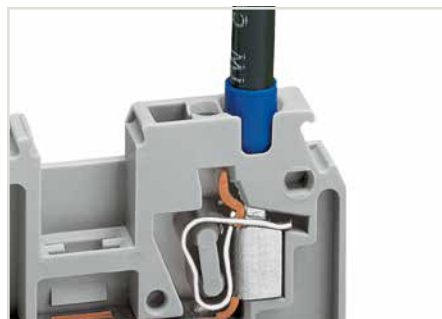
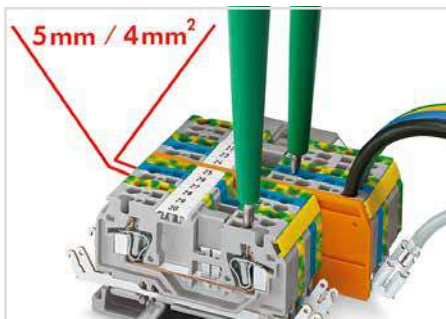
<p>Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st")</p> <p>white 280-470 200 (8x25)</p>	<p>Staggered jumper, insulated, Spacing: 5 mm, I<sub>N</sub> 24 A</p> <p>from 1 to 2 780-452 100 (4x25)</p> <p>from 1 to 3 780-453 100 (4x25)</p> <p>from 1 to 4 780-454 100 (4x25)</p> <p>from 1 to 5 780-455 50 (2x25)</p> <p>from 1 to 6 780-456 50 (2x25)</p> <p>from 1 to 7 780-457 50 (2x25)</p> <p>from 1 to 8 780-458 50 (2x25)</p>	<p>Comb-style jumper bar, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block</p> <p>10-way 280-490 50 (2x25)</p>
<p>Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup></p> <p>light gray 280-471 200 (8x25)</p>		<p>Alternate comb-style jumper bar, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block</p> <p>2-way 280-492 200 (8x25)</p>
<p>Insulation stop, 5 pcs/strip, 0.75 ... 1 mm<sup>2</sup></p> <p>dark gray 280-472 200 (8x25)</p>		<p>Operating tool, of insulating material</p> <p>2-way 280-432 1</p> <p>3-way 280-433 1</p>
<p>Adjacent jumper, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block</p> <p>gray 280-402 200 (8x25)</p> <p>yellow-green 280-422 200 (8x25)</p>	<p>Push-in type wire jumper, insulated, wire size 0.75 mm<sup>2</sup>, I<sub>N</sub> 9 A</p> <p>L = 60 mm 249-125 10</p> <p>L = 110 mm 249-126 10</p> <p>L = 250 mm 249-127 10</p>	<p>Operating tool, of insulating material</p> <p>10-way 280-440 1</p>
<p>Alternate jumper, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block</p> <p>gray 280-409 100 (4x25)</p>		<p>Test plug module, snaps together, 5 mm wide</p> <p>gray 280-418 100 (4x25)</p>
<p>Protective warning marker, with black high-voltage symbol, for 5 terminal blocks</p> <p>yellow 280-415 100 (4x25)</p>	<p>Comb-style jumper bar, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block</p> <p>2-way 280-482 200 (8x25)</p> <p>3-way 280-483 200 (8x25)</p>	<p>Spacer module, snaps together, 5 mm wide</p> <p>gray 280-419 100 (4x25)</p>

# 880 Series Features

- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree

with shield contact  
400 V/6 kV/3  
300 V/10 A  
(see Section 14)

- ② Suitable for Ex i applications
- ③ See application notes for:  
Insulation stop, page 331  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Comb-style jumper bar, page 332  
Operating tool, page 332  
Test plug modules, page 326  
Banana plug, page 330



- Features:**
- 2-, 3- and 4-conductor terminal blocks, just 5 mm wide
  - Conductor cross section up to 4 mm<sup>2</sup> (per VDE 0281) or 12 AWG with ferrule (Item No. 216-206) 2.5 mm<sup>2</sup> rubber-insulated conductors with outer diameter up to 4.4 mm
  - Shield contact, solder/quick-connect contact 6.3 (2 x 2.8) mm
  - Test plug, red, 2 mm Ø
  - Test plug, yellow, 2.3 mm Ø
  - WMB markers
  - Mini-WSB markers, on both sides
  - Commoning with WAGO jumper systems

Using a 12 AWG conductor with ferrule. Item No. 216-206



880 Series terminal blocks have an additional test slot for 2-pole voltage tester

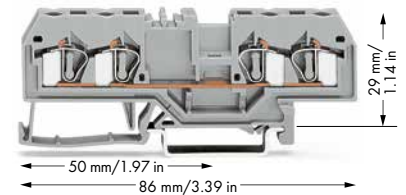
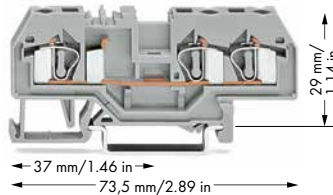
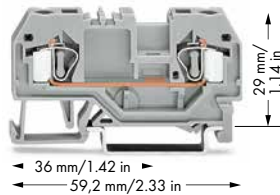
## 880 Series Accessories

Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V			
	yellow	<b>210-137</b>	50
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V			
	red	<b>210-136</b>	50
Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks			
	gray	<b>280-404</b>	100 (4x25)
Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks			
	gray	<b>209-170</b>	50 (2x25)
Banana plug, for 4 mm socket diameter, color mixed, 10 x			
	orange, white, black, blue, yellow	<b>215-111</b>	50
Test plug adapter, 6 mm wide, with CAGE CLAMP®, for 0.08 ... 2.5 mm <sup>2</sup>			
	I <sub>N</sub> 24 A	<b>281-407</b>	100 (4x25)
WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable			
	white	<b>2009-115</b>	1
WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable			
	plain	<b>793-5501</b>	5
Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers			
	plain	<b>248-501</b>	5
Screwless end stop, for DIN-35 rail, 6 mm wide			
	gray	<b>249-116</b>	100 (4x25)
Screwless end stop, for DIN-35 rail, 10 mm wide			
	gray	<b>249-117</b>	50 (2x25)

# Through/Ground Conductor/Shield and Ex Terminal Blocks

## 4 mm<sup>2</sup>, 281 Series

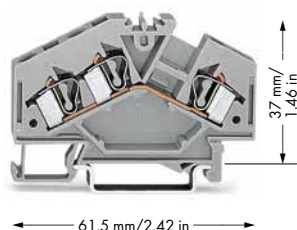
<p>0.08 ... 4 mm<sup>2</sup> 800 V/8 kV/3 ① I<sub>N</sub> 32 A</p> <p>Terminal block width 6 mm / 0.236 inch 9 ... 10 mm / 0.35 ... 0.39 inch</p>	<p>28 ... 12 AWG 600 V, 20 A ② 600 V, 25 A ③</p>	<p>0.08 ... 4 mm<sup>2</sup> 800 V/8 kV/3 ① I<sub>N</sub> 32 A</p> <p>Terminal block width 6 mm / 0.236 inch 9 ... 10 mm / 0.35 ... 0.39 inch</p>	<p>28 ... 12 AWG 600 V, 20 A ② 600 V, 25 A ③</p>	<p>0.08 ... 4 mm<sup>2</sup> 800 V/8 kV/3 ① I<sub>N</sub> 26 A</p> <p>Terminal block width 6 mm / 0.236 inch 9 ... 10 mm / 0.35 ... 0.39 inch</p>	<p>28 ... 12 AWG 600 V, 20 A ② 600 V, 25 A ③</p>
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block		3-conductor through terminal block		4-conductor through terminal block	
gray 281-901	50	gray 281-681	50	gray 281-652	50
blue 281-904 ②	50	blue 281-684 ②	50	blue 281-654 ②	50
orange 281-902	50	orange 281-678	50	orange 281-653	50
red 281-903	50	red 281-679	50	red 281-663	50
black 281-905	50	black 281-685	50	black 281-664	50
yellow 281-906	50	yellow 281-686	50	yellow 281-668	50
light gray ③ 281-992 ③	50	light gray ③ 281-993 ③	50	light gray ③ 281-994 ③	50
2-conductor ground terminal block		3-conductor ground terminal block		4-conductor ground terminal block	
green-yellow 281-907	50	green-yellow 281-687	50	green-yellow 281-657	50
green-yellow ③ 281-907/999-950 ③	50	green-yellow ③ 281-687/999-950 ③	50	green-yellow ③ 281-657/999-950 ③	50
Other terminal blocks with the same profile:		Other terminal blocks with the same profile:		Other terminal blocks with the same profile:	
Diode 281-915/281-410	Page 316	Diode 281-673/281-410	Page 316	Diode 281-665/281-410	Page 316
Disconnect 281-912	Page 264	Disconnect 281-683	Page 264	Disconnect 281-659	Page 264
Carrier 281-916	Page 248	Carrier 281-610	Page 248	Disc., test & meas. 281-666	Page 264
				Carrier 281-656	Page 286
4-conductor shield terminal block					
				white 281-658	50
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick	
orange 281-329	100 (4x25)	orange 281-326	100 (4x25)	orange 281-335	100 (4x25)
gray 281-328	100 (4x25)	gray 281-324	100 (4x25)	gray 281-334	100 (4x25)
light gray 281-349	100 (4x25)	light gray 281-355	100 (4x25)	light gray 281-345	100 (4x25)
Separator, oversized, 2 mm thick		Separator, oversized, 2 mm thick		Separator, oversized, 2 mm thick	
orange 281-331	100 (4x25)	orange 281-346	100 (4x25)	orange 281-339	100 (4x25)
gray 281-330	100 (4x25)	gray 281-344	100 (4x25)	gray 281-338	100 (4x25)
light gray 281-350	100 (4x25)	light gray 281-356	100 (4x25)	light gray 281-347	100 (4x25)
Separator for Ex e/Ex i applications, 3 mm thick, orange		Separator for Ex e/Ex i applications, 3 mm thick, orange		Separator for Ex e/Ex i applications, 3 mm thick, orange	
120 mm 209-191	50 (2x25)	120 mm 209-191	50 (2x25)	120 mm 209-191	50 (2x25)
90 mm 209-190	50 (2x25)				
				Step-down cover plate, 1 mm thick	
				gray 284-336	100 (4x25)
				orange 284-346	100 (4x25)
<b>281 Series Accessories</b>					
Appropriate marking systems: WMB/WFB (see Section 13)					
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")		Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>		Insulation stop, 5 pcs/strip, 0.25 ... 1.5 mm <sup>2</sup>	
white 281-470	200 (8x25)	light gray 281-471	200 (8x25)	dark gray 281-472	200 (8x25)

0.08 ... 4 mm <sup>2</sup>	28 ... 12 AWG
800 V/8 kV/3 ①	600 V, 20 A ②
I <sub>N</sub> 32 A	600 V, 25 A ③
Terminal block width 6 mm / 0.236 inch	
9 ... 10 mm / 0.35 ... 0.39 inch	





- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ Suitable for Ex e II applications  
0.2 ... 4 mm<sup>2</sup> / 24 ... 12 AWG  
550 V, 30 A  
(see Section 14)  
Using staggered jumpers reduces the maximum rated voltage to 275 V.
- ④ See application notes for:  
Insulation stop, page 331  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Comb-style jumper bar, page 332  
Operating tool, page 332  
Step-down jumper, page 234  
Test plug modules, page 326  
Banana plug, page 330

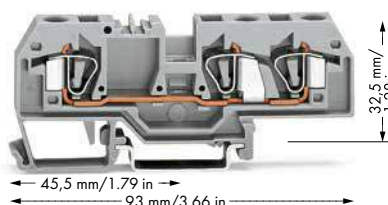
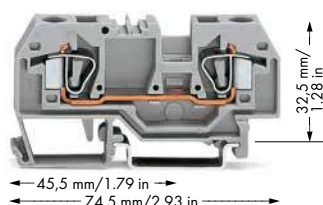
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Item No.	Pack. Unit	281 Series Accessories	
3-conductor through terminal block		Appropriate marking systems: WMB/WFB (see Section 13)	
○ gray	281-631	100	
● blue	281-651 ②	100	
○ light gray ④	281-998 ③	100	
3-conductor ground terminal block		Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	
● green-yellow	281-637	100	
● green-yellow ④	281-637/999-950 ③	100	
Item-Specific Accessories		Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	
End and intermediate plate, 2.5 mm thick		Staggered jumper, insulated, Spacing: 6 mm, I <sub>N</sub> 32 A	
orange	281-313	100 (4x25)	
gray	281-312	100 (4x25)	
light gray	281-357	100 (4x25)	
Separator, oversized, 2 mm thick		④	
orange	281-318	100 (4x25)	
gray	281-348	100 (4x25)	
light gray	281-358	100 (4x25)	
Separator for Ex e/Ex i applications, 3 mm thick, orange		Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A	
120 mm	209-191	50 (2x25)	
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		④	
2-way		281-482	100 (4x25)
3-way		281-483	100 (4x25)
5-way		281-485	100 (4x25)
10-way		281-490	50 (2x25)
Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Operating tool, of insulating material	
2-way		281-492	100 (4x25)
3-way		280-432	1
5-way		280-433	1
5-way		281-440	1
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 4/2.5/1.5 mm <sup>2</sup> (12/14/16 AWG), I <sub>N</sub> 15 A	
yellow	281-415	100 (4x25)	
gray		284-414	50 (2x25)
Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 6/4 mm <sup>2</sup> (10/12 AWG), I <sub>N</sub> 30 A		Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 6/4 mm <sup>2</sup> (10/12 AWG), I <sub>N</sub> 30 A	
gray		284-413	50 (2x25)
Step-down cover plate, 1 mm thick		Step-down cover plate, 1 mm thick	
gray		284-334	100 (4x25)
orange		284-344	100 (4x25)
Test plug module, snaps together, 6 mm wide		Test plug module, snaps together, 6 mm wide	
④		④	
gray		281-418	100 (4x25)
Spacer module, snaps together, 6 mm wide		Spacer module, snaps together, 6 mm wide	
gray		281-419	100 (4x25)
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V		Test plug, with 500 mm cable, 2 mm Ø, max. 42 V	
red		210-136	50
Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V	
yellow		210-137	50
Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks		Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks	
gray		280-404	100 (4x25)
Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks		Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks	
gray		209-170	50 (2x25)
Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow		Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow	
④		④	
		215-111	
Test plug adapter, 6 mm wide, with CAGE CLAMP®, for 0.08 ... 2.5 mm <sup>2</sup>		Test plug adapter, 6 mm wide, with CAGE CLAMP®, for 0.08 ... 2.5 mm <sup>2</sup>	
I <sub>N</sub> 24 A		281-407	100 (4x25)
Screwless end stop, for DIN-35 rail, 6 mm wide		Screwless end stop, for DIN-35 rail, 6 mm wide	
gray		249-116	100 (4x25)
Screwless end stop, for DIN-35 rail, 10 mm wide		Screwless end stop, for DIN-35 rail, 10 mm wide	
gray		249-117	50 (2x25)

# Through/Ground Conductor and Ex Terminal Blocks

## 6 mm<sup>2</sup>, 282 Series

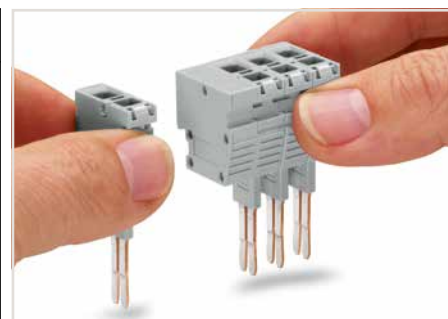
0.2 ... 6 mm <sup>2</sup> 800 V/8 kV/3 ① I <sub>N</sub> 41 A	24 ... 10 AWG 600 V, 30 A ② 600 V, 40 A ③	0.2 ... 6 mm <sup>2</sup> 800 V/8 kV/3 ① I <sub>N</sub> 41 A	24 ... 10 AWG 600 V, 30 A ② 600 V, 40 A ③
Terminal block width 8 mm / 0.315 inch  12 ... 13 mm / 0.47 ... 0.51 inch		Terminal block width 8 mm / 0.315 inch  12 ... 13 mm / 0.47 ... 0.51 inch	



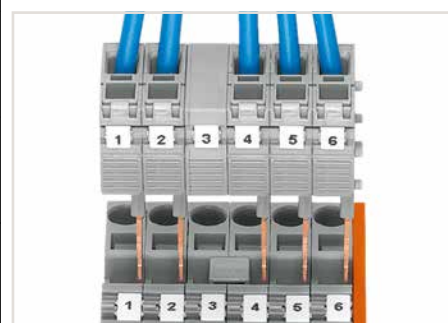
- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ Suitable for Ex e II applications  
0.5 ... 6 mm<sup>2</sup> / 20 ... 10 AWG  
550 V, 39 A  
35 A jumper  
(see Section 14)
- ④ See application notes for:  
Step-down jumper, page 234  
Test plug module, page 329  
Banana plug, page 330

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Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block		3-conductor through terminal block	
gray 282-901	50	gray 282-681	25
blue 282-904 ②	50	blue 282-684 ②	25
orange 282-902	50	orange 282-682	25
light gray ④	50	light gray ④	50
2-conductor ground terminal block		3-conductor ground terminal block	
green-yellow 282-907	50	green-yellow 282-687	25
green-yellow ④	50	green-yellow ④	50
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick	
orange 282-328	100 (4x25)	orange 282-339	100 (4x25)
gray 282-325	100 (4x25)	gray 282-308	100 (4x25)
light gray 282-330	100 (4x25)	light gray 282-341	100 (4x25)
Separator, oversized, 2 mm thick		Separator, oversized, 2 mm thick	
orange 282-329	100 (4x25)	orange 282-340	100 (4x25)
gray 282-326	100 (4x25)	gray 282-309	100 (4x25)
light gray 282-331	100 (4x25)	light gray 282-342	100 (4x25)
Step-down cover plate, 1 mm thick		Step-down cover plate, 1 mm thick	
gray 282-357	100 (4x25)	gray 282-358	100 (4x25)
orange 282-367	100 (4x25)	orange 282-368	100 (4x25)
<b>282 Series Accessories</b>			
Appropriate marking systems: WMB/WFB (see Section 13)			
Separator for Ex e/Ex i applications, 3 mm thick, orange		Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 6/4 mm <sup>2</sup> (10/12 AWG), I <sub>N</sub> 30 A	
120 mm 209-191	50 (2x25)	gray 284-413	50 (2x25)
Adjacent jumper, insulated, I <sub>N</sub> 41 A		Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks	
gray 282-402	100 (4x25)	gray 209-170	50 (2x25)
yellow-green 282-422	100 (4x25)	Banana plug, for 4 mm socket diameter, color mixed, 10 x	
Alternate jumper, insulated, I <sub>N</sub> 41 A		④ orange, white, black, blue, yellow	
gray 282-409	100 (4x25)	215-111 50	
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		④ B-type test plug module, snaps together, 8 mm wide	
yellow 282-415	100 (4x25)	gray 709-310	100 (4x25)
④ Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 4/2.5/1.5 mm <sup>2</sup> (12/14/16 AWG), I <sub>N</sub> 15 A		B-type spacer module, snaps together, 8 mm wide	
gray 284-414	50 (2x25)	gray 709-311	100 (4x25)





Snapping test plug and spacer modules together to assemble a multi-pole test plug module (max. 10 poles) for 8 mm terminal block width.

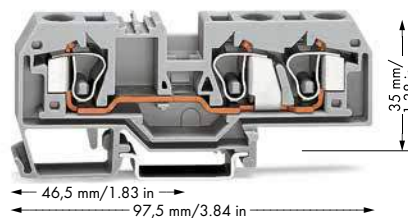
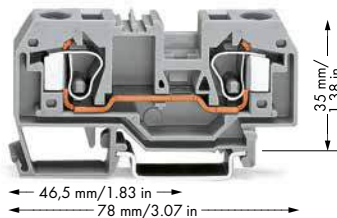


The test plug modules are directly plugged into the jumper contact slot of the current bar (picture shows 282 Series).

# Through/Ground Conductor and Ex Terminal Blocks

## 10 mm<sup>2</sup>, 284 Series

<b>0.2 ... 10 mm<sup>2</sup></b> <b>800 V/8 kV/3 ①</b> <b>I<sub>N</sub> 57 A</b> <b>Terminal block width 10 mm / 0.394 inch</b>  <b>12 ... 13 mm / 0.47 ... 0.51 inch</b>	<b>24 ... 8 AWG</b> <b>600 V, 50 A<sup>②</sup></b> <b>600 V, 54 A<sup>③</sup></b>	<b>0.2 ... 10 mm<sup>2</sup></b> <b>800 V/8 kV/3 ①</b> <b>I<sub>N</sub> 57 A</b> <b>Terminal block width 10 mm / 0.394 inch</b>  <b>12 ... 13 mm / 0.47 ... 0.51 inch</b>	<b>24 ... 8 AWG</b> <b>600 V, 50 A<sup>②</sup></b> <b>600 V, 54 A<sup>③</sup></b>
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- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex e II applications  
0.5 ... 10 mm<sup>2</sup> / 20 ... 8 AWG  
550 V, 53 A  
(see Section 14)
- ③ See application notes for:  
Step-down jumper, page 234  
Test plug module, page 329  
Banana plug, page 330

Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block		3-conductor through terminal block	
gray 284-901	25	gray 284-681	25
blue 284-904	25	blue 284-684	25
orange 284-902	25	orange 284-682	25
light gray ⑤ 284-992 ②	25	light gray ⑤ 284-993 ②	25

2-conductor ground terminal block		3-conductor ground terminal block	
green-yellow 284-907	25	green-yellow 284-687	25
green-yellow ⑤ 284-907/999-950 ②	25	green-yellow ⑤ 284-687/999-950 ②	25

### Item-Specific Accessories

End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick	
orange 284-328	100 (4x25)	orange 284-339	100 (4x25)
gray 284-325	100 (4x25)	gray 284-308	100 (4x25)
light gray 284-330	100 (4x25)	light gray 284-341	100 (4x25)

Separator, oversized, 2 mm thick		Separator, oversized, 2 mm thick	
orange 284-329	100 (4x25)	orange 284-340	100 (4x25)
gray 284-326	100 (4x25)	gray 284-309	100 (4x25)
light gray 284-331	100 (4x25)	light gray 284-342	100 (4x25)

Step-down cover plate, 1 mm thick		Step-down cover plate, 1 mm thick	
gray 284-357	100 (4x25)	gray 284-358	100 (4x25)
orange 284-367	100 (4x25)	orange 284-368	100 (4x25)

### 284 Series Accessories

Appropriate marking systems: WMB/WFB  
(see Section 13)

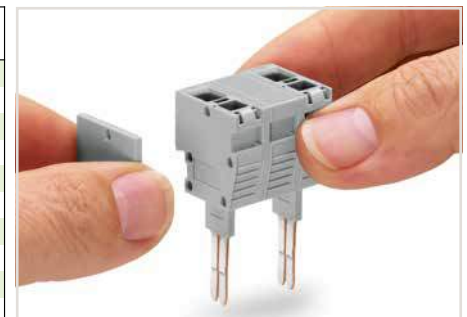
Adjacent jumper, insulated, I <sub>N</sub> 57 A	gray 284-402 100 (4x25)	Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 6/4 mm <sup>2</sup> (10/12 AWG), I <sub>N</sub> 30 A	gray 284-413 50 (2x25)
	yellow-green 284-422 100 (4x25)		

Alternate jumper, insulated, I <sub>N</sub> 57 A	gray 284-409 50 (2x25)	Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks	gray 209-170 50 (2x25)
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Protective warning marker, with black high-voltage symbol, for 5 terminal blocks	yellow 284-415 50 (2x25)	Banana plug, for 4 mm socket diameter, color mixed, 10 x	215-111 50
		③ orange, white, black, blue, yellow	

Finger guard, touch-proof cover protects unused conductor entries	yellow 284-400 100 (4x25)	B-type test plug module, snaps together, 8 mm wide	gray 709-310 100 (4x25)
		③	

Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 4/2.5/1.5 mm <sup>2</sup> (12/14/16 AWG), I <sub>N</sub> 15 A	gray 284-414 50 (2x25)	B-type spacer plate, snaps together, 2 mm wide	gray 709-312 100 (4x25)
③			



Snapping test plug and spacer modules (each with a spacer plate) together to assemble a multi-pole test plug module (max. 10 poles) for 10 mm terminal block width.



The test plug modules are directly plugged into the jumper contact slot of the current bar (picture shows 284 Series).

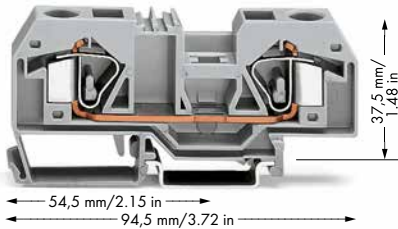


Inserting a finger guard seals unused conductor entries.

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# Through/Ground Conductor and Ex Terminal Blocks 16 mm<sup>2</sup>, 283 Series

0.2 ... 16 mm <sup>2</sup>	24 ... 6 AWG
800 V/8 kV/3 ①	600 V, 65 A <sup>②</sup>
I <sub>N</sub> 76 A	600 V, 70 A <sup>③</sup>
Terminal block width 12 mm / 0.472 inch	
16 ... 17 mm / 0.63 ... 0.67 inch	



- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex e II applications  
0.5 ... 16 mm<sup>2</sup> / 20 ... 6 AWG  
550 V, 68 A  
63 A jumper  
(see Section 14)
- ③ See application notes for:  
Step-down jumper, page 234  
Banana plug, page 330

5

Item No.	Pack. Unit	283 Series Accessories
		Appropriate marking systems (see Section 13)
2-conductor through terminal block		End and intermediate plate, 2.5 mm thick
○ gray	283-901	20
● blue	283-904	20
● orange	283-902	20
○ light gray ☒	283-992 ②	20
2-conductor ground terminal block		Separator, oversized, 2 mm thick
● green-yellow	283-907	20
● green-yellow ☒	283-907/999-950 ②	20
		Adjacent jumper, insulated, I <sub>N</sub> 70 A
		gray 283-402 50 (2x25)
		yellow-green 283-422 50 (2x25)
		Alternate jumper, insulated, I <sub>N</sub> 76 A
		gray 283-409 50 (2x25)
		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks
		yellow 283-415 50 (2x25)
		Finger guard, touch-proof cover protects unused conductor entries
		yellow 283-400 100 (4x25)
		Step-down jumper, insulated, commons 16 mm <sup>2</sup> (6 AWG)
③		down to 4 mm <sup>2</sup> (12 AWG), I <sub>N</sub> 32 A
		gray 283-414 50 (2x25)
		Step-down cover plate, 1 mm thick
		gray 283-357 100 (4x25)
		orange 283-367 100 (4x25)
		Test plug adapter, 11.6 mm wide, for 4 mm Ø test plug, for 1.5 ... 16 mm <sup>2</sup> terminal blocks
		gray 283-404 25
		Banana plug, for 4 mm socket diameter, color mixed, 10 x
③		orange, white, black, blue, yellow
		215-111 50
		Power tap, I <sub>N</sub> 24 A, with 500 mm cable, for terminal blocks 16 mm <sup>2</sup> (283/783 Series) and 35 mm <sup>2</sup> (285/785 Series)
		gray 283-407 25
		Screwless end stop, for DIN-35 rail, 6 mm wide
		gray 249-116 100 (4x25)



The markers are not covered by the wiring when marking terminal blocks in center position.



Always push power tap (283-407) down into the terminal block until fully inserted!




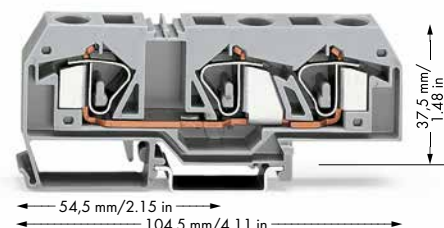
# Through/Ground Conductor and Ex Terminal Blocks

## 16 mm<sup>2</sup>, 283 Series

0.2 ... 16 mm <sup>2</sup>	24 ... 6 AWG
800 V/8 kV/3 ①	600 V, 65 A ②
I <sub>N</sub> 76 A	600 V, 70 A ③

Terminal block width 12 mm / 0.472 inch

 16 ... 17 mm / 0.63 ... 0.67 inch



- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex e II applications  
0.5 ... 16 mm<sup>2</sup> / 20 ... 6 AWG  
550 V, 68 A  
(see Section 14)

Item No.	Pack. Unit	283 Series Accessories
3-conductor through terminal block		Appropriate marking systems (see Section 13)
○ gray	283-671	20
● blue	283-674	20
● orange	283-672	20
○ light gray ⑤	283-998 ②	20
3-conductor ground terminal block		End and intermediate plate, 2.5 mm thick
● green-yellow	283-677	20
● green-yellow ⑤	283-677/999-950 ②	20
<b>Notice: These terminal blocks cannot be commoned using adjacent jumpers</b>		Separator, oversized, 2 mm thick
		orange 283-352 50 (2x25)
		gray 283-350 50 (2x25)
		light gray 283-354 50 (2x25)
		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks
		yellow 283-415 50 (2x25)
		Finger guard, touch-proof cover protects unused conductor entries
		yellow 283-400 100 (4x25)
		Screwless end stop, for DIN-35 rail, 6 mm wide
		gray 249-116 100 (4x25)
		Screwless end stop, for DIN-35 rail, 10 mm wide
		gray 249-117 50 (2x25)

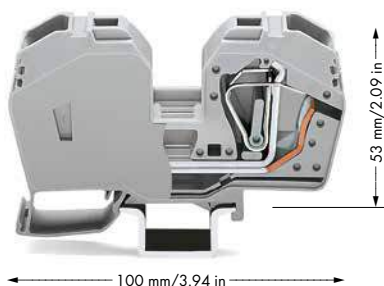


Inserting a finger guard seals unused conductor entries.

# Through/Ground Conductor and Ex Terminal Blocks

## 35 mm<sup>2</sup>, 285 Series

6 ... 35 mm <sup>2</sup>	8 ... 2 AWG
1000 V/8 kV/3 ①	600 V, 115 A ②
I <sub>N</sub> 125 A	600 V, 120 A ②
Terminal block width 16 mm / 0.63 inch	
23 mm / 0.91 inch	



Terminating a 35 mm<sup>2</sup> (2 AWG) conductor.

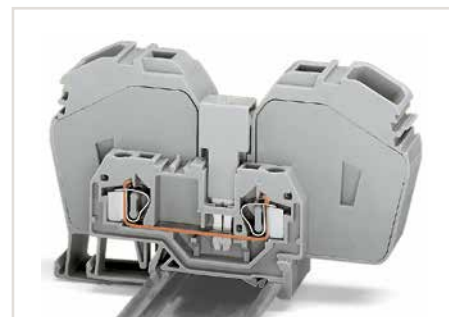
- ① 1000 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex e II applications  
6 ... 35 mm<sup>2</sup> / 8 ... 2 AWG  
880 V, 85 A  
6 ... 25 mm<sup>2</sup> / 8 ... 4 AWG  
for ground conductor terminal blocks  
(see Section 14)

5

	Item No.	Pack. Unit
2-conductor through terminal block, with integrated end plate, sively on DIN-35 x 15 rail		
○ gray	<b>285-635</b>	15
● blue	<b>285-634</b>	15
○ light gray ②	<b>285-992</b> ②	15
2-conductor ground terminal block, with integrated end plate, sively on DIN-35 x 15 rail		
● green-yellow	<b>285-637</b>	15
● green-yellow ②	<b>285-637/999-950</b> ②	15



Protective warning markers inserted into the operating slots.



Commoning with step-down jumper (283-414) from 285 Series (35 mm<sup>2</sup>/2 AWG) to 281 Series terminal blocks (4 mm<sup>2</sup>/12 AWG).

### 285 Series Accessories

Appropriate marking systems:  
WMB/Mini-WSB/WFB

Adjacent jumper, insulated, I<sub>N</sub> 85 A



gray	<b>285-435</b>	50 (2x25)
------	----------------	-----------

Step-down jumper, insulated, commons 16 mm<sup>2</sup> (6 AWG) down to 4 mm<sup>2</sup> (12 AWG), I<sub>N</sub> 32 A



gray	<b>283-414</b>	50 (2x25)
------	----------------	-----------

Protective warning marker, with black high-voltage symbol, for 5 terminal blocks



yellow	<b>285-416</b>	50 (2x25)
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Finger guard, touch-proof cover protects unused conductor entries



yellow	<b>285-401</b>	100
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Power tap, I<sub>N</sub> 24 A, with 500 mm cable, for terminal blocks 16 mm<sup>2</sup> (283/783 Series) and 35 mm<sup>2</sup> (285/785 Series)



gray	<b>283-407</b>	25
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Screwless end stop, for DIN-35 rail, 6 mm wide



gray	<b>249-116</b>	100 (4x25)
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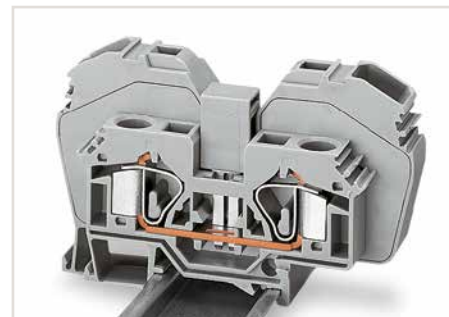
Screwless end stop, for DIN-35 rail, 10 mm wide



gray	<b>249-117</b>	50 (2x25)
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Finger guard seals an unused conductor entry.

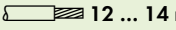


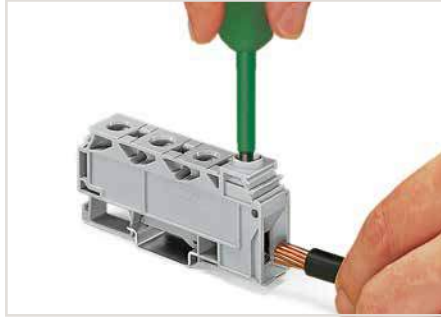
The following 285 Series Through Terminal Blocks can be commoned with 283 Series Through Terminal Blocks: 285-635 or 285-634 with 283-601 or 283-604 (terminal blocks with side marking, visit [www.wago.com](http://www.wago.com))  
Adjacent jumper required: 285-435

Please note that the nominal current of the adjacent jumper shall not exceed 63 A.

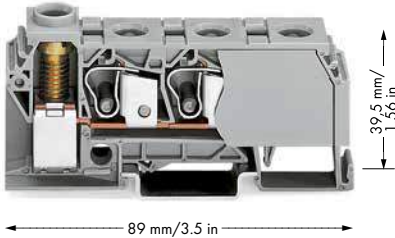
# Distribution Terminal Blocks, 3 x 10 mm<sup>2</sup> CAGE CLAMP® Connection and 1 x 35 mm<sup>2</sup> Screw Clamp Connection

## 284 Series

0.2 ... 10 mm<sup>2</sup> ① | 24 ... 8 AWG  
 6 ... 35 mm<sup>2</sup> ② | 10 ... 2 AWG  
 800 V/8 kV/3 ③  
 I<sub>N</sub> 125 A  
 Terminal block width 17.5 mm / 0.689 inch  
 12 ... 14 mm / 0.47 ... 0.55 inch



Terminating a 35 mm<sup>2</sup> (2 AWG) conductor - screw clamp connection, side-entry wiring.




- ① CAGE CLAMP® connection
- ② Screw-clamp connection
- ③ 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ④ Individual arrangement: 125 A  
Two jumpers combined in one clamping unit: 100 A

Item No.	Pack. Unit
Distribution terminal block, 3 x CAGE CLAMP® connection (10 mm <sup>2</sup> /8 AWG), 1 x screw-clamp connection (35 mm <sup>2</sup> /2 AWG) and 3.5 Nm screw torque	
○ gray 284-621	15
● blue 284-624	15


### Accessories for Distribution Terminal Blocks

Appropriate marking system: WMB


Comb-style jumper bar, insulated,  
 ④ I<sub>N</sub> 125 A for 1 jumper,  
 I<sub>N</sub> 100 A for 2 jumpers

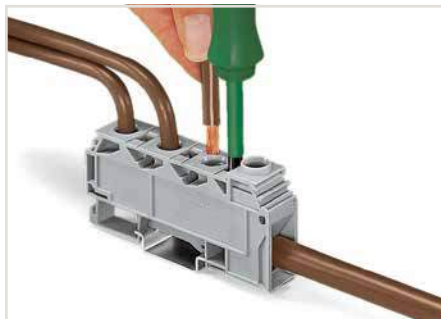
	gray	284-412	100 (4x25)
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Screwless end stop, for DIN-35 rail, 6 mm wide

	gray	249-116	100 (4x25)
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Screwless end stop, for DIN-35 rail, 10 mm wide

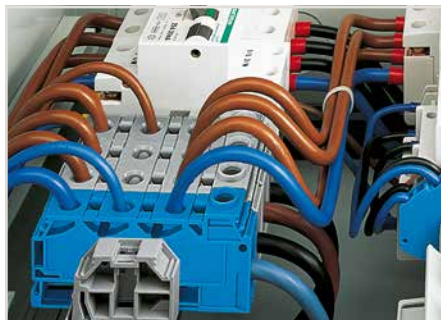
	gray	249-117	50 (2x25)
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Terminating a 10 mm<sup>2</sup> (8 AWG) conductor - CAGE CLAMP® connection, front-entry wiring.



Commoning with comb-style jumper bar. Individual arrangement: 125 A  
Two jumpers combined in one clamping unit: 100 A



Side-entry distribution terminal block with screw clamp connection (35 mm<sup>2</sup>/2 AWG) and front-entry CAGE CLAMP® connection (3 x 10 mm<sup>2</sup>/8 AWG) snaps onto DIN-35 rails. This terminal block is enclosed on both sides and requires no end or intermediate plate.

When connecting 3 x 10 mm<sup>2</sup> (8 AWG) conductors on the distribution side, make sure that the nominal current of 125 A is not exceeded.

5

## Step-Down Jumpers for Front-Entry Through Terminal Blocks up to 16 mm<sup>2</sup> Installation



Step-down jumper from 10/6 mm<sup>2</sup> (8/10 AWG) to 4/2.5/1.5 mm<sup>2</sup> (12/14/16 AWG); I<sub>N</sub> 15 A, Item No. 284-414

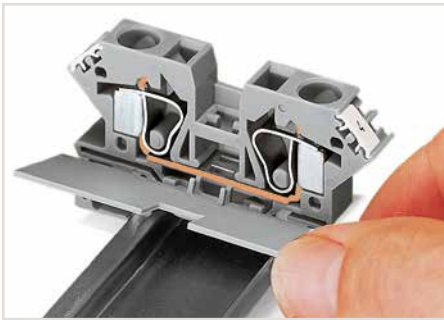


Step-down jumper from 10/6 mm<sup>2</sup> (8/10 AWG) to 6/4 mm<sup>2</sup> (10/12 AWG); I<sub>N</sub> 30 A, Item No. 284-413

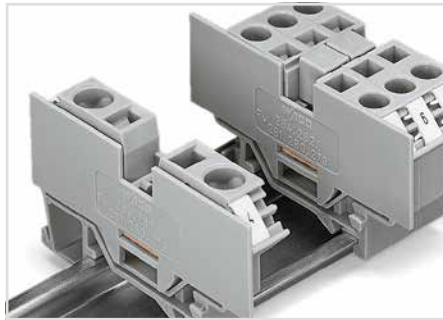


Step-down jumper from 16 mm<sup>2</sup> (6 AWG) to 4 mm<sup>2</sup> (12 AWG); I<sub>N</sub> 32 A, Item No. 283-414

5



Snapping cover plate onto open side of terminal block.



A cover plate must also be snapped onto the other side of the larger terminal block.



Commoning terminal blocks of different sizes - step down. Push down the step-down jumper until fully inserted.

Step-down jumpers common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point.

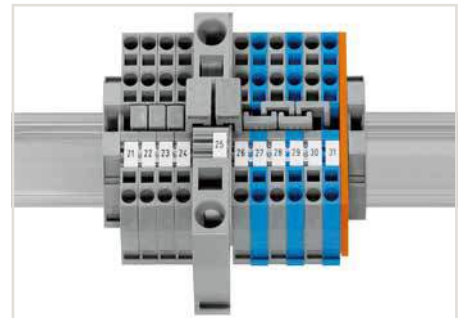
Step-down jumpers are simply pushed down for full insertion, similar to adjacent jumpers. Commoning may be made in either direction using the special thin end plate to cover the open side. Additional through terminal blocks having a smaller cross-section may be commoned using adjacent jumpers.

In this case, pay attention that:

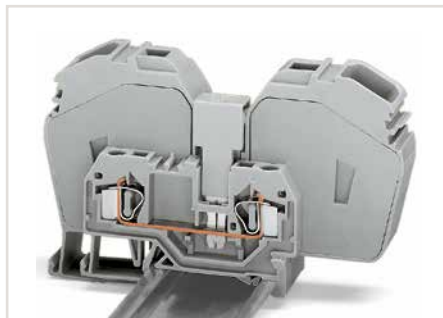
- The total current of the outgoing circuits does not exceed the nominal current of the step-down jumper.
- The standard or special thin cover plate is installed on the open side of the larger block.



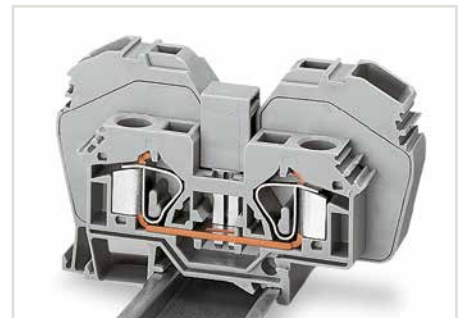
Note: Jumpers are marked with suitable terminal block sizes for correct installation.



Commoning from 16 mm<sup>2</sup>/6 AWG (283 Series) to 4 mm<sup>2</sup>/12 AWG (281 Series) rail-mount terminal blocks via step-down jumpers.



Commoning with step-down jumper (283-414) from 285 Series (35 mm<sup>2</sup>/2 AWG) to 281 Series terminal blocks (4 mm<sup>2</sup>/12 AWG).



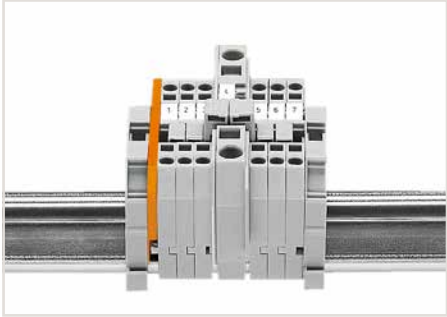
The following 285 Series Through Terminal Blocks can be commoned with 283 Series Through Terminal Blocks: 285-635 or 285-634 with 283-601 or 283-604 (terminal blocks with side marking, visit [www.wago.com](http://www.wago.com))  
Adjacent jumper required: 285-435

Please note that the nominal current of the adjacent jumper shall not exceed 63 A.

# Assembly Examples

## Step-Down Jumpers for Front-Entry Through Terminal Blocks

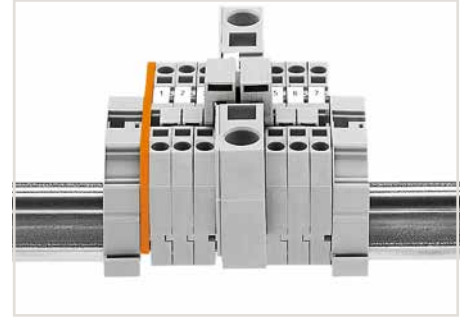
Terminal blocks with side marking, visit [www.wago.com](http://www.wago.com)



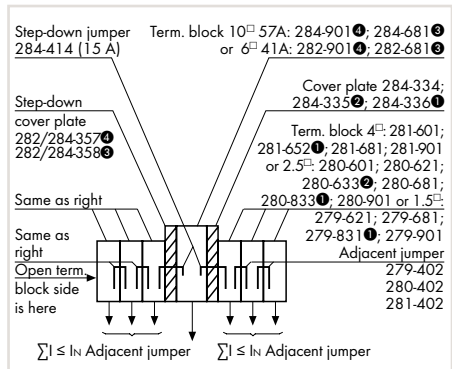
Commoning from 6 mm<sup>2</sup>/10 AWG (282 Series) to 1.5 mm<sup>2</sup>/16 AWG (279 Series) rail-mount terminal blocks via step-down jumpers.



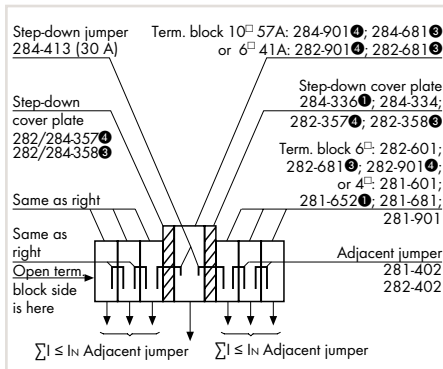
Commoning from 10 mm<sup>2</sup>/8 AWG (284 Series) to 6 mm<sup>2</sup>/10 AWG (282 Series) rail-mount terminal blocks via step-down jumpers.



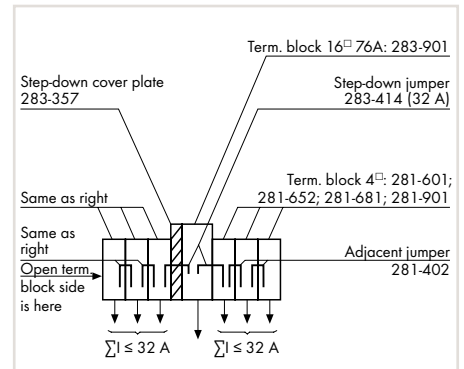
Commoning from 16 mm<sup>2</sup>/6 AWG (283 Series) to 4 mm<sup>2</sup>/12 AWG (281 Series) rail-mount terminal blocks via step-down jumpers.



Assembly example: Commoning from 10/6 mm<sup>2</sup> (8/10 AWG) to 4/2.5/1.5 mm<sup>2</sup> (12/14/16 AWG) rail-mount terminal blocks via step-down jumper (284-414).



Assembly example: Commoning from 10/6 mm<sup>2</sup> (8/10 AWG) to 6 mm<sup>2</sup> (10 AWG) rail-mount terminal blocks via step-down jumper (284-413).



Assembly example: Commoning from 16 mm<sup>2</sup>/6 AWG to 4 mm<sup>2</sup>/12 AWG rail-mount terminal blocks via step-down jumper (283-414).

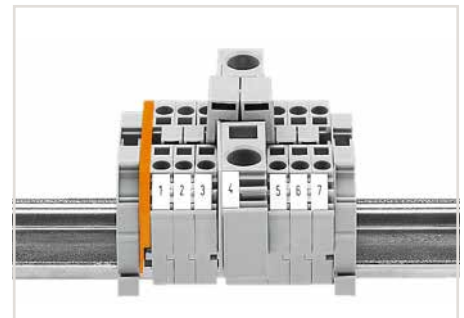
5



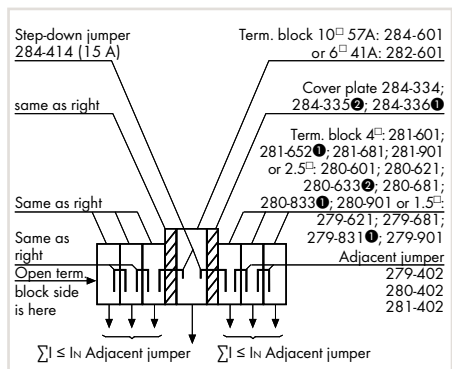
Commoning from 6 mm<sup>2</sup>/10 AWG (282 Series) to 1.5 mm<sup>2</sup>/16 AWG (279 Series) rail-mount terminal blocks via step-down jumpers.



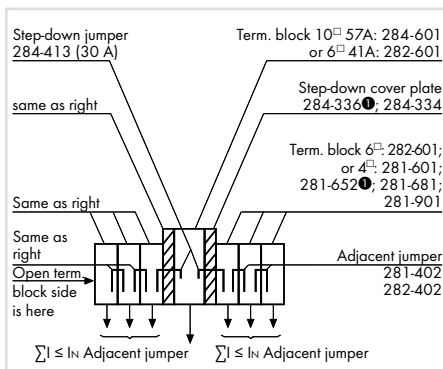
Commoning from 10 mm<sup>2</sup>/8 AWG (284 Series) to 6 mm<sup>2</sup>/10 AWG (282 Series) rail-mount terminal blocks via step-down jumpers.



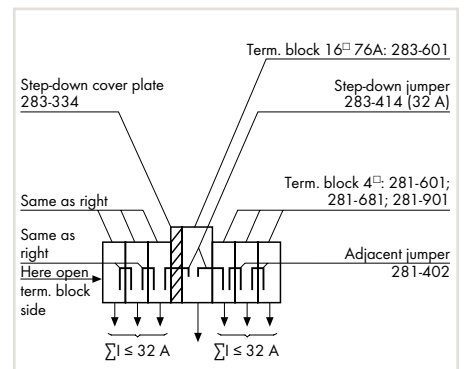
Commoning from 16 mm<sup>2</sup>/6 AWG (283 Series) to 4 mm<sup>2</sup>/12 AWG (281 Series) rail-mount terminal blocks via step-down jumpers.



Assembly example: Commoning from 10/6 mm<sup>2</sup> (8/10 AWG) to 4/2.5/1.5 mm<sup>2</sup> (12/14/16 AWG) rail-mount terminal blocks via step-down jumper (284-414).



Assembly example: Commoning from 10/6 mm<sup>2</sup> (8/10 AWG) to 6 mm<sup>2</sup> (10 AWG) rail-mount terminal blocks via step-down jumper (284-413).




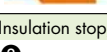











Assembly example: Commoning from 16 mm<sup>2</sup>/6 AWG to 4 mm<sup>2</sup>/12 AWG rail-mount terminal blocks via step-down jumper (283-414).

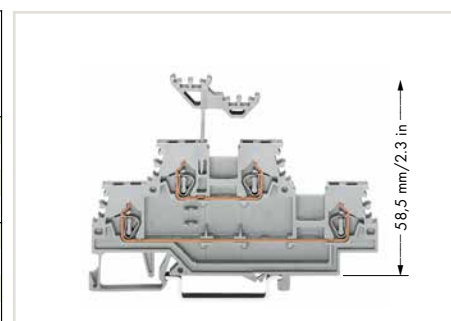


# Accessories

## Double-Deck Terminal Blocks

- ❶ 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❷ Suitable for Ex i applications
- ❸ See application notes for:  
Insulation stop, page 331  
Comb-style jumper bar, page 332  
Operating tool, page 332

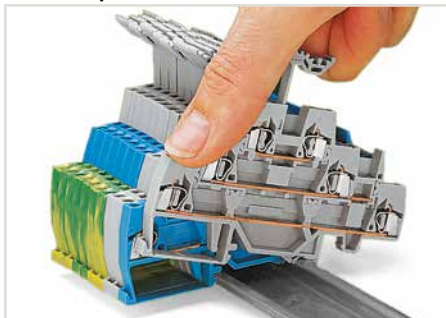
279 Series Accessories			
Appropriate marking systems: WMB/WMB Inline (see Section 13)			
End and intermediate plate, 2 mm thick		WMB Multi marking system, white, 10 strips with 10 markers per card, 4 ... 4.2 mm stretchable	
 orange	<b>279-519</b>	100 (4x25)	
 gray	<b>279-518</b>	100 (4x25)	
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")		WMB Multi marking system, plain, 10 strips with 10 markers per card, 4 ... 4.2 mm stretchable	
❷  white	<b>279-470</b>	200 (8x25)	
❷  dark gray	<b>279-471</b>	200 (8x25)	
Adjacent jumper, insulated, I <sub>N</sub> 15 A		yellow <b>793-4501/000-002</b>	
 gray	<b>279-402</b>	200 (8x25)	
Alternate jumper, insulated, I <sub>N</sub> 15 A		red <b>793-4501/000-005</b>	
 gray	<b>279-409</b>	100 (4x25)	
Double-deck marker carrier		blue <b>793-4501/000-006</b>	
 gray	<b>279-529</b>	50 (2x25)	
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		gray <b>793-4501/000-007</b>	
❸  2-way	<b>279-482</b>	200 (8x25)	
	<b>279-483</b>	200 (8x25)	
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		orange <b>793-4501/000-012</b>	
 10-way	<b>279-490</b>	50 (2x25)	
Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		light green <b>793-4501/000-017</b>	
 2-way	<b>279-492</b>	200 (8x25)	
Operating tool, of insulating material		green <b>793-4501/000-023</b>	
 2-way	<b>279-432</b>	1	
	<b>279-433</b>	1	
Operating tool, of insulating material		violet <b>793-4501/000-024</b>	
 10-way	<b>279-440</b>	1	
WMB Inline, plain, 2,000 WMB markers (4 mm) per reel, 4 ... 4.2 mm stretchable			
 white	<b>2009-114</b>	1	



Double-deck marker carrier  
(height including marker carrier)

## Double- and Triple-Deck Terminal Blocks, 280 and 281 Series

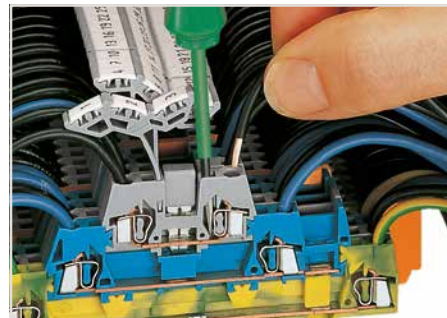
### Description and Installation



Snapping a terminal block onto the carrier rail.



Removing a terminal block from the assembly.



**CAGE CLAMP® connection**

Inserting a conductor.  
When using ferrules, the max. conductor cross section accommodated is one size smaller than max. rating of terminal block.

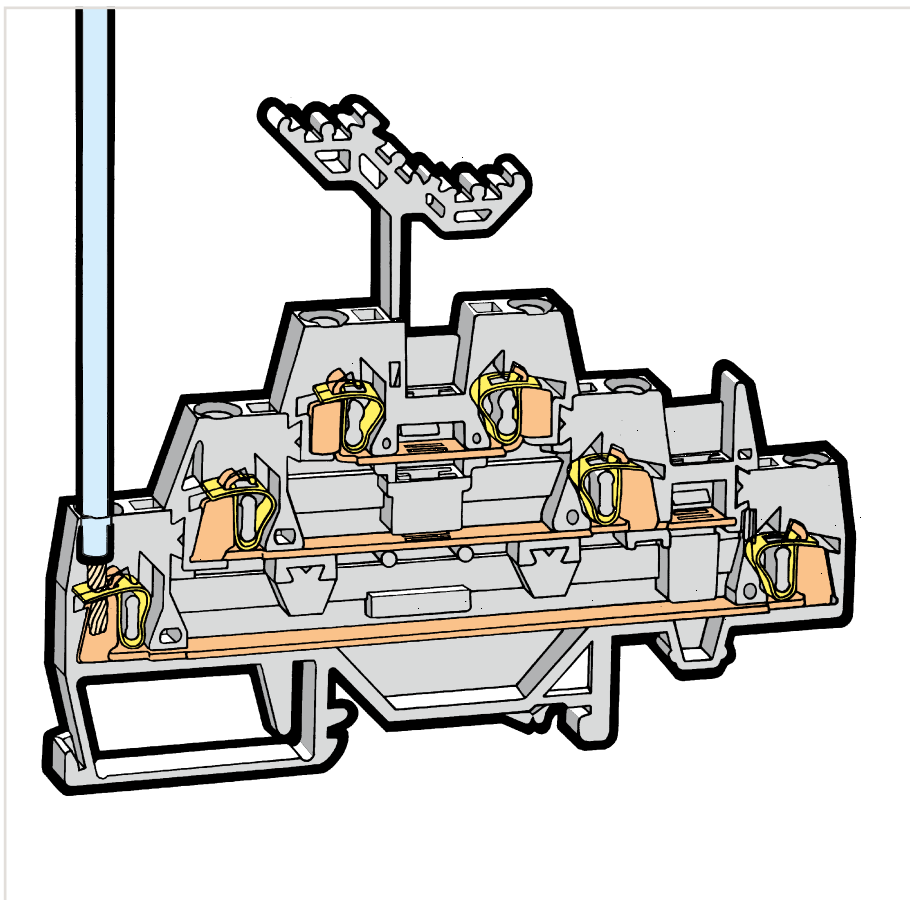
5



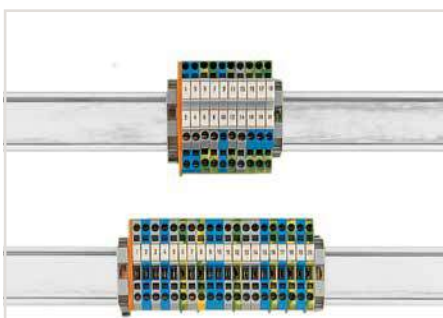
Commoning using an adjacent jumper (280-402). Push jumper down until fully inserted.



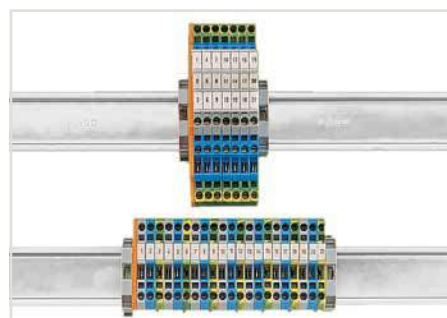
Combining vertical and adjacent jumpers.



Labeling via WMB Multi Marking System.



Save 50 % of rail space via double-deck terminal blocks.



Save 67 % of rail space via triple-deck terminal blocks.



**CAGE CLAMP®** terminates the following copper conductors:  
solid



stranded

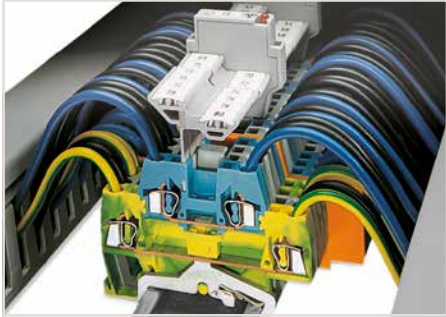


fine-stranded, also with tinned single strands

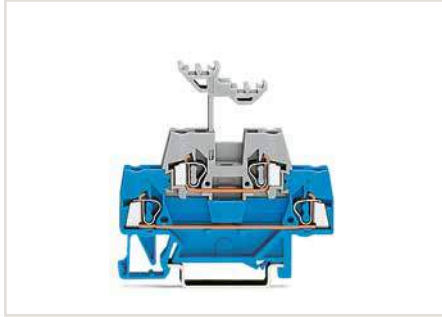


# Double- and Triple-Deck Terminal Blocks, 280 and 281 Series

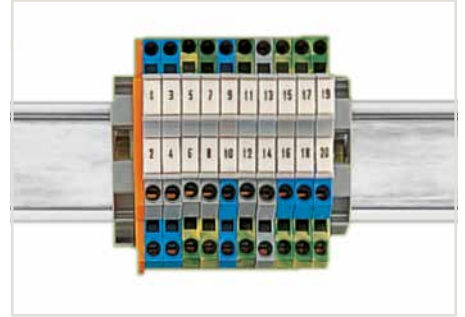
## Installation



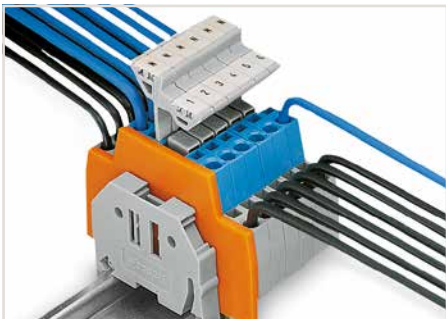
Example of a mixed assembly with double-deck terminal blocks. The 280 Series Double-Deck Terminal Blocks are available with decks of same or different color according to their function. This is an additional visual aid during wiring, service or maintenance.



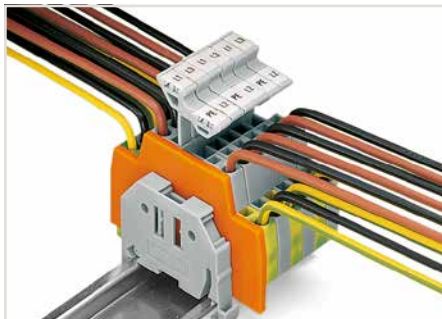
Double-deck terminal blocks accommodate two circuits of different potentials on two decks; different circuits can be differentiated by color coding either deck (280 Series). The lower deck is wider than the upper for ease of wiring.



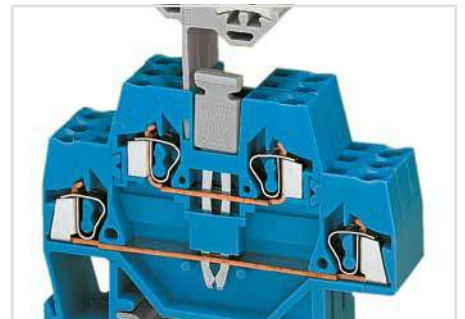
With a terminal block width of just 5 mm, an effective width of just 2.5 mm for terminal blocks of same or different potentials can be realized for conductors ranging 0.08 mm<sup>2</sup> ... 2.5 mm<sup>2</sup> (28 ... 14 AWG).



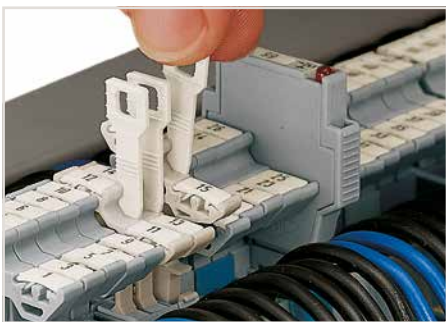
Double-deck terminal blocks used as control conductor terminal blocks (e.g., for magnetic valves) with the upper deck commoned.



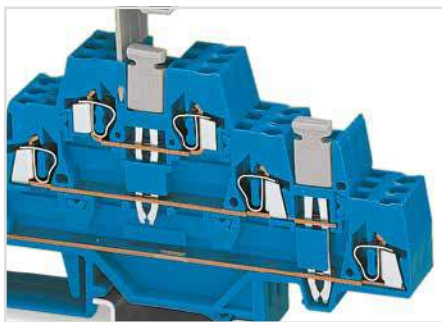
Double-deck terminal blocks used for connecting a three-phase motor.



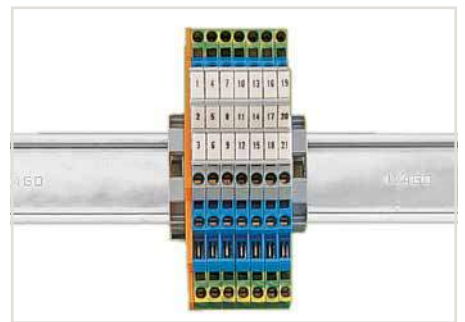
Commoning with a vertical jumper (281-421). Push vertical jumper down until fully inserted.



Pulling the disconnect tab.



A vertical jumper allows commoning of the upper and lower levels, providing a 6-conductor feedthrough terminal block in one housing. Two adjacent triple-deck terminal blocks may be commoned together on the same level using a push-in adjacent jumper.



Double-deck (triple-deck) terminal blocks accommodate two (three) circuits of different potentials on two (three) decks; different circuits can be differentiated by color coding either deck (280 Series). The lower deck is wider than the upper, for ease of wiring.



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



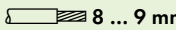


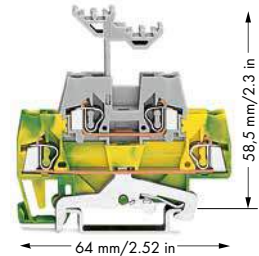
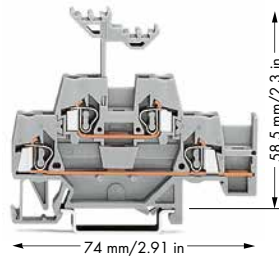
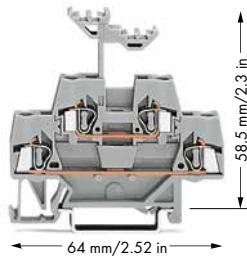
fine-stranded, with pin terminal (gastight crimped)

5

## Double-Deck Terminal Blocks

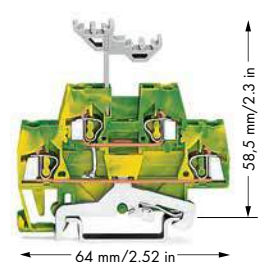
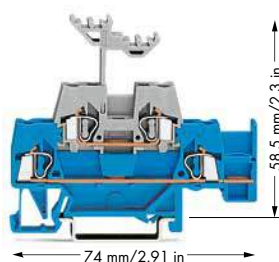
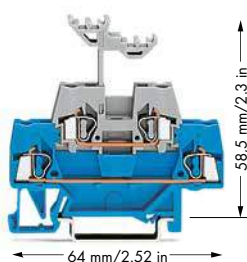
### 2.5 mm<sup>2</sup>, 280 Series

<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 12 AWG*                  500 V/6 kV/3 ①                  I<sub>N</sub> 20 A</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 12 AWG*                  500 V/6 kV/3 ①                  I<sub>N</sub> 20 A</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 12 AWG*                  500 V/6 kV/3 ①                  I<sub>N</sub> 20 A</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>
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



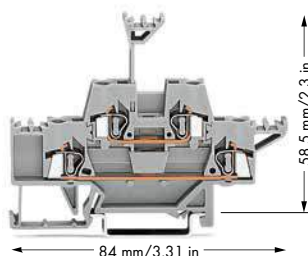
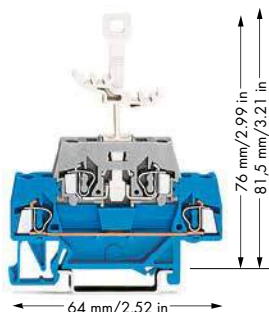
5

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, through/through terminal block		Double-deck terminal block, through/through terminal block, with horizontal jumpering on lower level		Double-deck terminal block, ground conductor/through terminal block	
○ gray <b>280-519</b>	50	○ gray <b>280-520</b>	50	● green-yellow/gray <b>280-527</b>	50
● blue <b>280-529</b> ②	50	● blue <b>280-530</b> ②	50	● green-yellow/blue <b>280-537</b>	50
<b>Other terminal blocks with the same profile:</b>					
Diode <b>280-940/281-410</b>	Page 318				
LED <b>280-943/281-434</b>	Page 318				
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick	
orange <b>280-341</b>	100 (4x25)	orange <b>280-343</b>	100 (4x25)	orange <b>280-341</b>	100 (4x25)
gray <b>280-340</b>	100 (4x25)	gray <b>280-342</b>	100 (4x25)	gray <b>280-340</b>	100 (4x25)
Intermediate plate, 1.1 mm thick		Intermediate plate, 1.1 mm thick		Intermediate plate, 1.1 mm thick	
orange <b>280-366</b>	100 (4x25)	orange <b>280-369</b>	100 (4x25)	orange <b>280-366</b>	100 (4x25)



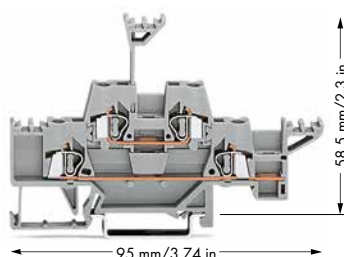
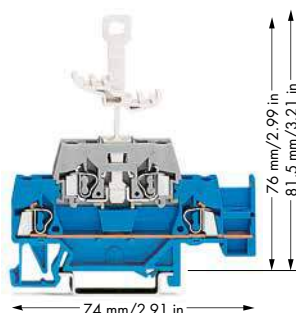
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, through/through terminal block		Double-deck terminal block, through/through terminal block, with horizontal jumpering on lower level		Double-deck terminal block, 4-conductor ground terminal block, internally commoned	
blue/gray <b>280-523</b>	50	blue/gray <b>280-524</b>	50	● green-yellow <b>280-517</b>	50
gray/blue <b>280-533</b>	50	gray/blue <b>280-534</b>	50		
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick	
orange <b>280-341</b>	100 (4x25)	orange <b>280-343</b>	100 (4x25)	orange <b>280-341</b>	100 (4x25)
gray <b>280-340</b>	100 (4x25)	gray <b>280-342</b>	100 (4x25)	gray <b>280-340</b>	100 (4x25)
Intermediate plate, 1.1 mm thick		Intermediate plate, 1.1 mm thick		Intermediate plate, 1.1 mm thick	
orange <b>280-366</b>	100 (4x25)	orange <b>280-369</b>	100 (4x25)	orange <b>280-366</b>	100 (4x25)

<p>0.08 ... 2.5 mm<sup>2</sup> 28 ... 12 AWG*                  400 V/6 kV/3 ①                  I<sub>N</sub> 10 A</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup> 28 ... 12 AWG*                  500 V/6 kV/3 ①                  I<sub>N</sub> 20 A</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>
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- \* 12 AWG: THHN, THWN
- ① 500 V/400 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ② Suitable for Ex i applications
- ③ See application notes for:  
 Insulation stop, page 331  
 Comb-style jumper bar, page 332  
 Operating tool, page 332

Item No.	Pack. Unit	Item No.	Pack. Unit	280 Series Accessories
Double-deck terminal block, through/disconnect terminal block		Double-deck terminal block, through/through terminal block, with additional marking options on both sides on both terminal block sides		Appropriate marking systems (see Section 13)
blue/gray 280-525	50	gray 280-513	50	Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" ③ (0.14 mm <sup>2</sup> "f-st") white 280-470 200 (8x25)
gray/gray 280-521	50			Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> ③ light gray 280-471 200 (8x25)
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> ③ dark gray 280-472 200 (8x25)
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick		Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block
orange 280-341	100 (4x25)	orange 280-341	100 (4x25)	gray 280-402 200 (8x25)
gray 280-340	100 (4x25)	gray 280-340	100 (4x25)	yellow-green 280-422 200 (8x25)
Intermediate plate, 1.1 mm thick		Intermediate plate, 1.1 mm thick		Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block
orange 280-366	100 (4x25)	orange 280-366	100 (4x25)	gray 280-409 100 (4x25)



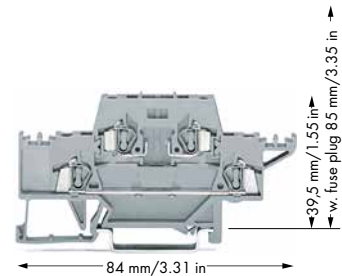
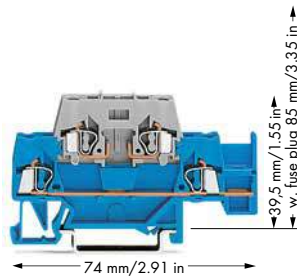
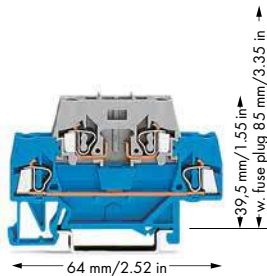
- gray 280-402 200 (8x25)
- yellow-green 280-422 200 (8x25)
- Alternate jumper, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block  
 gray 280-409 100 (4x25)
- Vertical jumper, insulated, I<sub>N</sub> 24 A  
 gray 281-421 200 (8x25)
- Comb-style jumper bar, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block  
 ③ 2-way 280-482 200 (8x25)  
 3-way 280-483 200 (8x25)
- Comb-style jumper bar, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block  
 10-way 280-490 50 (2x25)

Item No.	Pack. Unit	Item No.	Pack. Unit	280 Series Accessories
Double-deck terminal block, through/disconnect terminal block, with horizontal jumpering on lower level		Double-deck terminal block, through/through terminal block, with additional marking options on both sides on both terminal block sides, with horizontal jumpering on lower level		Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block
blue/gray 280-526	50	gray 280-543	50	2-way 280-492 200 (8x25)
gray/gray 280-522	50			Operating tool, of insulating material 2-way 280-432 1 3-way 280-433 1
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		Operating tool, of insulating material 10-way 280-440 1
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick		Screwless end stop, for DIN-35 rail, 6 mm wide
orange 280-343	100 (4x25)	orange 280-343	100 (4x25)	gray 249-116 100 (4x25)
gray 280-342	100 (4x25)	gray 280-342	100 (4x25)	
Intermediate plate, 1.1 mm thick		Intermediate plate, 1.1 mm thick		
orange 280-369	100 (4x25)	orange 280-369	100 (4x25)	

# Double- and Triple-Deck Carrier Terminal Blocks for Fuse Plugs

## 2.5 mm<sup>2</sup>, 280 Series

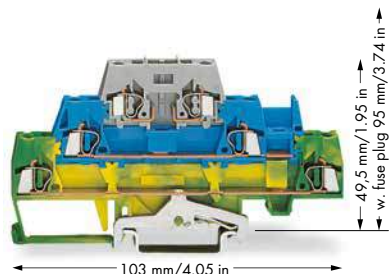
0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① ② I <sub>N</sub> 10 A (20 A) Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 15 A ① 300 V, 20 A ②	0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① ② I <sub>N</sub> 10 A (20 A) Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 15 A ① 300 V, 20 A ②	0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① ② I <sub>N</sub> 10 A (10 A) Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 15 A ① 300 V, 20 A ②
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, through/carrier terminal block for fuse plugs		Double-deck terminal block, through/carrier terminal block for fuse plugs, with horizontal jumpering on lower level		Double-deck terminal block, through/carrier terminal block for fuse plugs	
blue/gray <b>280-531</b>	50	blue/gray <b>280-532</b>	50	gray/gray <b>280-528</b>	50
gray/gray <b>280-514</b>	50	gray/gray <b>280-891</b>	50		
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick	
orange <b>280-341</b>	100 (4x25)	orange <b>280-343</b>	100 (4x25)	orange <b>280-341</b>	100 (4x25)
gray <b>280-340</b>	100 (4x25)	gray <b>280-342</b>	100 (4x25)	gray <b>280-340</b>	100 (4x25)
Intermediate plate, 1.1 mm thick		Intermediate plate, 1.1 mm thick		Intermediate plate, 1.1 mm thick	
orange <b>280-366</b>	100 (4x25)	orange <b>280-369</b>	100 (4x25)	orange <b>280-366</b>	100 (4x25)
		Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
		gray <b>280-402</b>	200 (8x25)		
		Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
		gray <b>280-409</b>	100 (4x25)		
<b>Accessories</b>					
Appropriate marking system for fuse plugs WSB Quick marking system					
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst") white <b>280-470</b>	200 (8x25)	Fuse plug with pull-tab, 6 mm wide <b>281-512</b>	50	Operating tool, of insulating material	
				2-way <b>280-432</b>	1
				3-way <b>280-433</b>	1
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>280-471</b>	200 (8x25)	Fuse plug with pull-tab, 24 V AC/DC, with LED indicator, 6 mm wide <b>281-512/281-501</b>	50	WSB Quick marking system, for fuse plug (281-5..), white, 4 mm wide WSB markers	
				F1, ..., F10 (10x) <b>209-787</b>	5
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>280-472</b>	200 (8x25)	Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		F11, ..., F20 (10x) <b>209-700/209-124</b>	
		2-way <b>280-482</b>	200 (8x25)	F21, ..., F30 (10x) <b>209-700/209-125</b>	
		3-way <b>280-483</b>	200 (8x25)	F31, ..., F40 (10x) <b>209-700/209-126</b>	
		Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		F41, ..., F50 (10x) <b>209-700/209-127</b>	5
Fuse plug with pull-tab, 6 mm wide <b>281-511</b>	50	2-way <b>280-492</b>	200 (8x25)		

0.08 ... 2.5 mm <sup>2</sup>	28 ... 12 AWG*
400 V/6 kV/3 ① ②	300 V, 15 A ③
I <sub>N</sub> 20 A (20 A)	600 V, 20 A ③
Terminal block width 5 mm / 0.197 inch	
8 ... 9 mm / 0.31 ... 0.35 inch	



\* 12 AWG: THHN, THWN

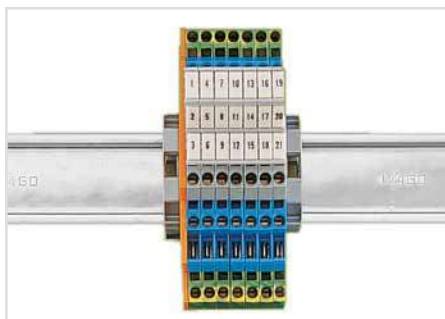
① 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree

(see Section 14)

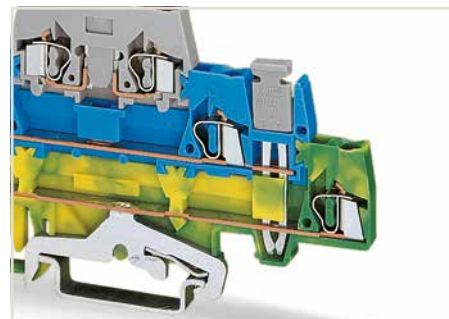
② Electrical ratings are given by the fuse or LED nominal voltage (see page 292).

③ See application notes for:  
Insulation stop, page 331  
Comb-style jumper bar, page 332  
Operating tool, page 332

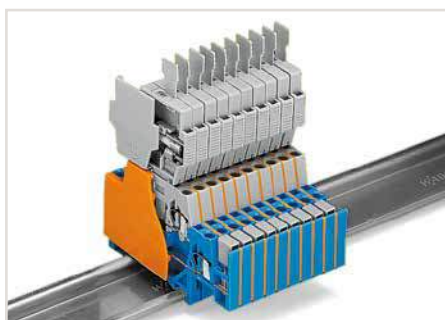
Item No.	Pack. Unit
Triple-deck terminal block, ground conductor/through/carrier terminal block for fuse plugs green-yellow/blue/gray	280-510 50
Triple-deck terminal block, through/through/carrier terminal block for fuse plugs gray/gray/gray	280-889 50
<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick orange	280-304 50 (2x25)
gray	280-303 50 (2x25)
Intermediate plate, 1.1 mm thick orange	280-336 50 (2x25)
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block gray	280-402 200 (8x25)
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block gray	280-409 100 (4x25)
Vertical jumper, insulated, I <sub>N</sub> 24 A gray	281-421 200 (8x25)
WSB Quick marking system, white, 10 strips with 10 markers per card, 4 mm wide WSB markers plain	209-701 5
WSB Quick marking system, plain, 10 strips with 10 markers per card, 4 mm wide WSB markers yellow	209-701/000-002
red	209-701/000-005
blue	209-701/000-006
gray	209-701/000-007
orange	209-701/000-012
light green	209-701/000-017
green	209-701/000-023
violet	209-701/000-024



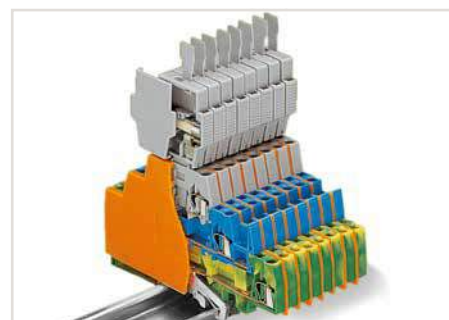
Double-deck (triple-deck) terminal blocks accommodate two (three) circuits of different potentials on two (three) decks; different circuits can be differentiated by color coding either deck (280 Series). The lower deck is wider than the upper, for ease of wiring.



Grounding to carrier rail:  
Connecting N-level to ground level via vertical jumper.



When double-deck terminal blocks are used with a fuse plug (6 mm wide) in the receptacle (top) level, the extra width can be compensated for the 280 Series (5 mm wide) via an intermediate plate (1.1 mm thick). If required, this special intermediate plate still allows commoning on the lower level via push-in adjacent jumpers (280-402).

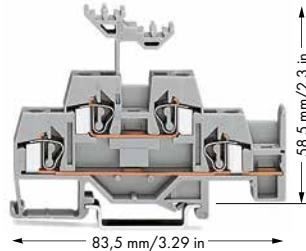
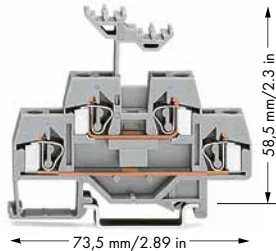


When triple-deck terminal blocks are used with a fuse plug (6 mm wide) in the receptacle (top) level, the extra width can be compensated for the 280 Series (5 mm wide) via an intermediate plate (1.1 mm thick).

# Double-Deck Terminal Blocks

## 4 mm<sup>2</sup>, 281 Series

0.08 ... 4 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 26 A	28 ... 12 AWG 600 V, 20 A ② 600 V, 25 A ③	0.08 ... 4 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 26 A	28 ... 12 AWG 600 V, 20 A ② 600 V, 25 A ③
Terminal block width 6 mm / 0.236 inch 9 ... 10 mm / 0.35 ... 0.39 inch		Terminal block width 6 mm / 0.236 inch 9 ... 10 mm / 0.35 ... 0.39 inch	



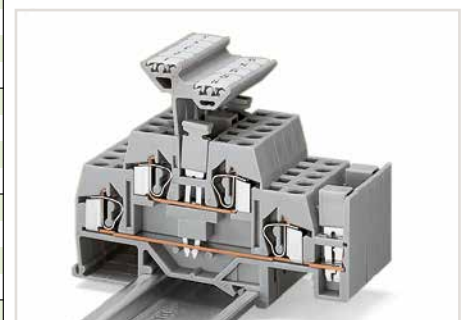
- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ See application notes for:  
Insulation stop, page 331  
Comb-style jumper bar, page 332  
Operating tool, page 332

5

Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, through/through terminal block		Double-deck terminal block, through/through terminal block, with horizontal jumpering on lower level	
gray 281-619	50	gray 281-620	50
blue 281-629 ②	50	blue 281-630 ②	50
<b>Other terminal blocks with the same profile:</b>			
Diode 281-633/281-410	Page 320		
LED 281-634/281-434	Page 320		
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick	
orange 281-341	100 (4x25)	orange 281-343	100 (4x25)
gray 281-340	100 (4x25)	gray 281-342	100 (4x25)
<b>281 Series Accessories</b>			
Appropriate marking system: WMB (see Section 13)			
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")		Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	
white 281-470	200 (8x25)	2-way 281-492	100 (4x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>		Operating tool, of insulating material	
light gray 281-471	200 (8x25)	2-way 280-432	1
Insulation stop, 5 pcs/strip, 0.25 ... 1.5 mm <sup>2</sup>		3-way 280-433	1
dark gray 281-472	200 (8x25)	Operating tool, of insulating material	
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		5-way 281-440	1
gray 281-402	200 (8x25)	Screwless end stop, for DIN-35 rail, 6 mm wide	
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		gray 249-116	100 (4x25)
gray 281-409	100 (4x25)	Screwless end stop, for DIN-35 rail, 10 mm wide	
Vertical jumper, insulated, I <sub>N</sub> 24 A		gray 249-117	50 (2x25)
gray 281-421	200 (8x25)		
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
2-way 281-482	100 (4x25)		
3-way 281-483	100 (4x25)		
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
5-way 281-485	100 (4x25)		



The flexible marker carrier, which is placed above the wiring level, can be pushed aside during wiring or commoning. The carrier has two staggered levels for WMB markers that perfectly align with the terminal block decks.






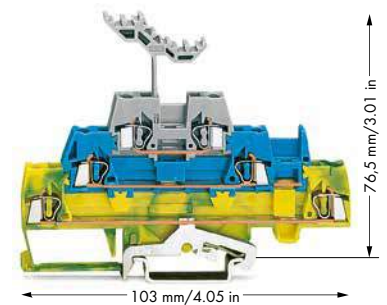
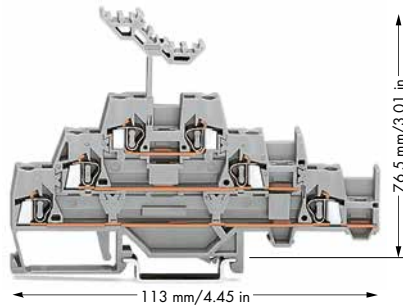
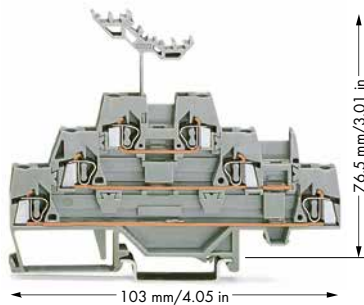
Standard insulated push-in jumpers can be used for the commoning. A vertical jumper allows commoning of upper and lower levels, providing a 4-conductor feedthrough terminal block in one housing.



# Triple-Deck Terminal Blocks

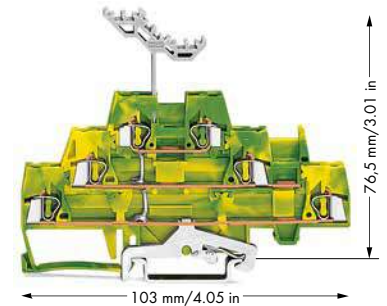
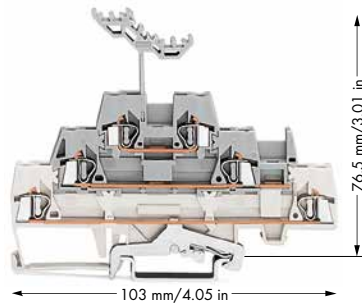
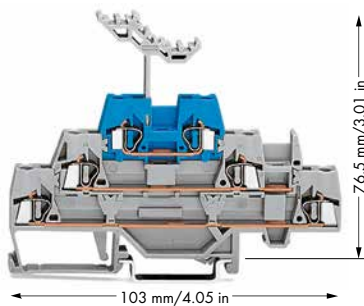
## 2.5 mm<sup>2</sup>, 280 Series

<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 12 AWG*                  500 V/6 kV/3 ①                  I<sub>N</sub> 20 A</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 12 AWG*                  500 V/6 kV/3 ①                  I<sub>N</sub> 20 A</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 12 AWG*                  500 V/6 kV/3 ①                  I<sub>N</sub> 20 A</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>
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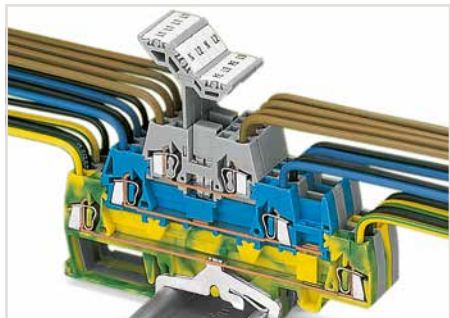
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Triple-deck terminal block, through/through/through terminal block		Triple-deck terminal block, through/through/through terminal block, with horizontal jumpering on lower level		Triple-deck terminal block, ground conductor/through/through terminal block	
○ gray <b>280-549</b>	40	○ gray <b>280-550</b>	40	● green-yellow/blue/gray <b>280-547</b>	40
● blue <b>280-551</b>	40			● green-yellow/gray/gray <b>280-557</b>	40
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick	
● orange <b>280-304</b>	50 (2x25)	● orange <b>280-306</b>	50 (2x25)	● orange <b>280-304</b>	50 (2x25)
● gray <b>280-303</b>	50 (2x25)	● gray <b>280-305</b>	50 (2x25)	● gray <b>280-303</b>	50 (2x25)
Intermediate plate, 1.1 mm thick		Intermediate plate, 1.1 mm thick		Intermediate plate, 1.1 mm thick	
● orange <b>280-336</b>	50 (2x25)	● orange <b>280-339</b>	50 (2x25)	● orange <b>280-336</b>	50 (2x25)



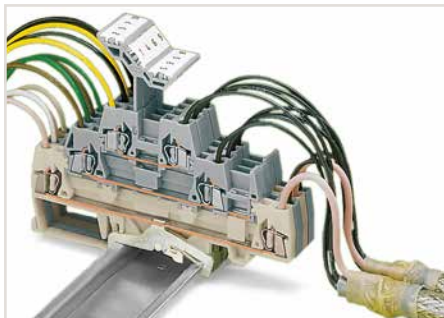
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Triple-deck terminal block, through/through/through terminal block		Triple-deck terminal block, shield/through/through terminal block		Triple-deck terminal block, 6-conductor ground terminal block, internally commoned	
● gray/gray/blue <b>280-552</b>	40	● white/gray/gray <b>280-548</b>	40	● green-yellow <b>280-597</b>	40
		● white/blue/gray <b>280-558</b>	40		
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick	
● orange <b>280-304</b>	50 (2x25)	● orange <b>280-304</b>	50 (2x25)	● orange <b>280-304</b>	50 (2x25)
● gray <b>280-303</b>	50 (2x25)	● gray <b>280-303</b>	50 (2x25)	● gray <b>280-303</b>	50 (2x25)
Intermediate plate, 1.1 mm thick		Intermediate plate, 1.1 mm thick		Intermediate plate, 1.1 mm thick	
● orange <b>280-336</b>	50 (2x25)	● orange <b>280-336</b>	50 (2x25)	● orange <b>280-336</b>	50 (2x25)



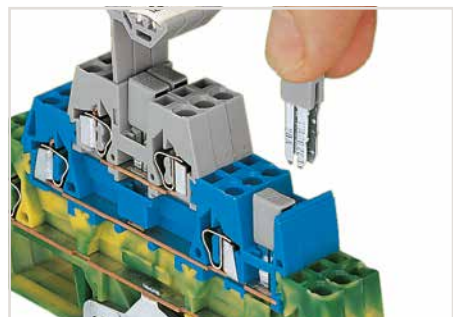
# Triple-Deck Terminal Blocks Installation



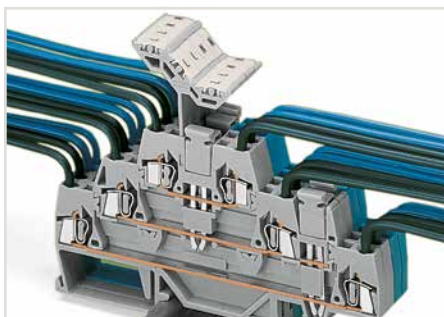
Three-conductor power circuit with additional branch circuit tapping



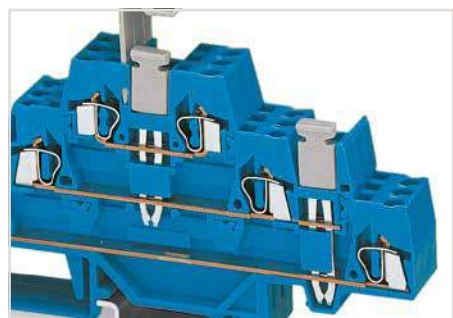
Shielded twisted pair cables



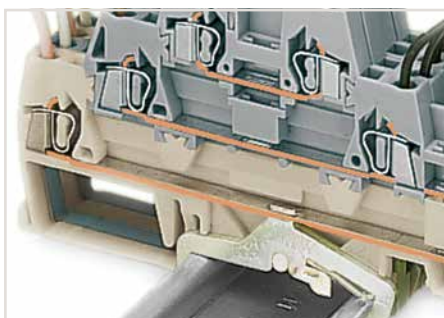
Triple-deck terminal blocks accommodate three circuits of different potentials on three decks; different circuits can be differentiated by color coding either deck (280 Series).



Commoning with vertical and adjacent jumpers.



A vertical jumper allows commoning of the upper and lower levels, providing a 6-conductor feedthrough terminal block in one housing. Two adjacent triple-deck terminal blocks may be commoned together on the same level using a push-in adjacent jumper.



Both ground and shield conductor terminal blocks have a contact foot in the bottom level, automatically establishing direct contact to the carrier rail or busbar. The flexible marker carrier, which is placed above the wiring level, can be pushed aside during wiring. The carrier has two staggered levels for WMB markers that perfectly align with the terminal block decks. With a terminal block width of just 5 mm, an effective width of just 1.67 mm for terminal blocks of same or different potentials can be realized for conductors ranging 0.08 mm<sup>2</sup> ... 2.5 mm<sup>2</sup> (28 ... 14 AWG).

\* 12 AWG: THHN, THWN

- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② See application notes for:  
Insulation stop, page 331  
Comb-style jumper bar, page 332  
Operating tool, page 332

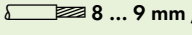


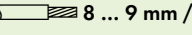


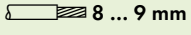


## 280 Series Accessories

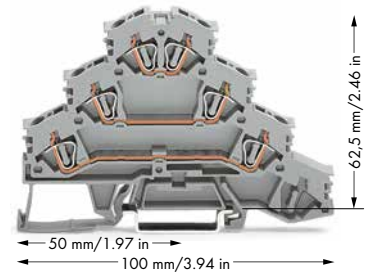
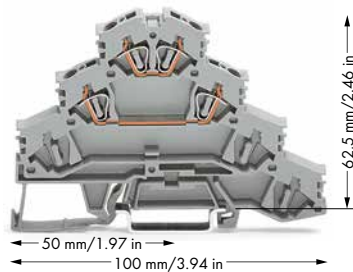
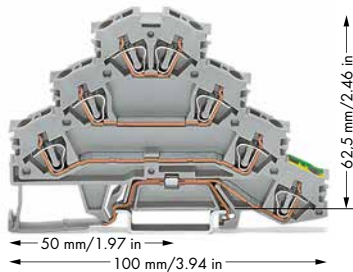
Appropriate marking systems  
(see Section 13)

<b>Insulation stop</b> , 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" ② (0.14 mm <sup>2</sup> "F-st")		white	<b>280-470</b>	200 (8x25)
<b>Insulation stop</b> , 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> ②		light gray	<b>280-471</b>	200 (8x25)
<b>Insulation stop</b> , 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> ②		dark gray	<b>280-472</b>	200 (8x25)
<b>Adjacent jumper</b> , insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		gray	<b>280-402</b>	200 (8x25)
		yellow-green	<b>280-422</b>	200 (8x25)
<b>Alternate jumper</b> , insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		gray	<b>280-409</b>	100 (4x25)
<b>Vertical jumper</b> , insulated, I <sub>N</sub> 24 A		gray	<b>281-421</b>	200 (8x25)
<b>Comb-style jumper bar</b> , insulated, I <sub>N</sub> = I <sub>N</sub> terminal block ②		2-way	<b>280-482</b>	200 (8x25)
		3-way	<b>280-483</b>	200 (8x25)
<b>Comb-style jumper bar</b> , insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		10-way	<b>280-490</b>	50 (2x25)
<b>Alternate comb-style jumper bar</b> , insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		2-way	<b>280-492</b>	200 (8x25)
<b>Operating tool</b> , of insulating material		2-way	<b>280-432</b>	1
		3-way	<b>280-433</b>	1
<b>Operating tool</b> , of insulating material		10-way	<b>280-440</b>	1
<b>Screwless end stop</b> , for DIN-35 rail, 6 mm wide		gray	<b>249-116</b>	100 (4x25)




# Quadruple-Deck, Rail-Mount Terminal Blocks for Electric Motor Wiring

## 4 mm<sup>2</sup>, 281 Series

0.08 ... 4 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 20 A (2.5 mm <sup>2</sup> ) I <sub>N</sub> 25 A (4 mm <sup>2</sup> ) Terminal block width 6 mm / 0.236 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG 600 V, 20 A  300 V, 25 A 	0.08 ... 4 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 20 A (2.5 mm <sup>2</sup> ) I <sub>N</sub> 25 A (4 mm <sup>2</sup> ) Terminal block width 6 mm / 0.236 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG 600 V, 20 A  300 V, 25 A 	0.08 ... 4 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 20 A (2.5 mm <sup>2</sup> ) I <sub>N</sub> 25 A (4 mm <sup>2</sup> ) Terminal block width 6 mm / 0.236 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG 600 V, 20 A  300 V, 25 A 
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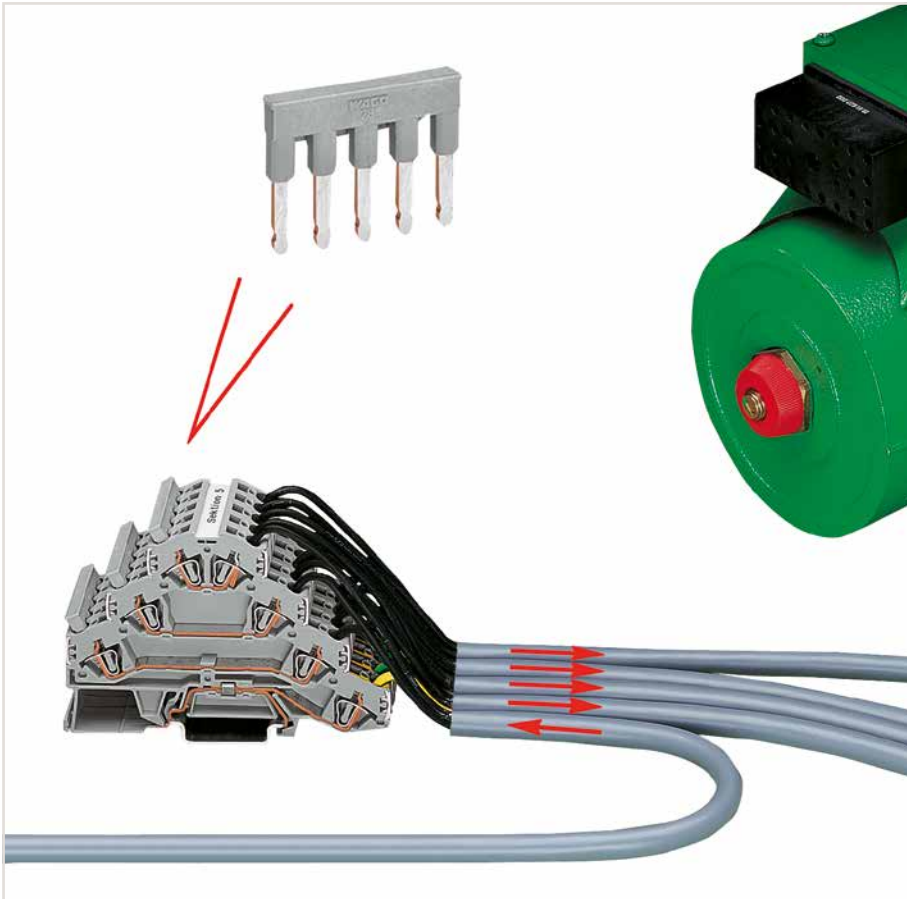
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Quadruple-deck, rail-mount terminal block, electric motor wiring rail-mount terminal block, gray		Quadruple-deck, rail-mount terminal block, electric motor wiring rail-mount terminal block, gray		Quadruple-deck, rail-mount terminal block, electric motor wiring rail-mount terminal block, gray	
 L1 - L2 - L3 - PE <b>281-530</b>	50	 L1 - L2 <b>281-531</b>	50	 L1 - L2 - L3 <b>281-532</b>	50

### 281 Series Accessories

Appropriate marking systems: WMB/Marking strips (see Section 13)

<b>End and intermediate plate</b> , 1 mm thick  orange <b>281-366</b> 100 (4x25) gray <b>281-365</b> 100 (4x25)	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5
<b>Insulation stop</b> , 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")  white <b>281-470</b> 200 (8x25)	WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable yellow <b>793-5501/000-002</b> red <b>793-5501/000-005</b> blue <b>793-5501/000-006</b> gray <b>793-5501/000-007</b> orange <b>793-5501/000-012</b> light green <b>793-5501/000-017</b> green <b>793-5501/000-023</b> violet <b>793-5501/000-024</b> 5
<b>Insulation stop</b> , 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>  light gray <b>281-471</b> 200 (8x25)	
<b>Insulation stop</b> , 5 pcs/strip, 0.25 ... 1.5 mm <sup>2</sup>  dark gray <b>281-472</b> 200 (8x25)	
<b>Comb-style jumper bar</b> , insulated, I <sub>N</sub> = I <sub>N</sub> terminal block  2-way <b>281-482</b> 100 (4x25) 3-way <b>281-483</b> 100 (4x25) 5-way <b>281-485</b> 100 (4x25) 10-way <b>281-490</b> 50 (2x25)	Marking strip, plain, 7.5 mm wide, 50 m reel translucent <b>709-177</b> 1 Screwless end stop, for DIN-35 rail, 6 mm wide gray <b>249-116</b> 100 (4x25)
<b>Alternate comb-style jumper bar</b> , insulated, I <sub>N</sub> = I <sub>N</sub> terminal block  2-way <b>281-492</b> 100 (4x25)	Screwless end stop, for DIN-35 rail, 10 mm wide gray <b>249-117</b> 50 (2x25)
<b>Operating tool</b> , of insulating material 2-way <b>280-432</b> 1 3-way <b>280-433</b> 1 5-way <b>281-440</b> 1	
<b>Test plug</b> , with 500 mm cable, 2 mm Ø, max. 42 V  red <b>210-136</b> 50	
<b>Test plug</b> , with 500 mm cable, 2.3 mm Ø, max. 42 V  yellow <b>210-137</b> 50	

## Quadruple-Deck, Rail-Mount Terminal Blocks for Electric Motor Wiring Installation



- ❶ 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❷ See application notes for:  
Insulation stop, page 331  
Comb-style jumper bar, page 332  
Operating tool, page 332



In addition to rail-mount terminal blocks for electric motor wiring, special versions are also available.

- Version **without** ground contact and only two potentials: These terminal blocks were custom designed to support additional functions, such as engine brakes or temperature sensors. Sharing a common profile, this terminal block version can be put next to the appropriate electric motor wiring terminal block without using intermediate plates. That makes the rail assembly easier to understand and wire. This also prevents wiring errors as no conductor entry is unused.

- Version **without** ground contact and with three potentials:

Clearly designated clamping units are the primary advantage to this terminal block design. When using devices with protective insulation for example, there are no open ground clamping units that could create confusion.



Commoning using comb-style jumper bars.  
Push comb-style jumper bars down until fully inserted.



Testing with voltage tester.



Marking clamping points via WMB Multi Marking System.  
Marking a group of terminal blocks via marking strip.  
(709-177)

## TOPJOB® Classic Rail-Mount Terminal Blocks, 780 ... 785 Series

### Description and Installation



By snapping a ground conductor terminal block onto the carrier rail, a direct electrical connection is automatically made to the rail.



Removing a terminal block from the assembly.



Operating an N-disconnect slide link.

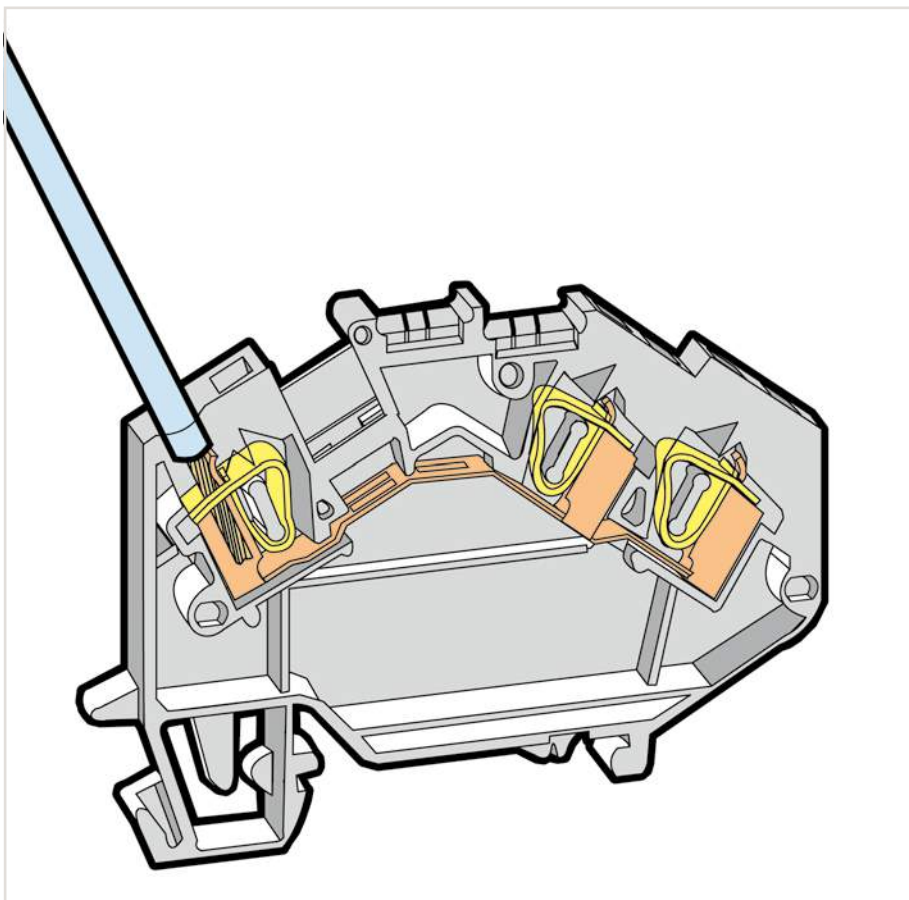
5



Commoning ground conductor terminal blocks with through terminal blocks is possible in one direction only (via rear side of terminal block) using adjacent jumpers. In addition to the required marking of these blocks, use yellow-green adjacent jumpers.



Staggered jumpers for sophisticated circuit requirements – push jumpers down until fully inserted.



Test plug module assembly – combining test plug and spacer modules.




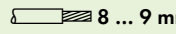
Insulation stop – prevents the conductor insulation from being pushed into the clamping unit (available for terminal blocks up to 4 mm<sup>2</sup>/12 AWG).



Labeling via WMB Multi markers and WFB continuous marking strips.

# TOPJOB® Classic Through, Ground/Shield Conductor and Ex Terminal Blocks

## 2.5 mm<sup>2</sup>, 780 Series

0.08 ... 2.5 mm <sup>2</sup> 1000 V/8 kV/3 ① I <sub>N</sub> 24 A  Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 600 V, 20 A ② 600 V, 20 A ③	0.08 ... 2.5 mm <sup>2</sup> 1000 V/8 kV/3 ① I <sub>N</sub> 24 A  Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 600 V, 20 A ② 600 V, 25 A ③
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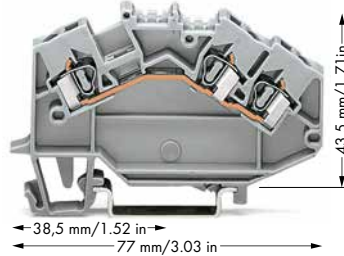
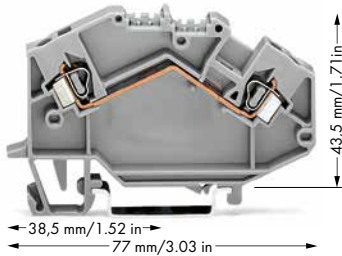
\* 12 AWG: THHN, THWN























① 1000 V = rated voltage  
 8 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)

② Suitable for Ex i applications



③ Suitable for Ex e II applications  
 0.2 ... 2.5 mm<sup>2</sup> / 24 ... 12 AWG\*  
 690 V, 23 A  
 (see Section 14)  
 Using staggered jumpers reduces the maximum rated voltage to 275 V.

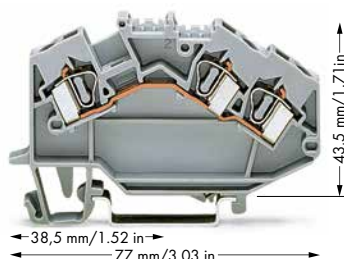
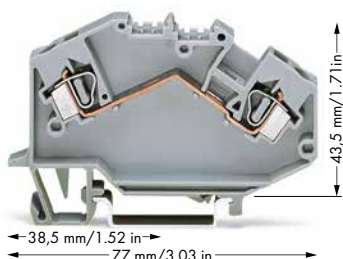
④ See application notes for:  
 Insulation stop, page 331  
 Staggered jumper, page 333  
 Push-in type wire jumper, page 333  
 Comb-style jumper bar, page 332  
 Operating tool, page 332  
 Test plug modules, page 326  
 Banana plug, page 330



Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
2-conductor through terminal block		3-conductor through terminal block		
○ gray <b>780-601</b>	50	○ gray <b>780-631</b>	50	
● blue <b>780-604</b> ③	50	● blue <b>780-651</b> ③	50	Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block
● orange <b>780-602</b>	50	● orange <b>780-654</b>	50	 2-way <b>280-492</b> 200 (8x25)
○ light gray ④ <b>780-992</b>	50	○ light gray ④ <b>780-993</b>	50	Operating tool, of insulating material
2-conductor ground terminal block		3-conductor ground terminal block		④  2-way <b>280-432</b> 1
● green-yellow <b>780-607</b>	50	● green-yellow <b>780-637</b>	50	3-way <b>280-433</b> 1
● green-yellow ④ <b>780-607/999-950</b>	50	● green-yellow ④ <b>780-637/999-950</b>	50	Test plug module, snaps together, 5 mm wide
		3-conductor shield terminal block		④  gray <b>280-418</b> 100 (4x25)
<b>Other terminal blocks with the same profile:</b>		○ white <b>780-640</b>	50	Spacer module, snaps together, 5 mm wide
N-disconnect <b>780-613</b>	Page 255			 gray <b>280-419</b> 100 (4x25)
<b>780 Series Accessories</b>				Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks
Appropriate marking systems: WMB/WFB (see Section 13)				 gray <b>280-404</b> 100 (4x25)
End and intermediate plate, 1.5 mm thick		Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V
● orange <b>780-317</b>	100 (4x25)	④ 		 yellow <b>210-137</b> 50
Separator for Ex e/Ex i application, orange, 3 mm thick		from 1 to 2 <b>780-452</b>	100 (4x25)	Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks
 125.5 mm <b>209-192</b>	50 (2x25)	from 1 to 3 <b>780-453</b>	100 (4x25)	 gray <b>209-170</b> 50 (2x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")		from 1 to 4 <b>780-454</b>	100 (4x25)	Test plug adapter, 6 mm wide, with CAGE CLAMP®, for 0.08 ... 2.5 mm <sup>2</sup>
④  white <b>280-470</b>	200 (8x25)	from 1 to 5 <b>780-455</b>	50 (2x25)	 I <sub>N</sub> 24 A <b>281-407</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>		from 1 to 6 <b>780-456</b>	50 (2x25)	Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow
④  light gray <b>280-471</b>	200 (8x25)	from 1 to 7 <b>780-457</b>	50 (2x25)	 <b>215-111</b> 50
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>		from 1 to 8 <b>780-458</b>	50 (2x25)	TOPJOB® Tool, specialty blade, for all TOPJOB® Terminal Blocks
④  dark gray <b>280-472</b>	200 (8x25)	Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A		 <b>777-310</b> 1
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		L = 60 mm <b>249-125</b>	10	Screwless end stop, for DIN-35 rail, 10 mm wide
 gray <b>280-402</b>	200 (8x25)	L = 110 mm <b>249-126</b>	10	 gray <b>249-117</b> 50 (2x25)
 yellow-green <b>280-422</b>	200 (8x25)	L = 250 mm <b>249-127</b>	10	Screwless end stop, for DIN-35 rail, 6 mm wide
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		 gray <b>249-116</b> 100 (4x25)
 gray <b>280-409</b>	100 (4x25)	 yellow <b>280-415</b>	100 (4x25)	
		Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		
		④ 		
		2-way <b>280-482</b>	200 (8x25)	
		3-way <b>280-483</b>	200 (8x25)	




















# TOPJOB® Classic Through, Ground Conductor and Ex Terminal Blocks 4 mm<sup>2</sup>, 781 Series

0.08 ... 4 mm <sup>2</sup> 1000 V/8 kV/3 ① I <sub>N</sub> 32 A	28 ... 12 AWG 600 V, 20 A ② 600 V, 20 A ③	0.08 ... 4 mm <sup>2</sup> 1000 V/8 kV/3 ① I <sub>N</sub> 32 A	28 ... 12 AWG 600 V, 20 A ② 600 V, 20 A ③
Terminal block width 6 mm / 0.236 inch  9 ... 10 mm / 0.35 ... 0.39 inch		Terminal block width 6 mm / 0.236 inch  9 ... 10 mm / 0.35 ... 0.39 inch	



- ① 1000 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ Suitable for Ex e II applications  
0.2 ... 4 mm<sup>2</sup> / 24 ... 12 AWG  
690 V  
30 A for 2-conductor terminal blocks  
27 A for 3-conductor terminal blocks  
(see Section 14)  
Using staggered jumpers reduces the maximum rated voltage to 275 V.
- ④ See application notes for:  
Insulation stop, page 331  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Comb-style jumper bar, page 332  
Operating tool, page 332  
Test plug modules, page 326  
Banana plug, page 330

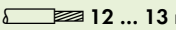
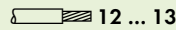
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Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
2-conductor through terminal block		3-conductor through terminal block		
○ gray <b>781-601</b>	50	○ gray <b>781-631</b>	50	
● blue <b>781-604</b> ②	50	● blue <b>781-651</b> ②	50	Operating tool, of insulating material
○ light gray ④ <b>781-992</b> ③	50	○ light gray ④ <b>781-993</b> ③	50	④ 2-way <b>280-432</b> 1
				3-way <b>280-433</b> 1
2-conductor ground terminal block		3-conductor ground terminal block		
● green-yellow <b>781-607</b>	50	● green-yellow <b>781-637</b>	50	Test plug module, snaps together, 6 mm wide
● green-yellow ④ <b>781-607/999-950</b> ③	50	● green-yellow ④ <b>781-637/999-950</b> ③	50	④ 
<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>		gray <b>281-418</b> 100 (4x25)
N-disconnect <b>781-613</b>	Page 255	N-disconnect <b>781-643</b>	Page 255	Spacer module, snaps together, 6 mm wide
Potential <b>781-623</b>	Page 255	Potential <b>781-653</b>	Page 255	
				gray <b>281-419</b> 100 (4x25)
<b>781 Series Accessories</b>				Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks
Appropriate marking systems: WMB/WFB (see Section 13)				gray <b>280-404</b> 100 (4x25)
End and intermediate plate, 1.5 mm thick		Staggered jumper, insulated, Spacing: 6 mm, I <sub>N</sub> 32 A		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V
orange <b>780-317</b>	100 (4x25)	④ 		yellow <b>210-137</b> 50
Separator for Ex e/Ex i application, orange, 3 mm thick		from 1 to 2 <b>781-452</b>	100 (4x25)	Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks
 125.5 mm <b>209-192</b>	50 (2x25)	from 1 to 3 <b>781-453</b>	100 (4x25)	
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")		from 1 to 4 <b>781-454</b>	100 (4x25)	gray <b>209-170</b> 50 (2x25)
④ 		from 1 to 5 <b>781-455</b>	50 (2x25)	Test plug adapter, 6 mm wide, with CAGE CLAMP®, for 0.08 ... 2.5 mm <sup>2</sup>
white <b>281-470</b>	200 (8x25)	from 1 to 6 <b>781-456</b>	50 (2x25)	
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>		Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A		I <sub>N</sub> 24 A <b>281-407</b> 100 (4x25)
④ 		④ 		Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow
light gray <b>281-471</b>	200 (8x25)	L = 60 mm <b>249-125</b>	10	④ 
Insulation stop, 5 pcs/strip, 0.25 ... 1.5 mm <sup>2</sup>		L = 110 mm <b>249-126</b>	10	<b>215-111</b> 50
④ 		L = 250 mm <b>249-127</b>	10	TOPJOB® Tool, speciality blade, for all TOPJOB® Terminal Blocks
dark gray <b>281-472</b>	200 (8x25)			
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		<b>777-310</b> 1
				Screwless end stop, for DIN-35 rail, 6 mm wide
gray <b>281-402</b>	200 (8x25)	yellow <b>281-415</b>	100 (4x25)	
yellow-green <b>281-422</b>	200 (8x25)			gray <b>249-116</b> 100 (4x25)
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Screwless end stop, for DIN-35 rail, 10 mm wide
		④ 		
		2-way <b>281-482</b>	100 (4x25)	gray <b>249-117</b> 50 (2x25)
		3-way <b>281-483</b>	100 (4x25)	
		Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		
				
		2-way <b>281-492</b>	100 (4x25)	

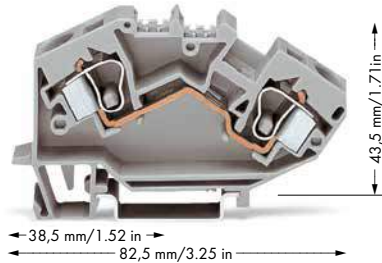
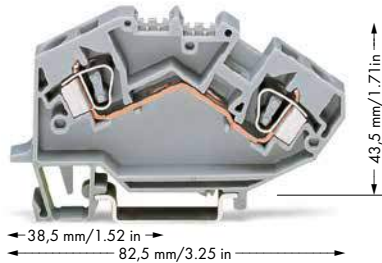
# TOPJOB® Classic



























## Through, Ground Conductor and Ex Terminal Blocks

6 mm<sup>2</sup>, 782 Series and 10 (16) mm<sup>2</sup>, 784 Series

<b>0.2 ... 6 mm<sup>2</sup></b> 1000 V/8 kV/3 ② I <sub>N</sub> 41 A  Terminal block width 8 mm / 0.315 inch  12 ... 13 mm / 0.47 ... 0.51 inch	<b>24 ... 10 AWG</b> 600 V, 30 A ③ 600 V, 25 A ④	<b>0.2 ... 10 (16) mm<sup>2</sup> ①</b> 1000 V/8 kV/3 ② I <sub>N</sub> 57 A  Terminal block width 10 mm / 0.394 inch  12 ... 13 mm / 0.47 ... 0.51 inch	<b>24 ... 6 AWG</b> 600 V, 50 A ③ 600 V, 35 A ④
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- ① Max. connector size: 16 mm<sup>2</sup>
- ② 1000 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Suitable for Ex i applications
- ④ Suitable for Ex e II applications  
0.2 ... 6 mm<sup>2</sup> / 24 ... 10 AWG  
690 V, 39 A  
(see Section 14)
- ⑤ Suitable for Ex e II applications  
0.2 ... 10 mm<sup>2</sup> / 24 ... 8 AWG  
690 V, 53 A  
(see Section 14)
- ⑥ See application notes for:  
Test plug module, page 329  
Banana plug, page 330



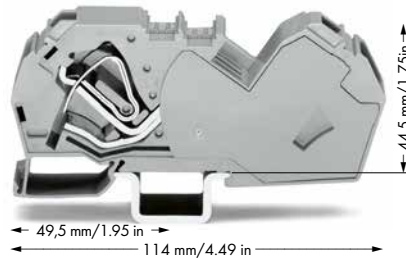
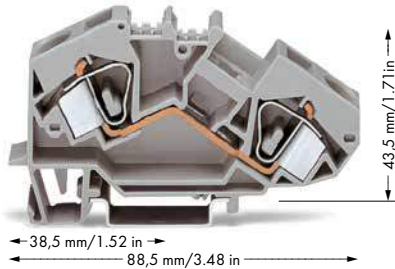
Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
2-conductor through terminal block		2-conductor through terminal block		WMB/WFB (see Section 13)
○ gray <b>782-601</b>	25	○ gray <b>784-601</b>	25	End and intermediate plate, 1.5 mm thick
● blue <b>782-604</b> ③	25	● blue <b>784-604</b> ③	25	orange <b>782-317</b> 100 (4x25)
○ light gray ④ <b>782-992</b> ④	50	○ light gray ④ <b>784-992</b> ⑤	25	
2-conductor ground terminal block		2-conductor ground terminal block		Separator for Ex e/Ex i application, orange, 3 mm thick
● green-yellow <b>782-607</b>	25	● green-yellow <b>784-607</b>	25	
● green-yellow ④ <b>782-607/999-950</b> ④	25	● green-yellow ④ <b>784-607/999-950</b> ⑤	25	125.5 mm <b>209-192</b> 50 (2x25)
<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>		Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks
N-disconnect <b>782-613</b> Page 256		N-disconnect <b>784-613</b> Page 256		
Potential <b>782-623</b> Page 256		Potential <b>784-623</b> Page 256		gray <b>209-170</b> 50 (2x25)
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		Banana plug, for socket 4 mm Ø, color mixed
Adjacent jumper, insulated, I <sub>N</sub> 41 A		Adjacent jumper, insulated, I <sub>N</sub> 57 A		 ⑥ <b>215-111</b> 50
 gray <b>282-402</b> 100 (4x25)		 gray <b>284-402</b> 100 (4x25)		Busbar carrier, with end stop function and detachable separator plate, snaps onto DIN-35 rail, 8 mm thick
 yellow-green <b>282-422</b> 100 (4x25)		 yellow-green <b>284-422</b> 100 (4x25)		
Alternate jumper, insulated, I <sub>N</sub> 41 A		Alternate jumper, insulated, I <sub>N</sub> 57 A		blue <b>777-305</b> 25
 gray <b>282-409</b> 100 (4x25)		 gray <b>284-409</b> 50 (2x25)		WFB continuous marking strip, 1000 mm long
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		 transparent <b>210-612</b> 10
 yellow <b>282-415</b> 100 (4x25)		 yellow <b>284-415</b> 50 (2x25)		Carrier for WFB continuous marking strip, snaps into marker slot
B-type test plug module, snaps together, 8 mm wide		B-type test plug module, snaps together, 8 mm wide		 <b>209-185</b> 200 (8x25)
⑥  gray <b>709-310</b> 100 (4x25)		⑥  gray <b>709-310</b> 100 (4x25)		TOPJOB® Tool, specialty blade, for all TOPJOB® Terminal Blocks
B-type spacer module, snaps together, 8 mm wide		B-type spacer module, snaps together, 8 mm wide		 <b>777-310</b> 1
 gray <b>709-311</b> 100 (4x25)		 gray <b>709-311</b> 100 (4x25)		Screwless end stop, for DIN-35 rail, 6 mm wide
B-type spacer plate, snaps together, 2 mm wide		B-type spacer plate, snaps together, 2 mm wide		 gray <b>249-116</b> 100 (4x25)
 gray <b>709-312</b> 100 (4x25)		 gray <b>709-312</b> 100 (4x25)		Screwless end stop, for DIN-35 rail, 10 mm wide
Finger guard, touch-proof cover protects unused conductor entries		Finger guard, touch-proof cover protects unused conductor entries		 gray <b>249-117</b> 50 (2x25)
 yellow <b>284-400</b> 100 (4x25)		 yellow <b>284-400</b> 100 (4x25)		

# TOPJOB® Classic

## Through, Ground Conductor and Ex Terminal Blocks

### 16 mm<sup>2</sup>, 783 Series and 35 mm<sup>2</sup>, 785 Series

<p>0.2 ... 16 mm<sup>2</sup> 1000 V/8 kV/3 ① I<sub>N</sub> 76 A</p> <p>24 ... 6 AWG 600 V, 65 A ② 600 V, 50 A ③</p> <p>Terminal block width 12 mm / 0.472 inch 16 ... 17 mm / 0.63 ... 0.67 inch</p>	<p>6 ... 35 mm<sup>2</sup> 1000 V/8 kV/3 ① I<sub>N</sub> 125 A</p> <p>8 ... 2 AWG 600 V, 115 A ② 600 V, 125 A ③</p> <p>Terminal block width 16 mm / 0.63 inch 23 mm / 0.91 inch</p>
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- ① 1000 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ Suitable for Ex e II applications  
0.2 ... 16 mm<sup>2</sup> / 24 ... 6 AWG  
690 V, 68 A  
0.2 ... 10 mm<sup>2</sup> / 24 ... 8 AWG  
for ground conductor terminal blocks  
(see Section 14)

5

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
2-conductor through terminal block		2-conductor through terminal block, only on DIN-35 x 15 rail		WMB/WFB (see Section 13)
<ul style="list-style-type: none"> <li>○ gray <b>783-601</b> 25</li> <li>● blue <b>783-604</b> ② 25</li> <li>○ light gray ③ <b>783-992</b> 25</li> </ul>		<ul style="list-style-type: none"> <li>○ gray <b>785-601</b> 15</li> <li>● blue <b>785-604</b> 15</li> </ul>		Test plug adapter, 11.6 mm wide, for 4 mm Ø test plug, for 1.5 ... 16 mm <sup>2</sup> terminal blocks gray <b>283-404</b> 25
2-conductor ground terminal block		2-conductor ground terminal block, only on DIN-35 x 15 rail		Banana plug, for socket 4 mm Ø, color mixed <b>215-111</b> 50
<ul style="list-style-type: none"> <li>● green-yellow <b>783-607</b> 25</li> <li>● green-yellow ③ <b>783-607/999-950</b> 25</li> </ul>		<ul style="list-style-type: none"> <li>● green-yellow <b>785-607</b> 15</li> </ul>		Busbar carrier, with end stop function and detachable separator plate, snaps onto DIN-35 rail, 8 mm thick blue <b>777-305</b> 25
<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>		
N-disconnect <b>783-613</b> Page 256		N-disconnect <b>785-613</b> Page 257		
Potential <b>783-623</b> Page 256		Potential <b>785-623</b> Page 257		
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		
End and intermediate plate, 1.5 mm thick orange <b>783-317</b> 100 (4x25)		Adjacent jumper, insulated, I <sub>N</sub> 85 A gray <b>285-435</b> 50 (2x25)		WFB continuous marking strip, 1000 mm long transparent <b>210-612</b> 10
Adjacent jumper, insulated, I <sub>N</sub> 70 A gray <b>283-402</b> 50 (2x25) yellow-green <b>283-422</b> 50 (2x25)		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>285-416</b> 50 (2x25)		Carrier for WFB continuous marking strip, snaps into marker slot <b>209-185</b>
Alternate jumper, insulated, I <sub>N</sub> 76 A gray <b>283-409</b> 50 (2x25)		Finger guard, touch-proof cover protects unused conductor entries yellow <b>285-401</b> 100		TOPJOB® Tool, specialty blade, for all TOPJOB® Terminal Blocks <b>777-310</b> 1
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>283-415</b> 50 (2x25)		Power tap, I <sub>N</sub> 24 A, with 500 mm cable, for terminal blocks 16 mm <sup>2</sup> (283/783 Series) and 35 mm <sup>2</sup> (285/785 Series) gray <b>283-407</b> 25		Screwless end stop, for DIN-35 rail, 6 mm wide gray <b>249-116</b> 100 (4x25)
Finger guard, touch-proof cover protects unused conductor entries yellow <b>283-400</b> 100 (4x25)				Screwless end stop, for DIN-35 rail, 10 mm wide gray <b>249-117</b> 50 (2x25)
Power tap, I <sub>N</sub> 24 A, with 500 mm cable, for terminal blocks 16 mm <sup>2</sup> (283/783 Series) and 35 mm <sup>2</sup> (285/785 Series) gray <b>283-407</b> 25				

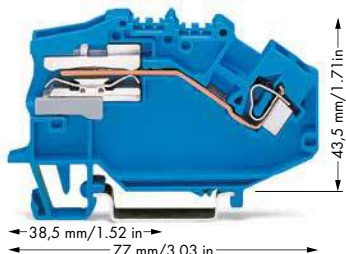
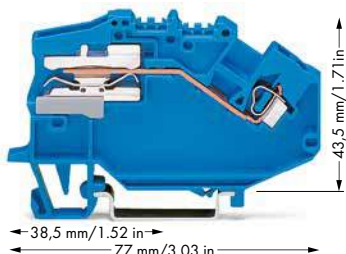


# TOPJOB® Classic

## N-Conductor and Power Distribution Disconnect Terminal Blocks

### 2.5 mm<sup>2</sup>, 780 Series and 4 mm<sup>2</sup>, 781 Series

0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 24 A	28 ... 12 AWG* 600 V, 20 A ②	0.08 ... 4 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 32 A	28 ... 12 AWG 600 V, 20 A ②
Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch		Terminal block width 6 mm / 0.236 inch 9 ... 10 mm / 0.35 ... 0.39 inch	



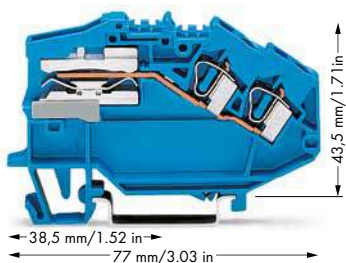
\* 12 AWG: THHN, THWN

- ① 400 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② See page 257
- ③ See page 257

Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor N-disconnect terminal block ● blue <b>780-613</b> ②	50	1-conductor N-disconnect terminal block ● blue <b>781-613</b> ②	50
		1-conductor power distribution disconnect terminal block ○ gray <b>781-623</b> ③	50
<b>Other terminal blocks with the same profile:</b> Through <b>780-601</b> Page 251		<b>Other terminal blocks with the same profile:</b> Through <b>781-601</b> Page 252	

#### Accessories




WMB/WFB (see Section 13)	
End and intermediate plate, 1.5 mm thick orange	<b>780-317</b> 100 (4x25)
Busbar carrier, not suitable as end stop, snaps onto DIN-35 rail, 1.5 mm thick	blue <b>780-321</b> 100 (4x25)
Busbar carrier, with end stop function and detachable separator plate, snaps onto DIN-35 rail, 8 mm thick	blue <b>777-305</b> 25
Straight busbar, tin-plated, 1000 mm long, copper (10 x 3) mm I <sub>N</sub> 140 A	<b>210-133</b> 1
Busbar cover, 1000 mm long	transparent <b>777-303</b> 1
Connector, for N-busbar, with blue cover, 2.5 ... 16 mm <sup>2</sup>	blue <b>210-281</b> 100 (2x50)
Connector, for N-busbar, 2.5 ... 35 mm <sup>2</sup>	unplated <b>209-105</b> 50
Lock-out, prevents reclosing of slide link, snap-on type	orange <b>777-300</b> 100 (4x25)
Step-down test plug, from 4 mm socket to 2 mm plug, max. 42 V	red <b>210-297</b> 100 (4x25)

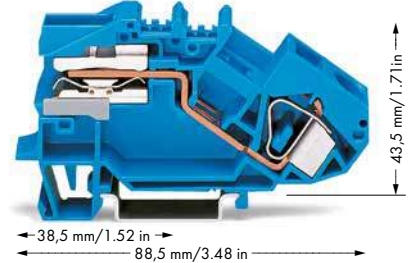
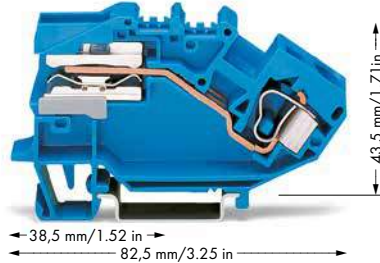
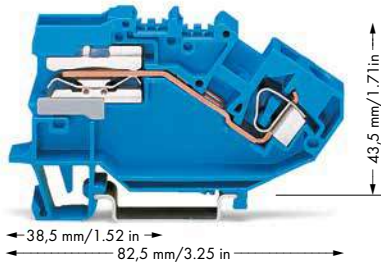


Item No.	Pack. Unit
2-conductor N-disconnect terminal block ● blue <b>781-643</b> ②	50
2-conductor power distribution disconnect terminal block ○ gray <b>781-653</b> ③	50
<b>Other terminal blocks with the same profile:</b> Through <b>781-631</b> Page 252	




# TOPJOB® Classic N-Conductor and Power Distribution Disconnect Terminal Blocks

6 mm<sup>2</sup>, 782 Series and 10 mm<sup>2</sup>, 784 Series and 16 mm<sup>2</sup>, 783 Series and 35 mm<sup>2</sup>, 785 Series

<p>0.2 ... 6 mm<sup>2</sup>   24 ... 10 AWG 400 V/6 kV/3 ②   600 V, 30 A ③ I<sub>N</sub> 41 A</p> <p>Terminal block width 8 mm / 0.315 inch   12 ... 13 mm / 0.47 ... 0.51 inch</p>	<p>0.2 ... 10 (16) mm<sup>2</sup> ①   24 ... 6 AWG 400 V/6 kV/3 ② I<sub>N</sub> 57 A</p> <p>Terminal block width 10 mm / 0.394 inch   12 ... 13 mm / 0.47 ... 0.51 inch</p>	<p>0.2 ... 16 mm<sup>2</sup>   24 ... 6 AWG 400 V/6 kV/3 ②   600 V, 65 A ③ I<sub>N</sub> 68 A</p> <p>Terminal block width 12 mm / 0.472 inch   16 ... 17 mm / 0.63 ... 0.67 inch</p>
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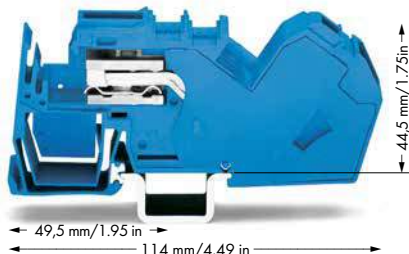
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor N-disconnect terminal block		1-conductor N-disconnect terminal block		1-conductor N-disconnect terminal block	
● blue 782-613 ③ 25		● blue 784-613 ③ 25		● blue 783-613 ③ 25	
1-conductor power distribution disconnect terminal block		1-conductor power distribution disconnect terminal block		1-conductor power distribution disconnect terminal block	
○ gray 782-623 ④ 25		○ gray 784-623 ④ 25		○ gray 783-623 ④ 25	
<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>	
Through 782-601 Page 253		Through 784-601 Page 253		Through 783-601 Page 254	
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
Busbar carrier, not suitable as end stop, snaps onto DIN-35 rail, 1.5 mm thick		Busbar carrier, not suitable as end stop, snaps onto DIN-35 rail, 1.5 mm thick		Busbar carrier, not suitable as end stop, snaps onto DIN-35 rail, 1.5 mm thick	
 blue 782-321 100 (4x25)		 blue 782-321 100 (4x25)		 blue 783-321 100 (4x25)	

**Accessories**

Appropriate marking systems: WMB/WFB (see Section 13)

Busbar carrier, with end stop function and detachable separator plate, snaps onto DIN-35 rail, 8 mm thick	Connector, for N-busbar, 2.5 ... 35 mm <sup>2</sup>	WFB continuous marking strip, 1000 mm long
 blue 777-305 25	 unplated 209-105 50	 transparent 210-612 10
	Lock-out, prevents reclosing of slide link, snap-on type	Carrier for WFB continuous marking strip, snaps into marker slot
	 orange 782-300 100 (4x25)	 209-185 200 (8x25)
Straight busbar, tin-plated, 1000 mm long, copper (10 x 3) mm	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V	TOPJOB® Tool, speciality blade, for all TOPJOB® Terminal Blocks
 I <sub>N</sub> 140 A 210-133 1	 yellow 210-137 50	 777-310 1
Busbar cover, 1000 mm long	Step-down test plug, from 4 mm socket to 2 mm plug, max. 42 V	Screwless end stop, for DIN-35 rail, 6 mm wide
 transparent 777-303 1	 red 210-297 100 (4x25)	 gray 249-116 100 (4x25)
Connector, for N-busbar, with blue cover, 2.5 ... 16 mm <sup>2</sup>	WMB Multi marking system, white, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm	Screwless end stop, for DIN-35 rail, 10 mm wide
 blue 210-281 100 (2x50)	 plain 793-501 5	 gray 249-117 50 (2x25)
	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable	
	 plain 793-5501 5	

6 ... 35 mm<sup>2</sup> | 8 ... 2 AWG  
 400 V/6 kV/3 ②  
 I<sub>N</sub> 125 A | 600 V, 125 AⓈ  
 Terminal block width 16 mm / 0.63 inch  
 23 mm / 0.91 inch



- ① Max. connector size: 16 mm<sup>2</sup>
- ② 400 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ See bottom of column 5
- ④ See bottom of column 6

The 35 mm<sup>2</sup> (2 AWG) terminal blocks are the latest addition to WAGO TOPJOB®, the professional range of rail-mount terminal blocks for building installations. These terminal blocks, which include an end plate, are just 16 mm wide. Their compact design allows them to fit into standard distribution boxes. The lower conductor entry angle makes it much easier to terminate 35 mm<sup>2</sup> (2 AWG) conductors.

Furthermore, the N-busbar holder is integrated into the terminal block, eliminating separate holders.

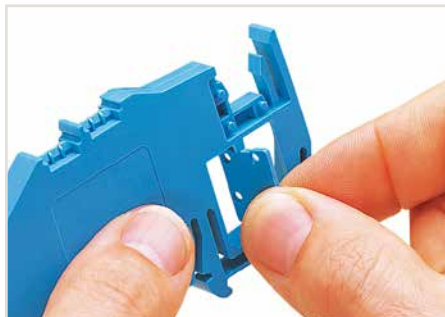
Item No.	Pack. Unit
1-conductor N-disconnect terminal block, only on DIN-35 x 15 rail	
● blue 785-613 ③	15
1-conductor power distribution disconnect terminal block, only on DIN-35 x 15 rail	
○ gray 785-623 ④	15
<b>Other terminal blocks with the same profile:</b>	
Through 785-601	Page 254

**Item-Specific Accessories**

Busbar carrier, not suitable as end stop, snaps onto DIN-35 rail, 1.5 mm thick



blue 783-321 100 (4x25)



Removing the separator plate from the busbar carrier or from the N-disconnect terminal block.



Inserting the separator plate into the busbar carrier to protect the N-busbar against accidental contact.

For the construction and operation of power installations in fire-prone, hazardous locations or public buildings – such as conference centers, stores, hospitals, schools, theaters or hotels – the DIN VDE 0100-710 or DIN VDE 0100-718 standards shall be observed. DIN VDE 0100-482 shall also be observed for fire-prone, hazardous locations. These VDE regulations mandate that every neutral conductor must be provided with a disconnection device so, e.g., insulation testing is possible for every circuit without disconnecting the N-conductor.

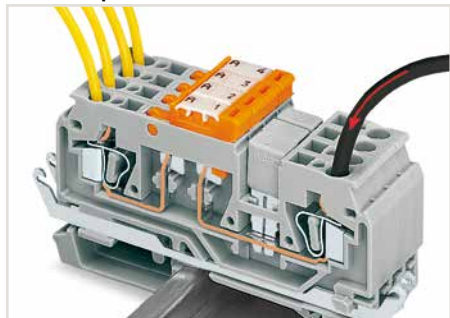
WAGO N-disconnect terminal blocks meet this requirement.

According to DIN VDE 0100-710, "Requirements for operating facilities, rooms and special installations – medical facilities," equipotential bonding conductors shall be run on a potential equalization busbar. The potential equalization busbar and the protective ground conductor busbar must be mounted in a common housing and be connected to each other using a disconnectable copper conductor of minimum 16 mm<sup>2</sup> (6 AWG). Furthermore, all equipotential bonding conductors must be connected to the potential equalization busbar and clearly arranged so they can be disconnected individually and accessed at any time. Depending on their function, they must be provided with captive marking.

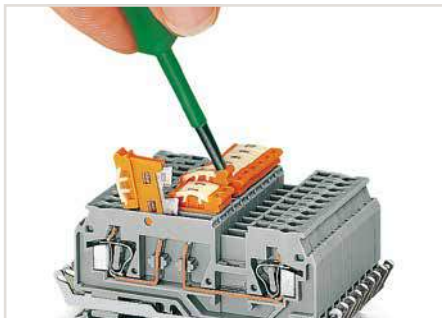
WAGO's power distribution disconnect terminal blocks meet these requirements.

# Disconnect/Test Terminal Blocks with a Pivoting Knife Disconnect, 280 Series

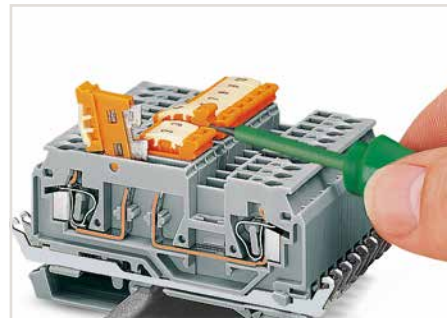
## Description and Installation



Power distribution using an adjacent jumper – knife disconnect used to disconnect individual outputs.



Pivoting a knife disconnect.



Pivoting knife disconnect clearly indicates circuit state by defined, notched positions "ON" <-> "OFF."

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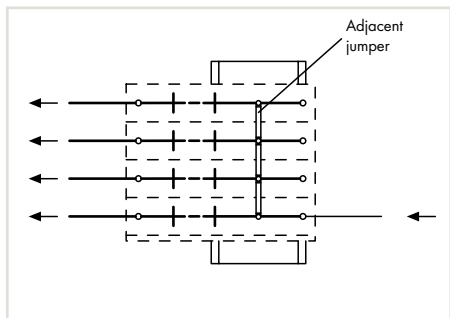
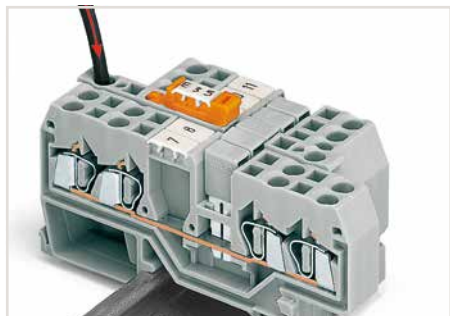


Diagram of the assembly as shown in the picture above.



Power distribution using disconnect link in supply line – disconnection of all outputs.

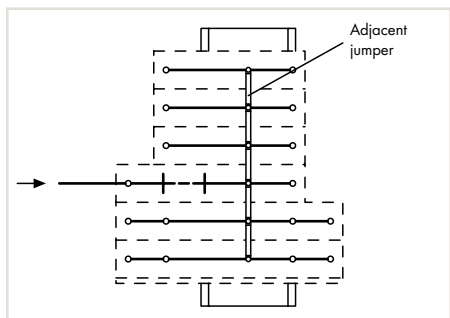
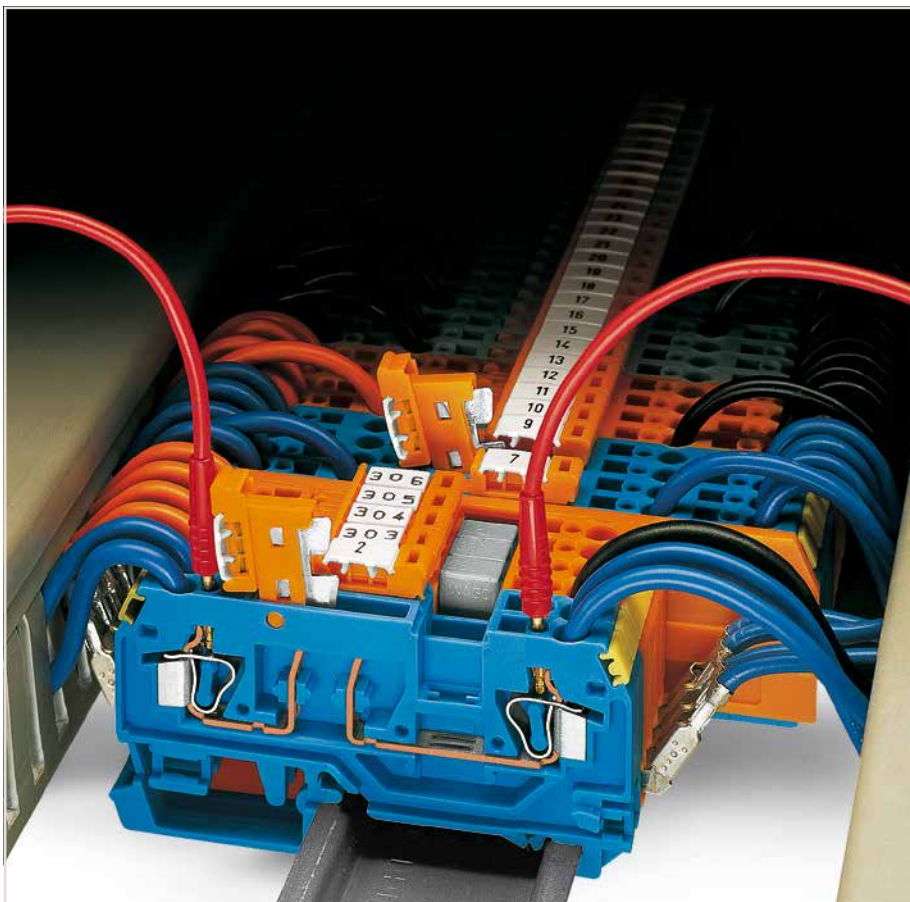
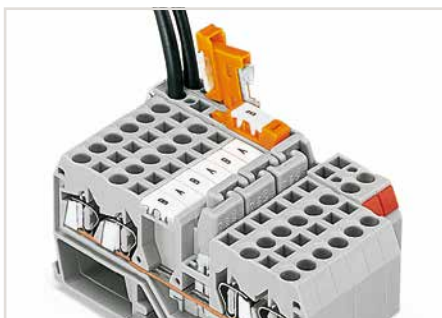


Diagram of the assembly as shown in the picture above.



Staggered jumpers for sophisticated circuit requirements – push jumpers down until fully inserted.

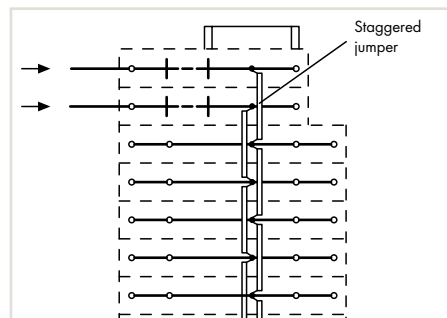


Diagram of the assembly as shown in the picture above.



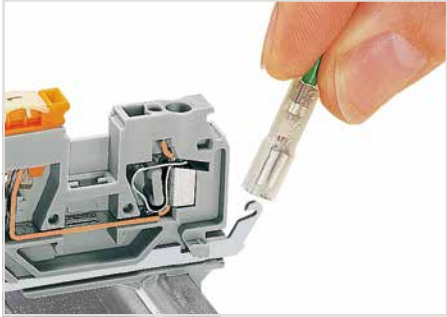
**CAGE CLAMP®** terminates the following copper conductors:  
solid



stranded



fine-stranded,  
also with tinned  
single strands



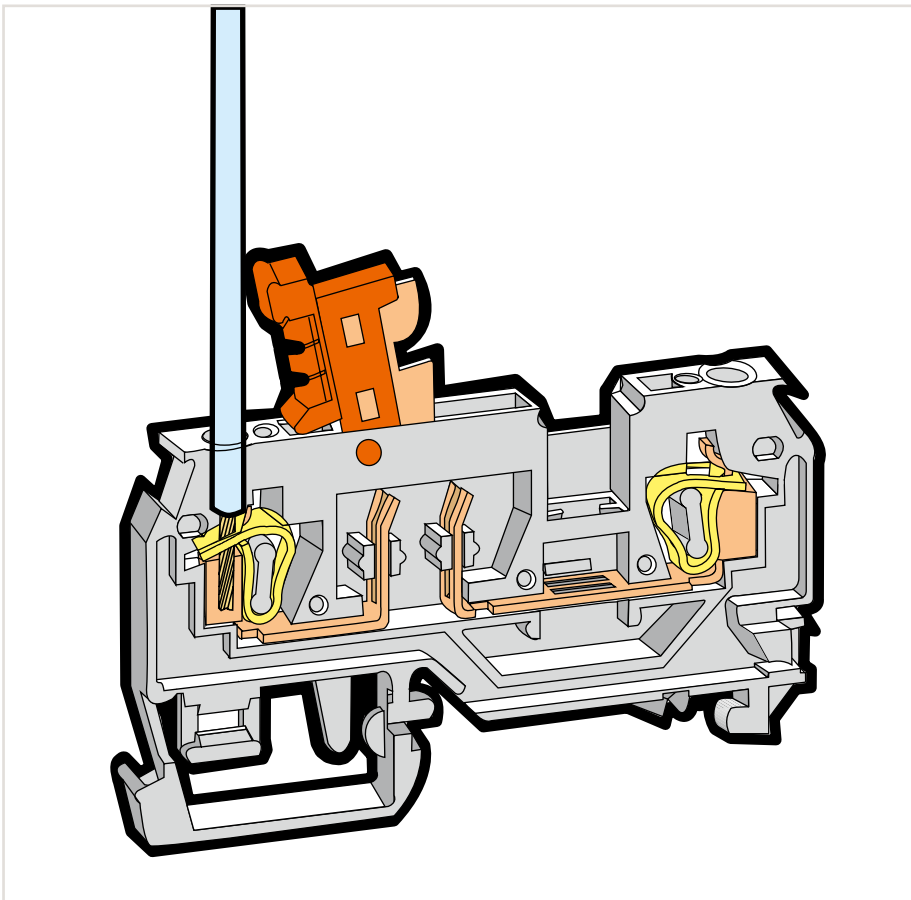
Shield contact via (2.5 x 0.8) mm solder/crimp quick disconnect terminal



Testing with voltage tester.



Terminal block labeling -via WMB (center position) and Mini-WSB markers (on the sides)



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fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)

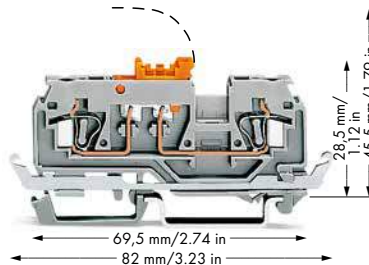
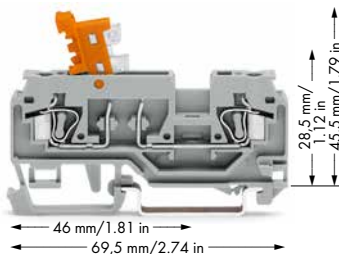


fine-stranded, with pin terminal (gastight crimped)

## 2-Conductor Disconnect/Test Terminal Blocks without/with Shield Contact

### 2.5 mm<sup>2</sup>, 280 Series

0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 16 A	28 ... 12 AWG* 600 V, 15 A ② 300 V, 15 A ③	0.08 ... 2.5 mm <sup>2</sup> 250 V/4 kV/3 ① I <sub>N</sub> 16 A	28 ... 12 AWG* 600 V, 15 A ② 300 V, 15 A ③
Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch		Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	





- \* 12 AWG: THHN, THWN
- ① 400 V/250 V = rated voltage  
6 kV/4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ See application notes for:  
Insulation stop, page 331  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Comb-style jumper bar, page 332  
Operating tool, page 332  
Test plug modules, page 326  
Banana plug, page 330

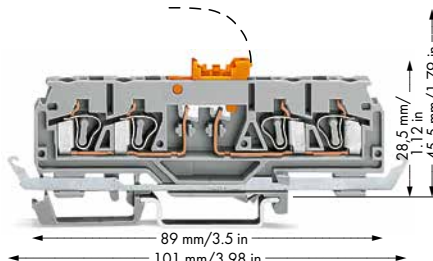
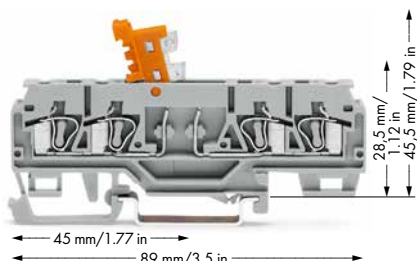
5

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
2-conductor disconnect/test terminal block, with test slots for 2 and 2.3 mm Ø test plugs, with pivoting knife disconnect		2-conductor disconnect/test terminal block with shield contact, with test slots for 2 and 2.3 mm Ø test plugs, with pivoting knife disconnect		
gray terminal block housing		gray terminal block housing		Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block
orange disconnect link		orange disconnect link		2-way <b>280-492</b> 200 (8x25)
○ gray <b>280-870</b>	100	○ gray <b>280-871</b>	50	Operating tool, of insulating material
gray terminal block housing		gray terminal block housing		2-way <b>280-432</b> 1
gray disconnect link		gray disconnect link		3-way <b>280-433</b> 1
○ gray <b>280-868</b>	100	○ gray <b>280-869</b>	50	Operating tool, of insulating material
blue terminal block housing		orange terminal block housing		10-way <b>280-440</b> 1
orange disconnect link		orange disconnect link		Test plug module, snaps together, 5 mm wide
● blue <b>280-876</b> ②	100	● blue <b>280-880</b>	50	③  gray <b>280-418</b> 100 (4x25)
orange terminal block housing				Spacer module, snaps together, 5 mm wide
orange disconnect link				gray <b>280-419</b> 100 (4x25)
● orange <b>280-879</b>	100			Test plug, with 500 mm cable, 2 mm Ø, max. 42 V
<b>Accessories</b>		Appropriate marking systems: WMB/WMB Inline/Mini-WSB (see Section 13)		red <b>210-136</b> 50
End and intermediate plate, 2.5 mm thick		Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V
orange <b>280-371</b> 100 (4x25)		③		yellow <b>210-137</b> 50
gray <b>280-374</b> 100 (4x25)		from 1 to 2 <b>780-452</b> 100 (4x25)		Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")		from 1 to 3 <b>780-453</b> 100 (4x25)		gray <b>280-404</b> 100 (4x25)
③		from 1 to 4 <b>780-454</b> 100 (4x25)		Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks
white <b>280-470</b> 200 (8x25)		from 1 to 5 <b>780-455</b> 50 (2x25)		gray <b>209-170</b> 50 (2x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>		from 1 to 6 <b>780-456</b> 50 (2x25)		Banana plug, for 4 mm socket diameter, color mixed, 10 x
③		from 1 to 7 <b>780-457</b> 50 (2x25)		③ orange, white, black, blue, yellow
light gray <b>280-471</b> 200 (8x25)		from 1 to 8 <b>780-458</b> 50 (2x25)		<b>215-111</b> 50
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>		Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A		WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable
③		③		plain <b>793-5501</b> 5
dark gray <b>280-472</b>		L = 60 mm <b>249-125</b> 10		Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		L = 110 mm <b>249-126</b> 10		plain <b>248-501</b> 5
		L = 250 mm <b>249-127</b> 10		
gray <b>280-402</b> 200 (8x25)		Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		
yellow-green <b>280-422</b> 200 (8x25)		③		
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		2-way <b>280-482</b> 200 (8x25)		
		3-way <b>280-483</b> 200 (8x25)		
gray <b>280-409</b> 100 (4x25)		10-way <b>280-490</b> 50 (2x25)		
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks				
③				
yellow <b>280-415</b> 100 (4x25)				

# 4-Conductor Disconnect/Test Terminal Blocks without/with Shield Contact

## 2.5 mm<sup>2</sup>, 280 Series

0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 16 A  Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 600 V, 15 A ② 300 V, 15 A ③	0.08 ... 2.5 mm <sup>2</sup> 250 V/4 kV/3 ① I <sub>N</sub> 16 A  Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 600 V, 15 A ② 300 V, 15 A ③
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- \* 12 AWG: THHN, THWN
- ① 400 V/250 V = rated voltage  
6 kV/4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ See application notes for:  
Insulation stop, page 331  
Comb-style jumper bar, page 332  
Operating tool, page 332

Item No.	Pack. Unit	Item No.	Pack. Unit
4-conductor disconnect/test terminal block, with test slots for 2 and 2.3 mm Ø test plugs, with pivoting knife disconnect		4-conductor disconnect/test terminal block with shield contact, with test slots for 2 and 2.3 mm Ø test plugs, with pivoting knife disconnect	
gray terminal block housing		gray terminal block housing	
orange disconnect link		orange disconnect link	
○ gray <b>280-874</b>	50	○ gray <b>280-875</b>	50
gray terminal block housing		gray terminal block housing	
gray disconnect link		gray disconnect link	
○ gray <b>280-881</b>	50	○ gray <b>280-882</b>	50
blue terminal block housing		orange terminal block housing	
orange disconnect link		orange disconnect link	
● blue <b>280-885</b> ②	50	● blue <b>280-884</b>	50
orange terminal block housing			
orange disconnect link			
● orange <b>280-883</b>	50		

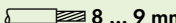
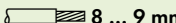
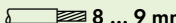
### Accessories

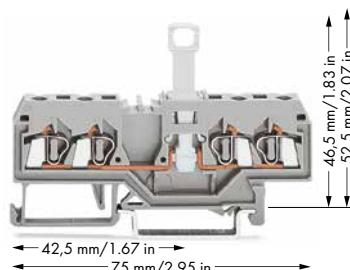
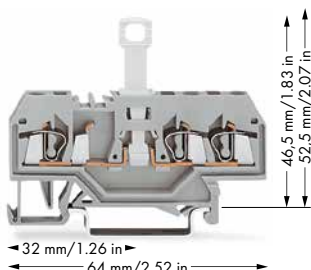
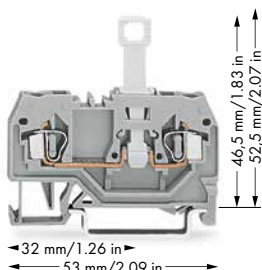
Appropriate marking systems: WMB/WMB Inline/Mini-WSB  
(see Section 13)

End and intermediate plate, 2.5 mm thick	Operating tool, of insulating material
orange <b>280-373</b> 100 (4x25)	2-way <b>280-432</b> 1
gray <b>280-376</b> 100 (4x25)	3-way <b>280-433</b> 1
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")	Operating tool, of insulating material
white <b>280-470</b> 200 (8x25)	10-way <b>280-440</b> 1
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks
light gray <b>280-471</b> 200 (8x25)	yellow <b>280-415</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V
dark gray <b>280-472</b> 200 (8x25)	red <b>210-136</b> 50
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V
2-way <b>280-482</b> 200 (8x25)	yellow <b>210-137</b> 50
3-way <b>280-483</b> 200 (8x25)	
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	Screwless end stop, for DIN-35 rail, 6 mm wide
10-way <b>280-490</b> 50 (2x25)	gray <b>249-116</b> 100 (4x25)
Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	Screwless end stop, for DIN-35 rail, 10 mm wide
2-way <b>280-492</b> 200 (8x25)	gray <b>249-117</b> 50 (2x25)



















# Disconnect/Test Terminal Blocks

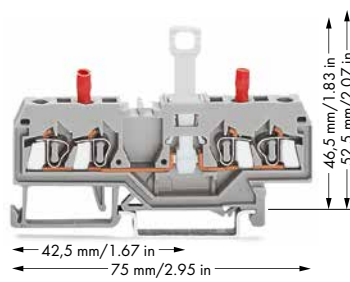
## 2.5 mm<sup>2</sup>, 280 Series







<p>0.08 ... 2.5 mm<sup>2</sup> 28 ... 12 AWG*                  400 V/6 kV/3 ①                  I<sub>N</sub> 10 A</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup> 28 ... 12 AWG*                  400 V/6 kV/3 ①                  I<sub>N</sub> 10 A</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup> 28 ... 12 AWG*                  400 V/6 kV/3 ①                  I<sub>N</sub> 10 A</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>
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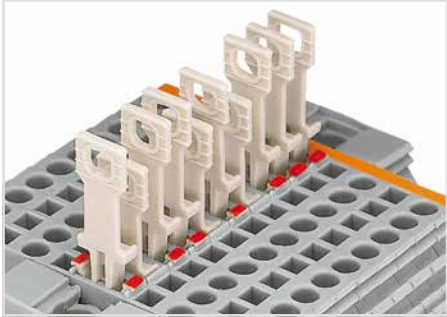
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor disconnect terminal block, with disconnect tab		3-conductor disconnect terminal block, with disconnect tab		4-conductor disconnect terminal block, with disconnect tab	
○ gray <b>280-912</b>	50	○ gray <b>280-683</b>	50	○ gray <b>280-836</b>	50
● blue <b>280-914</b>	50			● blue <b>280-839</b>	50
● orange <b>280-913</b>	50			● orange <b>280-805</b>	50
<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>	
Through <b>280-901</b>	Page 220	Through <b>280-681</b>	Page 220	Through <b>280-833</b>	Page 220
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick	
 orange <b>280-309</b>	100 (4x25)	 orange <b>280-326</b>	100 (4x25)	 orange <b>280-315</b>	100 (4x25)
 gray <b>280-308</b>	100 (4x25)	 gray <b>280-324</b>	100 (4x25)	 gray <b>280-314</b>	100 (4x25)
 light gray <b>280-356</b>	100 (4x25)	 light gray <b>280-358</b>	100 (4x25)	 light gray <b>280-352</b>	100 (4x25)
Separator, oversized, 2 mm thick		Separator, oversized, 2 mm thick		Separator, oversized, 2 mm thick	
 orange <b>280-311</b>	100 (4x25)	 orange <b>280-346</b>	100 (4x25)	 orange <b>280-335</b>	100 (4x25)
 gray <b>280-310</b>	100 (4x25)	 gray <b>280-344</b>	100 (4x25)	 gray <b>280-334</b>	100 (4x25)
 light gray <b>280-357</b>	100 (4x25)	 light gray <b>280-359</b>	100 (4x25)	 light gray <b>280-353</b>	100 (4x25)



Item No.	Pack. Unit
2-conductor disconnect/test terminal block, with disconnect tab, with integrated test sockets	
○ gray <b>280-829</b>	50
<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick	
 orange <b>280-315</b>	100 (4x25)
 gray <b>280-314</b>	100 (4x25)
 light gray <b>280-352</b>	100 (4x25)
Separator, oversized, 2 mm thick	
 orange <b>280-335</b>	100 (4x25)
 gray <b>280-334</b>	100 (4x25)
 light gray <b>280-353</b>	100 (4x25)



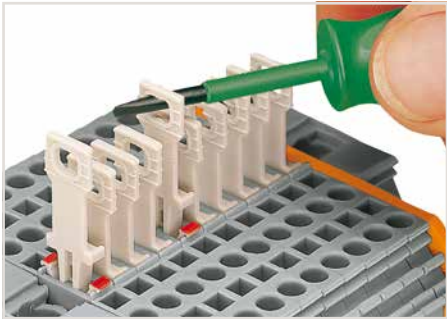
## Disconnect/Test Terminal Blocks Installation



Disconnect terminal block with colored tab to indicate the switching status (red = disconnected)



Commoning front-entry disconnect terminal blocks via comb-style jumper bar using a 10-pole operating tool.



Pulling the disconnect tab via operating tool.



Pulling the disconnect tab by hand.

- ❶ 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❷ See application notes for:  
Insulation stop, page 331  
Comb-style jumper bar, page 332  
Operating tool, page 332




### 280 Series Accessories

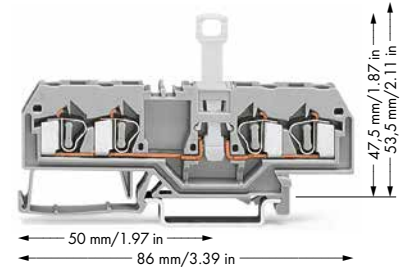
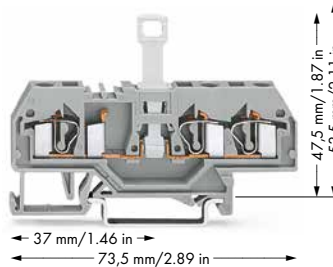
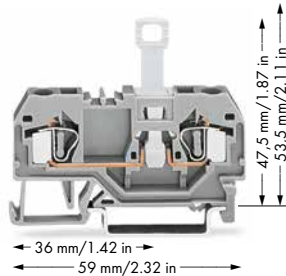
Appropriate marking systems  
(see Section 13)

Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" ❷ (0.14 mm <sup>2</sup> "f-st")		white	<b>280-470</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> ❷		light gray	<b>280-471</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> ❷		dark gray	<b>280-472</b>	200 (8x25)
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block ❷		2-way	<b>280-482</b>	200 (8x25)
		3-way	<b>280-483</b>	200 (8x25)
Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		2-way	<b>280-492</b>	200 (8x25)
Operating tool, of insulating material		2-way	<b>280-432</b>	1
		3-way	<b>280-433</b>	1
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		yellow	<b>280-415</b>	100 (4x25)
Disconnect lock, for disconnect tab used on disconnect terminal blocks (280/281 and 769 Series)		red	<b>709-170</b>	200 (8x25)
Test socket, insulated, 2 mm Ø		red	<b>209-107</b>	100 (2x50)
Test socket, insulated, 2.3 mm Ø		yellow	<b>209-108</b>	100 (2x50)
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V		red	<b>210-136</b>	50
Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V		yellow	<b>210-137</b>	50

# Disconnect/Test Terminal Blocks

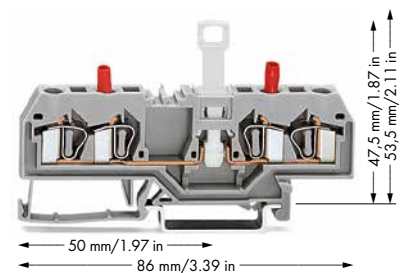
## 4 mm<sup>2</sup>, 281 Series

<p>0.08 ... 4 mm<sup>2</sup> 28 ... 12 AWG                  400 V/6 kV/3 ① 300 V, 15 A <b>VA</b>                  I<sub>N</sub> 10 A</p> <p>Terminal block width 6 mm / 0.236 inch   9 ... 10 mm / 0.35 ... 0.39 inch</p>	<p>0.08 ... 4 mm<sup>2</sup> 28 ... 12 AWG                  400 V/6 kV/3 ① 300 V, 15 A <b>VA</b>                  I<sub>N</sub> 10 A</p> <p>Terminal block width 6 mm / 0.236 inch   9 ... 10 mm / 0.35 ... 0.39 inch</p>	<p>0.08 ... 4 mm<sup>2</sup> 28 ... 12 AWG                  400 V/6 kV/3 ① 300 V, 15 A <b>VA</b>                  I<sub>N</sub> 10 A</p> <p>Terminal block width 6 mm / 0.236 inch   9 ... 10 mm / 0.35 ... 0.39 inch</p>
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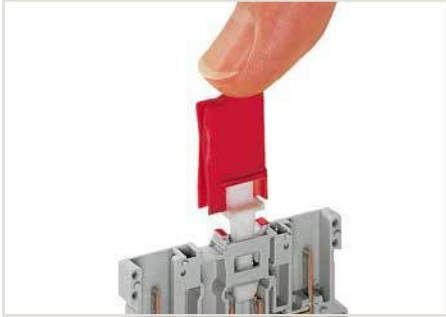
5

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor disconnect terminal block, with disconnect tab ○ gray <b>281-912</b>	50	3-conductor disconnect terminal block, with disconnect tab ○ gray <b>281-683</b>	50	4-conductor disconnect terminal block, with disconnect tab ○ gray <b>281-659</b> ● blue <b>281-660</b>	50
<b>Other terminal blocks with the same profile:</b> Through <b>281-901</b> Page 226		<b>Other terminal blocks with the same profile:</b> Through <b>281-681</b> Page 226		<b>Other terminal blocks with the same profile:</b> Through <b>281-652</b> Page 226	
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick orange <b>281-329</b> 100 (4x25) gray <b>281-328</b> 100 (4x25) light gray <b>281-349</b> 100 (4x25)		End and intermediate plate, 2.5 mm thick orange <b>281-326</b> 100 (4x25) gray <b>281-324</b> 100 (4x25) light gray <b>281-355</b> 100 (4x25)		End and intermediate plate, 2.5 mm thick orange <b>281-335</b> 100 (4x25) gray <b>281-334</b> 100 (4x25) light gray <b>281-345</b> 100 (4x25)	
Separator, oversized, 2 mm thick orange <b>281-331</b> 100 (4x25) gray <b>281-330</b> 100 (4x25) light gray <b>281-350</b> 100 (4x25)		Separator, oversized, 2 mm thick orange <b>281-346</b> 100 (4x25) gray <b>281-344</b> 100 (4x25) light gray <b>281-356</b> 100 (4x25)		Separator, oversized, 2 mm thick orange <b>281-339</b> 100 (4x25) gray <b>281-338</b> 100 (4x25) light gray <b>281-347</b> 100 (4x25)	

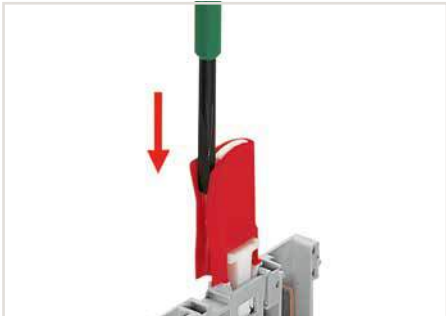


Item No.	Pack. Unit
2-conductor disconnect/test terminal block, with disconnect tab, with integrated test sockets ○ gray <b>281-666</b>	50
<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick orange <b>281-335</b> 100 (4x25) gray <b>281-334</b> 100 (4x25) light gray <b>281-345</b> 100 (4x25)	
Separator, oversized, 2 mm thick orange <b>281-339</b> 100 (4x25) gray <b>281-338</b> 100 (4x25) light gray <b>281-347</b> 100 (4x25)	

## Disconnect/Test Terminal Blocks Installation



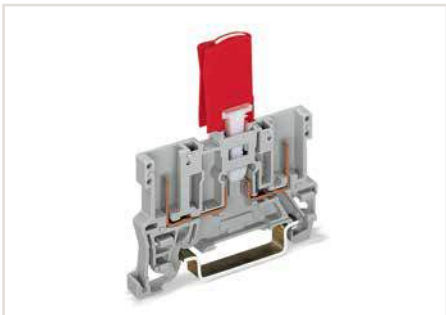
Installing a disconnect lock on the terminal block's disconnect tab (the picture shows a 769 Series 2-pin-disconnect terminal block).



Unlocking a disconnect lock.



Removing a disconnect lock.



### Double Safety:

The disconnect tab has been designed for maximum operational safety.

As soon as the disconnect tab is in the disconnect position, it can be protected against unintentional reconnection by using the disconnect lock.

Only through intentional and focused use of a tool, can the disconnect lock be removed and the circuit reconnected.

### Features/Benefits:

- Easy to use
- Install/remove disconnect lock with just one hand
- Clearly identify disconnect tab position
- Higher safety
- Intentional effort is required to reconnect the circuit

- 1 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- 2 See application notes for:  
Insulation stop, page 331  
Comb-style jumper bar, page 332  
Operating tool, page 332

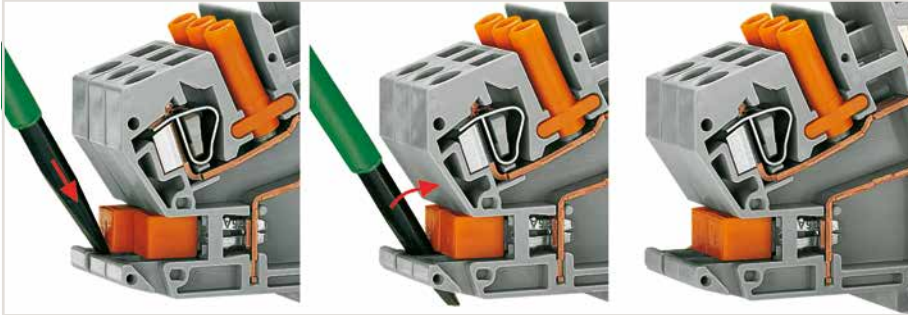
### 281 Series Accessories

Appropriate marking systems  
(see Section 13)

Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" ② white	281-470	200 (8x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> ② light gray	281-471	200 (8x25)
Insulation stop, 5 pcs/strip, 0.25 ... 1.5 mm <sup>2</sup> ② dark gray	281-472	200 (8x25)
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block ②		
2-way	281-482	100 (4x25)
3-way	281-483	100 (4x25)
Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		
2-way	281-492	100 (4x25)
Operating tool, of insulating material		
2-way	280-432	1
3-way	280-433	1
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		
yellow	281-415	100 (4x25)
Disconnect lock, for disconnect tab used on disconnect terminal blocks (280/281 and 769 Series)		
red	709-170	200 (8x25)
Test socket, insulated, 2 mm Ø		
red	209-107	100 (2x50)
Test socket, insulated, 2.3 mm Ø		
yellow	209-108	100 (2x50)
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V		
red	210-136	50
Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V		
yellow	210-137	50

# Disconnect/Test Terminal Blocks for Transformer Circuits, 282 Series

## Description and Installation



Inserting insulated, touch-proof adjacent jumpers into the protected shorting position.



Terminal strip permanently prepared for current transformer circuits.

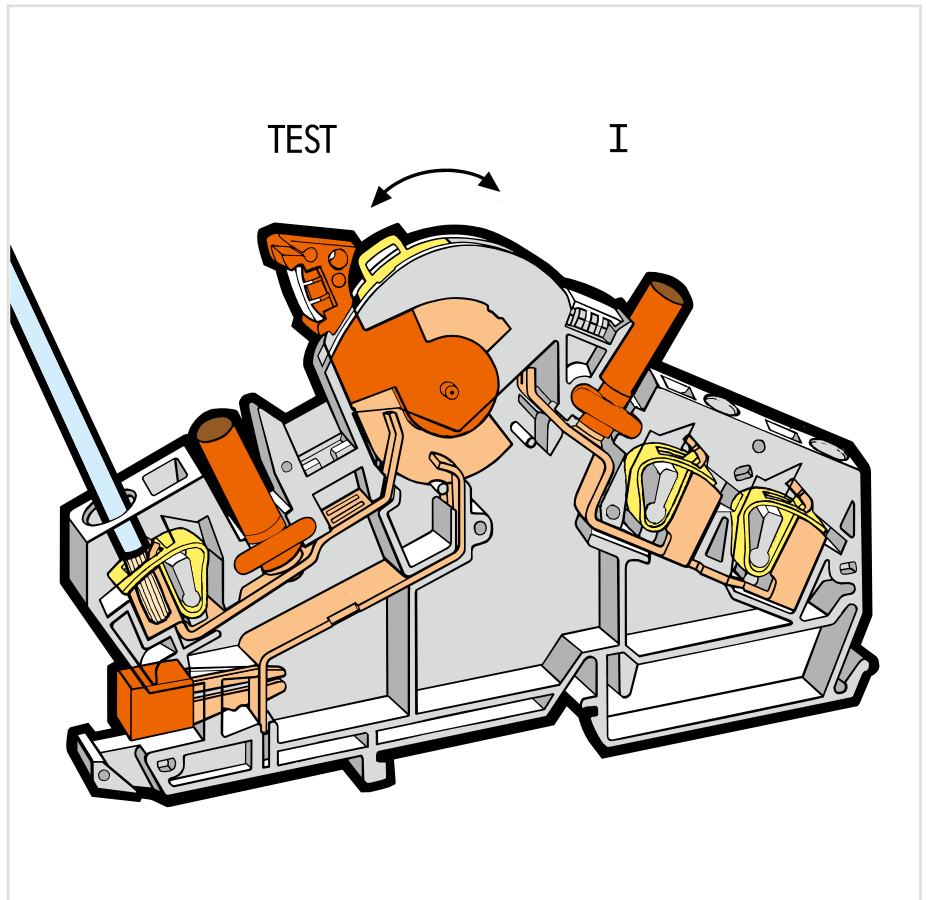
5



Lock-out snaps into one of two notched positions, preventing accidental operation of the disconnect link.



Snapping a transparent locking cover onto 1 - 8 disconnect links:  
 a) Mechanically lock several links for multi-pole switching applications  
 b) Protect markers



Interlocking link mechanically locks multiple links for multi-pole switching applications.



Touch-proof test sockets for touch-proof 4 mm Ø test plugs (not available from WAGO, but are offered by industry suppliers such as, Fabrikat Multi-Contact)



Labeling via WMB Multi Marking System. For other systems, see Section 13.



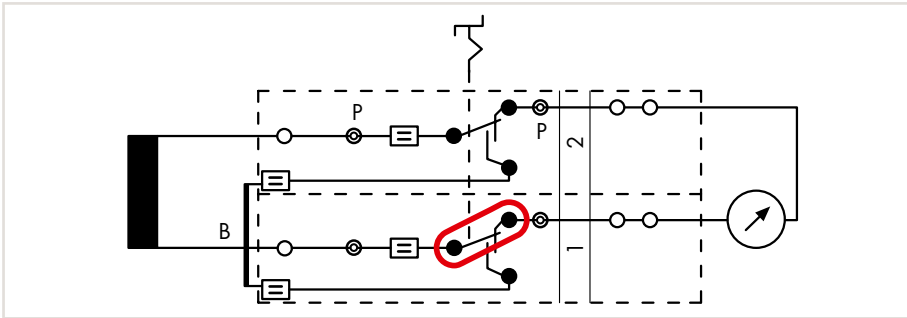
**CAGE CLAMP®** terminates the following copper conductors:  
 solid



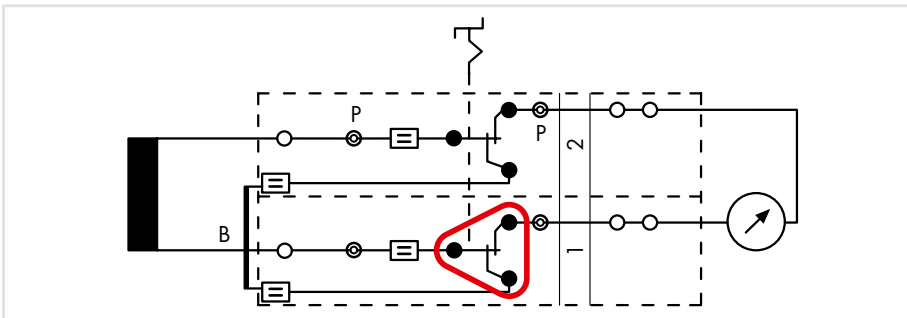
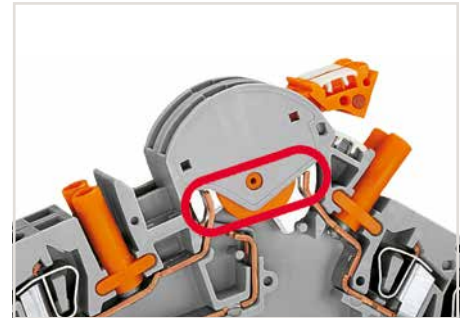
stranded



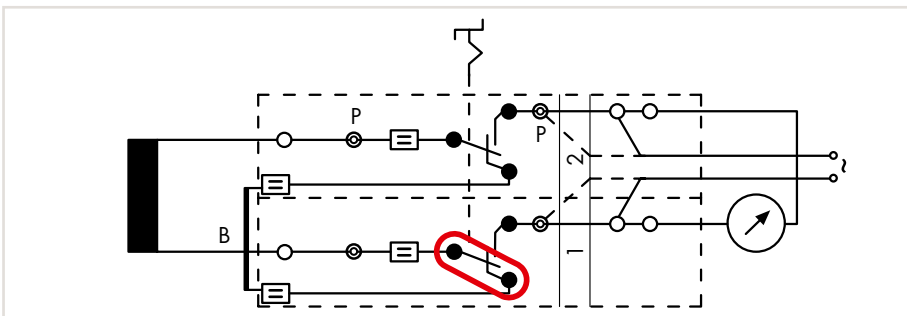
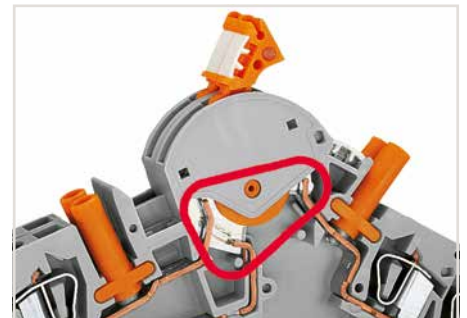
fine-stranded, also with tinned single strands



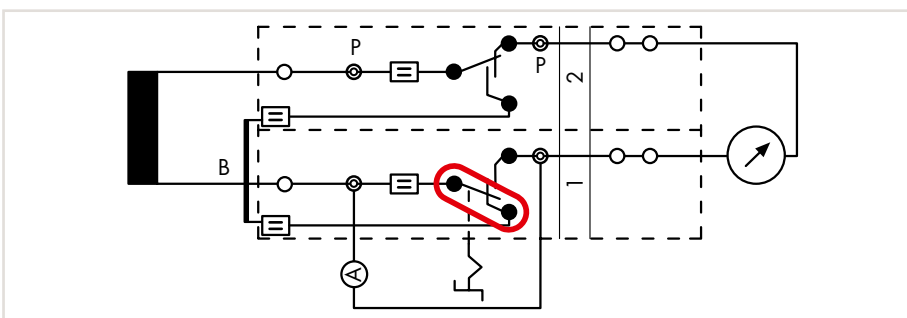
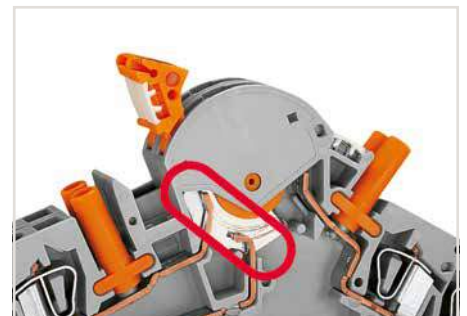
**Disconnect link in notched "I" position**  
 In "I" operating position, the measurement device is connected to the transformer.  
 B = shunting jumper, P = test socket



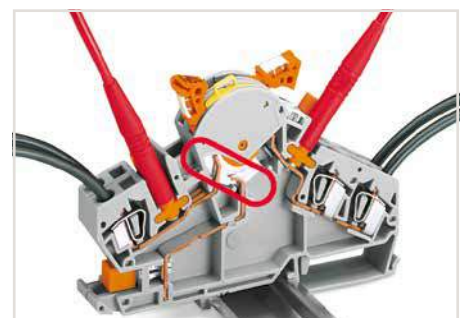
**Disconnect link in transition from "I" to "TEST" (terminal blocks 1 + 2)**  
 The transformer is not disconnected from the measurement device, yet the shunting path is activated by moving the disconnect link from "I" to "TEST."



**Disconnect link in notched "TEST" position (terminal blocks 1 + 2)**  
 The measurement device/relay is electrically disconnected from the transformer. If required, external voltage can be applied to the measurement device/relay via the test socket, or the 2nd CAGE CLAMP® connection.



**Disconnect link in notched "I" position (terminal block 2)**  
**Disconnect link in notched "TEST" position (terminal block 1) - measurement testing**  
 Before moving the disconnect link of terminal block 1 into the notched "TEST" position, the reference current meter must be inserted into the test socket of terminal block 1.



fine-stranded,  
tip-bonded



fine-stranded,  
with ferrule  
(gastight crimped)

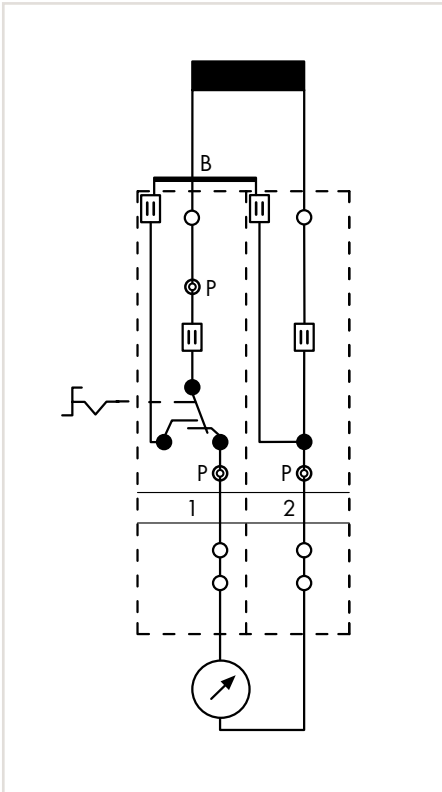


fine-stranded,  
with pin terminal  
(gastight crimped)

5

## Circuit Configuration Examples

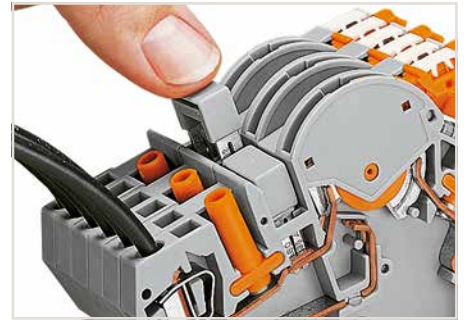
5



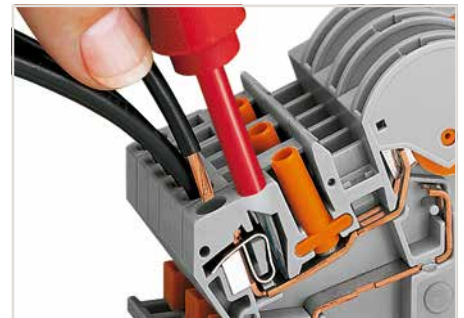
Measuring set for a single-phase current transformer (without measurement testing)



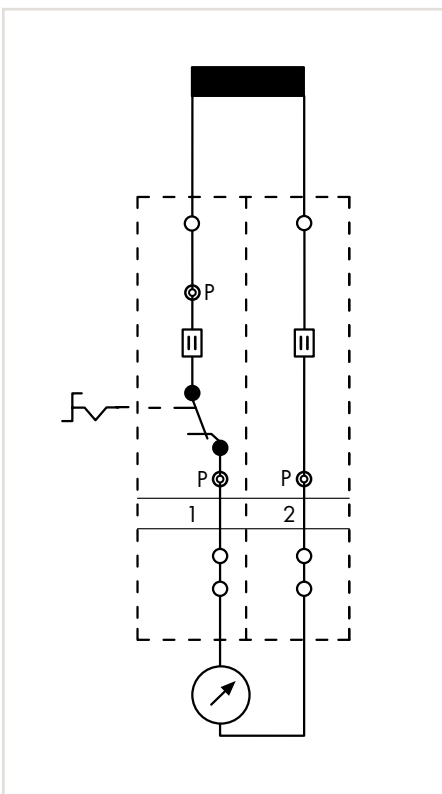
Terminal blocks required:  
 1 x disconnect/test terminal block (282-870)  
 1 x through terminal block (282-865)  
 1 x jumper, orange (282-424)  
 1 x end plate, orange (282-386)  
 In addition: locking cover, lock-out



Additional commoning possible with circuit-related adjacent jumpers or testing option via test plug adapter (209-170) on transformer side.



**CAGE CLAMP® connection**  
 Inserting a conductor via operating tool (5.5 x 0.8 mm blade).



Measuring set for a single-phase voltage transformer



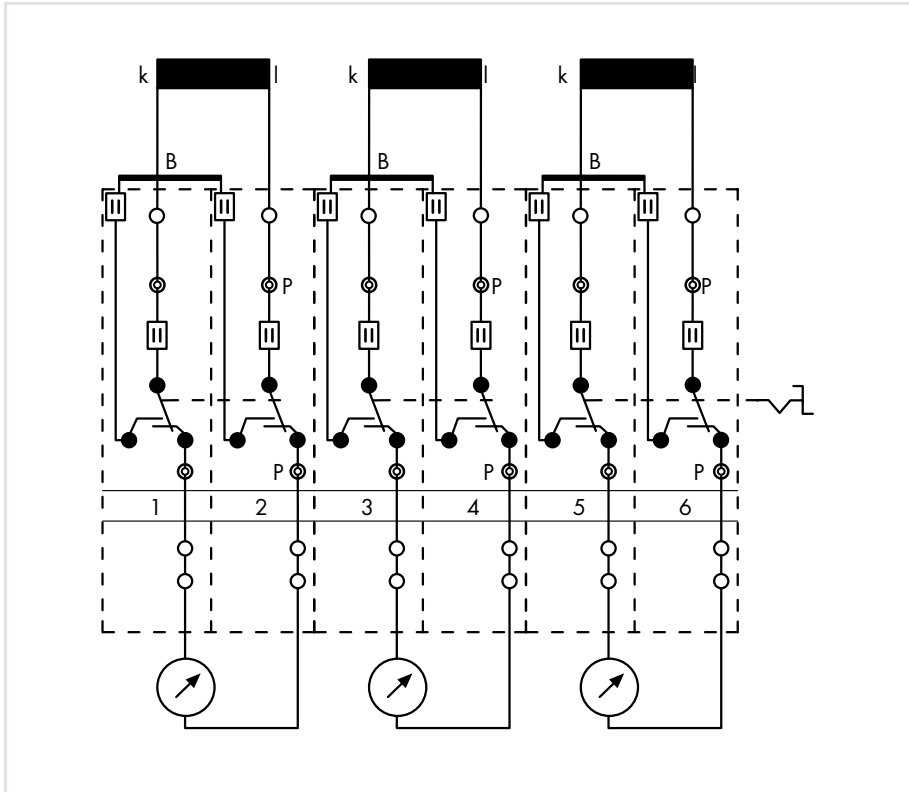
Terminal blocks required:  
 1 x disconnect/test terminal block (282-860)  
 1 x through terminal block (282-866)  
 1 x end plate, orange (282-386)  
 In addition: locking cover, lock-out



A lock-out seal can be used on the disconnect link in notched "1" position.



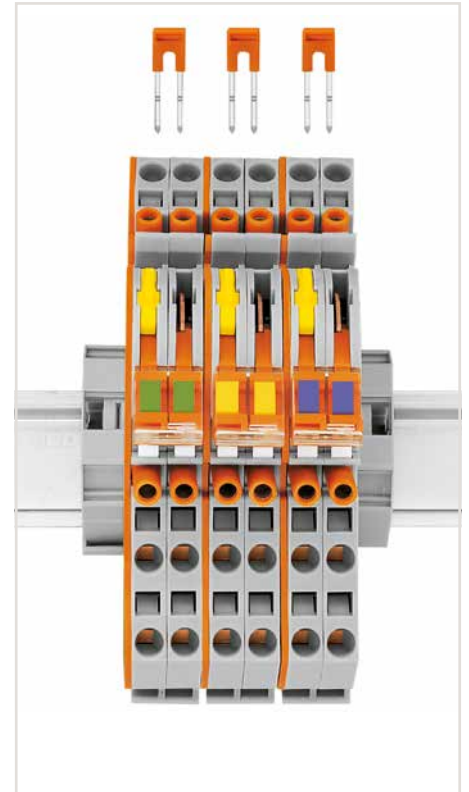
Additional CAGE CLAMP® connection on the measurement device side, e.g., when connecting wire commoning chains or applying an external voltage.



**Measuring set for a three-phase current transformer**

Pairs of disconnect links are interconnected via interlocking link or locking cover. Measurement testing is performed after the interlocking is released.

