



*Catalogue*

# Railways connections

Traction and rolling stock products

Signalling stationary equipment products

Tooling



## A high performance company at your service

Set up in Corrèze (France) at Pompadour on a 6000 m<sup>2</sup> site, Mecatraction designs, develops and manufactures a complete range of industrial electrical connections completed by a wide offer of corresponding application tooling.

A policy built on performance, service and quality has enabled the company to obtain AFAQ ISO9002, Railways AQF, automotive, aeronautics... certifications



Design and research

## A complete products range

Mecatraction offers a range of products adapted to international market needs by constant improving and innovating efforts.



- Industrial electrical connections



- Earthing and mechanical connectors



- Heat shrinkable tubings



- Cable ties and cabling accessories



- Tools

### Specific products



- In-chain electrical connections



- Railways connections



- Automotive connections



- Aeronautics and space connections



- Domestic appliances connections



High speed presses



160 T two con-rods machine



Assembly machines

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## Traction and rolling stock products

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## Signalling stationary equipment products

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## Tooling

Pages

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## Special products



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**[Service.technico@mecatraction.fr](mailto:Service.technico@mecatraction.fr)**

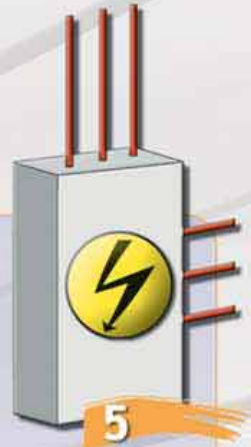
**<http://www.mecatraction.fr>**

## Crimping key rules

### The 5 key elements of crimping

An electrical connection should ensure an absolutely reliable link. A complete system (terminal block, electric engine, automatism, lighting...) will work properly depending on the quality of this connection.

In order to ensure the integrity of the connection the following five key rules should be adhered to at all time.

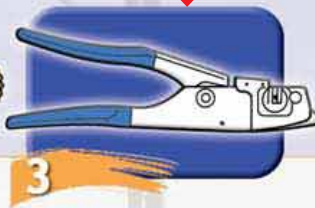


The wire conductor should be correctly stripped and prepared for the application

A quality crimping connection designed specifically for the application should always be used

A quality crimping tool designed specifically for crimping the connection should always be used

An operator with experience in crimping techniques



### General features of an electrical crimping connection

An electrical crimping connection provides the link between the cable and the electrical equipment.

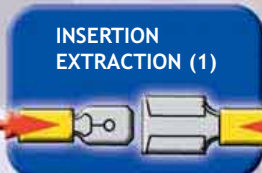
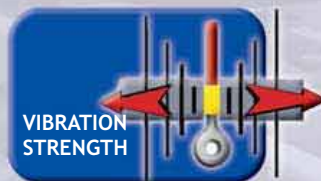
The main features of these connections are to provide:

- a perfect conductivity
- a good tensile strength
- good corrosion resistance
- a good vibration strength
- should not produce voltage drop or temperature rise



### Qualification of a crimping terminal

#### Mechanical tests



(1) for disconnects and tabs

#### Electrical tests



(2) for preinsulated terminals

#### SHORT CIRCUIT



## Crimping key rules

### Crimping of preinsulated terminals

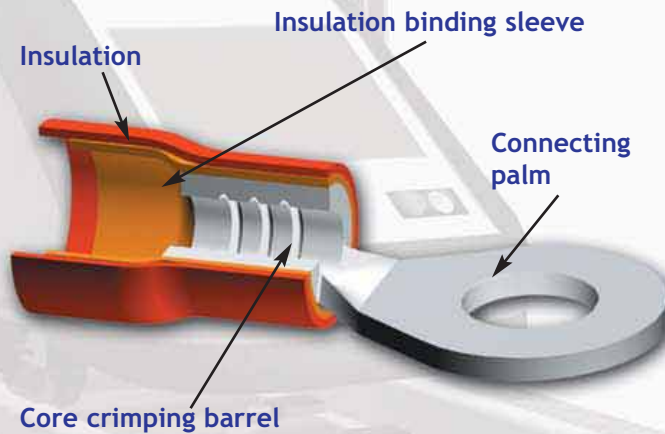
#### Cables

Conformity visual inspection

- Wire conductor correctly stripped
- Insulation badly cut
- Conductor wires damaged or cut
- Conductor wires un-stranded
- Conductor wires over-stranded
- Insulation particles on bare part of cable
- Cable insulation damaged

#### Double crimp

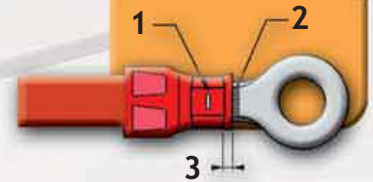
double crimp type is particularly adapted to electrical connections suffering stress or vibrating stress



#### Crimping

Conformity visual inspection

Terminal correctly crimped OK



- 1 - Colour code marking
- 2 - Conductor wires exceeding approximately 1mm
- 3 - flange from 1 to 1,5 mm

- Wire conductor not sufficiently stripped
- Crimping not centralised
- Crimping not centralised
- Marks inverted
- Wire conductor over stripped, difficult to assemble on the tab

## Crimping key rules

### Cables

Conformity visual inspection

Wire conductor correctly stripped **OK**



Insulation badly cut **!**



Conductor wires damaged or cut **!**



Conductor wires un-stranded **!**



Conductor wires over-stranded **!**



Insulation particles on bare part of cable **!**



Cable insulation damaged **!**



### Crimping of tubular lugs

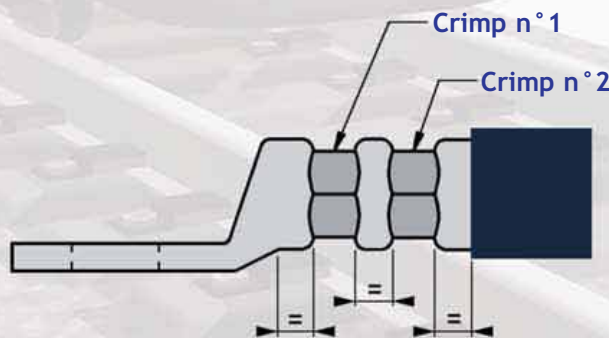
#### Tubular lugs

**COPPER OR ALUMINIUM**



### CRIMPING

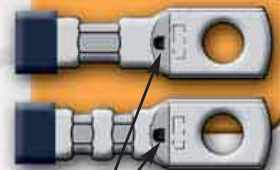
Example of an hexagonal crimping



### Crimping

Conformity visual inspection

Terminal correctly crimped **OK**



Presence of conductor wires. Wire conductor correctly stripped and sufficiently introduced into the barrel, crimping mark correctly centred on the barrel.

Wire conductor not sufficiently stripped **!**



Crimping not centralised **!**



Crimping not centralised **!**



Inadapted or used die, handles appear **!**



Crimping marks not centred **!**





## Product technical assistance

*Our technical and commercial department can advise you on your choice of products.*

## Technical advice

## Choice of products

## Studies and Expertise

## Specific solutions

## Products training and setting to work

Please feel free to contact us  
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<http://www.mecatraction.fr>





● **Preinsulated terminals**



● **Double crimp preinsulated butt and window connectors**



● **Copper tubular lugs**



● **Aluminium tubular lugs**



● **Shunts**



Preinsulated terminals  
from 0,34 to 6 mm<sup>2</sup>



Compliant with  
NFF 00363

## General features

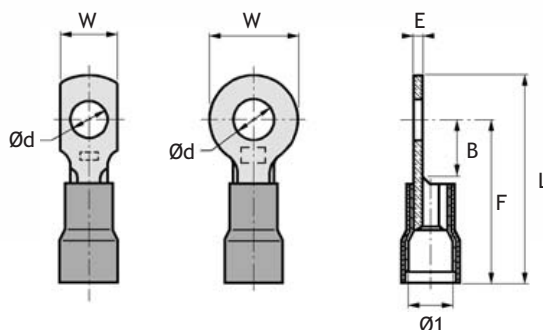
Material: tin-plated copper.

SNCF drawing: 10-5050-309.

RATP drawing: MR-3-52964.



Tooling: see pages 38/39/40



Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	Dimensions (mm)							SNCF part number	Tool part number
		W	L	E	Ø d	F	B	Ø 1		
0,34 - 1,5	51143-2	5,6	17,3	0,80	3,2	14,5	3,5	3,6	7-847-4839	TH1 or TH1 S
	51153-2	8	21	»	»	17	6	»	7-847-5643	»
	51153 R-2	6,5	20,5	»	»	16,5	5,5	»	7-847-5603	»
	51154-2	8	21	»	4,2	17	6	»	7-847-5028	»
	51154 R-2	6,5	20,5	»	»	16,5	5,5	»	7-847-4654	»
	51155-2	8	21	»	5,2	17	6	»	7-847-1112	»
	51134-2	12,5	27	»	4,2	20,7	6,5	»	»	»
	51135-2	»	»	»	5,2	»	»	»	7-847-4586	»
51136-2	»	»	»	6,3	»	»	»	7-847-4251	»	
51138-2	»	»	»	8,4	»	»	»	»	»	
1 - 2,5	51183-2	8,6	21	0,80	3,2	16,7	6	4,8	7-847-5237	TH2 or TH2 S
	51184-2	»	»	»	4,2	»	»	»	7-847-5532	»
	51185-2	»	»	»	5,2	»	»	»	7-847-5483	»
	51174-2	12,5	27	»	4,2	20,7	»	»	»	»
	51175-2	»	»	»	5,2	»	»	»	7-847-5602	»
	51176-2	»	»	»	6,3	»	»	»	7-847-5484	»
	51178-2	»	»	»	8,4	»	»	»	7-847-4678	»
	51183 R-2	6,4	20,5	»	3,2	16,5	5,5	»	7-847-4426	»
51184 R-2	»	»	»	4,2	»	»	»	7-847-4250	»	

Note: part number with "R" suffix correspond to right-angled terminals.

## SNCF drawing: 10-5206-826

Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	Dimensions (mm)							SNCF part number	Tool part number
		W	L	E	Ø d	F	B	Ø 1		
2,6 - 6	STC2-8-4 J	13,8	32,5	1	8,3	25,5	8	6,8	7-847-4215	TH3
	STC2-10-4 J	»	»	»	10,3	»	»	»	7-847-4485	»
— 2,6 - 6 —	STC2-8-2 JN	13,8	35	1	8,3	28	8	8,8	7-847-4363	TH3-2
	STC2-10-2 JN	»	»	»	10,3	»	»	»	7-847-5390	»

## Preinsulated terminals for thin insulating conductors



Compliant with  
**NFF 00363**

### General features

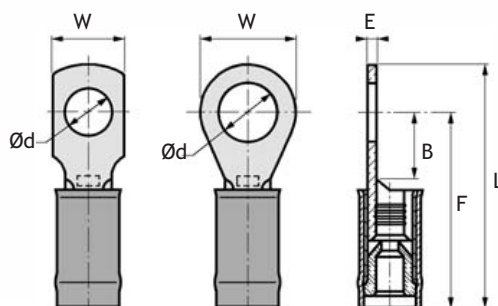
Material: tin-plated copper.

SNCF drawing: 10-5091-965.

RATP drawing: MR-3-53173.