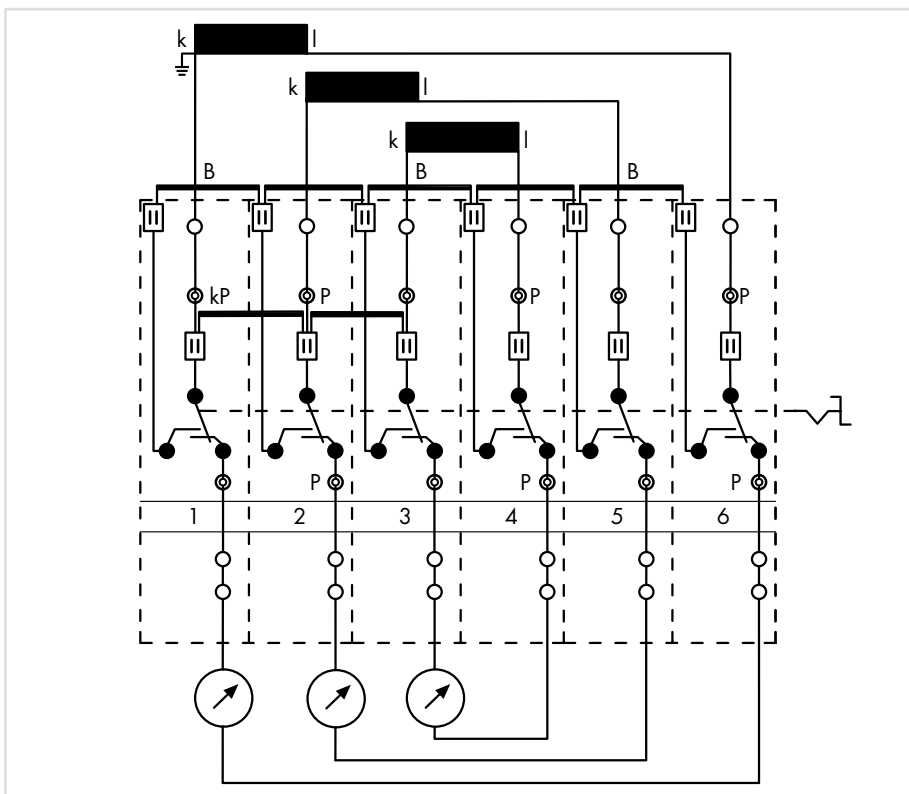
B = shorting jumper, P = test socket



5

Terminal blocks required:

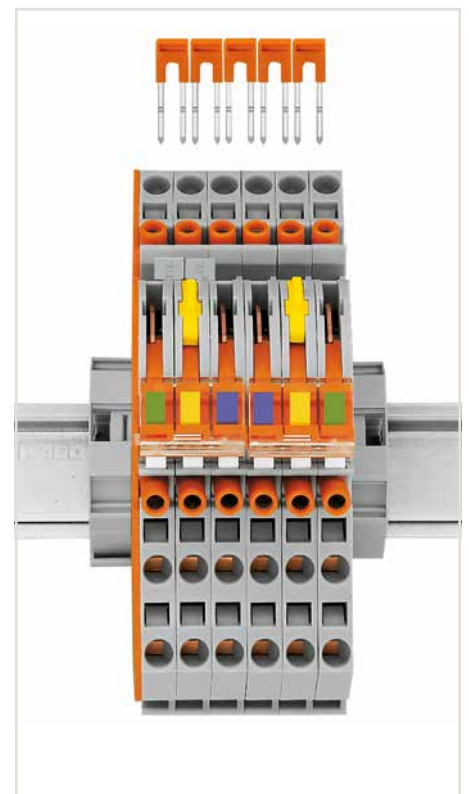
- 6 x disconnect/test terminal block (282-870)
  - 3 x jumper, orange (282-424)
  - 3 x end plate, orange (282-386)
- In addition: interlocking link, locking cover, lock-out



**Measuring set for a three-phase current transformer with 'Y' point**

All six disconnect links are interconnected via interlocking link.

kP = 'Y' point jumper






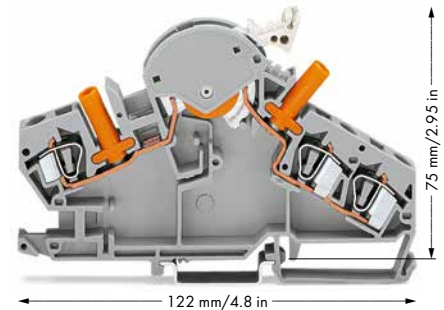
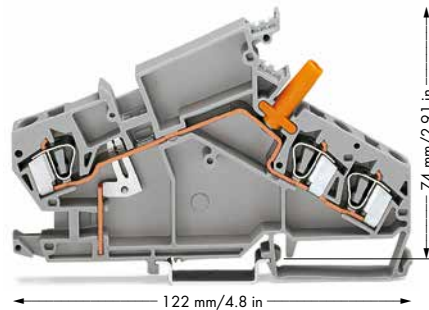
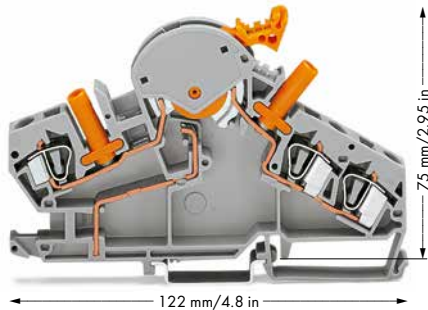
Terminal blocks required:

- 6 x disconnect/test terminal block (282-870)
  - 5 x jumper, orange (282-424)
  - 2 x jumper, gray (282-402)
  - 1 x end plate, orange (282-386)
- In addition: interlocking link, locking cover, lock-out















# Disconnect/Test Terminal Blocks, 30 A, Through Terminal Blocks for Current and Voltage Transformer Circuits

6 mm<sup>2</sup>, 282 Series



0.2 ... 6 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 30 A	24 ... 10 AWG 600 V, 30 A ② 300 V, 5 A ③	0.2 ... 6 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 30 A	24 ... 10 AWG 600 V, 30 A ② 300 V, 5 A ③	0.2 ... 6 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 30 A	24 ... 10 AWG 600 V, 30 A ② 300 V, 5 A ③
Terminal block width 8 mm / 0.315 inch  12 ... 13 mm / 0.47 ... 0.51 inch		Terminal block width 8 mm / 0.315 inch  12 ... 13 mm / 0.47 ... 0.51 inch		Terminal block width 8 mm / 0.315 inch  12 ... 13 mm / 0.47 ... 0.51 inch	

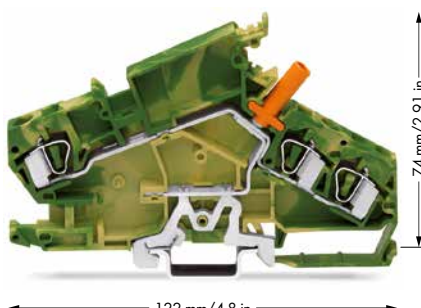
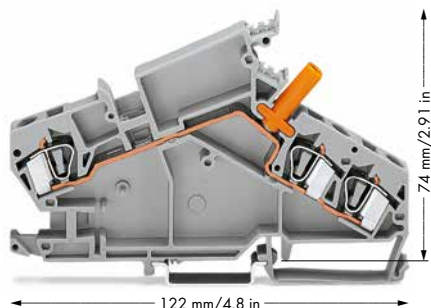


5







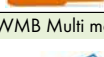
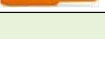






Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Disconnect/test terminal block, with touch-proof test sockets, for 4 mm Ø test plugs, e.g., for current transformer circuits, orange disconnect link		Through terminal block, with touch-proof test socket, for 4 mm Ø test plugs, e.g., for current transformer circuits		Disconnect/test terminal block, with touch-proof test sockets, for 4 mm Ø test plugs, e.g., for voltage transformer circuits, disconnect link, light gray	
 gray <b>282-870</b> ② ③ 20		 gray <b>282-865</b> ③ 20		 gray <b>282-860</b> ② ③ 20	
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and separator plate, 1.5 mm thick, without lock-out seal option  orange <b>282-386</b> 50 (5x10) gray <b>282-391</b> 50 (5x10)		End and separator plate, 1.5 mm thick  orange <b>282-385</b> 50 (5x10) gray <b>282-390</b> 50 (5x10)		End and separator plate, 1.5 mm thick, without lock-out seal option  orange <b>282-386</b> 50 (5x10) gray <b>282-391</b> 50 (5x10)	
End and separator plate, 1.5 mm thick, with lock-out seal option  orange <b>282-387</b> 50 (5x10) gray <b>282-392</b> 50 (5x10)		WMB Multi marking system, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm, yellow  yellow		End and separator plate, 1.5 mm thick, with lock-out seal option  orange <b>282-387</b> 50 (5x10) gray <b>282-392</b> 50 (5x10)	
Lock-out, for disconnect link  yellow <b>282-384</b> 100 (5x20)		k/l (50x) <b>794-5553/000-002</b> 5		Lock-out, for disconnect link  yellow <b>282-384</b> 100 (5x20)	
Locking cover, mechanically locks multiple links, transparent 1-pole <b>282-881</b> 50 (5x10) 2-pole <b>282-882</b> 50 (5x10) 3-pole <b>282-883</b> 50 (5x10) 4-pole <b>282-884</b> 50 (5x10) 5-pole <b>282-885</b> 50 (5x10) 6-pole <b>282-886</b> 50 (5x10) 7-pole <b>282-887</b> 50 (5x10) 8-pole <b>282-888</b> 50 (5x10)				Locking cover, mechanically locks multiple links, transparent 1-pole <b>282-881</b> 50 (5x10) 2-pole <b>282-882</b> 50 (5x10) 3-pole <b>282-883</b> 50 (5x10) 4-pole <b>282-884</b> 50 (5x10) 5-pole <b>282-885</b> 50 (5x10) 6-pole <b>282-886</b> 50 (5x10) 7-pole <b>282-887</b> 50 (5x10) 8-pole <b>282-888</b> 50 (5x10)	
Interlocking link, mechanically locks multiple links, 1 m long transparent <b>210-254</b> 1				Interlocking link, mechanically locks multiple links, 1 m long transparent <b>210-254</b> 1	
Adjacent jumper, insulated, I <sub>N</sub> 41 A  orange <b>282-424</b> 100 (4x25)				WMB Multi marking system, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm, blue  blue	
WMB Multi marking system, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm, yellow  yellow k/l (50x) <b>794-5553/000-002</b> 5				U/V (50x) <b>794-5554/000-006</b> 5	



<p>0.2 ... 6 mm<sup>2</sup>   24 ... 10 AWG                  500 V/6 kV/3 ①   600 V, 30 A<sup>②</sup>                  I<sub>N</sub> 30 A</p> <p>Terminal block width 8 mm / 0.315 inch   12 ... 13 mm / 0.47 ... 0.51 inch</p>	<p>0.2 ... 6 mm<sup>2</sup>   24 ... 10 AWG</p> <p>Terminal block width 8 mm / 0.315 inch   12 ... 13 mm / 0.47 ... 0.51 inch</p>
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- ① 500 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ② 92 mm / 3.62 inch max. height when rotating the disconnect link (incl. locking cover)
- ③ For operating stickers, please refer to our online catalog:  
 for 282-870 (Item No. 210-412)  
 for 282-865 (Item No. 210-415)  
 for 282-860 (Item No. 210-414)  
 for 282-866 (Item No. 210-413)

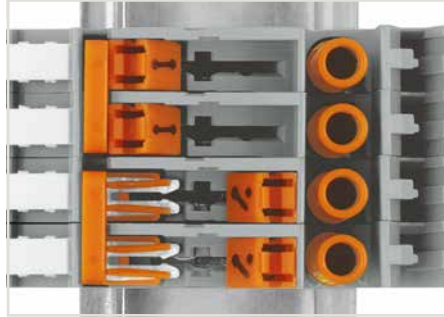
Item No.	Pack. Unit	Item No.	Pack. Unit	282 Series Accessories
Through terminal block, with touch-proof test socket, for 4 mm Ø test plugs, e.g., for voltage transformer circuits		Ground conductor terminal block, with touch-proof test socket, for 4 mm Ø test plugs, e.g., for voltage transformer circuits		Appropriate marking systems (see Section 13)
 gray	<b>282-866</b> ③ 20	 green-yellow	<b>282-868</b> ③ 20	Adjacent jumper, insulated, I <sub>N</sub> 41 A
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		 gray <b>282-402</b> 100 (4x25)
End and separator plate, 1.5 mm thick		End and separator plate, 1.5 mm thick		Alternate jumper, insulated, I <sub>N</sub> 41 A
 orange <b>282-385</b> 50 (5x10)		 orange <b>282-385</b> 50 (5x10)		 gray <b>282-409</b> 100 (4x25)
 gray <b>282-390</b> 50 (5x10)		 gray <b>282-390</b> 50 (5x10)		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks
WMB Multi marking system, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm, blue				 yellow <b>282-415</b> 100 (4x25)
 U/V (50x) <b>794-5554/000-006</b>	5			Wire commoning chain, insulated, 4 connections, 3 x 110 mm, I <sub>N</sub> 24 A
				 black <b>709-110</b> 1
				Wire commoning chain, insulated, 3 connections, 2 x 120 mm, I <sub>N</sub> 24 A
				 black <b>709-111</b> 1
				Wire commoning chain, insulated, 3 connections, 2 x 170 mm, I <sub>N</sub> 24 A
				 black <b>709-112</b> 1
				Group marker carrier, angled, e.g., for transformer terminal blocks (282 Series)
				 gray <b>209-144</b> 50 (2x25)
				WMB Multi marking system, white, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm
				plain <b>793-501</b> 5
				WMB Multi marking system, plain, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm
				yellow <b>793-501/000-002</b>
				red <b>793-501/000-005</b>
				blue <b>793-501/000-006</b>
				gray <b>793-501/000-007</b>
				orange <b>793-501/000-012</b>
				light green <b>793-501/000-017</b>
				green <b>793-501/000-023</b>
				violet <b>793-501/000-024</b>
				5

# Transverse Switching Terminal Blocks and Longitudinal Switching Disconnect Terminal Blocks, 282 Series

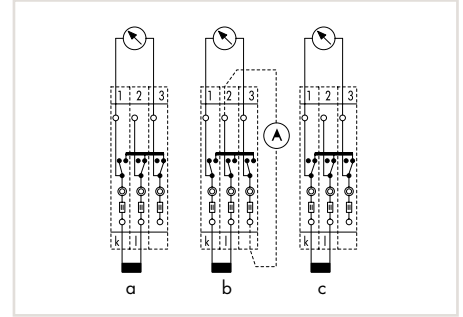
## Description and Installation



Transverse switching terminal blocks  
Left: Adjacent jumper for commoning of switching lever  
Right: Commoning with orange jumper



Left: closed  
Right: open

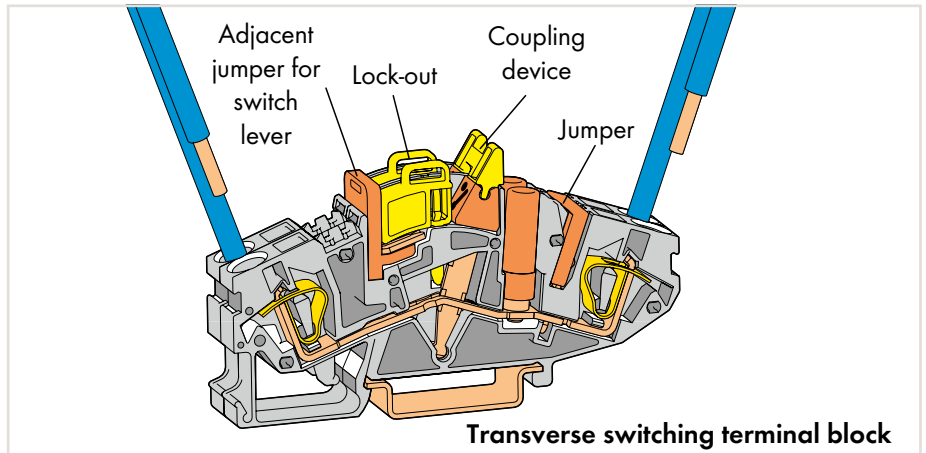


Current transformer circuit with transverse switching terminal blocks  
a = Normal operation b = Measured value test  
c = Transformer short circuit

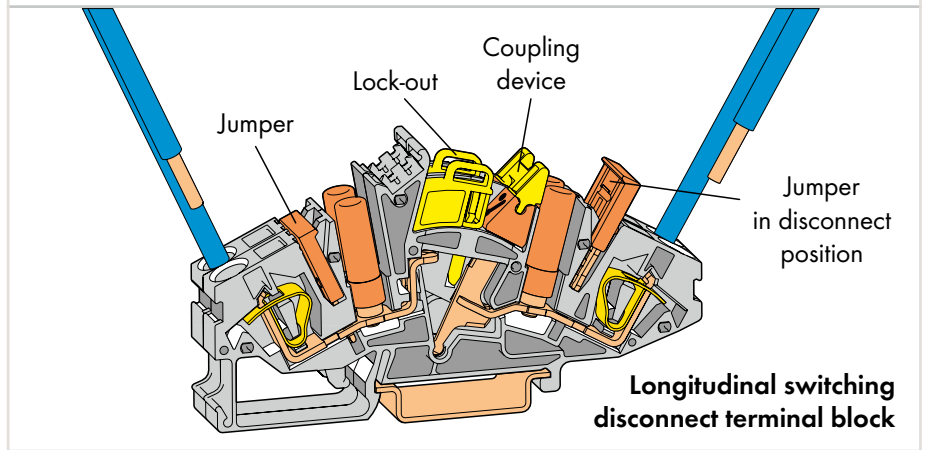
5



Testing via touch-proof 4 mm Ø test plugs (not available from WAGO, but offered by industry suppliers such as, Multi-Contact Deutschland GmbH).



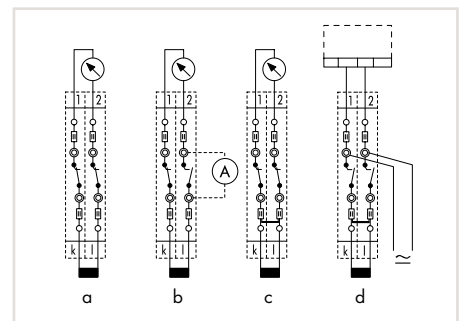
**CAGE CLAMP® connection**  
Inserting a conductor.



Inserting a lock-out.



Longitudinal switching disconnect terminal blocks



Current transformer circuit with longitudinal switching disconnect terminal blocks  
a = Normal operation b = Measured value test  
c = Transformer short circuit d = Relay test



**CAGE CLAMP®** terminates the following copper conductors:  
solid



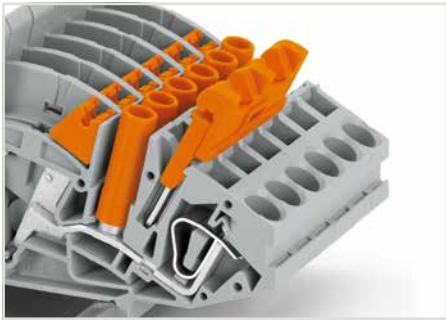
stranded



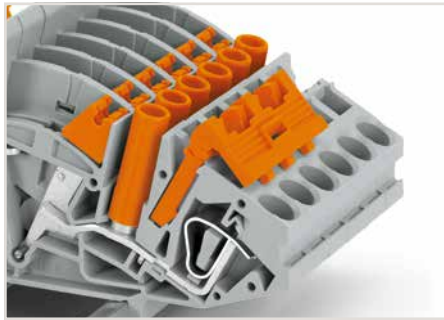
fine-stranded,  
also with tinned  
single strands

# Jumper with Safety Lid for Longitudinal Switching Disconnect Terminal Blocks 282 Series

5



Jumper with safety lid in pre-locked position



Longitudinal switching disconnect terminal blocks with inserted jumper, including safety lid



Jumper with raised safety lid



Removing a jumper via safety lid.



fine-stranded, tip-bonded






fine-stranded, with ferrule (gas-tight crimped)

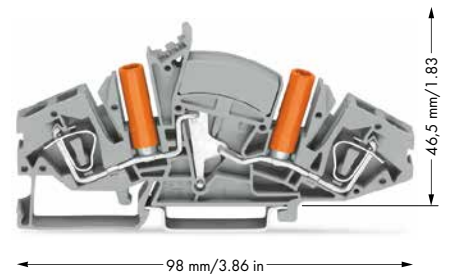
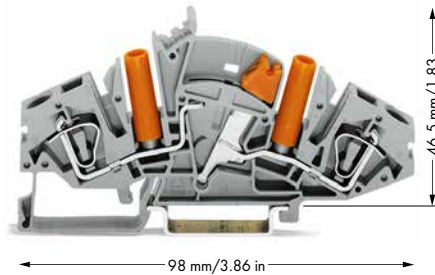
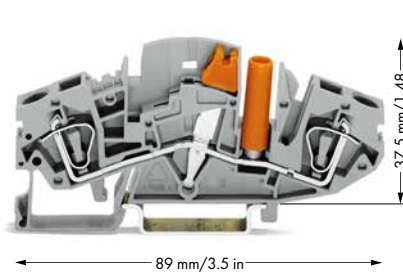


fine-stranded, with pin terminal (gas-tight crimped)





# Transverse Switching Terminal Blocks and Longitudinal Switching Disconnect Terminal Blocks, Through Terminal Blocks (e.g., for Current Transformer Circuits)

6 mm<sup>2</sup>, 282 Series

0.2 ... 6 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 30 A	24 ... 10 AWG 600 V, 30 A ② 300 V, 36 A ③	0.2 ... 6 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 30 A	24 ... 10 AWG 600 V, 30 A ② 300 V, 36 A ③	0.2 ... 6 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 30 A	24 ... 10 AWG
Terminal block width 8 mm / 0.315 inch  12 ... 13 mm / 0.47 ... 0.51 inch		Terminal block width 8 mm / 0.315 inch  12 ... 13 mm / 0.47 ... 0.51 inch		Terminal block width 8 mm / 0.315 inch  12 ... 13 mm / 0.47 ... 0.51 inch	












5

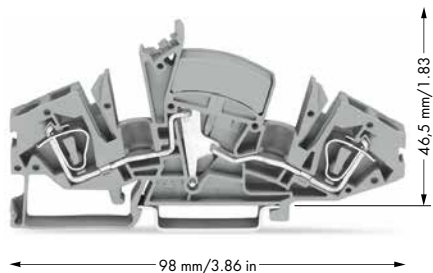
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor disconnect/test terminal block, transverse switching terminal block, with touch-proof test socket, for 4 mm Ø test plug ● gray <b>282-811</b> ②	20	2-conductor disconnect/test terminal block, longitudinal switching disconnect terminal block, with touch-proof test sockets, for 4 mm Ø test plug ● gray <b>282-821</b> ②	20	2-conductor through terminal block, with touch-proof test sockets, for 4 mm Ø test plug ● gray <b>282-841</b>	20
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and separator plate, 1.5 mm thick  orange <b>282-366</b> 50 (5x10) gray <b>282-361</b> 50 (5x10)		End and separator plate, 1.5 mm thick  orange <b>282-365</b> 50 (5x10) gray <b>282-360</b> 50 (5x10)		End and separator plate, 1.5 mm thick  orange <b>282-365</b> 50 (5x10) gray <b>282-360</b> 50 (5x10)	
Adjacent jumper for switch lever, insulated, orange, I <sub>N</sub> 30 A  2-way <b>282-442</b> 50 (5x10) 3-way <b>282-443</b> 50 (5x10) 4-way <b>282-444</b> 50 (5x10) 5-way <b>282-445</b> 50 (5x10) 6-way <b>282-446</b> 50 (5x10)					

**Accessories**



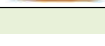




Appropriate marking systems: WMB/Mini-WSB (see Section 13)

Lock-out, for disconnect link  yellow <b>282-370</b> 100 (4x25)	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  yellow <b>282-415</b> 100 (4x25)	Collective jumper carrier, for DIN-35 rail, compatible with jumpers for transverse switching terminal block (282-811) and longitudinal switching disconnect terminal block (282-821)  gray <b>282-369</b> 25
Coupling device, mechanically locks multiple links, yellow  2-way <b>282-372</b> 50 (5x10) 3-way <b>282-373</b> 50 (5x10) 4-way <b>282-374</b> 50 (5x10)	Jumper, special design, I <sub>N</sub> 30 A, orange  1-3-5 <b>282-435/011-000</b> 1-4-5 <b>282-435/301-000</b> 1-2-4-6 <b>282-436/301-000</b> 1-4-6 <b>282-436/304-000</b> 1-3-5-7 <b>282-437/011-000</b> 1-4-7 <b>282-437/012-000</b> 1-2-5-8 <b>282-438/300-000</b> 1-4-7-8 <b>282-438/301-000</b> 1-3-5-7-9 <b>282-439/011-000</b> 50 (5x10)	WMB Multi marking system, white, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm plain <b>793-501</b> 5
Jumper, insulated, I <sub>N</sub> 30 A, orange  2-way <b>282-432</b> 50 (5x10) 3-way <b>282-433</b> 50 (5x10) 4-way <b>282-434</b> 50 (5x10) 5-way <b>282-435</b> 50 (5x10) 6-way <b>282-436</b> 50 (5x10) 7-way <b>282-437</b> 50 (5x10) 8-way <b>282-438</b> 50 (5x10) 9-way <b>282-439</b> 50 (5x10) 10-way <b>282-440</b> 50 (5x10)	Jumper with safety lid, insulated, I <sub>N</sub> 30 A, orange  2-way <b>282-432/100-000</b> 3-way <b>282-433/100-000</b> 4-way <b>282-434/100-000</b> 50 (5x10)	WMB Multi marking system, plain, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm  yellow <b>793-501/000-002</b> red <b>793-501/000-005</b> blue <b>793-501/000-006</b> gray <b>793-501/000-007</b> orange <b>793-501/000-012</b> light green <b>793-501/000-017</b> green <b>793-501/000-023</b> violet <b>793-501/000-024</b> 5

0.2 ... 6 mm<sup>2</sup> | 24 ... 10 AWG  
 500 V/6 kV/3 ①  
 I<sub>N</sub> 30 A  
 Terminal block width 8 mm / 0.315 inch  
 12 ... 13 mm / 0.47 ... 0.51 inch

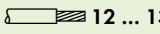
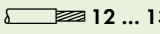
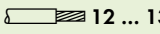


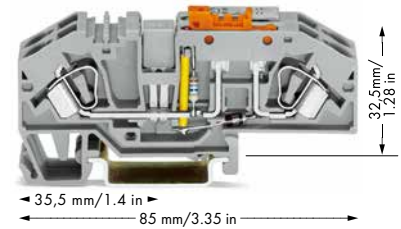
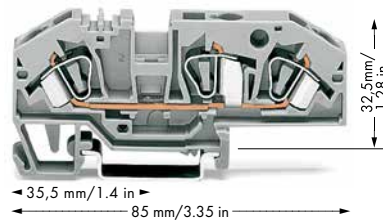
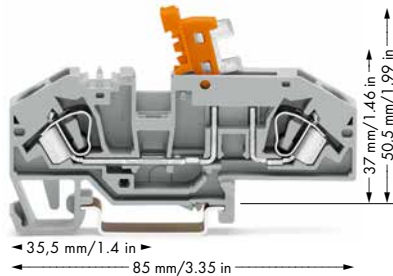
- ① 500 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ② 45 mm / 1.77 inch max. height when rotating the disconnect link (incl. locking cover)  
 For operating stickers, please refer to our online catalog:  
 for 282-811 (Item No. 210-424)  
 for 282-821 (Item No. 210-423)

Item No.	Pack. Unit
2-conductor through terminal block, without test sockets	
 gray	<b>282-841/049-000</b> 20
<b>Item-Specific Accessories</b>	
End and separator plate, 1.5 mm thick	
 orange	<b>282-365</b> 50 (5x10)
 gray	<b>282-360</b> 50 (5x10)
WMB Multi marking system, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm, yellow	
	k/I (50x) <b>794-5553/000-002</b>
	5
WMB Multi marking system, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm, blue	
	U/V (50x) <b>794-5554/000-006</b>
	5
Screwless end stop, for DIN-35 rail, 6 mm wide	
	gray <b>249-116</b> 100 (4x25)
Screwless end stop, for DIN-35 rail, 10 mm wide	
	gray <b>249-117</b> 50 (2x25)











# Disconnect and Ground Conductor Disconnect Terminal Blocks, 30 A, Through Terminal Blocks of Same Profile

6 mm<sup>2</sup>, 282 Series

<p>0.2 ... 6 mm<sup>2</sup>   24 ... 10 AWG                  400 V/6 kV/3 ①   600 V, 30 A ②                  I<sub>N</sub> 30 A</p> <p>Terminal block width 8 mm / 0.315 inch   12 ... 13 mm / 0.47 ... 0.51 inch</p>	<p>0.2 ... 6 mm<sup>2</sup>   24 ... 10 AWG                  800 V/8 kV/3 ①   600 V, 30 A ②                  I<sub>N</sub> 41 A</p> <p>Terminal block width 8 mm / 0.315 inch   12 ... 13 mm / 0.47 ... 0.51 inch</p>	<p>0.2 ... 6 mm<sup>2</sup>   24 ... 10 AWG</p> <p>Terminal block width 16 mm / 0.63 inch   12 ... 13 mm / 0.47 ... 0.51 inch</p>
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5

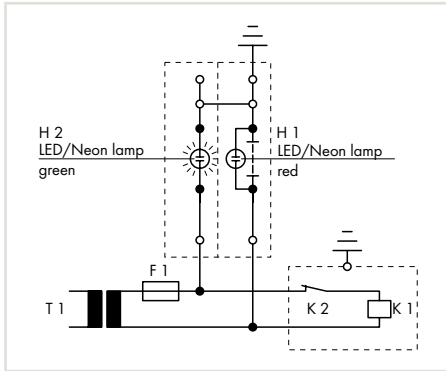
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor disconnect terminal block, with test point, orange disconnect link		3-conductor through terminal block, with test point, same profile as disconnect terminal blocks		Ground conductor disconnect terminal block, with test point, orange disconnect link, gray	
○ gray	<b>282-697</b> 25	○ gray	<b>282-699</b> 25	○ 24 V	<b>282-640</b> 12
● blue	<b>282-695</b> 25	● blue	<b>282-694</b> 25	○ 48 V	<b>282-641</b> 12
<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>	
Through	<b>282-699</b> Page 276	Disconnect	<b>282-697</b> Page 276	Through	<b>282-699</b> Page 276
		Ground cond. disc.	<b>282-640</b> Page 276		
		Fuse	<b>282-696</b> Page 278		
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>			
Adjacent jumper, insulated, I <sub>N</sub> 41 A		Adjacent jumper, insulated, I <sub>N</sub> 41 A			
	gray <b>282-402</b> 100 (4x25)		gray <b>282-402</b> 100 (4x25)		
Alternate jumper, insulated, I <sub>N</sub> 41 A		Alternate jumper, insulated, I <sub>N</sub> 41 A			
	gray <b>282-409</b> 100 (4x25)		gray <b>282-409</b> 100 (4x25)		
Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks		Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks			
	gray <b>209-170</b> 50 (2x25)		gray <b>209-170</b> 50 (2x25)		
<b>Accessories</b>					
Appropriate marking system: WMB (see Section 13)					
End plate, 2 mm thick					
	orange <b>282-333</b> 100 (4x25)				
	gray <b>282-334</b> 100 (4x25)				
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks					
	yellow <b>282-405</b> 100 (4x25)				
Screwless end stop, for DIN-35 rail, 6 mm wide					
	gray <b>249-116</b> 100 (4x25)				
Screwless end stop, for DIN-35 rail, 10 mm wide					
	gray <b>249-117</b> 50 (2x25)				

## Disconnect and Ground Conductor Disconnect Terminal Blocks

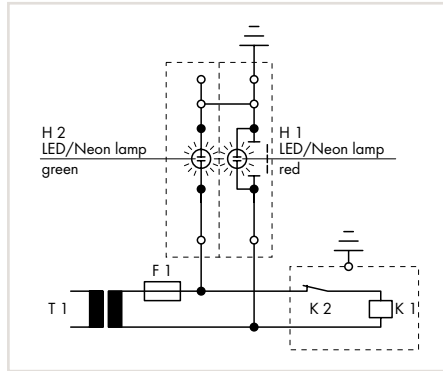


Ground conductor disconnect terminal block – top view

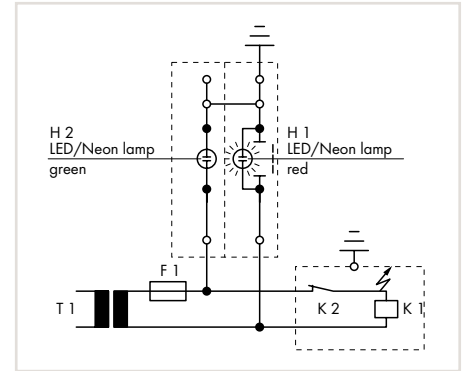
- ① 400 V/800 V = rated voltage  
6 kV/8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)



**Operating condition**  
Slide link closed, auxiliary circuit grounded, green LED/ neon lamp illuminates.



**Test condition – no grounding**  
Slide link open, auxiliary circuit not grounded.



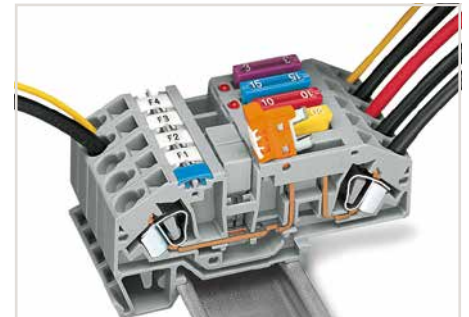
**Test condition – grounding**  
Slide link open, auxiliary circuit not grounded, red LED/ neon lamp illuminates.



Testing via conductor entry.



Testing via jumper contact slot.



Power supply via disconnect link – disconnecting all outputs.

IEC 60204/DIN VDE 0113 "Safety of machinery – Electrical equipment of machines – Part 1: General requirements," Section 9.4.3.1: Ground faults on control circuits shall not cause unintentional starting, hazardous movements or prevent stopping of the machine.

In order to fulfill this requirement, bonding to the protective bonding circuit shall be provided in accordance with Section 8.2 and the devices shall be connected as described in Section 9.1.4. Control circuits fed from a transformer and not connected to the protective bonding circuit shall be provided with an insulation monitoring device (e.g., residual current device), which either indicates a ground fault or interrupts the circuit automatically after a ground fault.

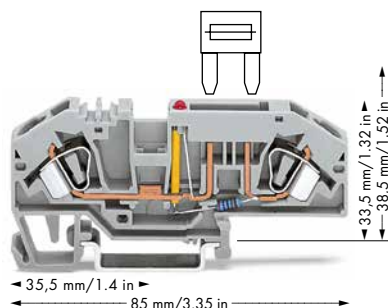
In the case of electronic circuits, the connection of one side of the control circuit to the protective bonding circuit in accordance with Section 9.1.4 can prevent unintentional operation. When this does not help, or if due to other reasons that electronic circuits cannot be connected to the protective bonding circuit, other measures shall be taken to achieve the same level of safety.

Multipole control switches that interrupt all live conductors shall be used where the control circuit is directly connected between the phase conductors of the supply or between a phase conductor and a neutral conductor, which is either not grounded or grounded through a high impedance. This is required for starting or stopping those machine functions, which can cause a hazardous situation including: damaging the machine or halting work in progress in the event of unintentional starting or failure to stop.

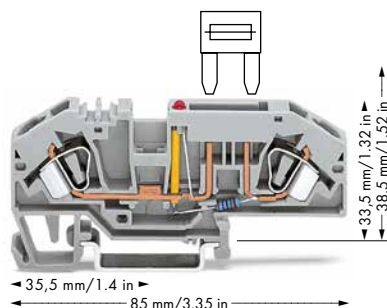
# Fuse Terminal Blocks for Automotive Blade-Style Fuses

## 6 mm<sup>2</sup>, 282 Series

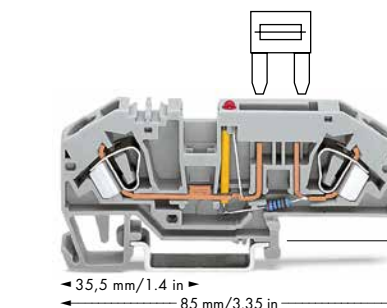
<p>0.2 ... 6 mm<sup>2</sup> 400 V/6 kV/3 ① ② I<sub>N</sub> 25 A (30 A)</p> <p>Terminal block width 8 mm / 0.315 inch 12 ... 13 mm / 0.47 ... 0.51 inch</p>	<p>24 ... 10 AWG 12 V, 30 A ① ② 24 V, 12 A ③</p>	<p>0.2 ... 6 mm<sup>2</sup> 400 V/6 kV/3 ① ② I<sub>N</sub> 25 A (30 A)</p> <p>Terminal block width 8 mm / 0.315 inch 12 ... 13 mm / 0.47 ... 0.51 inch</p>	<p>24 ... 10 AWG 24 V, 30 A ① ②</p>	<p>0.2 ... 6 mm<sup>2</sup> 400 V/6 kV/3 ① ② I<sub>N</sub> 25 A (30 A)</p> <p>Terminal block width 8 mm / 0.315 inch 12 ... 13 mm / 0.47 ... 0.51 inch</p>	<p>24 ... 10 AWG 600 V, 30 A ① ② 24 V, 30 A ③</p>
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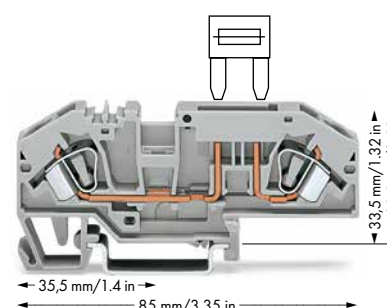
282-698/281-429



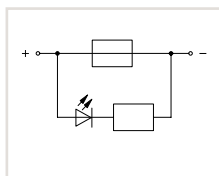
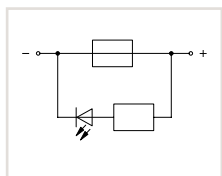
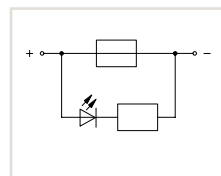
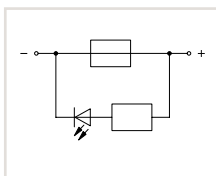
282-698/281-449



282-698/281-413



282-698/281-434



5

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor fuse terminal block for automotive blade-style fuses, 12 V, with test point, with blown fuse indication by LED, LED power consumption: 4.8 mA Electrical ratings are given by the fuse and blown fuse indication. Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!		2-conductor fuse terminal block for automotive blade-style fuses, 24 V, with test point, with blown fuse indication by LED, LED power consumption: 4.8 mA Electrical ratings are given by the fuse and blown fuse indication. Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!		2-conductor fuse terminal block for automotive blade-style fuses, with test point, without blown fuse indication Electrical ratings are given by the fuse. Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!	
<ul style="list-style-type: none"> <li>○ gray      <b>282-698/281-429</b>    25</li> <li>○ gray      <b>282-698/281-449</b>    25</li> </ul>		<ul style="list-style-type: none"> <li>○ gray      <b>282-698/281-413</b>    25</li> <li>○ gray      <b>282-698/281-434</b>    25</li> </ul>		<ul style="list-style-type: none"> <li>○ gray      <b>282-696</b>                25</li> </ul>	
<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>	
Through <b>282-699</b> Page 276		Through <b>282-699</b> Page 276		Through <b>282-699</b> Page 276	
<b>Blade-style fuses (not offered by WAGO)</b>					
<b>Excess-current circuit-breaker, thermal (not offered by WAGO) Recommended excess-current circuit-breakers from ETA</b>					

### Accessories for Fuse Terminal Blocks

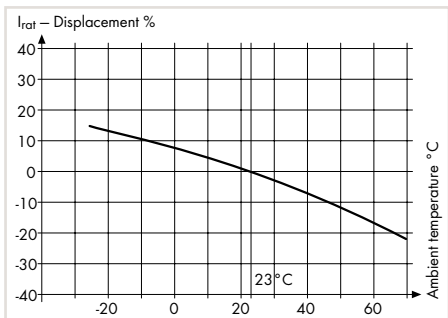
Appropriate marking system: WMB  
(see Section 13)

<p>End plate, 2 mm thick</p> <ul style="list-style-type: none"> <li>orange      <b>282-333</b>    100 (4x25)</li> <li>gray         <b>282-334</b>    100 (4x25)</li> </ul>	<p>Screwless end stop, for DIN-35 rail, 6 mm wide</p> <ul style="list-style-type: none"> <li>gray         <b>249-116</b>    100 (4x25)</li> </ul>
<p>Adjacent jumper, insulated, I<sub>N</sub> 41 A</p> <ul style="list-style-type: none"> <li>gray         <b>282-402</b>    100 (4x25)</li> </ul>	<p>Screwless end stop, for DIN-35 rail, 10 mm wide</p> <ul style="list-style-type: none"> <li>gray         <b>249-117</b>    50 (2x25)</li> </ul>
<p>Alternate jumper, insulated, I<sub>N</sub> 41 A</p> <ul style="list-style-type: none"> <li>gray         <b>282-409</b>    100 (4x25)</li> </ul>	
<p>Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm<sup>2</sup> terminal blocks</p> <ul style="list-style-type: none"> <li>gray         <b>209-170</b>    50 (2x25)</li> </ul>	



# Fuse Terminal Blocks for Automotive Blade-Style Fuses

## Technical Information

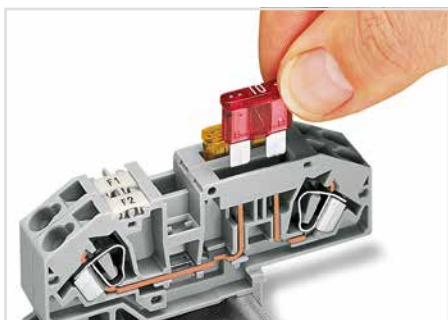


### Application Notes on Terminal Blocks for Miniature Metric Fuses

Nominal current ratings for fuse cartridges are defined differently in international standards. This is why the recommended continuous current-carrying capacity of the fuses is max. 80 % of their nominal current according to DIN 72581/Part 3 (for an ambient operating temperature of 23 °C). Selecting the correct fuse cartridge is important for product safety within applications, as well as for fuse cartridge service life and reliability. Fuse cartridges will only operate perfectly as protection components (break-off point) if they are properly selected and used as intended (i.e., according to the state of the technology and valid specifications, as well as data sheet characteristics), according to basic safety requirements (i.e., persons, animals and property must be protected against hazards).

- ❶ 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❷ Electrical ratings are given by the fuse  
(see page 292).

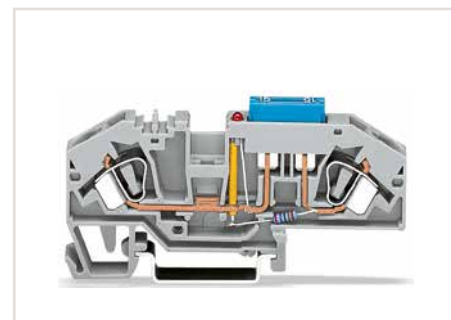
5



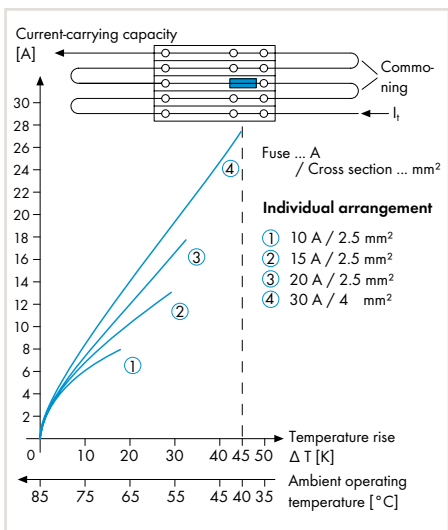
Inserting a fuse.



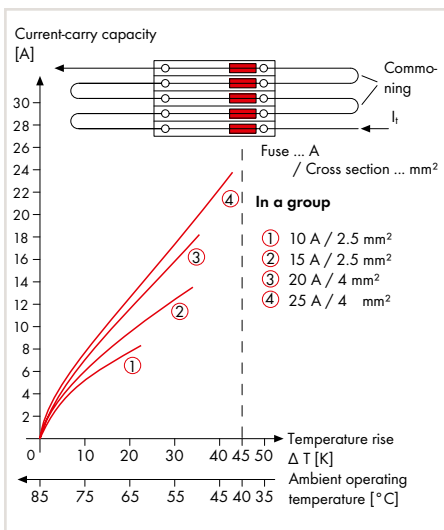
Blown fuse indication by LED



2-conductor fuse terminal block with mini-automotive blade-style fuse



Application Notes on Terminal Blocks for Miniature Metric Fuses  
Diagram: Individual arrangement



Application Notes on Terminal Blocks for Miniature Metric Fuses  
Diagram: Block arrangement

### Information from the mini-automotive, blade-type fuse manufacturers

Derating $T_{amb} / ^\circ C$	%	$F_T$
- 25	14	0.877
- 20	13	0.885
- 15	12	0.893
- 10	11	0.901
- 5	10	0.909
0	9	0.917
5	8	0.926
10	6	0.943
15	4	0.962
20	2	0.980
23	0	1.000
30	- 2	1.020
35	- 4	1.042
40	- 6	1.064
45	- 8	1.087
50	- 10	1.111
55	- 13	1.149
60	- 16	1.190
65	- 19	1.235
70	- 22	1.282

For product safety, fuse cartridges must generally be tested both under normal and faulty operating conditions within your application.

# Fused Disconnect Terminal Blocks with a Pivoting Fuse Holder, for Miniature Metric Fuses, 282 Series

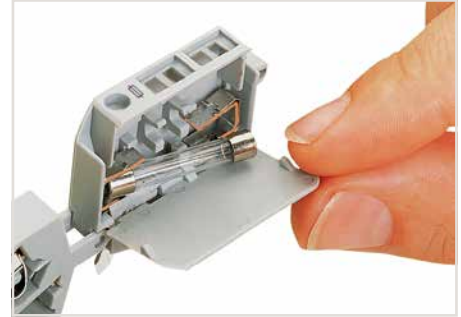
## Description and Installation



Blown fuse indication by LED or neon lamp

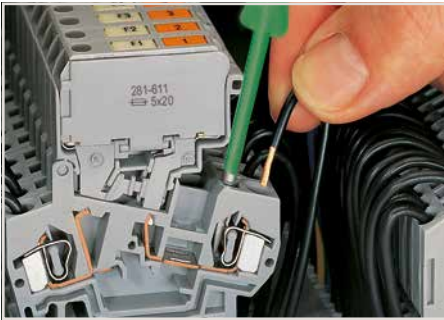


**Fuse replacement:**  
Before replacing a fuse, pivot the fuse holder into the locked open position.

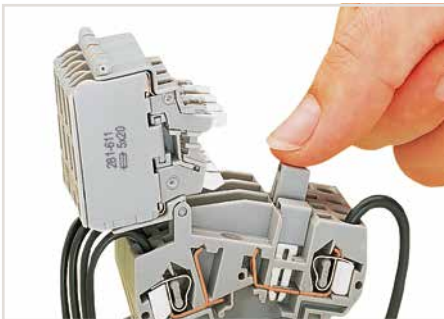


**Fuse replacement:**  
One end of the fuse is automatically ejected from the holder when opening the cover.

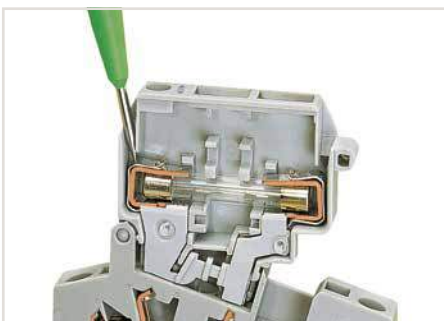
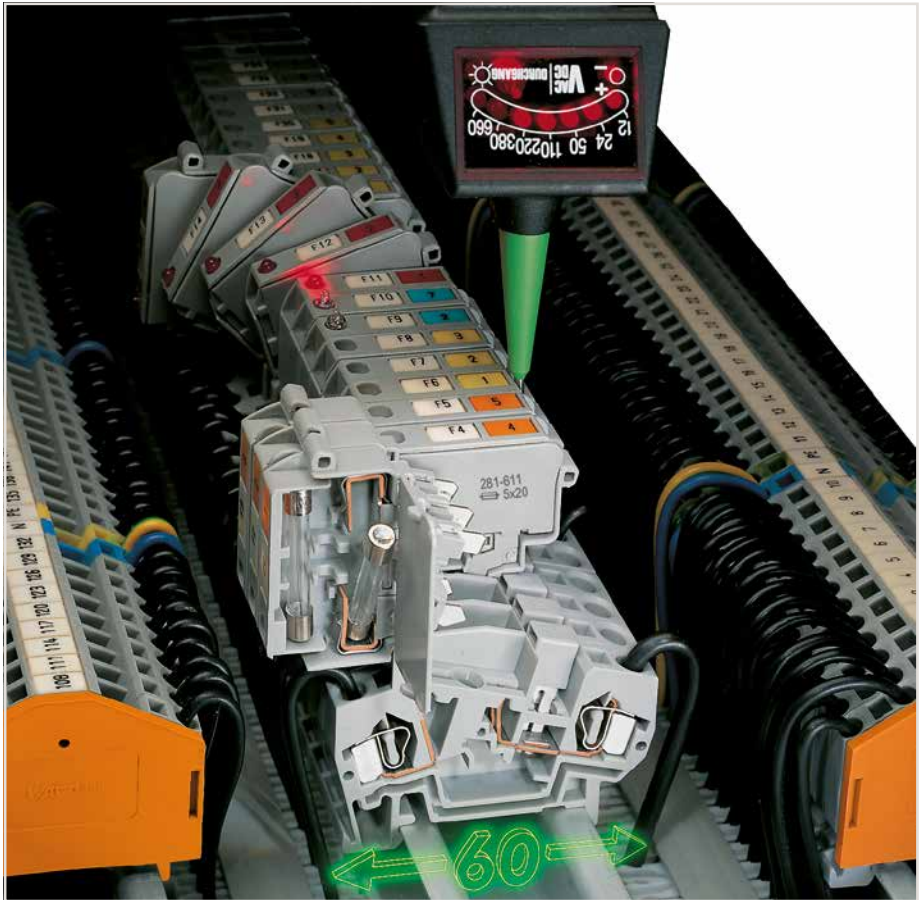
5



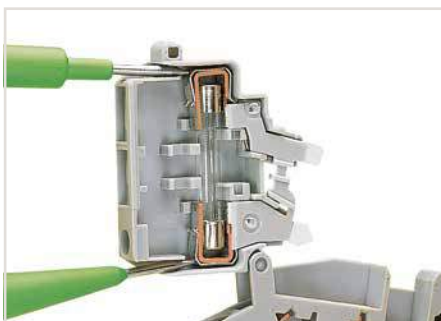
**CAGE CLAMP® connection**  
Inserting a conductor via screwdriver. With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross section.



**Commoning:**  
Distributing current to several fuse-protected circuits via insulated push-in type jumpers.



Voltage test, either at input or output with fuse holder in closed position (live)



Through test with fuse holder in open position (no voltage)



Voltage test at input in the test slot of the current bar



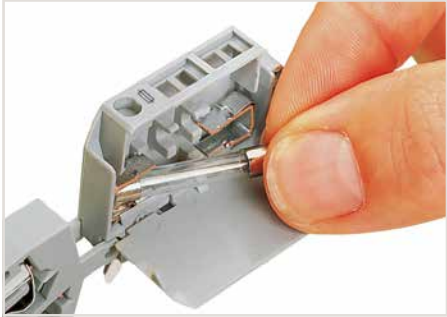
**CAGE CLAMP®** terminates the following copper conductors:  
solid



stranded



fine-stranded, also with tinned single strands



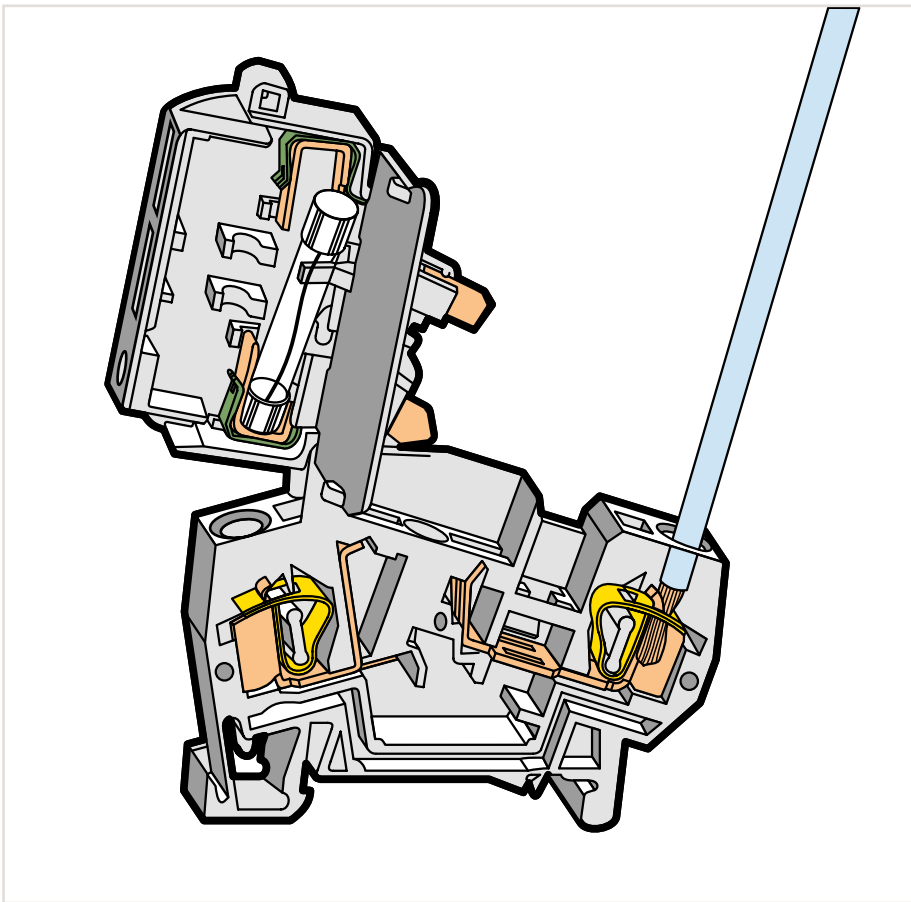
**Fuse replacement:**  
Easily removing a fuse by hand.



**Fuse replacement:**  
Insert a new fuse and snap the cover closed.



Storing a spare fuse (fuse holder without blown fuse indication).



Touch-proof protection in all positions of the fuse holder

5



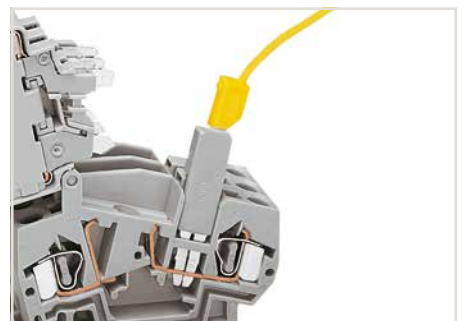
Fuse holder will remain safely locked open in vertical assemblies.



Testing voltage at the output via separate test slot.



Measuring current between jumper slot and separate test slot.



Testing voltage (input side) via test plug adapter (280-404, shown) or test plug (281-407).



fine-stranded,  
tip-bonded



fine-stranded,  
with ferrule  
(gastight crimped)

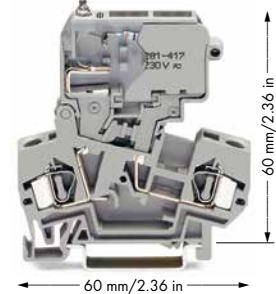
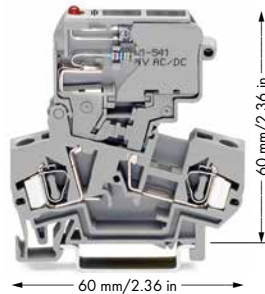
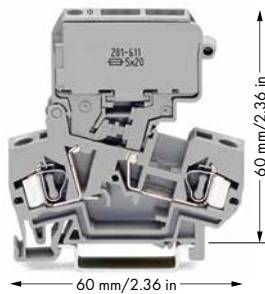


fine-stranded,  
with pin terminal  
(gastight crimped)

# Fused Disconnect Terminal Blocks with a Pivoting Fuse Holder, for 5 x 20 mm, 5 x 25 mm and 5 x 30 mm Miniature Metric Fuses

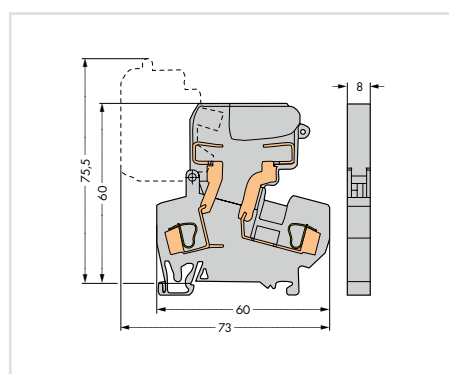
## 4 mm<sup>2</sup>, 281 Series

<p>0.08 ... 4 mm<sup>2</sup> 800 V/8 kV/3 ① ② I<sub>N</sub> 10 A</p> <p>28 ... 12 AWG 600 V, 10 A <b>VA</b> 600 V, 10 A <b>Ⓢ</b></p> <p>Terminal block width 8 mm / 0.315 inch 9 ... 10 mm / 0.35 ... 0.39 inch</p>	<p>0.08 ... 4 mm<sup>2</sup> 800 V/8 kV/3 ① ② I<sub>N</sub> 10 A</p> <p>28 ... 12 AWG 30 V, 10 A <b>VA</b> 230 V, 10 A <b>Ⓢ</b></p> <p>Terminal block width 8 mm / 0.315 inch 9 ... 10 mm / 0.35 ... 0.39 inch</p>	<p>0.08 ... 4 mm<sup>2</sup> 800 V/8 kV/3 ① ② I<sub>N</sub> 10 A</p> <p>28 ... 12 AWG 220 V, 10 A <b>VA</b> 230 V, 10 A <b>Ⓢ</b></p> <p>Terminal block width 8 mm / 0.315 inch 9 ... 10 mm / 0.35 ... 0.39 inch</p>
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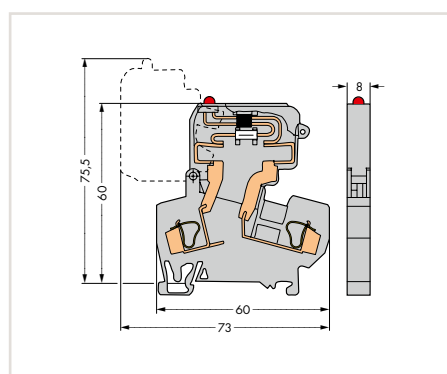


5

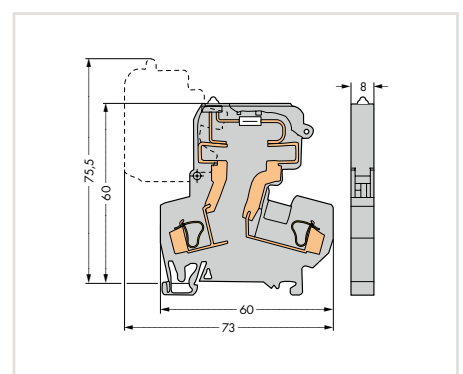
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Fuse disconnect terminal block with pivoting fuse holder, for (5 x 20) mm miniature metric fuse, without blown fuse indication Electrical ratings are given by the fuse.		Fuse disconnect terminal block with pivoting fuse holder, for (5 x 20) mm miniature metric fuse, with blown fuse indication by LED, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: LED 6 mA		Fuse disconnect terminal block with pivoting fuse holder, for (5 x 20) mm miniature metric fuse, with blown fuse indication by neon lamp, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: Neon lamp < 0.4 mA	
<ul style="list-style-type: none"> <li>● gray      <b>281-611</b>      50</li> <li>● orange    <b>281-616</b>      50</li> </ul>		<ul style="list-style-type: none"> <li>● 15 ... 30 V      <b>281-611/281-541</b>      50</li> <li>● 30 ... 65 V      <b>281-611/281-542</b>      50</li> </ul>		<ul style="list-style-type: none"> <li>● 230 V      <b>281-611/281-417</b>      50</li> <li>● 120 V      <b>281-611/281-418</b>      50</li> </ul>	
Fuse disconnect terminal block with pivoting fuse holder, for (5 x 25) mm miniature metric fuse, without blown fuse indication Electrical ratings are given by the fuse.		Fuse disconnect terminal block with pivoting fuse holder, for (5 x 25) mm miniature metric fuse, with blown fuse indication by LED, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: LED 6 mA		Fuse disconnect terminal block with pivoting fuse holder, for (5 x 25) mm miniature metric fuse, with blown fuse indication by neon lamp, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: Neon lamp < 0.4 mA	
<ul style="list-style-type: none"> <li>● gray      <b>281-612</b>      50</li> </ul>		<ul style="list-style-type: none"> <li>● 15 ... 30 V      <b>281-612/281-541</b>      50</li> <li>● 30 ... 65 V      <b>281-612/281-542</b>      50</li> </ul>		<ul style="list-style-type: none"> <li>● 230 V      <b>281-612/281-417</b>      50</li> <li>● 120 V      <b>281-612/281-418</b>      50</li> </ul>	
Fuse disconnect terminal block with pivoting fuse holder, for (5 x 30) mm miniature metric fuse, without blown fuse indication Electrical ratings are given by the fuse.		Fuse disconnect terminal block with pivoting fuse holder, for (5 x 30) mm miniature metric fuse, with blown fuse indication by LED, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: LED 6 mA		Fuse disconnect terminal block with pivoting fuse holder, for (5 x 30) mm miniature metric fuse, with blown fuse indication by neon lamp, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: Neon lamp < 0.4 mA	
<ul style="list-style-type: none"> <li>● gray      <b>281-622</b>      50</li> </ul>		<ul style="list-style-type: none"> <li>● 15 ... 30 V      <b>281-622/281-541</b>      50</li> <li>● 30 ... 65 V      <b>281-622/281-542</b>      50</li> </ul>		<ul style="list-style-type: none"> <li>● 230 V      <b>281-622/281-417</b>      50</li> <li>● 120 V      <b>281-622/281-418</b>      50</li> </ul>	
Miniature metric fuses are available upon request.		Miniature metric fuses are available upon request.		Miniature metric fuses are available upon request.	



Dimensions in mm



Dimensions in mm



Dimensions in mm

0.08 ... 4 mm<sup>2</sup> | 28 ... 12 AWG  
 800 V/8 kV/3 ① | 600 V, 16 A ②  
 I<sub>N</sub> 16 A  
 Terminal block width 8 mm / 0.315 inch  
 9 ... 10 mm / 0.35 ... 0.39 inch



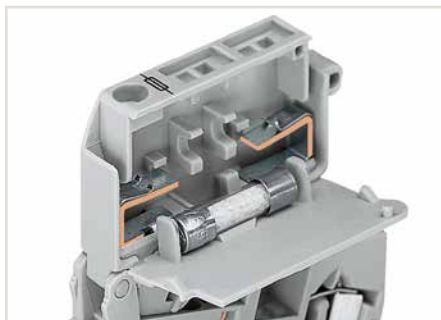
Fused disconnect or disconnect terminal blocks with a width of 8 mm can be assembled adjacently. At the end of an assembly or if there is **no** adjacent fused disconnect or disconnect terminal block, an end or intermediate plate must be used.

- ① 800 V = rated voltage  
 8 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ② Electrical ratings are given by the fuse  
 (see page 292).

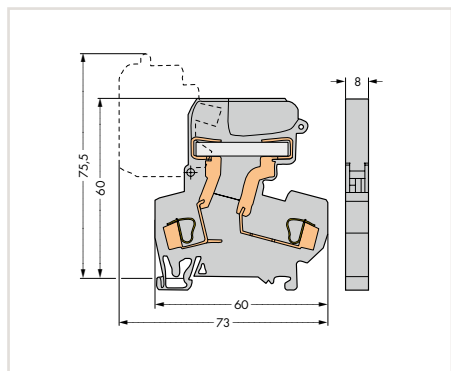
Item No.	Pack. Unit
Disconnect terminal block with movable disconnect slide link	
gray	281-624 50
orange	281-672 50



Fuse holders are printed with correct fuse size.



5 x 20 mm, 5 x 25 mm and 1/4" x 1" fuse holders are fitted with stops on the inside of the cover.



Dimensions in mm



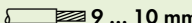





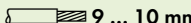
**281 Series Accessories**

Appropriate marking system:  
 WMB (see Section 13)

End and intermediate plate, 2.5 mm thick			
	orange	281-309	100 (4x25)
	gray	281-311	100 (4x25)
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
	gray	281-402	200 (8x25)
Collective carrier for adjacent jumpers			
	gray	209-100	50 (2x25)
Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks			
	gray	280-404	100 (4x25)
Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V			
	yellow	210-137	50
Test plug adapter, 6 mm wide, with CAGE CLAMP®, for 0.08 ... 2.5 mm <sup>2</sup>			
	I <sub>N</sub> 24 A	281-407	100 (4x25)
Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A			
	L = 60 mm	249-125	10
	L = 110 mm	249-126	10
	L = 250 mm	249-127	10
Interlocking link, mechanically locks multiple links, 1 m/3'3" long			
	transparent	210-254	1
Screwless end stop, for DIN-35 rail, 6 mm wide			
	gray	249-116	100 (4x25)
Screwless end stop, for DIN-35 rail, 10 mm wide			
	gray	249-117	50 (2x25)

# Fused Disconnect Terminal Blocks with a Pivoting Fuse Holder, for 1/4" x 1" and 1/4" x 1 1/4" Miniature Metric Fuses

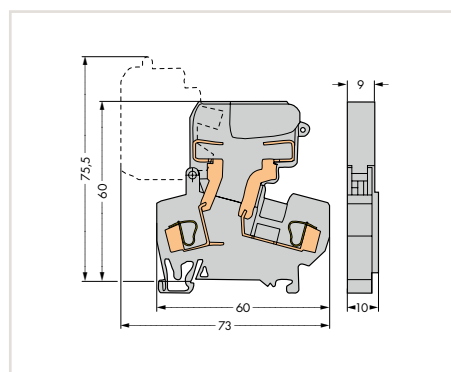
## 4 mm<sup>2</sup>, 281 Series

<p>0.08 ... 4 mm<sup>2</sup> 800 V/8 kV/3 ① ② I<sub>N</sub> 10 A</p> <p>28 ... 12 AWG 600 V, 10 A  600 V, 10 A </p> <p>Terminal block width 10 mm / 0.394 inch  9 ... 10 mm / 0.35 ... 0.39 inch</p>	<p>0.08 ... 4 mm<sup>2</sup> 800 V/8 kV/3 ① ② I<sub>N</sub> 10 A</p> <p>28 ... 12 AWG 30 V, 10 A  30 V, 10 A </p> <p>Terminal block width 10 mm / 0.394 inch  9 ... 10 mm / 0.35 ... 0.39 inch</p>	<p>0.08 ... 4 mm<sup>2</sup> 800 V/8 kV/3 ① ② I<sub>N</sub> 10 A</p> <p>28 ... 12 AWG 220 V, 10 A  100 V, 10 A </p> <p>Terminal block width 10 mm / 0.394 inch  9 ... 10 mm / 0.35 ... 0.39 inch</p>
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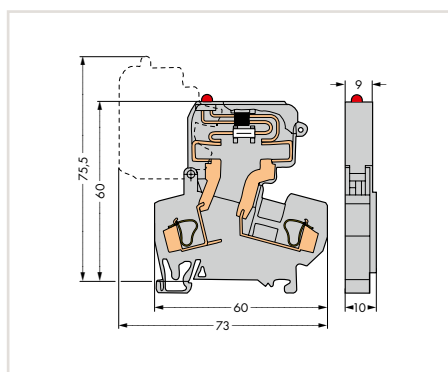


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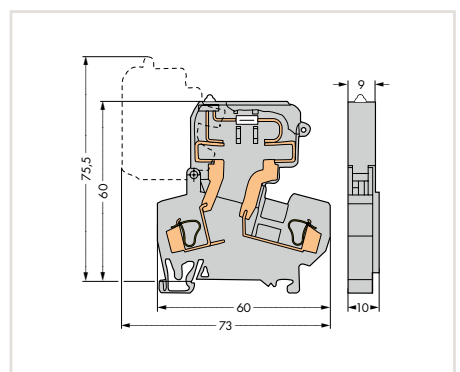
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Fuse disconnect terminal block with pivoting fuse holder, for 1/4" x 1" miniature metric fuse, without blown fuse indication Electrical ratings are given by the fuse.		Fuse disconnect terminal block with pivoting fuse holder, for 1/4" x 1" miniature metric fuse, with blown fuse indication by LED, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: LED 6 mA		Fuse disconnect terminal block with pivoting fuse holder, for 1/4" x 1" miniature metric fuse, with blown fuse indication by neon lamp, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: Neon lamp < 0.4 mA	
● gray	<b>281-613</b>	50	● 15 ... 30 V <b>281-613/281-541</b> 50 ● 30 ... 65 V <b>281-613/281-542</b> 50	● 230 V <b>281-613/281-417</b> 50 ● 120 V <b>281-613/281-418</b> 50	
Fuse disconnect terminal block with pivoting fuse holder, for 1/4" x 1 1/4" miniature metric fuse, without blown fuse indication Electrical ratings are given by the fuse.		Fuse disconnect terminal block with pivoting fuse holder, for 1/4" x 1 1/4" miniature metric fuse, with blown fuse indication by LED, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: LED 6 mA		Fuse disconnect terminal block with pivoting fuse holder, for 1/4" x 1 1/4" miniature metric fuse, with blown fuse indication by neon lamp, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: Neon lamp < 0.4 mA	
● gray	<b>281-623</b>	50	● 15 ... 30 V <b>281-623/281-541</b> 50 ● 30 ... 65 V <b>281-623/281-542</b> 50	● 230 V <b>281-623/281-417</b> 50 ● 120 V <b>281-623/281-418</b> 50	
Miniature metric fuses are available upon request.		Miniature metric fuses are available upon request.		Miniature metric fuses are available upon request.	



Dimensions in mm



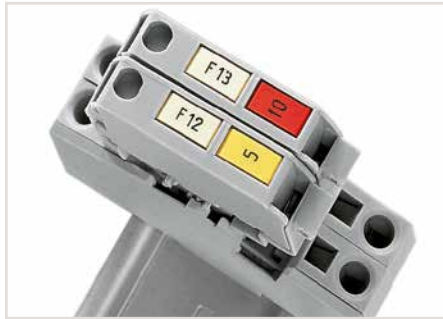
Dimensions in mm



Dimensions in mm



An intermediate plate is supplied with all 10 mm wide fused disconnect terminal blocks. At the end of an assembly or if there is **no** adjacent fused disconnect terminal block, an end or intermediate plate must be used.



Each fuse holder features two marker slots for custom WMB Multi markers (example shows 8 mm wide terminal blocks).













Ganging several fuse holders with an interlocking link (example shows 8 mm wide terminal blocks).

- ❶ 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❷ Electrical ratings are given by the fuse  
(see page 292).

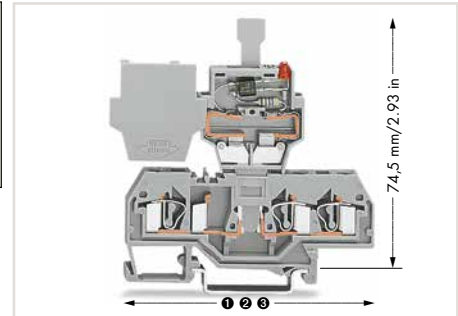
**281 Series Accessories**

Appropriate marking system:  
WMB (see Section 13)

End and intermediate plate, 2.5 mm thick			
	orange	<b>281-309</b>	100 (4x25)
	gray	<b>281-311</b>	100 (4x25)
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
	gray	<b>281-402</b>	200 (8x25)
Collective carrier for adjacent jumpers			
	gray	<b>209-100</b>	50 (2x25)
Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks			
	gray	<b>280-404</b>	100 (4x25)
Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V			
	yellow	<b>210-137</b>	50
Test plug adapter, 6 mm wide, with CAGE CLAMP®, for 0.08 ... 2.5 mm <sup>2</sup>			
	I <sub>N</sub> 24 A	<b>281-407</b>	100 (4x25)
Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A			
	L = 60 mm	<b>249-125</b>	10
	L = 110 mm	<b>249-126</b>	10
	L = 250 mm	<b>249-127</b>	10
Interlocking link, mechanically locks multiple links, 1 m/3'3" long			
	transparent	<b>210-254</b>	1
Screwless end stop, for DIN-35 rail, 6 mm wide			
	gray	<b>249-116</b>	100 (4x25)
Screwless end stop, for DIN-35 rail, 10 mm wide			
	gray	<b>249-117</b>	50 (2x25)

# Fuse Plugs on Carrier Terminal Blocks, 4 mm<sup>2</sup> 281 Series

<p><b>Fuse plug with pull-tab for (5 x 20) mm and (5 x 25) mm miniature metric fuses</b> 250 V / I<sub>N</sub> 6.3 A ④ Plug width 6 mm / 0.236 inch</p>	<p><b>Fuse plug with pull-tab for (5 x 20) mm and (5 x 25) mm miniature metric fuses</b> 250 V / I<sub>N</sub> 6.3 A ④ Plug width 6 mm / 0.236 inch</p>
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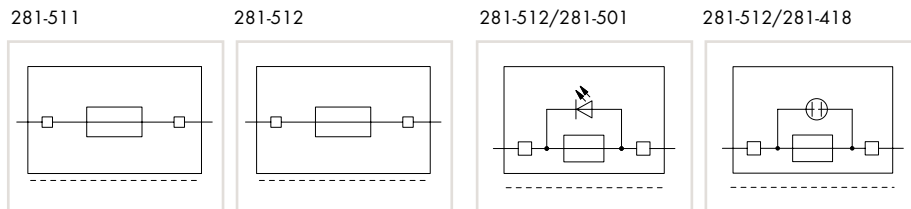


Length of carrier terminal blocks with a fuse plug:

- ① 59 mm / 2.32 inch for 281-916
- ② 73.5 mm / 2.89 inch for 281-610
- ③ 86 mm / 3.39 inch for 281-656

For terminal blocks with side marking, see www.wagocatalog.com

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Item No.	Pack. Unit	Item No.	Pack. Unit
Fuse plug with pull-tab, for (5 x 20) mm and (5 x 25) mm miniature metric fuses, 6 mm wide Electrical ratings are given by the fuse.		Fuse plug with pull-tab, for (5 x 20) mm and (5 x 25) mm miniature metric fuses, with LED indicator, 24 VAC/DC, 6 mm wide Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: LED 5 ... 20 mA,	
gray 281-511	50	gray 281-512/281-501	50
Fuse plug with pull-tab, for (5 x 20) mm and (5 x 25) mm miniature metric fuses, with hole for one LED (for self-assembly), 6 mm wide Electrical ratings are given by the fuse and blown fuse indication.		Fuse plug with pull-tab, for (5 x 20) mm and (5 x 25) mm miniature metric fuses, with neon lamp 120 VAC/DC, 6 mm wide Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: Neon lamp < 0.4 mA	
gray 281-512	50	gray 281-512/281-418	50
Fuse plug with pull-tab, for (5 x 20) mm and (5 x 25) mm miniature metric fuses, with neon lamp 230 VAC/DC, 6 mm wide Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: Neon lamp < 0.4 mA		Fuse plug with pull-tab, for (5 x 20) mm and (5 x 25) mm miniature metric fuses, with neon lamp 230 VAC/DC, 6 mm wide Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: Neon lamp < 0.4 mA	
		gray 281-512/281-417	50

Accessories			
Appropriate marking system: 4 mm wide WSB for plug and WMB for terminal block			
2-conductor carrier terminal block, ① 0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG Terminal block width 6 mm / 0.236 inch gray 281-916 50		3-conductor carrier terminal block, ② 0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG Terminal block width 6 mm / 0.236 inch gray 281-610 50	
End and intermediate plate, 2.5 mm thick orange 281-329 100 (4x25) gray 281-328 100 (4x25)		End and intermediate plate, 2.5 mm thick orange 281-326 100 (4x25) gray 281-324 100 (4x25)	
Wire commoning chain, insulated, 50 connections, I <sub>N</sub> 8 A black 210-103 1		Wire commoning chain, insulated, 50 connections, I <sub>N</sub> 8 A blue 210-123 1	

Accessories			
4-conductor carrier terminal block, ③ 0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG Terminal block width 6 mm / 0.236 inch gray 281-656 50			
End and intermediate plate, 2.5 mm thick orange 281-335 100 (4x25) gray 281-334 100 (4x25)			
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
	2-way	281-482	100 (4x25)
	3-way	281-483	100 (4x25)
	5-way	281-485	100 (4x25)
	10-way	281-490	50 (2x25)
Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
	2-way	281-492	100 (4x25)
Operating tool, of insulating material			
	2-way	280-432	1
	3-way	280-433	1
	5-way	281-440	1
WSB Quick marking system, white, 10 strips with 10 markers per card, 4 mm wide WSB markers			
	plain	209-701	5
WSB Quick marking system, plain, 10 strips with 10 markers per card, 4 mm wide WSB markers			
	yellow	209-701/000-002	
	red	209-701/000-005	
	blue	209-701/000-006	
	gray	209-701/000-007	
	orange	209-701/000-012	
	light green	209-701/000-017	
	green	209-701/000-023	
	violet	209-701/000-024	
Shorting link, (5 x 20) mm, allows the fuse plug to be used as a disconnect plug I <sub>N</sub> 6.3 A 281-503 250 (10x25)			



4 Electrical ratings are given by the fuse or LED nominal voltage (see page 292).

Accessories		
WSB Quick marking system, for fuse plug (281-5..), white, 4 mm wide WSB markers		
	F1, ..., F10 (10x)	209-787 5
	F11, ..., F20 (10x)	209-700/209-124
	F21, ..., F30 (10x)	209-700/209-125
	F31, ..., F40 (10x)	209-700/209-126
	F41, ..., F50 (10x)	209-700/209-127
WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable		
	plain	793-5501 5
WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable		
	yellow	793-5501/000-002
	red	793-5501/000-005
	blue	793-5501/000-006
	gray	793-5501/000-007
	orange	793-5501/000-012
	light green	793-5501/000-017
	green	793-5501/000-023
	violet	793-5501/000-024

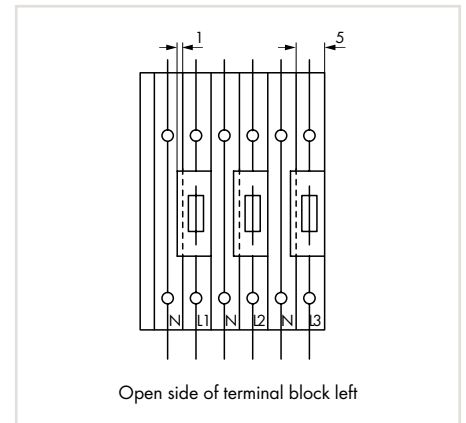


Using fuse plugs with rail-mount terminal blocks for control circuit protection is highly advantageous because the function and wiring levels are separated:

- No additional cost for assembly and wiring
- No risk of accidental contact with live parts when disconnecting the fuse plug
- The fuse plug is completely separated from the carrier terminal block when replacing a fuse – away from current carrying parts
- The fuse plug can be removed by service personnel
- No unintentional reclosing of the circuit by another person
- Quickly exchange a fuse by using a prepared “stand-by plug”

Fuse plug features for quick and safe applications:

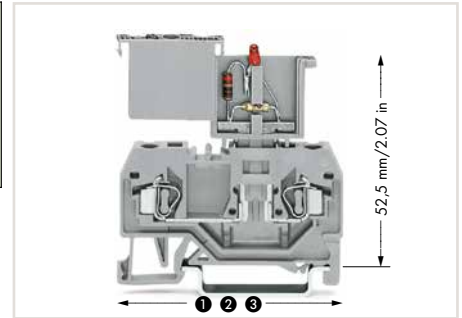
- Optional LED indicates blown fuse
- Top-of-unit marking slot provides clear carrier terminal block identification
- Two test slots with touch contacts
- Terminal blocks/plugs provide high-density wiring in a width of just 6 mm
- May be used as a disconnect plug in combination with a shorting link



When a corresponding neutral circuit is adjacent to the fuse plug, a 5 mm wide space-saving terminal block may be used, as a 6 mm fuse plug may overlap the terminal block (see diagram). For 5 mm wide carrier terminal blocks can be used with end plates, for example.

# Fuse Plugs on Carrier Terminal Blocks, 2.5 mm<sup>2</sup> 280 Series

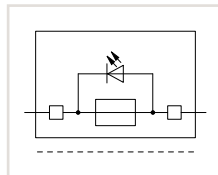
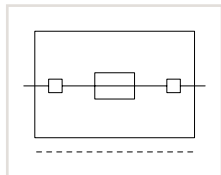
<b>Fuse plug</b> 5 mm wide 125 V / I <sub>N</sub> 5 A ④ Plug width 5 mm / 0.197 inch	<b>Fuse plug</b> 5 mm wide 125 V / I <sub>N</sub> 5 A ④ Plug width 5 mm / 0.197 inch
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**Length of carrier terminal blocks with a fuse plug:**  
 ① 53 mm / 2.09 inch for 280-916  
 ② 64 mm / 2.52 inch for 280-610  
 ③ 75 mm / 2.95 inch for 280-816

For terminal blocks with side marking, see www.wagocatalog.com

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Item No.	Pack. Unit	Item No.	Pack. Unit
Fuse plug, with soldered miniature fuse, 5 mm wide, gray Electrical ratings are given by the fuse.		Fuse plug, with soldered miniature fuse, with indicator lamp, additional LED, 15 ... 30 VDC, 5 mm wide, gray Electrical ratings are given by the fuse and blown fuse indication. Leakage current in case of blown fuse: LED 5 ... 20 mA	
○ 250 mA FF <b>280-850</b>	100	○ 250 mA FF <b>280-850/281-413</b>	100
○ 500 mA FF <b>280-852</b>	100	○ 500 mA FF <b>280-852/281-413</b>	100
○ 1 A FF <b>280-854</b>	100	○ 1 A FF <b>280-854/281-413</b>	100
○ 2 A FF <b>280-856</b>	100	○ 2 A FF <b>280-856/281-413</b>	100

Fuse Plug Accessories		
Wire commoning chain, insulated, 50 connections, I <sub>N</sub> 8 A		blue <b>210-123</b> 1
WMB Multii marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable		plain <b>793-5501</b> 5
WMB Multii marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable		yellow <b>793-5501/000-002</b> red <b>793-5501/000-005</b> blue <b>793-5501/000-006</b> gray <b>793-5501/000-007</b> orange <b>793-5501/000-012</b> light green <b>793-5501/000-017</b> green <b>793-5501/000-023</b> violet <b>793-5501/000-024</b>

Accessories for Carrier terminal blocks	
Appropriate marking system: WMB (see Section 13)	
① 2-conductor carrier terminal block, 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG Terminal block width 5 mm / 0.197 inch gray <b>280-916</b> 100	Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block 2-way <b>280-482</b> 200 (8x25) 3-way <b>280-483</b> 200 (8x25)
End and intermediate plate, 2.5 mm thick orange <b>280-309</b> 100 (4x25) gray <b>280-308</b> 100 (4x25)	Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block 10-way <b>280-490</b> 50 (2x25)
② 3-conductor carrier terminal block, 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG Terminal block width 5 mm / 0.197 inch gray <b>280-610</b> 100	Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block 2-way <b>280-492</b> 200 (8x25)
End and intermediate plate, 2.5 mm thick orange <b>280-326</b> 100 (4x25) gray <b>280-324</b> 100 (4x25)	2-way <b>280-432</b> 1 3-way <b>280-433</b> 1
③ 4-conductor carrier terminal block, 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG Terminal block width 5 mm / 0.197 inch gray <b>280-816</b> 100	Operating tool, of insulating material 10-way <b>280-440</b> 1
End and intermediate plate, 2.5 mm thick orange <b>280-315</b> 100 (4x25) gray <b>280-314</b> 100 (4x25)	Wire commoning chain, insulated, 50 connections, I <sub>N</sub> 8 A black <b>210-103</b> 1



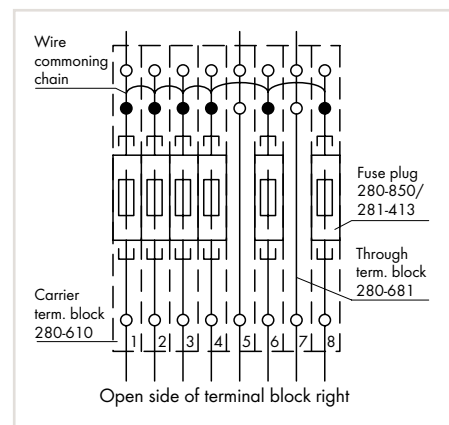
Using fuse plugs with rail-mount terminal blocks (280/281 and 769 Series) for control circuit protection is highly advantageous because the function and wiring levels are separated:

- No additional cost for assembly and wiring
- No risk of accidental contact with live parts when disconnecting the fuse plug
- Quick plug replacement in case of a blown fuse
- The fuse plug can be removed by service personnel
- No unintentional reclosing of the circuit by another person

Additional advantages:

- Terminal blocks/plugs provide ultra high-density wiring in a width of just 5 mm
- Optional LED indicates blown fuse

- 4 Electrical ratings are given by the fuse or LED nominal voltage (see page 292).



Fuse protection of individual outputs – supply via wire commoning chain

# Fuse Terminal Blocks for Class CC Fuses and 10 x 38 mm (1 3/32" x 1 1/2") Cylindrical Fuses

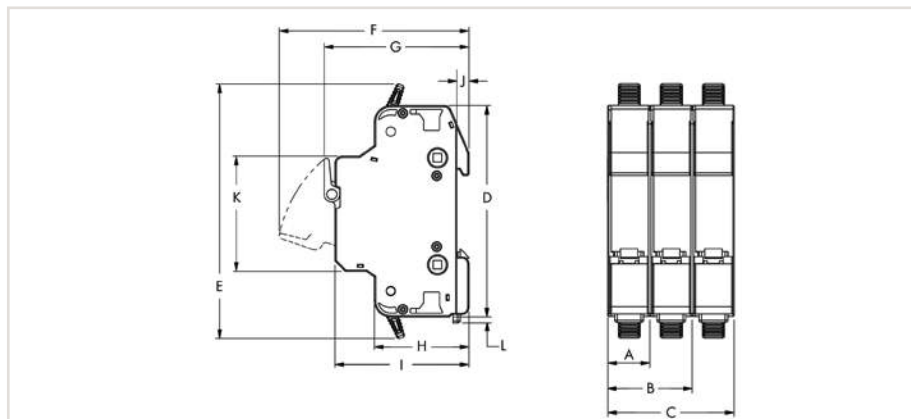
## 16 mm<sup>2</sup>, 811 Series

2.5 ... 16 mm <sup>2</sup> 1000 VDC, 32 A	16 ... 6 AWG 1000 VDC, 30 A <sup>Ⓢ</sup>	2.5 ... 16 mm <sup>2</sup> 690 VAC, 32 A 1000 VDC, 32 A	16 ... 6 AWG 600 VAC, 30 A <sup>Ⓢ</sup> 750 VAC, 30 A <sup>Ⓢ</sup> 1000 VDC, 30 A <sup>Ⓢ</sup>	2.5 ... 16 mm <sup>2</sup> -	16 ... 6 AWG 600 V, 30 A <sup>Ⓢ</sup> 600 V, 30 A <sup>Ⓢ</sup>
Terminal block width 17.5 mm / 0.689 inch 12 ... 13 mm / 0.47 ... 0.51 inch		Terminal block width 17.5 mm / 0.689 inch 12 ... 13 mm / 0.47 ... 0.51 inch		Terminal block width 17.5 mm / 0.689 inch 12 ... 13 mm / 0.47 ... 0.51 inch	



5

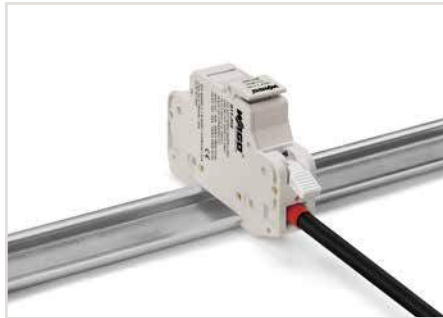
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Fuse terminal block for (10 x 38) mm (1 3/32" x 1 1/2") cylindrical fuses, for photovoltaic applications, without blown fuse indication, for DIN-35 rail, light gray		Fuse terminal block for (10 x 38) mm (1 3/32" x 1 1/2") cylindrical fuses, without blown fuse indication, for DIN-35 rail, light gray		Fuse terminal block for class CC fuses, without blown fuse indication, for DIN-35 rail, light gray	
○ 1-pole <b>811-316</b>	12	○ 1-pole <b>811-310</b>	12	○ 1-pole <b>811-410</b>	12
		○ 2-pole <b>811-320</b>	6	○ 2-pole <b>811-420</b>	6
		○ 3-pole <b>811-330</b>	4	○ 3-pole <b>811-430</b>	4
Fuse terminal block for (10 x 38) mm (1 3/32" x 1 1/2") cylindrical fuses, for photovoltaic applications, with blown fuse indication, 230 ... 1000 VDC, for DIN-35 rail, light gray		Fuse terminal block for (10 x 38) mm (1 3/32" x 1 1/2") cylindrical fuses, with blown fuse indication, 90 ... 600 VAC, 115 ... 600 VDC, for DIN-35 rail, light gray		Fuse terminal block for class CC fuses, with blown fuse indication, 90 ... 600 VAC, 115 ... 600 VDC, for DIN-35 rail, light gray	
○ 1-pole <b>811-317</b>	12	○ 1-pole <b>811-311</b>	12	○ 1-pole <b>811-411</b>	12
		○ 2-pole <b>811-321</b>	6	○ 2-pole <b>811-421</b>	6
		○ 3-pole <b>811-331</b>	4	○ 3-pole <b>811-431</b>	4
Cylindrical fuses are not offered by WAGO. Operating temperature range: -35°C ... +85°C Electrical ratings are given by the fuse and blown fuse indication.		Cylindrical fuses are not offered by WAGO. Operating temperature range: -35°C ... +85°C Electrical ratings are given by the fuse and blown fuse indication.		Cylindrical fuses are not offered by WAGO. Operating temperature range: -35°C ... +85°C Electrical ratings are given by the fuse and blown fuse indication.	
Fuse terminal block for (10 x 38) mm (1 3/32" x 1 1/2") cylindrical fuses, with blown fuse indication, 24 VDC, for DIN-35 rail, light gray		Fuse terminal block for (10 x 38) mm (1 3/32" x 1 1/2") cylindrical fuses, with blown fuse indication, 24 VDC, for DIN-35 rail, light gray		Fuse terminal block for class CC fuses, with blown fuse indication, 24 VDC, for DIN-35 rail, light gray	
		○ 1-pole <b>811-314</b>	12	○ 1-pole <b>811-414</b>	12



Dimension	mm (inch)
A	17.3 (0.68)
B	34.6 (1.36)
C	51.9 (2.04)
D	87 (3.43)
E	104.9 (4.13)
F	78.3 (3.08)
G	59.7 (2.35)
H	39 (1.54)
I	55.2 (2.17)
J	5 (0.2)
K	47.4 (1.87)
L	2.5 (0.1)



**CAGE CLAMP® connection**  
Inserting a conductor via screwdriver.  
Opening the clamping unit via integrated lever.



Terminating ferruled conductors up to 10 mm<sup>2</sup> (8 AWG).



Opening/closing lever via screwdriver.



Inserting a fuse.



Removing a terminal block from the carrier rail.



WMB marking location for convenient identification



Marker carriers (285-442) for continuous marking strips



Jumper bar for quick and convenient commoning



Creating a 2- or 3-pole fuse terminal block via coupling kit.

**811 Series Accessories**

	Push-in type jumper bar, insulated, I <sub>N</sub> 63 A, 1000 V, light gray		
	2-way	<b>811-472</b>	50 (5x10)
	3-way	<b>811-473</b>	40 (4x10)
	4-way	<b>811-474</b>	40 (4x10)
	5-way	<b>811-475</b>	40 (4x10)
	6-way	<b>811-476</b>	30 (3x10)
	7-way	<b>811-477</b>	20 (2x10)
	8-way	<b>811-478</b>	20 (2x10)
	9-way	<b>811-479</b>	20 (2x10)
	10-way	<b>811-480</b>	20 (2x10)
	11-way	<b>811-481</b>	20 (2x10)
	12-way	<b>811-482</b>	20 (2x10)

	Supply module, 35 mm <sup>2</sup> , 600 VAC, 1000 VDC	
	<b>811-471</b>	16 (4x4)

	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V	
	red	<b>210-136</b> 50

	Coupling kit, for 12 poles	
	<b>811-612</b>	1

	Marker carrier, 10.4 mm wide	
	gray	<b>285-442</b> 25

	Marking strip, plain, 11 mm wide, 50 m roll	
	white	<b>2009-110</b> 1

	WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable	
	plain	<b>793-5501</b> 5

	Screwless end stop, for DIN-35 rail, gray	
	6 mm wide	<b>249-116</b> 100 (4x25)
	10 mm wide	<b>249-117</b> 50 (2x25)

	Twin ferrule, only for 811 Series, insulated, Length l = 12 mm, sleeve for 2 x 2.5 mm <sup>2</sup> / 14 AWG		
	blue	<b>216-545</b>	100
	sleeve for 2 x 4 mm <sup>2</sup> / 12 AWG		
	gray	<b>216-546</b>	100
	sleeve for 2 x 6 mm <sup>2</sup> / 10 AWG		
yellow	<b>216-547</b>	100	

## Application Notes on Terminal Blocks for Miniature Metric Fuses

### Terminal Blocks for Miniature Metric Fuses Tested per IEC or EN 60947-7-3/VDE 0611-6

When selecting miniature metric fuses, make sure that the maximum power loss listed below is not exceeded.

The power loss is determined per IEC or EN 60947-7-3/VDE 0611-6 at 23 °C.

The temperature rise of the terminal blocks must be checked according to their application and mounting.

Higher ambient temperatures represent an additional impact on miniature fuses. Therefore, in such applications, the rated current must be reduced if necessary.

More details are available from the manufacturers.

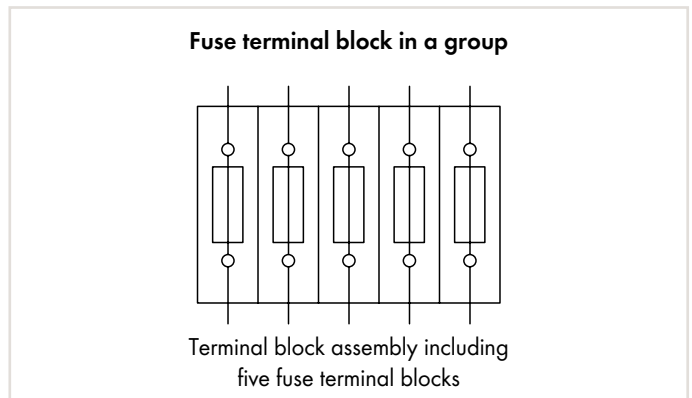
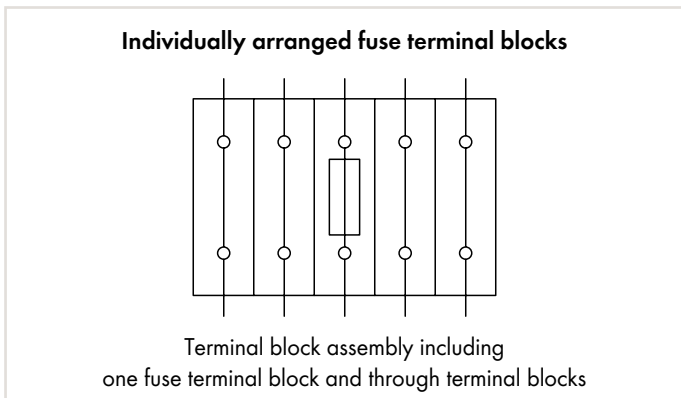
## 5

#### Miniature Metric Fuses, (5 x 20) mm

Series Item No.	Overload and Short-Circuit Protection		Short-Circuit Protection Only	
	Individual Arrangement	Block Arrangement	Individual Arrangement	Block Arrangement
Fuse terminal blocks (with screw cap), front-entry (5 x 20 mm)				
282-122	2.5 W	2.5 W	4 W	4 W
282-124				
Fused disconnect terminal block with a pivoting fuse holder for miniature metric fuses (5 x 20 mm)				
281-611	2.5 W	1.6 W	4 W	4 W
281-616				
281-611/281-541				
281-611/281-542				
281-611/281-417				
281-611/281-418				
Fuse plugs for miniature metric fuses (5 x 20 mm)				
281-511	2.5 W	1.6 W	4 W	4 W
281-512				
281-512/281-501				
281-512/281-418				
281-512/281-417				
281-512/281-417				

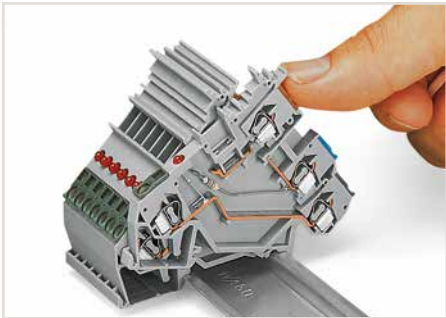
**Miniature Metric Fuses, (6.3 x 32) mm**

Series Item No.	Overload and Short-Circuit Protection		Short-Circuit Protection Only	
	Individual Arrangement	Block Arrangement	Individual Arrangement	Block Arrangement
Fuse terminal blocks (with screw cap), front-entry (1/4" x 1 1/4" ≈ 6.3 x 32 mm)				
282-128 282-128/281-418 282-128/281-413 282-128/281-417	2.5 W	2.5 W	4 W	4 W
Fused disconnect terminal block with a pivoting fuse holder for miniature metric fuses (1/4" x 1 1/4" ≈ 6.3 x 32 mm)				
281-623 281-623/281-541 281-623/281-542 281-623/281-417 281-623/281-418	2.5 W	1.6 W	4 W	2.5 W

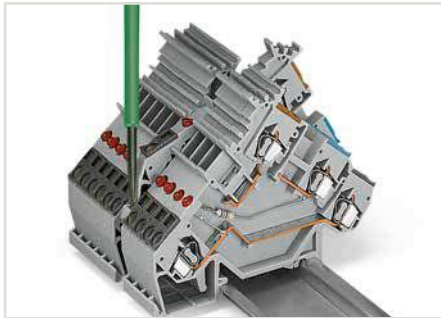


# Sensor and Actuator Terminal Blocks, 280 Series

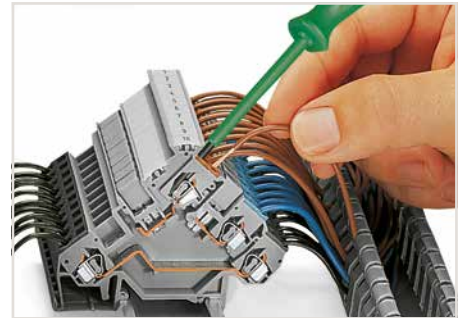
## Description and Installation



Snapping a terminal block onto the carrier rail – terminal blocks with a grounding foot automatically establish a direct contact to the rail.



Removing a terminal block from the carrier rail. Notice: Remove jumper contacts first.

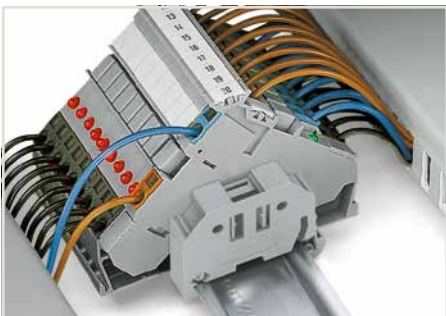


**CAGE CLAMP® connection**  
Inserting a conductor via straight operating tool (210-720).

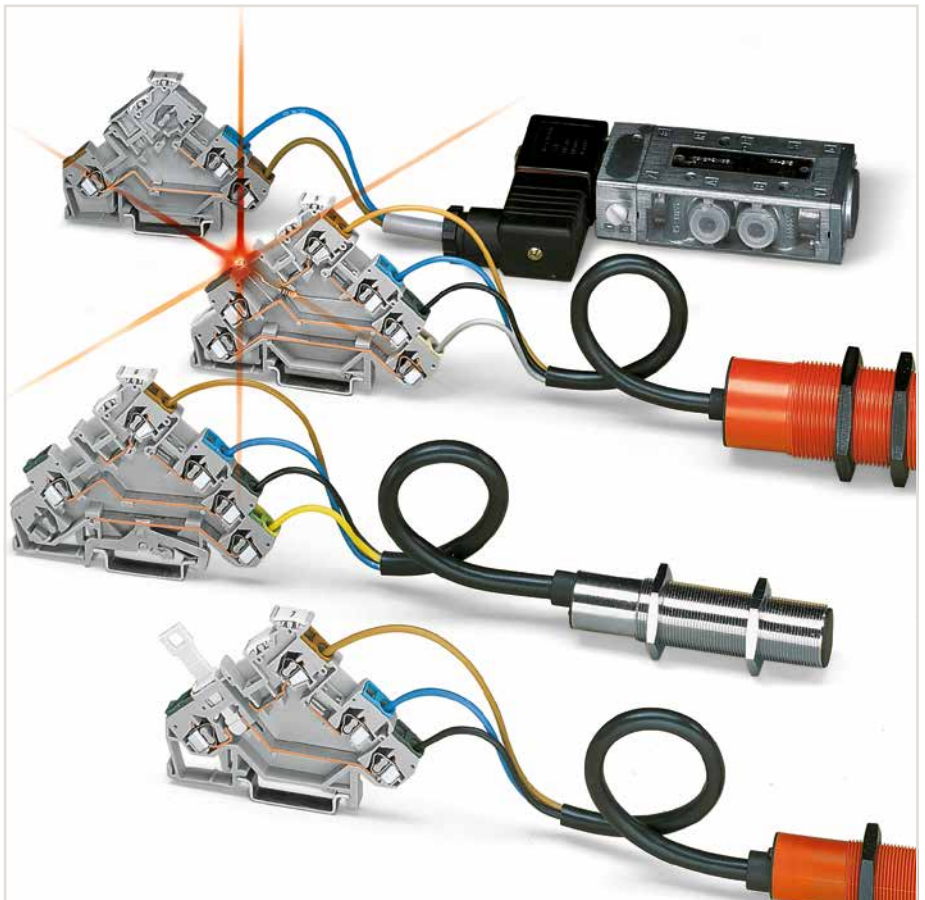
5



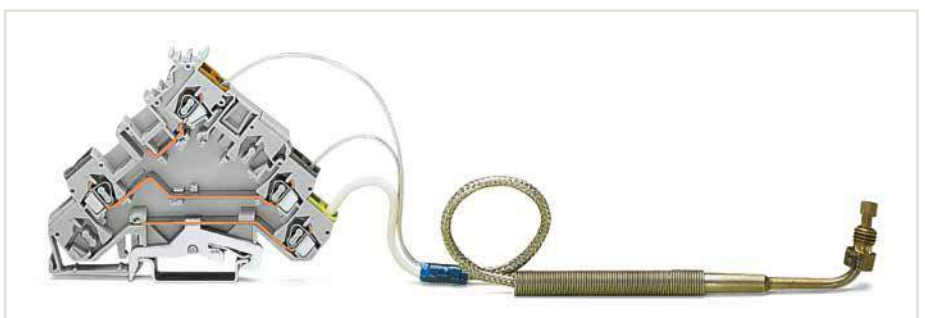
Commoning using an adjacent jumper (280-402). Push jumper down until fully inserted.



Sensor terminal blocks – power supply from control panel side



Sensor terminal blocks – power supply from sensor side



Actuator terminal block with thermocouple (shield connection)



**CAGE CLAMP®**  
terminates the following  
copper conductors:  
solid

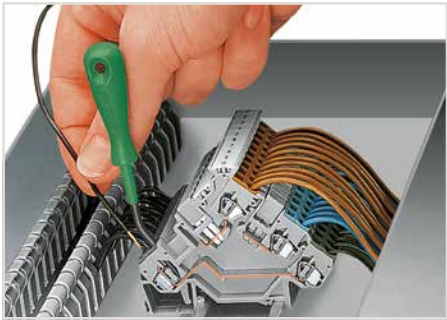


stranded

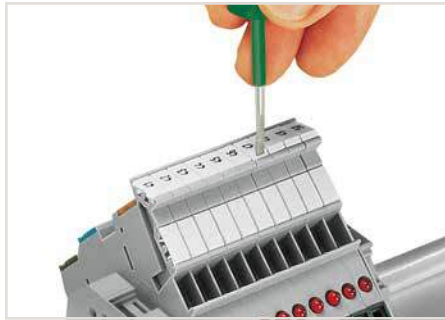


fine-stranded,  
also with tinned  
single strands

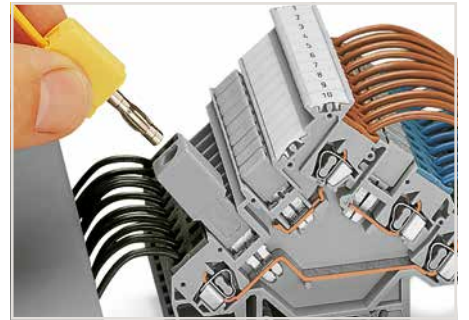




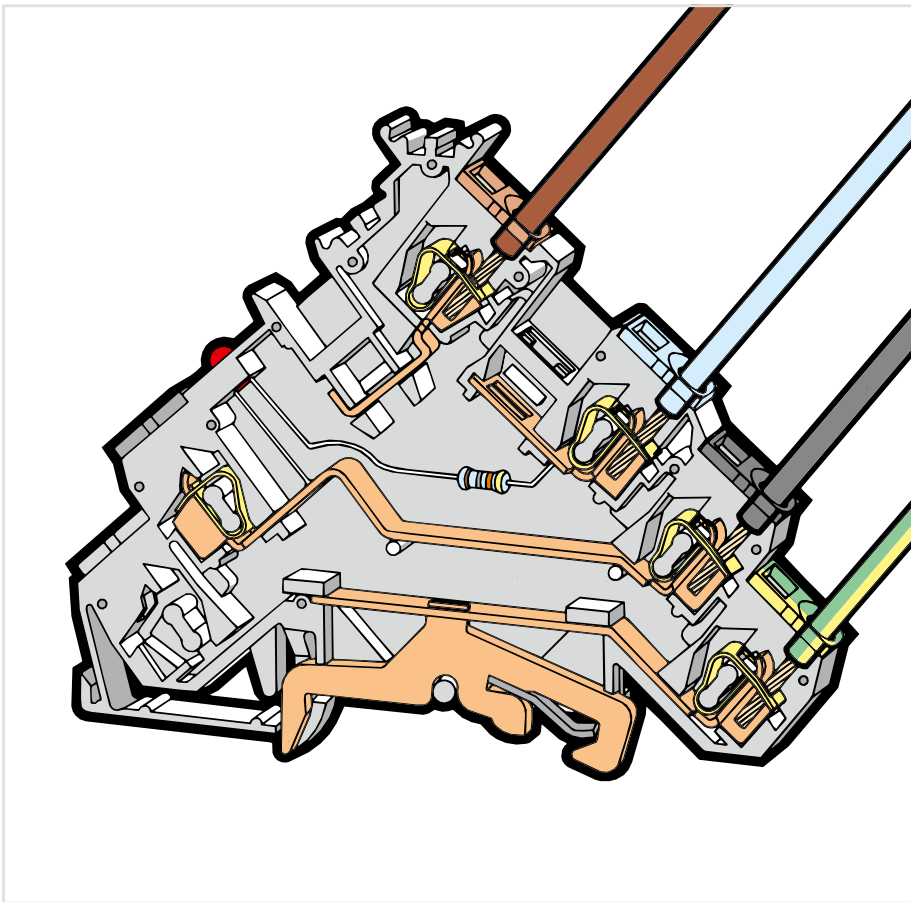
**CAGE CLAMP® connection**  
Inserting a conductor via angled operating tool (210-658).



Labeling via WMB Multi Marking System.



Testing via banana plug and test plug adapter (209-170).



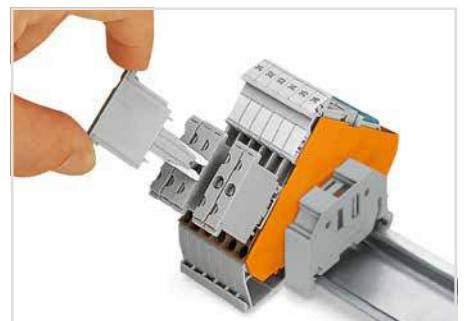
Testing via voltage tester directly on the current bar.



Actuator terminal blocks with fuse holders (281-511) - intermediate plates are required!



Actuator terminal block with thermocouple



Actuator terminal blocks with component plugs (280-801)



fine-stranded,  
tip-bonded












fine-stranded,  
with ferrule  
(gastight crimped)

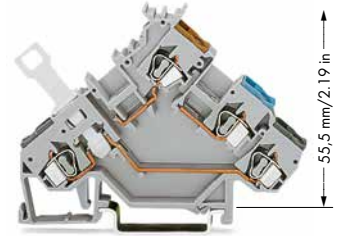
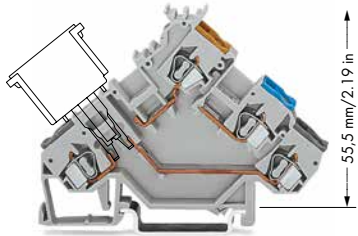
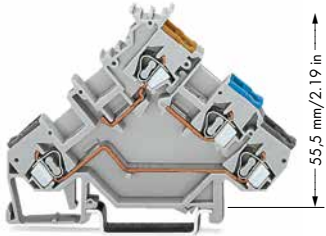


fine-stranded,  
with pin terminal  
(gastight crimped)

## Sensor Terminal Blocks for 3-Conductor Sensors

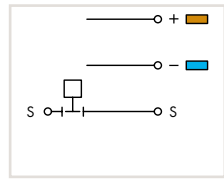
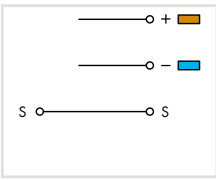
### 2.5 mm<sup>2</sup>, 280 Series

0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 20 A  Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 15 A  300 V, 15 A 	0.08 ... 2.5 mm <sup>2</sup> 250 V/4 kV/3 ① ② I <sub>N</sub> 6 A ②  Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 6 A  300 V, 15 A 	0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 10 A  Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 10 A  300 V, 15 A 
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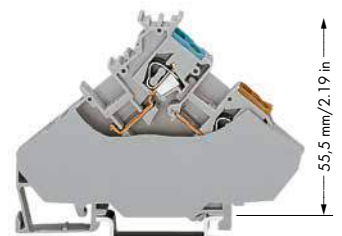
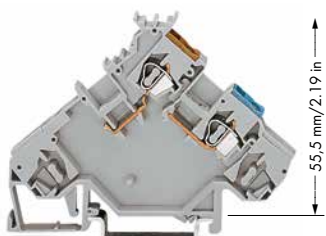
280-560




280-553



5

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Sensor terminal block		Sensor terminal block, for component plugs		Sensor disconnect terminal block, for signal interruption	
 280-560	50	 280-561 ④	50	 280-563	50
 280-553	50				



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Sensor supply terminal block, power supply from sensor side		Spacer, same profile as 3-conductor sensor terminal blocks or corresponding actuator terminal blocks Spacers with the profile clearly differentiate between sensor or actuator terminal groups, e.g., of different power supply.		Sensor supply terminal block, power supply from control panel side, with end plate	
 280-564	10	 gray 280-559	50	 280-567	20
				Technical data: 400 V/6 kV/3 I <sub>N</sub> 20 A	



Sensor terminal block paired with a 3-conductor sensor

\* 12 AWG: THHN, THWN

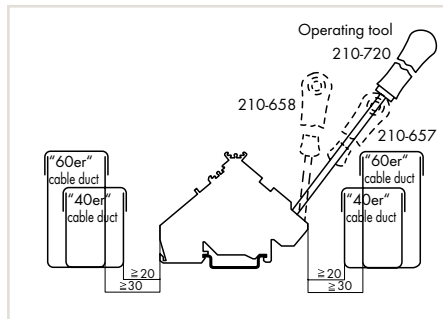
① 400 V/250 V = rated voltage  
6 kV/4 kV = rated surge voltage  
3 = pollution degree

(see Section 14)

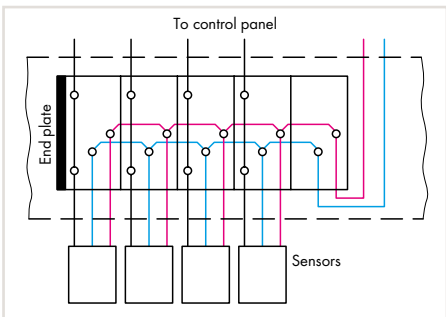
② Electrical ratings are given by the fuse plug or empty component plug housing.

③ For empty component plug housings, see Full Line Catalog, Interface Modules, Volume 4  
x = 12 mm/0.472 inch  
For fuse plugs (280-850), see page 288  
x = 20 mm/0.787 inch

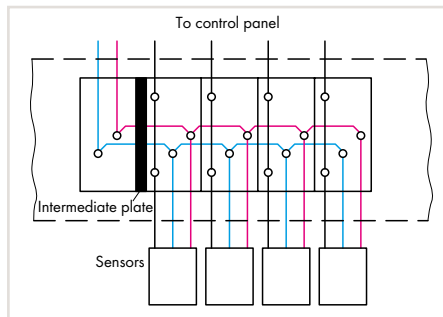
④ See application notes for:  
Insulation stop, page 331



Min. mounting distance - terminal blocks to cable duct



Power supply from sensor side



Power supply from control panel side

### 280 Series Accessories

Appropriate marking system:  
WMB (see Section 13)

End and intermediate plate, 1 mm thick, for triple-deck terminal blocks

	orange	<b>280-321</b>	100 (4x25)
	gray	<b>280-319</b>	100 (4x25)

Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm<sup>2</sup> "s"  
(0.14 mm<sup>2</sup> "f-st")

	white	<b>280-470</b>	200 (8x25)
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Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup>

	light gray	<b>280-471</b>	200 (8x25)
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Insulation stop, 5 pcs/strip, 0.75 ... 1 mm<sup>2</sup>

	dark gray	<b>280-472</b>	200 (8x25)
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Adjacent jumper, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block

	gray	<b>280-402</b>	200 (8x25)
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Screwless end stop, for DIN-35 rail, 6 mm wide

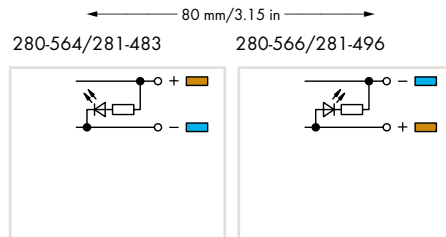
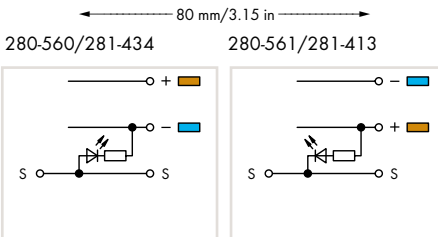
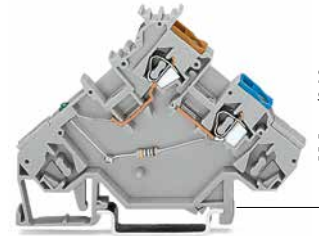
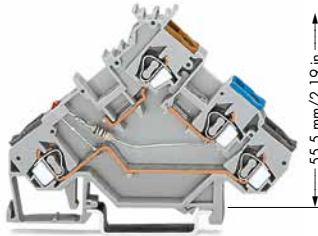
	gray	<b>249-116</b>	100 (4x25)
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Screwless end stop, for DIN-35 rail, 10 mm wide

	gray	<b>249-117</b>	50 (2x25)
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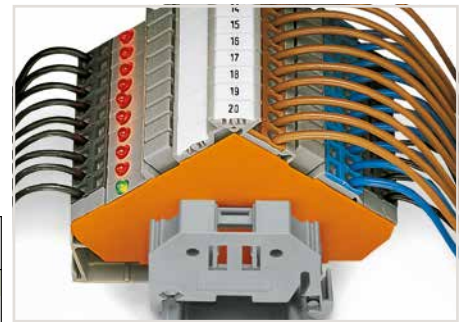
## Sensor LED Terminal Blocks for 3-Conductor Sensors 2.5 mm<sup>2</sup>, 280 Series

0.08 ... 2.5 mm <sup>2</sup> 24 VDC ① 20 A Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 24 V, 15 A ② 300 V, 15 A ③	0.08 ... 2.5 mm <sup>2</sup> 24 VDC ① 20 A Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 24 V, 15 A ② 300 V, 15 A ③
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\* 12 AWG: THHN, THWN

① Other voltages are available upon request.

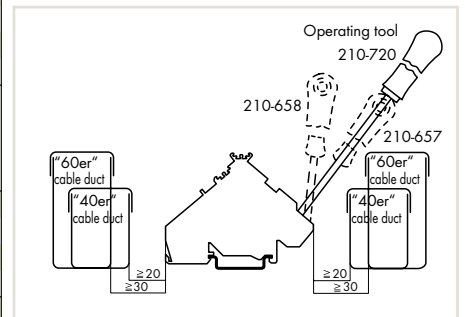


Item No.	Pack. Unit	Item No.	Pack. Unit
Sensor LED terminal block, for PNP (high-side) switching sensors, red LED, power consumption: 4.8 mA		Sensor LED supply terminal block, power supply from sensor side, for PNP (high-side) switching sensors, green LED, power consumption: 4.8 mA	
280-560/281-434	50	280-564/281-483	10
Sensor LED terminal block, for NPN (low-side) switching sensors, red LED, power consumption: 4.8 mA		Sensor LED supply terminal block, power supply from sensor side, for NPN (low-side) switching sensors, green LED, power consumption: 4.8 mA	
280-561/281-413	50	280-566/281-496	10

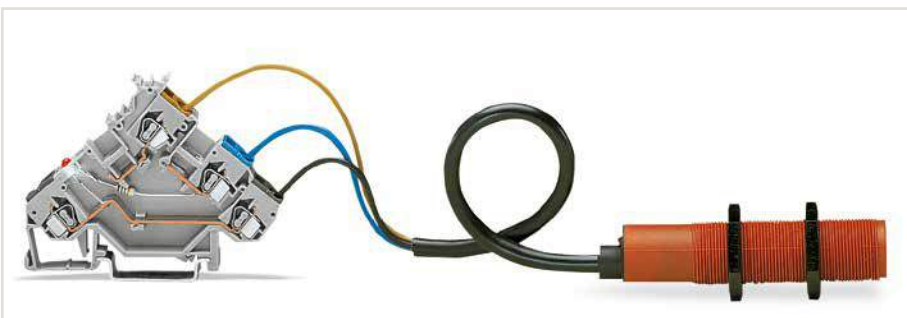
### 280 Series Accessories

Appropriate marking system:  
WMB (see Section 13)

End and intermediate plate, 1 mm thick, for triple-deck terminal blocks orange 280-321 100 (4x25) gray 280-319 100 (4x25)	Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray 280-471 200 (8x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st") white 280-470 200 (8x25)	Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray 280-472 200 (8x25)



Min. mounting distance - terminal blocks to cable duct

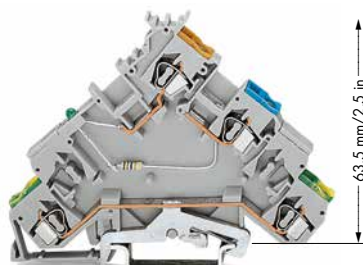


Sensor LED terminal block paired with a 3-conductor sensor

# Sensor LED Terminal Blocks for 4-Conductor Sensors

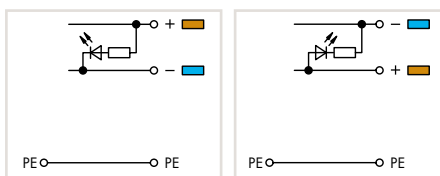
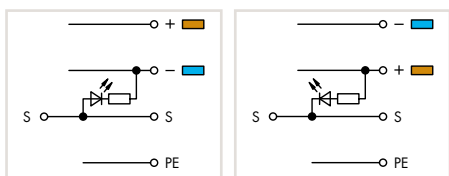
## 2.5 mm<sup>2</sup>, 280 Series

0.08 ... 2.5 mm <sup>2</sup> 24 VDC Ⓢ 20 A	28 ... 12 AWG* 24 V, 15 A Ⓢ 300 V, 15 A Ⓢ	0.08 ... 2.5 mm <sup>2</sup> 24 VDC Ⓢ 20 A	28 ... 12 AWG* 24 V, 15 A Ⓢ 300 V, 15 A Ⓢ
Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch		Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	



90,5 mm/3.56 in  
280-570/281-434      280-571/281-413

90,5 mm/3.56 in  
280-574/281-483      280-576/281-496



\* 12 AWG: THHN, THWN

Ⓢ Other voltages are available upon request.

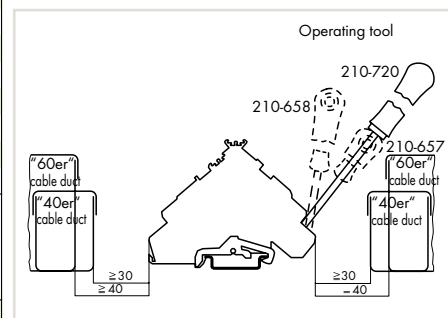


Item No.	Pack. Unit	Item No.	Pack. Unit
Sensor LED terminal block, for PNP (high-side) switching sensors, red LED, power consumption: 4.8 mA		Sensor LED supply terminal block, power supply from sensor side, for PNP (high-side) switching sensors, green LED, power consumption: 4.8 mA	
280-570/281-434	50	280-574/281-483	10
Sensor LED terminal block, for NPN (low-side) switching sensors, red LED, power consumption: 4.8 mA		Sensor LED supply terminal block, power supply from sensor side, for NPN (low-side) switching sensors, green LED, power consumption: 4.8 mA	
280-571/281-413	50	280-576/281-496	10
		Sensor LED supply terminal block, power supply from control panel side, with end plate, for PNP (high-side) switching sensors, green LED, power consumption: 4.8 mA Terminal block width: 6 mm (0.236 inch)	
		280-577/281-496	20

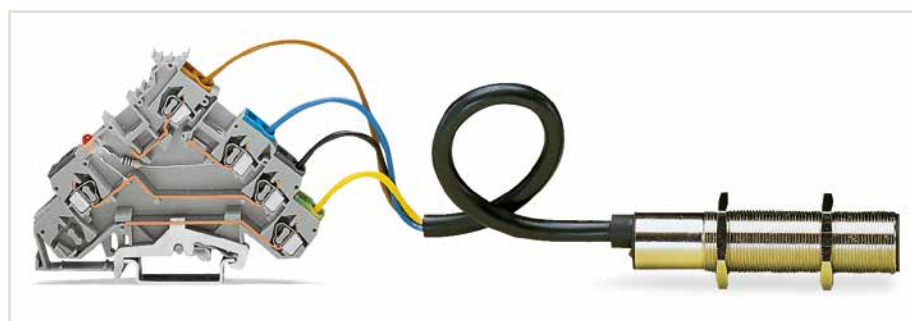
### 280 Series Accessories

Appropriate marking system:  
WMB (see Section 13)

End and intermediate plate, 1 mm thick, for quadruple-deck terminal blocks			
orange	280-323	100 (4x25)	
gray	280-320	100 (4x25)	












Min. mounting distance - terminal blocks to cable duct



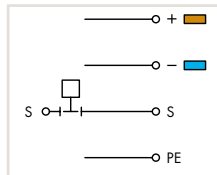
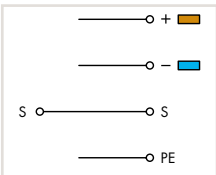
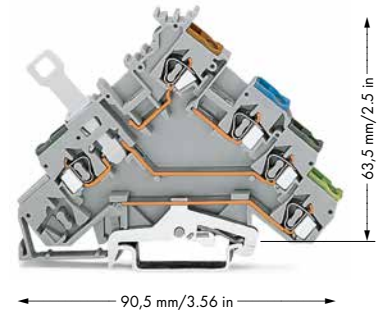
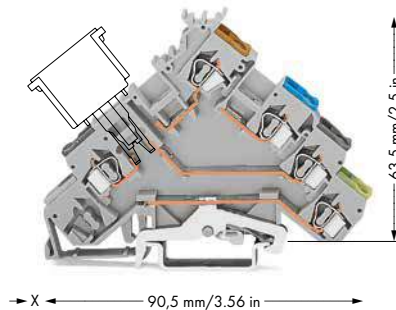
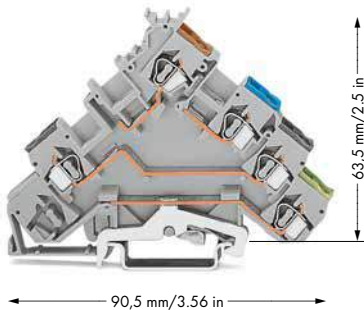
Sensor LED terminal block paired with a 3-conductor sensor (ground connection)

## Sensor Terminal Blocks with Ground Connection for 3-Conductor Sensors

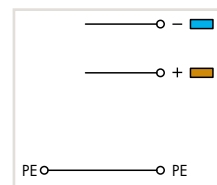
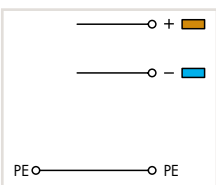
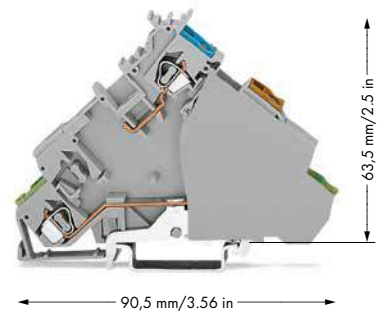
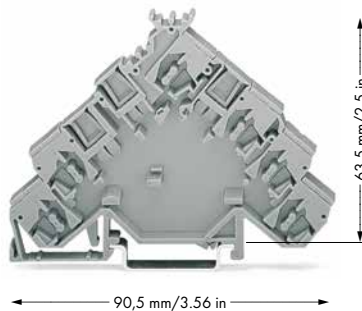
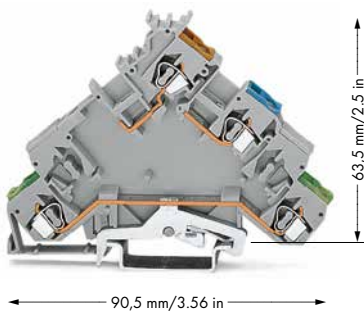
### 2.5 mm<sup>2</sup>, 280 Series

0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 20 A  Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 15 A  300 V, 15 A 	0.08 ... 2.5 mm <sup>2</sup> 250 V/4 kV/3 ① ② I <sub>N</sub> 6 A  Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 6 A  300 V, 15 A 	0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 10 A  Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 10 A  300 V, 15 A 
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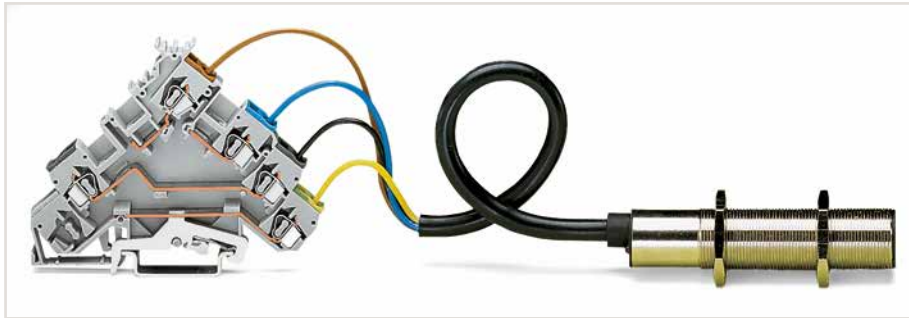
5



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Sensor terminal block, with ground connection		Sensor terminal block, with ground connection, for component plugs		Sensor disconnect terminal block, with ground connection, for signal interruption	
○ <b>280-570</b>	50	○ <b>280-571</b> ③	50	○ <b>280-573</b>	50



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Sensor supply terminal block, with ground connection, power supply from sensor side		Spacer, same profile as 4-conductor sensor terminal blocks, 3-conductor sensor terminal blocks with ground connection or corresponding actuator terminal blocks Spacers with the profile clearly differentiate between sensor or actuator terminal groups, e.g., of different power supply.		Sensor supply terminal block, with ground connection, power supply from control panel side, with end plate	
○ <b>280-574</b>	10	○ <b>280-582</b>	50	○ <b>280-577</b>	20
				Technical data: 400 V/6 kV/3 I <sub>N</sub> 20 A	



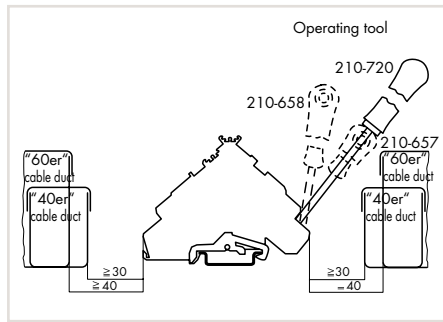
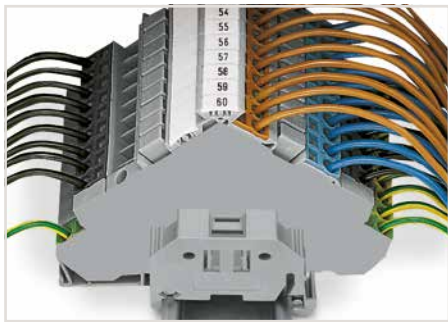
Sensor terminal block paired with a 3-conductor sensor (ground connection)

\* 12 AWG: THHN, THWN

- ① 400 V/250 V = rated voltage  
6 kV/4 kV = rated surge voltage  
3 = pollution degree

(see Section 14)

- ② Electrical ratings are given by the fuse plug or empty component plug housing.
- ③ For empty component plug housings, see Full Line Catalog, Interface Modules, Volume 4  
x = 12 mm/0.472 inch  
For fuse plugs (280-850), see page 288  
x = 20 mm/0.787 inch
- ④ See application notes for:  
Insulation stop, page 331




Min. mounting distance - terminal blocks to cable duct

**280 Series Accessories**

Appropriate marking system:  
WMB (see Section 13)


End and intermediate plate, 1 mm thick, for quadruple-deck terminal blocks

	orange	<b>280-323</b>	100 (4x25)
	gray	<b>280-320</b>	100 (4x25)


Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm<sup>2</sup> "s"  
(0.14 mm<sup>2</sup> "f-st")

④ 	white	<b>280-470</b>	200 (8x25)
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Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup>

④ 	light gray	<b>280-471</b>	200 (8x25)
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Insulation stop, 5 pcs/strip, 0.75 ... 1 mm<sup>2</sup>

④ 	dark gray	<b>280-472</b>	200 (8x25)
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Adjacent jumper, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block

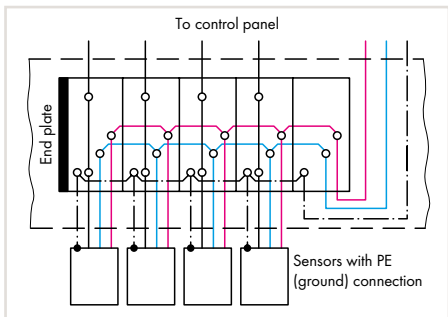
	gray	<b>280-402</b>	200 (8x25)
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Screwless end stop, for DIN-35 rail, 6 mm wide

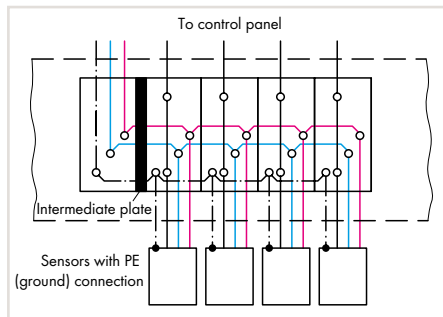
	gray	<b>249-116</b>	100 (4x25)
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Screwless end stop, for DIN-35 rail, 10 mm wide

	gray	<b>249-117</b>	50 (2x25)
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


Power supply from sensor side



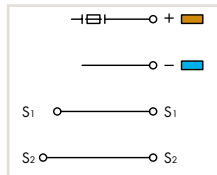
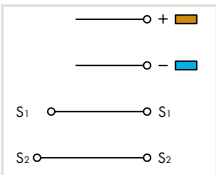
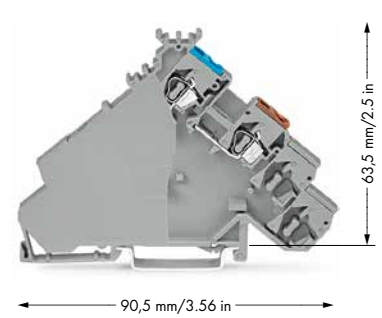
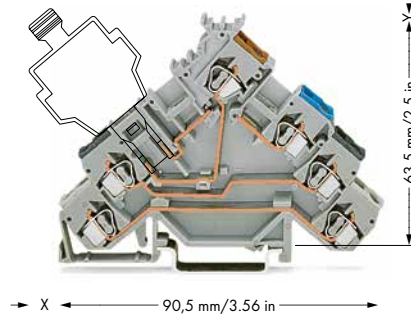
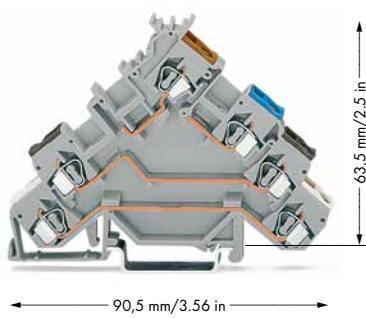
Power supply from control panel side

## Sensor Terminal Blocks for 4-Conductor Sensors

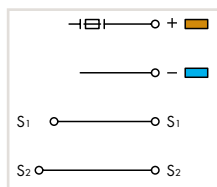
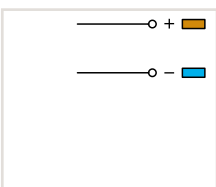
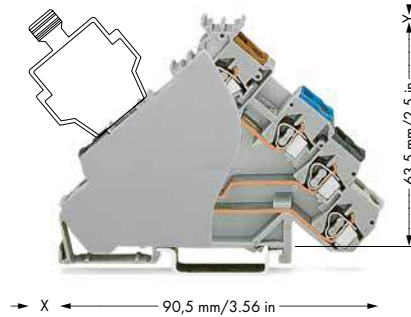
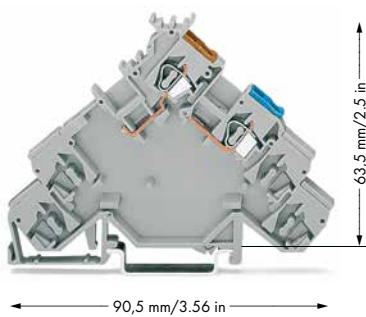
### 2.5 mm<sup>2</sup>, 280 Series

0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 20 A  Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 15 A ② 300 V, 15 A ③	0.08 ... 2.5 mm <sup>2</sup> 125 V/5 A ② 250 V/6.3 A ②  Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 6 A ② 300 V, 15 A ③	0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 20 A  Terminal block width 6 mm / 0.236 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 24 V, 15 A ② 300 V, 15 A ③
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5

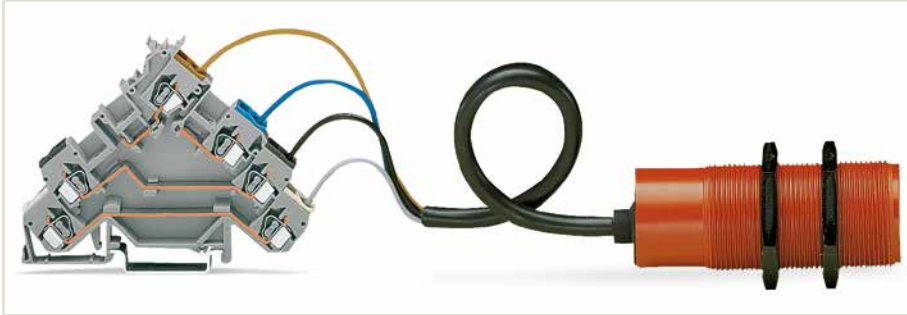


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Sensor terminal block		Sensor terminal block, for fuse plugs, for PNP (high-side) switching sensors, without end plate		Sensor supply terminal block, power supply from control panel side, with end plate	
● 280-580	50	● 280-588 ③	50	● 280-587	20



Item No.	Pack. Unit	Item No.	Pack. Unit
Sensor supply terminal block, power supply from sensor side, without end plate		Sensor terminal block, for fuse plugs, for PNP (high-side) switching sensors, with gray end plate	
● 280-584	10	● 280-588/280-320	50
		with orange end plate	
		● 280-588/280-323	50

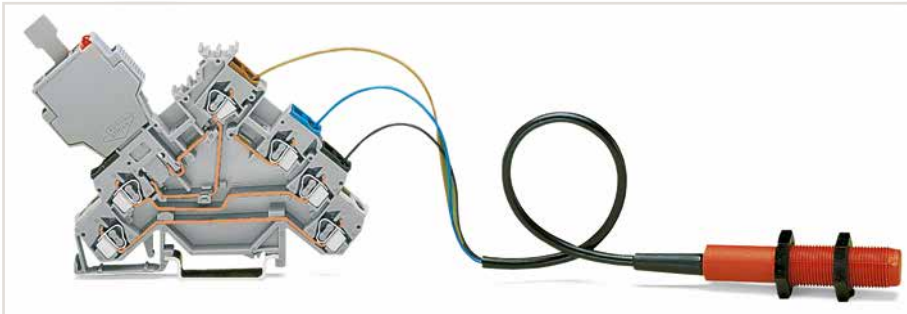




Sensor terminal block paired with a 4-conductor sensor

\* 12 AWG: THHN, THWN

- ① 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Electrical ratings are given by the fuse plug or empty component plug housing.
- ③ For empty component plug housings, see Full Line Catalog, Interface Modules, Volume 4  
x = 12 mm/0.472 inch  
For fuse plugs (281-511), see page 286  
x = 15.5 mm/0.61 inch  
y = 10 mm/0.394 inch
- ④ See application notes for:  
Insulation stop, page 331




Sensor terminal block (with a fuse plug) paired with a 3-conductor sensor


**280 Series Accessories**

Appropriate marking system:  
WMB (see Section 13)


End and intermediate plate, 1 mm thick, for quadruple-deck terminal blocks

	orange	<b>280-323</b>	100 (4x25)
	gray	<b>280-320</b>	100 (4x25)


Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm<sup>2</sup> "s"  
(0.14 mm<sup>2</sup> "f-st")

	white	<b>280-470</b>	200 (8x25)
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Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup>

	light gray	<b>280-471</b>	200 (8x25)
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Insulation stop, 5 pcs/strip, 0.75 ... 1 mm<sup>2</sup>

	dark gray	<b>280-472</b>	200 (8x25)
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Adjacent jumper, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block

	gray	<b>280-402</b>	200 (8x25)
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Screwless end stop, for DIN-35 rail, 6 mm wide

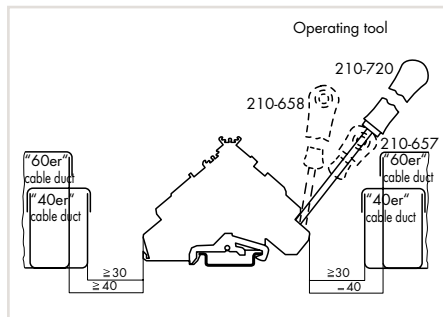
	gray	<b>249-116</b>	100 (4x25)
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Screwless end stop, for DIN-35 rail, 10 mm wide

	gray	<b>249-117</b>	50 (2x25)
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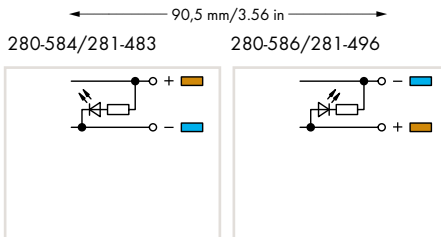
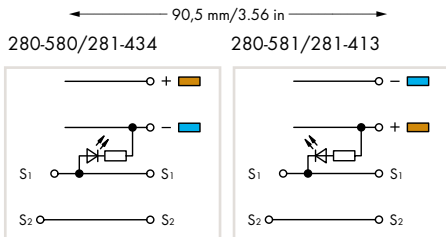
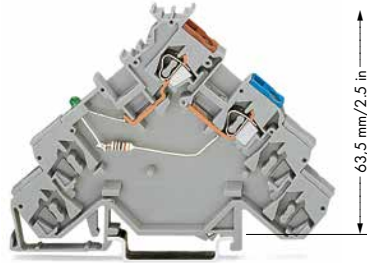
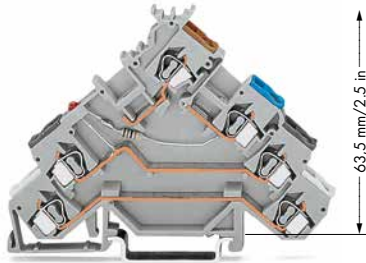
The fuse plug is 1 mm wider than the terminal block, so an intermediate plate must be installed.



Min. mounting distance - terminal blocks to cable duct

## Sensor LED Terminal Blocks for 4-Conductor Sensors 2.5 mm<sup>2</sup>, 280 Series

0.08 ... 2.5 mm <sup>2</sup> 24 VDC ⓘ 20 A Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 24 V, 15 A ⓘ Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	0.08 ... 2.5 mm <sup>2</sup> 24 VDC ⓘ 20 A Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 24 V, 15 A ⓘ 300 V, 15 A ⓘ Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch
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Item No.	Pack. Unit	Item No.	Pack. Unit
Sensor LED terminal block, for PNP (high-side) switching sensors, red LED, power consumption: 4.8 mA		Sensor LED supply terminal block, power supply from sensor side, for PNP (high-side) switching sensors, green LED, power consumption: 4.8 mA	
280-580/281-434	50	280-584/281-483	10
Sensor LED terminal block, for NPN (low-side) switching sensors, red LED, power consumption: 4.8 mA		Sensor LED supply terminal block, power supply from sensor side, for NPN (low-side) switching sensors, green LED, power consumption: 4.8 mA	
280-581/281-413	50	280-586/281-496	10

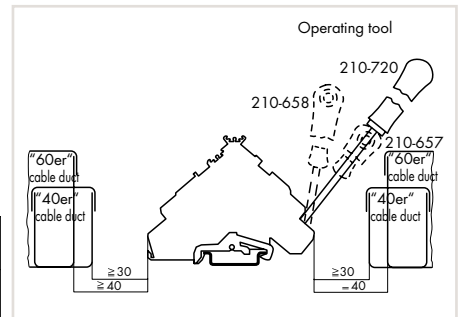
### 280 Series Accessories

Appropriate marking system:  
WMB (see Section 13)

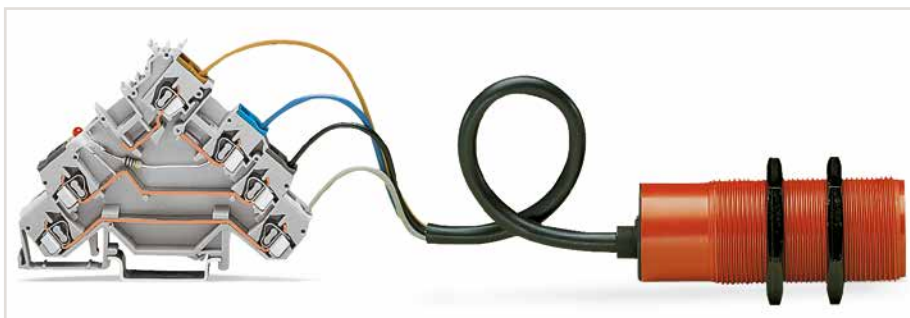
End and intermediate plate, 1 mm thick, for quadruple-deck terminal blocks orange 280-323 100 (4x25) gray 280-320 100 (4x25)	Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray 280-471 200 (8x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st") white 280-470 200 (8x25)	Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray 280-472 200 (8x25)

\* 12 AWG: THHN, THWN

ⓘ Other voltages are available upon request.



Min. mounting distance - terminal blocks to cable duct



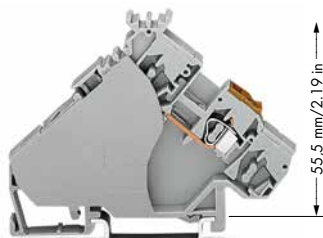
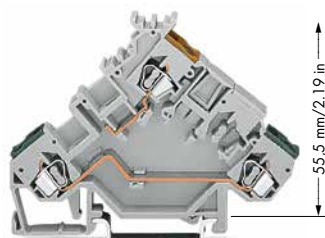
Sensor LED terminal block paired with a 4-conductor sensor

5

# Actuator Terminal Blocks for Pressure Switches, Thermocouples

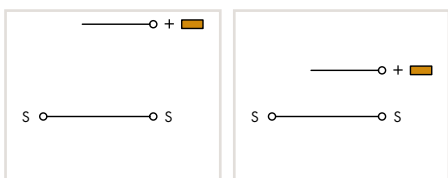
## 2.5 mm<sup>2</sup>, 280 Series

0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 20 A Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 15 A ② 300 V, 15 A ③	0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 20 A Terminal block width 6 mm / 0.236 inch 8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 15 A ② 300 V, 15 A ③
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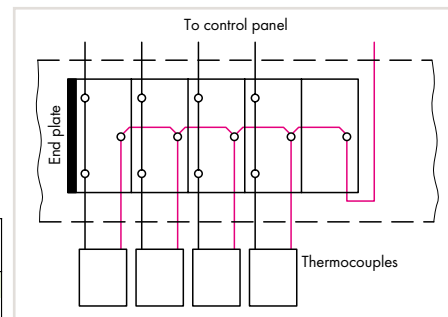


80 mm / 3.15 in

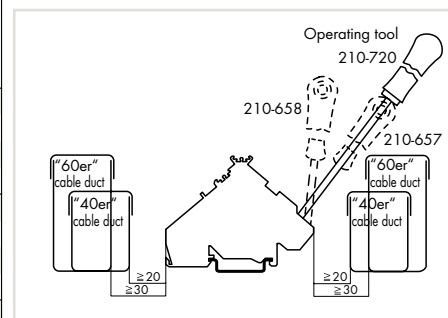
80 mm / 3.15 in



\* 12 AWG: THHN, THWN  
① 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)



Power supply from actuator side



Min. mounting distance - terminal blocks to cable duct

Item No.	Pack. Unit	Item No.	Pack. Unit
Actuator terminal block		Actuator supply terminal block, in connection with 280-555: power supply from control cabinet side, in connection with 280-554: power supply from actuator side, with end plate	
280-555	50	280-556	20
Actuator terminal block, (no picture)			
280-554	50		

### 280 Series Accessories

Appropriate marking system:  
WMB (see Section 13)




End and intermediate plate, 1 mm thick, for triple-deck terminal blocks	Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>
orange 280-321 100 (4x25)	light gray 280-471 200 (8x25)
gray 280-319 100 (4x25)	
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")	Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>
white 280-470 200 (8x25)	dark gray 280-472 200 (8x25)
Screwless end stop, for DIN-35 rail, 6 mm wide	Screwless end stop, for DIN-35 rail, 10 mm wide
gray 249-116 100 (4x25)	gray 249-117 50 (2x25)

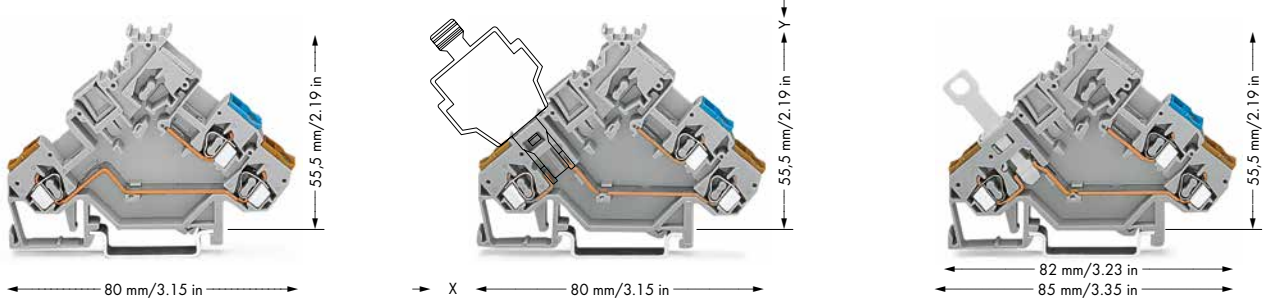


Actuator terminal block with thermocouple

# Actuator Terminal Blocks for Magnetic Valves and Servomotors

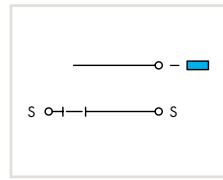
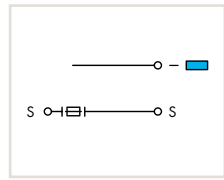
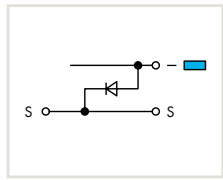
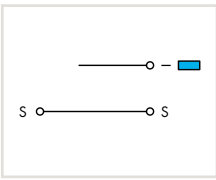
## 2.5 mm<sup>2</sup>, 280 Series

<p>0.08 ... 2.5 mm<sup>2</sup>                  400 V/6 kV/3; 20 A ① ②                  250 V/4 kV/3; 20 A ① ②</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 12 AWG*                  300 V, 15 A ① ②                  300 V, 15 A ③</p>	<p>0.08 ... 2.5 mm<sup>2</sup>                  125 V/5 A ②                  250 V/6.3 A ②</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 12 AWG*                  300 V, 6 A ① ②                  300 V, 15 A ③</p>	<p>0.08 ... 2.5 mm<sup>2</sup>                  400 V/6 kV/3 ①                  I<sub>N</sub> 10 A</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 12 AWG*                  300 V, 10 A ① ②                  300 V, 15 A ③</p>
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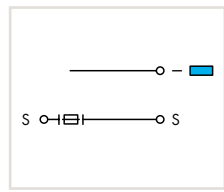
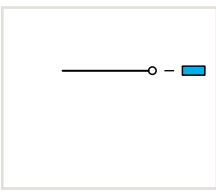
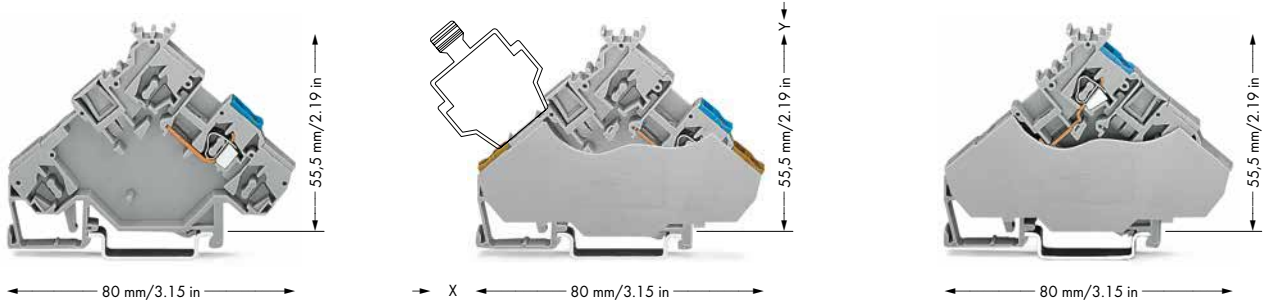


280-562

280-562/281-411



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Actuator terminal block		Actuator terminal block, for fuse plugs, for phase protection, without end plate		Actuator disconnect terminal block, for phase interruption	
● 280-562	50	● 280-565 ③	50	● 280-566	50
Actuator terminal block, with 1N4007 recovery diode					
● 280-562/281-411	50				

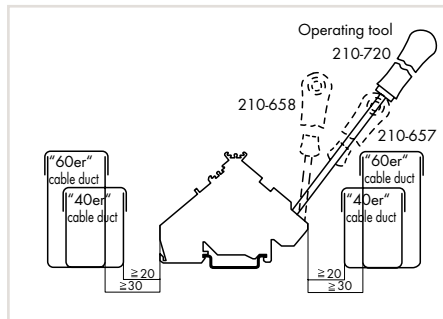
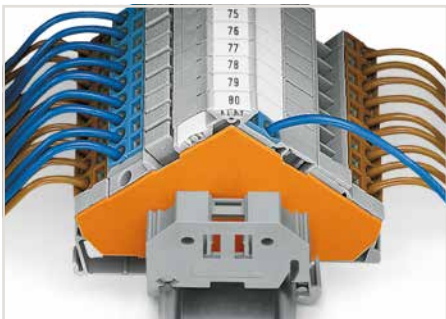


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Actuator supply terminal block, power supply form actuator side		Actuator terminal block, for fuse plugs, for phase protection, with gray end plate		Actuator supply terminal block, power supply from control panel side, with end plate	
● 280-592	10	● 280-565/280-319	50	● 280-568	20
		with orange end plate			
		● 280-565/280-321	50	Technical data:	
				400 V/6 kV/3	I <sub>N</sub> 20 A

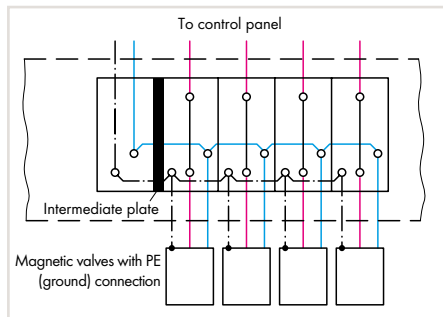


Actuator terminal block paired with a magnetic valve

- \* 12 AWG: THHN, THWN
- ① 400 V/250 V = rated voltage  
6 kV/4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Electrical ratings are given by the fuse plug or empty component plug housing.
- ③ For empty component plug housings, see Full Line Catalog, Interface Modules, Volume 4  
x = 12 mm/0.472 inch  
For fuse plugs (281-511), see page 286  
x = 15.5 mm/0.61 inch  
y = 10 mm/0.394 inch
- ④ See application notes for:  
Insulation stop, page 331



Min. mounting distance - terminal blocks to cable duct



Power supply from control panel side

### 280 Series Accessories

Appropriate marking system:  
WMB (see Section 13)


<b>End and intermediate plate</b> , 1 mm thick, for triple-deck terminal blocks			
	orange	<b>280-321</b>	100 (4x25)
	gray	<b>280-319</b>	100 (4x25)
<b>Insulation stop</b> , 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")			
④	white	<b>280-470</b>	200 (8x25)
<b>Insulation stop</b> , 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
④	light gray	<b>280-471</b>	200 (8x25)
<b>Insulation stop</b> , 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>			
④	dark gray	<b>280-472</b>	200 (8x25)
<b>Adjacent jumper</b> , insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
	gray	<b>280-402</b>	200 (8x25)
<b>Screwless end stop</b> , for DIN-35 rail, 6 mm wide			
	gray	<b>249-116</b>	100 (4x25)
<b>Screwless end stop</b> , for DIN-35 rail, 10 mm wide			
	gray	<b>249-117</b>	50 (2x25)

# Actuator Terminal Blocks with Ground Connection for Magnetic Valves and Servomotors

## 2.5 mm<sup>2</sup>, 280 Series

<p>0.08 ... 2.5 mm<sup>2</sup>                  400 V/6 kV/3; 20 A ① ②                  250 V/4 kV/3; 20 A ① ②                  Terminal block width 5 mm / 0.197 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 12 AWG*                  300 V, 15 A ① ②                  300 V, 15 A ③                  Terminal block width 5 mm / 0.197 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup>                  125 V/5 A ②                  250 V/6.3 A ②                  Terminal block width 5 mm / 0.197 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 12 AWG*                  300 V, 6 A ① ②                  300 V, 15 A ③                  Terminal block width 5 mm / 0.197 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup>                  400 V/6 kV/3 ①                  I<sub>N</sub> 10 A                  Terminal block width 5 mm / 0.197 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 12 AWG*                  300 V, 10 A ① ②                  300 V, 15 A ③                  Terminal block width 5 mm / 0.197 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>
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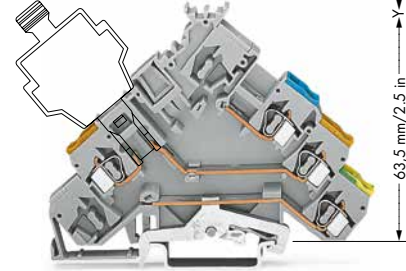
5



90,5 mm/3.56 in

63,5 mm/2.5 in

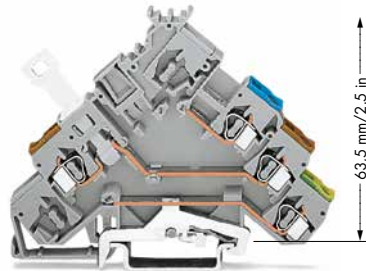
280-572



90,5 mm/3.56 in


63,5 mm/2.5 in

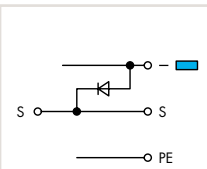
280-572/281-411

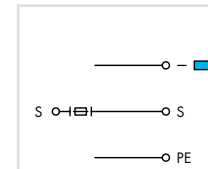


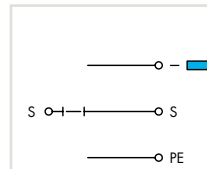
90,5 mm/3.56 in

63,5 mm/2.5 in

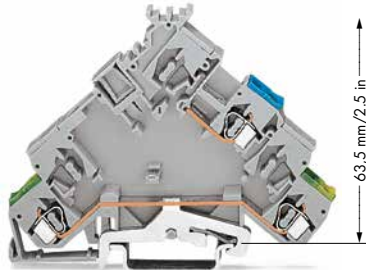








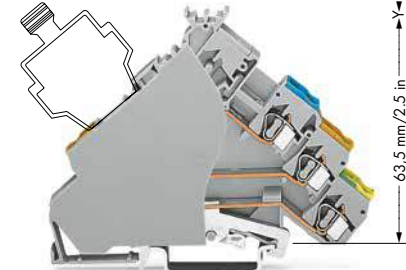
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Actuator terminal block, with ground connection		Actuator terminal block, with ground connection, for fuse plugs, for phase protection, without end plate		Actuator disconnect terminal block, with ground connection, for phase interruption	
● 280-572	50	● 280-575 ③	50	● 280-576	50
Actuator terminal block, with ground connection, with 1N4007 recovery diode					
● 280-572/281-411	50				



90,5 mm/3.56 in

63,5 mm/2.5 in

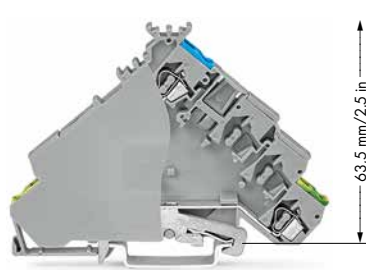
280-593



90,5 mm/3.56 in

63,5 mm/2.5 in


280-575/280-320

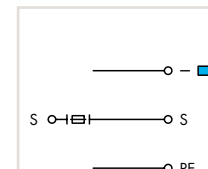


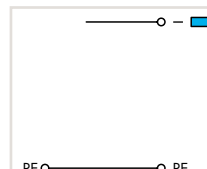
90,5 mm/3.56 in

63,5 mm/2.5 in

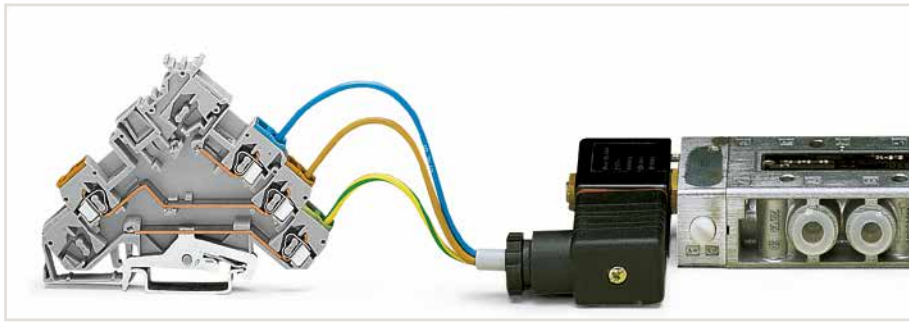
280-578







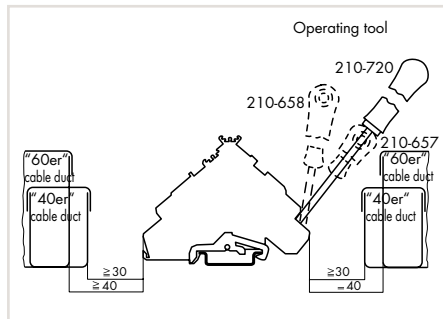
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Actuator supply terminal block, with ground connection, power supply form actuator side		Actuator terminal block, with ground connection, for fuse plugs, for phase protection, with gray end plate		Actuator supply terminal block, with ground connection, power supply from control panel side, with end plate	
● 280-593	10	● 280-575/280-320	50	● 280-578	20
		with orange end plate			
		● 280-575/280-323	50	Technical data:	
				400 V/6 kV/3	I <sub>N</sub> 20 A



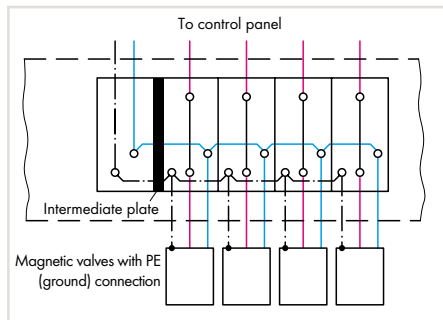
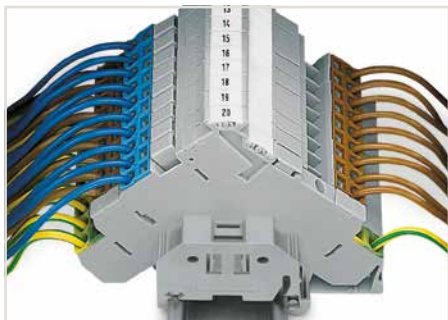
Actuator terminal block (ground connection) paired with a magnetic valve

- \* 12 AWG: THHN, THWN
- ① 400 V/250 V = rated voltage  
6 kV/4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)

- ② Electrical ratings are given by the fuse plug or empty component plug housing.
- ③ For empty component plug housings, see Full Line Catalog, Interface Modules, Volume 4  
x = 12 mm/0.472 inch  
For fuse plugs (281-511), see page 286  
x = 15.5 mm/0.61 inch  
y = 10 mm/0.394 inch
- ④ See application notes for:  
Insulation stop, page 331



Min. mounting distance - terminal blocks to cable duct



Power supply from control panel side

**280 Series Accessories**

Appropriate marking system:  
WMB (see Section 13)

End and intermediate plate, 1 mm thick, for quadruple-deck terminal blocks

orange	<b>280-323</b>	100 (4x25)
gray	<b>280-320</b>	100 (4x25)

Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm<sup>2</sup> "s"  
(0.14 mm<sup>2</sup> "f-st")

white	<b>280-470</b>	200 (8x25)
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Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup>

light gray	<b>280-471</b>	200 (8x25)
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Insulation stop, 5 pcs/strip, 0.75 ... 1 mm<sup>2</sup>

dark gray	<b>280-472</b>	200 (8x25)
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Adjacent jumper, insulated, I<sub>N</sub> = I<sub>N</sub> terminal block

gray	<b>280-402</b>	200 (8x25)
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Screwless end stop, for DIN-35 rail, 6 mm wide

gray	<b>249-116</b>	100 (4x25)
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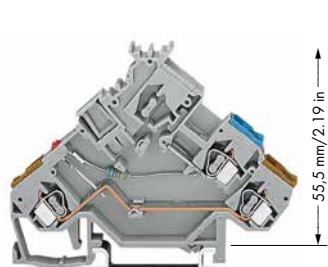
Screwless end stop, for DIN-35 rail, 10 mm wide

gray	<b>249-117</b>	50 (2x25)
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# Actuator LED Terminal Blocks and Actuator LED Terminal Blocks with Ground Connection

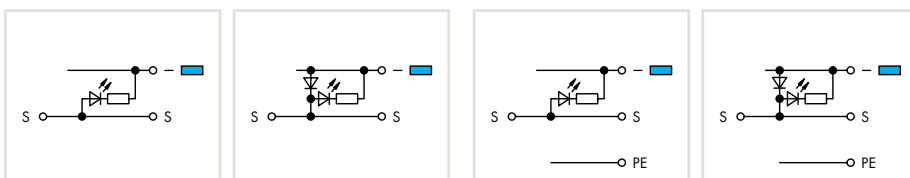
## 2.5 mm<sup>2</sup>, 280 Series

0.08 ... 2.5 mm <sup>2</sup> 24 VDC ① 20 A	28 ... 12 AWG* 24 V, 15 A ② 300 V, 15 A ③	0.08 ... 2.5 mm <sup>2</sup> 24 VDC ① 20 A	28 ... 12 AWG* 24 V, 15 A ② 300 V, 15 A ③
Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch		Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	



280-562/281-434      280-562/281-420

280-572/281-434      280-572/281-420



\* 12 AWG: THHN, THWN

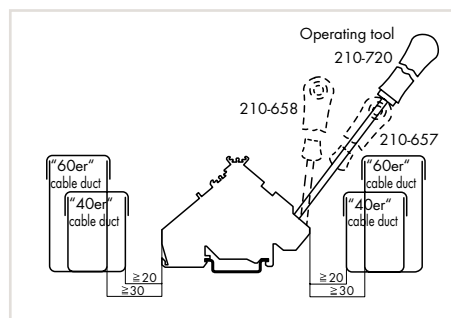
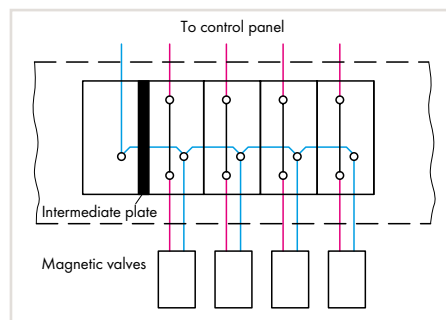
① Other voltages are available upon request.

③ See application notes for: Insulation stop, page 331

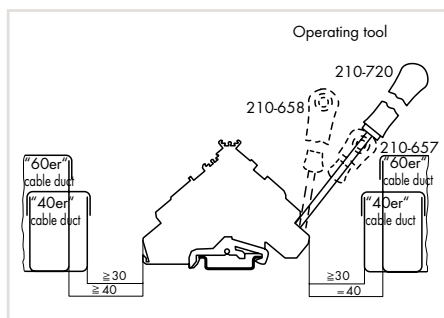


5

Item No.	Pack. Unit	Item No.	Pack. Unit
Actuator LED terminal block, red LED, power consumption: 4.8 mA		Actuator LED terminal block, with ground connection, red LED, power consumption: 4.8 mA	
280-562/281-434	50	280-572/281-434	50
Actuator LED terminal block, with 1N4007 recovery diode, red LED, power consumption: 4.8 mA		Actuator LED terminal block, with ground connection, with 1N4007 recovery diode, red LED, power consumption: 4.8 mA	
280-562/281-420	50	280-572/281-420	50
Item-Specific Accessories		Item-Specific Accessories	
End and intermediate plate, 1 mm thick, for triple-deck terminal blocks		End and intermediate plate, 1 mm thick, for quadruple-deck terminal blocks	
orange	280-321 100 (4x25)	orange	280-323 100 (4x25)
gray	280-319 100 (4x25)	gray	280-320 100 (4x25)
280 Series Accessories			
Appropriate marking system: WMB (see Section 13)			
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")		Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	
white	280-470 200 (8x25)	gray	280-402 200 (8x25)



Min. mounting distance - terminal blocks to cable duct



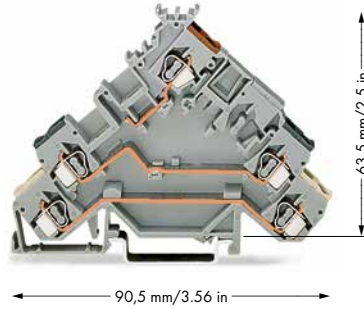
Min. mounting distance - terminal blocks to cable duct



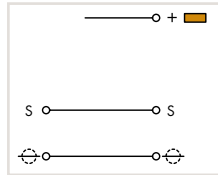
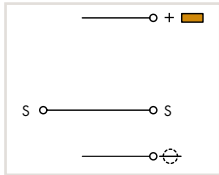
# Actuator Terminal Blocks for Actuators with Shield Connection and Actuators with Shield Conductor Through Contact (e.g., for Thermocouples)

2.5 mm<sup>2</sup>, 280 Series

0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 20 A	28 ... 12 AWG* 300 V, 15 A ② 300 V, 15 A ③	0.08 ... 2.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 20 A	28 ... 12 AWG* 300 V, 15 A ② 300 V, 15 A ③
Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch		Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	



\* 12 AWG: THHN, THWN  
① 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)

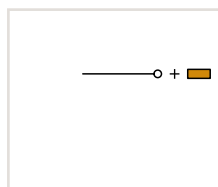
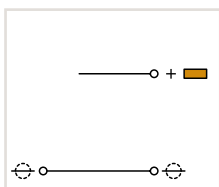
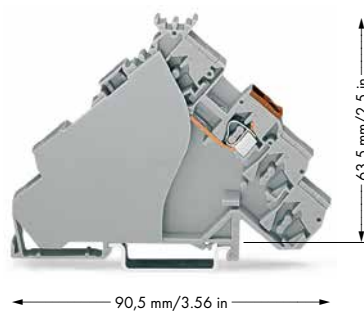
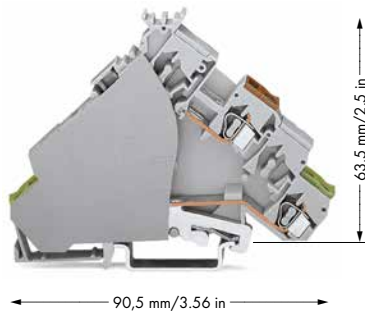


Green-yellow clamping unit = shield connection



White clamping unit = shield conductor through contact

Item No.	Pack. Unit	Item No.	Pack. Unit
Actuator terminal block, with shield connection		Actuator terminal block, with shield conductor through contact	
○ 280-585	50	○ 280-583	50
Item-specific accessories, see page 301		Item-specific accessories, see page 301	

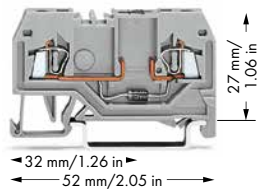


Item No.	Pack. Unit	Item No.	Pack. Unit
Actuator supply terminal block, with shield connection, power supply from control panel side, with end plate		Actuator supply terminal block, power supply from control panel side, with end plate, for actuators with shield conductor through contact	
○ 280-586	50	○ 280-515	20
Item-specific accessories, see page 301		Item-specific accessories, see page 301	

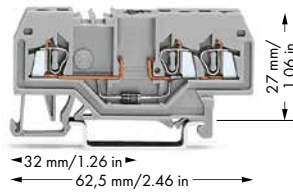
# Diode Terminal Blocks and LED Terminal Blocks

## 1.5 mm<sup>2</sup>, 279 Series

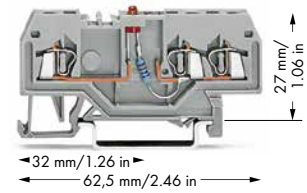
<p>0.08 ... 1.5 mm<sup>2</sup>   28 ... 16 AWG                  U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V                  1N4007 - 0.5 A continuous current                  Terminal block width 4 mm / 0.157 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 1.5 mm<sup>2</sup>   28 ... 16 AWG                  U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V                  1N4007 - 0.5 A continuous current                  Terminal block width 4 mm / 0.157 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 1.5 mm<sup>2</sup>   28 ... 16 AWG                  24 VDC                  I<sub>F</sub> 0.025 A max.                  Terminal block width 4 mm / 0.157 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>
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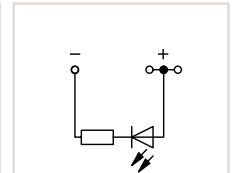
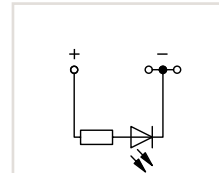
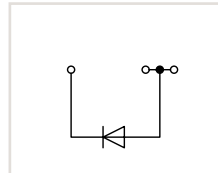
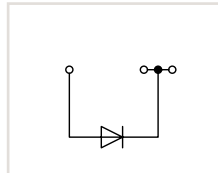
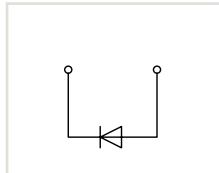
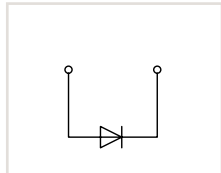
279-915/281-410      279-915/281-411



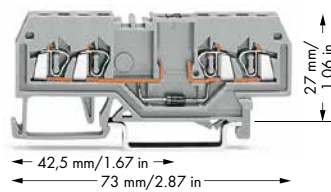
279-673/281-410      279-673/281-411



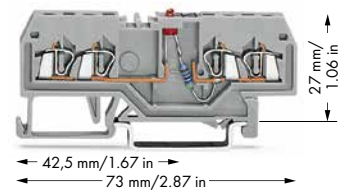
279-674/281-434      279-674/281-413



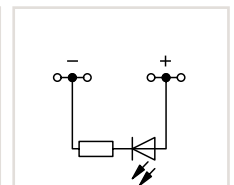
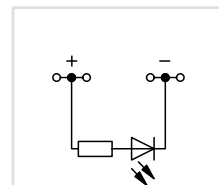
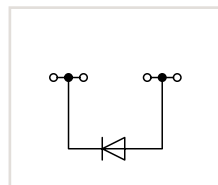
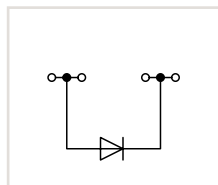
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor diode terminal block, with 1N4007 diode		3-conductor diode terminal block, with 1N4007 diode		3-conductor LED terminal block, with red LED	
○ gray	<b>279-915/281-410</b>	100	○ gray	<b>279-673/281-410</b>	100
○ gray	<b>279-915/281-411</b>	100	○ gray	<b>279-673/281-411</b>	100
				○ gray	<b>279-674/281-434</b>
				○ gray	<b>279-674/281-413</b>



279-815/281-410      279-815/281-411



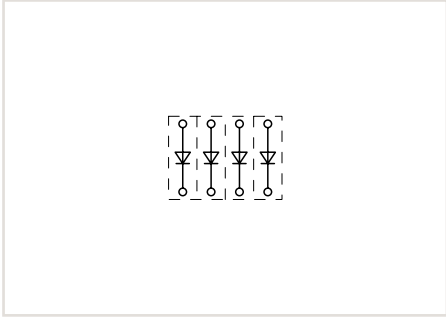
279-809/281-434      279-809/281-413



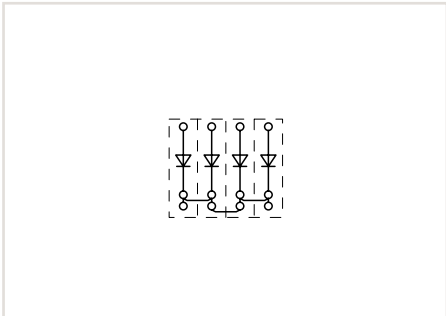
	Item No.	Pack. Unit	Item No.	Pack. Unit	
Through terminal blocks with same profile, see page 218	4-conductor diode terminal block, with 1N4007 diode		4-conductor LED terminal block, with red LED		
	○ gray	<b>279-815/281-410</b>	100	○ gray	<b>279-809/281-434</b>
	○ gray	<b>279-815/281-411</b>	100	○ gray	<b>279-809/281-413</b>

# Diode Terminal Blocks and LED Terminal Blocks

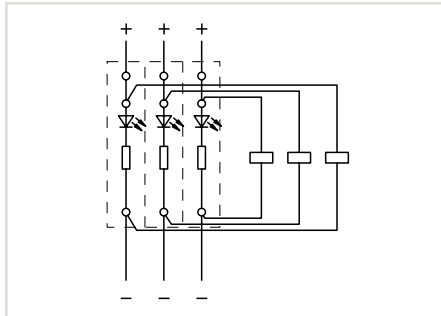
## Circuit Configuration Examples



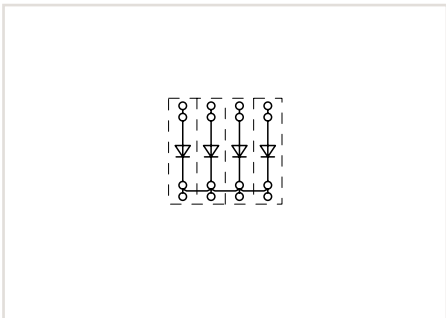
Open diode gates can be created using the following terminal blocks:  
279-915/281-410 or 279-915/281-411



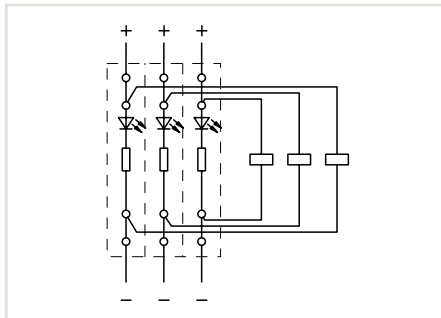
Polarized diode gates with a common cathode can be created using the following terminal blocks:  
279-673/281-410 or 279-673/281-411



Circuit-related voltage indications can be created using the following terminal blocks:  
279-674/281-434 or 279-674/281-413



Polarized diode gates with a common cathode can be created using the following terminal blocks:  
279-815/281-410 or 279-815/281-411



Circuit-related voltage indications can be created using the following terminal blocks:  
279-809/281-434 or 279-809/281-413

### 279 Series Accessories

Appropriate marking system:  
WMB (see Section 13)

	Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")		
	white	<b>279-470</b>	200 (8x25)
	Insulation stop, 5 pcs/strip, 0.25 mm <sup>2</sup>	dark gray	<b>279-471</b> 200 (8x25)
	Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		
	2-way	<b>279-482</b>	200 (8x25)
	3-way	<b>279-483</b>	200 (8x25)
	Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		
	10-way	<b>279-490</b>	50 (2x25)
	Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		
	2-way	<b>279-492</b>	200 (8x25)
	Operating tool, of insulating material		
	2-way	<b>279-432</b>	1
	3-way	<b>279-433</b>	1
	Operating tool, of insulating material		
	10-way	<b>279-440</b>	1

# Diode Terminal Blocks and LED Terminal Blocks

## 2.5 mm<sup>2</sup>, 280 Series

<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 14 AWG                  U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V                  1N4007 - 0.5 A continuous current                  Terminal block width 5 mm / 0.197 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 14 AWG                  U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V                  1N4007 - 0.5 A continuous current                  Terminal block width 5 mm / 0.197 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 14 AWG                  24 VDC                  I<sub>F</sub> 0.025 A max.                  Terminal block width 5 mm / 0.197 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>
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32 mm / 1.26 in  
53 mm / 2.09 in

280-915/281-410

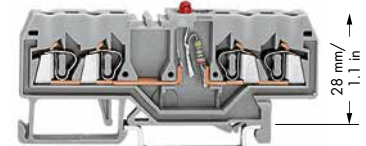
280-915/281-411



42,5 mm / 1.67 in  
75 mm / 2.95 in

280-815/281-410

280-815/281-411

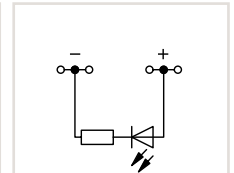
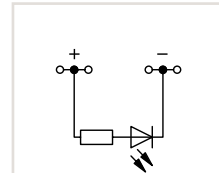
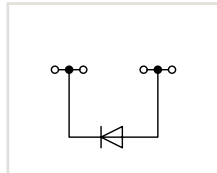
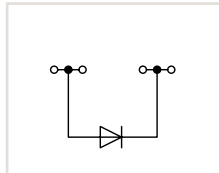
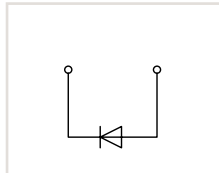
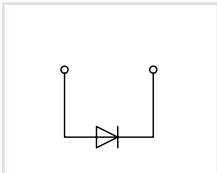


42,5 mm / 1.67 in  
75 mm / 2.95 in

280-809/281-434

280-809/281-413

5



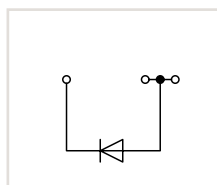
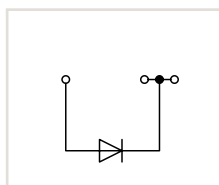
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor diode terminal block, with 1N4007 diode		4-conductor diode terminal block, with 1N4007 diode		4-conductor LED terminal block, with red LED	
○ gray	<b>280-915/281-410</b>	100	○ gray	<b>280-815/281-410</b>	100
○ gray	<b>280-915/281-411</b>	100	○ gray	<b>280-815/281-411</b>	100
				○ gray	<b>280-809/281-434</b>
				○ gray	<b>280-809/281-413</b>



32 mm / 1.26 in  
64 mm / 2.52 in

280-673/281-410

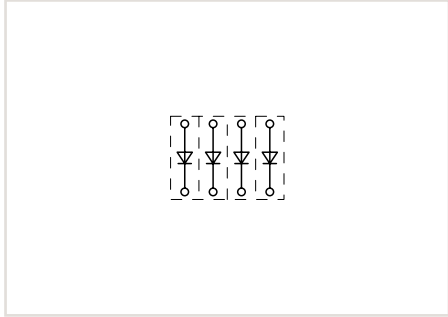
280-673/281-411



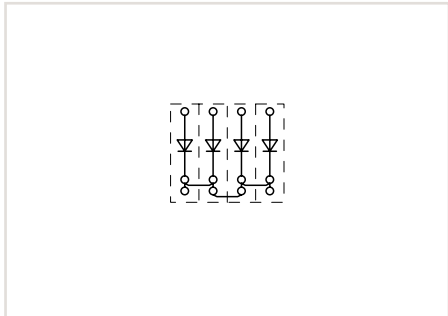
Item No.	Pack. Unit
<b>Through terminal blocks with same profile,</b> see page 220	
3-conductor diode terminal block, with 1N4007 diode	
○ gray	<b>280-673/281-410</b>
○ gray	<b>280-673/281-411</b>

# Diode Terminal Blocks and LED Terminal Blocks

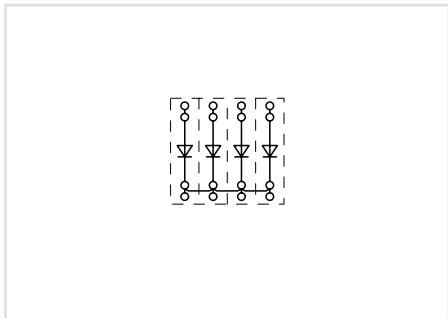
## Circuit Configuration Examples



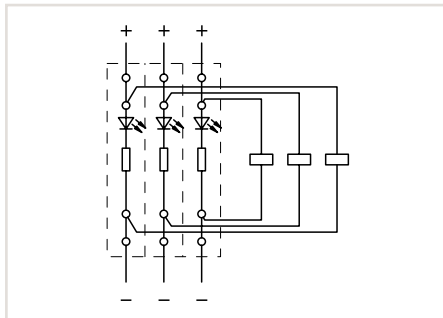
Open diode gates can be created using the following terminal blocks:  
280-915/281-410 or 280-915/281-411



Polarized diode gates with a common cathode can be created using the following terminal blocks:  
280-673/281-410 or 280-673/281-411



Polarized diode gates with a common cathode can be created using the following terminal blocks:  
280-815/281-410 or 280-815/281-411



Circuit-related voltage indications can be created using the following terminal blocks:  
280-809/281-434 or 280-809/281-413




### 280 Series Accessories

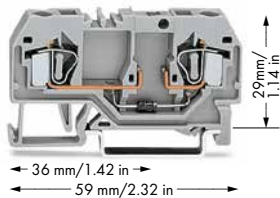
Appropriate marking system:  
WMB (see Section 13)

Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")		white	<b>280-470</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>		light gray	<b>280-471</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>		dark gray	<b>280-472</b>	200 (8x25)
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		2-way	<b>280-482</b>	200 (8x25)
		3-way	<b>280-483</b>	200 (8x25)
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		10-way	<b>280-490</b>	50 (2x25)
Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		2-way	<b>280-492</b>	200 (8x25)
Operating tool, of insulating material		2-way	<b>280-432</b>	1
		3-way	<b>280-433</b>	1
Operating tool, of insulating material		10-way	<b>280-440</b>	1
Wire commoning chain, insulated, 50 connections, I <sub>N</sub> 8 A		black	<b>210-103</b>	1
Wire commoning chain, insulated, 50 connections, I <sub>N</sub> 8 A		blue	<b>210-123</b>	1

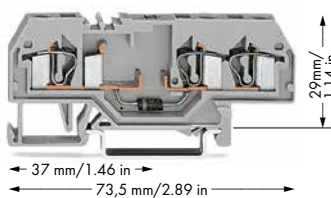
# Diode Terminal Blocks

## 4 mm<sup>2</sup>, 281 Series

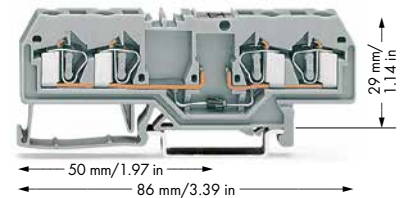
<p>0.08 ... 4 mm<sup>2</sup>   28 ... 12 AWG U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V</p> <p>Terminal block width 6 mm / 0.236 inch   9 ... 10 mm / 0.35 ... 0.39 inch</p>	<p>0.08 ... 4 mm<sup>2</sup>   28 ... 12 AWG U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V</p> <p>Terminal block width 6 mm / 0.236 inch   9 ... 10 mm / 0.35 ... 0.39 inch</p>	<p>0.08 ... 4 mm<sup>2</sup>   28 ... 12 AWG U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V</p> <p>Terminal block width 6 mm / 0.236 inch   9 ... 10 mm / 0.35 ... 0.39 inch</p>
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281-915/281-410      281-915/281-411

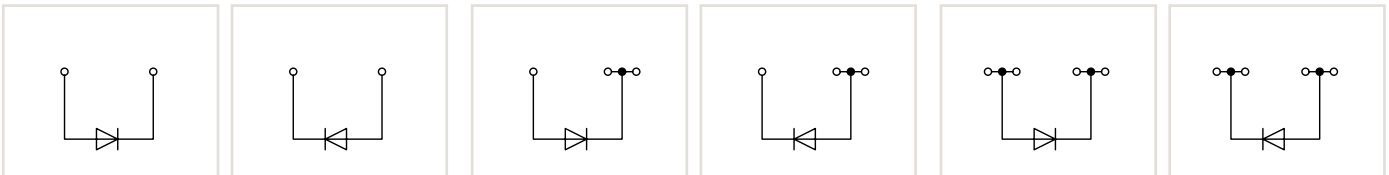


281-673/281-410      281-673/281-411

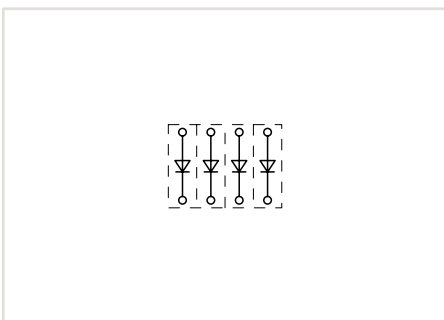


281-665/281-410      281-665/281-411

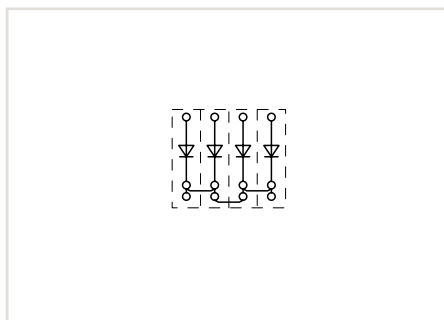
5



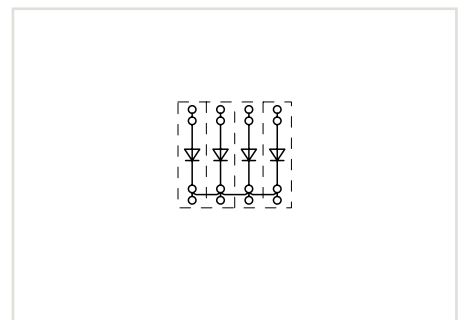
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor diode terminal block, with 1N4007 diode, 0.5 A continuous current		3-conductor diode terminal block, with 1N4007 diode, 0.5 A continuous current		4-conductor diode terminal block, with 1N4007 diode, 0.5 A continuous current	
○ gray <b>281-915/281-410</b>	50	○ gray <b>281-673/281-410</b>	50	○ gray <b>281-665/281-410</b>	50
○ gray <b>281-915/281-411</b>	50	○ gray <b>281-673/281-411</b>	50	○ gray <b>281-665/281-411</b>	50
2-conductor diode terminal block, with 1N5408 diode, 1.5 A continuous current		3-conductor diode terminal block, with 1N5408 diode, 1.5 A continuous current		4-conductor diode terminal block, with 1N5408 diode, 1.5 A continuous current	
○ gray <b>281-915/281-400</b>	50	○ gray <b>281-673/281-400</b>	50	○ gray <b>281-665/281-400</b>	50
○ gray <b>281-915/281-401</b>	50	○ gray <b>281-673/281-401</b>	50	○ gray <b>281-665/281-401</b>	50
<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>	
Through <b>281-901</b>	Page 226	Through <b>281-681</b>	Page 226	Through <b>281-652</b>	Page 226



Open diode gates can be created using the following terminal blocks:  
 281-915/281-410 or 281-915/281-411  
 281-915/281-400 or 281-915/281-401











Polarized diode gates with a common cathode can be created using the following terminal blocks:  
 281-673/281-410 or 281-673/281-411  
 281-673/281-400 or 281-673/281-401



Polarized diode gates with a common anode can be created using the following terminal blocks:  
 281-665/281-410 or 281-665/281-411  
 281-665/281-400 or 281-665/281-401

## Accessories for 280 Series

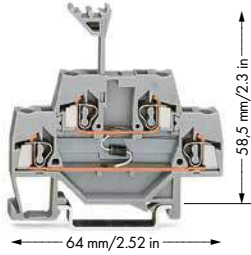
5

<b>281 Series Accessories</b>			
Appropriate marking system: WMB (see Section 13)			
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")		white	<b>281-470</b> 200 (8x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>		light gray	<b>281-471</b> 200 (8x25)
Insulation stop, 5 pcs/strip, 0.25 ... 1.5 mm <sup>2</sup>		dark gray	<b>281-472</b> 200 (8x25)
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
	2-way	<b>281-482</b>	100 (4x25)
	3-way	<b>281-483</b>	100 (4x25)
	5-way	<b>281-485</b>	100 (4x25)
	10-way	<b>281-490</b>	50 (2x25)
Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
	2-way	<b>281-492</b>	100 (4x25)
Operating tool, of insulating material			
	2-way	<b>280-432</b>	1
	3-way	<b>280-433</b>	1
	5-way	<b>281-440</b>	1
Wire commoning chain, insulated, 50 connections, I <sub>N</sub> 8 A			
	black	<b>210-103</b>	1
Wire commoning chain, insulated, 50 connections, I <sub>N</sub> 8 A			
	blue	<b>210-123</b>	1

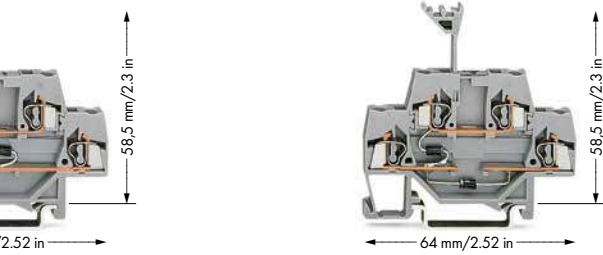
# Double-Deck Diode Terminal Blocks and LED Terminal Blocks

## 2.5 mm<sup>2</sup>, 280 Series

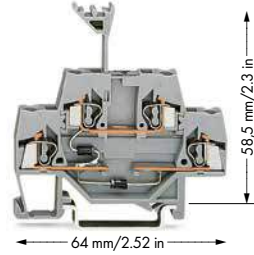
<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 14 AWG                  U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V                  1N4007 - 0.5 A continuous current                  Terminal block width 5 mm / 0.197 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 14 AWG                  U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V                  1N4007 - 0.5 A continuous current                  Terminal block width 5 mm / 0.197 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 14 AWG                  24 VDC                  I<sub>F</sub> 0.025 A max.                  Terminal block width 5 mm / 0.197 inch                  8 ... 9 mm / 0.31 ... 0.35 inch</p>
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280-940/281-410



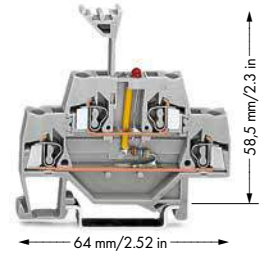
280-940/281-411



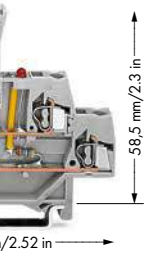
280-941/281-492



280-941/281-491

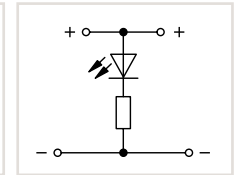
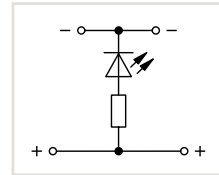
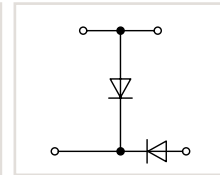
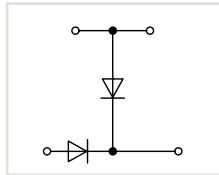
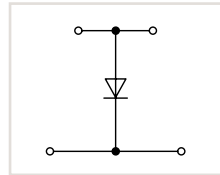
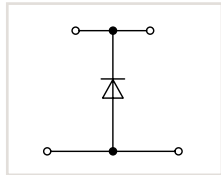


280-943/281-434

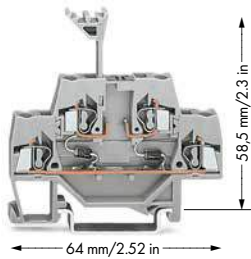


280-943/281-413

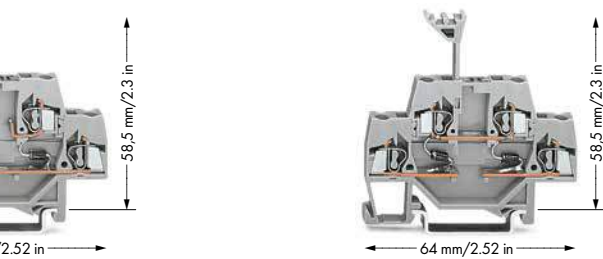
5



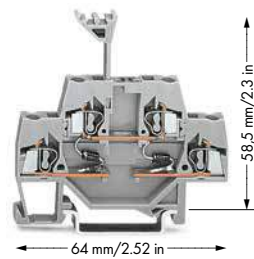
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck diode terminal block, with 1N4007 diode		Double-deck diode terminal block, with two 1N4007 diodes		Double-deck LED terminal block, with red LED	
gray	280-940/281-410	50	gray	280-941/281-492	50
gray	280-940/281-411	50	gray	280-941/281-491	50
				gray	280-943/281-434
				gray	280-943/281-413



280-942/281-487



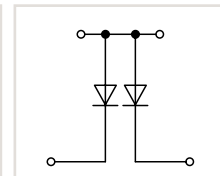
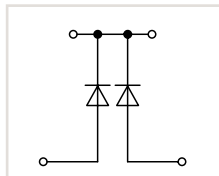
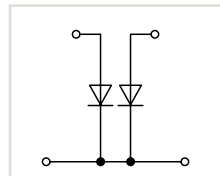
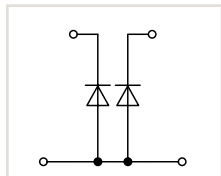
280-942/281-488



280-941/281-489



280-941/281-490

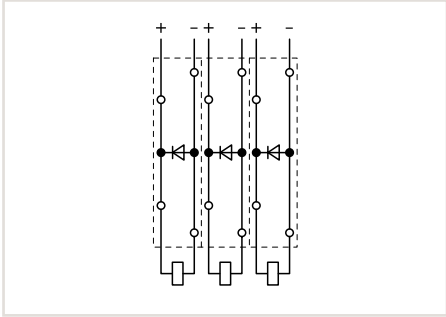


Item No.	Pack. Unit	Item No.	Pack. Unit	
Double-deck diode terminal block, with two 1N4007 diodes		Double-deck diode terminal block, with two 1N4007 diodes		Through terminal blocks with same profile, see page 240
gray	280-942/281-487	50	gray	
gray	280-942/281-488	50	gray	280-941/281-490

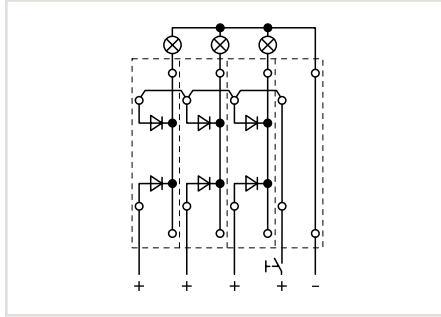


# Double-Deck Diode Terminal Blocks and LED Terminal Blocks

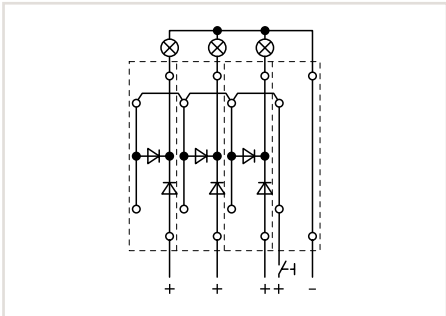
## Circuit Configuration Examples



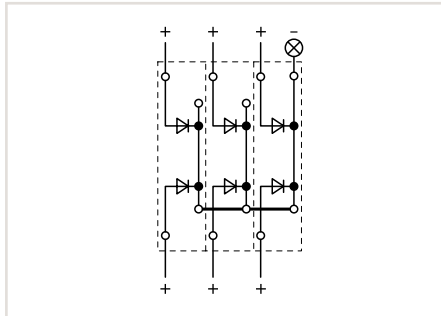
Recovery diodes can be created using the following terminal blocks:  
280-940/281-410 or 280-940/281-411



Lamp test circuits can be created using the following terminal blocks:  
280-942/281-487 or 280-942/281-488

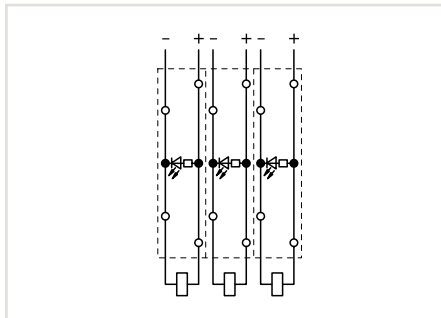


Lamp test circuits can be created using the following terminal blocks:  
280-941/281-492 or 280-941/281-491



Collective fault signals can be created using the following terminal blocks:  
280-941/281-489 or 280-941/281-490















Double-deck diode terminal blocks were specifically developed for custom diode circuits, such as lamp test and collective fault signal circuits. Using LED terminal blocks, monitoring units can be designed, e.g., for control and operating circuits. These terminal blocks provide high-density wiring in a width of just 5 mm.



Circuit-related voltage indications can be created using the following terminal blocks:  
280-943/281-434 or 280-943/281-413

### 280 Series Accessories

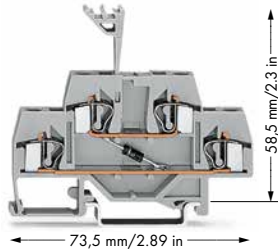
Appropriate marking systems  
(see Section 13)

End and intermediate plate, 2.5 mm thick			
	orange	<b>280-341</b>	100 (4x25)
	gray	<b>280-340</b>	100 (4x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")			
	white	<b>280-470</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
	light gray	<b>280-471</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>			
	dark gray	<b>280-472</b>	200 (8x25)
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
	2-way	<b>280-482</b>	200 (8x25)
	3-way	<b>280-483</b>	200 (8x25)
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
	10-way	<b>280-490</b>	50 (2x25)
Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
	2-way	<b>280-492</b>	200 (8x25)
Operating tool, of insulating material			
	2-way	<b>280-432</b>	1
	3-way	<b>280-433</b>	1
Operating tool, of insulating material			
	10-way	<b>280-440</b>	1
Wire commoning chain, insulated, 50 connections, I <sub>N</sub> 8 A			
	black	<b>210-103</b>	1
Wire commoning chain, insulated, 50 connections, I <sub>N</sub> 8 A			
	blue	<b>210-123</b>	1

# Double-Deck Diode Terminal Blocks and LED Terminal Blocks

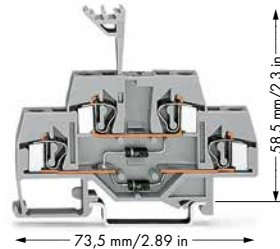
## 4 mm<sup>2</sup>, 281 Series

<p>0.08 ... 4 mm<sup>2</sup>   28 ... 12 AWG                  U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V                  1N4007 - 0.5 A continuous current                  Terminal block width 6 mm / 0.236 inch                  9 ... 10 mm / 0.35 ... 0.39 inch</p>	<p>0.08 ... 4 mm<sup>2</sup>   28 ... 12 AWG                  U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V                  1N4007 - 0.5 A continuous current                  Terminal block width 6 mm / 0.236 inch                  9 ... 10 mm / 0.35 ... 0.39 inch</p>	<p>0.08 ... 4 mm<sup>2</sup>   28 ... 12 AWG                  24 VDC                  I<sub>F</sub> 0.025 A max.                  Terminal block width 6 mm / 0.236 inch                  9 ... 10 mm / 0.35 ... 0.39 inch</p>
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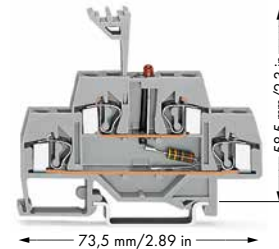
281-633/281-410

281-633/281-411



281-635/281-492

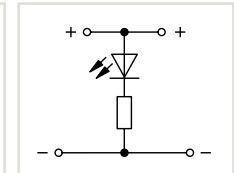
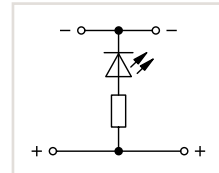
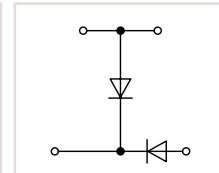
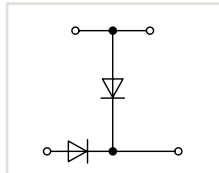
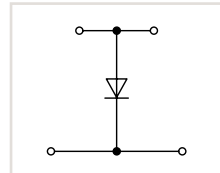
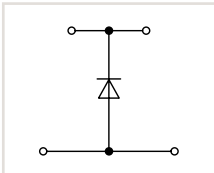
281-635/281-491



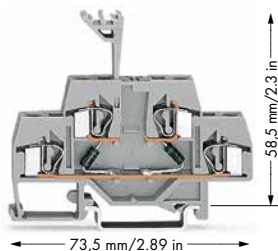
281-634/281-434

281-634/281-413

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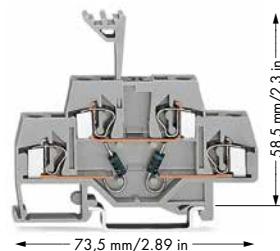


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck diode terminal block, with 1N4007 diode		Double-deck diode terminal block, with two 1N4007 diodes		Double-deck LED terminal block, with red LED	
gray	281-633/281-410	50	gray	281-635/281-492	50
gray	281-633/281-411	50	gray	281-635/281-491	50
gray	281-634/281-434	50	gray	281-634/281-413	50



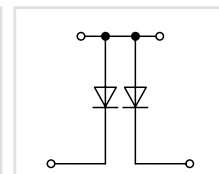
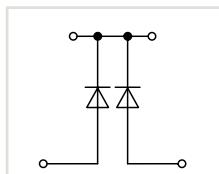
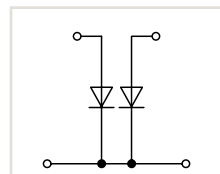
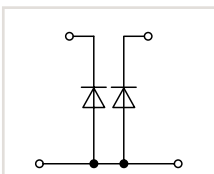
281-636/281-487

281-636/281-488



281-635/281-489

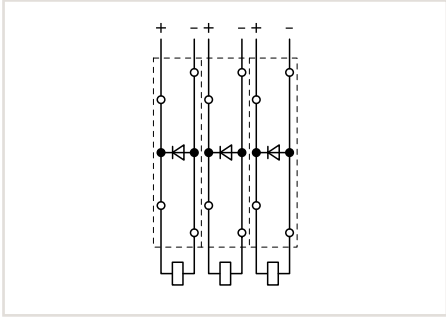
281-635/281-490



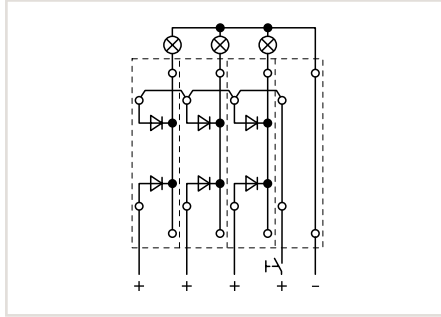
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck diode terminal block, with two 1N4007 diodes		Double-deck diode terminal block, with two 1N4007 diodes		Through terminal blocks with same profile, see page 244	
gray	281-636/281-487	50	gray	281-635/281-489	50
gray	281-636/281-488	50	gray	281-635/281-490	50

# Double-Deck Diode Terminal Blocks and LED Terminal Blocks

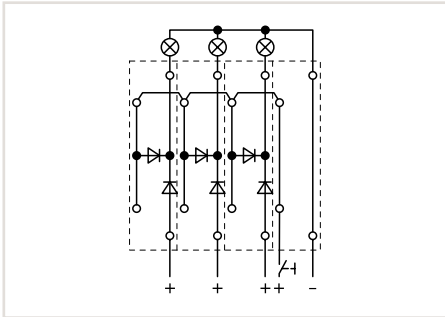
## Circuit Configuration Examples



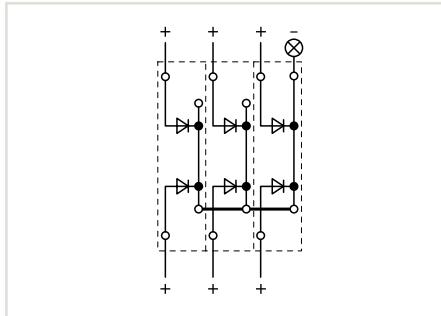
Recovery diodes can be created using the following terminal blocks:  
281-633/281-410 or 281-633/281-411



Lamp test circuits can be created using the following terminal blocks:  
281-636/281-487 or 281-636/281-488

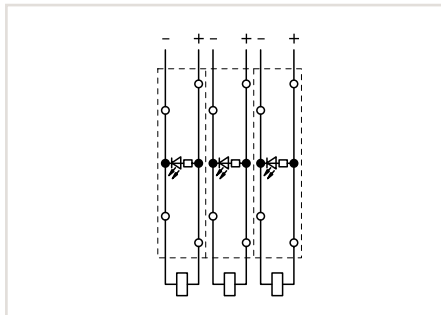


Lamp test circuits can be created using the following terminal blocks:  
281-635/281-492 or 281-635/281-491



Collective fault signals can be created using the following terminal blocks:  
281-635/281-489 or 281-635/281-490










Double-deck diode terminal blocks were specifically developed for custom diode circuits, such as lamp test and collective fault signal circuits. Using LED terminal blocks, monitoring units can be designed, e.g., for control and operating circuits. These terminal blocks provide high-density wiring in a width of just 6 mm.



Circuit-related voltage indications can be created using the following terminal blocks:  
280-634/281-434 or 280-634/281-413

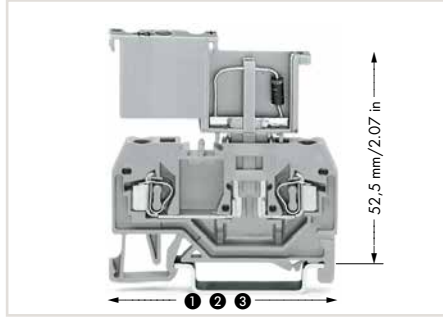
### 281 Series Accessories

Appropriate marking system:  
WMB (see Section 13)

End and intermediate plate, 2.5 mm thick			
	orange	<b>281-341</b>	100 (4x25)
	gray	<b>281-340</b>	100 (4x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")			
	white	<b>281-470</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
	light gray	<b>281-471</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.25 ... 1.5 mm <sup>2</sup>			
	dark gray	<b>281-472</b>	200 (8x25)
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
	2-way	<b>281-482</b>	100 (4x25)
	3-way	<b>281-483</b>	100 (4x25)
	5-way	<b>281-485</b>	100 (4x25)
	10-way	<b>281-490</b>	50 (2x25)
Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
	2-way	<b>281-492</b>	100 (4x25)
Operating tool, of insulating material			
	2-way	<b>280-432</b>	1
	3-way	<b>280-433</b>	1
	5-way	<b>281-440</b>	1
Wire commoning chain, insulated, 50 connections, I <sub>N</sub> 8 A			
	black	<b>210-103</b>	1
Wire commoning chain, insulated, 50 connections, I <sub>N</sub> 8 A			
	blue	<b>210-123</b>	1

# Pluggable Diode Modules on Carrier Terminal Blocks, 2.5 mm<sup>2</sup> 280 Series

Diode module  
with 1N4007 diode  
 $U_N$  250 V,  $U_{RM}$  1000 V  
 $I_N$  0.5 A  
Plug width 5 mm / 0.197 inch



These diode modules are ideal for custom diode circuits (e.g., lamp test and collective fault signal circuits) and offer the following advantages:

- Separation into functional and wiring levels
- Polarized switching direction
- Quick and easy module replacement
- Terminal blocks/modules provide high-density wiring in a width of just 5 mm

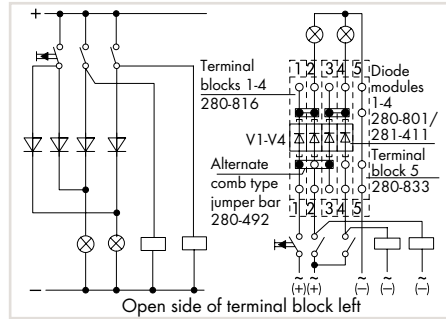
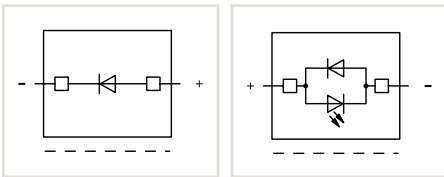
\* 12 AWG: THHN, THWN

- 1 Length of 280-916: 53 mm / 2.09 inch  
2-conductor carrier terminal block, front-entry
- 2 Length of 280-610: 64 mm / 2.52 inch  
3-conductor carrier terminal block, front-entry
- 3 Length of 280-816: 75 mm / 2.95 inch  
4-conductor carrier terminal block, front-entry
- 4 See application notes for:  
Insulation stop, page 331  
Comb-style jumper bar, page 332  
Operating tool, page 332

5

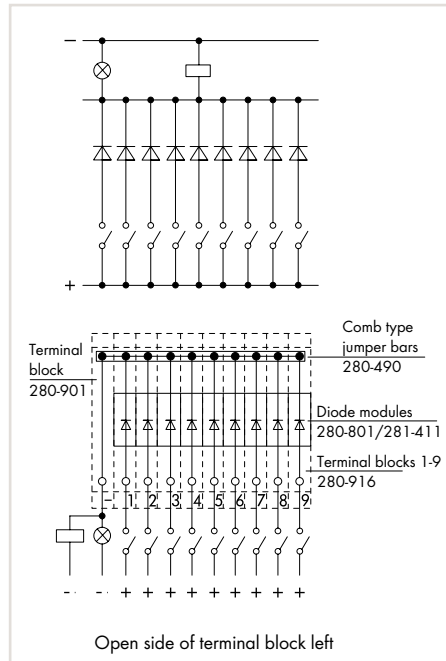
280-801/281-411

280-801/281-420



Lamp test circuit with blocking diodes

For terminal blocks with side marking, see [www.wagocatalog.com](http://www.wagocatalog.com)



Diode gate for collective fault indication

Item No.	Pack. Unit
Diode module, with 1N4007 diode, 5 mm wide	
● gray 280-801/281-411	100
Diode module, with 1N4007 recovery diode, red LED, 5 mm wide, gray	
● 24 VDC 280-801/281-420	100
● 48 VDC 280-801/281-421	100

## Carrier Term. Blocks and Accessories

Appropriate marking system:  
WMB (see Section 13)

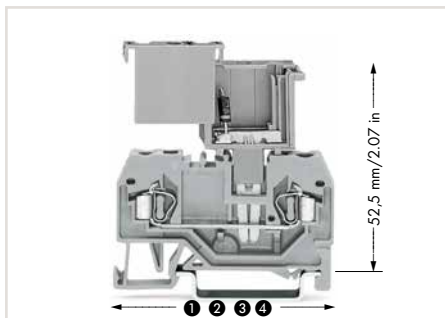
2-conductor carrier terminal block,	
1	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG* Terminal block width 5 mm / 0.197 inch gray 280-916 100
End and intermediate plate, 2.5 mm thick	
	orange 280-309 100 (4x25) gray 280-308 100 (4x25)
3-conductor carrier terminal block,	
2	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG* Terminal block width 5 mm / 0.197 inch gray 280-610 100
End and intermediate plate, 2.5 mm thick	
	orange 280-326 100 (4x25) gray 280-324 100 (4x25)
4-conductor carrier terminal block,	
3	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG* Terminal block width 5 mm / 0.197 inch gray 280-816 100
End and intermediate plate, 2.5 mm thick	
	orange 280-315 100 (4x25) gray 280-314 100 (4x25)

## Accessories

Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")	
4	white 280-470 200 (8x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>	
4	light gray 280-471 200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>	
4	dark gray 280-472 200 (8x25)
Comb-style jumper bar, insulated, $I_N = I_N$ terminal block	
4	2-way 280-482 200 (8x25) 3-way 280-483 200 (8x25)
Comb-style jumper bar, insulated, $I_N = I_N$ terminal block	
	10-way 280-490 50 (2x25)
Alternate comb-style jumper bar, insulated, $I_N = I_N$ terminal block	
	2-way 280-492 200 (8x25)
Operating tool, of insulating material	
	2-way 280-432 1 3-way 280-433 1
Operating tool, of insulating material	
	10-way 280-440 1
Wire commoning chain, insulated, 50 connections, $I_N$ 8 A	
	black 210-103 1
Wire commoning chain, insulated, 50 connections, $I_N$ 8 A	
	blue 210-123 1

# Pluggable Diode Modules on Through Terminal Blocks, 2.5 mm<sup>2</sup> 280 Series

**Diode module with 1N4007 diode**  
 $U_N$  250 V,  $U_{RM}$  1000 V  
 $I_N$  0.5 A  
 Plug width 10 mm / 0.394 inch



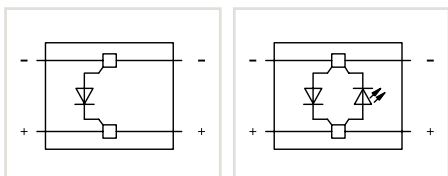
Similar to push-in type jumpers, these diode modules are simply pushed into the current bar's contact slots of two adjacent through terminal blocks, providing the following advantages:

- Compatibility with all 280 Series Through Terminal Blocks
- Easy retrofits for existing systems

- \* 12 AWG: THHN, THWN
- Length of 280-901: 53 mm / 2.09 inch  
2-conductor through terminal block, front-entry
  - Length of 280-681: 64 mm / 2.52 inch  
3-conductor through terminal block, front-entry
  - Length of 280-833: 75 mm / 2.95 inch  
4-conductor through terminal block, front-entry
  - Length of 280-101: 42.5 mm / 1.67 inch  
2-conductor through terminal block, side-entry
  - See application notes for:  
Insulation stop, page 331  
Comb-style jumper bar, page 332  
Operating tool, page 332

280-803/281-411

280-803/281-420



Additional advantages:

- Separation into functional and wiring levels
- Fast replacement of other functional units

For terminal blocks with side marking, see [www.wagocatalog.com](http://www.wagocatalog.com)

## Accessories

2-conductor through terminal block,  
 ④ 0.08 ... 2.5 mm<sup>2</sup> / 28 ... 12 AWG\*  
 Terminal block width 5 mm / 0.197 inch  
 gray **280-101** 100

End and intermediate plate, 2.5 mm thick  
 orange **280-302** 100 (4x25)  
 gray **280-301** 100 (4x25)

Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm<sup>2</sup> "s"  
 (0.14 mm<sup>2</sup> "f-st")  
 ⑤ white **280-470** 200 (8x25)

Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup>  
 ⑤ light gray **280-471** 200 (8x25)

Insulation stop, 5 pcs/strip, 0.75 ... 1 mm<sup>2</sup>  
 ⑤ dark gray **280-472** 200 (8x25)

Adjacent jumper, insulated,  $I_N = I_N$  terminal block  
 gray **280-402** 200 (8x25)

Wire commoning chain, insulated, 50 connections,  $I_N$  8 A  
 black **210-103** 1

Wire commoning chain, insulated, 50 connections,  $I_N$  8 A  
 blue **210-123** 1

Item No.	Pack. Unit
Diode module, with 1N4007 diode, 10 mm wide	
gray <b>280-803/281-411</b>	50
Diode module, with 1N4007 recovery diode, 10 mm wide, gray	
24 VDC <b>280-803/281-420</b>	50
48 VDC <b>280-803/281-421</b>	50

### Through Term. Blocks and Accessories

Appropriate marking system:  
WMB (see Section 13)

2-conductor through terminal block,  
 ① 0.08 ... 2.5 mm<sup>2</sup> / 28 ... 12 AWG\*  
 Terminal block width 5 mm / 0.197 inch  
 gray **280-901** 100

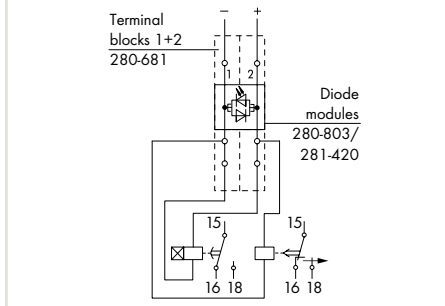
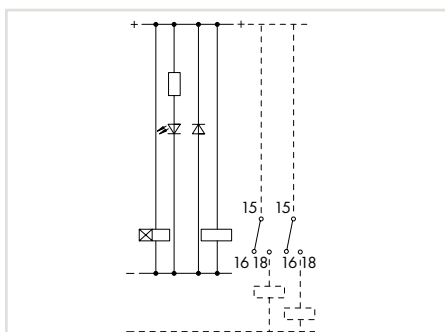
End and intermediate plate, 2.5 mm thick  
 orange **280-309** 100 (4x25)  
 gray **280-308** 100 (4x25)

3-conductor through terminal block,  
 ② 0.08 ... 2.5 mm<sup>2</sup> / 28 ... 12 AWG\*  
 Terminal block width 5 mm / 0.197 inch  
 gray **280-681** 100

End and intermediate plate, 2.5 mm thick  
 orange **280-326** 100 (4x25)  
 gray **280-324** 100 (4x25)

4-conductor through terminal block,  
 ③ 0.08 ... 2.5 mm<sup>2</sup> / 28 ... 12 AWG\*  
 Terminal block width 5 mm / 0.197 inch  
 gray **280-833** 100

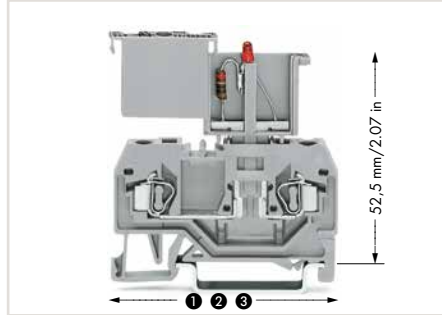
End and intermediate plate, 2.5 mm thick  
 orange **280-315** 100 (4x25)  
 gray **280-314** 100 (4x25)



Free-wheeling diode and voltage check

# Pluggable LED and Neon Indicator Modules on Carrier Terminal Blocks, 2.5 mm<sup>2</sup> 280 Series

**LED module**  
 $I_N$  5.6 mA;  $I_F$  25 mA  
**Neon indicator module**  
 $I_N$  0.5 mA  
 Plug width 5 mm / 0.197 inch



The monitoring of control and operating current circuits with LED modules on rail-mount terminal blocks provides several advantages:

- No additional cost for assembly and wiring
- Separation into functional and wiring levels
- Modules can be replaced quickly by other types of modules

- ❶ Length of 280-916: 53 mm / 2.09 inch  
2-conductor carrier terminal block, front-entry
- ❷ Length of 280-610: 64 mm / 2.52 inch  
3-conductor carrier terminal block, front-entry
- ❸ Length of 280-816: 75 mm / 2.95 inch  
4-conductor carrier terminal block, front-entry

5

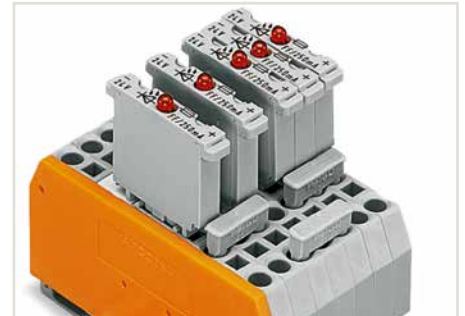
Item No.	Pack. Unit
LED module, with red LED, 5 mm wide, gray	
○ 24 VDC <b>280-801/281-413</b>	100
○ 48 VDC <b>280-801/281-414</b>	100
LED module, with red LED, 5 mm wide, gray	
○ 24 V AC/DC <b>280-801/281-415</b>	100
○ 48 V AC/DC <b>280-801/281-416</b>	100
Neon indicator module, 5 mm wide, gray	
○ 120 V AC/DC <b>280-801/281-418</b>	100
○ 230 V AC/DC <b>280-801/281-417</b>	100
Carrier terminal blocks, see page 322	



Additional advantages:

- Polarized switching direction
- Terminal blocks/modules provide high-density wiring in a width of just 5 mm

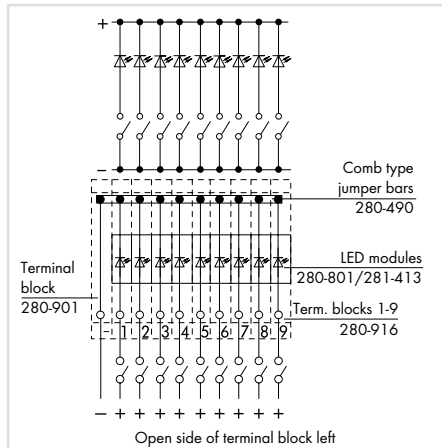
For terminal blocks with side marking, see [www.wagocatalog.com](http://www.wagocatalog.com)



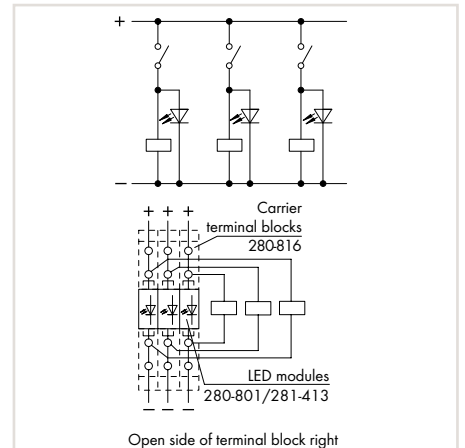
Carrier terminal blocks with component plugs, alternate comb-style jumper bars, 3-way, comb-style jumper bar

## Circuit Diagrams

LED module	24 VDC <b>280-801/281-413</b>
	48 VDC <b>280-801/281-414</b>
LED module	24 V AC/DC <b>280-801/281-415</b>
	48 V AC/DC <b>280-801/281-416</b>
Neon indicator module	120 V AC/DC <b>280-801/281-418</b>
	230 V AC/DC <b>280-801/281-417</b>



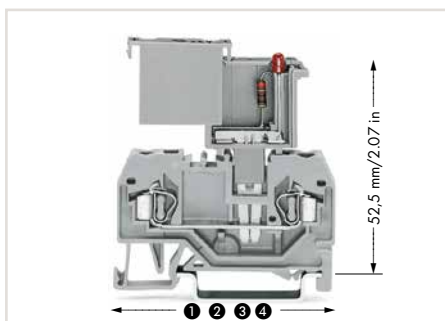
LED gate for collective fault indication - individual display



Voltage control assigned to current circuits

# Pluggable LED Modules on Through Terminal Blocks, 2.5 mm<sup>2</sup> 280 Series

**LED module**  
 $I_N$  5.6 mA;  $I_f$  25 mA  
**Neon indicator module**  
 $I_N$  0.5 mA  
 Plug width 10 mm / 0.394 inch



Similar to push-in type jumpers, these LED and neon indicator modules are simply pushed into the current bar's contact slots of two adjacent through terminal blocks, providing the following advantages:

- Compatibility with all 280 Series Through Terminal Blocks
- Easy retrofits for existing systems

- ❶ Length of 280-901: 53 mm / 2.09 inch  
2-conductor through terminal block, front-entry
- ❷ Length of 280-681: 64 mm / 2.52 inch  
3-conductor through terminal block, front-entry
- ❸ Length of 280-833: 75 mm / 2.95 inch  
4-conductor through terminal block, front-entry
- ❹ Length of 280-101: 42.5 mm / 1.67 inch  
2-conductor through terminal block, side-entry

Item No.	Pack. Unit
LED module, with red LED, 10 mm wide, gray	
○ 24 VDC <b>280-803/281-413</b>	50
○ 48 VDC <b>280-803/281-414</b>	50
LED module, with red LED, 10 mm wide, gray	
○ 24 V AC/DC <b>280-803/281-415</b>	50
○ 48 V AC/DC <b>280-803/281-416</b>	50
Neon indicator module, 10 mm wide, gray	
○ 120 V AC/DC <b>280-803/281-418</b>	50
○ 230 V AC/DC <b>280-803/281-417</b>	50
Through terminal blocks, see page 323	



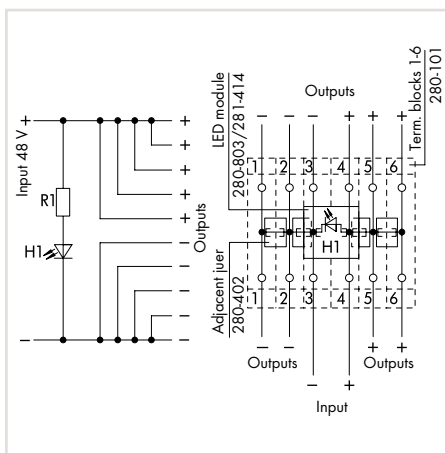
Additional advantages:

- Separation into functional and wiring levels
- Fast replacement of other functional units

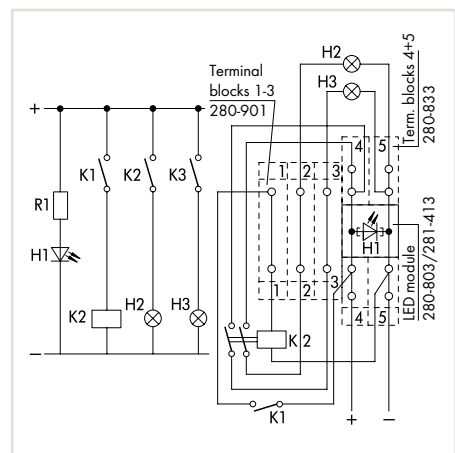
For terminal blocks with side marking, see [www.wagocatalog.com](http://www.wagocatalog.com)

### Circuit Diagrams

	24 VDC <b>280-803/281-413</b>
	48 VDC <b>280-803/281-414</b>
	24 V AC/DC <b>280-803/281-415</b>
	48 V AC/DC <b>280-803/281-416</b>
	120 V AC/DC <b>280-803/281-418</b>
	230 V AC/DC <b>280-803/281-417</b>



Multiple outputs with indicator lamp



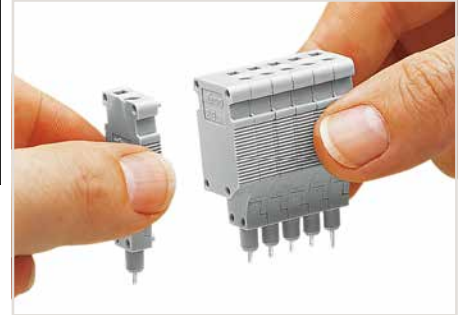
Control unit



# L-Type Test Plug Modules for Testing Rail-Mount Terminal Blocks, Terminal Block Width 5 mm or 6 mm, via Conductor Wire Opening

## 249 Series

Test plug module for rail-mount terminal blocks 0.08 ... 1.5 mm <sup>2</sup>   28 ... 16 AWG Test voltage 630 V   Test current 6 A Module width 5 mm / 0.197 inch These test plugs are not suitable for Ex e applications.	Test plug module for rail-mount terminal blocks 0.08 ... 2.5 mm <sup>2</sup>   28 ... 14 AWG Test voltage 630 V   Test current 6 A Module width 6 mm / 0.236 inch These test plugs are not suitable for Ex e applications.
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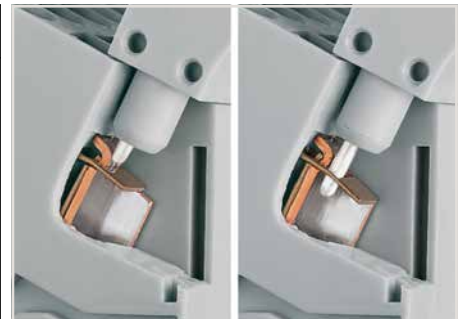


Snapping test plug and spacer modules together to assemble a multipole test plug module (max. 10 poles).



5

Item No.	Pack. Unit	Item No.	Pack. Unit
L-type test plug module, with spring-loaded contact pin, center module, snaps together Module width 5 mm ○ gray <b>249-141</b>	100 (4x25)	L-type test plug module, with spring-loaded contact pin, center module, snaps together Module width 6 mm ○ gray <b>249-144</b>	100 (4x25)
L-type end test plug module, with rigid contact pin, end module, snaps together Module width 5 mm ○ gray <b>249-142</b>	100 (4x25)	L-type end test plug module, with rigid contact pin, end module, snaps together Module width 6 mm ○ gray <b>249-145</b>	100 (4x25)
L-type spacer module, snaps together, bridges wired terminal block Module width 5 mm ○ gray <b>249-143</b>	100 (4x25)	L-type spacer module, snaps together, bridges wired terminal block Module width 6 mm ○ gray <b>249-146</b>	100 (4x25)

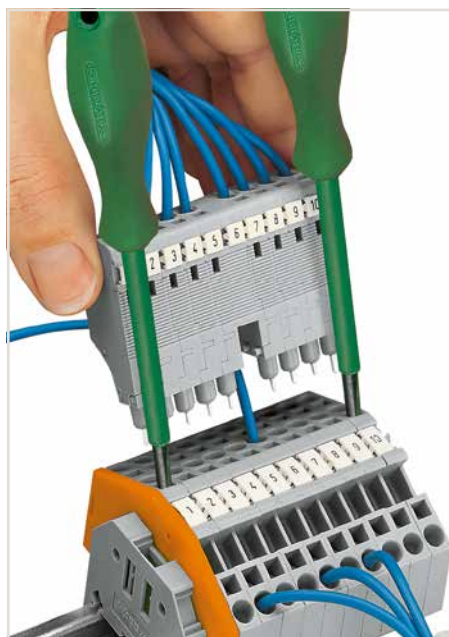


A = Center module with a spring-loaded contact pin  
B = End module with a rigid contact pin

### Accessories for L-Type Test Plug Modules

Appropriate marking systems: WMB/Mini-WSB/ Mini-WSB Inline (see Section 13)

WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b>	5	Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers plain <b>248-501</b>	5
--	---	---	---



For easily testing terminal block assemblies, WAGO's L-type test plug modules with CAGE CLAMP® may be used on unwired terminal blocks. For testing, the module is assembled with spring-loaded pins in the center positions and rigid pin modules at the ends. The terminal blocks corresponding to the end position modules are opened using operating tools (as shown) - these rigid pins are then held in place by the CAGE CLAMP®. The intermediate pins are spring-loaded and make contact with the current bars of the unwired clamping units. Clamping units needing to remain wired may be skipped by assembling a spacer in the test plug module.

**Notice:**  
Mating direction must be observed (see picture).



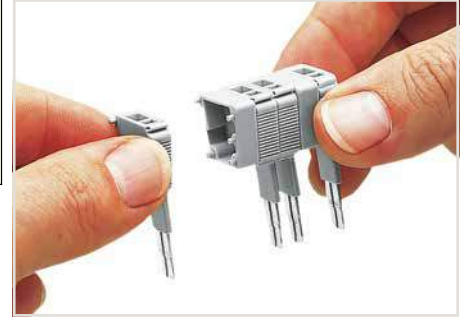
CAGE CLAMP® connection  
0.08 ... 1.5 mm<sup>2</sup>; 5 mm wide module  
0.08 ... 2.5 mm<sup>2</sup>; 6 mm wide module



# B-Type Test Plug Modules for Testing Rail-Mount Terminal Blocks, Terminal Block Width 5 mm or 6 mm, via Jumper Contact Slot in Current Bar

## 249 Series

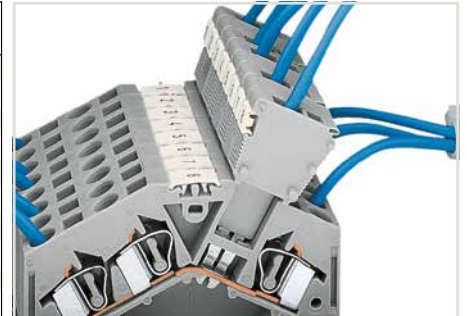
Test plug module for rail-mount terminal blocks 0.08 ... 1.5 mm <sup>2</sup>   28 ... 16 AWG Test voltage 630 V   Test current 10 A Module width 5 mm / 0.197 inch These test plugs are not suitable for Ex e applications.	Test plug module for rail-mount terminal blocks 0.08 ... 2.5 mm <sup>2</sup>   28 ... 14 AWG Test voltage 630 V   Test current 10 A Module width 6 mm / 0.236 inch These test plugs are not suitable for Ex e applications.
---	---



Snapping test plug and spacer modules together to assemble a multipole test plug module (max. 10 poles).



Item No.	Pack. Unit	Item No.	Pack. Unit
B-type test plug module, snaps together Module width 5 mm		B-type test plug module, snaps together Module width 6 mm	
○ gray	<b>249-106</b> 100 (4x25)	○ gray	<b>249-147</b> 100 (4x25)
B-type spacer module, snaps together, bridges commoned terminal blocks Module width 5 mm		B-type spacer module, snaps together, bridges commoned terminal blocks Module width 6 mm	
○ gray	<b>249-107</b> 100 (4x25)	○ gray	<b>249-148</b> 100 (4x25)

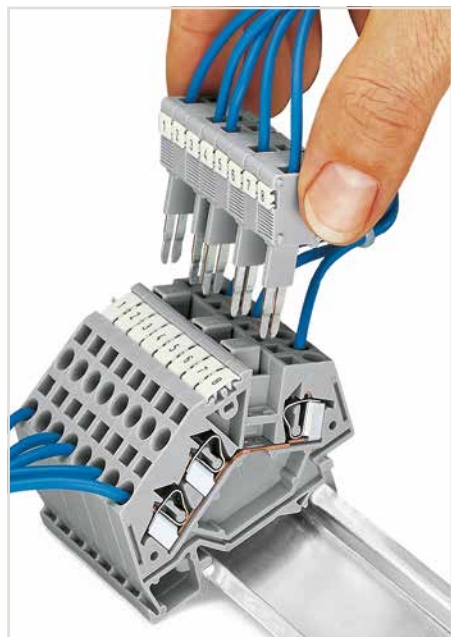


B-type test plugs are directly plugged into the jumper contact slot of the current bar.

### Accessories for B-Type Test Plug Modules

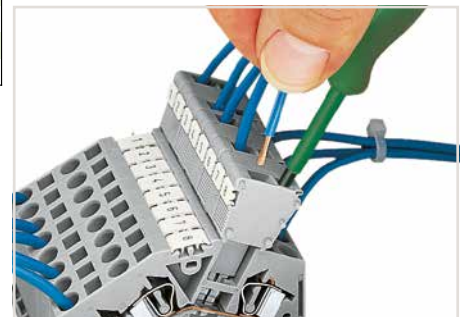
Appropriate marking systems: WMB/Mini-WSB/ Mini-WSB Inline (see Section 13)

WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable plain <b>793-5501</b> 5	
Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers plain <b>248-501</b> 5	



For testing individual circuits, WAGO offers a single-pole test plug accessory with CAGE CLAMP® up to 2.5 mm<sup>2</sup> (14 AWG) for direct contact with the current bar of a terminal block, or 1-pole test plug adapters for 4 mm Ø test plugs.

For serial testing on terminal block assemblies, WAGO has developed special multipole (max. 10-pole) modular test plug modules. WAGO's B-type test plug modules with CAGE CLAMP® connection are ideal for testing completely wired terminal blocks - even when using adjacent jumpers. For this testing type, the module assembly exactly matches the terminal block assembly. The test plug modules make direct contact to the jumper contact slots of the terminal blocks to be tested.



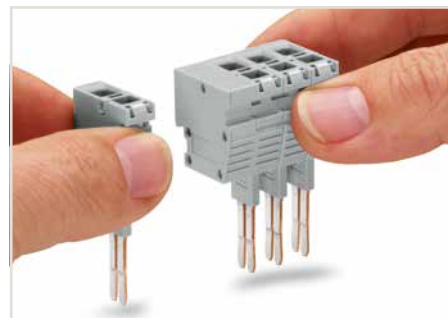
CAGE CLAMP® connection  
 0.08 ... 1.5 mm<sup>2</sup>; 5 mm wide module  
 0.08 ... 2.5 mm<sup>2</sup>; 6 mm wide module



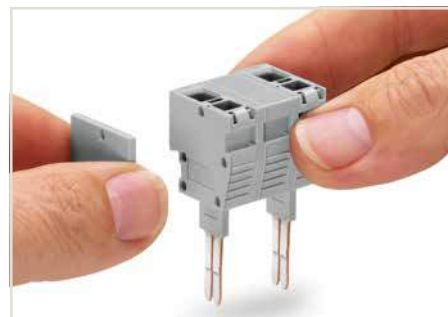
# B-Type Test Plug Modules for Testing Rail-Mount Terminal Blocks, Terminal Block Width 8 mm or 10 mm, via Jumper Contact Slot in Current Bar

## 709 Series



<p>Test plug module for rail-mount terminal blocks 0.2 ... 6 mm<sup>2</sup>   24 ... 10 AWG Test voltage 800 V   Test current 32 A</p> <p>Module width 8 mm / 0.315 inch These test plugs are not suitable for Ex e applications.</p>	<p>Spacer plate for rail-mount terminal blocks with 10 mm/0.394 inch module width</p> <p>Module width 2 mm / 0.079 inch These intermediate plates are not suitable for Ex e applications.</p>
---	---



Snapping test plug and spacer modules together to assemble a multi-pole test plug module (max. 10 poles) for 8 mm terminal block width.



Snapping test plug and spacer modules (each with a spacer plate) together to assemble a multi-pole test plug module (max. 10 poles) for 10 mm terminal block width.

Item No.	Pack. Unit	Item No.	Pack. Unit
B-type test plug module, snaps together Module width 8 mm		B-type spacer plate, snaps together, snaps on B-type test plug modules (709-310) and B-type spacer modules (709-311) Module width 2 mm	
○ gray	<b>709-310</b> 100 (4x25)	○ gray	<b>709-312</b> 100 (4x25)
B-type spacer module, snaps together, bridges commoned terminal blocks Module width 8 mm			
○ gray	<b>709-311</b> 100 (4x25)		
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
Strain relief plate, gray, for 8 mm wide terminal blocks		Strain relief plate, gray, for 10 mm wide terminal blocks	
	2-pole <b>709-322</b> 100 (4x25)		2-pole <b>709-332</b> 100 (4x25)
	4-pole <b>709-324</b> 100 (4x25)		4-pole <b>709-334</b> 100 (4x25)
	6-pole <b>709-326</b> 100 (4x25)		6-pole <b>709-336</b> 100 (4x25)



For testing individual circuits, WAGO offers a single-pole test plug accessory with CAGE CLAMP® up to 2.5 mm<sup>2</sup> (14 AWG) for direct contact with the current bar of a terminal block, or 1-pole test plug adapters for 4 mm Ø test plugs.

For serial testing on terminal block assemblies, WAGO has developed special multipole (max. 10-pole) modular test plug modules. WAGO's B-type test plug modules with CAGE CLAMP® connection are ideal for testing completely wired terminal blocks - even when using adjacent jumpers. For this testing type, the module assembly exactly matches the terminal block assembly. The test plug modules make direct contact to the jumper contact slots of the terminal blocks to be tested.



The test plug modules are directly plugged into the jumper contact slot of the current bar (picture shows 284 Series).

5

# Banana Plugs (Only for Safety Extra-Low Voltage)

## 215 Series

0.08 ... 2.5 mm<sup>2</sup> | 28 ... 14 AWG  
 42 V  
 Test current 20 A  
 Measuring range category CAT I  
 9 ... 11 mm / 0.35 ... 0.43 inch



5

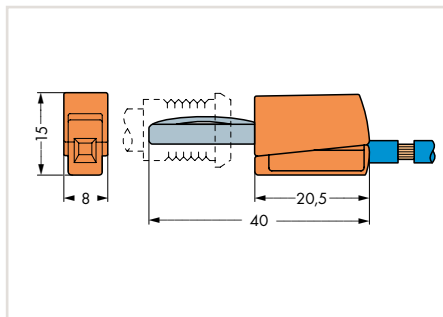
	Item No.	Pack. Unit
Banana plug, for 4 mm socket diameter, color mixed, 10 x orange, white, black, blue, yellow	215-111	50
single plugs		
Banana plug, for 4 mm socket diameter orange	215-211	50
Banana plug, for 4 mm socket diameter red	215-212	50
Banana plug, for 4 mm socket diameter black	215-311	50
Banana plug, for 4 mm socket diameter green	215-411	50
Banana plug, for 4 mm socket diameter yellow	215-511	50
Banana plug, for 4 mm socket diameter white	215-611	50
Banana plug, for 4 mm socket diameter blue	215-711	50
Banana plug, for 4 mm socket diameter gray	215-811	50
Banana plug, for 4 mm socket diameter green-yellow	215-911	50



Conductor termination: Press button fully, insert stripped conductor into square entry and release.



Testing with a banana plug (picture shows 209-170 Test Plug Adapter).



Dimensions (in mm):

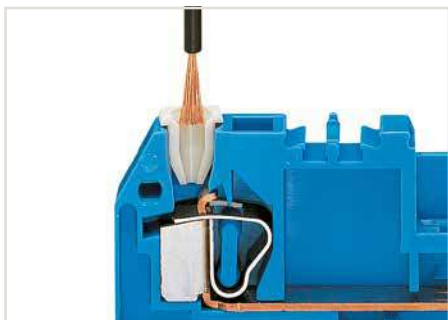
## Conductor Insulation Stops 0.08 ... 1.5 mm<sup>2</sup> / 28 ... 16 AWG

<p><b>Insulation stop for all rail-mount terminal blocks featuring:</b></p> <p><b>Terminal block width 4 mm / 0.157 inch</b></p>	<p><b>Insulation stop for all rail-mount terminal blocks featuring:</b></p> <p><b>Terminal block width 5 mm / 0.197 inch</b></p>	<p><b>Insulation stop for all rail-mount terminal blocks featuring:</b></p> <p><b>Terminal block width 6 mm / 0.236 inch</b></p>
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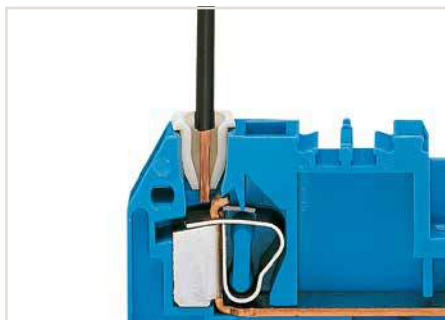


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit		
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")		Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")		Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")			
○ white	<b>279-470</b>	200 (8x25)	○ white	<b>280-470</b>	200 (8x25)		
Insulation stop, 5 pcs/strip, 0.25 mm <sup>2</sup>		Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>		Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
● dark gray	<b>279-471</b>	200 (8x25)	○ light gray	<b>280-471</b>	200 (8x25)		
		Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>		Insulation stop, 5 pcs/strip, 0.25 ... 1.5 mm <sup>2</sup>			
		● dark gray	<b>280-472</b>	200 (8x25)	● dark gray	<b>281-472</b>	200 (8x25)
<p>The wiring of programmable logic controllers and micro-processor-operated control circuits often relies on very small, fine-stranded conductors. These conductors are highly flexible and deform when pushed against the conductor stop in terminal blocks. As a result, the conductor insulation - not the copper conductor - may be clamped, causing intermittent contact or no contact at all. Common to all terminal block types currently offered, this problem creates unnecessary downtime for troubleshooting.</p>		<p>The solution: an insulation stop for rail-mount terminal blocks. Insulation stops automatically bundle the cores of fine-stranded conductors when inserted into the clamping unit, preventing splaying. This also limits the conductor entry to a defined cross sectional area - ensuring the actual conductor, not the insulation, will enter the clamping unit.</p>		<p>Insulation stops are available as dividable 5-pole strips for 279, 280/780/870/880 and 281/781 Series Rail-Mount Terminal Blocks. Insulation stop usage will not affect the conductor strip lengths for the aforementioned rail-mount terminal blocks.</p>			

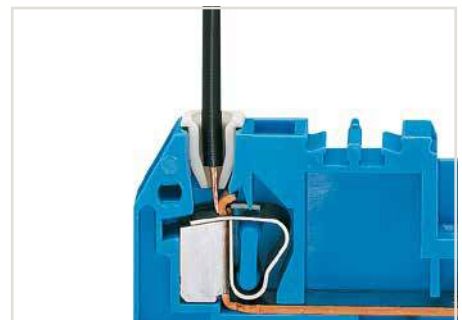
5



Insert stripped, untwisted conductor into insulation stop.



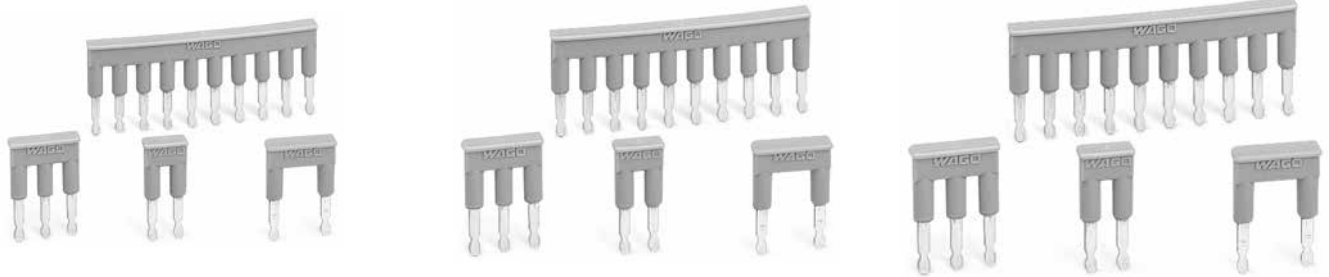
The conductor is bundled.



The conductor insulation is prevented from being pushed into the clamping unit by the positive stop.

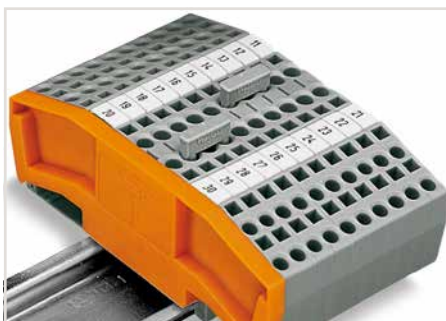
# Comb-Style Jumper Bars and Alternate Comb-Style Jumper Bars Operating Tool

Comb-style jumper bars and alternate comb-style jumper bars for 279 Series $I_N = I_N$ terminal block Operating tool	Comb-style jumper bars and alternate comb-style jumper bars for 280/769/780/880 Series $I_N = I_N$ terminal block Operating tool	Comb-style jumper bars and alternate comb-style jumper bars for 281/781 Series $I_N = I_N$ terminal block Operating tool
---	---	---



5

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Comb-style jumper bar, insulated		Comb-style jumper bar, insulated		Comb-style jumper bar, insulated	
○ 2-way <b>279-482</b>	200 (8x25)	○ 2-way <b>280-482</b>	200 (8x25)	○ 2-way <b>281-482</b>	100 (4x25)
○ 3-way <b>279-483</b>	200 (8x25)	○ 3-way <b>280-483</b>	200 (8x25)	○ 3-way <b>281-483</b>	100 (4x25)
○ 10-way <b>279-490</b>	50 (2x25)	○ 10-way <b>280-490</b>	50 (2x25)	○ 5-way <b>281-485</b>	100 (4x25)
				○ 10-way <b>281-490</b>	50 (2x25)
Alternate comb-style jumper bar, insulated		Alternate comb-style jumper bar, insulated		Alternate comb-style jumper bar, insulated	
○ 2-way <b>279-492</b>	200 (8x25)	○ 2-way <b>280-492</b>	200 (8x25)	○ 2-way <b>281-492</b>	100 (4x25)
Operating tool, of insulating material		Operating tool, of insulating material		Operating tool, of insulating material	
2-way <b>279-432</b>	1	2-way <b>280-432</b>	1	2-way <b>280-432</b>	1
3-way <b>279-433</b>	1	3-way <b>280-433</b>	1	3-way <b>280-433</b>	1
10-way <b>279-440</b>	1	10-way <b>280-440</b>	1	5-way <b>281-440</b>	1



Disconnect/test terminal blocks, 10-way, comb-style jumper bar



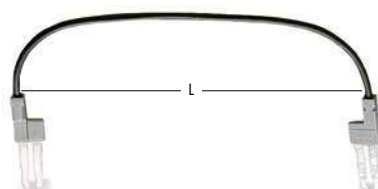
4-conductor through terminal blocks, angled type - formation of groups with 3-way, comb-style jumper bars



Carrier terminal blocks with component plugs, alternate comb-style jumper bars, 3-way, comb-style jumper bar

# Staggered Jumpers and Push-In Type Wire Jumpers

<b>Staggered jumper</b> Nominal voltage 400 V/6 kV/3	<b>Push-in type wire jumper</b> 800 V/8 kV/3 $I_N$ 9 A Conductor size 0.75 mm <sup>2</sup>
---	---



- ❶ Suitable for Ex e II applications  
 max. rated voltage 275 V  
 23 A for 2-conductor terminal blocks  
 22 A for 3-conductor terminal blocks  
 20 A for 4-conductor terminal blocks  
 (see Section 14)
- ❷ Suitable for Ex e II applications  
 max. rated voltage 275 V, 26 A  
 (see Section 14)

Item No.	Pack. Unit	Item No.	Pack. Unit
Staggered jumper, insulated, $I_N$ 24 A Spacing: 5 mm		Push-in type wire jumper, insulated Wire length of wire jumpers: L = 60 mm	
○ from 1 to 2	<b>780-452</b> ❶	100 (4x25)	10
○ from 1 to 3	<b>780-453</b> ❶	100 (4x25)	
○ from 1 to 4	<b>780-454</b> ❶	100 (4x25)	
○ from 1 to 5	<b>780-455</b> ❶	50 (2x25)	
○ from 1 to 6	<b>780-456</b> ❶	50 (2x25)	
○ from 1 to 7	<b>780-457</b> ❶	50 (2x25)	
○ from 1 to 8	<b>780-458</b> ❶	50 (2x25)	
Staggered jumper, insulated, $I_N$ 32 A Spacing: 6 mm		Push-in type wire jumper, insulated Wire length of wire jumpers: L = 110 mm	
○ from 1 to 2	<b>781-452</b> ❷	100 (4x25)	10
○ from 1 to 3	<b>781-453</b> ❷	100 (4x25)	
○ from 1 to 4	<b>781-454</b> ❷	100 (4x25)	
○ from 1 to 5	<b>781-455</b> ❷	50 (2x25)	
○ from 1 to 6	<b>781-456</b> ❷	50 (2x25)	
		Push-in type wire jumper, insulated Wire length of wire jumpers: L = 250 mm	
		<b>249-127</b>	10
<b>Note:</b> Push down the wire jumper until fully inserted.			

### Wire jumpers

When installing machines or control systems, it is often necessary to make an additional connection between two terminal blocks that are not next to each other on the rail. In such cases, WAGO's touch-proof, push-in type wire jumpers are the ideal solution.

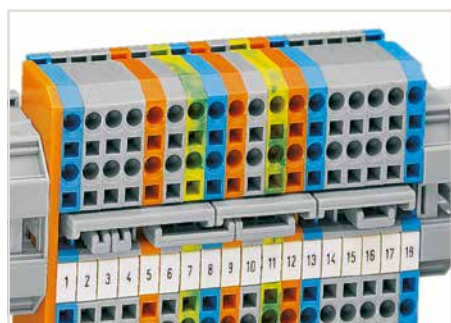
These jumpers are compatible with the following rail-mount terminal blocks:

- 279 Series (1.5 mm<sup>2</sup>/16 AWG),
- 280/775/780 Series (2.5 mm<sup>2</sup>/14 AWG)
- 281/769/776/777/781 and 880 Series (4 mm<sup>2</sup>/12 AWG)

They are available in three conductor lengths (60, 110 and 250 mm), allowing up to 60 terminal blocks to be commoned depending on their width (see table below).

Terminal Blocks Series	Wire Jumpers Item No.	"n"
279 (1.5 mm <sup>2</sup> /16 AWG)	249-125	13
	249-126	25
	249-127	60
280, 775, 780 (2.5 mm <sup>2</sup> /14 AWG)	249-125	10
	249-126	20
	249-127	48
281, 781, 776, 777 (4 mm <sup>2</sup> /12 AWG)	249-125	9
	249-126	17
	249-127	40

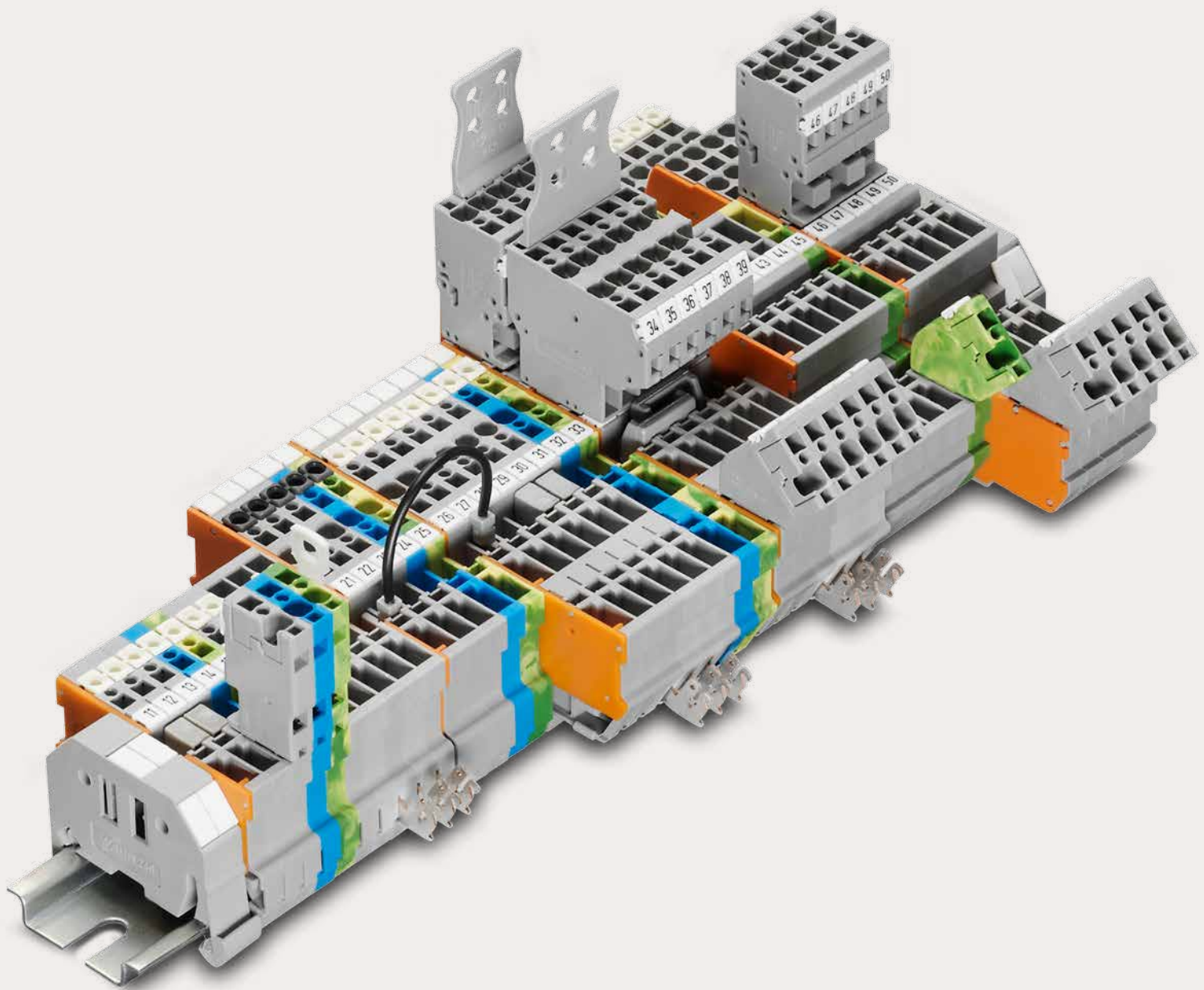
"n" = number of 279, 280/769/780/880 and 281/781 Series Rail-Mount Terminal Blocks that can be skipped with a wire jumper.



Staggered jumpers for sophisticated circuit requirements - push jumpers down until fully inserted.



Compared with the 279 Series, the 280/775/780 and 281/776/777/781 Series can also accommodate two wire jumpers, allowing the use of commoning chains. Furthermore, the 280/769/775/780/880 and 281/776/777/781 Series allow both wire jumper and adjacent jumper to be simultaneously plugged into a same terminal block.



**Rail-Mount Terminal Blocks with a Pluggable Connector, X-COM<sup>®</sup>-SYSTEM, Classic**



# Rail-Mount Terminal Blocks with a Pluggable Connector, X-COM®-SYSTEM, Classic

## Front-Entry Wiring

			Page
	<b>Carrier Terminal Blocks</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG)	769 Series	342
	<b>Carrier Terminal Blocks with Three Jumper Positions</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG)	769 Series	352
	<b>Disconnect Carrier Terminal Blocks with Two Jumper Positions</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG)	769 Series	354
	<b>Diode and LED Carrier Terminal Blocks</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG)	769 Series	356
	<b>Carrier Terminal Blocks for Pluggable Modules</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG)	769 Series	364
	<b>Double-Deck Carrier Terminal Blocks</b> 0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> (28 ... 12 AWG)	870 Series	372
	<b>Male Connectors with CAGE CLAMP® Connection</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG)	769 Series	382
	<b>Male Headers with Solder Pins</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG)	769 Series	386
	<b>Female Plugs with and without Lateral Locking Levers</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG)	769 Series	392
	<b>Female Plugs for Self-Assembly</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG)	769 Series	396
	<b>Pre-Assembled Female Plugs</b> 0.08 ... 4 mm <sup>2</sup> (28 ... 12 AWG)	769 Series	398
	<b>Strain Relief Housings</b>	769 Series	399

## WAGO-X-COM®-SYSTEM COM-bining Connectors and Rail-Mount Terminal Blocks

The WAGO-X-COM®-SYSTEM is the perfect solution for switchgear and control applications.

X-COM® is designed for a **rated current up to 16/32 A at U<sub>N</sub> 500 V and 4 mm<sup>2</sup> (12 AWG) rated cross section (up to 600 V, 10 A, and 12 AWG UL)**. This offers an alternative to heavy-duty rectangular and circular connectors used in power wiring applications where electrical compliance is more important than a high degree of protection.

X-COM® conveniently enables the use of pre-assembled connector systems and offers the following advantages:

- During manufacturing: Pre-wired subassemblies can be tested before installation.
- During assembly: Pre-assembled pluggable cable harnesses help solve time and space issues on site. Connector systems with protection against mismatching can be handled by installers of all skill levels.
- During maintenance: Subassemblies can be replaced quickly and without errors.

The X-COM®-SYSTEM consists of rail-mount carrier terminal blocks, male connectors and female plugs with different mounting systems, as well as male headers with solder pins. Pin spacing is generally 5 mm (0.197 inch).

### Protection Against Mismatching and Accidental Contact

The WAGO-X-COM®-SYSTEM is **fully protected against accidental contact – even when plugs are disconnected**. This significantly simplifies the planning of power distribution.

Furthermore, the whole system is **100 % protected against mismatching**. Its coding, without the loss of any poles, prevents mismatching of male connectors and female plugs having the same number of poles.

### Carrier Terminal Blocks

Carrier terminal blocks are available as through terminal blocks, double-deck terminal blocks and ground conductor terminal blocks with automatic contact to the carrier rail.

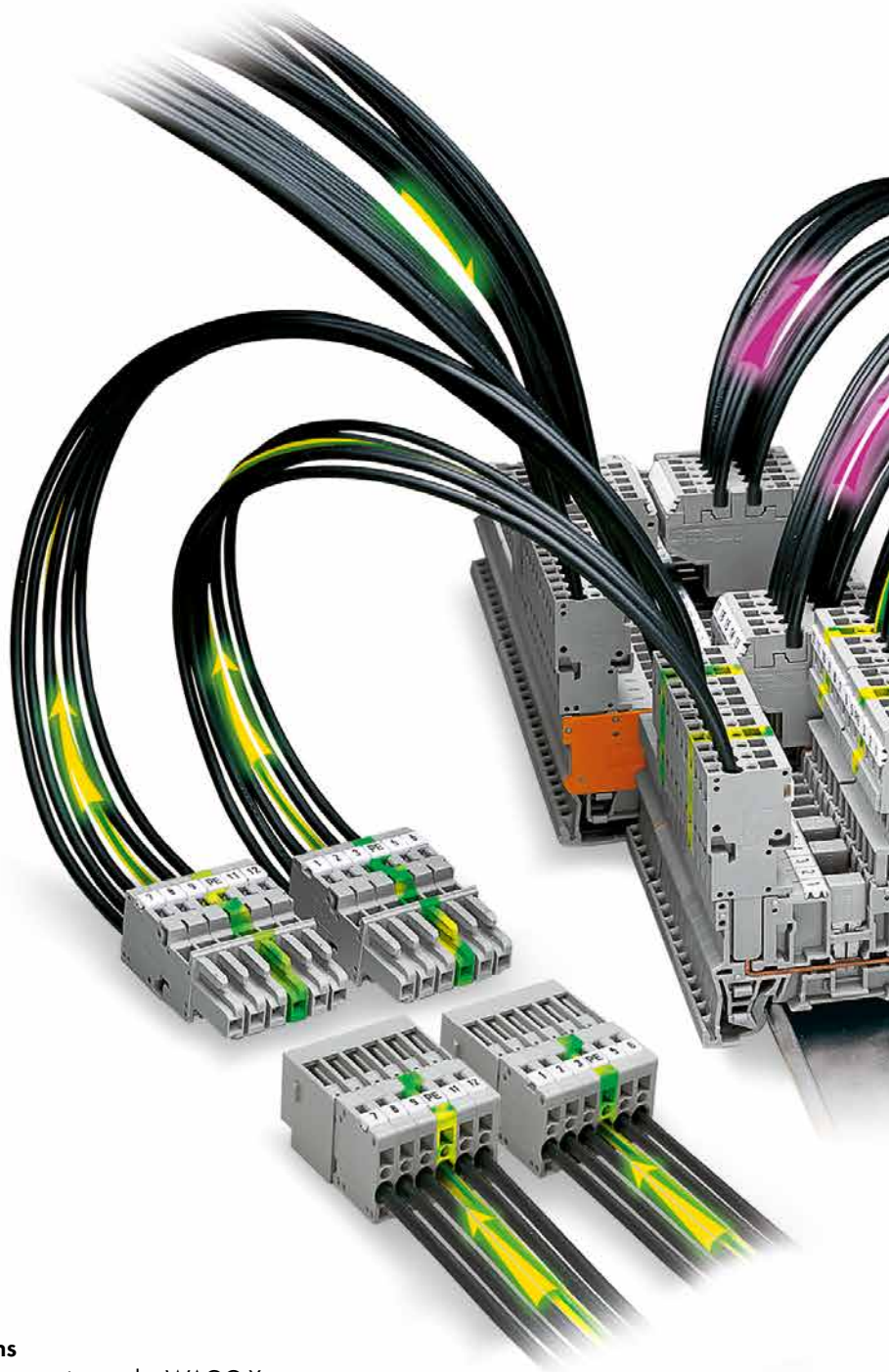
Carrier terminal blocks with specialty functions are available in disconnect, diode and LED versions. Carrier terminal blocks equipped with an additional socket can accommodate a wide range of pluggable electronic modules (e.g., relays, optocouplers, signal conditioners).

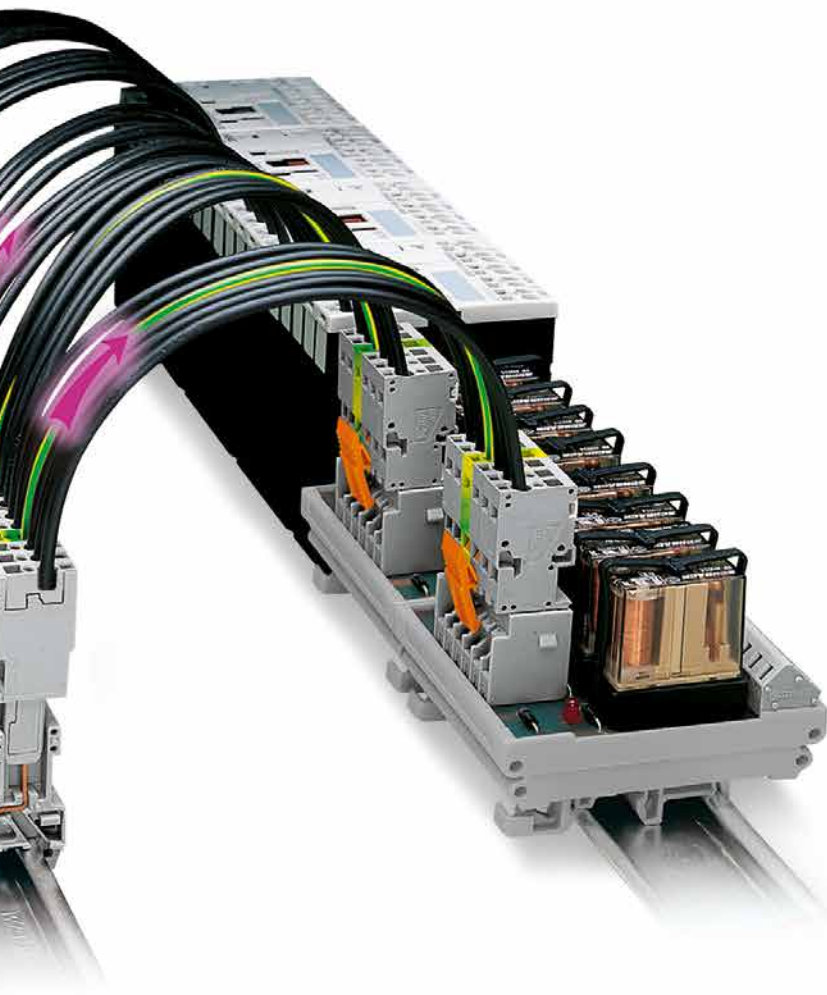
Depending on the type of terminal block, the carrier terminal blocks are equipped with one to three jumper positions for commoning signals via insulated push-in type jumpers.

### Applications

Equipment connection to the WAGO-X-COM®-SYSTEM for:

- Frequency converters
- Thyristor actuators
- Soft start motor controllers
- Motors
- Phase filters
- Power subassemblies
- Power supply units
- Uninterruptible power supply (UPS)
- "Panel-to-door" wiring
- Pluggable high-current, feed-through connections
- Flying leads





### Female Plugs

The mating half of the carrier terminal blocks consists of modular female plugs (1- to 15-pole, 1-/2-conductor, straight/angled). Angled female plugs combined with double-deck terminal blocks offer high-density wiring and reduce overall terminal block height. A jumper slot simplifies potential distribution.

This makes commoning supply lines particularly easy as the power supply of downstream subassemblies is maintained even after female plugs have been removed.

### 1-Pole Female Plugs

Special 1-pole female plugs can carry the full rated current of the terminal blocks for many applications:

- as test plug adapters
- as connectors for motor lead tests
- for all types of patchboard applications
- for the creation of multipole prototypes
- for phase selection of 230 V loads in a three-phase network without interfering with the wiring
- for single-pole power supply in commercial or recreational vehicles. The grounding of all electrical components is connected through the chassis

### Male Connectors/Headers

Male connectors are available with snap-in mounting feet for panel mounting, with mounting flanges for feedthrough applications or without mounting elements for flying leads. Strain relief plates are available as accessories.

Subassemblies on printed circuit boards can be integrated into the system wiring using male headers with solder pins. As a result, parts can be exchanged quickly without wiring errors.

### Degree of Protection

Mated: IP20

Unmated: IP20

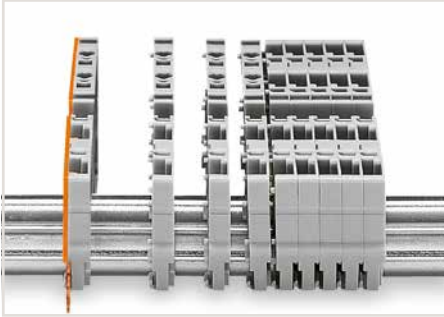
Temperature range:

-35 ... +100 °C

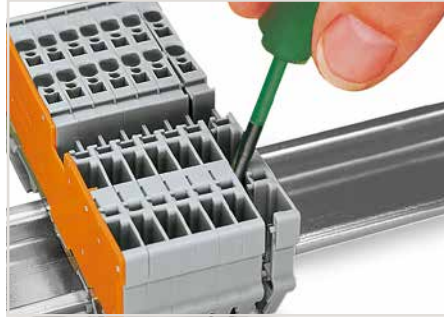
# X-COM®-SYSTEM

## Carrier Terminal Blocks and Female Plugs, 769 Series

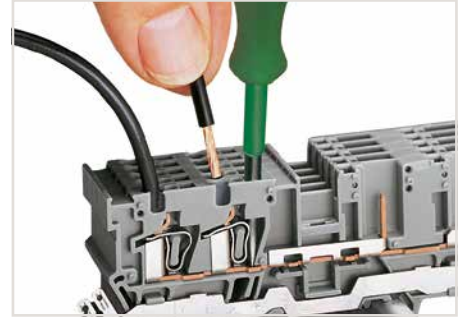
### Description and Installation



Snap individual carrier terminal blocks onto the carrier rail and slide together.



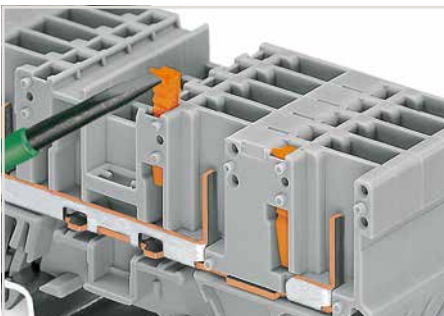
Open the assembly by laterally sliding a block via operating tool and remove terminal block via release lever.



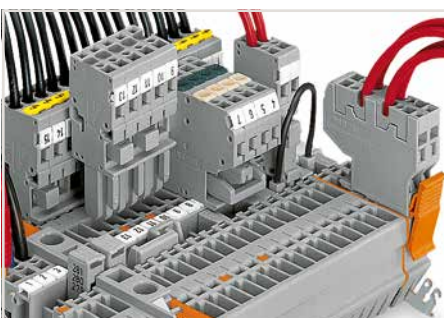
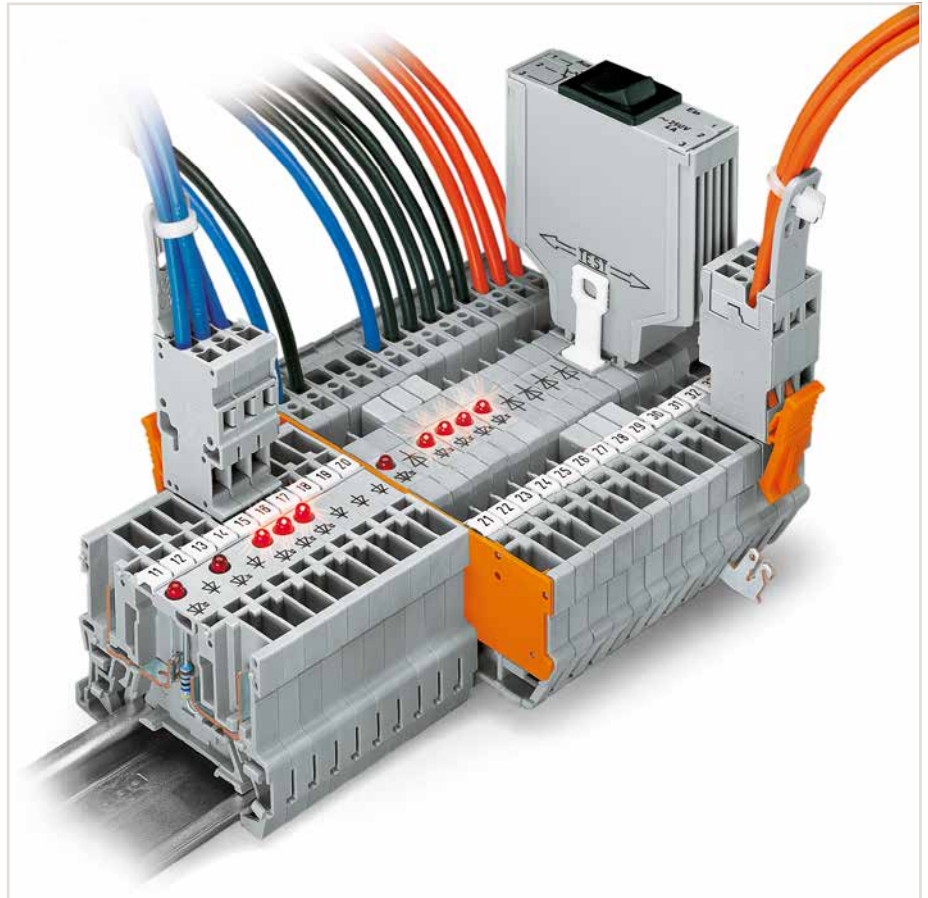
Carrier terminal block: Insert/remove conductor via operating tool (3.5 x 0.5 mm blade).



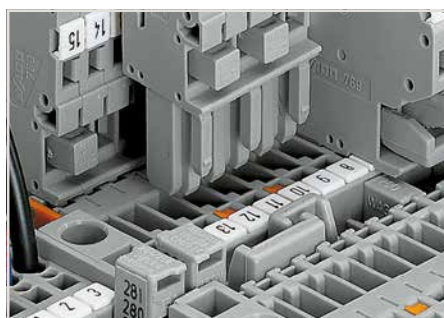
Coding a female plug by removing coding finger(s) via cutting tool. Do not remove the first and last coding fingers or use an additional locking lever.



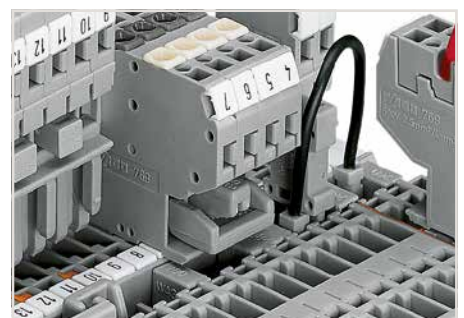
Snap coding pin in proper direction on carrier terminal block. Shown: Coding pin removal from carrier terminal block.



Commining with adjacent or staggered jumpers - push jumpers down until fully inserted.



Commining carrier terminal blocks via staggered jumpers.



Commining a 2-conductor female plug via staggered jumper and carrier terminal blocks via adjacent jumpers.



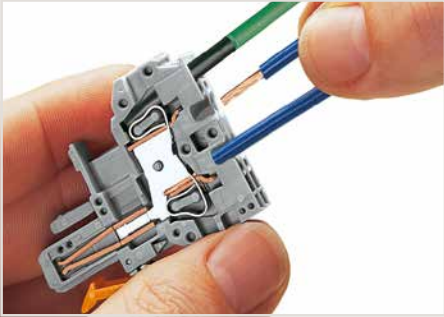
**CAGE CLAMP®** terminates the following copper conductors: solid



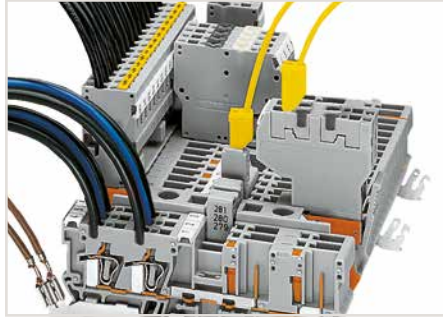
stranded



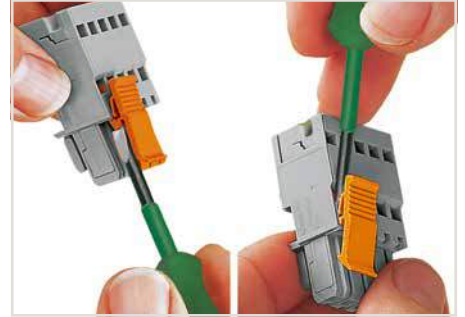
fine-stranded, also with tinned single strands



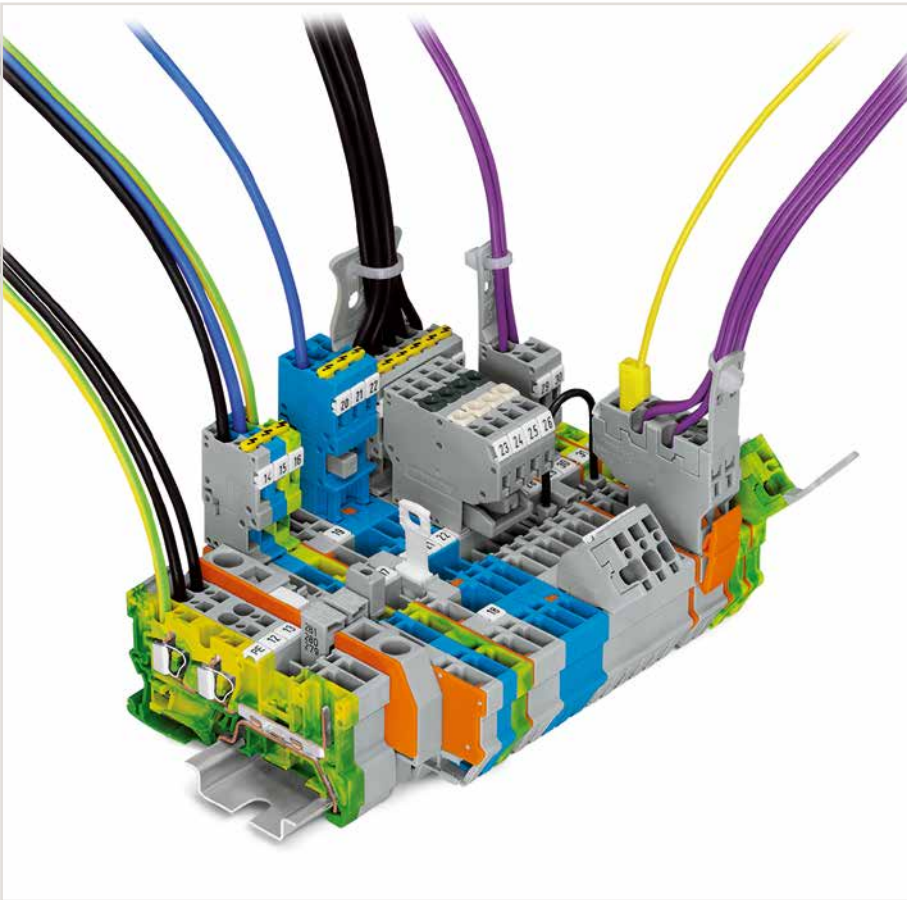
**CAGE CLAMP® connection**  
 Female plug: Inserting/removing a conductor via operating tool.  
 Operation 90° to conductor is also possible.  
 With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross section.



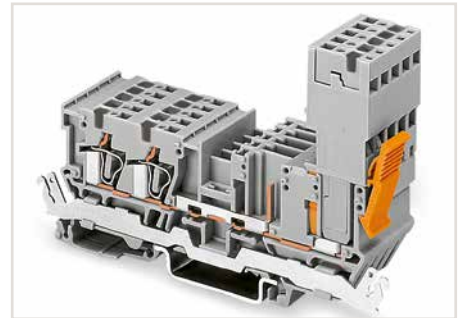
Testing via 2 or 2.3 mm Ø test plugs.



Locking/releasing a lever.



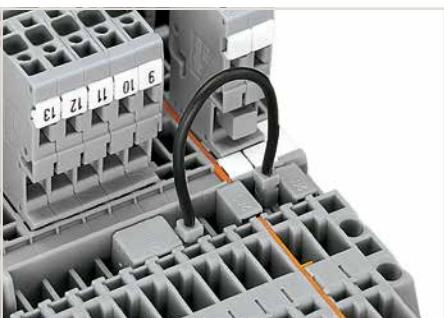
Note: Female plugs used according to the regulations shall not be connected/disconnected when live or under load.



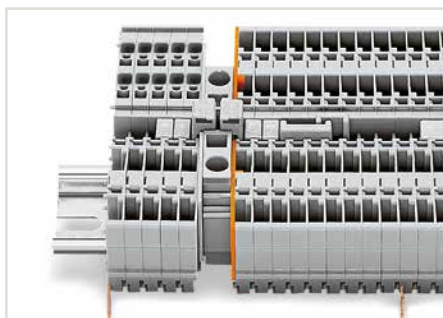
Female plug secured with locking lever on the terminal block side.



Removing a female plug via conductor bundle provided with strain relief plate.



Commoning carrier terminal blocks via push-in type wire jumpers or adjacent jumpers - even over an intermediate plate.



Commoning "supply terminal blocks" (up to 10 mm<sup>2</sup>/8 AWG) with carrier terminal blocks via step-down jumpers.



Commoning 1-conductor female plugs via miniature adjacent jumpers.



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

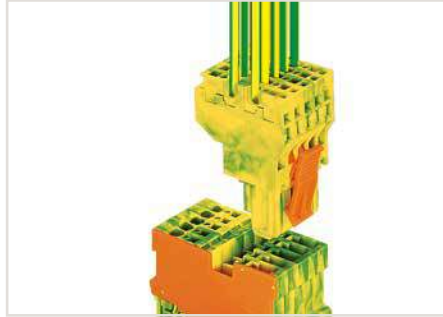
# X-COM®-SYSTEM, 769 Series

## Carrier Terminal Blocks, Female Plugs, Male Headers and Male Connectors

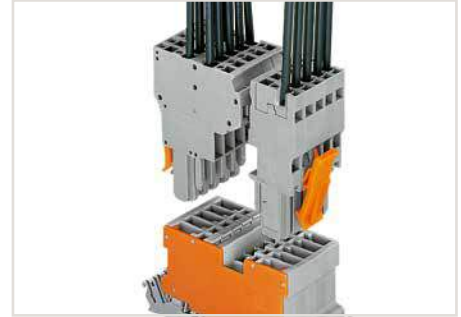
### Range overview



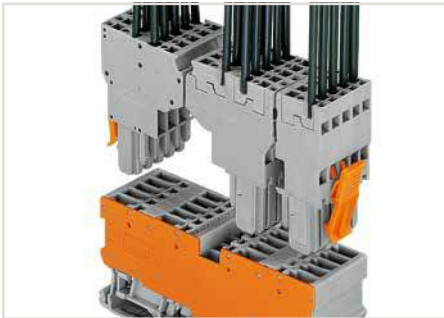
1-conductor/1-pin carrier terminal block  
1-connector female plug, straight\*  
\*1-conductor angled female plug is also possible!



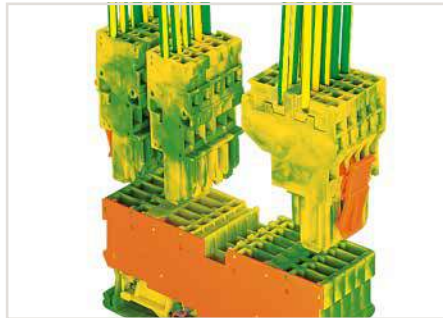
1-conductor/1-pin ground carrier terminal block  
2-conductor female plug, green-yellow



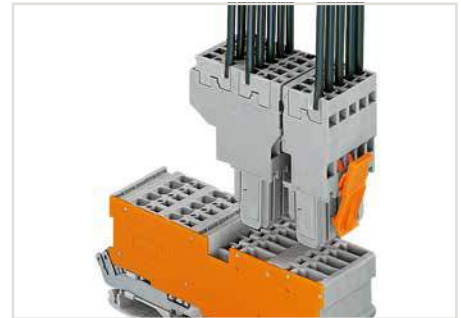
2-pin carrier terminal block with shield contact  
2-conductor female plug  
1-connector female plug, straight\*  
\*1-conductor angled female plug is also possible!



4-pin carrier terminal block  
2-conductor female plug  
1-connector female plug, straight



4-pin ground carrier terminal block  
1-connector female plug, straight  
2-conductor female plug



2-conductor/2-pin carrier terminal block with shield contact  
2-conductor female plug  
1-connector female plug, straight



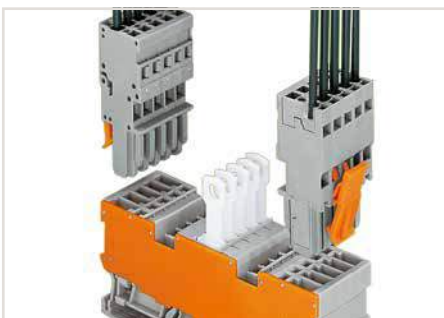
1-conductor/1-pin disconnect carrier terminal block  
1-connector female plug, straight\*  
\*1-conductor angled female plug is also possible!



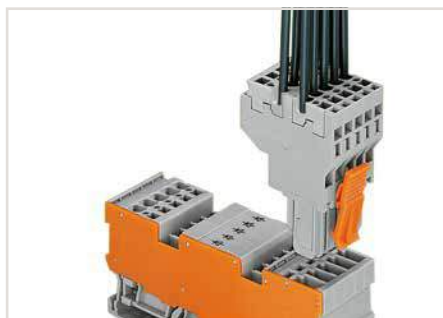
2-pin diode carrier block  
1-connector female plug, straight\*  
\*1-conductor angled female plug is also possible!



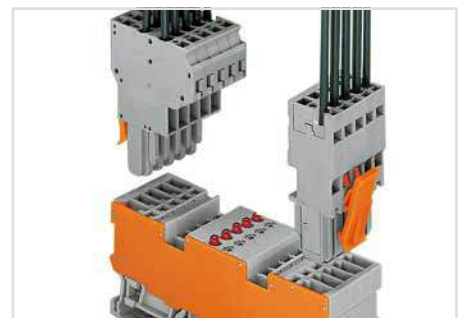
2-pin LED carrier block  
1-connector female plug, straight\*  
\*1-conductor angled female plug is also possible!



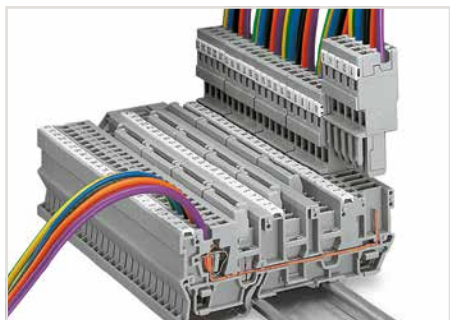
2-pin disconnect carrier terminal block with two jumper positions  
1-connector female plug, straight\*  
\*1-conductor angled female plug is also possible!



1-conductor/1-pin diode carrier terminal block with two jumper positions  
2-conductor female plug



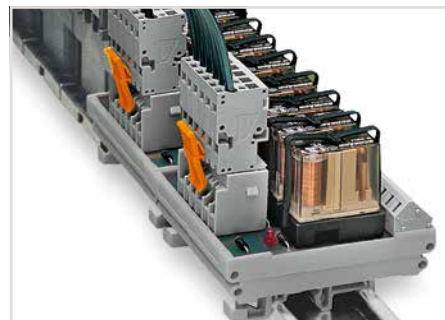
2-pin LED carrier terminal block with two jumper positions  
2-conductor female plug  
1-connector female plug, straight



1-conductor/1-pin carrier terminal block with three jumper positions  
1-conductor female plug, straight\*  
\*1-conductor angled female plug is also possible!



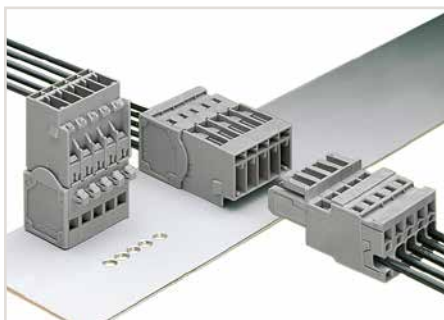
Male connector with CAGE CLAMP® connection  
1-conductor female plug, straight



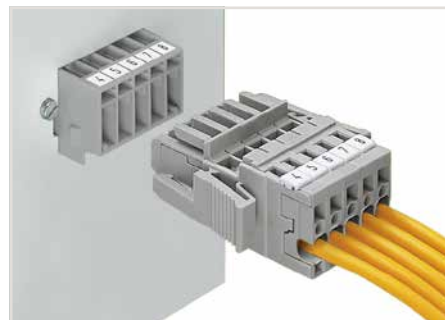
Male headers with straight solder pins and 1-conductor female plugs (picture shows a relay module)



1-conductor/1-pin carrier terminal block with two jumper positions  
1-conductor female plug, straight\*  
Fuse plug, 6 mm wide (every other terminal block)  
\*1-conductor angled female plug is also possible!



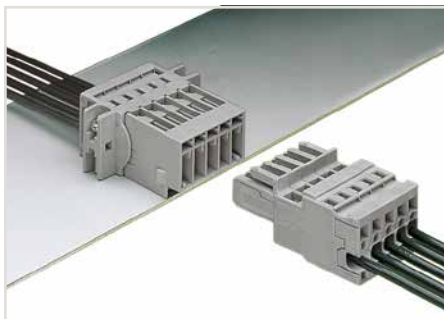
Male connector with CAGE CLAMP® connection and snap-in mounting feet  
1-conductor female plug, straight



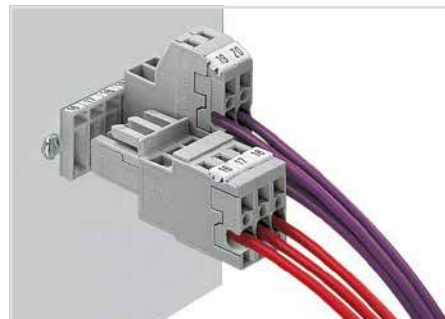
Male header and 1-conductor female plug with lateral locking levers



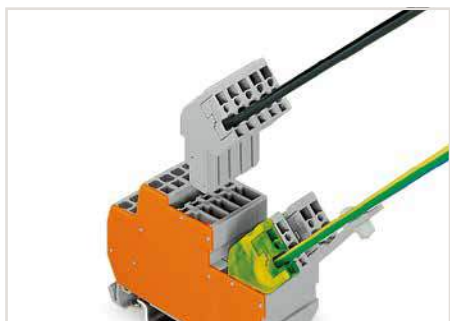
2-pin terminal block for pluggable modules with two jumper positions and separator plate  
1-conductor female plug, straight\*  
Relay plug, 25 mm wide  
\*1-conductor angled female plug is also possible!



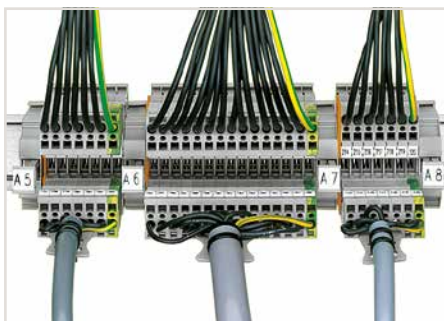
Male connector with CAGE CLAMP® and mounting flanges  
1-conductor female plug, straight



Male header with feedthrough flanges  
1-conductor female plug  
2-conductor female plug



1-conductor/1-pin, double-deck carrier terminal block  
1-conductor female plug, angled\*  
\*1-conductor straight female plug is also possible!



Installing cables in a switch cabinet.  
The cables are installed **with** the connected female plugs and are directly plugged in the carrier terminal blocks.



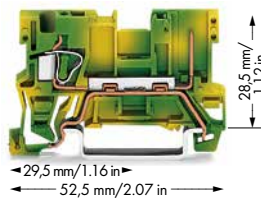
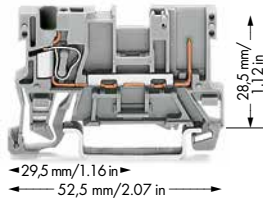
Cable entry in the base of the switch cabinet, with separate strain relief, movable IP54 bottom plates sealed with sponge rubber (e.g., by Rittal)

# X-COM®-SYSTEM

## 1-Conductor/1-Pin Carrier Terminal Blocks















### 4 mm<sup>2</sup>, 769 Series

0.08 ... 4 mm <sup>2</sup> 500 V/6 kV/3 ❶ I <sub>N</sub> 32 A ❷	28 ... 12 AWG 300 V, 20 A ❸ 300 V, 20 A ❸	0.08 ... 4 mm <sup>2</sup>   28 ... 12 AWG
Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	



- ❶ 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
250 V / 4 kV / 3 =  
Nominal voltage with shield contact  
(see Section 14)
- ❷ Current-carrying capacity curves, see page 400 and upon request
- ❸ See application notes for:  
Insulation stop, page 331  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Test plug modules, page 327

6

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
1-conductor/1-pin carrier terminal block		1-conductor/1-pin ground carrier terminal block		
<ul style="list-style-type: none"> <li>○ gray <b>769-176</b> 100</li> <li>● blue <b>769-176/000-006</b> 100</li> </ul>		<ul style="list-style-type: none"> <li>● green-yellow <b>769-237</b> 100</li> </ul>		Test plug, with 500 mm cable, 2 mm Ø, max. 42 V
1-conductor/1-pin carrier terminal block, with shield contact, (no picture)				 <ul style="list-style-type: none"> <li>red <b>210-136</b> 50</li> </ul>
<ul style="list-style-type: none"> <li>○ gray <b>769-231</b> ❶ 50</li> </ul>				 <ul style="list-style-type: none"> <li>yellow <b>210-137</b> 50</li> </ul>
<b>Item-Specific Accessories</b>				Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks				 <ul style="list-style-type: none"> <li>gray <b>280-404</b> 100 (4x25)</li> </ul>
 <ul style="list-style-type: none"> <li>yellow <b>280-415</b> 100 (4x25)</li> </ul>				Pin cover, with Mini-WSB marker slot
<b>769 Series Accessories</b>				<ul style="list-style-type: none"> <li>gray <b>769-438</b> 100 (4x25)</li> <li>orange <b>769-439</b> 100 (4x25)</li> </ul>
Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)				1-conductor female plug, straight
End and intermediate plate, 1.1 mm thick		Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A		 <ul style="list-style-type: none"> <li>gray <b>769-101</b> 200</li> </ul>
<ul style="list-style-type: none"> <li>orange <b>769-308</b> 100 (4x25)</li> <li>gray <b>769-307</b> 100 (4x25)</li> </ul>		<ul style="list-style-type: none"> <li>from 1 to 2 <b>780-452</b> 100 (4x25)</li> <li>from 1 to 3 <b>780-453</b> 100 (4x25)</li> <li>from 1 to 4 <b>780-454</b> 100 (4x25)</li> <li>from 1 to 5 <b>780-455</b> 50 (2x25)</li> <li>from 1 to 6 <b>780-456</b> 50 (2x25)</li> <li>from 1 to 7 <b>780-457</b> 50 (2x25)</li> <li>from 1 to 8 <b>780-458</b> 50 (2x25)</li> </ul>		1-conductor female plug, angled
<ul style="list-style-type: none"> <li>Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st")</li> <li>white <b>769-470</b> 200 (8x25)</li> </ul>				 <ul style="list-style-type: none"> <li>gray <b>769-101/022-000</b> 200</li> </ul>
<ul style="list-style-type: none"> <li>Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup></li> <li>light gray <b>769-471</b> 200 (8x25)</li> </ul>				2-conductor female plug
<ul style="list-style-type: none"> <li>Insulation stop, 5 pcs/strip, 0.75 ... 1 mm<sup>2</sup></li> <li>dark gray <b>769-472</b> 200 (8x25)</li> </ul>				 <ul style="list-style-type: none"> <li>gray <b>769-121</b> 100</li> </ul>
Coding pin, for coding female plugs		Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A		Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers
<ul style="list-style-type: none"> <li>orange <b>769-435</b> 100 (4x25)</li> </ul>		<ul style="list-style-type: none"> <li>L = 60 mm <b>249-125</b> 10</li> <li>L = 110 mm <b>249-126</b> 10</li> <li>L = 250 mm <b>249-127</b> 10</li> </ul>		 <ul style="list-style-type: none"> <li>plain <b>248-501</b> 5</li> </ul>
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Test plug module, snaps together, 5 mm wide		Screwless end stop, for DIN-35 rail, 6 mm wide
 <ul style="list-style-type: none"> <li>gray <b>280-402</b> 200 (8x25)</li> </ul>		 <ul style="list-style-type: none"> <li>gray <b>280-418</b> 100 (4x25)</li> </ul>		 <ul style="list-style-type: none"> <li>gray <b>249-116</b> 100 (4x25)</li> </ul>
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Spacer module, snaps together, 5 mm wide		Screwless end stop, for DIN-35 rail, 10 mm wide
 <ul style="list-style-type: none"> <li>gray <b>280-409</b> 100 (4x25)</li> </ul>		 <ul style="list-style-type: none"> <li>gray <b>280-419</b> 100 (4x25)</li> </ul>		 <ul style="list-style-type: none"> <li>gray <b>249-117</b> 50 (2x25)</li> </ul>



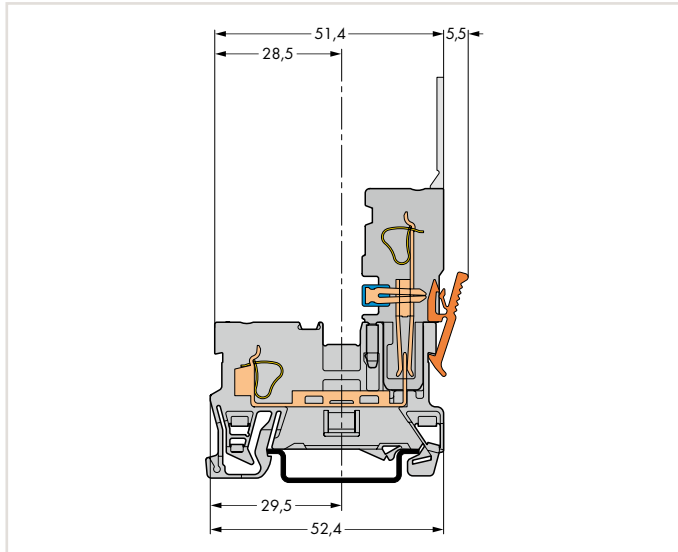
# X-COM®-SYSTEM

## 1-Conductor/1-Pin Carrier Terminal Blocks and 1-/2-Conductor Female Plugs

### Types of Assembly



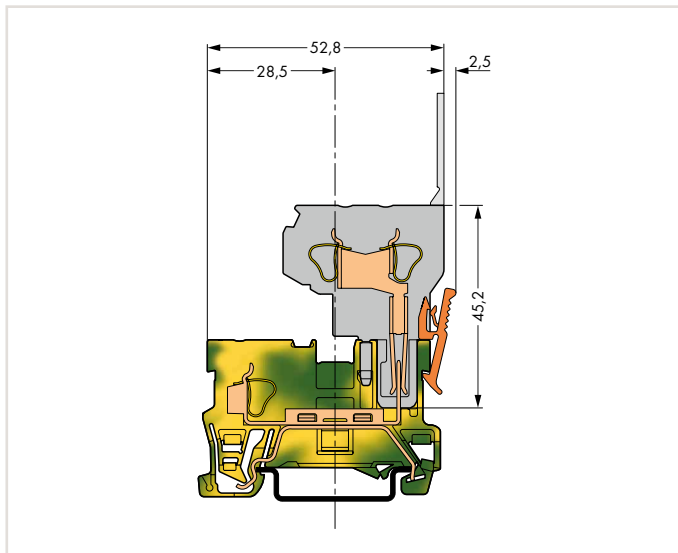
1-conductor female plug  
Carrier terminal blocks can be commoned via 280 and 780 Series Jumpers and tested using a 280 Series Test Plug Adapter.



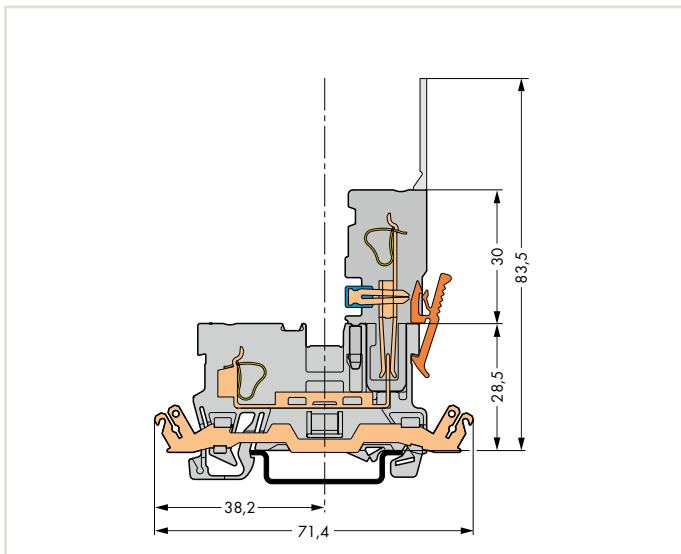
Carrier terminal block



2-conductor female plug  
Carrier terminal blocks can only be commoned via 280 Series Adjacent and Alternate Jumpers.



Ground carrier terminal block



Carrier terminal block with shield contact

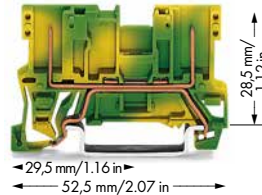
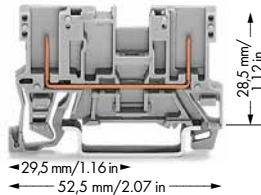
6

# X-COM®-SYSTEM

## 2-Pin Carrier Terminal Blocks
















### 4 mm<sup>2</sup>, 769 Series

500 V/6 kV/3 ① 300 V, 20 A ② I <sub>N</sub> 32 A ②   300 V, 20 A ② Terminal block width 5 mm / 0.197 inch	Terminal block width 5 mm / 0.197 inch
---	--



- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
250 V / 4 kV / 3 = Nominal voltage with shield contact (see Section 14)
- ② Current-carrying capacity curves, see page 400 and upon request
- ③ See application notes for:  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Test plug modules, page 327

6

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
2-pin carrier terminal block		2-pin ground carrier terminal block		
○ gray <b>769-156</b>	100	● green-yellow <b>769-227</b>	100	Screwless end stop, for DIN-35 rail, 6 mm wide
2-pin carrier terminal block, with shield contact, (no picture)				 gray <b>249-116</b> 100 (4x25)
○ gray <b>769-221</b> ①	50			Screwless end stop, for DIN-35 rail, 10 mm wide
				 gray <b>249-117</b> 50 (2x25)
<b>769 Series Accessories</b>				Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers
Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)				plain <b>248-501</b> 5
End and intermediate plate, 1.1 mm thick		Test plug module, snaps together, 5 mm wide		Mini-WSB Quick marking system, plain, 10 strips with 10 markers per card, 5 mm wide markers
orange <b>769-306</b> 100 (4x25)		③  gray <b>280-418</b> 100 (4x25)		yellow <b>248-501/000-002</b>
gray <b>769-305</b> 100 (4x25)				red <b>248-501/000-005</b>
		Spacer module, snaps together, 5 mm wide		blue <b>248-501/000-006</b>
Coding pin, for coding female plugs		 gray <b>280-419</b> 100 (4x25)		gray <b>248-501/000-007</b>
orange <b>769-435</b> 100 (4x25)				orange <b>248-501/000-012</b>
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V		light green <b>248-501/000-017</b>
 gray <b>280-402</b> 200 (8x25)		 yellow <b>210-137</b> 50		green <b>248-501/000-023</b>
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks		violet <b>248-501/000-024</b> 5
 gray <b>280-409</b> 100 (4x25)		 gray <b>280-404</b> 100 (4x25)		
Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A		1-conductor female plug, straight		
③ 		 gray <b>769-101</b> 200		
from 1 to 2 <b>780-452</b> 100 (4x25)		1-conductor female plug, angled		
from 1 to 3 <b>780-453</b> 100 (4x25)		 gray <b>769-101/022-000</b> 200		
from 1 to 4 <b>780-454</b> 100 (4x25)		2-conductor female plug		
from 1 to 5 <b>780-455</b> 50 (2x25)		 gray <b>769-121</b> 100		
from 1 to 6 <b>780-456</b> 50 (2x25)				
from 1 to 7 <b>780-457</b> 50 (2x25)				
from 1 to 8 <b>780-458</b> 50 (2x25)				
Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A		Pin cover, with Mini-WSB marker slot		
③ 		 gray <b>769-438</b> 100 (4x25)		
L = 60 mm <b>249-125</b> 10		orange <b>769-439</b> 100 (4x25)		
L = 110 mm <b>249-126</b> 10				
L = 250 mm <b>249-127</b> 10				

## X-COM®-SYSTEM

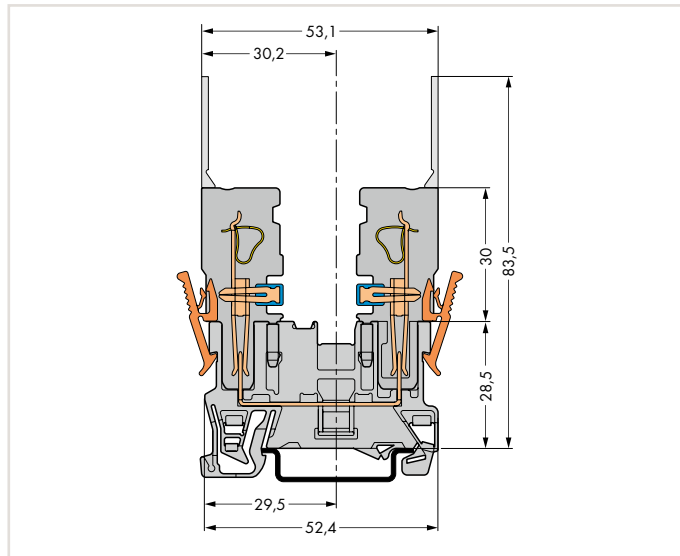
### 2-Pin Carrier Terminal Blocks and 1-/2-Conductor Female Plugs

#### Types of Assembly



1-conductor female plugs

Carrier terminal blocks can be commoned via 280 and 780 Series Jumpers and tested using a 280 Series Test Plug Adapter.

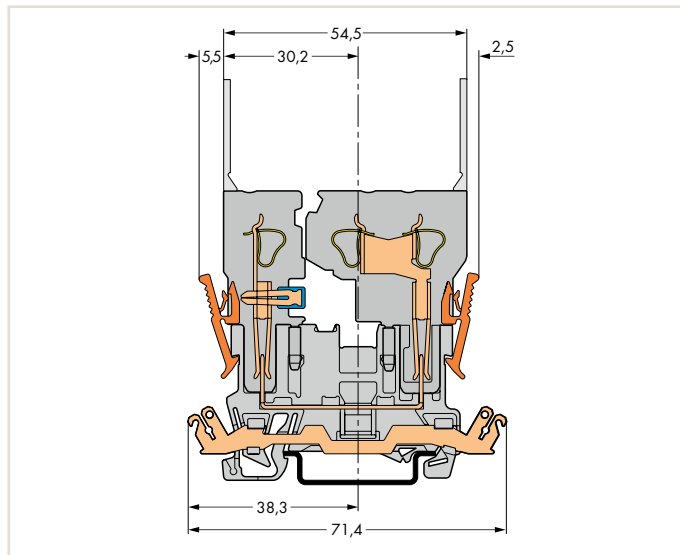


Carrier terminal block



1-conductor and 2-conductor female plugs

Carrier terminal blocks can only be commoned via 280 Series Adjacent and Alternate Jumpers.

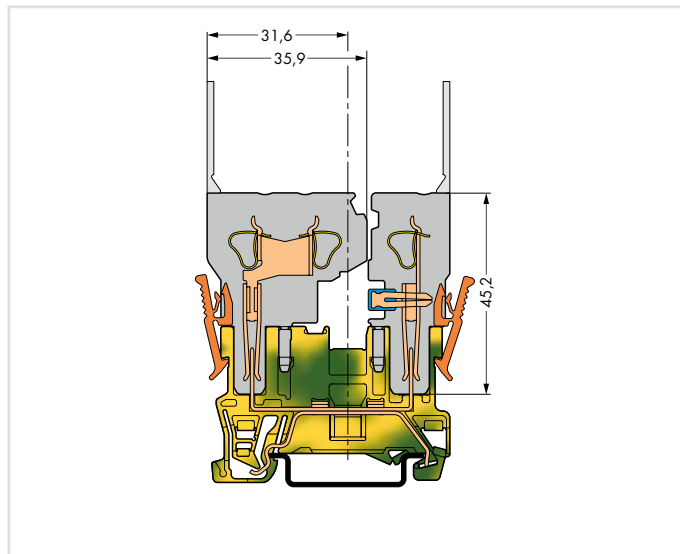


Carrier terminal block with shield contact



2-conductor and 1-conductor female plugs

Carrier terminal blocks can be commoned via 280 and 780 Series Jumpers.



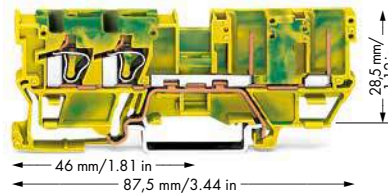
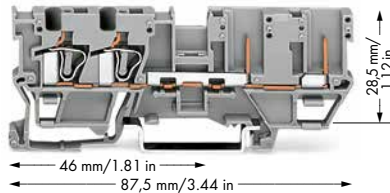
Ground carrier terminal block

# X-COM®-SYSTEM

## 2-Conductor/2-Pin Carrier Terminal Blocks









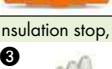







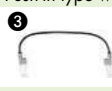






### 4 mm<sup>2</sup>, 769 Series

0.08 ... 4 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 32 A ②	28 ... 12 AWG 300 V, 20 A ③ 300 V, 20 A ③	0.08 ... 4 mm <sup>2</sup>   28 ... 12 AWG	
Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch		Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	



- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
250 V / 4 kV / 3 = Nominal voltage with shield contact (see Section 14)
- ② Current-carrying capacity curves, see page 401 and upon request
- ③ See application notes for:  
Insulation stop, page 331  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Test plug modules, page 326
- ④ Note:  
1-conductor female plug, angled is not suitable.

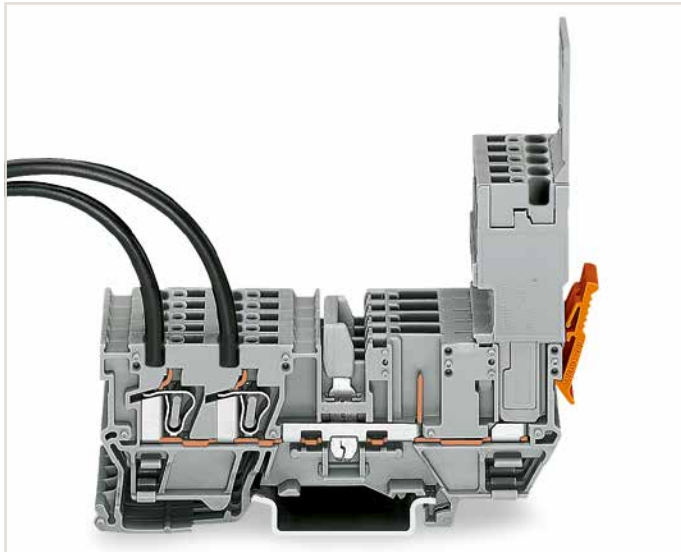
6

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
2-conductor/2-pin carrier terminal block		2-conductor/2-pin ground carrier terminal block		
<ul style="list-style-type: none"> <li>○ gray <b>769-171</b> 50</li> <li>● blue <b>769-171/000-006</b> 50</li> </ul>		<ul style="list-style-type: none"> <li>● green-yellow <b>769-217</b> 50</li> </ul>		Test plug, with 500 mm cable, 2 mm Ø, max. 42 V
2-conductor/2-pin carrier terminal block, with shield contact, (no picture)				 red <b>210-136</b> 50
<ul style="list-style-type: none"> <li>○ gray <b>769-211</b> ① 50</li> </ul>				 yellow <b>210-137</b> 50
<b>Item-Specific Accessories</b>				Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks  gray <b>280-404</b> 100 (4x25)
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  yellow <b>280-415</b> 100 (4x25)				Pin cover, with Mini-WSB marker slot  gray <b>769-438</b> 100 (4x25)  orange <b>769-439</b> 100 (4x25)
<b>769 Series Accessories</b>				1-conductor female plug, straight ④  gray <b>769-101</b> 200
End and intermediate plate, 1.1 mm thick  orange <b>769-304</b> 100 (4x25)  gray <b>769-303</b> 100 (4x25)		Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A ③ 		2-conductor female plug  gray <b>769-121</b> 100
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st") ③  white <b>769-470</b> 200 (8x25)		from 1 to 2 <b>780-452</b> 100 (4x25) from 1 to 3 <b>780-453</b> 100 (4x25) from 1 to 4 <b>780-454</b> 100 (4x25) from 1 to 5 <b>780-455</b> 50 (2x25)		Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers  plain <b>248-501</b> 5
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> ③  light gray <b>769-471</b> 200 (8x25)		from 1 to 6 <b>780-456</b> 50 (2x25) from 1 to 7 <b>780-457</b> 50 (2x25) from 1 to 8 <b>780-458</b> 50 (2x25)		Screwless end stop, for DIN-35 rail, 6 mm wide  gray <b>249-116</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> ③  dark gray <b>769-472</b> 200 (8x25)		Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A ③ 		Screwless end stop, for DIN-35 rail, 10 mm wide  gray <b>249-117</b> 50 (2x25)
Coding pin, for coding female plugs  orange <b>769-435</b> 100 (4x25)		L = 60 mm <b>249-125</b> 10 L = 110 mm <b>249-126</b> 10 L = 250 mm <b>249-127</b> 10		
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block  gray <b>280-402</b> 200 (8x25)		Test plug module, snaps together, 5 mm wide ③  gray <b>280-418</b> 100 (4x25)		
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block  gray <b>280-409</b> 100 (4x25)		Spacer module, snaps together, 5 mm wide  gray <b>280-419</b> 100 (4x25)		

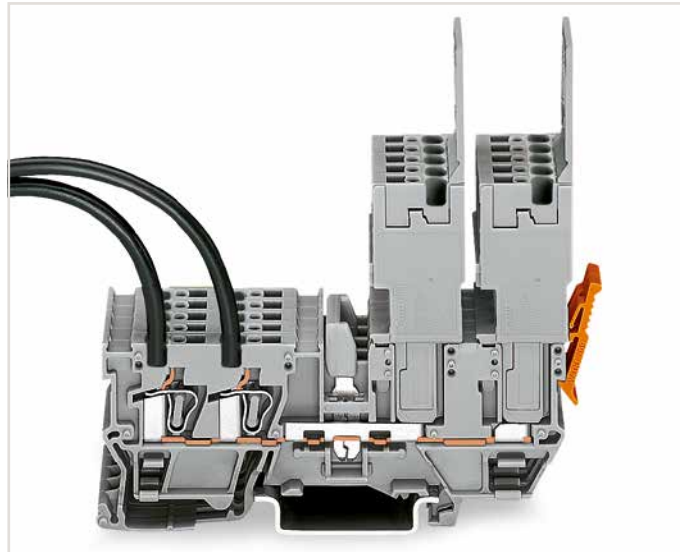
# X-COM®-SYSTEM

## 2-Conductor/2-Pin Carrier Terminal Blocks and 1-/2-Conductor Female Plugs

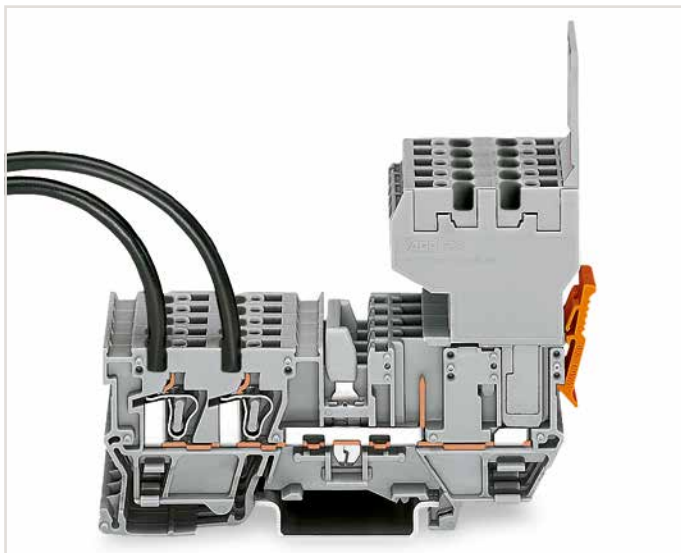
### Types of Assembly



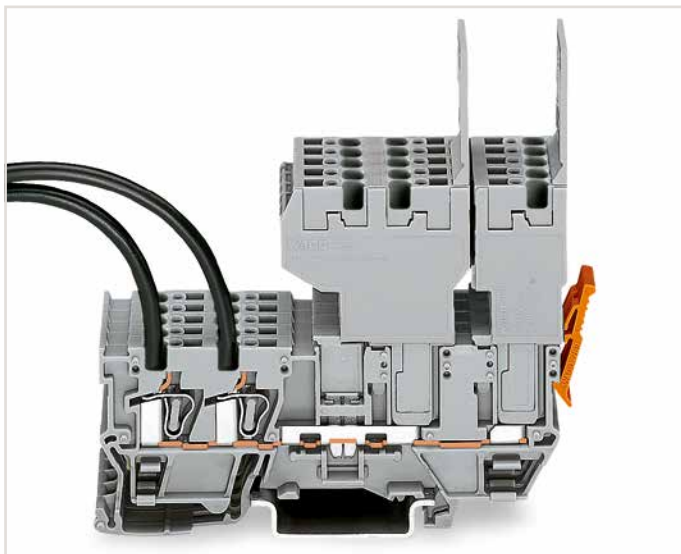
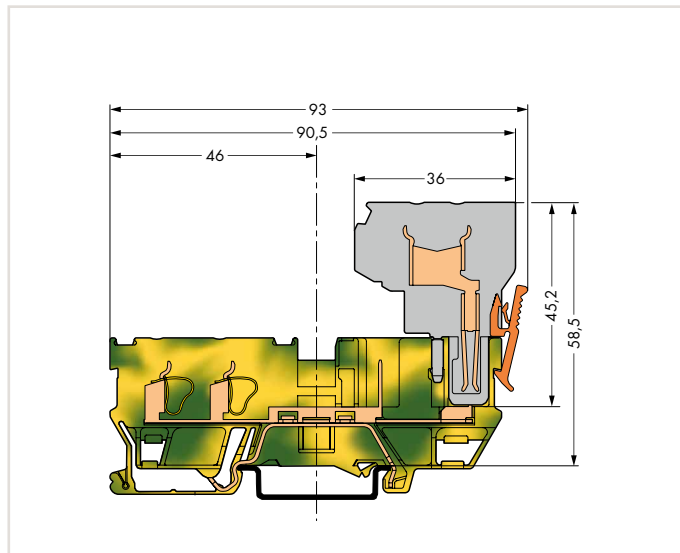
1-conductor female plug  
Carrier terminal blocks can be commoned via 280 and 780 Series Jumpers and tested using a 280 Series Test Plug Adapter.



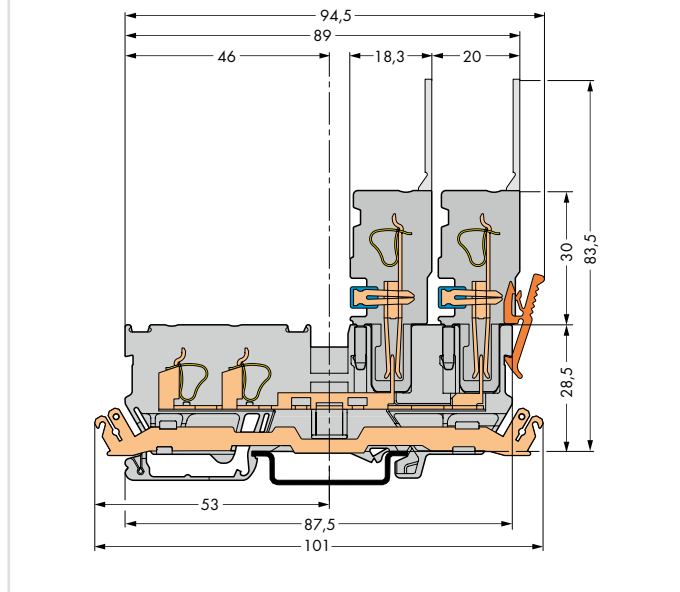
2 x 1-conductor female plugs  
Carrier terminal blocks can be commoned via 280 and 780 Series Jumpers and tested using a 280 Series Test Plug Adapter.



2-conductor female plug  
Carrier terminal blocks can be commoned via 280 and 780 Series Jumpers and tested using a 280 Series Test Plug Adapter.



1-conductor and 2-conductor female plugs  
Carrier terminal blocks can only be commoned via 280 Series Adjacent and Alternate Jumpers.





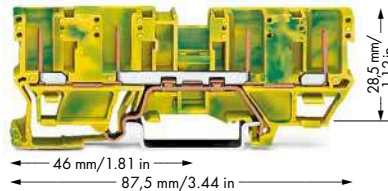
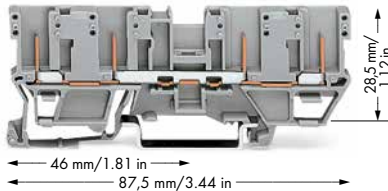
Ground carrier terminal block  
Carrier terminal block with shield contact

# X-COM®-SYSTEM

## 4-Pin Carrier Terminal Blocks







### 4 mm<sup>2</sup>, 769 Series

500 V/6 kV/3 ① 300 V, 20 A  I <sub>N</sub> 32 A ② 300 V, 20 A  Terminal block width 5 mm / 0.197 inch	Terminal block width 5 mm / 0.197 inch
---	--



- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
250 V / 4 kV / 3 =  
Nominal voltage with shield contact  
(see Section 14)
- ② Current-carrying capacity curves, see page 401 and upon request
- ③ See application notes for:  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Test plug modules, page 327
- ④ Note:  
1-conductor female plug, angled is not suitable.

6

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
4-pin carrier terminal block		4-pin ground carrier terminal block		
○ gray <b>769-151</b>	50	● green-yellow <b>769-207</b>	50	Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers plain <b>248-501</b> 5
4-pin carrier terminal block, with shield contact, (no picture)				Mini-WSB Quick marking system, plain, 10 strips with 10 markers per card, 5 mm wide markers
○ gray <b>769-201</b> ①	50			yellow <b>248-501/000-002</b> red <b>248-501/000-005</b> blue <b>248-501/000-006</b> gray <b>248-501/000-007</b> orange <b>248-501/000-012</b> light green <b>248-501/000-017</b> green <b>248-501/000-023</b> violet <b>248-501/000-024</b> 5
<b>769 Series Accessories</b>				
Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)				
End and intermediate plate, 1.1 mm thick orange <b>769-302</b> 100 (4x25) gray <b>769-301</b> 100 (4x25)		Test plug module, snaps together, 5 mm wide ③  gray <b>280-418</b> 100 (4x25)		
Coding pin, for coding female plugs orange <b>769-435</b> 100 (4x25)		Spacer module, snaps together, 5 mm wide gray <b>280-419</b> 100 (4x25)		Screwless end stop, for DIN-35 rail, 6 mm wide  gray <b>249-116</b> 100 (4x25)
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block gray <b>280-402</b> 200 (8x25)		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V yellow <b>210-137</b> 50		Screwless end stop, for DIN-35 rail, 10 mm wide  gray <b>249-117</b> 50 (2x25)
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block gray <b>280-409</b> 100 (4x25)		Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks gray <b>280-404</b> 100 (4x25)		
Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A ③ 		Pin cover, with Mini-WSB marker slot gray <b>769-438</b> 100 (4x25) orange <b>769-439</b> 100 (4x25)		
from 1 to 2 <b>780-452</b> 100 (4x25) from 1 to 3 <b>780-453</b> 100 (4x25) from 1 to 4 <b>780-454</b> 100 (4x25) from 1 to 5 <b>780-455</b> 50 (2x25) from 1 to 6 <b>780-456</b> 50 (2x25) from 1 to 7 <b>780-457</b> 50 (2x25) from 1 to 8 <b>780-458</b> 50 (2x25)		1-conductor female plug, straight ④  gray <b>769-101</b> 200		
Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A ③ 		2-conductor female plug gray <b>769-121</b> 100		
L = 60 mm <b>249-125</b> 10 L = 110 mm <b>249-126</b> 10 L = 250 mm <b>249-127</b> 10				

# X-COM®-SYSTEM

## 4-Pin Carrier Terminal Blocks and 1-/2-Conductor Female Plugs

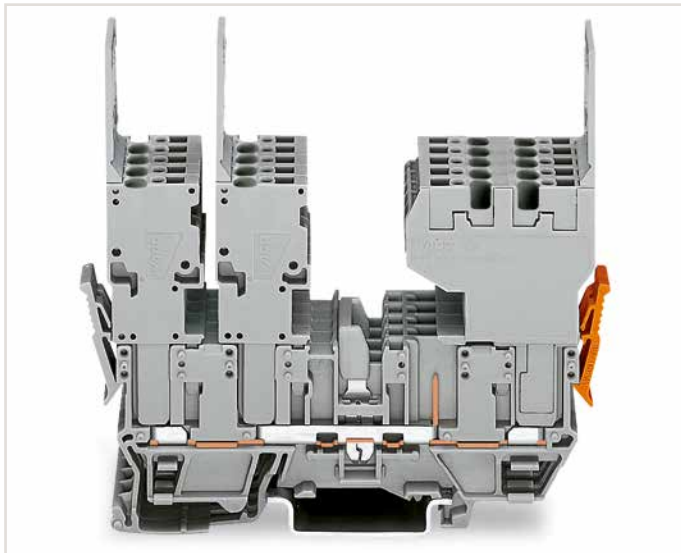
### Types of Assembly



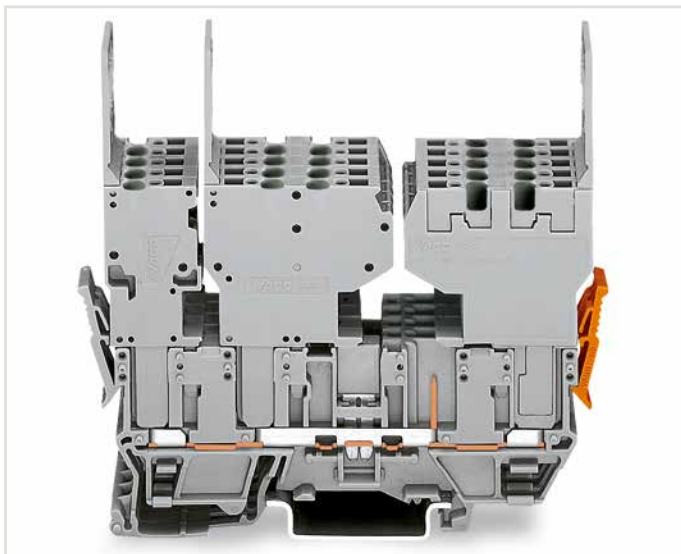
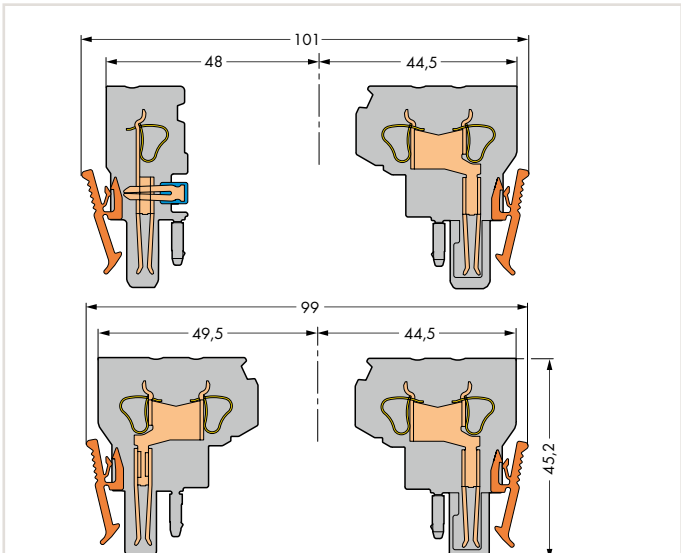
4 x 1-conductor female plugs  
Carrier terminal blocks can be commoned via 280 and 780 Series Jumpers and tested using a 280 Series Test Plug Adapter.



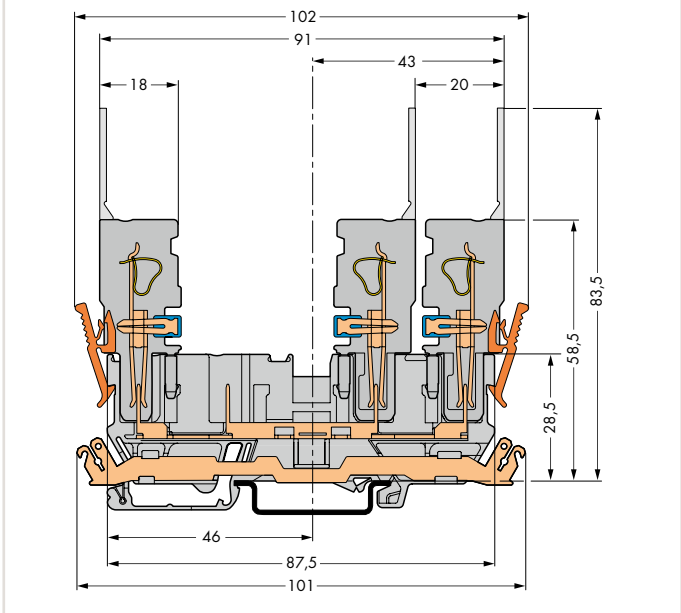
2 x 2-conductor female plugs  
Carrier terminal blocks can be commoned via 280 and 780 Series Jumpers and tested using a 280 Series Test Plug Adapter.



2 x 1-conductor female plug (left), 1 x 2-conductor female plug (right), may be reversed – carrier terminal blocks can be commoned via 280 and 780 Series Jumpers and tested using a 280 Series Test Plug Adapter.



1-conductor and 2-conductor female plugs (left), 2-conductor female plug (right), may be reversed – carrier terminal blocks can only be commoned via 280 Series Adjacent and Alternate Jumpers.



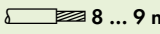
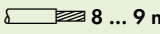
Carrier terminal block with shield contact

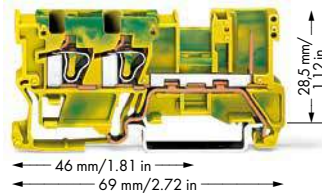
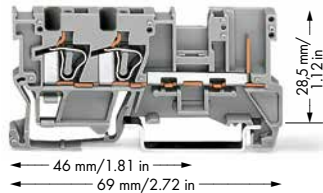
6

# X-COM®-SYSTEM

## 2-Conductor/1-Pin Carrier Terminal Blocks



















### 4 mm<sup>2</sup>, 769 Series

0.08 ... 4 mm <sup>2</sup>   28 ... 12 AWG 500 V/6 kV/3 ①   300 V, 20 A <sup>②</sup> I <sub>N</sub> 32 A ②   300 V, 20 A <sup>③</sup> Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	0.08 ... 4 mm <sup>2</sup>   28 ... 12 AWG Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch
---	---



- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Current-carrying capacity curves upon request
- ③ See application notes for:  
Insulation stop, page 331  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Test plug modules, page 326

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Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
2-conductor/1-pin carrier terminal block		2-conductor/1-pin ground carrier terminal block		
○ gray <b>769-251</b> 50 ● blue <b>769-251/000-006</b> 50		● green-yellow <b>769-257</b> 50		Pin cover, with Mini-WSB marker slot
<b>Item-Specific Accessories</b>				 gray <b>769-438</b> 100 (4x25) orange <b>769-439</b> 100 (4x25)
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  yellow <b>280-415</b> 100 (4x25)				1-conductor female plug, straight
<b>769 Series Accessories</b>				 gray <b>769-101/022-000</b> 200
Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)				1-conductor female plug, angled
End and intermediate plate, 1.1 mm thick orange <b>769-321</b> 100 (4x25) gray <b>769-320</b> 100 (4x25)		Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A ③ 		2-conductor female plug
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst") ③  white <b>769-470</b> 200 (8x25)		from 1 to 2 <b>780-452</b> 100 (4x25) from 1 to 3 <b>780-453</b> 100 (4x25) from 1 to 4 <b>780-454</b> 100 (4x25) from 1 to 5 <b>780-455</b> 50 (2x25)		 gray <b>769-121</b> 100
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> ③  light gray <b>769-471</b> 200 (8x25)		from 1 to 6 <b>780-456</b> 50 (2x25) from 1 to 7 <b>780-457</b> 50 (2x25) from 1 to 8 <b>780-458</b> 50 (2x25)		Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers plain <b>248-501</b> 5
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> ③  dark gray <b>769-472</b> 200 (8x25)		Test plug module, snaps together, 5 mm wide ③  gray <b>280-418</b> 100 (4x25)		Mini-WSB Quick marking system, plain, 10 strips with 10 markers per card, 5 mm wide markers yellow <b>248-501/000-002</b> red <b>248-501/000-005</b> blue <b>248-501/000-006</b> gray <b>248-501/000-007</b> orange <b>248-501/000-012</b> light green <b>248-501/000-017</b> green <b>248-501/000-023</b> violet <b>248-501/000-024</b> 5
Coding pin, for coding female plugs  orange <b>769-435</b> 100 (4x25)		Spacer module, snaps together, 5 mm wide  gray <b>280-419</b> 100 (4x25)		
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block  gray <b>280-402</b> 200 (8x25)		B-type test plug module, snaps together, 5 mm wide ③  gray <b>249-106</b> 100 (4x25)		
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block ③  gray <b>280-409</b> 100 (4x25)		Test plug, with 500 mm cable, 2 mm Ø, max. 42 V  red <b>210-136</b> 50		
Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A 		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  yellow <b>210-137</b> 50		
L = 60 mm <b>249-125</b> 10 L = 110 mm <b>249-126</b> 10 L = 250 mm <b>249-127</b> 10		Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks  gray <b>280-404</b> 100 (4x25)		



# X-COM®-SYSTEM

## 2-Conductor/1-Pin Carrier Terminal Blocks and 1-/2-Conductor Female Plugs

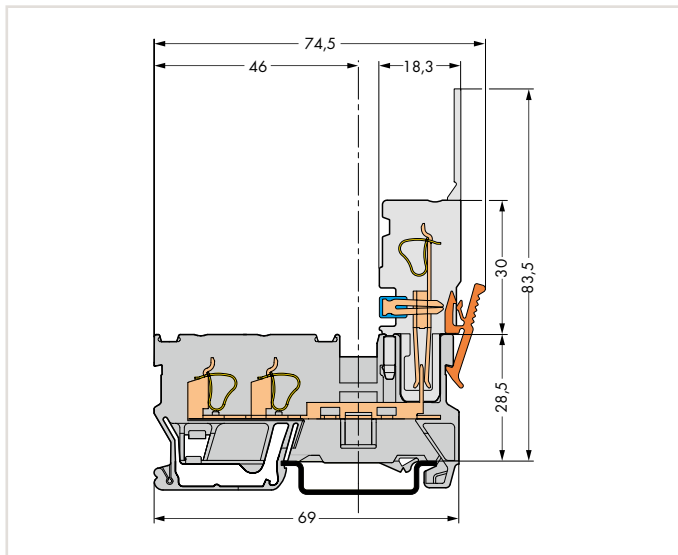
### Types of Assembly



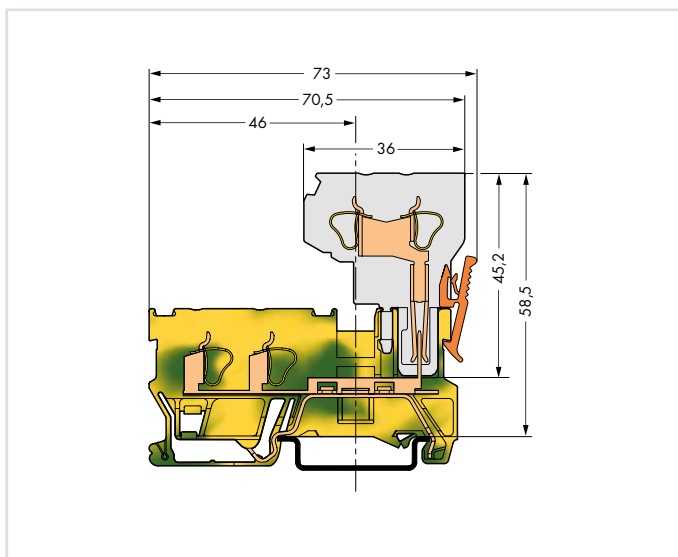
Pin cover (769-438) with Mini-WSB marker slot



1-conductor female plug  
Carrier terminal blocks can be commoned via 280 and 780 Series Jumpers and tested using a 280 Series Test Plug Adapter.



Carrier terminal block





Ground carrier terminal block


6

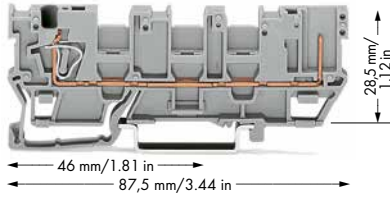
# X-COM®-SYSTEM

## 1-Conductor/1-Pin Carrier Terminal Blocks with Three Jumper Positions

4 mm<sup>2</sup>, 769 Series


0.08 ... 4 mm<sup>2</sup> 28 ... 12 AWG  
 500 V/6 kV/3 ① 300 V, 20 A   
 I<sub>N</sub> 32 A ② 300 V, 20 A 

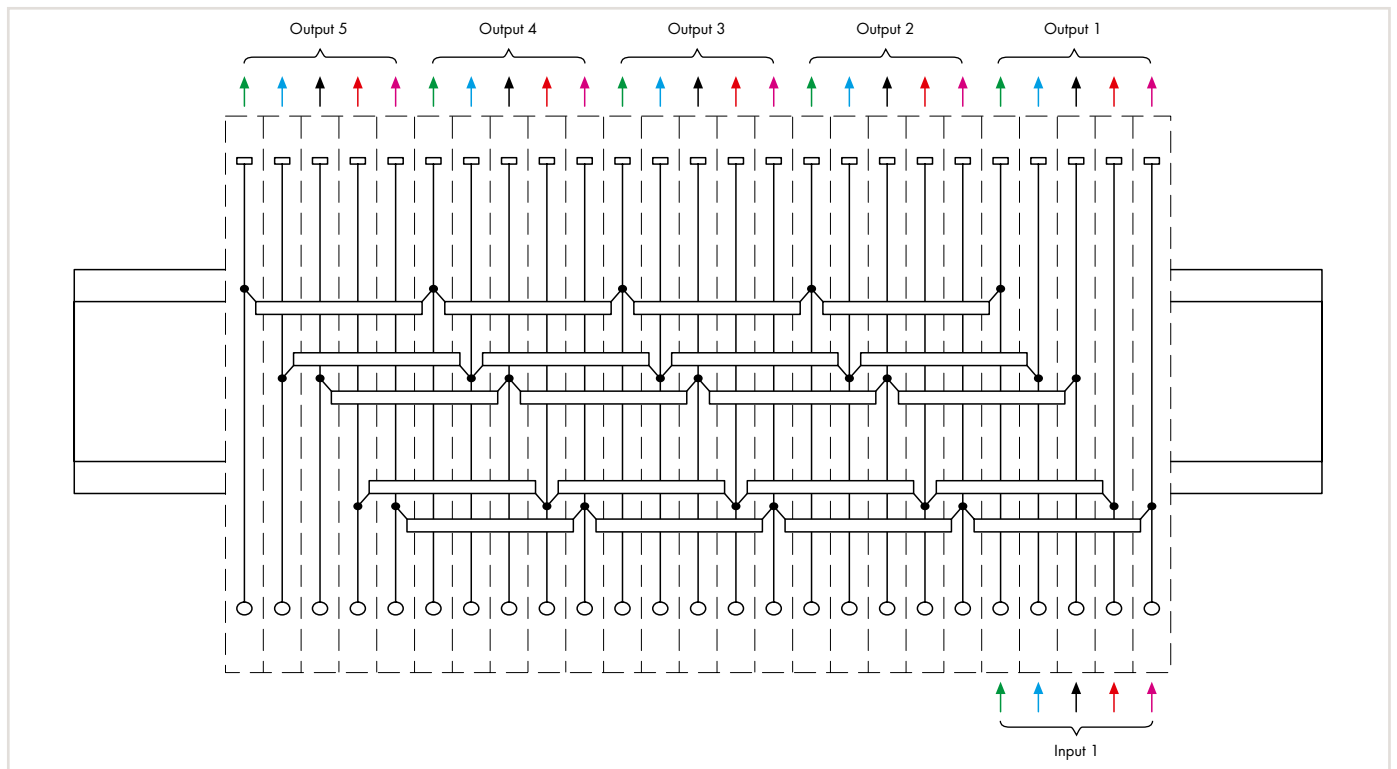
Terminal block width 5 mm / 0.197 inch  
 8 ... 9 mm / 0.31 ... 0.35 inch



- ① 500 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ② Current-carrying capacity curves upon request
- ③ See application notes for:  
 Insulation stop, page 331

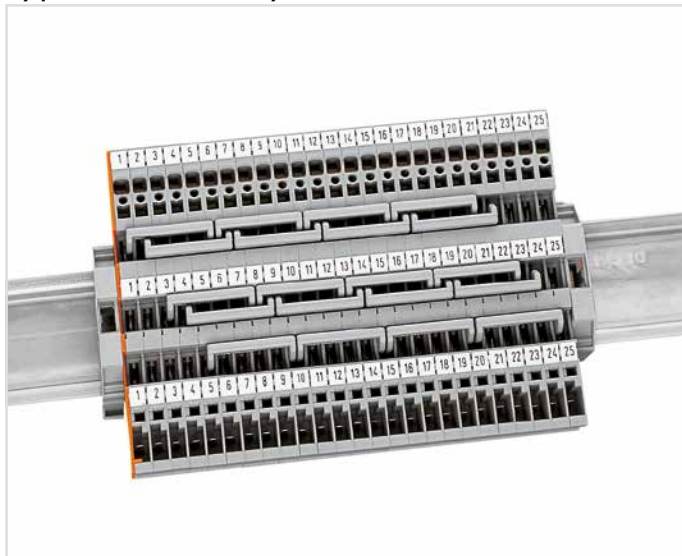
6

Item No.	Pack. Unit	Accessories
1-conductor/1-pin carrier terminal block, with three jumper positions		Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)
○ gray 769-214	50	Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>  light gray 769-471 200 (8x25)
Full range of 769 Series accessories, see page 342		Coding pin, for coding female plugs  orange 769-435 100 (4x25)
<b>769 Series Accessories</b>		Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>  dark gray 769-472 200 (8x25)
End and intermediate plate, 1.1 mm thick  orange 769-316 100 (4x25)  gray 769-315 100 (4x25)		Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block  gray 280-402 200 (8x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")  white 769-470 200 (8x25)		1-conductor female plug, straight  gray 769-101 200
		1-conductor female plug, angled  gray 769-101/022-000 200
		2-conductor female plug  gray 769-121 100

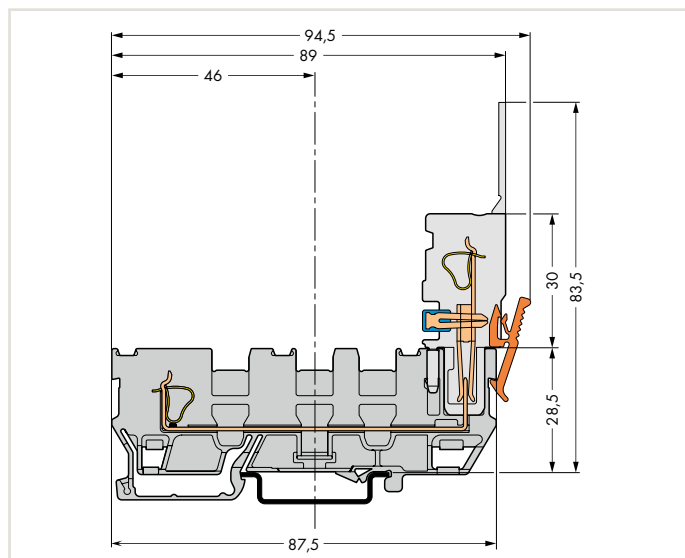
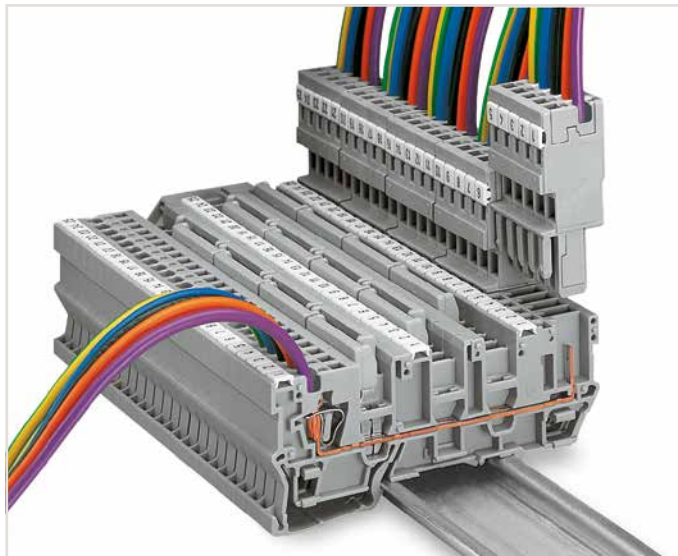


**X-COM®-SYSTEM****2-Pin Carrier Terminal Blocks and 1-/2-Conductor Female Plugs**

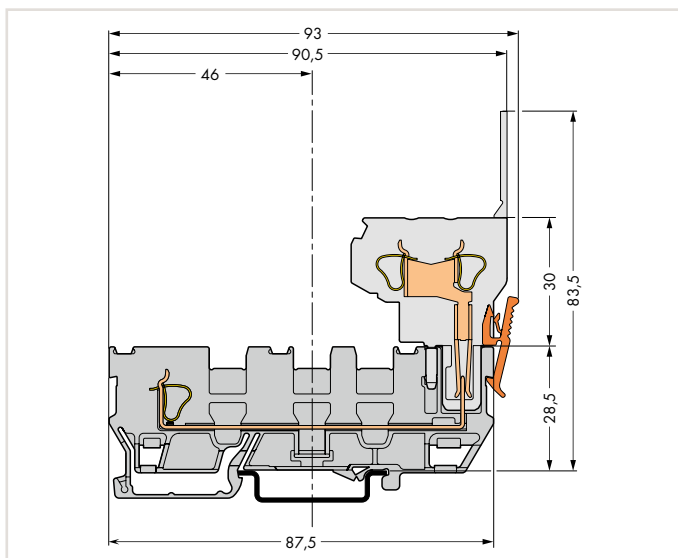
## Types of Assembly



1-conductor/1-pin carrier terminal blocks with three jumper positions  
The three jumper positions allow up to six commoning options for staggered jumpers.



Carrier terminal block



Carrier terminal block

## Application examples:

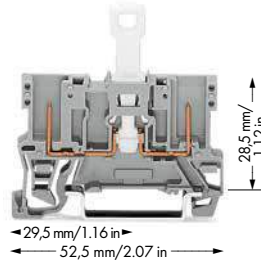
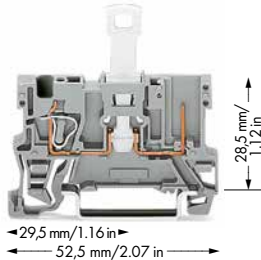
- Multiplication of three-phase circuits L1-L2-L3-N-PE with pluggable outputs; e.g., use with motors, frequency converters, power units.
- Voltage supplies to multiple locations  
± 15 V, 0 V, + 5 V, + 12 V, + 24 V
- Various wire-to-wire interfacing possibilities

# X-COM®-SYSTEM

## 1-Conductor/1-Pin and 2-Pin Disconnect Carrier Terminal Blocks

### 4 mm<sup>2</sup>, 769 Series

0.08 ... 4 mm <sup>2</sup>   28 ... 12 AWG 400 V/6 kV/3 ①   300 V, 20 A <sup>II</sup> I <sub>N</sub> 16 A ②   300 V, 20 A <sup>III</sup> Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	400 V/6 kV/3 ①   300 V, 20 A <sup>II</sup> I <sub>N</sub> 16 A ②   300 V, 20 A <sup>III</sup> Terminal block width 5 mm / 0.197 inch
---	--



- ① 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
250 V / 4 kV / 3 = nominal voltage with shield contact (see Section 14)
- ② 16 A, 85°C upper temperature limit (current-carrying capacity curves upon request)
- ③ See application notes for: Insulation stop, page 331
- ④ Note:  
2-conductor female plug is not suitable.

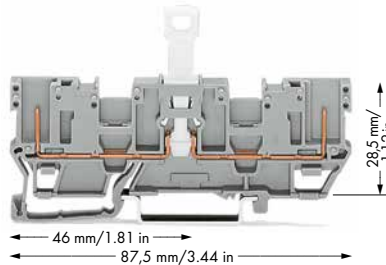
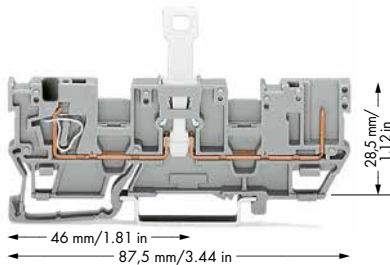
6

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
1-conductor/1-pin disconnect carrier terminal block		2-pin disconnect carrier terminal block		
○ gray <b>769-232</b>	50	○ gray <b>769-222</b>	50	Mini-WSB Quick marking system, plain, 10 strips with 10 markers per card, 5 mm wide markers
1-conductor/1-pin disconnect carrier terminal block, with shield contact, (no picture)		2-pin disconnect carrier terminal block, with shield contact, (no picture)		yellow <b>248-501/000-002</b> red <b>248-501/000-005</b> blue <b>248-501/000-006</b> gray <b>248-501/000-007</b> orange <b>248-501/000-012</b> light green <b>248-501/000-017</b> green <b>248-501/000-023</b> violet <b>248-501/000-024</b>
○ gray <b>769-233</b> ①	50	○ gray <b>769-223</b> ①	50	
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		
End and intermediate plate, 1.1 mm thick orange <b>769-308</b> 100 (4x25) gray <b>769-307</b> 100 (4x25)		End and intermediate plate, 1.1 mm thick orange <b>769-306</b> 100 (4x25) gray <b>769-305</b> 100 (4x25)		
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst") white <b>769-470</b> 200 (8x25)				Screwless end stop, for DIN-35 rail, 6 mm wide gray <b>249-116</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>769-471</b> 200 (8x25)				Screwless end stop, for DIN-35 rail, 10 mm wide gray <b>249-117</b> 50 (2x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>769-472</b> 200 (8x25)				
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>280-415</b> 100 (4x25)				
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V red <b>210-136</b> 50				
<b>769 Series Accessories</b>				
Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)				
Coding pin, for coding female plugs orange <b>769-435</b> 100 (4x25)		1-conductor female plug, straight ④ gray <b>769-101</b> 200		
Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V yellow <b>210-137</b> 50		1-conductor female plug, angled gray <b>769-101/022-000</b> 200		
Disconnect lock, for disconnect tab used on disconnect terminal blocks (280/281 and 769 Series) red <b>709-170</b> 200 (8x25)		Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers plain <b>248-501</b> 5		

# X-COM®-SYSTEM – 1-Conductor/1-Pin and 2-Pin Disconnect Carrier Terminal Blocks with Two Jumper Positions

4 mm<sup>2</sup>, 769 Series

0.08 ... 4 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 16 A ②	28 ... 12 AWG 300 V, 20 A ③ 300 V, 20 A ③	400 V/6 kV/3 ①   300 V, 20 A ③ I <sub>N</sub> 16 A ②   300 V, 20 A ③	Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	Terminal block width 5 mm / 0.197 inch
---	---	---	---	--



- ① 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
250 V / 4 kV / 3 = nominal voltage with shield contact (see Section 14)
- ② 16 A, 85°C upper temperature limit (current-carrying capacity curves upon request)
- ③ See application notes for:  
Insulation stop, page 331  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Test plug module, page 328


Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
1-conductor/1-pin disconnect carrier terminal block, with two jumper positions		2-pin disconnect carrier terminal block, with two jumper positions		
gray 769-212	50	gray 769-202	50	Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block gray 280-402 200 (8x25)
1-conductor/1-pin disconnect carrier terminal block, with shield contact, with two jumper positions, (no picture)		2-pin disconnect carrier terminal block, with shield contact, with two jumper positions, (no picture)		Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block gray 280-409 100 (4x25)
gray 769-213 ①	50	gray 769-203 ①	50	Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A ③
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		
End and intermediate plate, 1.1 mm thick orange 769-312 100 (4x25) gray 769-311 100 (4x25)		End and intermediate plate, 1.1 mm thick orange 769-310 100 (4x25) gray 769-309 100 (4x25)		from 1 to 2 780-452 100 (4x25) from 1 to 3 780-453 100 (4x25) from 1 to 4 780-454 100 (4x25) from 1 to 5 780-455 50 (2x25) from 1 to 6 780-456 50 (2x25) from 1 to 7 780-457 50 (2x25) from 1 to 8 780-458 50 (2x25)
Separator, oversized, 1.1 mm thick orange 769-314 100 (4x25)		Separator, oversized, 1.1 mm thick orange 769-313 100 (4x25)		Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A ③ L = 60 mm 249-125 10 L = 110 mm 249-126 10 L = 250 mm 249-127 10
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st") white 769-470 200 (8x25)				Test plug module, snaps together, 5 mm wide ③ gray 280-418 100 (4x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray 769-471 200 (8x25)				Disconnect lock, for disconnect tab used on disconnect terminal blocks (280/281 and 769 Series) red 709-170 200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray 769-472 200 (8x25)				1-conductor female plug, straight gray 769-101 200
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow 280-415 100 (4x25)				1-conductor female plug, angled gray 769-101/022-000 200
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V red 210-136 50				2-conductor female plug gray 769-121 100
<b>769 Series Accessories</b>				
Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)				
Coding pin, for coding female plugs orange 769-435 100 (4x25)		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V yellow 210-137 50		

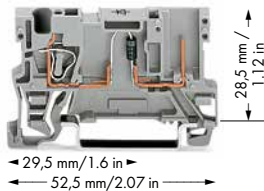
6

# X-COM®-SYSTEM

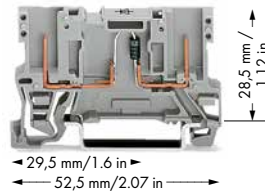
## 1-Conductor/1-Pin and 2-Pin Diode Carrier Terminal Blocks

### 4 mm<sup>2</sup>, 769 Series

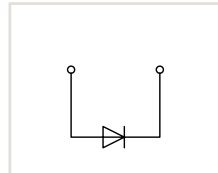
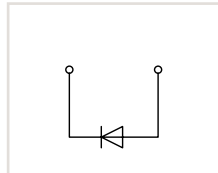
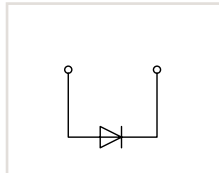
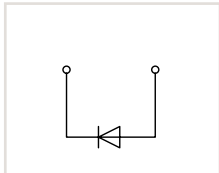
0.08 ... 4 mm <sup>2</sup>   28 ... 12 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 5 mm / 0.197 inch
---	---



769-238/281-411      769-238/281-410





769-228/281-411      769-228/281-410














- ① See application notes for: Insulation stop, page 331
- ② Note: 2-conductor female plug is not suitable.

### Accessories


Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers		
	plain	<b>248-501</b> 5
Mini-WSB Quick marking system, plain, 10 strips with 10 markers per card, 5 mm wide markers		
	yellow	<b>248-501/000-002</b>
	red	<b>248-501/000-005</b>
	blue	<b>248-501/000-006</b>
	gray	<b>248-501/000-007</b>
	orange	<b>248-501/000-012</b>
	light green	<b>248-501/000-017</b>
	green	<b>248-501/000-023</b>
	violet	<b>248-501/000-024</b>

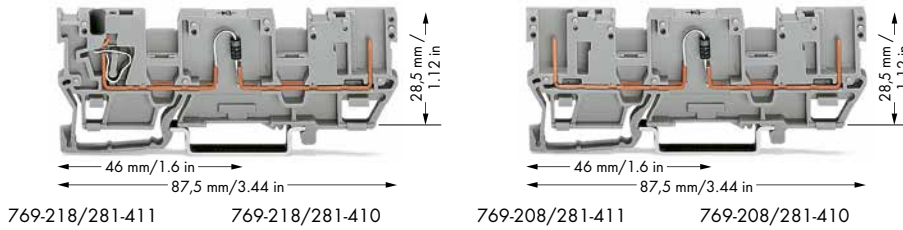
6

Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor/1-pin diode carrier terminal block		2-pin diode carrier terminal block	
○ Anode right	<b>769-238/281-411</b> 100	○ Anode right	<b>769-228/281-411</b> 100
○ Anode left	<b>769-238/281-410</b> 100	○ Anode left	<b>769-228/281-410</b> 100
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 1.1 mm thick		End and intermediate plate, 1.1 mm thick	
	orange <b>769-308</b> 100 (4x25)		orange <b>769-306</b> 100 (4x25)
	gray <b>769-307</b> 100 (4x25)		gray <b>769-305</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" ① (0.14 mm <sup>2</sup> "fst")			
	white <b>769-470</b> 200 (8x25)		
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> ①			
	light gray <b>769-471</b> 200 (8x25)		
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> ①			
	dark gray <b>769-472</b> 200 (8x25)		
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks 			
	yellow <b>280-415</b> 100 (4x25)		
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V 			
	red <b>210-136</b> 50		
<b>769 Series Accessories</b>			
Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)			
Coding pin, for coding female plugs 		1-conductor female plug, straight ②	
	orange <b>769-435</b> 100 (4x25)		gray <b>769-101</b> 200
Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V 		1-conductor female plug, angled	
	yellow <b>210-137</b> 50		gray <b>769-101/022-000</b> 200

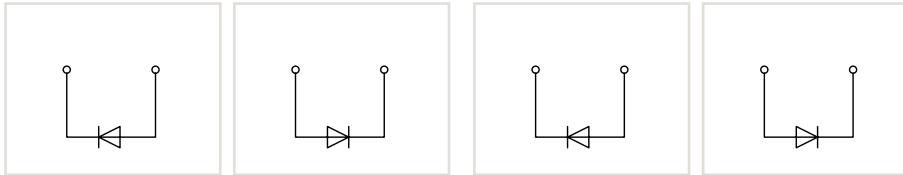
# X-COM®-SYSTEM – 1-Conductor/1-Pin and 2-Pin Diode Carrier Terminal Blocks with Two Jumper Positions

4 mm<sup>2</sup>, 769 Series

0.08 ... 4 mm <sup>2</sup>   28 ... 12 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 5 mm / 0.197 inch
--	---







- 1 See application notes for:  
 Insulation stop, page 331  
 Staggered jumper, page 333  
 Push-in type wire jumper, page 333  
 Test plug module, page 328





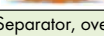
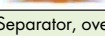







### 769 Series Accessories






Appropriate marking system:  
 Mini-WSB/Mini-WSB Inline (see Section 13)

Coding pin, for coding female plugs		orange	<b>769-435</b>	100 (4x25)
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Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V		yellow	<b>210-137</b>	50
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		gray	<b>280-402</b>	200 (8x25)
Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A				
		from 1 to 2	<b>780-452</b>	100 (4x25)
		from 1 to 3	<b>780-453</b>	100 (4x25)
		from 1 to 4	<b>780-454</b>	100 (4x25)
		from 1 to 5	<b>780-455</b>	50 (2x25)
		from 1 to 6	<b>780-456</b>	50 (2x25)
		from 1 to 7	<b>780-457</b>	50 (2x25)
		from 1 to 8	<b>780-458</b>	50 (2x25)

Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor/1-pin diode carrier terminal block, with two jumper positions		2-pin diode carrier terminal block, with two jumper positions	
○ Anode right <b>769-218/281-411</b>	50	○ Anode right <b>769-208/281-411</b>	50
○ Anode left <b>769-218/281-410</b>	50	○ Anode left <b>769-208/281-410</b>	50


Item-Specific Accessories		Item-Specific Accessories	
End and intermediate plate, 1.1 mm thick		End and intermediate plate, 1.1 mm thick	
 orange <b>769-312</b>	100 (4x25)	 orange <b>769-310</b>	100 (4x25)
 gray <b>769-311</b>	100 (4x25)	 gray <b>769-309</b>	100 (4x25)
Separator, oversized, 1.1 mm thick		Separator, oversized, 1.1 mm thick	
 orange <b>769-314</b>	100 (4x25)	 orange <b>769-313</b>	100 (4x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")			
 white <b>769-470</b>	200 (8x25)		
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
 light gray <b>769-471</b>	200 (8x25)		
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>			
 dark gray <b>769-472</b>	200 (8x25)		
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks			
 yellow <b>280-415</b>	100 (4x25)		
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V			
 red <b>210-136</b>	50		

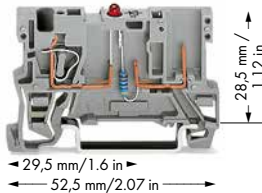
Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A				
		L = 60 mm	<b>249-125</b>	10
		L = 110 mm	<b>249-126</b>	10
		L = 250 mm	<b>249-127</b>	10
Test plug module, snaps together, 5 mm wide				
		gray	<b>280-418</b>	100 (4x25)
1-conductor female plug, straight				
		gray	<b>769-101</b>	200
1-conductor female plug, angled				
		gray	<b>769-101/022-000</b>	200
2-conductor female plug				
		gray	<b>769-121</b>	100

# X-COM®-SYSTEM

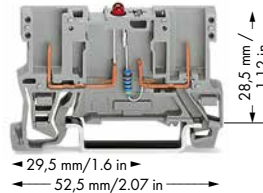
## 1-Conductor/1-Pin and 2-Pin LED Carrier Terminal Blocks

### 4 mm<sup>2</sup>, 769 Series

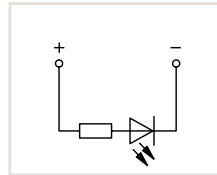
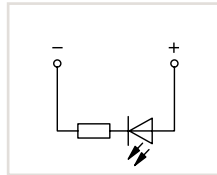
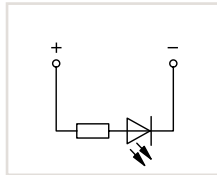
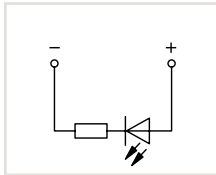
0.08 ... 4 mm <sup>2</sup>   28 ... 12 AWG 24 VDC I <sub>f</sub> 0.025 A max. Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	24 VDC I <sub>f</sub> 0.025 A max. Terminal block width 5 mm / 0.197 inch
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769-239/281-413      769-239/281-434





769-229/281-413      769-229/281-434














- 1 See application notes for: Insulation stop, page 331
- 2 Note: 2-conductor female plug is not suitable.

### Accessories

Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers		
	plain	<b>248-501</b> 5
Mini-WSB Quick marking system, plain, 10 strips with 10 markers per card, 5 mm wide markers		
	yellow	<b>248-501/000-002</b>
	red	<b>248-501/000-005</b>
	blue	<b>248-501/000-006</b>
	gray	<b>248-501/000-007</b>
	orange	<b>248-501/000-012</b>
	light green	<b>248-501/000-017</b>
	green	<b>248-501/000-023</b>
	violet	<b>248-501/000-024</b>


6

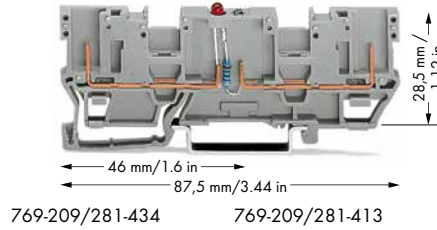
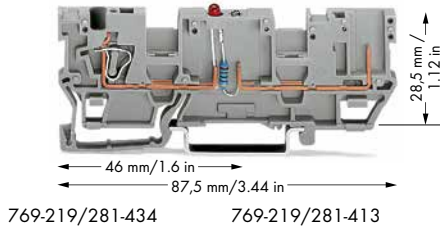
Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor/1-pin LED carrier terminal block		2-pin LED carrier terminal block	
○ Anode right	<b>769-239/281-413</b> 100	○ Anode right	<b>769-229/281-413</b> 100
○ Anode left	<b>769-239/281-434</b> 100	○ Anode left	<b>769-229/281-434</b> 100
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 1.1 mm thick		End and intermediate plate, 1.1 mm thick	
	orange <b>769-308</b> 100 (4x25)		orange <b>769-306</b> 100 (4x25)
	gray <b>769-307</b> 100 (4x25)		gray <b>769-305</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")			
	white <b>769-470</b> 200 (8x25)		
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
	light gray <b>769-471</b> 200 (8x25)		
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>			
	dark gray <b>769-472</b> 200 (8x25)		
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks			
	yellow <b>280-415</b> 100 (4x25)		
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V			
	red <b>210-136</b> 50		
<b>769 Series Accessories</b>			
Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)			
Coding pin, for coding female plugs		1-conductor female plug, straight	
	orange <b>769-435</b> 100 (4x25)		gray <b>769-101</b> 200
Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V		1-conductor female plug, angled	
	yellow <b>210-137</b> 50		gray <b>769-101/022-000</b> 200



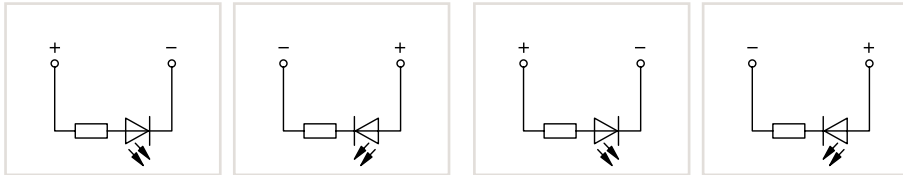
# X-COM®-SYSTEM – 1-Conductor/1-Pin and 2-Pin LED Carrier Terminal Blocks with Two Jumper Positions

## 4 mm<sup>2</sup>, 769 Series

0.08 ... 4 mm <sup>2</sup>   28 ... 12 AWG 24 VDC I <sub>F</sub> 0.025 A max. Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	24 VDC I <sub>F</sub> 0.025 A max. Terminal block width 5 mm / 0.197 inch
--	---





- ① See application notes for:  
 Insulation stop, page 331  
 Staggered jumper, page 333  
 Push-in type wire jumper, page 333  
 Test plug module, page 328





### 769 Series Accessories


Appropriate marking system:  
 Mini-WSB/Mini-WSB Inline (see Section 13)


Coding pin, for coding female plugs		orange	<b>769-435</b>	100 (4x25)
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Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V		yellow	<b>210-137</b>	50
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Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		gray	<b>280-402</b>	200 (8x25)
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Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A				
		from 1 to 2	<b>780-452</b>	100 (4x25)
		from 1 to 3	<b>780-453</b>	100 (4x25)
		from 1 to 4	<b>780-454</b>	100 (4x25)
		from 1 to 5	<b>780-455</b>	50 (2x25)
		from 1 to 6	<b>780-456</b>	50 (2x25)
		from 1 to 7	<b>780-457</b>	50 (2x25)
		from 1 to 8	<b>780-458</b>	50 (2x25)

Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A				
		L = 60 mm	<b>249-125</b>	10
		L = 110 mm	<b>249-126</b>	10
		L = 250 mm	<b>249-127</b>	10





Test plug module, snaps together, 5 mm wide		gray	<b>280-418</b>	100 (4x25)
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1-conductor female plug, straight		gray	<b>769-101</b>	200
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1-conductor female plug, angled		gray	<b>769-101/022-000</b>	200
---------------------------------	---	------	------------------------	-----


2-conductor female plug		gray	<b>769-121</b>	100
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Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor/1-pin LED carrier terminal block, with two jumper positions		2-pin LED carrier terminal block, with two jumper positions	
○ Anode left	<b>769-219/281-434</b> 50	○ Anode left	<b>769-209/281-434</b> 50
○ Anode right	<b>769-219/281-413</b> 50	○ Anode right	<b>769-209/281-413</b> 50


Item-Specific Accessories		Item-Specific Accessories	
End and intermediate plate, 1.1 mm thick		End and intermediate plate, 1.1 mm thick	
	orange <b>769-312</b> 100 (4x25)		orange <b>769-310</b> 100 (4x25)
	gray <b>769-311</b> 100 (4x25)		gray <b>769-309</b> 100 (4x25)


Separator, oversized, 1.1 mm thick		Separator, oversized, 1.1 mm thick	
	orange <b>769-314</b> 100 (4x25)		orange <b>769-313</b> 100 (4x25)

Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")			
	white <b>769-470</b> 200 (8x25)		

Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
	light gray <b>769-471</b> 200 (8x25)		

Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>			
	dark gray <b>769-472</b> 200 (8x25)		

Protective warning marker, with black high-voltage symbol, for 5 terminal blocks			
	yellow <b>280-415</b> 100 (4x25)		

Test plug, with 500 mm cable, 2 mm Ø, max. 42 V			
	red <b>210-136</b> 50		

# X-COM®-SYSTEM – 1-Conductor/1-Pin and 2-Pin Carrier Terminal Blocks and 1-Conductor Female Plugs

## Types of Assembly



1-conductor female plug  
Disconnect carrier terminal blocks cannot be commoned.

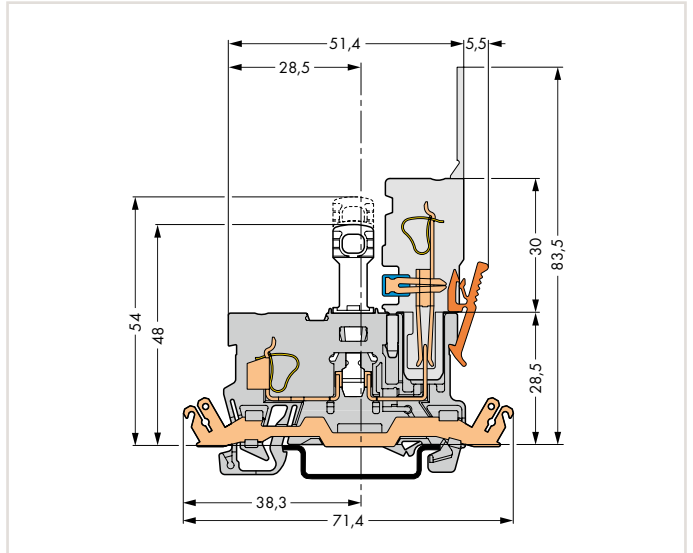


1-conductor female plug  
Disconnect carrier terminal blocks cannot be commoned.

6



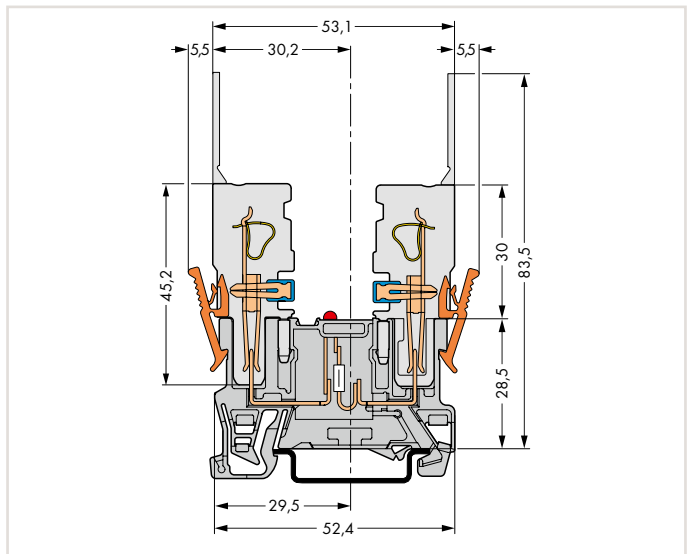
1-conductor female plug  
Diode carrier terminal blocks cannot be commoned.



Disconnect carrier terminal block with shield contact



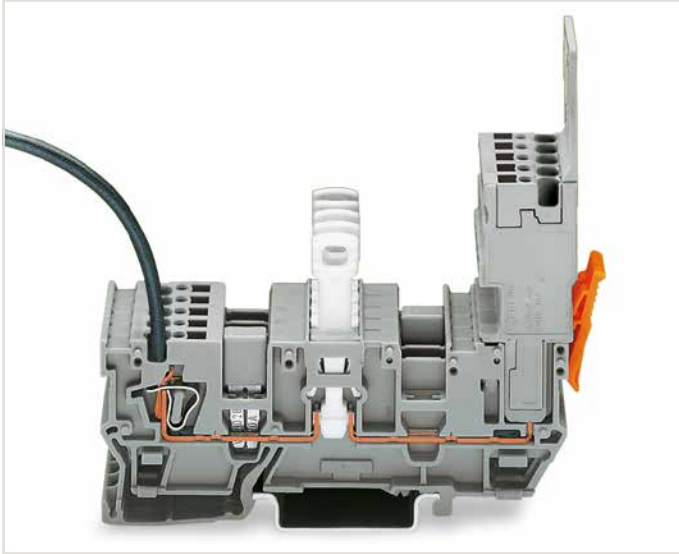
1-conductor female plug  
LED carrier terminal blocks cannot be commoned.



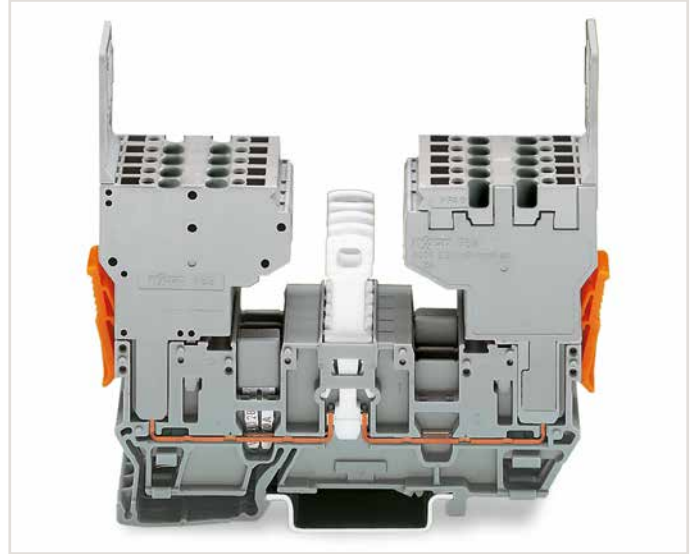
LED carrier terminal block

# X-COM®-SYSTEM – 1-Conductor/1-Pin and 2-Pin Carrier Terminal Blocks with Two Jumper Positions and 1-/2-Conductor Female Plugs

## Types of Assembly



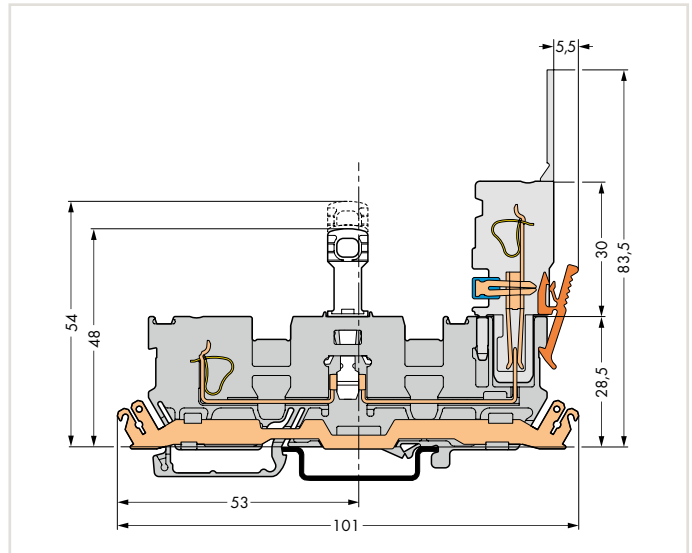
1-conductor female plug  
Disconnect carrier terminal blocks can be commoned via 280 and 780 Series Jumpers and tested using a 280 Series Test Plug Adapter.



2-conductor female plug  
Disconnect carrier terminal blocks can be commoned via 280 and 780 Series Jumpers.



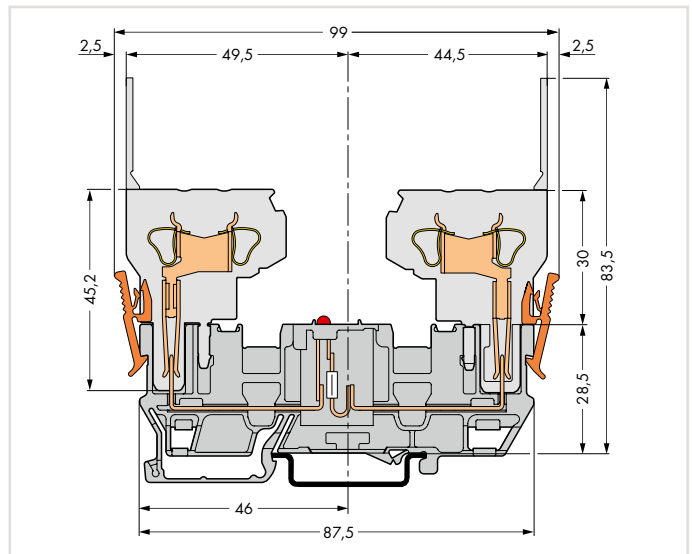
2-conductor female plug  
Diode carrier terminal blocks can be commoned via 280 and 780 Series Jumpers and tested using a 280 Series Test Plug Adapter.



Disconnect carrier terminal block with shield contact  
For other dimensions, see 769-171 Carrier Terminal Block.



2-conductor and 1-conductor female plugs (may be reversed)  
LED carrier terminal blocks can be commoned via 280 and 780 Series Jumpers and tested using a 280 Series Test Plug Adapter.



LED carrier terminal block  
For other dimensions, see 769-151 Carrier Terminal Block.

# X-COM®-SYSTEM – 1-Conductor/1-Conductor Disconnect Carrier Terminal Blocks with Two Jumper Positions

## 4 mm<sup>2</sup>, 769 Series

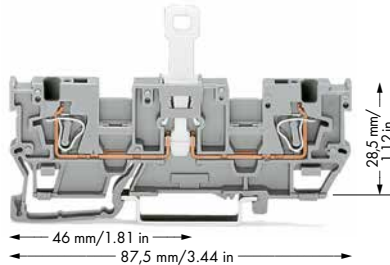
0.08 ... 4 mm<sup>2</sup> | 28 ... 12 AWG

400 V/6 kV/3 ①

I<sub>N</sub> 16 A

Terminal block width 5 mm / 0.197 inch

8 ... 9 mm / 0.31 ... 0.35 inch



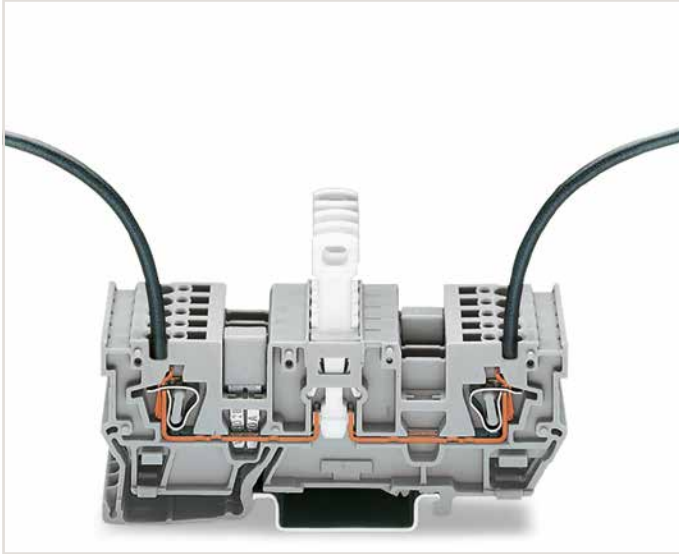
- ① 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
250 V / 4 kV / 3 =  
Nominal voltage with shield contact  
(see Section 14)
- ③ See application notes for:  
Insulation stop, page 331  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Test plug module, page 328

6

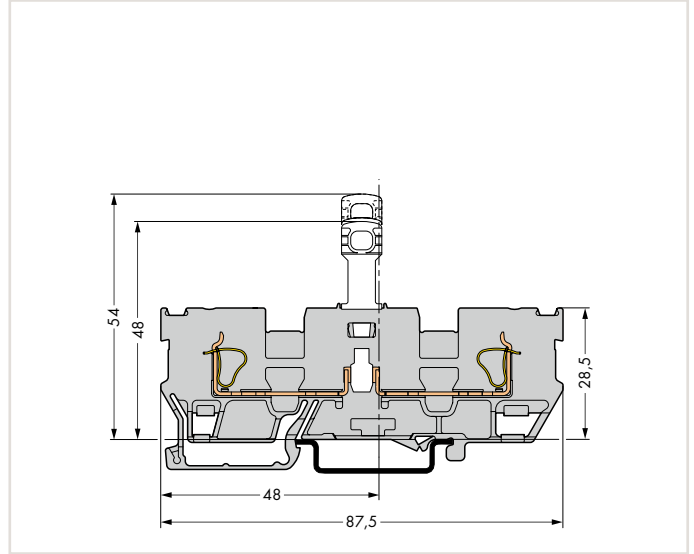
Item No.	Pack. Unit	Accessories
1-conductor/1-conductor disconnect carrier terminal block, with two jumper positions		Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)
○ gray <b>769-242</b> 50 1-conductor/1-conductor disconnect carrier terminal block, with shield contact, with two jumper positions, (no picture) ○ gray <b>769-243</b> ① 50		Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A ②
<b>769 Series Accessories</b>		Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers plain <b>248-501</b> 5 Mini-WSB Quick marking system, plain, 10 strips with 10 markers per card, 5 mm wide markers yellow <b>248-501/000-002</b> red <b>248-501/000-005</b> blue <b>248-501/000-006</b> gray <b>248-501/000-007</b> orange <b>248-501/000-012</b> light green <b>248-501/000-017</b> green <b>248-501/000-023</b> violet <b>248-501/000-024</b> 5
End and intermediate plate, 1.1 mm thick orange <b>769-318</b> 100 (4x25) gray <b>769-317</b> 100 (4x25)		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>280-415</b> 100 (4x25)
Separator plate, oversized, 1.1 mm thick orange <b>769-319</b> 100 (4x25)		Disconnect lock, for disconnect tab used on disconnect terminal blocks (280/281 and 769 Series) red <b>709-170</b> 200 (8x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st") white <b>769-470</b> 200 (8x25)		Test plug module, snaps together, 5 mm wide ②  gray <b>280-418</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>769-471</b> 200 (8x25)		Spacer module, snaps together, 5 mm wide gray <b>280-419</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>769-472</b> 200 (8x25)		Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks gray <b>280-404</b> 100 (4x25)
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block gray <b>280-402</b> 200 (8x25)		Test plug, with 500 mm cable, 2 mm Ø, max. 42 V red <b>210-136</b> 50
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block gray <b>280-409</b> 100 (4x25)		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V yellow <b>210-137</b> 50
Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A L = 60 mm <b>249-125</b> 10 L = 110 mm <b>249-126</b> 10 L = 250 mm <b>249-127</b> 10		Screwless end stop, for DIN-35 rail, 6 mm wide gray <b>249-116</b> 100 (4x25) Screwless end stop, for DIN-35 rail, 10 mm wide gray <b>249-117</b> 50 (2x25)

## X-COM®-SYSTEM – 1-Conductor/1-Conductor Disconnect Carrier Terminal Blocks with Two Jumper Positions

### Types of Assembly



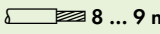
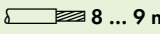
Carrier terminal blocks can be commoned via 280 and 780 Series Jumpers and tested using a 280 Series Test Plug Adapter.

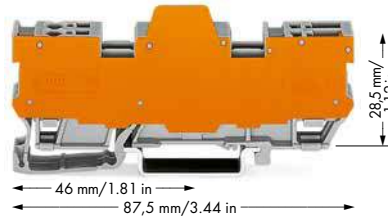
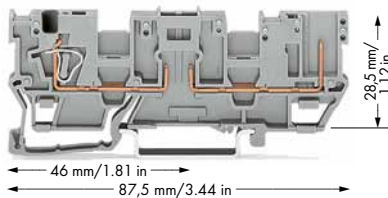


Disconnect carrier terminal block

# X-COM®-SYSTEM – 1-Conductor/1-Pin Carrier Terminal Blocks and Carrier Terminal Blocks for Pluggable Modules (Fuses, Relays, Optocouplers, etc.)






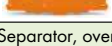












4 mm<sup>2</sup>, 769 Series

0.08 ... 4 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 16 A ②	28 ... 12 AWG 300 V, 20 A ③ 300 V, 20 A ④	0.08 ... 4 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 16 A ②	28 ... 12 AWG 300 V, 20 A ③ 300 V, 20 A ④
Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch		 8 ... 9 mm / 0.31 ... 0.35 inch	



- ① 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② 16 A, 85°C upper temperature limit (current-carrying capacity curves upon request)
- ③ See application notes for:  
Insulation stop, page 331  
Staggered jumper, page 333  
Push-in type wire jumper, page 333  
Test plug module, page 328
- ④ Note:  
2-conductor female plug is not suitable.