Tooling: see pages 38/40



Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	Ø maxi care	Ø insulation		Dimensions (mm)						Reducer colour	SNCF part number	Hand tool part number
			Mini	Maxi	Ø d	W	E	L	F	B			
0,6	251153	1,04	1,2	2	3,2	8	0,8	21,5	17,5	6	Red		TH1 or TH1 S
	251153 R	»	»	»	»	6,5	»	21	17	5,5	Red		»
	251154	»	»	»	4,2	8	»	21,5	17,5	6	Red		»
	251154 R	»	»	»	»	6,5	»	21	17	5,5	Red	7-847-7325	»
	251155	»	»	»	5,2	8	»	21,5	17,5	6	Red		»
	251134	»	»	»	4,2	12,5	»	27	20,7	6,5	Red		»
	251135	»	»	»	5,2	»	»	»	»	»	Red		»
	251136	»	»	»	6,3	»	»	»	»	»	Red		»
251138	»	»	»	8,4	»	»	»	»	»	Red		»	
0,93	351153	1,3	1,4	2	3,2	8	0,8	21,5	17,5	6	White		TH1 or TH1 S
	351153 R	»	»	»	»	6,5	»	21	17	5,5	White	7-847-1234	»
	351154	»	»	»	4,2	8	»	21,5	17,5	6	White		»
	351154 R	»	»	»	»	6,5	»	21	17	5,5	White		»
	351155	»	»	»	5,2	8	»	21,5	17,5	6	White		»
	351134	»	»	»	4,2	12,5	»	27	20,7	6,5	White		»
	351135	»	»	»	5,2	»	»	»	»	»	White		»
	351136	»	»	»	6,3	»	»	»	»	»	White		»
351138	»	»	»	8,4	»	»	»	»	»	White		»	
1,34	251183	1,5	1,6	2,6	3,2	8,6	0,8	21,5	17,2	6	Blue		TH2 or TH2 S
	251183 R	»	»	»	»	6,5	»	21	17	5,5	Blue		»
	251184	»	»	»	4,2	8,6	»	21,5	17,2	6	Blue		»
	251184 R	»	»	»	»	6,5	»	21	17	5,5	Blue		»
	251185	»	»	»	5,2	8,6	»	21,5	17,2	6	Blue		»
	251174	»	»	»	4,2	12,5	»	27	20,7	»	Blue		»
	251175	»	»	»	5,2	»	»	»	»	»	Blue		»
	251176	»	»	»	6,3	»	»	»	»	»	Blue		»
251178	»	»	»	8,4	»	»	»	»	»	Blue		»	
1,82	351183	1,73	1,9	2,6	3,2	8,6	0,8	21,5	17,2	6	Green		TH2 or TH2 S
	351183 R	»	»	»	»	6,5	»	21	17	5,5	Green		»
	351184	»	»	»	4,2	8,6	»	21,5	17,2	6	Green	7-847-7038	»
	351184 R	»	»	»	»	6,5	»	21	17	5,5	Green		»
	351185	»	»	»	5,2	8,6	»	21,5	17,2	6	Green		»
	351174	»	»	»	4,2	12,5	»	27	20,7	»	Green		»
	351175	»	»	»	5,2	»	»	»	»	»	Green		»
	351176	»	»	»	6,3	»	»	»	»	»	Green		»
351178	»	»	»	8,4	»	»	»	»	»	Green		»	

Note: part number with "R" suffix correspond to right-angled terminals.

# Traction and rolling stock products

Preinsulated disconnects 2,8-5 and 6,35 mm width  
Preinsulated disconnects 2,8-5 and 6,35 mm width for thin insulating conductors



Compliant with  
**NFF 00363**

## General features

Material: tin-plated phosphorous bronze.

SNCF drawing: 10-5050-310.

RATP drawing: MR-3-52965.

Preinsulated disconnects



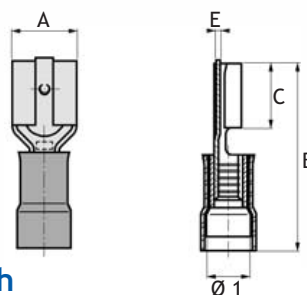
Preinsulated disconnects for thin insulating conductors

SNCF drawing: 10-5091-966.

RATP drawing: MR-3-53172.

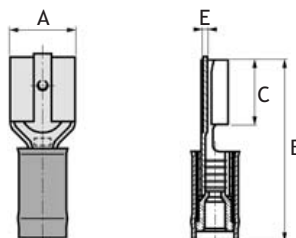


Tooling: see pages 38/39/40



## Preinsulated disconnects 2,8-5 and 6,35 mm width

Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	Tabs l x e	Dimensions (mm)					SNCF part number	Hand tool part number
			A	B	C	Ø 1	E		
0,34 - 1,5	51027 (doré)	2,8 x 0,5	3,7	18,5	6,5	3,6	0,25	7-847-4593	TH1 or TH1 S
	51031-2	2,8 x 0,5	»	»	»	»	»	7-847-4609	»
	51081-2	5 x 0,8	6,4	21	7,7	»	0,5	7-847-4728	»
	51181-2	6,35 x 0,8	7,7	»	»	»	»	7-847-4700	»
1,0 - 2,5	51131-2	5 x 0,8	6,4	21	7,7	4,8	0,5	7-847-4999	TH2 or TH2 S
	51231-2	6,35 x 0,8	7,7	20,2	»	»	»	7-847-4797	»
	51161-4 BC	5 x 0,8	6,4	25	»	6,8	»	7-847-4994	TH3
	51161-2 NR	5 x 0,8	»	27,5	»	8,8	»	»	TH3-2
	51261-4 BC	6,35 x 0,8	7,7	25	»	6,8	»	7-847-5070	TH3
	51261-2 NR	6,35 x 0,8	»	27,5	»	8,8	»	7-847-6798	TH3-2
2,6 - 6	51661-4 J	6,35 x 0,8	7,7	25	7,7	6,8	0,5	»	TH3
	51661-2 JN	6,35 x 0,8	»	»	»	8,8	»	»	TH3-2



## Preinsulated disconnects 2,8-5 and 6,35 mm width for thin insulating conductors

Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	Tabs l x e	Ø maxicare	Ø insulation		Dimensions (mm)				Reducer colour	SNCF part number	Hand tool part number
				Mini	Maxi	A	B	C	E			
0,6	51032	2,8 x 0,5	1,04	1,2	2	3,7	18,5	6,5	0,25	■	»	TH1 or TH1 S
	51082	5 x 0,8	»	»	»	6,4	21,5	7,7	0,5	■	0-847-6041	»
	51182	6,3 x 0,8	»	»	»	7,7	»	»	»	■	0-847-6042	»
0,93	51033	2,8 x 0,5	1,3	1,4	2	3,7	18,5	6,5	0,25	□	»	TH1 or TH1 S
	51083	5 x 0,8	»	»	»	6,4	21,5	7,7	0,5	□	0-847-6036	»
	51183	6,3 x 0,8	»	»	»	7,7	»	»	»	□	0-847-6038	»
1,34	51132	5 x 0,8	1,5	1,6	2,6	6,4	21,5	7,7	0,5	■	»	TH2 or TH2 S
	51232	6,3 x 0,8	»	»	»	7,7	»	»	»	■	0-847-6043	»
1,82	51133	5 x 0,8	1,73	1,9	2,6	6,4	21,5	7,7	0,5	■	0-847-6039	TH2 or TH2 S
	51233	6,3 x 0,8	»	»	»	7,7	»	»	»	■	0-847-6040	»

Preinsulated cable pins and blade terminals  
Preinsulated cable pins  
for thin insulating conductors



## General features

Material: tin-plated copper.

SNCF drawing: 10-5100-991.

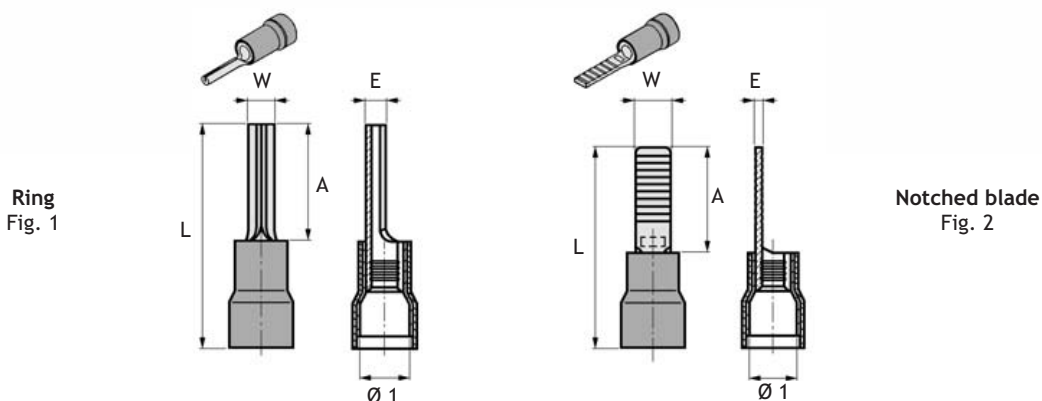
RATP drawing: MR-3-53170.

Compliant with  
**NFF 00363**

preinsulated cable pins for  
thin insulating conductors

Preinsulated cable pins and  
blade terminals

Tooling: see pages 38/39/40



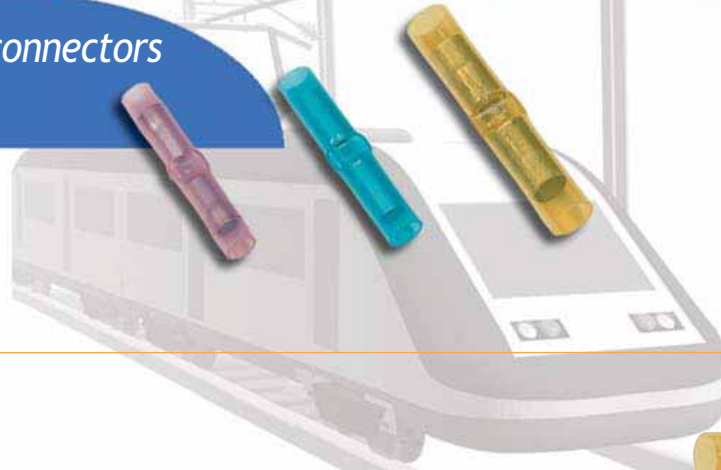
## Preinsulated cable pins and blade terminals

Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	Figure	Dimensions (mm)					SNCF part number	Hand tool part number
			W	A	L	Ø 1	E		
0,34 - 1,5	51220-2	Fig. 1	1,6	10	22,5	3,6	1,9	7-847-5051	TH1 or TH1 S
	51225-2	Fig. 2	2,9	10,2	21	»	0,8	7-847-5556	»
1 - 2,5	51222-2	Fig. 1	1,8	10	22	4,8	1,8	7-847-5002	TH2 or TH2 S
	51226-2	Fig. 2	3,9	11,5	»	»	0,8	7-847-5555	»
2,6 - 6	51223-4 J	Fig. 1	2,5	12	28	6,8	2,5	7-847-5003	TH3
	51227-4 J	Fig. 2	3,9	»	26,5	6,8	1,0	7-847-5561	»
— 2,6 - 6 —	51223-2 JN	Fig. 1	2,5	»	28	8,8	2,5	7-847-5393	TH3-2
	51227-2 JN	Fig. 2	3,9	»	30,5	»	1,0	7-847-5370	»

## Preinsulated cable pins for thin insulating conductors

Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	Ø maxi care	Ø insulation		Reducer colour	Dimensions (mm)				SNCF part number	Hand tool part number
			Mini	Maxi		W	A	L	E		
0,6	251220	1,04	1,2	2	—	1,9	10	22,5	1,9		TH1 or TH1 S
0,93	351220	1,3	1,4	»	□	»	»	»	»		»

Preinsulated end to end connectors  
with inspection window



Compliant with  
**NFF 00363**

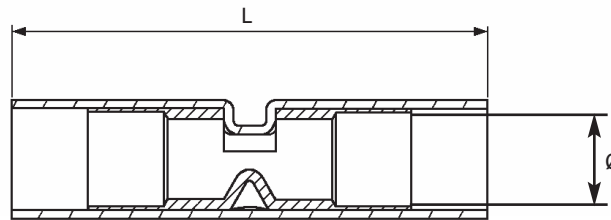
## General features

**Material:** tin-plated copper.

SNCF drawing: 10-5194-221.  
RATP drawing: MR-3-53171.



**Tooling:** see pages 38/39



Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	Dimensions (mm)		SNCF part number	Tool part number
		L	Insulation max Ø		
0,34 - 1,5	51 391	32	3,6	7-847-4323	TH 1 + stopper HF 20 or TH 1 S
1,0 - 2,5	51 402	32	4	7-847-4344	TH 2 + stopper HF 20 or TH 2 S
2,6 - 6	51 413	41,5	5,5	7-847-4120	TH3



Compliant with  
**NFF 00363**

### General features

**Material:** tin-plated copper.

**Note:** double crimp preinsulated tubular lugs.

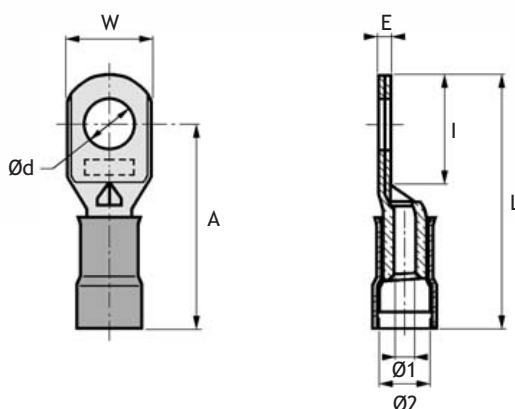
SNCF drawing: 10-5102-962.

RATP drawing: MR-3-52970.