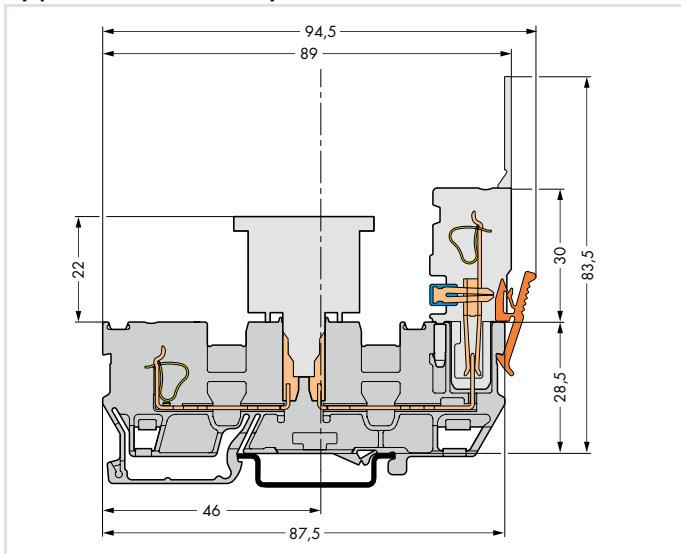
6

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
1-conductor/1-pin carrier terminal block, with two jumper positions, gray		1-conductor/1-pin carrier terminal block, with two jumper positions, with orange separator plate, gray		
○ 2-pole <b>769-181</b>	50	○ 4-pole, 11.1 mm wide <b>769-182/769-314</b>	10	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V  red <b>210-136</b> 50
		○ 6-pole, 16.1 mm wide <b>769-183/769-314</b>	5	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  yellow <b>210-137</b> 50
		○ 8-pole, 21.1 mm wide <b>769-184/769-314</b>	5	Test plug adapter, 5 mm wide, for 210-137 Test Plug (2.3 mm Ø), for 1.5 ... 4 mm <sup>2</sup> terminal blocks  gray <b>280-404</b> 100 (4x25)
		○ 10-pole, 26.1 mm wide <b>769-185/769-314</b>	5	1-conductor female plug, straight ④  gray <b>769-101</b> 200
<b>769 Series Accessories</b>				
Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)				
End and intermediate plate, 1.1 mm thick  orange <b>769-312</b> 100 (4x25)  gray <b>769-311</b> 100 (4x25)		Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A ③ 		
Separator, oversized, 1.1 mm thick  orange <b>769-314</b> 100 (4x25)		from 1 to 2 <b>780-452</b> 100 (4x25) from 1 to 3 <b>780-453</b> 100 (4x25) from 1 to 4 <b>780-454</b> 100 (4x25) from 1 to 5 <b>780-455</b> 50 (2x25) from 1 to 6 <b>780-456</b> 50 (2x25) from 1 to 7 <b>780-457</b> 50 (2x25) from 1 to 8 <b>780-458</b> 50 (2x25)		
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst") ③  white <b>769-470</b> 200 (8x25)		Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A ③ 		
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> ③  light gray <b>769-471</b> 200 (8x25)		L = 60 mm <b>249-125</b> 10 L = 110 mm <b>249-126</b> 10 L = 250 mm <b>249-127</b> 10		
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> ③  dark gray <b>769-472</b> 200 (8x25)		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  yellow <b>280-415</b> 100 (4x25)		
Coding pin, for coding female plugs  orange <b>769-435</b> 100 (4x25)		Test plug module, snaps together, 5 mm wide ③  gray <b>280-418</b> 100 (4x25)		
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block  gray <b>280-402</b> 200 (8x25)		Spacer module, snaps together, 5 mm wide  gray <b>280-419</b> 100 (4x25)		
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block  gray <b>280-409</b> 100 (4x25)				

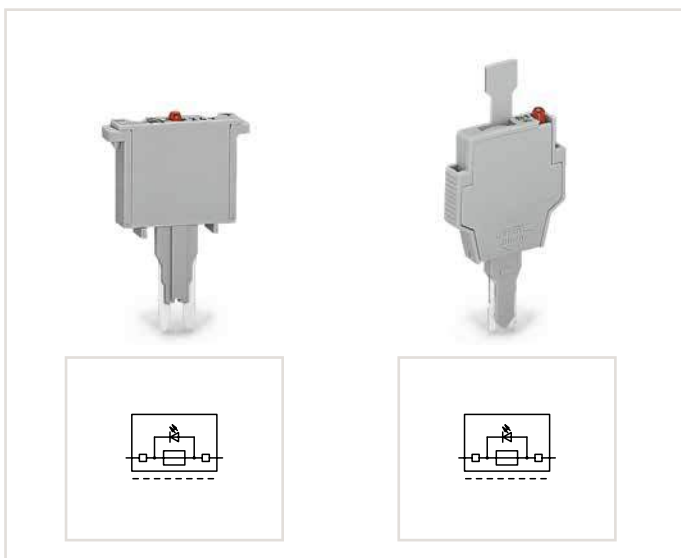
# X-COM®-SYSTEM

## 1-Conductor Female Plugs and Selection of Pluggable Modules

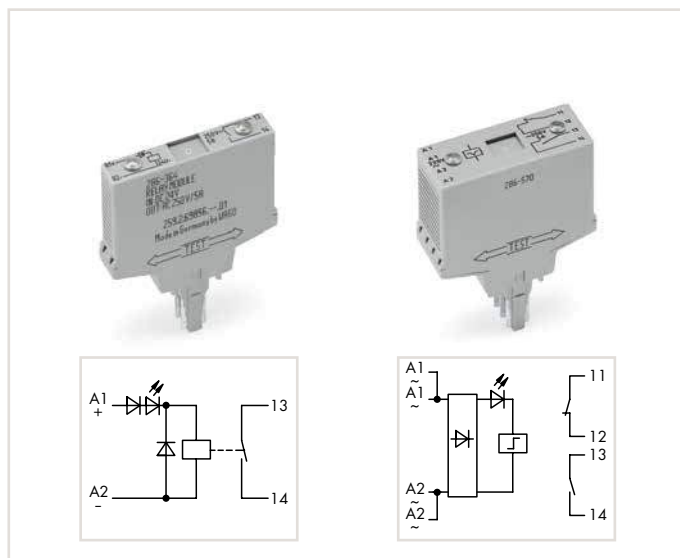
### Types of Assembly



Carrier terminal block



Selection of pluggable modules



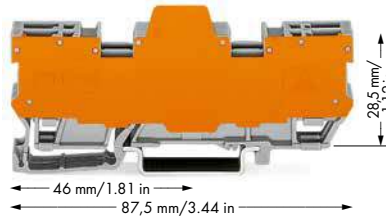
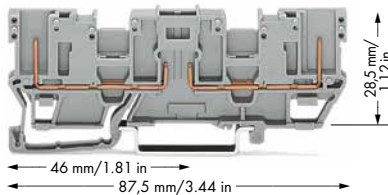
Selection of pluggable modules

6

# X-COM®-SYSTEM – 2-Pin Carrier Terminal Blocks and Carrier Terminal Blocks for Pluggable Modules (Fuses, Relays, Optocouplers, etc.)










4 mm<sup>2</sup>, 769 Series

400 V/6 kV/3 ①   300 V, 20 A <sup>②</sup> I <sub>N</sub> 16 A ②   300 V, 20 A <sup>③</sup> Terminal block width 5 mm / 0.197 inch	400 V/6 kV/3 ①   300 V, 20 A <sup>②</sup> I <sub>N</sub> 16 A ②   300 V, 20 A <sup>③</sup>
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- ① 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② 16 A, 85°C upper temperature limit (current-carrying capacity curves upon request)
- ③ See application notes for:  
Staggered jumper, page 333  
Push-in type wire jumper, page 333
- ④ Note:  
2-conductor female plug is not suitable.

6

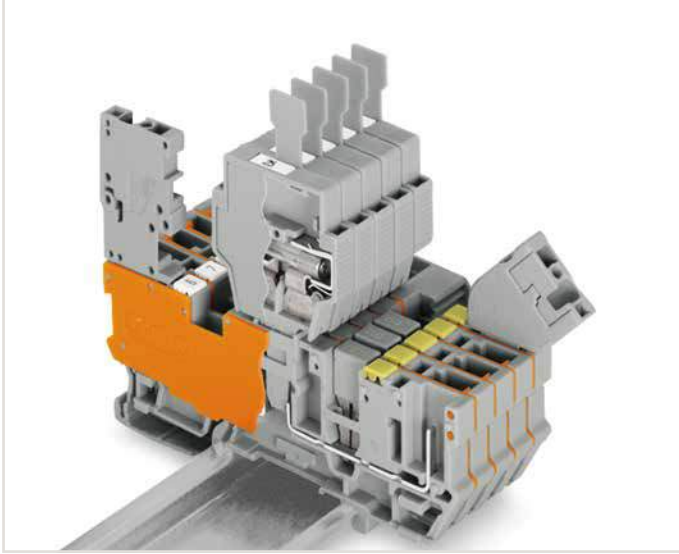
Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
2-pin carrier terminal block, with two jumper positions, gray		2-pin carrier terminal block, with two jumper positions, with orange separator plate, gray		
○ 2-pole <b>769-161</b>	50	○ 4-pole, 11.1 mm wide <b>769-162/769-313</b>	10	Mini-WSB Quick marking system, plain, 10 strips with 10 markers per card, 5 mm wide markers  yellow <b>248-501/000-002</b> red <b>248-501/000-005</b> blue <b>248-501/000-006</b> gray <b>248-501/000-007</b> orange <b>248-501/000-012</b> light green <b>248-501/000-017</b> green <b>248-501/000-023</b> violet <b>248-501/000-024</b>
		○ 6-pole, 16.1 mm wide <b>769-163/769-313</b>	5	
		○ 8-pole, 21.1 mm wide <b>769-164/769-313</b>	5	
		○ 10-pole, 26.1 mm wide <b>769-165/769-313</b>	5	
<b>769 Series Accessories</b>				
Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)				
End and intermediate plate, 1.1 mm thick		Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A		
orange <b>769-310</b> 100 (4x25)		③ 		
gray <b>769-309</b> 100 (4x25)		L = 60 mm <b>249-125</b> 10		
Separator, oversized, 1.1 mm thick		L = 110 mm <b>249-126</b> 10		
orange <b>769-313</b> 100 (4x25)		L = 250 mm <b>249-127</b> 10		
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V		
gray <b>280-402</b> 200 (8x25)		 yellow <b>210-137</b> 50		
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		1-conductor female plug, straight		
gray <b>280-409</b> 100 (4x25)		④  gray <b>769-101</b> 200		
Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A		1-conductor female plug, angled		
③ 		 gray <b>769-101/022-000</b> 200		
from 1 to 2 <b>780-452</b> 100 (4x25)		Screwless end stop, for DIN-35 rail, 6 mm wide		
from 1 to 3 <b>780-453</b> 100 (4x25)		 gray <b>249-116</b> 100 (4x25)		
from 1 to 4 <b>780-454</b> 100 (4x25)		Screwless end stop, for DIN-35 rail, 10 mm wide		
from 1 to 5 <b>780-455</b> 50 (2x25)		 gray <b>249-117</b> 50 (2x25)		
from 1 to 6 <b>780-456</b> 50 (2x25)				
from 1 to 7 <b>780-457</b> 50 (2x25)				
from 1 to 8 <b>780-458</b> 50 (2x25)				
Coding pin, for coding female plugs		Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers		
 orange <b>769-435</b> 100 (4x25)		plain <b>248-501</b> 5		



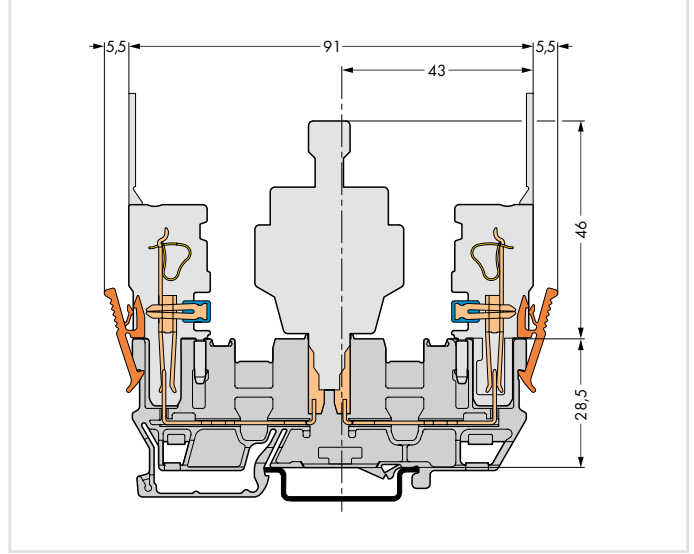
# X-COM®-SYSTEM

## 1-Conductor Female Plugs and Selection of Pluggable Modules

### Types of Assembly



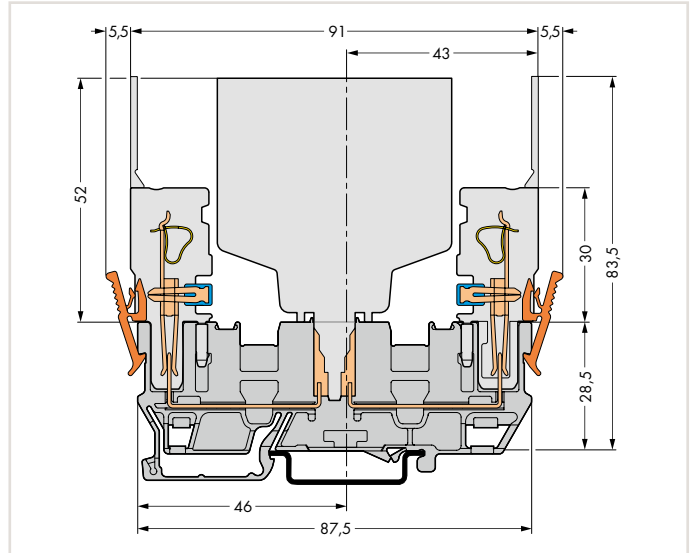
With 6 mm wide fuse plugs, only 1-pole female plugs can be used. Commoning is only possible using adjacent jumpers (280 Series) and push-in type wire jumpers.



Carrier terminal block  
For other dimensions, see 769-151 Carrier Terminal Block.

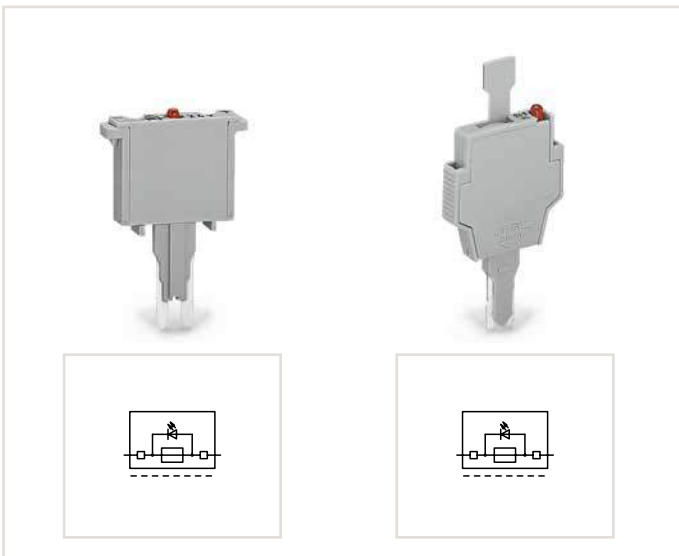


2-pin carrier terminal block for pluggable modules with orange separator plate

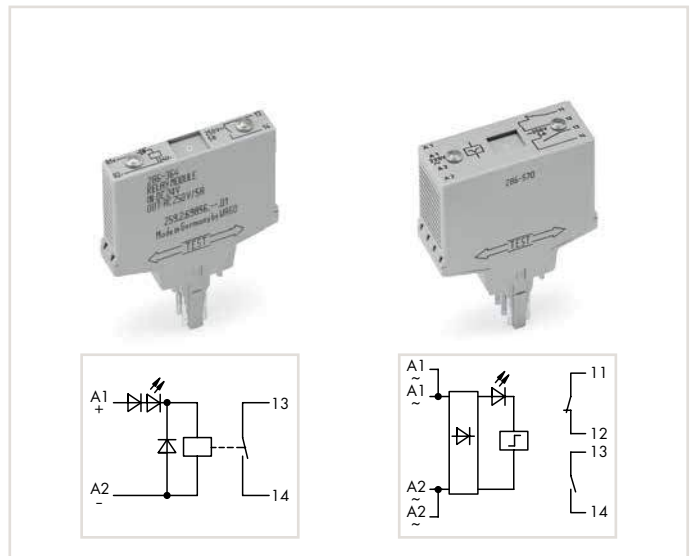


Carrier terminal block

6



Selection of pluggable modules

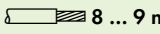
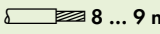


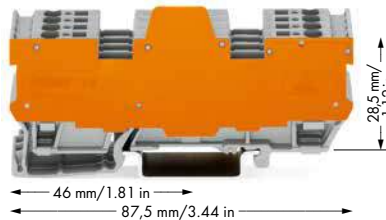
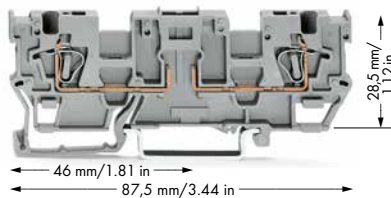
Selection of pluggable modules

CAGE CLAMP®

# X-COM®-SYSTEM – 1-Conductor/1-Conductor Carrier Terminal Blocks and Carrier Terminal Blocks for Pluggable Modules (Fuses, Relays, Optocouplers, etc.)















## 4 mm<sup>2</sup>, 769 Series

0.08 ... 4 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 16 A ②	28 ... 12 AWG 300 V, 20 A ③ 300 V, 20 A ③	0.08 ... 4 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 16 A ②	28 ... 12 AWG 300 V, 20 A ③ 300 V, 20 A ③
Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch		Terminal block width 5 mm / 0.197 inch  8 ... 9 mm / 0.31 ... 0.35 inch	



- ① 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② 16 A, 85°C upper temperature limit (current-carrying capacity curves upon request)
- ③ See application notes for:  
Insulation stop, page 331  
Staggered jumper, page 333  
Push-in type wire jumper, page 333

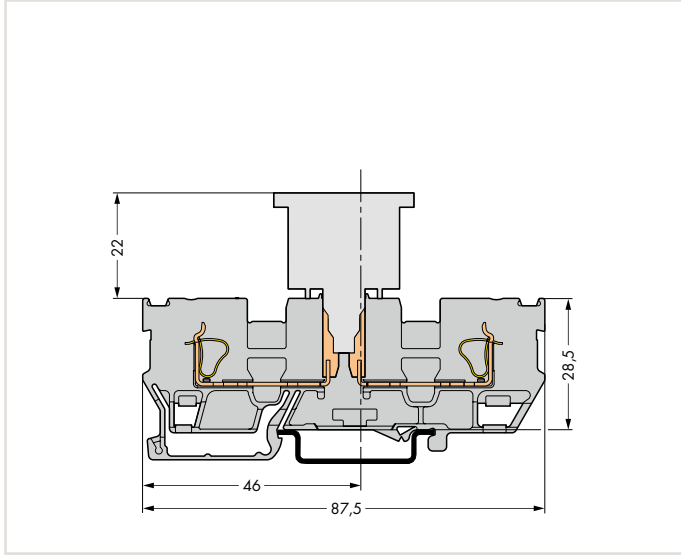
6

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
1-conductor/1-conductor carrier terminal block, with two jumper positions, gray		1-conductor/1-conductor carrier terminal block, with two jumper positions, with orange separator plate, gray		
○ 2-pole <b>769-191</b>	50	○ 4-pole, 11.1 mm wide <b>769-192/769-319</b>	10	Mini-WSB Quick marking system, plain, 10 strips with 10 markers per card, 5 mm wide markers 
		○ 6-pole, 16.1 mm wide <b>769-193/769-319</b>	5	yellow <b>248-501/000-002</b>
		○ 8-pole, 21.1 mm wide <b>769-194/769-319</b>	5	red <b>248-501/000-005</b>
		○ 10-pole, 26.1 mm wide <b>769-195/769-319</b>	5	blue <b>248-501/000-006</b>
				gray <b>248-501/000-007</b>
				orange <b>248-501/000-012</b>
				light green <b>248-501/000-017</b>
				green <b>248-501/000-023</b>
				violet <b>248-501/000-024</b>
<b>769 Series Accessories</b>				5
Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)				
End and intermediate plate, 1.1 mm thick orange <b>769-318</b> 100 (4x25) gray <b>769-317</b> 100 (4x25)		Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A ③ 		Screwless end stop, for DIN-35 rail, 6 mm wide  gray <b>249-116</b> 100 (4x25)
Separator plate, oversized, 1.1 mm thick orange <b>769-319</b> 100 (4x25)		from 1 to 2 <b>780-452</b> 100 (4x25)		Screwless end stop, for DIN-35 rail, 10 mm wide  gray <b>249-117</b> 50 (2x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst") ③  white <b>769-470</b> 200 (8x25)		from 1 to 3 <b>780-453</b> 100 (4x25)		
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> ③  light gray <b>769-471</b> 200 (8x25)		from 1 to 4 <b>780-454</b> 100 (4x25)		
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> ③  dark gray <b>769-472</b> 200 (8x25)		from 1 to 5 <b>780-455</b> 50 (2x25)		
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  yellow <b>280-415</b> 100 (4x25)		from 1 to 6 <b>780-456</b> 50 (2x25)		
Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block  gray <b>280-402</b> 200 (8x25)		from 1 to 7 <b>780-457</b> 50 (2x25)		
Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block  gray <b>280-409</b> 100 (4x25)		from 1 to 8 <b>780-458</b> 50 (2x25)		
		Push-in type wire jumper, insulated, wire size 0.75 mm <sup>2</sup> , I <sub>N</sub> 9 A ③ 		
		L = 60 mm <b>249-125</b> 10		
		L = 110 mm <b>249-126</b> 10		
		L = 250 mm <b>249-127</b> 10		
		Test plug, with 500 mm cable, 2 mm Ø, max. 42 V  red <b>210-136</b> 50		
		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  yellow <b>210-137</b> 50		
		Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers 		
		plain <b>248-501</b> 5		

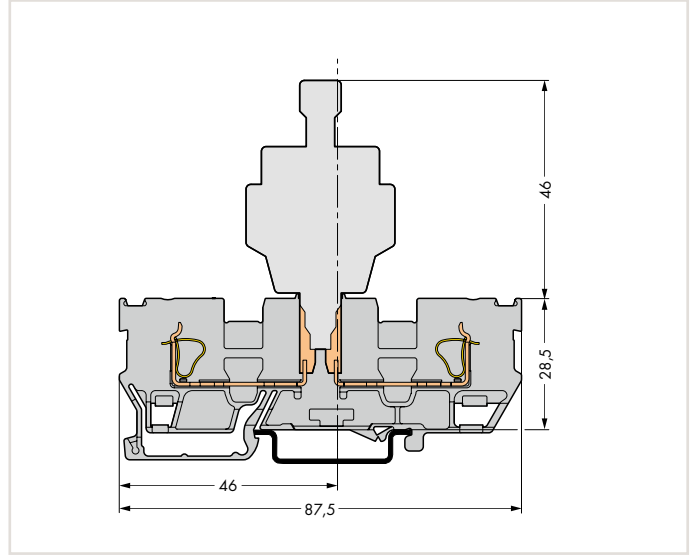
# X-COM®-SYSTEM

## Selection of Pluggable Modules

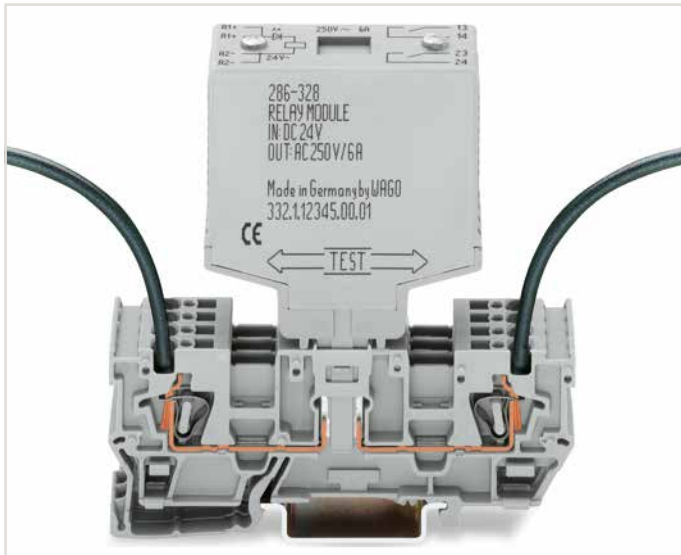
### Types of Assembly



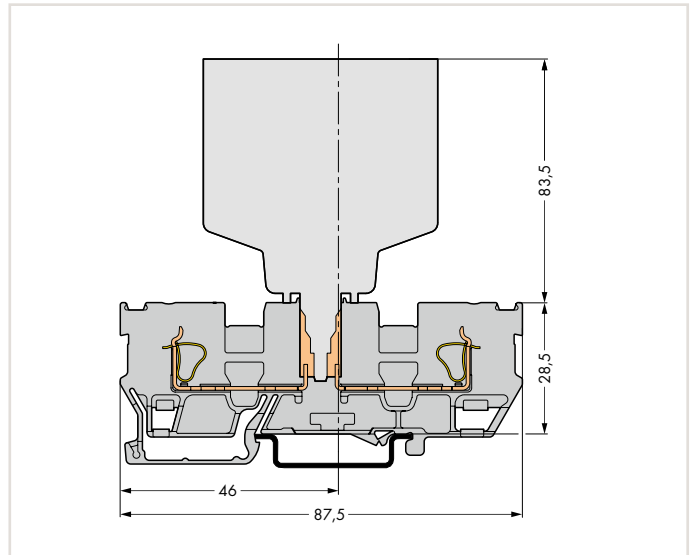
Carrier terminal block



Carrier terminal block

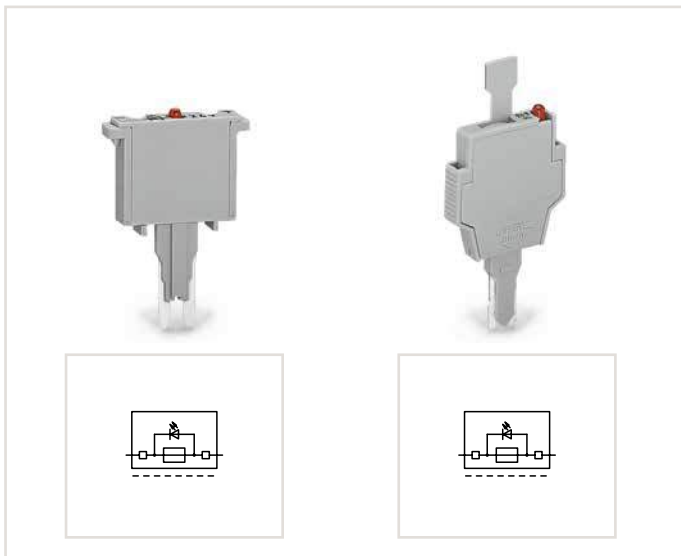


1-conductor/1-conductor carrier terminal block for pluggable modules

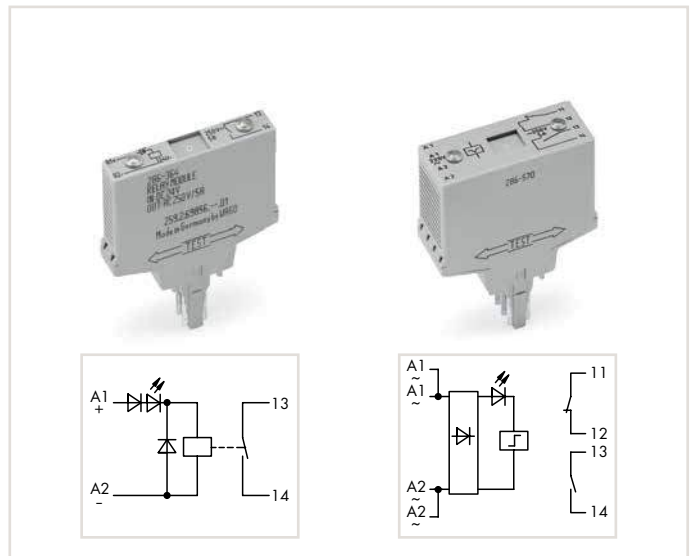


Carrier terminal block

6



Selection of pluggable modules

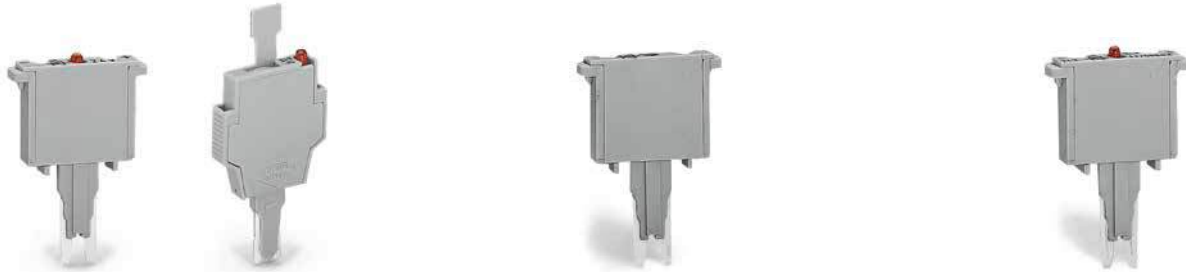


Selection of pluggable modules











# X-COM®-SYSTEM

## Fuse Plugs and Pluggable Diode and LED Modules

Fuse plugs	Diode modules	LED modules
------------	---------------	-------------



6

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Fuse plug, 5 mm wide, with soldered miniature fuse 		Diode module, 5 mm wide, with 1N4007 diode 		LED module, 5 mm wide, with red LED 	
250 mA FF <b>280-850</b>	100	<b>280-801/281-411</b>	100	24 VDC <b>280-801/281-413</b>	100
500 mA FF <b>280-852</b>	100			48 VDC <b>280-801/281-414</b>	100
1 A FF <b>280-854</b>	100				
2 A FF <b>280-856</b>	100				
Fuse plug, 5 mm wide, with soldered miniature fuse with indicator lamp, additionally LED, 15 ... 30 VDC 		Diode module, 5 mm wide, with recovery diode 1N4007, additional LED 		LED module, 5 mm wide, with red LED 	
Leakage current in case of blown fuse: 5 ... 20 mA		24 VDC <b>280-801/281-420</b>	100	24 V AC/DC <b>280-801/281-415</b>	100
250 mA FF <b>280-850/281-413</b>	100	48 VDC <b>280-801/281-421</b>	100	48 V AC/DC <b>280-801/281-416</b>	100
500 mA FF <b>280-852/281-413</b>	100				
1 A FF <b>280-854/281-413</b>	100				
1 A FF <b>280-856/281-413</b>	100				
Fuse plug with pull-tab, 6 mm wide, for miniature fuses 5 x 20 mm and 5 x 25 mm 				Neon indicator module, 5 mm wide 	
<b>281-511</b>	50			120 V AC/DC <b>280-801/281-418</b>	100
with hole for one LED (for self-assembly)	50			230 V AC/DC <b>280-801/281-417</b>	100
<b>281-512</b>	50				
Fuse plug with pull-tab, 6 mm wide, for miniature fuses 5 x 20 mm and 5 x 25 mm, with LED indicator 					
Leakage current in case of blown fuse: 5 ... 20 mA					
Use in both switching directions					
24 V AC/DC <b>281-512/281-501</b>	50				
Fuse plug with pull-tab, 6 mm wide, for miniature fuses 5 x 20 mm and 5 x 25 mm with neon lamp 					
Leakage current in case of blown fuse: Neon lamp < 0.4 mA					
120 V AC/DC <b>281-512/281-418</b>	50				
230 V AC/DC <b>281-512/281-417</b>	50				

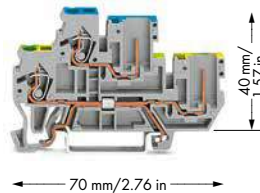
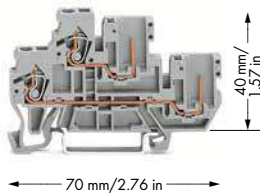


# X-COM®-SYSTEM

## 1-Conductor/1-Pin Double-Deck Carrier Terminal Blocks

### 2.5 (4 "f-st") mm<sup>2</sup>, 870 Series

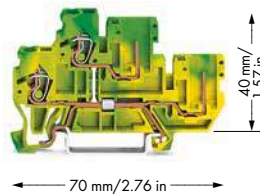
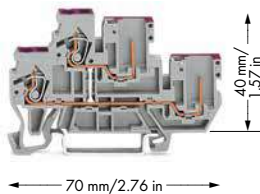
0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ①	28 ... 12 AWG	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ①	28 ... 12 AWG
500 V/6 kV/3 ②	300 V, 20 A, I <sub>N</sub> 16 A	500 V/6 kV/3 ②	I <sub>N</sub> 16 A
Terminal block width 5 mm / 0.197 inch		Terminal block width 5 mm / 0.197 inch	
6 ... 7 mm / 0.24 ... 0.28 inch		6 ... 7 mm / 0.24 ... 0.28 inch	



- ① Max. insulation diameter: 4.4 mm
- ② 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ See application notes for:  
Insulation stop, page 331
- ④ 2-conductor female plugs cannot be used.

6

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, gray housing		1-conductor/1-pin double-deck carrier terminal block, ground conductor/through terminal block, gray housing		Appropriate marking system: Mini-WSB/WMB (see Section 13)
○ L/L <b>870-101</b>	50	○ PE/N <b>870-117</b>	50	End and intermediate plate, 1 mm thick
○ N/L <b>870-102</b>	50	○ PE/L <b>870-127</b>	50	orange <b>870-119</b> 100 (4x25)
○ L/N <b>870-103</b>	50			gray <b>870-118</b> 100 (4x25)
1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, blue housing				Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")
● N/N <b>870-104</b>	50			white <b>280-470</b> 200 (8x25)
<b>Other terminal blocks with the same profile:</b>				Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray
Through <b>870-501</b>	Page 412			2-way <b>870-402</b> 200 (8x25)
				3-way <b>870-403</b> 200 (8x25)
				4-way <b>870-404</b> 100 (4x25)
				5-way <b>870-405</b> 100 (4x25)
				6-way <b>870-406</b> 100 (4x25)
				7-way <b>870-407</b> 100 (4x25)
				8-way <b>870-408</b> 100 (4x25)
				9-way <b>870-409</b> 100 (4x25)
				10-way <b>870-410</b> 50 (2x25)
				Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray
				from 1 to 3 <b>870-433</b> 200 (8x25)
				from 1 to 4 <b>870-434</b> 200 (8x25)
				from 1 to 5 <b>870-435</b> 100 (4x25)
				from 1 to 6 <b>870-436</b> 100 (4x25)
				from 1 to 7 <b>870-437</b> 100 (4x25)
				from 1 to 8 <b>870-438</b> 100 (4x25)
				from 1 to 9 <b>870-439</b> 100 (4x25)
				from 1 to 10 <b>870-440</b> 50 (2x25)
				Coding pin, for coding female plugs
				orange <b>769-435</b> 100 (4x25)
				Pin cover, with Mini-WSB marker slot
				gray <b>769-438</b> 100 (4x25)
				orange <b>769-439</b> 100 (4x25)
				1-conductor female plug, angled
				gray <b>769-101/022-000</b> 200
				1-conductor female plug, straight
				gray <b>769-101</b> 200

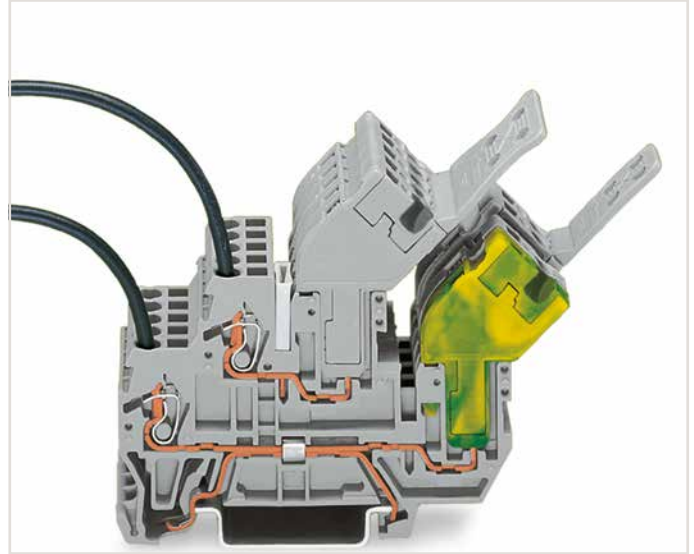


# X-COM®-SYSTEM – 1-Conductor/1-Pin Double-Deck Carrier Terminal Blocks and 1-Conductor Female Plugs

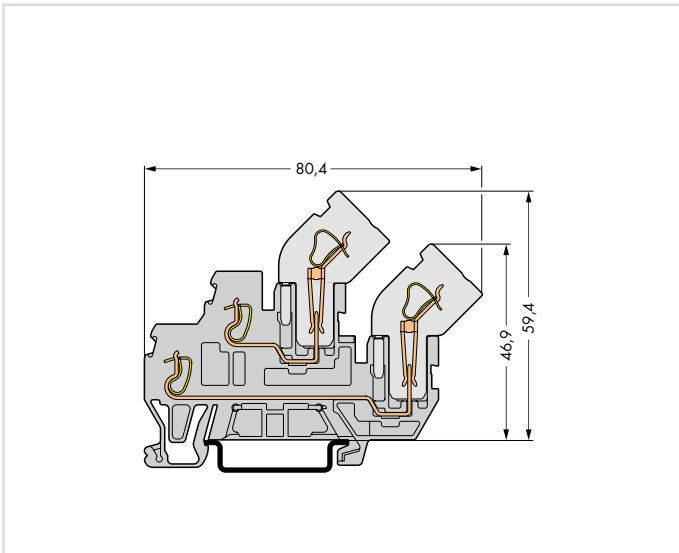
## Types of Assembly



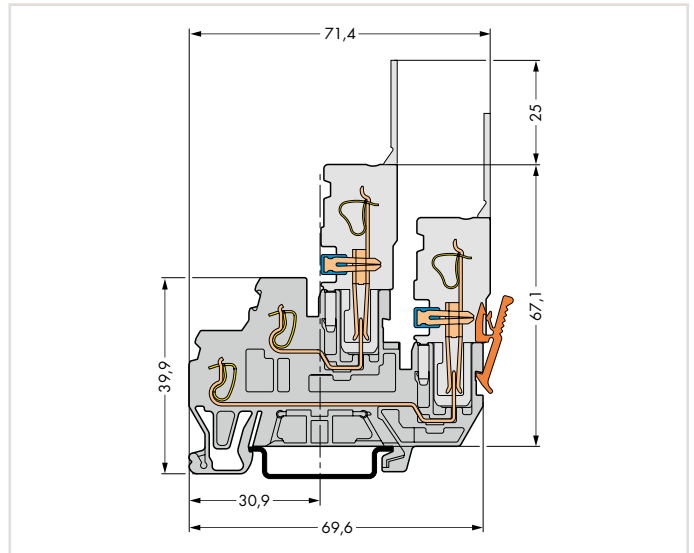
Commoning a double-deck through terminal block (870-501) with a 1-conductor/1-pin double-deck terminal block (870-101) via push-in type jumper bar.



1-conductor female plug, angled  
Double-deck carrier terminal blocks can be commoned via 870 Series Push-In Type Jumper Bars.



Carrier terminal block





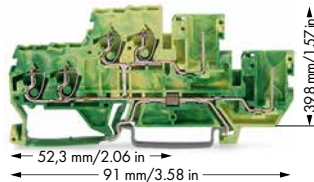
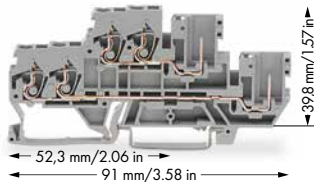
Carrier terminal block

# X-COM®-SYSTEM

## 2-Conductor/1-Pin Double-Deck Carrier Terminal Blocks

### 2.5 (4 "f-st") mm<sup>2</sup>, 870 Series

0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ①   28 ... 12 AWG 500 V/6 kV/3 ② I <sub>N</sub> 16 A Terminal block width 5 mm / 0.197 inch  6 ... 7 mm / 0.24 ... 0.28 inch	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ①   28 ... 12 AWG Terminal block width 5 mm / 0.197 inch  6 ... 7 mm / 0.24 ... 0.28 inch
--	--



- ① Max. insulation diameter: 4.4 mm
- ② 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ See application notes for:  
Insulation stop, page 331
- ④ Note: 2-conductor female plugs cannot be used.

6

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
2-conductor/1-pin double-deck carrier terminal block, through/through terminal block, gray housing		4-conductor/2-pin double-deck carrier block, 4-conductor/2-pin ground conductor block, internally commoned, green-yellow housing		Appropriate marking system: Mini-WSB/WMB (see Section 13)
○ L/L <b>870-1131</b>	40	● PE <b>870-1137</b>	40	End and intermediate plate, 1 mm thick orange <b>870-1149</b> 100 (4x25) gray <b>870-1148</b> 100 (4x25)
				Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st") ③ white <b>280-470</b> 200 (8x25)
				Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray 2-way <b>870-402</b> 200 (8x25) 3-way <b>870-403</b> 200 (8x25) 4-way <b>870-404</b> 100 (4x25) 5-way <b>870-405</b> 100 (4x25) 6-way <b>870-406</b> 100 (4x25) 7-way <b>870-407</b> 100 (4x25) 8-way <b>870-408</b> 100 (4x25) 9-way <b>870-409</b> 100 (4x25) 10-way <b>870-410</b> 50 (2x25)
				Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray from 1 to 3 <b>870-433</b> 200 (8x25) from 1 to 4 <b>870-434</b> 200 (8x25) from 1 to 5 <b>870-435</b> 100 (4x25) from 1 to 6 <b>870-436</b> 100 (4x25) from 1 to 7 <b>870-437</b> 100 (4x25) from 1 to 8 <b>870-438</b> 100 (4x25) from 1 to 9 <b>870-439</b> 100 (4x25) from 1 to 10 <b>870-440</b> 50 (2x25)
				Coding pin, for coding female plugs orange <b>769-435</b> 100 (4x25)
				Pin cover, with Mini-WSB marker slot gray <b>769-438</b> 100 (4x25) orange <b>769-439</b> 100 (4x25)
				1-conductor female plug, angled gray <b>769-101/022-000</b> 200
				④ 1-conductor female plug, straight gray <b>769-101</b> 200



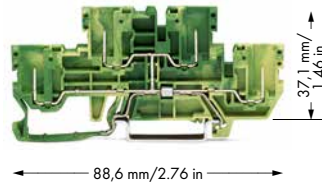
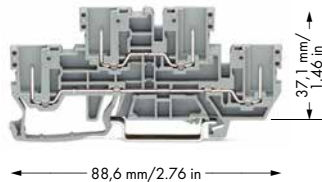


# X-COM®-SYSTEM

## 2-Pin/2-Pin Double-Deck Carrier Terminal Blocks

### 2.5 (4 "f-st") mm<sup>2</sup>, 870 Series











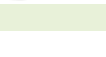
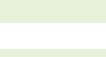

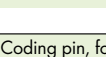

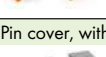







500 V/6 kV/3 <sup>1</sup> I <sub>N</sub> 16 A Terminal block width 5 mm / 0.197 inch	Terminal block width 5 mm / 0.197 inch
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<sup>1</sup> 500 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)

<sup>2</sup> 2-conductor female plugs cannot be used.

6

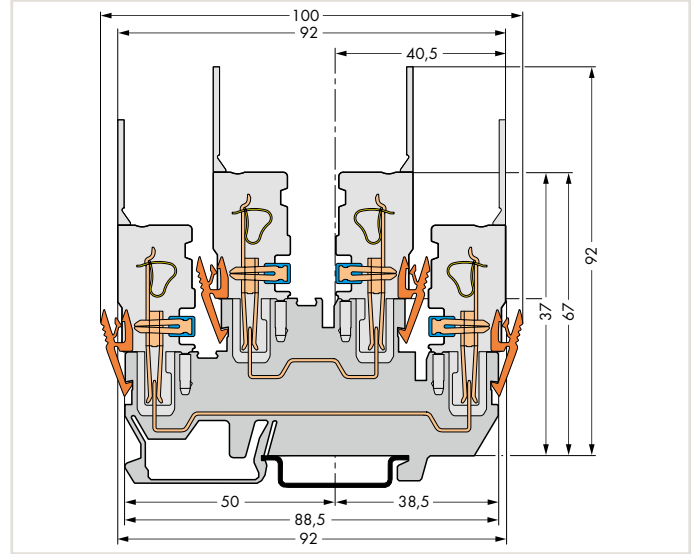
Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
2-pin/2-pin double-deck carrier terminal block, through/through terminal block, gray housing		4-pin double-deck carrier terminal block, 4-pin ground conductor terminal block, internally commoned, green-yellow housing		Appropriate marking system: Mini-WSB/WMB (see Section 13)
○ L/L <b>870-151</b>	50	● PE <b>870-157</b>	50	End and intermediate plate, 1 mm thick orange <b>870-169</b> 100 (4x25) gray <b>870-168</b> 100 (4x25)
				Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray  <b>870-402</b> 200 (8x25)  <b>870-403</b> 200 (8x25)  <b>870-404</b> 100 (4x25)  <b>870-405</b> 100 (4x25)  <b>870-406</b> 100 (4x25)  <b>870-407</b> 100 (4x25)  <b>870-408</b> 100 (4x25)  <b>870-409</b> 100 (4x25)  <b>870-410</b> 50 (2x25)
				Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray  <b>870-433</b> 200 (8x25)  <b>870-434</b> 200 (8x25)  <b>870-435</b> 100 (4x25)  <b>870-436</b> 100 (4x25)  <b>870-437</b> 100 (4x25)  <b>870-438</b> 100 (4x25)  <b>870-439</b> 100 (4x25)  <b>870-440</b> 50 (2x25)
				Coding pin, for coding female plugs  orange <b>769-435</b> 100 (4x25)
				Pin cover, with Mini-WSB marker slot  gray <b>769-438</b> 100 (4x25)  orange <b>769-439</b> 100 (4x25)
				1-conductor female plug, straight <sup>2</sup>  gray <b>769-101</b> 200
				1-conductor female plug, angled  gray <b>769-101/022-000</b> 200
				Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers  plain <b>248-501</b> 5

## X-COM®-SYSTEM 2-Pin/2-Pin Double-Deck Carrier Terminal Blocks

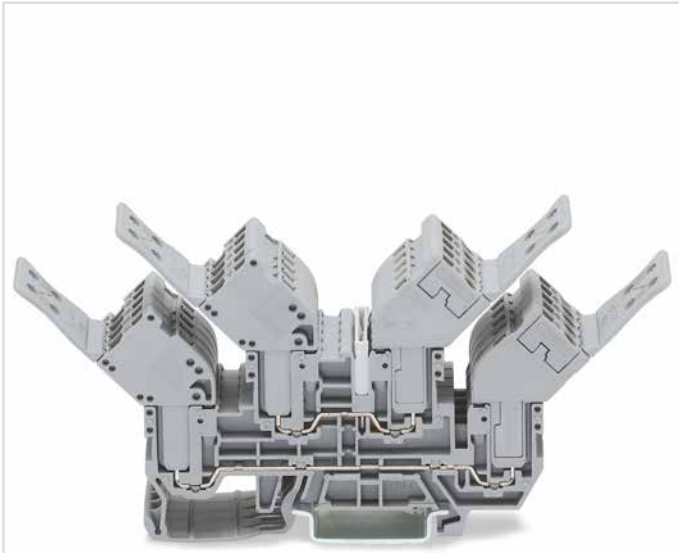
### Types of Assembly



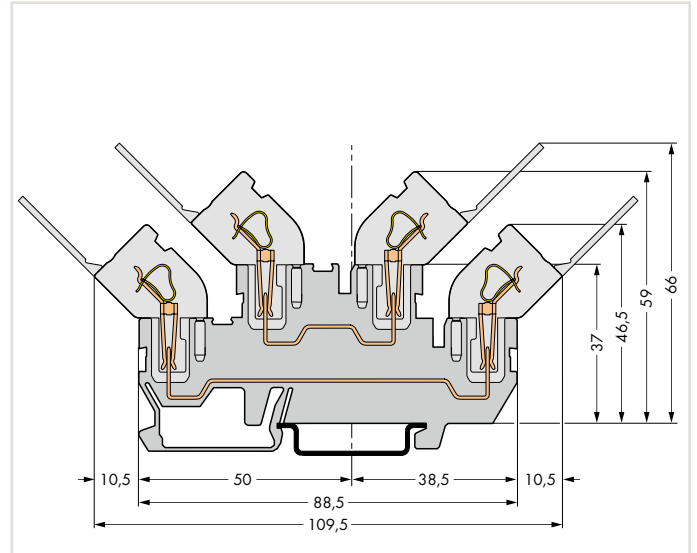
1-conductor female plug, straight  
Double-deck carrier terminal blocks can be commoned via 870 Series Push-In Type Jumper Bars. Notice: 2-conductor female plugs cannot be used.



Carrier terminal block



1-conductor female plug, angled  
Double-deck carrier terminal blocks can be commoned via 870 Series Push-In Type Jumper Bars.



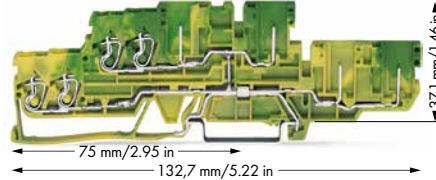
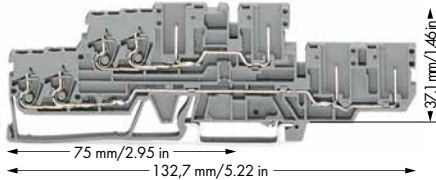
Carrier terminal block

# X-COM®-SYSTEM

## 2-Conductor/2-Pin Double-Deck Carrier Terminal Blocks

### 2.5 (4 "f-st") mm<sup>2</sup>, 870 Series

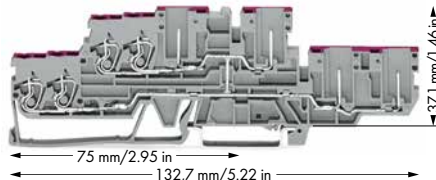
0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ①   28 ... 12 AWG 500 V/6 kV/3 ② I <sub>N</sub> 16 A Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ①   28 ... 12 AWG Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch
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- ① Max. insulation diameter: 4.4 mm
- ② 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ See application notes for:  
Insulation stop, page 331
- ④ **Notice:** Female plugs must be opposing on the upper deck. 2-conductor female plugs and angled 1-conductor female plugs cannot be used.

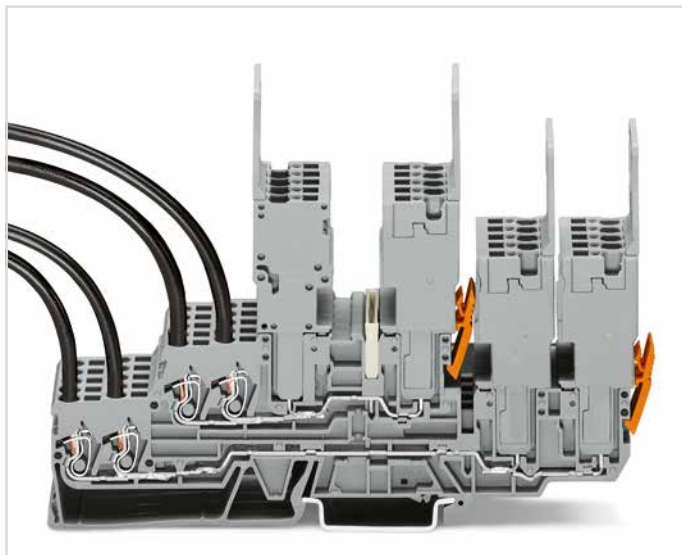
6

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories		
2-conductor/2-pin double-deck carrier terminal block, through/through terminal block, gray housing		4-conductor/4-pin double-deck carrier terminal block, 4-conductor/4-pin ground conductor terminal block, internally commoned, green-yellow housing		Appropriate marking system: Mini-WSB/WMB (see Section 13)		
○ L/L	870-131	40	○ PE	870-137	40	End and intermediate plate, 1 mm thick orange <b>870-149</b> 100 (4x25) gray <b>870-148</b> 100 (4x25)
				Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st") ③ white <b>280-470</b> 200 (8x25)		
				Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray 2-way <b>870-402</b> 200 (8x25) 3-way <b>870-403</b> 200 (8x25) 4-way <b>870-404</b> 100 (4x25) 5-way <b>870-405</b> 100 (4x25) 6-way <b>870-406</b> 100 (4x25) 7-way <b>870-407</b> 100 (4x25) 8-way <b>870-408</b> 100 (4x25) 9-way <b>870-409</b> 100 (4x25) 10-way <b>870-410</b> 50 (2x25)		
				Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray from 1 to 3 <b>870-433</b> 200 (8x25) from 1 to 4 <b>870-434</b> 200 (8x25) from 1 to 5 <b>870-435</b> 100 (4x25) from 1 to 6 <b>870-436</b> 100 (4x25) from 1 to 7 <b>870-437</b> 100 (4x25) from 1 to 8 <b>870-438</b> 100 (4x25) from 1 to 9 <b>870-439</b> 100 (4x25) from 1 to 10 <b>870-440</b> 50 (2x25)		
				Coding pin, for coding female plugs orange <b>769-435</b> 100 (4x25)		
				Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>280-405</b> 100 (4x25)		
				Pin cover, with Mini-WSB marker slot gray <b>769-438</b> 100 (4x25) orange <b>769-439</b> 100 (4x25)		
				1-conductor female plug, straight ④ gray <b>769-101</b> 200		



# X-COM®-SYSTEM – 2-Conductor/2-Pin Double-Deck Carrier Terminal Blocks and 1-Conductor Female Plugs

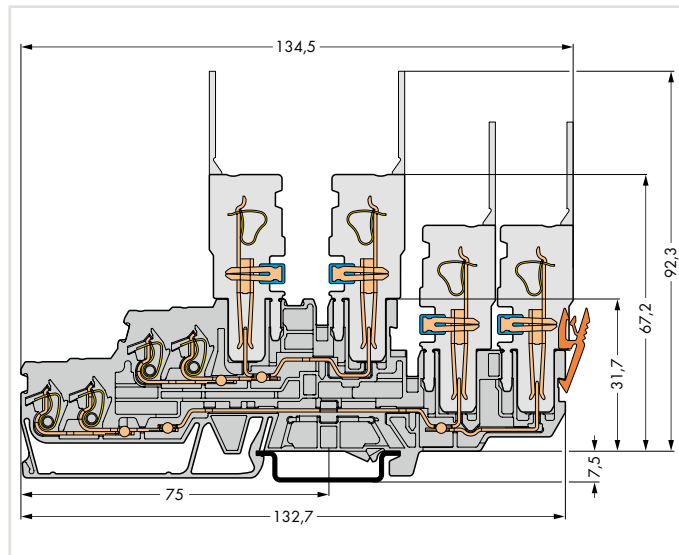
## Types of Assembly



1-conductor female plug, straight

Double-deck carrier terminal blocks can be commoned via 870 Series Push-In Type Jumper Bars.

**Notice:** Female plugs must be opposing on the upper deck (see above). Angled 1-conductor female plugs and 2-conductor female plugs cannot be used.



Carrier terminal block

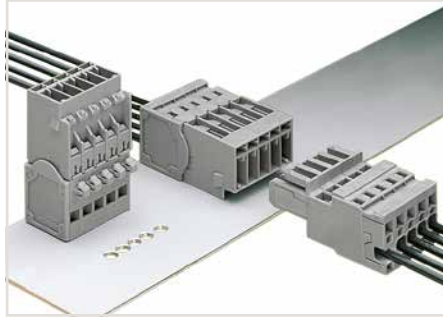
# X-COM®-SYSTEM

## Male Connectors/Headers and Female Plugs, 769 Series

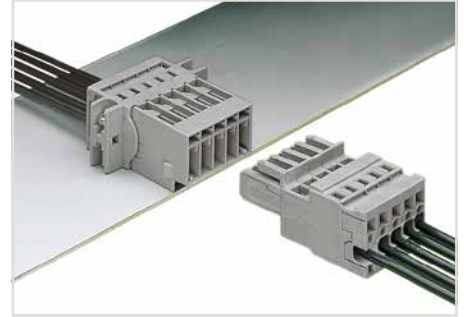
### Description and Installation



Male connector with CAGE CLAMP® connection  
1-connector female plug, straight



Male connector with CAGE CLAMP® connection and  
snap-in mounting feet  
1-connector female plug, straight



Male connector with CAGE CLAMP® and mounting  
flanges  
1-connector female plug, straight



Insert male connector with snap-in flanges  
(769-604/005-000) into the cutout.



Male connector with snap-in flanges  
Snap-in mounting without tools



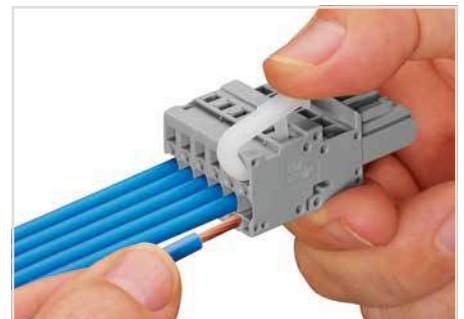
6



Operating tool  
Inserting a conductor via operating tool - side-entry wiring  
(example shows a female plug).  
With ferruled conductors, it is necessary to use a terminal  
block one size smaller than the conductor's nominal cross  
section.



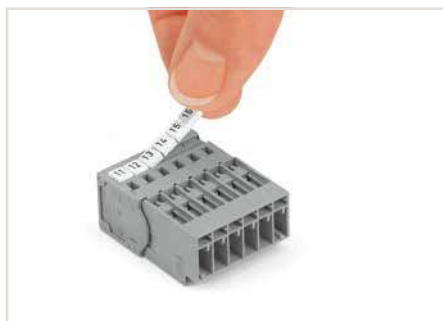
Operating tool  
Inserting a conductor via operating tool (example shows a  
male connector).



Operating lever  
Inserting a conductor via operating tool - side-entry wiring  
(example shows a female plug).



Strain relief plates can be snapped into both male connec-  
tor and female plug.



Labeling a male connector with CAGE CLAMP® connec-  
tion via Mini-WSB quick markers.



Labeling a female plug with CAGE CLAMP® connection  
via Mini-WSB quick markers.



**CAGE CLAMP®**  
terminates the following  
copper conductors:  
solid



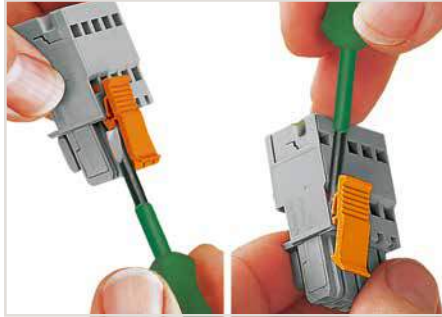
stranded



fine-stranded,  
also with finned  
single strands



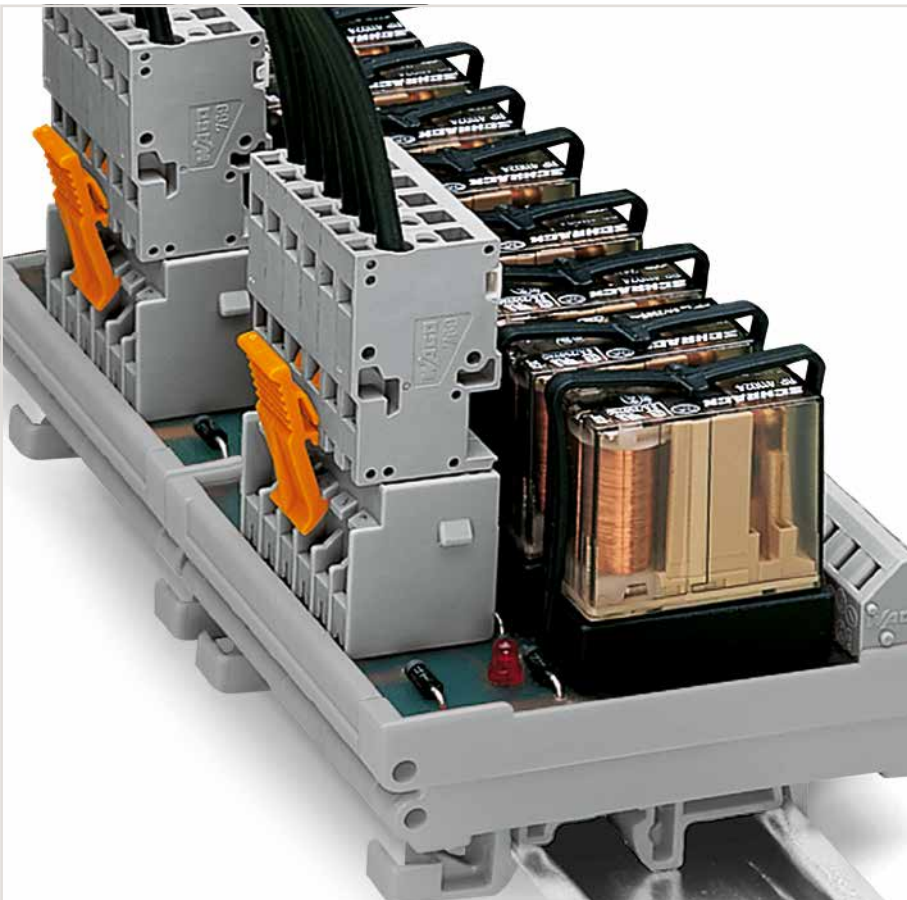
Coding a female plug by removing coding finger(s) via cutting tool. Do not remove the first and last coding fingers or use an additional locking lever.



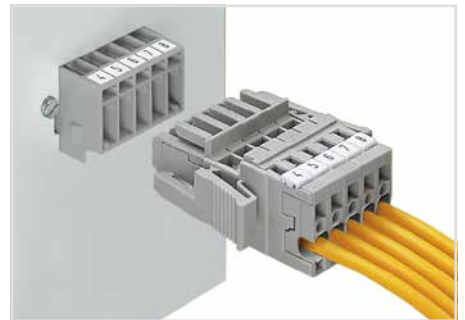
Locking/releasing a lever.



Commoning 1-conductor female plugs via miniature adjacent jumpers.

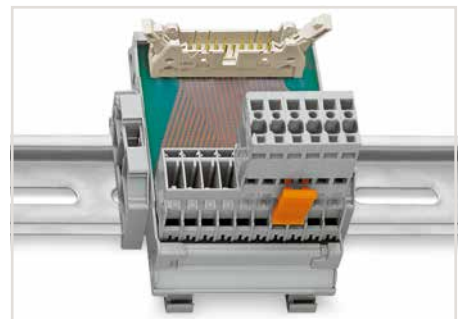


Note: Female plugs used according to the regulations shall not be connected/disconnected when live or under load.

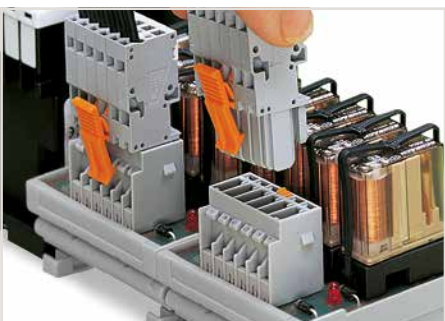


Male header and 1-conductor female plug with lateral locking levers

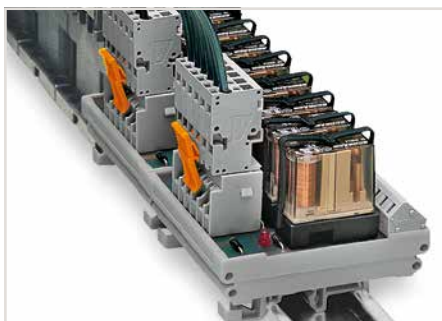
6



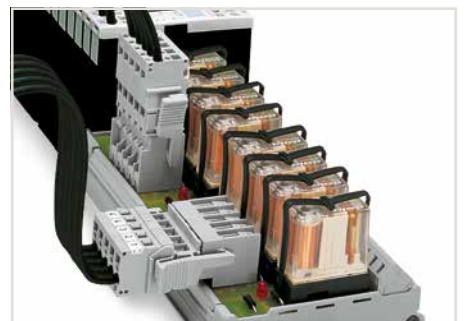
Male headers with solder pins for printed circuit boards



Pluggable PCB connection  
Connection to a relay module inside the switchgear cabinet



Male headers with straight solder pins and 1-conductor female plugs (picture shows a relay module)



Male headers with solder pins:  
Integrating PCB components into the system wiring.



fine-stranded,  
tip-bonded



fine-stranded,  
with ferrule  
(gastight crimped)



fine-stranded,  
with pin terminal  
(gastight crimped)

# X-COM®-SYSTEM




## Male Connectors with CAGE CLAMP® Connection, 5 mm Pin Spacing

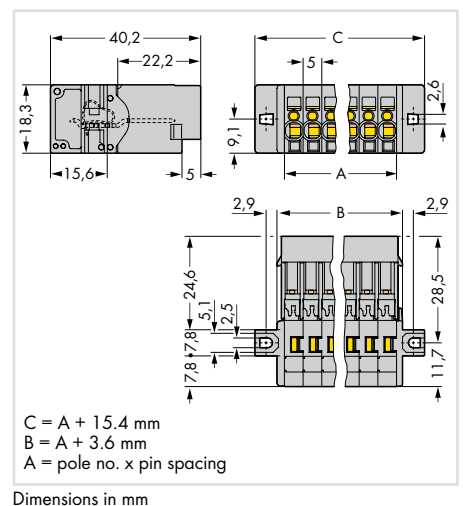
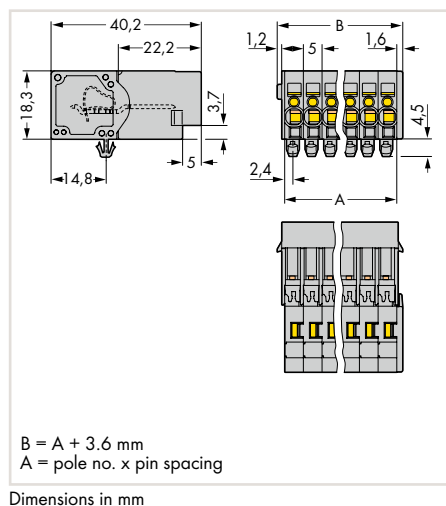
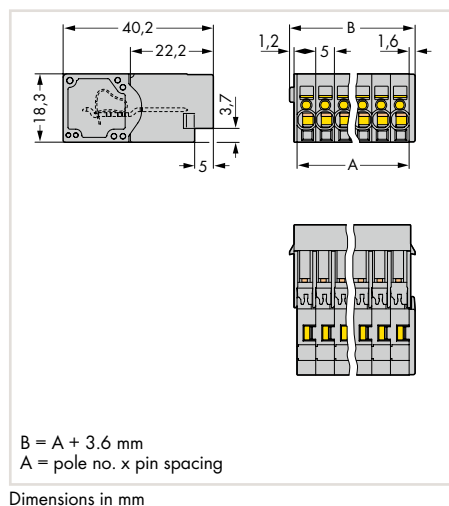
### 4 mm<sup>2</sup>, 769 Series

Pin spacing 5 mm / 0.197 inch, gray 0.08 ... 4 mm <sup>2</sup> 28 ... 12 AWG 500 V/6 kV/3 ① 300 V, 20 A ② I <sub>N</sub> 32 A ② 300 V, 20 A ③ 8 ... 9 mm / 0.31 ... 0.35 inch	Pin spacing 5 mm / 0.197 inch, gray 0.08 ... 4 mm <sup>2</sup> 28 ... 12 AWG 500 V/6 kV/3 ① 300 V, 20 A ② I <sub>N</sub> 32 A ② 300 V, 20 A ③ 8 ... 9 mm / 0.31 ... 0.35 inch	Pin spacing 5 mm / 0.197 inch, gray 0.08 ... 4 mm <sup>2</sup> 28 ... 12 AWG 500 V/6 kV/3 ① 300 V, 20 A ② I <sub>N</sub> 32 A ② 300 V, 20 A ③ 8 ... 9 mm / 0.31 ... 0.35 inch
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6

Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit												
Male connector, with CAGE CLAMP® connection, for flying leads, gray			Male connector, with CAGE CLAMP® connection and snap-in mounting feet, for 0.6 ... 1.2 mm plate thickness, 3.5 mm Ø mounting holes, with mounting adapter (209-137) for DIN-35 rail, gray			Male connector, with CAGE CLAMP® connection and mounting flanges, for screw or similar mounting types, for vertical or horizontal mounting, gray														
2	769-602	100	2	769-602/001-000	100	2	769-602/002-000	100												
3	769-603	100	3	769-603/001-000	100	3	769-603/002-000	50												
4	769-604	100	4	769-604/001-000	50	4	769-604/002-000	50												
5	769-605	50	5	769-605/001-000	50	5	769-605/002-000	50												
6	769-606	50	6	769-606/001-000	50	6	769-606/002-000	50												
7	769-607	25	7	769-607/001-000	25	7	769-607/002-000	25												
8	769-608	25	8	769-608/001-000	25	8	769-608/002-000	25												
9	769-609	25	9	769-609/001-000	25	9	769-609/002-000	25												
10	769-610	25	10	769-610/001-000	25	10	769-610/002-000	25												
11	769-611	25	11	769-611/001-000	25	11	769-611/002-000	25												
12	769-612	25	12	769-612/001-000	25	12	769-612/002-000	25												
13	769-613	25	13	769-613/001-000	15	13	769-613/002-000	15												
14	769-614	15	14	769-614/001-000	15	14	769-614/002-000	10												
15	769-615	10	15	769-615/001-000	20	15	769-615/002-000	20												
Item-Specific Accessories			Item-Specific Accessories			Item-Specific Accessories														
Strain relief plate, gray  <table border="1"> <tr> <td>2-... 3-pole</td> <td>769-411</td> <td>100 (4x25)</td> </tr> <tr> <td>4-... 5-pole</td> <td>769-412</td> <td>100 (4x25)</td> </tr> <tr> <td>6-... 9-pole</td> <td>769-413</td> <td>100 (4x25)</td> </tr> <tr> <td>10-... 15-pole</td> <td>769-414</td> <td>100 (4x25)</td> </tr> </table>			2-... 3-pole	769-411	100 (4x25)	4-... 5-pole	769-412	100 (4x25)	6-... 9-pole	769-413	100 (4x25)	10-... 15-pole	769-414	100 (4x25)	Mounting adapter, for DIN-35 rail, can be used as end plate, 6.5 mm wide  gray <b>209-137</b> 25			Mounting screw (M2.5 x 16), and hexagon nut (M2.5)  <b>769-499</b> 100 (4x25)		
2-... 3-pole	769-411	100 (4x25)																		
4-... 5-pole	769-412	100 (4x25)																		
6-... 9-pole	769-413	100 (4x25)																		
10-... 15-pole	769-414	100 (4x25)																		





Pin spacing 5 mm / 0.197 inch, gray  
 0.08 ... 4 mm<sup>2</sup> 28 ... 12 AWG  
 500 V/6 kV/3 ① 300 V, 20 A ②  
 I<sub>N</sub> 32 A ② 300 V, 20 A ③  
 8 ... 9 mm / 0.31 ... 0.35 inch



- ① 500 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ② Current-carrying capacity curves, see page 403 and upon request

Pole No.	Item No.	Pack. Unit
Male connector, with CAGE CLAMP® connection and feedthrough flanges, for screw or similar mounting types, for vertical or horizontal mounting, gray		
2	769-602/004-000	100
3	769-603/004-000	50
4	769-604/004-000	25
5	769-605/004-000	25
6	769-606/004-000	25
7	769-607/004-000	25
8	769-608/004-000	25
9	769-609/004-000	25
10	769-610/004-000	25
11	769-611/004-000	25
12	769-612/004-000	15
13	769-613/004-000	15
14	769-614/004-000	10
15	769-615/004-000	10

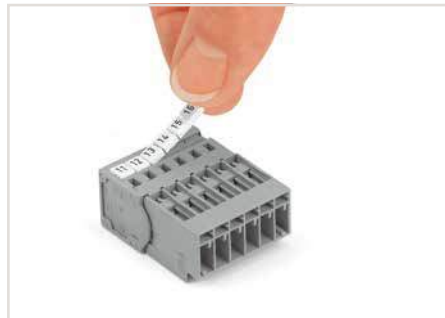


Male connector with CAGE CLAMP® connection  
 1-conductor female plug, straight

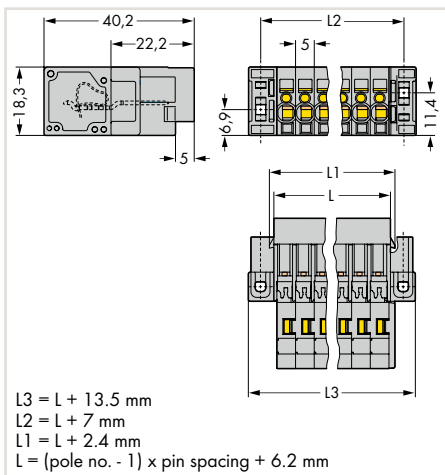
**769 Series Accessories**

Appropriate marking system:  
 Mini-WSB/Mini-WSB Inline (see Section 13)

1-conductor female plug, straight		
	gray	769-102 100
1-conductor female plug, with lateral locking levers		
	gray	769-102/021-000 50
2-conductor female plug		
	gray	769-122 50
Coding pin, for coding female plugs		
	orange	769-435 100 (4x25)
Operating tool, for female and male connectors with CAGE CLAMP® connection		
		210-490 1
Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers		
	plain	248-501 5
Operating lever, loose, for male and female connectors with CAGE CLAMP® connection		
		769-434 2000 (20x100)



Labeling a male connector with CAGE CLAMP® connection via Mini-WSB quick markers.



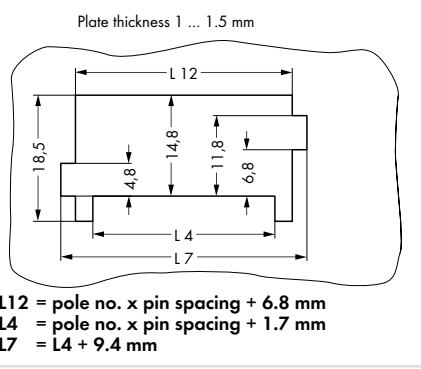
Dimensions in mm

CAGE CLAMP®

# X-COM®-SYSTEM – Male Connectors with CAGE CLAMP® Connection and Snap-In Flanges, 5 mm Pin Spacing

## 4 mm<sup>2</sup>, 769 Series

Pin spacing 5 mm / 0.197 inch, gray  
 0.08 ... 4 mm<sup>2</sup> 28 ... 12 AWG  
 500 V/6 kV/3 ① 300 V, 20 A<sup>1</sup>  
 I<sub>N</sub> 32 A ② 300 V, 20 A<sup>2</sup>  
 8 ... 9 mm / 0.31 ... 0.35 inch



**Sheet metal cutout**  
 Male connectors with CAGE CLAMP® connection (769-6xx/005-000) and snap-in flanges

- ① 500 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ② Current-carrying capacity curves upon request

6

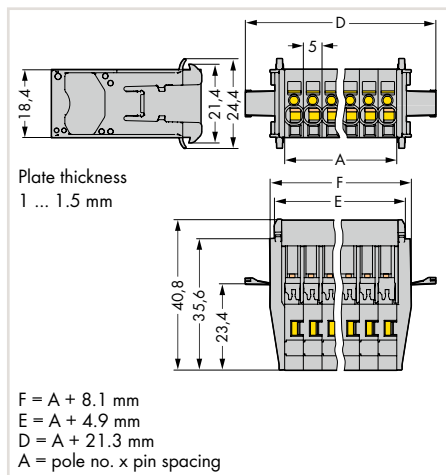
Pole No.	Item No.	Pack. Unit
Male connector, with CAGE CLAMP® connection and snap-in flanges, for tool-free mounting, gray		
2	769-602/005-000	50
3	769-603/005-000	25
4	769-604/005-000	25
5	769-605/005-000	25
6	769-606/005-000	25
7	769-607/005-000	25
8	769-608/005-000	20
9	769-609/005-000	20
10	769-610/005-000	20
11	769-611/005-000	15
12	769-612/005-000	15
13	769-613/005-000	15
14	769-614/005-000	10
15	769-615/005-000	10



Insert male connector with snap-in flanges (769-604/005-000) into the cutout.



Male connector with snap-in flanges  
 Snap-in mounting without tools



Dimensions in mm


### 769 Series Accessories

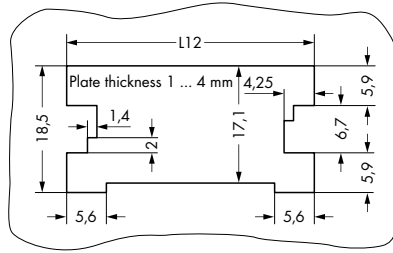
Appropriate marking system:  
 Mini-WSB/Mini-WSB Inline (see Section 13)

1-conductor female plug, straight			
	gray	769-102	100
1-conductor female plug, with lateral locking levers			
	gray	769-102/021-000	50
2-conductor female plug			
	gray	769-122	50
Coding pin, for coding female plugs			
	orange	769-435	100 (4x25)
Operating tool, for female and male connectors with CAGE CLAMP® connection			
		210-490	1
Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers			
	plain	248-501	5
Operating lever, loose, for male and female connectors with CAGE CLAMP® connection			
		769-434 2000 (20x100)	

# X-COM®-SYSTEM – Male Connectors with CAGE CLAMP® Connection and Snap-In Flanges, 5 mm Pin Spacing

## 4 mm<sup>2</sup>, 769 Series

Pin spacing 5 mm / 0.197 inch, gray  
 0.08 ... 4 mm<sup>2</sup> | 28 ... 12 AWG  
 500 V/6 kV/3 ①  
 I<sub>N</sub> 32 A ②  
 8 ... 9 mm / 0.31 ... 0.35 inch



$L12 = \text{pole no.} \times \text{pin spacing} + 10.2 \text{ mm}$

Sheet metal cutout (for female plugs without locking levers)

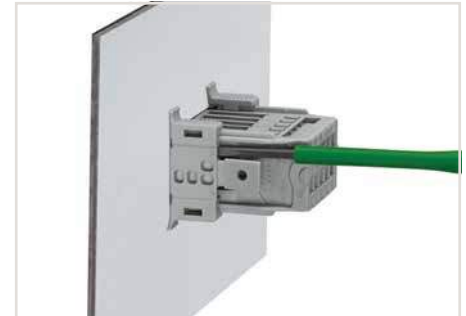
Male connectors with CAGE CLAMP® connection (769-6xx/006-000) and snap-in flanges

- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Current-carrying capacity curves upon request

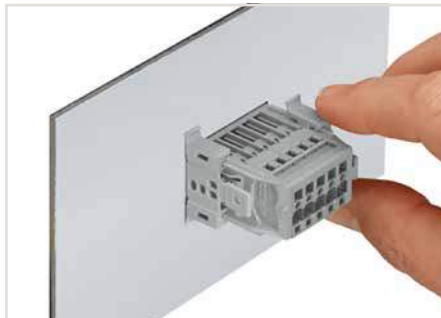
Pole No.	Item No.	Pack. Unit
Male connector, with CAGE CLAMP® connection and snap-in flanges, for tool-free mounting, gray		
○ 2	769-602/006-000	100
○ 3	769-603/006-000	100
○ 4	769-604/006-000	50
○ 5	769-605/006-000	25
○ 6	769-606/006-000	25
○ 7	769-607/006-000	25
○ 8	769-608/006-000	25
○ 9	769-609/006-000	20
○ 10	769-610/006-000	25
○ 11	769-611/006-000	25
○ 12	769-612/006-000	25
○ 13	769-613/006-000	15
○ 14	769-614/006-000	15
○ 15	769-615/006-000	10
Accessories see page 382		



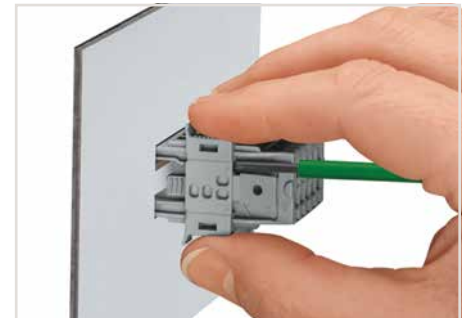
Insert male connector with snap-in flanges (769-605/006-000) into the cutout.



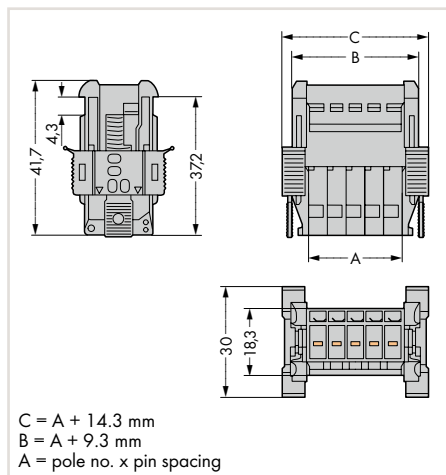
For removal, insert operating tool (2.5 mm blade) into release slot.



Secure the snap-in flange.



Press center part on both the top and bottom of the connector. Then remove snap-in flange.



Dimensions in mm

6

# X-COM®-SYSTEM

## Male Headers with Solder Pins, 5 mm Pin Spacing

### 4 mm<sup>2</sup>, 769 Series

Pin spacing 5 mm / 0.197 inch, gray 250 V/4 kV/3 ① 300 V, 20 A 500 V/4 kV/2 ① 300 V, 20 A I <sub>N</sub> 32 A ②	Pin spacing 5 mm / 0.197 inch, gray 250 V/4 kV/3 ① 300 V, 20 A 500 V/4 kV/2 ① 300 V, 20 A I <sub>N</sub> 32 A ②
--	--

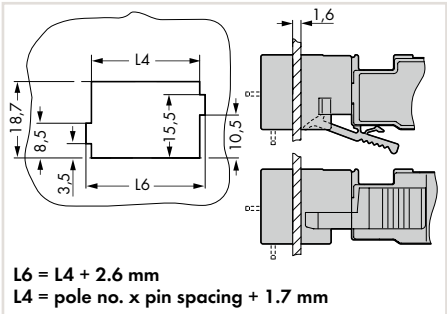


- ① 250 V/500 V = rated voltage  
4 kV = rated surge voltage  
3/2 = pollution degree  
(see Section 14)

- ② Current-carrying capacity curves, see page 402 and upon request

6

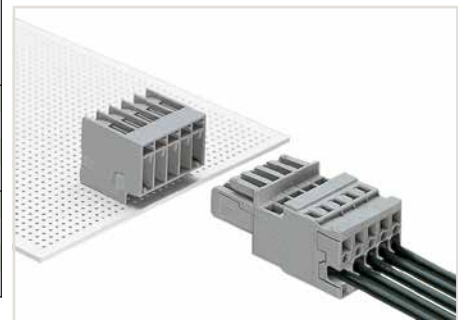
Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
Male header, with straight solder pins, 1 x 1 mm, vertical mating direction to the PCB, gray			Male header, with angled solder pins, 1 x 1 mm, horizontal mating direction to the PCB, gray		
2	769-632	200	2	769-662	200
3	769-633	100	3	769-663	100
4	769-634	50	4	769-664	50
5	769-635	50	5	769-665	50
6	769-636	50	6	769-666	50
7	769-637	50	7	769-667	50
8	769-638	25	8	769-668	25
9	769-639	25	9	769-669	25
10	769-640	25	10	769-670	25
11	769-641	25	11	769-671	25
12	769-642	25	12	769-672	25
13	769-643	25	13	769-673	25
14	769-644	25	14	769-674	25
15	769-645	25	15	769-675	25



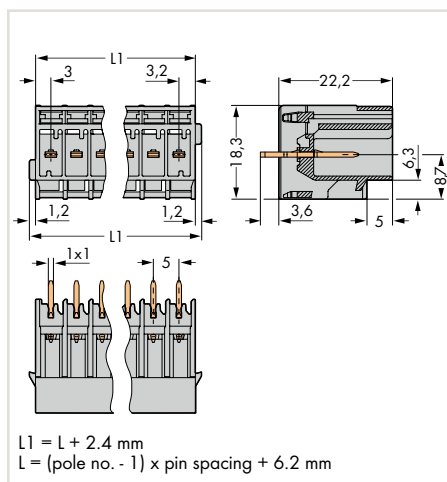
Cutout  
Male headers with solder pins

#### Accessories

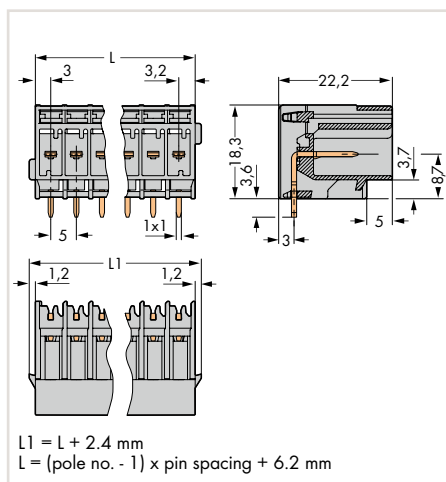
1-conductor female plug, straight gray <b>769-102</b> 100	1-conductor female plug, with lateral locking levers gray <b>769-102/021-000</b> 50
Coding pin, for coding female plugs orange <b>769-435</b> 100 (4x25)	



Male header with angled solder pins



Dimensions in mm



Dimensions in mm

# X-COM®-SYSTEM

## Male Headers with Solder Pins and Mounting Flanges, 5 mm Pin Spacing

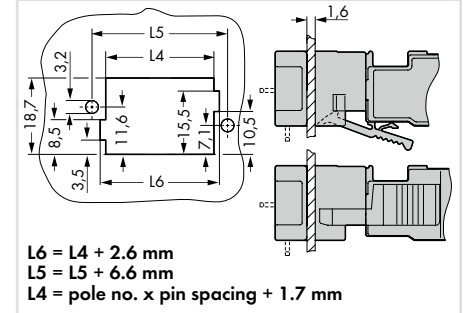
### 4 mm<sup>2</sup>, 769 Series

Pin spacing 5 mm / 0.197 inch, gray  
 250 V/4 kV/3 ① 300 V, 20 A<sup>VA</sup>  
 500 V/4 kV/2 ① 300 V, 20 A<sup>Ⓞ</sup>  
 I<sub>N</sub> 32 A ②

Pin spacing 5 mm / 0.197 inch, gray  
 250 V/4 kV/3 ① 300 V, 20 A<sup>VA</sup>  
 500 V/4 kV/2 ① 300 V, 20 A<sup>Ⓞ</sup>  
 I<sub>N</sub> 32 A ②

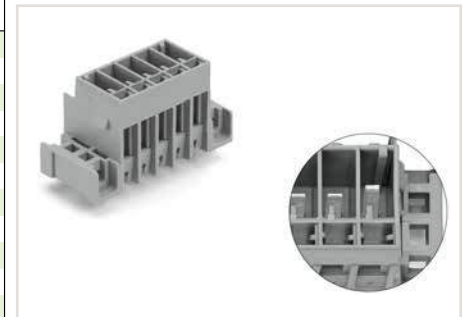
① 250 V/500 V = rated voltage  
 4 kV = rated surge voltage  
 3/2 = pollution degree  
 (see Section 14)

② Current-carrying capacity curves, see page 402 and upon request



Cutout  
 Male headers with solder pins and mounting flanges

Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
Male header, with straight solder pins and mounting flanges, 1 x 1 mm, vertical mating direction to the PCB, gray			Male header, with angled solder pins and mounting flanges, 1 x 1 mm, horizontal mating direction to the PCB, gray		
2	769-632/003-000	200	2	769-662/003-000	100
3	769-633/003-000	100	3	769-663/003-000	100
4	769-634/003-000	50	4	769-664/003-000	50
5	769-635/003-000	50	5	769-665/003-000	50
6	769-636/003-000	25	6	769-666/003-000	50
7	769-637/003-000	25	7	769-667/003-000	25
8	769-638/003-000	25	8	769-668/003-000	25
9	769-639/003-000	25	9	769-669/003-000	25
10	769-640/003-000	25	10	769-670/003-000	25
11	769-641/003-000	25	11	769-671/003-000	25
12	769-642/003-000	25	12	769-672/003-000	25
13	769-643/003-000	15	13	769-673/003-000	15
14	769-644/003-000	15	14	769-674/003-000	15
15	769-645/003-000	15	15	769-675/003-000	15



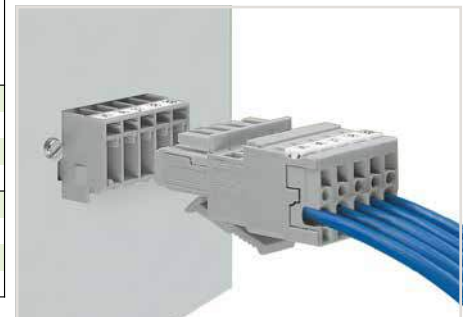
Male headers with preceding ground contact, with straight solder pins and mounting flanges  
 769-632/003-036  
 769-633/003-036  
 769-634/003-036  
 769-635/003-036  
 769-636/003-036

### Accessories

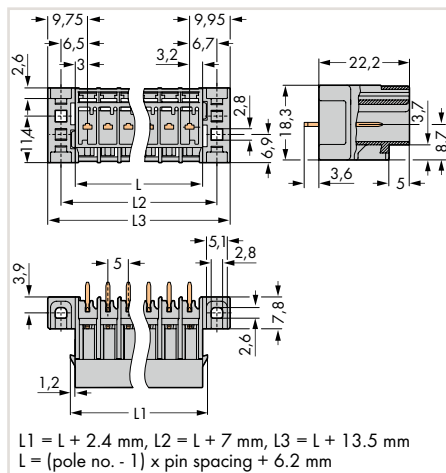
1-conductor female plug, straight  
 gray 769-102 100

1-conductor female plug, with lateral locking levers  
 gray 769-102/021-000 50

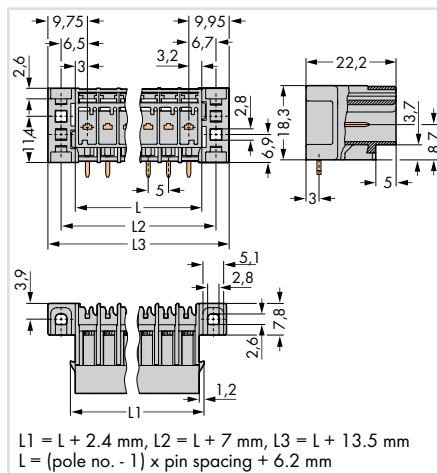
Coding pin, for coding female plugs  
 orange 769-435 100 (4x25)



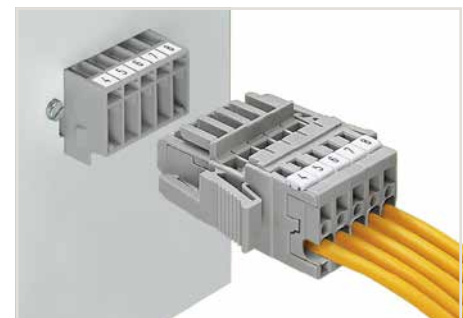
Male header with mounting flanges  
 1-conductor female plug with bottom-mount locking levers



Dimensions in mm



Dimensions in mm



Male header and 1-conductor female plug with lateral locking levers

# X-COM®-SYSTEM

## Male Headers with Solder Pins and Feedthrough Flanges, 5 mm Pin Spacing

### 4 mm<sup>2</sup>, 769 Series

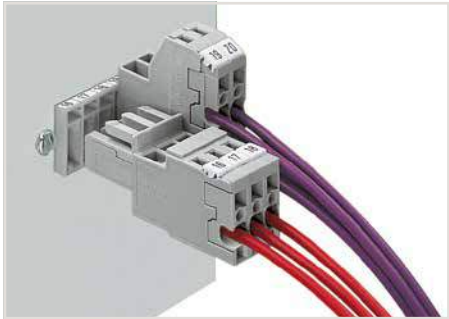
Pin spacing 5 mm / 0.197 inch, gray 250 V/4 kV/3 ① 300 V, 20 A 500 V/4 kV/2 ① 300 V, 20 A I <sub>N</sub> 32 A ②	Pin spacing 5 mm / 0.197 inch, gray 250 V/4 kV/3 ① 300 V, 20 A 500 V/4 kV/2 ① 300 V, 20 A I <sub>N</sub> 32 A ②
--	--



- ① 250 V/500 V = rated voltage  
4 kV = rated surge voltage  
3/2 = pollution degree  
(see Section 14)
- ② Current-carrying capacity curves, see page 402 and upon request

6

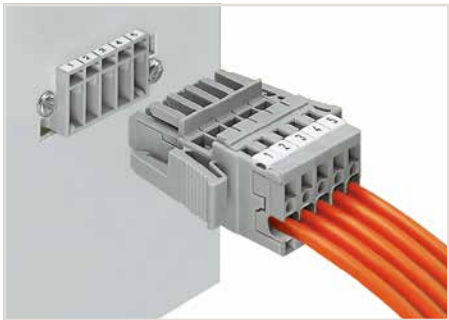
Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
Male header, with straight solder pins and feedthrough flanges, 1 x 1 mm, vertical mating direction to the PCB, gray			Male header, with angled solder pins and feedthrough flanges, 1 x 1 mm, horizontal mating direction to the PCB, gray		
2	769-632/004-000	200	2	769-662/004-000	200
3	769-633/004-000	50	3	769-663/004-000	100
4	769-634/004-000	50	4	769-664/004-000	50
5	769-635/004-000	50	5	769-665/004-000	50
6	769-636/004-000	50	6	769-666/004-000	50
7	769-637/004-000	25	7	769-667/004-000	50
8	769-638/004-000	25	8	769-668/004-000	25
9	769-639/004-000	25	9	769-669/004-000	25
10	769-640/004-000	25	10	769-670/004-000	25
11	769-641/004-000	25	11	769-671/004-000	25
12	769-642/004-000	25	12	769-672/004-000	25
13	769-643/004-000	15	13	769-673/004-000	25
14	769-644/004-000	15	14	769-674/004-000	15
15	769-645/004-000	15	15	769-675/004-000	15



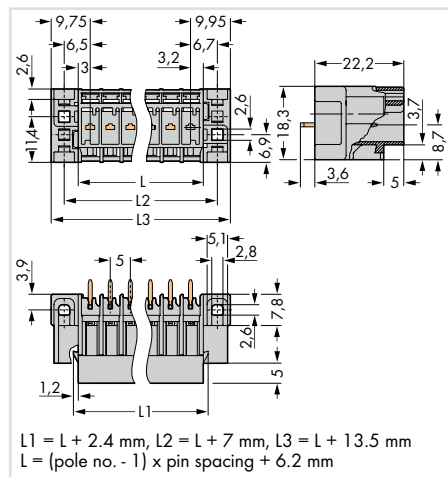
Male header with feedthrough flanges  
1-conductor female plug  
2-conductor female plug

#### Accessories

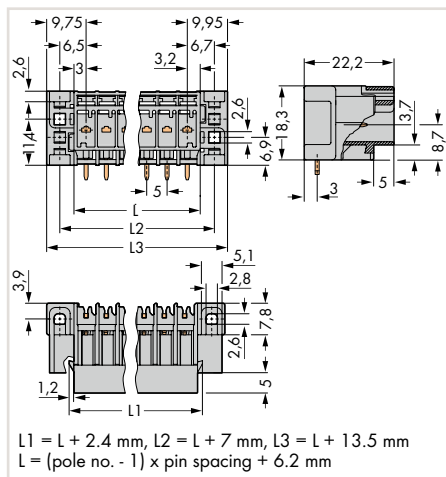
1-conductor female plug, straight gray <b>769-102</b> 100	1-conductor female plug, with lateral locking levers gray <b>769-102/021-000</b> 50
Coding pin, for coding female plugs orange <b>769-435</b> 100 (4x25)	



Male header and 1-conductor female plug with lateral locking levers



Dimensions in mm

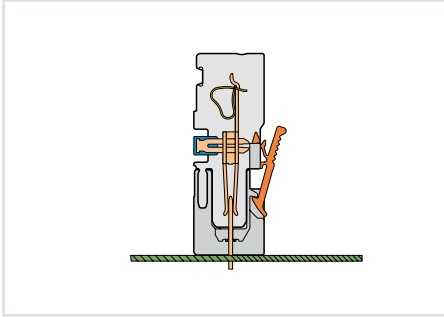


Dimensions in mm

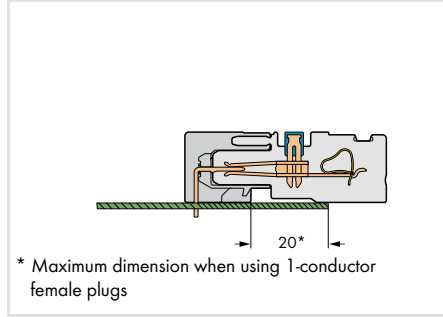
# X-COM®-SYSTEM

## Male Headers with Solder Pins with 1-/2-Conductor Female Plugs

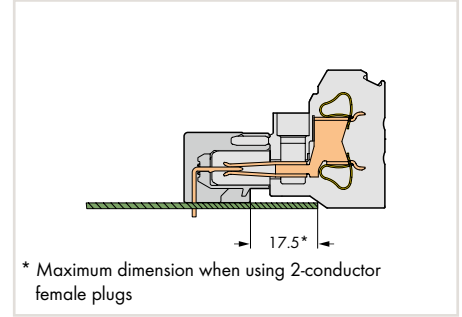
### Types of Assembly



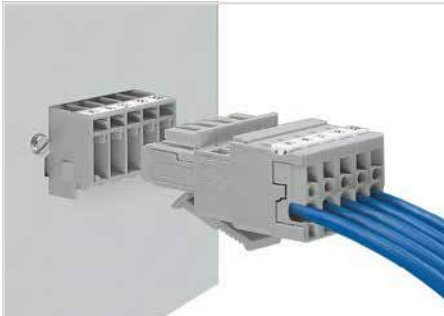
Male header with straight solder pins



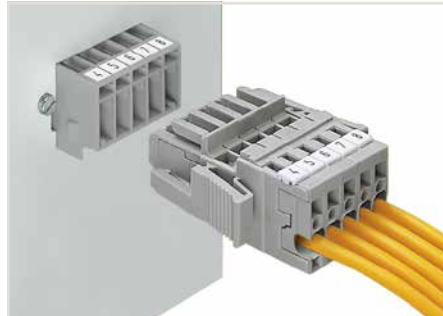
Male header with angled solder pins



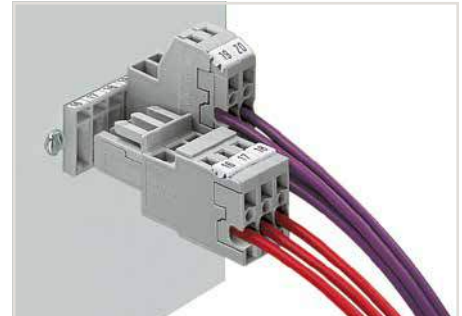
Male header with angled solder pins



Male header with mounting flanges  
1-conductor female plug with bottom-mount locking levers



Male header with mounting flanges  
1-conductor female plug with lateral locking levers

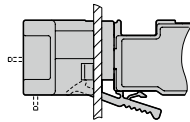


Male header with feedthrough flanges  
1-conductor female plug  
2-conductor female plug

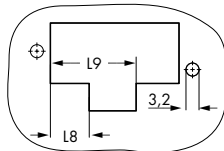
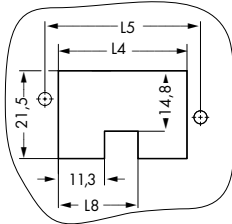
6

### Cutouts for headers with fixing flanges for feedthrough applications and locking levers

Female plugs with **bottom-mounted** locking levers



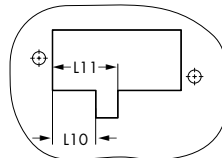
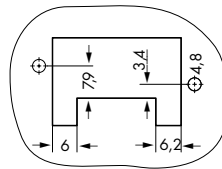
Cutouts for **2-pole** locking levers (2- to 15-pole female plugs)



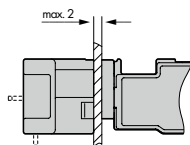
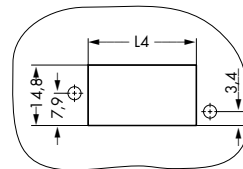
Layout for locking levers outer ...

... inner

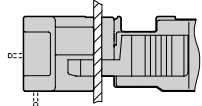
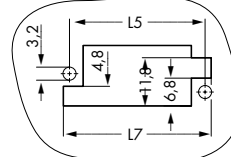
Cutouts for **single pole** locking levers



Female plug **without** locking levers



Female plug with **lateral** locking levers



- L 4 = pole no. x pin spacing + 1.7 mm**
  - L 5 = L 4 + 6.6 mm**
  - L 7 = L 4 + 9.4 mm**
  - L 8 = pole no. LL x pin spacing - 0.3 mm**
  - L 9 = L 8 + 11.6 mm**
  - L 10 = pole no. LL x pin spacing + 0.6 mm**
  - L 11 = L 10 + 5.4 mm**
- Pole no. LL: Number of poles ahead of the poles attached to the locking lever**  
**LL = locking lever**

# X-COM®-SYSTEM

## Male Headers with Solder Pins and Rivet Mounting Flanges, 5 mm Pin Spacing

### 4 mm<sup>2</sup>, 769 Series

Pin spacing 5 mm / 0.197 inch, gray  
 250 V/4 kV/3 ①  
 500 V/4 kV/2 ①  
 I<sub>N</sub> 32 A ②

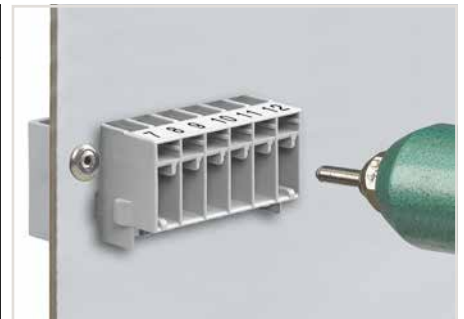


① 250 V/500 V = rated voltage  
 4 kV = rated surge voltage  
 3/2 = pollution degree  
 (see Section 14)

② Current-carrying capacity curves upon request




6

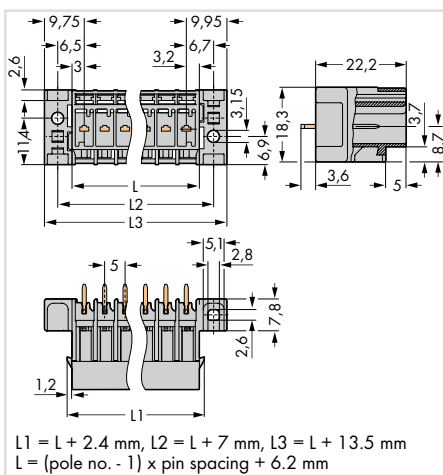
Pole No.	Item No.	Pack. Unit
Male header, with straight solder pins and rivet mounting flanges, 1 x 1 mm, vertical mating direction to the PCB, gray		
2	769-632/007-000	200
3	769-633/007-000	50
4	769-634/007-000	50
5	769-635/007-000	50
6	769-636/007-000	50
7	769-637/007-000	25
8	769-638/007-000	25
9	769-639/007-000	25
10	769-640/007-000	25
11	769-641/007-000	25
12	769-642/007-000	25
13	769-643/007-000	15
14	769-644/007-000	15
15	769-645/007-000	15



Mounting with 3 mm Ø blind rivets

#### Accessories

1-conductor female plug, straight 	gray 769-102 100	1-conductor female plug, with lateral locking levers 	gray 769-102/021-000 50
Coding pin, for coding female plugs 	orange 769-435 100 (4x25)		



Dimensions in mm





# X-COM®-SYSTEM

## 1-Conductor Female Plugs

### 4 mm<sup>2</sup>, 769 Series

0.08 ... 4 mm <sup>2</sup>	28 ... 12 AWG
500 V/6 kV/3 ❶	300 V, 20 A ❷
I <sub>N</sub> 32 A ❷	300 V, 20 A ❸
Module width 5 mm / 0.197 inch	
8 ... 9 mm / 0.31 ... 0.35 inch	



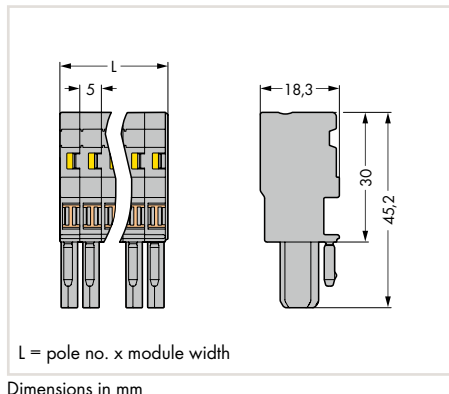
Application examples for 1-pole female plug:

- Phase selection in three-phase network
- Test plug with rated current capability
- Simplified circuit expansion - addition of base circuits requires only female plugs to be plugged in

- ❶ 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❷ Current-carrying capacity curves, see page 400 and upon request
- ❸ Item no. suffixes  
blue .../000-006  
green-yellow .../000-016
- ❹ See page 399

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Pole No.	Item No.	Pack. Unit	Accessories
1-conductor female plug, straight, fits into carrier terminal blocks or male connectors, with coding fingers, can be commoned with miniature adjacent jumpers, gray			Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)
○ 1	769-101	200	Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st") white <b>769-470</b> 200 (8x25)
○ 2	769-102	100	Operating lever, loose, for male and female connectors with CAGE CLAMP® <b>769-434</b> 2000 (20x100)
○ 3	769-103	50	
○ 4	769-104	50	Locking lever, for 1-pole female plugs gray <b>769-428</b> 100 (4x25) orange <b>769-429</b> 100 (4x25)
○ 5	769-105	50	
○ 6	769-106	25	Locking lever, for female plugs with 2 poles and more orange <b>769-431</b> 100 (4x25) gray <b>769-430</b> 100 (4x25)
○ 7	769-107	25	
○ 8	769-108	25	Miniature adjacent jumper, insulated, I <sub>N</sub> 24 A gray <b>769-402</b> 100 (4x25)
○ 9	769-109	25	
○ 10	769-110	25	Strain relief plate, gray 1-pole <b>769-410</b> 100 (4x25) 2- ... 3-pole <b>769-411</b> 100 (4x25) 4- ... 5-pole <b>769-412</b> 100 (4x25)
○ 11	769-111	20	
○ 12	769-112	20	Jumper cover, for 1-conductor female plugs, for 5 poles gray <b>769-436</b> 100 (4x25)
○ 13	769-113	10	
○ 14	769-114	10	Strain relief plate, gray 6- ... 9-pole <b>769-413</b> 100 (4x25) 10- ... 15-pole <b>769-414</b> 100 (4x25)
○ 15	769-115	10	
			Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>280-415</b> 100 (4x25)
			Snap-on type strain relief housing, consists of strain relief support and housing 5-pole <b>769-1605</b> 25
			Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers plain <b>248-501</b> 5
			Mini-WSB Quick marking system, plain, 10 strips with 10 markers per card, 5 mm wide markers yellow <b>248-501/000-002</b> red <b>248-501/000-005</b> blue <b>248-501/000-006</b> gray <b>248-501/000-007</b> orange <b>248-501/000-012</b> light green <b>248-501/000-017</b> green <b>248-501/000-023</b> violet <b>248-501/000-024</b>

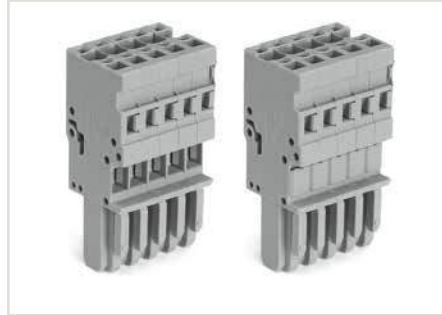


# X-COM®-SYSTEM

## 1-Conductor Female Plugs with Lateral Locking Levers

### 4 mm<sup>2</sup>, 769 Series

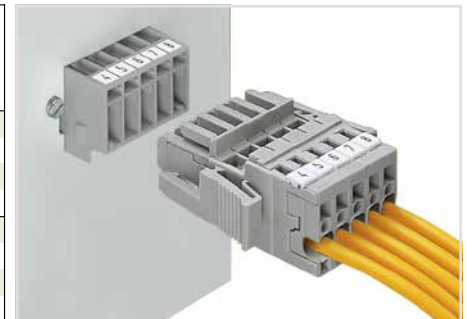
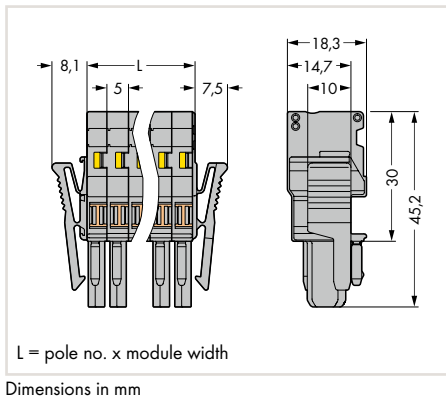
0.08 ... 4 mm <sup>2</sup>	28 ... 12 AWG
500 V/6 kV/3 ❶	300 V, 20 A ❷
I <sub>N</sub> 32 A ❷	300 V, 20 A ❸
Module width 5 mm / 0.197 inch	
8 ... 9 mm / 0.31 ... 0.35 inch	



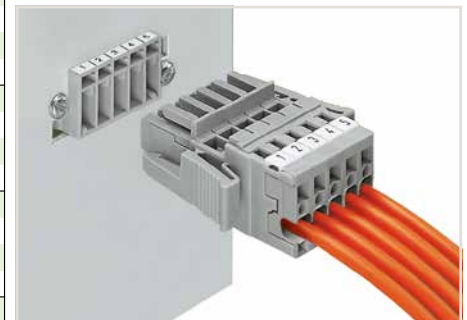
Jumper cover for 1-conductor female plugs

- ❶ 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❷ Current-carrying capacity curves, see page 400 and upon request
- ❸ See page 399

Pole No.	Item No.	Pack. Unit	Accessories
1-conductor female plug, with lateral locking levers, only compatible with male connectors, with coding fingers, can be commoned with miniature adjacent jumpers, gray			Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)
⊙ 2	769-102/021-000	50	Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst") white <b>769-470</b> 200 (8x25)
⊙ 3	769-103/021-000	25	
⊙ 4	769-104/021-000	25	Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>769-471</b> 200 (8x25)
⊙ 5	769-105/021-000	25	
⊙ 6	769-106/021-000	25	
⊙ 7	769-107/021-000	25	
⊙ 8	769-108/021-000	20	Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>769-472</b> 200 (8x25)
⊙ 9	769-109/021-000	20	
⊙ 10	769-110/021-000	10	
⊙ 11	769-111/021-000	10	
⊙ 12	769-112/021-000	10	Miniature adjacent jumper, insulated, I <sub>N</sub> 24 A gray <b>769-402</b> 100 (4x25)
⊙ 13	769-113/021-000	10	
⊙ 14	769-114/021-000	10	
⊙ 15	769-115/021-000	10	
			Jumper cover, for 1-conductor female plugs, for 5 poles gray <b>769-436</b> 100 (4x25)
			Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>280-415</b> 100 (4x25)
			Operating lever, loose, for male and female connectors with CAGE CLAMP® connection <b>769-434</b> 2000 (20x100)
			Test plug, with 500 mm cable, 2 mm Ø, max. 42 V red <b>210-136</b> 50
			Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V yellow <b>210-137</b> 50
			Strain relief plate, gray 2- ... 3-pole <b>769-411</b> 100 (4x25) 4- ... 5-pole <b>769-412</b> 100 (4x25)
			Strain relief plate, gray 6- ... 9-pole <b>769-413</b> 100 (4x25) 10- ... 15-pole <b>769-414</b> 100 (4x25)
			Snap-on type strain relief housing, consists of strain relief support and housing 5-pole <b>769-1605</b> 25



Male header with mounting flanges  
1-conductor female plug with lateral locking levers



Male header and 1-conductor female plug with lateral locking levers

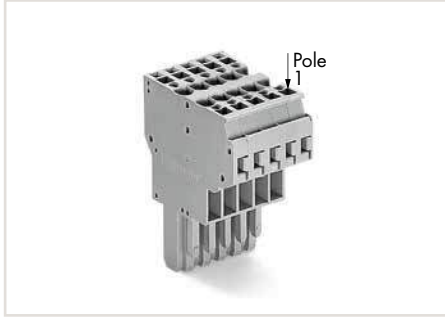
6

# X-COM®-SYSTEM

## 2-Conductor Female Plugs

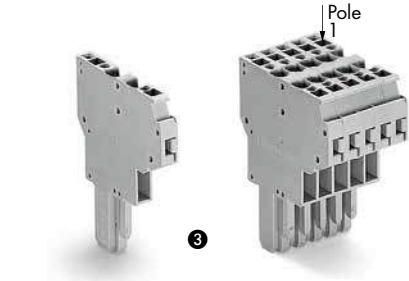
### 4 mm<sup>2</sup>, 769 Series

0.08 ... 4 mm <sup>2</sup>	28 ... 12 AWG
500 V/6 kV/3 ❶	300 V, 20 A <sup>II</sup>
I <sub>N</sub> 32 A ❷	300 V, 20 A <sup>III</sup>
Module width 5 mm / 0.197 inch	
8 ... 9 mm / 0.31 ... 0.35 inch	



2-conductor female plugs:

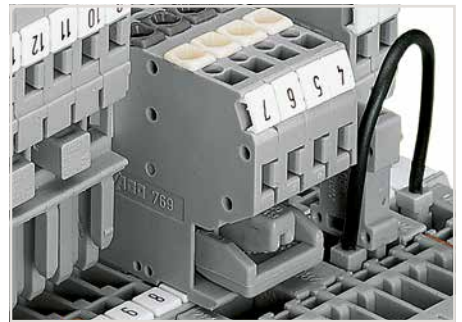
- Common signals from one subassembly to the other (bus structure)
- Can be used as a T-wire branch tap connection (e.g. for lighting wiring)
- Enable a higher number of connection possibilities



- ❶ 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❷ Current-carrying capacity curves upon request
- ❸ Item no. suffixes  
blue .../000-006  
green-yellow .../000-016
- ❹ See application notes for:  
Staggered jumper, page 333

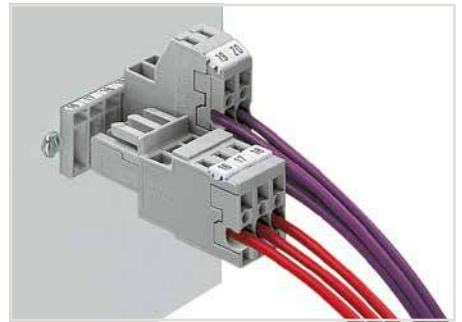
6

Pole No.	Item No.	Pack. Unit	Accessories
2-conductor female plug, fits into carrier terminal blocks or male connectors, with coding fingers, can be commoned with adjacent and staggered jumpers, gray			Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)
○ 1	769-121	100	Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st") white <b>769-470</b> 200 (8x25)
○ 2	769-122	50	
○ 3	769-123	25	Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>769-471</b> 200 (8x25)
○ 4	769-124	25	
○ 5	769-125	20	
○ 6	769-126	10	
○ 7	769-127	10	Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>769-472</b> 200 (8x25)
○ 8	769-128	10	
○ 9	769-129	10	Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block gray <b>280-402</b> 200 (8x25)
○ 10	769-130	10	
○ 11	769-131	5	
○ 12	769-132	5	
○ 13	769-133	5	
○ 14	769-134	5	
○ 15	769-135	5	Staggered jumper, insulated, Spacing: 5 mm, I <sub>N</sub> 24 A <b>780-452</b> 100 (4x25)
			from 1 to 2 <b>780-452</b> 100 (4x25)
			from 1 to 3 <b>780-453</b> 100 (4x25)
			from 1 to 4 <b>780-454</b> 100 (4x25)
			from 1 to 5 <b>780-455</b> 50 (2x25)
			from 1 to 6 <b>780-456</b> 50 (2x25)
			from 1 to 7 <b>780-457</b> 50 (2x25)
			from 1 to 8 <b>780-458</b> 50 (2x25)
			Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>280-415</b> 100 (4x25)
			Locking lever, for 1-pole female plugs gray <b>769-428</b> 100 (4x25) orange <b>769-429</b> 100 (4x25)
			Locking lever, for female plugs with 2 poles and more orange <b>769-431</b> 100 (4x25) gray <b>769-430</b> 100 (4x25)
			Strain relief plate, gray 1-pole <b>769-410</b> 100 (4x25) 2- ... 3-pole <b>769-411</b> 100 (4x25) 4- ... 5-pole <b>769-412</b> 100 (4x25)
			Strain relief plate, gray 6- ... 9-pole <b>769-413</b> 100 (4x25) 10- ... 15-pole <b>769-414</b> 100 (4x25)

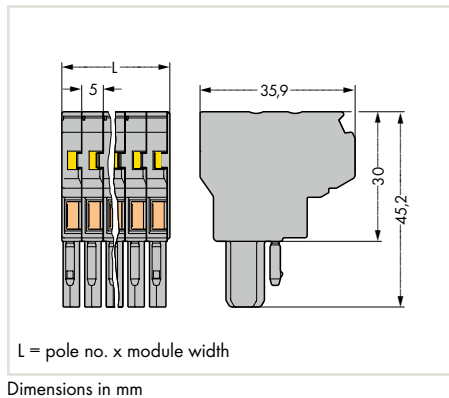


Commoning options of female plugs:

- After removal, commoned potentials still remain commoned
- Use of plug-in jumpers instead of additional wired jumpers
- Can be used as a "hardware" key for safety lockout
- Can also be used as a commoning jumper for sensor circuits or machine programming



Male header with feedthrough flanges  
1-conductor female plug  
2-conductor female plug




# X-COM®-SYSTEM

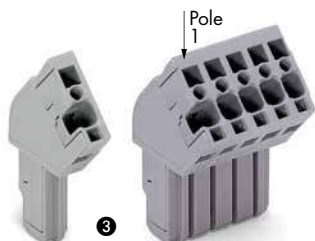
## 1-Conductor Female Plugs, Angled

### 4 mm<sup>2</sup>, 769 Series












0.08 ... 4 mm<sup>2</sup> | 28 ... 12 AWG  
 500 V/6 kV/3 ❶ | 300 V, 20 A ❷  
 I<sub>N</sub> 32 A ❷ | 300 V, 20 A ❸

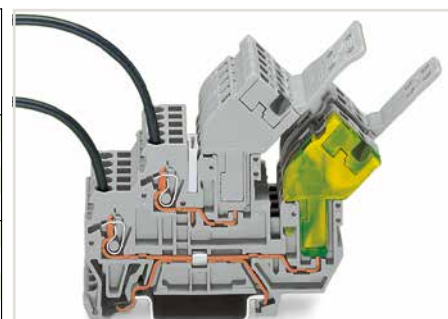
Module width 5 mm / 0.197 inch

 8 ... 9 mm / 0.31 ... 0.35 inch

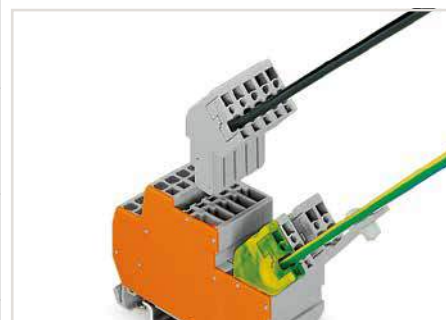


- ❶ 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ❷ Current-carrying capacity curves upon request
- ❸ Item no. suffixes  
blue .../000-006  
green-yellow .../000-016
- ❹ See page 399

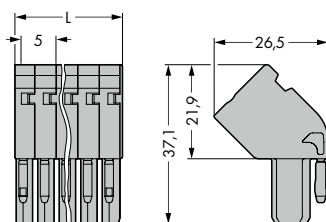
Pole No.	Item No.	Pack. Unit	Accessories
1-conductor female plug, angled, fits into carrier terminal blocks or male connectors, with coding fingers, gray			Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)
1	769-101/022-000	200	Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")  white <b>769-470</b> 200 (8x25)
2	769-102/022-000	100	
3	769-103/022-000	50	
4	769-104/022-000	50	Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>  light gray <b>769-471</b> 200 (8x25)
5	769-105/022-000	50	
6	769-106/022-000	25	
7	769-107/022-000	25	
8	769-108/022-000	25	Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>  dark gray <b>769-472</b> 200 (8x25)
9	769-109/022-000	25	
10	769-110/022-000	25	
11	769-111/022-000	20	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  yellow <b>280-415</b> 100 (4x25)
12	769-112/022-000	20	
13	769-113/022-000	10	
14	769-114/022-000	10	
15	769-115/022-000	10	
			Operating lever, loose, for male and female connectors with CAGE CLAMP® connection  <b>769-434</b> 2000 (20x100)
			Test plug, with 500 mm cable, 2 mm Ø, max. 42 V  red <b>210-136</b> 50
			Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  yellow <b>210-137</b> 50
			Strain relief plate, gray  1-pole <b>769-410</b> 100 (4x25) 2- ... 3-pole <b>769-411</b> 100 (4x25) 4- ... 5-pole <b>769-412</b> 100 (4x25)
			Strain relief plate, gray  6- ... 9-pole <b>769-413</b> 100 (4x25) 10- ... 15-pole <b>769-414</b> 100 (4x25)
			Snap-on type strain relief housing, consists of strain relief support and housing  5-pole <b>769-1605</b> 25
			Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers  plain <b>248-501</b> 5



Angled female plugs provide reduced installation height.



1-conductor/1-pin, double-deck carrier terminal block  
1-conductor female plug, angled\*  
\*1-conductor straight female plug is also possible!



L = pole no. x module width

Dimensions in mm

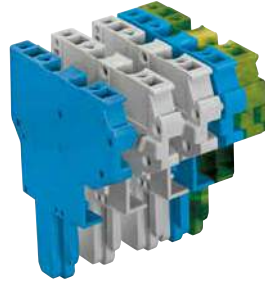
6

# X-COM®-SYSTEM



## Female Plugs for Self-Assembly

### 4 mm<sup>2</sup>, 769 Series

<p>0.08 ... 4 mm<sup>2</sup>   28 ... 12 AWG 500 V/6 kV/3 ① I<sub>N</sub> 32 A ②</p> <p>Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 4 mm<sup>2</sup>   28 ... 12 AWG 500 V/6 kV/3 ① I<sub>N</sub> 32 A ②</p> <p>Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 4 mm<sup>2</sup>   28 ... 12 AWG 500 V/6 kV/3 ① I<sub>N</sub> 32 A ②</p> <p>Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>
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6

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
1-conductor end module, with coding fingers, can be commoned with miniature adjacent jumpers		2-conductor end module, with coding fingers, can be commoned with adjacent jumpers and staggered jumpers		1-conductor end module, angled, with coding fingers	
gray 769-503 250	blue 769-503/000-006 250	green-yellow 769-503/000-016 250	gray 769-506 250	blue 769-506/000-006 250	green-yellow 769-506/000-016 250
1-conductor center module, with coding fingers, can be commoned with miniature adjacent jumpers		2-conductor center module, with coding fingers, can be commoned with adjacent jumpers and staggered jumpers		1-conductor center module, angled, with coding fingers	
gray 769-502 250	blue 769-502/000-006 250	green-yellow 769-502/000-016 250	gray 769-505 250	blue 769-505/000-006 250	green-yellow 769-505/000-016 250
1-conductor base module, with integrated end plate, with coding fingers, can be commoned with miniature adjacent jumpers		2-conductor base module, with integrated end plate, with coding fingers, can be commoned with adjacent jumpers and staggered jumpers		1-conductor base module, angled, with integrated end plate, with coding fingers	
gray 769-501 250	blue 769-501/000-006 250	green-yellow 769-501/000-016 250	gray 769-504 250	blue 769-504/000-006 250	green-yellow 769-504/000-016 250
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>			
<b>Miniature adjacent jumper</b> , insulated, I <sub>N</sub> 24 A		<b>Adjacent jumper</b> , insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			
 gray 769-402 100 (4x25)		 gray 280-402 200 (8x25)			

### Accessories for Female Plugs

Appropriate marking system:  
Mini-WSB/Mini-WSB Inline (see Section 13)

<p>Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "fst")</p> <p>white 769-470 200 (8x25)</p>	<p>Locking lever, for female plugs with 2 poles and more</p> <p>orange 769-431 100 (4x25)</p> <p>gray 769-430 100 (4x25)</p>	<p>Strain relief plate, gray</p> <p>1-pole 769-410 100 (4x25)</p> <p>2- ... 3-pole 769-411 100 (4x25)</p> <p>4- ... 5-pole 769-412 100 (4x25)</p>
<p>Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup></p> <p>light gray 769-471 200 (8x25)</p>	<p>Test plug, with 500 mm cable, 2 mm Ø, max. 42 V</p> <p>red 210-136 50</p>	<p>Strain relief plate, gray</p> <p>6- ... 9-pole 769-413 100 (4x25)</p> <p>10- ... 15-pole 769-414 100 (4x25)</p>
<p>Insulation stop, 5 pcs/strip, 0.75 ... 1 mm<sup>2</sup></p> <p>dark gray 769-472 200 (8x25)</p>	<p>Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V</p> <p>yellow 210-137 50</p>	
<p>Protective warning marker, with black high-voltage symbol, for 5 terminal blocks</p> <p>yellow 280-415 100 (4x25)</p>	<p>Operating lever, loose, for male and female connectors with CAGE CLAMP® connection</p> <p>769-434 2000 (20x100)</p>	
<p>Locking lever, for 1-pole female plugs</p> <p>gray 769-428 100 (4x25)</p> <p>orange 769-429 100 (4x25)</p>	<p>Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers</p> <p>plain 248-501 5</p>	

**Customizing Modular Female Plugs**

WAGO's modular X-COM®-SYSTEM female plugs can be customized for applications requiring varying numbers of poles (e.g., when designing prototypes).

**Modules and Pole Numbers**

A customized X-COM®-SYSTEM female plug consists of:

- One base module with an integrated end plate
- Up to 13 center modules (corresponding to a 15-pole female plug = maximum pole number)
- One end module

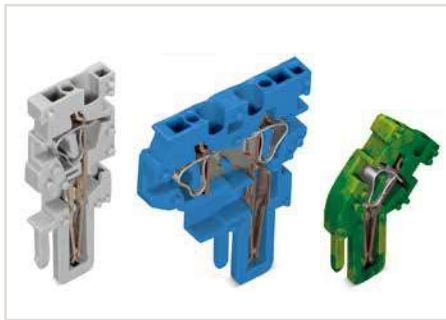
**Intended Use**

According to EN 61984, pluggable connectors without a current interrupting capacity shall not be mated or unmated when live or under load.

**Assembly**

The appropriate mounting tool shall be used in order to guarantee that the individual modules are properly attached to each other without damaging the locking latches.

- 1 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- 2 Current-carrying capacity curves upon request



End module



Center module



Base module

6

**Example: 5-Pole, 1-Conductor Female Plug**

Base module with integrated end plate  
769-501/000-016

Center module  
769-502/000-006

Center modules  
769-502

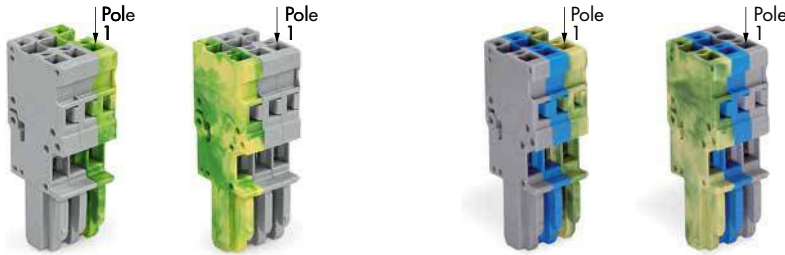
End module  
769-503

# X-COM®-SYSTEM

## Pre-Assembled Female Plugs















### 4 mm<sup>2</sup>, 769 Series

0.08 ... 4 mm <sup>2</sup>   28 ... 12 AWG 500 V/6 kV/3 ① I <sub>N</sub> 32 A ② Module width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	0.08 ... 4 mm <sup>2</sup>   28 ... 12 AWG 500 V/6 kV/3 ① I <sub>N</sub> 32 A ② Module width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch
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- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Current-carrying capacity curves upon request

6

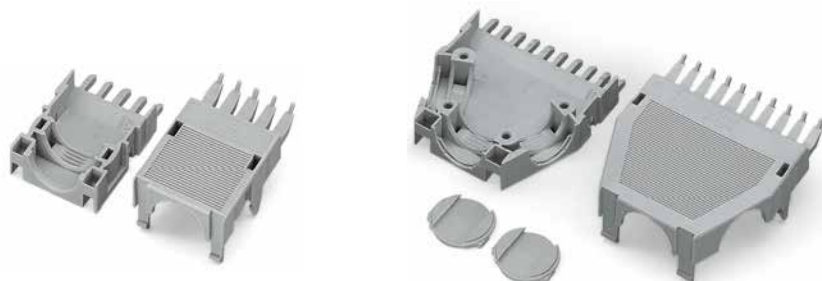
Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit	Accessories
1-conductor female plug, with ground base module (green-yellow), fits into carrier terminal blocks or male connectors, with coding fingers, can be commoned with miniature adjacent jumpers			1-conductor female plug, with ground base module (green-yellow), fits into carrier terminal blocks or male connectors, with coding fingers, can be commoned with miniature adjacent jumpers			Appropriate marking system: Mini-WSB/Mini-WSB Inline (see Section 13)
3	769-103/000-036	25	3	769-103/000-038	25	Locking lever, for 1-pole female plugs  gray <b>769-428</b> 100 (4x25) orange <b>769-429</b> 100 (4x25)
4	769-104/000-036	25	4	769-104/000-038	25	Locking lever, for female plugs with 2 poles and more  orange <b>769-431</b> 100 (4x25) gray <b>769-430</b> 100 (4x25)
5	769-105/000-036	20	5	769-105/000-038	20	
6	769-106/000-036	10	6	769-106/000-038	10	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V  red <b>210-136</b> 50
7	769-107/000-036	10	7	769-107/000-038	10	
8	769-108/000-036	10	8	769-108/000-038	10	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  yellow <b>210-137</b> 50
9	769-109/000-036	10	9	769-109/000-038	10	
10	769-110/000-036	10	10	769-110/000-038	10	Protective warning marker, with black high-voltage symbol, for 5 terminal blocks  yellow <b>280-415</b> 100 (4x25)
11	769-111/000-036	5	11	769-111/000-038	5	
12	769-112/000-036	5	12	769-112/000-038	5	Strain relief plate, gray  2-... 3-pole <b>769-411</b> 100 (4x25) 4-... 5-pole <b>769-412</b> 100 (4x25)
13	769-113/000-036	5	13	769-113/000-038	5	
14	769-114/000-036	5	14	769-114/000-038	5	Strain relief plate, gray  6-... 9-pole <b>769-413</b> 100 (4x25) 10-... 15-pole <b>769-414</b> 100 (4x25)
15	769-115/000-036	5	15	769-115/000-038	5	
1-conductor female plug, with ground end module (green-yellow), fits into carrier terminal blocks or male connectors, with coding fingers, can be commoned with miniature adjacent jumpers			1-conductor female plug, with ground end module (green-yellow), fits into carrier terminal blocks or male connectors, with coding fingers, can be commoned with miniature adjacent jumpers			Snap-on type relief housing, consisting of strain relief support/housing  3-pole <b>769-1603</b> 25
3	769-103/000-037	25	3	769-103/000-039	25	
4	769-104/000-037	25	4	769-104/000-039	25	Snap-on type relief housing, consisting of strain relief support/housing  5-pole <b>769-1605</b> 25
5	769-105/000-037	20	5	769-105/000-039	20	
6	769-106/000-037	10	6	769-106/000-039	10	Operating lever, loose, for male and female connectors with CAGE CLAMP® connection  <b>769-434</b> 2000 (20x100)
7	769-107/000-037	10	7	769-107/000-039	10	
8	769-108/000-037	10	8	769-108/000-039	10	Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers  plain <b>248-501</b> 5
9	769-109/000-037	10	9	769-109/000-039	10	
10	769-110/000-037	10	10	769-110/000-039	10	Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")  white <b>769-470</b> 200 (8x25)
11	769-111/000-037	5	11	769-111/000-039	5	
12	769-112/000-037	5	12	769-112/000-039	5	Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>  light gray <b>769-471</b> 200 (8x25)
13	769-113/000-037	5	13	769-113/000-039	5	
14	769-114/000-037	5	14	769-114/000-039	5	Miniature adjacent jumper, insulated, I <sub>N</sub> 24 A  gray <b>769-402</b> 100 (4x25)
15	769-115/000-037	5	15	769-115/000-039	5	



# X-COM®-SYSTEM – Snap-on Type Strain Relief Housings for Female Plugs and Male Connectors with CAGE CLAMP® Connection

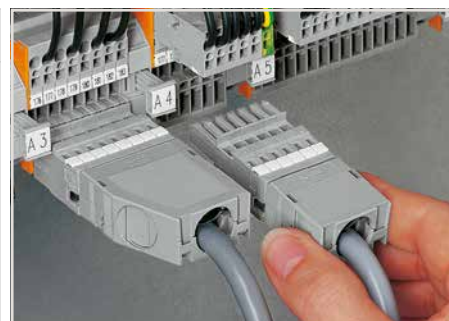
## 769 Series

Snap-on type relief housing	Snap-on type relief housing
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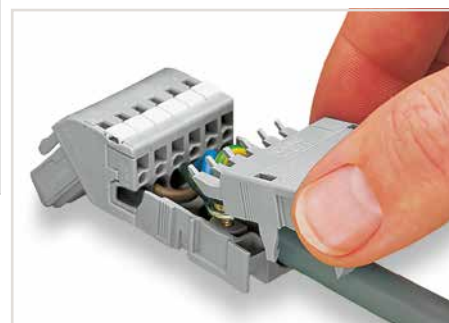
- ❶ One cable outlet (rear side), 2- ... 5-pole only suitable for cable ties (Fa. Hellermann – not offered by WAGO) not for cable clamp
- ❷ One cable outlet (rear side)
- ❸ Two cable outlets and one cover
- ❹ Three cable outlets and two covers

Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
Snap-on type strain relief housing, consists of strain relief support and housing, gray			Snap-on type strain relief housing, consists of strain relief support and housing, gray		
2	769-1602	❶ 25	6	769-1606	❷ 25
3	769-1603	❶ 25	7	769-1607	❷ 25
4	769-1604	❶ 25	8	769-1608	❸ 25
5	769-1605	❶ 25	9	769-1609	❸ 25
			10	769-1610	❹ 25
			11	769-1611	❹ 25
			12	769-1612	❹ 25
			13	769-1613	❹ 25
			14	769-1614	❹ 25
			15	769-1615	❹ 25

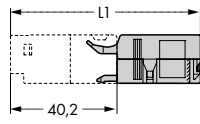
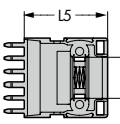
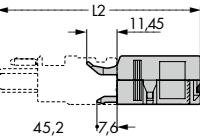

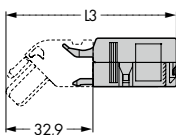
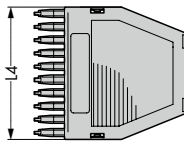


Application:  
Snap-on type strain relief housings for 769 Series

Item-Specific Accessories	Item-Specific Accessories
 WSB Quick marking system, white, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm plain <b>209-501</b> 5	 Cable clamp, for strain relief for 6 or more poles <b>209-174</b> 25
	 Mounting screw, for cable clamp for 6 or more poles <b>209-173</b> 50



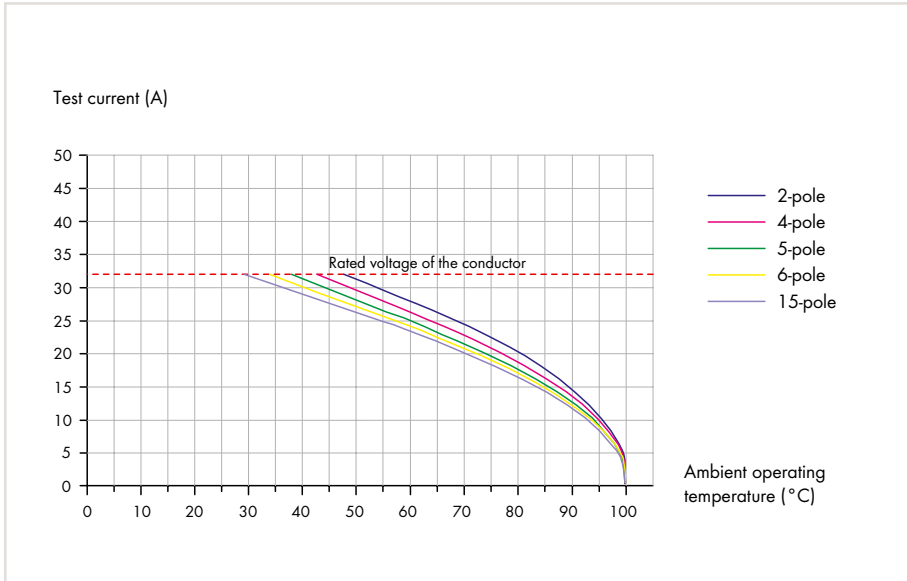
Snapping on a strain relief housing.

Dimensions for strain relief housings		pole no.	L1	L2	L3	L4	L5	D
		2	71.7	76.7	64.4	10	31.5	5
		3	71.7	76.7	64.4	15	31.5	9.7
		4	71.7	76.7	64.4	20	31.5	14
		5	71.7	76.7	64.4	25	31.5	14
		6	71.7	76.7	64.4	30	31.5	15.5
		7	77.7	81.7	69.4	35	36.5	15.5
		8	86.2	91.2	78.9	40	46	15.5
		9	86.2	91.2	78.9	45	46	15.5
		10	86.2	91.2	78.9	50	46	15.5
		11	86.2	91.2	78.9	55	46	15.5
		12	86.2	91.2	78.9	60	46	15.5
		13	86.2	91.2	78.9	65	46	15.5
		14	86.2	91.2	78.9	70	46	15.5
		15	86.2	91.2	78.9	75	46	15.5

Dimensions (in mm):

# X-COM®-SYSTEM – 1-Conductor/1-Pin and 2-Pin Carrier Terminal Blocks and 1-Conductor Female Plugs

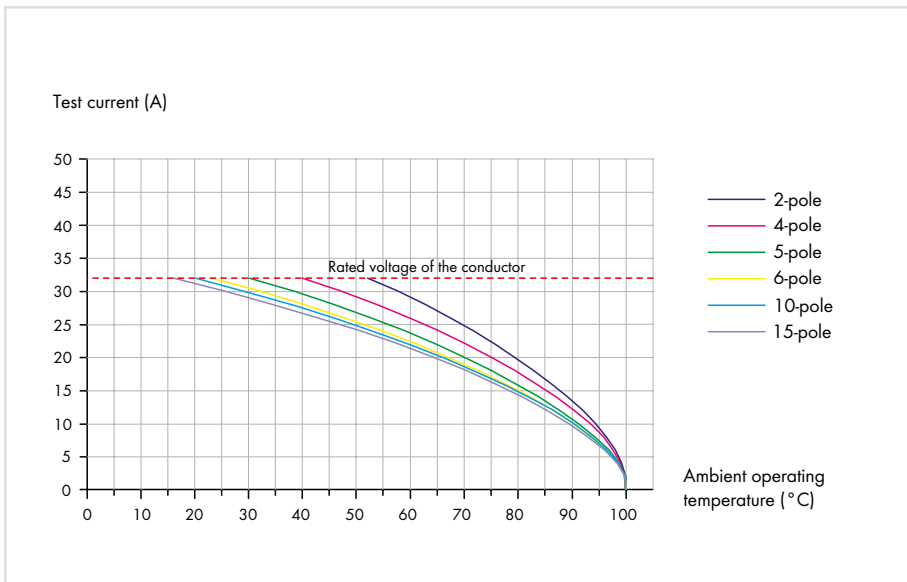
## Current-Carrying Capacity Curves



1-conductor/1-pin carrier terminal block (769-176)  
Conductor cross-section: 4 mm<sup>2</sup>

1-conductor female plugs (769-102 to 769-115)  
Conductor cross-section: 4 mm<sup>2</sup>  
Conductor loop length: 1 m

6

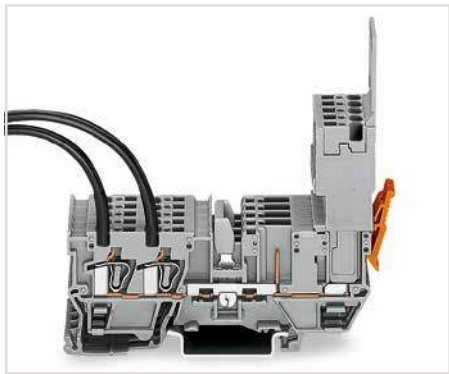
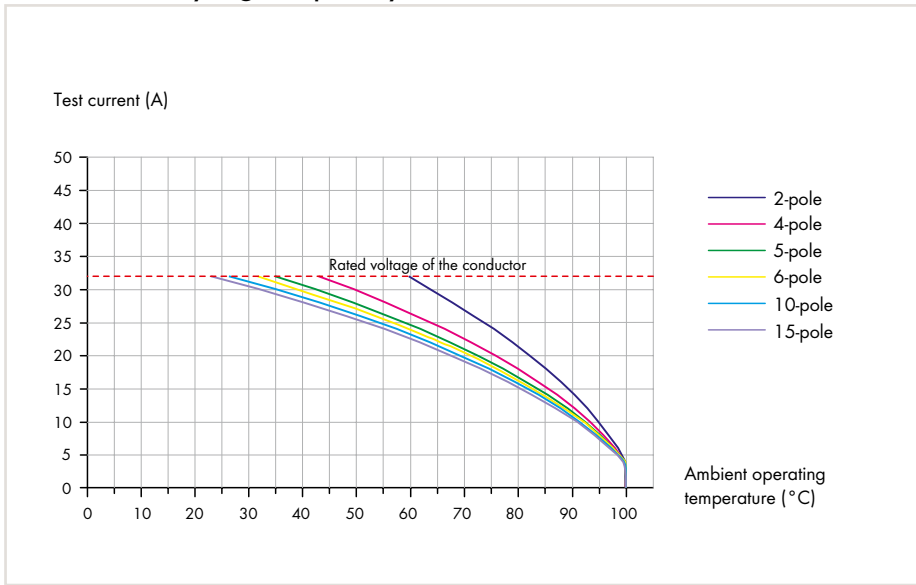


2-pin carrier terminal block (769-156)

1-conductor female plugs (769-102 to 769-115)  
Conductor cross-section: 4 mm<sup>2</sup>  
Conductor loop length: 1 m

# X-COM®-SYSTEM – 2-Conductor/2-Pin and 4-Pin Carrier Terminal Blocks and 1-Conductor Female Plugs

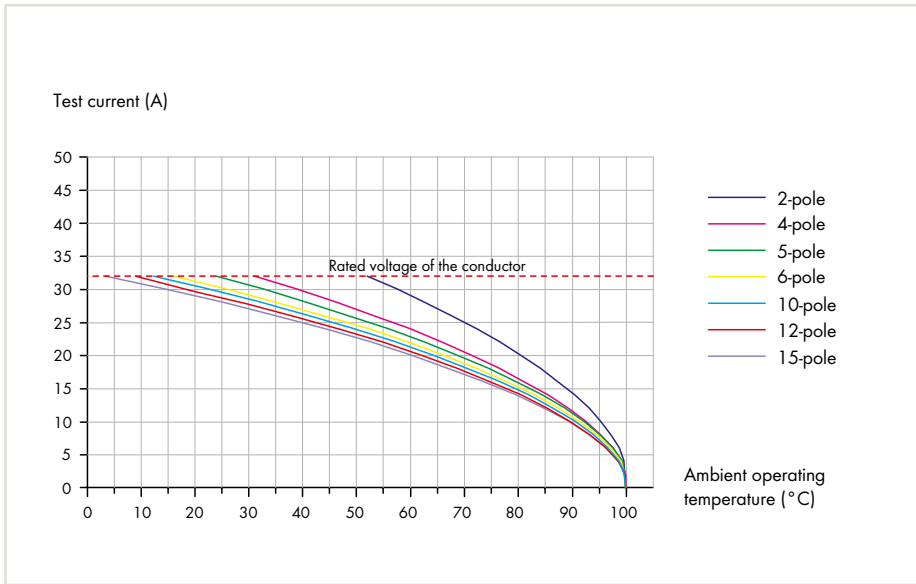
## Current-Carrying Capacity Curves



2-conductor/2-pin carrier terminal block (769-171)  
Conductor cross-section: 4 mm<sup>2</sup>

1-conductor female plugs (769-102 to 769-115)  
Conductor cross-section: 4 mm<sup>2</sup>  
Conductor loop length: 1 m

6

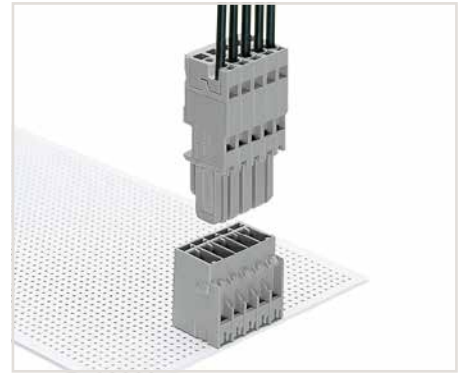
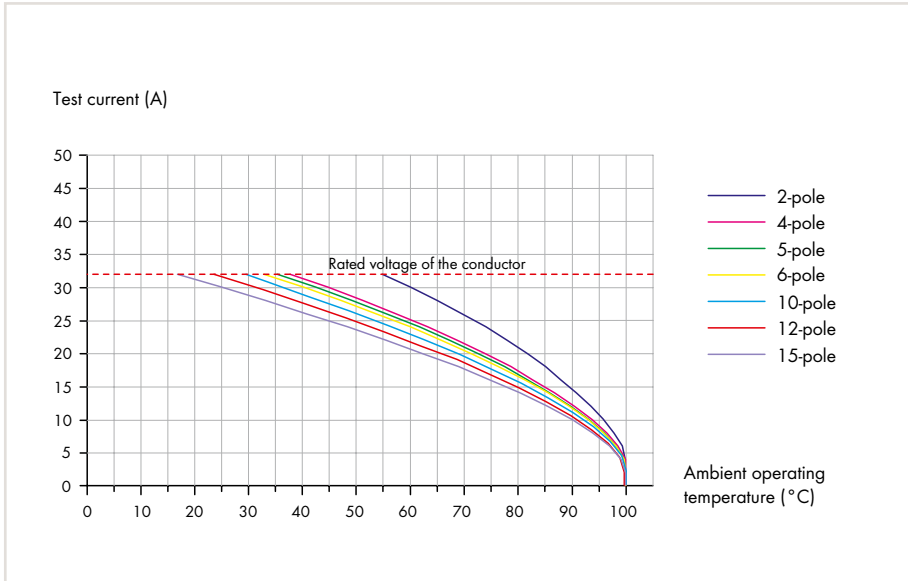


4-pin carrier terminal block (769-151)

1-conductor female plugs (769-102 to 769-115)  
Conductor cross-section: 4 mm<sup>2</sup>  
Conductor loop length: 1 m

# X-COM®-SYSTEM – Male Headers with Straight and Angled Solder Pins and 1-Conductor Female Plugs

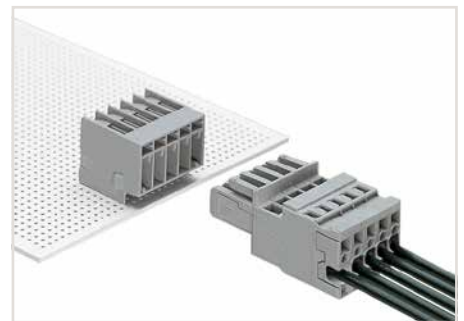
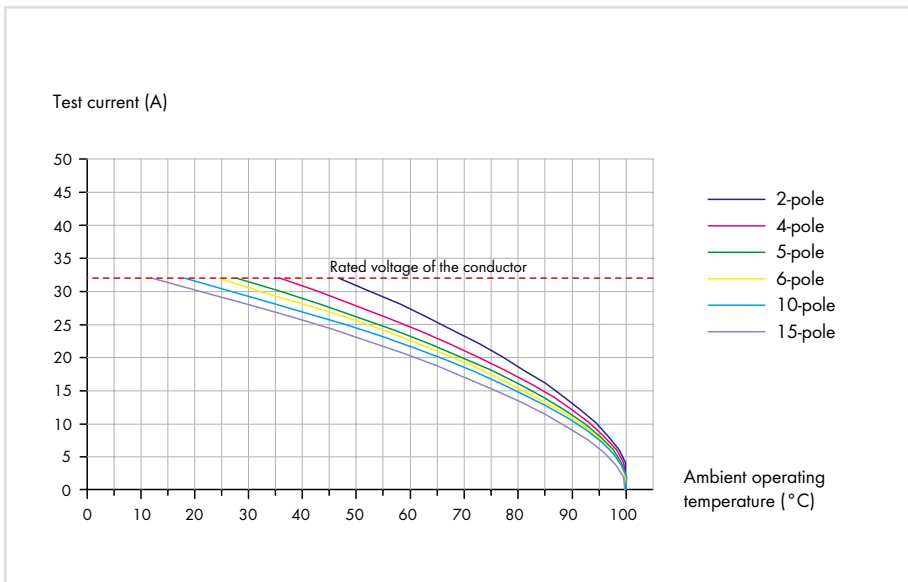
## Current-Carrying Capacity Curves



Male headers with straight solder pins (769-632 to 769-645)

1-conductor female plugs (769-102 to 769-115)  
 Conductor cross-section: 4 mm<sup>2</sup>  
 Conductor loop length: 1 m

6

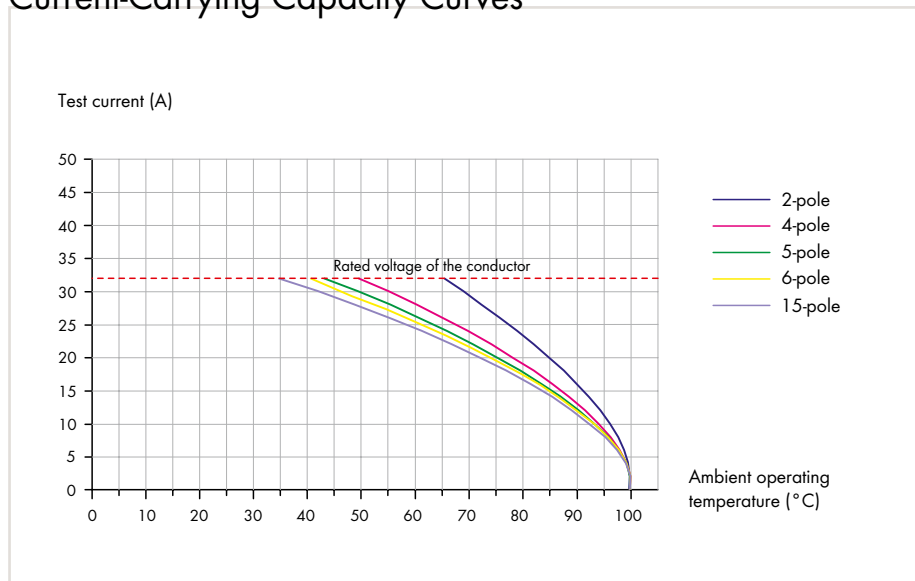


Male headers with angled solder pins (769-662 to 769-675)

1-conductor female plugs (769-102 to 769-115)  
 Conductor cross-section: 4 mm<sup>2</sup>  
 Conductor loop length: 1 m

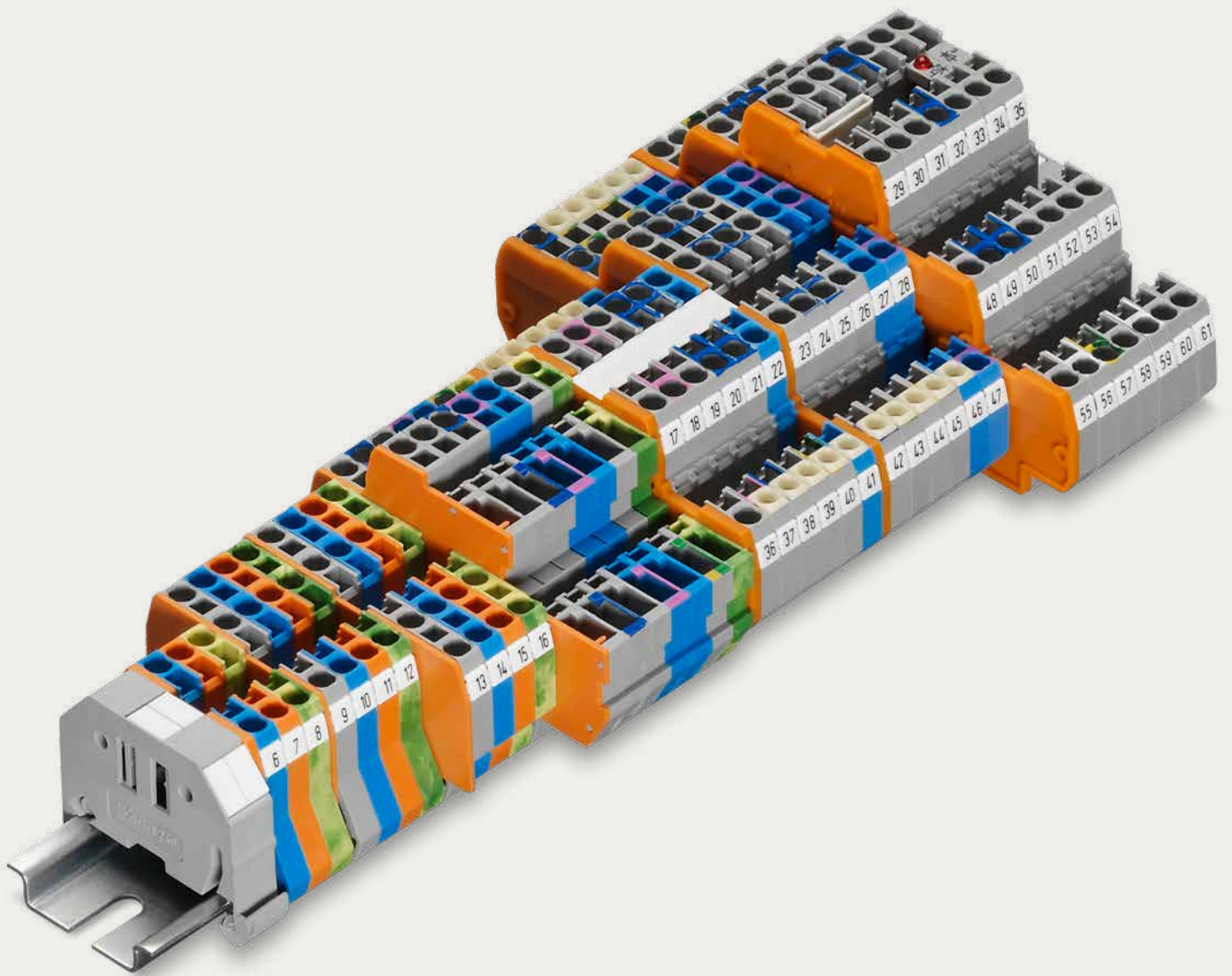
# X-COM®-SYSTEM Male Connectors with CAGE CLAMP® Connection and 1-Conductor Female Plugs

## Current-Carrying Capacity Curves



Male connectors with CAGE CLAMP® connection (769-602 to 769-615)  
Conductor cross-section: 4 mm<sup>2</sup>



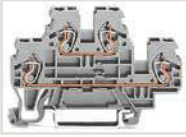

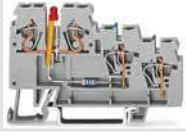

1-conductor female plugs (769-102 to 769-115)  
Conductor cross-section: 4 mm<sup>2</sup>  
Conductor loop length: 1 m



## **Rail-Mount Terminal Blocks, Miniature Rail-Mount Terminal Blocks, Compact**

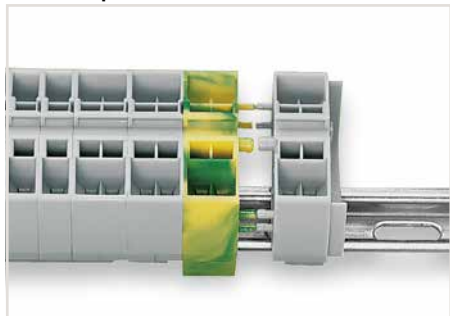
## Miniature and Compact Rail-Mount Terminal Blocks

### Front-Entry Wiring

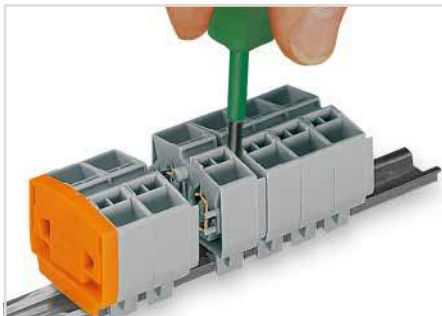
		Page
	<b>Through, Ground Conductor and Ex Terminal Blocks for DIN-35 and DIN-15 Rails</b> 0.08 ... 2.5 mm <sup>2</sup> (28 ... 12 AWG)	264 Series 408
	<b>Through, Ground Conductor and Ex Terminal Blocks for DIN-35 and DIN-15 Rails</b> 0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> (28 ... 12 AWG)	870 Series 412
	<b>Multilevel Rail-Mount Terminal Blocks</b> 0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> (28 ... 12 AWG)	870 Series 414
	<b>Multilevel Diode and LED Terminal Blocks</b> 0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> (28 ... 12 AWG)	870 Series 418
	<b>Sensor and Actuator Terminal Blocks</b> 0.08 ... 2.5 mm <sup>2</sup> (28 ... 12 AWG)	270 Series 425
	<b>Accessories for Rail-Mount Terminal Blocks</b>	870 Series 423

# Miniature Rail-Mount Terminal Blocks for DIN-35 and DIN-15 Rails, 264 Series

## Description and Installation



Quick assembly keys prevent reverse mounting.



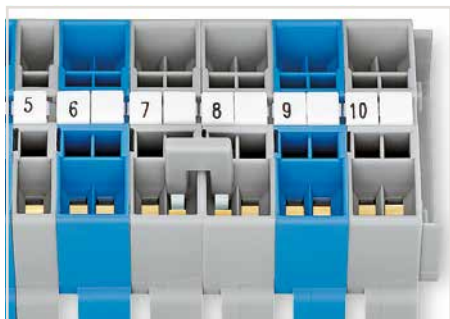
Separate terminal strip and slide individual terminal block laterally.



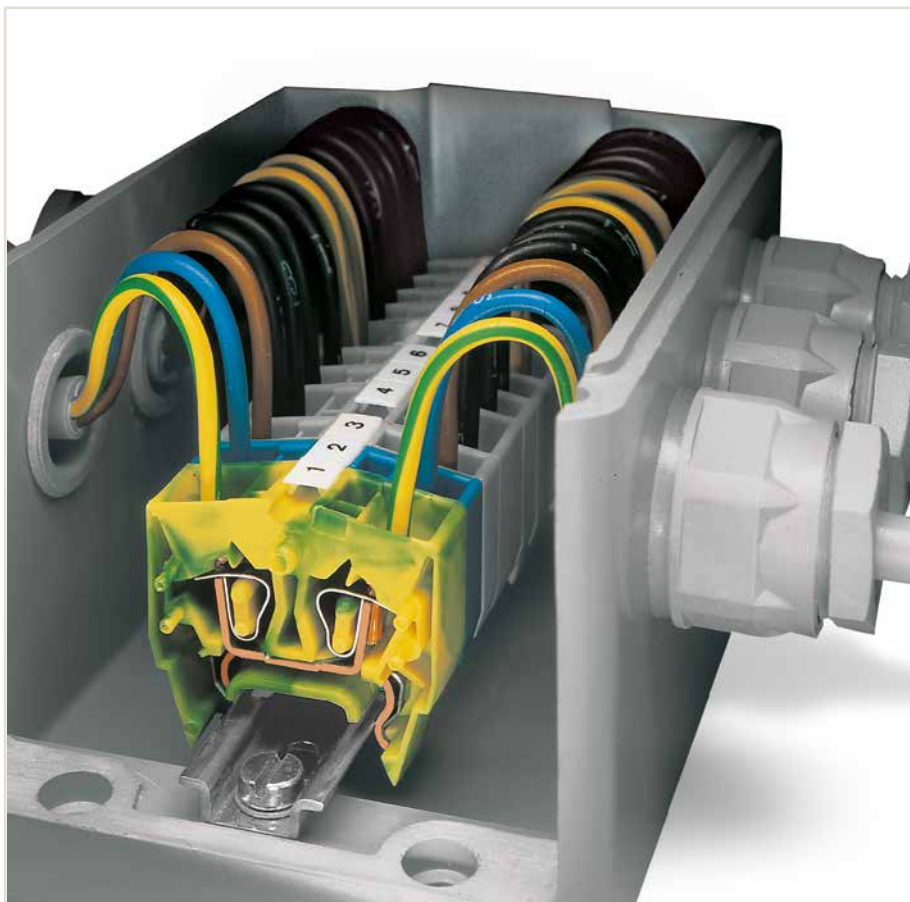
Remove terminal block from the carrier rail with a levering action.



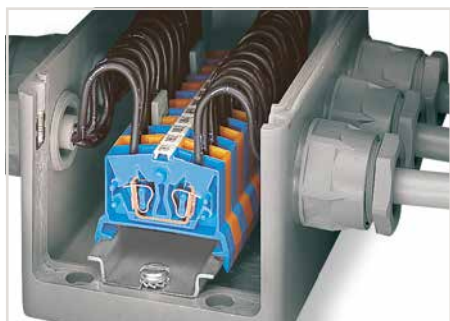
Commoning with comb-style jumper bar.



Commoning with comb-style jumper bar.



7



Easy-to-use miniature blocks that require minimal enclosure space.



Combining 2- and 4-conductor terminal blocks. Marking via Mini-WSB Quick markers.



**CAGE CLAMP®** terminates the following copper conductors:  
solid



stranded

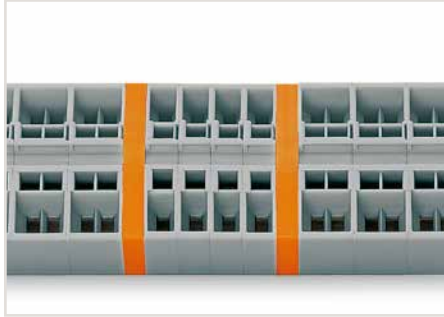


fine-stranded, also with tinned single strands

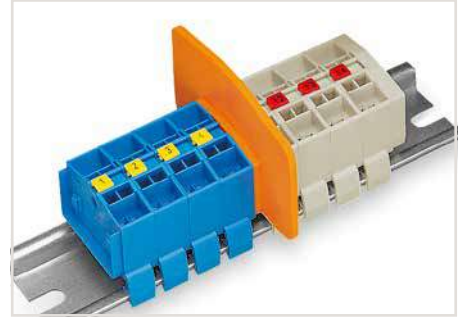




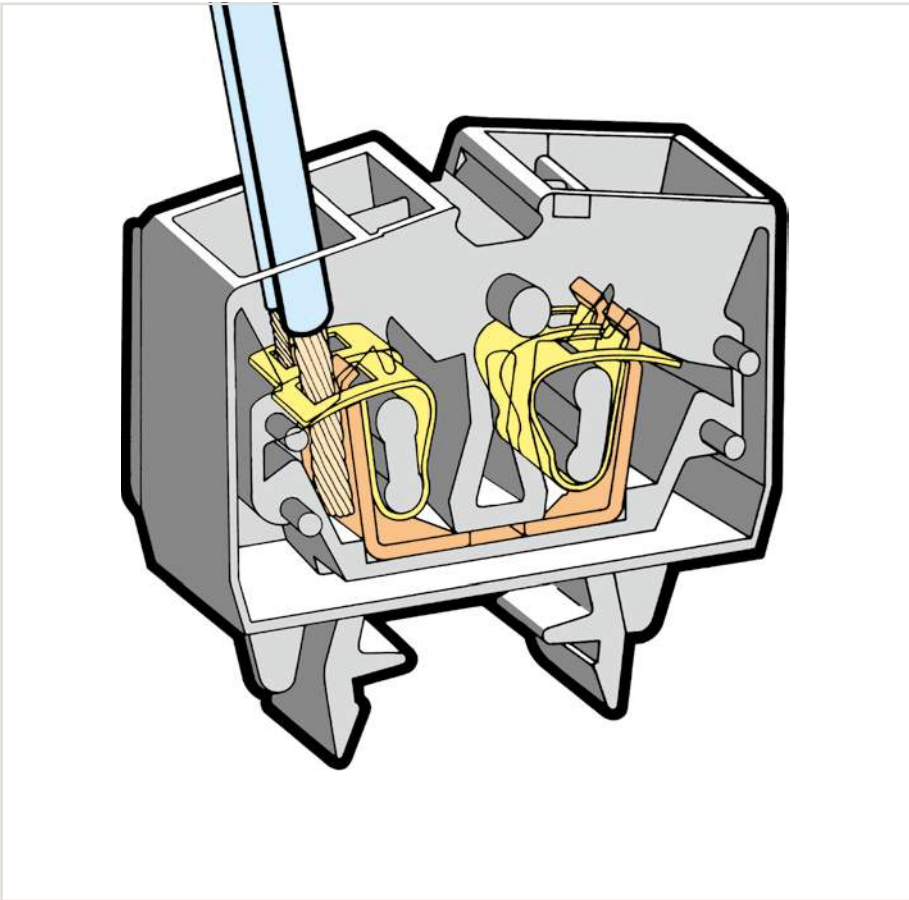
**CAGE CLAMP® connection**  
Inserting a conductor.  
With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross section.



Separating groups via intermediate plates.



Separator for Ex e/Ex i applications for miniature rail-mount terminal blocks



Testing by touch contact to the CAGE CLAMP® spring (limited to 0.5 A and 48 V test voltage) – test pins are not protected against accidental contact.

7



Testing via CAGE CLAMP® on the current bar (max. nominal current: 6 A).  
CAGE CLAMP® clamps individual test contacts.  
The maximum test voltage is 400 V.



Marking with T-marker tag (209-290).



fine-stranded, tip-bonded





fine-stranded, with ferrule (gastight crimped)

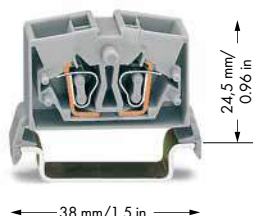
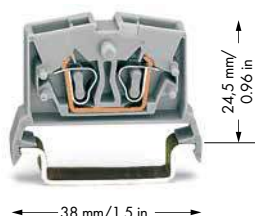


fine-stranded, with pin terminal (gastight crimped)





# Miniature Through/Ground Conductor and Ex Terminal Blocks for DIN-35 Rail

## 2.5 mm<sup>2</sup>, 264 Series

0.08 ... 2.5 mm <sup>2</sup> 800 V/8 kV/3 ① I <sub>N</sub> 24 A  Terminal block width 6 mm / 0.236 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 20 A ② 600 V, 20 A ③	0.08 ... 2.5 mm <sup>2</sup> 800 V/8 kV/3 ① I <sub>N</sub> 24 A  Terminal block width 10 mm / 0.394 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 20 A ② 600 V, 20 A ③
---	--	---	--




- \* 12 AWG: THHN, THWN
- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ Suitable for Ex e II applications  
0.5 ... 2.5 mm<sup>2</sup> / 20 ... 12 AWG\*  
690 V, 23 A  
(see Section 14)
- ④ See application notes for:  
Alternate comb-style jumper bar, page 332  
Test plug module, page 456


Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor miniature through terminal block, for DIN-35 rail		4-conductor miniature through terminal block, for DIN-35 rail	
○ gray <b>264-711</b>	100	○ gray <b>264-731</b>	100
● blue <b>264-714</b> ②	100	● blue <b>264-734</b> ②	100
● orange <b>264-716</b>	100	● orange <b>264-736</b>	100
○ light gray ④ <b>264-125</b> ③	100	○ light gray ④ <b>264-225</b> ③	100
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
④ Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		④ Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	
 2-way <b>281-492</b>	100 (4x25)	 2-way <b>280-492</b>	200 (8x25)
④ Test plug module, snaps together, 6 mm wide		④ Test plug module, snaps together, 10 mm wide	
 gray <b>249-136</b>	100 (4x25)	 gray <b>249-139</b>	100 (4x25)


### 264 Series Accessories


#### Mini-WSB/Mini-WSB Inline (see Section 13)


End and intermediate plate, 4 mm thick	
orange <b>264-369</b>	25
gray <b>264-368</b>	25
light gray <b>264-370</b>	25


Separator for Ex e/Ex i applications, orange, 4 mm thick	
 66 mm <b>264-367</b>	25


Comb-style jumper bar, insulated, I <sub>N</sub> 16 A, gray, reduces maximum conductor size to 1.5 mm <sup>2</sup> / 16 AWG	
 2-way <b>264-402</b>	200 (8x25)


Operating tool, of insulating material	
 2-way <b>280-432</b>	1


Test plug, with 500 mm cable, 2 mm Ø, max. 42 V	
 red <b>210-136</b>	50


Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V	
 yellow <b>210-137</b>	50


Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers	
 plain <b>248-501</b>	5

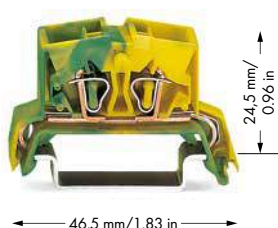
Screwless end stop, for DIN-35 rail, 6 mm wide	
 gray <b>249-116</b>	100 (4x25)



Screwless end stop, for DIN-35 rail, 10 mm wide	
 gray <b>249-117</b>	50 (2x25)

Steel carrier rail, per EN 60715, 35 x 7.5 mm, 1 mm, 2 m long	
 slotted <b>210-112</b>	10 (10x1)



Steel carrier rail, per EN 60715, 35 x 7.5 mm, 1 mm, 2 m long	
 unslotted <b>210-113</b>	10

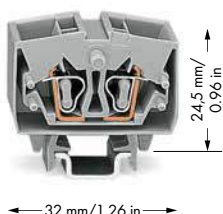
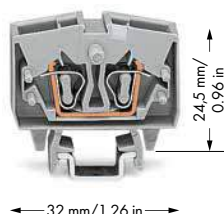
Aluminum carrier rail, similar to EN 60715, 35 x 8.2 mm, 1.6 mm, 2 m long	
 unslotted <b>210-196</b>	10



Item No.	Pack. Unit
4-conductor miniature ground conductor terminal block, for DIN-35 rail	
● green-yellow <b>264-737</b>	100
● green-yellow ④ <b>264-737/999-950</b> ③	100
<b>Item-Specific Accessories</b>	
④ Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	
 2-way <b>280-492</b>	200 (8x25)
④ Test plug module, snaps together, 10 mm wide	
 gray <b>249-139</b>	100 (4x25)

# Miniature Through/Ground Conductor and Ex Terminal Blocks for DIN-15 Rail 2.5 mm<sup>2</sup>, 264 Series

0.08 ... 2.5 mm <sup>2</sup> 800 V/8 kV/3 ① I <sub>N</sub> 24 A  Terminal block width 6 mm / 0.236 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 20 A ② 600 V, 20 A ③	0.08 ... 2.5 mm <sup>2</sup> 800 V/8 kV/3 ① I <sub>N</sub> 24 A  Terminal block width 10 mm / 0.394 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 12 AWG* 300 V, 20 A ② 600 V, 20 A ③
--	--	---	--























\* 12 AWG: THHN, THWN

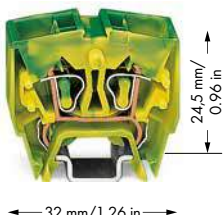
① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)

② Suitable for Ex i applications

③ Suitable for Ex e II applications  
0.5 ... 2.5 mm<sup>2</sup> / 20 ... 12 AWG\*  
690 V, 23 A  
(see Section 14)

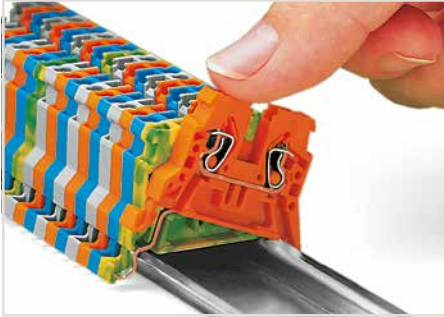
④ See application notes for:  
Alternate comb-style jumper bar, page 332  
Test plug module, page 456

Item No.	Pack. Unit	Item No.	Pack. Unit	264 Series Accessories
2-conductor miniature through terminal block, for DIN-15 rail		4-conductor miniature through terminal block, for DIN-15 rail		Mini-WSB/Mini-WSB Inline (see Section 13)
○ gray <b>264-701</b> 100 ● blue <b>264-704</b> ② 100 ● orange <b>264-706</b> 100 ○ light gray ③ <b>264-120</b> ③ 100		○ gray <b>264-721</b> 100 ● blue <b>264-724</b> ② 100 ● orange <b>264-726</b> 100 ○ light gray ③ <b>264-220</b> ③ 100		End and intermediate plate, 4 mm thick  orange <b>264-369</b> 25  gray <b>264-368</b> 25  light gray <b>264-370</b> 25
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		Separator for Ex e/Ex i applications, orange, 4 mm thick  66 mm <b>264-367</b> 25
④ Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block  2-way <b>281-492</b> 100 (4x25)		④ Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block  2-way <b>280-492</b> 200 (8x25)		Comb-style jumper bar, insulated, I <sub>N</sub> 16 A, gray, reduces maximum conductor size to 1.5 mm <sup>2</sup> / 16 AWG  2-way <b>264-402</b> 200 (8x25)
④ Test plug module, snaps together, 6 mm wide  gray <b>249-136</b> 100 (4x25)		④ Test plug module, snaps together, 10 mm wide  gray <b>249-139</b> 100 (4x25)		Operating tool, of insulating material  2-way <b>280-432</b> 1
				Test plug, with 500 mm cable, 2 mm Ø, max. 42 V  red <b>210-136</b> 50
				Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  yellow <b>210-137</b> 50
				Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers  plain <b>248-501</b> 5
				Screwless end stop, for DIN-15 rail, 6 mm wide  gray <b>249-101</b> 25
		4-conductor miniature ground conductor terminal block, for DIN-15 rail ● green-yellow <b>264-727</b> 100 ● green-yellow ③ <b>264-727/999-950</b> ③ 100		Steel carrier rail, per EN 60715, 15 x 5.5 mm, 1 mm, 2 m long  slotted <b>210-111</b> 1
		<b>Item-Specific Accessories</b>		Steel carrier rail, per EN 60715, 15 x 5.5 mm, 1 mm, 2 m long  unslotted <b>210-295</b> 1
		④ Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block  2-way <b>280-492</b> 200 (8x25)		Aluminum carrier rail, similar to EN 60715, 15 x 5.5 mm, 1 mm, 2 m long  unslotted <b>210-296</b> 10
		④ Test plug module, snaps together, 10 mm wide  gray <b>249-139</b> 100 (4x25)		Operating tool, of insulating material  1-way <b>209-130</b> 1

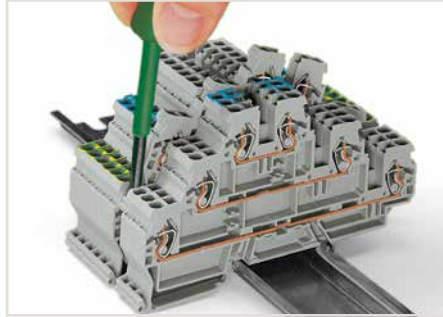


# Compact Rail-Mount Terminal Blocks for DIN-35 and DIN-15 Rails, 870 Series

## Description and Installation



Snapping a rail-mount terminal block onto DIN-35 rail.



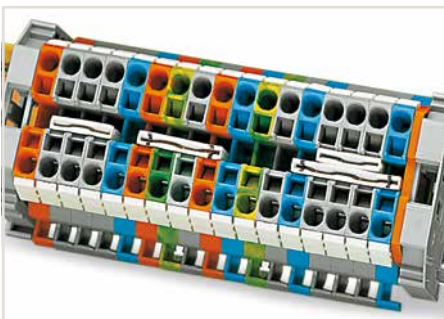
Removing a terminal block from the assembly.



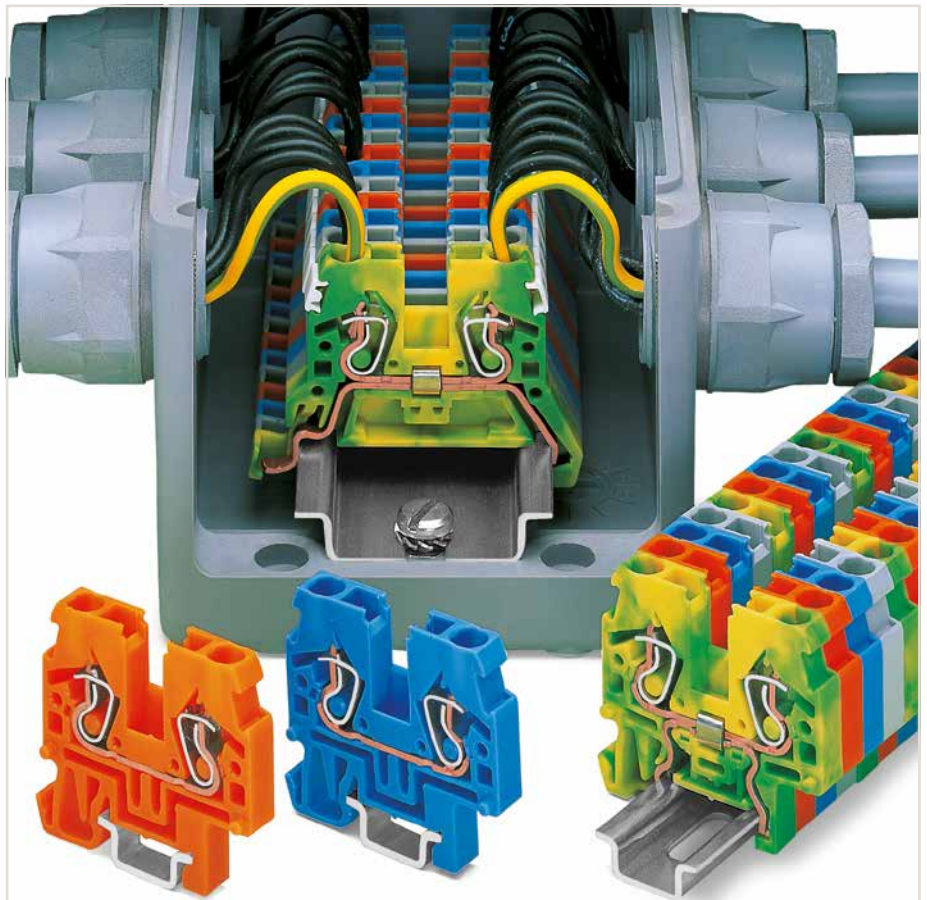
Inserting an insulation stop into conductor entry holes of terminal strip.



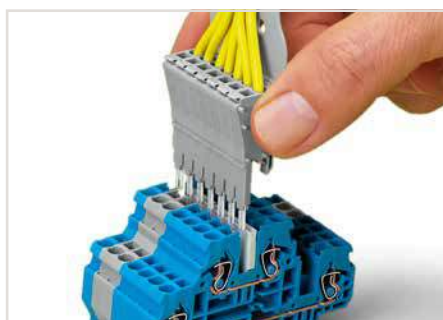
7 Push jumper bars down firmly until fully inserted. When using multipole bars, push alternately on the right and then left side, until installed. Push-in type jumper bars 1 - 3 - 5 - 7 or 1 - - 4 - - 7 upon request



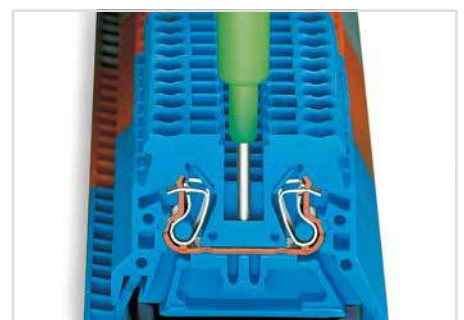
Commoning with push-in type jumper bars: Two parallel jumper slots are accommodated in one terminal block.



Commoning terminal blocks of different sizes via step-down jumpers.



Testing: Using a pre-wired module assembly, similar to test plugs.



Testing with phase testing device, also possible with single-pole voltage tester.



**CAGE CLAMP®** terminates the following copper conductors: solid



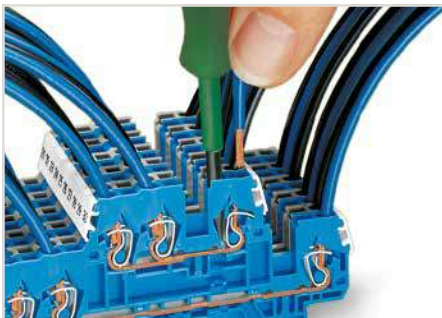
stranded



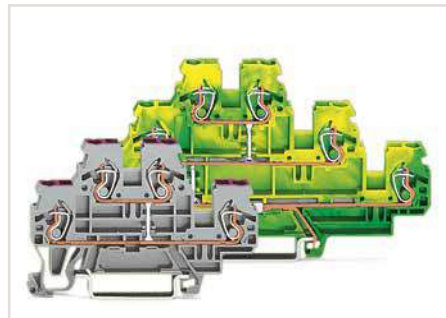
fine-stranded, also with tinned single strands



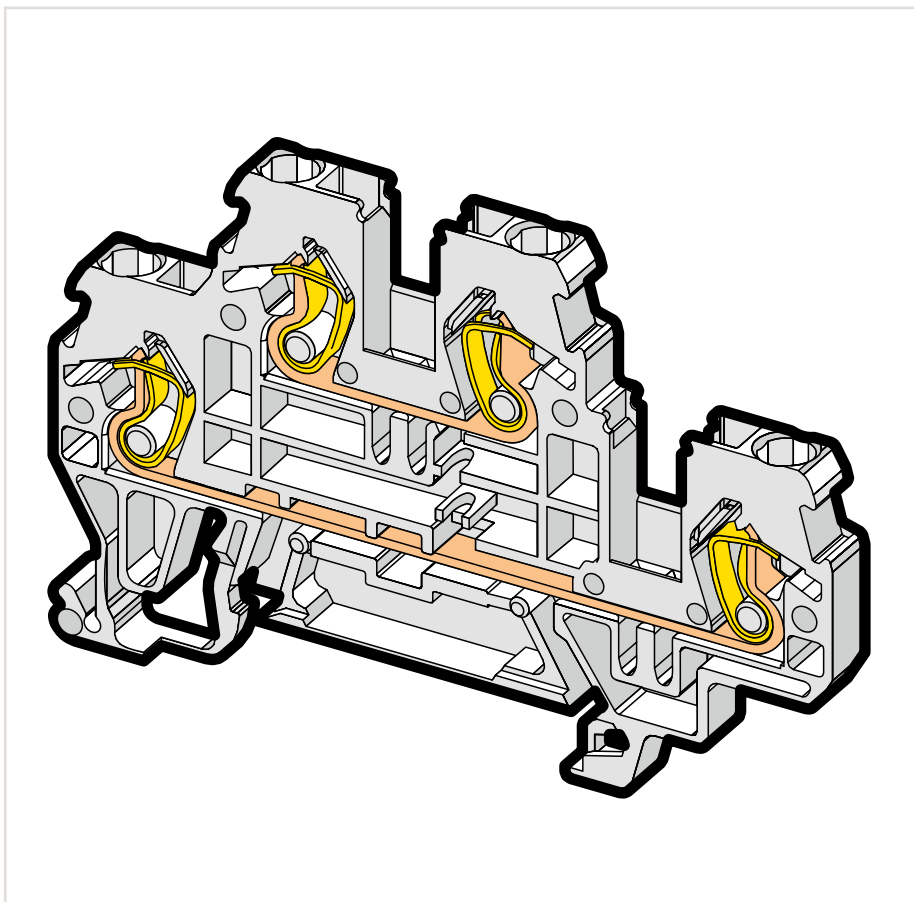
**CAGE CLAMP® connection**  
Inserting a conductor (0.08 ... 4 mm² "f-st").  
With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross section.



**CAGE CLAMP® connection**  
Inserting a conductor(0.08 ... 4 mm² "f-st").



Multilevel terminal blocks  
Double- and triple-deck terminal blocks with internal comings acting as 4- and 6-conductor terminal blocks

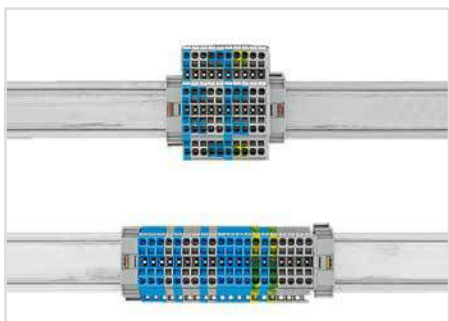


Protective warning markers (280-405), with a black high-voltage symbol

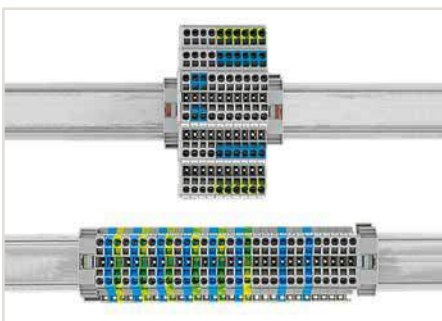
7



WMB markers in Mini-WSB marker slots  
Marking strip, translucent  
Mini-WSB markers



Use 50 % less rail space with double-deck terminal blocks.



Use 67 % less rail space with triple-deck terminal blocks.



Translucent marking strip (709-196) - jumpers below may be visible.



fine-stranded,  
tip-bonded



fine-stranded,  
with ferrule  
(gastight crimped)

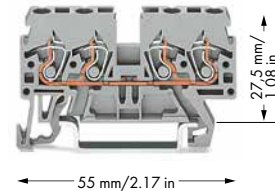
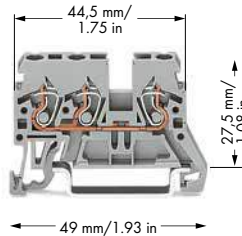
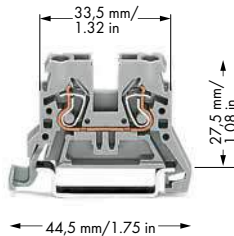


fine-stranded,  
with pin terminal  
(gastight crimped)

# Through/Ground Conductor and Ex Terminal Blocks for DIN-35 and DIN-15 Rails

## 2.5 (4 "f-st") mm<sup>2</sup>, 870 Series

0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch	28 ... 12 AWG 300 V, 20 A	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch	28 ... 12 AWG 300 V, 20 A	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch	28 ... 12 AWG 300 V, 20 A
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
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block, for DIN-35 rail		3-conductor through terminal block, for DIN-35 rail		4-conductor through terminal block, for DIN-35 rail	
gray 870-901 100		gray 870-681 100		gray 870-831 100	
blue 870-904 ③ 100		blue 870-684 ③ 100		blue 870-834 ③ 100	
orange 870-902 100		orange 870-682 100		orange 870-832 100	
light gray ④ 870-909 ④ 100					
2-conductor ground terminal block, for DIN-35 rail, Notice: This ground conductor terminal block cannot be commoned with push-in type jumper bars!		3-conductor ground terminal block, for DIN-35 rail, Notice: This ground conductor terminal block cannot be commoned with push-in type jumper bars!		4-conductor ground terminal block, for DIN-35 rail, Notice: This ground conductor terminal block cannot be commoned with push-in type jumper bars!	
green-yellow 870-907 100		green-yellow 870-687 100		green-yellow 870-837 100	
green-yellow ④ 870-907/999-950 ④ 100					
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2 mm thick		End and intermediate plate, 1 mm thick		End and intermediate plate, 1 mm thick	
orange 870-924 100 (4x25)		orange 870-934 100 (4x25)		orange 870-944 100 (4x25)	
gray 870-923 100 (4x25)		gray 870-933 100 (4x25)		gray 870-943 100 (4x25)	
light gray 870-925 100 (4x25)					
Separator, oversized, 2 mm thick		Separator, oversized, 1 mm thick		Separator, oversized, 1 mm thick	
orange 870-929 100 (4x25)		orange 870-947 100 (4x25)		orange 870-949 100 (4x25)	
gray 870-928 100 (4x25)		gray 870-946 100 (4x25)		gray 870-948 100 (4x25)	
End and intermediate plate, 2 mm thick, for 2-conductor ground conductor Ex terminal blocks only					
green-yellow 870-926 100 (4x25)					
Separator for Ex e/Ex i applications, orange, 3 mm thick					
90 mm 209-190 50 (2x25)					
120 mm 209-191 50 (2x25)					

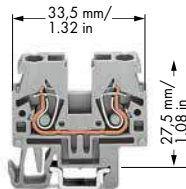
**Other terminal blocks with the same profile:**  
Double-potential 870-826 Page 413

### 870 Series Accessories

Appropriate marking systems: WMB/WMB Inline/Mini-WSB/Mini-WSB Inline  
(see Section 13)

Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st") white 280-470 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray 2-way 870-402 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray from 1 to 3 870-433 200 (8x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray 280-471 200 (8x25)	3-way 870-403 200 (8x25)	from 1 to 4 870-434 200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray 280-472 200 (8x25)	4-way 870-404 100 (4x25)	from 1 to 5 870-435 100 (4x25)
	5-way 870-405 100 (4x25)	from 1 to 6 870-436 100 (4x25)
	6-way 870-406 100 (4x25)	from 1 to 7 870-437 100 (4x25)
	7-way 870-407 100 (4x25)	from 1 to 8 870-438 100 (4x25)
	8-way 870-408 100 (4x25)	from 1 to 9 870-439 100 (4x25)
	9-way 870-409 100 (4x25)	from 1 to 10 870-440 50 (2x25)
	10-way 870-410 50 (2x25)	

0.08 ... 2.5 (4 "f-st") mm<sup>2</sup> ① 28 ... 12 AWG  
 500 V/6 kV/3 ② 300 V, 20 A ③  
 I<sub>N</sub> 24 A  
 Terminal block width 5 mm / 0.197 inch  
 6 ... 7 mm / 0.24 ... 0.28 inch



← 34,5 mm/1.36 in →



**Mounting on DIN-15 rail:**

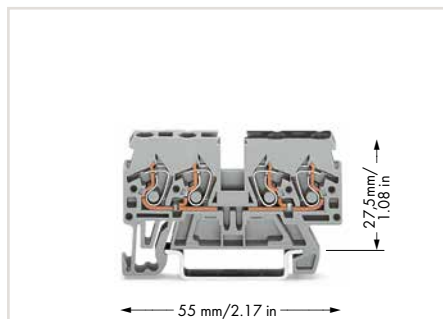
Snap individual terminal blocks onto the DIN-15 rail and slide together.

**Removal from DIN-15 rail:**

Open assembly by laterally sliding terminal blocks with an operating tool and remove them from the rail.

- ① Max. insulation diameter: 4.4 mm
- ② 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ④ Suitable for Ex i applications
- ⑤ Suitable for Ex e II applications  
0.2 ... 2.5 (4 "f-st") mm<sup>2</sup> / 24 ... 12 AWG  
440 V, 22 A  
Using 1 or more push-in type jumper bars, the maximum rated voltage is reduced to 275 V and the rated current to 13.5 A.  
(see Section 14)
- ⑥ See application notes for:  
Insulation stop, page 331  
Tap-off module, page 423

Item No.	Pack. Unit
2-conductor through terminal block, for DIN-15 rail	
gray 870-911	100
blue 870-914 ③	100
orange 870-912	100
light gray ④ 870-919	100
2-conductor ground terminal block, for DIN-15 rail, Notice: This ground conductor terminal block cannot be commoned with push-in type jumper bars!	
green-yellow 870-917	100



Double-potential terminal block, with integrated marking position  
 gray 870-826  
 Packing unit: 100 pcs






Notice: These double-potential terminal blocks cannot be commoned with push-in type jumper bars!  
 WAGO front-entry double-potential terminal blocks are space savers.  
 Two independent feedthrough circuits are placed in one insulated housing on one level in just 5 mm. This achieves a width of just 2.1 mm versus standard through terminal blocks for a total height of just 27.5 mm from the upper-edge of carrier rail.  
 Input and output of a circuit are placed on the same side of the terminal block. Both circuits can be individually marked according to input and output.

For technical data and accessories, see [www.wago.com](http://www.wago.com)



Terminal block marking directly on the terminal block either via Mini-WSB or WMB markers

**Item-Specific Accessories**

End and intermediate plate, 2 mm thick			
	orange 870-924	100 (4x25)	
	gray 870-923	100 (4x25)	
	light gray 870-925	100 (4x25)	
Separator, oversized, 2 mm thick			
	orange 870-929	100 (4x25)	
	gray 870-928	100 (4x25)	



In order to meet creepage and clearance requirements for Ex e applications, it is necessary to insert an end or intermediate plate between a through and a ground conductor terminal block.  
 End plates 870-923 (gray), 870-924 (orange) and 870-925 (light gray), as well as separator plates 870-928 (gray) and 870-929 (orange) cannot be assembled to 2-conductor ground Ex terminal blocks (870-907/999-950).



	yellow 280-405	100 (4x25)	
Tap-off module, with anti-reverse mating protection, snaps together, 5 mm wide			
	gray 870-425	100 (4x25)	
Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers			
	plain 248-501	5	

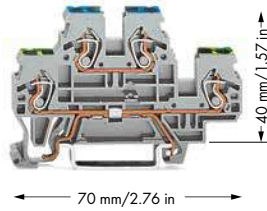
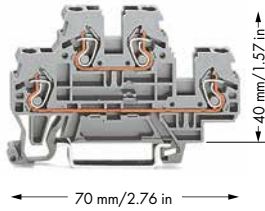


Protective warning markers (280-405), with a black high-voltage symbol

# Double-Deck Terminal Blocks

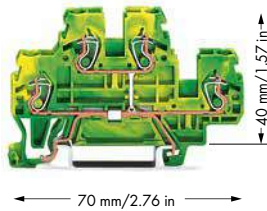
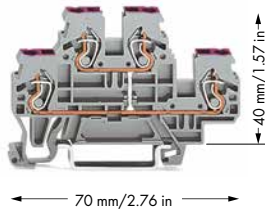
## 2.5 (4 "f-st") mm<sup>2</sup>, 870 Series










0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ①	28 ... 12 AWG	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ①	28 ... 12 AWG
500 V/6 kV/3 ②	300 V, 20 A, ③	500 V/6 kV/3 ②	
I <sub>N</sub> 24 A		I <sub>N</sub> 24 A	
Terminal block width 5 mm / 0.197 inch		Terminal block width 5 mm / 0.197 inch	
 6 ... 7 mm / 0.24 ... 0.28 inch		 6 ... 7 mm / 0.24 ... 0.28 inch	



- ① Max. insulation diameter: 4.4 mm
- ② 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Suitable for Ex i applications
- ④ Suitable for Ex e II applications  
0.2 ... 2.5 (4 "f-st") mm<sup>2</sup> / 24 ... 12 AWG  
440 V, 18 A  
Using 1 or more push-in type jumper bars, the maximum rated voltage is reduced to 275 V and the rated current to 13.5 A.  
(see Section 14)
- ⑤ See application notes for:  
Insulation stop, page 331

Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck terminal block, through/through terminal block, gray housing		Double-deck terminal block, ground conductor/through terminal block, gray housing	
○ L/L <b>870-501</b>	50	○ PE/N <b>870-517</b>	50
○ N/L <b>870-502</b>	50	○ PE/L <b>870-527</b>	50
○ L/N <b>870-503</b>	50		
Double-deck terminal block, through/through terminal block, blue housing			
● N/N <b>870-504</b> ③	50		
Double-deck terminal block, through/through terminal block, light gray housing		Double-deck terminal block, ground conductor/through terminal block, light gray housing	
○ L/L ⑤ <b>870-961</b> ④	50	○ PE/L ⑤ <b>870-967/999-950</b> ④	50
<b>Other terminal blocks with the same profile:</b>			
Diode <b>870-540/281-410</b>	Page 418		
LED <b>870-543/281-434</b>	Page 418		



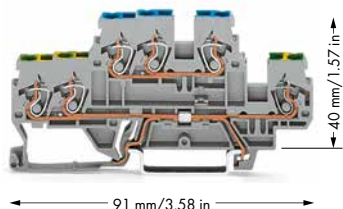
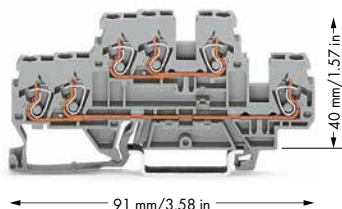
Accessories			
WMB/WMB Inline/Mini-WSB/Mini-WSB Inline (see Section 13)			
End and intermediate plate, 2 mm thick			
	orange	<b>870-519</b>	100 (4x25)
	gray	<b>870-518</b>	100 (4x25)
Separator for Ex e/Ex i applications, orange, 3 mm thick			
	125.5 mm	<b>209-192</b>	50 (2x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")			
⑤ 	white	<b>280-470</b>	200 (8x25)
⑤ 	light gray	<b>280-471</b>	200 (8x25)
⑤ 	dark gray	<b>280-472</b>	200 (8x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray			
	2-way	<b>870-402</b>	200 (8x25)
	3-way	<b>870-403</b>	200 (8x25)
	4-way	<b>870-404</b>	100 (4x25)
	5-way	<b>870-405</b>	100 (4x25)
	6-way	<b>870-406</b>	100 (4x25)
	7-way	<b>870-407</b>	100 (4x25)
	8-way	<b>870-408</b>	100 (4x25)
	9-way	<b>870-409</b>	100 (4x25)
	10-way	<b>870-410</b>	50 (2x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray			
	from 1 to 3	<b>870-433</b>	200 (8x25)
	from 1 to 4	<b>870-434</b>	200 (8x25)
	from 1 to 5	<b>870-435</b>	100 (4x25)
	from 1 to 6	<b>870-436</b>	100 (4x25)
	from 1 to 7	<b>870-437</b>	100 (4x25)
	from 1 to 8	<b>870-438</b>	100 (4x25)
	from 1 to 9	<b>870-439</b>	100 (4x25)
	from 1 to 10	<b>870-440</b>	50 (2x25)
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks			
	yellow	<b>280-405</b>	100 (4x25)



### 3-Conductor, Double-Deck Terminal Blocks

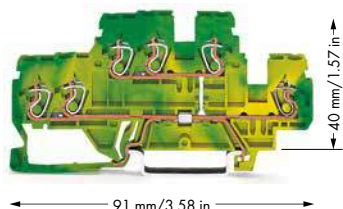
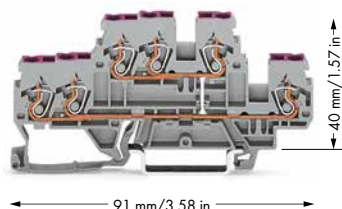
#### 2.5 (4 "f-st") mm<sup>2</sup>, 870 Series

0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ①	28 ... 12 AWG	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ①	28 ... 12 AWG
500 V/6 kV/3 ②	300 V, 20 A, I <sub>N</sub> 24 A	500 V/6 kV/3 ②	I <sub>N</sub> 24 A
Terminal block width 5 mm / 0.197 inch		Terminal block width 5 mm / 0.197 inch	
6 ... 7 mm / 0.24 ... 0.28 inch		6 ... 7 mm / 0.24 ... 0.28 inch	



- ① Max. insulation diameter: 4.4 mm
- ② 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Suitable for Ex i applications
- ④ See application notes for:  
Insulation stop, page 331

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories		
3-conductor, double-deck terminal block, through/through terminal block, gray housing		3-conductor, double-deck terminal block, ground conductor/through terminal block, gray housing		WMB/WMB Inline/Mini-WSB/Mini-WSB Inline (see Section 13)		
○ L/L	870-531	50	○ PE/N	870-535	50	End and intermediate plate, 2 mm thick
○ N/L	870-532	50	○ PE/L	870-536	50	orange 870-574 100 (4x25)
○ L/N	870-533	50				gray 870-573 100 (4x25)
3-conductor, double-deck terminal block, through/through terminal block, blue housing						Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")
● N/N	870-534 ③	50				④ white 280-470 200 (8x25)

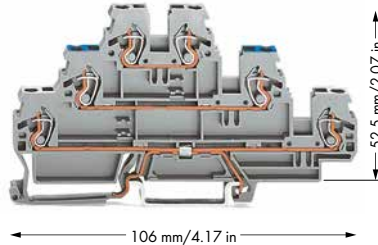
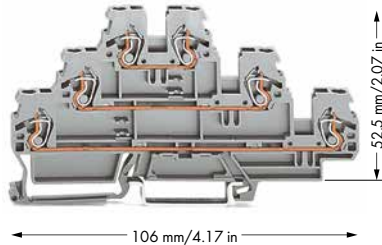


Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories		
3-conductor, double-deck terminal block, 6-conductor through terminal block, internally commoned, violet conductor entry, gray housing		3-conductor, double-deck terminal block, 6-conductor ground terminal block, internally commoned, green-yellow housing		Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>		
○ L	870-538	50	● PE	870-537	50	④ light gray 280-471 200 (8x25)
3-conductor, double-deck terminal block, 6-conductor through terminal block, internally commoned, violet conductor entry, blue housing						Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>
● N	870-539 ③	50				④ dark gray 280-472 200 (8x25)
						Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray
						2-way 870-402 200 (8x25)
						3-way 870-403 200 (8x25)
						4-way 870-404 100 (4x25)
						5-way 870-405 100 (4x25)
						6-way 870-406 100 (4x25)
						7-way 870-407 100 (4x25)
						8-way 870-408 100 (4x25)
						9-way 870-409 100 (4x25)
						10-way 870-410 50 (2x25)
						Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray
						from 1 to 3 870-433 200 (8x25)
						from 1 to 4 870-434 200 (8x25)
						from 1 to 5 870-435 100 (4x25)
						from 1 to 6 870-436 100 (4x25)
						from 1 to 7 870-437 100 (4x25)
						from 1 to 8 870-438 100 (4x25)
						from 1 to 9 870-439 100 (4x25)
						from 1 to 10 870-440 50 (2x25)
						Protective warning marker, with black high-voltage symbol, for 5 terminal blocks
						yellow 280-405 100 (4x25)
						Marking strip, plain, 7.5 mm wide, 1 m long
						translucent 709-196 1

# Triple-Deck Terminal Blocks

## 2.5 (4 "f-st") mm<sup>2</sup>, 870 Series

0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A	28 ... 12 AWG 300 V, 20 A	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A	28 ... 12 AWG 300 V, 20 A
Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch		Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch	



- ① Max. insulation diameter: 4.4 mm
- ② 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ③ Suitable for Ex e II applications  
0.2 ... 2.5 (4 "f-st") mm<sup>2</sup> / 24 ... 12 AWG  
440 V, 18 A  
Using 1 or more push-in type jumper bars, the maximum rated voltage is reduced to 275 V and the rated current to 13.5 A.  
(see Section 14)
- ④ See application notes for:  
Insulation stop, page 331

Item No.	Pack. Unit	Item No.	Pack. Unit
Triple-deck terminal block, through/through/through terminal block, gray housing		Triple-deck terminal block, shield conductor/through/through terminal block, gray housing	
○ L/L/L <b>870-551</b>	50	○ Shield/N/L <b>870-558</b>	50
○ L/L/N <b>870-553</b>	50	○ Shield/L/L <b>870-559</b>	50
		Triple-deck terminal block, ground conductor/through/through terminal block, gray housing	
		○ PE/N/L <b>870-567</b>	50
		○ PE/L/L <b>870-577</b>	50
Triple-deck terminal block, through/through/through terminal block, light gray housing		Triple-deck terminal block, ground conductor/through/through terminal block, light gray housing	
○ L/L/L <b>870-951</b> ③	50	○ PE/L/L <b>870-957/999-950</b> ③	50
<b>Other terminal blocks with the same profile:</b>			
Diode <b>870-590/281-410</b>	Page 420		
LED <b>870-593/281-434</b>	Page 421		

### Accessories

WMB/WMB Inline/Mini-WSB/Mini-WSB Inline (see Section 13)

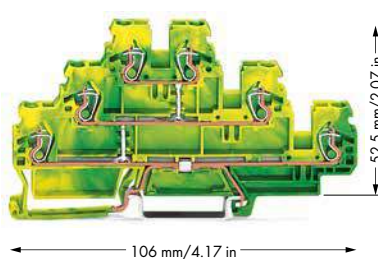
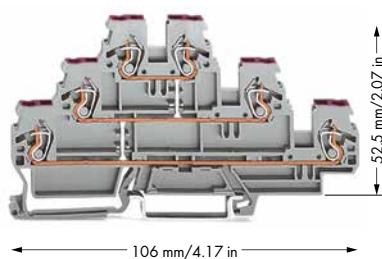
End and intermediate plate, 2 mm thick			
	orange	<b>870-569</b>	50 (2x25)
	gray	<b>870-568</b>	50 (2x25)

Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")			
④	white	<b>280-470</b>	200 (8x25)

Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
④	light gray	<b>280-471</b>	200 (8x25)

Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>			
④	dark gray	<b>280-472</b>	200 (8x25)

Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray			
	2-way	<b>870-402</b>	200 (8x25)
	3-way	<b>870-403</b>	200 (8x25)
	4-way	<b>870-404</b>	100 (4x25)
	5-way	<b>870-405</b>	100 (4x25)
	6-way	<b>870-406</b>	100 (4x25)
	7-way	<b>870-407</b>	100 (4x25)
	8-way	<b>870-408</b>	100 (4x25)
	9-way	<b>870-409</b>	100 (4x25)
	10-way	<b>870-410</b>	50 (2x25)



Item No.	Pack. Unit	Item No.	Pack. Unit
Triple-deck terminal block, 6-conductor through terminal block, internally commoned, violet conductor entry, gray housing		Triple-deck terminal block, 6-conductor ground terminal block, internally commoned, green-yellow housing	
○ L <b>870-556</b>	50	● PE <b>870-557</b>	50

Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray			
	1-way	<b>870-401</b>	200 (8x25)

Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray			
	from 1 to 3	<b>870-433</b>	200 (8x25)
	from 1 to 4	<b>870-434</b>	200 (8x25)
	from 1 to 5	<b>870-435</b>	100 (4x25)
	from 1 to 6	<b>870-436</b>	100 (4x25)
	from 1 to 7	<b>870-437</b>	100 (4x25)
	from 1 to 8	<b>870-438</b>	100 (4x25)
	from 1 to 9	<b>870-439</b>	100 (4x25)
	from 1 to 10	<b>870-440</b>	50 (2x25)




Protective warning marker, with black high-voltage symbol, for 5 terminal blocks			
	yellow	<b>280-405</b>	100 (4x25)

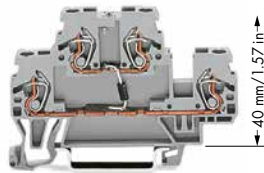
Marking strip, plain, 7.5 mm wide, 1 m long			
	translucent	<b>709-196</b>	1



# Double-Deck Diode Terminal Blocks and LED Terminal Blocks

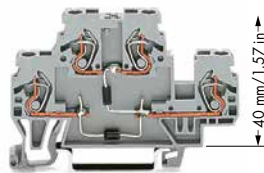
## 2.5 (4 "f-st") mm<sup>2</sup>, 870 Series

0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ①   28 ... 12 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 5 mm / 0.197 inch  6 ... 7 mm / 0.24 ... 0.28 inch	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ①   28 ... 12 AWG U <sub>N</sub> 250 V, U <sub>RM</sub> 1000 V 1N4007 - 0.5 A continuous current Terminal block width 5 mm / 0.197 inch  6 ... 7 mm / 0.24 ... 0.28 inch	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ①   28 ... 12 AWG 24 VDC I <sub>F</sub> 0.025 A max. Terminal block width 5 mm / 0.197 inch  6 ... 7 mm / 0.24 ... 0.28 inch
--	---	---



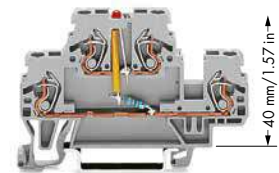
70 mm/2.76 in

870-540/281-410



70 mm/2.76 in

870-541/281-492



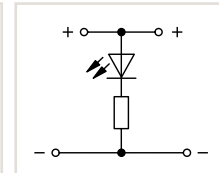
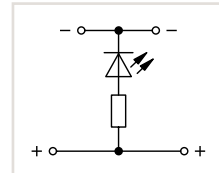
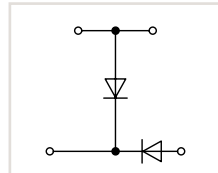
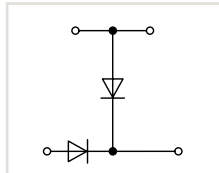
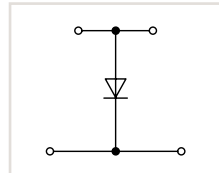
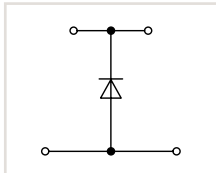
70 mm/2.76 in

870-543/281-434

870-540/281-411

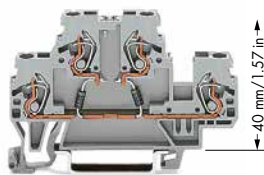
870-541/281-491

870-543/281-413



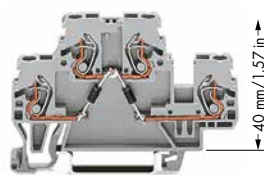
7

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck diode terminal block, with 1N4007 diode		Double-deck diode terminal block, with two 1N4007 diodes		Double-deck LED terminal block, with red LED	
○ gray 870-540/281-410	50	○ gray 870-541/281-492	50	○ gray 870-543/281-434	50
○ gray 870-540/281-411	50	○ gray 870-541/281-491	50	○ gray 870-543/281-413	50



70 mm/2.76 in

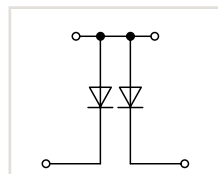
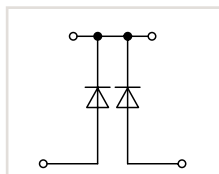
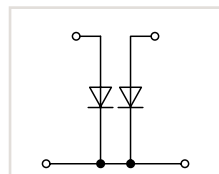
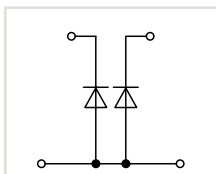
870-542/281-487



70 mm/2.76 in

870-541/281-489

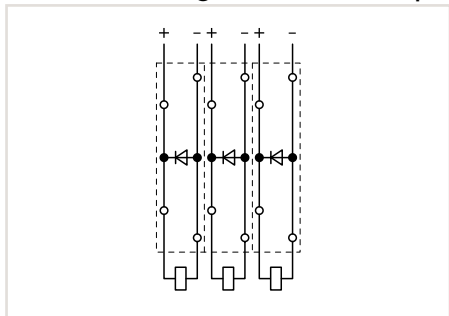
870-541/281-490



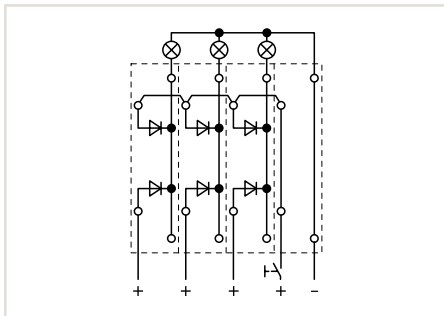
Item No.	Pack. Unit	Item No.	Pack. Unit	
Double-deck diode terminal block, with two 1N4007 diodes		Double-deck diode terminal block, with two 1N4007 diodes		Through terminal blocks with same profile, see page 414
○ gray 870-542/281-487	50	○ gray 870-541/281-489	50	
○ gray 870-542/281-488	50	○ gray 870-541/281-490	50	

# Double-Deck Diode Terminal Blocks and LED Terminal Blocks

## Circuit Configuration Examples

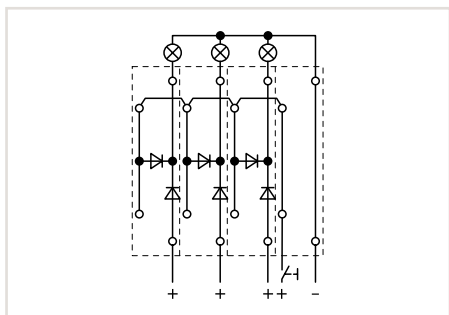


Recovery diodes can be created using the following terminal blocks:  
870-540/281-410 or 870-540/281-411

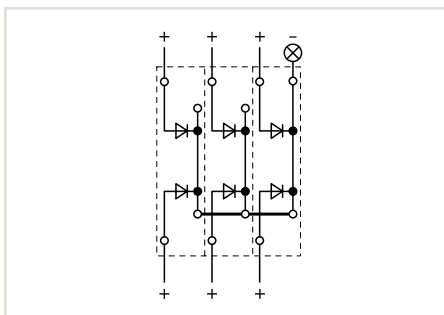


Lamp test circuits can be created using the following terminal blocks:  
870-542/281-487 or 870-542/281-488

- ❶ Max. insulation diameter: 4.4 mm
- ❷ See application notes for:  
Insulation stop, page 331



Lamp test circuits can be created using the following terminal blocks:  
870-541/281-492 or 870-541/281-491

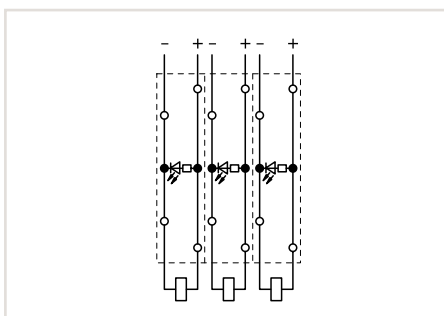


Collective fault signals can be created using the following terminal blocks:  
870-541/281-489 or 870-541/281-490








Double-deck diode terminal blocks were specifically developed for custom diode circuits, such as lamp test and collective fault signal circuits. Designing monitoring units via LED terminal blocks (e.g., for control and operating circuits).

These terminal blocks provide high-density wiring in a width of just 5 mm.

Push-in type jumper bars provide additional options for custom circuit design.



Circuit-related voltage indications can be created using the following terminal blocks:  
870-543/281-434 or 870-543/281-413

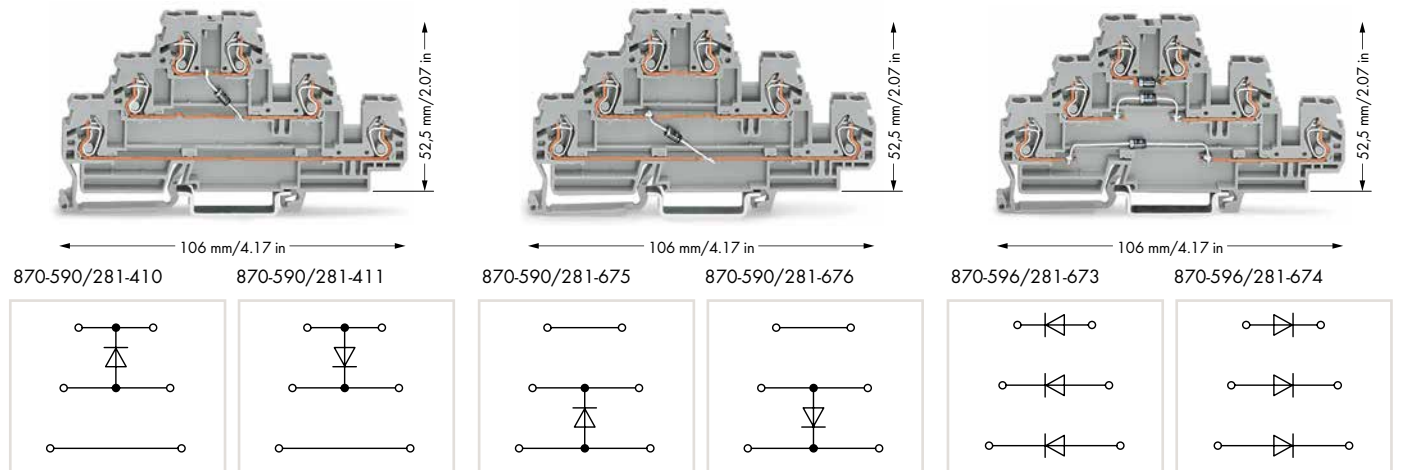
<b>870 Series Accessories</b>			
WMB/WMB Inline/Mini-WSB/Mini-WSB Inline (see Section 13)			
End and intermediate plate, 2 mm thick			
	orange	<b>870-519</b>	100 (4x25)
	gray	<b>870-518</b>	100 (4x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")			
❷		white	<b>280-470</b> 200 (8x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>			
❷		light gray	<b>280-471</b> 200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>			
❷		dark gray	<b>280-472</b> 200 (8x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray			
	2-way	<b>870-402</b>	200 (8x25)
	3-way	<b>870-403</b>	200 (8x25)
	4-way	<b>870-404</b>	100 (4x25)
	5-way	<b>870-405</b>	100 (4x25)
	6-way	<b>870-406</b>	100 (4x25)
	7-way	<b>870-407</b>	100 (4x25)
	8-way	<b>870-408</b>	100 (4x25)
	9-way	<b>870-409</b>	100 (4x25)
	10-way	<b>870-410</b>	50 (2x25)
Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray			
	from 1 to 3	<b>870-433</b>	200 (8x25)
	from 1 to 4	<b>870-434</b>	200 (8x25)
	from 1 to 5	<b>870-435</b>	100 (4x25)
	from 1 to 6	<b>870-436</b>	100 (4x25)
	from 1 to 7	<b>870-437</b>	100 (4x25)
	from 1 to 8	<b>870-438</b>	100 (4x25)
	from 1 to 9	<b>870-439</b>	100 (4x25)
	from 1 to 10	<b>870-440</b>	50 (2x25)
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks			
	yellow	<b>280-405</b>	100 (4x25)

7

# Triple-Deck Diode Terminal Blocks and LED Terminal Blocks

## 2.5 (4 "f-st") mm<sup>2</sup>, 870 Series

<p>0.08 ... 2.5 (4 "f-st") mm<sup>2</sup> ①   28 ... 12 AWG                  U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V                  1N4007 - 0.5 A continuous current                  Terminal block width 5 mm / 0.197 inch                  6 ... 7 mm / 0.24 ... 0.28 inch</p>	<p>0.08 ... 2.5 (4 "f-st") mm<sup>2</sup> ①   28 ... 12 AWG                  U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V                  1N4007 - 0.5 A continuous current                  Terminal block width 5 mm / 0.197 inch                  6 ... 7 mm / 0.24 ... 0.28 inch</p>	<p>0.08 ... 2.5 (4 "f-st") mm<sup>2</sup> ①   28 ... 12 AWG                  U<sub>N</sub> 250 V, U<sub>RM</sub> 1000 V                  1N4007 - 0.5 A continuous current                  Terminal block width 5 mm / 0.197 inch                  6 ... 7 mm / 0.24 ... 0.28 inch</p>
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7

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Triple-deck diode terminal block, with 1N4007 diode		Triple-deck diode terminal block, with 1N4007 diode		Triple-deck diode terminal block, with three 1N4007 diodes	
○ gray	<b>870-590/281-410</b> 50	○ gray	<b>870-590/281-675</b> 50	○ gray	<b>870-596/281-673</b> 50
○ gray	<b>870-590/281-411</b> 50	○ gray	<b>870-590/281-676</b> 50	○ gray	<b>870-596/281-674</b> 50
<b>Other terminal blocks with the same profile:</b>					
Through	<b>870-551</b>		Page 416		

### 870 Series Accessories

Appropriate marking systems: WMB/WMB Inline/Mini-WSB/Mini-WSB Inline (see Section 13)

<p>End and intermediate plate, 2 mm thick</p> <p>orange <b>870-569</b> 50 (2x25)</p> <p>gray <b>870-568</b> 50 (2x25)</p>	<p>Push-in type jumper bar, insulated, I<sub>N</sub> 18 A, light gray</p> <p>from 1 to 3 <b>870-433</b> 200 (8x25)</p> <p>from 1 to 4 <b>870-434</b> 200 (8x25)</p> <p>from 1 to 5 <b>870-435</b> 100 (4x25)</p> <p>from 1 to 6 <b>870-436</b> 100 (4x25)</p> <p>from 1 to 7 <b>870-437</b> 100 (4x25)</p> <p>from 1 to 8 <b>870-438</b> 100 (4x25)</p> <p>from 1 to 9 <b>870-439</b> 100 (4x25)</p> <p>from 1 to 10 <b>870-440</b> 50 (2x25)</p>	<p>Mini-WSB Quick marking system, plain, 10 strips with 10 markers per card, 5 mm wide markers</p> <p>yellow <b>248-501/000-002</b></p> <p>red <b>248-501/000-005</b></p> <p>blue <b>248-501/000-006</b></p> <p>gray <b>248-501/000-007</b></p> <p>orange <b>248-501/000-012</b></p> <p>light green <b>248-501/000-017</b></p> <p>green <b>248-501/000-023</b></p> <p>violet <b>248-501/000-024</b></p>
<p>Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st")</p> <p>white <b>280-470</b> 200 (8x25)</p>		
<p>Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup></p> <p>light gray <b>280-471</b> 200 (8x25)</p>		
<p>Insulation stop, 5 pcs/strip, 0.75 ... 1 mm<sup>2</sup></p> <p>dark gray <b>280-472</b> 200 (8x25)</p>	<p>Protective warning marker, with black high-voltage symbol, for 5 terminal blocks</p> <p>yellow <b>280-405</b> 100 (4x25)</p>	<p>WMB Multi marking system, plain, 10 strips with 10 markers per card, for 5 ... 17.5 mm terminal block width</p> <p>yellow <b>793-501/000-002</b></p> <p>red <b>793-501/000-005</b></p> <p>blue <b>793-501/000-006</b></p> <p>gray <b>793-501/000-007</b></p> <p>orange <b>793-501/000-012</b></p> <p>light green <b>793-501/000-017</b></p> <p>green <b>793-501/000-023</b></p> <p>violet <b>793-501/000-024</b></p>
<p>Push-in type jumper bar, insulated, I<sub>N</sub> 18 A, light gray</p> <p>2-way <b>870-402</b> 200 (8x25)</p> <p>3-way <b>870-403</b> 200 (8x25)</p> <p>4-way <b>870-404</b> 100 (4x25)</p> <p>5-way <b>870-405</b> 100 (4x25)</p> <p>6-way <b>870-406</b> 100 (4x25)</p> <p>7-way <b>870-407</b> 100 (4x25)</p> <p>8-way <b>870-408</b> 100 (4x25)</p> <p>9-way <b>870-409</b> 100 (4x25)</p> <p>10-way <b>870-410</b> 50 (2x25)</p>	<p>Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers</p> <p>plain <b>248-501</b> 5</p> <p>WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable</p> <p>plain <b>793-5501</b> 5</p> <p>WMB Multi marking system, white, 10 strips with 10 markers per card, for 5 ... 17.5 mm terminal block width</p> <p>plain <b>793-501</b> 5</p>	



## Pluggable Tap-Off Modules, 870 Series

### Description and Installation



Snapping tap-off and spacer modules together to assemble a multipole tap-off module (max. 10 poles).



Module assembly with CAGE CLAMP® connections (0.25 ... 2.5 mm<sup>2</sup>/24 ... 14 AWG), including strain relief plate and marker slots for Mini-WSB or WMB markers.

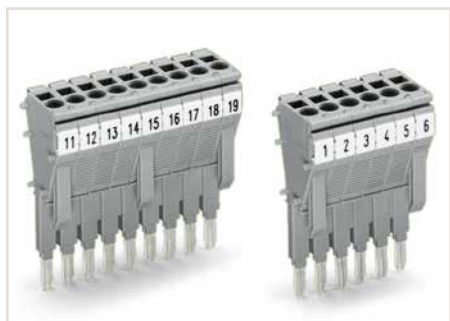
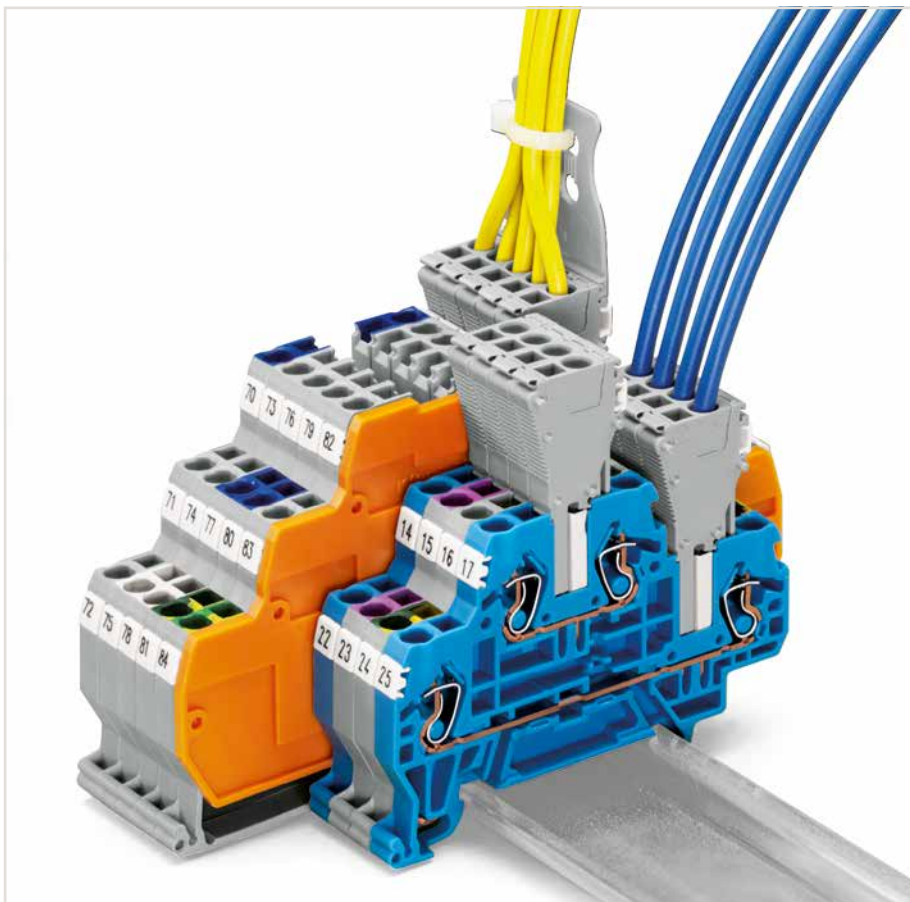


The tap-off module assembly can be directly plugged into the jumper contact slot of the current bar. The terminal blocks can also be commoned via push-in type jumper bars parallel to the jumper slots being used by the modules.



#### 7 CAGE CLAMP® connection

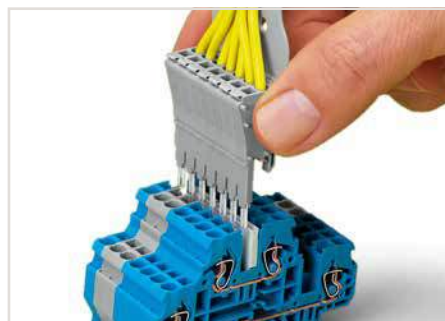
Tap-off modules are used when additional or removable connections are required (can be used as a permanent connection or a test plug). Wiring is possible whether the modules are plugged into the assembly or not.



Using anti-reverse mating modules at both ends of a module assembly prevents reverse mating.



Three anti-reverse mating modules are necessary when snapping more than seven modules together.



Testing is also possible using a pre-wired tap-off module assembly in the very same way as test plugs.



CAGE CLAMP® terminates the following copper conductors: solid



stranded



fine-stranded, also with tinned single strands





# Sensor and Actuator Terminal Blocks, 270 Series

## Description and Installation



Inserting a jumper.



Commoning a supply voltage using un-insulated push-in type jumper bars, 2- to 9-way or 17-way (2 x 8 bits), depending on application.



Commoning signal level voltage via insulated push-in type jumper bars (870 Series) - 2- to 9-way, depending on application.

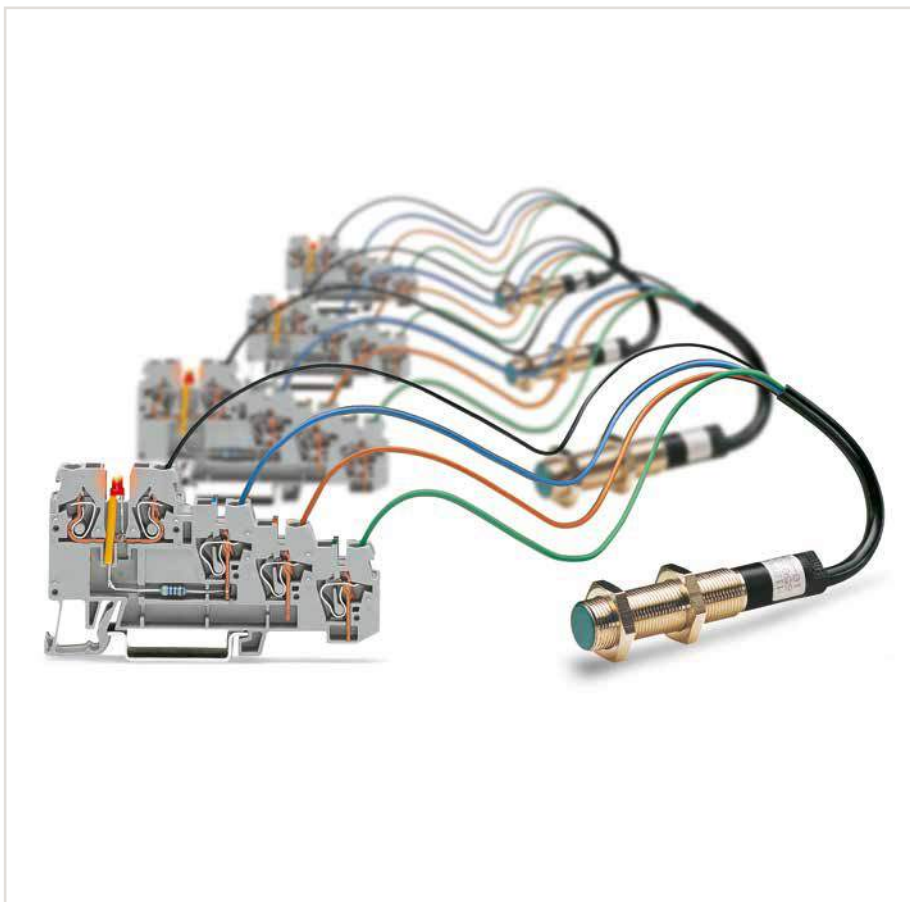
**Sensor LED terminal blocks cannot be commoned!**



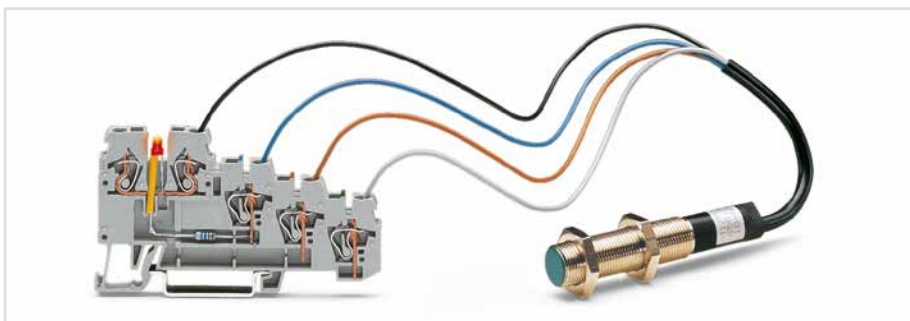
Terminal block assembly:  
Sensor terminal blocks



Terminal block assembly:  
Sensor LED terminal blocks



Marking strip (Item No. 709-196)  
**Not suitable for LED terminal blocks!**



Sensor LED block

**CAGE CLAMP®**  
terminates the following  
copper conductors:

stranded

fine-stranded,  
also with finned  
single strands

fine-stranded,  
tip-bonded

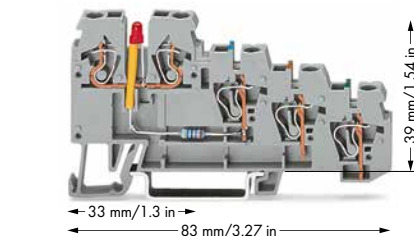
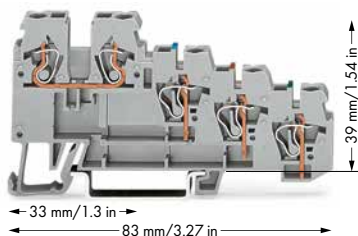
fine-stranded,  
with ferrule  
(gastight crimped)

fine-stranded,  
with pin terminal  
(gastight crimped)

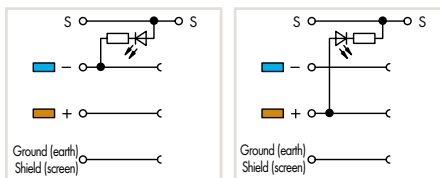
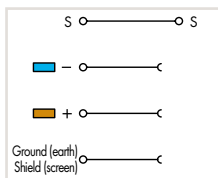
# 4-Conductor Sensor Terminal Blocks and 4-Conductor Sensor LED Terminal Blocks

## 2.5 mm<sup>2</sup>, 270 Series

0.08 ... 2.5 mm <sup>2</sup> 250 V/4 kV/3 ① I <sub>N</sub> 18 A ② Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch	28 ... 12 AWG* 300 V, 20 A ③ 300 V, 10 A ③	0.08 ... 2.5 mm <sup>2</sup>   28 ... 12 AWG* 24 VDC ③ Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch
--	--	--



270-570/281-434      270-570/281-507



\* 12 AWG: THHN, THWN

① 250 V = rated voltage  
 4 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)

② Internal bridge: 9 A

③ Other voltages are available upon request.  
 LED power consumption: 4.8 mA

④ See application notes for:  
 Insulation stop, page 331

### Accessories for 4-Conductor Terminal Blocks

WMB/WMB Inline/Mini-WSB/Mini-WSB Inline

End and intermediate plate, 1 mm thick, for quadruple-deck terminal blocks

orange	<b>270-322</b>	100 (4x25)
gray	<b>270-320</b>	100 (4x25)

Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st")

white	<b>280-470</b>	200 (8x25)
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Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm<sup>2</sup>

light gray	<b>280-471</b>	200 (8x25)
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Insulation stop, 5 pcs/strip, 0.75 ... 1 mm<sup>2</sup>

dark gray	<b>280-472</b>	200 (8x25)
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Jumper, uninsulated, I<sub>N</sub> 18 A Jumpers can be shortened using an electronic side cutter

9-way	<b>270-409</b>	100 (4x25)
17-way	<b>270-417</b>	100 (4x25)
80-way	<b>270-480</b>	10

Push-in type jumper bar, insulated, I<sub>N</sub> 18 A, light gray

2-way	<b>870-402</b>	200 (8x25)
3-way	<b>870-403</b>	200 (8x25)
4-way	<b>870-404</b>	100 (4x25)
5-way	<b>870-405</b>	100 (4x25)
6-way	<b>870-406</b>	100 (4x25)
7-way	<b>870-407</b>	100 (4x25)
8-way	<b>870-408</b>	100 (4x25)
9-way	<b>870-409</b>	100 (4x25)

Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade

	<b>210-720</b>	1
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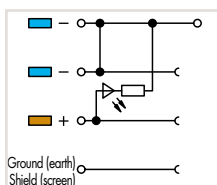
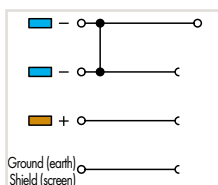
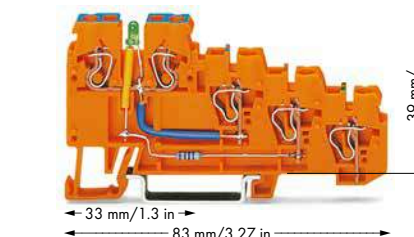
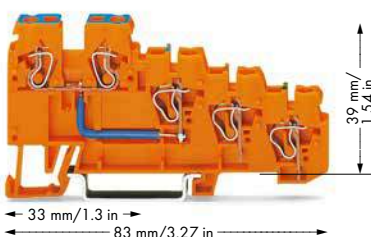
Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers

plain	<b>248-501</b>	5
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WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable

plain	<b>793-5501</b>	5
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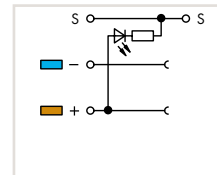
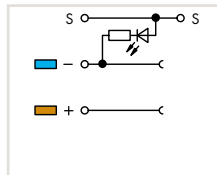
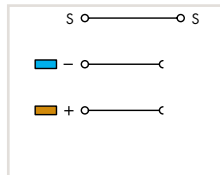
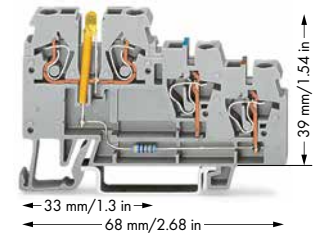
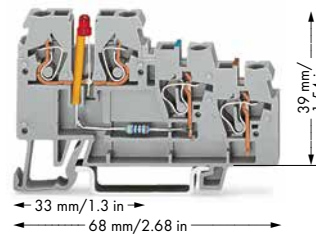
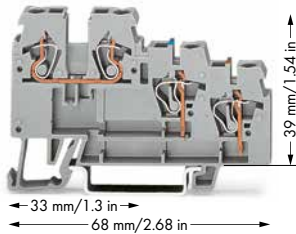
Item No.	Pack. Unit	Item No.	Pack. Unit
4-conductor sensor terminal block, for DIN-35 rail		4-conductor sensor LED terminal block, for DIN-35 rail, for PNP (high-side) switching sensors, red LED	
gray <b>270-570</b>	50	gray <b>270-570/281-434</b>	50
4-conductor sensor LED terminal block, for DIN-35 rail, for NPN (low-side) switching sensors, yellow LED			
		gray <b>270-570/281-507</b>	50



Item No.	Pack. Unit	Item No.	Pack. Unit
4-conductor sensor supply terminal block, for DIN-35 rail, internal bridge 9 A		4-conductor sensor LED supply terminal block, for DIN-35 rail, green LED	
orange <b>270-574</b>	10	orange <b>270-574/281-483</b>	10

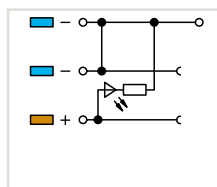
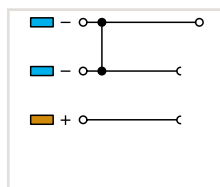
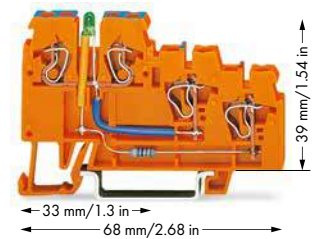
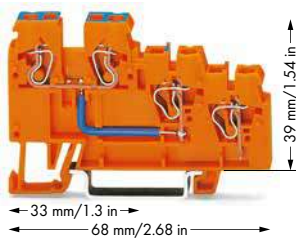
## 3-Conductor Sensor Terminal Blocks and 3-Conductor Sensor LED Terminal Blocks 2.5 mm<sup>2</sup>, 270 Series

<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 12 AWG* 250 V/4 kV/3 ① I<sub>N</sub> 18 A</p> <p>Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 12 AWG* 24 VDC ②</p> <p>Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup>   28 ... 12 AWG* 24 VDC ②</p> <p>Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch</p>
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7

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
3-conductor sensor terminal block, for DIN-35 rail		3-conductor sensor LED terminal block, for DIN-35 rail, for PNP (high-side) switching sensors, red LED		3-conductor sensor LED terminal block, for DIN-35 rail, for NPN (low-side) switching sensors, yellow LED	
gray 270-560	50	gray 270-560/281-434	50	gray 270-560/281-507	50

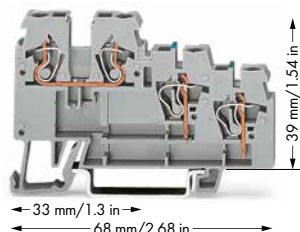


Item No.	Pack. Unit	Item No.	Pack. Unit	
3-conductor sensor supply terminal block, for DIN-35 rail, internal bridge 9 A		3-conductor sensor LED supply terminal block, for DIN-35 rail, green LED		Tap-off modules (870-425, 870-426, 870-427) also suitable for signal level.
orange 270-564	10	orange 270-564/281-483	10	

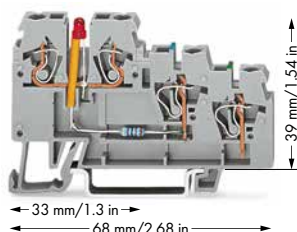
# 3-Conductor Actuator Terminal Blocks and 3-Conductor Actuator LED Terminal Blocks

## 2.5 mm<sup>2</sup>, 270 Series

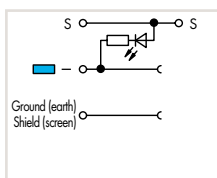
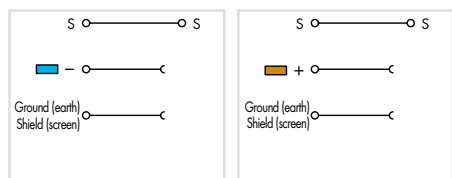
0.08 ... 2.5 mm <sup>2</sup> 250 V/4 kV/3 ① I <sub>N</sub> 18 A Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch	28 ... 12 AWG* 300 V, 20 A ② 300 V, 10 A ③	0.08 ... 2.5 mm <sup>2</sup>   28 ... 12 AWG* 24 VDC ② Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch
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270-572



270-585



Item No.	Pack. Unit	Item No.	Pack. Unit
3-conductor actuator terminal block, for DIN-35 rail		3-conductor actuator LED terminal block, for DIN-35 rail, for PNP (high-side) switching actuators, red LED	
gray 270-572	50	gray 270-572/281-434	50
3-conductor actuator terminal block, for DIN-35 rail			
gray 270-585	50		

- \* 12 AWG: THHN, THWN
- ① 250 V = rated voltage  
4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Other voltages are available upon request.  
LED power consumption: 4.8 mA
- ③ See application notes for:  
Insulation stop, page 331

### Accessories for 3-Conductor Terminal Blocks

#### WMB/WMB Inline/Mini-WSB/Mini-WSB Inline

End and intermediate plate, 1 mm thick, for triple-deck terminal blocks	
orange	270-321 100 (4x25)
gray	270-319 100 (4x25)

Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")	
white	280-470 200 (8x25)

Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>	
light gray	280-471 200 (8x25)

Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>	
dark gray	280-472 200 (8x25)

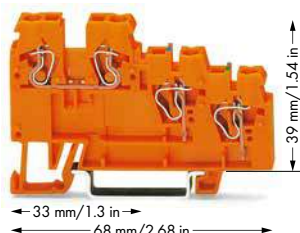
Jumper, uninsulated, I <sub>N</sub> 18 A Jumpers can be shortened using an electronic side cutter	
9-way	270-409 100 (4x25)
17-way	270-417 100 (4x25)
80-way	270-480 10

Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray	
2-way	870-402 200 (8x25)
3-way	870-403 200 (8x25)
4-way	870-404 100 (4x25)
5-way	870-405 100 (4x25)
6-way	870-406 100 (4x25)
7-way	870-407 100 (4x25)
8-way	870-408 100 (4x25)
9-way	870-409 100 (4x25)

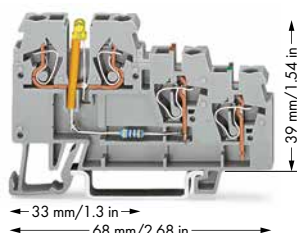
Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade	
	210-720 1

Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers	
plain	248-501 5

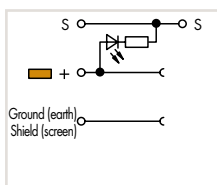
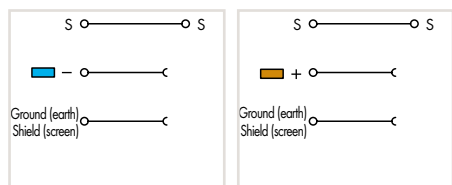
WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable	
plain	793-5501 5



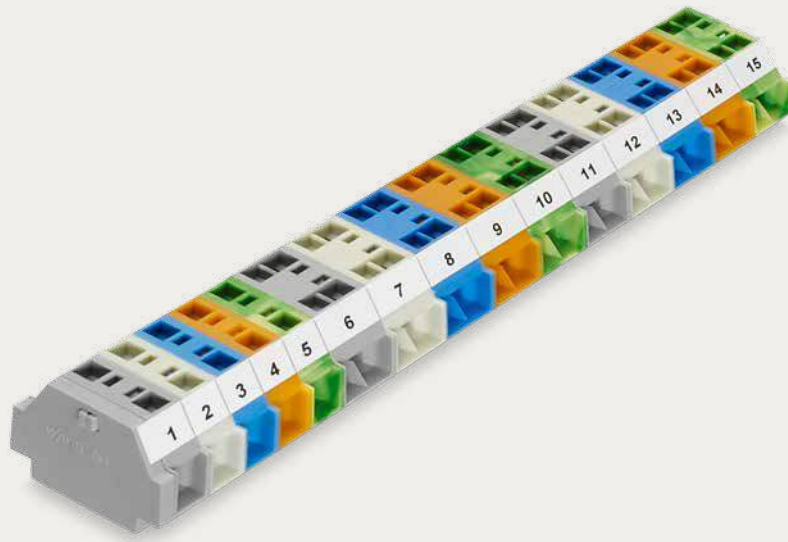
270-577



270-586









Item No.	Pack. Unit	Item No.	Pack. Unit
3-conductor actuator supply terminal block, for DIN-35 rail		3-conductor actuator LED terminal block, for DIN-35 rail, for NPN (low-side) switching actuators, yellow LED	
orange 270-577	10	gray 270-586/281-507	50
3-conductor actuator supply terminal block, for DIN-35 rail			
orange 270-586	10		



# Modular Terminal Blocks and Terminal Strips

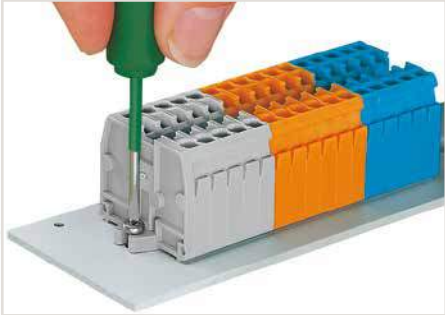
## Modular Terminal Blocks and Terminal Strips

### Side-/Front-Entry Wiring

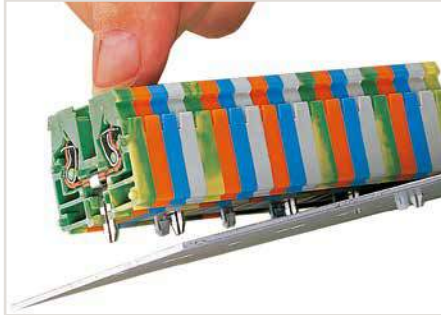
			Page
	<b>Modular Terminal Blocks and Terminal Strips with Mounting Flanges or Snap-In Mounting Feet, Front-Entry Wiring</b> 2.5 (4 "fst") mm <sup>2</sup> (12 AWG)	869 Series	431
	<b>Modular Terminal Blocks and Terminal Strips with Mounting Flanges or Snap-In Mounting Feet, Front-Entry Wiring</b> 2.5 mm <sup>2</sup> (12 AWG)	264 Series	436
	<b>Modular Terminal Blocks and Terminal Strips with Mounting Flanges or Snap-In Mounting Feet, Side-Entry Wiring</b> 0.08 ... 1.5 mm <sup>2</sup> (28 ... 16 AWG) / 2.5 mm <sup>2</sup> / 4 mm <sup>2</sup> (14 AWG / 12 AWG)	260/261/262 Series	442
	<b>Modular Terminal Blocks and Terminal Strips with Push-Buttons on One or Both Sides</b> 0.08 ... 1.5 mm <sup>2</sup> (28 ... 16 AWG)	261 Series	446
	<b>Modular Terminal Blocks and Terminal Strips with Mini-WSB Marker Slot and Push-Buttons on One or Both Sides</b> 1.5 mm <sup>2</sup> (16 AWG)	261 Series	450
	<b>Accessories for Modular Terminal Blocks and Terminal Strips</b>	260/261/262 Series	456

# Modular Terminal Blocks and Terminal Strips, 869 Series

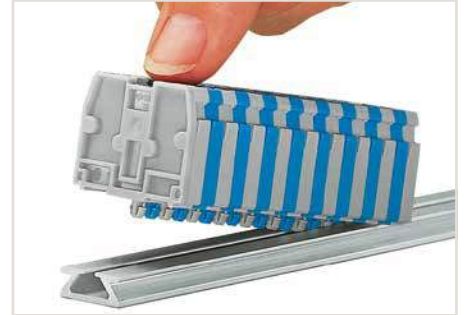
## Description and Installation



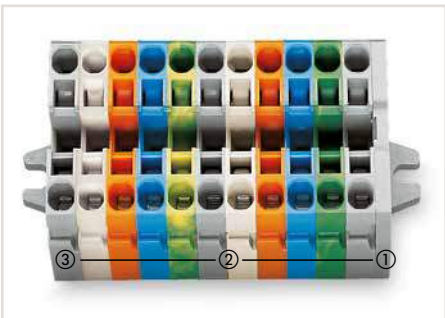
Mounting and securing a terminal strip directly to the plate via screw-type flanges.



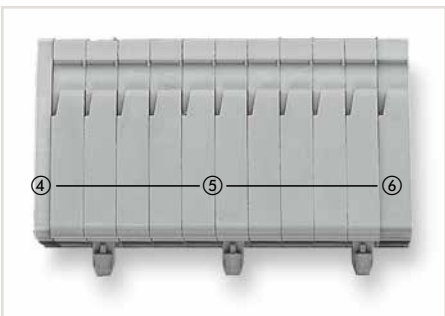
Mounting a terminal strip with snap-in feet into holes.



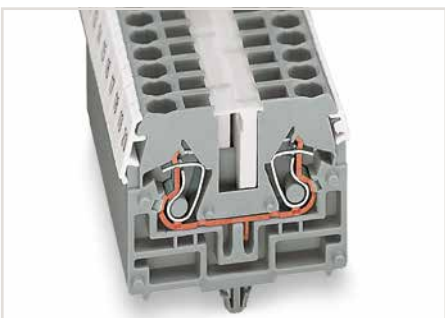
Mounting a terminal strip with snap-in feet onto aluminum rail.



Terminal strip with mounting flanges:  
 • End plate with mounting flange ①  
 • Center terminal blocks ②  
 • End terminal block with mounting flange ③



Terminal strip with snap-in mounting feet:  
 • End plate ④  
 • Center terminal blocks with/without snap-in mounting feet ⑤  
 • End terminal block with/without snap-in mounting foot ⑥



WMB markers in Mini-WSB marker slots  
 Marking strip, translucent  
 Mini-WSB markers



Push jumper bars down firmly until fully inserted. When using multipole bars, push alternately on the right and then left side until installed.  
 Push-in type jumper bars 1 - 3 - 5 - 7 or 1 - 4 - 7 are available upon request.



Protective warning markers (280-405), with a black high-voltage symbol

**CAGE CLAMP®**  
 terminates the following  
 copper conductors:

solid                      stranded

fine-stranded,  
 also with finned  
 single strands

fine-stranded,  
 tip-bonded

fine-stranded,  
 with ferrule  
 (gastight crimped)

fine-stranded,  
 with pin terminal  
 (gastight crimped)



# Compact Terminal Strips with Mounting Flanges or Snap-in Mounting Feet

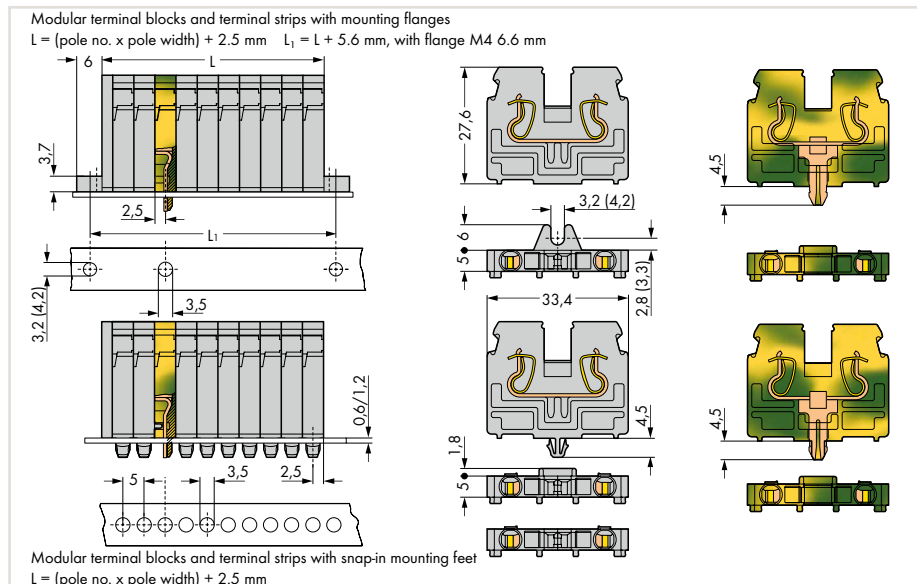
## 2.5 (4 "f-st") mm<sup>2</sup>, 870 Series

0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> 500 V/6 kV/3 I <sub>N</sub> 24 A Pole width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch	28 ... 12 AWG 300 V, 20 A	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> 500 V/6 kV/3 I <sub>N</sub> 24 A Pole width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch	28 ... 12 AWG 300 V, 20 A	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> 500 V/6 kV/3 I <sub>N</sub> 24 A Pole width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch	28 ... 12 AWG 300 V, 20 A
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Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
Compact terminal strip, with M3 mounting flanges, for screw or similar mounting types, 3.2 mm mounting hole diameter, gray			Compact terminal strip, with M4 mounting flanges, for screw or similar mounting types, 4.2 mm mounting hole diameter, gray			Compact terminal strip, with snap-in mounting feet, for 0.6 ... 1.2 mm plate thickness, 3.5 + 0.1 mm mounting hole diameter, gray		
2	869-102	100	2	869-202	100	2	869-152	100
3	869-103	100	3	869-203	100	3	869-153	100
4	869-104	100	4	869-204	100	4	869-154	100
5	869-105	100	5	869-205	100	5	869-155	100
6	869-106	50	6	869-206	50	6	869-156	50
7	869-107	50	7	869-207	50	7	869-157	50
8	869-108	50	8	869-208	50	8	869-158	50
9	869-109	50	9	869-209	50	9	869-159	50
10	869-110	50	10	869-210	25	10	869-160	25
11	869-111	25	11	869-211	25	11	869-161	25
12	869-112	25	12	869-212	25	12	869-162	25
light gray			light gray			light gray		
2	869-132	100	2	869-232	100	2	869-182	100
3	869-133	100	3	869-233	100	3	869-183	100
4	869-134	100	4	869-234	100	4	869-184	100
5	869-135	100	5	869-235	100	5	869-185	100
6	869-136	50	6	869-236	50	6	869-186	50
7	869-137	50	7	869-237	50	7	869-187	50
8	869-138	50	8	869-238	50	8	869-188	50
9	869-139	50	9	869-239	50	9	869-189	50
10	869-140	25	10	869-240	25	10	869-190	25
11	869-141	25	11	869-241	25	11	869-191	25
12	869-142	25	12	869-242	25	12	869-192	25

Dimensions in mm



Longer strips and/or mixed-color assemblies are available upon request.

**Item no. suffixes for gray terminal strips in:**

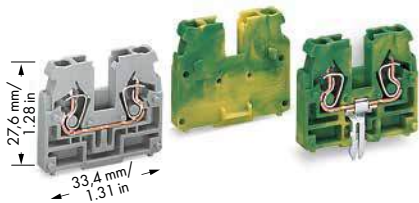
- blue .../000-006 2
- green-yellow .../000-016
- 869-102 ... 869-112
- 869-202 ... 869-212
- 869-152 ... 869-162

Terminal strips with a blue insulated housing are suitable for Ex i applications.

# Modular Terminal Blocks with Mounting Flanges or Snap-in Mounting Feet

## 2.5 (4 "f-st") mm<sup>2</sup>, 870 Series

0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch	28 ... 12 AWG 300 V, 20 A	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch	28 ... 12 AWG 300 V, 20 A	0.08 ... 2.5 (4 "f-st") mm <sup>2</sup> ① 500 V/6 kV/3 ② I <sub>N</sub> 24 A Terminal block width 5 mm / 0.197 inch 6 ... 7 mm / 0.24 ... 0.28 inch	28 ... 12 AWG 300 V, 20 A
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


Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	
Center terminal block, without snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, required between end plate and end terminal block for terminal strips with mounting flanges			End terminal block, with M3 mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter			End terminal block, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 + 0.1 mm mounting hole diameter			
gray	869-321	100	gray	869-301	100	gray	869-331	100	
blue	869-324 ③	100	blue	869-304 ③	100	blue	869-334 ③	100	
orange	869-326	100	green-yellow	869-307	100	green-yellow	869-337	100	
green-yellow	869-327	100	light gray	869-309	100	light gray	869-339	100	
light gray	869-329	100							
Center terminal block, with direct ground contact, 3.5 + 0.1 mm drilled hole diameter, required between end plate and end terminal block for terminal strips with mounting flanges Notice: Terminal block cannot be commoned!			End terminal block, with M4 mounting flange, for screw or similar mounting types, 4.2 mm mounting hole diameter			End terminal block, without snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness			
green-yellow	869-328	100	gray	869-351	100	gray	869-341	100	
			blue	869-354 ③	100	blue	869-344 ③	100	
			green-yellow	869-357	100	green-yellow	869-347	100	
			light gray	869-359	100	light gray	869-349	100	
<b>Item-Specific Accessories</b>									
Aluminum carrier rail, 1000 mm long, 18 mm wide, 7 mm high									
								<b>210-154</b>	1
Plastic end stop, with WSB marker slot, for aluminum carrier rail (210-154), 6 mm wide									
								<b>209-122</b>	25

### 869 Series Accessories

Appropriate marking systems: WMB/WMB Inline/Mini-WSB/Mini-WSB Inline (see Section 13)

End plate, with M3 mounting flange, 2.5 mm thick	End plate, with M4 mounting flange, 2.5 mm thick	End plate, for terminal blocks with snap-in mounting foot, 2.5 mm thick
gray <b>869-385</b> 100 (4x25) blue <b>869-388</b> 100 (4x25) green-yellow <b>869-389</b> 100 (4x25) light gray <b>869-387</b> 100 (4x25)	gray <b>869-395</b> 100 (4x25) blue <b>869-398</b> 100 (4x25) green-yellow <b>869-399</b> 100 (4x25) light gray <b>869-397</b> 100 (4x25)	gray <b>869-375</b> 100 (4x25) blue <b>869-378</b> 100 (4x25) green-yellow <b>869-379</b> 100 (4x25) light gray <b>869-377</b> 100 (4x25)
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st") white <b>280-470</b> 200 (8x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray 2-way <b>870-402</b> 200 (8x25) 3-way <b>870-403</b> 200 (8x25) 4-way <b>870-404</b> 100 (4x25) 5-way <b>870-405</b> 100 (4x25) 6-way <b>870-406</b> 100 (4x25) 7-way <b>870-407</b> 100 (4x25) 8-way <b>870-408</b> 100 (4x25) 9-way <b>870-409</b> 100 (4x25) 10-way <b>870-410</b> 50 (2x25)	Push-in type jumper bar, insulated, I <sub>N</sub> 18 A, light gray from 1 to 3 <b>870-433</b> 200 (8x25) from 1 to 4 <b>870-434</b> 200 (8x25) from 1 to 5 <b>870-435</b> 100 (4x25) from 1 to 6 <b>870-436</b> 100 (4x25) from 1 to 7 <b>870-437</b> 100 (4x25) from 1 to 8 <b>870-438</b> 100 (4x25) from 1 to 9 <b>870-439</b> 100 (4x25) from 1 to 10 <b>870-440</b> 50 (2x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> light gray <b>280-471</b> 200 (8x25)		
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup> dark gray <b>280-472</b> 200 (8x25)		

0.08 ... 2.5 (4" f-st") mm<sup>2</sup> ① 28 ... 12 AWG  
 500 V/6 kV/3 ② 300 V, 20 A ③  
 I<sub>N</sub> 24 A  
 Terminal block width 5 mm / 0.197 inch  
 6 ... 7 mm / 0.24 ... 0.28 inch



Terminal strips with M3 or M4 mounting flanges, for screw or similar mounting types, mounting holes:  
 3.2 mm Ø, M3 flange  
 4.2 mm Ø, M4 flange



- ① Max. insulation diameter: 4.4 mm
- ② 500 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)
- ③ Suitable for Ex i applications
- ④ See application notes for:  
 Insulation stop, page 331  
 Group marker carrier, page 377







Color	Item No.	Pack. Unit
Center terminal block, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 + 0.1 mm mounting hole diameter		
gray	869-311	100
blue	869-314 ③	100
orange	869-316	100
green-yellow	869-317	100
light gray	869-319	100



Terminal strips with snap-in mounting feet, for 0.6 ... 1.2 mm plate thickness, mounting holes: 3.5<sup>+0.1</sup> mm Ø



Inserting an insulation stop into conductor entry holes of terminal strip.

Item-Specific Accessories		
Aluminum carrier rail, 1000 mm long, 18 mm wide, 7 mm high		
	210-154	1
Plastic end stop, with WSB marker slot, for aluminum carrier rail (210-154), 6 mm wide		
	209-122	25
Marking strip, plain, 7.5 mm wide, 1 m long		
	translucent 709-196	1
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		
	yellow 280-405	100 (4x25)
Group marker carrier, fits into terminal block jumper slot		
④ 	gray 870-184	50 (2x25)
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V		
	red 210-136	50



Protective warning markers (280-405), with a black high-voltage symbol

Wiring programmable logic controllers and microprocessor-operated control circuits often relies on very small cross sections of fine-stranded conductors. These small conductors are highly flexible, and they deform when pushed against the conductor stop in terminal blocks. As a result, the conductor insulation – not the copper conductor – may be clamped, causing intermittent contact or no contact at all. Common to all terminal block types currently offered, this problem creates unnecessary downtime for troubleshooting.

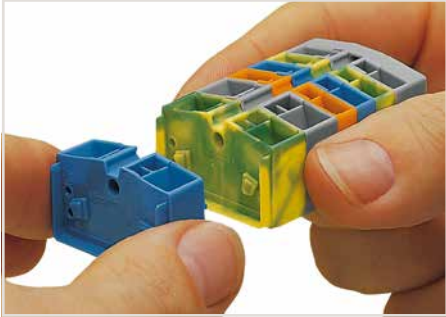
The solution: an insulation stop for compact terminal blocks. Insulation stops automatically bundle the cores of fine-stranded conductors when inserted into the clamping unit, preventing playing. This also limits the conductor entry to a defined cross sectional area – ensuring the actual conductor, not the insulation, will enter the clamping unit.

The insulation stop is available as dividable 5-pole strip for the 869 Series terminal strips.

Insulation stop usage will not affect the conductor strip lengths for the aforementioned terminal strips.

# Modular Terminal Blocks and Terminal Strips, 264 Series

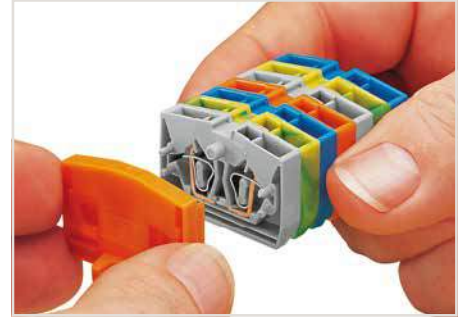
## Description and Installation



Assembling modular terminal blocks into terminal strips.



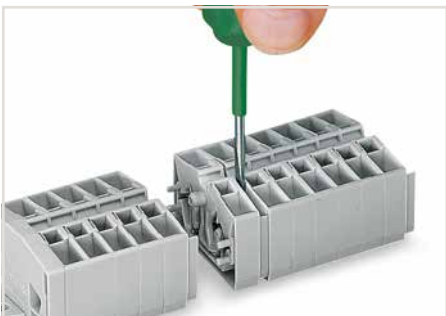
Mounting an "end terminal block" with mounting flange.



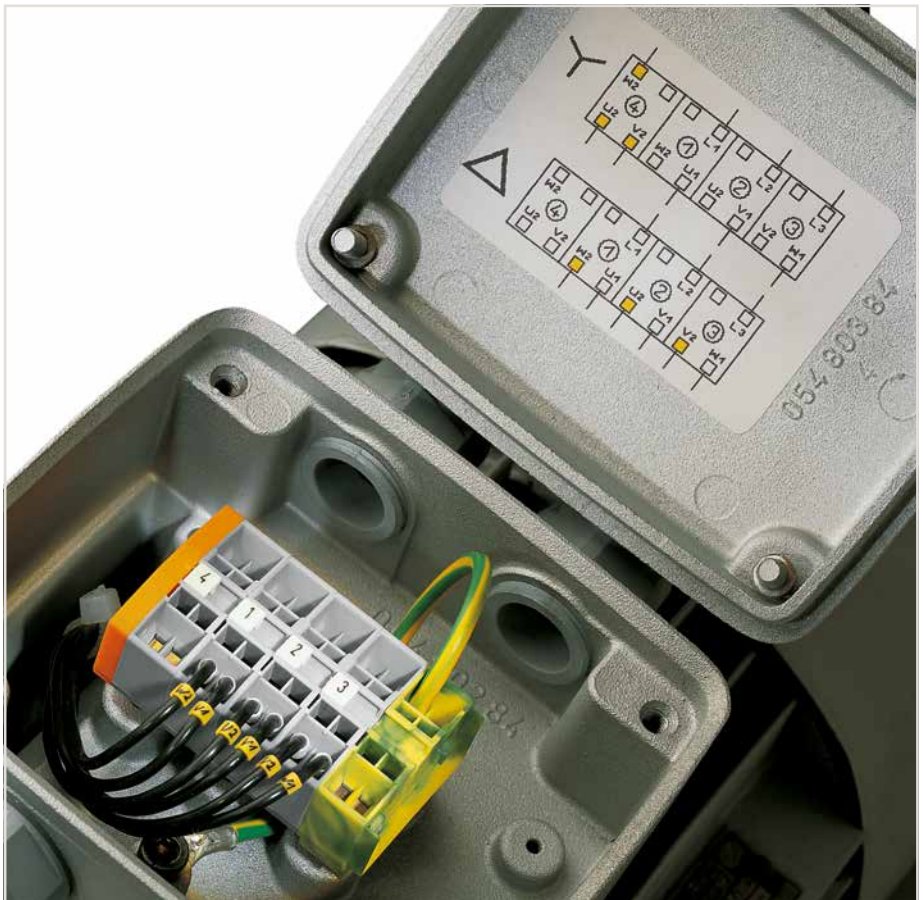
Mounting an end plate.



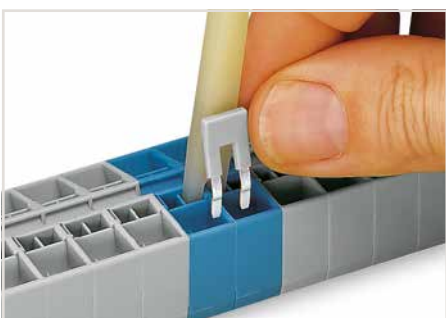
**CAGE CLAMP® connection**  
Inserting a conductor via screwdriver.  
With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross section.



Removing a terminal block.



8



Commoning with comb-style jumper bar.



Marking with T-marker tag (209-290).



Combining 2- and 4-conductor terminal blocks.  
Marking via Mini-WSB Quick markers.



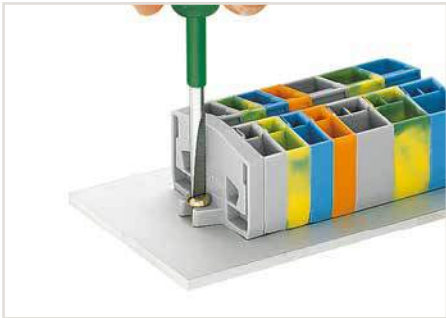
**CAGE CLAMP®**  
terminates the following  
copper conductors:  
solid



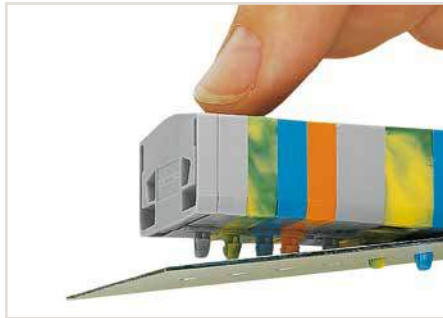
stranded



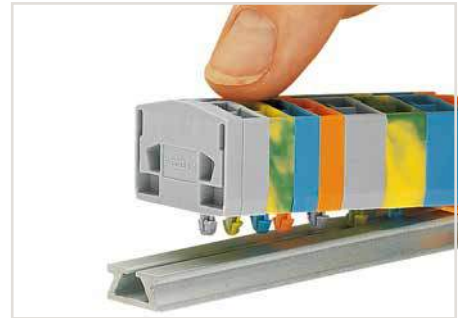
fine-stranded,  
also with tinned  
single strands



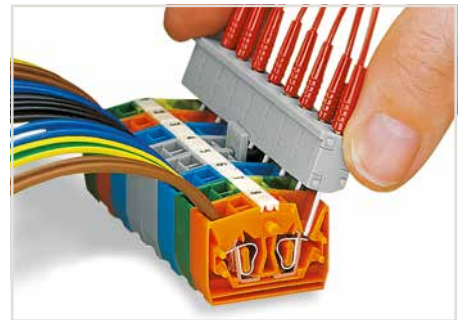
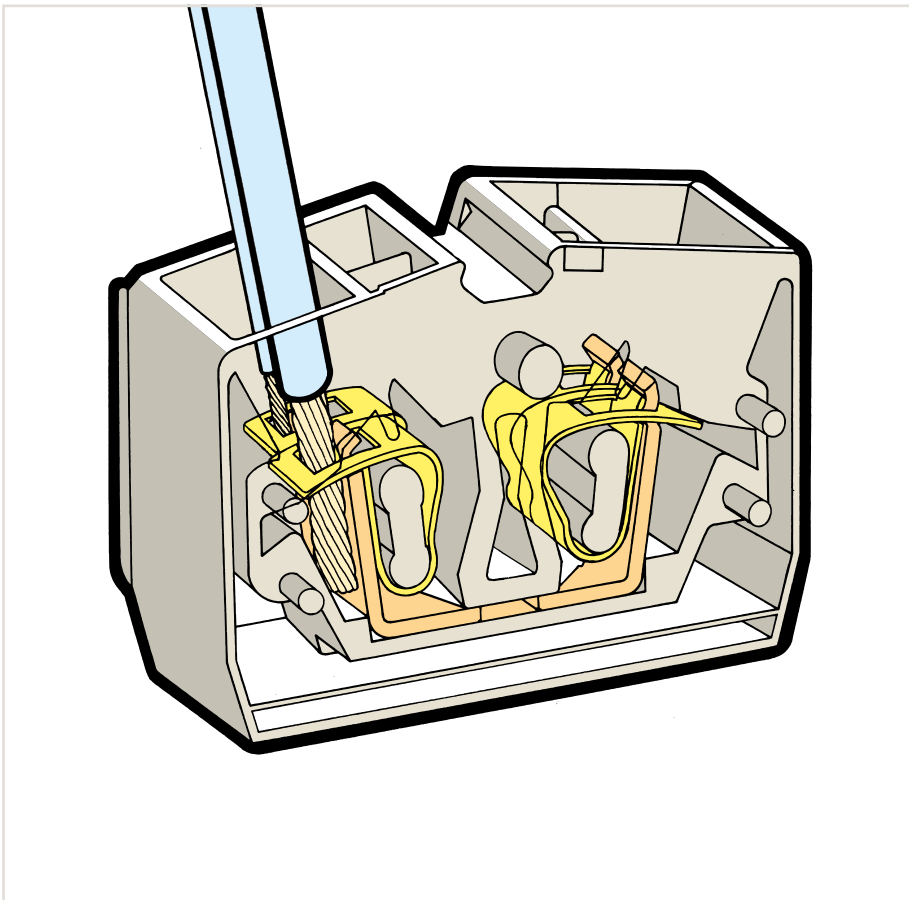
Mounting and securing a terminal strip directly to the plate via screw-type flanges.



Mounting a terminal strip with snap-in feet into holes.



Mounting a terminal strip with snap-in feet onto aluminum rail.



Testing by touch contact to the CAGE CLAMP® spring (limited to 0.5 A and 48 V test voltage) - test pins are not protected against accidental contact.



Testing via CAGE CLAMP® on the current bar (max. nominal current: 6 A). CAGE CLAMP® clamps individual test contacts. The maximum test voltage is 400 V.



Terminal strip with mounting flanges, for screw or similar mounting types, fixing hole 3.2 mm Ø.



Terminal strip with snap-in mounting feet, for plate thickness 0.6 mm ... 1.2 mm, fixing hole 3.5 mm Ø.



fine-stranded, tip-bonded



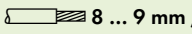
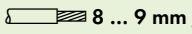
fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

# Modular Terminal Blocks with Mounting Flange

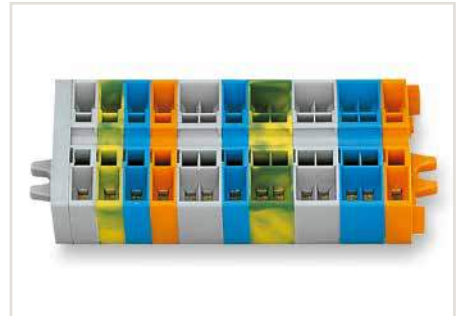
## 2.5 mm<sup>2</sup>, 264 Series

0.08 ... 2.5 mm <sup>2</sup> 28 ... 12 AWG* 800 V/8 kV/3 ① I <sub>N</sub> 24 A Terminal block width 6 mm / 0.236 inch  8 ... 9 mm / 0.31 ... 0.35 inch	0.08 ... 2.5 mm <sup>2</sup> 28 ... 12 AWG* 800 V/8 kV/3 ① I <sub>N</sub> 24 A Terminal block width 10 mm / 0.394 inch  8 ... 9 mm / 0.31 ... 0.35 inch
---	---




- \* 12 AWG: THHN, THWN
- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
  - ② Suitable for Ex i applications
  - ③ Suitable for Ex e II applications  
0.5 ... 2.5 mm<sup>2</sup> / 20 ... 12 AWG\*  
690 V, 23 A  
(see Section 14)
  - ④ See application notes for:  
Alternate comb-style jumper bar, page 332  
Test plug module, page 456  
Mini-WSB, page 580


Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
2-conductor center terminal block, required between end plate and end terminal block for terminal strips with mounting flanges			4-conductor center terminal block, required between end plate and end terminal block for terminal strips with mounting flanges		
gray	264-321	100	gray	264-351	100
blue	264-324 ②	100	blue	264-354 ②	100
orange	264-326	100	orange	264-356	100
green-yellow	264-327	100	green-yellow	264-357	100
light gray ☉	264-131 ③	100	light gray ☉	264-231 ③	100
2-conductor end terminal block, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter			4-conductor end terminal block, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter		
gray	264-301	100	gray	264-331	100
blue	264-304 ②	100	blue	264-334 ②	100
orange	264-306	100	orange	264-336	100
green-yellow	264-307	100	green-yellow	264-337	100
light gray ☉	264-130 ③	100	light gray ☉	264-230 ③	100




- Terminal strip with mounting flanges, consisting of:
- End plate with mounting flange
  - Center terminal blocks
  - End terminal block with mounting flange


### Item-Specific Accessories


④  Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	
	2-way <b>281-492</b> 100 (4x25)


④  Test plug module, without locking latches, snaps together, 6 mm wide	
	gray <b>249-136</b> 100 (4x25)

④  Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers	
	plain <b>248-501</b> 5

### Item-Specific Accessories


④  Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	
	2-way <b>280-492</b> 200 (8x25)


④  Test plug module, without locking latches, snaps together, 10 mm wide	
	gray <b>249-139</b> 100 (4x25)


④  Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers	
	<b>264-900</b> 5


### 264 Series Accessories


Appropriate marking systems: Mini-WSB/Mini-WSB Inline/T-marker tag (see Section 13)


 End plate, with mounting flange, 4 mm thick	
	gray <b>264-361</b> 25
	orange <b>264-364</b> 25
	light gray <b>264-363</b> 25

 Test plug, with 500 mm cable, 2 mm Ø, max. 42 V	
	red <b>210-136</b> 50



 Comb-style jumper bar, insulated, I <sub>N</sub> 16 A, gray, reduces maximum conductor size to 1.5 mm <sup>2</sup> / 16 AWG	
	2-way <b>264-402</b> 200 (8x25)

 Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V	
	yellow <b>210-137</b> 50

 Operating tool, of insulating material	
	2-way <b>280-432</b> 1

 T marker tag, 30 markers each tag, up to 6 characters per marker, 5 ... 6 mm stretchable	
	plain <b>209-290</b> 50

## Modular Terminal Blocks with Snap-in Mounting Foot 2.5 mm<sup>2</sup>, 264 Series

0.08 ... 2.5 mm <sup>2</sup> 800 V/8 kV/3 ① I <sub>N</sub> 24 A	28 ... 12 AWG*	0.08 ... 2.5 mm <sup>2</sup> 800 V/8 kV/3 ① I <sub>N</sub> 24 A	28 ... 12 AWG*
Terminal block width 6 mm / 0.236 inch  8 ... 9 mm / 0.31 ... 0.35 inch		Terminal block width 10 mm / 0.394 inch  8 ... 9 mm / 0.31 ... 0.35 inch	



\* 12 AWG: THHN, THWN

- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ Suitable for Ex e II applications  
0.5 ... 2.5 mm<sup>2</sup> / 20 ... 12 AWG\*  
690 V, 23 A  
(see Section 14)
- ④ See application notes for:  
Alternate comb-style jumper bar, page 332  
Test plug module, page 456  
Mini-WSB, page 580

Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
2-conductor terminal block, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter			4-conductor terminal block, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter		
gray	264-311	100	gray	264-341	100
blue	264-314 ②	100	blue	264-344 ②	100
orange	264-316	100	orange	264-346	100
green-yellow	264-317	100	green-yellow	264-347	100
light gray ④	264-180 ④	100	light gray ④	264-280 ④	100
<b>Item-Specific Accessories</b>			<b>Item-Specific Accessories</b>		
④ Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block			④ Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		
2-way 281-492 100 (4x25)			2-way 280-492 200 (8x25)		
④ Test plug module, without locking latches, snaps together, 6 mm wide			④ Test plug module, without locking latches, snaps together, 10 mm wide		
gray 249-136 100 (4x25)			gray 249-139 100 (4x25)		
④ Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers			④ Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers		
plain 248-501 5			264-900 5		
<b>264 Series Accessories</b>					
Appropriate marking systems: Mini-WSB/Mini-WSB Inline/T-marker tag (see Section 13)					
End plate, for terminal blocks with snap-in mounting foot			Plastic end stop, with WSB marker slot, for aluminum carrier rail (210-154), 6 mm wide		
gray 264-371 25			209-122 25		
orange 264-374 25					
light gray 264-373 25					
Comb-style jumper bar, insulated, I <sub>N</sub> 16 A, gray, reduces maximum conductor size to 1.5 mm <sup>2</sup> / 16 AWG			T marker tag, 30 markers each tag, up to 6 characters per marker, 5 ... 6 mm stretchable		
2-way 264-402 200 (8x25)			plain 209-290 50		
Operating tool, of insulating material			Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade		
2-way 280-432 1			210-720 1		
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V					
red 210-136 50					
Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V					
yellow 210-137 50					
Aluminum carrier rail, 1000 mm long, 18 mm wide, 7 mm high					
210-154 1					



Terminal strip with snap-in mounting feet, consisting of:

- End plate
- 4-conductor terminal block with snap-in mounting foot<sup>1)</sup>
- Center terminal blocks
- 2-conductor terminal block with snap-in mounting foot<sup>1)</sup>

<sup>1)</sup> at every 4th or 5th terminal block on the strip

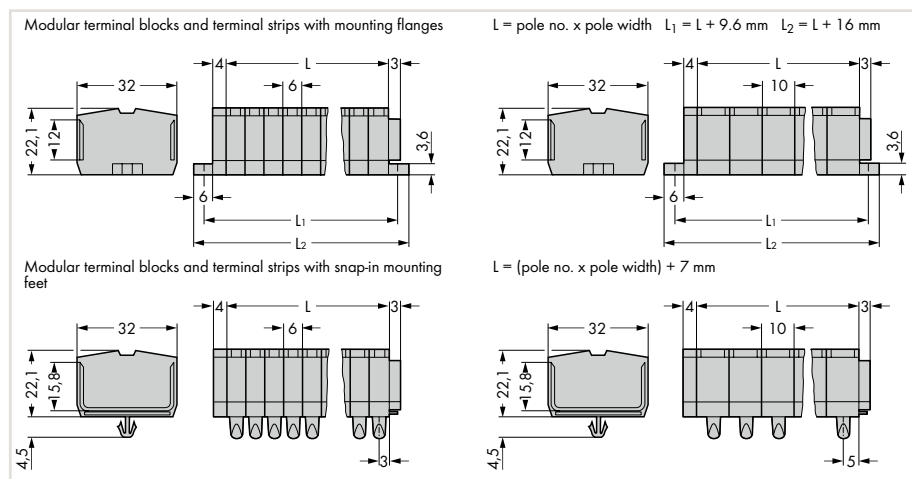
# Terminal Strips with Mounting Flanges or Snap-in Mounting Feet

## 2.5 mm<sup>2</sup>, 264 Series

<p>0.08 ... 2.5 mm<sup>2</sup> 800 V/8 kV/3 ① I<sub>N</sub> 24 A</p> <p>Pole width 6 mm / 0.236 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 12 AWG* 300 V, 20 A ② 600 V, 20 A ③</p>	<p>0.08 ... 2.5 mm<sup>2</sup> 800 V/8 kV/3 ① I<sub>N</sub> 24 A</p> <p>Pole width 10 mm / 0.394 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 12 AWG* 300 V, 20 A ② 600 V, 20 A ③</p>	<p>0.5 ... 2.5 mm<sup>2</sup> 690 V ② I<sub>N</sub> 23 A</p> <p>Pole width 6 mm / 0.236 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>20 ... 12 AWG* 300 V, 20 A ② 600 V, 20 A ③</p>
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Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
2-conductor terminal strip, with mounting flanges, for screw or similar mounting types, 3.2 mm mounting hole diameter, gray			4-conductor terminal strip, with mounting flanges, for screw or similar mounting types, 3.2 mm mounting hole diameter, gray			2-conductor Ex e II terminal strip, with mounting flanges, for screw or similar mounting types, 3.2 mm mounting hole diameter, light gray		
2	264-102	100	2	264-202	100	2	264-132	100
3	264-103	100	3	264-203	100	3	264-133	100
4	264-104	100	4	264-204	100	4	264-134	100
5	264-105	100	5	264-205	100	5	264-135	100
6	264-106	100	6	264-206	100	6	264-136	100
7	264-107	100	7	264-207	100	7	264-137	100
8	264-108	100	8	264-208	100	8	264-138	100
9	264-109	50	9	264-209	50	9	264-139	50
10	264-110	50	10	264-210	50	10	264-140	50
11	264-111	50	11	264-211	25	11	264-141	25
12 ③	264-112	25	12 ③	264-212	25	12 ③	264-142	25
2-conductor terminal strip, with snap-in mounting feet, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, gray			4-conductor terminal strip, with snap-in mounting feet, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, gray			2-conductor Ex e II terminal strip, with snap-in mounting feet, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, light gray		
2	264-152	100	2	264-252	100	2	264-182	100
3	264-153	100	3	264-253	100	3	264-183	100
4	264-154	100	4	264-254	100	4	264-184	100
5	264-155	100	5	264-255	100	5	264-185	100
6	264-156	50	6	264-256	50	6	264-186	50
7	264-157	50	7	264-257	50	7	264-187	50
8	264-158	50	8	264-258	50	8	264-188	50
9	264-159	50	9	264-259	50	9	264-189	50
10	264-160	25	10	264-260	25	10	264-190	25
11	264-161	25	11	264-261	25	11	264-191	25
12 ③	264-162	25	12 ③	264-262	25	12 ③	264-192	25

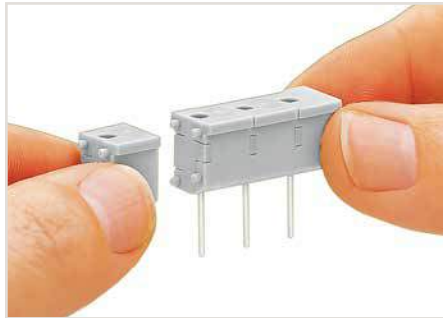


Terminal strip with mounting flanges, for screw or similar mounting types, fixing hole 3.2 mm Ø.



0.5 ... 2.5 mm<sup>2</sup> | 20 ... 12 AWG\*  
 690 V ② | 300 V, 20 A ③  
 I<sub>N</sub> 23 A | 600 V, 20 A ③

Pole width 10 mm / 0.394 inch  
 8 ... 9 mm / 0.31 ... 0.35 inch



Snapping individual modules together to assemble a multi-pole test plug module.

\* 12 AWG: THHN, THWN

- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex e II applications  
(see Section 14)
- ③ Longer strips and/or mixed-color assemblies are available upon request.

Pole No.	Item No.	Pack. Unit
4-conductor Ex e II terminal strip, with mounting flanges, for screw or similar mounting types, 3.2 mm mounting hole diameter, light gray		
○ 2	264-232	100
○ 3	264-233	100
○ 4	264-234	100
○ 5	264-235	100
○ 6	264-236	100
○ 7	264-237	100
○ 8	264-238	100
○ 9	264-239	50
○ 10	264-240	50
○ 11	264-241	100
○ 12 ③	264-242	25
4-conductor Ex e II terminal strip, with snap-in mounting feet, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, light gray		
○ 2	264-282	100
○ 3	264-283	100
○ 4	264-284	100
○ 5	264-285	100
○ 6	264-286	100
○ 7	264-287	50
○ 8	264-288	50
○ 9	264-289	50
○ 10	264-290	25
○ 11	264-291	25
○ 12 ③	264-292	25



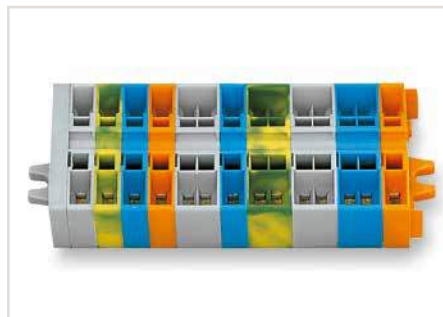
Item no. suffixes for gray terminal strips with mounting flanges:  
 264-102 to 264-112  
 264-202 to 264-212

blue .../000-006  
 Terminal strips with a blue insulated housing are suitable for Ex i applications.



Item no. suffixes for gray terminal strips with snap-in mounting feet:  
 264-152 to 264-162  
 264-252 to 264-262

blue .../000-006  
 Terminal strips with a blue insulated housing are suitable for Ex i applications.



Terminal strip with mounting flanges, consisting of:

- End plate with mounting flange
- Center terminal blocks
- End terminal block with mounting flange



Terminal strip with snap-in mounting feet, consisting of:

- End plate
- 4-conductor term. block with snap-in mounting foot<sup>1)</sup>
- Center terminal blocks
- 2-conductor term. block with snap-in mounting foot<sup>1)</sup>

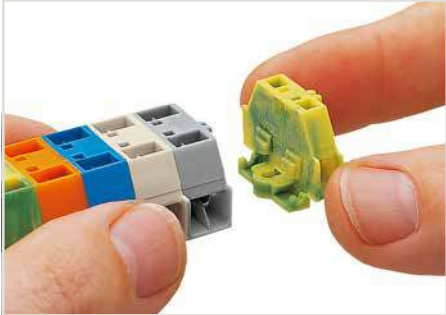
<sup>1)</sup> at every 4th or 5th terminal block on the strip



Terminal strip with snap-in mounting feet, for plate thickness 0.6 mm ... 1.2 mm, fixing hole 3.5 mm Ø.

# Modular Terminal Blocks and Terminal Strips, 260 to 262 Series

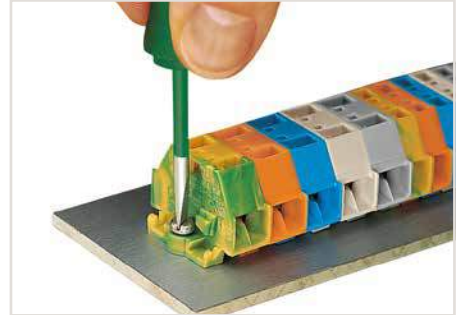
## Description and Installation



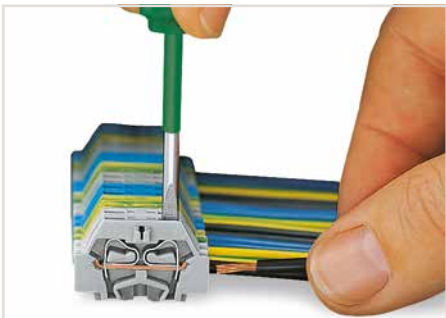
Assembling modular terminal blocks into terminal strips.



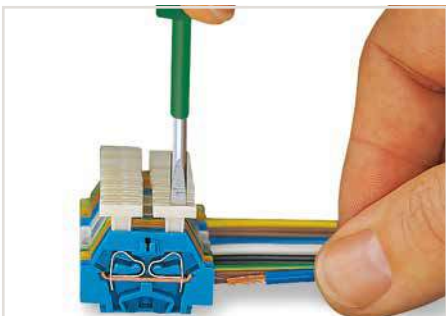
Mounting an end plate.



Mounting and securing a terminal strip directly to the plate via screw-type flanges.



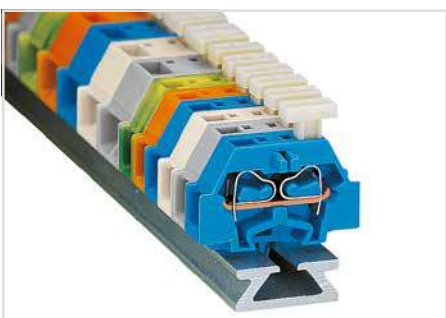
**CAGE CLAMP® connection**  
Inserting a conductor via screwdriver.  
With ferruled conductors, it is necessary to use a terminal block one size larger than the conductor's nominal cross-section.



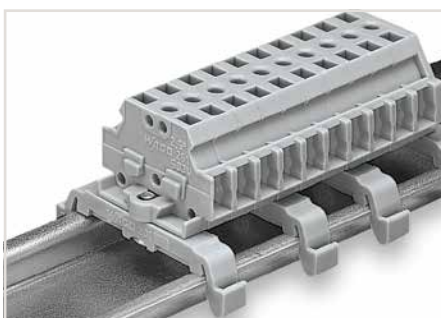
**CAGE CLAMP® connection**  
Inserting a conductor via push-button.



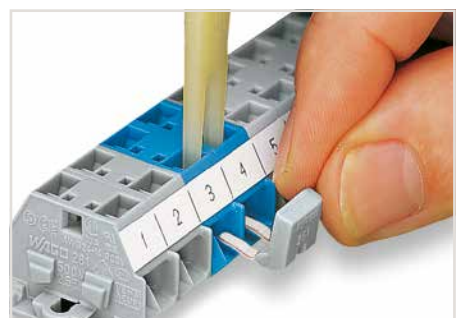
8



Terminal strip with push-buttons on one side



Terminal strip with marker slot for Mini-WSB Quick Marking System



Commoning with comb-style jumper bar.



**CAGE CLAMP®**  
terminates the following  
copper conductors:  
solid



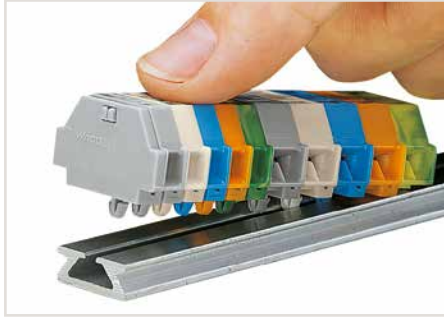
stranded



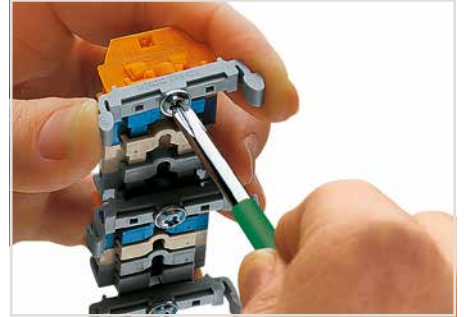
fine-stranded,  
also with tinned  
single strands



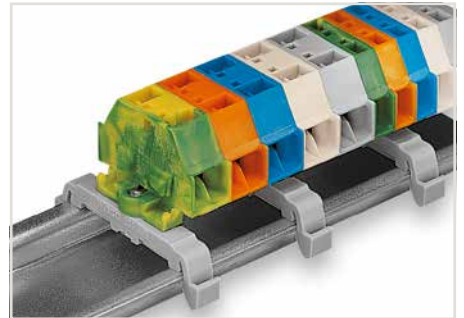
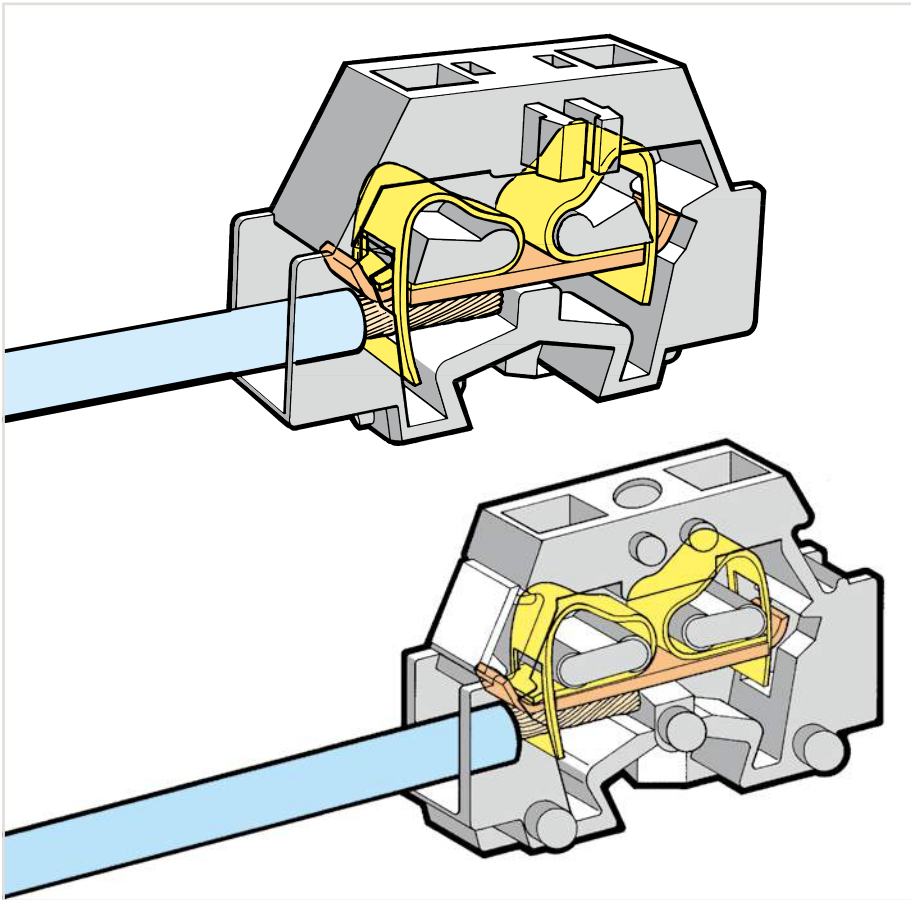
Mounting a terminal strip with snap-in feet into holes.



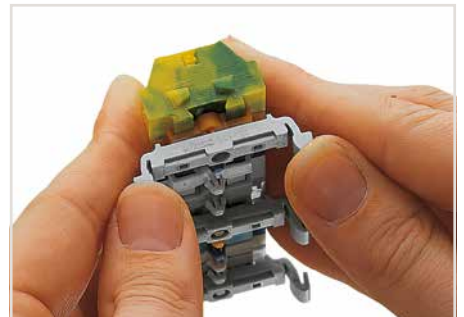
Mounting a terminal strip with snap-in feet onto aluminum rail.



Terminal strip with mounting flanges – screwing a 209-123 Mounting Foot (distance between mounting feet: approx. 20 ... 25 mm)



Terminal strip with mounting flanges on DIN-35 rail



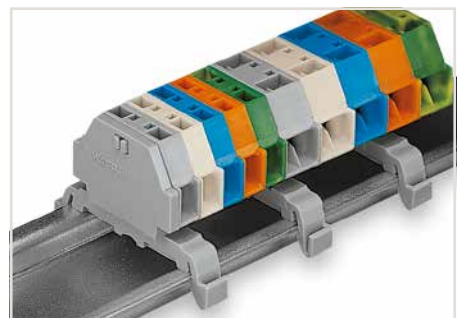
Terminal strip with snap-in mounting feet – snapping a 209-123 Mounting Foot (distance between mounting feet: approx. 20 ... 25 mm)



Marking with self-adhesive marking strips.



Marking by direct printing (upon request).



Terminal strip with snap-in mounting feet on DIN-35 rail



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)















# Modular Terminal Blocks with Mounting Flange or Snap-In Mounting Foot

## 1.5 mm<sup>2</sup>, 260 Series

<p>0.08 ... 1.5 mm<sup>2</sup> 400 V/6 kV/3 ① I<sub>N</sub> 18 A</p> <p>Terminal block width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 16 AWG 300 V, 10 A ② 300 V, 15 A ②</p>	<p>0.08 ... 1.5 mm<sup>2</sup> 400 V/6 kV/3 ① I<sub>N</sub> 18 A</p> <p>Terminal block width 8 mm / 0.315 inch 8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 16 AWG 300 V, 10 A ② 300 V, 15 A ②</p>
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- ① 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② See application notes for:  
Test plug module, page 456

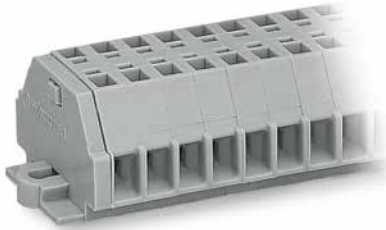
Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	260 Series Accessories
2-conductor terminal block, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter, with mounting foot (209-123) also for DIN-35 rail			4-conductor terminal block, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter, with mounting foot (209-123) also for DIN-35 rail			
gray	260-301	300 (6x50)	gray	260-331	300 (6x50)	Aluminum carrier rail, 1000 mm long, 18 mm wide, 7 mm high  210-154 1
light gray	260-303	300 (6x50)	light gray	260-333	300 (6x50)	Plastic end stop, with WSB marker slot, for aluminum carrier rail (210-154), 6 mm wide  209-122 25
blue	260-304	300 (6x50)	blue	260-334	300 (6x50)	
orange	260-306	300 (6x50)	orange	260-336	300 (6x50)	Mounting foot, for DIN-35 rail, snaps onto terminal blocks with snap-in mounting foot, 6.4 mm wide  209-120 25
green-yellow	260-307	300 (6x50)	green-yellow	260-337	300 (6x50)	
2-conductor terminal block, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, also for aluminum rail (210-154) or with mounting foot (209-120) for DIN-35 rail			4-conductor terminal block, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, also for aluminum rail (210-154) or with mounting foot (209-120) for DIN-35 rail			Mounting foot with screw, for DIN-35 rail, can be screwed on terminal blocks with mounting flange, 6.4 mm wide  209-123 25
gray	260-311	300 (6x50)	gray	260-341	300 (6x50)	
light gray	260-313	300 (6x50)	light gray	260-343	300 (6x50)	Mounting adapter, for DIN-35 rail, can be used as end plate, 6.5 mm wide  209-137 25
blue	260-314	300 (6x50)	blue	260-344	300 (6x50)	
orange	260-316	300 (6x50)	orange	260-346	300 (6x50)	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V  210-136 50
green-yellow	260-317	300 (6x50)	green-yellow	260-347	300 (6x50)	
Space-saving, 2-conductor end terminal block, without protruding snap-in mounting foot, for terminal strips with snap-in mounting feet			Space-saving, 4-conductor end terminal block, without protruding snap-in mounting foot, for terminal strips with snap-in mounting feet			Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  210-137 50
gray	260-321	300 (6x50)	gray	260-351	300 (6x50)	
light gray	260-323	300 (6x50)	light gray	260-353	300 (6x50)	Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade  210-720 1
blue	260-324	300 (6x50)	blue	260-354	300 (6x50)	
orange	260-326	300 (6x50)	orange	260-356	300 (6x50)	
green-yellow	260-327	300 (6x50)	green-yellow	260-357	300 (6x50)	
<b>Item-Specific Accessories</b>			<b>Item-Specific Accessories</b>			
Test plug module, without locking latches, snaps together, 5 mm wide  gray 249-135 100 (4x25)			Test plug module, without locking latches, snaps together, 8 mm wide  gray 249-138 100 (4x25)			
Test plug module, with locking latches, snaps together, 5 mm wide  gray 260-404 100 (4x25)			Test plug module, with locking latches, snaps together, 8 mm wide  gray 260-405 100 (4x25)			
<b>260 Series Accessories</b>						
For marking accessories, see Section 13						
End plate, with mounting flange  gray 260-361 300 (6x50)			Comb-style jumper bar, insulated, I <sub>N</sub> 10 A, gray, reduces maximum conductor size to 1 mm <sup>2</sup> /16 AWG 2-way 260-402 25			
End plate, with snap-in mounting foot  gray 260-371 300 (6x50)			Operating tool, of insulating material, for inserting comb-style jumper bars 2-way 209-132 1			

8

# Terminal Strips with Mounting Flanges or Snap-in Mounting Feet

## 1.5 mm<sup>2</sup>, 260 Series

0.08 ... 1.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 18 A  Pole width 5 mm / 0.197 inch 8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 16 AWG 300 V, 10 A ② 300 V, 15 A ②	0.08 ... 1.5 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 18 A  Pole width 8 mm / 0.315 inch 8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 16 AWG 300 V, 10 A ② 300 V, 15 A ②
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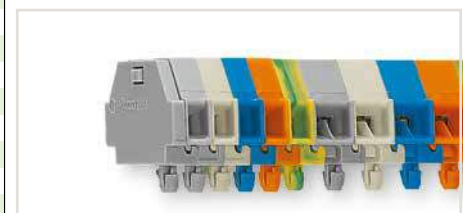
- ① 400 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Longer strips and/or mixed-color assemblies are available upon request.

- ② Longer strips and/or mixed-color assemblies are available upon request.

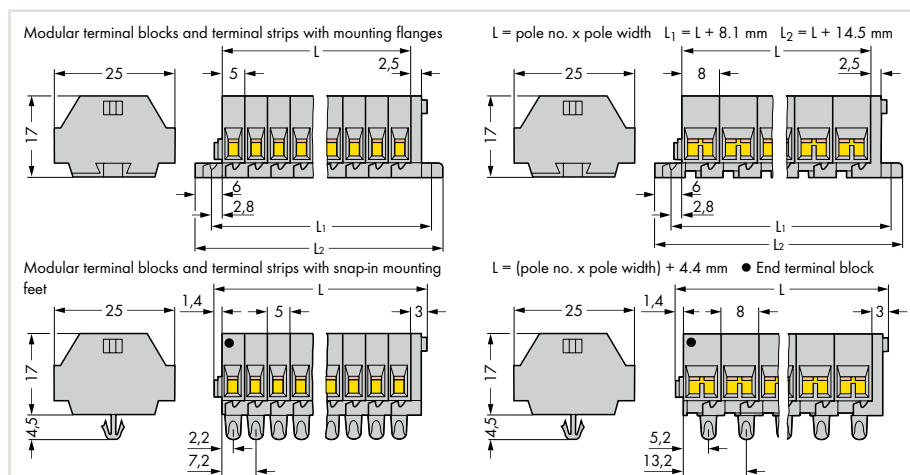
Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
2-conductor terminal strip, with mounting flanges, gray			4-conductor terminal strip, with mounting flanges, gray		
2	260-102	100	2	260-202	100
3	260-103	100	3	260-203	100
4	260-104	100	4	260-204	100
5	260-105	100	5	260-205	100
6	260-106	50	6	260-206	50
7	260-107	50	7	260-207	50
8	260-108	50	8	260-208	50
9	260-109	50	9	260-209	50
10	260-110	25	10	260-210	25
11	260-111	25	11	260-211	25
12 ②	260-112	25	12 ②	260-212	25
2-conductor terminal strip, with snap-in mounting feet, gray			4-conductor terminal strip, with snap-in mounting feet, gray		
2	260-152	100	2	260-252	100
3	260-153	100	3	260-253	100
4	260-154	100	4	260-254	100
5	260-155	100	5	260-255	100
6	260-156	50	6	260-256	50
7	260-157	50	7	260-257	50
8	260-158	50	8	260-258	50
9	260-159	50	9	260-259	50
10	260-160	25	10	260-260	25
11	260-161	25	11	260-261	25
12 ②	260-162	25	12 ②	260-262	25



Terminal strip, with mounting flanges, for screw or similar mounting types, 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN-35 rail)





Terminal strip with snap-in mounting feet, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter (also for 210-154 Aluminum Rail or with 209-120 Mounting Foot for DIN-35 rail)



Dimensions in mm












# Modular Terminal Blocks with Mounting Flange or Snap-In Mounting Foot

## 2.5 mm<sup>2</sup>, 261 Series

0.08 ... 2.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 24 A  Terminal block width 6 mm / 0.236 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 14 AWG 300 V, 15 A ② 300 V, 20 A ③	0.08 ... 2.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 24 A  Terminal block width 10 mm / 0.394 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 14 AWG 300 V, 15 A ② 300 V, 20 A ③
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

- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ See application notes for:  
Test plug module, page 456

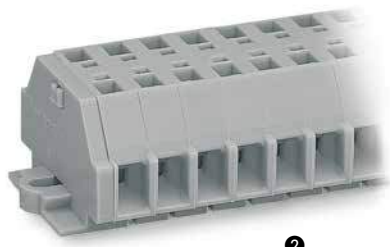
Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	261 Series Accessories
2-conductor terminal block, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter, with mounting foot (209-123) also for DIN-35 rail			4-conductor terminal block, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter, with mounting foot (209-123) also for DIN-35 rail			
gray	261-301	200 (4x50)	gray	261-331	200 (4x50)	Aluminum carrier rail, 1000 mm long, 18 mm wide, 7 mm high  <b>210-154</b> 1
light gray	261-303	200 (4x50)	light gray	261-333	200 (4x50)	Plastic end stop, with WSB marker slot, for aluminum carrier rail (210-154), 6 mm wide  <b>209-122</b> 25
blue	261-304 ②	200 (4x50)	blue	261-334 ②	200 (4x50)	
orange	261-306	200 (4x50)	orange	261-336	200 (4x50)	Mounting foot, for DIN-35 rail, snaps onto terminal blocks with snap-in mounting foot, 6.4 mm wide  <b>209-120</b> 25
green-yellow	261-307	200 (4x50)	green-yellow	261-337	200 (4x50)	
2-conductor terminal block, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, also for aluminum rail (210-154) or with mounting foot (209-120) for DIN-35 rail			4-conductor terminal block, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, also for aluminum rail (210-154) or with mounting foot (209-120) for DIN-35 rail			Mounting foot with screw, for DIN-35 rail, can be screwed on terminal blocks with mounting flange, 6.4 mm wide  <b>209-123</b> 25
gray	261-311	200 (4x50)	gray	261-341	200 (4x50)	Mounting adapter, for DIN-35 rail, can be used as end plate, 6.5 mm wide  <b>209-137</b> 25
light gray	261-313	200 (4x50)	light gray	261-343	200 (4x50)	
blue	261-314 ②	200 (4x50)	blue	261-344 ②	200 (4x50)	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V  <b>210-136</b> 50
orange	261-316	200 (4x50)	orange	261-346	200 (4x50)	
green-yellow	261-317	200 (4x50)	green-yellow	261-347	200 (4x50)	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  <b>210-137</b> 50
Space-saving, 2-conductor end terminal block, without protruding snap-in mounting foot, for terminal strips with snap-in mounting feet			Space-saving, 4-conductor end terminal block, without protruding snap-in mounting foot, for terminal strips with snap-in mounting feet			
gray	261-321	200 (4x50)	gray	261-351	200 (4x50)	
light gray	261-323	200 (4x50)	light gray	261-353	200 (4x50)	Item-Specific Accessories
blue	261-324 ②	200 (4x50)	blue	261-354 ②	200 (4x50)	
orange	261-326	200 (4x50)	orange	261-356	200 (4x50)	Test plug module, without locking latches, snaps together, 6 mm wide  <b>249-136</b> 100 (4x25)
green-yellow	261-327	200 (4x50)	green-yellow	261-357	200 (4x50)	
Item-Specific Accessories			Item-Specific Accessories			Test plug module, with locking latches, snaps together, 6 mm wide  <b>261-404</b> 100 (4x25)
Test plug module, without locking latches, snaps together, 6 mm wide			Test plug module, without locking latches, snaps together, 10 mm wide			
Test plug module, with locking latches, snaps together, 6 mm wide			Test plug module, with locking latches, snaps together, 10 mm wide			261 Series Accessories
Test plug module, with locking latches, snaps together, 10 mm wide			Test plug module, with locking latches, snaps together, 10 mm wide			
For marking accessories, see Section 13						End plate, with mounting flange  <b>261-361</b> 300 (6x50)
End plate, with mounting flange			Comb-style jumper bar, insulated, I <sub>N</sub> 16 A, gray, reduces maximum conductor size to 1.5 mm <sup>2</sup> /16 AWG 2-way <b>261-402</b> 25			
End plate, with snap-in mounting foot  <b>261-371</b> 300 (6x50)			Operating tool, of insulating material, for inserting comb-style jumper bars 2-way <b>209-132</b> 1			

8

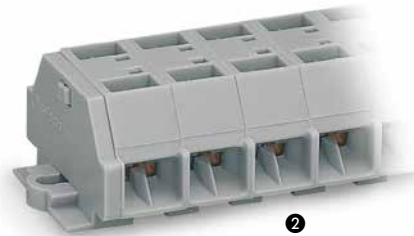
# Terminal Strips with Mounting Flanges or Snap-in Mounting Feet

## 2.5 mm<sup>2</sup>, 261 Series

0.08 ... 2.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 24 A  Pole width 6 mm / 0.236 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 14 AWG 300 V, 15 A ② 300 V, 20 A ③	0.08 ... 2.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 24 A  Pole width 10 mm / 0.394 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 14 AWG 300 V, 15 A ② 300 V, 20 A ③
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②



②

- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Terminal strips with a blue insulated housing are suitable for Ex i applications.  
Item no. suffix .../000-006 (upon request)
- ③ Longer strips and/or mixed-color assemblies are available upon request.

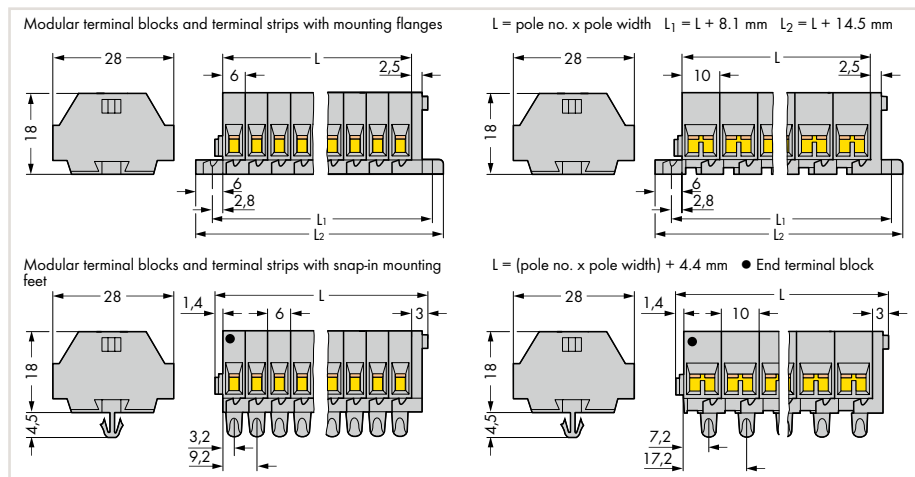
Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
2-conductor terminal strip, with mounting flanges, gray			4-conductor terminal strip, with mounting flanges, gray		
○ 2	261-102	100	○ 2	261-202	100
○ 3	261-103	100	○ 3	261-203	100
○ 4	261-104	100	○ 4	261-204	100
○ 5	261-105	200	○ 5	261-205	100
○ 6	261-106	50	○ 6	261-206	50
○ 7	261-107	50	○ 7	261-207	50
○ 8	261-108	50	○ 8	261-208	50
○ 9	261-109	50	○ 9	261-209	50
○ 10	261-110	25	○ 10	261-210	25
○ 11	261-111	25	○ 11	261-211	25
○ 12 ③	261-112	25	○ 12 ③	261-212	25
2-conductor terminal strip, with snap-in mounting feet, gray			4-conductor terminal strip, with snap-in mounting feet, gray		
○ 2	261-152	100	○ 2	261-252	100
○ 3	261-153	100	○ 3	261-253	100
○ 4	261-154	100	○ 4	261-254	100
○ 5	261-155	100	○ 5	261-255	100
○ 6	261-156	50	○ 6	261-256	50
○ 7	261-157	50	○ 7	261-257	50
○ 8	261-158	50	○ 8	261-258	50
○ 9	261-159	50	○ 9	261-259	50
○ 10	261-160	25	○ 10	261-260	25
○ 11	261-161	25	○ 11	261-261	25
○ 12 ③	261-162	25	○ 12 ③	261-262	25



Terminal strip, with mounting flanges, for screw or similar mounting types, 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN-35 rail)





Terminal strip with snap-in mounting feet, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter (also for 210-154 Aluminum Rail or with 209-120 Mounting Foot for DIN-35 rail)



Dimensions in mm











# Modular Terminal Blocks with Push-Buttons on One Side, Mounting Flange or Snap-In Mounting Foot

## 2.5 mm<sup>2</sup>, 261 Series

<p>0.08 ... 2.5 mm<sup>2</sup> 500 V/6 kV/3 ① I<sub>N</sub> 24 A</p> <p>Terminal block width 6 mm / 0.236 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 14 AWG 300 V, 15 A ② 300 V, 20 A ③</p>	<p>0.08 ... 2.5 mm<sup>2</sup> 500 V/6 kV/3 ① I<sub>N</sub> 24 A</p> <p>Terminal block width 10 mm / 0.394 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>28 ... 14 AWG 300 V, 15 A ② 300 V, 20 A ③</p>
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

- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications

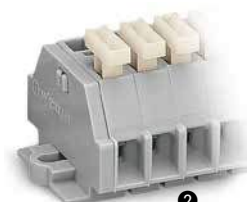
Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	261 Series Accessories																													
2-conductor terminal block, with push-button on one side, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter, with mounting foot (209-123) also for DIN-35 rail			4-conductor terminal block, with push-buttons on one side, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter, with mounting foot (209-123) also for DIN-35 rail				<p>Marking accessories, see Section 13</p> <p><b>Mounting adapter</b>, for DIN-35 rail, can be used as end plate, 6.5 mm wide</p>  <table border="1"> <tr> <td>gray</td> <td><b>209-137</b></td> <td>25</td> </tr> </table> <p><b>Operating tool with a partially insulated shaft</b>, type 2, (3.5 x 0.5) mm blade</p>  <table border="1"> <tr> <td></td> <td><b>210-720</b></td> <td>1</td> </tr> </table>	gray	<b>209-137</b>	25		<b>210-720</b>	1																						
gray	<b>209-137</b>	25																																	
	<b>210-720</b>	1																																	
<table border="1"> <tr><td>gray</td><td><b>261-301/331-000</b></td><td>200 (4x50)</td></tr> <tr><td>light gray</td><td><b>261-303/331-000</b></td><td>200 (4x50)</td></tr> <tr><td>blue</td><td><b>261-304/331-000</b> ②</td><td>200 (4x50)</td></tr> <tr><td>orange</td><td><b>261-306/331-000</b></td><td>200 (4x50)</td></tr> <tr><td>green-yellow</td><td><b>261-307/331-000</b></td><td>200 (4x50)</td></tr> </table>	gray	<b>261-301/331-000</b>	200 (4x50)	light gray	<b>261-303/331-000</b>	200 (4x50)	blue	<b>261-304/331-000</b> ②	200 (4x50)	orange	<b>261-306/331-000</b>	200 (4x50)	green-yellow	<b>261-307/331-000</b>	200 (4x50)	<table border="1"> <tr><td>gray</td><td><b>261-331/332-000</b></td><td>200 (4x50)</td></tr> <tr><td>light gray</td><td><b>261-333/332-000</b></td><td>200 (4x50)</td></tr> <tr><td>blue</td><td><b>261-334/332-000</b> ②</td><td>200 (4x50)</td></tr> <tr><td>orange</td><td><b>261-336/332-000</b></td><td>200 (4x50)</td></tr> <tr><td>green-yellow</td><td><b>261-337/332-000</b></td><td>200 (4x50)</td></tr> </table>	gray	<b>261-331/332-000</b>	200 (4x50)	light gray	<b>261-333/332-000</b>	200 (4x50)	blue	<b>261-334/332-000</b> ②	200 (4x50)	orange	<b>261-336/332-000</b>	200 (4x50)	green-yellow	<b>261-337/332-000</b>	200 (4x50)				
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green-yellow	<b>261-307/331-000</b>	200 (4x50)																																	
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blue	<b>261-334/332-000</b> ②	200 (4x50)																																	
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2-conductor terminal block, with push-button on one side, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, also for aluminum rail (210-154) or with mounting foot (209-120) for DIN-35 rail			4-conductor terminal block, with push-buttons on one side, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, also for aluminum rail (210-154) or with mounting foot (209-120) for DIN-35 rail																																
<table border="1"> <tr><td>gray</td><td><b>261-311/331-000</b></td><td>200 (4x50)</td></tr> <tr><td>light gray</td><td><b>261-313/331-000</b></td><td>200 (4x50)</td></tr> <tr><td>blue</td><td><b>261-314/331-000</b> ②</td><td>200 (4x50)</td></tr> <tr><td>orange</td><td><b>261-316/331-000</b></td><td>200 (4x50)</td></tr> <tr><td>green-yellow</td><td><b>261-317/331-000</b></td><td>200 (4x50)</td></tr> </table>	gray	<b>261-311/331-000</b>	200 (4x50)	light gray	<b>261-313/331-000</b>	200 (4x50)	blue	<b>261-314/331-000</b> ②	200 (4x50)	orange	<b>261-316/331-000</b>	200 (4x50)	green-yellow	<b>261-317/331-000</b>	200 (4x50)	<table border="1"> <tr><td>gray</td><td><b>261-341/332-000</b></td><td>200 (4x50)</td></tr> <tr><td>light gray</td><td><b>261-343/332-000</b></td><td>200 (4x50)</td></tr> <tr><td>blue</td><td><b>261-344/332-000</b> ②</td><td>200 (4x50)</td></tr> <tr><td>orange</td><td><b>261-346/332-000</b></td><td>200 (4x50)</td></tr> <tr><td>green-yellow</td><td><b>261-347/332-000</b></td><td>200 (4x50)</td></tr> </table>	gray	<b>261-341/332-000</b>	200 (4x50)	light gray	<b>261-343/332-000</b>	200 (4x50)	blue	<b>261-344/332-000</b> ②	200 (4x50)	orange	<b>261-346/332-000</b>	200 (4x50)	green-yellow	<b>261-347/332-000</b>	200 (4x50)				
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Space-saving, 2-conductor end terminal block, with push-button on one side, without protruding snap-in mounting foot, for terminal strips with snap-in mounting feet			Space-saving, 4-conductor end terminal block, with push-buttons on one side, without protruding snap-in mounting foot, for terminal strips with snap-in mounting feet																																
<table border="1"> <tr><td>gray</td><td><b>261-321/331-000</b></td><td>200 (4x50)</td></tr> <tr><td>light gray</td><td><b>261-323/331-000</b></td><td>200 (4x50)</td></tr> <tr><td>blue</td><td><b>261-324/331-000</b> ②</td><td>200 (4x50)</td></tr> <tr><td>orange</td><td><b>261-326/331-000</b></td><td>200 (4x50)</td></tr> <tr><td>green-yellow</td><td><b>261-327/331-000</b></td><td>200 (4x50)</td></tr> </table>	gray	<b>261-321/331-000</b>	200 (4x50)	light gray	<b>261-323/331-000</b>	200 (4x50)	blue	<b>261-324/331-000</b> ②	200 (4x50)	orange	<b>261-326/331-000</b>	200 (4x50)	green-yellow	<b>261-327/331-000</b>	200 (4x50)	<table border="1"> <tr><td>gray</td><td><b>261-351/332-000</b></td><td>200 (4x50)</td></tr> <tr><td>light gray</td><td><b>261-353/332-000</b></td><td>200 (4x50)</td></tr> <tr><td>blue</td><td><b>261-354/332-000</b> ②</td><td>200 (4x50)</td></tr> <tr><td>orange</td><td><b>261-356/332-000</b></td><td>200 (4x50)</td></tr> <tr><td>green-yellow</td><td><b>261-357/332-000</b></td><td>200 (4x50)</td></tr> </table>	gray	<b>261-351/332-000</b>	200 (4x50)	light gray	<b>261-353/332-000</b>	200 (4x50)	blue	<b>261-354/332-000</b> ②	200 (4x50)	orange	<b>261-356/332-000</b>	200 (4x50)	green-yellow	<b>261-357/332-000</b>	200 (4x50)				
gray	<b>261-321/331-000</b>	200 (4x50)																																	
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blue	<b>261-324/331-000</b> ②	200 (4x50)																																	
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green-yellow	<b>261-327/331-000</b>	200 (4x50)																																	
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blue	<b>261-354/332-000</b> ②	200 (4x50)																																	
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green-yellow	<b>261-357/332-000</b>	200 (4x50)																																	
<b>261 Series Accessories</b>																																			
For marking accessories, see Section 13																																			
End plate, with mounting flange			Aluminum carrier rail, 1000 mm long, 18 mm wide, 7 mm high																																
 <table border="1"> <tr> <td>gray</td> <td><b>261-361</b></td> <td>300 (6x50)</td> </tr> </table>			gray	<b>261-361</b>	300 (6x50)	 <table border="1"> <tr> <td></td> <td><b>210-154</b></td> <td>1</td> </tr> </table>					<b>210-154</b>	1																							
gray	<b>261-361</b>	300 (6x50)																																	
	<b>210-154</b>	1																																	
End plate, with snap-in mounting foot			Plastic end stop, with WSB marker slot, for aluminum carrier rail (210-154), 6 mm wide																																
 <table border="1"> <tr> <td>gray</td> <td><b>261-371</b></td> <td>300 (6x50)</td> </tr> </table>			gray	<b>261-371</b>	300 (6x50)	 <table border="1"> <tr> <td></td> <td><b>209-122</b></td> <td>25</td> </tr> </table>					<b>209-122</b>	25																							
gray	<b>261-371</b>	300 (6x50)																																	
	<b>209-122</b>	25																																	
Comb-style jumper bar, insulated, I <sub>N</sub> 16 A, gray, reduces maximum conductor size to 1.5 mm <sup>2</sup> /16 AWG			Mounting foot, for DIN-35 rail, snaps onto terminal blocks with snap-in mounting foot, 6.4 mm wide																																
 <table border="1"> <tr> <td>2-way</td> <td><b>261-402</b></td> <td>25</td> </tr> </table>			2-way	<b>261-402</b>	25	 <table border="1"> <tr> <td>gray</td> <td><b>209-120</b></td> <td>25</td> </tr> </table>				gray	<b>209-120</b>	25																							
2-way	<b>261-402</b>	25																																	
gray	<b>209-120</b>	25																																	
Operating tool, of insulating material, for inserting comb-style jumper bars			Mounting foot with screw, for DIN-35 rail, can be screwed on terminal blocks with mounting flange, 6.4 mm wide																																
 <table border="1"> <tr> <td>2-way</td> <td><b>209-132</b></td> <td>1</td> </tr> </table>			2-way	<b>209-132</b>	1	 <table border="1"> <tr> <td>gray</td> <td><b>209-123</b></td> <td>25</td> </tr> </table>				gray	<b>209-123</b>	25																							
2-way	<b>209-132</b>	1																																	
gray	<b>209-123</b>	25																																	



# Terminal Strips with Push-Buttons on One Side, Mounting Flanges or Snap-In Mounting Feet

## 2.5 mm<sup>2</sup>, 261 Series

0.08 ... 2.5 mm <sup>2</sup>   28 ... 14 AWG 500 V/6 kV/3 ① I <sub>N</sub> 24 A Pole width 6 mm / 0.236 inch  8 ... 9 mm / 0.31 ... 0.35 inch	0.08 ... 2.5 mm <sup>2</sup>   28 ... 14 AWG 500 V/6 kV/3 ① I <sub>N</sub> 24 A Pole width 10 mm / 0.394 inch  8 ... 9 mm / 0.31 ... 0.35 inch
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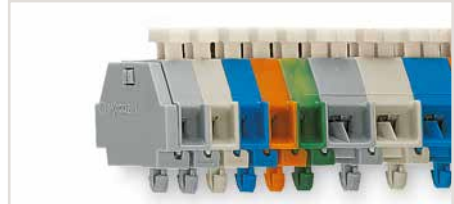


- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Terminal strips with a blue insulated housing are suitable for Ex i applications.  
Item no. suffix .../000-006 (upon request)
- ③ Longer strips and/or mixed-color assemblies are available upon request.

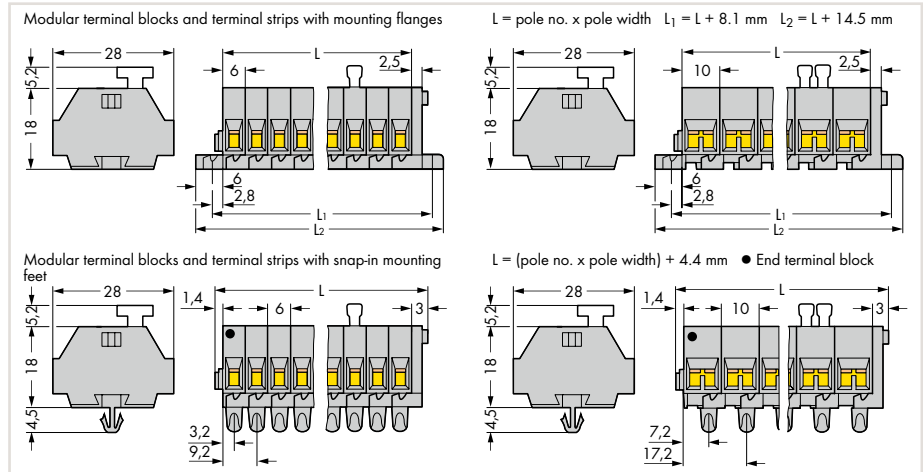
Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
2-conductor terminal strip, with push-buttons on one side, with mounting flanges, gray			4-conductor terminal strip, with push-buttons on one side, with mounting flanges, gray		
2	261-102/331-000	100	2	261-202/332-000	100
3	261-103/331-000	100	3	261-203/332-000	100
4	261-104/331-000	100	4	261-204/332-000	100
5	261-105/331-000	200	5	261-205/332-000	100
6	261-106/331-000	50	6	261-206/332-000	50
7	261-107/331-000	50	7	261-207/332-000	50
8	261-108/331-000	50	8	261-208/332-000	50
9	261-109/331-000	50	9	261-209/332-000	50
10	261-110/331-000	25	10	261-210/332-000	50
11	261-111/331-000	25	11	261-211/332-000	25
12 ③	261-112/331-000	25	12 ③	261-212/332-000	25
2-conductor terminal strip, with push-buttons on one side, with snap-in mounting feet, gray			4-conductor terminal strip, with push-buttons on one side, with snap-in mounting feet, gray		
2	261-152/331-000	100	2	261-252/332-000	100
3	261-153/331-000	100	3	261-253/332-000	100
4	261-154/331-000	100	4	261-254/332-000	100
5	261-155/331-000	100	5	261-255/332-000	100
6	261-156/331-000	50	6	261-256/332-000	50
7	261-157/331-000	50	7	261-257/332-000	50
8	261-158/331-000	50	8	261-258/332-000	50
9	261-159/331-000	50	9	261-259/332-000	50
10	261-160/331-000	25	10	261-260/332-000	25
11	261-161/331-000	25	11	261-261/332-000	100
12 ③	261-162/331-000	25	12 ③	261-262/332-000	25



Terminal strip, with mounting flanges, for screw or similar mounting types, 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN-35 rail)





Terminal strip with snap-in mounting feet, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter (also for 210-154 Aluminum Rail or with 209-120 Mounting Foot for DIN-35 rail)



Dimensions in mm









# Modular Terminal Blocks with Push-Buttons on Both Sides, Mounting Flange or Snap-In Mounting Foot

## 2.5 mm<sup>2</sup>, 261 Series

0.08 ... 2.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 24 A Terminal block width 6 mm / 0.236 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 14 AWG	0.08 ... 2.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 24 A Terminal block width 10 mm / 0.394 inch  8 ... 9 mm / 0.31 ... 0.35 inch	28 ... 14 AWG
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

- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications

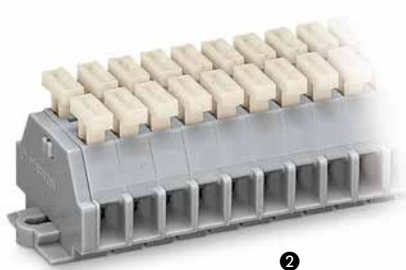
Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	261 Series Accessories
2-conductor terminal block, with push-buttons on both sides, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter, with mounting foot (209-123) also for DIN-35 rail			4-conductor terminal block, with push-buttons on both sides, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter, with mounting foot (209-123) also for DIN-35 rail			
○ gray <b>261-301/341-000</b> 200 (4x50) ○ light gray <b>261-303/341-000</b> 200 (4x50) ● blue <b>261-304/341-000</b> ② 200 (4x50) ● orange <b>261-306/341-000</b> 200 (4x50) ● green-yellow <b>261-307/341-000</b> 200 (4x50)			○ gray <b>261-331/342-000</b> 200 (4x50) ○ light gray <b>261-333/342-000</b> 200 (4x50) ● blue <b>261-334/342-000</b> ② 200 (4x50) ● orange <b>261-336/342-000</b> 200 (4x50) ● green-yellow <b>261-337/342-000</b> 200 (4x50)			
2-conductor terminal block, with push-buttons on both sides, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, also for aluminum rail (210-154) or with mounting foot (209-120) for DIN-35 rail			4-conductor terminal block, with push-buttons on both sides, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, also for aluminum rail (210-154) or with mounting foot (209-120) for DIN-35 rail			
○ gray <b>261-311/341-000</b> 200 (4x50) ○ light gray <b>261-313/341-000</b> 200 (4x50) ● blue <b>261-314/341-000</b> ② 200 (4x50) ● orange <b>261-316/341-000</b> 200 (4x50) ● green-yellow <b>261-317/341-000</b> 200 (4x50)			○ gray <b>261-341/342-000</b> 200 (4x50) ○ light gray <b>261-343/342-000</b> 200 (4x50) ● blue <b>261-344/342-000</b> ② 200 (4x50) ● orange <b>261-346/342-000</b> 200 (4x50) ● green-yellow <b>261-347/342-000</b> 200 (4x50)			
Space-saving, 2-conductor end terminal block, with push-buttons on both sides, without protruding snap-in mounting foot, for terminal strips with snap-in mounting feet			Space-saving, 4-conductor end terminal block, with push-buttons on both sides, without protruding snap-in mounting foot, for terminal strips with snap-in mounting feet			
○ gray <b>261-321/341-000</b> 200 (4x50) ○ light gray <b>261-323/341-000</b> 200 (4x50) ● blue <b>261-324/341-000</b> ② 200 (4x50) ● orange <b>261-326/341-000</b> 200 (4x50) ● green-yellow <b>261-327/341-000</b> 200 (4x50)			○ gray <b>261-351/342-000</b> 200 (4x50) ○ light gray <b>261-353/342-000</b> 200 (4x50) ● blue <b>261-354/342-000</b> ② 200 (4x50) ● orange <b>261-356/342-000</b> 200 (4x50) ● green-yellow <b>261-357/342-000</b> 200 (4x50)			
<b>261 Series Accessories</b>						
For marking accessories, see Section 13						
End plate, with mounting flange gray <b>261-361</b> 300 (6x50) 			Aluminum carrier rail, 1000 mm long, 18 mm wide, 7 mm high <b>210-154</b> 1 			
End plate, with snap-in mounting foot gray <b>261-371</b> 300 (6x50) 			Plastic end stop, with WSB marker slot, for aluminum carrier rail (210-154), 6 mm wide <b>209-122</b> 25 			
Comb-style jumper bar, insulated, I <sub>N</sub> 16 A, gray, reduces maximum conductor size to 1.5 mm <sup>2</sup> /16 AWG 2-way <b>261-402</b> 25 			Mounting foot, for DIN-35 rail, snaps onto terminal blocks with snap-in mounting foot, 6.4 mm wide gray <b>209-120</b> 25 			
Operating tool, of insulating material, for inserting comb-style jumper bars 2-way <b>209-132</b> 1 			Mounting foot with screw, for DIN-35 rail, can be screwed on terminal blocks with mounting flange, 6.4 mm wide gray <b>209-123</b> 25 			

8

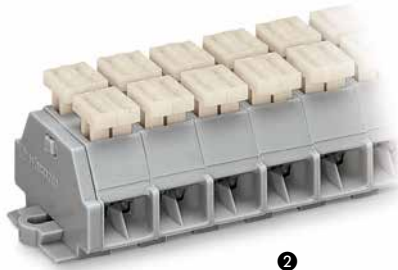
# Terminal Strips with Push-Buttons on Both Sides, Mounting Flanges or Snap-In Mounting Feet

## 2.5 mm<sup>2</sup>, 261 Series

0.08 ... 2.5 mm <sup>2</sup>   28 ... 14 AWG 500 V/6 kV/3 ① I <sub>N</sub> 24 A Pole width 6 mm / 0.236 inch  8 ... 9 mm / 0.31 ... 0.35 inch	0.08 ... 2.5 mm <sup>2</sup>   28 ... 14 AWG 500 V/6 kV/3 ① I <sub>N</sub> 24 A Pole width 10 mm / 0.394 inch  8 ... 9 mm / 0.31 ... 0.35 inch
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②



②

- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Terminal strips with a blue insulated housing are suitable for Ex i applications.  
Item no. suffix .../000-006 (upon request)
- ③ Longer strips and/or mixed-color assemblies are available upon request.

Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
2-conductor terminal strip, with push-buttons on both sides, with mounting flanges, gray			4-conductor terminal strip, with push-buttons on both sides, with mounting flanges, gray		
2	261-102/341-000	100	2	261-202/342-000	100
3	261-103/341-000	100	3	261-203/342-000	100
4	261-104/341-000	50	4	261-204/342-000	100
5	261-105/341-000	100	5	261-205/342-000	100
6	261-106/341-000	25	6	261-206/342-000	50
7	261-107/341-000	50	7	261-207/342-000	50
8	261-108/341-000	50	8	261-208/342-000	100
9	261-109/341-000	100	9	261-209/342-000	50
10	261-110/341-000	25	10	261-210/342-000	25
11	261-111/341-000	25	11	261-211/342-000	25
12 ③	261-112/341-000	25	12 ③	261-212/342-000	50
2-conductor terminal strip, with push-buttons on both sides, with snap-in mounting feet, gray			4-conductor terminal strip, with push-buttons on both sides, with snap-in mounting feet, gray		
2	261-152/341-000	100	2	261-252/342-000	100
3	261-153/341-000	100	3	261-253/342-000	100
4	261-154/341-000	50	4	261-254/342-000	100
5	261-155/341-000	100	5	261-255/342-000	100
6	261-156/341-000	100	6	261-256/342-000	50
7	261-157/341-000	50	7	261-257/342-000	50
8	261-158/341-000	50	8	261-258/342-000	50
9	261-159/341-000	50	9	261-259/342-000	50
10	261-160/341-000	25	10	261-260/342-000	25
11	261-161/341-000	25	11	261-261/342-000	100
12 ③	261-162/341-000	100	12 ③	261-262/342-000	25

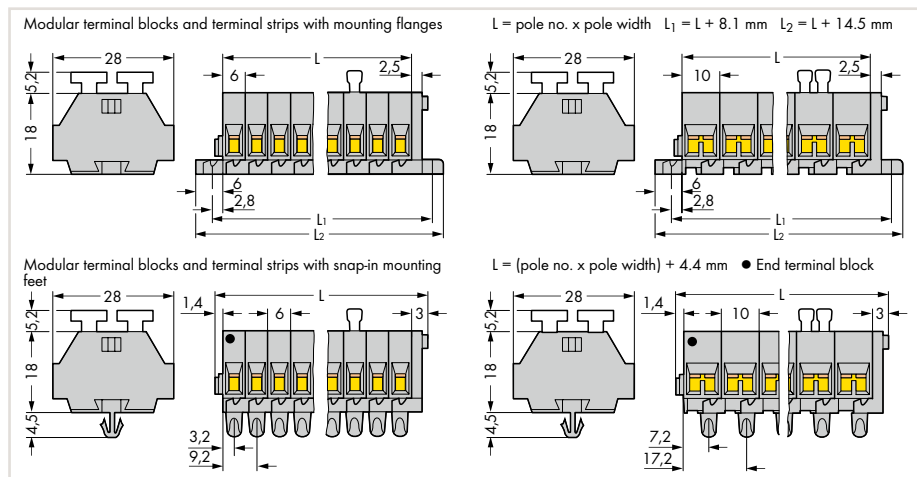


Terminal strip, with mounting flanges, for screw or similar mounting types, 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN-35 rail)



Terminal strip with snap-in mounting feet, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter (also for 210-154 Aluminum Rail or with 209-120 Mounting Foot for DIN-35 rail)

8

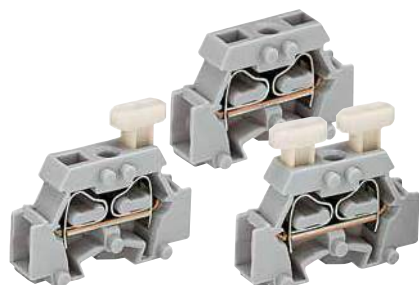


Dimensions in mm

# Modular Terminal Blocks with Mounting Flange and Marker Slot for Mini-WSB Quick Marking System

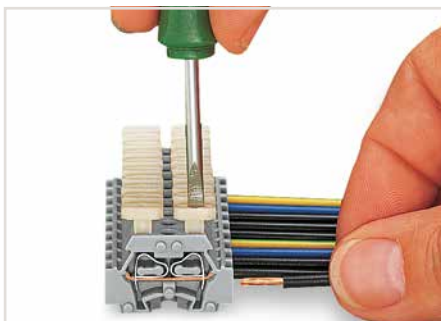
## 2.5 mm<sup>2</sup>, 261 Series

0.08 ... 2.5 mm <sup>2</sup>	28 ... 14 AWG
500 V/6 kV/3 ①	300 V, 15 A ②
I <sub>N</sub> 24 A	300 V, 20 A ③
Terminal block width 6 mm / 0.236 inch	
8 ... 9 mm / 0.31 ... 0.35 inch	



① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)

Color	Item No.	Pack. Unit
2-conductor terminal block, with mounting flange		
○ gray	<b>261-411</b>	200 (4x50)
2-conductor terminal block, with push-button on one side, with mounting flange		
○ gray	<b>261-411/331-000</b>	200 (4x50)
2-conductor terminal block, with push-buttons on both sides, with mounting flange		
○ gray	<b>261-411/341-000</b>	200 (4x50)



**CAGE CLAMP® connection**  
Inserting a conductor via push-button.



Terminal strip with marker slot for Mini-WSB Quick Marking System

### 261 Series Accessories

Appropriate marking system:  
Mini-WSB (see Section 13)

End plate, with mounting flange		
gray	<b>261-410</b>	300 (6x50)

Comb-style jumper bar, insulated, I <sub>N</sub> 16 A, gray, reduces maximum conductor size to 1.5 mm <sup>2</sup> /16 AWG		
2-way	<b>261-402</b>	25

Operating tool, of insulating material, for inserting comb-style jumper bars		
2-way	<b>209-132</b>	1

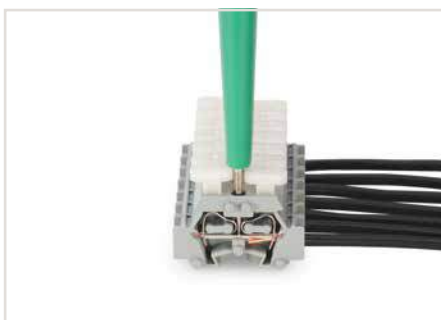
Mounting foot with screw, for DIN-35 rail, can be screwed on terminal blocks with mounting flange, 6.4 mm wide		
gray	<b>209-123</b>	25

Mounting adapter, for DIN-35 rail, can be used as end plate, 6.5 mm wide		
gray	<b>209-137</b>	25

Test plug, with 500 mm cable, 2 mm Ø, max. 42 V		
red	<b>210-136</b>	50

Mini-WSB Quick marking system, white, 10 strips with 10 markers per card, 5 mm wide markers		
plain	<b>248-501</b>	5

Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade		
	<b>210-720</b>	1



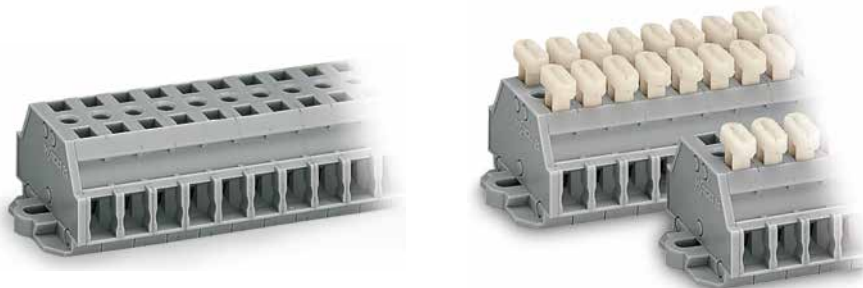
Testing with voltage tester.

8

# Terminal Strips with Mounting Flanges and Marker Slot for Mini-WSB Quick Marking System

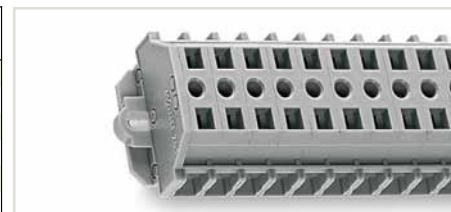
## 2.5 mm<sup>2</sup>, 261 Series

0.08 ... 2.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 24 A	28 ... 14 AWG 300 V, 15 A ② 300 V, 20 A ②	0.08 ... 2.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 24 A	28 ... 14 AWG 300 V, 15 A ② 300 V, 20 A ②
Pole width 6 mm / 0.236 inch 8 ... 9 mm / 0.31 ... 0.35 inch		Pole width 6 mm / 0.236 inch 8 ... 9 mm / 0.31 ... 0.35 inch	



- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Longer strips assemblies are available upon request.

Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
2-conductor terminal strip, with mounting flanges, gray			2-conductor terminal strip, with push-buttons on one side, with mounting flanges, gray		
2	261-422	100	2	261-422/331-000	100
3	261-423	100	3	261-423/331-000	100
4	261-424	100	4	261-424/331-000	100
5	261-425	100	5	261-425/331-000	100
6	261-426	50	6	261-426/331-000	50
7	261-427	50	7	261-427/331-000	50
8	261-428	50	8	261-428/331-000	50
9	261-429	50	9	261-429/331-000	50
10	261-430	25	10	261-430/331-000	25
11	261-431	25	11	261-431/331-000	25
12 ②	261-432	25	12 ②	261-432/331-000	25
2-conductor terminal strip, with push-buttons on both sides, with mounting flanges, gray					
			2	261-422/341-000	100
			3	261-423/341-000	100
			4	261-424/341-000	100
			5	261-425/341-000	100
			6	261-426/341-000	50
			7	261-427/341-000	50
			8	261-428/341-000	50
			9	261-429/341-000	50
			10	261-430/341-000	25
			11	261-431/341-000	25
			12 ②	261-432/341-000	25



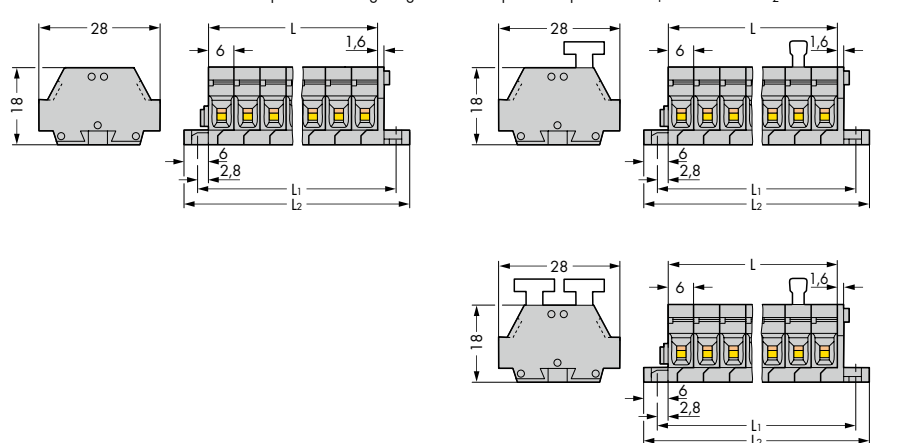
Terminal strip, with mounting flanges, for screw or similar mounting types, 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN-35 rail)



Terminal strip, with mounting flanges, for screw or similar mounting types, 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN-35 rail)

8



Modular terminal blocks and terminal strips with mounting flanges

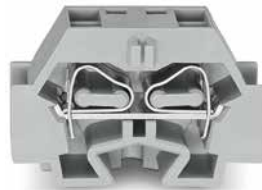
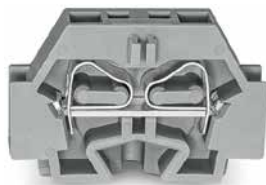


Dimensions in mm

# Modular Terminal Blocks with Mounting Flange or Snap-In Mounting Foot





## 4 mm<sup>2</sup>, 262 Series



0.08 ... 4 mm <sup>2</sup> 630 V/8 kV/3 ① I <sub>N</sub> 24 A Terminal block width 7 mm / 0.276 inch  9 ... 10 mm / 0.35 ... 0.39 inch	28 ... 12 AWG 300 V, 20 A ② 300 V, 20 A ③	0.08 ... 4 mm <sup>2</sup> 630 V/8 kV/3 ① I <sub>N</sub> 32 A Terminal block width 12 mm / 0.472 inch  9 ... 10 mm / 0.35 ... 0.39 inch	28 ... 12 AWG 300 V, 20 A ② 300 V, 20 A ③
--	---	--	---











- ① 630 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ See application notes for:  
Test plug module, page 456

Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
2-conductor terminal block, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter, with mounting foot (209-123) also for DIN-35 rail			4-conductor terminal block, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter, with mounting foot (209-123) also for DIN-35 rail		
gray	<b>262-301</b>	100 (2x50)	gray	<b>262-331</b>	100 (2x50)
blue	<b>262-304</b> ②	100 (2x50)	blue	<b>262-334</b> ②	100 (2x50)
orange	<b>262-306</b>	100 (2x50)	orange	<b>262-336</b>	100 (2x50)
green-yellow	<b>262-307</b>	100 (2x50)	green-yellow	<b>262-337</b>	100 (2x50)
2-conductor terminal block, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, also for aluminum rail (210-154) or with mounting foot (209-120) for DIN-35 rail			4-conductor terminal block, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, also for aluminum rail (210-154) or with mounting foot (209-120) for DIN-35 rail		
gray	<b>262-311</b>	100 (2x50)	gray	<b>262-341</b>	100 (2x50)
blue	<b>262-314</b> ②	100 (2x50)	blue	<b>262-344</b> ②	100 (2x50)
orange	<b>262-316</b>	100 (2x50)	orange	<b>262-346</b>	100 (2x50)
green-yellow	<b>262-317</b>	100 (2x50)	green-yellow	<b>262-347</b>	100 (2x50)
Space-saving, 2-conductor end terminal block, without protruding snap-in mounting foot, for terminal strips with snap-in mounting feet			Space-saving, 4-conductor end terminal block, without protruding snap-in mounting foot, for terminal strips with snap-in mounting feet		
gray	<b>262-321</b>	100 (2x50)	gray	<b>262-351</b>	100 (2x50)
blue	<b>262-324</b> ②	100 (2x50)	blue	<b>262-354</b> ②	100 (2x50)
orange	<b>262-326</b>	100 (2x50)	orange	<b>262-356</b>	100 (2x50)
green-yellow	<b>262-327</b>	100 (2x50)	green-yellow	<b>262-357</b>	100 (2x50)

262 Series Accessories	
Marking accessories, see Section 13	
Mounting adapter, for DIN-35 rail, can be used as end plate, 6.5 mm wide	
 gray	<b>209-137</b> 25
Test plug, with 500 mm cable, 2 mm Ø, max. 42 V	
 red	<b>210-136</b> 50
Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V	
 yellow	<b>210-137</b> 50
Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade	
	<b>210-720</b> 1

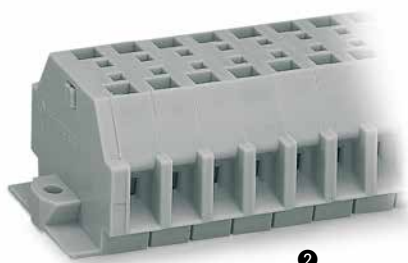
Item-Specific Accessories	Item-Specific Accessories
Test plug module, without locking latches, snaps together, 7 mm wide	Test plug module, without locking latches, snaps together, 12 mm wide
 gray	 gray
gray	gray
<b>249-137</b>	<b>249-140</b>
100 (4x25)	100 (4x25)

262 Series Accessories	
For marking accessories, see Section 13	
End plate, with mounting flange	Aluminum carrier rail, 1000 mm long, 18 mm wide, 7 mm high
 gray	
gray	
<b>262-361</b>	<b>210-154</b>
50	1
End plate, with snap-in mounting foot	Plastic end stop, with WSB marker slot, for aluminum carrier rail (210-154), 6 mm wide
 gray	
gray	
<b>262-371</b>	<b>209-122</b>
50	25
Comb-style jumper bar, insulated, I <sub>N</sub> 16 A, gray, reduces maximum conductor size to 2.5 mm <sup>2</sup> /14 AWG	Mounting foot, for DIN-35 rail, snaps onto terminal blocks with snap-in mounting foot, 6.4 mm wide
	
2-way	gray
<b>262-402</b>	<b>209-120</b>
25	25
Operating tool, of insulating material, for inserting comb-style jumper bars	Mounting foot with screw, for DIN-35 rail, can be screwed on terminal blocks with mounting flange, 6.4 mm wide
	
2-way	gray
<b>209-132</b>	<b>209-123</b>
1	25

# Terminal Strips with Mounting Flanges or Snap-in Mounting Feet

## 4 mm<sup>2</sup>, 262 Series

0.08 ... 4 mm <sup>2</sup> 630 V/8 kV/3 ① I <sub>N</sub> 24 A	28 ... 12 AWG 300 V, 20 A ② 300 V, 20 A ③	0.08 ... 4 mm <sup>2</sup> 630 V/8 kV/3 ① I <sub>N</sub> 32 A	28 ... 12 AWG 300 V, 20 A ② 300 V, 20 A ③
Pole width 7 mm / 0.276 inch 9 ... 10 mm / 0.35 ... 0.39 inch		Pole width 12 mm / 0.472 inch 9 ... 10 mm / 0.35 ... 0.39 inch	



- ① 630 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Terminal strips with a blue insulated housing are suitable for Ex i applications.  
Item no. suffix .../000-006 (upon request)
- ③ Longer strips and/or mixed-color assemblies are available upon request.

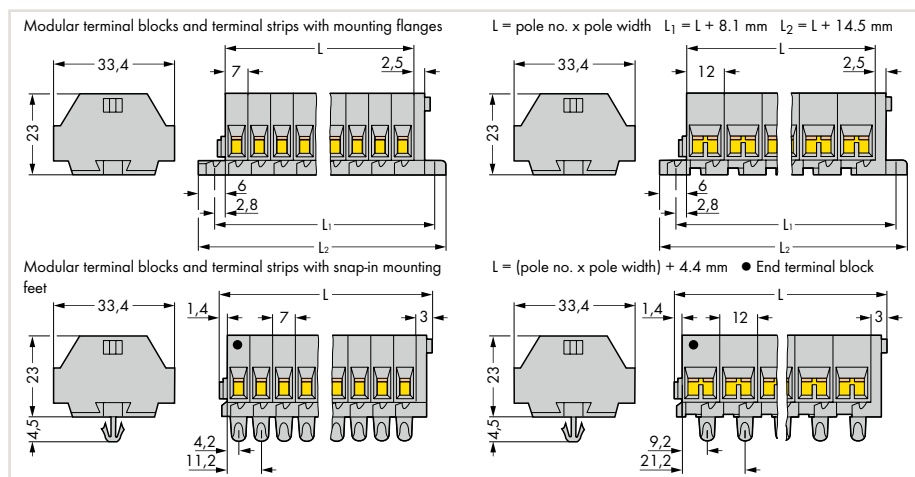
Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
2-conductor terminal strip, with mounting flanges, gray			4-conductor terminal strip, with mounting flanges, gray		
2	262-102	100	2	262-202	100
3	262-103	100	3	262-203	100
4	262-104	100	4	262-204	100
5	262-105	100	5	262-205	100
6	262-106	100	6	262-206	50
7	262-107	100	7	262-207	50
8	262-108	100	8	262-208	50
9	262-109	50	9	262-209	50
10	262-110	25	10	262-210	25
11	262-111	25	11	262-211	25
12 ③	262-112	25	12 ③	262-212	25
2-conductor terminal strip, with snap-in mounting feet, gray			4-conductor terminal strip, with snap-in mounting feet, gray		
2	262-152	100	2	262-252	100
3	262-153	100	3	262-253	100
4	262-154	100	4	262-254	100
5	262-155	100	5	262-255	100
6	262-156	50	6	262-256	50
7	262-157	50	7	262-257	50
8	262-158	50	8	262-258	50
9	262-159	50	9	262-259	50
10	262-160	25	10	262-260	25
11	262-161	25	11	262-261	25
12 ③	262-162	25	12 ③	262-262	25



Terminal strip, with mounting flanges, for screw or similar mounting types, 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN-35 rail)



Terminal strip with snap-in mounting feet, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter (also for 210-154 Aluminum Rail or with 209-120 Mounting Foot for DIN-35 rail)



Dimensions in mm

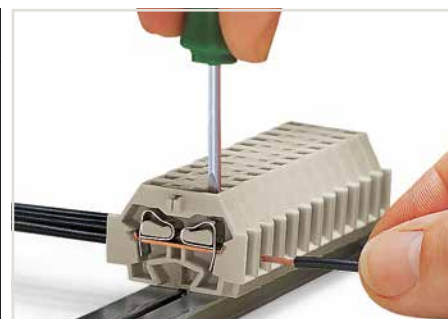
# Modular Ex Terminal Blocks with Mounting Flange or Snap-In Mounting Foot 4 mm<sup>2</sup>, 262 Series

0.5 ... 4 mm <sup>2</sup> ① 550 V I <sub>N</sub> 23 A Terminal block width 7 mm / 0.276 inch 9 ... 10 mm / 0.35 ... 0.39 inch	20 ... 12 AWG 300 V, 20 A ② 300 V, 20 A ③	0.5 ... 4 mm <sup>2</sup> ① 550 V I <sub>N</sub> 30 A Terminal block width 12 mm / 0.472 inch 9 ... 10 mm / 0.35 ... 0.39 inch	20 ... 12 AWG 300 V, 20 A ② 300 V, 20 A ③
---	---	--	---



① Using crimped ferrules for corrosion protection, the rated cross section is reduced by one size. For conductor types and conductor preparation, see Section 14 "Electrical Equipment for Hazardous Environments."

Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
2-conductor Ex e II terminal block, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter, with mounting foot (209-123) also for DIN-35 rail			4-conductor Ex e II terminal block, with mounting flange, for screw or similar mounting types, 3.2 mm mounting hole diameter, with mounting foot (209-123) also for DIN-35 rail		
○ light gray ②	<b>262-130</b>	100 (2x50)	○ light gray ②	<b>262-230</b>	100 (2x50)
2-conductor Ex e II terminal block, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, also for aluminum rail (210-154) or with mounting foot (209-120) for DIN-35 rail			4-conductor Ex e II terminal block, with snap-in mounting foot, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter, also for aluminum rail (210-154) or with mounting foot (209-120) for DIN-35 rail		
○ light gray ②	<b>262-180</b>	100 (2x50)	○ light gray ②	<b>262-280</b>	100 (2x50)
2-conductor Ex e II space-saving end terminal block, without protruding snap-in mounting foot, for terminal strips with snap-in mounting feet			4-conductor Ex e II space-saving end terminal block, without protruding snap-in mounting foot, for terminal strips with snap-in mounting feet		
○ light gray ②	<b>262-181</b>	100 (2x50)	○ light gray ②	<b>262-281</b>	100 (2x50)

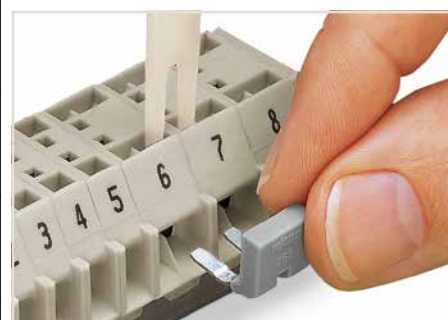


CAGE CLAMP® connection  
Inserting a conductor via screwdriver.

## 262 Series Accessories

For marking accessories, see Section 13

End plate, with mounting flange light gray <b>262-363</b> 50	Mounting foot with screw, for DIN-35 rail, can be screwed on terminal blocks with mounting flange, 6.4 mm wide gray <b>209-123</b> 25
End plate, with snap-in mounting foot light gray <b>262-373</b> 50	Mounting adapter, for DIN-35 rail, can be used as end plate, 6.5 mm wide gray <b>209-137</b> 25
Comb-style jumper bar, insulated, I <sub>N</sub> 16 A, gray, reduces maximum conductor size to 2.5 mm <sup>2</sup> /14 AWG 2-way <b>262-402</b> 25	Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade <b>210-720</b> 1
Operating tool, of insulating material, for inserting comb-style jumper bars 2-way <b>209-132</b> 1	
Aluminum carrier rail, 1000 mm long, 18 mm wide, 7 mm high <b>210-154</b> 1	
Plastic end stop, with WSB marker slot, for aluminum carrier rail (210-154), 6 mm wide <b>209-122</b> 25	
Mounting foot, for DIN-35 rail, snaps onto terminal blocks with snap-in mounting foot, 6.4 mm wide gray <b>209-120</b> 25	



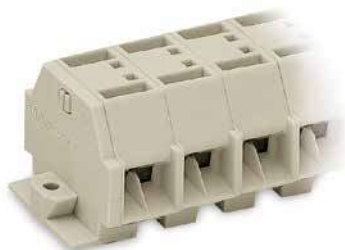
Commoning with comb-style jumper bar.



# Ex Terminal Strips with Mounting Flanges or Snap-in Mounting Feet

## 4 mm<sup>2</sup>, 262 Series

0.5 ... 4 mm <sup>2</sup> ①	20 ... 12 AWG	0.5 ... 4 mm <sup>2</sup> ①	20 ... 12 AWG
550 V	300 V, 20 A	550 V	300 V, 20 A
I <sub>N</sub> 23 A	300 V, 20 A	I <sub>N</sub> 30 A	300 V, 20 A
Pole width 7 mm / 0.276 inch		Pole width 12 mm / 0.472 inch	
9 ... 10 mm / 0.35 ... 0.39 inch		9 ... 10 mm / 0.35 ... 0.39 inch	



- ① Using crimped ferrules for corrosion protection, the rated cross section is reduced by one size. For conductor types and conductor preparation, see Section 14 "Electrical Equipment for Hazardous Environments."
- ② For custom lengths, please contact factory

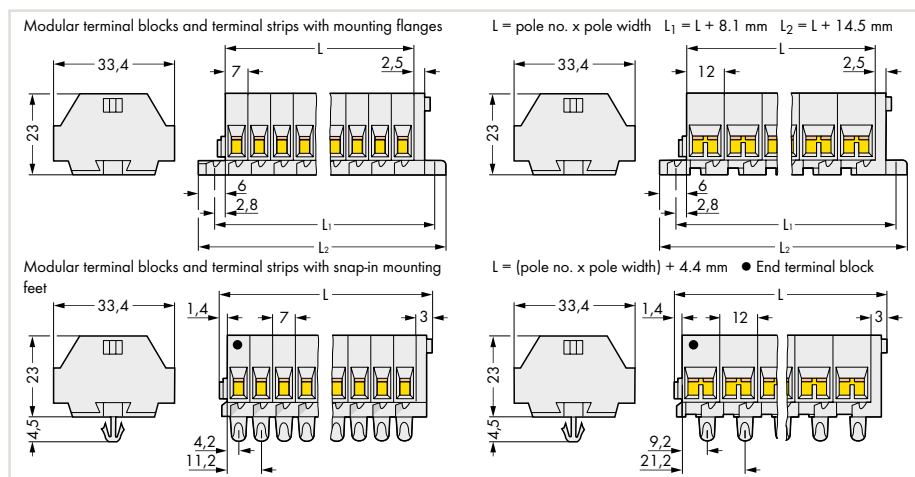
Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
2-conductor Ex e II terminal strip, with mounting flanges, light gray			4-conductor Ex e II terminal strip, with mounting flanges, light gray		
○ 2	<b>262-132</b>	100	○ 2	<b>262-232</b>	100
○ 3	<b>262-133</b>	100	○ 3	<b>262-233</b>	100
○ 4	<b>262-134</b>	100	○ 4	<b>262-234</b>	100
○ 5	<b>262-135</b>	100	○ 5	<b>262-235</b>	100
○ 6	<b>262-136</b>	100	○ 6	<b>262-236</b>	50
○ 7	<b>262-137</b>	50	○ 7	<b>262-237</b>	50
○ 8	<b>262-138</b>	50	○ 8	<b>262-238</b>	50
○ 9	<b>262-139</b>	50	○ 9	<b>262-239</b>	50
○ 10	<b>262-140</b>	25	○ 10	<b>262-240</b>	25
○ 11	<b>262-141</b>	25	○ 11	<b>262-241</b>	25
○ 12 ②	<b>262-142</b>	25	○ 12 ②	<b>262-242</b>	25
2-conductor Ex e II terminal strip, with snap-in mounting feet, light gray			4-conductor Ex e II terminal strip, with snap-in mounting feet, light gray		
○ 2	<b>262-182</b>	100	○ 2	<b>262-282</b>	100
○ 3	<b>262-183</b>	100	○ 3	<b>262-283</b>	100
○ 4	<b>262-184</b>	100	○ 4	<b>262-284</b>	100
○ 5	<b>262-185</b>	100	○ 5	<b>262-285</b>	100
○ 6	<b>262-186</b>	50	○ 6	<b>262-286</b>	50
○ 7	<b>262-187</b>	50	○ 7	<b>262-287</b>	50
○ 8	<b>262-188</b>	50	○ 8	<b>262-288</b>	50
○ 9	<b>262-189</b>	50	○ 9	<b>262-289</b>	50
○ 10	<b>262-190</b>	25	○ 10	<b>262-290</b>	25
○ 11	<b>262-191</b>	25	○ 11	<b>262-291</b>	25
○ 12 ②	<b>262-192</b>	25	○ 12 ②	<b>262-292</b>	25



Terminal strip, with mounting flanges, for screw or similar mounting types, 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN-35 rail)



Terminal strip with snap-in mounting feet, for 0.6 ... 1.2 mm plate thickness, 3.5 mm mounting hole diameter (also for 210-154 Aluminum Rail or with 209-120 Mounting Foot for DIN-35 rail)

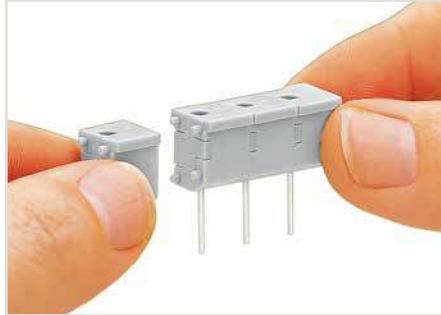




# Insulation Stops for 869 Series Terminal Strips Handling

**Insulation stop suitable for all rail-mount terminal blocks featuring:**

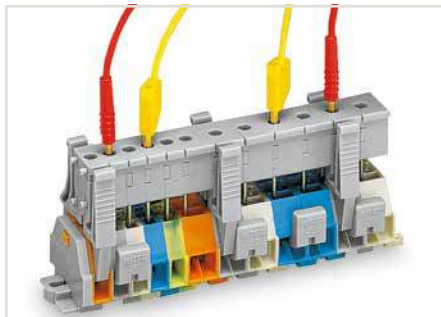
**Terminal block width 5 mm / 0.197 inch**



Snapping individual modules together to assemble a multi-pole test plug module.

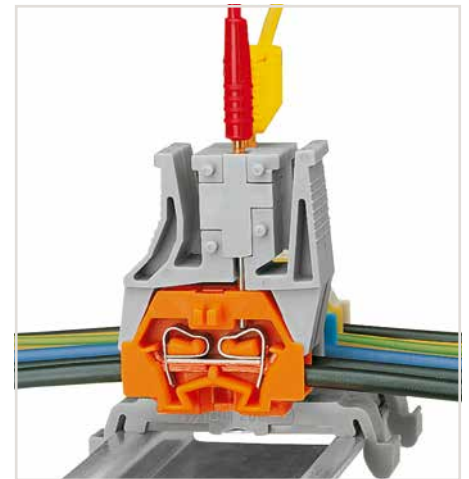
- 2 Maximum test voltage (touch contact): 48 V (test pins are not touch-proof)
- 3 Maximum test current (touch contact): 0.5 A  
Maximum test current: 6 A (if the test pins are securely connected in the clamping units)

Item No.	Pack. Unit
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")	
○ white <b>280-470</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>	
○ light gray <b>280-471</b>	200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>	
● dark gray <b>280-472</b>	200 (8x25)



Testing via test plug modules snapped onto a terminal strip – wired or unwired. As touch contact is made with the CAGE CLAMP® (spring steel) unit, this testing type is limited to maximum 0.5 A.

Distance between locking devices must be approximately 35 ... 40 mm.



Testing after the conductors have been terminated.



Inserting an insulation stop into conductor entry holes of terminal strip.

Wiring programmable logic controllers and microprocessor-operated control circuits often relies on very small cross sections of fine-stranded conductors. These small conductors are highly flexible, and they deform when pushed against the conductor stop in terminal blocks. As a result, the conductor insulation – not the copper conductor – may be clamped, causing intermittent contact or no contact at all. Common to all terminal block types currently offered, this problem creates unnecessary downtime for troubleshooting.

The solution: an insulation stop for compact terminal blocks. Insulation stops automatically bundle the cores of fine-stranded conductors when inserted into the clamping unit, preventing splaying. This also limits the conductor entry to a defined cross sectional area – ensuring the actual conductor, not the insulation, will enter the clamping unit.

The insulation stop is available as dividable 5-pole strip for the 869 Series terminal strips.




Insulation stop usage will not affect the conductor strip lengths for the aforementioned terminal strips.



## Chassis-Mount Terminal Strips Field-Wiring Terminal Blocks

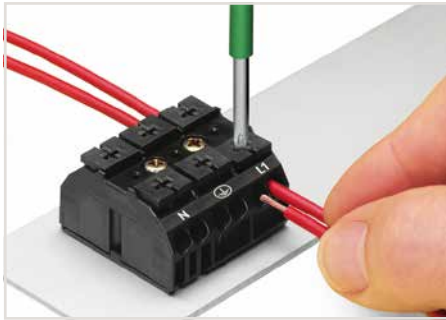
## Chassis-Mount Terminal Strips and Field-Wiring Terminal Blocks

### Side-Entry Wiring

			Page
	<b>4-Conductor Chassis-Mount Terminal Strips</b> 0.5 ... 4 mm <sup>2</sup> (20 ... 12 AWG)	862 Series	462
	<b>Field-Wiring Terminal Blocks</b> 0.5 ... 2.5 mm <sup>2</sup> (18 ... 12 AWG)	294 Series	473
	<b>Field-Wiring Terminal Blocks</b> 0.5 ... 2.5 mm <sup>2</sup> (18 ... 14 AWG)	293 Series	484

## 4-Conductor Chassis-Mount Terminal Strips, 862 Series

### Description and Installation



Terminating four conductors per pole – solid and fine-stranded.



Inserting a conductor via push-button.



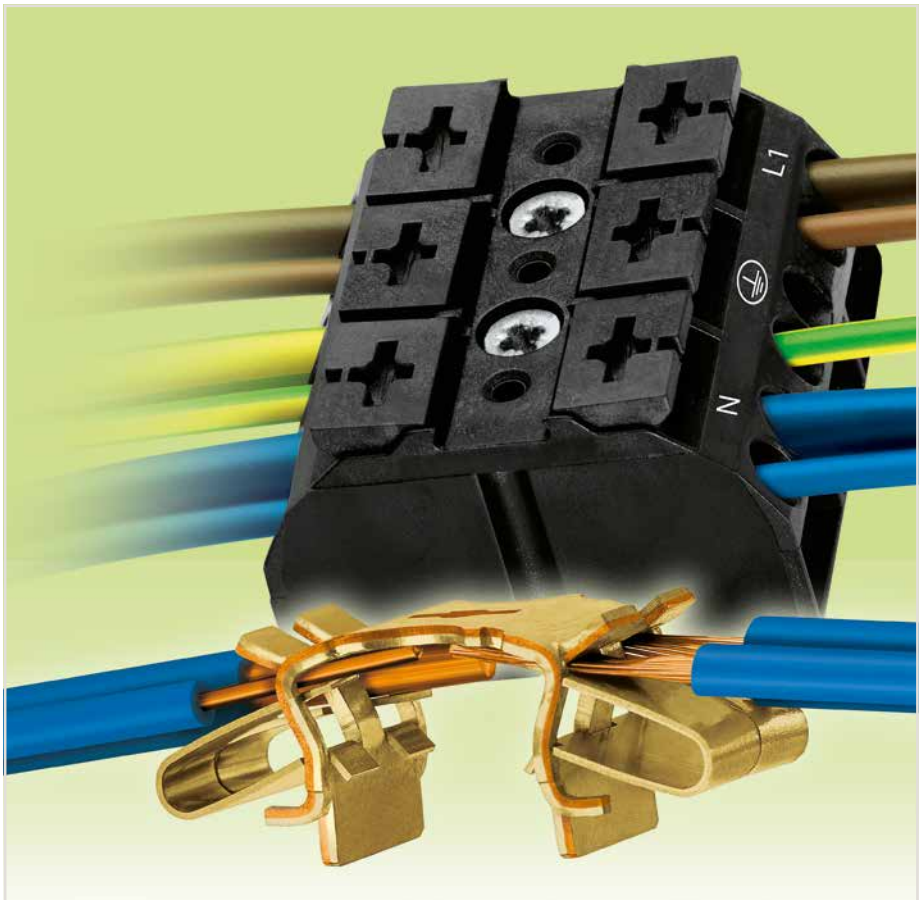
Testing with a 2 mm Ø test plug.



Makes an automatic contact to the mounting plate. The plate's varnish is instantly penetrated.



Commoning using a comb-style jumper bar (862-482).



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#### Cost-effective features:

WAGO's 862 Series Chassis-Mount Terminal Strips were developed specifically to minimize wiring costs, while accommodating requirements for flexible mounting, multiple connection points and easy handling:

- Equipped with Push-in CAGE CLAMP®, the 862 Series connects up to four conductors sized 0.5 ... 4 mm<sup>2</sup> (20 ... 12 AWG). Due to multiple connection points per pole, different conductor sizes can be used within the same terminal block position.