**51190+ series**



**Tooling:** see pages 39/40



Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	Dimensions (mm)								SNCF part number	Hand tool part number
		W	L	E	Ø d	A	I	Ø 1	Ø 2		
1 - 2,5	51193-4 BC	11	32	1,6	3,2	25,8	13,6	2,8	6,8	7-847-7033	TH3
	51193 R-4 BC	8,5	»	2,2	»	»	»	»	»	7-847-4628	»
	51193 RR-4 BC	»	29	»	»	23,5	10	»	»	»	»
	51194-4 BC	11	32	1,6	4,2	25,8	13,6	»	»	7-847-7031	»
	51194 R-4 BC	8,5	»	2,2	»	»	»	»	»	7-847-5040	»
	51194 RR-4 BC	»	29	»	»	23,5	10	»	»	»	»
	51195-4 BC	11	32	1,6	5,2	25,8	13,6	»	»	7-847-4837	»
	51195 R-4 BC	8,5	»	2,2	»	»	»	»	»	7-847-4540	»
	51195 RR-4 BC	»	29	»	»	23,5	10	»	»	»	»
	51196-4 BC	11	32	1,6	6,4	25,8	13,6	»	»	7-847-7032	»
	51198-4 BC	12,5	»	1,5	8,4	25,8	14	»	»	7-847-5605	»
	51193 RRS-4 BC	7,5	32	2,2	3,2	27,8	13,5	2,8	6,8	Hole 2 mm offset to the top	»
51194 RRS-4 BC	»	»	»	4,2	»	»	»	»	»		
1 - 2,5	51193-2 NR	11	34	1,6	3,2	27,8	13,6	2,8	8,8		TH3-2
	51193 R-2 NR	8,5	»	2,2	»	»	»	»	»	7-847-5366	»
	51193 RR-2 NR	»	31	»	»	25,5	10	»	»	»	»
	51194-2 NR	11	34	1,6	4,2	27,8	13,6	»	»	»	»
	51194 R-2 NR	8,5	»	2,2	»	»	»	»	»	7-847-5365	»
	51194 RR-2 NR	»	31	»	»	25,5	10	»	»	»	»
	51195-2 NR	11	34	1,6	5,2	27,8	13,6	»	»	7-847-7034	»
	51195 R-2 NR	8,5	»	2,2	»	»	»	»	»	7-847-5363	»
	51195 RR-2 NR	»	31	»	»	25,5	10	»	»	»	»
	51196-2 NR	11	34	1,6	6,4	27,8	13,6	»	»	7-847-5362	»
	51198-2 NR	12,5	»	1,0	8,4	»	14	»	»	7-847-5364	»

### General features

**Material:** tin-plated copper.

**Note:** double crimp preinsulated tubular lugs.

SNCF drawing: 10-5102-963.

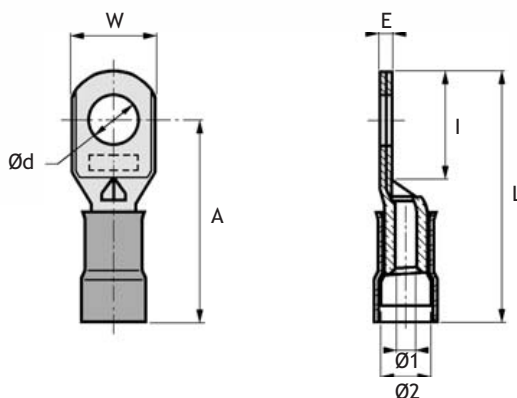
RATP drawing: MR-3-52969.

Compliant with  
**NFF 00363**

**C3P+ series**



Tooling: see pages 39/40



Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	Dimensions (mm)								SNCF part number	Hand tool part number
		W	L	E	Ø d	A	I	Ø 1	Ø 2		
2,6 - 6	C3P 40-4 J	11	32	1,2	4,2	25,8	13,6	3,5	6,8	7-847-4955	TH3
	C3P 40 R-4 J	8,5	»	1,5	»	»	»	»	»		
	C3P 40 RR-4 J	»	28	»	»	24	10	»	»		
	C3P 40 RRS-4 J	7,5	32	1,9	4,2	27,8	14	»	»		
	C3P 50-4 J	11	»	1,2	5,2	25,8	13,6	»	»	7-847-4956	
	C3P 50 R-4 J	8,5	»	1,5	»	»	»	»	»		
	C3P 50 RR-4 J	»	28	»	»	22,8	10	»	»		
	C3P 60-4 J	11	32	1,2	6,4	25,8	13,6	»	»	7-847-4957	
C3P 80-4 J	12,5	»	»	8,4	»	»	»	»			
- 2,6 - 6 -	C3P 40-2 JN	11	34	1,2	4,2	27,8	13,6	3,5	8,8	7-847-5485	TH3-2
	C3P 40 R-2 JN	8,5	»	1,5	»	»	»	»	»		
	C3P 40 RR-2 JN	»	28	»	»	24	10	»	»		
	C3P 50-2 JN	11	34	1,2	5,2	27,8	13,6	»	»	7-847-5486	
	C3P 50 R-2 JN	8,5	»	1,5	»	»	»	»	»		
	C3P 50 RR-2 JN	»	28	»	»	22,8	10	»	»		
	C3P 60-2 JN	11	34	1,2	6,4	27,8	13,6	»	»	7-847-5487	
	C3P 80-2 JN	12,5	»	»	8,4	»	»	»	»		





Compliant with  
**NFF 00363**

### General features

Material: tin-plated copper.

Note: double crimp preinsulated tubular lugs.

SNCF drawing: 10-5050-317.

RATP drawing: MR-3-52971.

**ELP** series



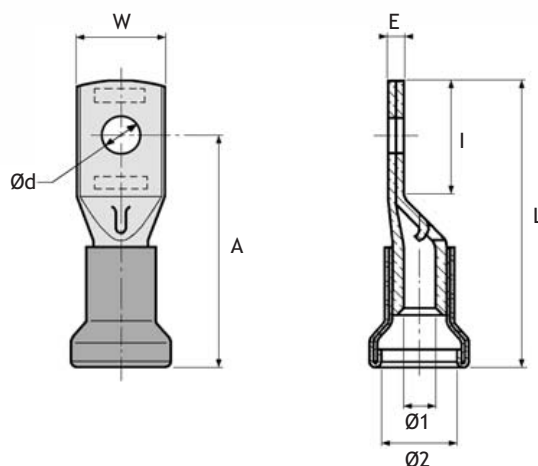
**NP** series



**FLP** series



Tooling: see pages 43/44



Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	Dimensions (mm)								SNCF part number
		W	L	E	Ø d	A	I	Ø 1	Ø 2	
10	ELP 40	14	42	2,0	4,2	34	17	5	11,2	7-847-5044
	ELP 50	»	»	»	5,2	»	»	»	»	7-847-4963
	ELP 60	»	»	»	6,3	»	»	»	»	7-847-4964
	ELP 80	»	»	»	8,3	»	»	»	»	7-847-4965
	ELP 100	17	44	1,7	10,3	36	20	»	»	7-847-4966
	ELP 120	»	»	»	12,8	»	»	»	»	
	ELPU 40	10	42	3,3	4,2	32	17	»	»	
	ELPU 50	»	»	»	5,2	»	»	»	»	
16	ESPU 50	13	»	2,3	5,2	34	»	»	»	
	FLP 50	15	46	2,0	5,2	38	20	6	13	7-847-5734
	FLP 60	»	»	»	6,3	»	»	»	»	7-847-4969
	FLP 80	»	»	»	8,3	»	»	»	»	7-847-4970
	FLP 100	18	»	1,8	10,3	»	21	»	»	7-847-4971
	FLP 120	»	»	»	12,6	»	»	»	»	
25	FLPU 50	12,5	»	3,0	5,2	»	20	»	»	
	NP 50	15	53	2,5	5,2	43	23	7,7	13,8	7-847-5491
	NP 60	»	»	»	6,3	»	»	»	»	7-847-4974
	NP 80	»	»	»	8,3	»	»	»	»	7-847-4975
	NP 100	17,5	»	2,2	10,3	»	»	»	»	7-847-5589
	NP 120	»	»	»	12,8	»	»	»	»	

### General features

**Material:** tin-plated copper.

For bent terminals, specify  $\alpha$  and  $\alpha'$   
 ( $\alpha$  maxi:  $90^\circ$  -  $\alpha'$  maxi:  $30^\circ$ ).

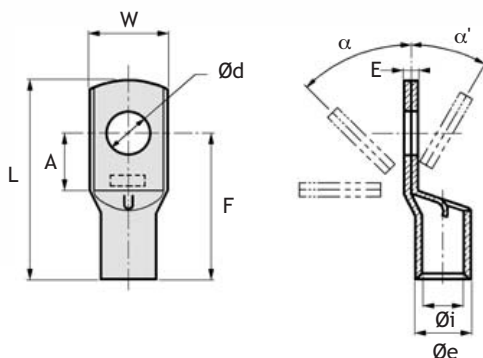
SNCF drawing: 10-5050-311.

RATP drawing: MR-3-52966.

**ELS and FLS series**



**Tooling:** see pages 41 to 46



Wire range (mm <sup>2</sup> )	Part number	Dimensions (mm)								SNCF part number
		W	L	E	Ø d	A	F	Ø i	Ø e	
10	ELS 40	13,5	34	3	4,2	9	26	5	8	7-847-7211
	ELS 50	»	»	»	5,2	»	»	»	»	7-847-7212
	ELS 60	»	»	»	6,4	»	»	»	»	7-847-7213
	ELS 80	»	»	»	8,3	»	»	»	»	7-847-7214
	ELS 100	16	36	1,9	10,3	12	28	»	»	7-847-7215
	ELS 120	»	»	»	12,8	»	»	»	»	7-847-7216
16	ELSU 40	10	32	3,3	4,2	»	25	»	»	
	FLS50	15	37	2,5	5,2	12	29	6	9	
	FLS 60	»	»	»	6,4	»	»	»	»	7-847-7217
	FLS 80	»	»	»	8,3	»	»	»	»	7-847-7218
	FLS 100	17	38	1,9	10,3	13	30	»	»	7-847-7219
	FLS 120	»	»	»	12,8	»	»	»	»	7-847-7220
	FLSU 50	12,5	37	3	5,2	»	29	»	»	

### General features

**Material:** tin-plated copper.

For bent terminals, specify  $\alpha$  and  $\alpha'$   
 ( $\alpha$  maxi:  $90^\circ$  -  $\alpha'$  maxi:  $30^\circ$ )  
 - from 25 to 185 mm<sup>2</sup>: only one crimping  
 - from 240 to 300 mm<sup>2</sup>: two crimping

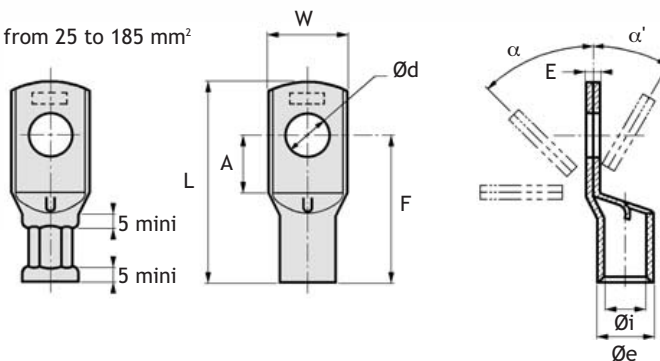
SNCF drawing: 10-5050-311.  
 RATP drawing: MR-3-52966.

**TN series**



**Tooling:** see pages 43 to 46

Crimping from 25 to 185 mm<sup>2</sup>



Wire range (mm <sup>2</sup> )	Part number	Dimensions (mm)								SNCF part number
		W	L	E	Ø d	A	F	Ø i	Ø e	
25	TN 25-5	15	45	2,8	5,2	13	35	7,7	10,5	7-847-5853
	TN 25-6	»	»	»	6,4	»	»	»	»	7-847-5854
	TN 25-8	»	»	»	8,3	»	»	»	»	7-847-5855
	TN 25-10	17,5	»	2,3	10,3	»	»	»	»	7-847-4147
35	TN 35-6	18	50	3,0	6,4	13	39	9,0	12	7-847-7222
	TN 35-8	»	»	»	8,3	»	»	»	»	7-847-7223
	TN 35-10	»	»	»	10,3	»	»	»	»	7-847-7224
50	TN 50-6	21	58	3,0	6,4	14	46	10,8	14	7-847-5860
	TN 50-8	»	»	»	8,3	»	»	»	»	7-847-5861
	TN 50-10	»	»	»	10,3	»	»	»	»	7-847-5862
	TN 50-12	»	»	»	12,8	»	»	»	»	7-847-5863
60	TN 60-8	22	60	3,2	8,3	14	42	11,8	15	
	TN 60-10	»	»	»	10,3	»	»	»	»	
	TN 60-12	»	»	»	12,8	»	»	»	»	
70	TN 70-8	23	66	3,5	8,3	17	51	12,5	16	7-847-5864
	TN 70-10	»	»	»	10,3	»	»	»	»	7-847-5865
	TN 70-12	»	»	»	12,8	»	»	»	»	7-847-5866
95	TN 95-10	27	73	4,0	10,3	18	56,5	14,5	18,5	7-847-5868
	TN 95-12	»	»	»	12,8	»	»	»	»	7-847-5869
	TN 95-14	»	»	»	14,5	»	»	»	»	7-847-5870

### General features

**Material:** tin-plated copper.

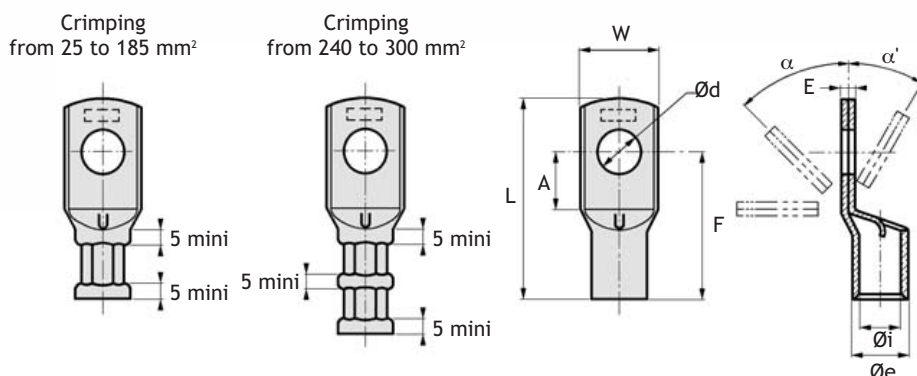
For bent terminals, specify  $\alpha$  and  $\alpha'$   
 ( $\alpha$  maxi:  $90^\circ$  -  $\alpha'$  maxi:  $30^\circ$ )  
 - from 25 to 185 mm<sup>2</sup>: only one crimping  
 - from 240 to 300 mm<sup>2</sup>: two crimping

SNCF drawing: 10-5050-311.  
 RATP drawing: MR-3-52966.

**TN series**



Tooling: see pages 43 to 46



Wire range (mm <sup>2</sup> )	Part number	Dimensions (mm)								SNCF part number
		W	L	E	$\emptyset d$	A	F	$\emptyset i$	$\emptyset e$	
120	TN 120-10	30	83,5	4,5	10,3	21	66	16,5	21	
	TN 120-12	»	»	»	12,8	»	»	»	»	7-847-5871
	TN 120-14	»	»	»	14,5	»	»	»	»	7-847-5872
	TN 120-16	»	»	»	16,5	»	»	»	»	7-847-5873
150	TN 150-10	32	90	4,5	10,3	23	71	18	23	
	TN 150-12	»	»	»	12,8	»	»	»	»	7-847-5620
	TN 150-14	»	»	»	14,5	»	»	»	»	7-847-5874
	TN 150-16	»	»	»	16,5	»	»	»	»	7-847-5875
185	TN 150-18	»	»	»	18,8	»	»	»	»	7-847-5876
	TN 185-12	38	102	5,5	12,8	23	78	20,5	26	7-847-5877
	TN 185-14	»	»	»	14,5	»	»	»	»	7-847-5878
	TN 185-16	»	»	»	16,5	»	»	»	»	7-847-5879
240	TN 185-18	»	»	»	18,8	»	»	»	»	7-847-5880
	TN 240-14	42	110	6	14,5	28	86	23	29	7-847-5881
	TN 240-16	»	»	»	16,5	»	»	»	»	7-847-5882
	TN 240-18	»	»	»	18,8	»	»	»	»	7-847-5883
300	TN 240-20	»	»	»	21	»	»	»	»	
	TN 300-16	48	123	7	16,5	32	97	26	33	7-847-4146
	TN 300-18	»	»	»	18,8	»	»	»	»	7-847-5884
	TN 300-20	»	»	»	21	»	»	»	»	
	TN 300-22	»	»	»	22,9	»	»	»	»	7-847-5885

### General features

**Material:** tin-plated copper.

For bent terminals, specify  $\alpha$  and  $\alpha'$   
( $\alpha$  maxi:  $90^\circ$  -  $\alpha'$  maxi:  $30^\circ$ )

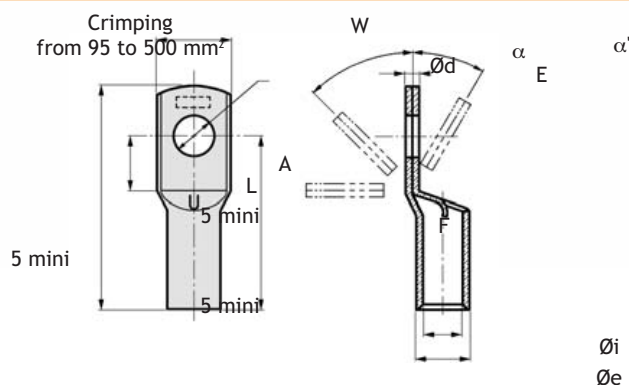
Two hexagonal crimping operations.

SNCF drawing: 10-5050-312.  
RATP drawing: MR-3-52967.

TR series



Tooling: see page 46



Wire range (mm <sup>2</sup> )	Part number	Dimensions (mm)								SNCF part number
		W	L	E	$\varnothing d$	A	F	$\varnothing i$	$\varnothing e$	
95	TR 95-10	30,5	80	6	10,3	18,3	64	15,5	21,5	
	TR 95-12	»	»	»	12,8	»	»	»	»	
	TR 95-14	»	»	»	14,5	»	»	»	»	
	TR 95-16	»	»	»	16,5	»	»	»	»	
	TR 95-18	»	»	»	18,8	»	»	»	»	
120	TR 120-10	34	88,5	6,6	10,3	24	70,5	17,6	24,5	
	TR 120-12	»	»	»	12,8	»	»	»	»	
	TR 120-14	»	»	»	14,5	»	»	»	»	
	TR 120-16	»	»	»	16,5	»	»	»	»	
	TR 120-18	»	»	»	18,8	»	»	»	»	
150	TR 150-10	37	96	7	10,3	21	75	19	26	
	TR 150-12	»	»	»	12,8	»	»	»	»	
	TR 150-14	»	»	»	14,5	»	»	»	»	
	TR 150-16	»	»	»	16,5	»	»	»	»	
	TR 150-18	»	»	»	18,8	»	»	»	»	
185	TR 150-20	»	»	»	21	»	»	»	»	
	TR 185-12	40	104,5	7	12,8	27	82,5	21	28	
	TR 185-14	»	»	»	14,5	»	»	»	»	
	TR 185-16	»	»	»	16,5	»	»	»	»	
	TR 185-18	»	»	»	18,8	»	»	»	»	
240	TR 185-20	»	»	»	21	»	»	»	»	
	TR 185-22	»	»	»	22,9	»	»	»	»	
	TR 240-16	44	112	7	16,5	27	88	24	31	
	TR 240-18	»	»	»	18,8	»	»	»	»	
300	TR 240-20	»	»	»	21	»	»	»	»	
	TR 240-22	»	»	»	22,9	»	»	»	»	
	TR 300-16	50	130	8,5	16,5	28	103	26,5	35	
	TR 300-18	»	»	»	18,8	»	»	»	»	
	TR 300-20	»	»	»	21	»	»	»	»	
400	TR 300-22	»	»	»	22,9	»	»	»	»	
	TR 300-24	»	»	»	25	»	»	»	»	
	TR 400-24	60,5	130	9	24,9	28	100	33	42	
500	TR 500-30	72	140	10	30,9	32	110	40	50	

## Two hole copper tubular lugs



Compliant with  
NFF 00363

### General features

**Material:** tin-plated copper.  
For bent terminals, specify  $\alpha$  and  $\alpha'$   
( $\alpha$  maxi:  $90^\circ$  -  $\alpha'$  maxi:  $30^\circ$ )

**Note:**  
Series TN: two hexagonal crimping operations from 240 mm<sup>2</sup>.  
Series TRS: two hexagonal crimping operations.

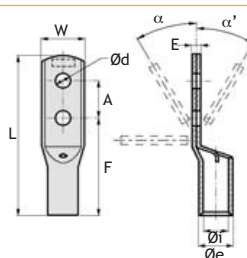
**TRS series**



**TN series**

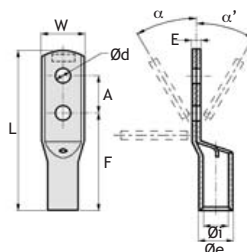


Tooling: see pages 45/46



### Two hole narrow palm terminals

Wire range (mm <sup>2</sup> )	Part number	Dimensions (mm)								SNCF part number
		W	L	E	Ø d	A	F	Ø i	Ø e	
185	TRS 185	34,5	151	7	12,8	40	90	21,8	28,5	
240	TRS 240	34,5	150	7	12,8	40	90	24	30,6	
400	TRS 400	49,5	180	9	14,8	50	105	26,5	35	



### Two hole foolproofing lugs for motor terminal box

Wire range (mm <sup>2</sup> )	Part number	Dimensions (mm)								SNCF part number
		W	L	E	Ø d	A	F	Ø i	Ø e	
50	TN50-10-24	20	86	3	10,3	24	47	10,8	14	
	TN50-10-29	»	91	»	»	29	»	»	»	
	TN50-10-34	»	96	»	»	34	»	»	»	
70	TN70-10-24	23	87	3,5	10,3	24	51	12,5	16	
	TN70-10-29	»	94	»	»	29	»	»	»	
	TN70-10-34	»	99	»	»	34	»	»	»	
95	TN95-10-24	27,5	93	4	10,3	24	56,5	14,5	18,5	
	TN95-10-29	»	98	»	»	29	»	»	»	
	TN95-10-34	»	103	»	»	34	»	»	»	
120	TN120-10-24	30	105	4,5	10,3	24	68	16,5	21	
	TN120-10-29	»	»	»	»	29	63	»	»	
	TN120-10-34	»	»	»	»	34	58	»	»	

### Two hole terminals according to NEMA standard

Wire range (mm <sup>2</sup> )	Part number	Dimensions (mm)								SNCF part number
		W	L	E	Ø d	A	F	Ø i	Ø e	
70	TN70-10-25,4	23	87	3,5	10,3	25,4	49,5	12,5	16	
95	TN95-10-25,4	26,5	94	4	»	»	53,5	14,5	18,5	
120	TN120-10-25,4	30	102	4,5	»	»	61,5	16,5	21	
150	TN150-10-25,4	33	109	5	»	»	67,5	18	23	
240	TN240-10-25,4	42	113,5	6	»	»	73	23	29	

### General features

**Material:** tin-plated copper.

SNCF drawing: 10-5050-313.

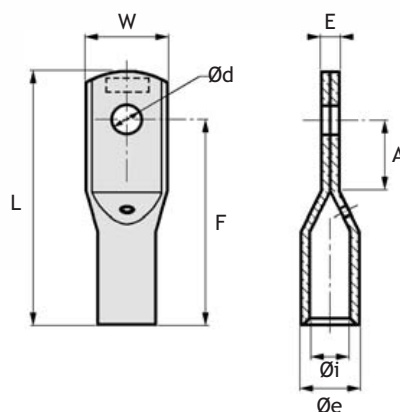
RATP drawing: MR-3-52968.

**Note:** two hexagonal crimping operations from 185 mm<sup>2</sup>

**TRS series**



Tooling: see page 46



Wire range (mm <sup>2</sup> )	Part number	Dimensions (mm)								SNCF part number	Comments
		W	L	E	Ø d	A	F	Ø i	Ø e		
95	TRS95-10	24	82	6	10,3	30	67	15,5	21,5		narrow palm
	TRS95-12	»	»	»	12,8	»	»	»	»		»
120	TRS446-10	23	73	»	10,3	18	56	16,5	22,5		narrow palm
	TRS446-12	»	»	»	12,8	»	»	»	»	0-847-6109	»
	TRS446-14	»	»	»	14,5	»	»	»	»	0-847-6107	»
	TRS448-10	»	86	»	10,3	28	67	»	»		»
	TRS448-12	»	»	»	12,8	»	»	»	»		»
150	TRS448-14	»	»	»	14,5	»	»	»	»		»
	TRS450	30	90	»	12,8	27	71	18,5	24,5		narrow palm
185	TRS450-14	»	»	»	14,5	»	»	»	»		»
	TRS452-12	32	107	7	12,8	40	87	21	21		narrow palm
	TRS452	»	»	»	14,5	»	»	»	27		»
	TRS452-16	»	»	»	16,5	»	»	»	»		»
	TRS452OBL	»	»	»	17/19	»	»	»	»		oblong hole
240	TRS455	32	107	8	14,5	27	85	23	29		according to drawing 10-5091834
	TRS453	40	112	6,5	14,5	27	87	»	»		»
400	TRS456	50	130	8,5	21	25	105	31	39		narrow palm

Note: two hole copper tubular lugs with axial palm on demand.