- For factory wiring, Push-in CAGE CLAMP® Connection Technology allows solid conductors, fine-stranded conductors with ferrules or ultrasonically bonded conductors from 0.5 ... 4 mm<sup>2</sup> (20 ... 12 AWG) to be terminated by simply pushing them into unit (length of bonded conductor end: min. 10 mm).
- Convenient automatic grounding contact optional
- Snap-in mounting feet for fast assembly
- Push-buttons for easy installation with an operating tool or by hand
- Built-in test points simplify testing with 2 mm Ø test plug.
- Flexible marking options with standard marking (pre-marked), marking strip or custom marked for large orders

**Push-in CAGE CLAMP® terminates the following copper conductors:**  
solid                      stranded

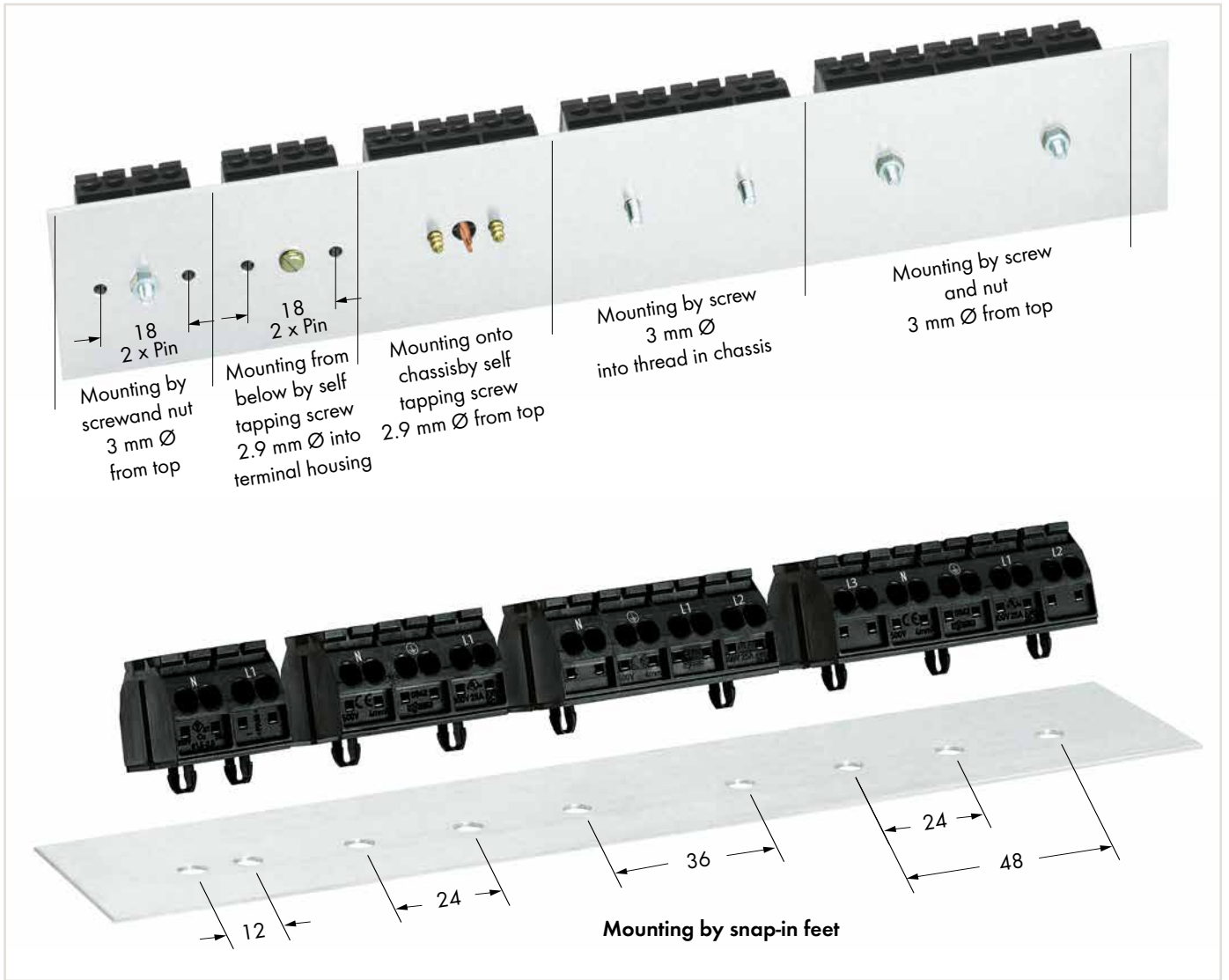
fine-stranded,  
also with tinned  
single strands

fine-stranded,  
tip-bonded

fine-stranded,  
with ferrule  
(gastight crimped)

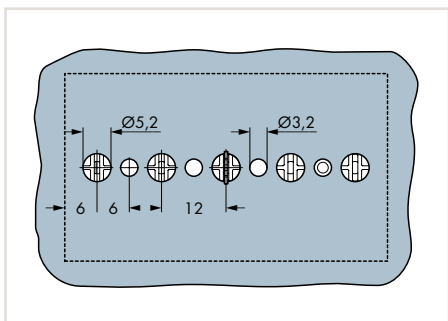
fine-stranded,  
with pin terminal  
(gastight crimped)

# Mounting Types

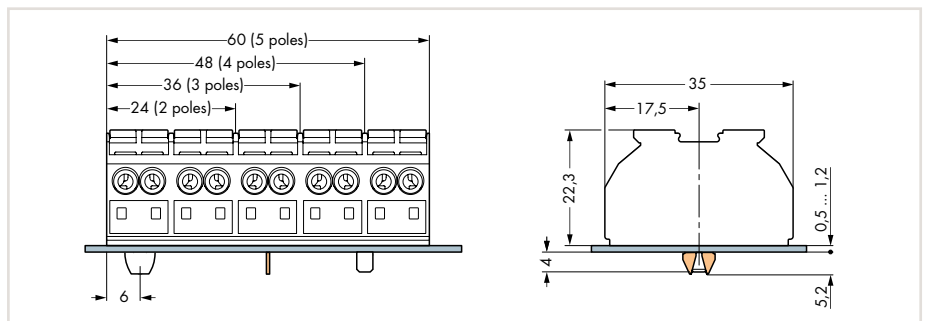


Dimensions in mm

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Dimensions (in mm) for ground contact and snap-in mounting foot (5.2 mm Ø)



Dimensions (in mm) for chassis-mount terminal strips






# 4-Conductor Chassis-Mount Terminal Strips, 2-Pole

## 4 mm<sup>2</sup>, 862 Series

<b>0.5 ... 4 mm<sup>2</sup></b> <b>500 V/6 kV/3 ①</b> <b>I<sub>N</sub> 32 A</b>	<b>20 ... 12 AWG</b> <b>300 V, 20 A ②</b> <b>300 V, 20 A ③</b>	<b>0.5 ... 4 mm<sup>2</sup></b> <b>500 V/6 kV/3 ①</b> <b>I<sub>N</sub> 32 A</b>	<b>20 ... 12 AWG</b> <b>300 V, 20 A ②</b> <b>300 V, 20 A ③</b>
 10 ... 11 mm / 0.39 ... 0.43 inch		 10 ... 11 mm / 0.39 ... 0.43 inch	



- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex e II applications  
440 V, 28 A  
(see Section 14)

Item No.	Pack. Unit	Item No.	Pack. Unit	862 Series Accessories
4-conductor chassis-mount terminal strip, for mounting via screw and nut (3 mm Ø) or for self-tapping screw (2.9 mm Ø) from top, with 2 x pin, 2-pole, black		4-conductor chassis-mount terminal strip, for mounting via screw and nut (3 mm Ø) or for self-tapping screw (2.9 mm Ø) from top, with 2 x pin, 2-pole, white		Comb-style jumper bar, simply push into the conductor entry
● N-L1	<b>862-2552</b> 500	○ N-L1	<b>862-2652</b> 500	 I <sub>N</sub> 32 A <b>862-482</b> 5
● L1-N	<b>862-1552</b> 500	○ L1-N	<b>862-1652</b> 500	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V
● L1-N ③	<b>862-1552/999-950 ②</b> 500	○ L1-N ③	<b>862-1652/999-950 ②</b> 500	 red <b>210-136</b> 50
● plain	<b>862-552</b> 500	○ plain	<b>862-652</b> 500	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V
4-conductor chassis-mount terminal strip, for self-tapping screw (2.9 mm Ø) from below, with 2 x pin, 2-pole, black		4-conductor chassis-mount terminal strip, for self-tapping screw (2.9 mm Ø) from below, with 2 x pin, 2-pole, white		 yellow <b>210-137</b> 50
● N-L1	<b>862-2562</b> 500	○ N-L1	<b>862-2662</b> 500	Marking strip, plain, 7.5 mm wide, 50 m reel
● L1-N	<b>862-1562</b> 500	○ L1-N	<b>862-1662</b> 500	 white <b>709-178</b> 1
● L1-N ③	<b>862-1562/999-950 ②</b> 500	○ L1-N ③	<b>862-1662/999-950 ②</b> 500	Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade
● plain	<b>862-562</b> 500	○ plain	<b>862-662</b> 500	 <b>210-720</b> 1
4-conductor chassis-mount terminal strip, one snap-in foot per pole, 2-pole, black		4-conductor chassis-mount terminal strip, one snap-in foot per pole, 2-pole, white		
● N-L1	<b>862-2532</b> 500	○ N-L1	<b>862-2632</b> 500	
● L1-N	<b>862-1532</b> 500	○ L1-N	<b>862-1632</b> 500	
● L1-N ③	<b>862-1532/999-950 ②</b> 500	○ L1-N ③	<b>862-1632/999-950 ②</b> 500	
● plain	<b>862-532</b> 500	○ plain	<b>862-632</b> 500	

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## 4-Conductor Chassis-Mount Terminal Strips, 3-Pole

### 4 mm<sup>2</sup>, 862 Series

0.5 ... 4 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 32 A	20 ... 12 AWG 300 V, 20 A ② 300 V, 20 A ②	0.5 ... 4 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 32 A	20 ... 12 AWG 300 V, 20 A ② 300 V, 20 A ②
10 ... 11 mm / 0.39 ... 0.43 inch		10 ... 11 mm / 0.39 ... 0.43 inch	

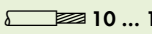
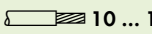


- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex e II applications  
440 V, 28 A  
(see Section 14)

Item No.	Pack. Unit	Item No.	Pack. Unit	862 Series Accessories
4-conductor chassis-mount terminal strip, for mounting via screw and nut (3 mm Ø) or for self-tapping screw (2.9 mm Ø) from top, with 2 x pin, 3-pole, black		4-conductor chassis-mount terminal strip, for mounting via screw and nut (3 mm Ø) or for self-tapping screw (2.9 mm Ø) from top, with 2 x pin, 3-pole, white		Comb-style jumper bar, simply push into the conductor entry
● N-PE-L1, without PE contact	<b>862-2503</b> 250	○ N-PE-L1, without PE contact	<b>862-2603</b> 250	 I <sub>N</sub> 32 A <b>862-482</b> 5
● PE-N-L1, without PE contact	<b>862-1503</b> 250	○ PE-N-L1, without PE contact	<b>862-1603</b> 250	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V
● PE-N-L1 ②, without PE contact	<b>862-1503/999-950</b> ② 250	○ PE-N-L1 ②, without PE contact	<b>862-1603/999-950</b> ② 250	 red <b>210-136</b> 50
● plain, without PE contact	<b>862-503</b> 250	○ plain, without PE contact	<b>862-603</b> 250	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V
● N-PE-L1, with PE contact	<b>862-8503</b> 250	○ N-PE-L1, with PE contact	<b>862-8603</b> 250	 yellow <b>210-137</b> 50
● PE-N-L1, with PE contact	<b>862-9503</b> 250	○ PE-N-L1, with PE contact	<b>862-9603</b> 250	Marking strip, plain, 7.5 mm wide, 50 m reel
4-conductor chassis-mount terminal strip, one snap-in foot per pole, 3-pole, black		4-conductor chassis-mount terminal strip, one snap-in foot per pole, 3-pole, white		 white <b>709-178</b> 1
● N-PE-L1, without PE contact	<b>862-2533</b> 250	○ N-PE-L1, without PE contact	<b>862-2633</b> 250	Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade
● PE-N-L1, without PE contact	<b>862-1533</b> 250	○ PE-N-L1, without PE contact	<b>862-1633</b> 250	 <b>210-720</b> 1
● PE-N-L1 ②, without PE contact	<b>862-1533/999-950</b> ② 250	○ PE-N-L1 ②, without PE contact	<b>862-1633/999-950</b> ② 250	
● plain, without PE contact	<b>862-533</b> 250	○ plain, without PE contact	<b>862-633</b> 250	
● N-PE-L1, with PE contact	<b>862-8533</b> 250	○ N-PE-L1, with PE contact	<b>862-8633</b> 250	
● PE-N-L1, with PE contact	<b>862-9533</b> 250	○ PE-N-L1, with PE contact	<b>862-9633</b> 250	
4-conductor chassis-mount terminal strip, one snap-in foot per pole at pos. 1+3, 3-pole, black		4-conductor chassis-mount terminal strip, one snap-in foot per pole at pos. 1+3, 3-pole, white		
● N-PE-L1, without PE contact	<b>862-2593</b> 250	○ N-PE-L1, without PE contact	<b>862-2693</b> 250	
● PE-N-L1, without PE contact	<b>862-1593</b> 250	○ PE-N-L1, without PE contact	<b>862-1693</b> 250	
● PE-N-L1 ②, without PE contact	<b>862-1593/999-950</b> ② 250	○ PE-N-L1 ②, without PE contact	<b>862-1693/999-950</b> ② 250	
● plain, without PE contact	<b>862-593</b> 250	○ plain, without PE contact	<b>862-693</b> 250	
● N-PE-L1, with PE contact	<b>862-8593</b> 250	○ N-PE-L1, with PE contact	<b>862-8693</b> 250	
● PE-N-L1, with PE contact	<b>862-9593</b> 250	○ PE-N-L1, with PE contact	<b>862-9693</b> 250	






# 4-Conductor Chassis-Mount Terminal Strips, 4-Pole

## 4 mm<sup>2</sup>, 862 Series

0.5 ... 4 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 32 A	20 ... 12 AWG 300 V, 20 A ② 300 V, 20 A ③	0.5 ... 4 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 32 A	20 ... 12 AWG 300 V, 20 A ② 300 V, 20 A ③
 10 ... 11 mm / 0.39 ... 0.43 inch		 10 ... 11 mm / 0.39 ... 0.43 inch	



- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex e II applications  
440 V, 28 A  
(see Section 14)

Item No.	Pack. Unit	Item No.	Pack. Unit	862 Series Accessories
4-conductor chassis-mount terminal strip, for mounting via screw and nut (3 mm Ø) or for self-tapping screw (2.9 mm Ø) from top, with 2 x pin, 4-pole, black		4-conductor chassis-mount terminal strip, for mounting via screw and nut (3 mm Ø) or for self-tapping screw (2.9 mm Ø) from top, with 2 x pin, 4-pole, white		Comb-style jumper bar, simply push into the conductor entry
● N-PE-L1-L2, without PE contact <b>862-2504</b>	200	○ N-PE-L1-L2, without PE contact <b>862-2604</b>	200	 I <sub>N</sub> 32 A <b>862-482</b> 5
● PE-N-L1-L2, without PE contact <b>862-1504</b>	200	○ PE-N-L1-L2, without PE contact <b>862-1604</b>	200	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V
● PE-N-L1-L2 ③, without PE contact <b>862-1504/999-950</b> ②	200	○ PE-N-L1-L2 ③, without PE contact <b>862-1604/999-950</b> ②	200	 red <b>210-136</b> 50
● plain, without PE contact <b>862-504</b>	200	○ plain, without PE contact <b>862-604</b>	200	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V
● N-PE-L1-L2, with PE contact <b>862-8504</b>	200	○ N-PE-L1-L2, with PE contact <b>862-8604</b>	200	 yellow <b>210-137</b> 50
● PE-N-L1-L2, with PE contact <b>862-9504</b>	200	○ PE-N-L1-L2, with PE contact <b>862-9604</b>	200	Marking strip, plain, 7.5 mm wide, 50 m reel
				 white <b>709-178</b> 1
4-conductor chassis-mount terminal strip, one snap-in foot per pole, 4-pole, black		4-conductor chassis-mount terminal strip, one snap-in foot per pole, 4-pole, white		Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade
● N-PE-L1-L2, without PE contact <b>862-2534</b>	200	○ N-PE-L1-L2, without PE contact <b>862-2634</b>	200	 <b>210-720</b> 1
● PE-N-L1-L2, without PE contact <b>862-1534</b>	200	○ PE-N-L1-L2, without PE contact <b>862-1634</b>	200	
● PE-N-L1-L2 ③, without PE contact <b>862-1534/999-950</b> ②	200	○ PE-N-L1-L2 ③, without PE contact <b>862-1634/999-950</b> ②	200	
● plain, without PE contact <b>862-534</b>	200	○ plain, without PE contact <b>862-634</b>	200	
● N-PE-L1-L2, with PE contact <b>862-8534</b>	200	○ N-PE-L1-L2, with PE contact <b>862-8634</b>	200	
● PE-N-L1-L2, with PE contact <b>862-9534</b>	200	○ PE-N-L1-L2, with PE contact <b>862-9634</b>	200	
4-conductor chassis-mount terminal strip, one snap-in foot per pole at pos. 1+4, 4-pole, black		4-conductor chassis-mount terminal strip, one snap-in foot per pole at pos. 1+4, 4-pole, white		
● N-PE-L1-L2, without PE contact <b>862-2594</b>	200	○ N-PE-L1-L2, without PE contact <b>862-2694</b>	200	
● PE-N-L1-L2, without PE contact <b>862-1594</b>	200	○ PE-N-L1-L2, without PE contact <b>862-1694</b>	200	
● PE-N-L1-L2 ③, without PE contact <b>862-1594/999-950</b> ②	200	○ PE-N-L1-L2 ③, without PE contact <b>862-1694/999-950</b> ②	200	
● plain, without PE contact <b>862-594</b>	200	○ plain, without PE contact <b>862-694</b>	200	
● N-PE-L1-L2, with PE contact <b>862-8594</b>	200	○ N-PE-L1-L2, with PE contact <b>862-8694</b>	200	
● PE-N-L1-L2, with PE contact <b>862-9594</b>	200	○ PE-N-L1-L2, with PE contact <b>862-9694</b>	200	

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## 4-Conductor Chassis-Mount Terminal Strips, 3-Pole

### 4 mm<sup>2</sup>, 862 Series

0.5 ... 4 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 32 A	20 ... 12 AWG 300 V, 20 A ② 300 V, 20 A ②	0.5 ... 4 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 32 A	20 ... 12 AWG 300 V, 20 A ② 300 V, 20 A ②
10 ... 11 mm / 0.39 ... 0.43 inch		10 ... 11 mm / 0.39 ... 0.43 inch	

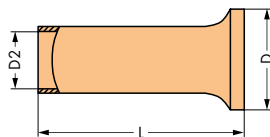


- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex e II applications  
440 V, 28 A  
(see Section 14)

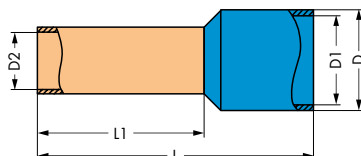
Item No.	Pack. Unit	Item No.	Pack. Unit	862 Series Accessories
4-conductor chassis-mount terminal strip, for mounting via screw and nut (3 mm Ø) or for self-tapping screw (2.9 mm Ø) from top, with 2 x pin, 5-pole, black		4-conductor chassis-mount terminal strip, for mounting via screw and nut (3 mm Ø) or for self-tapping screw (2.9 mm Ø) from top, with 2 x pin, 5-pole, white		Comb-style jumper bar, simply push into the conductor entry
● L3-N-PE-L1-L2, without PE contact	<b>862-2505</b> 200	○ L3-N-PE-L1-L2, without PE contact	<b>862-2605</b> 200	 I <sub>N</sub> 32 A <b>862-482</b> 5
● PE-N-L1-L2-L3, without PE contact	<b>862-1505</b> 200	○ PE-N-L1-L2-L3, without PE contact	<b>862-1605</b> 200	Test plug, with 500 mm cable, 2 mm Ø, max. 42 V
● PE-N-L1-L2-L3 ②, without PE contact	<b>862-1505/999-950</b> ② 200	○ PE-N-L1-L2-L3 ②, without PE contact	<b>862-1605/999-950</b> ② 200	 red <b>210-136</b> 50
● plain, without PE contact	<b>862-505</b> 200	○ plain, without PE contact	<b>862-605</b> 200	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V
● L3-N-PE-L1-L2, with PE contact	<b>862-8505</b> 200	○ L3-N-PE-L1-L2, with PE contact	<b>862-8605</b> 200	 yellow <b>210-137</b> 50
● PE-N-L1-L2-L3, with PE contact	<b>862-9505</b> 200	○ PE-N-L1-L2-L3, with PE contact	<b>862-9605</b> 200	Marking strip, plain, 7.5 mm wide, 50 m reel
4-conductor chassis-mount terminal strip, one snap-in foot per pole at pos. 2+4, 5-pole, black		4-conductor chassis-mount terminal strip, one snap-in foot per pole at pos. 2+4, 5-pole, white		 white <b>709-178</b> 1
● L3-N-PE-L1-L2, without PE contact	<b>862-2525</b> 200	○ L3-N-PE-L1-L2, without PE contact	<b>862-2625</b> 200	Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade
● PE-N-L1-L2-L3, without PE contact	<b>862-1525</b> 200	○ PE-N-L1-L2-L3, without PE contact	<b>862-1625</b> 200	 <b>210-720</b> 1
● PE-N-L1-L2-L3 ②, without PE contact	<b>862-1525/999-950</b> ② 200	○ PE-N-L1-L2-L3 ②, without PE contact	<b>862-1625/999-950</b> ② 200	
● plain, without PE contact	<b>862-525</b> 200	○ plain, without PE contact	<b>862-625</b> 200	
● L3-N-PE-L1-L2, with PE contact	<b>862-8525</b> 200	○ L3-N-PE-L1-L2, with PE contact	<b>862-8625</b> 200	
● PE-N-L1-L2-L3, with PE contact	<b>862-9525</b> 200	○ PE-N-L1-L2-L3, with PE contact	<b>862-9625</b> 200	
4-conductor chassis-mount terminal strip, one snap-in foot per pole at pos. 1+3+5, 5-pole, black		4-conductor chassis-mount terminal strip, one snap-in foot per pole at pos. 1+3+5, 5-pole, white		
● L3-N-PE-L1-L2, without PE contact	<b>862-2515</b> 200	○ L3-N-PE-L1-L2, without PE contact	<b>862-2615</b> 200	
● PE-N-L1-L2-L3, without PE contact	<b>862-1515</b> 200	○ PE-N-L1-L2-L3, without PE contact	<b>862-1615</b> 200	
● PE-N-L1-L2-L3 ②, without PE contact	<b>862-1515/999-950</b> ② 200	○ PE-N-L1-L2-L3 ②, without PE contact	<b>862-1615/999-950</b> ② 200	
● plain, without PE contact	<b>862-515</b> 200	○ plain, without PE contact	<b>862-615</b> 200	
● L3-N-PE-L1-L2, with PE contact	<b>862-8515</b> 200	○ L3-N-PE-L1-L2, with PE contact	<b>862-8615</b> 200	
● PE-N-L1-L2-L3, with PE contact	<b>862-9515</b> 200	○ PE-N-L1-L2-L3, with PE contact	<b>862-9615</b> 200	



## Insulated and Uninsulated Ferrules per DIN 46228, Part 4/09.90



Ferrule, insulated, electro-tin-plated, electrolytic copper, gastight crimped, per DIN 46288, Part 4/09.09						
Conductor Size	Strip length	L	D	D 2	Item No.	Pack. Unit
0.5 mm <sup>2</sup> / 22 AWG	10 mm / 0.39 inch	10	2,1	1	<b>216-141</b>	5000 (1000)
0.75 mm <sup>2</sup> / 20 AWG	10 mm / 0.39 inch	10	2,3	1,2	<b>216-142</b>	5000 (1000)
1 mm <sup>2</sup> / 18 AWG	10 mm / 0.39 inch	10	2,5	1,4	<b>216-143</b>	5000 (1000)
1.5 mm <sup>2</sup> / 16 AWG	10 mm / 0.39 inch	10	2,8	1,7	<b>216-144</b>	5000 (1000)



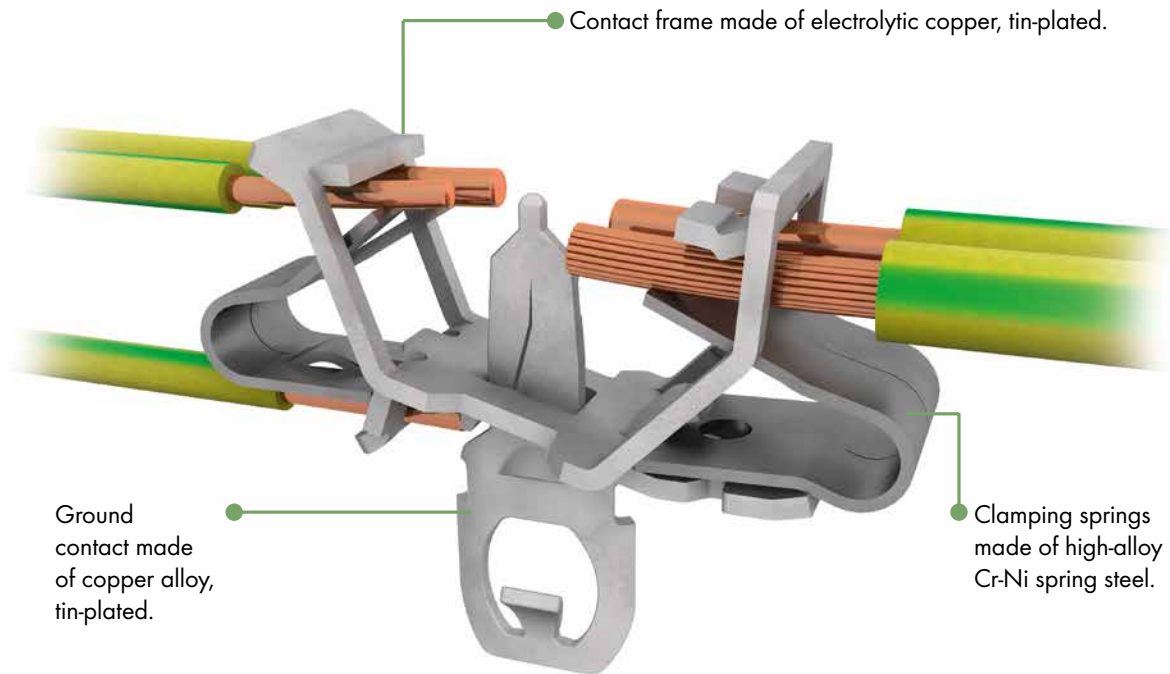
Ferrule, insulated, electro-tin-plated, electrolytic copper, gastight crimped, per DIN 46288, Part 4/09.09									
Conductor Size	Color	Strip length	L	L 1	D	D 1	D 2	Item No.	Pack. Unit
0.5 mm <sup>2</sup> / 22 AWG	○ white	12 mm / 0.47 inch	16	10	3,1	2,6	1	<b>216-241</b>	1000
0.75 mm <sup>2</sup> / 20 AWG	● gray	12 mm / 0.47 inch	16	10	3,3	2,8	1,2	<b>216-242</b>	1000
1 mm <sup>2</sup> / 18 AWG	● red	12 mm / 0.47 inch	16	10	3,5	3	1,4	<b>216-243</b>	1000
1.5 mm <sup>2</sup> / 16 AWG	● black	12 mm / 0.47 inch	16	10	4	3,5	1,7	<b>216-244</b>	1000

# For Connecting Lighting and Equipment Worldwide

## Contact Technology

### 294 Series

#### Contact Technology



Ground contact made of copper alloy, tin-plated.

Contact frame made of electrolytic copper, tin-plated.

Clamping springs made of high-alloy Cr-Ni spring steel.

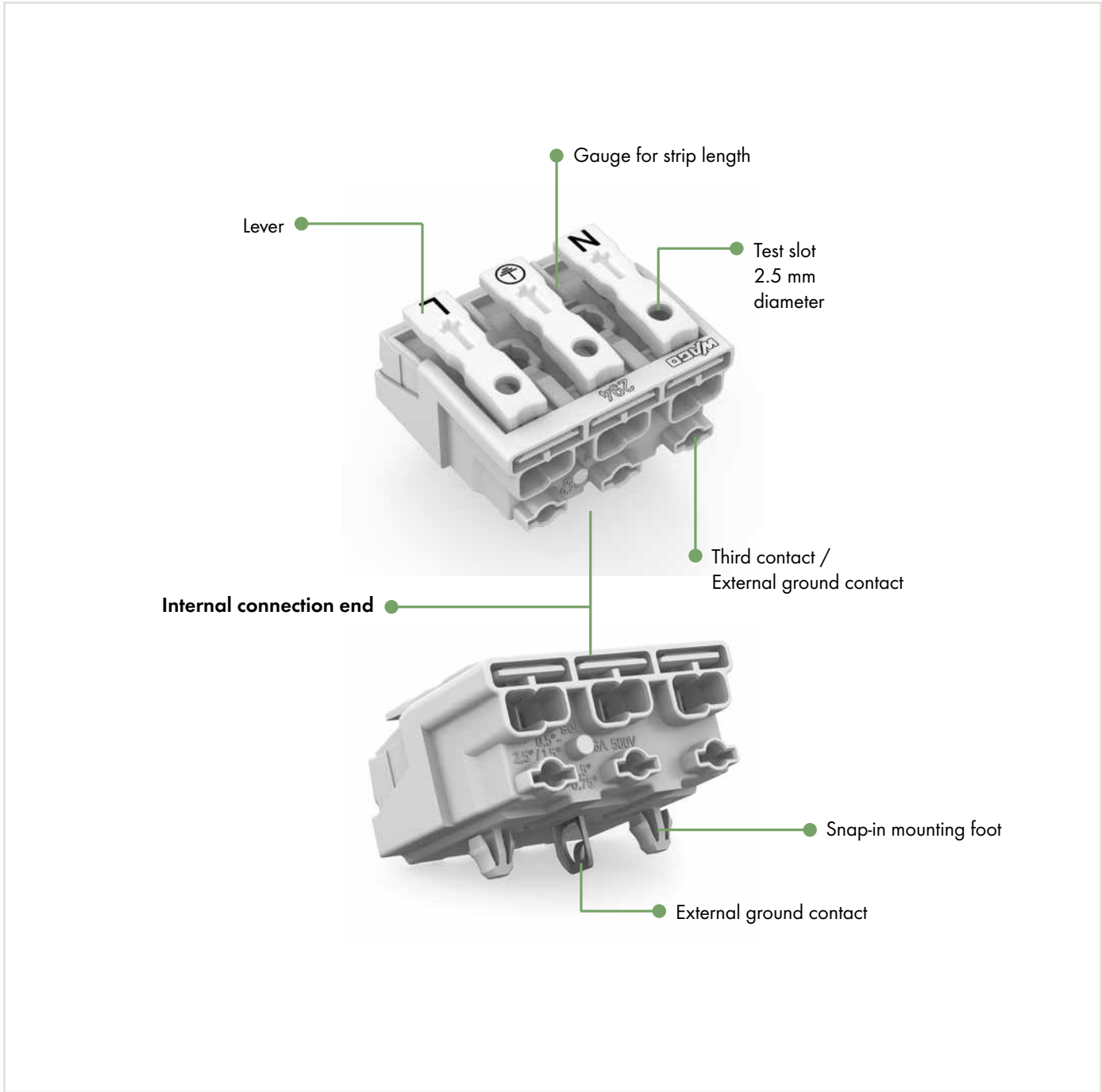
EUROPE
1 x 0.5 ... 2.5 mm <sup>2</sup> "s"
1 x 0.5 ... 1.5 mm <sup>2</sup> "s"
1 x 0.5 ... 0.75 mm <sup>2</sup> "s"
AMERICA
1 x AWG 18 ... 14 "s"
1 x AWG 18 ... 16 "s"
1 x AWG 18 "s"
JAPAN
1 x 0.8 ... 1.6 mm diam. "s"
1 x 0.8 ... 1 mm diam. "s"
1 x 0.8 mm diam. "s"

EUROPE
2 x 0.5 ... 2.5 mm <sup>2</sup> "s, str, f-str"
AMERICA
2 x AWG 18 ... 12 "s"
2 x AWG 18 ... 14 "s, f-str"
JAPAN
2 x 0.8 ... 2 mm diam. "s"
2 x 0.5 ... 2 mm <sup>2</sup> "str, f-str"

**Internal connection:**  
PUSH WIRE® for internal wiring with solid conductors

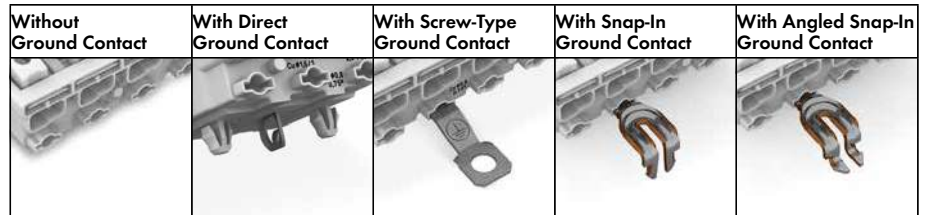
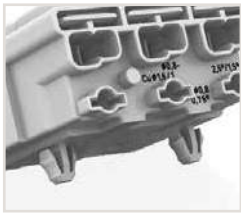
**External connection:**  
Push-in CAGE CLAMP® for field-wiring with all conductor types


9





# Field-Wiring Terminal Blocks With Two Snap-In Mounting Feet

## 294 Series




Pole No.	Marking	Item No.	Item No.	Item No.	Item No.	Item No.
2 	without	294-5002	- - -	- - -	- - -	- - -
	N L	294-5012	- - -	- - -	- - -	- - -
	N' L'	294-5022	- - -	- - -	- - -	- - -
	DA- DA+	294-5032	- - -	- - -	- - -	- - -
	- +	294-5072	- - -	- - -	- - -	- - -
	1 N	294-5052	- - -	- - -	- - -	- - -
	2 1	294-5042	- - -	- - -	- - -	- - -

3 	without	294-5003	- - -	- - -	- - -	- - -
	N ⊕ L	294-5013	294-5113	294-5413	294-5213	294-5313
	N' ⊕ L'	294-5023	294-5123	294-5423	294-5223	294-5323
	1 ⊕ N	294-5053	294-5153	294-5453	294-5253	294-5353
	3 2 1	294-5043	- - -	- - -	- - -	- - -

4 	without	294-5004	- - -	- - -	- - -	- - -
	1/L' 2/L ⊕ N	294-5024	294-5124	294-5424	294-5224	294-5324
	1 2 ⊕ N	294-5014	294-5114	294-5414	294-5214	294-5314
	4 3 2 1	294-5044	- - -	- - -	- - -	- - -
	1/L' 2/L E N	294-5094/4025-000	- - -	- - -	- - -	- - -

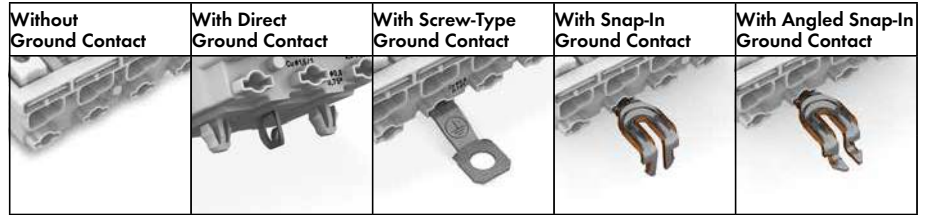
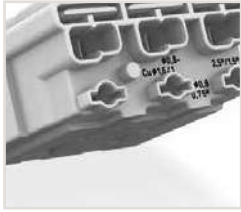
9


5 	without	294-5005	- - -	- - -	- - -	- - -
	L3 L2 L1 ⊕ N	294-5015	- - -	294-5415	294-5215	294-5315
	L' N' L ⊕ N	294-5025	- - -	294-5425	294-5225	294-5325
	DA+ DA- L ⊕ N	294-5035	- - -	294-5435	294-5235	294-5335
	DA- N ⊕ L DA+	294-5075	294-5175	294-5475	294-5275	294-5375
	3 N ⊕ 1 2	294-5055	294-5155	294-5455	294-5255	294-5355
	5 4 3 2 1	294-5045	- - -	- - -	- - -	- - -
	DA+ DA- L 3 N	294-5095/5025-000	- - -	- - -	- - -	- - -
	L3 L2 L1 E N	294-5095/5026-000	- - -	- - -	- - -	- - -
	L' N' L E N	294-5095/5027-000	- - -	- - -	- - -	- - -





# Field-Wiring Terminal Blocks Without Snap-In Mounting Feet


## 294 Series





Pole No.	Marking	Item No.	Item No.	Item No.	Item No.	Item No.
2 	without	294-4002	- - -	- - -	- - -	- - -
	N L	294-4012	- - -	- - -	- - -	- - -
	N' L'	294-4022	- - -	- - -	- - -	- - -
	DA- DA+	294-4032	- - -	- - -	- - -	- - -
	- +	294-4072	- - -	- - -	- - -	- - -
	1 N	294-4052	- - -	- - -	- - -	- - -
	2 1	294-4042	- - -	- - -	- - -	- - -

3 	without	294-4003	- - -	- - -	- - -	- - -
	N ⊕ L	294-4013	- - -	294-4413	294-4213	294-4313
	N' L'	294-4023	- - -	294-4423	294-4223	294-4323
	1 ⊕ N	294-4053	- - -	294-4453	294-4253	294-4353
	3 2 1	294-4043	- - -	- - -	- - -	- - -
	N E L	294-4093/3025-000				

4 	without	294-4004	- - -	- - -	- - -	- - -
	1/L' 2/L ⊕ N	294-4024	- - -	294-4424	294-4224	294-4324
	1 2 ⊕ N	294-4014	- - -	294-4414	294-4214	294-4314
	4 3 2 1	294-4044	- - -	- - -	- - -	- - -
	1/L' 2/L E N	294-4094/4025-000				

5 	without	294-4005	- - -	- - -	- - -	- - -
	L3 L2 L1 ⊕ N	294-4015	- - -	294-4415	294-4215	294-4315
	L' N' L ⊕ N	294-4025	- - -	294-4425	294-4225	294-4325
	DA+ DA- L ⊕ N	294-4035	- - -	294-4435	294-4235	294-4335
	DA- N ⊕ L DA+	294-4075	- - -	294-4475	294-4275	294-4375
	3 N ⊕ 1 2	294-4055	- - -	294-4455	294-4255	294-4355
	5 4 3 2 1	294-4045	- - -	- - -	- - -	- - -
	DA+ DA- L E N	294-4095/5025-000				
	L3 L2 L1 E N	294-4095/5026-000				
L' N' L E N	294-4095/5027-000					

6 	without	294-4006	- - -	- - -	- - -	- - -

7 	without	294-4007	- - -	- - -	- - -	- - -

## Field-Wiring Terminal Blocks

### 2.5 mm<sup>2</sup>, 294 Series



Terminating five conductors per pole – solid and fine-stranded.

- External connection of solid, stranded and fine-stranded conductors
- Universal conductor termination (AWG, metric)
- Third contact located at the bottom of internal terminal block end
- Strain relief plate can be retrofitted

#### Technical data:

	IEC/EN 60998-1	IEC/EN 60998-2-2	
Rating per	IEC/EN 60998-1	IEC/EN 60998-2-2	
Overtoltage category	II	II	
Pollution degree	2	2	
Rated voltage	500 V	500 V	
Rated surge voltage	4 kV	4 kV	
Nominal current	24 A	24 A	
Temperature rating	T 85	T 85	

#### Conductor data (external connection):

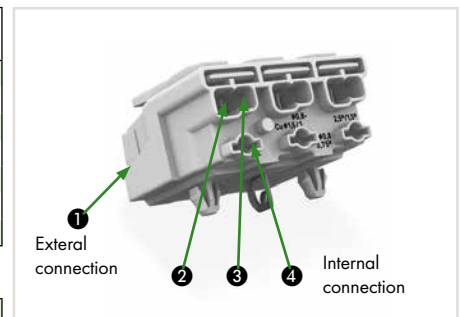
Connection technology ①	Push-in CAGE CLAMP®
Conductor size: solid, stranded or fine-stranded	2 x 0.5 ... 2.5 mm <sup>2</sup>
Conductor size: with ferrule	2 x 0.5 ... 1.5 mm <sup>2</sup>
AWG: solid	2 x 18 ... 12
AWG: fine-stranded and stranded	2 x 18 ... 14
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch

#### Conductor data (internal connection):

Connection technology	PUSH WIRE®
Conductor entry ②	
Conductor size: solid	0.5 ... 2.5 mm <sup>2</sup>
Conductor size: fine-stranded	0.5 ... 1.5 mm <sup>2</sup> (with uninsulated ferrule)
Conductor size: fine-stranded	0.5 ... 1 mm <sup>2</sup> (with insulated ferrule)
AWG: solid	18 ... 14
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Conductor entry ③	
Conductor size: solid	0.5 ... 1.5 mm <sup>2</sup>
Conductor size: fine-stranded	0.5 ... 1 mm <sup>2</sup> (with uninsulated ferrule)
Conductor size: fine-stranded	0.5 ... 0.75 mm <sup>2</sup> (with insulated ferrule)
AWG: solid	18 ... 16
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Conductor entry ④	
Conductor size: solid	0.5 ... 0.75 mm <sup>2</sup>
AWG: solid	18
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch

#### Material data:

Material group	IIIa
Insulating material	Polycarbonate (PC)
Temperature stability	Relative temperature index (RTI) of 120 °C
Flammability rating per UL 94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E <sub>c</sub> )
Contact plating	tin-plated
16 mm-high versions are available upon request.	



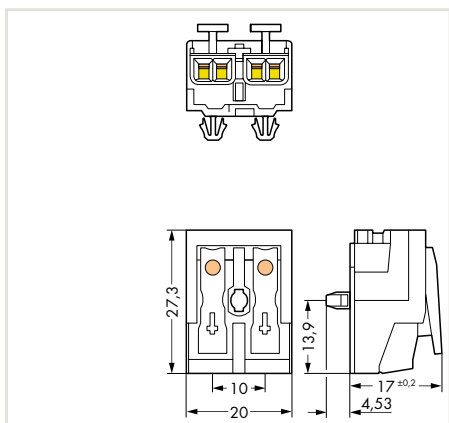
# Field-Wiring Terminal Blocks, 2-Pole

## 2.5 mm<sup>2</sup>, 294 Series

without ground contact



	Item No.	Pack. Unit
Field-wiring terminal block, without ground contact, with snap-in mounting feet, 2-pole, white		
<input type="radio"/> N-L	294-5012	1000
<input type="radio"/> N'-L'	294-5022	1000
<input type="radio"/> DA- DA+	294-5032	1000
<input type="radio"/> - +	294-5072	1000
<input type="radio"/> 2-1	294-5042	1000
<input type="radio"/> 1-N	294-5052	1000
<input type="radio"/> plain	294-5002	1000
Field-wiring terminal block, without ground contact, without snap-in mounting feet, 2-pole, white		
<input type="radio"/> N-L	294-4012	1000
<input type="radio"/> N'-L'	294-4022	1000
<input type="radio"/> DA- DA+	294-4032	1000
<input type="radio"/> - +	294-4072	1000
<input type="radio"/> 2-1	294-4042	1000
<input type="radio"/> 1-N	294-4052	1000
<input type="radio"/> plain	294-4002	1000



Dimensions in mm

# Field-Wiring Terminal Blocks, 3-Pole

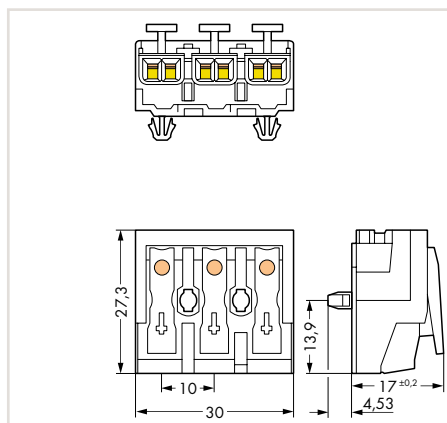
## 2.5 mm<sup>2</sup>, 294 Series

without ground contact	with direct ground contact	with screw-type ground contact
------------------------	----------------------------	--------------------------------

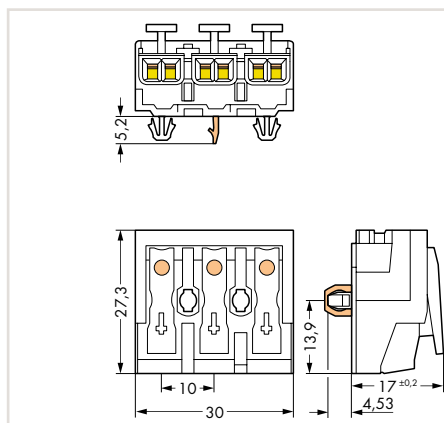


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Field-wiring terminal block, without ground contact, with snap-in mounting feet, 3-pole, white		Field-wiring terminal block, with direct ground contact, with snap-in mounting feet, 3-pole, white		Field-wiring terminal block, with screw-type ground contact, with snap-in mounting feet, 3-pole, white	
<input type="radio"/> N-PE-L	<b>294-5013</b>	500	<input type="radio"/> N-PE-L	<b>294-5113</b>	500
<input type="radio"/> N'-PE-L'	<b>294-5023</b>	500	<input type="radio"/> N'-PE-L'	<b>294-5123</b>	500
<input type="radio"/> 1-PE-N	<b>294-5053</b>	500	<input type="radio"/> 1-PE-N	<b>294-5153</b>	500
<input type="radio"/> 3-2-1	<b>294-5043</b>	500			
<input type="radio"/> plain	<b>294-5003</b>	500			
Field-wiring terminal block, without ground contact, without snap-in mounting feet, 3-pole, white				Field-wiring terminal block, with screw-type ground contact, without snap-in mounting feet, 3-pole, white	
<input type="radio"/> N-PE-L	<b>294-4013</b>	500		<input type="radio"/> N-PE-L	<b>294-4413</b>
<input type="radio"/> N'-PE-L'	<b>294-4023</b>	500		<input type="radio"/> N'-PE-L'	<b>294-4423</b>
<input type="radio"/> 1-PE-N	<b>294-4053</b>	500		<input type="radio"/> 1-PE-N	<b>294-4453</b>
<input type="radio"/> 3-2-1	<b>294-4043</b>	500			
<input type="radio"/> plain	<b>294-4003</b>	500			
<input type="radio"/> N-E-L	<b>294-4093/3025-000</b>	500			

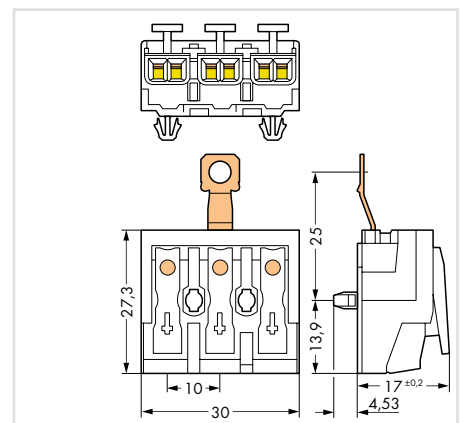
9



Dimensions in mm



Dimensions in mm



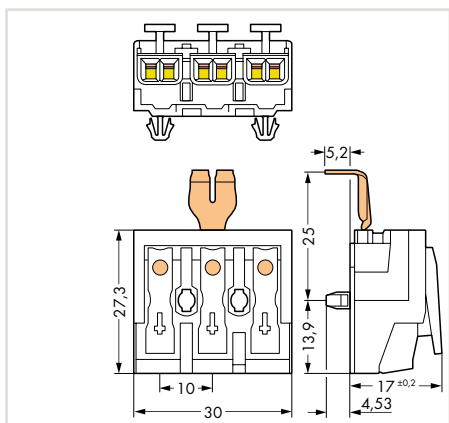
Dimensions in mm

with snap-in ground contact	with angled snap-in ground contact
-----------------------------	------------------------------------

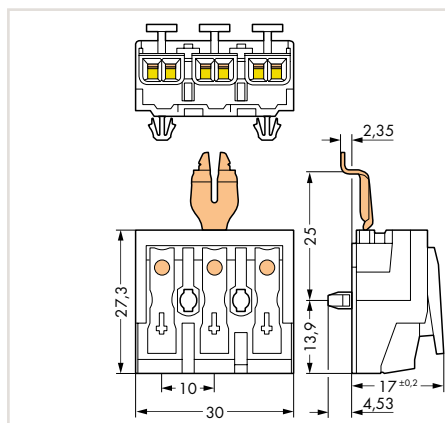


Item No.	Pack. Unit	Item No.	Pack. Unit		
Field-wiring terminal block, with snap-in ground contact, with snap-in mounting feet, 3-pole, white		Field-wiring terminal block, with angled snap-in ground contact, with snap-in mounting feet, 3-pole, white			
<input type="radio"/> N-PE-L	<b>294-5213</b>	500	<input type="radio"/> N-PE-L	<b>294-5313</b>	500
<input type="radio"/> N'-PE-L'	<b>294-5223</b>	500	<input type="radio"/> N'-PE-L'	<b>294-5323</b>	500
<input type="radio"/> 1-PE-N	<b>294-5253</b>	500	<input type="radio"/> 1-PE-N	<b>294-5353</b>	500
Field-wiring terminal block, with snap-in ground contact, without snap-in mounting feet, 3-pole, white		Field-wiring terminal block, with angled snap-in ground contact, without snap-in mounting feet, 3-pole, white			
<input type="radio"/> N-PE-L	<b>294-4213</b>	500	<input type="radio"/> N-PE-L	<b>294-4313</b>	500
<input type="radio"/> N'-PE-L'	<b>294-4223</b>	500	<input type="radio"/> N'-PE-L'	<b>294-4323</b>	500
<input type="radio"/> 1-PE-N	<b>294-4253</b>	500	<input type="radio"/> 1-PE-N	<b>294-4353</b>	500

9



Dimensions in mm

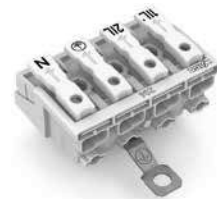
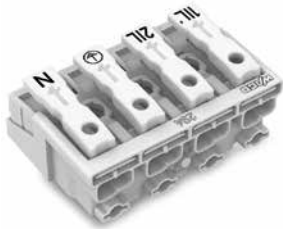


Dimensions in mm

# Field-Wiring Terminal Blocks, 4-Pole

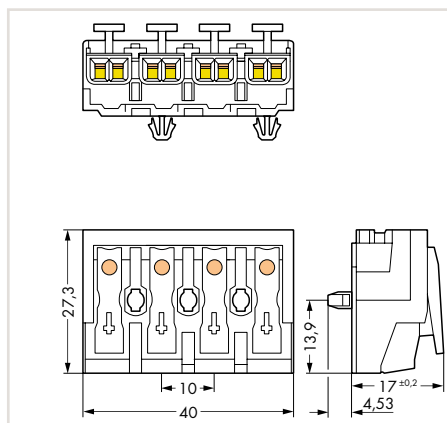
## 2.5 mm<sup>2</sup>, 294 Series

without ground contact	with direct ground contact	with screw-type ground contact
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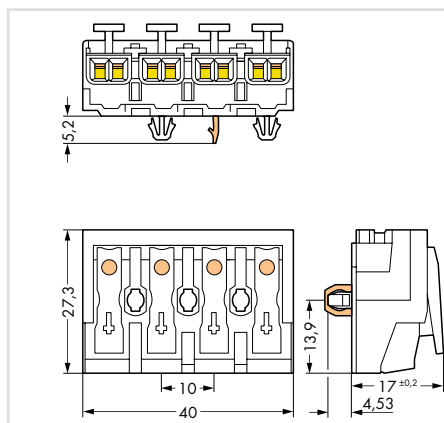


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Field-wiring terminal block, without ground contact, with snap-in mounting feet, 4-pole, white		Field-wiring terminal block, with direct ground contact, with snap-in mounting feet, 4-pole, white		Field-wiring terminal block, with screw-type ground contact, with snap-in mounting feet, 4-pole, white	
○ 1/L'-2/L-PE-N	<b>294-5024</b>	500	○ 1/L'-2/L-PE-N	<b>294-5124</b>	500
○ 1-2-PE-N	<b>294-5014</b>	500	○ 1-2-PE-N	<b>294-5114</b>	500
○ 4-3-2-1	<b>294-5044</b>	500			
○ plain	<b>294-5004</b>	500			
○ 1/L'-2/L-E-N	<b>294-5094/4025-000</b>	500			
Field-wiring terminal block, without ground contact, without snap-in mounting feet, 4-pole, white				Field-wiring terminal block, with screw-type ground contact, without snap-in mounting feet, 4-pole, white	
○ 1/L'-2/L-PE-N	<b>294-4024</b>	500		○ 1/L'-2/L-PE-N	<b>294-4424</b>
○ 1-2-PE-N	<b>294-4014</b>	500		○ 1-2-PE-N	<b>294-4414</b>
○ 4-3-2-1	<b>294-4044</b>	500			
○ plain	<b>294-4004</b>	500			
○ 1/L'-2/L-E-N	<b>294-4094/4025-000</b>	500			

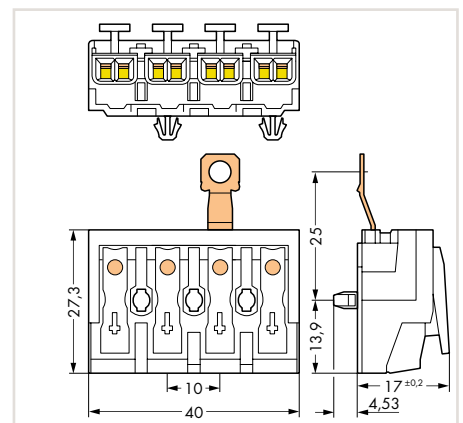
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Dimensions in mm

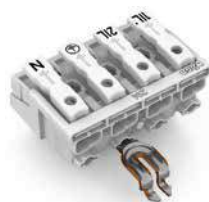
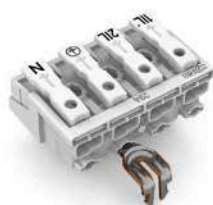


Dimensions in mm



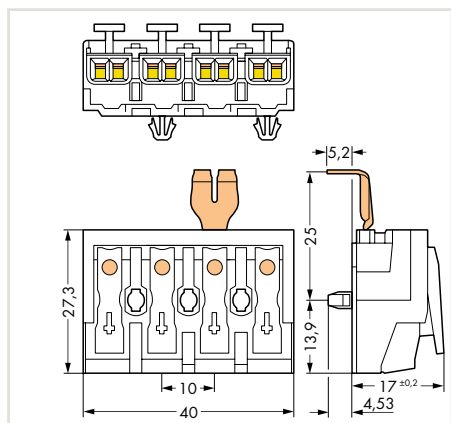
Dimensions in mm

with snap-in ground contact	with angled snap-in ground contact
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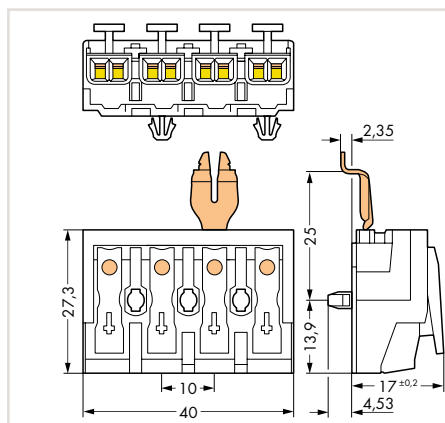


Item No.	Pack. Unit	Item No.	Pack. Unit
Field-wiring terminal block, with snap-in ground contact, with snap-in mounting feet, 4-pole, white		Field-wiring terminal block, with angled snap-in ground contact, with snap-in mounting feet, 4-pole, white	
○ 1/L'-2/L-PE-N <b>294-5224</b>	500	○ 1/L'-2/L-PE-N <b>294-5324</b>	500
○ 1-2-PE-N <b>294-5214</b>	500	○ 1-2-PE-N <b>294-5314</b>	500
Field-wiring terminal block, without snap-in ground contact, without snap-in mounting feet, 4-pole, white		Field-wiring terminal block, with angled snap-in ground contact, without snap-in mounting feet, 4-pole, white	
○ 1/L'-2/L-PE-N <b>294-4224</b>	500	○ 1/L'-2/L-PE-N <b>294-4324</b>	500
○ 1-2-PE-N <b>294-4214</b>	500	○ 1-2-PE-N <b>294-4314</b>	500

9



Dimensions in mm

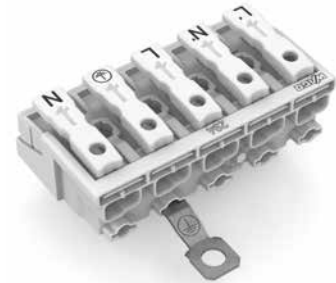
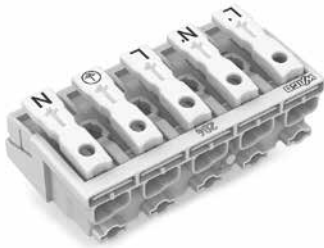


Dimensions in mm

# Field-Wiring Terminal Blocks, 5-Pole

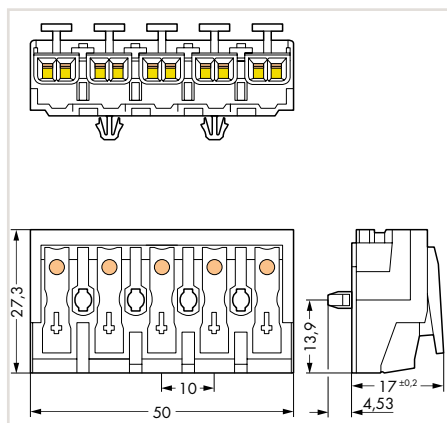
## 2.5 mm<sup>2</sup>, 294 Series

without ground contact	with direct ground contact	with screw-type ground contact
------------------------	----------------------------	--------------------------------

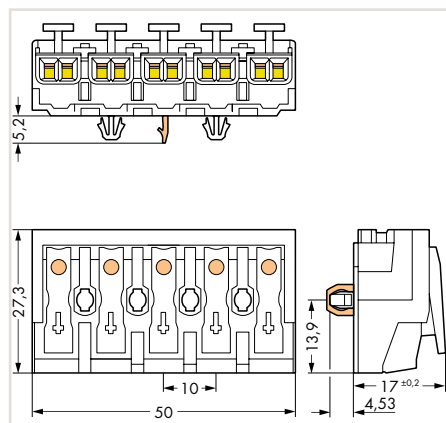


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Field-wiring terminal block, without ground contact, with snap-in mounting feet, 5-pole, white		Field-wiring terminal block, with direct ground contact, with snap-in mounting feet, 5-pole, white		Field-wiring terminal block, with screw-type ground contact, with snap-in mounting feet, 5-pole, white	
<input type="radio"/> L'-N'-L-PE-N	<b>294-5025</b> 250	<input type="radio"/> DA- N PE L DA+	<b>294-5175</b> 250	<input type="radio"/> L'-N'-L-PE-N	<b>294-5425</b> 250
<input type="radio"/> L3-L2-L1-PE-N	<b>294-5015</b> 250	<input type="radio"/> 3-N-PE-1-2	<b>294-5155</b> 250	<input type="radio"/> L3-L2-L1-PE-N	<b>294-5415</b> 250
<input type="radio"/> DA+ DA- L PE N	<b>294-5035</b> 250			<input type="radio"/> DA+ DA- L PE N	<b>294-5435</b> 250
<input type="radio"/> DA- N PE L DA+	<b>294-5075</b> 250			<input type="radio"/> DA- N PE L DA+	<b>294-5475</b> 250
<input type="radio"/> 3-N-PE-1-2	<b>294-5055</b> 250			<input type="radio"/> 3-N-PE-1-2	<b>294-5455</b> 250
<input type="radio"/> 5-4-3-2-1	<b>294-5045</b> 250				
<input type="radio"/> plain	<b>294-5005</b> 250				
<input type="radio"/> DA+ DA- L E N	<b>294-5095/5025-000</b> 250				
<input type="radio"/> L3-L2-L1-E-N	<b>294-5095/5026-000</b> 250				
<input type="radio"/> L'-N'-L-E-N	<b>294-5095/5027-000</b> 250				
Field-wiring terminal block, without ground contact, without snap-in mounting feet, 5-pole, white				Field-wiring terminal block, with screw-type ground contact, without snap-in mounting feet, 5-pole, white	
<input type="radio"/> L'-N'-L-PE-N	<b>294-4025</b> 250			<input type="radio"/> L'-N'-L-PE-N	<b>294-4425</b> 250
<input type="radio"/> L3-L2-L1-PE-N	<b>294-4015</b> 250			<input type="radio"/> L3-L2-L1-PE-N	<b>294-4415</b> 250
<input type="radio"/> DA+ DA- L PE N	<b>294-4035</b> 250			<input type="radio"/> DA+ DA- L PE N	<b>294-4435</b> 250
<input type="radio"/> DA- N PE L DA+	<b>294-4075</b> 250			<input type="radio"/> DA- N PE L DA+	<b>294-4475</b> 250
<input type="radio"/> 3-N-PE-1-2	<b>294-4055</b> 250			<input type="radio"/> 3-N-PE-1-2	<b>294-4455</b> 250
<input type="radio"/> 5-4-3-2-1	<b>294-4045</b> 250				
<input type="radio"/> plain	<b>294-4005</b> 250				
<input type="radio"/> DA+ DA- L E N	<b>294-4095/5025-000</b> 250				
<input type="radio"/> L3-L2-L1-E-N	<b>294-4095/5026-000</b> 250				
<input type="radio"/> L'-N'-L-E-N	<b>294-4095/5027-000</b> 250				

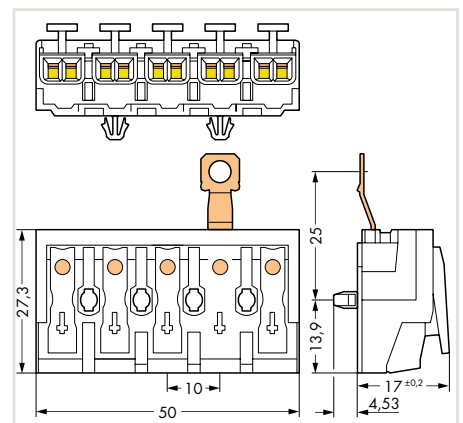
9



Dimensions in mm



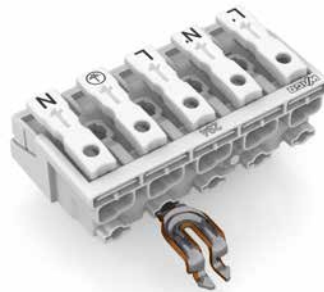
Dimensions in mm



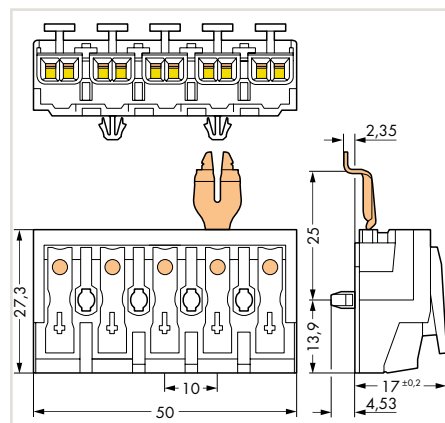
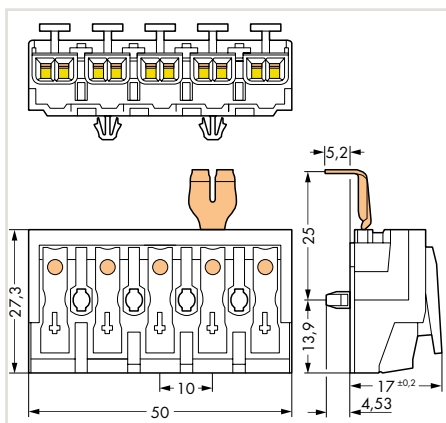
Dimensions in mm



with snap-in ground contact	with angled snap-in ground contact
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Item No.	Pack. Unit	Item No.	Pack. Unit
Field-wiring terminal block, with snap-in ground contact, with snap-in mounting feet, 5-pole, white		Field-wiring terminal block, with angled snap-in ground contact, with snap-in mounting feet, 5-pole, white	
<input type="radio"/> L'-N'-L-PE-N	<b>294-5225</b> 250	<input type="radio"/> L'-N'-L-PE-N	<b>294-5325</b> 250
<input type="radio"/> L3-L2-L1-PE-N	<b>294-5215</b> 250	<input type="radio"/> L3-L2-L1-PE-N	<b>294-5315</b> 250
<input type="radio"/> DA+ DA- L PE N	<b>294-5235</b> 250	<input type="radio"/> DA+ DA- L PE N	<b>294-5335</b> 250
<input type="radio"/> DA- N PE L DA+	<b>294-5275</b> 250	<input type="radio"/> DA- N PE L DA+	<b>294-5375</b> 250
<input type="radio"/> 3-N-PE-1-2	<b>294-5255</b> 250	<input type="radio"/> 3-N-PE-1-2	<b>294-5355</b> 250
Field-wiring terminal block, with snap-in ground contact, without snap-in mounting feet, 5-pole, white		Field-wiring terminal block, with angled snap-in ground contact, without snap-in mounting feet, 5-pole, white	
<input type="radio"/> L'-N'-L-PE-N	<b>294-4225</b> 250	<input type="radio"/> L'-N'-L-PE-N	<b>294-4325</b> 250
<input type="radio"/> L3-L2-L1-PE-N	<b>294-4215</b> 250	<input type="radio"/> L3-L2-L1-PE-N	<b>294-4315</b> 250
<input type="radio"/> DA+ DA- L PE N	<b>294-4235</b> 250	<input type="radio"/> DA+ DA- L PE N	<b>294-4335</b> 250
<input type="radio"/> DA- N PE L DA+	<b>294-4275</b> 250	<input type="radio"/> DA- N PE L DA+	<b>294-4375</b> 250
<input type="radio"/> 3-N-PE-1-2	<b>294-4255</b> 250	<input type="radio"/> 3-N-PE-1-2	<b>294-4355</b> 250





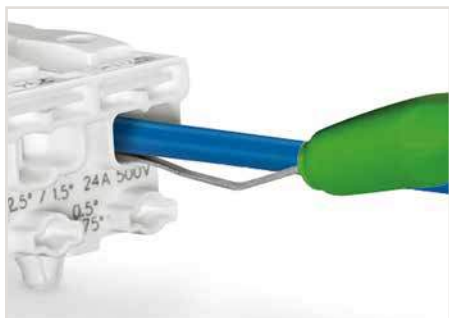
# Tools and Strain Relief Plates

Extraction tool	Strain relief plate	Strain relief
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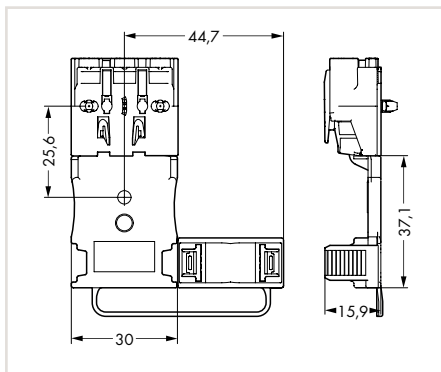


Item No.	Pack. Unit	Item No.	Item No.	Pack. Unit
Disconnection tool, removes conductors from PUSH WIRE® connections		Strain relief plate, with locking clip, 3- to 5-pole, for multicore cable: 1 x 5.2 ... 12 mm outer diameter	Strain relief; with snap-in mounting feet; for 4.5 ... 12 mm cable diameter	
<b>206-294</b>	1	○ white <b>294-364</b>	○ white <b>294-370</b>	500
		Strain relief plate, with locking clip, 3- to 5-pole, for single strands: min. 3 x 0.5 mm <sup>2</sup> , max. 5 x 2.5 mm <sup>2</sup> or 7 x 1.5 mm <sup>2</sup>	Strain relief; for screw/riev mounting; for 4.5 ... 12 mm cable diameter	
		○ white <b>294-384</b>	○ white <b>294-375</b>	500

9



Conductor removal:  
Slide disconnection tool beneath the conductor and pull both conductor and tool out.



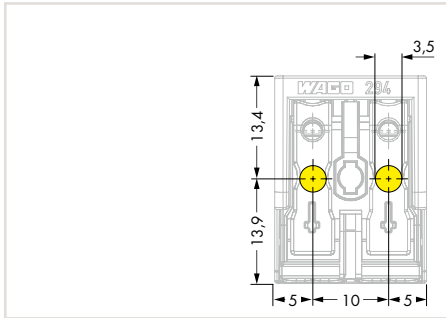
Dimensions in mm



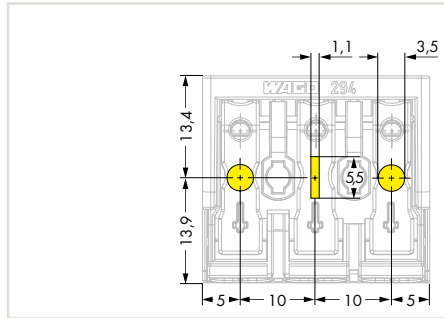
Strain relief, for screw/riev mounting, for 4.5 ... 12 mm cable diameter

# Drilled-Hole Patterns for Snap-In Mounting Feet

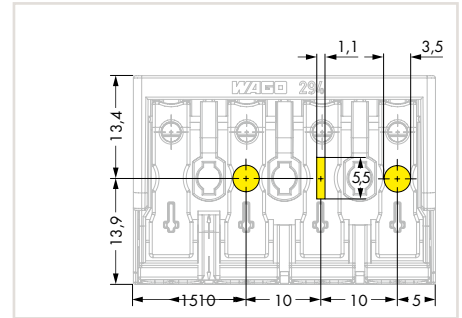
## 294 Series



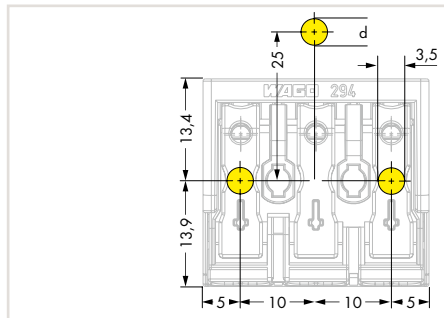
2-pole - without ground contact



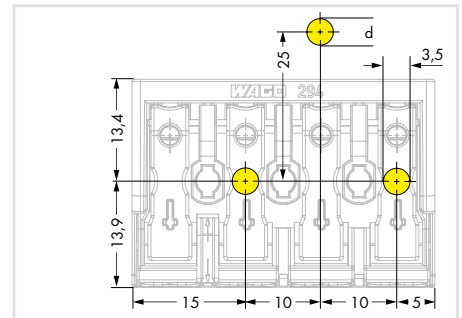
3-pole - with direct ground contact



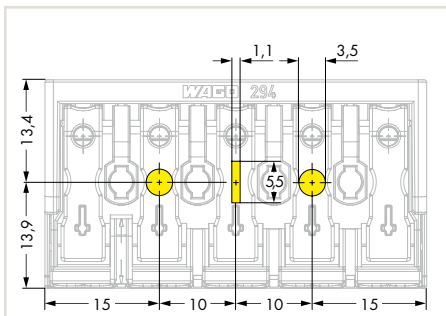
4-pole - with direct ground contact



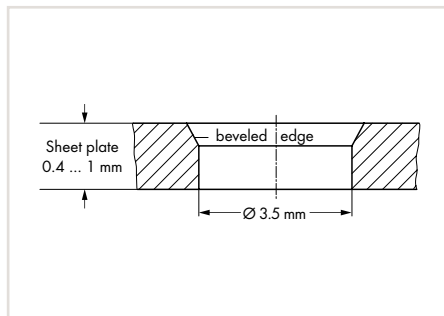
3-pole  
with snap-in ground contact,  $d = 4.9$  mm  
with screw-type ground contact,  $d \leq 4.1$  mm



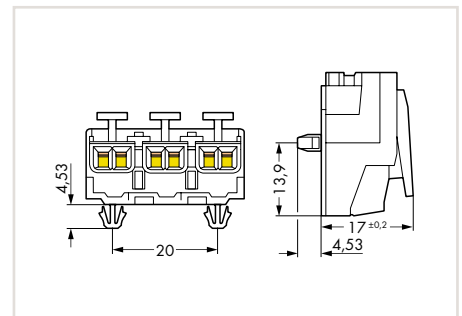
4-pole  
with snap-in ground contact,  $d = 4.9$  mm  
with screw-type ground contact,  $d \leq 4.1$  mm



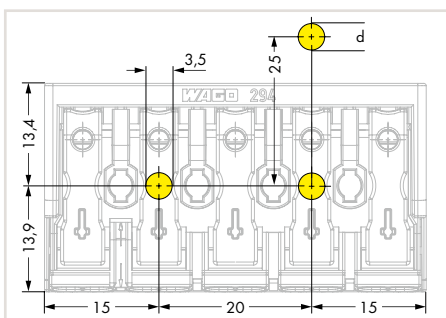
5-pole - with direct ground contact



Drilled hole for snap-in mounting foot



Snap-in mounting foot

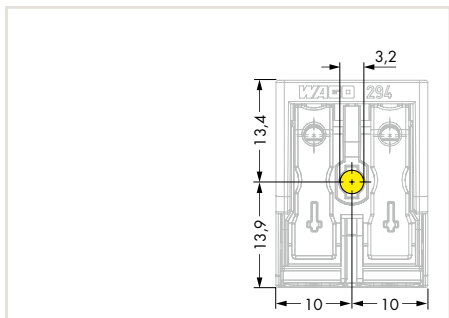


5-pole  
with snap-in ground contact,  $d = 4.9$  mm  
with screw-type ground contact,  $d \leq 4.1$  mm

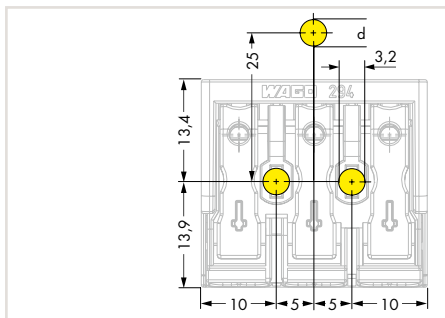
Drilled hole drawings of scale 1 : 1

# Drilled-Hole Patterns for Screw Mounting

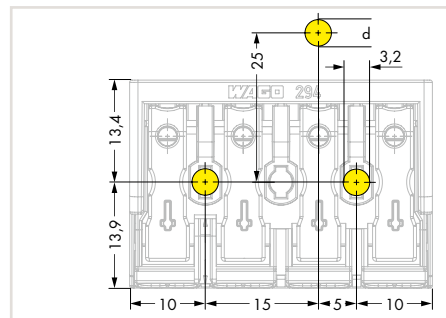
## 294 Series



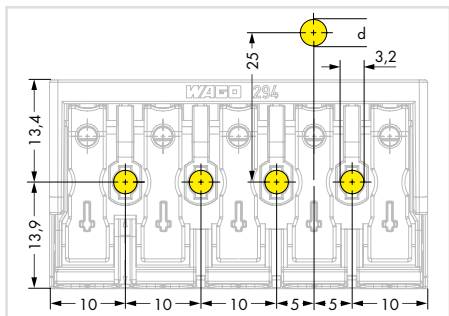
2-pole - without ground contact



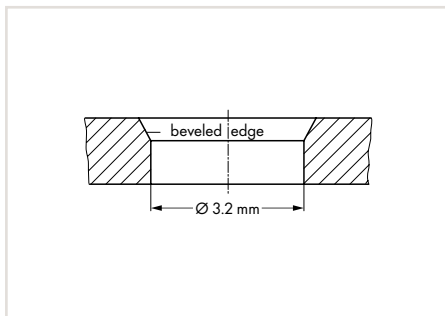
3-pole -  
with snap-in ground contact,  $d = 4.9$  mm  
with screw-type ground contact,  $d \leq 4.1$  mm



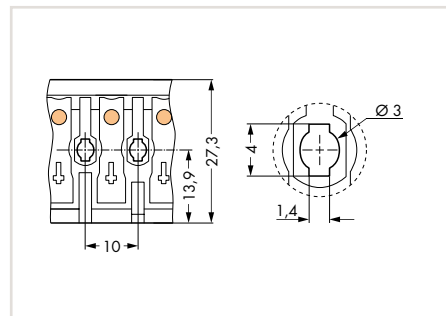
4-pole -  
with snap-in ground contact,  $d = 4.9$  mm  
with screw-type ground contact,  $d \leq 4.1$  mm



5-pole -  
with snap-in ground contact,  $d = 4.9$  mm  
with screw-type ground contact,  $d \leq 4.1$  mm



Hole for screw mount  
Notice:  
The maximum thread diameter for self-tapping screws is 3 mm.



Mounting hole for screw  
Notice:  
The maximum thread diameter for self-tapping screws is 3 mm.

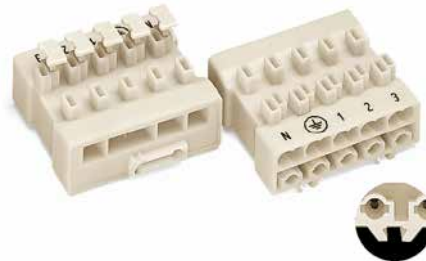
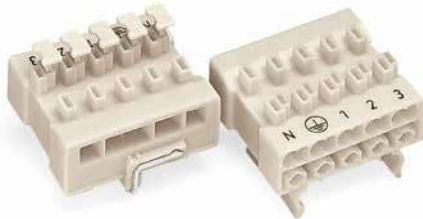
Drilled hole drawings of scale 1 : 1

# Pluggable Connection System with Phase Selection for Fluorescent Lighting Fixtures

## Field-Wiring Terminal Blocks

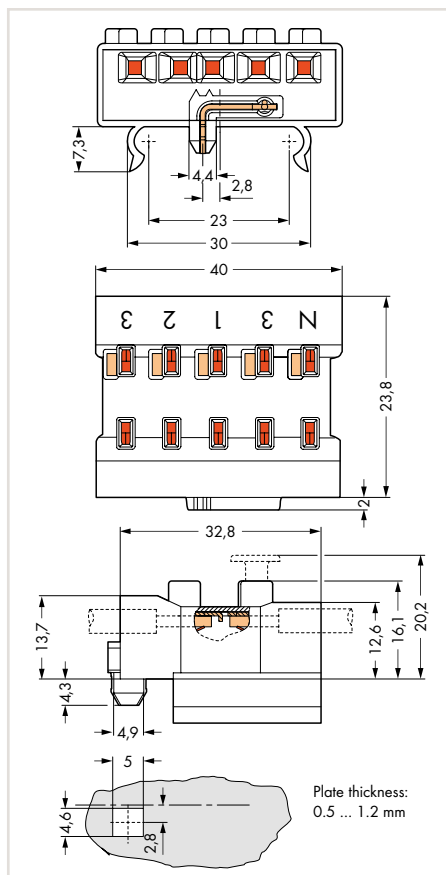
2.5 mm<sup>2</sup>, 293 Series

0.5 ... 2.5 mm <sup>2</sup> "s" ① 0.5 ... 0.75 mm <sup>2</sup> "s" ① 2.5 mm <sup>2</sup> "s" ② 500 V/4 kV/2 ③ I <sub>N</sub> 20 A 8 ... 9 mm / 0.31 ... 0.35 inch	AWG 20 ... 14 "s" AWG 20 ... 18 "s" AWG 12 "s"	0.5 ... 2.5 mm <sup>2</sup> "s" ① 0.5 ... 0.75 mm <sup>2</sup> "s" ① 2.5 mm <sup>2</sup> "s" ② 500 V/4 kV/2 ③ I <sub>N</sub> 20 A 8 ... 9 mm / 0.31 ... 0.35 inch	AWG 20 ... 14 "s" AWG 20 ... 18 "s" AWG 12 "s"	0.5 ... 2.5 mm <sup>2</sup> "s" ① 0.5 ... 0.75 mm <sup>2</sup> "s" ① 2.5 mm <sup>2</sup> "s" ② 500 V/4 kV/2 ③ I <sub>N</sub> 20 A 8 ... 9 mm / 0.31 ... 0.35 inch	AWG 20 ... 14 "s" AWG 20 ... 18 "s" AWG 12 "s"
--	--	--	--	--	--



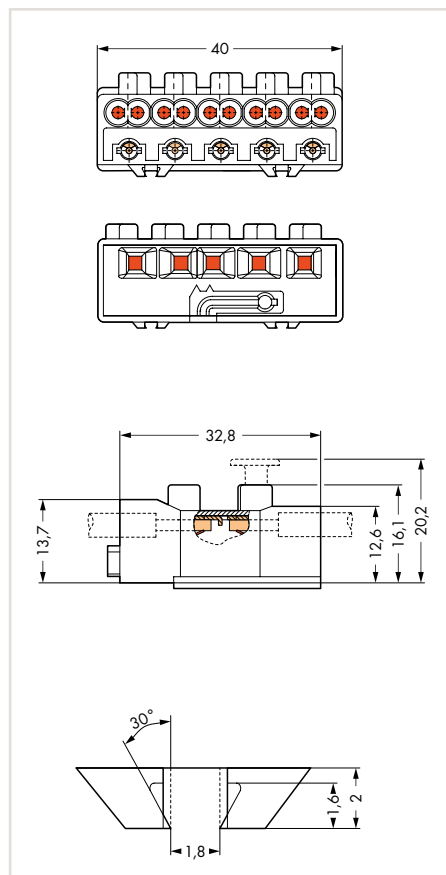
Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
Field-wiring terminal block, with snap-in foot and direct ground contact, with push-buttons on the field-wiring side, white			Field-wiring terminal block, with dovetail and without direct ground contact, with push-buttons on the field-wiring side, white			Field-wiring terminal block, with snap-in mounting feet and direct ground contact, with push-buttons on the field-wiring side, white		
○ 5	293-325	250	○ 5	293-220	250	○ 5	293-222	250
without push-buttons			without push-buttons			without push-buttons		
○ 5	293-225	250	○ 5	293-219	250	○ 5	293-221	250

9



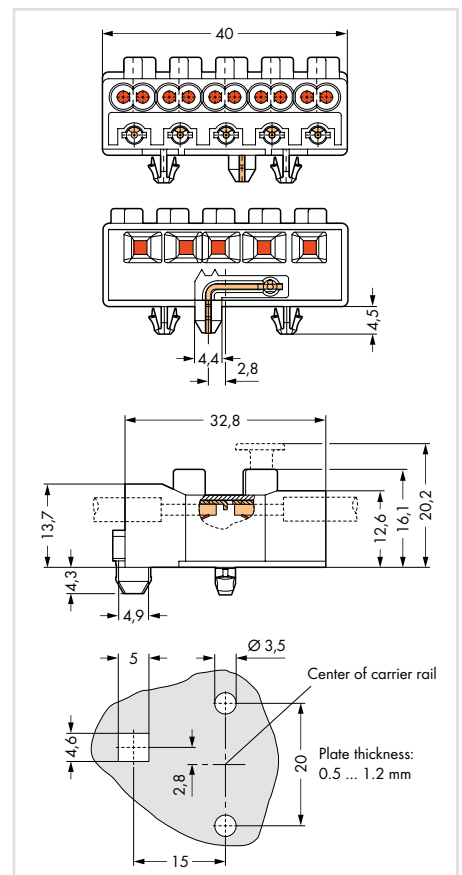
Dimensions in mm

Metal plate cutout for direct ground contact must be free of varnish and oxide films.  
Equipped with varnished metal plates upon request.




Dimensions in mm

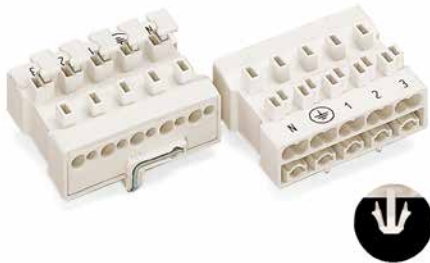
Metal plate cutout for direct ground contact must be free of varnish and oxide films.  
Equipped with varnished metal plates upon request.



Dimensions in mm

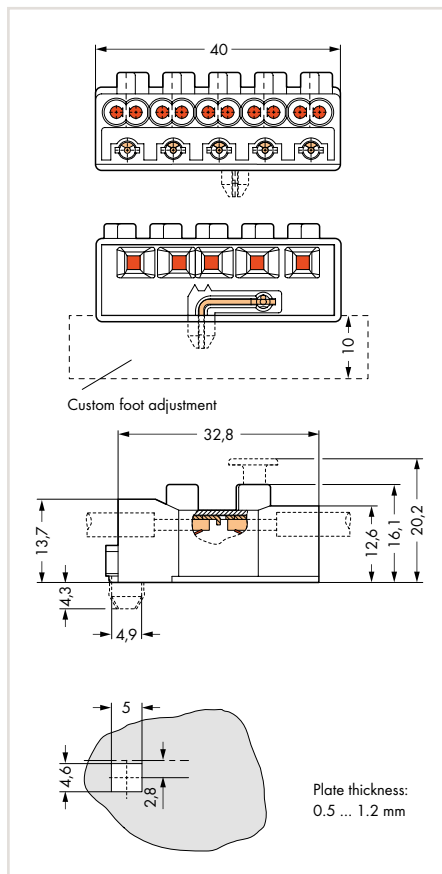
Metal plate cutout for direct ground contact must be free of varnish and oxide films.  
Equipped with varnished metal plates upon request.

0.5 ... 2.5 mm<sup>2</sup> "s" ① AWG 20 ... 14 "s"  
 0.5 ... 0.75 mm<sup>2</sup> "s" ① AWG 20 ... 18 "s"  
 2.5 mm<sup>2</sup> "s" ② AWG 12 "s"  
 500 V/4 kV/2 ③  
 I<sub>N</sub> 20 A  
 8 ... 9 mm / 0.31 ... 0.35 inch



- ① Power supply side
- ② Lighting side
- ③ 500 V = rated voltage  
 4 kV = rated surge voltage  
 2 = pollution degree  
 (see Section 14)

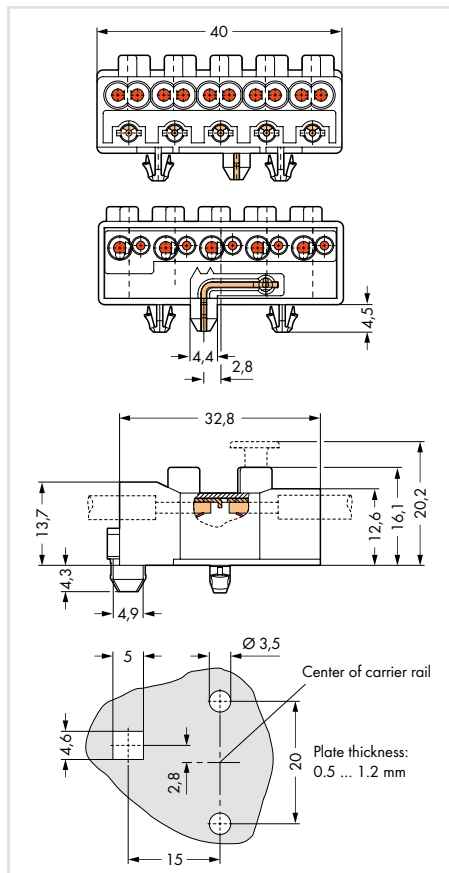
Pole No.	Item No.	Pack. Unit
Field-wiring terminal block, with snap-in mounting feet and direct ground contact, with push-buttons on the field-wiring side, white		
○ 5	<b>293-230</b>	250
without push-buttons		
○ 5	<b>293-228</b>	250



Dimensions in mm

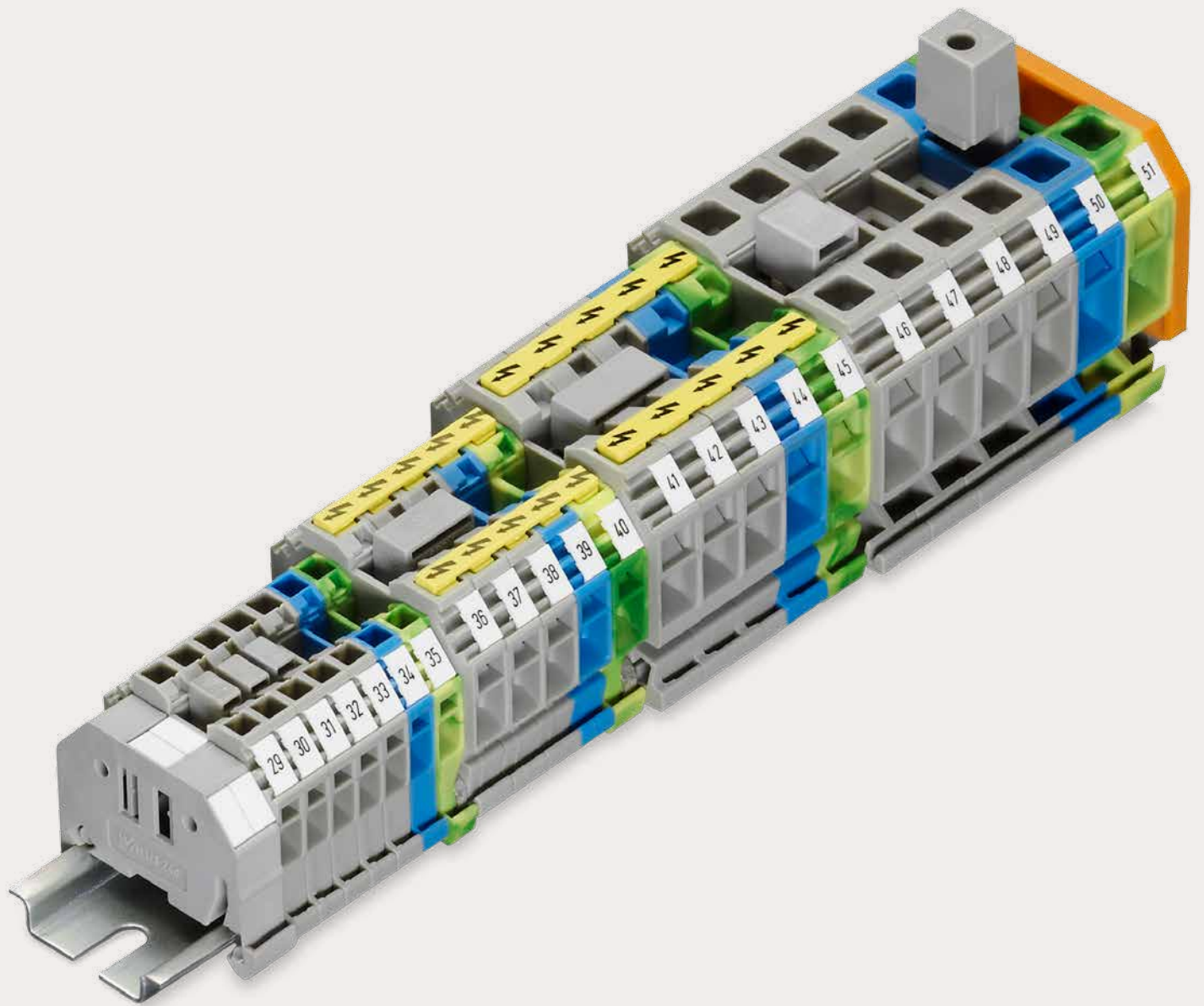
Field-wiring terminal block with custom foot, with and without direct ground contact, white, with and without push-buttons on the field-wiring side

Metal plate cutout for direct ground contact must be free of varnish and oxide films.  
 Equipped with varnished metal plates upon request.



Dimensions in mm

Metal plate cutout for direct ground contact must be free of varnish and oxide films.  
 Equipped with varnished metal plates upon request.






**Rail-Mount Terminal Blocks, Classic**



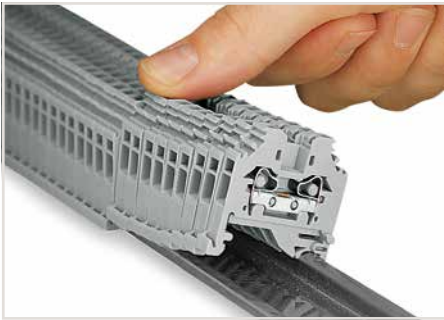
## Rail-Mount Terminal Blocks, Classic

### Side-Entry Wiring

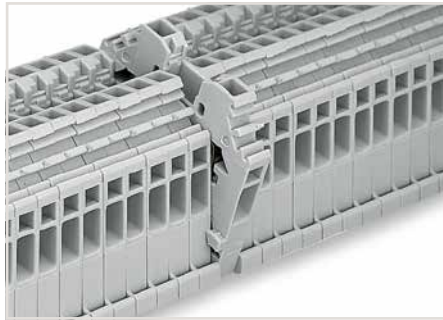
			Page
	<b>Through and Ground Conductor Terminal Blocks</b> 0.08 ... 16 mm <sup>2</sup> (28 ... 6 AWG)	279 ... 283 Series	490
	<b>Disconnect/Test Terminal Blocks, Ground Conductor Disconnect Terminal Blocks</b> 0.2 ... 6 mm <sup>2</sup> (24 ... 10 AWG)	282 Series	494
	<b>Fuse Terminal Blocks</b> 0.2 ... 6 mm <sup>2</sup> (24 ... 10 AWG)	282 Series	496

## Side-Entry Rail-Mount Terminal Blocks, 279 ... 284 Series

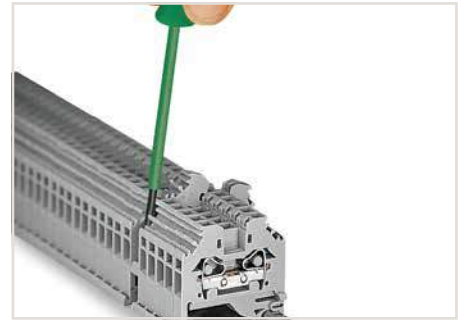
### Description and Installation



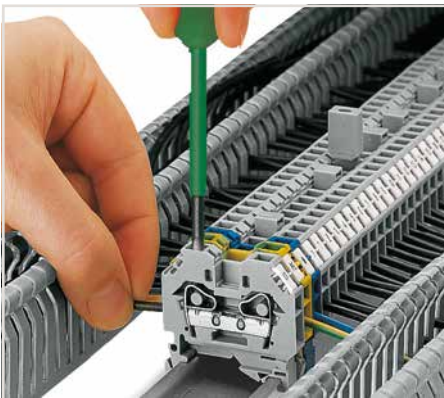
Snapping side-entry rail-mount terminal blocks onto the carrier rail.



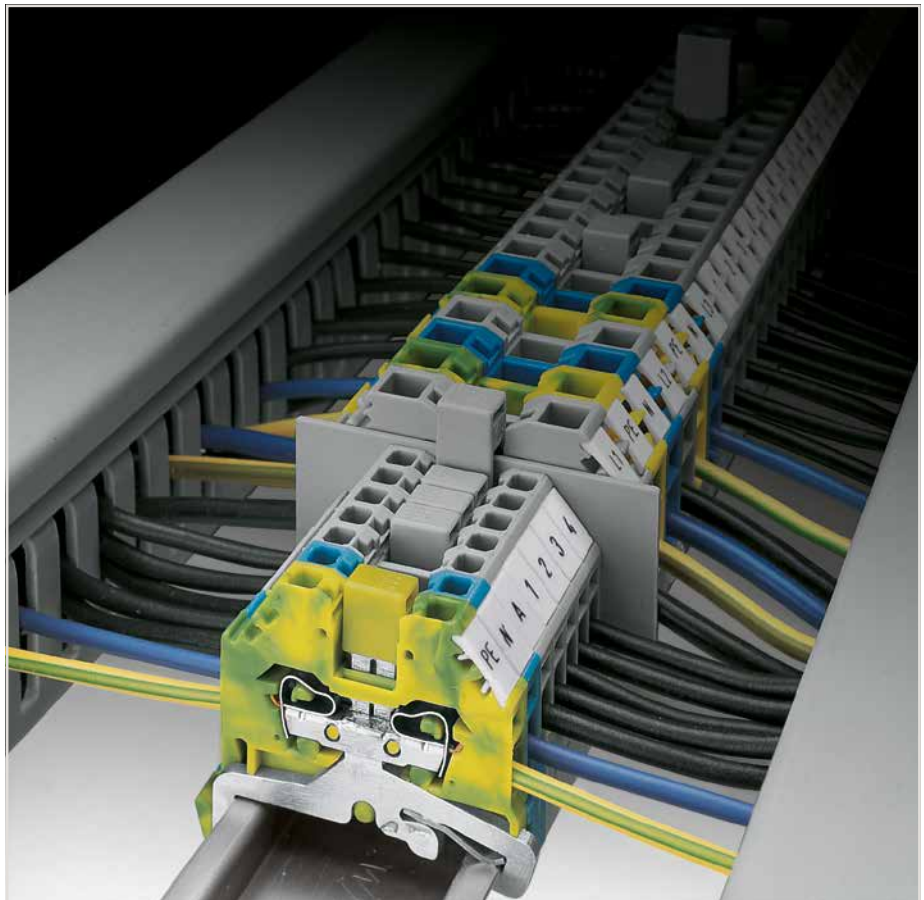
Quick assembly keys prevent reverse mounting.



Removing a terminal block from the assembly.



**CAGE CLAMP® connection**  
Inserting a conductor via screwdriver.  
With ferruled conductors, it is necessary to use a terminal block one size larger than the conductor's nominal cross-section.



Testing with a test plug  
(picture shows 209-170 Test Plug Adapter).



Commoning using an adjacent jumper (280-402).  
Push jumper down until fully inserted.



Commoning side-entry rail-mount terminal blocks via step-down jumpers.  
Step down jumper down until fully inserted.



**CAGE CLAMP®**  
terminates the following  
copper conductors:  
solid



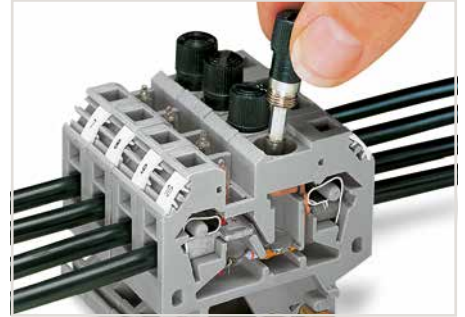
stranded



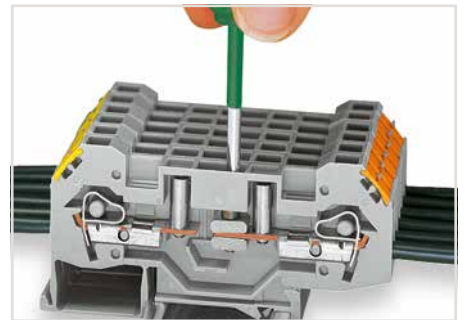
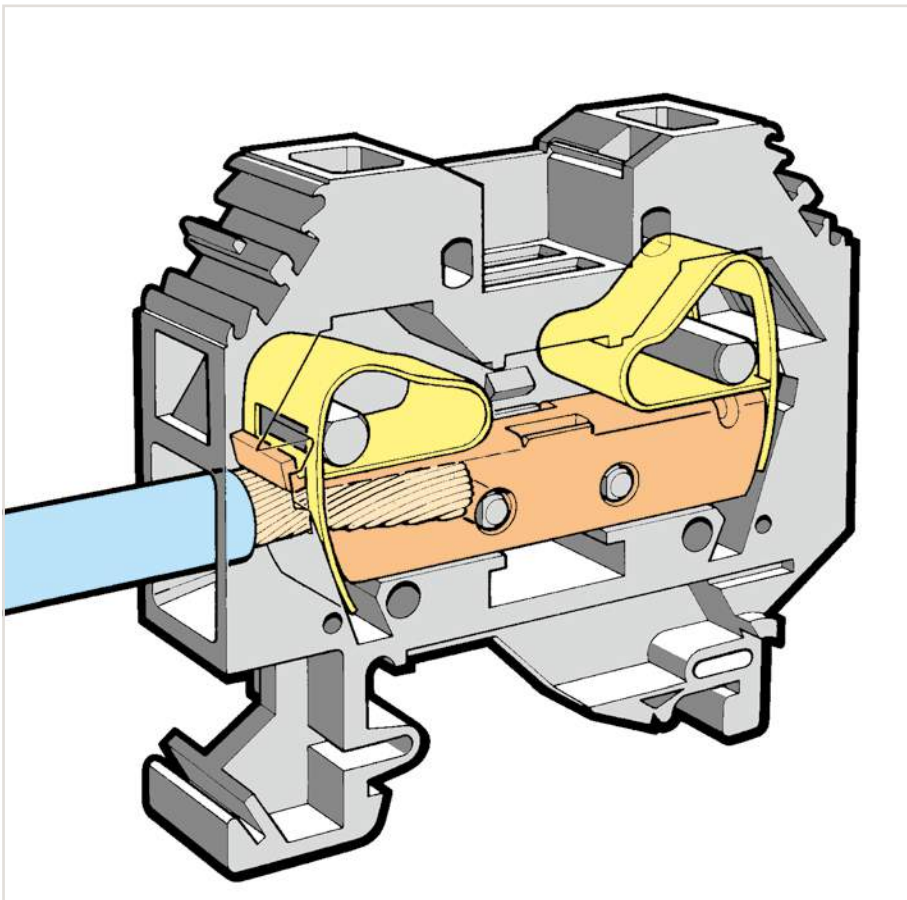
fine-stranded,  
also with tinned  
single strands



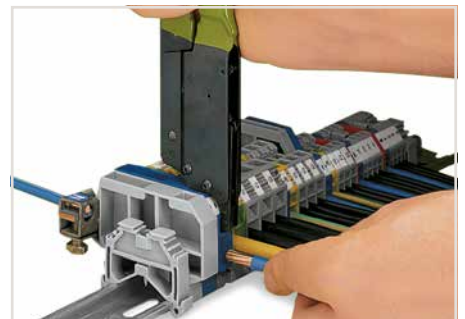
Suitable for all DIN-35 rails



Replacing a fuse.



Shifting the disconnect slide link of a disconnect/test terminal block.



When operating the handles beyond the locked position, the ratchet allows the tool to open and be removed from the terminal block.



Labeling via WMB Multi Marking System.



fine-stranded, tip-bonded






fine-stranded, with ferrule (gastight crimped)

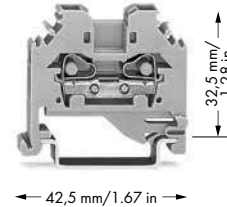
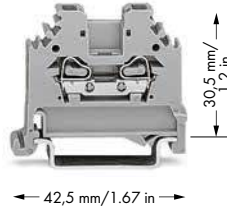
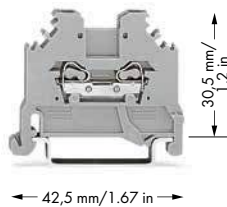


fine-stranded, with pin terminal (gastight crimped)

## Through and Ground Conductor Terminal Blocks

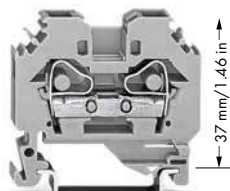
1.5 mm<sup>2</sup>, 279 Series and 2.5 mm<sup>2</sup>, 280 Series and 4 mm<sup>2</sup>, 281 Series and 6 mm<sup>2</sup>, 282 Series

<p>0.08 ... 1.5 mm<sup>2</sup> 28 ... 16 AWG 800 V/8 kV/3 ① I<sub>N</sub> 18 A</p> <p>Terminal block width 4 mm / 0.157 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 2.5 mm<sup>2</sup> 28 ... 12 AWG* 800 V/8 kV/3 ① I<sub>N</sub> 24 A</p> <p>Terminal block width 5 mm / 0.197 inch   8 ... 9 mm / 0.31 ... 0.35 inch</p>	<p>0.08 ... 4 mm<sup>2</sup> 28 ... 12 AWG 800 V/8 kV/3 ① I<sub>N</sub> 32 A</p> <p>Terminal block width 6 mm / 0.236 inch   9 ... 10 mm / 0.35 ... 0.39 inch</p>
--	--	--



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block		2-conductor through terminal block		2-conductor through terminal block	
○ gray <b>279-101</b>	100	○ gray <b>280-101</b>	100	○ gray <b>281-101</b>	100
● blue <b>279-104</b> ②	100	● blue <b>280-104</b> ②	100	● blue <b>281-104</b> ②	100
		2-conductor ground terminal block		2-conductor ground terminal block	
		● green-yellow <b>280-107</b>	100	● green-yellow <b>281-107</b>	100
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 2.5 mm thick		End and intermediate plate, 3 mm thick	
orange <b>280-302</b>	100 (4x25)	orange <b>280-302</b>	100 (4x25)	orange <b>281-302</b>	100 (4x25)
gray <b>280-301</b>	100 (4x25)	gray <b>280-301</b>	100 (4x25)	gray <b>281-301</b>	100 (4x25)
Separator, oversized, 2 mm thick		Separator, oversized, 2 mm thick		Separator, oversized, 2 mm thick	
orange <b>280-322</b>	100 (4x25)	orange <b>280-322</b>	100 (4x25)	orange <b>281-322</b>	100 (4x25)
gray <b>280-332</b>	100 (4x25)	gray <b>280-332</b>	100 (4x25)	gray <b>281-332</b>	100 (4x25)
Adjacent jumper, insulated, I <sub>N</sub> 15 A		Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Adjacent jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	
gray <b>279-402</b>	200 (8x25)	gray <b>280-402</b>	200 (8x25)	gray <b>281-402</b>	200 (8x25)
yellow-green <b>279-422</b>	200 (8x25)	yellow-green <b>280-422</b>	200 (8x25)	yellow-green <b>281-422</b>	200 (8x25)
Alternate jumper, insulated, I <sub>N</sub> 15 A		Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Alternate jumper, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block	
gray <b>279-409</b>	100 (4x25)	gray <b>280-409</b>	100 (4x25)	gray <b>281-409</b>	100 (4x25)
Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 4/2.5/1.5 mm <sup>2</sup> (12/14/16 AWG), I <sub>N</sub> 15 A		Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 4/2.5/1.5 mm <sup>2</sup> (12/14/16 AWG), I <sub>N</sub> 15 A		Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 4/2.5/1.5 mm <sup>2</sup> (12/14/16 AWG), I <sub>N</sub> 15 A	
gray <b>284-414</b>	50 (2x25)	gray <b>284-414</b>	50 (2x25)	gray <b>284-414</b>	50 (2x25)
Step-down intermediate plate, 1 mm thick		Step-down intermediate plate, 1 mm thick		Step-down intermediate plate, 1 mm thick	
gray <b>281-333</b>	100 (4x25)	gray <b>281-333</b>	100 (4x25)	gray <b>281-333</b>	100 (4x25)
orange <b>281-336</b>	100 (4x25)	orange <b>281-336</b>	100 (4x25)	orange <b>281-336</b>	100 (4x25)
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 6/4 mm <sup>2</sup> (10/12 AWG), I <sub>N</sub> 30 A	
yellow <b>279-405</b>	100 (4x25)	yellow <b>280-405</b>	100 (4x25)	gray <b>284-413</b>	50 (2x25)
Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks		Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks		Step-down jumper, insulated, I <sub>N</sub> 32 A	
gray <b>209-170</b>	50 (2x25)	gray <b>209-170</b>	50 (2x25)	gray <b>283-414</b>	50 (2x25)
Test plug adapter, 5 mm wide, for 210-137 test plug 2.3 mm Ø, for 1.5 ... 4 mm <sup>2</sup> terminal blocks		Test plug adapter, 5 mm wide, for 210-137 test plug 2.3 mm Ø, for 1.5 ... 4 mm <sup>2</sup> terminal blocks		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks	
gray <b>280-404</b>	100 (4x25)	gray <b>280-404</b>	100 (4x25)	yellow <b>281-405</b>	100 (4x25)
				Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks	
				gray <b>209-170</b>	50 (2x25)

0.2 ... 6 mm <sup>2</sup>	24 ... 10 AWG
800 V/8 kV/3 ①	600 V, 30 A ②
I <sub>N</sub> 41 A	600 V, 10 A ③
Terminal block width 8 mm / 0.315 inch	
12 ... 13 mm / 0.47 ... 0.51 inch	













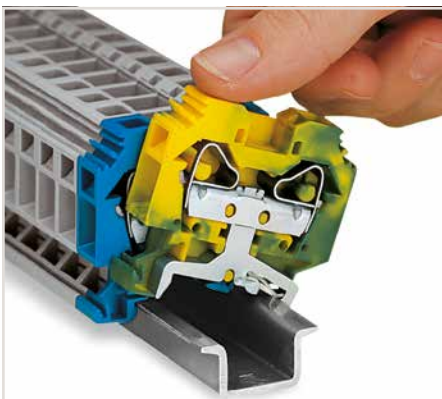
← 46,5 mm/1.83 in →

Carrier rail	Item No.	Curre[A]	Acc. to mm <sup>2</sup> /AWG Cu
DIN 35 x 7.5 (steel)			
slotted	210-112	76	16/6
unslotted	210-113	76	16/6
DIN 35 x 15 (steel)			
1.5 mm thick	210-114	125	35/2
2.3 mm thick	210-118	125	35/2
DIN 35 x 7.5 (Al)			
unslotted	210-196	76	16/6
DIN 35 x 15 (Cu)			
2.3 mm thick	210-198	309	150/6/0
Current applies to rails of 1 m/3'3" length			

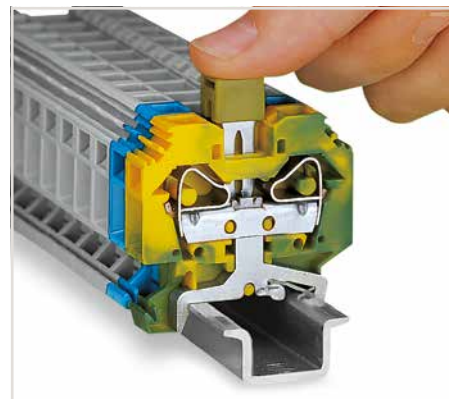
When using standard carrier rails as ground conductor busbars, please refer to the maximum current capacities listed above.  
Steel carrier rails are not suited for PEN (ground and N-conductor) applications per EN 60947-7-2 (VDE 0611, Part 3).

- \* 12 AWG: THHN, THWN
- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(also see Section 14)
- ② Suitable for Ex i applications
- ③ See application notes for:  
Step-down jumper, page 493  
Test plug module, page 329

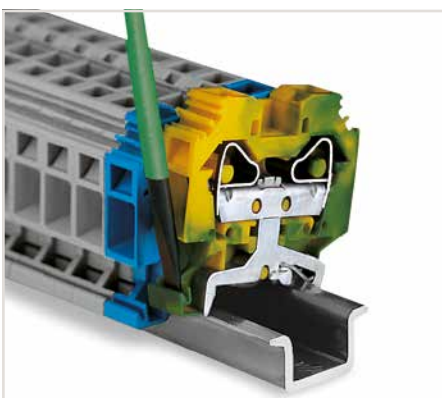
	Item No.	Pack. Unit
2-conductor through terminal block		
○ gray	282-101	50
● blue	282-104 ②	50
2-conductor ground terminal block		
● green-yellow	282-107	50
<b>Item-Specific Accessories</b>		
End and intermediate plate, 4 mm thick		
	orange 282-302	100 (4x25)
	gray 282-301	100 (4x25)
Separator, oversized, 2 mm thick		
	orange 282-322	100 (4x25)
	gray 282-332	100 (4x25)
Adjacent jumper, insulated, I <sub>N</sub> 41 A		
	gray 282-402	100 (4x25)
	yellow-green 282-422	100 (4x25)
Alternate jumper, insulated, I <sub>N</sub> 41 A		
	gray 282-409	100 (4x25)
Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 6/4 mm <sup>2</sup> (10/12 AWG), I <sub>N</sub> 30 A		
③ 	gray 284-413	50 (2x25)
Step-down cover plate, 1 mm thick		
	gray 284-333	100 (4x25)
	orange 284-343	100 (4x25)
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		
	yellow 282-405	100 (4x25)
Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks		
	gray 209-170	50 (2x25)
B-type test plug module, snaps together, 8 mm wide		
④ 	gray 709-310	100 (4x25)
B-type spacer module, snaps together, 8 mm wide		
	gray 709-311	100 (4x25)



Snapping a terminal block onto the carrier rail. Ground conductor terminal blocks snap onto the rail in the same way as through terminal blocks, but automatically make a direct electrical connection to the rail. After mounting, sliding the blocks on the rail is not possible.





Pushing jumper down until fully inserted. Commoning ground conductor terminal blocks with through terminal blocks is possible in one direction only (via rear side of terminal block) using adjacent jumpers. WAGO recommends using yellow-green adjacent jumpers in addition to the required marking of these blocks.

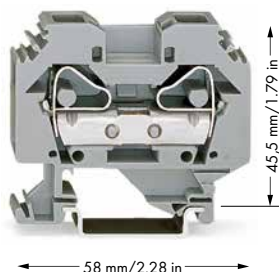
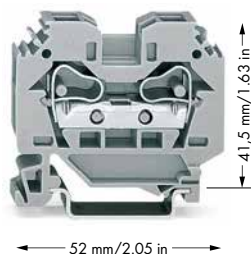


Removing a terminal block from the carrier rail. When mounting on the rail, ensure that open sides of terminal blocks face in the same direction. Both mounting feet and removal slots are on the same side for all terminal blocks, making it possible to visually ensure blocks are facing in same direction.



















# Through and Ground Conductor Terminal Blocks

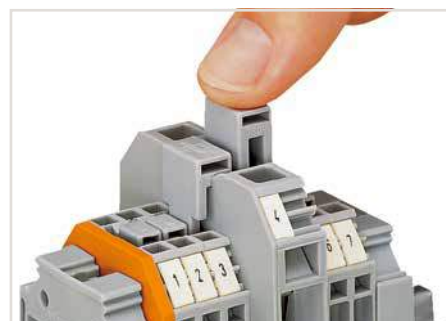
## 10 mm<sup>2</sup>, 284 Series and 16 mm<sup>2</sup>, 283 Series

0.2 ... 10 mm <sup>2</sup> 800 V/8 kV/3 ① I <sub>N</sub> 57 A	24 ... 8 AWG 600 V, 50 A ② 600 V, 65 A ③	0.2 ... 16 mm <sup>2</sup> 800 V/8 kV/3 ① I <sub>N</sub> 76 A	24 ... 6 AWG 600 V, 65 A ② 600 V, 90 A ③
Terminal block width 10 mm / 0.394 inch  12 ... 13 mm / 0.47 ... 0.51 inch		Terminal block width 12 mm / 0.472 inch  16 ... 17 mm / 0.63 ... 0.67 inch	



- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(also see Section 14)
- ② See application notes for:  
Step-down jumper, page 493  
Test plug module, page 329

Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor through terminal block		2-conductor through terminal block	
○ gray <b>284-101</b>	50	○ gray <b>283-101</b>	50
● blue <b>284-104</b>	50	● blue <b>283-104</b>	50
2-conductor ground terminal block		2-conductor ground terminal block	
● green-yellow <b>284-107</b>	50	● green-yellow <b>283-107</b>	50
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
End and intermediate plate, 2.5 mm thick		End and intermediate plate, 4 mm thick	
 orange <b>284-302</b>	100 (4x25)	 orange <b>283-302</b>	50 (2x25)
gray <b>284-301</b>	100 (4x25)	gray <b>283-301</b>	50 (2x25)
Separator, oversized, 2 mm thick		Separator, oversized, 2 mm thick	
 orange <b>284-322</b>	100 (4x25)	 orange <b>283-322</b>	50 (2x25)
gray <b>284-332</b>	100 (4x25)	gray <b>283-332</b>	50 (2x25)
Adjacent jumper, insulated, I <sub>N</sub> 57 A		Adjacent jumper, insulated, I <sub>N</sub> 70 A	
 gray <b>284-402</b>	100 (4x25)	 gray <b>283-402</b>	50 (2x25)
yellow-green <b>284-422</b>	100 (4x25)	yellow-green <b>283-422</b>	50 (2x25)
Alternate jumper, insulated, I <sub>N</sub> 57 A		Alternate jumper, insulated, I <sub>N</sub> 76 A	
 gray <b>284-409</b>	50 (2x25)	 gray <b>283-409</b>	50 (2x25)
Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 6/4 mm <sup>2</sup> (10/12 AWG), I <sub>N</sub> 30 A		Step-down jumper, insulated, commons 16 mm <sup>2</sup> (6 AWG) down to 4 mm <sup>2</sup> (12 AWG), I <sub>N</sub> 32 A	
②  gray <b>284-413</b>	50 (2x25)	②  gray <b>283-414</b>	50 (2x25)
Step-down cover plate, 1 mm thick		Step-down cover plate, 1 mm thick	
 gray <b>284-333</b>	100 (4x25)	 gray <b>283-333</b>	100 (4x25)
orange <b>284-343</b>	100 (4x25)	orange <b>283-335</b>	100 (4x25)
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks	
 yellow <b>284-405</b>	50 (2x25)	 yellow <b>283-405</b>	50 (2x25)
Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks		Test plug adapter, 11.6 mm wide, for 4 mm Ø test plug, for 1.5 ... 16 mm <sup>2</sup> terminal blocks	
 gray <b>209-170</b>	50 (2x25)	 gray <b>283-404</b>	25
B-type test plug module, snaps together, 8 mm wide			
③  gray <b>709-310</b>	100 (4x25)		
B-type spacer plate, snaps together, 2 mm wide			
 gray <b>709-312</b>	100 (4x25)		



Step-down jumpers common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point.

Step-down jumpers are simply pushed down for full insertion, similar to adjacent jumpers. Commoning may be made in either direction using the special thin end plate to cover the open side. Additional through terminal blocks having a smaller cross-section may be commoned using adjacent jumpers.

- In this case, pay attention that:
- The total current of the outgoing circuits does not exceed the nominal current of the step-down jumper.
  - The standard or special thin cover plate is installed on the open side of the larger block.

10

# Step-Down Jumpers for Side-Entry Through Terminal Blocks\* Installation

Step-down jumper	Step-down jumper
------------------	------------------



\* Terminal blocks for side-entry cannot be commoned with terminal blocks for front-entry. For commoning terminal blocks, front-entry via step-down jumpers, see page 234

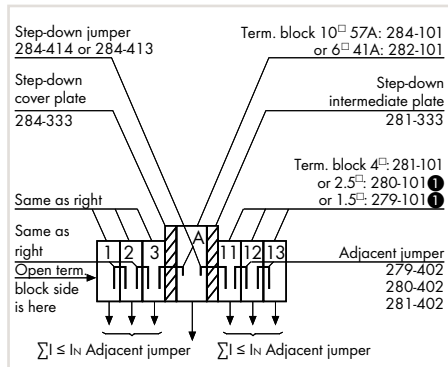
Item No.	Pack. Unit	Item No.	Pack. Unit
Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 4/2.5/1.5 mm <sup>2</sup> (12/14/16 AWG), I <sub>N</sub> 15 A		Step-down jumper, insulated, commons 16 mm <sup>2</sup> (6 AWG) down to 4 mm <sup>2</sup> (12 AWG), I <sub>N</sub> 32 A	
gray 284-414	50 (2x25)	gray 283-414	50 (2x25)
Step-down jumper, insulated, commons 10/6 mm <sup>2</sup> (8/10 AWG) down to 6/4 mm <sup>2</sup> (10/12 AWG), I <sub>N</sub> 30 A			
gray 284-413	50 (2x25)		
Item-Specific Accessories		Item-Specific Accessories	
Step-down cover plate, 1 mm thick		Step-down cover plate, 1 mm thick	
gray 284-333	100 (4x25)	gray 283-333	100 (4x25)
orange 284-343	100 (4x25)	orange 283-335	100 (4x25)
Step-down intermediate plate, 1 mm thick			
gray 281-333	100 (4x25)		
orange 281-336	100 (4x25)		



Commoning from 6 mm<sup>2</sup>/10 AWG (282 Series) to 1.5 mm<sup>2</sup>/16 AWG (279 Series) front-entry rail-mount terminal blocks.

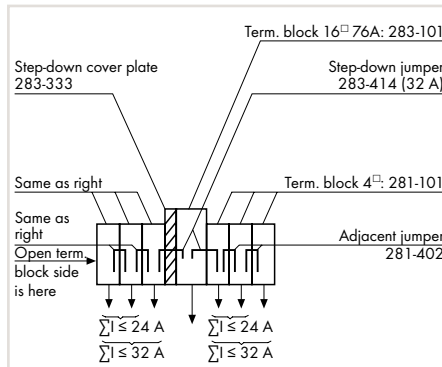


Commoning from 16 mm<sup>2</sup>/6 AWG (283 Series) to 4 mm<sup>2</sup>/12 AWG (281 Series) rail-mount terminal blocks via step-down jumpers.



Assembly example: Commoning from 10/6 mm<sup>2</sup> (8/10 AWG) to 4/2.5/1.5 mm<sup>2</sup> (12/14/16 AWG) rail-mount terminal blocks via step-down jumper (284-414).




❶ Commoning from 10 mm<sup>2</sup> (284-101) to 2.5 mm<sup>2</sup> (280-101) or 1.5 mm<sup>2</sup> (279-101) terminal blocks via terminal block rear side is not possible (see example: terminal block A to 11).

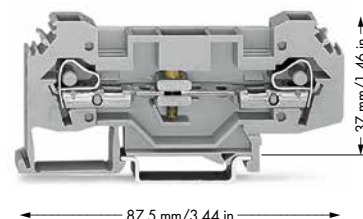
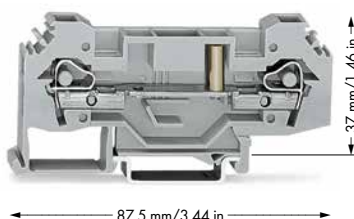
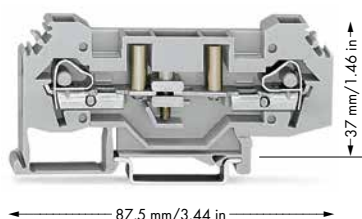


Assembly example: Commoning from 16 mm<sup>2</sup>/6 AWG to 4 mm<sup>2</sup>/12 AWG rail-mount terminal blocks via step-down jumper (283-414).

# Disconnect/Test Terminal Blocks and Ground Conductor Disconnect Terminal Blocks

6 mm<sup>2</sup>, 282 Series










0.2 ... 6 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 41 A Terminal block width 8 mm / 0.315 inch  12 ... 13 mm / 0.47 ... 0.51 inch	24 ... 10 AWG 300 V, 30 A ② 300 V, 40 A ③	0.2 ... 6 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 41 A Terminal block width 8 mm / 0.315 inch  12 ... 13 mm / 0.47 ... 0.51 inch	24 ... 10 AWG 300 V, 30 A ② 300 V, 40 A ③	0.2 ... 6 mm <sup>2</sup> 400 V/6 kV/3 ① I <sub>N</sub> 41 A Terminal block width 8 mm / 0.315 inch  12 ... 13 mm / 0.47 ... 0.51 inch	24 ... 10 AWG 300 V, 30 A ② 300 V, 40 A ③
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Disconnect/test terminal block, with 4 mm Ø test sockets		Through terminal block		Disconnect/test terminal block, without test sockets	
○ gray <b>282-131</b>	25	○ gray <b>282-133</b>	25	○ gray <b>282-135</b>	25
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
Alternate jumper, insulated, I <sub>N</sub> 41 A		Alternate jumper, insulated, I <sub>N</sub> 41 A		Alternate jumper, insulated, I <sub>N</sub> 41 A	
 gray <b>282-409</b>	100 (4x25)	 gray <b>282-409</b>	100 (4x25)	 gray <b>282-409</b>	100 (4x25)
Lock-out, prevents reclosing of slide link, snap-on type				Lock-out, prevents reclosing of slide link, snap-on type	
 orange <b>282-137</b>	100 (4x25)			 orange <b>282-137</b>	100 (4x25)

## 282 Series Accessories

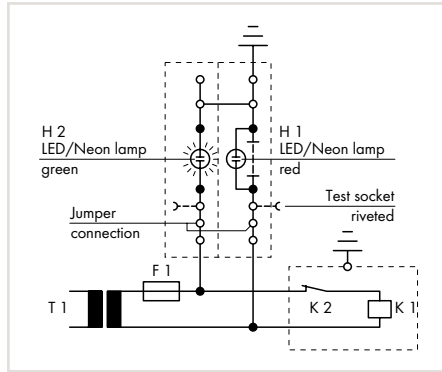
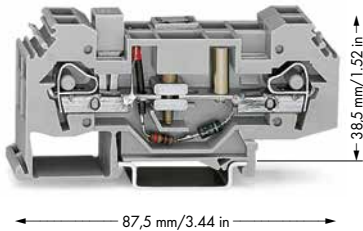
Appropriate marking system:  
WMB (see Section 13)

End and intermediate plate, 4 mm thick		<b>B-type test plug module</b> , snaps together, 8 mm wide			
 orange <b>282-315</b>	50 (2x25)	②  gray <b>709-310</b>	100 (4x25)		
 gray <b>282-314</b>	50 (2x25)				
Adjacent jumper, insulated, I <sub>N</sub> 41 A		<b>B-type spacer module</b> , snaps together, 8 mm wide			
 gray <b>282-402</b>	100 (4x25)	 gray <b>709-311</b>	100 (4x25)		
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks					
 yellow <b>282-405</b>	100 (4x25)				
Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks					
 gray <b>209-170</b>	50 (2x25)				
Screwless end stop, for DIN-35 rail, 6 mm wide					
 gray <b>249-116</b>	100 (4x25)				
Screwless end stop, for DIN-35 rail, 10 mm wide					
 gray <b>249-117</b>	50 (2x25)				



0.2 ... 6 mm<sup>2</sup> | 24 ... 10 AWG

Terminal block width 16 mm / 0.63 inch  
 12 ... 13 mm / 0.47 ... 0.51 inch



**Operating condition**  
 Slide link closed, auxiliary circuit grounded, green LED/Neon lamp illuminates.

- 1 400 V = rated voltage  
 6 kV = rated surge voltage  
 3 = pollution degree  
 (also see Section 14)
- 2 See application notes for:  
 Test plug module, page 329

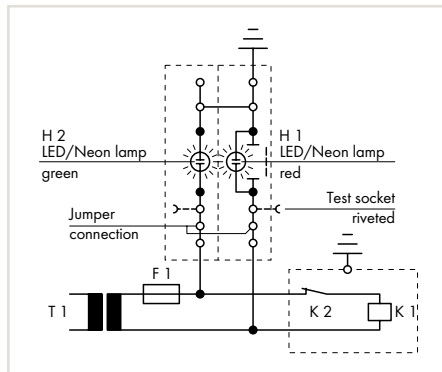
Item No.	Pack. Unit
Ground conductor disconnect terminal block, gray	
24 V	282-140 12
48 V	282-141 12
120 V	282-138 12
230 V	282-139 12

**Item-Specific Accessories**

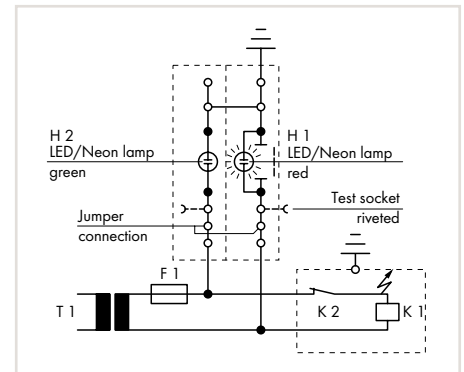
Lock-out, prevents reclosing of slide link, snap-on type



orange 282-137 100 (4x25)

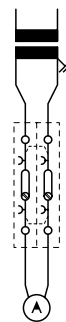


**Test condition - no grounding**  
 Slide link open, auxiliary circuit not grounded.

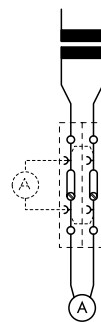


**Test condition - grounding**  
 Slide link open, auxiliary circuit not grounded, red LED/Neon lamp illuminates.

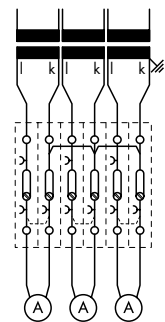
Current transformer circuit with current path separation and commoning possibility



Current transformer circuit with the connection of a second test unit through test sockets



Transformer test circuit, k-conductors of the transformers connected



IEC 60204/DIN VDE 0113 "Safety of machinery - Electrical equipment of machines - Part 1: General requirements," Section 9.4.3.1:

Ground faults on control circuits must not cause unintentional starting, hazardous movements, or prevent stopping of the machine.




In order to fulfill this requirement, a connection to the protective bonding circuit must be provided in accordance with Section 8.2 and the devices must be connected as described in Section 9.1.4. Control circuits fed from a transformer and not connected to the protective bonding circuit must be provided with an insulation monitoring device (e.g., residual current device), which either indicates a ground fault or interrupts the circuit automatically after a ground fault.

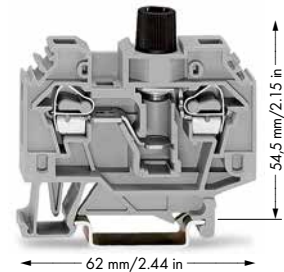
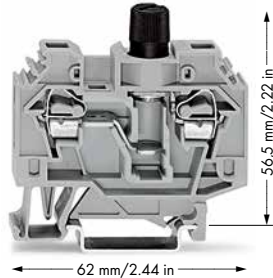
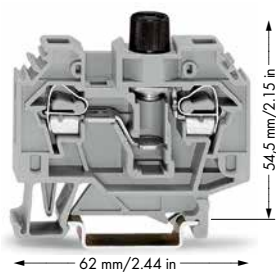
In the case of electronic circuits, the connection of one side of the control circuit to the protective bonding circuit in accordance with Section 9.1.4 can prevent unintentional operation. When this does not help, or if due to other reasons that electronic circuits cannot be connected to the protective bonding circuit, other measures must be taken to achieve the same level of safety.

Multipole control switches that interrupt all live conductors must be used where the control circuit is directly connected between the phase conductors of the supply or between a phase conductor and a neutral conductor, which is either not grounded or grounded through a high impedance. This is required for starting or stopping those machine functions, which can cause a hazardous situation including: damaging the machine or halting work in progress in the event of unintentional starting or failure to stop.







## Fuse Terminal Blocks

### 6 mm<sup>2</sup>, 282 Series

0.2 ... 6 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 10 A Terminal block width 13 mm / 0.512 inch  12 ... 13 mm / 0.47 ... 0.51 inch	24 ... 10 AWG 600 V, 10 A ② 250 V, 10 A ③	0.2 ... 6 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 10 A Terminal block width 13 mm / 0.512 inch  12 ... 13 mm / 0.47 ... 0.51 inch	24 ... 10 AWG 600 V, 10 A ② 250 V, 10 A ③	0.2 ... 6 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 10 A Terminal block width 13 mm / 0.512 inch  12 ... 13 mm / 0.47 ... 0.51 inch	24 ... 10 AWG 600 V, 10 A ② 250 V, 10 A ③
---	---	--	---	--	---



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
2-conductor fuse terminal block, without indicator, for miniature fuses 5 x 20 mm		2-conductor fuse terminal block, without indicator, for miniature fuses ¼" x 1"		2-conductor fuse terminal block, with indicator, for miniature fuses	
● gray	<b>282-122</b> 40	● gray	<b>282-120</b> 40	● gray	<b>282-126</b> 40
		2-conductor fuse terminal block, without indicator, for miniature fuses ¼" x 1¼"			
		● gray	<b>282-128</b> 40		

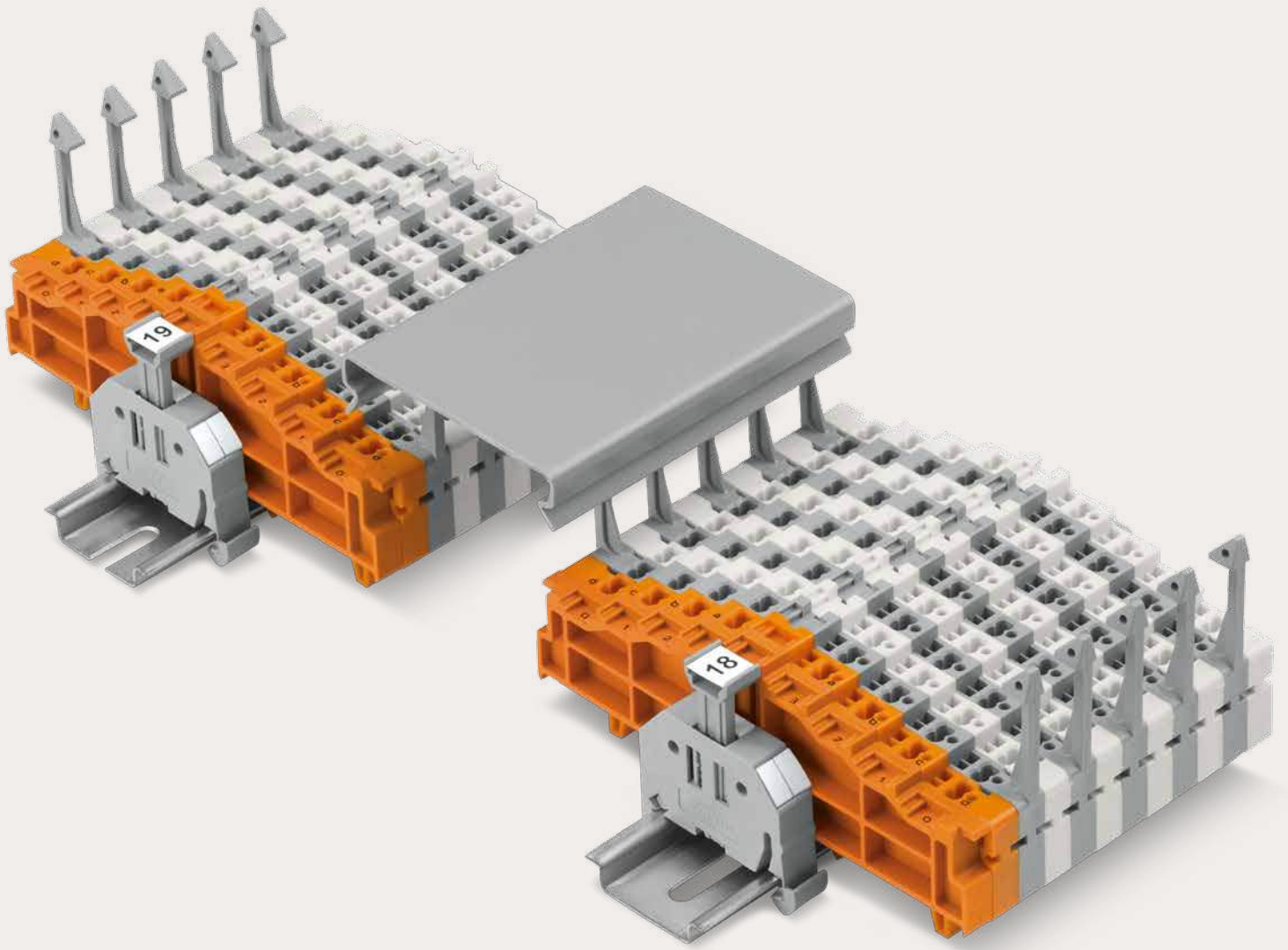
Item-Specific Accessories	Item-Specific Accessories	Item-Specific Accessories
Miniature fuse, 5 x 20 mm, without indicator, 6.3 A/250 V, medium/slow  <b>282-451</b> 100	Miniature fuse, ¼" x 1", without indicator, 10 A/240 V, to BS 1362  <b>282-458</b> 200 (20x10)	Miniature fuse, 5 x 25 mm, with indicator, 6.3 A, medium/slow  <b>282-452</b> 200 (20x10)
	Miniature fuse, ¼" x 1¼", without indicator, 10 A/250 V, medium/slow  <b>282-457</b> 200 (2x100)	Miniature fuse, 5 x 25 mm, with indicator, 10 A, fast acting  <b>282-453</b> 200 (20x10)
	Miniature fuse, ¼" x 1¼", without indicator, 10 A/500 V, very fast acting  <b>282-454</b> 200 (20x10)	

### Accessories for Fuse Terminal Blocks

Appropriate marking system:  
WMB (see Section 13)







End and intermediate plate, 4 mm thick orange <b>282-312</b> 50 (2x25) gray <b>282-311</b> 50 (2x25)	Test plug adapter, 8.3 mm wide, for 4 mm Ø test plug, for 1.5 ... 10 mm <sup>2</sup> terminal blocks gray <b>209-170</b> 50 (2x25)	
Adjacent jumper, insulated, I <sub>N</sub> 41 A gray <b>282-402</b> 100 (4x25)	Test plug adapter, 6 mm wide, with CAGE CLAMP®, for 0.08 ... 2.5 mm <sup>2</sup> I <sub>N</sub> 24 A <b>281-407</b> 100 (4x25)	
Protective warning marker, with black high-voltage symbol, for 5 terminal blocks yellow <b>282-405</b> 100 (4x25)	Plunger, for 281, 282, 283 and 284 Series rail-mount terminal blocks for side-entry <b>210-141</b> 1	





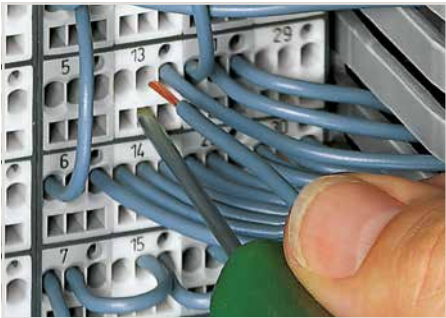
# Terminal Blocks for Matrix Patching and Potential Distribution

## Terminal Blocks for Matrix Patching and Potential Distribution, Busbar Terminal Blocks

			Page
	<b>Matrix Patchboards</b>	726 Series	502
	<b>Common Potential Matrix Patchboards</b> Marking on the Patchboard Side Marking on the Supply Side	726 Series	506
	<b>Matrix Patchboard Accessories</b>		510
	<b>Terminal Blocks for Matrix Patching and Common Potential Terminal Blocks</b> 1.5 mm <sup>2</sup> (16 AWG)	727 Series	514
	<b>3-Conductor, Double-Potential Terminal Blocks</b> 2.5 mm <sup>2</sup> (12 AWG)	280 Series	519
	<b>Busbar Terminal Blocks</b>	812 Series	521

# Matrix Patchboards, 726 Series

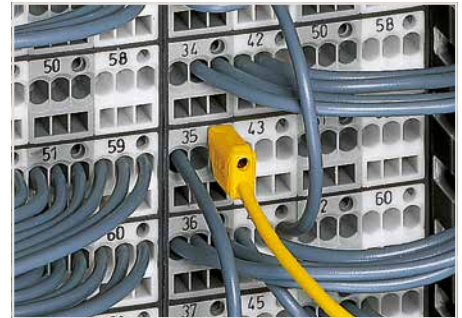
## Description and Installation



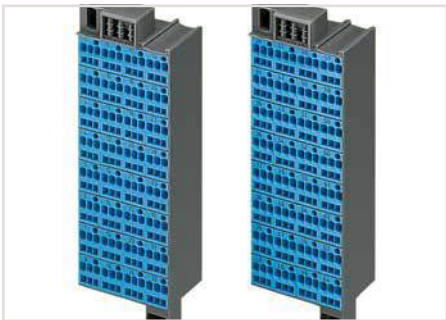
**CAGE CLAMP® connection**  
Inserting a conductor via 210-719 Operating Tool (2.5 x 0.4 mm blade).



Factory-marked modules  
Side 1: 1, 2, 3, 4 ...



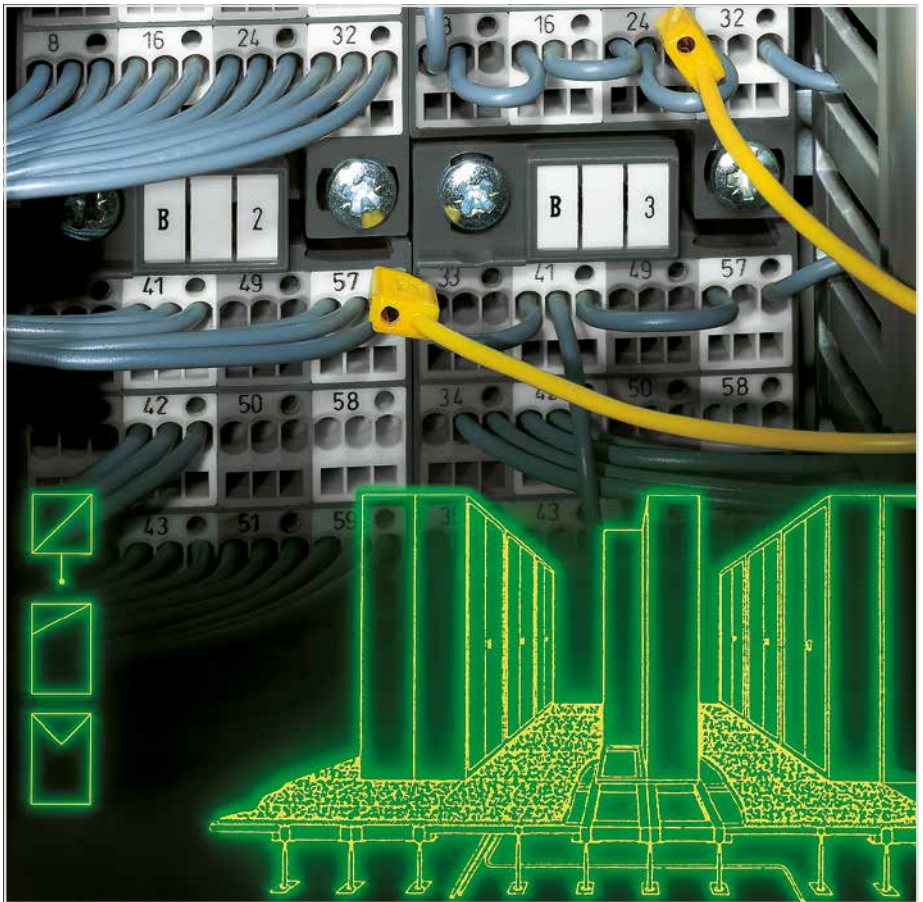
Testing with a 2.3 mm Ø test plug (210-137).



Blue matrix patchboards are suitable for Ex i applications.



WFB continuous marking strip - fits into the matrix patchboards' marker slot and group marker carrier.



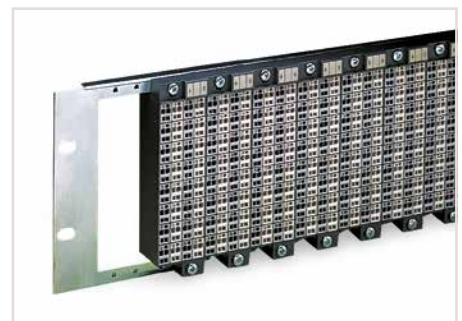
11



Individual group marking via WSB Quick Marking System.



Installation example:  
Matrix patchboards in a frame



Installation example:  
Matrix patchboards in a 19" rack



**CAGE CLAMP®**  
terminates the following  
copper conductors:  
solid



stranded



fine-stranded,  
also with tinned  
single strands



Saving space via slimline matrix patchboard (lower right), mounted upside down.



Snapping on an additional module with contact to mounting frame.



Assembling a matrix patchboard with additional module – direct connection to the mounting frame.

	Max. conductor cross section (mm <sup>2</sup> /AWG) without ferrule	Max. conductor cross section (mm <sup>2</sup> /AWG) with ferrule	
		insulated	uninsulated
Side 2	1.5	0.75 Item No./Color <b>216-202/gray</b>	1 Item No. <b>216-123</b>
Side 1	1.5	0.75 <b>216-202/gray</b>	1 <b>216-123</b>
Side 2	2.5	1.5 <b>216-204/black</b>	1.5 <b>216-104</b>
Side 1	1.5	0.75 <b>216-202/gray</b>	1 <b>216-123</b>



Terminating ferruled conductors via operating tool.



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)











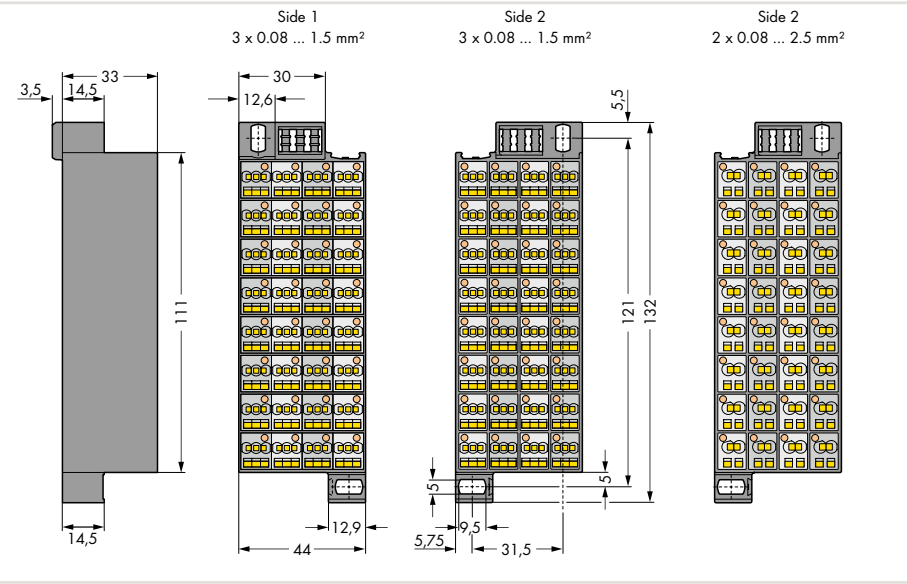




# Matrix Patchboards, 32-Pole

## 726 Series

Side 1: 3x 0.08 ... 1.5 mm <sup>2</sup> Side 2: 3x 0.08 ... 1.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 10 A 8 ... 10 mm / 0.31 ... 0.39 inch	28 ... 16 AWG 28 ... 16 AWG 300 V, 10 A ② 300 V, 10 A ③	Side 1: 3x 0.08 ... 1.5 mm <sup>2</sup> Side 2: 2x 0.08 ... 2.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 10 A 8 ... 10 mm / 0.31 ... 0.39 inch	28 ... 16 AWG 28 ... 14 AWG 300 V, 10 A ② 300 V, 10 A ③
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- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ See application notes for:  
Decade marker carrier, page 510  
Insulation stop, page 511

Item No.	Pack. Unit	Item No.	Pack. Unit	Matrix Patchboard Accessories
Matrix patchboard, dark gray frame, colors of modules: gray/white, numbering of modules on sides 1 and 2 arranged vertically and horizontally marking 1 ... 32 <b>726-121</b> marking 33 ... 64 <b>726-122</b>	20 20	Matrix patchboard, dark gray frame, colors of modules: gray/white, numbering of modules on sides 1 and 2 arranged vertically and horizontally marking 1 ... 32 <b>726-221</b> marking 33 ... 64 <b>726-222</b>	20 20	Wire commoning chain, insulated, 31 connections, I <sub>N</sub> 6 A, max. 50 V, 0.5 mm <sup>2</sup>  gray <b>709-107</b> 1
Matrix patchboard, dark gray frame, colors of modules: blue, numbering of modules on sides 1 and 2 arranged vertically and horizontally marking 1-32 <b>726-141</b> ② marking 33-64 <b>726-142</b> ②	20 20	Matrix patchboard, dark gray frame, colors of modules: blue, numbering of modules on sides 1 and 2 arranged vertically and horizontally marking 1-32 <b>726-241</b> ② marking 33-64 <b>726-242</b> ②	20 20	Group marking carrier for side 2  dark gray <b>726-902</b> 50
<b>Matrix Patchboard Accessories</b>				WFB continuous marking strip, 1000 mm long  transparent <b>210-612</b> 10
<b>Matrix Patchboard Accessories</b>				Carrier for WFB continuous marking strip, snaps into marker slot  <b>209-185</b> 200 (8x25)
Insulation stop, 4 x 3 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" ③ (0.14 mm <sup>2</sup> "f-st")  white <b>726-901</b> 200 (8x25)		Insulation stop, 4 x 3 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> "s+f-st" ③  dark gray <b>726-907</b> 200 (8x25)		WSB Quick marking system, white, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm  plain <b>209-501</b> 5
Insulation stop, 4 x 3 pcs/strip, 0.25 mm <sup>2</sup> "s" 0.14 ... 0.25 mm <sup>2</sup> "f-st" ③  light gray <b>726-906</b> 200 (8x25)		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  yellow <b>210-137</b> 50		WSB Quick marking system, white, 10 strips with 10 markers per card, horizontal marking  1 ... 10 (10x) <b>209-502</b> 5
				WSB Quick marking system, white, 10 strips with 10 markers per card, horizontal marking  1 ... 50 (2x) <b>209-566</b> 5
WSB Quick marking system, white, 10 strips with 10 markers per card, horizontal marking  X (100x) <b>209-500/209-035</b> 5				
Decade marker carrier, for matrix patchboards ③  dark gray <b>726-905</b> 10				
Operating tool with a partially insulated shaft, type 1, (2.5 x 0.4) mm blade  <b>210-719</b> 1				

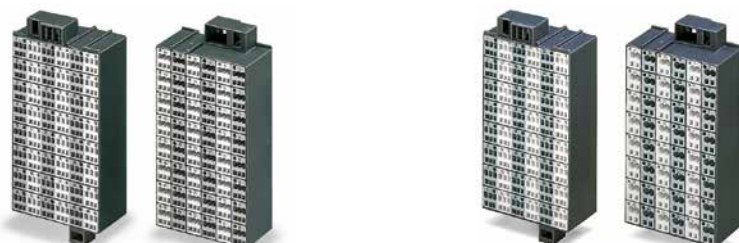
Dimensions in mm



# Matrix Patchboards, 48-Pole

## 726 Series

Side 1: 3x 0.08 ... 1.5 mm <sup>2</sup> Side 2: 3x 0.08 ... 1.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 10 A 8 ... 10 mm / 0.31 ... 0.39 inch	28 ... 16 AWG 28 ... 16 AWG 300 V, 10 A ② 300 V, 10 A ③	Side 1: 3x 0.08 ... 1.5 mm <sup>2</sup> Side 2: 2x 0.08 ... 2.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 10 A 8 ... 10 mm / 0.31 ... 0.39 inch	28 ... 16 AWG 28 ... 14 AWG 300 V, 10 A ② 300 V, 10 A ③
---	--	---	--



- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ See application notes for:  
Decade marker carrier, page 510  
Insulation stop, page 511

Item No.	Pack. Unit	Item No.	Pack. Unit	Matrix Patchboard Accessories
Matrix patchboard, dark gray frame, colors of modules: gray/white, numbering of modules on sides 1 and 2 arranged vertically and horizontally marking 1 ... 48 <b>726-421</b>	10	Matrix patchboard, dark gray frame, colors of modules: gray/white, numbering of modules on sides 1 and 2 arranged vertically and horizontally marking 1 ... 48 <b>726-521</b>	10	WFB continuous marking strip, 1000 mm long transparent <b>210-612</b> 10
Matrix patchboard, dark gray frame, colors of modules: blue, numbering of modules on sides 1 and 2 arranged vertically and horizontally marking 1 ... 48 <b>726-441</b> ②	10	Matrix patchboard, dark gray frame, colors of modules: blue, numbering of modules on sides 1 and 2 arranged vertically and horizontally marking 1 ... 48 <b>726-541</b> ②	10	Carrier for WFB continuous marking strip, snaps into marker slot <b>209-185</b> 200 (8x25)

Matrix Patchboard Accessories		Matrix Patchboard Accessories	
Insulation stop, 4 x 3 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" ③ (0.14 mm <sup>2</sup> "f-st") white <b>726-901</b> 200 (8x25)	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V yellow <b>210-137</b> 50	WSB Quick marking system, white, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm plain <b>209-501</b> 5	WSB Quick marking system, white, 10 strips with 10 markers per card, horizontal marking 1 ... 10 (10x) <b>209-502</b> 5
Insulation stop, 4 x 3 pcs/strip, 0.25 mm <sup>2</sup> "s" 0.14 ... ③ 0.25 mm <sup>2</sup> "f-st" light gray <b>726-906</b> 200 (8x25)	Wire commoning chain, insulated, 31 connections, I <sub>N</sub> 6 A, max. 50 V, 0.5 mm <sup>2</sup> gray <b>709-107</b> 1	WSB Quick marking system, white, 10 strips with 10 markers per card, horizontal marking 1 ... 50 (2x) <b>209-566</b> 5	WSB Quick marking system, white, 10 strips with 10 markers per card, horizontal marking X (100x) <b>209-500/209-035</b> 5
Insulation stop, 4 x 3 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> "s+f-st" ③ dark gray <b>726-907</b> 200 (8x25)	Group marking carrier for side 2 dark gray <b>726-902</b> 50		



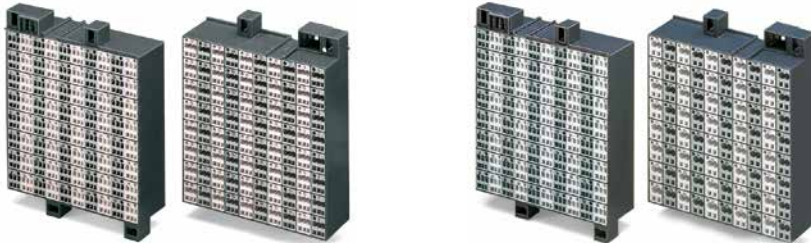
Dimensions in mm

Decade marker carrier, for matrix patchboards ③ dark gray <b>726-905</b> 10	
Operating tool with a partially insulated shaft, type 1, (2.5 x 0.4) mm blade <b>210-719</b> 1	








# Matrix Patchboards, 80-Pole

## 726 Series

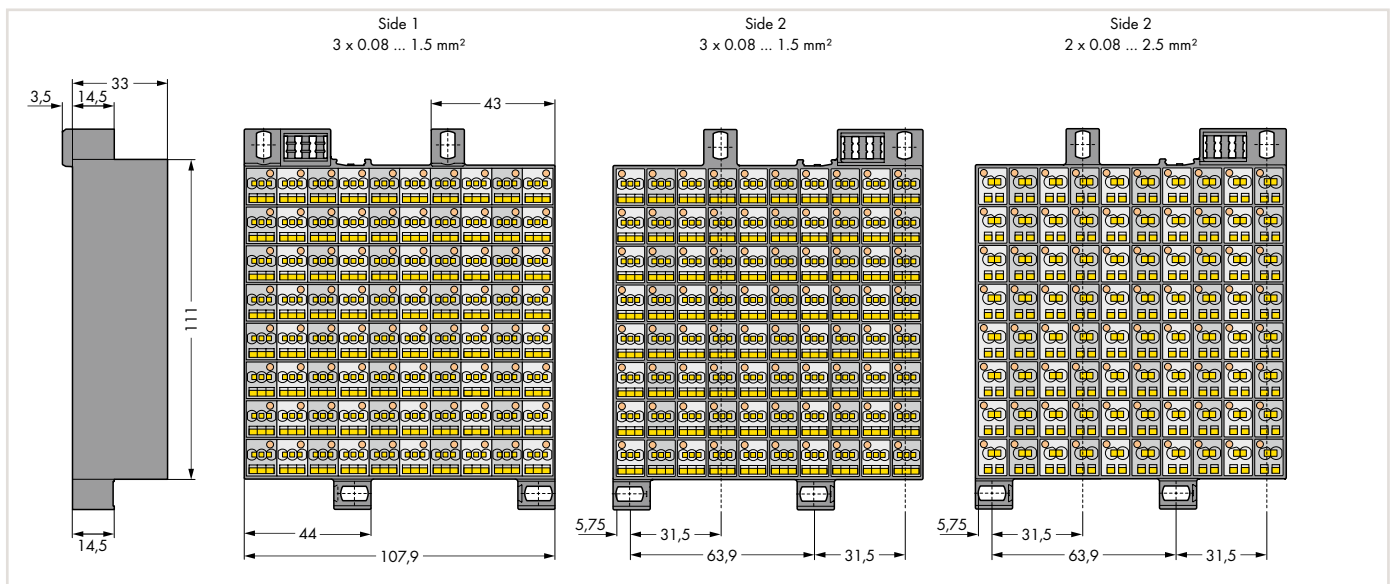
Side 1: 3x 0.08 ... 1.5 mm <sup>2</sup> Side 2: 3x 0.08 ... 1.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 10 A 8 ... 10 mm / 0.31 ... 0.39 inch	28 ... 16 AWG 28 ... 16 AWG 300 V, 10 A ② 300 V, 10 A ③	Side 1: 3x 0.08 ... 1.5 mm <sup>2</sup> Side 2: 2x 0.08 ... 2.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 10 A 8 ... 10 mm / 0.31 ... 0.39 inch	28 ... 16 AWG 28 ... 14 AWG 300 V, 10 A ② 300 V, 10 A ③
---	--	---	--



- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ See application notes for:  
Decade marker carrier, page 510  
Insulation stop, page 511

Item No.	Pack. Unit	Item No.	Pack. Unit	Matrix Patchboard Accessories
Matrix patchboard, dark gray frame, gray/white modules, vertical module marking on sides 1 and 2, 80-pole		Matrix patchboard, dark gray frame, gray/white modules, vertical module marking on sides 1 and 2, 80-pole		
marking 1 ... 80 <b>726-721</b>	8	marking 1 ... 80 <b>726-821</b>	8	WSB Quick marking system, white, 10 strips with 10 markers per card, horizontal marking  1 ... 10 (10x) <b>209-502</b> 5
Matrix patchboard, dark gray frame, blue modules, vertical module marking on sides 1 and 2, 80-pole		Matrix patchboard, dark gray frame, blue modules, vertical module marking on sides 1 and 2, 80-pole		
marking 1 ... 80 <b>726-741</b> ②	8	marking 1 ... 80 <b>726-841</b> ②	8	WSB Quick marking system, white, 10 strips with 10 markers per card, horizontal marking  1 ... 50 (2x) <b>209-566</b> 5
<b>Matrix Patchboard Accessories</b>				WSB Quick marking system, white, 10 strips with 10 markers per card, horizontal marking  X (100x) <b>209-500/209-035</b> 5
Insulation stop, 4 x 3 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" ③ (0.14 mm <sup>2</sup> "f-st") white <b>726-901</b> 200 (8x25)		WFB continuous marking strip, 1000 mm long  transparent <b>210-612</b> 10		
Insulation stop, 4 x 3 pcs/strip, 0.25 mm <sup>2</sup> "s" 0.14 ... ③ 0.25 mm <sup>2</sup> "f-st" light gray <b>726-906</b> 200 (8x25)		Carrier for WFB continuous marking strip, snaps into marker slot  <b>209-185</b> 200 (8x25)		Decade marker carrier, for matrix patchboards ③ dark gray <b>726-905</b> 10
Insulation stop, 4 x 3 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> "s+f-st" ③ dark gray <b>726-907</b> 200 (8x25)		WSB Quick marking system, white, 10 strips with 10 markers per card, for terminal widths 5 ...  17.5 mm plain <b>209-501</b> 5		Operating tool with a partially insulated shaft, type 1, (2.5 x 0.4) mm blade  <b>210-719</b> 1

11











# Matrix Patchboards, 32-Pole – Slimline Version, for 19" Racks

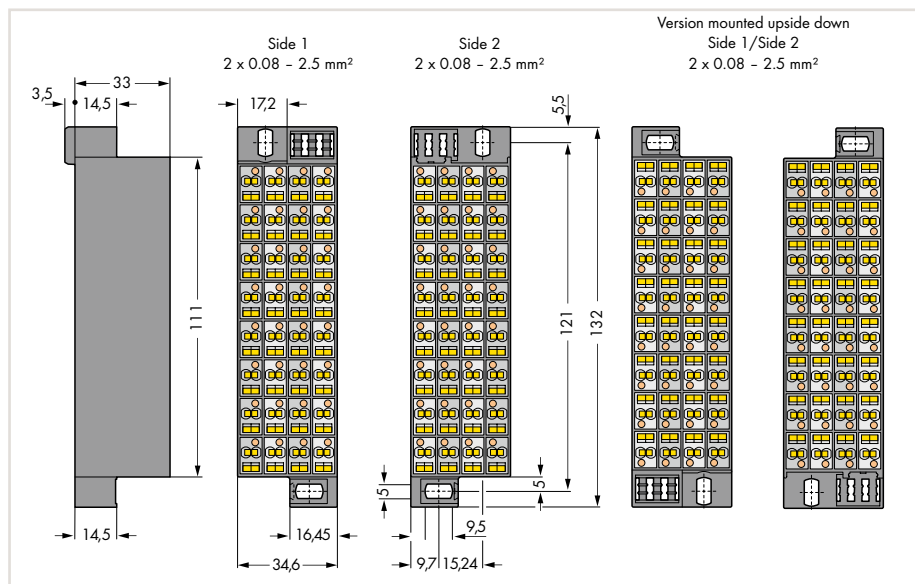
## 726 Series

Side 1: 2x 0.08 ... 1.5 mm <sup>2</sup> Side 2: 2x 0.08 ... 1.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 10 A 8 ... 10 mm / 0.31 ... 0.39 inch	28 ... 16 AWG 28 ... 16 AWG 300 V, 10 A ② 300 V, 10 A ③	Side 1: 2x 0.08 ... 1.5 mm <sup>2</sup> Side 2: 2x 0.08 ... 1.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 10 A 8 ... 10 mm / 0.31 ... 0.39 inch	28 ... 16 AWG 28 ... 16 AWG 300 V, 10 A ② 300 V, 10 A ③
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- ① 500 V = rated voltage  
6 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications
- ③ See application notes for:  
Decade marker carrier, page 510  
Insulation stop, page 511

Item No.	Pack. Unit	Item No.	Pack. Unit	Matrix Patchboard Accessories
Matrix patchboard, dark gray frame, gray/white modules, vertical module marking on sides 1 and 2, for 19" racks, slimline version, 32-pole		Matrix patchboard, dark gray frame, gray/white modules, vertical module marking on sides 1 and 2, for 19" racks, mounted upside down, slimline version, 32-pole		Carrier for WFB continuous marking strip, snaps into marker slot  <b>209-185</b> 200 (8x25)
marking 1-32 <b>726-321</b> 24		marking 1-32 <b>726-325</b> 24		WSB Quick marking system, white, 10 strips with 10 markers per card, for terminal widths 5 ... 17.5 mm plain <b>209-501</b> 5
marking 33-64 <b>726-322</b> 24		marking 33-64 <b>726-326</b> 24		WSB Quick marking system, white, 10 strips with 10 markers per card, horizontal marking  1 ... 10 (10x) <b>209-502</b> 5
Matrix patchboard, dark gray frame, blue modules, vertical module marking on sides 1 and 2, for 19" racks, slimline version, 32-pole		Matrix patchboard, dark gray frame, blue modules, vertical module marking on sides 1 and 2, for 19" racks, mounted upside down, slimline version, 32-pole		WSB Quick marking system, white, 10 strips with 10 markers per card, horizontal marking  1 ... 50 (2x) <b>209-566</b> 5
marking 1-32 <b>726-341</b> ② 24		marking 1-32 <b>726-345</b> ② 24		WSB Quick marking system, white, 10 strips with 10 markers per card, horizontal marking  X (100x) <b>209-500/209-035</b> 5
marking 33-64 <b>726-342</b> ② 24		marking 33-64 <b>726-346</b> ② 24		
<b>Matrix Patchboard Accessories</b>				
Insulation stop, 4 x 3 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" ③ (0.14 mm <sup>2</sup> "f-st")  white <b>726-901</b> 200 (8x25)		Insulation stop, 4 x 3 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> "s+f-st" ③  dark gray <b>726-907</b> 200 (8x25)		
Insulation stop, 4 x 3 pcs/strip, 0.25 mm <sup>2</sup> "s" 0.14 ... 0.25 mm <sup>2</sup> "f-st" ③  light gray <b>726-906</b> 200 (8x25)		WFB continuous marking strip, 1000 mm long  transparent <b>210-612</b> 10		



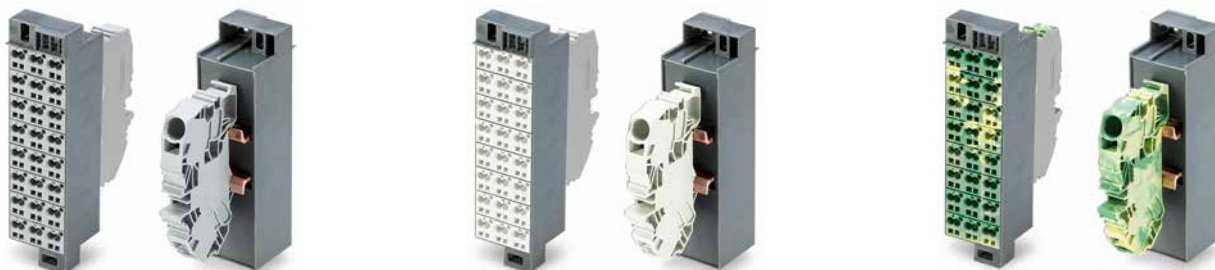
Dimensions in mm

Decade marker carrier, for matrix patchboards ③  dark gray <b>726-905</b> 10	
Operating tool with a partially insulated shaft, type 1, (2.5 x 0.4) mm blade  <b>210-719</b> 1	

# Common Potential Matrix Patchboards – Slimline Version, for 19" Racks

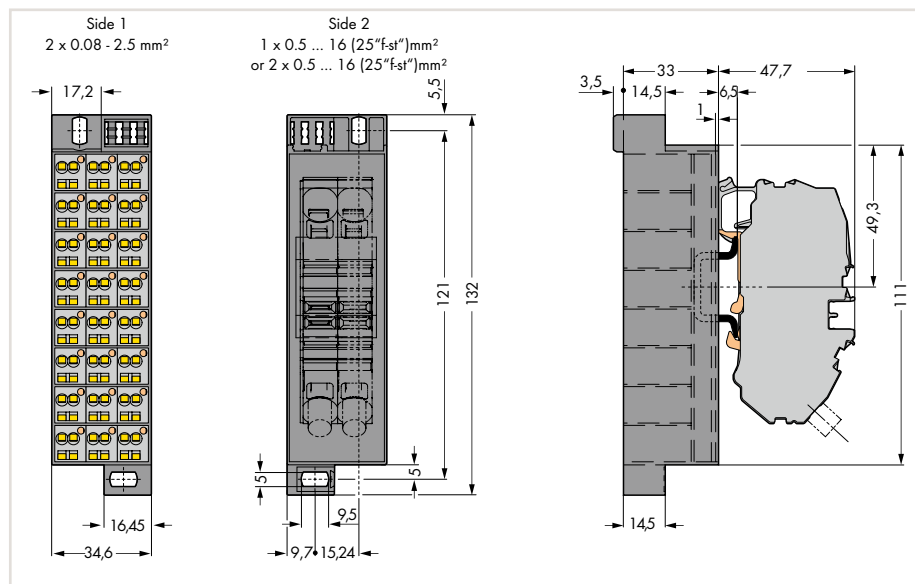
## 726 Series

<p>Side 1: I<sub>N</sub> 24 A 24x 2x 0.08 ... 2.5 mm<sup>2</sup>   28 ... 14 AWG 8 ... 10 mm / 0.31 ... 0.39 inch</p> <p>Side 2: I<sub>N</sub> 76 A 1x or 2x 0.5 ... 16 (25" f-st")mm<sup>2</sup>   20 ... 4 AWG 16 ... 17 mm / 0.63 ... 0.67 inch</p>	<p>Side 1: I<sub>N</sub> 24 A 24x 2x 0.08 ... 2.5 mm<sup>2</sup>   28 ... 14 AWG 8 ... 10 mm / 0.31 ... 0.39 inch</p> <p>Side 2: I<sub>N</sub> 76 A 1x or 2x 0.5 ... 16 (25" f-st")mm<sup>2</sup>   20 ... 4 AWG 16 ... 17 mm / 0.63 ... 0.67 inch</p>	<p>Side 1: I<sub>N</sub> 24 A 24x 2x 0.08 ... 2.5 mm<sup>2</sup>   28 ... 14 AWG 8 ... 10 mm / 0.31 ... 0.39 inch</p> <p>Side 2: I<sub>N</sub> 76 A 1x or 2x 0.5 ... 16 (25" f-st")mm<sup>2</sup>   20 ... 4 AWG 16 ... 17 mm / 0.63 ... 0.67 inch</p>
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Common potential matrix patchboard, marking 1 ... 24, dark gray frame, gray modules, vertical module marking, with one supply terminal block incl. end plate, for 19" racks, slimline version <b>726-601</b>	10	Common potential matrix patchboard, marking 1 ... 24, dark gray frame, white modules, vertical module marking, with one supply terminal block incl. end plate, for 19" racks, slimline version <b>726-611</b>	10	Ground conductor common potential matrix patchboard, marking 1 ... 24, dark gray frame, green-yellow modules, vertical module marking, with one supply terminal block incl. end plate, for 19" racks, slimline version <b>726-621</b>	10
Common potential matrix patchboard, marking 1 ... 24, dark gray frame, gray modules, vertical module marking, with two supply terminal blocks incl. end plate, for 19" racks, slimline version <b>726-602</b>	10	Common potential matrix patchboard, marking 1 ... 24, dark gray frame, white modules, vertical module marking, with two supply terminal blocks incl. end plate, for 19" racks, slimline version <b>726-612</b>	10	Ground conductor common potential matrix patchboard, marking 1 ... 24, dark gray frame, green-yellow modules, vertical module marking, with two supply terminal blocks incl. end plate, for 19" racks, slimline version <b>726-622</b>	10
Item-Specific Accessories		Item-Specific Accessories		Item-Specific Accessories	
Spare supply terminal block, only for use with common potential matrix patchboards, 16 mm <sup>2</sup> , 12 mm wide gray <b>2016-7611</b>	20	Spare supply terminal block, only for use with common potential matrix patchboards, 16 mm <sup>2</sup> , 12 mm wide white <b>2016-7608</b>	20	Ground supply terminal block, 16 mm <sup>2</sup> , 12 mm wide green-yellow <b>2016-7607</b>	20
End and intermediate plate, 1 mm thick gray <b>2016-7691</b>	100 (4x25)	End and intermediate plate, 1 mm thick gray <b>2016-7691</b>	100 (4x25)	End and intermediate plate, 1 mm thick gray <b>2016-7691</b>	100 (4x25)
Operating tool with a partially insulated shaft, type 3, (5.5 x 0.8) mm blade <b>210-721</b>	1	Operating tool with a partially insulated shaft, type 3, (5.5 x 0.8) mm blade <b>210-721</b>	1	Operating tool with a partially insulated shaft, type 3, (5.5 x 0.8) mm blade <b>210-721</b>	1

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Dimensions in mm

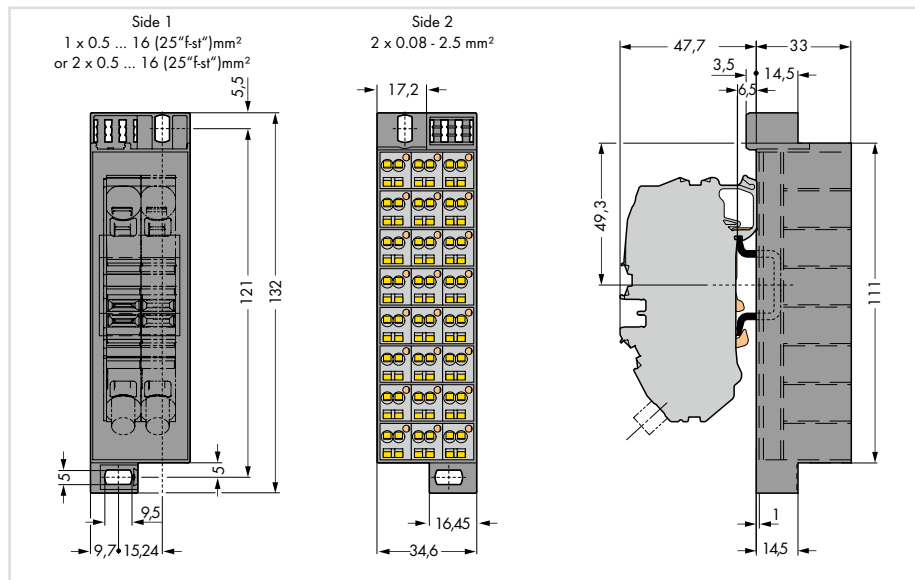
# Common Potential Matrix Patchboards – Slimline Version, for 19" Racks, Supply Side/Patchboard Side

## 726 Series

<p><b>Side 1: I<sub>N</sub> 76 A</b>                  1x or 2x 0.5 ... 16 (25"fst")mm<sup>2</sup>   20 ... 4 AWG                  16 ... 17 mm / 0.63 ... 0.67 inch</p> <p><b>Side 2: I<sub>N</sub> 24 A</b>                  24x 2x 0.08 ... 2.5 mm<sup>2</sup>   28 ... 14 AWG                  8 ... 10 mm / 0.31 ... 0.39 inch</p>	<p><b>Side 1: I<sub>N</sub> 76 A</b>                  1x or 2x 0.5 ... 16 (25"fst")mm<sup>2</sup>   20 ... 4 AWG                  16 ... 17 mm / 0.63 ... 0.67 inch</p> <p><b>Side 2: I<sub>N</sub> 24 A</b>                  24x 2x 0.08 ... 2.5 mm<sup>2</sup>   28 ... 14 AWG                  8 ... 10 mm / 0.31 ... 0.39 inch</p>	<p><b>Side 1: I<sub>N</sub> 76 A</b>                  1x or 2x 0.5 ... 16 (25"fst")mm<sup>2</sup>   20 ... 4 AWG                  16 ... 17 mm / 0.63 ... 0.67 inch</p> <p><b>Side 2: I<sub>N</sub> 24 A</b>                  24x 2x 0.08 ... 2.5 mm<sup>2</sup>   28 ... 14 AWG                  8 ... 10 mm / 0.31 ... 0.39 inch</p>
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Common potential matrix patchboard, dark gray frame, with 1 input module incl. end plate, colors of modules: gray, numbering of modules arranged vertically, marking 1 ... 24		Common potential matrix patchboard, dark gray frame, with 1 input module incl. end plate, colors of modules: white, numbering of modules arranged vertically, marking 1 ... 24		Common potential matrix patchboard for ground conductor, dark gray frame, with 1 input module incl. end plate, colors of modules: green-yellow, numbering of modules arranged vertically, marking 1 ... 24	
<b>726-651</b>	10	<b>726-661</b>	10	<b>726-671</b>	10
Common potential matrix patchboard, dark gray frame, with 2 input modules incl. end plate, colors of modules: gray, numbering of modules arranged vertically, marking 1 ... 24		Common potential matrix patchboard, dark gray frame, with 2 input modules incl. end plate, colors of modules: white, numbering of modules arranged vertically, marking 1 ... 24		Common potential matrix patchboard for ground conductor, dark gray frame, with 2 input modules incl. end plate, colors of modules: green-yellow, numbering of modules arranged vertically, marking 1 ... 24	
<b>726-652</b>	10	<b>726-662</b>	10	<b>726-672</b>	10
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>	
Spare supply terminal block, only for use with common potential matrix patchboards, 16 mm <sup>2</sup> , 12 mm wide gray	<b>2016-7611</b> 20	Spare supply terminal block, only for use with common potential matrix patchboards, 16 mm <sup>2</sup> , 12 mm wide white	<b>2016-7608</b> 20	Ground supply terminal block, 16 mm <sup>2</sup> , 12 mm wide green-yellow	<b>2016-7607</b> 20
End and intermediate plate, 1 mm thick gray	<b>2016-7691</b> 100 (4x25)	End and intermediate plate, 1 mm thick gray	<b>2016-7691</b> 100 (4x25)	End and intermediate plate, 1 mm thick gray	<b>2016-7691</b> 100 (4x25)
Operating tool with a partially insulated shaft, type 3, (5.5 x 0.8) mm blade	<b>210-721</b> 1	Operating tool with a partially insulated shaft, type 3, (5.5 x 0.8) mm blade	<b>210-721</b> 1	Operating tool with a partially insulated shaft, type 3, (5.5 x 0.8) mm blade	<b>210-721</b> 1



Dimensions in mm








# Matrix Patchboards with Push-Buttons, 32-Pole – Slimline Version, for 19" Racks

## 726 Series

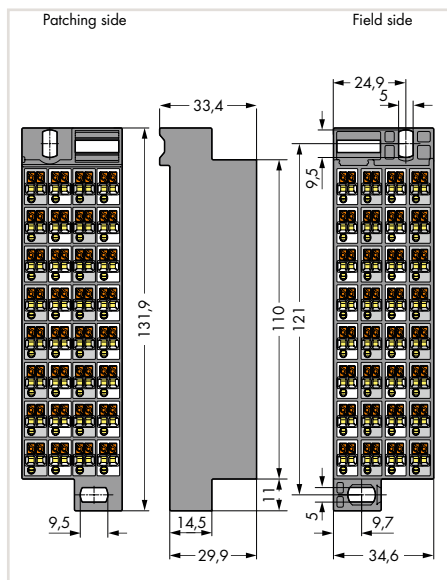
Side 1: 32 x 0.08 ... 1.5 mm <sup>2</sup> Side 2: 32 x 0.08 ... 1.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 10 A 10 mm / 0.39 inch	28 ... 16 AWG 28 ... 16 AWG	Side 1: 32 x 0.08 ... 1.5 mm <sup>2</sup> Side 2: 32 x 0.08 ... 1.5 mm <sup>2</sup> 500 V/6 kV/3 ① I <sub>N</sub> 10 A 10 mm / 0.39 inch	28 ... 16 AWG 28 ... 16 AWG
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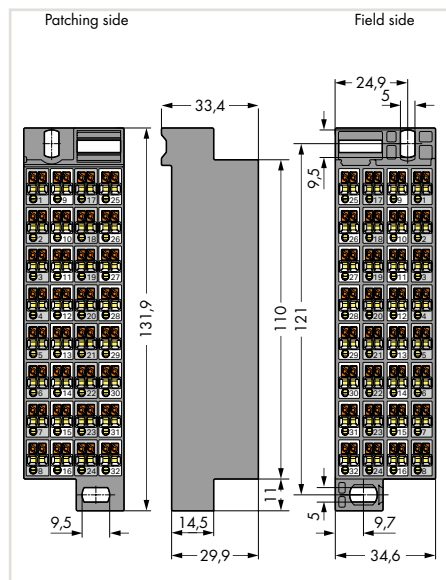
- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② See application notes for:  
Decade marker carrier, page 510

Item No.	Pack. Unit	Item No.	Pack. Unit	Matrix Patchboard Accessories
Matrix patchboard, dark gray frame, gray/white modules, vertical module marking on sides 1 and 2, for 19" racks		Matrix patchboard, dark gray frame, gray/white modules, vertical module marking on sides 1 and 2, for 19" racks		
without marking <b>726-770</b>	20	Marking 1 ... 32 <b>726-771</b>	20	Wire commoning chain, insulated, 31 connections, I <sub>N</sub> 6 A, max. 50 V, 0.5 mm <sup>2</sup>  gray <b>709-107</b> 1
				WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable  white <b>2009-115</b> 1
				Marking strip, plain, 11 mm wide, 50 m reel  white <b>2009-110</b> 1
				WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable  plain <b>793-5501</b> 5
				WMB Multi marking system, plain, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable  yellow <b>793-5501/000-002</b> red <b>793-5501/000-005</b> blue <b>793-5501/000-006</b> gray <b>793-5501/000-007</b> orange <b>793-5501/000-012</b> light green <b>793-5501/000-017</b> green <b>793-5501/000-023</b> violet <b>793-5501/000-024</b>
				Decade marker carrier, for matrix patchboards ②  dark gray <b>726-905</b> 10
				Operating tool with partially insulated shaft, type 1, (2.5 x 0.4) mm blade  <b>210-719</b> 1
				Test probe, 2 mm Ø, min. 12 mm long, uninsulated tip, not offered by WAGO (e.g., MultiContact XPP-80/2-16)

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Dimensions in mm



Dimensions in mm







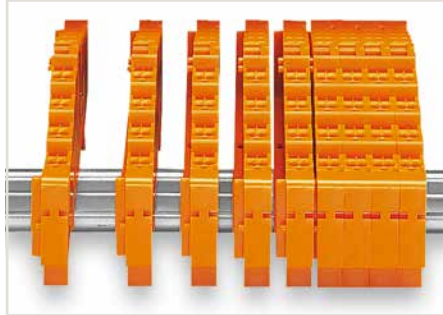


# Terminal Blocks for Matrix Patching and Common Potential Terminal Blocks, 727 Series

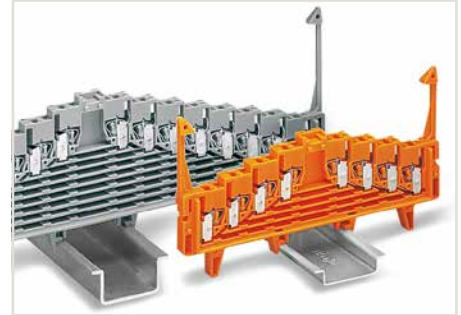
## Description and Installation



Snap individual 4- or 8-level terminal blocks onto the carrier rail.



Slide terminal blocks together.



Terminal blocks for 35 x 7.5 mm or 35 x 15 mm rails are available.

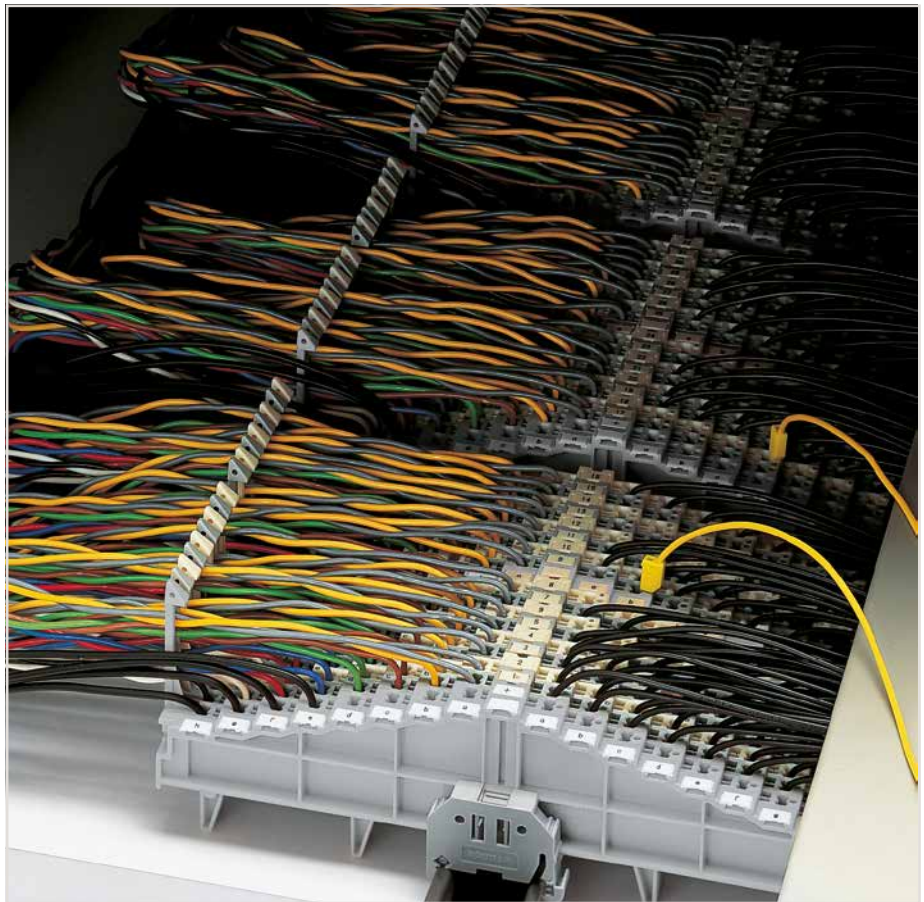


Grip end plate at both sides and:

- push down (assembly)
- pull up (removal)



Open the assembly by laterally sliding a block via operating tool (2.5 x 0.4 mm blade).



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Slide terminal block and remove from the rail with a levering action.



Connection points identified via factory-direct printing



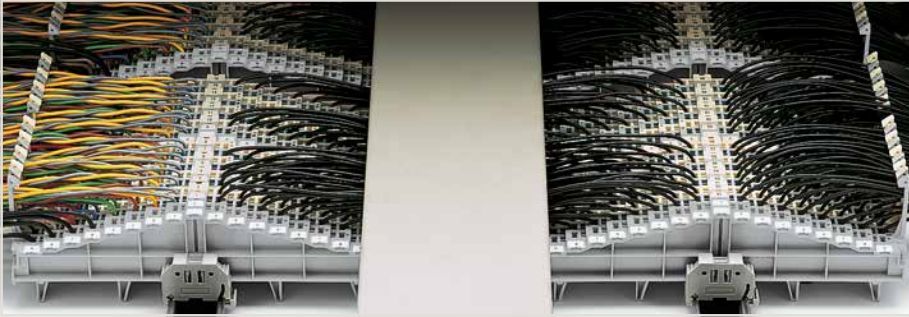
**CAGE CLAMP®** terminates the following copper conductors:  
solid



stranded



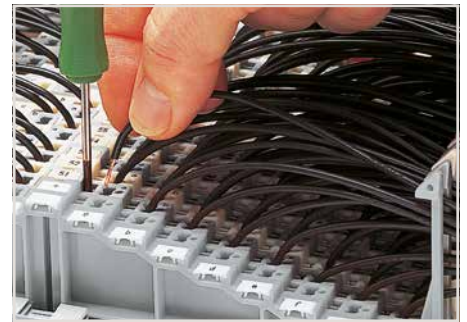
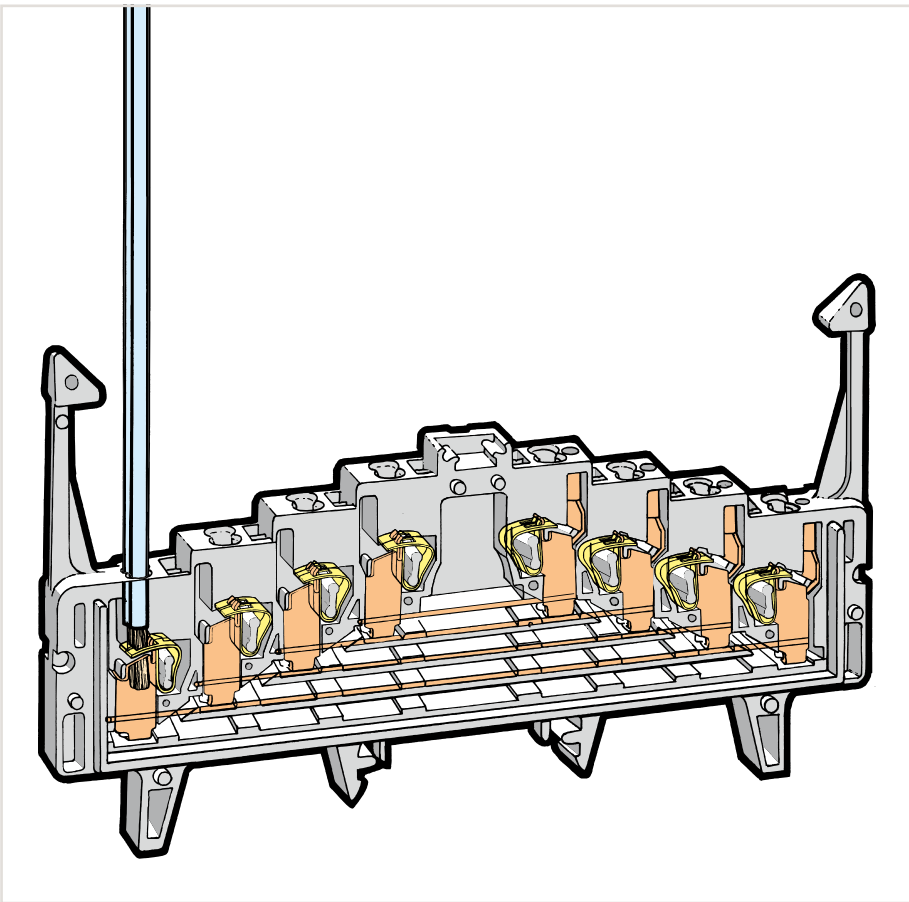
fine-stranded, also with tinned single strands



Example:  
 Left: Main cables fed through locking clips on the field side  
 Right: Control cables fed between locking clips  
 Center: Wiring of both patching sides



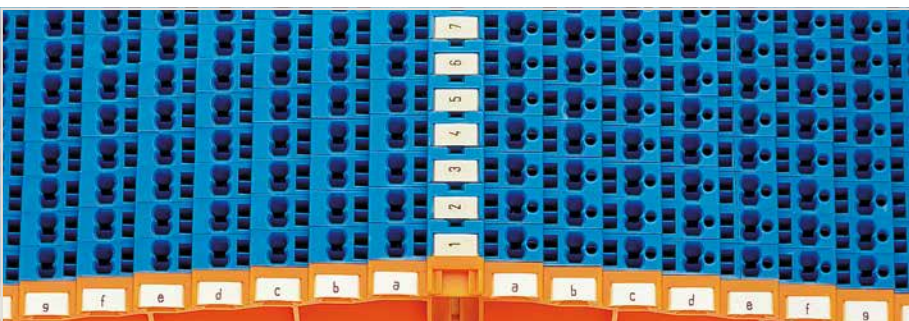
Using terminal blocks with locking clips, the wiring space between the terminal strips can be covered with a wiring duct cover.



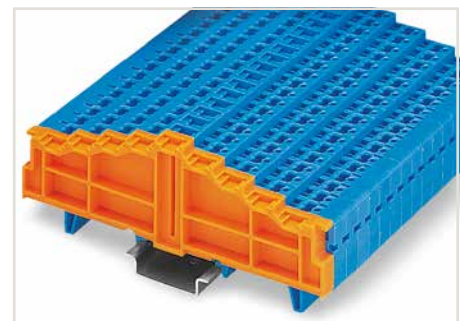
**CAGE CLAMP® connection**  
 Inserting a conductor via 210-719 Operating Tool (2.5 x 0.4 mm blade).  
 Max. cross section for uninsulated ferrules 1 mm<sup>2</sup> / 18 AWG, for insulated ferrules 0.75 mm<sup>2</sup> / 20 AWG.



Special test contact for 2.3 mm Ø test plug.



Marking coordinates via WMB Multi Marking System.



Blue terminal blocks for matrix patching are suitable for Ex i applications.



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)





# 4-Level Terminal Blocks for Matrix Patching

## 1.5 mm<sup>2</sup>, 727 Series

0.08 ... 1.5 mm <sup>2</sup> 250 V/4 kV/3 ① I <sub>N</sub> 12 A Terminal block width 7.62 mm / 0.3 inch 8 ... 10 mm / 0.31 ... 0.39 inch	28 ... 16 AWG 300 V, 10 A ② 300 V, 10 A ③	0.08 ... 1.5 mm <sup>2</sup> 250 V/4 kV/3 ① I <sub>N</sub> 12 A Terminal block width 7.62 mm / 0.3 inch 8 ... 10 mm / 0.31 ... 0.39 inch	28 ... 16 AWG 300 V, 10 A ② 300 V, 10 A ③
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- ① 250 V = rated voltage  
4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② Suitable for Ex i applications  
60 V = peak value ^ (table 4, EN 60079-11) if approved by the works expert
- ③ See application notes for:  
Wire harness support, page 518

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
4-level terminal block for matrix patching, with locking clips, 4 x pairs of clamping units on the same level, for DIN-35 x 7.5		4-level terminal block for matrix patching, without locking clips, 4 x pairs of clamping units on the same level, for DIN-35 x 7.5		
○ gray 727-219 50		○ gray 727-220 50		Double marker carrier, 4 mm wide, for I/O markings in the terminal block center
○ white 727-221 50		○ white 727-222 50		 gray 209-128 200 (2x100)
● blue 727-223 ② 50		● blue 727-224 ② 50		Screwless end stop, for DIN-35 rail, 6 mm wide
4-level terminal block for matrix patching, with locking clips, 4 x pairs of clamping units on the same level, for DIN-35 x 15		4-level terminal block for matrix patching, without locking clips, 4 x pairs of clamping units on the same level, for DIN-35 x 15		 gray 249-116 100 (4x25)
○ gray 727-229 50		○ gray 727-230 50		Screwless end stop, for DIN-35 rail, 10 mm wide
○ white 727-231 50		○ white 727-232 50		 gray 249-117 50 (2x25)
● blue 727-233 ② 50		● blue 727-234 ② 50		Operating tool with a partially insulated shaft, type 1, (2.5 x 0.4) mm blade
<b>Item no. suffixes for terminal blocks with marking:</b>		<b>Item no. suffixes for terminal blocks with marking:</b>		 210-719 1
0-1-2-3-3-2-1-0 .../021-000		0-1-2-3-3-2-1-0 .../021-000		
a-b-c-d-d-c-b-a .../022-000		a-b-c-d-d-c-b-a .../022-000		
3-2-1-0-0-1-2-3 .../023-000		3-2-1-0-0-1-2-3 .../023-000		
d-c-b-a-a-b-c-d .../024-000		d-c-b-a-a-b-c-d .../024-000		



### 727 Series Accessories

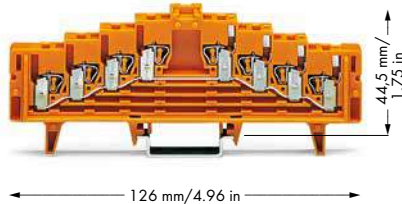
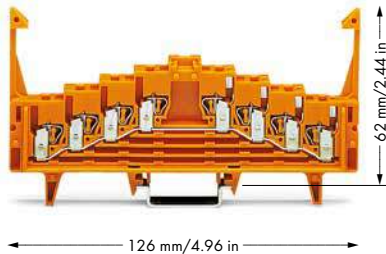
Appropriate marking system:  
WMB (see Section 13)

4-level end plate, 7.62 mm thick, without marking  orange 727-217 25	Insulation stop, 8 pcs/strip, 0.25 mm <sup>2</sup> "s" 0.14 ... 0.25 mm <sup>2</sup> "s+f-st"  light gray 727-198 200 (8x25)
4-level end plate, 7.62 mm thick, numeric marking, marking: 0-1-2-3-3-2-1-0  orange 727-205 25	Insulation stop, 8 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> "s+f-st"  dark gray 727-199 200 (8x25)
4-level end plate, 7.62 mm thick, alphanumeric marking, marking: a-b-c-d-d-c-b-a  orange 727-206 25	Wire commoning chain, insulated, 31 connections, I <sub>N</sub> 6 A, max. 50 V, 0.5 mm <sup>2</sup>  gray 709-107 1
4-level end plate, 7.62 mm thick, numeric marking, marking: 3-2-1-0-0-1-2-3  orange 727-207 25	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  yellow 210-137 50
4-level end plate, 7.62 mm thick, alphanumeric marking, marking: d-c-b-a-a-b-c-d  orange 727-208 25	Step-down test plug, from 4 mm socket to 2 mm plug, max. 42 V  red 210-297 100 (4x25)
Insulation stop, 8 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")  white 727-197 200 (8x25)	Wire harness support ③  gray 249-109 50





# 4-Level Common Potential Terminal Blocks

## 1.5 mm<sup>2</sup>, 727 Series

0.08 ... 1.5 mm <sup>2</sup> 250 V/4 kV/3 ① I <sub>N</sub> 18 A	28 ... 16 AWG 300 V, 10 A ② 300 V, 10 A ③	0.08 ... 1.5 mm <sup>2</sup> 250 V/4 kV/3 ① I <sub>N</sub> 18 A	28 ... 16 AWG 300 V, 10 A ② 300 V, 10 A ③
Terminal block width 7.62 mm / 0.3 inch  8 ... 10 mm / 0.31 ... 0.39 inch		Terminal block width 7.62 mm / 0.3 inch  8 ... 10 mm / 0.31 ... 0.39 inch	















- ① 250 V = rated voltage  
4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② See application notes for:  
Wire harness support, page 518

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
4-level common potential terminal block, with locking clips, all clamping units connected to the same current bar, for DIN-35 x 7.5		4-level common potential terminal block, without locking clips, all clamping units connected to the same current bar, for DIN-35 x 7.5		
● orange <b>727-225</b> 50		● orange <b>727-226</b> 50		Double marker carrier, 4 mm wide, for I/O markings in the terminal block center
○ light gray <b>727-227</b> 50		○ light gray <b>727-228</b> 50		 gray <b>209-128</b> 200 (2x100)
4-level common potential terminal block, with locking clips, all clamping units connected to the same current bar, for DIN-35 x 15		4-level common potential terminal block, without locking clips, all clamping units connected to the same current bar, for DIN-35 x 15		Screwless end stop, for DIN-35 rail, 6 mm wide
● orange <b>727-235</b> 50		● orange <b>727-236</b> 50		 gray <b>249-116</b> 100 (4x25)
○ light gray <b>727-237</b> 50		○ light gray <b>727-238</b> 50		Screwless end stop, for DIN-35 rail, 10 mm wide
				 gray <b>249-117</b> 50 (2x25)
<b>Item no. suffixes for terminal blocks with marking:</b>		<b>Item no. suffixes for terminal blocks with marking:</b>		Operating tool with a partially insulated shaft, type 1, (2.5 x 0.4) mm blade
0-1-2-3-3-2-1-0 .../ <b>021-000</b>		0-1-2-3-3-2-1-0 .../ <b>021-000</b>		 <b>210-719</b> 1
a-b-c-d-d-c-b-a .../ <b>022-000</b>		a-b-c-d-d-c-b-a .../ <b>022-000</b>		
3-2-1-0-0-1-2-3 .../ <b>023-000</b>		3-2-1-0-0-1-2-3 .../ <b>023-000</b>		
d-c-b-a-a-b-c-d .../ <b>024-000</b>		d-c-b-a-a-b-c-d .../ <b>024-000</b>		

### 727 Series Accessories



Appropriate marking system:  
WMB (see Section 13)

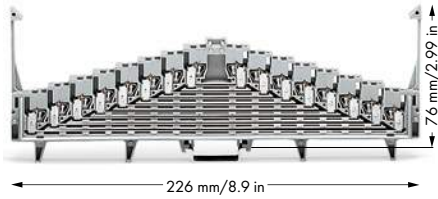
4-level end plate, 7.62 mm thick, without marking  orange <b>727-217</b> 25	Insulation stop, 8 pcs/strip, 0.25 mm <sup>2</sup> "s" 0.14 ...  0.25 mm <sup>2</sup> "s+f-st" light gray <b>727-198</b> 200 (8x25)
4-level end plate, 7.62 mm thick, numeric marking, marking: 0-1-2-3-3-2-1-0  orange <b>727-205</b> 25	Insulation stop, 8 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> "s+f-st"  dark gray <b>727-199</b> 200 (8x25)
4-level end plate, 7.62 mm thick, alphanumeric marking, marking: a-b-c-d-d-c-b-a  orange <b>727-206</b> 25	Wire commoning chain, insulated, 31 connections, I <sub>N</sub> 6 A, max. 50 V, 0.5 mm <sup>2</sup>  gray <b>709-107</b> 1
4-level end plate, 7.62 mm thick, numeric marking, marking: 3-2-1-0-0-1-2-3  orange <b>727-207</b> 25	Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V  yellow <b>210-137</b> 50
4-level end plate, 7.62 mm thick, alphanumeric marking, marking: d-c-b-a-a-b-c-d  orange <b>727-208</b> 25	Step-down test plug, from 4 mm socket to 2 mm plug, max. 42 V  red <b>210-297</b> 100 (4x25)
Insulation stop, 8 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")  white <b>727-197</b> 200 (8x25)	Wire harness support ②  gray <b>249-109</b> 50

11

# 8-Level Terminal Blocks for Matrix Patching

## 1.5 mm<sup>2</sup>, 727 Series

0.08 ... 1.5 mm <sup>2</sup> 250 V/4 kV/3 ① I <sub>N</sub> 10 A	28 ... 16 AWG 300 V, 10 A ② 300 V, 10 A ③	0.08 ... 1.5 mm <sup>2</sup> 250 V/4 kV/3 ① I <sub>N</sub> 10 A	28 ... 16 AWG 300 V, 10 A ② 300 V, 10 A ③
Terminal block width 7.62 mm / 0.3 inch  8 ... 10 mm / 0.31 ... 0.39 inch		Terminal block width 7.62 mm / 0.3 inch  8 ... 10 mm / 0.31 ... 0.39 inch	





































① 250 V = rated voltage  
4 kV = rated surge voltage  
3 = pollution degree

(see Section 14)

② Suitable for Ex i applications  
60 V = peak value ^ (table 4, EN 60079-11) if approved by the works expert

③ See application notes for:  
Wire harness support, page 518

**Note:** Only combine terminal blocks and end plates that are colored gray/white/light gray or orange/blue!

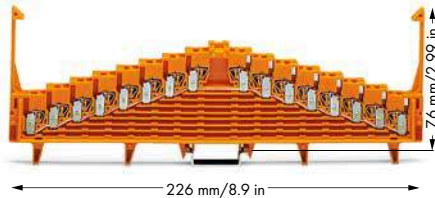
Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories																		
8-level terminal block for matrix patching, with locking clips, 8 x pairs of clamping units on the same level, for DIN-35 x 7.5		8-level terminal block for matrix patching, without locking clips, 8 x pairs of clamping units on the same level, for DIN-35 x 7.5		Insulation stop, 8 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> "s+f-st"																		
<table border="0"> <tr><td>○ gray</td><td><b>727-119</b></td><td>25</td></tr> <tr><td>○ white</td><td><b>727-121</b></td><td>25</td></tr> <tr><td>● blue</td><td><b>727-123</b> ②</td><td>25</td></tr> </table>	○ gray	<b>727-119</b>	25	○ white	<b>727-121</b>	25	● blue	<b>727-123</b> ②	25		<table border="0"> <tr><td>○ gray</td><td><b>727-120</b></td><td>25</td></tr> <tr><td>○ white</td><td><b>727-122</b></td><td>25</td></tr> <tr><td>● blue</td><td><b>727-124</b> ②</td><td>25</td></tr> </table>	○ gray	<b>727-120</b>	25	○ white	<b>727-122</b>	25	● blue	<b>727-124</b> ②	25		 dark gray <b>727-199</b> 200 (8x25)
○ gray	<b>727-119</b>	25																				
○ white	<b>727-121</b>	25																				
● blue	<b>727-123</b> ②	25																				
○ gray	<b>727-120</b>	25																				
○ white	<b>727-122</b>	25																				
● blue	<b>727-124</b> ②	25																				
8-level terminal block for matrix patching, with locking clips, 8 x pairs of clamping units on the same level, for DIN-35 x 15		8-level terminal block for matrix patching, without locking clips, 8 x pairs of clamping units on the same level, for DIN-35 x 15		Wire commoning chain, insulated, 31 connections, I <sub>N</sub> 6 A, max. 50 V, 0.5 mm <sup>2</sup>																		
<table border="0"> <tr><td>○ gray</td><td><b>727-129</b></td><td>25</td></tr> <tr><td>○ white</td><td><b>727-131</b></td><td>25</td></tr> <tr><td>● blue</td><td><b>727-133</b> ②</td><td>25</td></tr> </table>	○ gray	<b>727-129</b>	25	○ white	<b>727-131</b>	25	● blue	<b>727-133</b> ②	25		<table border="0"> <tr><td>○ gray</td><td><b>727-130</b></td><td>25</td></tr> <tr><td>○ white</td><td><b>727-132</b></td><td>25</td></tr> <tr><td>● blue</td><td><b>727-134</b> ②</td><td>25</td></tr> </table>	○ gray	<b>727-130</b>	25	○ white	<b>727-132</b>	25	● blue	<b>727-134</b> ②	25		 gray <b>709-107</b> 1
○ gray	<b>727-129</b>	25																				
○ white	<b>727-131</b>	25																				
● blue	<b>727-133</b> ②	25																				
○ gray	<b>727-130</b>	25																				
○ white	<b>727-132</b>	25																				
● blue	<b>727-134</b> ②	25																				
<b>Item no. suffixes for terminal blocks with marking:</b> 0-1-2-3-4-5-6-7-7-6-5-4-3-2-1-0 .../001-000 a-b-c-d-e-f-g-h-h-g-f-e-d-c-b-a .../002-000 7-6-5-4-3-2-1-0-0-1-2-3-4-5-6-7 .../003-000 h-g-f-e-d-c-b-a-a-b-c-d-e-f-g-h .../004-000		<b>Item no. suffixes for terminal blocks with marking:</b> 0-1-2-3-4-5-6-7-7-6-5-4-3-2-1-0 .../001-000 a-b-c-d-e-f-g-h-h-g-f-e-d-c-b-a .../002-000 7-6-5-4-3-2-1-0-0-1-2-3-4-5-6-7 .../003-000 h-g-f-e-d-c-b-a-a-b-c-d-e-f-g-h .../004-000		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V																		
				 yellow <b>210-137</b> 50																		
				Step-down test plug, from 4 mm socket to 2 mm plug, max. 42 V																		
				 red <b>210-297</b> 100 (4x25)																		
				Wire harness support																		
				③ gray <b>249-109</b> 50																		
				Double marker carrier, 4 mm wide, for I/O markings in the terminal block center																		
				gray <b>209-128</b> 200 (2x100)																		
<b>727 Series Accessories</b>				WMB Multi marking system, for terminal widths 5 ... 17.5 mm, for PLC input marking																		
				white <b>793-933</b> 5																		
8-level end plate, 7.62 mm thick, without marking		8-level end plate, 7.62 mm thick, numeric marking, marking: 7-6-5-4-3-2-1-0-0-1-2-3-4-5-6-7		Screwless end stop, for DIN-35 rail, 6 mm wide																		
 orange <b>727-117</b> 25		 orange <b>727-107</b> 25		 gray <b>249-116</b> 100 (4x25)																		
 gray <b>727-113</b> 25		 gray <b>727-157</b> 25																				
 blue <b>727-114</b> 25		 blue <b>727-161</b> 25																				
 white <b>727-115</b> 25		 white <b>727-165</b> 25																				
 light gray <b>727-116</b> 25		 light gray <b>727-169</b> 25																				
8-level end plate, 7.62 mm thick, numeric marking, marking: 0-1-2-3-4-5-6-7-7-6-5-4-3-2-1-0		8-level end plate, 7.62 mm thick, alphanumeric marking, marking: h-g-f-e-d-c-b-a-a-b-c-d-e-f-g-h		Screwless end stop, for DIN-35 rail, 10 mm wide																		
 orange <b>727-105</b> 25		 orange <b>727-108</b> 25		 gray <b>249-117</b> 50 (2x25)																		
 gray <b>727-155</b> 25		 gray <b>727-158</b> 25																				
 blue <b>727-159</b> 25		 blue <b>727-162</b> 25																				
 white <b>727-163</b> 25		 white <b>727-166</b> 25																				
 light gray <b>727-167</b> 25		 light gray <b>727-170</b> 25																				
8-level end plate, 7.62 mm thick, alphanumeric marking, marking: a-b-c-d-e-f-g-h-h-g-f-e-d-c-b-a		Insulation stop, 8 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")																				
 orange <b>727-106</b> 25		 white <b>727-197</b> 200 (8x25)																				
 gray <b>727-156</b> 25		Insulation stop, 8 pcs/strip, 0.25 mm <sup>2</sup> "s" 0.14 ... 0.25 mm <sup>2</sup> "s+f-st"																				
 blue <b>727-160</b> 25		 light gray <b>727-198</b> 200 (8x25)																				
 white <b>727-164</b> 25				Operating tool with a partially insulated shaft, type 1, (2.5 x 0.4) mm blade																		
 light gray <b>727-168</b> 25				 <b>210-719</b> 1																		

11

# 8-Level Common Potential Terminal Blocks

## 1.5 mm<sup>2</sup>, 727 Series

0.08 ... 1.5 mm <sup>2</sup> 250 V/4 kV/3 ① I <sub>N</sub> 18 A Terminal block width 7.62 mm / 0.3 inch 8 ... 10 mm / 0.31 ... 0.39 inch	28 ... 16 AWG 300 V, 10 A ② 300 V, 10 A ③	0.08 ... 1.5 mm <sup>2</sup> 250 V/4 kV/3 ① I <sub>N</sub> 18 A Terminal block width 7.62 mm / 0.3 inch 8 ... 10 mm / 0.31 ... 0.39 inch	28 ... 16 AWG 300 V, 10 A ② 300 V, 10 A ③
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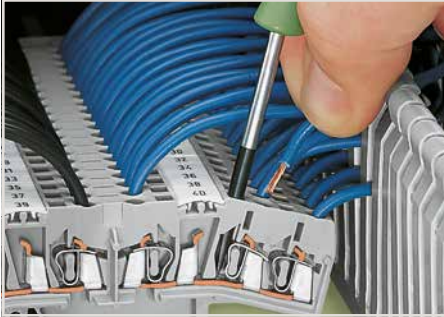
- ① 250 V = rated voltage  
4 kV = rated surge voltage  
3 = pollution degree  
(see Section 14)
- ② See application notes for:  
Wire harness support, page 518

**Note:** Only combine terminal blocks and end plates that are colored gray/white/light gray or orange/blue

Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories
8-level common potential terminal block, with locking clips, all clamping units connected to the same current bar, for DIN-35 x 7.5		8-level common potential terminal block, without locking clips, all clamping units connected to the same current bar, for DIN-35 x 7.5		Insulation stop, 8 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup> "s+f-st"
<ul style="list-style-type: none"> <li>● orange 727-125 25</li> <li>○ light gray 727-127 25</li> </ul>		<ul style="list-style-type: none"> <li>● orange 727-126 25</li> <li>○ light gray 727-128 25</li> </ul>		<ul style="list-style-type: none"> <li>dark gray 727-199 200 (8x25)</li> </ul>
8-level common potential terminal block, with locking clips, all clamping units connected to the same current bar, for DIN-35 x 15		8-level common potential terminal block, without locking clips, all clamping units connected to the same current bar, for DIN-35 x 15		Wire commoning chain, insulated, 31 connections, I <sub>N</sub> 6 A, max. 50 V, 0.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>● orange 727-135 25</li> <li>○ light gray 727-137 25</li> </ul>		<ul style="list-style-type: none"> <li>● orange 727-136 25</li> <li>○ light gray 727-138 25</li> </ul>		<ul style="list-style-type: none"> <li>gray 709-107 1</li> </ul>
<b>Item no. suffixes for terminal blocks with marking:</b> 0-1-2-3-4-5-6-7-7-6-5-4-3-2-1-0 .../001-000 a-b-c-d-e-f-g-h-h-g-f-e-d-c-b-a .../002-000 7-6-5-4-3-2-1-0-0-1-2-3-4-5-6-7 .../003-000 h-g-f-e-d-c-b-a-a-b-c-d-e-f-g-h .../004-000		<b>Item no. suffixes for terminal blocks with marking:</b> 0-1-2-3-4-5-6-7-7-6-5-4-3-2-1-0 .../001-000 a-b-c-d-e-f-g-h-h-g-f-e-d-c-b-a .../002-000 7-6-5-4-3-2-1-0-0-1-2-3-4-5-6-7 .../003-000 h-g-f-e-d-c-b-a-a-b-c-d-e-f-g-h .../004-000		Test plug, with 500 mm cable, 2.3 mm Ø, max. 42 V
				<ul style="list-style-type: none"> <li>yellow 210-137 50</li> </ul>
				Step-down test plug, from 4 mm socket to 2 mm plug, max. 42 V
				<ul style="list-style-type: none"> <li>red 210-297 100 (4x25)</li> </ul>
				Wire harness support
				<ul style="list-style-type: none"> <li>gray 249-109 50</li> </ul>
<b>727 Series Accessories</b> Appropriate marking system: WMB (see Section 13)				Double marker carrier, 4 mm wide, for I/O markings in the terminal block center
				<ul style="list-style-type: none"> <li>gray 209-128 200 (2x100)</li> </ul>
8-level end plate, 7.62 mm thick, without marking		8-level end plate, 7.62 mm thick, numeric marking, marking: 7-6-5-4-3-2-1-0-0-1-2-3-4-5-6-7		Screwless end stop, for DIN-35 rail, 6 mm wide
<ul style="list-style-type: none"> <li>orange 727-117 25</li> <li>gray 727-113 25</li> <li>blue 727-114 25</li> <li>white 727-115 25</li> <li>light gray 727-116 25</li> </ul>		<ul style="list-style-type: none"> <li>orange 727-107 25</li> <li>gray 727-157 25</li> <li>blue 727-161 25</li> <li>white 727-165 25</li> <li>light gray 727-169 25</li> </ul>		<ul style="list-style-type: none"> <li>gray 249-116 100 (4x25)</li> </ul>
8-level end plate, 7.62 mm thick, numeric marking, marking: 0-1-2-3-4-5-6-7-7-6-5-4-3-2-1-0		8-level end plate, 7.62 mm thick, alphanumeric marking, marking: h-g-f-e-d-c-b-a-a-b-c-d-e-f-g-h		Screwless end stop, for DIN-35 rail, 10 mm wide
<ul style="list-style-type: none"> <li>orange 727-105 25</li> <li>gray 727-155 25</li> <li>blue 727-159 25</li> <li>white 727-163 25</li> <li>light gray 727-167 25</li> </ul>		<ul style="list-style-type: none"> <li>orange 727-108 25</li> <li>gray 727-158 25</li> <li>blue 727-162 25</li> <li>white 727-166 25</li> <li>light gray 727-170 25</li> </ul>		<ul style="list-style-type: none"> <li>gray 249-117 50 (2x25)</li> </ul>
8-level end plate, 7.62 mm thick, alphanumeric marking, marking: a-b-c-d-e-f-g-h-h-g-f-e-d-c-b-a		Insulation stop, 8 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s"		Operating tool with a partially insulated shaft, type 1, (2.5 x 0.4) mm blade
<ul style="list-style-type: none"> <li>orange 727-106 25</li> <li>gray 727-156 25</li> <li>blue 727-160 25</li> <li>white 727-164 25</li> <li>light gray 727-168 25</li> </ul>		<ul style="list-style-type: none"> <li>white 727-197 200 (8x25)</li> </ul>		<ul style="list-style-type: none"> <li>210-719 1</li> </ul>
		Insulation stop, 8 pcs/strip, 0.25 mm <sup>2</sup> "s" 0.14 ... 0.25 mm <sup>2</sup> "s+f-st"		
		<ul style="list-style-type: none"> <li>light gray 727-198 200 (8x25)</li> </ul>		

# Terminal Blocks for Matrix Patching, 280 Series

## Description and Installation



Terminal blocks for matrix patching: Inserting/removing a conductor on the terminal block's side-entry.