### General features

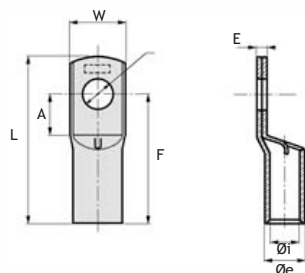
Material: tin-plated copper.

Compliant with  
NFF 00363



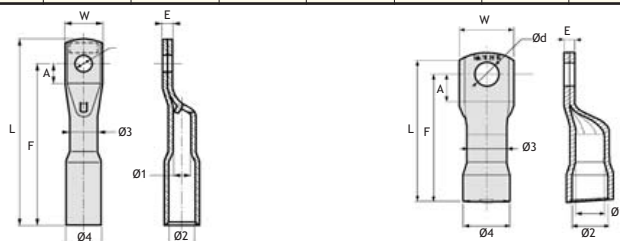
Tooling: see pages 45/46

Crimping  
from 95 to 500 mm<sup>2</sup>



### Terminals with narrow palm

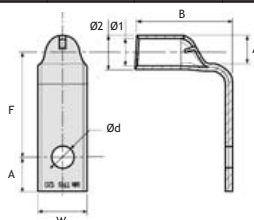
Wire range (mm <sup>2</sup> )	Part number	Dimensions (mm)								Comments
		W	L	E	Ø d	A	F	Ø i	Ø e	
185	TRS185-1B	34,5	111	7	12,8	20,5	92	21,8	28,5	die TRS185, double crimp
240	TRS240-1B	34,5	110	»	»	21,5	90,5	24	30,6	die TRS240, double crimp
»	TRS242-12	38	110	6	»	28	86	23	30	die TRS258, double crimp



### Back traction copper lug with insulation crimping

TRS 262: SNCF Sign 7-847-7035 (SNCF Drawing 10-5050-314 - RATP MR-3-53174)

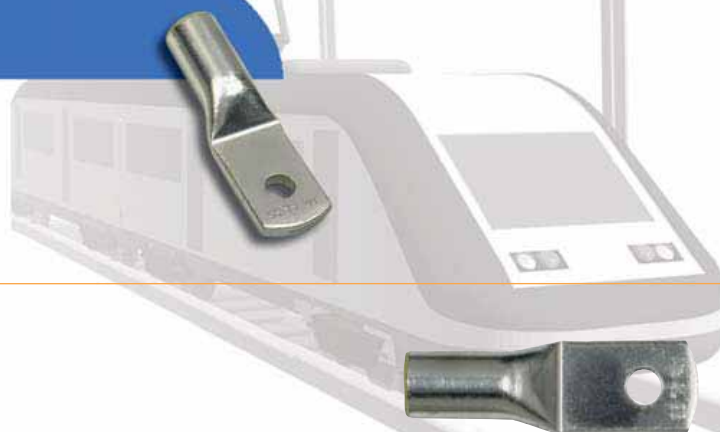
Wire range (mm <sup>2</sup> )	Part number	Dimensions (mm)										Comments
		W	L	E	Ø d	A	F	Ø 1	Ø 2	Ø 3	Ø 4	
50	TRS262	23,3	115	6	10,6	13	100,5	10,6	16,2	17	21,5	one crimp on the core and one crimp on insulation
95	TRS246	30	82	6	12,8	15	70	15,5	19,5	21,5	25,5	
»	TRS246-10-25	»	107	6	10,3	25,2	70	»	»	»	»	



### Specific bent lugs

Wire range (mm <sup>2</sup> )	Part number	Dimensions (mm)								Comments
		W	B	E	Ø d	A	F	Ø 1	Ø 2	
95	TRS95-12-90E	26,5	40	4	12,8	16	75	14,5	18,5	die TN95, one crimp
	TRS95-14-90E	»	»	»	14,8	»	75	»	»	»
120	TRS120-12-90E	30,2	55	4,5	12,8	16	65	16,5	21	die TN120, one crimp
150	TRS150-12-90E	33	56	5	12,8	19	65	18	23	die TN150, one crimp
185	TRS185-12-90E	37,5	70	5,5	12,8	24	70	20,6	26	die TN185, one crimp
240	TRS240-12-90E	42	75	6	12,8	24	75	23	29	die TN240, double crimp





Compliant with  
**NFF 00363**

### General features

**Material:** 1050 aluminium.

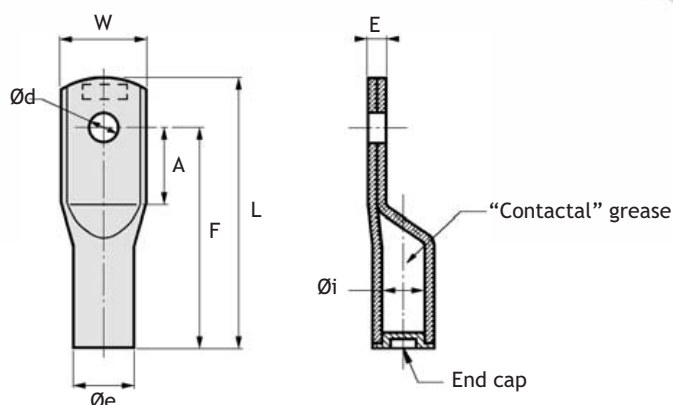
SNCF drawing: 10-5089-290.

RATP drawing: MR-3-53175.

**Note:** from 50 to 150, two hexagonal crimping operations.



**Tooling:** see pages 45/46



Wire range (mm <sup>2</sup> )	Part number	Dimensions (mm)								SNCF part number
		W	L	E	Ø d	A	F	Ø i	Ø e	
50	AL 50-6	20,6	65	5	6,4	17	52	10,8	15,8	
	AL 50-8	»	»	»	8,3	»	»	»	»	
	AL 50-10	»	»	»	10,3	»	»	»	»	
	AL 50-12	»	»	»	12,8	»	»	»	»	
60	AL 60-8	20,6	69	5	8,3	20	56	11,6	16,3	
	AL 60-10	»	»	»	10,3	»	»	»	»	7-847-4595
70	AL 70-8	21	82	4,6	8,3	22,5	65	12,5	17	
	AL 70-10	»	»	»	10,3	»	»	»	»	
	AL 70-12	»	»	»	12,8	»	»	»	»	
95	AL 95-8	28	87	6	8,3	24,5	70,5	14	20	
	AL 95-10	»	»	»	10,3	»	»	»	»	
	AL 95-12	»	»	»	12,8	»	»	»	»	
	AL 95-14	»	»	»	14,5	»	»	»	»	
120	AL 120-10	28	87	6	10,3	24,5	70,5	16,5	22	
	AL 120-12	»	»	»	12,8	»	»	»	»	
	AL 120-14	»	»	»	14,5	»	»	»	»	
150	AL 150-12	28,5	95	6	12,8	28	82	18,5	24	
	AL 150-14	»	»	»	14,5	»	»	»	»	
	AL 150-16	»	»	»	16,5	»	»	»	»	
	AL 150 B-14	»	110	»	14,5	25,5	90	»	»	7-847-8251
	AL 150 B-18	»	»	»	18,8	»	»	»	»	



Compliant with  
**NFF 00363**

### General features

**Material:** 1050 aluminium.

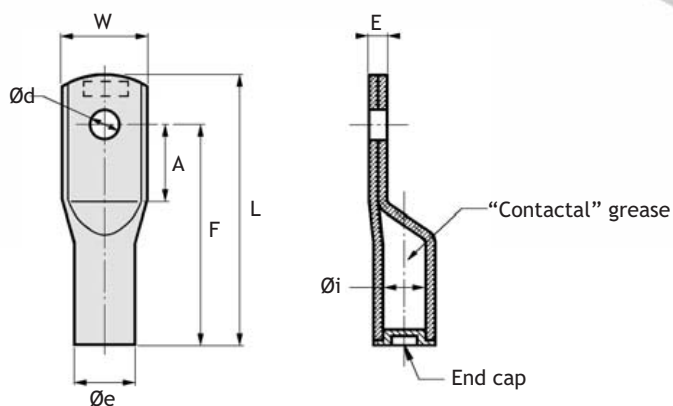
SNCF drawing: 10-5089-290.

RATP drawing: MR-3-53175.

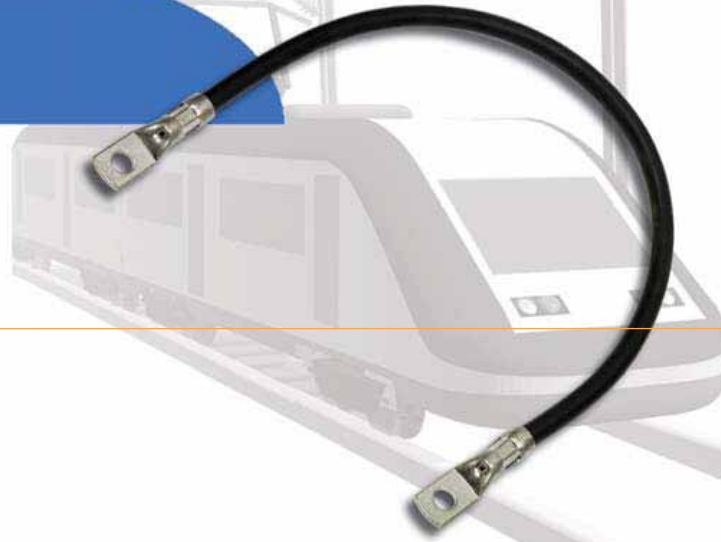
**Note:** from 185 to 460, two hexagonal crimping operations.



Tooling: see page 46

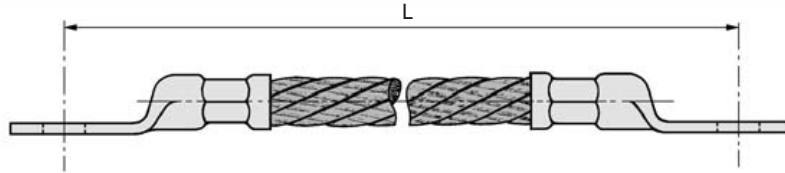


Wire range (mm <sup>2</sup> )	Part number	Dimensions (mm)								SNCF part number
		W	L	E	Ø d	A	F	Ø i	Ø e	
185	AL 185-10	34	130	6	10,3	25,5	110	21	27	
	AL 185-12	»	»	»	12,8	»	»	»	»	
	AL 185-14	»	»	»	14,5	»	»	»	»	
	AL 185-16	»	»	»	16,5	»	»	»	»	
240	AL 240-12	41	130	6,5	12,8	28	110	23	30	
	AL 240-14	»	»	»	14,5	»	»	»	»	7-847-7355
	AL 240-16	»	»	»	16,5	»	»	»	»	
	AL 240-18	»	»	»	18,8	»	»	»	»	
	AL 240-20	»	»	»	21	»	»	»	»	
260	AL 260-14	38,5	114	6,5	14,5	29	94	25,5	32	
	AL 260-16	»	»	»	16,5	»	»	»	»	
	AL 260-18	»	»	»	18,8	»	»	»	»	
300	AL 300-14	46	136	8,8	14,5	30	113	27	34,6	
	AL 300-16	»	»	»	16,5	»	»	»	»	
	AL 300-18	»	»	»	18,8	»	»	»	»	
	AL 300-20	»	»	»	21	»	»	»	»	
460	AL 460-16	52	150	10	16,5	35	125	32,5	42	
	AL 460-18	»	»	»	18,8	»	»	»	»	
	AL 460-20	»	»	»	21	»	»	»	»	
	AL 460-22	»	»	»	23	»	»	»	»	
	AL 460-24	»	»	»	25	»	»	»	»	



### General features

Shunt manufacturing on request.



Wire range	Part number	L (mm)	Connection with
35	SCHT 10-8003	700	1 conductor Y 1500 S 296 - 35 mm <sup>2</sup> 2 lugs TNS 70 R
95	SH 95-350	350	1 conductor Y 1500 S 296 - 95 mm <sup>2</sup>
	SH 95-450	450	2 lugs TN 95-12
	SH 95-600	600	2 heat-shrinkable tubing



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# Signalling stationary equipment products

● *Preinsulated terminals*



● *Preinsulated disconnects and end-splices*



● *Preinsulated butt and window connectors*



● *Tubular lugs and butt connectors*



*Signalling stationary equipment products*

## Double crimp preinsulated ring terminals



Compliant with  
NFF 00363

### General features

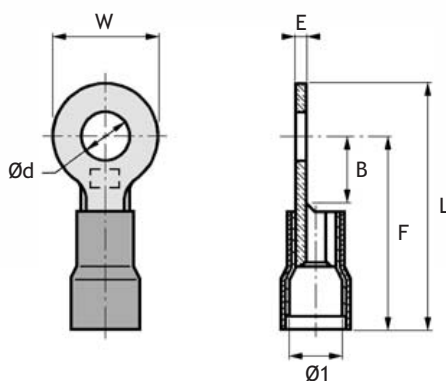
Double crimp preinsulated ring terminals

Material: tin-plated copper.