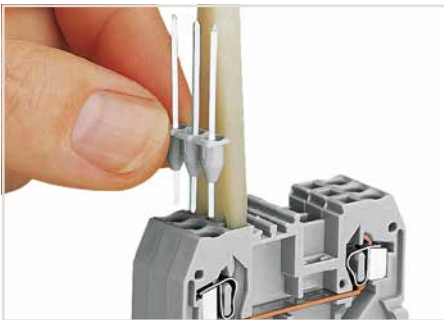
With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross section.



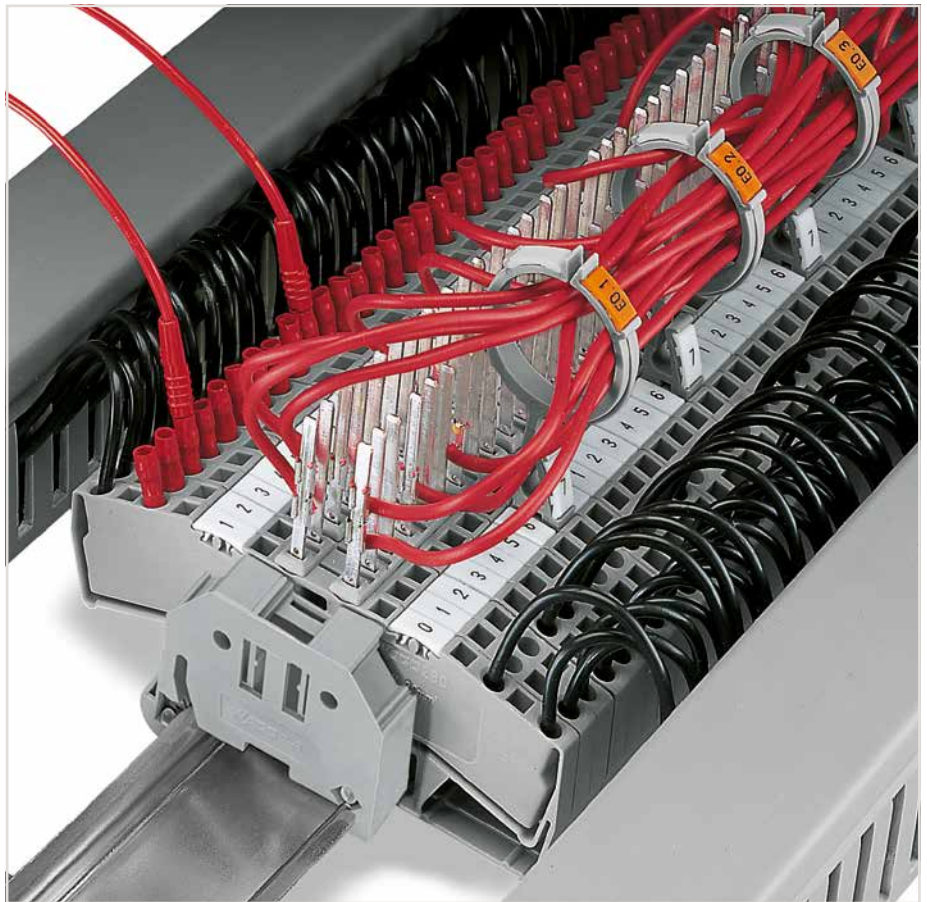
Terminal blocks for matrix patching: Inserting/removing a conductor in the terminal block's center.



Using terminal blocks for matrix patching as disconnect terminal blocks via disconnect jumpers.



Inserting a pin module into 280 Series blocks.



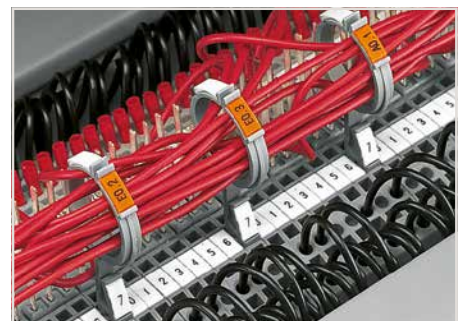
Multiplying potentials via 10-way comb-style jumper bar. (only possible in the terminal block's center)



Clipping a wire harness support into the marker slot.



Inserting a cable into the wire harness support.



2 x group marking on top  
1 x terminal block marking at the bottom

**CAGE CLAMP®**  
terminates the following  
copper conductors:

- solid
- stranded

fine-stranded,  
also with tinned  
single strands

fine-stranded,  
tip-bonded

fine-stranded,  
with ferrule  
(gastight crimped)


fine-stranded,  
with pin terminal  
(gastight crimped)



# Terminal Blocks for Matrix Patching

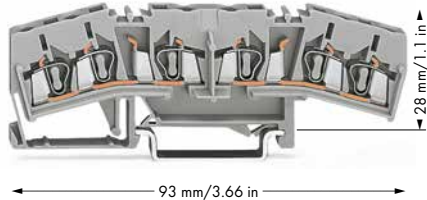
## 2.5 mm<sup>2</sup>, 280 Series

0.08 ... 2.5 mm<sup>2</sup> | 28 ... 12 AWG\*  
 800 V/8 kV/3 ① | 600 V, 10 A ②  
 I<sub>N</sub> 18 A

Terminal block width 5 mm / 0.197 inch  
 8 ... 9 mm / 0.31 ... 0.35 inch

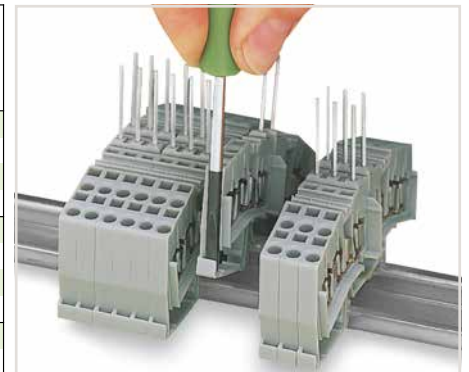
In measurement and control technology, matrix patchboards are essential for process automation systems. Particularly beneficial to these applications is the use of the WAGO wire harness support, which simplifies wiring. WAGO's 280 Series 3-Conductor Double-Potential Terminal Blocks (with or without the addition of Wire-Wrap® or TERMI-POINT® pins) are also ideal for this type of application. They can be used for connecting peripheral field devices (e.g. measuring and control equipment) to process control systems (e.g., panels, cabinets) via matrix connections.

The WAGO wire harness supports are pushed into the terminal blocks (approx. every 8th unit) to form an additional "cable-duct" above the wiring level of the terminal blocks. The two marker slots on the top may be used for group marking, while the lower slot is used for marking the terminal block.

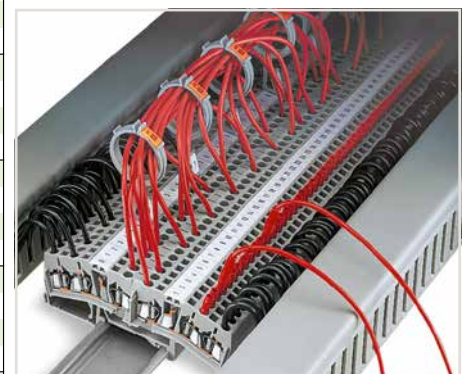


\* 12 AWG: THHN, THWN

- ① 800 V = rated voltage  
 8 kV = rated surge voltage  
 3 = pollution degree  
 (see Section 14)  
 500 V/6 kV/3 between current bars  
 (if used as disconnect terminal block or potential multiplier)
- ② See application notes for:  
 Insulation stop, page 331  
 Comb-style jumper bar, page 332  
 Operating tool, page 332



Please note that due to the protruding rods, the terminal blocks can only be inserted or removed from the assembly after sliding adjacent terminal blocks on the rail. Removal: Separate terminal strip, slide terminal block to disconnect and then remove from the carrier rail.



**Terminal blocks for matrix patching with wire harness supports:**  
 For 5 mm wide double-potential terminal blocks, two 3-conductor through terminal blocks are offered in one insulating housing on one level. This achieves a width of just 2.5 mm versus standard through terminal blocks. On each side of the terminal block are marker slots for WAGO WMB Inline markers. Via the available accessories, these terminal blocks can also be used as 4-conductor disconnect terminal blocks or potential multipliers.







The WAGO wire harness supports are pushed into the terminal blocks (approx. every 8th unit) to form an additional "cable-duct" above the wiring level of the terminal blocks. The two marker slots on the top may be used for group marking, while the lower slot is used for marking the terminal block.

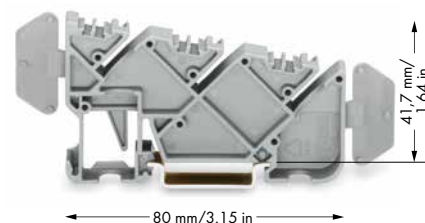
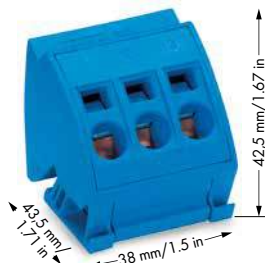
Item No.	Pack. Unit	Accessories
3-conductor double-potential terminal block or terminal block for matrix patching		
Notice: This 3-conductor double-potential terminal block cannot be commoned via adjacent jumpers.		Operating tool, of insulating material
● gray 280-675 50		10-way 280-440 1
<b>Accessories</b> Appropriate marking system: WMB (see Section 13)		Protective warning marker, with black high-voltage symbol, for 5 terminal blocks
End and intermediate plate, 5 mm thick		yellow 280-415 100 (4x25)
orange 280-333 25		Pin module, 2-pole, for self-assembly on all 280 Series front-entry rail-mount terminal blocks, for Wire-Wrap®, 1 x 1 mm
gray 280-325 25		280-477 100
Separator, 3 mm oversized, 1 mm thick		
orange 280-394 100 (4x25)		
gray 280-395 100 (4x25)		
Insulation stop, 5 pcs/strip, 0.08 ... 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")		Pin module, 2-pole, for TERMI-POINT®, 0.8 x 1.6 mm
② white 280-470 200 (8x25)		280-475 100
Insulation stop, 5 pcs/strip, 0.25 ... 0.5 mm <sup>2</sup>		Pin module, 2-pole, for TERMI-POINT®, 0.8 x 2.4 mm
② light gray 280-471 200 (8x25)		280-473 100
Insulation stop, 5 pcs/strip, 0.75 ... 1 mm <sup>2</sup>		Pin module, 3-pole, for Wire-Wrap®, 1 x 1 mm
② dark gray 280-472 200 (8x25)		280-478 100
Alternate comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Pin module, 3-pole, for TERMI-POINT®, 0.8 x 1.6 mm
2-way 280-492 200 (8x25)		280-476 100
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Pin module, 3-pole, for TERMI-POINT®, 0.8 x 2.4 mm
② 2-way 280-482 200 (8x25)		280-474 100
3-way 280-483 200 (8x25)		
Comb-style jumper bar, insulated, I <sub>N</sub> = I <sub>N</sub> terminal block		Wire harness support
10-way 280-490 50 (2x25)		gray 249-109 50
Disconnect jumper, with pull-tab, I <sub>N</sub> = I <sub>N</sub> of terminal block, orange		
2-way 280-494 200 (8x25)		
Operating tool, of insulating material		
2-way 280-432 1		
3-way 280-433 1		














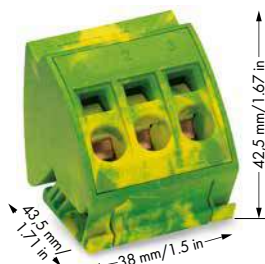
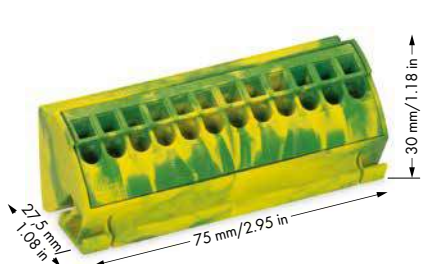
# Busbar Terminal Blocks

## 4 mm<sup>2</sup> and 16 mm<sup>2</sup>, 812 Series

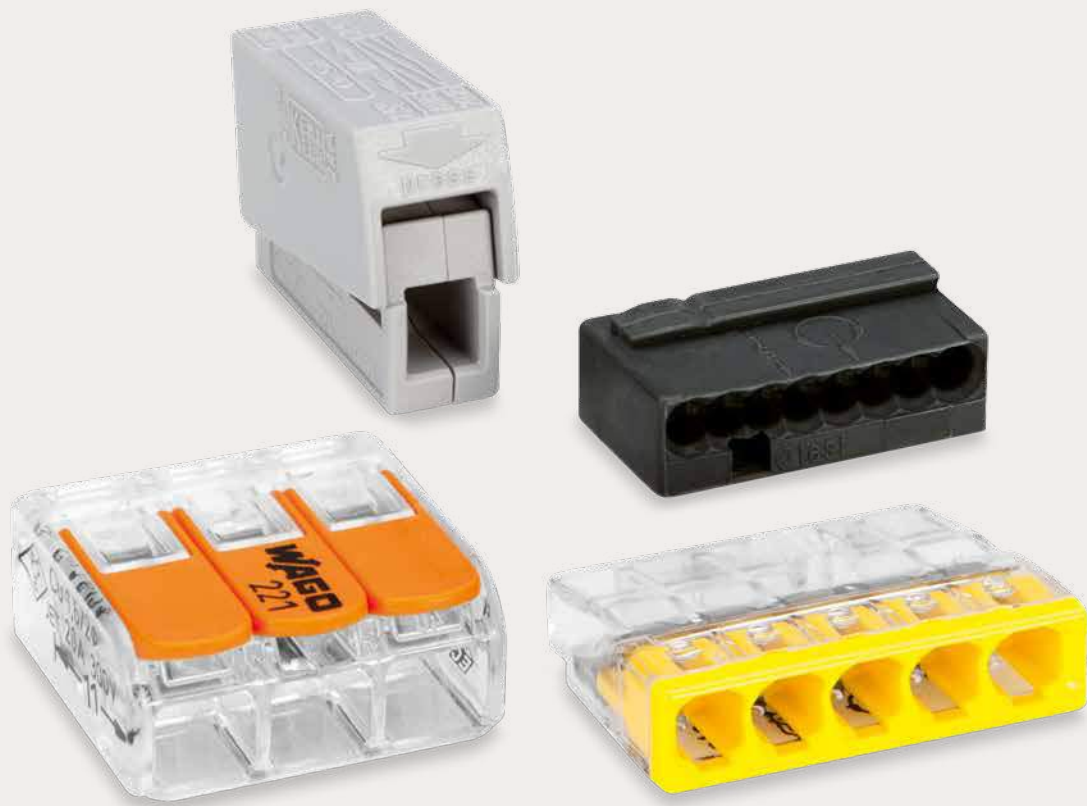
<p>0.5 ... 4 mm<sup>2</sup> 1000 V/6 kV/3 I<sub>N</sub> 96 A</p> <p>Terminal block width 75 mm / 2.953 inch   11 mm / 0.43 inch</p>	<p>20 ... 12 AWG 600 V, 20 A  600 V, 95 A </p>	<p>1.5 ... 16 mm<sup>2</sup> 1000 V/6 kV/3 I<sub>N</sub> 96 A</p> <p>Terminal block width 38 mm / 1.496 inch   12 mm / 0.47 inch</p>	<p>14 ... 6 AWG 600 V, 20 A  600 V, 95 A </p>	<p>Insulated busbar carrier</p>
--	--	---	---	---------------------------------



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Busbar terminal block (4 mm <sup>2</sup> /12 AWG), with Push-in CAGE CLAMP®		Busbar terminal block (16 mm <sup>2</sup> /6 AWG), with CAGE CLAMP®		Insulated busbar carrier, 12 mm wide	
 blue	<b>812-104</b>	10	 blue	<b>812-114</b>	12
 light gray	<b>812-101</b>	10	 light gray	<b>812-111</b>	12
 dark gray	<b>812-102</b>	10	 dark gray	<b>812-112</b>	12
 red	<b>812-103</b>	10	 red	<b>812-113</b>	12
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>			
Straight busbar, tin-plated, 1000 mm long, copper (10 x 3) mm  I <sub>N</sub> 140 A <b>210-133</b> 1		Straight busbar, tin-plated, 1000 mm long, copper (10 x 3) mm  I <sub>N</sub> 140 A <b>210-133</b> 1			
		Finger guard, touch-proof cover protects unused conductor entries  yellow <b>284-400</b> 100 (4x25)			



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Ground busbar terminal block (4 mm <sup>2</sup> /12 AWG), with Push-in CAGE CLAMP®		Ground busbar terminal block (16 mm <sup>2</sup> /6 AWG), with CAGE CLAMP®		Ground busbar carrier, with DIN-35 rail contact, 11 mm wide	
 green-yellow	<b>812-100</b>	10	 green-yellow	<b>812-110</b>	12
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>			
Straight busbar, tin-plated, 1000 mm long, copper (10 x 3) mm  I <sub>N</sub> 140 A <b>210-133</b> 1		Straight busbar, tin-plated, 1000 mm long, copper (10 x 3) mm  I <sub>N</sub> 140 A <b>210-133</b> 1			
		Finger guard, touch-proof cover protects unused conductor entries  yellow <b>284-400</b> 100 (4x25)			



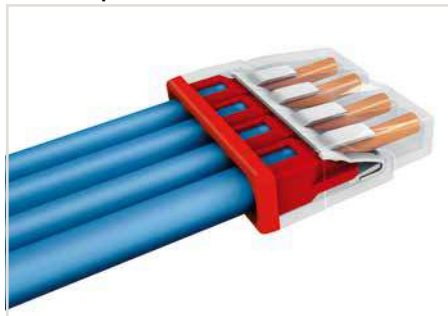
## Lighting Connectors, Junction Box and Splicing Connectors

## Lighting Connectors, PUSH WIRE® Connectors for Junction Boxes, Lever-Actuated Splicing Connectors for All Conductor Types

			Page
	<b>COMPACT PUSH WIRE® Connectors for Junction Boxes</b> 2.5 mm <sup>2</sup> (14 AWG)	2273 Series	525
	<b>PUSH WIRE® Connectors for Junction Boxes</b> 4 mm <sup>2</sup> and 6 mm <sup>2</sup> (10 AWG)	773 Series	528
	<b>Ex PUSH WIRE® Connectors for Junction Boxes</b> 2.5 mm <sup>2</sup> (12 AWG) and 6 mm <sup>2</sup> (10 AWG)	773 Series	530
	<b>MICRO PUSH WIRE® Connectors for Junction Boxes</b> 0.8 mm Ø (20 AWG)	243 Series	534
	<b>COMPACT Splicing Connectors for All Conductor Types</b> 4 mm <sup>2</sup> (12 AWG)	221 Series	537
	<b>CLASSIC Splicing Connectors for All Conductor Types</b> 2.5 mm <sup>2</sup> (12 AWG)	222 Series	543
	<b>Vario-T-Boxx</b>	887 Series	546
	<b>Lighting and "Service" Connectors</b> 2.5 mm <sup>2</sup> (16 AWG)	224 Series	549
	<b>Luminaire Disconnect Connectors</b> 12 AWG	873 Series	550

# COMPACT PUSH WIRE® Connectors for Junction Boxes and Solid Conductors, 2273 Series

## Description and Installation



**Advantages:**

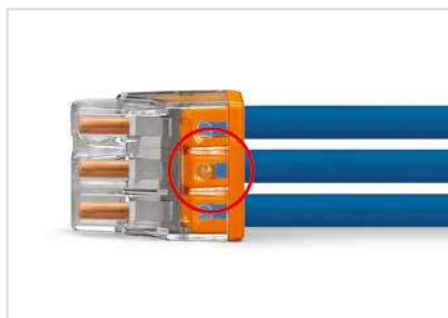
- Convenient wiring via extremely compact design
- Terminate up to 8 solid conductors by simply pushing them in
- Connect conductors ranging from 0.5 to 2.5 mm<sup>2</sup>
- Any combination of conductor sizes is possible
- PUSH WIRE® connection terminates solid ("s") copper conductors



Strip solid conductor to 11 mm / 0.43 inch (see marking).



Termination: Insert stripped solid conductor until it hits backstop.



The transparent housing shows if conductors are fully inserted; within the colored base, a clear port shows if the conductor's strip length is correct. Conductors are correctly stripped if the clear port shows no bare conductor on the unprinted connector side. Picture shows center conductor with exceeded strip length.



Removal: Hold conductor to be removed and twist alternately left and right while pulling the connector.

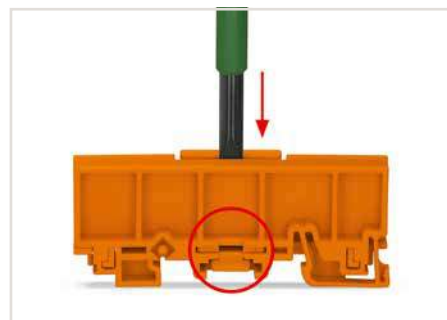


Testing via test port opposite to conductor entry.

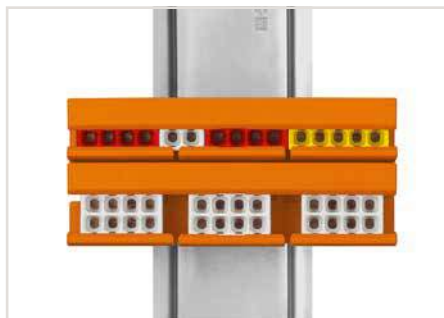
One single carrier can hold up to 24 clamping units in a very narrow space. Previously, this was only possible using rail-mount terminal blocks.

**Advantages:**

- Mount carrier onto DIN-35 rail or via screws - easily and quickly
- Accommodate up to three 2.5 mm<sup>2</sup> (12 AWG) 2273 Series connectors in a single carrier
- Easily exchange connectors
- Large marking area for self-adhesive marking strips or for direct marking with permanent felt-tip pen



To adjust the mounting carrier, unlock the latch via operating tool (5.5 mm blade) and move the clamping slide to the required width by rotating the tool.



The mounting carrier is suitable for both connector widths.

**PUSH WIRE® connectors in distribution boxes**

During distribution box retrofits or expansions, conductors often require extensions or additional clamping points. Individual PUSH WIRE® connectors (e.g., 2273 Series) are approved as interconnect components for building wiring applications per EN 60998. Application standards for building installation (e.g., Parts 510 and 520 from DIN VDE 0100) also place the following requirements on junction box connectors:

- They must be arranged so that operation, inspection, maintenance and access to the removable connectors is simplified.
- It must be possible to test them.
- Conductors connected from outside must be clearly and permanently assigned to their associated circuits.



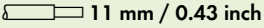
These requirements cannot be met with PUSH WIRE® connectors alone. In combination with WAGO mounting carriers, the PUSH WIRE® connectors clearly meet these requirements, making them comparable to rail-mount terminal blocks. Using PUSH WIRE® connectors with mounting carriers in distribution boxes is accepted by testing authorities.



**PUSH WIRE® terminates the following copper conductors:**  
solid

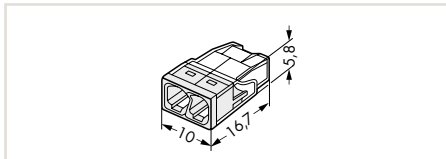
# COMPACT PUSH WIRE® Connectors for Junction Boxes and Solid Conductors

## 2.5 mm<sup>2</sup>, 2273 Series

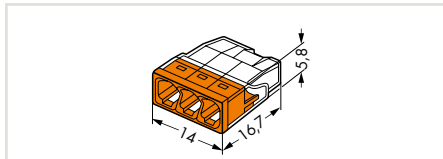
0.5 ... 2.5 mm <sup>2</sup> "s"   18 ... 14 AWG "s" 450 V/4 kV/2 I <sub>N</sub> 24 A 	0.5 ... 2.5 mm <sup>2</sup> "s"   18 ... 14 AWG "s" 450 V/4 kV/2 I <sub>N</sub> 24 A 	0.5 ... 2.5 mm <sup>2</sup> "s"   18 ... 14 AWG "s" 450 V/4 kV/2 I <sub>N</sub> 24 A 
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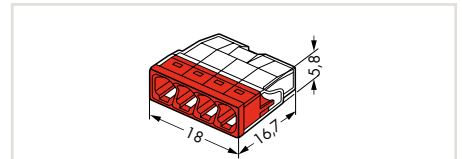
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
COMPACT PUSH WIRE® connector for junction boxes, 2-conductor connector, transparent housing, white cover, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C (T60)	2273-202	1000 (10x100)	COMPACT PUSH WIRE® connector for junction boxes, 3-conductor connector, transparent housing, orange cover, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C (T60)	2273-203	1000 (10x100)
			COMPACT PUSH WIRE® connector for junction boxes, 4-conductor connector, transparent housing, red cover, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C (T60)	2273-204	1000 (10x100)



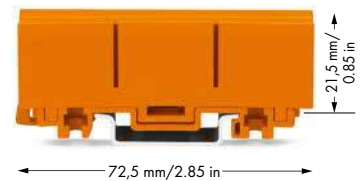
Dimensions in mm



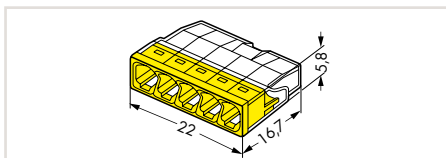
Dimensions in mm



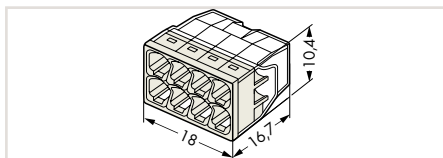
Dimensions in mm




Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
COMPACT PUSH WIRE® connector for junction boxes, 5-conductor connector, transparent housing, yellow cover, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C (T60)	2273-205	1000 (10x100)	COMPACT PUSH WIRE® connector for junction boxes, 8-conductor connector, transparent housing, white cover, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C (T60)	2273-208	500 (10x50)
				orange	2273-500
					50 (5x10)
Syringe, contains 20 ml "Alu-Plus" contact paste	249-130	20 (4x5)	<b>Item-Specific Accessories</b>		
			Self-adhesive marking strips, 5 mm high, 48 self-adhesive strips per card, plain		
			white	210-334	100



Dimensions in mm

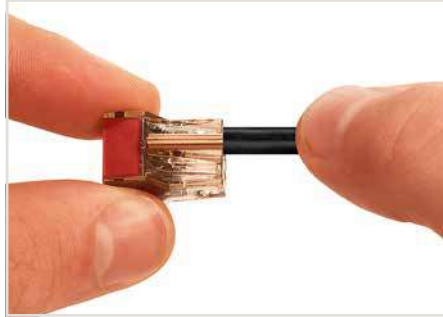
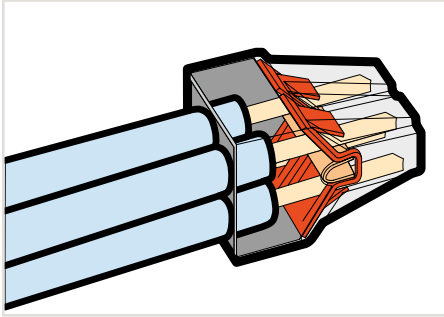


Dimensions in mm

<b>Item-Specific Accessories</b>					
Self-adhesive marking strips, 5 mm high, 48 self-adhesive strips per card, plain					
	white	210-334			100

## PUSH WIRE® Connectors for Junction Boxes, 773 Series

### Description and Installation



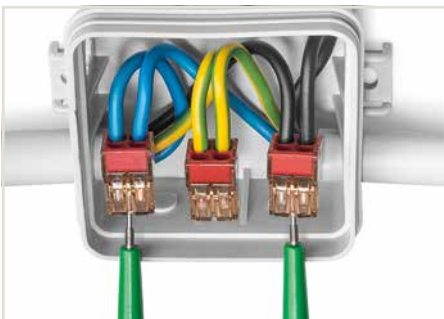
Strip solid conductor to 12 mm (0.47 inch).



Termination: Insert stripped solid conductor until it hits backstop.



Removal: Hold conductor to be removed and twist alternately left and right while pulling the connector.



Testing via test ports opposite to conductor entry.



12



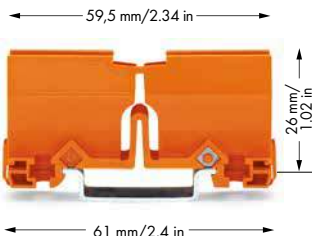
**PUSH WIRE®**  
terminates the following  
copper conductors:  
solid



# Mounting Carrier for PUSH WIRE® Junction Box Connectors, for DIN-35 Rail or Screw Mount

## 773 Series

Mounting carrier



Use the cover as an end plate.

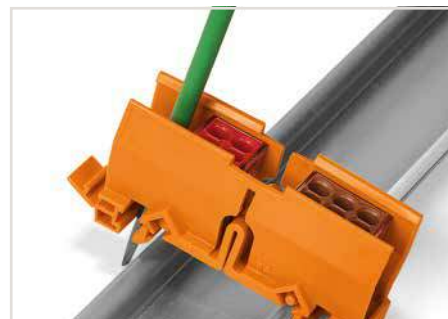
Color	Item No.	Pack. Unit
Mounting carrier, for all 773 Series PUSH WIRE® Connectors for Junction Boxes		
orange	773-332	50 (5x10)

### Item-Specific Accessories

Self-adhesive marking strips, 5 mm high, 48 self-adhesive strips per card, plain		
white	210-334	100



Snap the mounting carrier onto the DIN-rail.



Remove the mounting carrier from the DIN-rail.






A mounting carrier (see accessories) suits applications where the connectors must be marked and secured in position. The DIN-35 rail-mount carrier fits up to two connectors and can also be mounted on a flat surface using two screws.

Using this PUSH WIRE® connector, a large range of wiring applications can be achieved in distribution or junction boxes. To mention just a few: potential multiplication and changing from or to 6 mm<sup>2</sup> conductor size.

# PUSH WIRE® Connectors for Junction Boxes and Solid Conductors

## 4 mm<sup>2</sup>, 773 Series

<p>1.5 ... 4 mm<sup>2</sup> "s" 400 V/4 kV/2 ① I<sub>N</sub> 32 A</p>  12 mm / 0.47 inch	<p>1.5 ... 4 mm<sup>2</sup> "s" 400 V/4 kV/2 ① I<sub>N</sub> 32 A</p>  12 mm / 0.47 inch	<p>1.5 ... 4 mm<sup>2</sup> "s" 400 V/4 kV/2 ① I<sub>N</sub> 32 A</p>  12 mm / 0.47 inch
--	---	---



Item No.	Pack. Unit	Color	Item No.	Pack. Unit	Item No.	Pack. Unit
PUSH WIRE® connector for junction boxes and solid conductors up to 4 mm <sup>2</sup> , 2-conductor connector, transparent brown housing, white cover, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C		PUSH WIRE® connector for junction boxes and solid conductors up to 4 mm <sup>2</sup> , 4-conductor connector, transparent brown housing, red cover, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C		PUSH WIRE® connector for junction boxes and solid conductors up to 4 mm <sup>2</sup> , 6-conductor connector, transparent brown housing, brown cover, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C		
<b>773-602</b>	100		<b>773-604</b>	100	<b>773-606</b>	50

### 773 Series Accessories

Syringe, contents 20 ml "Alu-Plus" contact paste



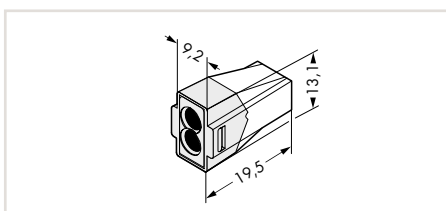
**249-130** 20 (4x5)

Mounting carrier

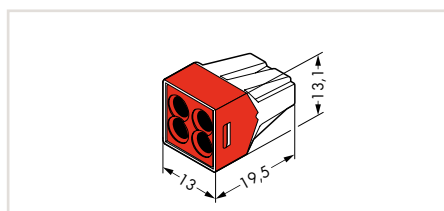


orange **773-332** 50 (5x10)

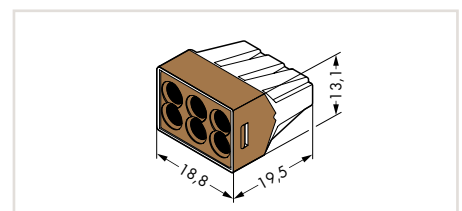
12



Dimensions in mm



Dimensions in mm






Dimensions in mm



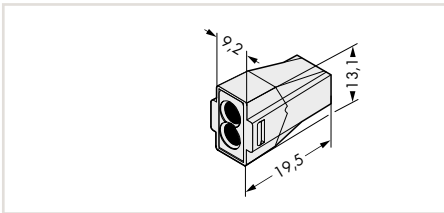


## Ex PUSH WIRE® Connectors for Junction Boxes 2.5 mm<sup>2</sup> and 6 mm<sup>2</sup>, 773 Series

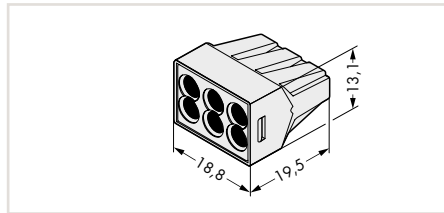
0.75 ... 2.5 mm <sup>2</sup> "s" 18 ... 14 AWG "s" 16 ... 12 AWG "st" 550 V ① I <sub>N</sub> 24 A  12 mm / 0.47 inch	0.75 ... 2.5 mm <sup>2</sup> "s" 18 ... 14 AWG "s" 16 ... 12 AWG "st" 550 V ① I <sub>N</sub> 24 A  12 mm / 0.47 inch	2.5 ... 6 mm <sup>2</sup> "s" 14 ... 10 AWG "s" 550 V ① I <sub>N</sub> 42 A  12 ... 15 mm / 0.47 ... 0.59 inch
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Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
PUSH WIRE® connector for junction boxes, 2-conductor connector			PUSH WIRE® connector for junction boxes, 6-conductor connector			PUSH WIRE® connector for junction boxes, 3-conductor connector		
○ light gray ☺	<b>773-492</b> ②	1000 (10x100)	○ light gray ☺	<b>773-496</b> ②	500 (10x50)	○ light gray ☺	<b>773-493</b> ②	500 (10x50)



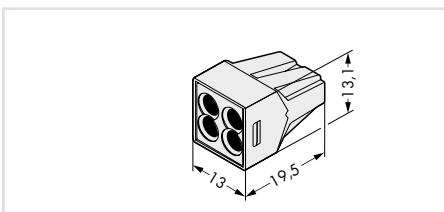
Dimensions in mm



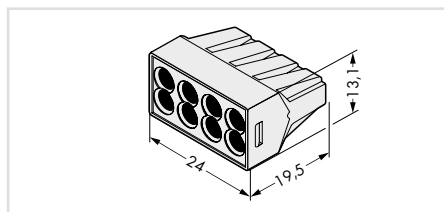
Dimensions in mm



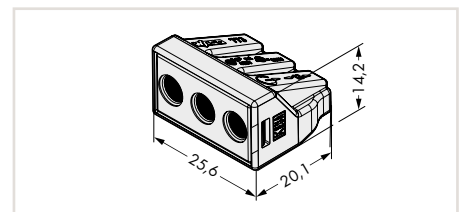
Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
PUSH WIRE® connector for junction boxes, 4-conductor connector			PUSH WIRE® connector for junction boxes, 8-conductor connector		
○ light gray ☺	<b>773-494</b> ②	1000 (10x100)	○ light gray ☺	<b>773-498</b> ②	500 (10x50)



Dimensions in mm



Dimensions in mm



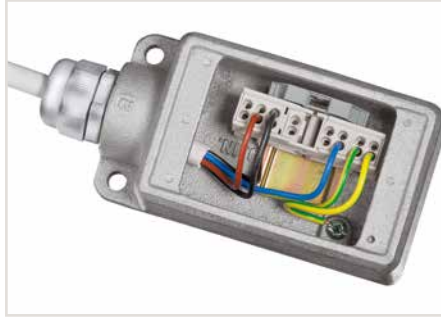
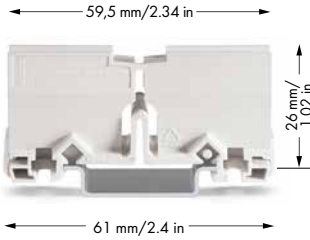
Dimensions in mm

12

# Mounting Carrier for PUSH WIRE® Junction Box Connectors, for DIN-35 Rail or Screw Mount

## 773 Series

Mounting carrier




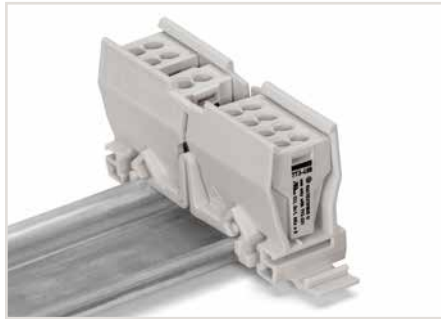
Wiring example in an Ex junction box

- ❶ 275 V at a distance < 10 mm to parts of other potentials
- ❷ To be used only in conjunction with a mounting carrier (773-331)

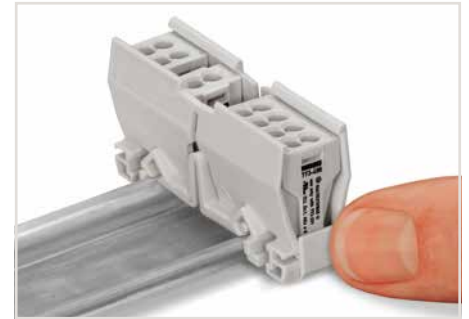
Color	Item No.	Pack. Unit
Mounting carrier, for Ex PUSH WIRE® junction box connectors		
○ light gray ☺	<b>773-331</b>	50 (5x10)

### Item-Specific Accessories

Self-adhesive marking strips, 5 mm high, 48 self-adhesive strips per card, plain		
 white	<b>210-334</b>	100



Insert the connectors into the carrier.



Use the cover as an end plate.



Snap the mounting carrier onto the DIN-rail.



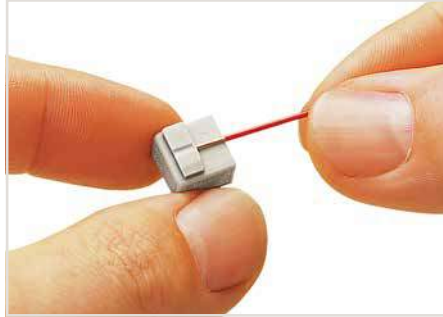
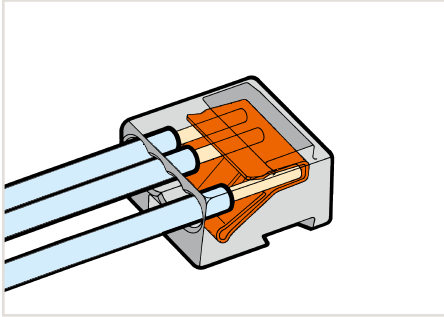
Remove the mounting carrier from the DIN-rail.

WAGO Ex PUSH WIRE® connectors are ideal for distribution and junction boxes, as well as control and operating systems. When used in hazardous areas, they offer the following advantages over traditional connectors:

- Time- and cost-saving PUSH WIRE® connection
- Vibration-proof, maintenance-free connections
- 100 % touch-proof protection
- Connectors can be secured in position via mounting carriers
- One single carrier equipped with 2-, 4-, 6- and 8-cond. connectors holds up to 16 clamping units according to user requirements, saving materials and related costs
- Available as OEM products for manufacturers and suppliers of enclosures and distribution boxes used in hazardous areas

# MICRO PUSH WIRE® Connectors for Junction Boxes and Solid Conductors, 243 Series

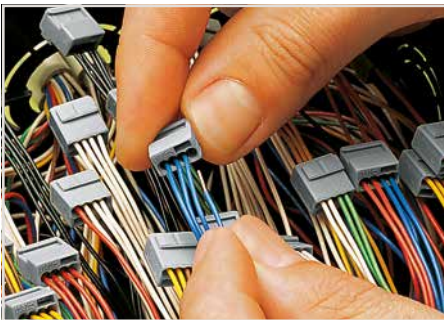
## Description and Installation



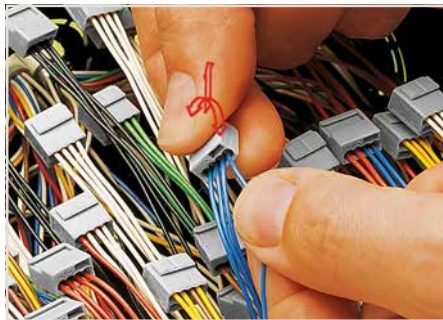
Strip solid conductors to 5 ... 6 mm (0.2 ... 0.24 inch).



**Connector strips:**  
Assembling modular connectors into connector strips.



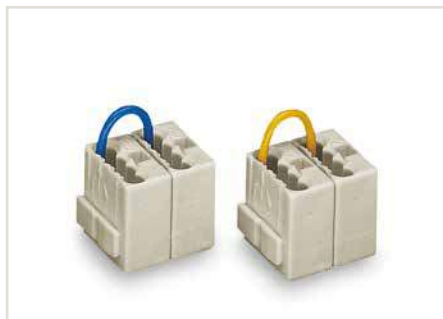
Termination: Insert stripped conductor until it hits backstop.



Removal: Hold conductor to be removed and twist alternately left and right while pulling the connector.



Testing via test ports opposite to conductor entry.

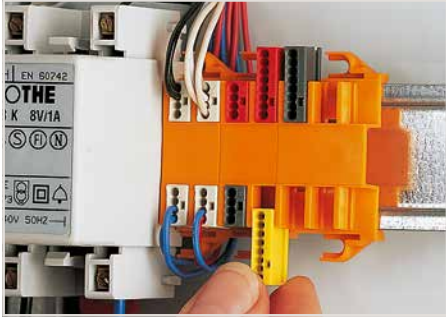


Commoned connector strips

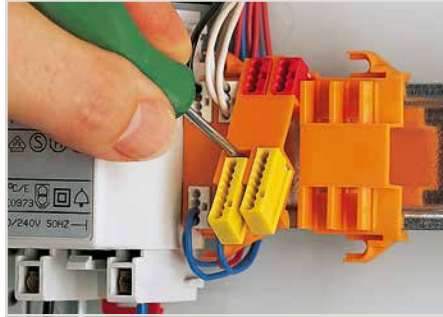


**PUSH WIRE®**  
terminates the following  
copper conductors:  
solid

## Mounting Carrier for MICRO PUSH WIRE® Junction Box Connectors, for DIN-35 Rail or Screw Mount, 243 Series



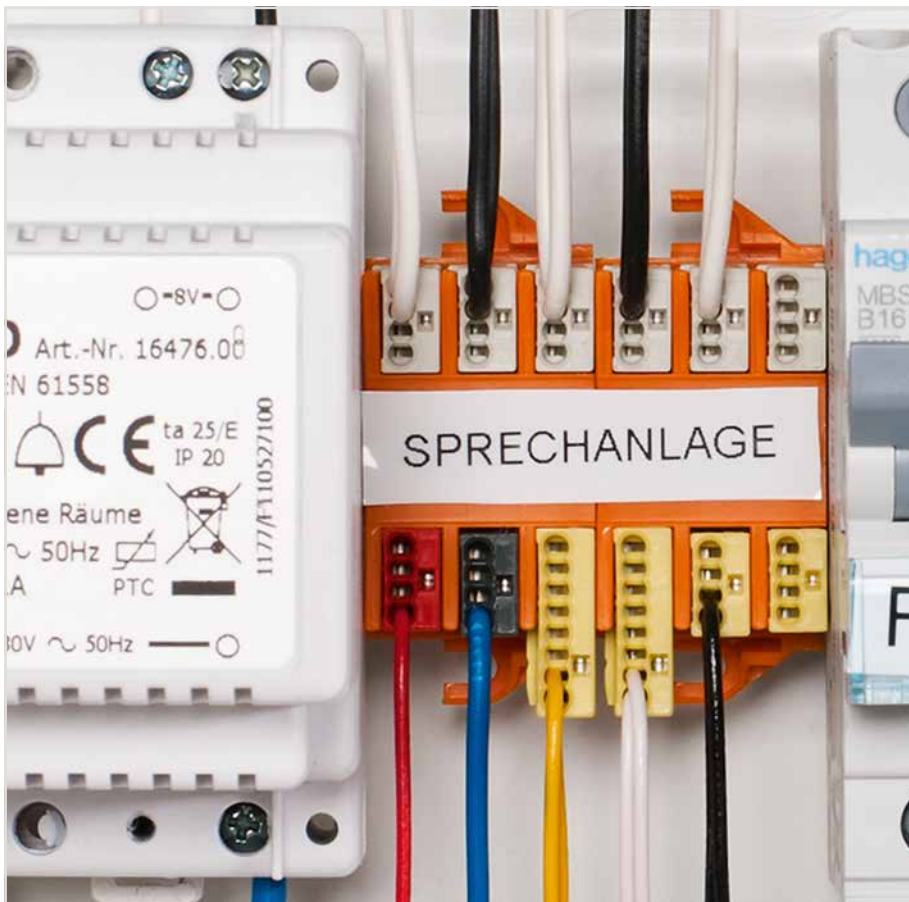
Inserting a MICRO junction box connector into the mounting carrier.



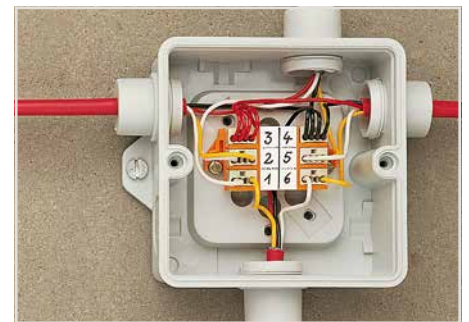
Removing a mounting carrier from the assembly.



Example of a residential door bell application - carriers mounted on a DIN-35 rail



Example of a residential intercom application



Typical application in a terminal box for burglar alarm - screw-mounted carrier

### Quick Fix Mounting

Realizing MICRO PUSH WIRE® connectors for junction boxes are ideal for DIN-rail-mount panel applications, electrical installers have requested the ability to use them in distribution panels. These connectors provide easy connections for smaller conductors used in low-current applications. They are well-suited to terminating telephone-style conductors for connecting alarms, bells, door sensors, communication systems, etc.

The mounting carrier is WAGO's professional solution. It is available with mounting slots for 4 or 6 connectors.

Depending on the number of conductors, each mounting slot can accommodate a 4- or 8-conductor MICRO PUSH WIRE® connector for junction boxes. The connectors simply snap into the mounting slots and are removable, allowing conductors to be exchanged during changeover.

The carrier is designed for easy mounting directly to the DIN-35 rail, or to a panel, via the screw-mount flanges provided on both sides. A large marking area for direct marking with a permanent felt-tip pen or for pre-printed self-adhesive marking strips is provided for clear circuit identification.

# MICRO PUSH WIRE® Connectors for Junction Boxes

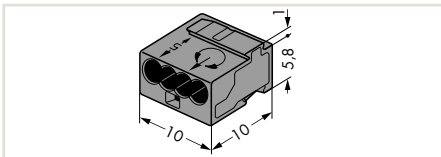
## 0.8 mm Ø, 243 Series

0.6 ... 0.8 mm Ø "s" ①	22 ... 20 AWG "s"	0.6 ... 0.8 mm Ø "s" ①	22 ... 20 AWG "s"
100 V/1.5 kV/2 ②	150 V, 7 A ③	100 V/1.5 kV/2 ②	150 V, 7 A ③
I <sub>N</sub> 6 A	150 V, 7 A ③	I <sub>N</sub> 6 A	150 V, 7 A ③
5 ... 6 mm / 0.2 ... 0.24 inch		5 ... 6 mm / 0.2 ... 0.24 inch	

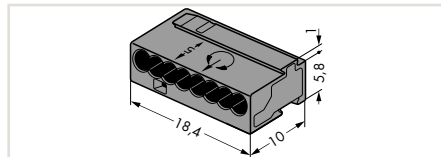


- ① When using conductors of the same diameter, 0.5 mm (24 AWG) or 1 mm (18 AWG) diameters are also possible.
- ② 100 V = rated voltage  
1.5 kV = rated surge voltage  
2 = pollution degree  
(see Section 14)

Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
MICRO PUSH WIRE® connector for junction boxes, 4-conductor connector, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C			MICRO PUSH WIRE® connector for junction boxes, 8-conductor connector, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C		
dark gray	243-204	1000 (10x100)	dark gray	243-208	500 (10x50)
red	243-804	1000 (10x100)	red	243-808	500 (10x50)



Dimensions in mm



Dimensions in mm

WAGO's 243 Series MICRO PUSH WIRE® Connectors for junction boxes can be used in both communication and alarm systems according to the VdS (German Association of Property Insurers) guidelines.

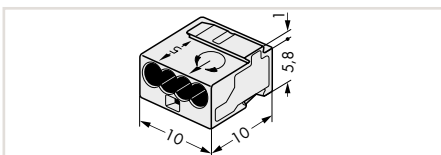
No general approval is given to PUSH WIRE® connectors by the VdS association. The connectors must be tested together with the different parts of the system.

The requirements for connectors are specified in the VdS guidelines for junction boxes (VdS 2116) in section 8.7: "The junction box connectors must be designed to guarantee a reliable and stable connection."

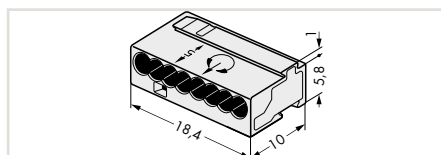
The verification of the fulfillment of these requirements is documented in the VDE test report No. 2574-1440-4031 for the insulated 243 Series PUSH WIRE® Connectors for junction boxes.



Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
MICRO PUSH WIRE® connector for junction boxes, 4-conductor connector, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C			MICRO PUSH WIRE® connector for junction boxes, 8-conductor connector, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C		
light gray	243-304	1000 (10x100)	light gray	243-308	500 (10x50)
yellow	243-504	1000 (10x100)	yellow	243-508	500 (10x50)



Dimensions in mm



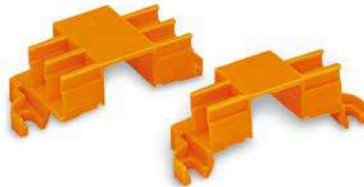
Dimensions in mm



# MICRO PUSH WIRE® Connectors for Junction Boxes 0.5 mm Ø and Mounting Carrier for DIN-35 Rail or Screw Mount

## 243 Series

0.4 ... 0.5 mm Ø "s"   26 ... 24 AWG "s" 100 V/1.5 kV/2 ① I <sub>N</sub> 6 A	Mounting carrier



- ① 100 V = rated voltage  
1.5 kV = rated surge voltage  
2 = pollution degree  
(see Section 14)

Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
MICRO PUSH WIRE® connector for junction boxes, 4-conductor connector, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C			Mounting carrier, for 4 connectors		
transparent	<b>243-144</b>	1000 (10x100)	orange	<b>243-112</b>	50 (5x10)
			Mounting carrier, for 6 connectors		
			orange	<b>243-113</b>	50 (5x10)
<b>Item-Specific Accessories</b>					
			Self-adhesive marking strips, 7 mm high, 6 self-adhesive strips per card, plain		
			white	<b>243-110</b>	100

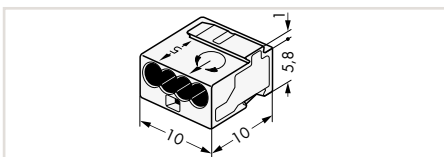
### Quick Fix Mounting

Realizing MICRO PUSH WIRE® connectors for junction boxes are ideal for DIN-rail-mount panel applications, electrical installers have requested the ability to use them in distribution panels. These connectors provide easy connections for smaller conductors used in low-current applications. They are well-suited to terminating telephone-style conductors for connecting alarms, bells, door sensors, communication systems, etc.

The mounting carrier is WAGO's professional solution. It is available with mounting slots for 4 or 6 connectors.

Depending on the number of conductors, each mounting slot can accommodate a 4- or 8-conductor MICRO PUSH WIRE® connector for junction boxes. The connectors simply snap into the mounting slots and are removable, allowing conductors to be exchanged during changeover.

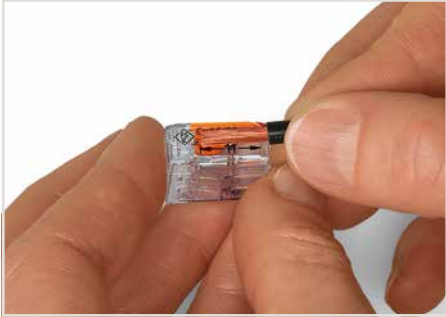
The carrier is designed for easy mounting directly to the DIN-35 rail, or to a panel, via the screw-mount flanges provided on both sides. A large marking area for direct marking with a permanent felt-tip pen or for pre-printed self-adhesive marking strips is provided for clear circuit identification.



Dimensions in mm

# COMPACT Splicing Connectors for All Conductor Types, 221 Series

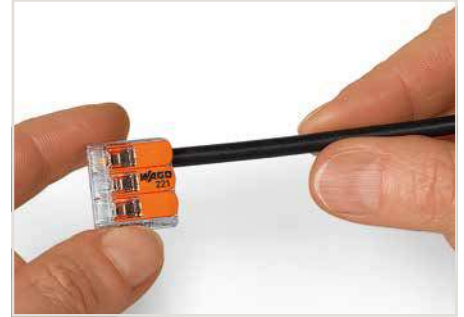
## Description and Installation



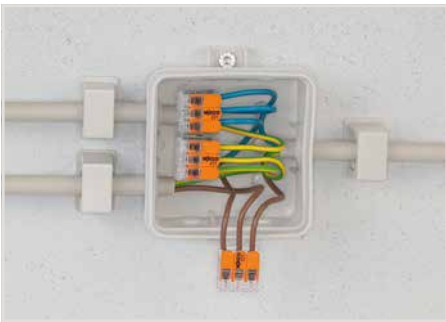
Strip conductor to 11 mm (0.43 inch).



Termination: Lift the lever to open the clamping unit and insert a stripped conductor.



Then, lower the lever to close the clamp.



Wiring fine-stranded conductors in a junction box.



Custom low-voltage lighting system



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Wiring fine-stranded conductors in a junction box.



Lighting distribution in ceiling canopy



Pendant light connection in suspended ceilings

**CAGE CLAMP®**  
terminates the following  
copper conductors:

- solid
- stranded

fine-stranded,  
also with finned  
single strands

fine-stranded,  
tip-bonded

# COMPACT Splicing Connectors for All Conductor Types

## 4 mm<sup>2</sup>, 221 Series

0.2 ... 4 mm <sup>2</sup> "s+st" 0.14 ... 4 mm <sup>2</sup> "f-st" 450 V/4 kV/2 ① I <sub>N</sub> 32 A 11 mm / 0.43 inch	24 ... 12 AWG	0.2 ... 4 mm <sup>2</sup> "s+st" 0.14 ... 4 mm <sup>2</sup> "f-st" 450 V/4 kV/2 ① I <sub>N</sub> 32 A 11 mm / 0.43 inch	24 ... 12 AWG
---	---------------	---	---------------



① in grounded power lines  
450 V = rated voltage  
4 kV = rated surge voltage  
2 = pollution degree  
(see Section 14)

Item No.	Pack. Unit	Item No.	Pack. Unit
COMPACT splicing connector for all conductor types, 2-conductor connector, with operating levers, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 85 °C (T85)		COMPACT splicing connector for all conductor types, 3-conductor connector, with operating levers, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 85 °C (T85)	
<b>221-412</b>	1000 (10x100)	<b>221-413</b>	500 (10x50)



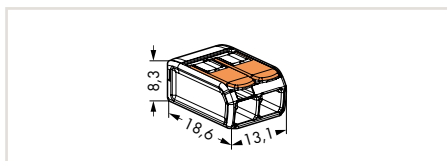
**Compact, lever-operated splicing connectors:**  
Tool-free connection of up to five stripped, fine-stranded conductors from 0.14 ... 4 mm<sup>2</sup>, as well as solid or stranded conductors from 0.2 ... 4 mm<sup>2</sup> (24 ... 12 AWG).

**How these work:**  
Pull up one of the orange operating levers to open the clamping unit. Then insert the conductor and push the lever back down, flush with the connector housing.

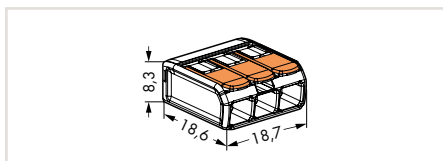
**Safety:**  
The specially designed rest position of the lever reliably prevents accidental unclamping of a connected conductor. Application safety, for any type of conductor (solid, stranded, fine-stranded), is confirmed by approvals like ENEC or UL.

ENEC is the European mark for electrical products that demonstrates compliance with European safety standards. The ENEC mark is subjected to the same EN standards as the VDE mark.

While the VDE mark is only permitted in Germany, the ENEC mark is accepted in more than 20 European countries.



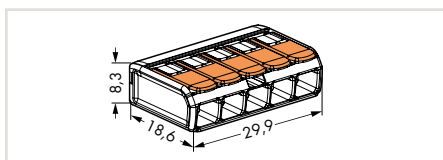
Dimensions in mm



Dimensions in mm



Item No.	Pack. Unit
COMPACT splicing connector for all conductor types, 5-conductor connector, with operating levers, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 85 °C (T85)	
<b>221-415</b>	250 (10x25)

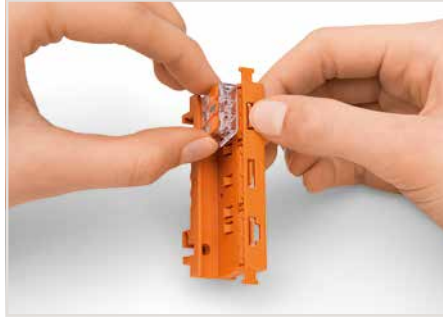


Dimensions in mm

## Mounting Carrier, 221 Series Types of Assembly



Inserting a connector into the mounting carrier.



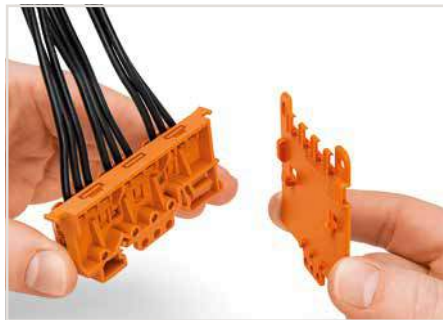
Removing a connector from the mounting carrier.



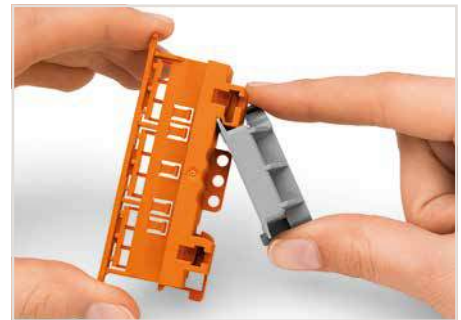
Removing a conductor.



Testing connectors via test slots on top of the carrier.



Securing a strain relief plate (222-505) to the mounting carrier.



Snapping the angled DIN-rail adapter (222-510) onto the mounting carrier.



Strain relief via cable ties on the mounting carrier (transverse to the connectors' wiring direction) - clamping units labeled via marking strips (210-334).



Vertical mounting with strain relief plate on DIN-35 rail.



Horizontal mounting on DIN-35 rail using an angled DIN-rail adapter.

12



Horizontal screw mounting with strain relief plate on a flat surface



Vertical screw mounting with strain relief plate on a flat surface.



## Mounting Carrier for Single Connectors, 221 Series Installation



Inserting a connector into the mounting carrier.



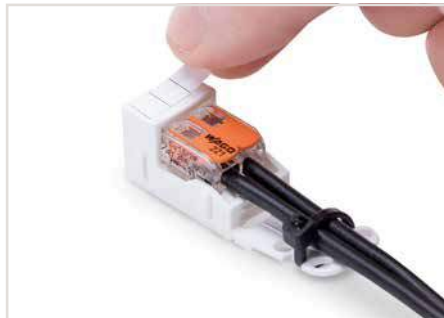
Removing a connector from the mounting carrier.



Inserting a conductor.



Use a cable tie to secure the conductors to the strain relief plate.



Labeling



Testing a connector mounted on the carrier via test slot.



The strain relief plate can be removed.



Horizontal screw mounting



Vertical screw mounting



Horizontal mounting via snap-in foot



Vertical mounting via snap-in foot



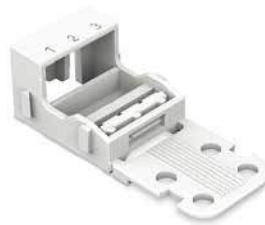
Connecting a light to the mains.

12

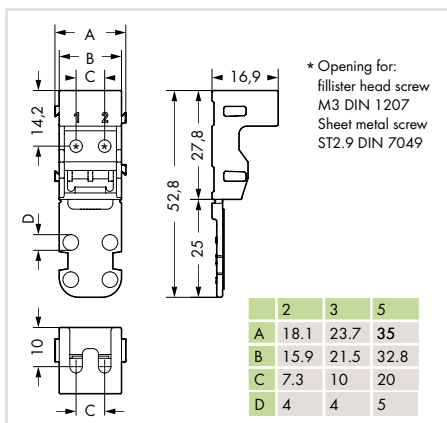
# Mounting Carrier for Single Connectors

## 221 Series

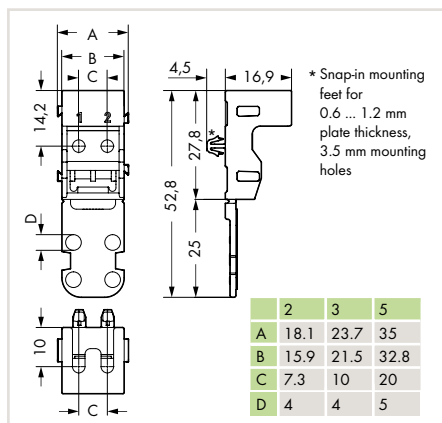
Mounting carrier	Mounting carrier	Mounting carrier
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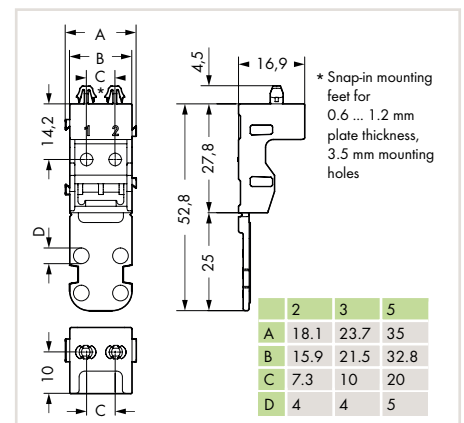
Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
Mounting carrier, for 2-conductor connectors, for screw mounting			Mounting carrier, for 3-conductor connectors, for screw mounting			Mounting carrier, for 5-conductor connectors, for screw mounting		
Dimensions from the surface (mm) W x H x D			Dimensions from the surface (mm) W x H x D			Dimensions from the surface (mm) W x H x D		
18.1 x 16.9 x 52.8			23.7 x 16.9 x 52.8			35 x 16.9 x 52.8		
More information on dimensions is available upon request.			More information on dimensions is available upon request.			More information on dimensions is available upon request.		
○ white	<b>221-502</b>	50 (5x10)	○ white	<b>221-503</b>	50 (5x10)	○ white	<b>221-505</b>	50 (5x10)
● black	<b>221-502/000-004</b>	50 (5x10)	● black	<b>221-503/000-004</b>	50 (5x10)	● black	<b>221-505/000-004</b>	50 (5x10)
Mounting carrier, for 2-conductor connectors, with snap-in mounting foot for horizontal mounting			Mounting carrier, for 3-conductor connectors, with snap-in mounting foot for horizontal mounting			Mounting carrier, for 5-conductor connectors, with snap-in mounting foot for horizontal mounting		
Dimensions from the surface (mm) W x H x D			Dimensions from the surface (mm) W x H x D			Dimensions from the surface (mm) W x H x D		
18.1 x 16.9 (+ 4.5 snap-in mounting foot) x 52.8			23.7 x 16.9 (+ 4.5 snap-in mounting foot) x 52.8			35 x 16.9 (+ 4.5 snap-in mounting foot) x 52.8		
More information on dimensions is available upon request.			More information on dimensions is available upon request.			More information on dimensions is available upon request.		
○ white	<b>221-512</b>	50 (5x10)	○ white	<b>221-513</b>	50 (5x10)	○ white	<b>221-515</b>	50 (5x10)
● black	<b>221-512/000-004</b>	50 (5x10)	● black	<b>221-513/000-004</b>	50 (5x10)	● black	<b>221-515/000-004</b>	50 (5x10)
Mounting carrier, for 2-conductor connectors, with snap-in mounting foot for vertical mounting			Mounting carrier, for 3-conductor connectors, with snap-in mounting foot for vertical mounting			Mounting carrier, for 5-conductor connectors, with snap-in mounting foot for vertical mounting		
Dimensions from the surface (mm) W x H x D			Dimensions from the surface (mm) W x H x D			Dimensions from the surface (mm) W x H x D		
18.1 x 52.8 (+ 4.5 snap-in mounting foot) x 16.9			23.7 x 52.8 (+ 4.5 snap-in mounting foot) x 16.9			35 x 52.8 (+ 4.5 snap-in mounting foot) x 16.9		
More information on dimensions is available upon request.			More information on dimensions is available upon request.			More information on dimensions is available upon request.		
○ white	<b>221-522</b>	50 (5x10)	○ white	<b>221-523</b>	50 (5x10)	○ white	<b>221-525</b>	50 (5x10)
● black	<b>221-522/000-004</b>	50 (5x10)	● black	<b>221-523/000-004</b>	50 (5x10)	● black	<b>221-525/000-004</b>	50 (5x10)



Dimensions in mm



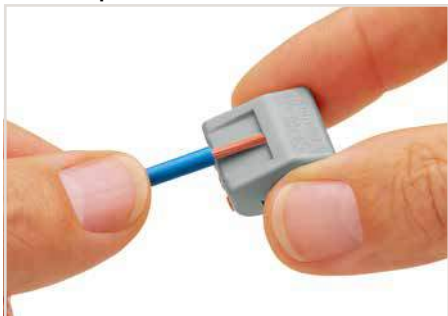
Dimensions in mm



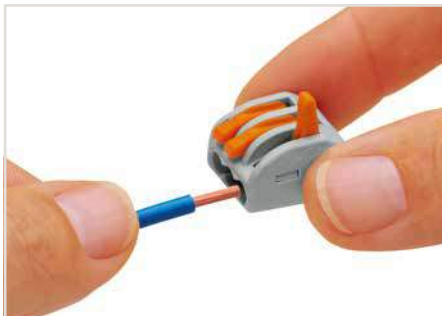
Dimensions in mm

# CLASSIC Splicing Connectors for All Conductor Types, 222 Series

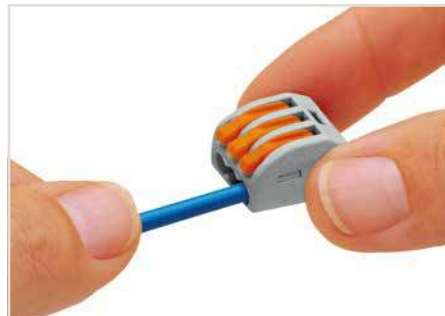
## Description and Installation



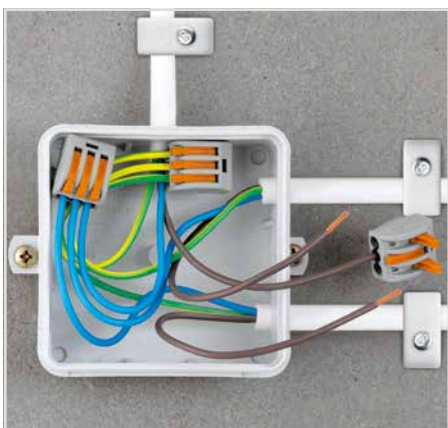
Strip conductor to 9 ... 10 mm (0.35 ... 0.39 inch).



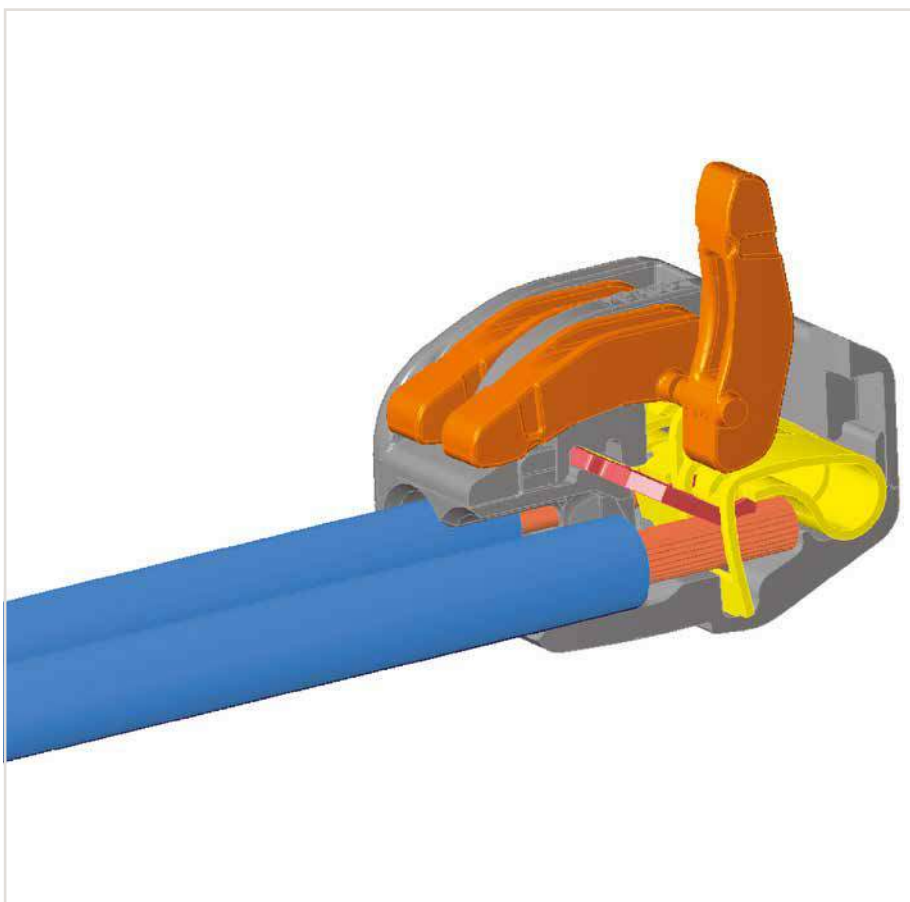
Termination: Lift the lever to open the clamping unit and insert a stripped conductor.



Then, lower the lever to close the clamp.



Wiring fine-stranded conductors in a junction box.



12



Testing the wired connectors.

**CAGE CLAMP®**  
terminates the following  
copper conductors:

solid                      stranded

fine-stranded,  
also with finned  
single strands

fine-stranded,  
tip-bonded

fine-stranded,  
with ferrule  
(gastight crimped)

fine-stranded,  
with pin terminal  
(gastight crimped)



# CLASSIC Splicing Connectors for All Conductor Types

## 2.5 mm<sup>2</sup>, 222 Series

0.08 ... 2.5 mm <sup>2</sup> "s+st"	28 ... 12 AWG "s+f-st"	0.08 ... 2.5 mm <sup>2</sup> "s+st"	28 ... 12 AWG "s+f-st"
0.08 ... 4 mm <sup>2</sup> "f-st"	28 ... 12 AWG "f-st"	0.08 ... 4 mm <sup>2</sup> "f-st"	28 ... 12 AWG "f-st"
400 V/4 kV/2 ①	600 V, 20 A ②	400 V/4 kV/2 ①	600 V, 20 A ②
I <sub>N</sub> 32 A		I <sub>N</sub> 32 A	
9 ... 10 mm / 0.35 ... 0.39 inch		9 ... 10 mm / 0.35 ... 0.39 inch	



① in grounded power lines  
 400 V = rated voltage  
 4 kV = rated surge voltage  
 2 = pollution degree  
 (see Section 14)

Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
CLASSIC splicing connector, 2-conductor connector, with operating levers, continuous service temperature (max.) 85 °C, ambient operating temperature (max.) 40 °C			CLASSIC splicing connector, 3-conductor connector, with operating levers, continuous service temperature (max.) 85 °C, ambient operating temperature (max.) 40 °C		
gray	222-412	500 (10x50)	gray	222-413	500 (10x50)



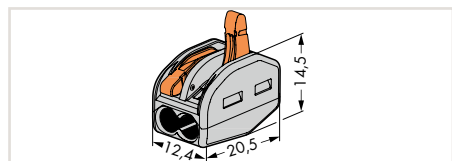
**Compact, lever-operated splicing connectors:**  
 Tool-free connection of up to five stripped, fine-stranded conductors from 0.08 ... 4 mm<sup>2</sup> (28 ... 12 AWG), as well as solid or stranded conductors up to 2.5 mm<sup>2</sup> (12 AWG).

**This is how it works:**  
 Pull up one of the orange operating levers to open the clamping unit so that the lever engages and keeps the clamp in its opened position. Then insert the conductor and push the lever back down, flush with the connector housing.

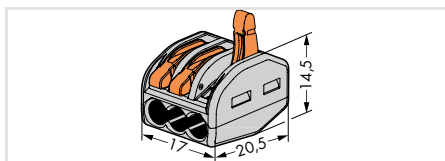
**Safety:**  
 The specially designed rest position of the lever reliably prevents accidental unclamping of a connected conductor. Application safety, for any type of conductor (solid, stranded, fine-stranded), is confirmed by approvals like ENEC or UL.

ENEC is the European mark for electrical products that demonstrates compliance with European safety standards. The ENEC mark is subjected to the same EN standards as the VDE mark.

While the VDE mark is only permitted in Germany, the ENEC mark is accepted in more than 20 European countries.



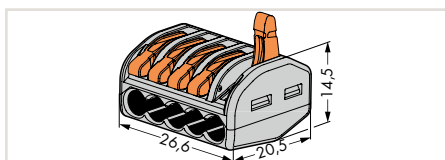
Dimensions in mm



Dimensions in mm



Color	Item No.	Pack. Unit
CLASSIC splicing connector, 5-conductor connector, with operating levers, continuous service temperature (max.) 85 °C, ambient operating temperature (max.) 40 °C		
gray	222-415	400 (10x40)



Dimensions in mm

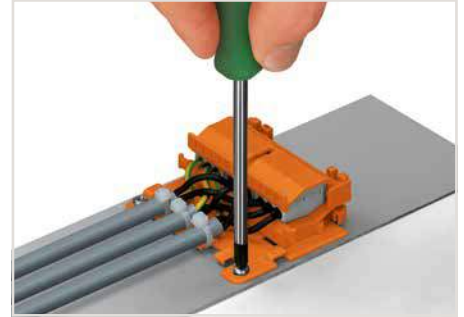
## Mounting Carrier, 222 Series Types of Assembly



Horizontal mounting on DIN-35 rail using an angled DIN-rail adapter.



Horizontal mounting with strain relief plate on DIN-35 rail using an angled DIN-rail adapter.



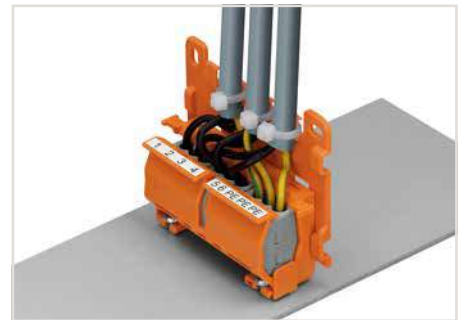
Horizontal screw mounting with strain relief plate on a flat surface



Vertical mounting with strain relief plate on DIN-35 rail. Marking clamping units via marking strips.



Strain relief via cable ties on the mounting carrier (transverse to the connectors' wiring direction) - Molded marking clamping units



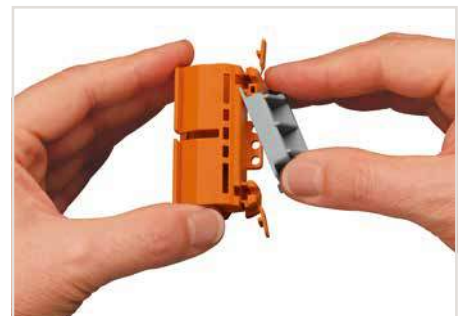
Mounting carrier with strain relief plate mounted vertically on a plate. Round cable secured via strain relief lug.



Snapping the lateral connector safety lock onto the mounting carrier.



Securing a strain relief plate to the mounting carrier.



Snapping the angled DIN-rail adapter onto the mounting carrier.



# Vario-T-BOXX and L-BOXX® 102

## The COMPACT Splicing Connector Line-Up

### 887 Series

Vario-T-BOXX	L-BOXX® 102, the COMPACT splicing connector line-up	
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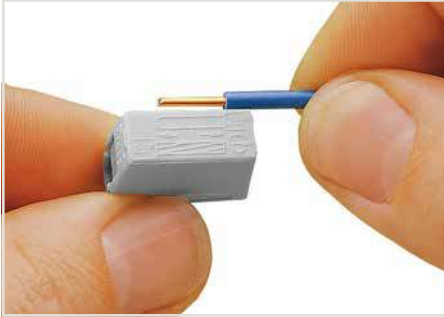
Item No.	Pack. Unit	Item No.	Pack. Unit
Vario-T-BOXX		L-BOXX® 102, the COMPACT splicing connector line-up	
<b>887-912</b>	1	<b>887-913</b>	1
COMPACT PUSH WIRE® Connectors for Junction Boxes		COMPACT PUSH WIRE® Connectors for Junction Boxes	
3 x 0.5 ... 2.5 mm <sup>2</sup>	2273-203 100	orange 3 x 0.5 ... 2.5 mm <sup>2</sup>	2273-203 100
5 x 0.5 ... 2.5 mm <sup>2</sup>	2273-205 100	yellow 5 x 0.5 ... 2.5 mm <sup>2</sup>	2273-205 100
8 x 0.5 ... 2.5 mm <sup>2</sup>	2273-208 50	light gray 8 x 0.5 ... 2.5 mm <sup>2</sup>	2273-208 50
COMPACT Splicing Connectors		COMPACT Splicing Connectors	
3 x 0.14 ... 4 mm <sup>2</sup>	221-413 50	transparent 2 x 0.14 ... 4 mm <sup>2</sup>	221-412 100
5 x 0.14 ... 4 mm <sup>2</sup>	221-415 25	transparent 3 x 0.14 ... 4 mm <sup>2</sup>	221-413 50
		transparent 5 x 0.14 ... 4 mm <sup>2</sup>	221-415 25
Lighting Connectors		Lighting Connectors	
2 x 1 ... 2.5 mm <sup>2</sup> "s"	224-112 100	white 2 x 1 ... 2.5 mm <sup>2</sup> "s"	224-112 100
PUSH WIRE® Connectors for Junction Boxes		PUSH WIRE® Connectors for Junction Boxes	
1.5 ... 4 mm <sup>2</sup> "s"	773-604 100	red 2.5 ... 6 mm <sup>2</sup> "s+str"	773-173 50
MICRO PUSH WIRE® Connectors for Junction Boxes		MICRO PUSH WIRE® Connectors for Junction Boxes	
4 x 0.6 ... 0.8 mm Ø	243-204 100	dark gray 4 x 0.6 ... 0.8 mm Ø	243-204 100
4 x 0.6 ... 0.8 mm Ø	243-804 100	dark gray 8 x 0.6 ... 0.8 mm Ø	243-208 50
8 x 0.6 ... 0.8 mm Ø	243-208 50		
Mounting Carrier		Mounting Carrier	
for 6 Connectors	243-113 10	orange	221-500 4



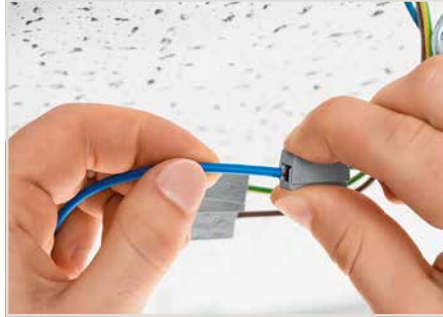
# Lighting Connectors, 224 Series

## Lighting Side and Installation Side

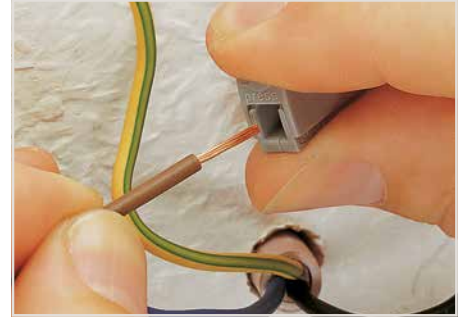
### Description and Installation



Strip conductor to 9 ... 11 mm (0.35 ... 0.43 inch).



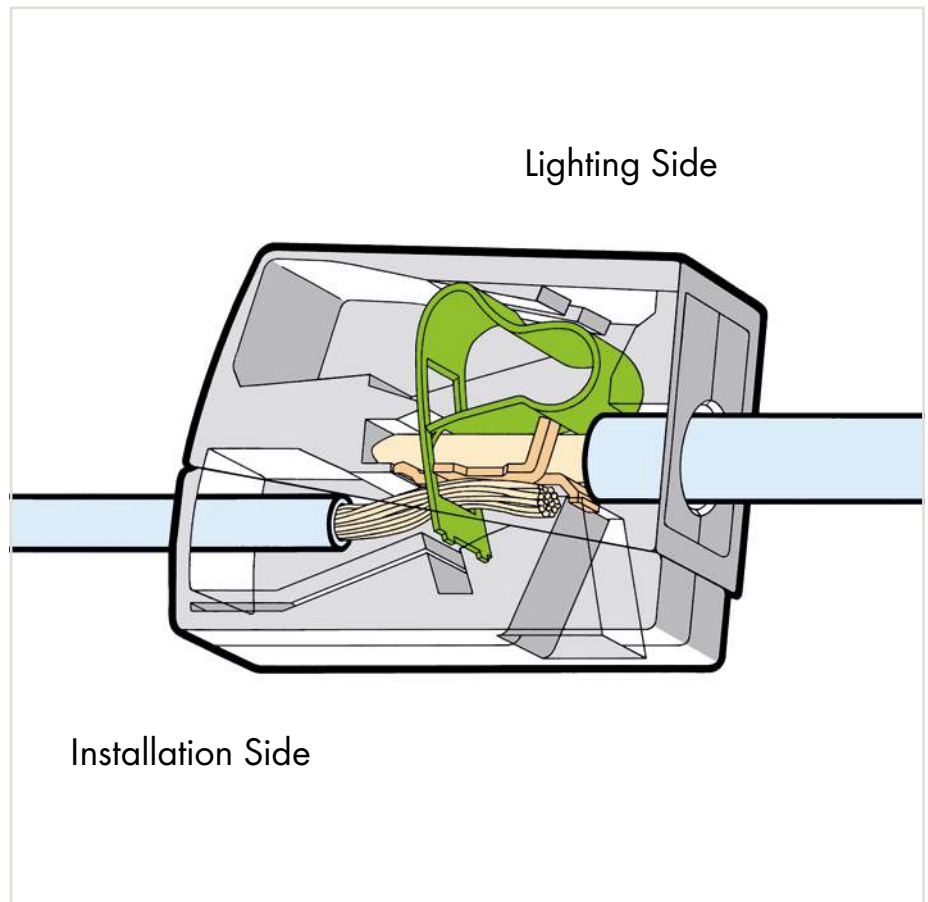
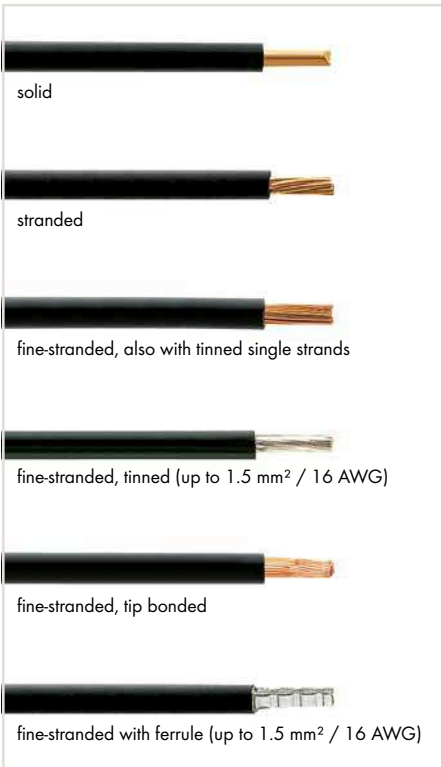
To connect: Press button fully, insert stripped conductor into square entry and release.



To remove: Press button and withdraw conductor.

#### Lighting Side

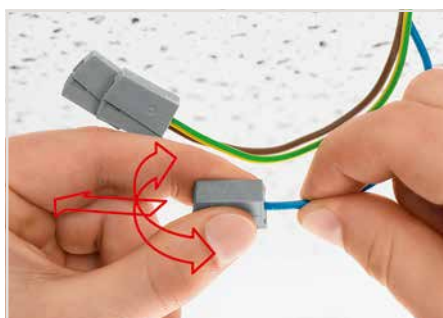
CAGE CLAMP® terminates the following copper conductors:



12



To connect: Insert stripped solid conductor into circular entry and push until it hits the backstop.



To remove: Hold conductor to be removed and twist alternately left and right while slightly pulling the connector.



Testing via separate test ports.



#### Installation Side

PUSH WIRE® terminates the following copper conductors:  
solid

# Lighting and "Service" Connectors

## 2.5 mm<sup>2</sup>, 224 Series

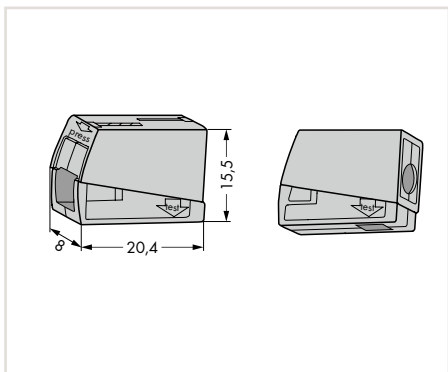
<b>Installation side</b> 1 ... 2.5 mm <sup>2</sup> "s"   14 ... 12 AWG <b>Lighting side</b> 0.5 ... 2.5 mm <sup>2</sup> "s+f-st"   20 ... 16 AWG 400 V/4 kV/2; 24 A   300 V, 20 A <sup>Ⓢ</sup> Ⓣ 9 ... 11 mm / 0.35 ... 0.43 inch	<b>Installation side</b> 1 ... 2.5 mm <sup>2</sup> "s"   14 ... 12 AWG <b>Lighting side</b> 0.5 ... 2.5 mm <sup>2</sup> "s+f-st"   20 ... 16 AWG 400 V/4 kV/2; 24 A   300 V, 20 A <sup>Ⓢ</sup> Ⓣ 9 ... 11 mm / 0.35 ... 0.43 inch	0.5 ... 2.5 mm <sup>2</sup> "s+f-st"   20 ... 16 AWG 400 V/4 kV/2   300 V, 20 A <sup>Ⓢ</sup> I <sub>N</sub> 24 A 9 ... 11 mm / 0.35 ... 0.43 inch
--	--	--



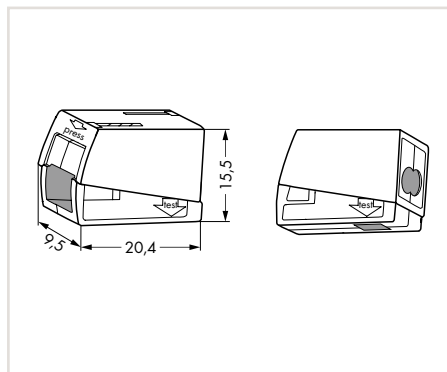
Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
Lighting connector, standard version, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C			2-conductor lighting connector, standard version, continuous service temperature (max.) 105 °C, ambient operating temperature (max.) 60 °C			"Service" connector		
● gray	<b>224-101</b>	1000 (10x100)	○ white	<b>224-112</b>	1000 (10x100)	● gray	<b>224-201</b>	50
Lighting connector, version for increased continuous service temperature of 120 °C, ambient operating temperature (max.) 75 °C			2-conductor lighting connector, version for increased continuous service temperature of 120 °C, ambient operating temperature (max.) 75 °C					
● black	<b>224-104</b>	100	● black	<b>224-114</b>	100			

### 224 Series Accessories

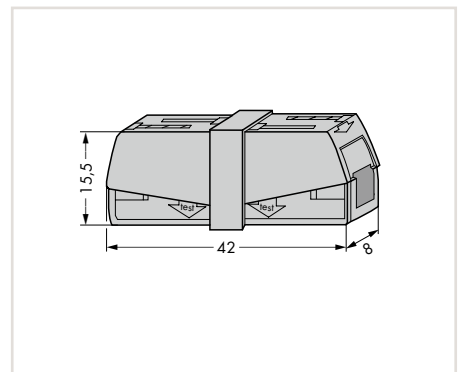
Syringe, contains 20 ml "Alu-Plus" contact paste <b>249-130</b>   20 (4x5)		



Dimensions in mm



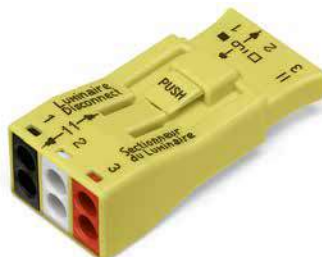
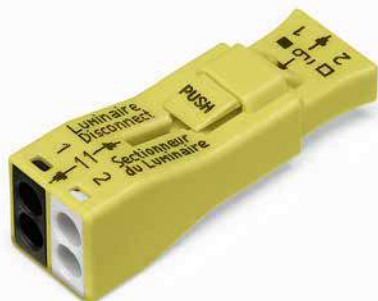
Dimensions in mm



Dimensions in mm

# Luminaire Disconnect Connectors (U.S. Version), 12 AWG, 873 Series

<b>2-conductor plug ①</b> 18 ... 12 AWG "s" 16 ... 12 AWG "st" 	<b>1-conductor socket ②</b> 18 AWG "s" 600 V, 6 A 	<b>2-conductor plug ①</b> 18 ... 12 AWG "s" 16 ... 12 AWG "st" 	<b>1-conductor socket ②</b> 18 AWG "s" 600 V, 6 A 
--	---	--	---



- ① 2-conductor plug
- ② 1-conductor socket

Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
Luminaire disconnect connector			Luminaire disconnect connector		
2	<b>873-902</b>	40	3	<b>873-903</b>	20

Touchproof connectors are required for ballast supply cables in the USA and Canada. When exchanging a ballast:

1. The touch-proof plug-in connection is disconnected first
2. The ballast is replaced
3. Network connection is restored by plugging the connection.

This streamlines ballast replacement while enhancing safety by safeguarding the installer from electric shock. The 873 Series connectors are approved according to UL 2459 and CSA 22.2 for this type of application.

✓ 18-12 AWG CU, SOL, UL/CSA  
0,75 - 4 mm<sup>2</sup>

✓ 16-12 AWG (≤ 19 str.) CU, UL  
14-12 AWG (≤ 19 str.) CU, CSA  
1,5 - 4 mm<sup>2</sup>  
*One-time use only - Do not reuse  
N'utiliser qu'une seule fois*

~~18-12 AWG CU, SOL, UL/CSA~~  
~~0,75 - 4 mm<sup>2</sup>~~

~~16-12 AWG (≤ 19 str.) CU, UL  
14-12 AWG (≤ 19 str.) CU, CSA~~  
~~1,5 - 4 mm<sup>2</sup>~~

0.45 inch / 11 - 13 mm

✓ 18 AWG CU, SOL, UL/CSA  
0,75 mm<sup>2</sup>

~~18 AWG CU, SOL, UL/CSA~~  
~~0,75 mm<sup>2</sup>~~

~~18 AWG CU, SOL, UL/CSA~~  
~~0,75 mm<sup>2</sup>~~

0.35 inch / 9 - 11 mm

**Correct method of solid wire removal**  
Hold wire to be removed in one hand, the connector in the other - twist slightly while pulling the connector.

**Déconnexion correcte du conducteur rigide**  
Tenir d'une main le conducteur à déconnecter et de l'autre main le connecteur - Opérer une légère torsion du conducteur tout en tirant sur le connecteur.



873 Series approvals per EN 60998 and EN 61984:

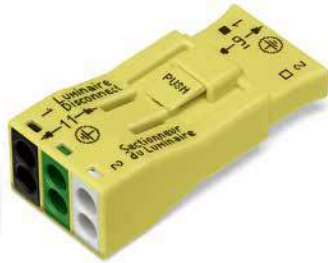
EN 60998  
0.75 mm<sup>2</sup> (solid), 6 A for socket  
1.5 ... 4 mm<sup>2</sup> (solid), 32 A for plug  
400 V/4 kV/2

EN 61984  
0.75 mm<sup>2</sup> (solid), 6 A for socket  
0.75 ... 4 mm<sup>2</sup> (solid), 32 A for plug  
400 V/4 kV/2



# Luminaire Disconnect Connectors (U.S. Version), 12 AWG, 873 Series

<b>2-conductor plug ①</b> 18 ... 12 AWG "s" 16 ... 12 AWG "st"	<b>1-conductor socket ②</b> 18 AWG "s" 600 V, 6 A <sup>④</sup>
 11 ... 13 mm / 0.43 ... 0.51 inch ①	 9 ... 11 mm / 0.35 ... 0.43 inch ②



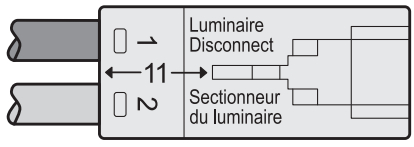
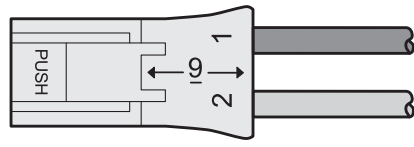
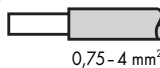
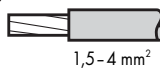

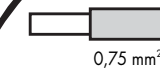


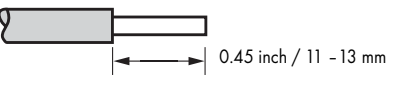
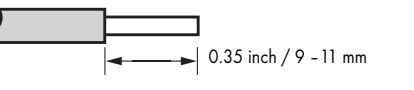
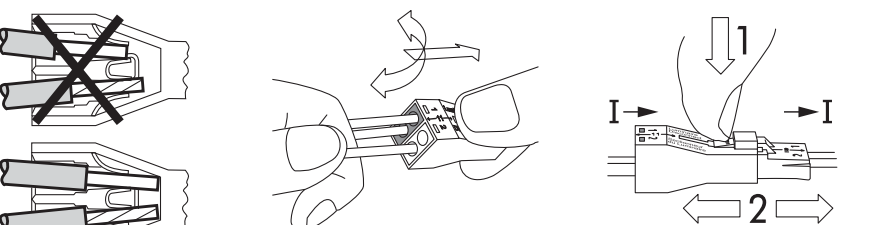
- ① 2-conductor plug
- ② 1-conductor socket

Pole No.	Item No.	Pack. Unit
	Luminaire disconnect connector, preceding ground contact, center position	
3	<b>873-953</b>	500

Touchproof connectors are required for ballast supply cables in the USA and Canada. When exchanging a ballast:

1. The touch-proof plug-in connection is disconnected first
2. The ballast is replaced
3. Network connection is restored by plugging the connection.

This streamlines ballast replacement while enhancing safety by safeguarding the installer from electric shock. The 873 Series connectors are approved according to UL 2459 and CSA 22.2 for this type of application.

	
<ul style="list-style-type: none"> <li>✓  18-12 AWG CU, SOL, UL/CSA 0,75 - 4 mm<sup>2</sup></li> <li>✓  16-12 AWG (≤ 19 str.) CU, UL 14-12 AWG (≤ 19 str.) CU, CSA One-time use only - Do not reuse N'utiliser qu'une seule fois</li> <li>✗ </li> </ul>	<ul style="list-style-type: none"> <li>✓  18 AWG CU, SOL, UL/CSA 0,75 mm<sup>2</sup></li> <li>✗ </li> <li>✗ </li> </ul>
	
 <p><b>Correct method of solid wire removal</b> Hold wire to be removed in one hand, the connector in the other - twist slightly while pulling the connector.</p> <p><b>Déconnexion correcte du conducteur rigide</b> Tenir d'une main le conducteur à déconnecter et de l'autre main le connecteur - Opérer une légère torsion du conducteur tout en tirant sur le connecteur.</p>	

873 Series approvals per EN 60998 and EN 61984:







EN 60998  
0.75 mm<sup>2</sup> (solid), 6 A for socket  
1.5 ... 4 mm<sup>2</sup> (solid), 32 A for plug  
400 V/4 kV/2

EN 61984  
0.75 mm<sup>2</sup> (solid), 6 A for socket  
0.75 ... 4 mm<sup>2</sup> (solid), 32 A for plug  
400 V/4 kV/2



## **Accessories and Tools**

## Shield Connection Systems, Marking Systems, Accessories and Tools

		Page
	Shield Clamping Saddles	790 Series 556
	Spring-Equipped Shield Clamping Saddles	790 Series 559
	Busbar Carriers	790 Series 562
	Marking Systems	566
	End Stops for DIN-35 and DIN-15 Rails	588
	Carrier Rails, Collective Jumper Carriers and Rail-Mount Terminal Block Covers	590
	Operating Tools	596
	Stripping Tools	599
	Crimping Tools for Ferrules	600
	Cable Cutter	603
	Test and Measurement Devices	606

## Shield Connection System, 790 Series

### Description and Installation



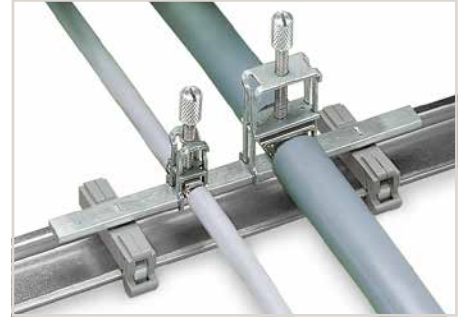
Carrier with grounding foot\* (790-113), 45 mm long, busbar 90° to the rail

\* for all sizes of shield clamping saddles



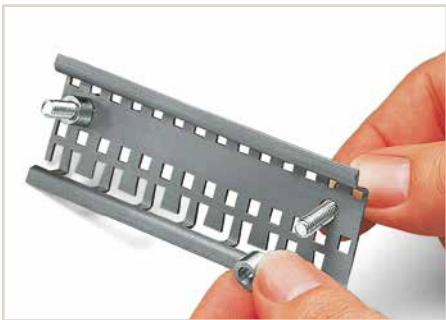
Carrier with grounding foot\* (790-114), 45 mm long, busbar parallel to the rail

\* for all sizes of shield clamping saddles



Carrier with grounding foot\* (790-115), 125 mm long, busbar parallel to the rail

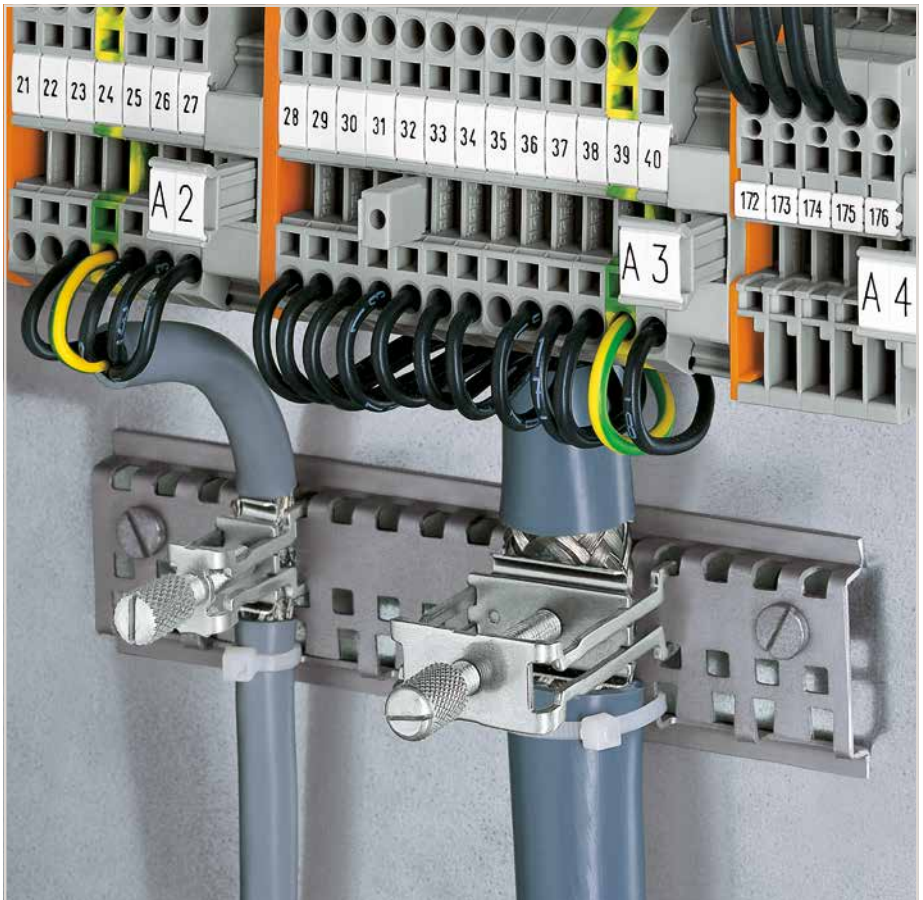
\* for all sizes of shield clamping saddles



Fitting a spacer sleeve to a specially slotted carrier rail.



Fitting an additional clamping saddle.



Tightening/removing a shield clamping saddle.

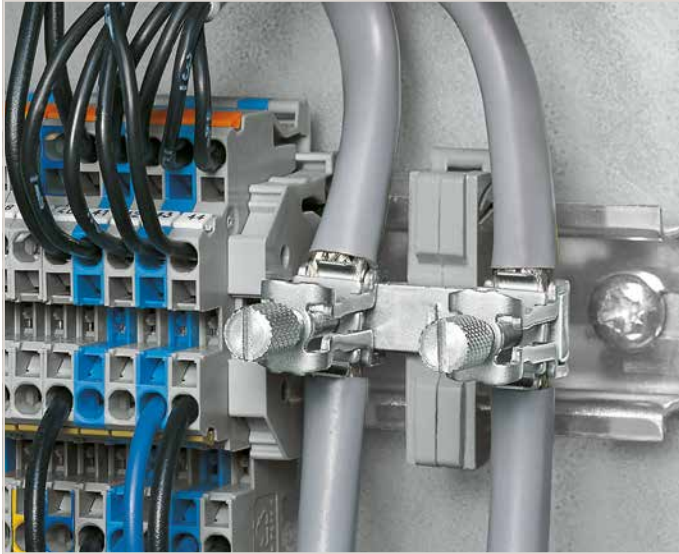


After connection, tighten the knurled screw to complete the installation. Recommended tightening torque: 0.5 Nm



To remove the clamping saddle, unscrew until ratcheted mechanism is released, then slightly tip saddle and remove the clamping saddle.

# Shield Connection System, 790 Series Installation



Carrier with grounding foot – busbar parallel to the rail



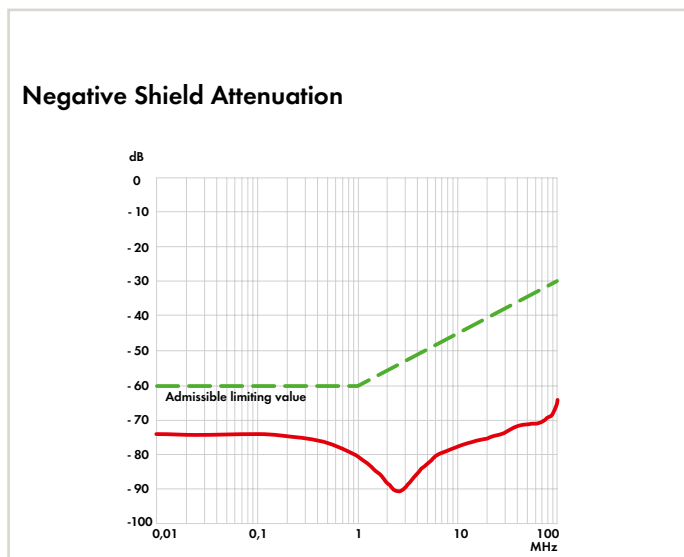
Insulated mounting carriers for a common shield reference potential, independent of housing potential



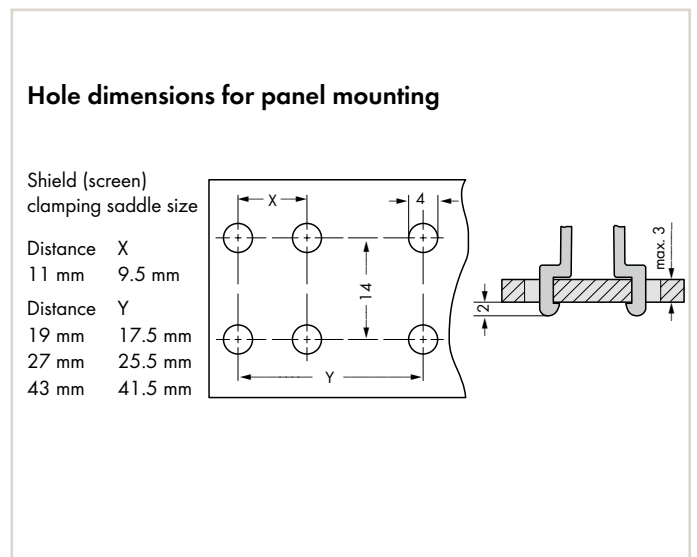
U-shaped (10 x 3) mm copper busbar



Snap shield clamping saddles into any metal plate (max. thickness: 3 mm).



WAGO's shield connection system is highly effective because the clamping unit can be brought very close to the unshielded part of the cable.



Additionally, the spring material is part of the clamping saddle, providing a good electrical connection (the system also acts as a partial strain relief). The spring element integrated in the shield clamping saddle compensates for deformation and settling that results from a connected shield.

# Shield Clamping Saddles











## 790 Series

Shield clamping saddle shield diameter up to 8 mm	Shield clamping saddle shield diameter 7 ... 16 mm	Shield clamping saddle shield diameter 6 ... 24 mm
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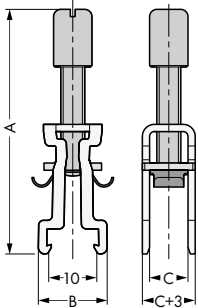


Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Shield clamping saddle, 11 mm wide Note: Cannot be used for connecting ground conductors.		Shield clamping saddle, 19 mm wide Note: Cannot be used for connecting ground conductors.		Shield clamping saddle, 27 mm wide Note: Cannot be used for connecting ground conductors.	
<b>790-108</b>	50 (5x10)	<b>790-116</b>	50 (5x10)	<b>790-124</b>	50 (5x10)

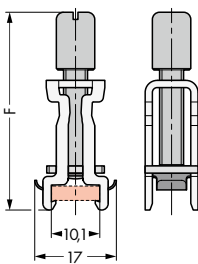
### Accessories for Shield Clamping Saddles

 <p>Carrier with grounding foot, busbar parallel to the rail, 15 mm long, for (10 x 3) mm copper busbars, for shield clamping saddles (790-108)</p>	 <p>Carrier with grounding foot, busbar 90° to the rail, 45 mm long, for (10 x 3) mm copper busbars, for shield clamping saddles (790 Series)</p>	 <p>Carrier with two grounding feet, busbar parallel to the rail, 125 mm long, for (10 x 3) mm copper busbars</p>
<b>790-110</b> 25	<b>790-113</b> 25	<b>790-115</b> 25
 <p>Carrier with grounding foot, busbar parallel to the rail, 25 mm long, for (10 x 3) mm copper busbars, for shield clamping saddles (790-108, 790-116) and shield clamps (791-111, 791-117)</p>	 <p>Carrier with grounding foot, busbar parallel to the rail, 45 mm long, for (10 x 3) mm copper busbars, for shield clamping saddles (790 Series) and shield clamps (791 Series)</p>	 <p>Straight busbar, tin-plated, 1000 mm long, copper (10 x 3) mm</p>
<b>790-112</b> 25	<b>790-114</b> 25	<b>210-133</b> 1
		 <p>Straight busbar, tin-plated, 30 mm long, copper (10 x 3) mm</p>
		<b>790-133</b> 20
 <p>Carrier rail, specialty slotted, 1000 mm long, tin-plated</p>	 <p>Spacer sleeve, for carrier rail, for M5-size screw, specialty slotted</p>	 <p>Straight busbar, tin-plated, 50 mm long, copper (10 x 3) mm</p>
<b>790-145</b> 1	<b>790-144</b> 200 (2x100)	<b>790-134</b> 20

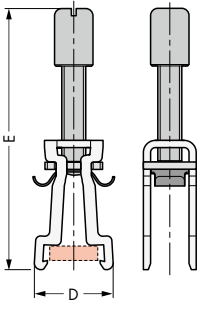
Installation position (delivery state)



Closed position



Removal position



Dimensions in mm

Item No.	A	B	C	D	E	F
790-108	51	15	8	16	55	42
790-116	53	15	16	16	57	45
790-124	78	15	24	16	83	58
790-140	97	15	40	16	100	73







13

**Shield clamping saddle**  
 shield diameter  
 22 ... 40 mm



Item No.	Pack. Unit
Shield clamping saddle, 43 mm wide Note: Cannot be used for connecting ground conductors.	
<b>790-140</b>	50 (5x10)

**Accessories for Shield Clamping Saddles**

Insulated mounting foot, for busbar with M4 x 8 mm screw			
	gray	<b>790-100</b>	50 (2x25)
Insulated mounting foot, for busbar with (3.5 x 9) mm sheet metal screw			
	gray	<b>790-101</b>	50 (2x25)
U-shaped busbar, copper (10 x 3) mm, for 750 Series I/O modules			
	for 5 I/O	<b>790-190</b>	25 (5x5)
U-shaped busbar, copper (10 x 3) mm, for 750 Series I/O modules			
	for 8 I/O	<b>790-191</b>	25
U-shaped busbar, copper (10 x 3) mm, for 750 Series I/O modules			
	for 5 I/O	<b>790-192</b>	25
U-shaped busbar, copper (10 x 3) mm, for 750 Series I/O modules			
	for 8 I/O	<b>790-193</b>	25



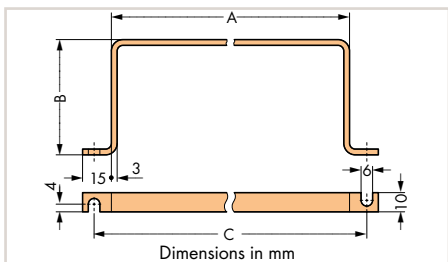
**Assembly:**

The shield clamping saddle is shipped ready for direct connection to the (10 x 3) mm busbar or to a drilled mounting plate. After connection, tighten the knurled screw to complete the installation.  
 Maximum tightening torque: 0.5 Nm



**Removal:**

To remove the clamping saddle, unscrew until ratcheted mechanism is released, then slightly tip saddle and remove the clamping saddle.



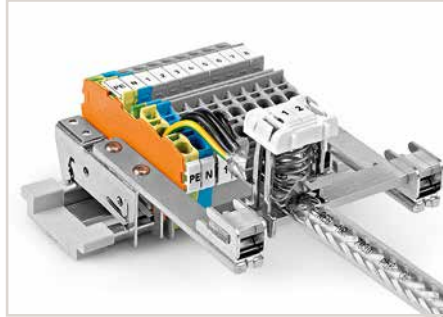
Item No.	A	B	C	Item No.	A	B	C
for I/O module series 750 (5 E/A)							
<b>790-190</b>	63	60	83	<b>790-192</b>	63	35	83
for I/O module series 750 (8 E/A)							
<b>790-191</b>	100	60	118	<b>790-193</b>	100	35	118

Dimensions in mm

## Spring-Equipped Shield Clamping Saddles, 790 Series Installation



Shield clamping saddles are available in three different sizes for shield diameters ranging from 3 to 20 mm.



Application example



Compress the clamping saddle until fully engaged.



Mounting a clamping saddle on a specialty slotted carrier rail (790-145).  
When releasing the saddle, do not place your finger under the clamping spring!



Removing the shield clamping saddle.



Shield clamping saddle contacts shield conductor and specialty slotted carrier rail (790-145).



Labelling using a marking strip.



Labelling using WMB markers.



# Spring-Equipped Shield Clamping Saddles











## 790 Series

Shield clamping saddle shield diameter 3 ... 8 mm	Shield clamping saddle shield diameter 6 ... 16 mm	Shield clamping saddle shield diameter 6 ... 20 mm
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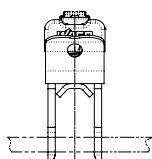
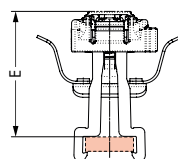
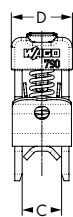
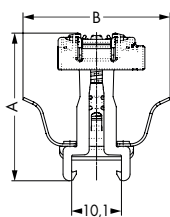
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Shield clamping saddle, 12.4 mm wide Note: Cannot be used for connecting ground conductors and strain relief!		Shield clamping saddle, 21.8 mm wide Note: Cannot be used for connecting ground conductors and strain relief!		Shield clamping saddle, 27 mm wide Note: Cannot be used for connecting ground conductors and strain relief!	
<b>790-208</b>	50	<b>790-216</b>	25	<b>790-220</b>	25

### Accessories for Shield Clamping Saddles

 <p>Carrier with grounding foot, busbar parallel to the rail, 15 mm long, for (10 x 3) mm copper busbars, for shield clamping saddles (790-108)</p> <p><b>790-110</b> 25</p>	 <p>Carrier with grounding foot, busbar 90° to the rail, 45 mm long, for (10 x 3) mm copper busbars, for shield clamping saddles (790 Series)</p> <p><b>790-113</b> 25</p>	 <p>Carrier with two grounding feet, busbar parallel to the rail, 125 mm long, for (10 x 3) mm copper busbars</p> <p><b>790-115</b> 25</p>
 <p>Carrier with grounding foot, busbar parallel to the rail, 25 mm long, for (10 x 3) mm copper busbars, for shield clamping saddles (790-108, 790-116) and shield clamps (791-111, 791-117)</p> <p><b>790-112</b> 25</p>	 <p>Carrier with grounding foot, busbar parallel to the rail, 45 mm long, for (10 x 3) mm copper busbars, for shield clamping saddles (790 Series) and shield clamps (791 Series)</p> <p><b>790-114</b> 25</p>	 <p>Straight busbar, tin-plated, 1000 mm long, copper (10 x 3) mm</p> <p><b>210-133</b> 1</p>
 <p>Carrier rail, specialty slotted, 1000 mm long, tin-plated</p> <p><b>790-145</b> 1</p>	 <p>Spacer sleeve, for carrier rail, for M5-size screw, specialty slotted</p> <p><b>790-144</b> 200 (2x100)</p>	 <p>Straight busbar, tin-plated, 30 mm long, copper (10 x 3) mm</p> <p><b>790-133</b> 20</p>
		 <p>Straight busbar, tin-plated, 50 mm long, copper (10 x 3) mm</p> <p><b>790-134</b> 20</p>

Delivery position

Mounting position



Item No.	Dimensions in mm				
	A	B	C	D	E*
790-208	30	29.9	8	12.4	25.8
790-216	34.6	28.3	16	21.8	30.2
790-220	45.6	28.3	24	30	41.2

\*Height with WMB marker

# Shield Clamps and Shield Termination

## 791 and 709 Series

Shield clamp	Shield termination
--------------	--------------------



Insert the shield termination into the female plug using the operating tool.

Item No.	Pack. Unit	Item No.	Pack. Unit
Shield clamp, 1.5 ... 6.5 mm shield diameter, height max. 40 mm, 10 mm wide Note: Cannot be used for connecting ground conductors.		Shield termination, includes cable ties for shield 5 mm and 10 mm shield diameter	
<b>791-107</b>		55 mm long <b>709-350</b>	100 (4x25)
Shield clamp, 5 ... 11 mm shield diameter, height max. 47 mm, 17 mm wide Note: Cannot be used for connecting ground conductors.		Shield termination, includes cable ties for shield 5 mm and 10 mm shield diameter	
<b>791-111</b>	50	150 mm long <b>709-352</b>	100 (4x25)
Shield clamp, 10 ... 17 mm shield diameter, height max. 63 mm, 23 mm wide Note: Cannot be used for connecting ground conductors.			
<b>791-117</b>	50		
Shield clamp, 16 ... 24 mm shield diameter, height max. 78 mm, 30 mm wide Note: Cannot be used for connecting ground conductors.			
<b>791-124</b>	50		



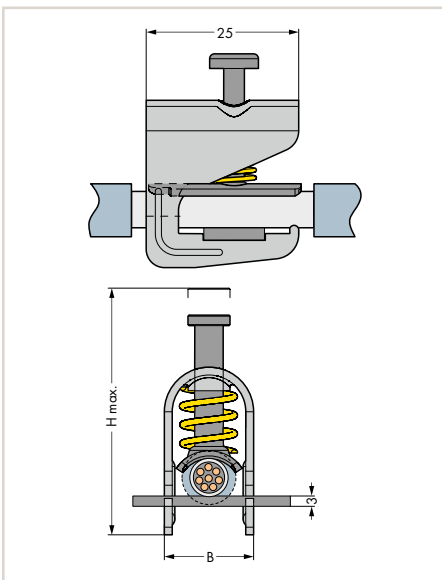
Fit the shield termination to the shield cable.



Secure both shield cable and shield termination to the strain relief plate using cable ties.



Shield termination connected to an X-COM® female plug



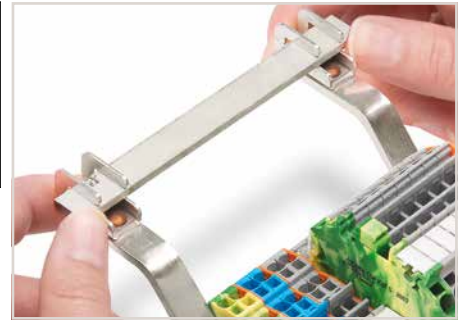
Dimensions in mm



# Busbar Carriers

## 790 Series

Busbar carrier	Busbar carrier
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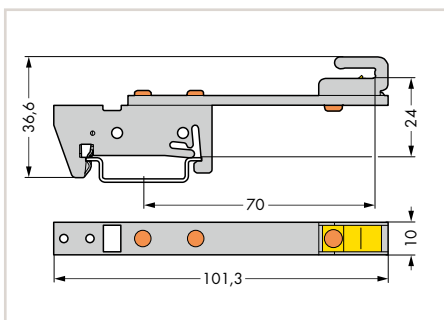
Place the busbar in the busbar carrier.



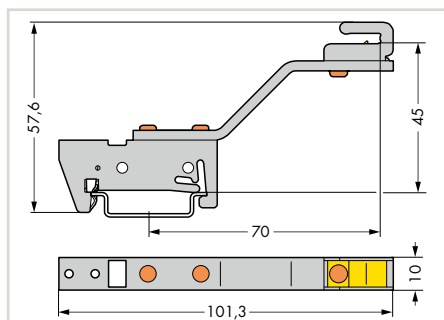
Item No.	Pack. Unit	Item No.	Pack. Unit
Busbar carrier, for (10 x 3) mm copper busbars, single side, straight, 70 mm between center of DIN-rail and busbar carrier		Busbar carrier, for (10 x 3) mm copper busbars, single side, angled, 70 mm between center of DIN-rail and busbar carrier	
<b>790-300</b>	10	<b>790-301</b>	10
Busbar carrier, for (10 x 3) mm copper busbars, single side, straight, 80 mm between center of DIN-rail and busbar carrier			
<b>790-302</b>	10		



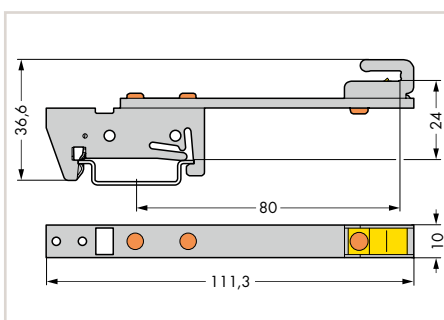
Remove the busbar carrier using an operating tool (type 3, 5.5 x 0.8 mm blade).



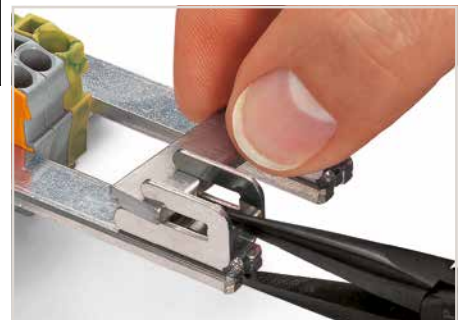
Dimensions in mm



Dimensions in mm



Dimensions in mm



To remove the busbar, compress the spring using pliers.

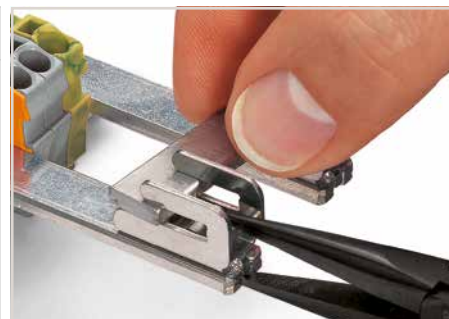
# Busbar Carriers

## 790 Series

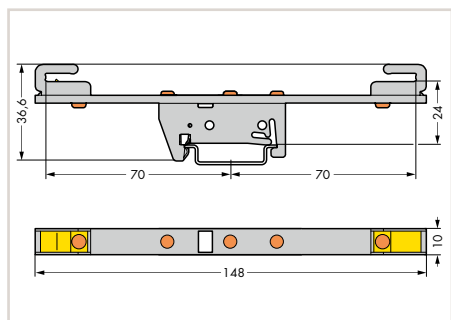
Busbar carrier	Busbar carrier
----------------	----------------



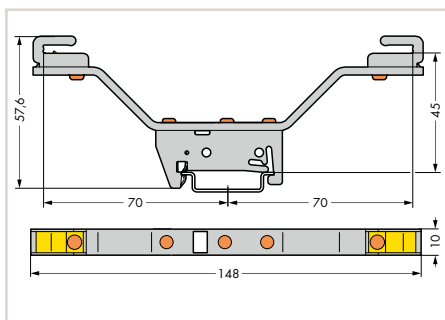
Item No.	Pack. Unit	Item No.	Pack. Unit
Busbar carrier, for (10 x 3) mm copper busbars, both sides, straight, 70 mm between center of DIN-rail and busbar carrier		Busbar carrier, for (10 x 3) mm copper busbars, both sides, angled, 70 mm between center of DIN-rail and busbar carrier	
790-310	10	790-311	10
Busbar carrier, for (10 x 3) mm copper busbars, both sides, straight, 80 mm between center of DIN-rail and busbar carrier			
790-312	10		



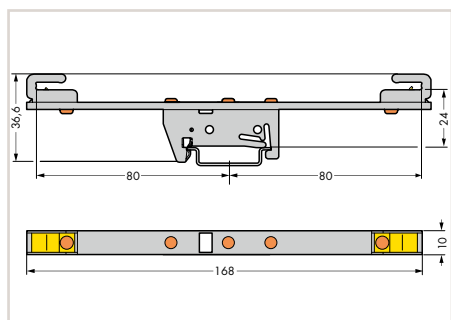
To remove the busbar, compress the spring using pliers.



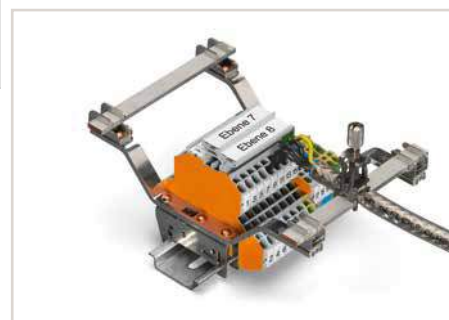
Dimensions in mm



Dimensions in mm



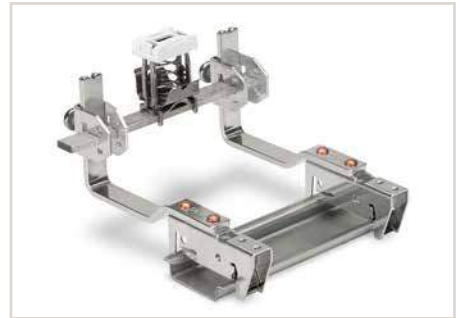
Dimensions in mm



Application example

# Busbar Carriers with a T-Connector (Flexible) and T-Connector 790 Series

Busbar carriers with T-connector, flexible	T-connector
--	-------------



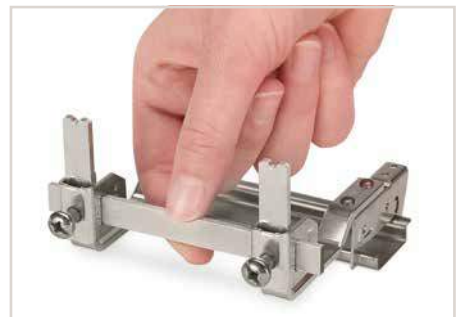
Horizontal mounting position of the busbar



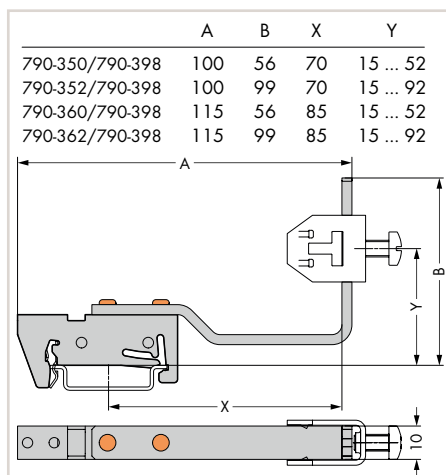
Item No.	Pack. Unit	Item No.	Pack. Unit
Busbar carrier with a T-connector, flexible, for (10 x 3) mm copper busbars, 70 mm between center of DIN-rail and busbar carrier, 56 mm high		T-connector, connects two (10 x 3) mm copper busbars	
<b>790-350/790-398</b>	12	<b>790-398</b>	10
Busbar carrier with a T-connector, flexible, for (10 x 3) mm copper busbars, 70 mm between center of DIN-rail and busbar carrier, 99 mm high			
<b>790-352/790-398</b>	12		
Busbar carrier with a T-connector, flexible, for (10 x 3) mm copper busbars, 85 mm between center of DIN-rail and busbar carrier, 56 mm high			
<b>790-360/790-398</b>	12		
Busbar carrier with a T-connector, flexible, for (10 x 3) mm copper busbars, 85 mm between center of DIN-rail and busbar carrier, 99 mm high			
<b>790-362/790-398</b>	12		



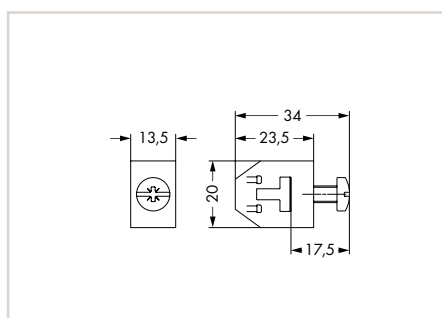
Vertical mounting position of the busbar



The height of the busbar can be adjusted.



Dimensions in mm



Dimensions in mm



Secure the busbar by tightening the screws at the required position.

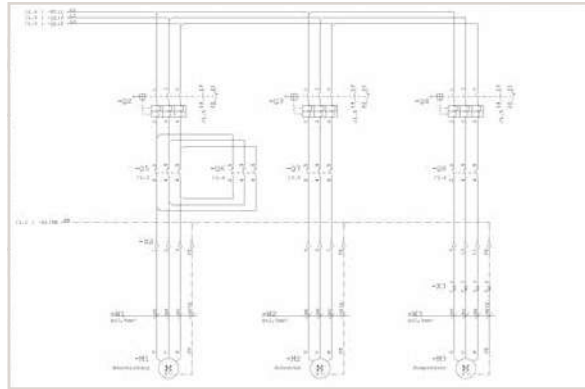


## WAGO *smartDATA*

### Supports Workflow from Control Cabinet Planning to Installation

#### Electrical Engineering

Directly import data from a CAE circuit diagram into the *smartDESIGNER* engineering software or output marking data on *smartPRINTER*.



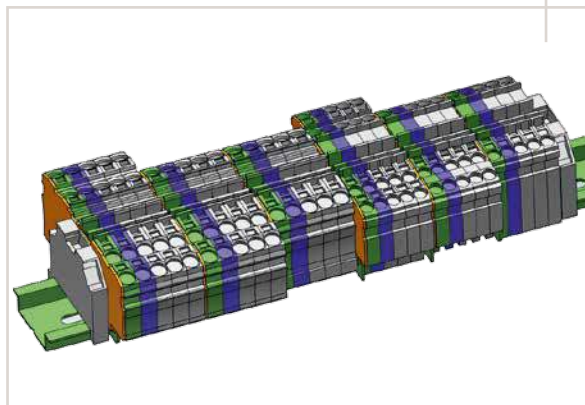
#### Technical and Commercial Item Data

Classified by ETIM and eClass – also in Advanced Format



#### Mechanical Engineering

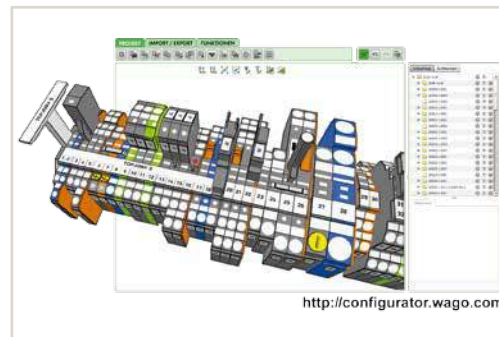
CAD export into all standard CAD formats and in different granularities



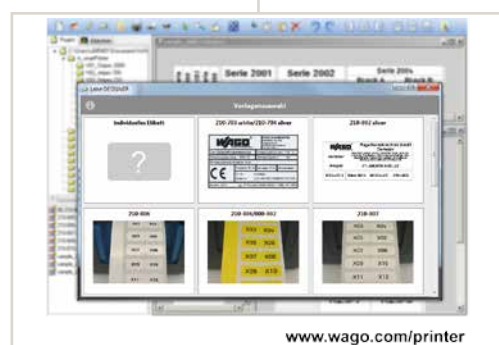


**smartDESIGNER**

- Free online configuration and ordering software for all electrical interconnect and automation components
- No installation required
- Available worldwide – 24 hours a day
- Item data is always updated
- Auto-audit feature checks product compatibility via programed database
- Design in full 3-D

**smartSCRIPT**

- XML-based software for all WAGO markers
- Data import from CAE systems
- Font size check
- Material selection wizard



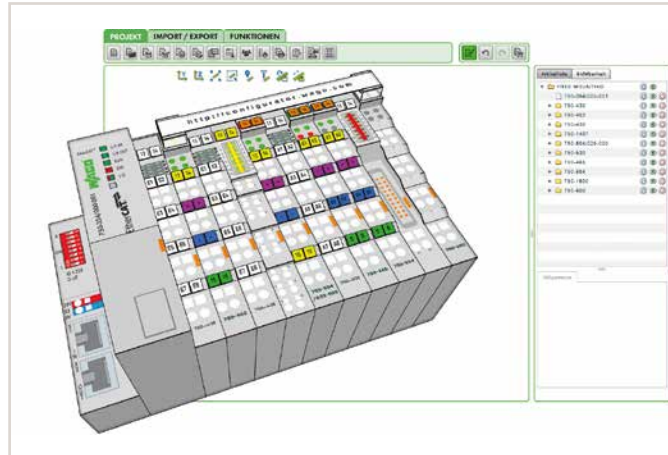
Configuration made easy – <http://configurator.wago.com>

## WAGO *smartDATA*

### Fast and Easy Control Cabinet Marking

#### *smartDESIGNER*

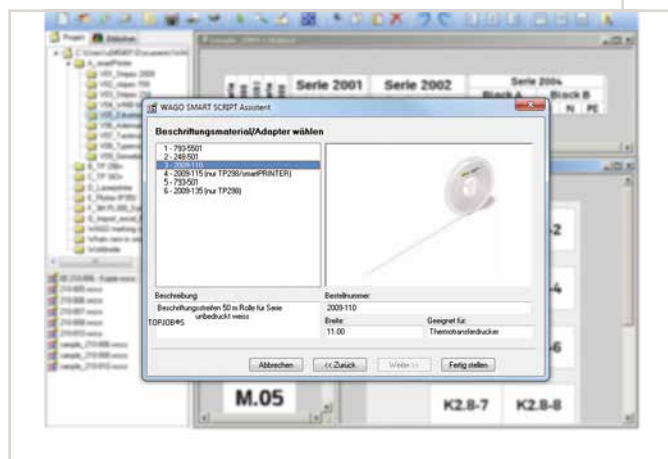
After designing, print the markers directly from the project via *smartPRINTER*



<http://configurator.wago.com>

#### *smartSCRIPT*

- Import from CAE systems or create customized marking
- Print directly on *smartPRINTER*



[www.wago.com/smartprinter](http://www.wago.com/smartprinter)

**smartPRINTER**

Thermal transfer printer quickly and easily labels the entire control cabinet:

- WAGO marking strips and markers
- Cable and conductor markers
- Type labels
- Push-button markers
- Labels

• For more information visit:

[www.wago.com/smartprinter](http://www.wago.com/smartprinter)

# Marking Systems

## Description and Installation



Separating a strip from the WMB or WMB marker card.



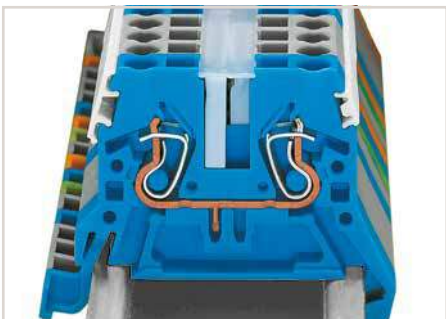
Stretching a WMB marker strip.



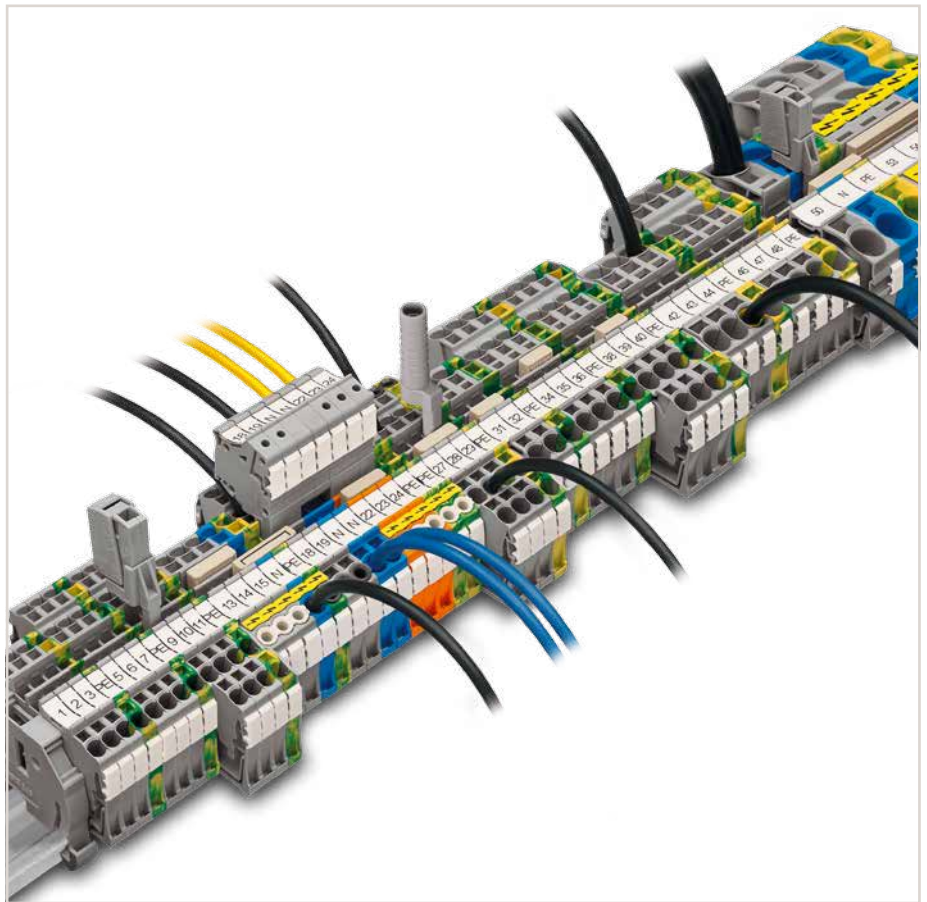
Separating an individual marker from the strip - for larger terminal blocks.



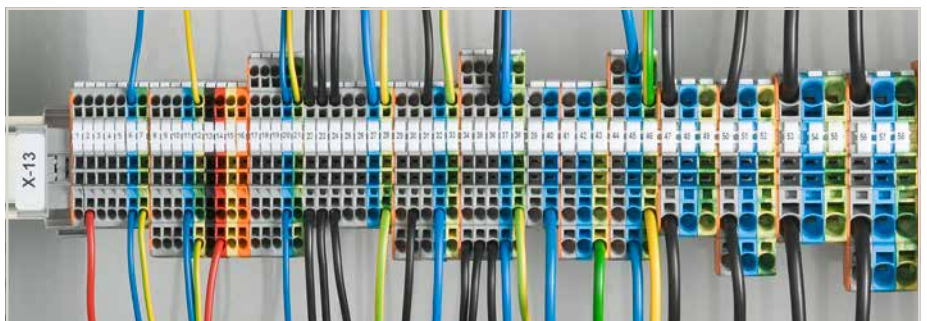
Marking via Mini-WSB Quick markers.



WMB markers in Mini-WSB marker slots  
Marking strip, translucent  
Mini-WSB markers

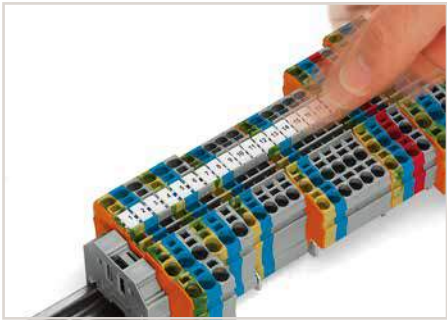


WMB Inline

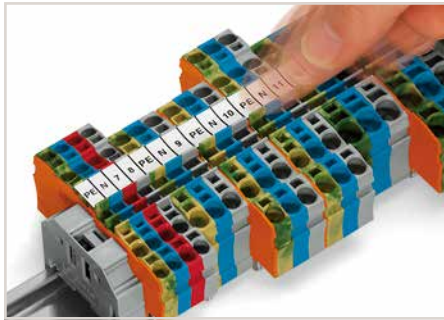


WMB Inline

13



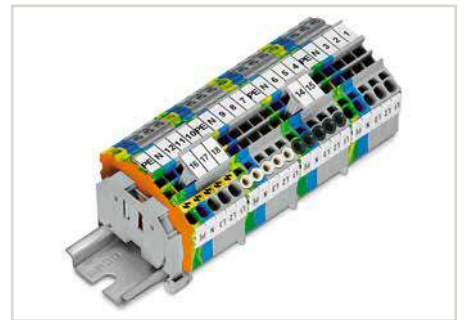
WMB Inline:  
Snapping a strip into the marker slots.



Marking strips:  
Snapping a strip into the marker slots.



WMB decode marking



Group marker carriers for TOPJOB® S terminal blocks -  
snap-on type for jumper slot



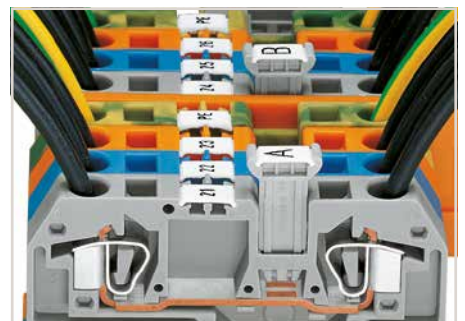
Double- and triple-deck marker carriers can be snapped  
retrospectively into the jumper contact slot of double- and  
triple-deck terminal blocks.



Height-adjustable group marker carrier (249-116) for  
TOPJOB® S marking strips (2009-110)



Height-adjustable group marker carrier

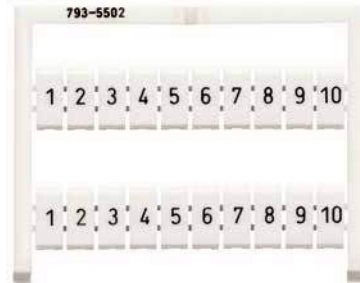
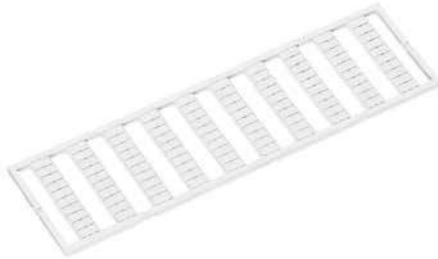


Additional group marking

# WMB Multi Marking Systems

for Terminal Widths 3.5 mm, 4 ... 4.2 mm and from 5 mm

horizontal marking  
consecutive numbers per strip  
10 strips with 10 markers per card  
for terminal widths 5 ... 17.5 mm and  
5 ... 5.2 mm and 4 ... 4.2 mm and 3.5 mm



- ❶ For continuous marking of 270, 280, 780, 869, 870 and 880 Series terminal blocks  
Individual marking of 281 ... 285, 781 ... 785, 2002, 2003, 2022, 2004, 2006, 2010 and 2016 Series terminal blocks
- ❷ For continuous marking of 270, 280, 780, 869, 870, 880, 2002, 2003 and 2022 Series terminal blocks  
Individual marking of terminal blocks larger than 5 / 5.2 mm
- ❸ For continuous marking of 279 and 2001 Series terminal blocks
- ❹ For continuous marking of 2000 and 2020 Series terminal blocks

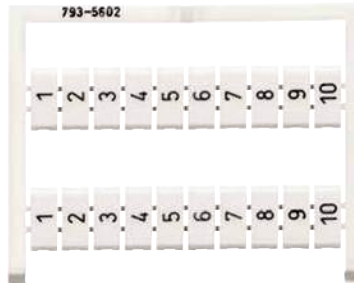
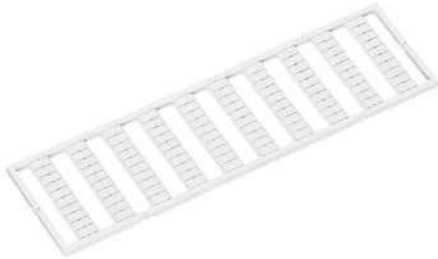
Marking	Marker Width 5 mm ❶	Marker Width 5 ... 5.2 mm ❷	Marker Width 4 ... 4.2 mm ❸	Marker Width 3.5 mm ❹
1 ... 10 (10x)	793-502	793-5502	793-4502	793-3502
11 ... 20 (10x)	793-503	793-5503	793-4503	793-3503
21 ... 30 (10x)	793-504	793-5504	793-4504	793-3504
31 ... 40 (10x)	793-505	793-5505	793-4505	793-3505
41 ... 50 (10x)	793-506	793-5506	793-4506	793-3506
51 ... 60 (10x)	793-569	793-5569	793-4569	
61 ... 70 (10x)	793-570	793-5570	793-4570	
71 ... 80 (10x)	793-571	793-5571	793-4571	
81 ... 90 (10x)	793-572	793-5572	793-4572	
91 ... 100 (10x)	793-573	793-5573	793-4573	
1 ... 50 (2x)	793-566	793-5566	793-4566	793-3566
51 ... 100 (2x)	793-507	793-5507	793-4507	793-3507
101 ... 150 (2x)	793-508	793-5508	793-4508	793-3508
151 ... 200 (2x)	793-509	793-5509	793-4509	793-3509
201 ... 300 (1x)	793-510	793-5510	793-4510	793-3510
301 ... 400 (1x)	793-511	793-5511	793-4511	
401 ... 500 (1x)	793-512	793-5512	793-4512	
501 ... 600 (1x)	793-513	793-5513	793-4513	
601 ... 700 (1x)	793-514	793-5514	793-4514	
701 ... 800 (1x)	793-515	793-5515	793-4515	
801 ... 900 (1x)	793-516	793-5516	793-4516	
901 ... 1000 (1x)	793-517	793-5517	793-4517	
1 ... 9 (10x)	793-565	793-5565	793-4565	793-3565
for double-deck terminal blocks, 1, 3, 5, ..., 99 and 2, 4, 6, ..., 100 (1x)	793-599	793-5599	793-4599	793-3599
for triple-deck terminal blocks, 1, 4, 7, ..., 88 and 2, 5, 8, ..., 89 and 3, 6, 9, ..., 90 and 91, 94, 97, 92, 95, 98, 93, 96, 99, ; (1x)	794-557	794-5557		
100, 103, 106, ..., 187 and 101, 104, 107, ..., 188 and 102, 105, 108, ..., 189 and 190, 193, 196, 191, 194, 197, 192, 195, 198, ; (1x)	794-558	794-5558		

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## WMB Multi Marking Systems

for Terminal Widths 3.5 mm, 4 ... 4.2 mm and from 5 mm

vertical marking  
consecutive numbers per strip  
10 strips with 10 markers per card  
for terminal widths 5 ... 17.5 mm and  
5 ... 5.2 mm and 4 ... 4.2 mm and 3.5 mm



- ① For continuous marking of 270, 280, 780, 869, 870 and 880 Series terminal blocks  
Individual marking of 281 ... 285, 781 ... 785, 2002, 2003, 2022, 2004, 2006, 2010 and 2016 Series terminal blocks
- ② For continuous marking of 270, 280, 780, 869, 870, 880, 2002, 2003 and 2022 Series terminal blocks  
Individual marking of terminal blocks larger than 5 / 5.2 mm
- ③ For continuous marking of 279 and 2001 Series terminal blocks
- ④ For continuous marking of 2000 and 2020 Series terminal blocks

Marking	Marker Width 5 mm ①	Marker Width 5 ... 5.2 mm ②	Marker Width 4 ... 4.2 mm ③	Marker Width 3.5 mm ④
1 ... 10 (10x)	793-602	793-5602	793-4602	upon request
11 ... 20 (10x)	793-603	793-5603	793-4603	
21 ... 30 (10x)	793-604	793-5604	793-4604	
31 ... 40 (10x)	793-605	793-5605	793-4605	
41 ... 50 (10x)	793-606	793-5606	793-4606	
51 ... 60 (10x)	794-601	794-5601	794-4601	
61 ... 70 (10x)	794-602	794-5602	794-4602	
71 ... 80 (10x)	794-603	794-5603	794-4603	
81 ... 90 (10x)	794-604	794-5604	794-4604	
91 ... 100 (10x)	794-605	794-5605	794-4605	
1 ... 50 (2x)	793-666	793-5666	793-4666	
51 ... 100 (2x)	793-607	793-5607	793-4607	
101 ... 150 (2x)	793-608	793-5608	793-4608	
151 ... 200 (2x)	793-609	793-5609	793-4609	
201 ... 300 (1x)	793-610	793-5610	793-4610	
301 ... 400 (1x)	793-611	793-5611	793-4611	
401 ... 500 (1x)	793-612	793-5612	793-4612	
501 ... 600 (1x)	793-613	793-5613	793-4613	
601 ... 700 (1x)	793-614	793-5614	793-4614	
701 ... 800 (1x)	793-615	793-5615	793-4615	
801 ... 900 (1x)	793-616	793-5616	793-4616	
901 ... 1000 (1x)	793-617	793-5617	793-4617	
1001 ... 1100 (1x)	793-688	793-5688	793-4688	
1101 ... 1200 (1x)	793-669	793-5669	793-4669	
1201 ... 1300 (1x)	793-670	793-5670	793-4670	
1301 ... 1400 (1x)	793-671	793-5671	793-4671	
1401 ... 1500 (1x)	793-672	793-5672	793-4672	
1501 ... 1600 (1x)	793-901	793-5901	793-4901	
1601 ... 1700 (1x)	793-902	793-5902	793-4902	
1701 ... 1800 (1x)	793-903	793-5903	793-4903	
1801 ... 1900 (1x)	793-912	793-5912	793-4912	
1901 ... 2000 (1x)	793-913	793-5913	793-4913	
101, 101, 101, 102, ..., 130, 130, 130 (1x)	793-667	793-5667	793-4667	
131, 131, 131, 132, ..., 160, 160, 160 (1x)	793-668	793-5668	793-4668	
for double-deck terminal blocks, 1, 3, 5, ..., 99 and 2, 4, 6, ..., 100 (1x)	793-699	793-5699	793-4699	
101, 103, 105, ..., 149 and 102, 104, 106, ..., 150 (2x)	793-900	793-5900	793-4900	
for triple-deck terminal blocks, 1, 4, 7, ..., 88 and 2, 5, 8, ..., 89 and 3, 6, 9, ..., 90 and 91, 94, 97, 92, 95, 98, 93, 96, 99, ; (1x)	794-657	794-5657		
100, 103, 106, ..., 187 and 101, 104, 107, ..., 188 and 102, 105, 108, ..., 189 and 190, 193, 196, 191, 194, 197, 192, 195, 198, ; (1x)	794-658	794-5658		



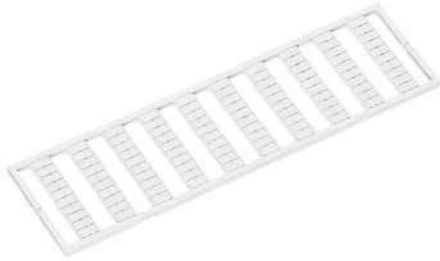




# WMB Multi Marking Systems

for Terminal Widths 3.5 mm, 4 ... 4.2 mm and from 5 mm

horizontal marking  
consecutive letters/symbols each strip  
10 strips with 10 markers per card  
for terminal widths 5 ... 17.5 mm and  
5 ... 5.2 mm and 4 ... 4.2 mm and 3.5 mm



- ① For continuous marking of 270, 280, 780, 869, 870 and 880 Series terminal blocks  
Individual marking of 281 ... 285, 781 ... 785, 2002, 2003, 2022, 2004, 2006, 2010 and 2016 Series terminal blocks
- ② For continuous marking of 270, 280, 780, 869, 870, 880, 2002, 2003 and 2022 Series terminal blocks  
Individual marking of terminal blocks larger than 5 / 5.2 mm
- ③ For continuous marking of 279 and 2001 Series terminal blocks
- ④ For continuous marking of 2000 and 2020 Series terminal blocks

Marking	Marker Width 5 mm ①	Marker Width 5 ... 5.2 mm ②	Marker Width 4 ... 4.2 mm ③	Marker Width 3.5 mm ④
L1 (100x)	793-574	793-5574	793-4574	upon request
L2 (100x)	793-575	793-5575	793-4575	
L3 (100x)	793-576	793-5576	793-4576	
N (100x)	793-577	793-5577	793-4577	
PE (100x)	793-578	793-5578	793-4578	
PEN (100x)	793-579	793-5579	793-4579	
Ground (100x)	793-580	793-5580	793-4580	
R (100x)	793-581	793-5581	793-4581	
S (100x)	793-582	793-5582	793-4582	
T (100x)	793-583	793-5583	793-4583	
+/- (50x)	793-552	793-5552	793-4552	
a, b, c, e, u, v, w, x, y, z (10x)	793-543	793-5543	793-4543	
R, S, T, U, V, W, X, Y, Z, Mp (10x)	793-544	793-5544	793-4544	793-3544
A, B, P, N, PE, PEN, L1, L2, L3, Ground (10x)	793-545	793-5545	793-4545	793-3545
U, V, W, N, PE, U, V, W, N, PE (10x)	793-474	793-5474	793-4474	
L1, L2, L3, N, PE, L1, L2, L3, N, PE (10x)	793-472	793-5472	793-4472	
U1, V1, W1, U1, V1, W1, U1, V1, W1,... (10x)	793-487	793-5487	793-4487	
U2, V2, W2, U2, V2, W2, U2, V2, W2,... (10x)	793-494	793-5494	793-4494	
U3, V3, W3, U3, V3, W3, U3, V3, W3,... (10x)	793-495	793-5495	793-4495	
U4, V4, W4, U4, V4, W4, U4, V4, W4,... (10x)	793-496	793-5496	793-4496	
U5, V5, W5, U5, V5, W5, U5, V5, W5,... (10x)	793-497	793-5497	793-4497	
U6, V6, W6, ..., U6, V6, W6,... to U9, V9, W9, ..., U9, V9, W9, (2x)	793-498	793-5498	793-4498	
R1, S1, T1, U1, V1, W1, X1, Y1, Z1, SL (10x)	793-546	793-5546	793-4546	
R2, S2, T2, U2, V2, W2, X2, Y2, Z2, SL (10x)	793-547	793-5547	793-4547	
R3, S3, T3, U3, V3, W3, X3, Y3, Z3, SL (10x)	793-548	793-5548	793-4548	
R4, S4, T4, ..., Y4, Z4, SL and R5, S5, T5, ..., Y5, Z5, SL (5x)	793-549	793-5549	793-4549	
R6, S6, T6, ..., Y6, Z6, SL to R10, S10, T10, ..., Y10, Z10, SL (2x)	793-550	793-5550	793-4550	

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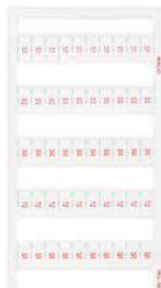
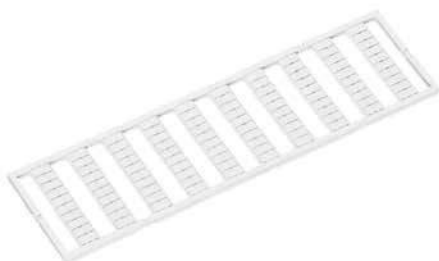




# WMB Multi Marking Systems

for Terminal Widths 3.5 mm, 4 ... 4.2 mm and from 5 mm

10 strips with 10 markers per card for terminal widths 5 ... 17.5 mm and 5 ... 5.2 mm and 4 ... 4.2 mm and 3.5 mm



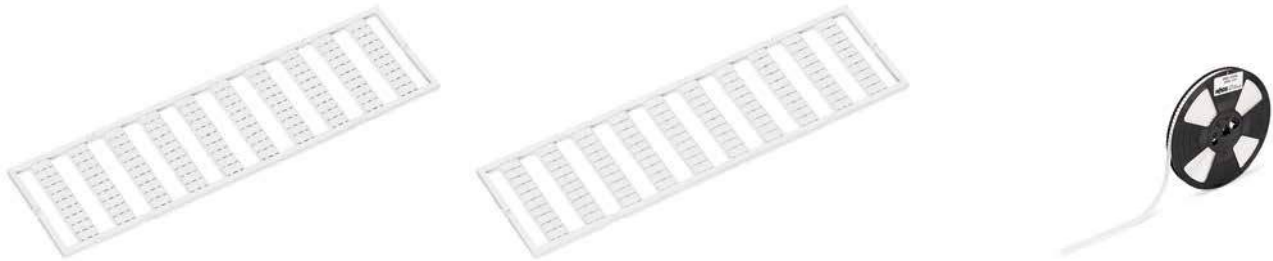
- ① For continuous marking of 270, 280, 780, 869, 870 and 880 Series terminal blocks  
Individual marking of 281 ... 285, 781 ... 785, 2002, 2003, 2022, 2004, 2006, 2010 and 2016 Series terminal blocks
- ② For continuous marking of 270, 280, 780, 869, 870, 880, 2002, 2003 and 2022 Series terminal blocks  
Individual marking of terminal blocks larger than 5 / 5.2 mm
- ③ For continuous marking of 279 and 2001 Series terminal blocks
- ④ For continuous marking of 2000 and 2020 Series terminal blocks

Marking	Marker Width 5 mm ①	Marker Width 5 ... 5.2 mm ②	Marker Width 4 ... 4.2 mm ③	Marker Width 3.5 mm ④
decade marking with red printing, horizontal marking, two strips each with same numbers				
10, 20 ... 50 (20x)	793-553	793-5553	793-4553	upon request
60, 70 ... 100 (20x)	793-554	793-5554	793-4554	
110, 120 ... 150 (20x)	793-555	793-5555	793-4555	
160, 170 ... 200 (20x)	793-556	793-5556	793-4556	
one strip each with same numbers				
210, 220 ... 300 (10x)	793-557	793-5557	793-4557	
310, 320 ... 400 (10x)	793-558	793-5558	793-4558	
410, 420 ... 500 (10x)	793-559	793-5559	793-4559	
510, 520 ... 600 (10x)	793-560	793-5560	793-4560	
610, 620 ... 700 (10x)	793-561	793-5561	793-4561	
710, 720 ... 800 (10x)	793-562		793-4562	
810, 820 ... 900 (10x)	793-563		793-4563	
910, 920 ... 1000 (10x)	793-564	793-5564	793-4564	
decade marking with red printing, vertical marking, two strips each with same numbers				
10, 20 ... 50 (20x)	793-653	793-5653	793-4653	upon request
60, 70 ... 100 (20x)	793-654	793-5654	793-4654	
110, 120 ... 150 (20x)	793-655	793-5655	793-4655	
160, 170 ... 200 (20x)	793-656	793-5656	793-4656	
one strip each with same numbers				
210, 220 ... 300 (10x)	793-657	793-5657	793-4657	
310, 320 ... 400 (10x)	793-658	793-5658	793-4658	
410, 420 ... 500 (10x)	793-659	793-5659	793-4659	
510, 520 ... 600 (10x)	793-660		793-4660	
610, 620 ... 700 (10x)	793-661		793-4661	
710, 720 ... 800 (10x)	793-662	793-5662	793-4662	
810, 820 ... 900 (10x)	793-663	793-5663	793-4663	
910, 920 ... 1000 (10x)	793-664	793-5664	793-4664	

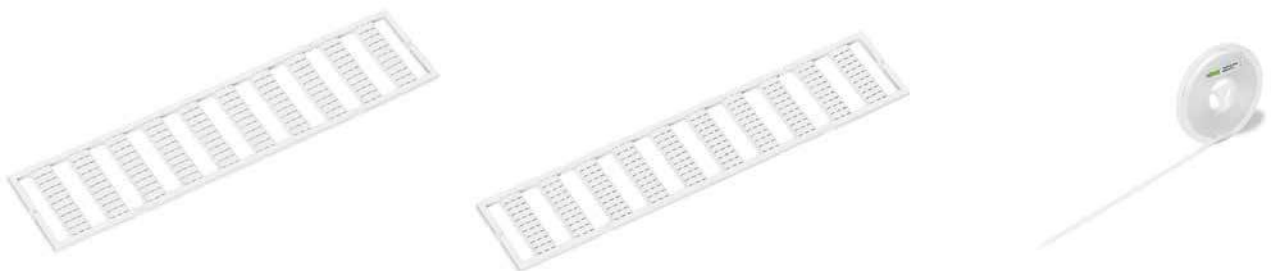


## Marker Cards, Plain and Marking Strips

WMB Multi marking system	WMB Multi marking system	WMB Inline and marking strips
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
WMB Multi marking system, for 5 ... 17.5 mm terminal block width, 10 strips with 10 markers per card		WMB Multi marking system, white, 10 strips with 10 markers per card, 5 ... 5.2 mm stretchable		WMB Inline, plain, 1,500 WMB markers (5 mm) per reel, 5 ... 5.2 mm stretchable	
○ plain	<b>793-501</b>	5	○ plain	<b>793-5501</b>	5
Marker cards in different colors:		Marker cards in different colors:		WMB Inline, plain, 2,000 WMB markers (4 mm) per reel, 4 ... 4.2 mm stretchable	
● yellow	<b>793-501/000-002</b>	5	● yellow	<b>793-5501/000-002</b>	5
● red	<b>793-501/000-005</b>	5	● red	<b>793-5501/000-005</b>	5
● blue	<b>793-501/000-006</b>	5	● blue	<b>793-5501/000-006</b>	5
● gray	<b>793-501/000-007</b>	5	● gray	<b>793-5501/000-007</b>	5
● orange	<b>793-501/000-012</b>	5	● orange	<b>793-5501/000-012</b>	5
● light green	<b>793-501/000-017</b>	5	● light green	<b>793-5501/000-017</b>	5
● green	<b>793-501/000-023</b>	5	● green	<b>793-5501/000-023</b>	5
● violet	<b>793-501/000-024</b>	5	● violet	<b>793-5501/000-024</b>	5
				WMB Inline, plain, 2,300 WMB markers (3.5 mm) per reel	
				○ white	
				<b>2009-115</b>	
				1	
				<b>2009-114</b>	
				1	
				<b>2009-113</b>	
				1	



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
WMB Multi marking system, white, 10 strips with 10 markers per card, 4 ... 4.2 mm stretchable		WMB Multi marking system, white, 10 strips with 10 markers per card, for 3.5 mm terminal block width		Marking strip, plain, 11 mm wide, 50 m reel	
○ plain	<b>793-4501</b>	5	○ plain	<b>793-3501</b>	5
Marker cards in different colors:				○ white	
● yellow	<b>793-4501/000-002</b>	5		<b>2009-110</b>	
● red	<b>793-4501/000-005</b>	5		1	
● blue	<b>793-4501/000-006</b>	5			
● gray	<b>793-4501/000-007</b>	5			
● orange	<b>793-4501/000-012</b>	5			
● light green	<b>793-4501/000-017</b>	5			
● green	<b>793-4501/000-023</b>	5			
● violet	<b>793-4501/000-024</b>	5			





# Group Marker Carriers (Height-Adjustable) and Movable Marking System

Height-adjustable group marker carrier	Carrier-through element
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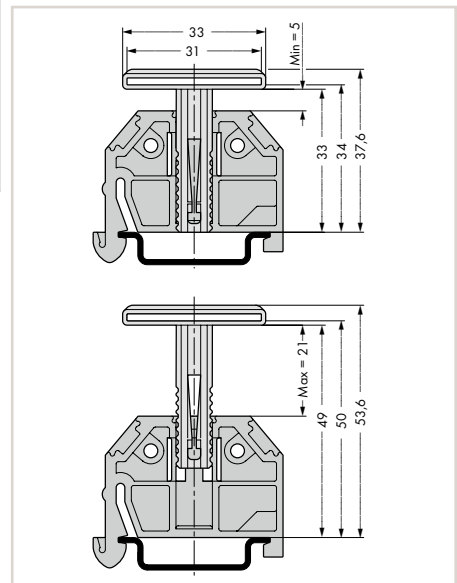
Receptacles for:  
 1 x marker  
 2 x WMB (Multi marking) or  
 1 x WFB (Continuous marking strips)



This system can be used as an additional group marker carrier or continuous marking strip carrier for terminal strips or single-deck rail-mount terminal blocks, for example:

- 264 Series terminal strips for DIN-35 rails
- 279 to 284 Series single-deck rail-mount terminal blocks, with a maximum height of 49 mm from the upper edge of the carrier rail (please observe conductor radius).

Item No.	Pack. Unit	Item No.	Pack. Unit
Height-adjustable group marker carrier, snap-on type and height-adjustable from 43.5 ... 59.5 mm in (249-116 and 249-117) end stops, for 1 marker or self-adhesive label and transparent protection covers, 10 mm wide		Carrier-through element, height-adjustable	
○ gray	<b>249-119</b>	50 (2x25)	○ gray
			<b>709-118</b>
			50 (2x25)
Height-adjustable group marker carrier, snap-on type and height-adjustable from 43.5 ... 59.5 mm in (249-116 and 249-117) end stops, for 2 WMB markers or 1 x continuous strip, 10 mm wide		Carrier-end element, height-adjustable	
○ gray	<b>249-118</b>	100 (4x25)	○ gray
			<b>709-119</b>
			50 (2x25)
Height-adjustable group marker carrier, snap-on type and height-adjustable from 42.2 ... 58.2 mm in (249-116 and 249-117) end stops, with marker surface, 6 mm wide		<b>Item-Specific Accessories</b>	
○ white	<b>249-120</b>	50 (2x25)	Marking strip slot, folded, 1 m long, 16 mm wide, 1.7 mm thick
Height-adjustable group marker carrier, snap-on type and height-adjustable from 45 ... 61 mm in (249-116 and 249-117) end stops, for 2 WMB markers or 1 x TOPJOB®S marking strips, 12.2 mm wide		transparent <b>709-120</b>	
			1
		Marking card, with 14 marking strips, DIN A4	
○ gray	<b>2009-163</b>	50 (2x25)	plain <b>709-193</b>
			1



Dimensions in mm



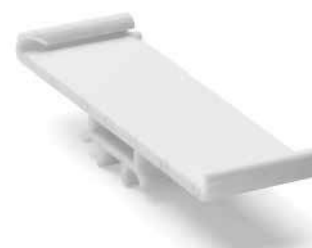
Height-adjustable group marker carrier (2009-163) for WMB markers or marking strips (2009-110) - snaps onto end stops.



Height-adjustable group marker carrier (2009-163) for WMB markers or marking strips (2009-110) - snaps onto end stops.

## Group Marker Carriers

Group marker carrier	Group marker carrier	Group marker carrier
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Group marker carrier, to insert into jumper slots of terminal blocks, for terminal block width of 4 ... 6 mm, for up to 3 WMB markers or 8 branch markers, 15 mm wide		Group marker carrier, snaps onto screwless end stops (center or side mounting), 10 mm wide		Group marker carrier, for WMB and Mini-WSB marker slots, 10 mm wide	
○ gray	<b>209-140</b>	50 (2x25)	○ white	<b>209-112</b>	100 (2x50)
Group marker carrier, to insert into jumper slots of terminal blocks, for up to 2 WMB markers or 5 branch markers, 10 mm wide		Marker, from white cardboard, for self-marking, 100 markers/sheet			
○ gray	<b>209-141</b>	50 (2x25)	○ white	<b>209-113</b>	1
Group marker carrier, to insert into jumper slots of terminal blocks, for up to 1 WMB marker or 2 branch markers, 5 mm wide		Self-adhesive label, for self-marking, 7 x 25 labels/sheet			
○ gray	<b>209-142</b>	50 (2x25)	○ white	<b>210-345</b>	1
		Protection cover transparent		<b>209-114</b>	50



Group marker carrier (209-141 and 209-112)



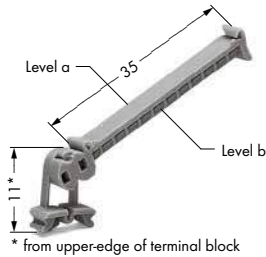
Group marker carrier with marker and protection cover




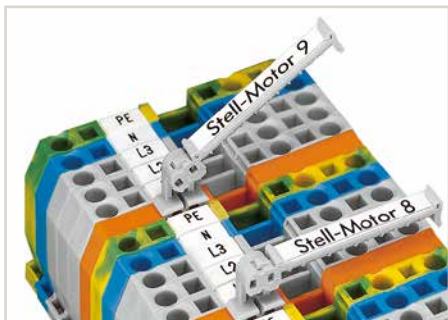
Group marker carrier (209-145)

## Group Marker Carriers (Pivoting) and WFB Continuous Marking Strips

Pivoting group marker carrier	WFB continuous marking strip	
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Item No.	Pack. Unit	Item No.	Pack. Unit
Pivoting group marker carrier		WFB continuous marking strip, 1000 mm long, for self-marking, e.g., with felt-tip pen	
● gray 249-105	50 (2x25)	transparent 210-612	10
Marker card, 4 x 30 markers/sheet		Carrier for WFB continuous marking strip, snaps into marker slot	
○ white 209-183	1	● gray 209-185	200 (8x25)
Protection marker cover transparent 209-184	50		
		<b>Item-Specific Accessories</b>	
		Felt-tip pen, for permanent marking	
		 210-110	1



This pivoting group marker carrier has been developed for group marking of rail-mount terminal blocks to satisfy several customer requirements:

- Can be used in all multiprofile marker slots for rail-mount terminal blocks from 5 mm on or in spacer housings as shown above.
- Improves marking visibility due to difficult mounting conditions by pivoting into one of seven stable positions.



WFB (WAGO continuous marking strips)  
Customized ink pen marking



Carrier for WFB Continuous marking strip; to be secured every 10th terminal block.

## Marker Cards – Self-Adhesive Marking Strips

<p><b>Self-adhesive marker strips computer-marked</b>                  40 self-adhesive strips per card                  Height of marking strip: 6 mm</p>	<p><b>Self-adhesive marker strips computer-marked</b>                  40 self-adhesive strips per card                  Height of marking strip: 6 mm</p>	<p><b>Self-adhesive marker strips computer-marked</b>                  40 self-adhesive strips per card                  Height of marking strip: 6 mm</p>
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Marking	Item No.	Pack. Unit	Marking	Item No.	Pack. Unit	Marking	Item No.	Pack. Unit
for 260 Series 2-conductor terminal strips			for 261 Series 2-conductor terminal strips			for 262 Series 2-conductor terminal strips		
1 ... 10 (120x)	210-333/500-002	100	1 ... 12 (80x)	210-333/600-103	100	1 ... 20 (40x)	210-333/700-020	100
11 ... 20 (120x)	210-333/500-003	100	13 ... 24 (80x)	210-333/600-104	100	21 ... 40 (40x)	210-333/700-108	100
21 ... 30 (120x)	210-333/500-004	100	25 ... 36 (80x)	210-333/600-105	100	41 ... 60 (40x)	210-333/700-109	100
31 ... 40 (120x)	210-333/500-005	100	37 ... 48 (80x)	210-333/600-106	100	1 ... 50 (20x)	210-333/700-021	100
41 ... 50 (120x)	210-333/500-006	100	41 ... 50 (80x)	210-333/600-006	100	L1 (1040x)	210-333/700-074	100
51 ... 60 (120x)	210-333/500-007	100	51 ... 60 (80x)	210-333/600-007	100	L2 (1040x)	210-333/700-075	100
61 ... 70 (120x)	210-333/500-008	100	61 ... 70 (80x)	210-333/600-008	100	L3 (1040x)	210-333/700-076	100
71 ... 80 (120x)	210-333/500-009	100	71 ... 80 (80x)	210-333/600-009	100	N (1040x)	210-333/700-077	100
81 ... 90 (120x)	210-333/500-010	100	81 ... 90 (80x)	210-333/600-010	100	PE (1040x)	210-333/700-078	100
91 ... 100 (120x)	210-333/500-011	100	91 ... 100 (80x)	210-333/600-011	100	PEN (1040x)	210-333/700-079	100
1 ... 50 (20x)	210-333/500-021	100	1 ... 50 (20x)	210-333/600-021	100	only with grid spacing	210-333/700-001	100
L1 (1440x)	210-333/500-074	100	L1 (1200x)	210-333/600-074	100			
L2 (1440x)	210-333/500-075	100	L2 (1200x)	210-333/600-075	100			
L3 (1440x)	210-333/500-076	100	L3 (1200x)	210-333/600-076	100			
N (1440x)	210-333/500-077	100	N (1200x)	210-333/600-077	100			
PE (1440x)	210-333/500-078	100	PE (1200x)	210-333/600-078	100			
PEN (1440x)	210-333/500-079	100	PEN (1200x)	210-333/600-079	100			
only with grid spacing	210-333/500-001	100	only with grid spacing	210-333/600-001	100			
for 260 Series 4-conductor terminal strips			for 261 Series 4-conductor terminal strips			for 262 Series 4-conductor terminal strips		
1 ... 10 (80x)	210-333/800-002	100	1 ... 16 (40x)	210-333/1000-202	100	1 ... 12 (40x)	210-333/1200-103	100
11 ... 20 (80x)	210-333/800-003	100	17 ... 32 (40x)	210-333/1000-204	100	13 ... 24 (40x)	210-333/1200-104	100
21 ... 30 (80x)	210-333/800-004	100	33 ... 48 (40x)	210-333/1000-206	100	25 ... 36 (40x)	210-333/1200-105	100
31 ... 40 (80x)	210-333/800-005	100	49 ... 64 (40x)	210-333/1000-110	100	37 ... 48 (40x)	210-333/1200-106	100
41 ... 50 (80x)	210-333/800-006	100	65 ... 80 (40x)	210-333/1000-111	100	49 ... 60 (40x)	210-333/1200-107	100
51 ... 60 (80x)	210-333/800-007	100	81 ... 96 (40x)	210-333/1000-112	100	1 ... 24 (20x)	210-333/1200-203	100
61 ... 70 (80x)	210-333/800-008	100	97 ... 112 (40x)	210-333/1000-113	100	L1 (600x)	210-333/1200-074	100
71 ... 80 (80x)	210-333/800-009	100	1 ... 36 (20x)	210-333/1000-208	100	L2 (600x)	210-333/1200-075	100
81 ... 90 (80x)	210-333/800-010	100	L1 (720x)	210-333/1000-074	100	L3 (600x)	210-333/1200-076	100
91 ... 100 (80x)	210-333/800-011	100	L2 (720x)	210-333/1000-075	100	N (600x)	210-333/1200-077	100
1 ... 40 (20x)	210-333/800-209	100	L3 (720x)	210-333/1000-076	100	PE (600x)	210-333/1200-078	100
L1 (880x)	210-333/800-074	100	N (720x)	210-333/1000-077	100	PEN (600x)	210-333/1200-079	100
L2 (880x)	210-333/800-075	100	PE (720x)	210-333/1000-078	100	only with grid spacing	210-333/1200-001	100
L3 (880x)	210-333/800-076	100	PEN (720x)	210-333/1000-079	100			
N (880x)	210-333/800-077	100	only with grid spacing	210-333/1000-001	100			
PE (880x)	210-333/800-078	100						
PEN (880x)	210-333/800-079	100						
only with grid spacing	210-333/800-001	100						

13







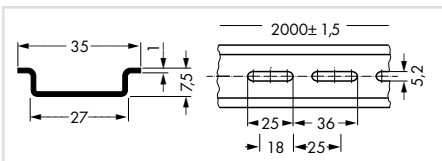
# Mounting Accessories

## Carrier Rails, Rail End Cap, Angled Support Brackets and Collective Carriers

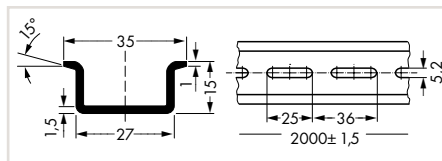
Carrier rail per EN 60715	Carrier rail similar to EN 60715	Carrier rail per EN 60715
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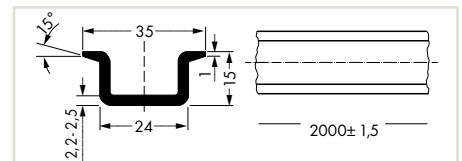
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Steel carrier rail, I <sub>N</sub> 76 A (based on 1 m length), 35 x 7.5 mm, 1 mm, 2 m long		Steel carrier rail, I <sub>N</sub> 125 A (based on 1 m length), 35 x 15 mm, 1.5 mm, 2 m long		Steel carrier rail, I <sub>N</sub> 125 A (based on 1 m length), 35 x 15 mm, 2.3 mm, 2 m long	
unslotted	<b>210-113</b>	10	unslotted	<b>210-114</b>	10
Hole width 25 mm; hole spacing 36 mm		slotted		<b>210-197</b>	10
slotted	<b>210-112</b>	10(10x1)			
Hole width 18 mm; hole spacing 25 mm					
slotted	<b>210-115</b>	1			



Dimensions in mm



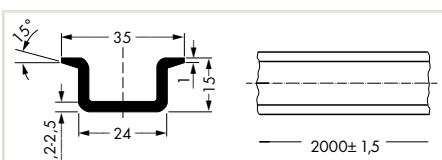
Dimensions in mm



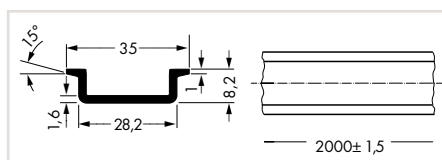
Dimensions in mm



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Copper carrier rail, I <sub>N</sub> 309 A (based on 1 m length), 35 x 15 mm, 2.3 mm, 2 m long		Aluminum carrier rail, I <sub>N</sub> 76 A (based on 1 m length), 35 x 8.2 mm, 1.6 mm, 2 m long		Rail end cap, for DIN-35 rail (7.5 mm high)	
unslotted	<b>210-198</b>	10	unslotted	<b>210-196</b>	10
				gray	<b>209-109</b>
					50(2x25)



Dimensions in mm



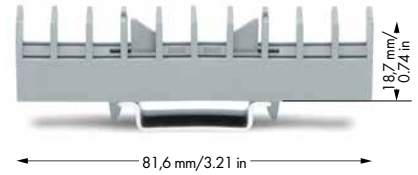
Dimensions in mm



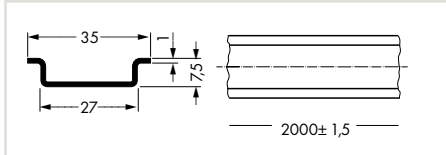
Dimensions in mm



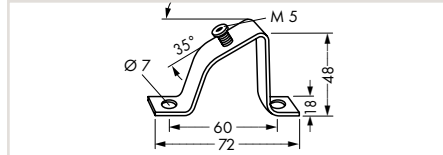
<b>Carrier rail per EN 60715</b>	<b>Angled support bracket</b>	<b>Collective carrier for jumpers</b>
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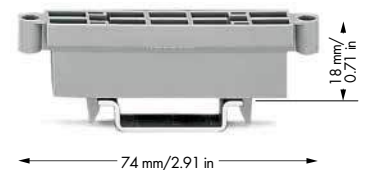
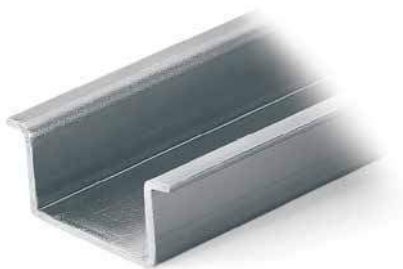
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Steel carrier rail, I <sub>N</sub> 76 A (based on 1 m length), 35 x 7.5 mm, 1 mm, 2 m long		Angled support bracket, without screw		Collective jumper carrier, for DIN-35 rail, compatible with jumpers for transverse switching terminal block (282-811) and longitudinal switching disconnect terminal block (282-821)	
unslotted <b>210-505</b>	1	<b>210-148</b>	10	○ gray <b>282-369</b>	25
slotted <b>210-504</b>	1	Screw M5 x 8 <b>210-149</b>	100 (5x20)	The collective carrier can be snapped onto DIN-35 rails. It serves as a depository for jumpers during maintenance.	



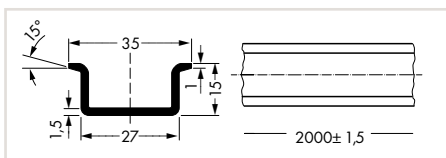
Dimensions in mm



Dimensions in mm



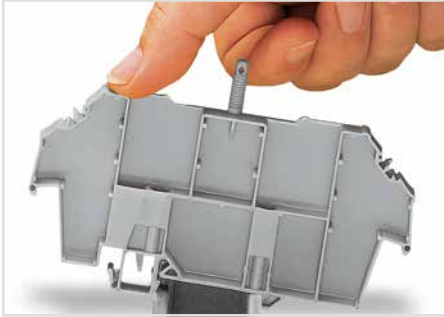
Item No.	Pack. Unit	Item No.	Pack. Unit
Steel carrier rail, I <sub>N</sub> 125 A (based on 1 m length), 35 x 15 mm, 1.5 mm, 2 m long		Collective carrier for adjacent jumpers, for DIN-35 rail, for 279 to 284 Series adjacent jumpers and 215 Series banana plugs	
unslotted <b>210-506</b>	1	○ gray <b>209-100</b>	50 (2x25)
slotted <b>210-508</b>	1	The collective carrier can be snapped onto DIN-35 rails. It serves as a depository for adjacent jumpers and banana plugs during maintenance work.	



Dimensions in mm

# Transparent Covers for Rail-Mount Terminal Blocks, Usable with Lead Seals, 709 Series

## Description and Installation



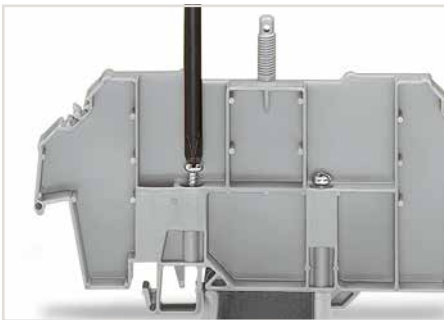
Snapping a cover carrier onto the DIN-rail.



Application example:  
Cover (type 1) without safety warning



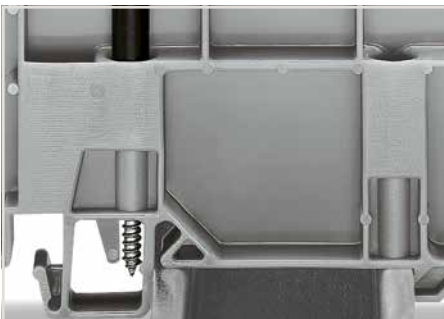
Application example:  
Cover (type 1) with safety warning



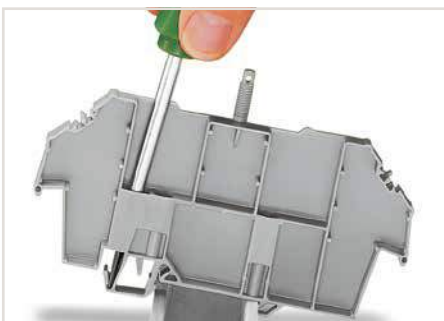
Tightening both securing screw (left) and mounting screw (right).



Application example:  
Cover (type 2) with safety warning



Securing screw - prevents lifting off from the rail.  
Mounting screw - prevents the cover carrier from being moved on the rail.



Removing a cover carrier from the DIN-rail.