SNCF drawing: VZA 17692/000007.



Tooling: see pages 38/39



Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	SNCF part number	Dimensions (mm)							Tool part number	SNCF part number
			W	L	E	Ø d	F	B	Ø 1		
0,34 - 1,5	51143-2	7-847-4839	5,6	17,3	0,8	3,2	14,5	3,5	3,6	TH1 S	0-0391-6840
	51154-2	7-847-5028	8	21	»	4,2	17	6	»	»	»
	51155-2	7-847-1112	»	»	»	5,2	»	»	»	»	»
	51136-2	7-847-4251	12,5	27	»	6,3	20,7	6,5	»	»	»
0,34 - 1,5	51143-2 BC	7-847-5369	5,6	17,3	»	3,2	14,5	3,5	»	»	»
	51154-2 BC	7-847-5368	8	21	»	4,2	17	6	»	»	»
	51135-2 BC	7-847-4984	12,5	27	»	5,2	20,7	6,5	»	»	»
	51136-2 BC	7-847-5367	»	»	»	6,3	»	»	»	»	»
1 - 2,5	51183-2	7-847-5237	8,6	21	0,8	3,2	16,7	6	4,8	TH2 S	7-847-7141
	51184-2	7-847-5532	»	»	»	4,2	»	»	»	»	»
	51185-2	7-847-5483	»	»	»	5,2	»	»	»	»	»
	51176-2	7-847-5484	12,5	27	»	6,3	20,7	»	»	»	»
	51178-2	7-847-4678	»	»	»	8,4	»	»	»	»	»
- 2,6 - 6 -	STC 1-4-2 JN	7-847-5389	9,6	29,5	0,8	4,2	24,7	7	8,8	TH3-2	0-391-6837
	STC 1-5-2 JN	7-847-4679	»	»	»	5,2	»	»	»	»	»
	STC 1-6-2 JN	7-847-4216	»	»	»	6,3	»	»	»	»	»
	STC 2-8-2 JN	7-847-4363	13,8	35	»	8,4	28,1	8	»	»	»
	STC 2-10-2 JN	7-847-5390	»	»	»	10,3	»	»	»	»	»
	STC 2-12-2 JN	7-847-4886	19	42	»	12,8	32,5	14	»	»	»

Double crimp preinsulated fork terminals  
Double crimp preinsulated tubular lugs

Compliant with  
**NFF 00363**


## General features

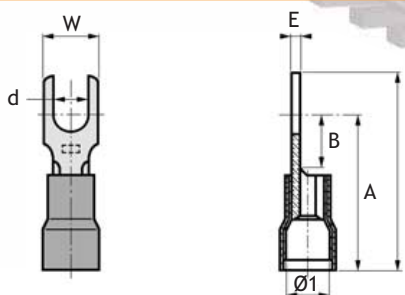
### Double crimp preinsulated fork terminals

**Material:** tin-plated copper.  
SNCF drawing: VZA 17692/000002.

### Double crimp preinsulated tubular lugs

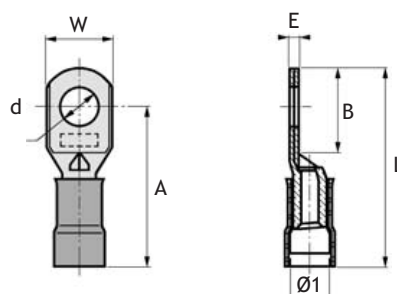
**Material:** tin-plated copper.  
SNCF drawing: VZA 17692/000008.

 **Tooling:** see pages 38/39



## Double crimp preinsulated fork terminals

Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	SNCF part number	Dimensions (mm)							Tool part number	SNCF part number
			W	L	E	d	A	B	Ø 1		
0,34 - 1,5	STRGFA1-3-2	7-847-5750	5,5	20	0,8	3,2	16,3	6	3,6	TH1 S	0-391-6840
	STRGFA2-4-2	7-847-5006	8	»	»	4,2	16,4	»	»	»	»
	STRGFA2-5-2	7-847-5007	»	»	»	5,3	»	»	»	»	»
0,34 - 1,5	STRGFA2-4-2 BC	7-847-5005	»	»	»	4,2	»	»	»	»	»
1 - 2,5	STRGFB1-3-2	7-847-4682	7,9	20,5	0,8	3,2	16,5	6	4,8	TH2 S	7-847-7141
	STRGFB1-4-2	7-847-4683	»	»	»	4,2	»	»	»	»	»
	STRGFB2-5-2	7-847-4684	9,5	23	»	5,3	18,8	8	»	»	»
- 2,6 - 6 -	STRGFC1-4-2 JN	7-847-5391	9,5	29	0,8	4,2	24,2	4,5	8,8	TH3-2	0-391-6837
	STRGFC1-5-2 JN	7-847-5392	»	»	»	5,2	24,2	»	»	»	»
	STRGFC1-6-2 JN	7-847-5119	»	»	»	6,2	24,2	»	»	»	»



## Double crimp preinsulated tubular lugs

Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	SNCF part number	Dimensions (mm)							Tool part number	SNCF part number
			W	L	E	Ø d	A	B	Ø 1		
1 - 3,18	51193R-2 NR	7-847-5366	8,1	34	2,2	3,2	27,8	7,4	8,8	TH3-2	0-391-6837
	51194R-2 NR	7-847-5365	»	»	»	4,2	»	»	»	»	»
	51195R-2 NR	7-847-5363	»	»	»	5,2	»	»	»	»	»
	51196-2 NR	7-847-5362	10,6	»	1,6	6,4	»	»	»	»	»
	51198-2 NR	7-847-5364	11,6	»	1	8,4	»	»	»	»	»
7,40	C4P 60-2 G	7-847-5361	10,6	34	1,2	6,4	25,8	7,4	8,8	TH3-2	0-391-6837
	C4P 80-2 G	7-847-5661	11,6	»	»	8,4	22,8	»	»	»	»

# Signalling stationary equipment products

Double crimp preinsulated disconnects 2,8-5-6,35 mm width  
Double crimp preinsulated blade and pin



Compliant with  
NFF 00363

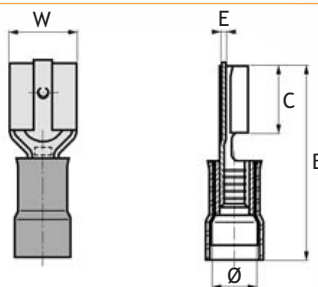
## General features

Double crimp preinsulated disconnects 2,8-5-6,35 mm width  
Material: phosphorous bronze.  
SNCF drawing: VZA 17692/000001.

Double crimp preinsulated end-splices  
Material: tin-plated copper.  
SNCF drawing: VZA 17692/000003.

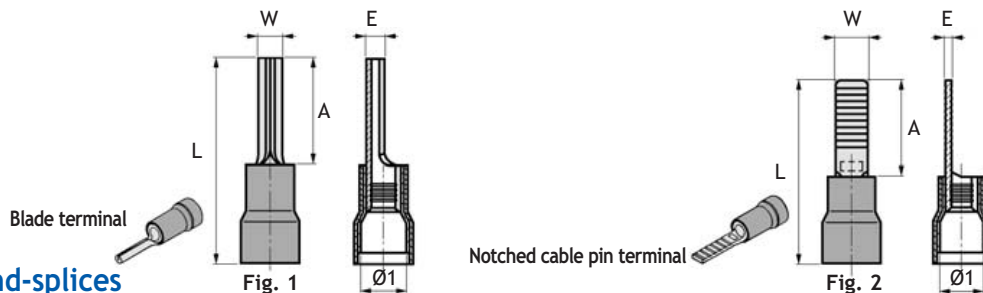


Tooling: see pages 38/39



## Double crimp preinsulated disconnects 2,8-5-6,35 mm width

Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	SNCF part number	Coating	Male disconnect (mm)	Dimensions (mm)					Tool part number	SNCF part number
					A	B	C	E	Ø		
0,34 - 1,5	51027	7-847-4593	Dorure	2,8 x 0,5	3,8	19,5	6,5	0,25	3,6	TH1 90	0-391-6844
	51081-2	7-847-4728	Etain	5 x 0,8	6,4	21	7,7	0,5	»	TH1 S	0-391-6840
	51181-2	7-847-4700	»	6,35 x 0,8	7,7	»	»	»	»	»	»
0,34 - 1,5	51328	7-847-6210	Dorure	2,8 x 0,3	3,8	19,5	6,5	0,25	3,6	TH1 90	0-391-6844
	51028	7-847-4591	»	2,8 x 0,5	»	»	»	»	»	TH1-90	0-391-6844
1 - 2,5	51131-2	7-847-4999	Etain	5 x 0,8	7,7	21	7,7	0,5	4,8	TH2 S	7-847-7141
	51231-2	7-847-4797	»	6,35 x 0,8	»	20,2	»	»	»	»	»
1 - 3,18	51261-2 NR	7-847-6798	Etain	6,35 x 0,8	7,7	27,5	7,7	0,5	8,8	TH3-2	0-391-6837



## Double crimp preinsulated end-splices

Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	SNCF part number	Fig.	Dimensions (mm)					Tool part number	SNCF part number
				W	A	L	Ø 1	E		
0,34 - 1,5	51220-2	7-847-5051	Fig. 1	1,9	10	22,5	3,6	1,9	TH1 S	0-391-6840
	51225-2	7-847-5556	Fig. 2	2,9	10,2	21	»	0,8	TH1 S *	0-391-6840
0,34 - 1,5	51220-2 BC	7-847-5359	Fig. 1	1,9	10	22,5	»	1,9	TH1 S	0-391-6840
	51225-2 BC	7-847-5890	Fig. 2	2,9	10,2	21	»	0,8	TH1 S *	0-391-6840
1 - 2,5	51222-2	7-847-5002	Fig. 1	1,8	10	22	4,8	1,8	TH2 S	7-847-7141
	51226-2	7-847-5555	Fig. 2	3,9	11,5	»	»	0,8	»	»
1 - 3,18	53226-2 R	7-847-6038	Fig. 2	3,9	14	30	8,8	0,9	TH3-2	0-391-6837
1 - 3,18	53226-2 NR	7-847-6037	»	»	»	»	»	»	»	»
- 2,6 - 6 -	51223-2 JN	7-847-5393	Fig. 1	2,5	12	28	8,8	2,5	TH3-2	0-391-6837
	51227-2 JN	7-847-5370	Fig. 2	3,9	»	30,5	»	1,0	»	»
7,40	51227-2G	7-847-6352	Fig. 2	3,9	16	32	8,8	1,2	TH3-2	0-391-6837

\*For a 90° crimping, use the pliers part number TH1-90 (SNCF drawing: 0-391-6844).



Preinsulated end to end connectors with inspection window



Compliant with  
**NFF 00363**

## General features

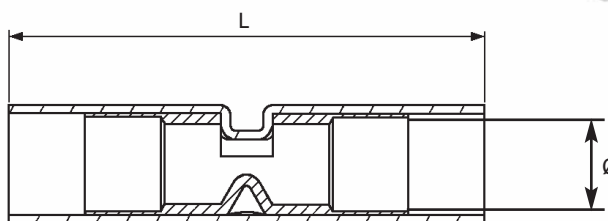
Preinsulated end to end connectors with inspection hole

Material: tin-plated copper.

SNCF drawing: VZA 17692/000004.



Tooling: see pages 38/39



Wire range (mm <sup>2</sup> ) (insulation colour)	Part number	SNCF part number	Dimensions (mm)		Tool part number	SNCF part number
			L	Ø		
0,34 - 1,5	51391	7-847-4323	32	3,6	TH1 S	0-391-6840
1 - 2,5	51402	7-847-4344	»	4	TH2 S	7-847-7141
2,6 - 6	51413	7-847-4120	41,5	5,5	TH3-2	0-391-6837

## Copper tubular lugs Copper connectors



Compliant with  
NFF 00363

### General features

#### Copper tubular lugs

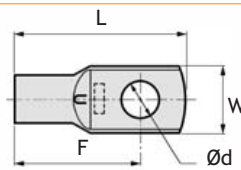
Material: tin-plated copper.  
SNCF drawing: VZA 17692/000006.

#### Copper connectors

Material: tin-plated copper.  
SNCF drawing: VZA 17692/000005.

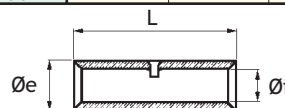


Tooling: please contact us



### Copper tubular lugs

Wire range (mm <sup>2</sup> )	Part number	SNCF part number	Dimensions (mm)				SNCF part number
			W	L	Ø d	F	
6,6 - 10	ELS 40	7-847-7211	13,5	34	4,2	26	0-391-6832 or 0-391-6850 + 0-391-6851
	ELS 50	7-847-7212	»	»	5,2	»	»
	ELS 60	7-847-7213	»	»	6,4	»	»
	ELS 80	7-847-7214	»	»	8,3	»	»
	ELS 100	7-847-7215	16	36	10,3	28	»
	ELS 120	7-847-7216	»	»	12,8	»	»
16	FLS 60	7-847-7217	14,5	37	6,4	29	0-391-6832 or 0-391-6850 + 0-391-6852
	FLS 80	7-847-7218	»	»	8,3	»	»
	FLS 100	7-847-7219	16,5	38	10,3	30	»
	FLS 120	7-847-7220	»	»	12,8	»	»
25	TN 25-5	7-847-5853	14,3	45	5,2	35	0-391-6832 or 0-391-6850 + 0-391-6853
	TN 25-6	7-847-5854	»	»	6,4	»	»
	TN 25-8	7-847-5855	»	»	8,3	»	»
	TN 25-10	7-847-4147	17	»	10,3	»	»
	TN 25-12	7-847-7221	»	»	12,8	»	»
35	TN 35-6	7-847-7222	18	50	6,4	39	0-391-6832 or 0-391-6850 + 0-391-6851
	TN 35-8	7-847-7223	»	»	8,3	»	»
	TN 35-10	7-847-7224	»	»	10,3	»	»
	TN 35-12	7-847-7225	»	»	12,8	»	»
50	TN 50-6	7-847-5860	19	58	6,4	46	0-391-6850 + 0-391-6852
	TN 50-8	7-847-5861	»	»	8,3	»	»
	TN 50-10	7-847-5862	»	»	10,3	»	»
	TN 50-12	7-847-5863	»	»	12,8	»	»
70	TN 70-8	7-847-5864	22	66	8,3	51	0-391-6850 + 0-391-6853
	TN 70-10	7-847-5865	»	»	10,3	»	»
	TN 70-12	7-847-5866	»	»	12,8	»	»



### Copper connectors

Wire range (mm <sup>2</sup> )	Part number	SNCF part number	Dimensions (mm)			SNCF part number
			L	Ø i	Ø e	
0,3 - 1,5	MJ 1,5	7-847-4598	14,5	1,7	3,2	7-931-0114
1 - 2,5	MJ 2,5	7-847-5358	»	2,2	3,9	»
2,6 - 6	MJ 3 S	7-847-5357	»	3,2	4,9	»
6,6 - 10	MJ 10 SH	7-847-7200	30	4,7	8	0-391-6832 or 0-391-6850 + 0-391-6851
16	MJ 16 SH	7-847-7201	35	5,6	9	0-391-6832 or 0-391-6850 + 0-391-6852
25	MJ 25 SH	7-847-7202	»	7,4	10,4	0-391-6832 or 0-391-6850 + 0-391-6853
35	MJ 35 SH	7-847-7203	»	8,6	11,9	0-391-6832 or 0-391-6850 + 0-391-6851
50	MJ 50 SH	7-847-7204	45	10,4	13,9	0-391-6850 + 0-391-6852
70	MJ 70 SH	7-847-7205	50	12,1	15,9	0-391-6850 + 0-391-6853

● *Selection tables*

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● *Tooling for preinsulated terminals*

38

● *Tooling for tubular lugs, sleeves and splices*

41

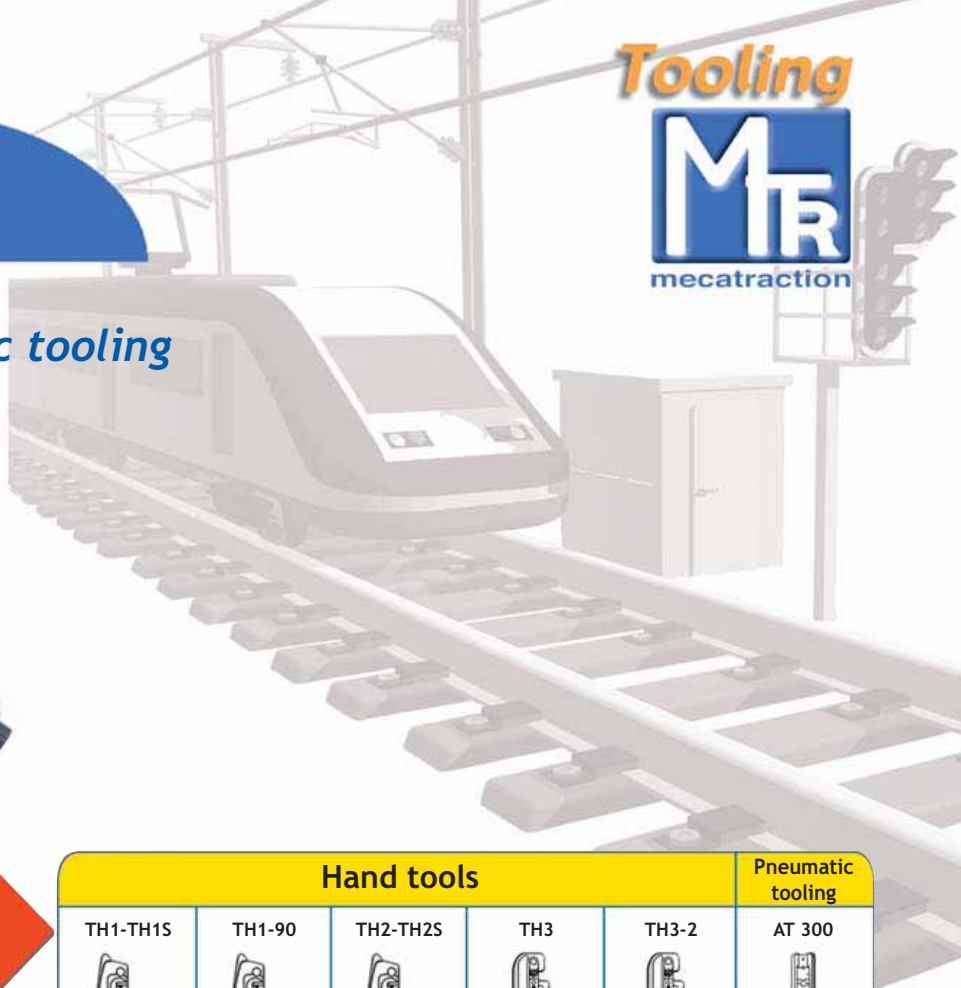
● *Cutting pliers, plug pliers and cable-cutters*

50



**Tooling**

Hand tools and pneumatic tooling















Tooling



Preinsulated terminals

Pages



		Hand tools					Pneumatic tooling
		TH1-TH1S	TH1-90	TH2-TH2S	TH3	TH3-2	AT 300
							
		38	38	38	39	39	40
Terminals, disconnects, end-splices, butt and window connector		0,34 to 1,5 mm <sup>2</sup>		1 to 2,5 mm <sup>2</sup>			0,34 to 6 mm <sup>2</sup>
Gilt disconnects 2,8 and cable pin			0,34 to 1,5 mm <sup>2</sup>				
Terminals series 51190+ and white disconnects (insulating maxi 6,8mm)					1 to 2,5 mm <sup>2</sup>		1 to 2,5 mm <sup>2</sup>
Terminals series C3P+ and yellow disconnects (insulating maxi 6,8mm)					2,6 to 6 mm <sup>2</sup>		2,6 to 6 mm <sup>2</sup>
Terminals series C3P+ and black disconnects (insulating maxi 8,8mm)						1 to 2,5 mm <sup>2</sup>	1 to 2,5 mm <sup>2</sup>
Terminals series 51190+, end-splices and yellow disconnects striped black (insulating maxi 6,8mm)						2,6 to 6 mm <sup>2</sup>	2,6 to 6 mm <sup>2</sup>

**Mechanical, hydraulic, electro-hydraulic hand tools  
and hydraulic sets**



Hydraulic pumps  
and sets 700 bars

Hydraulic sets			
P39 K	SPM 4091 K	PA 133 K	SPT 20-586 KCM
47	47	47	47

Pages

Tooling

Hand tool	Hydraulic and electro-hydraulic hand tools				Hydraulic heads				
PMM 1 CF	ED 52	EU 137	TR 1461	TR 1462	SU 133 K	VF 133 K	SU 210 K	VF 210 K	
41	42	43	44	44	45	45	46	46	

Tubular lugs  
and connectors

Pages

Medium power preinsulated copper tubular lugs series ELP-FLP-NP			10 to 25 mm <sup>2</sup>	10 to 25 mm <sup>2</sup>	10 to 25 mm <sup>2</sup>				
Copper tubular lugs series ELS-FLS-TN	10 to 70 mm <sup>2</sup>	10 to 70 mm <sup>2</sup>	10 to 240 mm <sup>2</sup>	10 to 95 mm <sup>2</sup>	10 to 95 mm <sup>2</sup>	10 to 150 mm <sup>2</sup>	10 to 150 mm <sup>2</sup>	10 to 300 mm <sup>2</sup>	10 to 300 mm <sup>2</sup>
Copper tubular lugs series TR								95 to 500 mm <sup>2</sup>	95 to 500 mm <sup>2</sup>
Copper tubular lugs series TRS								95 to 400 mm <sup>2</sup>	95 to 400 mm <sup>2</sup>
Aluminium tubular lugs series AL						50 to 95 mm <sup>2</sup>	50 to 95 mm <sup>2</sup>	50 to 460 mm <sup>2</sup>	50 to 460 mm <sup>2</sup>

## Crimping of preinsulated products

### Hand crimping tools for preinsulated products

- Crimping of preinsulated terminals, disconnects, end-splices and preinsulated butt and window connectors from 0,34 to 1,5 mm<sup>2</sup>.

#### General features:

- aluminium body
- exceptional gearing-down
- high quality crimping by rectilinear removing of dies
- adjustment of binding height by an eccentric
- safety rack
- positioning stop
- crimping dies identification reference mark: 1 trait

#### Delivered in individual box with control and maintenance instructions

- Length: 290 mm

- Weight: 0,5 kg

TH 1: delivered with rack HD20 for terminals, disconnects and end-splices

TH 1 S: delivered with rack HF20 for terminals, disconnects, end-splices and connectors

#### Complementary material:

- PG 1: Go-No Go gauges

0,34 to 1,5 mm<sup>2</sup>



SNCF part number: 7-847-7140 (TH1)  
: 0-391-6840 (TH1S)

Part number: TH 1 ou TH 1 S

### Hand tools for crimping on edge of preinsulated products

- Hand tools for crimping on edge of 2,8 gilt disconnects and 0,34 to 1,5 mm<sup>2</sup> end-splices.

#### General features:

- aluminium body
- exceptional gearing-down
- high quality crimping by rectilinear removing of dies
- adjustment of binding height by an eccentric
- safety rack
- positioning stop
- crimping dies identification reference mark: 1 trait

#### Delivered in individual box with control and maintenance instructions

- Length: 290 mm

- Weight: 0,5 kg

TH 1-90: delivered with rack HD28-90

#### Complementary material:

- PG 1: Go-No Go gauges

0,34 to 1,5 mm<sup>2</sup>



SNCF part number: 0-391-6844

Part number: TH 1-90

### Hand tools for crimping of preinsulated products

- Hand tools for crimping of terminals, disconnects, end-splices and preinsulated butt and window connectors from 1,0 to 2,5 mm<sup>2</sup>.

#### General features:

- aluminium body
- exceptional gearing-down
- high quality crimping by rectilinear removing of dies
- adjustment of binding height by an eccentric
- safety rack
- positioning stop
- crimping dies identification reference mark: 2 traits

#### Delivered in individual box with control and maintenance instructions

- Length: 290 mm

- Weight: 0,5 kg

TH 2: delivered with rack HD20 for terminals, disconnects and end-splices

TH 2 S: delivered with rack HF20 for terminals, disconnects, end-splices and connectors

#### Complementary material:

- PG 2: Go-No Go gauges

1 to 2,5 mm<sup>2</sup>



SNCF part number: 7-847-7141

Part number: TH2-TH2S

Hand tools for preinsulated terminals, disconnects, end-splices and preinsulated butt and window connectors

## Crimping of preinsulated products

### Hand tools for crimping of preinsulated products

#### Max insulating diameter: 6,8mm

- The crimping of terminals (51190 type) and white disconnects from 1 to 2,5 mm<sup>2</sup>.
- The crimping of terminals (C3P type) end-splices and yellow disconnects from 2,6 to 6 mm<sup>2</sup>.