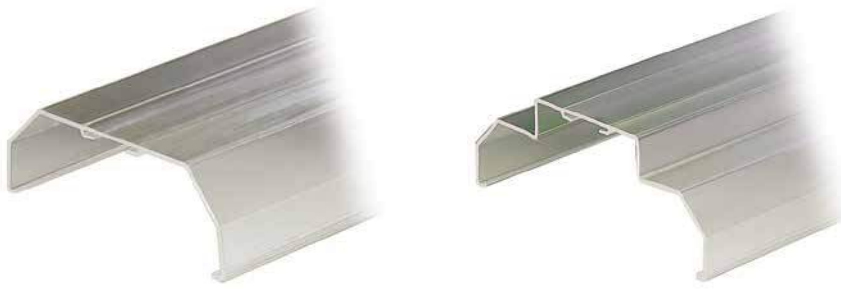
Inserting a marking strip into the cover.



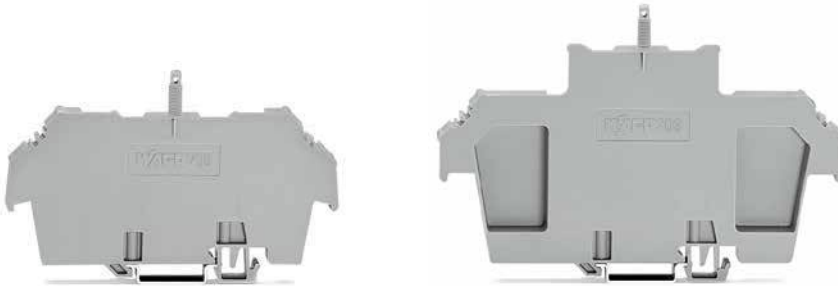
Cover with lead seals:  
Using covers without lead seals, the thread dome-head can be broken off.

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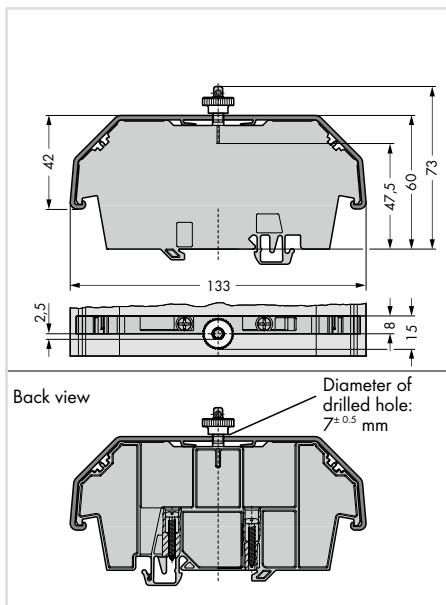
# Transparent Covers for Rail-Mount Terminal Blocks, Usable with Lead Seals 709 Series



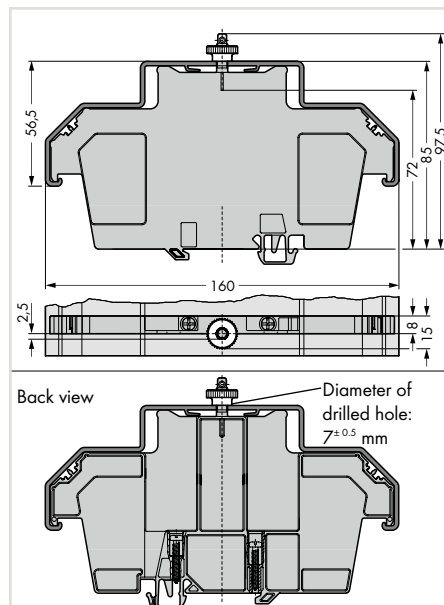
Item No.	Pack. Unit	Item No.	Pack. Unit	Accessories	
Cover, type 1, for cover carrier type 1, 1 m long		Cover, type 2, for cover carrier type 2, 1 m long			
transparent	<b>709-153</b>	10	transparent	<b>709-154</b>	10
				Marking card, with 6 marking strips, for group marking or safety instructions	
				plain <b>709-183</b>	1
				Spare mounting/securing screw, for cover	
				<b>209-196</b>	200 (8x25)
				Spare knurled nut, for cover	
				<b>210-549</b>	100 (4x25)



Item No.	Pack. Unit	Item No.	Pack. Unit		
Cover carrier, type 1, incl. mounting/securing screws and knurled nut, for 279 to 282, 880 Series rail-mount terminal blocks, for 264 Series miniature terminal blocks, for 270 Series sensor and actuator blocks		Cover carrier, type 2, incl. mounting/securing screws and knurled nut, for 283 to 285 Series rail-mount terminal blocks, for 279 to 281 Series double- and triple-deck blocks, for 780 to 785 and 775 Series TOPJOB® terminals, for 280 Series sensor and actuator blocks, for 282 Series disconnect/test terminal blocks for transformer circuits			
gray	<b>709-167</b>	10	gray	<b>709-168</b>	10






Dimensions in mm



Dimensions in mm

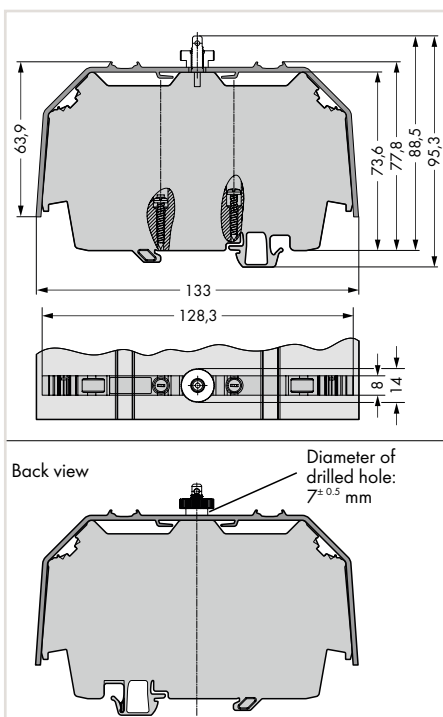
# Transparent Covers for Rail-Mount Terminal Blocks, Usable with Lead Seals 709 Series



Item No.	Pack. Unit	Accessories
Cover, type 3, for cover carrier, type 3, 1 m long		
transparent <b>709-156</b>	10	Marking strip, plain, 11 mm wide, 50 m reel
		 white <b>2009-110</b> 1
		Spare mounting/securing screw, for cover
		 <b>209-196</b> 200 (8x25)
		Spare knurled nut, for cover
		 <b>210-549</b> 100 (4x25)



Item No.	Pack. Unit
Cover carrier, type 3, incl. mounting/securing screws and knurled nut, for TOPJOB® S rail-mount terminal blocks (2000 to 2016 Series), for transformer terminal blocks (2007 Series)	
gray <b>709-169</b>	10



Dimensions in mm

13

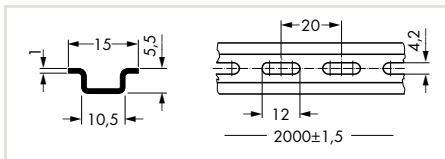
# Mounting Accessories

## Carrier Rails and Screwless End Stops for DIN-15 Rails

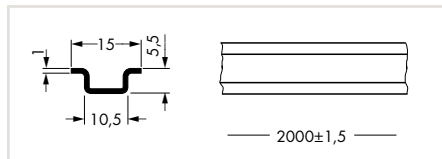
Carrier rail per EN 60715	Carrier rail similar to EN 60715	Screwless end stop
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit			
Steel carrier rail, I <sub>N</sub> 57 A (based on 1 m length), 15 x 5.5 mm, 1 mm, 2 m long slotted	210-111	1	Aluminum carrier rail, I <sub>N</sub> 57 A (based on 1 m length), 15 x 5.5 mm, 1 mm, 2 m long unslotted	210-296	10	Screwless end stop, for DIN-15 rail, 6 mm wide		
						○ gray	249-101	25



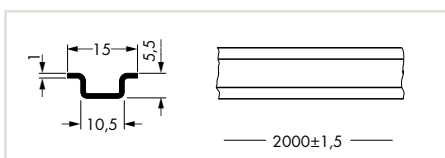
Dimensions in mm



Dimensions in mm



Item No.	Pack. Unit	
Steel carrier rail, I <sub>N</sub> 57 A (based on 1 m length), 15 x 5.5 mm, 1 mm, 2 m long unslotted	210-295	1



Dimensions in mm

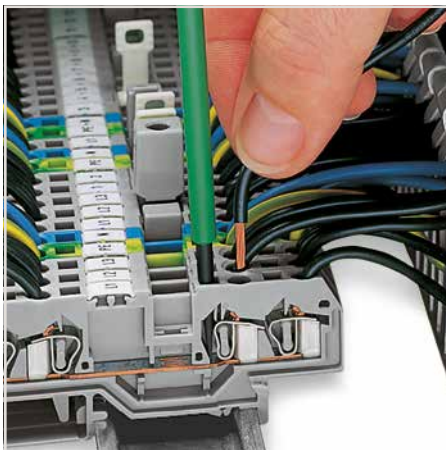
# Operating Tools

Operating tool with a partially insulated shaft	Operating tool set with a partially insulated shafts	Operating tool with a partially insulated shaft
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Operating tool with a partially insulated shaft, type 1, (2.5 x 0.4) mm blade, for 279, 726, 727, 2000, 2001 and 2020 Series		Operating tool set with a partially insulated shafts, type 1, (2.5 x 0.4) mm blade, type 2, (3.5 x 0.5) mm blade, type 3, (5.5 x 0.8) mm blade		Operating tool with a partially insulated shaft, (2.5 x 0.4) mm blade, short, for 279, 726, 727, 2000, 2001 and 2020 Series	
<b>210-719</b>	1	<b>210-722</b>	1	<b>210-647</b>	1
Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade, for 260, 261, 262, 264, 270, 280, 281, 290, 775, 776, 777, 769, 780, 781, 869, 870, 880, 2002, 2003, 2004, 2005 and 2022 Series				Operating tool with a partially insulated shaft, (2.5 x 0.4) mm blade, short angled, for 279, 2000, 2001 and 2020 Series	
<b>210-720</b>	1			<b>210-648</b>	1
Operating tool with a partially insulated shaft, type 3, (5.5 x 0.8) mm blade, for 282, 283, 284, 285, 782, 783, 784, 785, 2006, 2010 and 2016 Series					
<b>210-721</b>	1				

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Set of operating tools in a box

The blade dimensions of the above-listed operating tools with a partially insulated shaft are ideal for easy operation of front-entry terminal blocks.

## Operating Tools

Operating tool with a partially insulated shaft	Operating tool	Operating pliers
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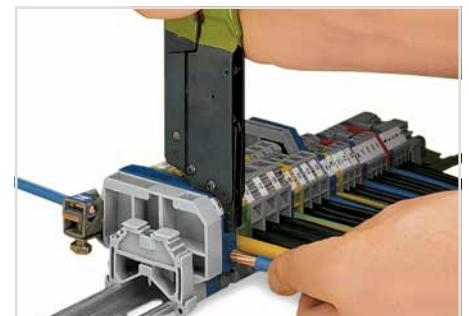
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Operating tool with a partially insulated shaft, (3.5 x 0.5) mm blade, short, for 260, 261, 262, 264, 270, 280, 281, 869, 870, 880 Series		Operating tool, of insulating material, for 279 Series		Operating pliers, for for side-entry rail-mount terminal blocks (279 and 280 Series)	
<b>210-657</b>	1	1-way <b>209-129</b>	1	<b>210-143</b>	1
		2-way <b>279-432</b>	1		
		3-way <b>279-433</b>	1		
		10-way <b>279-440</b>	1		
Operating tool with a partially insulated shaft, (3.5 x 0.5) mm blade, short angled, ideal for 280 Series actuator/sensor terminal blocks and 260, 261, 262, 264, 280, 281, 869, 870, 880, 2002 and 2004 Series		Operating tool, of insulating material, for 264 Series (1- and 2-way only) and 280, 281 Series (up to 3-way only)		Operating pliers, for side-entry rail-mount terminal blocks (281, 282, 283 and 284 Series)	
<b>210-658</b>	1	1-way <b>209-130</b>	1	<b>210-141</b>	1
		2-way <b>280-432</b>	1		
		3-way <b>280-433</b>	1		
		4-way <b>280-434</b>	1		
		5-way <b>280-435</b>	1		
		6-way <b>280-436</b>	1		
		7-way <b>280-437</b>	1		
		8-way <b>280-438</b>	1		
		9-way <b>280-439</b>	1		
		10-way <b>280-440</b>	1		
		Operating tool, of insulating material, for 281 Series		The operating pliers is placed into the upper operating slot of the side-entry rail-mount terminal block and the clamp is hooked into the lateral operating slot. The contact is fully opened by pressing the handles together until they engage – both hands are then free for conductor preparation and insertion into the terminal block.	
		5-way <b>281-440</b>	1		



The blade dimensions (DIN 5264) of the above-listed operating tools are ideal for operating 280 Series Front-Entry Sensor/Actuator Terminal Block.



Commoning front-entry disconnect terminal blocks via comb-style jumper bar using a 10-pole operating tool.





When operating the handles beyond the locked position, the ratchet allows the tool to open and be removed from the terminal block.

# Cable Strippers

Cable stripper for round cables with outer diameter from 2.5 ... 11 mm	Cable stripper for round cables with outer diameter from 4.5 ... 45 mm
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Set the cable diameter.

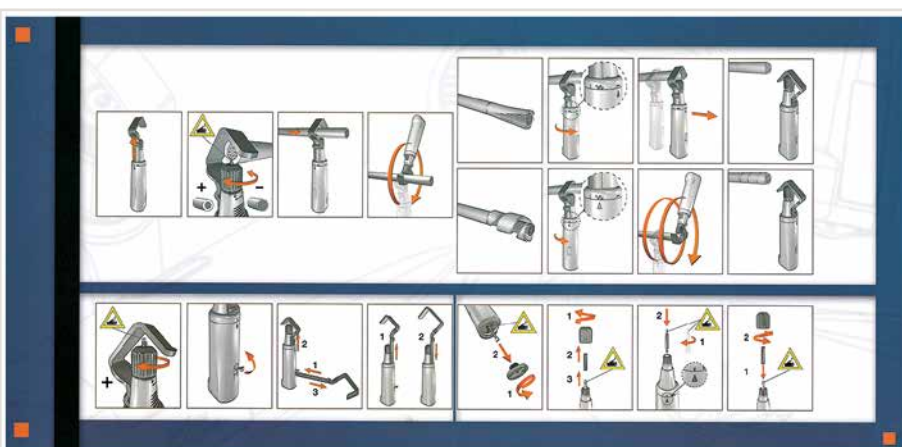
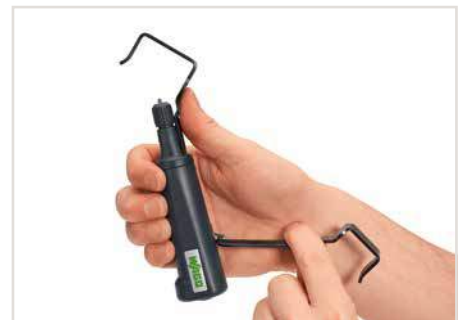
Item No.	Pack. Unit	Item No.	Pack. Unit
Cable stripper, for round cables with outer diameter, 2.5 ... 11 mm		Cable stripper, for round cables with outer diameter, 4.5 ... 45 mm	
206-171	1	206-174	1
Item-Specific Accessories		Item-Specific Accessories	
Replacement blade, 2.5 ... 11 mm Ø		Replacement blade, 4.5 ... 45 mm Ø	
	206-170 1		206-173 1



Strip the cable.



- Cable Stripper (206-171):
- 10-position adjustment wheel ensures consistent stripping results
  - Precision via 10-position blade cutting depth adjustment
  - Strips the sheath from multi-core and fiber optic cables up to 11 mm/0.43 inch diameter
  - Safe and easy to use through closed stripping cavity



- Cable Stripper (206-174):
- Safe and easy to use: Three locking positions for circular, longitudinal and spiral cuts
  - High cable stripping capacity of up to 45 mm diameter
  - Ergonomic design features rests for thumb, index and pinky fingers to ease raising of the cable retention hook
  - Replacement blades can be stored within the tool's handle





# Stripping Tools

<p>“Quickstrip 10” wire stripper 0.02 ... 10 mm<sup>2</sup> “f-st” (6 mm<sup>2</sup> “s”) wire cutter up to 10 mm<sup>2</sup> “f-st” (1.5 mm<sup>2</sup> “s”)</p>	<p>“Quickstrip 16” wire stripper 4 ... 16 mm<sup>2</sup> wire cutter up to 10 mm<sup>2</sup> “f-st” (1.5 mm<sup>2</sup> “s”)</p>	
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
“Quickstrip 10” wire stripper 206-124	1	“Quickstrip 16” wire stripper 206-125	1	Spare clamping jaws 206-105	1
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>			
“Standard” blade cassette, 0.02 ... 10 mm <sup>2</sup>  206-126	1	“Standard” blade cassette, 4 ... 16 mm <sup>2</sup>  206-128	1		
V-blade cassette, 0.1 ... 4 mm <sup>2</sup> , for PTFE  206-127	1				



Cutting a conductor.

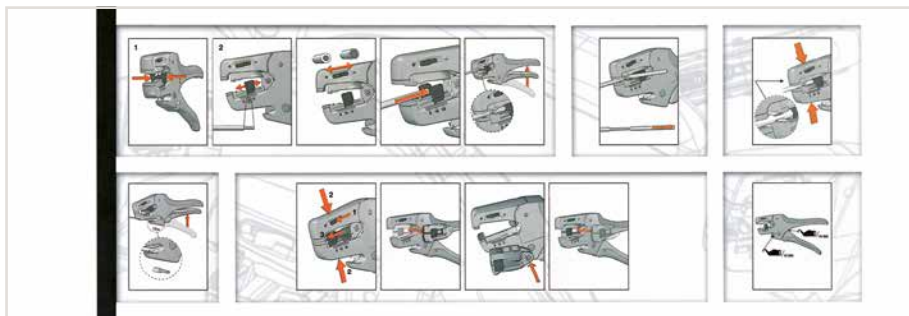


Stripping a conductor.

**Wire Strippers:**

- Automatically adjust to conductor size
- Stripping blades cause no damage to conductor strands
- Gripping pressure of jaws adjusts automatically to conductor insulation diameter
- Clamping jaws and stripping blades automatically open once the stripping process is completed – no splaying of the conductor strands
- Exact strip length may be set by sliding black setting stop
- Stripping blades can be replaced
- Self-sharpening, fully protected cutter (replaceable\*)
- Entire body made of glass-fiber-reinforced polyamide

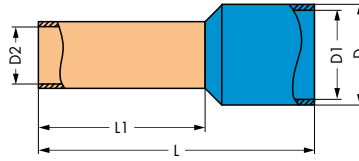
\*applies to Microstrip



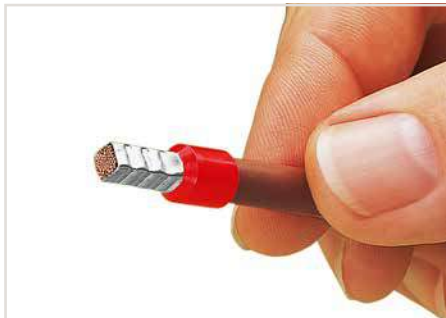
Operating instructions are included.



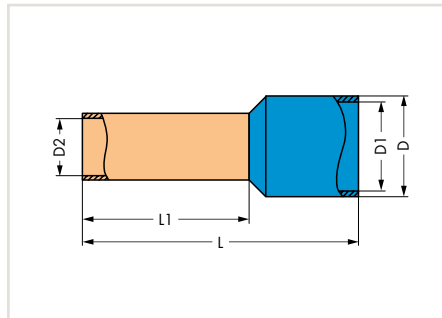
## Insulated Ferrules



Ferrule, insulated, electro-tin-plated, electrolytic copper, gastight crimped, per DIN 46288, Part 4/09.09									
Conductor Size	Color	Strip Length	L	L 1	D	D 1	D 2	Item No.	Pack. Unit
0.25 mm <sup>2</sup> / 24 AWG	yellow	7 mm / 0.28 inch	10	6	2,3	1,8	0,5	216-321	1000
0.25 mm <sup>2</sup> / 24 AWG	yellow	9 mm / 0.35 inch	12	8	2,3	1,8	0,5	216-301	1000
0.34 mm <sup>2</sup> / 22 AWG	green	7 mm / 0.28 inch	10	6	2,5	2	0,5	216-322	1000
0.34 mm <sup>2</sup> / 22 AWG	green	9 mm / 0.35 inch	12	8	2,5	2	0,5	216-302	1000
0.5 mm <sup>2</sup> / 20 AWG	white	7 mm / 0.28 inch	12	6	3,1	2,6	1	216-221	1000
0.5 mm <sup>2</sup> / 20 AWG	white	9 mm / 0.35 inch	14	8	3,1	2,6	1	216-201	1000
0.75 mm <sup>2</sup> / 18 AWG	gray	8 mm / 0.31 inch	12	6	3,3	2,8	1,2	216-222	1000
0.75 mm <sup>2</sup> / 18 AWG	gray	10 mm / 0.39 inch	14	8	3,3	2,8	1,2	216-202	1000
1 mm <sup>2</sup> / 18 AWG	red	8 mm / 0.31 inch	12	6	3,5	3	1,4	216-223	1000
1 mm <sup>2</sup> / 18 AWG	red	10 mm / 0.39 inch	14	8	3,5	3	1,4	216-203	1000
1.5 mm <sup>2</sup> / 16 AWG	black	8 mm / 0.31 inch	12	6	4	3,5	1,7	216-224	1000
1.5 mm <sup>2</sup> / 16 AWG	black	10 mm / 0.39 inch	14	8	4	3,5	1,7	216-204	1000
2.08 mm <sup>2</sup> / 14 AWG	yellow	10 mm / 0.39 inch	15	8	4,8	4,2	2,05	216-205	1000
2.5 mm <sup>2</sup> / 14 AWG	blue	10 mm / 0.39 inch	15	8	4,7	4,2	2,2	216-206	1000
4 mm <sup>2</sup> / 12 AWG	gray	12 mm / 0.47 inch	18	10	5,4	4,8	2,8	216-207	500
6 mm <sup>2</sup> / 10 AWG	yellow	14 mm / 0.55 inch	20	12	6,9	6,3	3,5	216-208	100
10 mm <sup>2</sup> / 8 AWG	red	16 mm / 0.63 inch	22	12	8,4	7,6	4,5	216-209	100
16 mm <sup>2</sup> / 6 AWG	blue	23 mm / 0.91 inch	28	18	9,6	8,8	5,8	216-210	100



A perfect gas-tight crimp - both electrically and mechanically reliable



Dimensions in mm

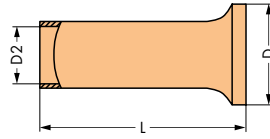
### Application notes:

- With "Variocrimp 4," the built-in crimping pressure control automatically adjusts force to the conductor cross section used. With "Variocrimp 16," it is necessary to select the wire gauge on the tool before crimping.
- Only one crimping station is needed to handle the specified conductor size range.
- Uniform compact crimping from all four sides for high conductor retention.
- No need to center the conductor into the ferrule.
- Conductor and ferrule insertion possible from both sides (for left- and right-handers).
- Built-in ratchet mechanism ensures gastight crimp connection.
- Crimping tools open automatically after crimping operation is complete.
- Comfortable handles for operator.



Only for "Variocrimp 16":  
Adjust conductor cross-section with crimping tool in open position.

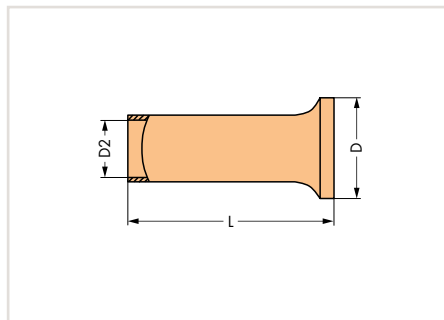
# Uninsulated Ferrules



Ferrule, uninsulated, electro-tin-plated, electrolytic copper, gastight crimped, per DIN 46288, Part 4/09.90						
Conductor Size	Strip Length	L	D	D 2	Item No.	Pack. Unit
0.25 mm <sup>2</sup> / 24 AWG	5 mm / 0.2 inch	5	1,7	0,75	216-151	1000
0.25 mm <sup>2</sup> / 24 AWG	7 mm / 0.28 inch	7	1,7	0,75	216-131	1000
0.34 mm <sup>2</sup> / 22 AWG	5 mm / 0.2 inch	5	1,8	0,85	216-152	1000
0.34 mm <sup>2</sup> / 22 AWG	7 mm / 0.28 inch	7	1,8	0,85	216-132	1000
0.5 mm <sup>2</sup> / 20 AWG	6 mm / 0.24 inch	6	2,1	1	216-121	1000
0.5 mm <sup>2</sup> / 20 AWG	8 mm / 0.31 inch	8	2,1	1	216-101	1000
0.75 mm <sup>2</sup> / 18 AWG	6 mm / 0.24 inch	6	2,3	1,2	216-122	1000
0.75 mm <sup>2</sup> / 18 AWG	8 mm / 0.31 inch	8	2,3	1,2	216-102	1000
1 mm <sup>2</sup> / 18 AWG	6 mm / 0.24 inch	6	2,5	1,4	216-123	1000
1 mm <sup>2</sup> / 18 AWG	8 mm / 0.31 inch	8	2,5	1,4	216-103	1000
1.5 mm <sup>2</sup> / 16 AWG	6 mm / 0.24 inch	6	2,8	1,7	216-124	1000
1.5 mm <sup>2</sup> / 16 AWG	8 mm / 0.31 inch	8	2,8	1,7	216-104	1000
2.5 mm <sup>2</sup> / 14 AWG	10 mm / 0.39 inch	10	3,4	2,2	216-106	1000
4 mm <sup>2</sup> / 12 AWG	10 mm / 0.39 inch	10	4	2,8	216-107	1000
6 mm <sup>2</sup> / 10 AWG	12 mm / 0.47 inch	12	4,7	3,5	216-108	250
10 mm <sup>2</sup> / 8 AWG	12 mm / 0.47 inch	12	5,8	4,5	216-109	250
16 mm <sup>2</sup> / 6 AWG	15 mm / 0.59 inch	15	7,5	5,8	216-110	250



Only for "Variocrimp 16":  
Adjust conductor cross-section with crimping tool in open position.

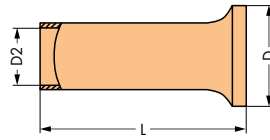


Dimensions in mm





## Uninsulated Ferrules



Ferrule, uninsulated, electro-tin-plated, electrolytic copper, gastight crimped, per DIN 46288, Part 4/09.90						
Conductor Size	Strip Length	L	D	D 2	Item No.	Pack. Unit
25 mm <sup>2</sup> / 4 AWG	25 mm / 0.98 inch	25	9,5	7,3	<b>216-413</b>	50
35 mm <sup>2</sup> / 2 AWG	25 mm / 0.98 inch	25	11	8,3	<b>216-414</b>	50
35 mm <sup>2</sup> / 2 AWG	30 mm / 1.18 inch	30	11	8,3	<b>216-424</b>	50
50 mm <sup>2</sup> / 1 AWG	30 mm / 1.18 inch	30	13	10,3	<b>216-425</b>	50
50 mm <sup>2</sup> / 1 AWG	35 mm / 1.38 inch	35	13	10,3	<b>216-435</b>	50

# Test and Measurement Devices

## 206 Series

Multi-Tester	Clamp-Multi-Tester	Testboy
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Multi-Tester, digital multimeter with non-contact voltage tester		Clamp-Multi-Tester		Testboy, with integrated flashlight, non-contact voltage tester	
<b>206-810</b>	1	<b>206-816</b>	1	<b>206-804</b>	1



- Additional Multi-Tester features:
- Contact-less voltage test AC >100 V (optical and acoustical)
  - Resistance measurement up to 20 MΩ
  - Acoustical continuity test
  - Diode test
  - Data hold function
  - Auto power-off function
  - LED torch lamp function
  - CAT IV 600 V
  - TÜV/GS tested and approved
  - IEC/EN 61010-1 (DIN VDE 0411)



- Voltage testing in switchgear cabinet
- Additional Clamp-Multi-Tester features:
- DC and AC current up to 600 A
  - True RMS and min./max. value measurement
  - DC and AC voltage up to 600 V
  - Manual or automatic measurement range selection
  - Resistance up to 60 MΩ
  - Capacitance measurement, acoustical continuity test
  - Diode test, data hold function
  - Large LCD with backlight
  - LED measuring point lighting
  - CAT III 600 V overvoltage protection
  - IEC/EN 61010-1 (DIN VDE 0411)
  - Includes batteries, measurement leads and carrying bag



- A device that will reliably detect AC voltage in cables, sockets, fuses, switches, outlets and other installations. Testboy can detect the following:
- Live conductors
  - Cable breaks
  - Blown fuses (in cartridges or holders)
  - Defective switches
  - Defective lamps in strings of lights



Current measurement in a switchgear cabinet











## **Technical Section**

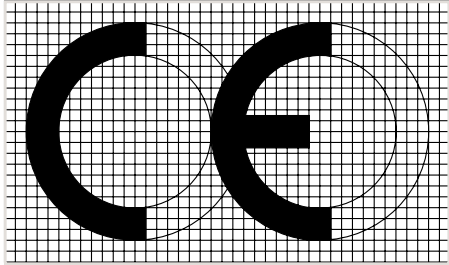
## Technical Section

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## CE Marking and EC Directives

### CE Conformity Marking:

The CE conformity marking consists of the characters "CE" with the following script:



Communauté Européenne  
(European Community)

**EC directives** are legally binding specifications for the European Union. Their goal is aligning legal and administrative specifications in the various EU member countries, in order to prevent trading hindrances arising from different national specifications.

In order to launch a product on the market, it must comply with the relevant directives. Several directives may apply for one single product, for example, EMC and low voltage directives.

For WAGO products the following **EC directives** apply:

### 2014/35/EU – Low Voltage Directive (LVD)

The LVD covers all electrical equipment operating with a voltage between 50 and 1000 VAC and between 75 and 1500 VDC.

This directive applies to products, such as rail-mount terminal blocks, splicing connectors, modular terminal blocks, terminal strips, etc., which comply with the specifications of the coordinated European standards and their specific parts (e.g., EN 60947 for rail-mount terminal blocks and EN 60998 for splicing connectors).

The CE conformity marking must be applied to all electrical equipment; should on-unit marking not be possible, mark the smallest packing unit. With this marking, manufacturers attest conformity of their products to relevant directives.

In addition to the CE marking, manufacturers provide an EC "Declaration of Conformity" for their products. This declaration of conformity must be retained and submitted to a national surveillance authority upon request.

### 2014/30/EU – EMC Directive

This directive applies to any devices, equipment and systems containing electric or electronic components. The German Federal Office for Post and Telecommunications (Bundesamt für Post und Telekommunikation, BAPT) is authorized to draw a distinction between elementary and complex components. Elementary components, such as resistors, transformers, ICs, relays, etc., are not provided with marking. For complex components, such as electro-motors, electronic cards, thermostats, etc., the EMC directives apply only if these components are sold directly to the end user.

All products subject to the application range of the EMC directive must display the CE marking on their housing. This marking proves conformity with the corresponding standards.

### 2006/42/EC – Machinery Directive

This directive applies to complete machines or equipment.

The manufacturers of machines or equipment are, however, obliged to use components which meet the corresponding EC directives (e.g., Low Voltage or EMC Directives).

Fulfillment and conformity with these directives is required for the free exchange of goods within Europe.

### 2014/34/EU – ATEX Directive

General technical information on electrical equipment used in hazardous areas

## IEC/EN Specifications

The following standards apply to the design and application of the terminal blocks and connectors contained in this catalog:

IEC 60364-1 HD 60364-1 VDE 0100-100 / Erection of power installations with nominal voltages up to 1000 V - Part 1: Fundamental principles, assessment of general characteristics, definitions	VDE 0118-1 / Installation of electrical equipment in mines - General rules	IEC 60999-2 EN 60999-2 VDE 0609-101 /- Part 2: General requirements and particular requirements for clamping units for conductors from 35 mm <sup>2</sup> up to 300 mm <sup>2</sup> (included)
IEC 60364-7-710 HD 60364-7-710 VDE 0100-710 /- Part 7-710: Requirements for special installations or locations - Medically used areas	IEC 60038 EN 60038 VDE 0175-1 / IEC CENELEC standard voltages	IEC 60998-1 EN 60998-1 VDE 0613-1 / Connecting devices for low-voltage circuits for household and similar purposes - Part 1: General requirements
IEC 60364-7-718 HC 60364-7-718 VDE 0100-718 /- Part 7-718: Requirements for special installations or locations - Communal facilities and workplaces	VDE 0298-4 / Use of cables and insulated conductors in power installations - Part 4: Recommended values for current carrying capacities of cables for fixed installation and for flexible cables	IEC 60998-2-1 EN 60998-2-1 VDE 0613-2-1 /- Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units
EN 50110-1 VDE 0105-1 / Operation of electrical installations - Part 1: General requirements	IEC 60112 EN 60112 VDE 0303-11 / Method for determining the comparative and the proof tracking indices of solid insulation materials	IEC 60998-2-2 EN 60998-2-2 VDE 0613-2-2 /- Part 2-2: Particular requirements for connecting devices as separate entities with screwless-type clamping units
IEC 60664-1 EN 60664-1 VDE 0110-1 / Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	IEC 60529 EN 60529 VDE 0470-1 / Degrees of protection provided by enclosures (IP Code) - Testing equipment and testing method	IEC 60998-2-3 EN 60998-2-3 VDE 0613-2-3 /- Part 2-3: Particular requirements for connecting devices as separate entities with insulation-piercing clamping units
IEC 60204-1 EN 60204-1 VDE 0113-1 / Safety of machinery – Electrical equipment of machines - Part 1: General requirements	IEC 61439-1 EN 61439-1 VDE 0660-600-1 - Part 1: General rules	IEC 60947-1 EN 60947-1 VDE 0660-100 / Low-voltage switchgear and controlgear - Part 1: General rules
IEC 61140 EN 61140 VDE 0140-1 / Protection against electric shock - Common aspects for installation and equipment	IEC 61439-3 EN 61439-3 VDE 0660-600-3 /- Low-voltage switchgear and control-gear assemblies - Part 3: Distribution boards intended to be operated by ordinary persons (DBO)	IEC 60947-7-1 EN 60947-7-1 VDE 0611-1 - Part 7-1: Ancillary equipment - Terminal blocks for copper conductors
IEC 60079-0 EN 60079-0 VDE 0170-1 / Hazardous areas - Part 0: Equipment - General requirements	IEC 61643-11 EN 61643-11 VDE 0675-6-11 / Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods	IEC 60947-7-2 EN 60947-7-2 VDE 0611-3 /- Part 7-2: Ancillary equipment - Ground conductor terminal blocks for copper conductors
IEC 60079-7 EN 60079-7 VDE 0170-6 / Explosive atmospheres - Part 7: Equipment protection by increased safety "e"	IEC 60335-1 EN 60335-1 VDE 0700-1 / Safety of household and similar electrical appliances - Part 1: General requirements	IEC 60947-7-3 EN 60947-7-3 VDE 0611-6 - Part 7-3: Ancillary equipment - Safety requirements for fuse terminal blocks
IEC 60079-11 EN 60079-11 VDE 0170-7 / Hazardous areas - Part 11: Equipment protection by intrinsic safety "i"	IEC 60598-1 EN 60598-1 VDE 0711-1 / Lighting fixtures - Part 1: General requirements and tests	VDE 0611-4 / Rail-mount terminal blocks for connection of copper conductors; - Multi-level distribution rail-mount terminal blocks up to 6 mm <sup>2</sup>
IEC 60079-14 EN 60079-14 VDE 0165-1 / Hazardous areas - Part 14: Electrical installations design, selection and erection	IEC 60715 EN 60715 / Standardized mounting on rails for mechanical support of electrical devices in switchgear and control-gear installations	IEC 61984 EN 61984 VDE 0627 / Connectors – Safety requirements and tests
IEC 60079-15 EN 60079-15 VDE 0170-16 / Explosive atmospheres - Part 15: Equipment protection by type of protection "n"	IEC 60999-1 EN 60999-1 VDE 0609-1 / Connecting devices – Electrical copper conductors – Safety requirements for screw-type and screwless-type clamping units - Part 1: General requirements and particular requirements for clamping units for conductors from 0.2 mm <sup>2</sup> up to 35 mm <sup>2</sup>	

## Tests and Testing Procedures per IEC/EN Standards

Products such as connecting devices, rail-mount terminal blocks and connectors, etc., have their own product-specific test specifications. The following sections describe the most important tests and are limited to a description of the test procedures and an explanation of the test purpose. The data shown (e.g., voltages, temperatures, forces) only serve as illustration and may differ depending on the test.

### Mechanical Tests

All WAGO products meet requirements for the following mechanical tests:

#### • Termination Requirements

##### Conductor Termination

Two WAGO connection systems are proven in the field of Spring Pressure Connection Technology:

The **PUSH WIRE® connection** for applications requiring solid conductors (e.g., for lighting and building wiring, telecommunications, house communication or alarm systems).

Conductor range:

0.2 ... 4 mm<sup>2</sup> (24 ... 12 AWG)

The **universal CAGE CLAMP® spring pressure connection system** for solid, stranded and fine-stranded conductors, designed for a variety of industrial, electrical and electronic applications (e.g., fine-stranded conductors in the elevator industry, in power stations, in the chemical and automotive industry, and aboard ships).

Conductor range:

0.08 ... 35 mm<sup>2</sup> (28 ... 2 AWG)

The **Push-in CAGE CLAMP® connection** takes universal CAGE CLAMP® connections further by allowing the termination of 0.2 ... 16 mm<sup>2</sup> (24 ... 6 AWG) solid, stranded and fine-stranded conductors (25 mm<sup>2</sup>/4 AWG only "f-st") and offering all the benefits and safety of the original CAGE CLAMP®. Furthermore, the Push-in CAGE CLAMP® connection technology allows solid, stranded and fine-stranded conductors with ferrules from 0.5 ... 16 mm<sup>2</sup> (20 ... 6 AWG) to be terminated by simply pushing them in.

The conductor entry hole is perfectly suited for the insulation diameter of the rated conductor cross-section, thus providing good conductor guidance.

This is particularly important for vibration-prone applications.

Fine-stranded conductors of small or very small size are highly flexible, and deform when pushed against the conductor stop in terminal blocks. As a result, the conductor insulation – not the copper conductor – may be clamped, causing intermittent contact or no contact at all.

In order to prevent conductor insulation from being inserted into the clamp, insulation stops are available for WAGO rail-mount terminal blocks up to 4 mm<sup>2</sup> (12 AWG), even providing protection for 0.08 mm<sup>2</sup> (28 AWG) conductors (see Section 5).

### Rated Cross-Sections and Connectable Conductors

I. Per IEC 60999-1 / EN 60999-1 / VDE 0609-1, Table 1:

Rated Cross-Section	Theoretical Largest Conductor Diameter							Connectable Conductor	
	Metric			AWG				Rigid	Flexible
	Rigid		Flexible	Rigid		Flexible			
	Solid	Stranded			b) Solid	b) Class B Stranded	c) Class I, K, M Stranded		
mm <sup>2</sup>	mm	mm	mm	Cond. Cross-Section	mm	mm	mm		
0.2	0.51	0.53	0.61	24	0.54	0.61	0.64	To be defined in the corresponding product standard	
0.34	0.63	0.66	0.8	22	0.68	0.71	0.8		
0.5	0.9	1.1	1.1	20	0.85	0.97	1.02		
0.75	1	1.2	1.3	18	1.07	1.23	1.28		
1	1.2	1.4	1.5	-	-	-	-		
1.5	1.5	1.7	1.8	16	1.35	1.55	1.6		
2.5	1.9	2.2	2.3 <sup>a)</sup>	14	1.71	1.95	2.08		
4	2.4	2.7	2.9 <sup>a)</sup>	12	2.15	2.45	2.7		
6	2.9	3.3	3.9 <sup>a)</sup>	10	2.72	3.09	3.36		
10	3.7	4.2	5.1	8	3.34	3.89	4.32		
16	4.6	5.3	6.3	6	4.32	4.91	5.73		
25	-	6.6	7.8	4	5.45	6.18	7.26		
35	-	7.9	9.2	2	6.87	7.78	9.02		

NOTE: The diameters of the largest rigid and flexible conductors are based on Table 1 of IEC 60228 A/IEC 60344 and on ASTM B172-71 [4], IECA Publication S-19-81 [5], IECA Publication S-66-524 [6], as well as IECA Publication S-66-516 [7] for AWG conductors.

a) Dimensions for Class 5 flexible conductors only (IEC 60228 A)

b) Nominal diameter + 5 %

c) Largest diameter for conductors of classes I, K, M + 5 %

In practical use, the conductor cross-sections are approximately 5 % below the values stated in the table!

The IEC 60999-1/EN 60999-1/VDE 0609-1 Specification (Section 7.1) requires that:

### Clamping units must be able to connect unprepared conductors.

Under normal operating conditions, direct clamping (i.e., directly connecting a conductor to the terminal block's current bar) provides optimal contact quality, because all risk factors arising from anti-splaying methods are prevented.

Occasionally, conductor anti-splaying protection may be required, including various methods (see illustrations below).

Special requirements apply only in special application areas exposed to extremely corrosive atmospheres.

In this case, we recommend using either solid copper conductors or fine-stranded copper conductors with properly crimped, tin-coated copper ferrules or copper pin terminals.

As with solid copper conductors, the fine strands are crimped to a dense inner core. This prevents ingress of aggressive atmospheres (depending on the ppm concentration), which can diffuse into the conductor bundle along the individual strands and cause corrosion deposits between individual strands and the clamping point.

### One Conductor per Clamping Unit

A number of VDE specifications specify that **only one conductor must be connected per clamping unit** (e.g., DIN VDE 0611-4, 02.91, Section 3.1.9). The same applies to the recommendations of the German Automotive Industry Association (VDA) "Supply specification for the electrical equipment of machines, mechanical installations and buildings in the automotive industry" according to Section 15.1.1.3; Draft 8.93.

Other VDE and EN specifications also recommend the connection of **only one conductor per clamping unit**, unless the clamping unit is specifically tested and approved for the connection of several conductors, for example:

VDE 0609-1, 12.00/

EN 60999-1:2000, Section 7.1

VDE 0660-600, 06.12/

EN 61439-1:2011

Section 8.6.3

VDE 0113-1, 06.07/

EN 60204-1:2006, Section 13.1.1

One conductor per clamping unit is therefore recommended to meet the safety requirements of these relevant specifications. This WAGO principle is the basis for a number of other technical and economic advantages:

- Each conductor may be terminated or removed without affecting previously connected conductors.
- Where re-wiring is required, only the conductor to be changed is removed from the clamping point, all other conductors remain safely clamped.
- Each conductor is clamped independently.
- Any conductor size combination can be connected.

WAGO rail-mount terminal blocks offer different solutions to increase the number of clamping points.

The most common way is by branching one conductor into two or three conductors. WAGO offers 3- and 4-conductor terminal blocks, making additional jumpers unnecessary.

II. Per IEC 60999-2, Table 1:

Rated Cross-Section	Theoretical Largest Conductor Diameter					Connectable Conductor	
	Metric		AWG/kcmil				
	Rigid Stranded	Fine-Stranded <sup>a)</sup>	Gauge	Rigid Stranded	Fine-Stranded	Rigid	Flexible
mm <sup>2</sup>	mm	mm		mm	mm		
50	9.1	11	1/0	9.64	12.08	To be defined in the corresponding product standard	
70	11	13.1	2/0	11.17	13.54		
95	12.9	15.1	3/0	12.54	15.33		
-	-	-	4/0	14.08	17.22		
120	14.5	17	250	15.34	19.01		
150	16.2	19	300	16.8	20.48		
185	18	21	350	18.16	22.05		
-	-	-	400	19.42	24.05		
240	20.6	24	500	21.68	26.57		
300	23.1	27	600	23.82	30.03		

a) Dimensions for Class 5 flexible conductors only (IEC 60228 A)

NOTE: The diameters of the largest rigid and flexible conductors are based on Table 1 and Table 3 of IEC 3 A/IEC 60228 and on ASTM B172-71 [1], IECA Publication S-19-81 [2], IECA Publication S-66-524 [3], as well as IECA Publication S-66-516 [7] for AWG conductors.



Tip-bonded conductor



Tin-plated copper ferrule (gas-tight crimped)



Ultrasonically bonded conductor

Anti-splaying methods require a terminal block one size larger than the nominal cross-section of the conductor to be terminated. Ferruled conductor cross-sections specified for individual products are based on WAGO's Variocrimp square crimping technology. Gas-tight, crimped twin ferrules may be used, provided the ferrule is inserted all the way into the clamping unit and that there is a sufficient clearance and creepage distance between adjacent potentials.



Crimped pin terminal (gas-tight), preferably made of copper with a tin-plated surface

## Tests and Testing Procedures per IEC/EN Standards (continued)

### Mechanical Tests (continued)

#### • Pull-Out Test per IEC/EN 60947-7-1, IEC/EN 60998-2-2, IEC/EN 60999-1

The pull-out test simulates the mechanical stress on the clamping unit when, for example, the installer pushes the conductor aside to better access/operate the adjacent clamping unit, or verifies if the conductor is connected properly by briefly pulling on it.

During the test, a pulling force is applied without jerking, for one minute, to the connected conductor. The pulling force is selected according to the cross-sectional area. The larger the cross-section of the conductor, the higher the pull-out force that is selected. For example, the pulling force is 40 N for a conductor having a cross-section of 1.5 mm<sup>2</sup> (16 AWG) and 100 N for a conductor with a cross-section of 16 mm<sup>2</sup> (6 AWG). The values specified by these standards are the same for both screw clamp and spring clamp terminal blocks. During the test, the conductor must neither slip out of the clamping unit, nor break near the clamping unit.

#### Conductor Pull-Out Forces

The clamping units of screwless terminal blocks must withstand the pull-out forces as follows:

IEC 60947-1/EN 60947-1/VDE 0660-100, Table 5:

Low-voltage switchgear and controlgear, general rules

IEC 60947-7-1/EN 60947-7-1/

VDE 0611-1, rail-mount terminal blocks for copper conductors

IEC 60998-2-1/EN 60998-2-1/

VDE 0613-2-1, Table 104:

IEC 60998-2-2/EN 60998-2-2

VDE 0613-2-2, Table 103:

Connecting devices for low-voltage circuits for household and similar purposes

Particular requirements for connecting devices as separate entities with screw-clamp or screwless terminal blocks.

IEC 60999-1/EN 60999-1/VDE 0609-1, Table 3:

IEC 60999-2/EN 60999-2/VDE 0609-101, Table 2:

Safety requirements for screw-clamp and screwless clamping units for electrical copper conductors

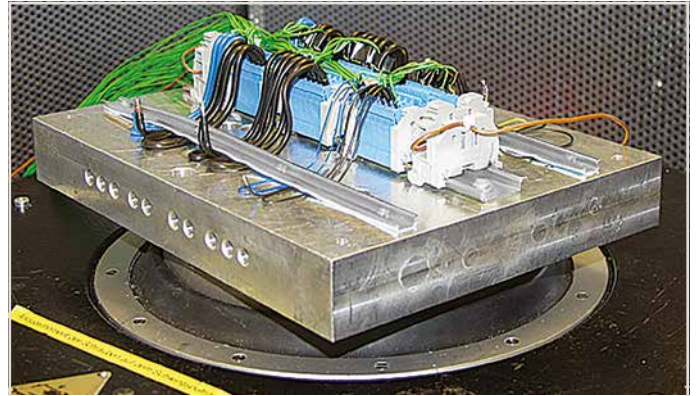
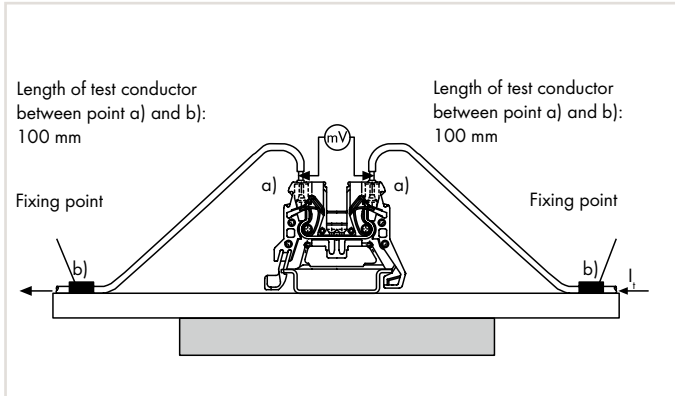
Rated Cross-Section		Pull-Out Forces per IEC/EN		
mm <sup>2</sup>	AWG/kcmil	60947-7-1	60998-2-2	60999-1/-2
		N	N	N
0.2	24	10	10	10
0.34	22	15	15	15
0.5	20	20	20	20
0.75	18	30	30	30
1	-	35	35	35
1.5	16	40	40	40
2.5	14	50	50	50
4	12	60	60	60
6	10	80	80	80
10	8	90	90	90
16	6	100	100	100
25	4	135	135	135
-	3	156		
35	2	190	190	190
-	1	236		
50	1/0	236		236
70	2/0	285		285
95	3/0	351		351
-	4/0	427		427
120	250	427		427
150	300	427		427
185	350	503		503
-	400	503		503
240	500	578		578
300	600	578		578



• Shock Test per IEC/EN 60068-2-27; IEC/EN 61373 (Railway Applications)

The shock test is similar to the vibration test except that, instead of continuous vibrations, single shocks are applied to the specimen. Shock tests are usually performed with an acceleration of 20g, for example, over a period of 11 ms. Tests for special requirements often call for much higher values.

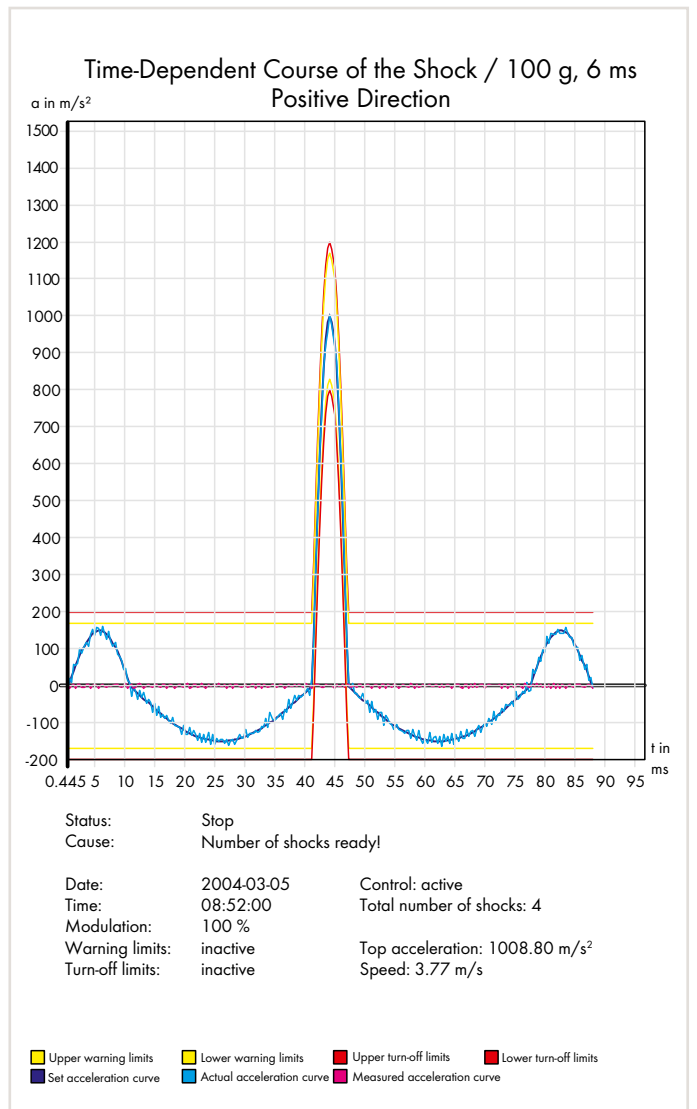
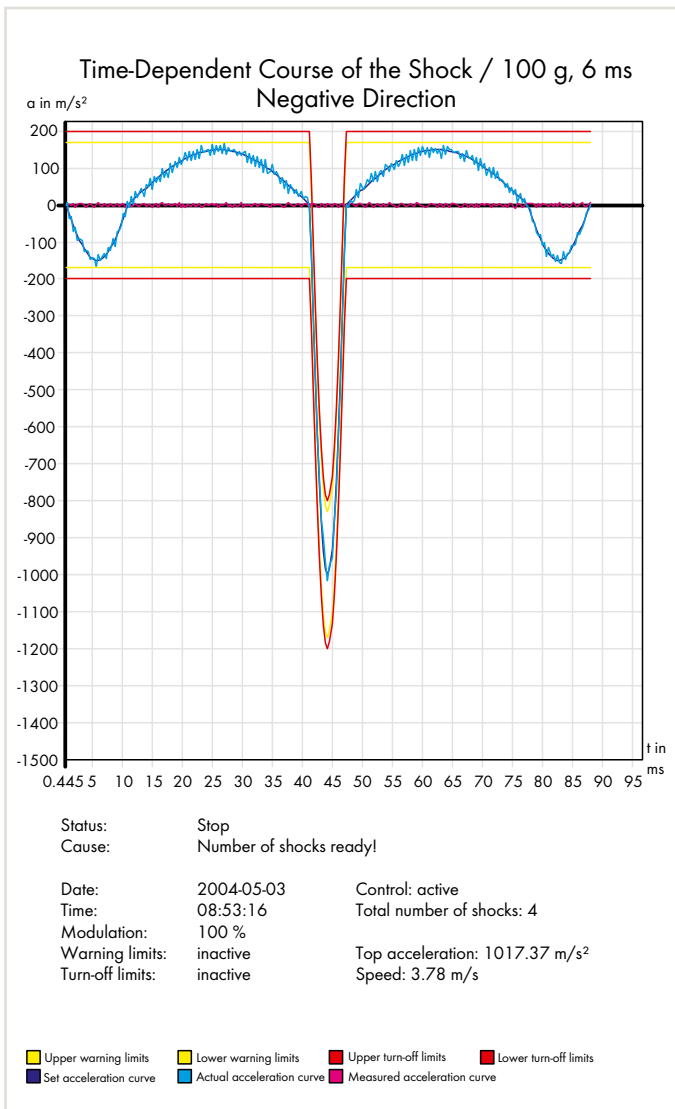
Like the vibration tests, shock tests are primarily used to test the voltage drop variation or contact breaks, etc.



Example:

Per IEC/EN 60068-2-27  
(half-sine shock)

Acceleration: 100g      Duration: 6 ms      Shock direction: Three axes  
(three shocks each in positive and negative direction)



## Tests and Testing Procedures per IEC/EN Standards (continued)

### Mechanical Tests (continued)

#### • Vibration Test per IEC/EN 60068-2-6; DNV GL, LR (Marine Applications); EN 61373 (Railway Applications)

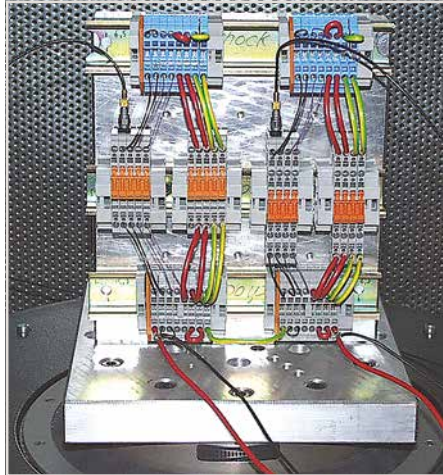
The vibration test determines whether vibrations, such as those produced in the vicinity of machines or in vehicles, will permanently affect the electrical connection, or if contact breaks will occur during vibrations. Using a vibration table, the test specimen is subjected to vibration in each of the X, Y and Z axes (see pictures).

The amplitude, acceleration and in particular the frequency of the vibration must vary during the test.

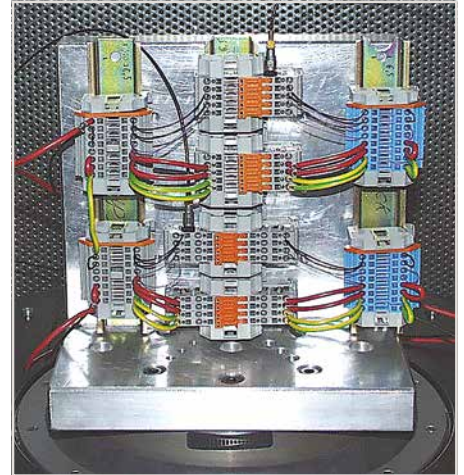
In a common test procedure, for example, a wide frequency band is continuously run up to 2000 Hz, at different accelerations up to 20g and different amplitudes up to 20 mm. Test duration is 90 minutes per axis.



Other test types are performed using a single fixed frequency. The exact test procedure may vary considerably, depending on how the product will be used. Some test specifications require the determination of possible resonant frequencies, i.e., determining if resonance occurs within the frequency spectrum to be passed through. Analyzing the specimen behavior under the influence of resonant frequencies is performed using a special testing procedure.



Beyond these standard procedures, each market segment performs additional testing. Examples include railway authorities testing rolling electrical equipment, or the testing performed multiple marine agencies (e.g., DNV GL Group, Lloyd's Register of Shipping). Though the requirements of such testing procedures are particularly demanding, test arrangements are identical for all of them. During vibrations, possible contact breaks are monitored on an oscilloscope. Voltage drop is measured before and after the test to detect permanent failures, i.e., checking if electrical resistance at the clamping unit has not increased beyond the permissible limit. The smaller this value is, the smaller the contact resistance of the clamping unit.



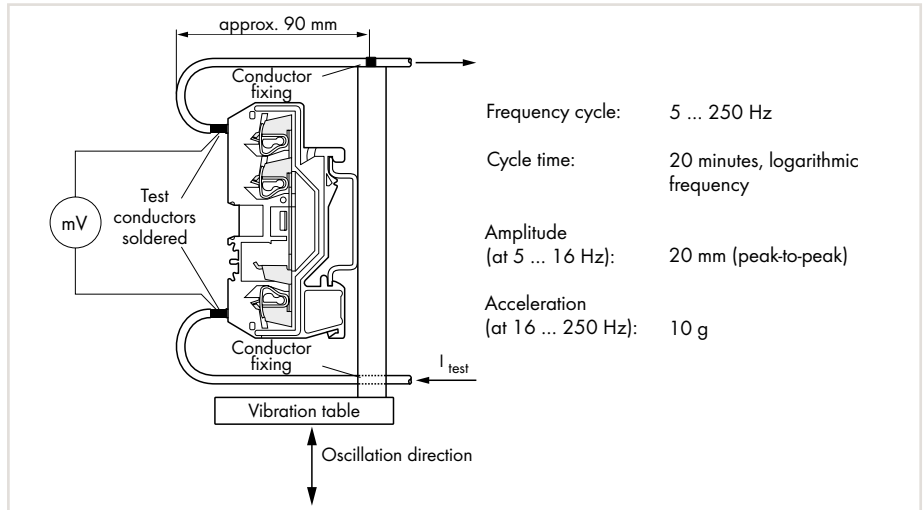
The test is passed if:

- the conductor has neither slipped out of the terminal block nor been damaged,
- the maximum permissible voltage drop has not been exceeded
- and neither contact breaks have occurred nor a defined break time has been exceeded.

The test specimen must not be damaged in any way that might affect future use.

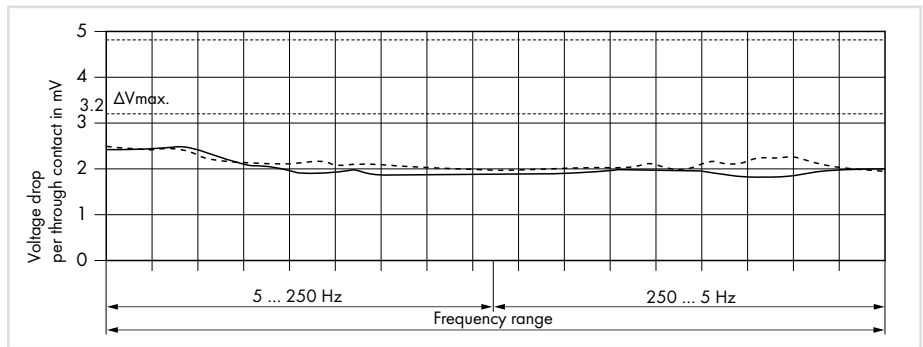
Since their inception, both CAGE CLAMP® and Push-in CAGE CLAMP® connections have been routinely tested for their resistance to vibration in connection with approval tests.

Additionally, WAGO conducts special self-resonance behavior tests on clamping systems, using different terminal block and conductor arrangements. In these tests, a wide frequency band is continuously run up to 2,000 Hz, at different accelerations up to 20g and different amplitudes up to 20 mm. The figure provides an example of a self-resonance vibration test configuration.



Self-resonance vibration test set-up

All WAGO spring clamp connections meet these test requirements.



Frequency cycle

Rail-mount terminal block: Item no. 280-681  
 Test current:  $1/10 I_N = 2.4 \text{ A}$

— Test specimen no. 1  
 - - - - - Test specimen no. 2

## Tests and Testing Procedures per IEC/EN Standards (continued)

### Electrical Tests

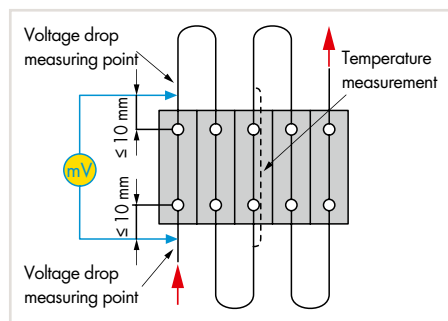
All WAGO products meet requirements for the following electrical tests:

#### • Temperature-Rise Test per IEC/EN 60947-7-1

The temperature-rise test examines the clamping unit – including the surrounding insulation – at rated current, over-current and short-circuit current levels.

Unless otherwise specified in the related equipment specification, e.g., by specifying the nominal currents of the equipment, terminal blocks and connectors are tested with current loads as specified in the respective construction specification.

For rail-mount terminal blocks complying with IEC 60947-7-1/EN 60947-7-1/VDE 0611-1, or terminal blocks complying with IEC 60998-1/EN 60998-1/VDE 0613-1, the temperature rise must not exceed 45 Kelvin.



Test arrangement: "Temperature-Rise Test"

Rated Cross-Section	Test Current per IEC/EN		Conductor Size	Test Current per IEC/EN 60947-7-1 Table 5
	60947-7-1 Table 4	60998-1 Table 2		
mm <sup>2</sup>	A	A	AWG/kcmil	A
0.2	4	4	24	4
0.34	5	5	22	6
0.5	6	6	20	8
0.75	9	9	18	10
1	13.5	13.5	-	-
1.5	17.5	17.5	16	16
2.5	24	24	14	22
4	32	32	12	29
6	41	41	10	38
10	57	57	8	50
16	76	76	6	67
25	101	101	4	90
35	125	125	2	121
-	-	-	1	139
50	150	-	1/0	162
70	192	-	2/0	185
95	232	-	3/0	217
-	-	-	4/0	242
120	269	-	250 kcmil	271
150	309	-	300 kcmil	309
185	353	-	350 kcmil	353
240	415	-	500 kcmil	415
300	520	-	600 kcmil	520

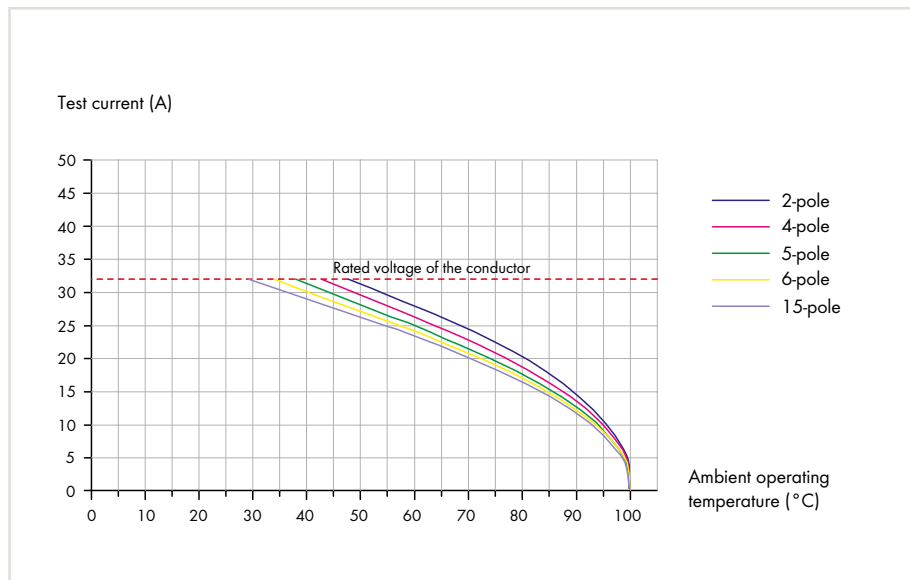
### • Current-Carrying Capacity Curve per IEC/EN 60512-5-2

Both the design requirements (e.g., dimensions) and the current-carrying capacity of a connector must be checked by the user when selecting connectors.

This data depends on the following factors: connected conductor cross-section, ambient temperature, number of simultaneously loaded poles, connector's internal resistance, as well as PCB layout and connector materials if required. In accordance with IEC/EN 60512-5-2, the relationship between current, ambient temperature and temperature rise up to the connector's upper temperature limit is illustrated via current-carrying capacity curve. The connector must only be operated up to this temperature limit (sum of the self-generated heat and the ambient temperature) without being damaged or destroyed during operation.

Functioning of a current-carrying capacity curve per EN 60512-5-2 is shown by an application using a current-carrying capacity curve for the X-COM®-SYSTEM:

This application requires each pole of a 4-pole connector be subjected to a load of 32 A. Based on the basic curve determined for this pole number with a conductor cross-section of 4 mm<sup>2</sup>, it has been determined the maximum ambient temperature is 42 °C (107.6 °F). The current must be reduced at higher ambient temperatures, e.g., to 19 A at an ambient temperature of 70 °C (158 °F).



1-conductor/1-pin carrier terminal block (769-176)  
Conductor cross-section: 4 mm<sup>2</sup> (12 AWG)

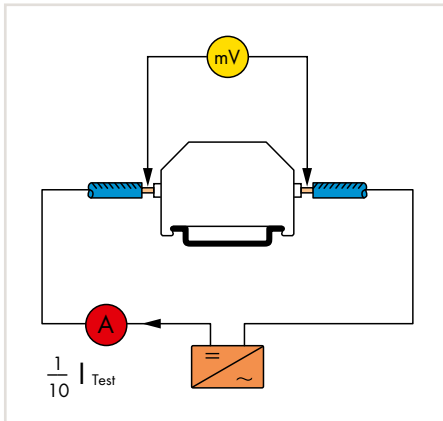
1-conductor female plugs (769-102 to 769-115)  
Conductor cross-section: 4 mm<sup>2</sup> (12 AWG)  
Conductor loop length: 1 m

## Tests and Testing Procedures per IEC/EN Standards (continued)

### Electrical Tests (continued)

#### • Voltage Drop Test per IEC/EN 60947-7-1

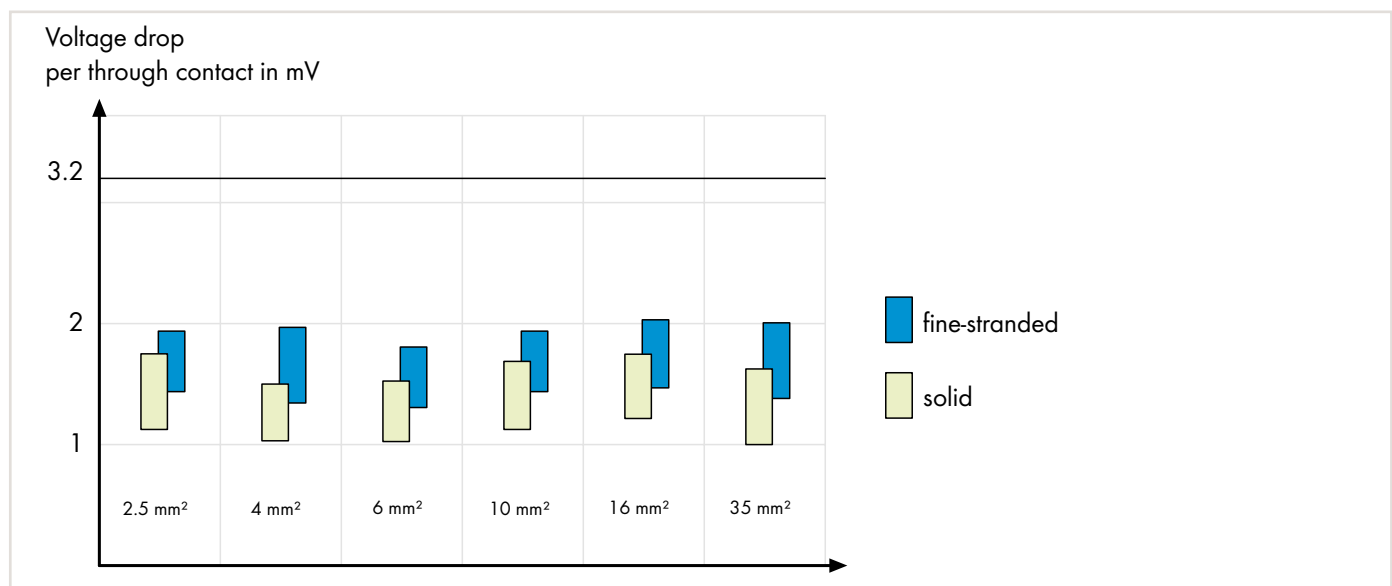
The voltage drop test evaluates clamping point quality under stress such as vibration, temperature change, industrial climate and salt spray, in order to verify that the contact point is gas-tight.



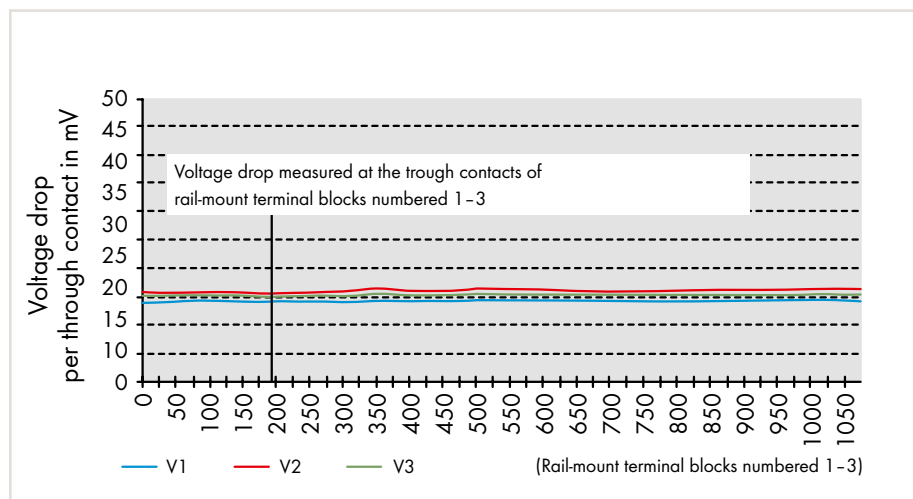
The CAGE CLAMP® and Push-in CAGE CLAMP® connections enclose and contain fine-stranded conductors. Therefore, a variation of the voltage drop with solid and fine-stranded conductors is so small that its influence may be negligible for the practical application of the terminal blocks.

Test arrangement: "Voltage Drop Test"

Typical voltage drop variations for solid and fine-stranded conductors of 280 to 285 Series CAGE CLAMP® Rail-Mount terminal Blocks:



Example: Current load cycling test result for rail-mount terminal blocks (item no. 285-195) using 95 mm² (4/0 AWG) fine-stranded copper conductors:



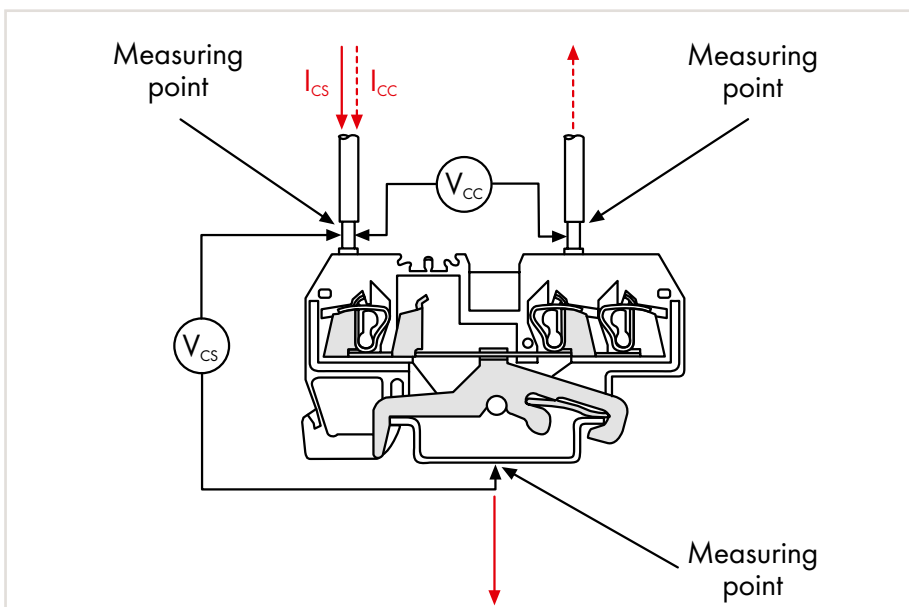
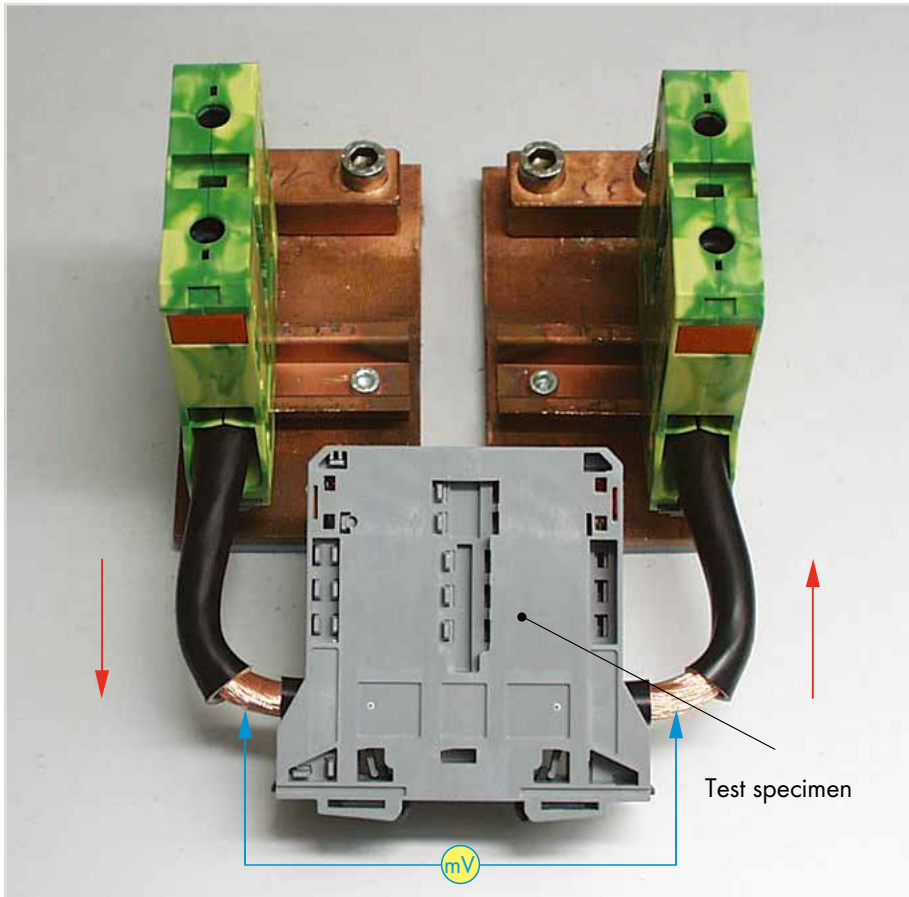
Voltage drop variation over longer periods under current load cycling conditions is shown for WAGO 285-195 (95 mm²/4/0 AWG) Rail-Mount Terminal Blocks

using solid copper conductors. The diagram shows that the voltage drop is constant, far beyond the 192 cycles required in IEC 60947-7-1.

(The voltage drop was determined at rated current.)

### • Short-Time Withstand Current Test (Short-Circuit Withstand Capacity) per IEC/EN 60947-7-1

Apart from the rated current that can be constantly applied to an electrical device, operation-related short peak currents consistently occur in electrical installations; e.g., when motors are started. Also, in the event of a short circuit, a high current can flow for a short time until the fuse element melts. Terminal blocks and connecting devices must be able to withstand such conditions. For example, in the short-time withstand current test per IEC/EN 60947-7-1, a through rail-mount terminal blocks must be capable of withstanding for one second the rated short-time withstand current which corresponds to  $120 \text{ A/mm}^2$  of its nominal cross-section.



During the short-time withstand current test, the ground conductor rail-mount terminal blocks are subjected three times for one second each to a current load of  $120 \text{ A/mm}^2$ . The pass criterion for the test is the voltage drop (limiting value and constant measured values).

# Tests and Testing Procedures per IEC/EN Standards (continued)

## Electrical Tests (continued)

### • Insulation Parameters per IEC/EN 60664-1

#### Clearances and Creepage Distances

The following generally applies:  
The equipment specification contains data for the measurement of clearances and creepage distances, or refers to the data contained in the basic DIN EN 60664-1/VDE 0110-1 standard. This standard contains new clearances and creepage distances in compliance with insulation coordination requirements. That is, the insulation parameters of equipment are assigned to:

- the anticipated surge voltages,
- the parameters of the protection device against impulse voltage and
- the anticipated environmental conditions and the protection measures against pollution.

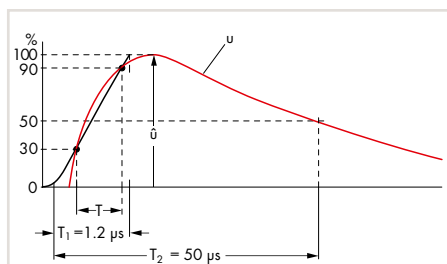
This standard is based on IEC 60604-1.

#### Clearances, Rated Surge Voltages, Overvoltage Categories, Pollution Degrees

Surge voltages (Table 1) are a decisive factor in determining clearances.

The basis forms the **overvoltage category**, i.e., the allocation of the equipment to the expected overvoltage, and the **conductor-ground voltage** derived from the nominal mains voltage in installations with a grounded Y (star) point.

In ungrounded installations, or installations where the conductor is not grounded, the voltage between conductors is applicable in the same way as conductor voltage to ground.



Voltage pulse: 1.2/50 μs per EN 60060-1/VDE 0432-1

#### Overvoltage Categories for Electrical Equipment

A specific overvoltage category must be defined on the basis of the following, general description:

- Equipment in **overvoltage category I** is intended to be connected to the fixed electrical installations of buildings. Protective means are taken outside the equipment – either in the fixed installation or between the fixed installation and the equipment – to limit transient overvoltages to the specific level.
- Equipment in **overvoltage category II** is to be connected to the fixed electrical installations of buildings.

**Note:** Examples of such equipment are household appliances, portable tools and similar loads.

- Equipment in **overvoltage category III** is part of the fixed electrical installations and other equipment where a higher degree of availability is expected.

**Note:** Examples of such equipment are distribution boards, circuit breakers, wiring systems (IEV 826-16-08, including cables, bus bars, junction boxes, switches, socket outlets) in the fixed installation and equipment for industrial use and other equipment, e.g., stationary motors with permanent connection to the fixed installation.

- Equipment in **overvoltage category IV** is for use in or near the feed-in in electrical building installations upstream of the main distribution board in the direction of the network.

**Note:** Examples include electricity meters, primary overcurrent protection devices and ripple control units.

The rated surge voltage must be selected from Table F.1 corresponding to the overvoltage category specified and to the rated voltage of the equipment.

Table F.1: Rated surge voltage for equipment energized directly from the low-voltage mains (DIN EN 60664-1/VDE 0110-1)

Voltage curve: 1.2/50 μs per IEC 60060-1/VDE 0432-1

Nominal voltage of the power supply system <sup>1)</sup> (mains) per IEC 60038 <sup>3)</sup>		Conductor-to-neutral voltage, derived from the nominal AC or DC voltage up to and including: V	Rated surge voltage <sup>2)</sup>			
Three-phase V	Single-phase V		Overvoltage category <sup>4)</sup>			
			I V	II V	III V	IV V
		50	330	500	800	1500
		100	500	800	1500	2500
	120-240	150 <sup>5)</sup>	800	1500	2500	4000
230 / 400	277 / 480	300	1500	2500	4000	6000
400	690	600	2500	4000	6000	8000
1000		1000	4000	6000	8000	12000

<sup>1)</sup> See Annex B for application to existing different low-voltage mains and their nominal voltages.

<sup>2)</sup> Equipment with these rated impulse voltage levels can be used in installations complying with IEC 60364-4-443.

<sup>3)</sup> The / mark indicates a three-phase, 4-conductor system. The lower value is the conductor-to-neutral voltage, while the higher value is the conductor-to-conductor voltage. Where only one value is indicated, it refers to three-phase, 3-conductor systems and specifies the conductor-to-conductor voltage.

<sup>4)</sup> See 4.3.3.2.2 for an explanation of the overvoltage categories.

<sup>5)</sup> The nominal voltages for single-phase systems in Japan are 100 V or 100 ... 200 V. The value for the rated impulse voltage is, however, derived from the voltage gaps conductor-to-neutral for a voltage level of 150 V (see Annex B).

The nominal supply voltage and the corresponding rated impulse voltage values apply for grounded and ungrounded circuits.



## Pollution Degrees

Pollution factors are all solid, liquid or gaseous foreign matter which may reduce the dielectric strength or the specific surface resistance. Factors are divided into four classes based on expected environmental conditions:

		Examples of pollution degrees for assigned areas:
Pollution degree 1:	No pollution, or only dry, non-conductive pollution occurs. Pollution has no influence.	Open, unprotected insulated equipment in air-conditioned or clean, dry rooms
Pollution degree 2:	Only non-conductive pollution occurs. Occasional, temporary conductivity caused by condensation can also be expected.	Open, unprotected insulated equipment in occupied areas, shops, laboratories, mechanical workshops and medical rooms.
Pollution degree 3:	Conductive pollution occurs, or dry, non-conductive pollution occurs which will become conductive due to condensation.	Open, unprotected insulated equipment in industrial, business and farming areas ( e.g., unheated rooms, workshops and boiler rooms)
Pollution degree 4:	The pollution generates persistent conductivity caused by conductive dust, rain or wet conditions.	Open, unprotected insulated equipment for outdoor use

## Dimensioning Clearances

(DIN EN 60664-1/VDE 0110-1, Table F.2)  
Select the minimum clearances in accordance with the rated surge voltages and pollution degrees. To maximize the operating life of the equipment, do not go below these minimum clearances.

Table F.2 contains a list of information for Case A, the inhomogeneous field and for Case B, the homogeneous field.

This involves an electric field with essentially constant (Case B) or non-constant (Case A) voltage gradients between the electrodes.

**Equipment with a clearance that is dimensioned per Case A, in other words rated for the most unfavorable case, requires no verification by the impulse voltage test.**

Equipment with a clearance that is dimensioned per Case B, or between A and B, requires verification by the impulse voltage test.

The clearances shown in Table F.2 are applicable for an installation height of up to 2000 m above sea level.

Values for clearances above 2000 m must be multiplied by a high correction factor in accordance with Table A.2.

**Table F.2: Clearances to Withstand Transient Overvoltages**

DIN EN 60664-1/VDE 0110-1

Required impulse withstand voltage <sup>1)5)</sup>	Minimum clearances in air up to 2000 m above sea level					
	Case A (inhomogeneous field, see 3.15)			Case B (homogeneous field, see 3.14)		
	Pollution degree <sup>6)</sup>			Pollution degree <sup>6)</sup>		
kV	1 mm	2 mm	3 mm	1 mm	2 mm	3 mm
0.33 <sup>2)</sup>	0.01	0.2 <sup>3)4)</sup>	0.8 <sup>4)</sup>	0.01	0.2 <sup>3)4)</sup>	0.8 <sup>4)</sup>
0.4	0.02			0.02		
0.5 <sup>2)</sup>	0.04			0.04		
0.6	0.06			0.06		
0.8 <sup>2)</sup>	0.10			0.10		
1	0.15			0.15		
1.2	0.25	0.25	0.2	0.3	0.3	
1.5 <sup>2)</sup>	0.5	0.5	0.5	0.45	0.45	0.45
2	1	1	1	0.6	0.6	0.6
2.5 <sup>2)</sup>	1.5	1.5	1.5	0.8	0.8	0.8
3	2	2	2	1.2	1.2	1.2
4 <sup>2)</sup>	3	3	3	1.5	1.5	1.5
5	4	4	4	2	2	2
6 <sup>2)</sup>	5.5	5.5	5.5	3	3	3
8 <sup>2)</sup>	8	8	8	3.5	3.5	3.5
10	11	11	11	4.5	4.5	4.5
12 <sup>2)</sup>	14	14	14	5.5	5.5	5.5
15	18	18	18	8	8	8
20	25	25	25	10	10	10
25	33	33	33	12.5	12.5	12.5
30	40	40	40	17	17	17
40	60	60	60	22	22	22
50	75	75	75	27	27	27
60	90	90	90	35	35	35
80	130	130	130	45	45	45
100	170	170	170			

<sup>1)</sup> This voltage is for:

- Functional insulation: the maximum impulse voltage expected to occur across the clearance (see 5.1.5)
- Basic insulation directly exposed to or significantly influenced by transient overvoltages from the low-voltage mains (see 4.3.3.3, 4.3.3.4.1 and 5.1.6): the rated impulse voltage for the equipment
- Other basic insulation (see 4.3.3.4.2): the highest impulse voltage that can occur in the circuit for reinforced insulation, see 5.1.6.

<sup>2)</sup> Preferred values specified in 4.2.3

<sup>3)</sup> For printed wiring material, the values for pollution degree 1 apply, except that the value must not be less than 0.04 mm, as specified in Table F.4.

<sup>4)</sup> The minimum clearances given for pollution degree 2 and 3 are based on the reduced withstand characteristics of the associated creepage distance under humidity conditions (see IEC 60664-5).

<sup>5)</sup> For parts or circuit within equipment subject to surge voltages based on 4.3.3.4.2, interpolation of values is allowed. However, standardization is achieved by using the preferred series of impulse voltage values based on 4.2.3.

<sup>6)</sup> The dimensions for pollution degree 4 are as specified for pollution degree 3, except that the minimum clearance is 1.6 mm.

## Tests and Testing Procedures per IEC/EN Standards (continued)

### Electrical Tests (continued)

#### • Insulation Parameters per IEC/EN 60664-1 (continued)



#### Creepage Distances, Rated Voltages, Material Groups

Criteria for dimensioning creepage distances are the rated voltages, pollution degrees and material groups.

The pollution degrees specified for the clearances, and its quoted allocation to locations, is also applicable for creepage distances.

Tables F.3 a and F.3 b of DIN EN 60664-1/VDE 0110-1 contain the rated voltages that have to be considered for dimensioning the minimum creepage distances.

Table F.3a: Single-Phase, 3- or 2-Conductor, AC or DC Systems

Nominal voltage of the power supply system (mains)*	Voltages for Table F.4	
	For insulation conductor-to-conductor <sup>1)</sup>	For insulation conductor-to-ground <sup>1)</sup>
	All systems 	Three-conductor systems, center-point grounded 
V	V	V
12.5	12.5	
24 25	25	
30	32	
42 48 50**	50	
60	63	
30 to 60	63	32
100**	100	
110 120	125	
150**	160	
200	200	
110 to 200	200	100
220	250	
110 to 220 120 to 240	250	
300**	320	
220 to 440	500	250
600**	630	
480 to 960	1000	500
1000**	1000	


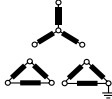
<sup>1)</sup> Conductor-to-ground insulation level for non-grounded or impedance-grounded systems equals that for conductor-to-conductor, as the operating voltage to ground of any conductor can, in practice, approach full conductor-to-conductor voltage. This is because the actual voltage to ground is determined by the insulation resistance and capacitive reactance of each conductor to ground; thus, low (but acceptable) insulation resistance of one conductor can in effect ground it and raise the other two to full conductor-to-conductor voltage to ground.

\* For the relationship to rated voltage, see 4.3.2.

\*\* These values correspond to the values given in Table F.1.

Altitude (in m)	Standard Air Pressure (in kPa)	Multiplier for Clearances
2000	80	1
3000	70	1.14
4000	62	1.29
5000	54	1.48
6000	47	1.7
7000	41	1.95
8000	35.5	2.25
9000	30.5	2.62
10000	26.5	3.02
15000	12	6.67
20000	5.5	14.5

Table F.3b: Single-Phase, 4- or 3-Conductor AC Systems

Nominal voltage of the power supply system (mains)*	Voltages for Table F.4		
	For insulation conductor-to-conductor <sup>1)</sup>	For insulation conductor-to-ground <sup>1)</sup>	
	All systems	Three-phase, 4-conduct. systems with grounded neutral conductor <sup>2)</sup>	Three-phase, 3-conduct. systems, non-grounded <sup>1)</sup> or grounded conductor
V	V		
V	V	V	V
60	63	32	63
110 120 127	125	80	125
150**	160		160
200	200		200
208	200	125	200
220 230 240	250	160	250
300**	320		320
380 400 415	400	250	400
440	500	250	500
480 500	500	320	500
575	630	400	630
600**	630		630
660 690	630	400	630
720 830	800	500	800
960	1000	630	1000
1000**	1000		1000

<sup>1)</sup> Conductor-to-ground insulation level for non-grounded or impedance-grounded systems equals that for conductor-to-conductor, as the operating voltage to ground of any conductor can, in practice, approach full conductor-to-conductor voltage. This is because the actual voltage to ground is determined by the insulation resistance and capacitive reactance of each conductor to ground; thus, low (but acceptable) insulation resistance of one conductor can in effect ground it and raise the other two to full conductor-to-conductor voltage to ground.

<sup>2)</sup> For equipment used on both three-phase, 4-conductor and three-phase, 3-conductor systems, grounded and non-grounded, use only the values for 3-conductor systems.

\*For the relationship to rated voltage, see 4.3.2.

\*\*These values correspond to the values given in Table F.1.

**Material Groups**

Insulation materials are classified into four groups according to their Comparative Tracking Index (CTI) as follows:

Material Group I:	$600 \leq \text{CTI}$
Material Group II:	$400 \leq \text{CTI} < 600$
Material Group IIIa:	$175 \leq \text{CTI} < 400$
Material Group IIIb:	$100 \leq \text{CTI} < 175$

The CTI values above refer to values obtained in accordance with DIN EN 60664-1/VDE 0110-1 on samples specially made for this purpose and tested with Solution A.

# Tests and Testing Procedures per IEC/EN Standards (continued)

## Electrical Tests (continued)

### • Insulation Parameters per IEC/EN 60664-1 (continued)

**Table F.4: Creepage Distances to Avoid Failure due to Tracking**  
DIN EN 60664-1/VDE 0110-1

Voltage <sup>1)</sup> (RMS)	Minimum Creepage Distances								
	Printed Circuits		Pollution Degree						
	Pollution Degree		Pollution Degree						
	1 All Material Groups	2 All Material Groups except IIIb	1 All Material Groups	2 Material Group I	2 Material Group II	2 Material Group III	3 Material Group I	3 Material Group II	3 Material Group III <sup>2)</sup>
V	mm	mm	mm	mm	mm	mm	mm	mm	mm
10	0.025	0.04	0.08	0.4	0.4	0.4	1	1	1
12.5	0.025	0.04	0.09	0.42	0.42	0.42	1.05	1.05	1.05
16	0.025	0.04	0.1	0.45	0.45	0.45	1.1	1.1	1.1
20	0.025	0.04	0.11	0.48	0.48	0.48	1.2	1.2	1.2
25	0.025	0.04	0.125	0.50	0.5	0.5	1.25	1.25	1.25
32	0.025	0.04	0.14	0.53	0.53	0.53	1.3	1.3	1.3
40	0.025	0.04	0.16	0.56	0.8	1.1	1.4	1.6	1.8
50	0.025	0.04	0.18	0.6	0.85	1.2	1.5	1.7	1.9
63	0.04	0.063	0.2	0.63	0.9	1.25	1.6	1.8	2
80	0.063	0.1	0.22	0.67	0.95	1.3	1.7	1.9	2.1
100	0.1	0.16	0.25	0.71	1	1.4	1.8	2	2.2
125	0.16	0.25	0.28	0.75	1.05	1.5	1.9	2.1	2.4
160	0.25	0.4	0.32	0.8	1.1	1.6	2	2.2	2.5
200	0.4	0.63	0.42	1	1.4	2	2.5	2.8	3.2
250	0.56	1	0.56	1.25	1.8	2.5	3.2	3.6	4
320	0.75	1.6	0.75	1.6	2.2	3.2	4	4.5	5
400	1	2	1	2	2.8	4	5	5.6	6.3
500	1.3	2.5	1.3	2.5	3.6	5	6.3	7.1	8
630	1.8	3.2	1.8	3.2	4.5	6.3	8 (7.9) <sup>4)</sup>	9 (8.4) <sup>4)</sup>	10 (9) <sup>4)</sup>
800	2.4	4	2.4	4	5.6	8	10 (9) <sup>4)</sup>	11 (9.6) <sup>4)</sup>	12.5 (10.2) <sup>4)</sup>
1000	3.2	5	3.2	5	7.1	10	12.5 (10.2) <sup>4)</sup>	14 (11.2) <sup>4)</sup>	16 (12.8) <sup>4)</sup>
1250			4.2	6.3	9	12.5	16 (12.8) <sup>4)</sup>	18 (14.4) <sup>4)</sup>	20 (16) <sup>4)</sup>
1600			5.6	8	11	16	20 (16) <sup>4)</sup>	22 (17.6) <sup>4)</sup>	25 (20) <sup>4)</sup>
2000			7.5	10	14	20	25 (20) <sup>4)</sup>	28 (22.4) <sup>4)</sup>	32 (25.6) <sup>4)</sup>
2500			10	12.5	18	25	32 (25.6) <sup>4)</sup>	36 (28.8) <sup>4)</sup>	40 (32) <sup>4)</sup>
3200			12.5	16	22	32	40 (32) <sup>4)</sup>	45 (36) <sup>4)</sup>	50 (40) <sup>4)</sup>
4000			16	20	28	40	50 (40) <sup>4)</sup>	56 (44.8) <sup>4)</sup>	63 (50.4) <sup>4)</sup>
5000			20	25	36	50	63 (50.4) <sup>4)</sup>	71 (56.8) <sup>4)</sup>	80 (64) <sup>4)</sup>
6300			25	32	45	63	80 (64) <sup>4)</sup>	90 (72) <sup>4)</sup>	100 (80) <sup>4)</sup>
8000			32	40	56	80	100 (80) <sup>4)</sup>	110 (88) <sup>4)</sup>	125 (100) <sup>4)</sup>
10000			40	50	71	100	125 (100) <sup>4)</sup>	140 (112) <sup>4)</sup>	160 (128) <sup>4)</sup>
12500			50 <sup>3)</sup>	63 <sup>3)</sup>	90 <sup>3)</sup>	125 <sup>3)</sup>			
16000			63 <sup>3)</sup>	80 <sup>3)</sup>	110 <sup>3)</sup>	160 <sup>3)</sup>			
20000			80 <sup>3)</sup>	100 <sup>3)</sup>	140 <sup>3)</sup>	200 <sup>3)</sup>			
25000			100 <sup>3)</sup>	125 <sup>3)</sup>	180 <sup>3)</sup>	250 <sup>3)</sup>			
32000			125 <sup>3)</sup>	160 <sup>3)</sup>	220 <sup>3)</sup>	320 <sup>3)</sup>			
40000			160 <sup>3)</sup>	200 <sup>3)</sup>	280 <sup>3)</sup>	400 <sup>3)</sup>			
50000			200 <sup>3)</sup>	250 <sup>3)</sup>	360 <sup>3)</sup>	500 <sup>3)</sup>			
63000			250 <sup>3)</sup>	320 <sup>3)</sup>	450 <sup>3)</sup>	600 <sup>3)</sup>			

<sup>1)</sup> This voltage is for:

Functional insulation; the working voltage

Basic and supplementary insulation of the circuit energized directly from the mains (see 4.3.2.2.1): for the voltage rationalized through Table F.3a or F.3b, based on the rated voltage of the equipment, or the rated insulation voltage

Basic and supplementary insulation of systems, equipment and internal circuits not energized directly from the mains (see 4.3.2.2.2): the highest rms voltage which can occur in the system, equipment or internal circuit when supplied at rated voltage and under the most taxing combination of operation conditions within equipment rating

<sup>2)</sup> Material group IIIb is not recommended for applications in pollution degree 3 above 630 V.

<sup>3)</sup> Provisional data based on extrapolation. Technical committees who have other information based on experience may use their dimensions.

<sup>4)</sup> 4) The values in brackets must only be applied for reducing creepage distances if a rib is used (see 5.2.5).

The high degree of accuracy of the creepage distances given in the table does not imply that the measuring accuracy must be of the same quality.

Depending on the intended use, WAGO's terminal blocks, as well as splicing and pluggable connectors, are suitable for pollution degrees 2 or 3 and for overvoltage categories II or III.

Example:

**WAGO Rail-Mount Through Terminal Blocks**

According to IEC 60947-7-1/EN 60947-7-1/VDE 0611-1), these blocks have the following ratings:

800 V / 8 kV / 3

Rated voltage:	800 V
Rated surge voltage:	8 kV
Pollution degree:	3
Overvoltage category:	III

WAGO's connectors for household and similar mounted installations are rated per IEC 60998-1/EN 60998-1/VDE 0613-1, Table 3.

Example:

**WAGO PUSH WIRE® Connectors for Junction Boxes**

According to this standard, these connectors are rated for:

\* 400 V / 4 kV / 2  
\* grounded circuits

Rated voltage:	400 V
Rated surge voltage:	4 kV
Pollution degree:	2
Overvoltage category:	II

**Table 3: Clearances and Creepage Distances**  
(IEC/EN 60998-1)

Rated Insulation Voltage V	Clearances/Creepage Distances mm
≤ 130	1.5
> 130 and ≤ 250	3
> 250 and ≤ 450	4
> 450 and ≤ 750	6
> 750	8

## Tests and Testing Procedures per IEC/EN Standards (continued)

### Electrical Tests (continued)

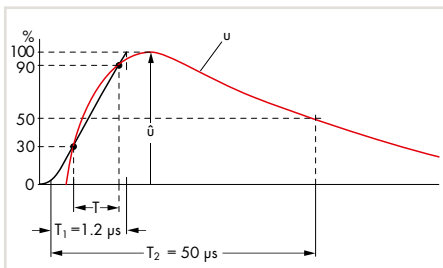
#### • Power-Frequency Withstand Voltage Test per IEC/EN 60947-7-1, IEC/EN 60947-1

This testing procedure verifies creepage distances. Creepage distances, i.e., the distances of creeping currents, are caused by conductive impurities on the surface of the insulation housing. Apart from the amount of impurities to which a terminal block is subjected, for example, the plastic material and housing design are also involved in generating creeping currents. The insulation material of the housing may be carbonized by a creeping current, which increases conductivity even more.

The specimen is tested using a power-frequency withstand voltage for a short time. For example, a rail-mount terminal block designed to operate at 800 V nominal voltage is usually tested using 2000 V alternating voltage for one minute. The test is passed if no flashovers or breakdowns have occurred.

#### • Rated Impulse Withstand Voltage Test per IEC/EN 60947-7-1, IEC/EN 60947-1

This test verifies the clearances of a product. In simplified terms, a clearance is the distance between two poles of a terminal block. If this distance is too small, voltage peaks may cause flashovers or breakdowns. The arrangement of the rated impulse withstand voltage test is identical to that of the power frequency withstand voltage test; the test voltages, however, are comparatively higher and the testing times shorter, e.g., 7.3 kV over 50  $\mu$ s (see figure).



Voltage pulse: measurement curve (red) and auxiliary curve (black) for calculating the rate of rise of the pulse and the resulting (virtual) peak of the curve.

T: Time interval for calculating the rate of rise

T<sub>1</sub>: Front time (duration between start of impulse and reaching the peak)

T<sub>2</sub>: Total pulse duration

The test values are the values at sea level as specified in the relevant test specification.

The values indicated in the catalog correspond to an altitude of 2000 m.

The test is passed if no flashovers or breakdowns have occurred.

#### • IP Ratings for Electrical Equipment per IEC/EN 60529

Alphanumeric Nomenclature for Type of Protection		IP vs. NEMA	
Code letters IP	Protection against accidental contact and against the penetration of foreign objects or water	IP (Ingress Protection) = International degree of protection	
First code number 0 to 6	Indicates the degree of protection against accidental contact and the penetration of foreign objects.	If indicating the degree of protection requires only one digit, the other (second) digit must be substituted for with an X.	
Second code number 0 to 8	Indicates the degree of protection against water penetration.		
First code number:		Second code number:	
IP0X	No protection against accidental contact or the penetration of foreign objects	IPX0	No protection against water
IP1X	Protection against foreign objects > 50 mm	IPX1	Protection against vertically falling water
IP2X	Protection against foreign objects > 12 mm (e.g., finger)	IPX2	Protection against diagonally dripping water (15° angle)
IP3X	Protection against foreign objects > 2.5 mm	IPX3	Protection against water spray
IP4X	Protection against foreign objects > 1 mm	IPX4	Protection against water spray
IP5X	Protection against damaging dust deposits	IPX5	Protection against water jet, e.g., from a nozzle
IP6X	Protection against dust penetration	IPX6	Protection against flooding
		IPX7	Protection against temporary immersion
		IPX8	Protection against continuous immersion
		IPX9	Protection against high-pressure and high-temperature water jets
		IP Code	NEMA
		10	1
		11	2
		54	3
		14	3R
		54	3S
		55	4&4X
		52	5
		67	6&6P
		52	12&12K
		54	13

## Tests and Testing Procedures per IEC/EN Standards (continued)

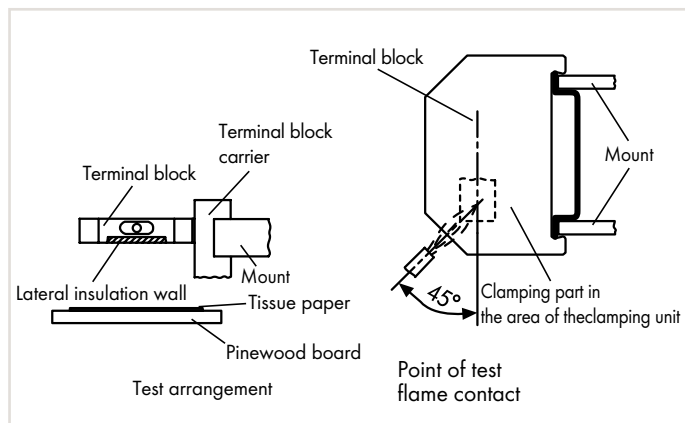
### Material Tests

All WAGO products meet requirements for the following material tests:

#### • Needle Flame Test per IEC/EN 60947-7-1, IEC/EN 60695-11-5

This test simulates flames that may arise under certain conditions (e.g., fault current over a creepage distance, overloading of parts or components). Nearby parts can also be affected by such flames.

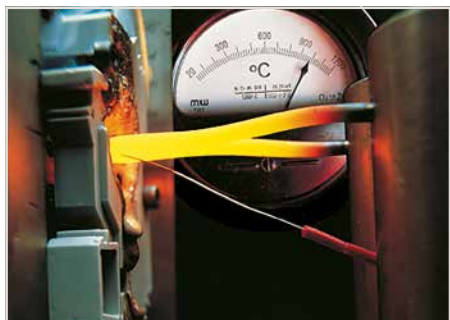
Not only the ignition of the test specimen resulting from an intrinsic defect is tested, but also its behavior when other parts ignite.



Flames must not be fuelled by the insulation materials used, thus creating a larger fire. The test specimen is exposed to a standard gas flame during a defined time period (e.g., ten seconds). After the test flame has been removed, the specimen must self-extinguish within 30 seconds. Furthermore, a layer of tissue paper located beneath the specimen shall not be ignited by glowing particles falling from the specimen.

#### • Glow-Wire Test per IEC/EN 60998-1, IEC/EN 60695-2-11

In the event of failure, a high current may cause a conductor to glow.



However, the glowing conductor shall not cause ignition of the product involved (e.g., a rail-mount terminal block). For the glow-wire test, the tip of the glow-wire is pressed against a surface of the test specimen (see picture).

The position of the test specimen, surface to be tested, test duration and glow-wire temperature (e.g., 960 °C/1760 °F over 30 seconds, or 850 °C/1562 °F over 5 seconds) are specified in the standards. The specimen must be positioned such that the tip of the glow-wire acts on the surface section of the specimen (vertical surface of the specimen) that is most likely to be exposed to thermal loading during normal use.

As the highest temperature in the event of a fault is anticipated at the contact insert/wire connection, the tip of the glow-wire must act upon the section of the insulation housing that is the closest to this contact point. The test is passed if there are no visible flames or permanent glowing, or if flames or glowing extinguish within 30 seconds after removal of the glow-wire. Furthermore, a layer of tissue paper located beneath the specimen shall not be ignited by glowing particles falling from the specimen.

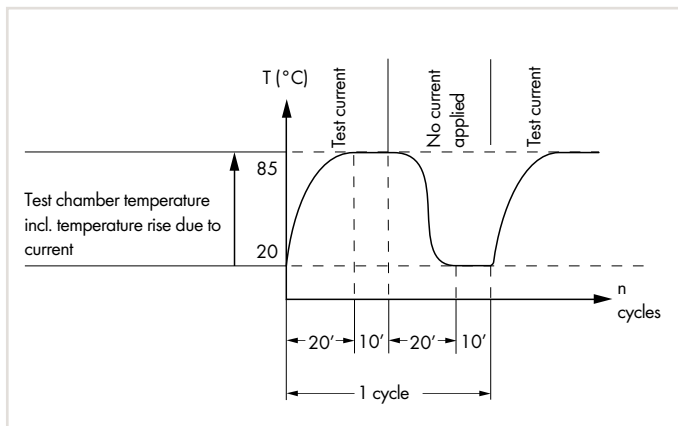
## Tests and Testing Procedures per IEC/EN Standards (continued)

### Environmental Tests

The following tests show how a product reacts when exposed to an aggressive environment. Climatic chambers simulate standard atmospheres that could impact long-term constancy of clamping units.

All WAGO products meet requirements for the following environmental tests:

- Temperature Cycling Test per IEC/EN 60947-7-1, IEC/EN 60998-2-2



The rated current is applied to the test specimen during temperature rise and when the temperature has reached its maximum value; during the second half of the cycle, the current is zero. Voltage drop is measured every 24 cycles and must not exceed a maximum value or vary greatly. The voltage drop measured at the end of the 192nd cycle must not exceed 1.5 times the value measured after the 24th cycle. After the test, an inspection must show no changes that would impair further use of the product.

- Industrial Atmospheres per EN ISO 6988, IEC/EN 60068-2-42, IEC/EN 60068-2-60

Sulphur and its combustion products are particularly aggressive pollutants commonly found in industrial environments. A test procedure simulating such corrosive conditions consists of exposing a test specimen to water condensation in variable atmospheres containing sulphur dioxide.



A saturated atmosphere is first created in a climatic chamber by heating an aqueous sulphur dioxide solution. After less than half an hour, the test specimen is fully saturated by the condensing vapors and exposed to this atmosphere for eight hours.

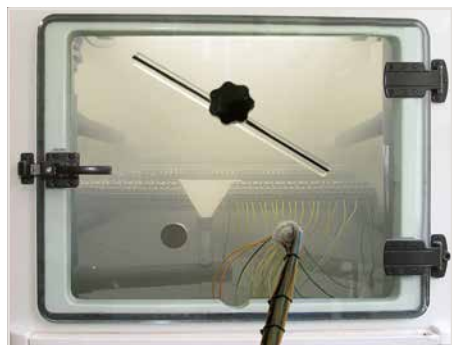
After exposure to a humid atmosphere, the test specimen is subjected to dry and cooler conditions at room temperature for 16 hours. Depending on the test severity, the specimen is exposed to both these conditions several times. The gas-tightness of the clamping unit is verified by a voltage drop test.

In other test procedures, products are exposed to a dry corrosive gas atmosphere containing sulfide, nitrogen and sulfur oxides or chloride gas. These tests can be performed over a period of four to 21 days.



### • Salt Spray Test per IEC/EN 60068-2-11; DNV GL, LR (Marine Applications)

This test is similar to the test performed in water condensation alternating atmospheres, except that instead of industrial atmospheres, salt mist conditions will be simulated in a heated test chamber (see picture).



Depending on the test procedure being used, the test specimen is sprayed with salt mist for 16 hours up to 672 hours (4 weeks).

Salt spray tests are widely used, especially for ship approvals.

However, this test is performed differently than the test procedures described previously for general applications:

During a typical test, the test specimen is sprayed with a salt solution for two hours and is then stored for seven days in an atmosphere with a relative humidity between 90 and 95 %.

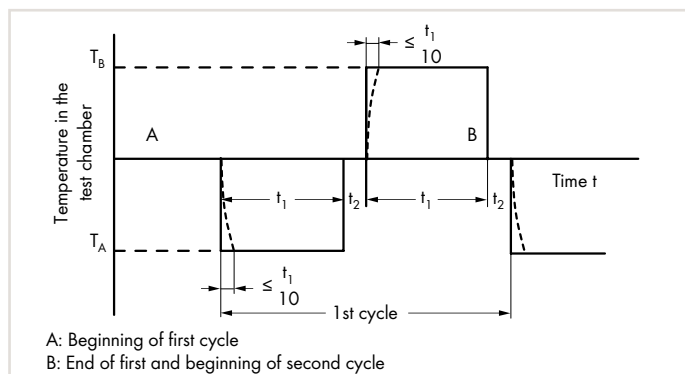
This procedure is repeated four times.

Voltage drop measurements are used as an evaluation criterion.

### • Quick Change of Temperature per IEC/EN 60068-2-14

Without air-conditioning, distribution panels and terminal boxes are exposed to seasonal (and ever-changing) temperature extremes – especially on the open field side.

In process technology, for example, a terminal block is exposed to even quicker changes in temperature.



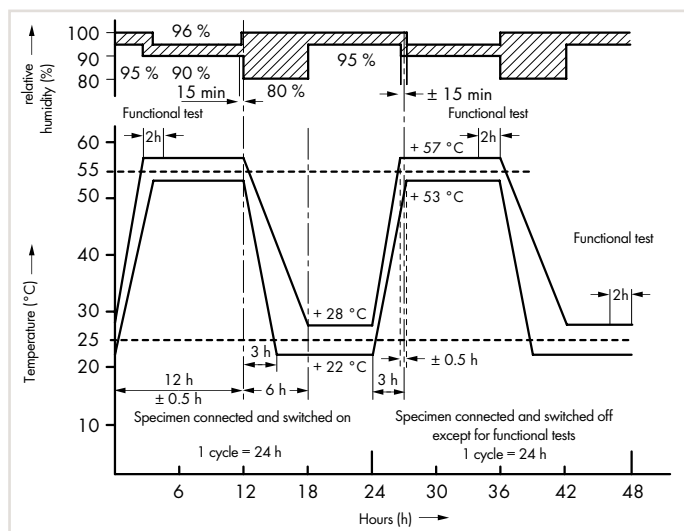
To simulate such conditions, the test specimen is exposed to repeated temperature changes, for example, between  $T_A -40\text{ °C}$  ( $-104\text{ °F}$ ) and  $T_B +70\text{ °C}$  ( $+158\text{ °F}$ ).

The dwelling time  $t_1$  depends on the thermal capacity of the test specimen and should be between maximum of 3 hours and minimum of 10 minutes and the transition time  $t_2$  ... 3 min., 20 ... 30 sec. or less than 10 seconds.

The mechanical and electrical properties of the product are checked at the end of the test.

### • Damp Heat, Cyclic (12 + 12 Hour Cycle) per IEC/EN 60068-2-30, DNV GL, LR (Marine Applications)

This test determines the suitability of electrical equipment for use and storage under conditions of high relative humidity when combined with cyclic temperature changes and, in general, producing condensation on the surface of the specimen.



In addition to the salt spray tests, the damp heat test is also used for marine approvals.



For this test, the specimens are subjected to temperatures varying cyclically between  $+25\text{ °C}$  ( $+77\text{ °F}$ ) and  $+55\text{ °C}$  ( $+131\text{ °F}$ ) with a relative humidity of 95 % (for tolerances see figure).

Functional tests are performed at defined times during the storage period.

The mechanical and electrical properties of the product are checked at the end of the test.

## UL Specifications – Underwriters Laboratories, USA

WAGO's terminal blocks and connectors are tested by Underwriters Laboratories Inc. according to one or more of the relevant following UL standards:

- |   |                     |   |
|---|---------------------|---|
| • The 273 Series PUSH WIRE® Connectors for Junction Boxes or the 224 Series Lighting Connectors are splicing wire connectors and are certified per UL 486C. These stand-alone devices carry the <b>UL Listing Mark</b>  .  | UL 486 C            | Splicing wire connectors  |
| • Rail-mount terminal blocks or modular terminal blocks (e.g., 280 Series, TOPJOB® S or 260 to 262 Series terminal blocks) are approved as non-stand-alone components per UL 1059 in connection with UL 486E.   | UL 1059<br>UL 486 E | Standard for terminal blocks<br>Equipment wiring terminals for use with aluminum and/or copper conductors |
| • The X-COM®-SYSTEM is approved as terminal blocks per UL 1059 standard in connection with UL 486 E. It is therefore defined for field and factory wiring with at 300 V.  |                     |   |
| • It is also approved as connectors for use in data, signal, control and power applications per UL 1977 for factory wiring at 600 V (i.e., the clamping unit must be wired under controlled manufacturing conditions).  | UL 1977             | Component connectors for use in data, signal, control and power applications                              |
| • Ex e II terminal blocks are approved to UL 60079-7.   | UL 60079-7          | Electrical apparatus for explosive gas atmospheres – Part 7: Increased safety                             |
| • Ground terminal blocks are tested for grounding and bonding applications per UL 467. Components bearing the <b>UR Recognition Mark</b>  are recognized product. Additionally, after being mounted in their special applications, these components are submitted to an end-product test according to the relevant device or equipment standard. | UL 467              | Grounding and bonding equipment   |
| • Insulation materials are tested for flammability and performance per UL 94.   | UL 94               | Tests for flammability of plastic materials for parts in devices and appliances                           |

**Tests and Testing Procedures per UL Standards**

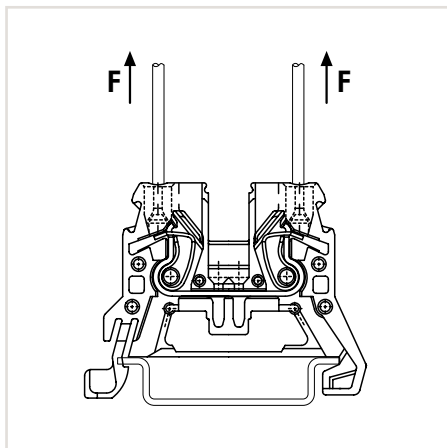
**All WAGO products meet requirements for the following tests:**

- Pull-Out Test per UL 1059, UL 486 E (Rail-Mount Terminal Blocks), UL 486 C (Splicing Wire Connectors)

In this test, the connected conductors are subjected to the appropriate pull-out forces specified in the following table without jerking for a period of one minute. Different test arrangements are specified for rail-mount terminal blocks and splicing wire connectors.

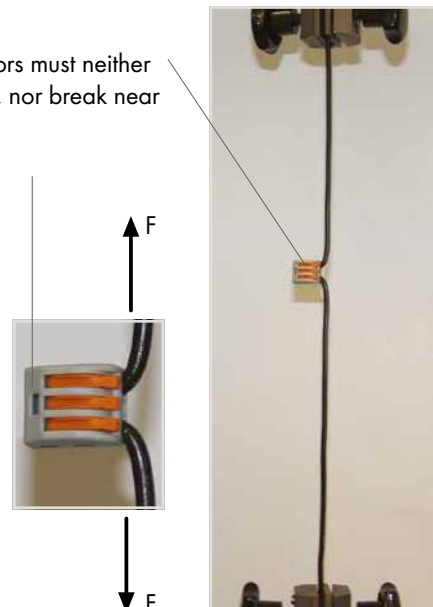
Conductor Size AWG or kcmil  (mm <sup>2</sup> )		Pull-Out Force, Pounds (N)					
		UL 486 E, Table 22				UL 486 C, Table 20	
		Copper		Aluminum		Copper	
30	(0.05)	0,5	(2.2)	-	-	1,5	(6.7)
28	(0.08)	1	(4.5)	-	-	2	(8.9)
26	(0.13)	2	(8.9)	-	-	3	(13.4)
24	(0.2)	3	(13.4)	-	-	5	(22.3)
22	(0.32)	4,5	(20)	-	-	8	(35.6)
20	(0.52)	6,75	(30)	-	-	10	(44.5)
18	(0.82)	6,75	(30)	-	-	10	(44.5)
16	(1.3)	9	(40)	-	-	15	(66.7)
14	(2.1)	11,5	(50)	-	-	25	(111)
12	(3.3)	13,5	(60)	10	(44)	35	(155)
10	(5.3)	18	(80)	10	(44)	40	(178)
8	(8.4)	20,5	(90)	10	(44)	45	(200)
6	(13.3)	21	(94)	28	(124)	50	(222)
4	(21.2)	30	(133)	36	(160)		
3	(26.7)	35	(156)	42	(187)		
2	(33.6)	42	(186)	50	(222)		
1	(42.4)	53	(236)	61	(271)		
1/0	(53.5)	64	(285)	72	(320)		
2/0	(67.4)	64	(285)	78	(347)		
3/0	(85.0)	79	(351)	97	(432)		
4/0	(107)	96	(427)	116	(516)		
250	(127)	96	(427)	116	(516)		
300	(156)	99	(441)	116	(516)		

Test Arrangement per  
UL 1059, UL 486 E:



Test Arrangement  
per UL 486 C:

During the test, the conductors must neither slip out of the clamping unit, nor break near the clamping unit.



## UL Specifications – Underwriters Laboratories, USA (continued)

### Tests and Testing Procedures per UL Standards (continued)

#### • Heat Cycling Test per UL 1059, UL 486 E

Test performed per:

##### UL 1059

Test performed with maximum rated cross-section

Test current: 150 % of maximum rated current

84 cycles of: 3 1/2 h ON / 1/2 h OFF

The temperature rise is measured after the first and the 84th cycle.

The temperature rise must not exceed 5 °C (41 °F) after the 84th cycle, compared to the temperature measured after the first cycle.

##### UL 486 C

(Splicing wire connectors)

##### UL 486 E

(Equipment wiring terminals)

Test performed with maximum rated cross-section

Test current: Increased test current per  
UL 486 C, Table 6  
UL 486 E, Table 4

500 cycles of: 1 h ON / 1 h OFF  
1 1/2 h ON / 1 1/2 h OFF  
(from 4/0 AWG up to 400 kcmil  
per UL 486 E)

The temperature rises at the terminal blocks and control conductors are measured and recorded after: 1, 25, 50, 75, 100, 125, 175, 225, 275, 350, 425 and 500 cycles.

The temperature rise must not exceed 125 °C (257 °F) and the stability factor "S" must not exceed ± 10.

Conductor Size		Test Current for Copper Conductors in A								
		UL 486 E, Table 4						UL 486 C, Table 6		
		Assigned Maximum Ampere Rating <sup>b</sup>	Static Heating <sup>a,c,g</sup>	Heat Cycling Temperature Rating <sup>a</sup>			Static Heating	Heat Cycling		
75 °C (167 °F) <sup>d,g</sup>	90 °C (194 °F) <sup>e,g</sup>									
30	(0.05)	-		3		3.5		4	3	3.5
28	(0.08)	-		3.5		4		5	3.5	4
26	(0.13)	-		5.5		6		8	5.5	6
24	(0.2)	-		7		8		10	7	8
22	(0.32)	-		9		12		13	9	12
20	(0.52)	-		12		16		17	12	16
18	(0.82)	-		17		19		24	17	19
16	(1.3)	-		18		20		31	18	20
14	(2.1)	15	[20]	30	[22]	33	[27]	40	30	33
12	(3.3)	20	[25]	35	[28]	39	[40]	54	35	38
10	(5.3)	30	[40]	50	[45]	56	[60]	75	50	56
8	(8.4)	50		70		80		100	70	80
6	(13.3)	65		95		105		131	95	105
4	(21.2)	85		125		140		175		
3	(26.7)	100		145		165		205		
2	(33.6)	115		170		190		240		
1	(42.4)	130		195		220		275		
1/0	(53.5)	150		230		255		320		
2/0	(67.4)	175		265		300		370		
3/0	(85.0)	200		310		345		435		
4/0	(107)	230		360		405		505		
250	(127)	255		405		445		565		
300	(152)	285		445		500		625		

<sup>a</sup> See Section 7.2, 8.2 and 9.2 (UL 486 E)

<sup>b</sup> Values are for 75 °C (167 °F), not more than 3 conductors in raceway or cable ampacities, National Electric Code, ANSI/NFPA 70.

<sup>c</sup> Values are for 75 °C (167 °F) single conductors in free air ampacities, National Electric Code, ANSI/NFPA 70.

<sup>d</sup> Values are approximately 112 % of the static heating test currents.

<sup>e</sup> Values for 8 AWG and larger conductors are approximately 140 % of the static heating test currents.

<sup>f</sup> See Section 9.2.4

<sup>g</sup> Values in parentheses apply to connectors with assigned ampere ratings.

### • Conditioning – Temperature-Rise Rest per UL 1059, UL 486 C

Test performed per:

**UL 1059** (Rail-mount terminal blocks)

**UL 486 C**

(Splicing wire connectors)

#### Conditioning:

The clamping units are **pre-wired/pre-inserted nine times** using a conductor with maximum rated cross-section. At the 10th time, a new conductor is connected. After this, a static heating test is performed.

#### Static Heating Test:

Test current: Terminal block rated current

Test current: Increased test current (see Table 6)

Test duration: 30 days

Test duration: 30 days

Max. permissible temperature rise: 30 °C (86 °F)

Max. permissible temperature rise: 50 °C (122 °F)

temperature rise:

temperature rise:

### • Grounding and Bonding Equipment per UL 467

When used in grounding and bonding equipment, e.g., terminal blocks, must withstand a short circuit test using the test currents and test durations as specified in Table 5.

In the following example, a 2 AWG (35 mm<sup>2</sup>) ground conductor terminal block (285-635) is tested for 6 seconds at 3900 A.

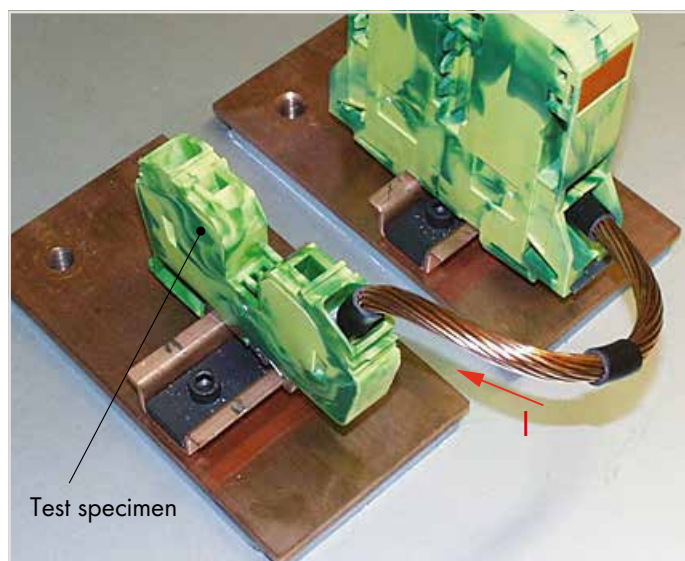


Table 5:

Conductor Size Copper		Test Duration s	Test Current A
AWG	mm <sup>2</sup>		
14	(2.1)	4	300
12	(3.3)	4	470
10	(5.3)	4	750
8	(8.4)	4	1180
6	(13.3)	6	1530
4	(21.2)	6	2450
3	(26.7)	6	3100
2	(33.6)	6	3900
1	(42.4)	6	4900
1/0	(53.5)	9	5050
2/0	(67.4)	9	6400
3/0	(85.0)	9	8030
4/0	(107)	9	10100
250 kcmil	(127)	9	12000

After the test, the specimen must neither show evidence of cracking, breaking or melting, nor any changes in electrical properties.

## UL Specifications – Underwriters Laboratories, USA (continued)

### Tests and Testing Procedures per UL Standards (continued)

#### • Insulation Parameters per UL 1059

The table below shows the potential involved and the corresponding clearances and creepage distances required in different applications.

**Table 8.1: Minimum Acceptable Spacing for Terminal Blocks per UL 1059 Standard**

Application	Potential Involved in Volts	Spacing in inches (mm) between uninsulated live parts of opposite polarity, uninsulated live parts and uninsulated grounded parts other than the enclosure		Notes:	
		Through Air	Over Surfaces	1	2
A. Dead-front switchboards, panelboards, service equipment and similar applications	51 ... 150 151 ... 300 301 ... 600	1/2 (12.7) 3/4 (19.1) 1 (25.4)	3/4 (19.1) 1-1/4 (31.8) 2 (50.8)	1 A slot, groove, or similar, 0.013 inch (0.33 mm) wide or less in the contour of the insulating material is to be disregarded.	2 Air space of 0.33 mm or less between a live part and an insulating surface is to be disregarded for the purpose of measuring over surface spacing.
B. Commercial appliances, including business equipment, electronic data processing equipment and similar applications	51 ... 150 151 ... 300 301 ... 600	1/16 <sup>a</sup> (1.6) <sup>a</sup> 3/32 <sup>a</sup> (2.4) <sup>a</sup> 3/8 (9.5)	1/16 <sup>a</sup> (1.6) <sup>a</sup> 3/32 <sup>a</sup> (2.4) <sup>a</sup> 1/2 (12.7)	<sup>a</sup> The spacing between terminal blocks of opposite polarity and the spacing between a terminal block and a grounded dead metal part shall not be less than 1/4 inch (6.4 mm) if short-circuiting or grounding of such terminal blocks may result from protruding wire strands.	<sup>b</sup> See Section 8.5 (UL 1059)
C. Industrial, general	51 ... 150 151 ... 300 301 ... 600	1/8 <sup>a</sup> (3.2) <sup>a</sup> 1/4 (6.4) 3/8 (9.5)	1/4 (6.4) 3/8 (9.5) 1/2 (12.7)	The spacing values indicated in sub-paragraph D in Table 8.1 are applicable to a terminal block for use only in or with industrial control equipment where the load on any single circuit of the terminal block does not exceed 15 A at 51 ... 150 V, 10 A at 151 ... 300 V, 5 A at 301 ... 600 V or the maximum ampere rating, whichever is less.	<sup>c</sup> Applies only to terminal blocks investigated to Part II of this standard. See Section 22.1 (UL 1059).
D. Industrial, devices having limited ratings <sup>b</sup>	51 ... 300 301 ... 600	1/16 <sup>a</sup> (1.6) <sup>a</sup> 3/16 <sup>a</sup> (4.8) <sup>a</sup>	1/8 <sup>a</sup> (3.2) <sup>a</sup> 3/8 (9.5)		
E. Terminal blocks rated 601 ... 1500 V <sup>c</sup>	601 ... 1000 1001 ... 1500	0.55 (14.0) 0.70 (17.8)	0.85 (21.6) 1.20 (30.5)		

#### • Flammability Test per UL 94

This test provides an indication of the material's ability to extinguish a flame, once ignited.

Several ratings can be applied, based on the rated of burning, time to extinguish, ability to resist dripping, and after-glow extinguishing time. Each material tested may receive several ratings, depending on the wall thickness.

UL 94 Rating Categories:

##### V2

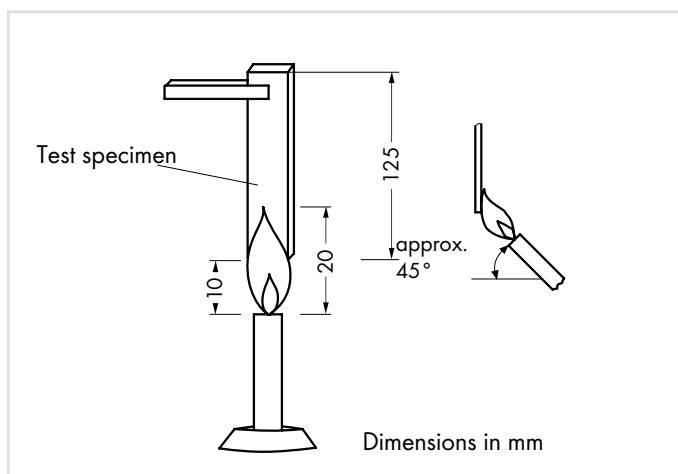
- Specimen mounted vertically
- Burning stops within 30 seconds after the flame is removed
- Flaming drips allowed
- After-glow extinguishes within 60 seconds max.

##### V1

- Specimen mounted vertically
- Burning stops within 30 seconds after the flame is removed
- No flaming drips allowed
- After-glow extinguishes within 60 seconds max.

##### V0

- Specimen mounted vertically
- Burning stops within 10 seconds after the flame is removed
- No flaming drips allowed
- After-glow extinguishes within 30 seconds max.



During the test, a 3/4 inch (20 ± 1 mm) flame is applied for two 10-second intervals to the specified bar specimen held vertically.

## "Alu-Plus" Contact Paste

### Syringe



#### WAGO Lighting Connectors:

Push nozzle of the "Alu-Plus" syringe first into the circular entry hole and then into the square conductor entry hole of the WAGO lighting connector.



Press plunger down until the "Alu-Plus" has filled both entry holes.

**Note:** Not suitable for higher temperature applications!

Item No.	Pack. Unit
Syringe, contents: 20 ml "Alu-Plus" contact paste	
<b>249-130</b>	20 (4x5)

### Terminating Aluminum Conductors

WAGO spring clamp terminal blocks are suitable for solid aluminum conductors up to 4 mm<sup>2</sup> / 12 AWG if WAGO "Alu-Plus" contact paste is used for termination.

#### WAGO "Alu-Plus":

- Automatically destroys the oxide film during clamping
- Prevents fresh oxidation at the clamping point
- Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block)
- Offers permanent protection against corrosion

Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, aluminum conductors must first be cleaned with a blade and then immediately be inserted into the clamping units filled with "Alu-Plus" contact paste.

It is also possible to apply WAGO "Alu-Plus" additionally on the whole surface of the aluminum conductor before termination. Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors:

**2.5 mm<sup>2</sup> (14 AWG) = 16 A**  
**4 mm<sup>2</sup> (12 AWG) = 22 A**



#### WAGO Rail-Mount Terminal Blocks (up to 4 mm<sup>2</sup>/12 AWG):

For each conductor entry: Insert nozzle of the "Alu-Plus" syringe in every open conductor entry hole (one after the other).

**WAGO "Alu-Plus" in the syringe offers a higher degree of reliability and cleanness when terminating solid aluminum conductors. Filling is quickly performed on selected WAGO connectors and terminal blocks (see pictures).**



Press plunger down until "Alu-Plus" has filled all conductor entry holes.

① Aluminum conductors per IEC 61545 standard, Class B, "Alloy 1370" with 90 ... 180 N/mm<sup>2</sup> tensile strength and 1 ... 4 % elongation. Standard values: 90 ... 180 MPa tensile strength, 1 ... 4 % elongation (per EN 615.4.1)

## Material Specifications

### Insulation Materials

WAGO primarily uses polyamide (PA 66 and PA 46) as carriers of current-conducting parts and polycarbonate (PC) as insulation material (see table). For more than 40 years, these materials have proven themselves in WAGO products and all are approved by certified, third-party agencies.

WAGO primarily uses polyamide (PA 66 and PA 46) for housing current-conducting parts, as well as polyphthalamide (PPA) and polycarbonate (PC) for insulation material (see table). For more than 50 years, these materials have proven themselves in WAGO products and all are approved by certified, third-party agencies. All listed halogen-free and flame-retardant polymer materials do not contain any heavy metals, silicone, asbestos, or formaldehyde as formulation components.

**Table: Standard Insulation Materials**

Material	PA 66	PA 66 GF	PPA GF	PA 46	PC	PC
Flammability UL 94 flammability test ratings	V0	V0	V0	V2	V2	V0
Oxygen Index (OI) per EN ISO 4589-2	> 32 %	> 33 %	> 37 %	> 27 %	> 26 %	> 35 %
Glow-wire test per IEC 60695-2-12 GWFI* IEC 60695-2-13 GWIT*	850 °C 775 °C	850 °C 775 °C	850 °C 775 °C	750 °C 725 °C	800 °C 850 °C	960 °C 850 °C
Comparative Tracking Index (CTI) per IEC 60112	600 V	600 V	600 V	375 V	225 V	225 V
Temperature of the ball indentation hardness test per IEC 60695-10-2	≥ 125 °C	≥ 175 °C	≥ 225 °C	n.s.**	≥ 125 °C	≥ 125 °C
RTI impact per UL 746B	105 °C	100 °C	115 °C	115 °C	125 °C	120 °C
Heat deflection temperature (HDT/B) per ISO 75 (bending stress A*: 1.8 MPa; B: 0.45 MPa)	215 °C	235 °C	285 °C	280 °C	130 °C (1.8 MPa)	130 °C (1.8 MPa)
Surface resistivity per IEC 60093	10 <sup>12</sup> Ω	10 <sup>12</sup> Ω	10 <sup>15</sup> Ω	10 <sup>13</sup> Ω	10 <sup>15</sup> Ω	10 <sup>15</sup> Ω
Specific contact resistance per IEC 60093	10 <sup>15</sup> Ω/cm	10 <sup>15</sup> Ω/cm	10 <sup>13</sup> Ω/cm	10 <sup>13</sup> Ω/cm	10 <sup>11</sup> Ω/cm	10 <sup>13</sup> Ω/cm
Dielectric strength per IEC 60243-1	30 kV/mm	40 kV/mm	25 kV/mm	25 kV/mm	25 kV/mm	29 kV/mm

\*Value depends on wall thickness, EN 60335 compliance upon request; \*\*n. s. = not specified



**Polyamide (PA 66)**

WAGO uses modified, halogen-free, flame-retardant polyamides.

These materials do not corrode, are difficult to ignite and feature self-extinguishing properties (VO rating per UL 94).

Adhering to UL 746C, the polyamides used at WAGO have a continuous operating temperature of 105 °C (221 °F) based on the relative temperature index with impact load ( $RTI_{imp}$ ). This ensures that the necessary electrical and mechanical insulating properties are maintained at a sufficiently guaranteed level over a long period of time.

The short-term upper temperature limit is 200 °C (392 °F).

In lower temperature ranges, it has been determined that no damage to the insulation material occurs during usage down to -35 °C (-31 °F). After installation and wiring, WAGO products can even be used at temperatures down to -60 °C (-76 °F).

Environmental humidity (up to 2.5 % in a standard atmosphere) is absorbed, providing the polyamides with optimum elasticity, strength and durability.

In practical use, basic stabilization of WAGO's polyamides has been proven over many years as sufficient to prevent damage caused by ozone or UV radiation exposure in intended applications.

Polyamides have excellent resilience against the most demanding climates and have proven themselves in tropical applications worldwide. Insulation parts made of polyamide are resistant to insects. The material does not provide oxygen or other biogenic elements to microorganisms.

The presence of anaerobic earth bacteria, mold, fungus and enzymes does not degrade the material.

Polyamides are resistant to most fuels, greases, and oils, as well as the most commonly used cleaners, such as alcohol, Freon, Frigen, and carbon tetrachloride. Acid resistance depends on the acid type and concentration, as well as the exposure time.

The use of insulation materials during in-house production at WAGO only occurs after acceptance of factory test certificates and specified material tests.

**Glass Fiber-Reinforced Polyamide (PA 66 GF)**

WAGO uses glass-fiber-reinforced polyamides for components with increased mechanical demands, such as levers, push-buttons or housings exposed to high stresses, because glass-reinforced polyamides have significantly higher characteristic properties than non-reinforced polyamides.

In general, materials are used that have excellent creepage current resistance, flammability ratings and high temperature resistance.

More data can be found in the table.

**Polyphthalamide (PPA GF)**

Glass-fiber-reinforced, high-performance polyamides are ideal for high-temperature applications, due to the material's high level of thermal dimensional stability, its low dependence on ambient conditions and its excellent strength properties. The material's outstanding tracking resistance permits short creepage distances to be incorporated into miniature components. Fire protection equipment enables placement into flammability class V0 per UL 94 – even for extremely thin walls. PPA GF absorbs minute amounts of moisture from the ambient air, making it ideal for reflow soldering applications and for thin-walled, dimensionally stable components.

More data can be found in the table.

**Polyamide (PA 46)**

In comparison with PA 66, PA 46 has substantially higher dimensional stability under heat. The relative temperature index with impact load ( $RTI_{imp}$ ) is 115 °C (239 °F) for PA 4.6.

The reliable short-term temperature for the type used by WAGO is 280 °C (536 °F).

More data can be found in the table.

**Polycarbonate (PC)**

Polycarbonate has excellent dimensional stability under heat. The electrical and mechanical properties remain intact at extremely high temperatures up to approximately 120 °C (248 °F) per UL Yellow Card. Its excellent electrical insulating properties and dimensional stability are virtually independent of environmental conditions, such as humidity and temperature. Highly precise components can be created due to the low shrinkage of the material during injection molding. Polycarbonate has excellent weather resistance and is also highly resistant to high-energy radiation.

If the PC is not colored, then the components are glass-clear.

Thanks to its desirable properties (e.g., dimensional stability, heat resistance, non-flammability, durability and transparency), PC is a proven and widely used material in the electrical industry.

Depending on the demands placed on the finished product, WAGO uses polycarbonates that carry flammability classifications V2 and V0 per UL 94.

Medium-viscosity PC is used that features excellent chemical resistance.

## Material Specifications

### Contact Materials

Hard and extra-hard electrolytic copper (ECu), as well as extra-hard copper alloys are the standard materials used for the current-carrying parts of all WAGO products.

These materials combine excellent conductivity and good chemical resistance without the risk of stress-induced cracking.

### Contact Plating

The special tin layer, which is the standard layer for all current-carrying parts in WAGO products, ensures perfect long-term protection against corrosive substances. Furthermore, these layers provide a gas-tight contact that ensures a durable transition resistance.

At the clamping unit, the conductor is embedded into the soft tin layer via high contact pressure. This protects the contact area against corrosion.

The thick tin layer also ensures good solderability of both PCB terminal block and connector solder pins.

### Clamping Spring Material

Every WAGO clamping spring is made of high-quality, accurately tested austenitic chrome nickel steel (CrNi) with high tensile strength, which boasts proven corrosion resistance through long-term usage.

It is resistant to sea spray, city pollutants and industrial emissions (e.g., sulfur dioxide, hydrogen sulfide).

At room temperatures of approximately 20 °C (68 °F), the material is resistant to salt solutions up to 30 % and dilute phosphoric acids up to 30 %.

Even after decades of use, no galvanic corrosion between the chrome nickel spring steel (in connection with the contact materials used by WAGO) and the connected copper conductors has been detected.

The relaxation of the material as a function of time and surrounding temperatures up to 105 °C (221 °F) can be ignored. Samples loaded with 500 N/mm<sup>2</sup> at a temperature of 250 °C (482 °F) showed a relaxation of only 1.5 %.

In certain product lines, the clamping springs are thermally treated at temperatures between 350 °C (662 °F) and 420 °C (788 °F) after production.

This treatment reduces internal stress due to the material's mechanical deformation, which may result in a slight brown discoloration of the spring surface.

WAGO only accepts deliveries of chrome nickel spring steel against certificates of conformity and after select material tests have been performed.

## Electrical Engineering Laboratory Product Safety for Our Customers

WAGO's Minden, Germany laboratory is an "accredited test lab for electrical and mechanical tests on terminal blocks and connectors, as well as for environment simulations."

Accreditation, as ISO/IEC 17011:2004 defines, is a third party-attestation related to a conformity assessment body conveying formal demonstration of its competence to carry out specific conformity assessment tasks.

Accreditation, according to DIN EN ISO/IEC 17025, is granted by the Deutsche Akkreditierungsstelle GmbH DAKKS (German Accreditation Office GmbH DAKKS). This national accreditation office, which was established by the German Federal Ministry for Economics and Technology (BMWi), certifies that our test laboratory is officially recognized as possessing the necessary expertise to conduct defined tests and types of tests independently and objectively.



### Visitor Center

Through obtaining the accreditation, the following objectives were achieved:

- Exceeding customer requirements
- Workflow optimization
- Clearly defined processes
- Clear organization and structure
- Greater transparency
- Consistent, high-quality laboratory testing
- Maximum traceability
- Traceable measurement results
- Sustainable quality awareness

### Conductor Retention Force Testing



### High-Voltage Test



### Vibration- and Shock- Resistance Testing



## General Technical Information on Electrical Equipment Used in Hazardous Areas

A prerequisite for a potentially explosive hazard is the formation of an explosive atmosphere. Such an atmosphere can be produced at any location where flammable gases or liquids are manufactured, processed, transported and/or stored.

Such **hazardous areas** can be found in a wide range of industries, including chemical plants, refineries, power plants, paint producing facilities, painting shops, filling stations, vehicles, sewage treatment plants, airports, grain mills or harbor facilities.

### THE FOLLOWING APPLIES AS A GUIDELINE FOR THE UNDERLYING PRINCIPLE FOR EXPLOSION PROTECTION:

#### General Requirements

The European EN 60079-0 Standard – VDE 0170 Classification, Part 1 – contains general requirements for the design and testing of electrical equipment to be used in hazardous areas.

This ensures this equipment does not cause an explosion in the surrounding atmosphere.

EN 60079-0 is supplemented or revised by the European standards indicated on the right which refer to the specifically standardized types of protection.

#### Electrical Equipment

Electrical equipment includes all items used in whole or in part with electricity. This includes items for generation, transport, distribution, storage, measurement, control, conversion and consumption of electrical power, as well as telecommunications.

#### Ex Components

Ex components are elements of electrical equipment for hazardous areas that are marked with the "U" letter. These components must not be used on their own in such areas and require an additional certificate when used in such areas when installed in the electrical equipment.

#### Ignition Protection Categories

Only explosion-proof (protected) equipment must be used in areas in which an explosive atmosphere may still be expected despite the implementation of prevention measures. Explosion-protected electrical equipment can have various types of protection in accordance with the EN 60079 standard requirements.

Protection used by the manufacturer essentially depends on the type and function of the apparatus. From a safety point of view, all standardized types of protection should be viewed as equal.

The ignition protection category "n" exclusively describes the use of explosion-protected electrical components in Zone 2. This zone includes areas in which hazardous, potentially explosive atmospheres are likely to occur rarely or short-term. This represents a transition between Zone 1, in which explosion protection is required, and the safe area in which, for example, welding may be performed at any time.

Regulations covering these electrical components are being prepared worldwide. Organizations such as KEMA in the Netherlands, or PTB in Germany certify that the devices meet the requirements of the EN 60079-15 standard.

Ignition protection category "n" also requires that electrical equipment be provided with additional ID markings as follows:

- A – non-sparking (function modules without relays/switches)
- AC – sparking, contacts protected with seals (function modules with relays/without switches)
- L – limited power (function modules with switches)

The table on the opposite page shows an overview of the standardized ignition protection categories and describes their basic principle, as well as typical applications.

Ignition Protection Categories			
Symbol	Standard	Explanation	Application Area
"o"	IEC 60079-6 EN 60079-6	<b>Equipment protection by oil immersion:</b> Electrical equipment or parts of such equipment are immersed in oil.	Zones 1 + 2
"p"	IEC 60079-2 EN 60079-2	<b>Equipment protection by pressurized enclosure:</b> The ingress of the external (explosive) atmosphere into the electrical equipment housing is prevented by maintaining a protective gas internally at a pressure above that of the external atmosphere.	Zones 1 + 2
"q"	IEC 60079-5 EN 60079-5	<b>Equipment protection by sand filling:</b> Filling the electrical equipment housing with fine grain sand prevents the ignition of a surrounding explosive atmosphere by an electric arc generated in the housing.	Zones 1 + 2
"d"	IEC 60079-1 EN 60079-1	<b>Equipment protection by flameproof enclosures:</b> The parts that could ignite an explosive atmosphere are encapsulated in a housing, which will withstand the explosion pressure within the housing.	Zones 1 + 2
"e"	IEC 60079-7 EN 60079-7	<b>Equipment protection by increased safety:</b> Additional measures applied to achieve increased security against the possibility of excessive temperatures and the occurrence of arcs or sparks.	Zones 1 + 2
"i"	IEC 60079-11 EN 60079-11	<b>Equipment protection by intrinsic safety:</b> Power circuit in which no sparks or thermal effects can occur and cause the ignition of a certain explosive atmosphere.	Zones 1 + 2 following special testing Zone 0
"n"	IEC 60079-15 EN 60079-15	<b>Equipment protection by type of protection "n":</b> Electrical equipment of group II for use in areas in which an explosive mixture of gas, vapor or mist is unlikely to occur during normal operation and, if it does, will be for a short period.	Zone 2
"m"	IEC 60079-18 EN 60079-18	<b>Equipment protection by cast encapsulation:</b> Dangerous electrical equipment is embedded in a cast mass. This corresponds approximately to the known special Ex s protection type.	Zones 1 + 2
	IEC 60079-25 EN 60079-25	<b>Intrinsically safe electrical systems "i":</b> Assembly of interconnected electrical equipment in which the circuits intended for use, as a whole or in part, in hazardous environments are intrinsically safe. It is documented accordingly in the system description	Zones 1 + 2 following special testing Zone 0
	IEC / TS 60079-27	<b>FISCO standard:</b> Electrical equipment for explosive gas atmospheres – Part 27: Fieldbus intrinsically safe concept (FISCO) and Fieldbus non-incendive concept (FNICO)	

## General Technical Information on Electrical Equipment Used in Hazardous Areas

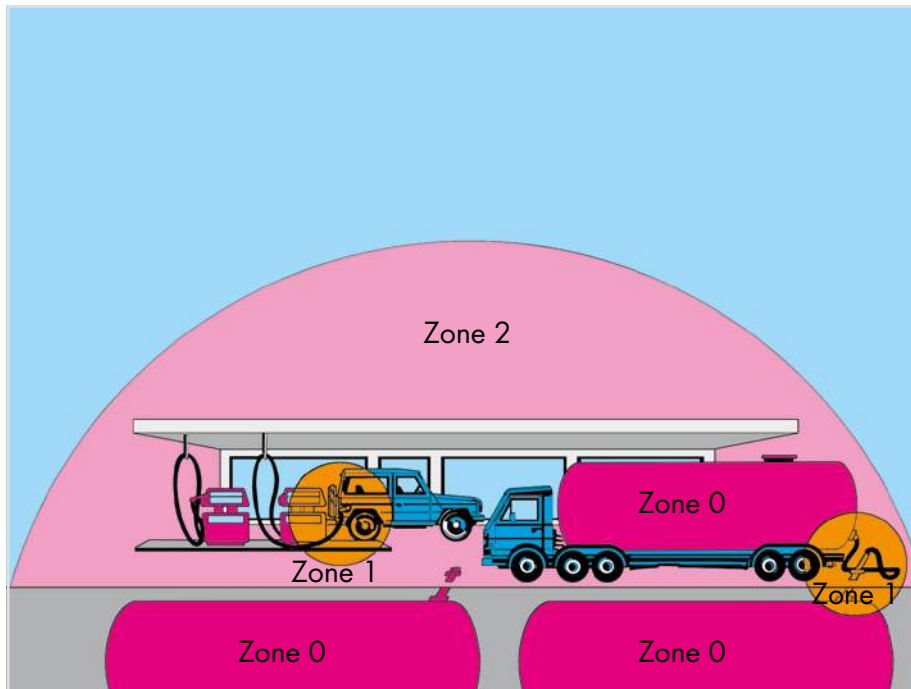
(continued)

### Hazardous Areas

Hazardous areas are zones in which the atmosphere may become explosive. An explosive atmosphere is a mixture of flammable substances in the form of gases,

vapors or mixtures with air under atmospheric conditions in critically mixed ratios such that excessive high temperature, arcs or sparks may cause an explosion.

DIN EN 1127-1 and all other related standards that are well-known divide up hazardous areas according to the likelihood of the occurrence of an explosive atmosphere into the following zones:



Hazardous areas due to explosive gases, vapors and mists:

#### Zone 0:

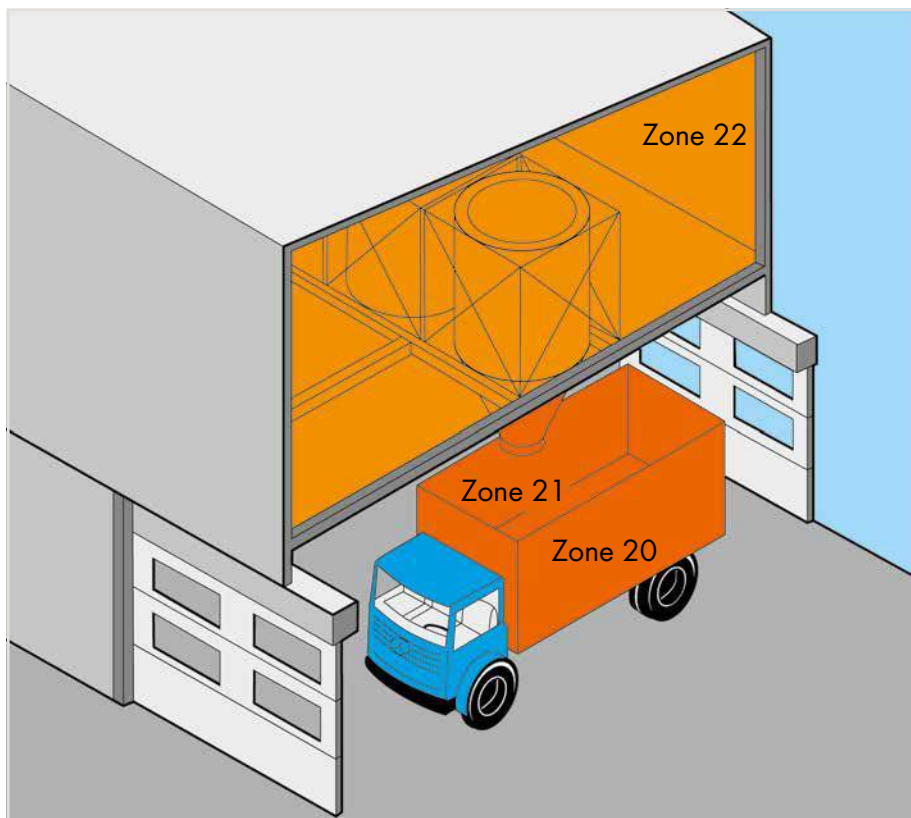
Areas in which an explosive atmosphere is present continuously, for long periods or frequently.

#### Zone 1:

Areas in which hazardous, potentially explosive atmospheres are likely to occur occasionally during normal operation.

#### Zone 2:

Areas in which an explosive atmosphere is likely to occur rarely or only for a short period during normal operation.



Hazardous areas due to explosive dust/air mixtures:

#### Zone 20:

Areas in which an explosive atmosphere due to dust/air mixtures is present continuously, for long periods or frequently and in which dust deposits of known or excessive thickness may form. Dust deposits alone do not constitute a Zone 20.

#### Zone 21:

Areas in which the occurrence of an explosive atmosphere due to dust/air mixtures is to be expected occasionally and in which deposits or layers of combustible dust can generally be present.

#### Zone 22:

Areas in which an explosive atmosphere due to dust/air mixtures is not likely to occur during normal operation and, if it occurs, will only exist for a short period, or in which accumulations or layers of combustible dust are present.

EN 60079-0 also classifies electrical equipment for use in hazardous areas into two groups:

### Group I:

Electrical equipment for mines susceptible to firedamp

### Group II:

Electrical equipment for hazardous areas, except for mines susceptible to firedamp.

As this broad application range encompasses a large number of potentially flammable gases, Group II is broken down into subgroups IIA, IIB and IIC.

This breakdown is based on different gases/materials exhibiting differing ignition power levels as parameters. Therefore, representative gases have been allocated to these three sub-groups:

- IIA – Propane
- IIB – Ethylene
- IIC – Hydrogen

Publication of the WBK Mining Authority dated March 1989.

Quote: "... terminal blocks that have been certified for the type of protection Ex e II will also be accepted, for example, for Group I – equipment with "e" (increased safety) protection type."

This information is also given under Item 12 in the EC Prototype Test Certificates, based on which the terminal blocks have been approved for Group I and Group II.

Temperature Class	Maximum Surface Temperature (°C)
T1	450
T2	300
T3	200
T4	135
T5	100
T6	85

Depending on the maximum surface temperature, electrical equipment in Group II are classified in temperature categories T1 to T6 for all protection types. The ambient temperature, which must be accounted for in dimensioning, is defined as 40 °C/104 °F (deviations are acceptable under some conditions).

Terminal blocks for "e" (increased safety) protection type are generally assigned to temperature category T 6. When rail-mount terminal blocks are used in equipment of temperature categories T1 to T5, ensure that the highest temperature on the insulating parts does not exceed 85 °C (185 °F). The highest measured surface temperature rise must not exceed 40 K.

Thermal resistance of the insulation material must be at least 20 °C (68 °F) greater than the highest operating temperature. Low temperature stability is considered to be sufficient when the insulation material can withstand 24-hour storage at a temperature of –60 °C (–76 °F) without nullifying the type of protection.

### Special Requirements "Increased Safety Ex e"

The European EN 60079-7 Standard – VDE 0170-6 Classification – contains special requirements for the design and testing of electrical equipment with "e" (increased safety) protection type for use in hazardous areas.

This standard is a supplement to EN 60079-0 and applies to equipment or parts thereof that neither generate sparks or arcing under normal operating conditions, nor exhibit hazardous temperatures.

This standard describes special measures, which have to be observed to obtain a safety degree according to the "e" (increased safety) protection type.

Ex components such as rail-mount terminal blocks are covered by Section 4.2 "Terminal Blocks for External Conductors."

The following are the most important design requirements for terminal blocks for external supply conductors to electrical equipment: These must:

- be sufficiently large to permit reliable connection of external supply conductors with cross-section of at least the size required by the nominal current of the equipment
- be protected against self-loosening and designed such that the supply conductors cannot slip out of their clamping units
- be designed such that adequate contact pressure is ensured without damaging the conductors
- be designed such that their contact pressure does not change with temperature cycling
- be equipped with a spring connecting link for the connection of stranded conductors
- be designed so as to allow secure connection of smaller conductors for terminal blocks up to 4 mm<sup>2</sup> (12 AWG).

### Minimum Ignition Power of Typical Gases:

Explosion Group	I	IIA	IIB	IIC
Gas	Methane	Propane	Ethylene	Hydrogen
Ignition Power	280	250	82	16

### The following table shows a comparison between the current practice based on ElexV, DIN VDE 0165: 1991 and the new EN 1127-1:

Device Group II				
Category	Protection degree	Adequate safety for	Comparable to current practice	New, per EN 1127
1: Ex atmosphere is very probable, swirled dust	Highest	Two protective measures Two faults	Group II Zone 0 Zone 10	Zone 0, Zone 20
2: Occasional Ex atmosphere	Increased	Equipment failure or fault	Group II, Zone 1	Zone 1 Zone 21
3: Low probability of Ex atmosphere, settled dust	Normal	Fault-free operation	Group II, Zone 2 Zone 11	Zone 2 Zone 22

# General Technical Information on Electrical Equipment Used in Hazardous Areas

(continued)

It is expressly prohibited to use insulating parts for transferring contact forces. Terminal blocks with sharp edges which could damage supply lines and those types that can be rotated, turned or permanently deformed when fixed in place are not permitted for use. Terminal blocks for internal connections in electrical equipment must not be subjected to excessive mechanical stress. These items must fulfill the requirements for terminal blocks used for external supply conductors.

Clearances between conductive parts having different potentials must be at least 3 mm for external connections, as specified in Table 1.

The value of the creepage distances depends on the working voltage, surface geometry of the insulating parts and tracking resistance of the insulation material. Grooves on the surface may only be considered if they are at least 2.5 mm deep and wide; ribs on the surface only if their height is at least 2.5 mm and their width corresponds to the mechanical strength of the material, however not smaller than 1 mm.

**Table 1: Creepage Distances and Clearances**

Voltage <sup>1)</sup> RMS Value for AC or DC Voltage	Minimum Creepage Distance (in mm)			Minimum Clearance
	Material Group			
V	I	II	III a	mm
10 <sup>2)</sup>	1.6	1.6	1.6	1.6
12.5	1.6	1.6	1.6	1.6
16	1.6	1.6	1.6	1.6
20	1.6	1.6	1.6	1.6
25	1.7	1.7	1.7	1.7
32	1.8	1.8	1.8	1.8
40	1.9	2.4	3	1.9
50	2.1	2.6	3.4	2.1
63	2.1	2.6	3.4	2.1
80	2.2	2.8	3.6	2.2
100	2.4	3	3.8	2.4
125	2.5	3.2	4	2.5
160	3.2	4	5	3.2
200	4	5	6.3	4
250	5	6.3	8	5
320	6.3	8	10	6
400 (440) <sup>1)</sup>	8	10	12.5	6
500 (550) <sup>1)</sup>	10	12.5	16	8
630 (690) <sup>1)</sup>	12	16	20	10
800	16	20	25	12
1000	20	25	32	14
1250	22	26	32	18
1600	23	27	32	20
2000	25	28	32	23
2500	32	36	40	29
3200	40	45	50	36
4000	50	56	63	44
5000	63	71	80	50
6300	80	90	100	60
8000	100	110	125	80
10000	125	140	160	100

<sup>1)</sup> The listed voltages are taken from IEC 60664-1. The working voltage \*) may exceed the voltage indicated in the table by 10 %. This is based on the simplification of the supply voltages in accordance with Table 3b for IEC 60664-1.  
The listed values for creepage distances and clearances are based on a maximum limit deviation for supply voltage of  $\pm 10\%$ .

<sup>2)</sup> CTI values are not applicable for voltages of 10 V or less. Materials that do not meet the requirements of material group III a can be used.

Classification of insulation materials according to their tracking resistance is based on their Comparative Tracking Index (CTI) and is defined in Table 2 as follows:

This classification applies to insulating parts without ribs or grooves.

If the insulating parts have ribs or grooves sufficiently large to be considered, the minimum creepage distances must be set according to values for the insulation materials in the next-higher level (e.g., Group I, instead of Group II).

Accounting for the ambient temperature of 40 °C (104 °F) specified for electrical equipment, the current-carrying capacity of rubber-insulated conductors is reduced to 82 %, based on DIN VDE 0298-4:2013-06, Table 12 and to 87 % for PVC-insulated conductors for the current-carrying capacity defined for 30 °C (86 °F) in accordance with Item 4.3.3 in DIN VDE 0298-4:2013-06.

**Table 2:  
Tracking Resistance for  
Insulation Materials**

Material Group	Comparative Tracking Index
I	$600 \leq \text{CTI}$
II	$400 \leq \text{CTI} < 600$
III a	$175 \leq \text{CTI} < 400$

Conductor Types and Conductor Preparation

In accordance with EN 60079-14/DIN VDE 0165-1, the ends of stranded and fine-stranded conductors must be protected against splaying (e.g., via cable lugs or ferrules) or by the type of terminal blocks used. Soldering alone is not sufficient. According to EN 60069-7/DIN VDE 0170-6, connecting electrical equipment to terminal blocks having an "e" (increased safety) protection type must not lead to a reduction of the clearances and creepage distances. Based on experience through the application of terminal blocks in aggressive atmospheres in the chemical industry, WAGO recommends gas-tight tinned copper ferrules or tinned copper pin terminals when connecting fine-stranded conductors to terminal blocks in corrosive atmospheres.



## Approvals

Terminal blocks may be used in Zones 1 and 2, provided that the terminal blocks are accommodated in an enclosure that has a minimum IP54 protection and an Ex e certification.

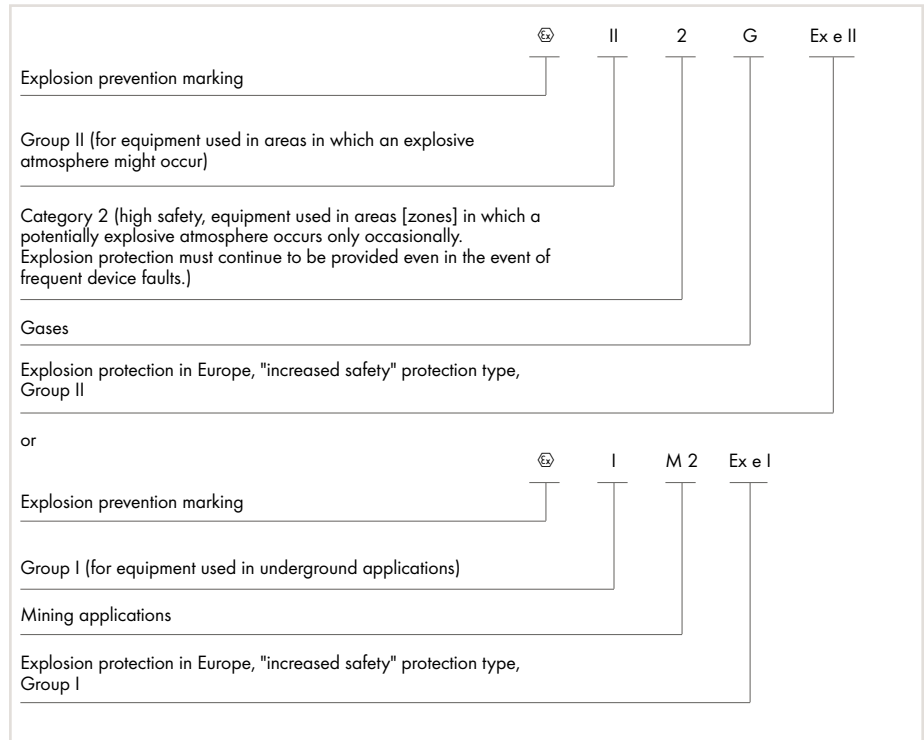
Terminal blocks are considered to be Ex components, because they are a part of the equipment. Part certificates provided by Ex Certification Agencies serve as a basis for issuing the complete conformity declaration for the unit.

An EC-type examination certificate is issued in accordance with the 2014/34/EU ATEX Directive.

In addition, an IEXEx Certificate may also be obtained from an appropriate, recognized certification agency in accordance with the IECEx Certification Agreement that is accepted throughout Europe and also in countries such as Canada, China and Australia.

These certificates can also be viewed at: [www.iecex.com](http://www.iecex.com).

## Terminal block marking per 2014/34/EU ATEX Directive:



## Example of marking (rear):

Series

Manufacturer's name

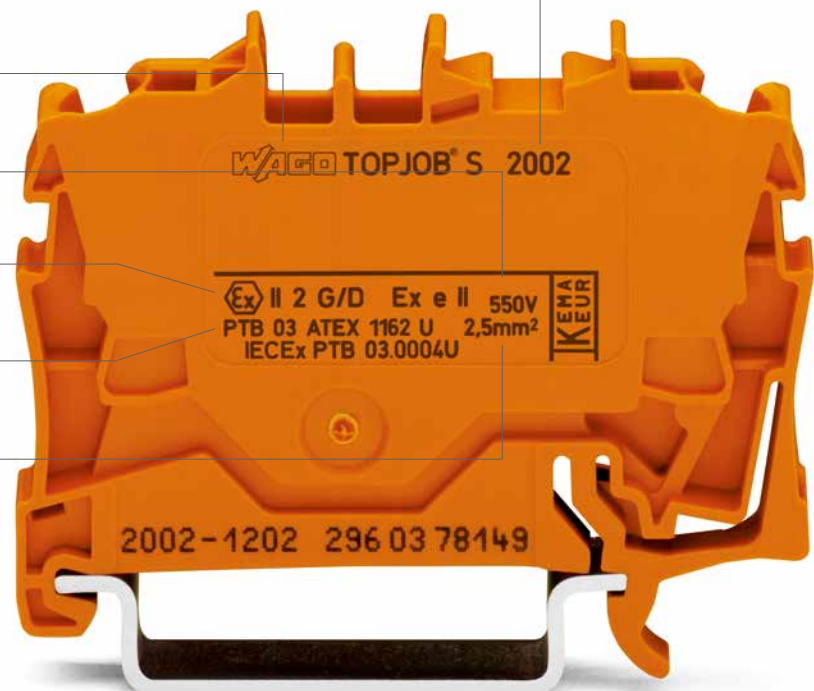
Nominal isolation voltage

Protection type

Part certification no.

Nominal cross-section  
(solid, stranded or fine-stranded conductors)


The embossed details on the terminal blocks show the manufacturer's name, the series no., the type of protection Ex e II, the approval no., the approval data and the name of the testing authority.



# General Technical Information on Electrical Equipment Used in Hazardous Areas

(continued)



Terminal blocks for Class I, Zone 1, Ex e II hazardous locations can be approved for Ex applications per UL 60079-7 standard. As a result of international harmonization efforts, the UL certificate can be issued on the basis of EN 60079-0 or EN 60079-7 standards, provided that the terminal blocks have also been approved per UL 1059 (ordinary location).

If desired by the applicant, terminal blocks can simultaneously be approved in accordance with the Canadian Standards E79-0-95 and E79-7-95 and released for use in Canada. The terminal blocks are marked with  Cl. I, Zn. 1, AExI, Zn. 1, AEx e II.

EC-type examination certificates have been granted to all WAGO terminal blocks listed in this catalog.

WAGO terminal blocks approved for use in Ex e II areas are manufactured of flame-resistant, self-extinguishing Polyamide 66. The same applies to the terminal blocks used in non-hazardous areas. Tracking resistance with a CTI value of 600 as per IEC 60112 and a constant operating temperature of 105 °C (22 °F) in accordance with IEC 60216-1 and -2 are provided.

Factory part quality tests are performed on all CAGE CLAMP® rail-mount terminal blocks with Ex e II approval to monitor and ensure the quality features described above.

## IECEX Certificate of Conformity

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INTERNATIONAL ELECTROTECHNICAL COMMISSION  
IEC Certification Scheme for Explosive Atmospheres  
for rules and details of the IECEx Scheme visit www.iecex.com

---

<b>Certificate No.:</b>	IECEX PTB 03.0004U	<b>Issue No.:</b>	0
<b>Status:</b>	Current	<b>Date of issue:</b>	2003-12-12
<b>Applicant:</b>	WAGO Kontakttechnik GmbH Hansastraße 27 32423 Minden Germany		
<b>Electrical Apparatus:</b>	TOPJOB S, 2002-1... and 2002-1.7 PE & Through terminal blocks		
<b>Optional accessory:</b>			
<b>Type of Protection:</b>	Increased Safety		
<b>Marking:</b>	Ex e II Tamb: -55 °C to +45 °C		

---

Approved for issue on behalf of the IECEx Certification Body:

Position: Head of Section "Flameproof Enclosure"

Signature: \_\_\_\_\_  
(for printed version)

Date: \_\_\_\_\_


Dr.-Ing. Uwe Klausmeyer

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1. This certificate and schedule may only be reproduced in full.  
2. This certificate is not transferable and remains the property of the issuing body.  
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.


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**Physikalisch-Technische Bundesanstalt (PTB)**  
Bundesallee 100  
38116 Braunschweig  
Germany



**Physikalisch-Technische Bundesanstalt**  
Braunschweig und Berlin









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**EG-Baumusterprüfbescheinigung**

(1) Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen Richtlinie 94/9/EG  
(2) EG-Baumusterprüfbescheinigungsnummer



**PTB 05 ATEX 1030 U**

(4) Komponente: Durchgangsteile: Kerntyp "TOPJOB S Baureihe 2005 12 und 2005 13 - Schutzleiteranhänger Typ TOPJOB S Baureihe 2005-1207 und 2006-207  
(5) Hersteller: WAGO Kontakttechnik GmbH  
(6) Anschrift: Hansastraße 27 32423 Minden, Deutschland  
(7) Die Bauart dieser Komponente sowie die verschiedenen zulässigen Ausführungen sind in der Anlage und dem dem angelegten Leistplan zu dieser Baumusterprüfbescheinigung festgelegt.  
(8) Die physikalisch-technische Bundesanstalt bescheinigt als benannte Stelle im Übereinstimm mit der Richtlinie des Rates der Europäischen Gemeinschaften vom 22. März 1994 (EG/94/9) die Erfüllung der grundlegenden Sicherheits- und Gesundheitsanforderungen für die Konstruktion und den Bau von Leitern und Schutzsystemen zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie.  
Die Ergebnisse der Prüfung sind in dem vertraulichen Prüfbericht: PTB Ex - 05-15105 festgehalten  
(9) Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch die Einhaltung mit:  
**EN 60079-0:2004      EN 60079-7:2003      EN 60281-1-1:1999**  
(10) Das Zeichen "U" hinter der Zertifikatsnummer gibt an, dass dieses Zertifikat nicht in Leitern für ein Gerät oder Schutzsystem vorgesehenen Zertifikat verwendet werden darf. Diese Teilbescheinigung darf nur als Basis für die Beschreibung eines Gerätes oder Schutzsystems verwendet werden.  
(11) Diese EG-Baumusterprüfbescheinigung bezieht sich nur auf Konstruktion und Prüfung der festgelegter Komponente gemäß Richtlinie 94/9/EG. Weitere Anforderungen dieser Richtlinie gelten für die Herstellung und das Inverkehrbringen dieser Komponente. Diese Anforderungen werden nicht auf dieser Bescheinigung abgedeckt.  
(12) Die Kennzeichnung der Komponente muß die folgenden Angaben enthalten:  
 II 2 G Ex e II bzw. IM 2 Ex e I und  II 2 D  
  
Zertifizierungsstelle Explosions-schutz      Braunschweig, 30. Mai 2005  
  
  
Dr.-Ing. Uwe Klausmeyer  
Direktor und Prof.

---

EG-Baumusterprüfbescheinigung ist eine Kennzeichnung und eine Siegel. Neben keine Gültigkeit. Diese EG-Baumusterprüfbescheinigung kann nicht verwendet werden, wenn die Bescheinigung der Aussteller nicht die ursprüngliche ist. Invertierung der physikalisch-technischen Bundesanstalt. Physikalisch-Technische Bundesanstalt, Bundesallee 100 • D 38116 Braunschweig

Seite 1/3

### Classifications per NEC 500

The following classifications, as defined in article 500 of the National Electric Code (NEC), are valid for North America.

### Divisions

Divisions describe the degree of probability for a dangerous situation occurring. The following assignments apply:

Hazardous Areas due to Flammable Gases, Vapors, Mists or Dusts	
Division 1	Areas in which an explosive atmosphere is likely to occur occasionally ( $> 10 \text{ h} \leq 1000 \text{ h/year}$ ), as well as continuously or long-term ( $> 1000 \text{ h/year}$ ).
Division 2	Areas in which an explosive atmosphere is likely to occur rarely or only for a short period ( $> 1 \text{ h} \leq 1 \text{ h/year}$ ).

### Explosion Protection Groups

Electrical components for explosive areas are subdivided in three danger categories:

Class I (gases and fumes)	Group A	(Acetylene)
	Group B	(Hydrogen)
	Group C	(Ethylene)
	Group D	(Methane)
Class II (dust)	Group E	(Metal dust)
	Group F	(Coal dust)
	Group G	(Flour, starch and cereal dusts)
Class III (fibers)	No subgroups	

### Temperature Classes

Electrical components for hazardous areas are differentiated by temperature classes:

Temperature Class	Maximum Surface Temperature	Ignition Temperature of Combustible Materials
T1	450 °C	$> 450 \text{ °C}$
T2	300 °C	$> 300 \text{ °C} \leq 450 \text{ °C}$
T2A	280 °C	$> 280 \text{ °C} \leq 300 \text{ °C}$
T2B	260 °C	$> 260 \text{ °C} \leq 280 \text{ °C}$
T2C	230 °C	$> 230 \text{ °C} \leq 260 \text{ °C}$
T2D	215 °C	$> 215 \text{ °C} \leq 230 \text{ °C}$
T3	200 °C	$> 200 \text{ °C} \leq 215 \text{ °C}$
T3A	180 °C	$> 180 \text{ °C} \leq 200 \text{ °C}$
T3B	165 °C	$> 165 \text{ °C} \leq 180 \text{ °C}$
T3C	160 °C	$> 160 \text{ °C} \leq 165 \text{ °C}$
T4	135 °C	$> 135 \text{ °C} \leq 160 \text{ °C}$
T4A	120 °C	$> 120 \text{ °C} \leq 135 \text{ °C}$
T5	100 °C	$> 100 \text{ °C} \leq 120 \text{ °C}$
T6	85 °C	$> 85 \text{ °C} \leq 100 \text{ °C}$

# General Technical Information on Electrical Equipment Used in Hazardous Areas

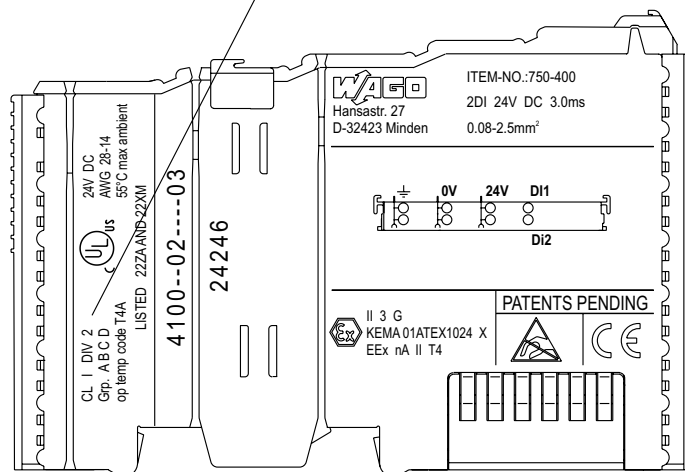
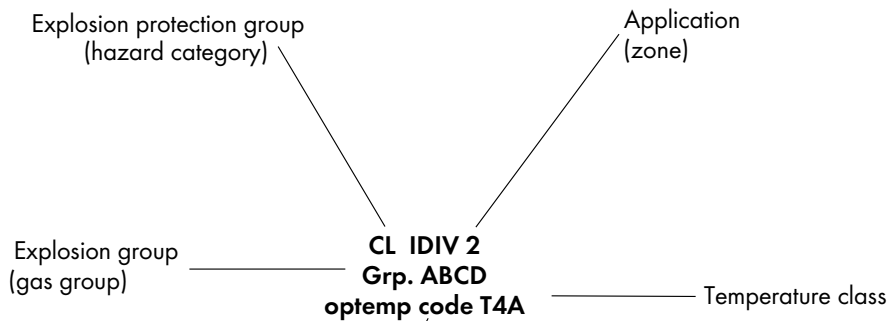
(continued)

For America

Per NEC 500

Side Marking I/O Modules

(e.g., 750-400, 2-Channel Digital Input Module, 24 VDC):



## Special Requirements

### "Intrinsic safety Ex i"

The European EN 60079-11 Standard – DIN EN 60079-11 Classification (VDE 0170-7) – contains special requirements for the design and testing of electrical equipment with "i" (intrinsic safety) protection type for use in hazardous areas.

A circuit is "intrinsically safe" when, under normal operating conditions and in the event of specific fault conditions, no sparks or thermal effects can occur and cause the ignition of a certain explosive atmosphere.

A distinction is made here between:

- intrinsically safe electrical equipment when all circuits are intrinsically safe and
- associated electrical equipment including both intrinsically and non-intrinsically safe circuits, and being designed such that the non-intrinsically safe circuits cannot affect the intrinsically safe ones.

Intrinsically safe electrical equipment and intrinsically safe parts of associated electrical equipment are classified at "ia" or "ib" protection level.

Electrical equipment classified Ex "ia" must not ignite when current is applied in the following cases:

- During fault-free operation, with those non-discreet faults present that result in the most adverse condition;
- During fault-free operation and with a discreet fault, plus those non-discreet faults that result in unfavorable conditions;
- During fault-free operation with two discreet faults, plus those non-discreet faults that result in the most adverse conditions.

Electrical equipment classified Ex "ib" must not ignite when current is applied in the following cases:

- During fault-free operation, with those non-discreet faults present that result in the most adverse condition;
- During fault-free operation and with a discreet fault, plus those non-discreet faults that result in unfavorable conditions.

No special approval is required for terminal blocks used as simple electrical equipment for "Ex i" protection type, as they do not contain a voltage source and precise information is available concerning electrical data and temperature rise performance.

The terminal blocks must be identifiable, for example by their type designation, and the following design requirements must also be upheld:

- The clearance between bare, conducting parts of terminal blocks of different intrinsically safe circuits has to be equal or higher than the values specified in the standard. In addition, clearances between the terminal blocks must be so that the clearances between the bare, conductive parts of the connected external conductors is at least 6 mm when measured. Each possible motion of metallic parts that are not rigidly secured must be considered.
- When a possible connection has not been considered during safety analysis, the minimum clearance between grounded metallic or other conducting parts and the uninsulated conducting parts of the conductors that are connected to the terminal blocks must be 3 mm.
- Terminal block marking must be unique and clearly visible. If a color is used for this, the color must be light blue (similar to RAL 5015).

Note also when using terminal blocks:

Terminal blocks used for intrinsically safe circuits must be isolated from those used in non-intrinsically safe circuits. This is accomplished by several accepted methods. First, intrinsically safe circuits are separated by at least 50 mm of air space from non-intrinsically safe circuits.

Second, intrinsically safe circuits are housed in a separate enclosure. Third, intrinsically safe terminal blocks are separated from non-intrinsically safe terminal blocks by either an insulated partition or grounded metal partition. The partition size must allow for either 1.5 mm or less distance from the sides of the housing or provide at least 50 mm of creepage distance between the intrinsically and non-intrinsically safe circuits in all directions.

The insulation between an intrinsically safe circuit and the chassis of an electrical equipment or parts, which may be grounded, has to withstand an effective AC voltage corresponding to double the value of the voltage of the intrinsically safe circuit or a minimum of at least 500 V, depending on which value is higher.

The insulation between an intrinsically safe and a non-intrinsically safe circuit has to withstand an effective AC voltage of 2 x nominal value (U) + 1000 V or a minimum of 1500 kV, whereby U represents the total of the effective voltages of the intrinsically safe and the non-intrinsically safe circuit. Short circuit between different intrinsically safe circuits could cause dangerous conditions. The insulation between these circuits should withstand an effective voltage of at least 500 VAC or 2 UAC where U is the total of the effective voltages of the related circuits.

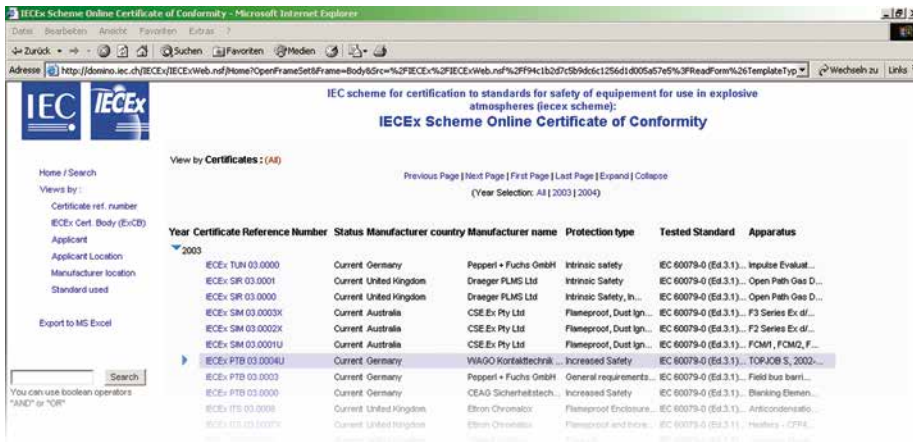
In accordance with EN 60079-14/ DIN VDE 0165-1, in intrinsically safe circuits, the ends of stranded and fine-stranded conductors must be protected against splaying (e.g., via cable lugs or ferrules) or by the type of terminal blocks used. Soldering alone is not sufficient.

WAGO recommends gas-tight tinned copper ferrules or tinned copper pin terminals when connecting fine-stranded conductors to terminal blocks in corrosive atmospheres.

# General Technical Information on Electrical Equipment Used in Hazardous Areas

(continued)

 IECEX and ATEX 100a Approvals



IEC scheme for certification to standards for safety of equipment for use in explosive atmospheres (iecx scheme):  
IECEX Scheme Online Certificate of Conformity

View by Certificates: (All)

Previous Page | Next Page | First Page | Last Page | Expand | Collapse  
(Year Selection: All | 2003 | 2004)

Year	Certificate Reference Number	Status	Manufacturer country	Manufacturer name	Protection type	Tested Standard	Apparatus
2003	IECEX TUR 03.0000	Current	Germany	Pepperl + Fuchs GmbH	Intrinsic safety	IEC 60079-0 (Ed.3.1)...	Impulse Evaluat...
	IECEX SR 03.0001	Current	United Kingdom	Dräger FLMS Ltd	Intrinsic Safety	IEC 60079-0 (Ed.3.1)...	Open Path Gas D...
	IECEX SR 03.0000	Current	United Kingdom	Dräger FLMS Ltd	Intrinsic Safety, In...	IEC 60079-0 (Ed.3.1)...	Open Path Gas D...
	IECEX SM 03.0003K	Current	Australia	CSE Ex Pty Ltd	Flameproof, Dust Ign.	IEC 60079-0 (Ed.3.1)...	F3 Series Ex of...
	IECEX SM 03.0002K	Current	Australia	CSE Ex Pty Ltd	Flameproof, Dust Ign.	IEC 60079-0 (Ed.3.1)...	F2 Series Ex of...
	IECEX SM 03.0001U	Current	Australia	CSE Ex Pty Ltd	Flameproof, Dust Ign.	IEC 60079-0 (Ed.3.1)...	FCM1, FCM2, F...
	<b>IECEX PTB 03.0004U</b>	Current	Germany	WAGO Kontakttechnik...	Increased Safety	IEC 60079-0 (Ed.3.1)...	TOPJOB S, 2002...
	IECEX PTB 03.0003	Current	Germany	Pepperl + Fuchs GmbH	General requirements...	IEC 60079-0 (Ed.3.1)...	Field bus termi...
	IECEX PTB 03.0000	Current	Germany	CEAG Sicherheitstechn.	Increased Safety	IEC 60079-0 (Ed.3.1)...	Banking Element...
	IECEX ITS 03.0008	Current	United Kingdom	Etron Chromator	Flameproof Enclosure	IEC 60079-0 (Ed.3.1)...	Anticondensatio...
	IECEX ITS 03.0007K	Current	United Kingdom	Etron Chromator	Flameproof and intr...	IEC 60079-0 (Ed.3.1)...	Heaters - CPFA...

## TOPJOB® S Rail-Mount Terminal Blocks

The IECEX certificate awarded to WAGO for the TOPJOB® S Rail-Mount Terminal Blocks (Approval No. IECEX PTB 03.0004U), which first debuted at the Hannover Fair 2003, is one of the first ten certificates that have been issued worldwide so far. It is the fourth certificate of this type (Reference No. ...0004U) that has been published online by the German certification body PTB in Braunschweig (publication dated December 15, 2003). These rail-mount terminal blocks are also certified for use in Ex e applications per ATEX 100 a. Both approvals are available for all through terminal blocks, as well as ground conductor terminal blocks.























They provide major cost savings and simplicity to WAGO customers:

- Double inventories are no longer necessary for standard and Ex e rail-mount terminal blocks.
- The time-, cost- and space-saving features of the system can automatically apply to Ex e applications.
- Project planning is essentially performed using a single range of rail-mount terminal blocks.
- Enhanced plant safety: Standard terminal blocks cannot be accidentally used in Ex e areas.
- The IECEX certificate is valid for the international trade of Ex equipment.















Other WAGO products with IECEX approval are available upon request.



## International Certification Organizations – Overview

		Abbreviation			Abbreviation
	<b>Underwriters Laboratories USA</b> <a href="http://www.ul.com">http://www.ul.com</a>	<b>UL</b>		<b>Danmarks Elektriske Materielkontrol</b> <b>Denmark</b> <a href="http://www.demko.dk">http://www.demko.dk</a>	<b>DEMKO</b>
	<b>Underwriters Laboratories USA</b> <a href="http://www.ul.com">http://www.ul.com</a>	<b>UL</b>		<b>CENELEC CERTIFICATION AGREEMENT</b> <b>Danmarks Elektriske Materielkontrol</b> <b>Denmark</b> <a href="http://www.cenelec.org">http://www.cenelec.org</a>	<b>CCA Appr. No. with NL</b>
Y	<b>Underwriters Laboratories USA</b> <a href="http://www.ul.com">http://www.ul.com</a>	<b>cURus</b>			
	<b>Underwriters Laboratories USA</b> <a href="http://www.ul.com">http://www.ul.com</a>	<b>cULus</b>		<b>SETI – FEMKO</b> <b>Sähkötarastuskeskus Elinspektionscentralen</b> <b>Finland</b> <a href="http://www.seti.fi">http://www.seti.fi</a>	
	<b>Canadian Standards Association</b> <b>Canada</b> <a href="http://www.csa.ca">http://www.csa.ca</a>	<b>CSA</b>			
	<b>VDE-Gutachten mit Fertigungsüberwachung</b> <b>Germany</b> <a href="http://www.vde.de/vde/html/e/home.htm">http://www.vde.de/vde/html/e/home.htm</a>	<b>VDE</b>		<b>Sähkötarastuskeskus Elinspektionscentralen</b> <b>Finland</b> <a href="http://www.fimko.com">http://www.fimko.com</a>	<b>FIMKO</b>
	<b>VDE – Deutscher Verband für Elektrotechnik</b> <b>Germany</b> <a href="http://www.vde.de">http://www.vde.de</a>		<b>SABS</b>	<b>South African Bureau of Standards</b> <b>South Africa</b> <a href="http://www.sabs.co.za">http://www.sabs.co.za</a>	<b>SABS</b>
VDE	<b>VDE – Prüfbericht</b> <b>Germany</b>			<b>RosTesT</b> <b>Russia</b> <a href="http://www.rostest.ru">http://www.rostest.ru</a>	<b>ROTEST</b>
	<b>Österreichischer Verband für Elektrotechnik</b> <b>Austria</b> <a href="http://www.ove.at">http://www.ove.at</a>	<b>ÖVE</b>		<b>Departamentul Moldovastandard</b> <b>Moldova</b> <a href="http://www.moldova.md/ro/government/oll/D_STAND/en/strcent2.htm">http://www.moldova.md/ro/government/oll/D_STAND/en/strcent2.htm</a>	<b>CSM</b>
	<b>Schweizerischer Elektrotechnischer Verein</b> <b>Switzerland</b> <a href="http://www.sev.ch/">http://www.sev.ch/</a>	<b>SEV</b>		<b>Certificate of Registration</b> <b>Great Britain</b> <a href="http://www.astacertification.com">http://www.astacertification.com</a>	<b>ASTA</b>
	<b>N.V. tot Keuring van Elektrotechnische Materialen</b> <b>Netherlands</b> <a href="http://www.kema.nl">http://www.kema.nl</a>	<b>KEMA</b>		<b>Rheinisch-Westfälischer Technischer Überwachungsverein e.V.</b> <b>Germany</b> <a href="http://www.rwtuv.de">http://www.rwtuv.de</a>	<b>RWTÜV</b>
CCA	<b>CENELEC CERTIFICATION AGREEMENT</b> <b>N.V. tot Keuring van Elektrotechnische Materialen</b> <b>Netherlands</b> <a href="http://www.cenelec.org">http://www.cenelec.org</a>	<b>CCA Appr. No. with NL</b>		<b>Elektrotechnický ústav</b> <b>Czech Republic</b> <a href="http://www.ezu.cz">http://www.ezu.cz</a>	<b>EZU</b>
	<b>Norges Elektriske Materialkontroll</b> <b>Norway</b> <a href="http://express.nemko.com">http://express.nemko.com</a>	<b>NEMKO</b>		<b>Stowarzyszenie Elektryków Polskich</b> <b>Poland</b> <a href="http://www.sep.com.pl">http://www.sep.com.pl</a>	<b>BBJ</b>
	<b>Svenska Elektriska Materielkontrollanstalten AB</b> <b>Sweden</b> <a href="http://www.semko.com">http://www.semko.com</a>	<b>SEMKO</b>		<b>Stowarzyszenie Elektryków Polskich</b> <b>Poland</b> <a href="http://www.bbj.pl">http://www.bbj.pl</a>	<b>SEP</b>



	Abbreviation		Abbreviation
<b>CNET</b> Centre National d'Etudes des Télécommunications France <a href="http://www.lannion.cnet.fr">http://www.lannion.cnet.fr</a>	<b>CNET</b>	 <b>Robbanásbiztos Villamos Berendezések</b> Hungary <a href="http://www.bki.hu">http://www.bki.hu</a>	<b>BKI</b>
<b>LCIE</b> Laboratoire Central des Industries Electriques France <a href="http://www.lcieie.fr">http://www.lcieie.fr</a>	<b>LCIE</b>	<b>CB</b> <b>CB – TEST CERTIFICATE</b> India <a href="http://www.ul-europe.com">http://www.ul-europe.com</a>	<b>CB</b>
 <b>Fyzikálne Technické Ústav, Ostrava-Radvanice</b> Czech Republic <a href="http://www.ftzu.cz">http://www.ftzu.cz</a>	<b>FTZU</b>	<b>CB</b> <b>CB – TEST CERTIFICATE</b> China <a href="http://www.ul-europe.com">http://www.ul-europe.com</a>	<b>CB</b>
<b>Marine Approvals</b>		 <b>UL-International Demko A/S</b> Denmark <a href="http://www.ul-europe.com">http://www.ul-europe.com</a>	<b>ENEC</b>
 <b>Germanischer Lloyd</b> Germany <a href="http://www.gl-group.com">http://www.gl-group.com</a>	<b>GL</b>	<b>Ex Approvals</b>	
<b>BV</b> Bureau Veritas France <a href="http://www.bureauveritas.fr">http://www.bureauveritas.fr</a>	<b>BV</b>	 <b>Physikalisch Technische Bundesanstalt</b> Germany Ex e II <a href="http://www.ptb.de">http://www.ptb.de</a>	<b>PTB</b>
 <b>Lloyd's Register of Shipping</b> Great Britain <a href="http://www.lloydsregister.com">http://www.lloydsregister.com</a>	<b>LR</b>	 <b>Underwriters Laboratories</b> USA <a href="http://www.ul.com">http://www.ul.com</a>	<b>cURus-EX</b>
 <b>NV – Det Norske Veritas</b> Norway <a href="http://www.dnv.com">http://www.dnv.com</a>	<b>DNV</b>	 <b>N.V. tot Keuring van Elektrotechnische Materialen</b> Netherlands <a href="http://www.kemaquality.com">http://www.kemaquality.com</a>	<b>KEMA-EX</b>
 <b>Russian Maritime Register of Shipping</b> GUS <a href="http://www.rs-head.spb.ru">http://www.rs-head.spb.ru</a>	<b>RMR</b>	<b>GOSENERGO-Ex</b> <b>GOSENERGONADZOR</b> Russia	<b>GOSENERGO-EX</b>
 <b>Polski Rejestr Statków</b> Poland <a href="http://www.prs.pl">http://www.prs.pl</a>	<b>PRS</b>	 <b>Fyzikálne Technické Ústav, Ostrava-Radvanice</b> Czech Republic <a href="http://www.ftzu.cz">http://www.ftzu.cz</a>	<b>FTZU</b>
 <b>Korean Register of Shipping</b> Korea <a href="http://www.krs.co.kr">http://www.krs.co.kr</a>	<b>KR</b>	 <b>Robbanásbiztos Villamos Berendezések</b> Hungary <a href="http://www.bki.hu">http://www.bki.hu</a>	<b>BKI-Ex</b>
<b>ABS</b> American Bureau of Shipping USA <a href="http://www.eagle.org">http://www.eagle.org</a>	<b>ABS</b>		



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