#### General features:

- strong and practical steel tools
- high quality crimping by linear removing of dies
- adjustment of binding height by a pin
- safety rack
- positioning stop for terminals, disconnects, end-splices and sleeves with inspection hole (part number **ATH 23**)
- crimping dies identification reference mark: 3 points

#### Delivered in individual box with control and maintenance instructions

- Length: 330 mm - Weight: 0,9 kg
- handles colour: one yellow and one white

#### Complementary material:

- **PGH 3**: Go-No Go gauges

1 to 6 mm<sup>2</sup>



Part number: TH 3

SNCF part number: 7-847-7142

### Hand tools for crimping of preinsulated products

#### Max insulating diameter: 8,8mm

- The crimping of terminals (51190 type) end-splices and black disconnects from 1 to 2,5 mm<sup>2</sup>.
- The crimping of terminals (C3P type) end-splices and yellow disconnects black striped from 2,6 to 6 mm<sup>2</sup>.

#### General features:

- strong and practical steel tools
- high quality crimping by linear removing of dies
- adjustment of binding height by a pin
- safety rack
- positioning stop for terminals, disconnects, end-splices and sleeves with inspection hole (part number **ATH 23**)
- crimping dies identification reference mark: 3 points

#### Delivered in individual box with control and maintenance instructions

- Length: 330 mm - Weight: 0,9 kg
- handles colour: one yellow and one white

#### Complementary material:

- **PGH 3**: Go-No Go gauges

1 to 6 mm<sup>2</sup>



Part number: TH 3-2

SNCF part number: 7-847-7143 or 0-391-6837

### Crimping of preinsulated terminals, disconnects and end-splices

**Pneumatic tool for crimping preinsulated terminals, disconnects and end-splices from 0,34 to 6 mm<sup>2</sup>**

● **General features:**

- Accurate and powerful crimping
- crimping by rectilinear removing of dies
- working pressure: 7 bars

Delivered with working instructions and flex for coupling to compressed air

- Length: 320 mm
- Weight: 1,5 Kg



a pneumatic set consists of:

- One pneumatic jack

**Part number: AT 201**

- One of the following crimping heads:

**Part number: AT 331**

- Crimping red products from 0,34 to 1,5 mm<sup>2</sup>

**Part number: AT 332**

- Crimping blue products from 1 to 2,5 mm<sup>2</sup>

**Part number: AT 333**

- Crimping yellow industrial products from 2,6 to 6mm<sup>2</sup> (C3P type)
- Crimping railways products from 1 to 2,5 mm<sup>2</sup> (white insulating) (51190 type)
- Maxi insulating diameter: 6,8 mm

**Part number: AT 333-2**

- Crimping railways products from 1 to 2,5 mm<sup>2</sup> (black insulating) (51190 type)
- and from 2,6 to 6 mm<sup>2</sup> (yellow insulating black striped) (C3P type)
- max insulating diameter: 8,8 mm

- Complementary accessories:

- PG 1: go-no go gauge for AT331 head
- PG 2: go-no go gauge for AT332 head
- PGH 3: go-no go gauge for AT333 and AT333-2 heads

Special stopper for wires with thin insulations from 0,6 to 1,82 mm<sup>2</sup>: **ATBK 30** (terminals crimping)

Special stopper for wires with thin insulations from 0,6 to 1,82 mm<sup>2</sup>: **ATBK 21-2,8/ATBK 21-5/ATBK 21-6,35** (disconnects crimping)

Standard stopper for AT331 and AT332 heads: **ATB 30**

Standard stopper for AT333 and AT333-2 heads: **ATB 33**

- Possibility of adjustment on the set for fixed-place work, ref. **ATBA**, featuring:

- A maintenance vice with a release jack.
- A foot control.
- Flexibles connections.



## Crimping of tubular lugs and connectors

### PMM 1 CF mechanical hand tool



● **General features:**

- Power: 50 KN
- Cap with opening head
- Fast lead system of dies
- Reverse-lock mechanism which guarantees the perfect crimping operation
- PVC insulated handles
- Single or reversible interchangeable dies

Delivered with technical instructions

- Length: 420 mm
- Weight: 2 Kg

● **Accessories:**

- Gauge part: PGM 1

**Part number: PMM 1 CF**

SNCF part number: 7-847-7285

Conductor size (mm <sup>2</sup> )	Crimping dies		
	Terminals type	Dies part number	SNCF part number
10	ELS	H1- <b>10</b> -35F	7.847.7286
16	FLS	H1- <b>16</b> -50F	7.847.7287
25	TN25	H1- <b>25</b> -70F	7.847.7288
35	TN35	H1-10- <b>35</b> F	7.847.7286
50	TN50	H1-16- <b>50</b> F	7.847.7287
70	TN70	H1-25- <b>70</b> F	7.847.7288



In red: die side to be used.

## Crimping of tubular lugs and connectors

### Hydraulic compression tool with integrated electric motor part ED52

● **General features:**

- power: 50 KN
- compact electro-hydraulic compression tool, supplied with 14,4 V battery, BA14 type
- single-hand operated (right or left) thanks to control centralized in the handle
- the ergonomic control and handle ensures that the tool is well balanced with maximum handiness and operating convenience
- strengthened body-frame to protect against atmospheric influence and shocks
- fast closing and opening head totally nickel plated, tilting on 180°
- new hydraulic circuit with two pressure stages enables a reduction in crimping cycles and power consumption and therefore increases autonomy
- the dies may be realigned during the preparation stage but once the crimping operation has started this can not be altered
- when crimping has been completed, audible “click” and automatic putting out of pressure of the circuit for energy saving
- an electronic control with LED on each side of the tool indicates when the battery is completely discharging
- crimping capacity: 120 to 210 crimping operations using a new 2 Ah battery
- operating temperature: from -20° C to +40° C
- dimensions (LxHxl): 340x310x75 mm with battery
- weight: 3,6 Kg with battery

\* **Accessories**



- NI-Cd2 Ah battery part n° **BA1420**
- Fast charger for 50/60 Hz alternating current, part n°: **CT1415HC**
- Shoulder strap part n°: **CDC2**
- Carrying case for compression tool, dies, 2 batteries, 1 charger part n°: **CMED52**
- Inspection dynamometer part n°: **DY50-65CM**



CMED52



CT 1415 HC

Conductor size (mm <sup>2</sup> )	Crimping dies		
	Terminals type	Dies part number	
10	non insulated ELS serie	H1-10-35F	
16	non insulated FLS serie	H1-16-50F	
25	non insulated TN25 serie	H1-25-70F	
35	non insulated TN35 serie	H1-10-35F	
50	non insulated TN50 serie	H1-16-50F	
70	non insulated TN70 serie	H1-25-70F	

In red: die side to be used.

**Part number: ED 52**

\* Accessories to be ordered separately.

## Crimping of tubular lugs and connectors

### Hydraulic compression tool with integrated electric motor part EU137

● **General features:**

- power: 120 KN
- compact electro-hydraulic compression tool, supplied with 14,4 V battery, BA14 type
- single-hand operated (right or left) thanks to control centralized in the handle
- the ergonomic control and handle ensures that the tool is well balanced with maximum handiness and operating convenience
- strengthened body-frame to protect against atmospheric influence and shocks
- totally nickel plated, tilting on 180°
- new hydraulic circuit with two pressure stages enables a reduction in crimping cycles and power consumption and therefore increases autonomy
- the dies may be realigned during the preparation stage but once the crimping operation has started this can not be altered
- when crimping has been completed, audible “click” and automatic putting out of pressure of the circuit for energy saving
- an electronic control with LED on each side of the tool indicates when the battery is completely discharging
- crimping capacity: 105 to 190 crimping operations using a new 2 Ah battery
- operating temperature: from -20° C to +40° C
- dimensions (LxHxl): 400x310x75 mm with battery
- weight: 5,8 Kg with battery

\* **Accessories**

- NI-Cd2 Ah battery part n° **BA1420**
- Fast charger for 50/60 Hz alternating current, part n°: **CT1415HC**
- Shoulder strap part n°: **CDC2**
- carrying case for compression tool, dies, 2 batteries, 1 charger part n°: **CMEU137**
- die stopper ELP-FLP-NP-ELS-FLS460, part n°: **U137-460**



CE



CMEU 137



CT 1415 HC



BA 1420

Conductor size (mm <sup>2</sup> )	Crimping dies	
	Terminals type	Dies part number
10	preinsulated ELP serie	ELP460 + die stopper U137-460
16	preinsulated FLP serie	FLP460 + die stopper U137-460
25	preinsulated NP serie	NP460 + die stopper U137-460
10	non insulated ELS serie	ELS460 + die stopper U137-460 or C12 ELS
16	non insulated FLS serie	FLS460 + die stopper U137-460 or C12 FLS
25	non insulated TN25 serie	C12TN25
35	non insulated TN35 serie	C12TN35
50	non insulated TN50 serie	C12TN50
70	non insulated TN70 serie	C12TN70
95	non insulated TN95 serie	C12TN95
120	non insulated TN120 serie	C12TN120
150	non insulated TN150 serie	C12TN150
185	non insulated TN185 serie	C12TN185
240	non insulated TN240 serie	C12TN240

In red: die side to be used.

Part number: EU 137

\* Accessories to be ordered separately.

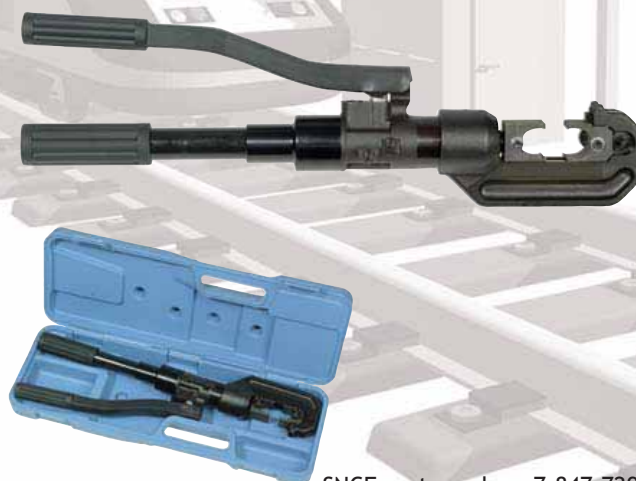
## Crimping of terminals

### Hydraulic hand tool

● **General features:**

- hydraulic hand tool
- power: 54 KN
- crimping of terminals from 10 to 70 mm<sup>2</sup>
- two pressure level
- automatic release
- die lock system
- head tilting on 180°

Delivered in individual box with technical instructions



Part number: TR 1461

SNCF part number: 7-847-7296


### Hydraulic compression head

● **General features:**

- hydraulic compression head
- power: 100 KN
- crimping of non-insulated terminals from 10 to 95 mm<sup>2</sup>
- corrosion preventive protection (nickel plated cap)
- die locking system
- to be connected to 700 bars hydraulic pumps or sets (see page 47)
- delivered with female semi-coupler part n°: RKF-M38NPT



Part number: TR 1462

Conductor size (mm <sup>2</sup> )	Crimping dies			
	Terminals type	Dies part number	SNCF part number	
10	preinsulated ELP serie	ELP460	7.847.7303	
16	preinsulated FLP serie	FLP460	7.847.7304	
25	preinsulated NP serie	NP460	7.847.7305	
10	non insulated ELS serie	ELS460	7.847.7297	
16	non insulated FLS serie	FLS460	7.847.7298	
25	non insulated TN25 serie	TN25-460	7.847.7299	
35	non insulated TN35 serie	TN35-460	7.847.7300	
50	non insulated TN50 serie	TN50-460	7.847.7301	
70	non insulated TN70 serie	TN70-460	7.847.7302	
95	non insulated TN95 serie	TN95-460		

## For crimping tubular lugs

### For crimping tubular lugs SU 133 K and VF 133 K





SU 133 K



VF 133 K

- SU 133 K: shape opened shell
- VF 133 K: shape closed shell
- **General features:**
  - Power: 130 KN
  - crimping of non-insulated terminals from 10 to 50 mm<sup>2</sup>
  - corrosion preventive protection: nickel plated shell and chromium-plated piston
  - dies indexation and locking system
  - can be connected on 700 bars hydraupneumatic pump
  - delivered with female semi-coupler part number RFK-M38NPT
  - length: 215 mm (SU 133 K) 220 mm (VF 133 K)
  - weight: 3,2 Kg (SU 133 K) 3,4 Kg (VF 133 K)

**Part number: SU 133 K/VF 133 K**

		Dies part number
Conductor size (mm <sup>2</sup> )	Terminals type	SU133K/VF133K
For ELS/FLS serie terminals		
10	ELS	ELSV13
16	FLS	FLSV13
For TN serie terminals		
25	TN25	TN25V13
35	TN35	TN35V13
50	TN50	TN50V13
70	TN70	TN70V13
95	TN 95	TN95V13
120	TN120	TN120V13
150	TN150	TN150V13
For TRS serie terminals		
95	TRS95	TRS95V13
120	TRS446	TRS446V13
120	TRS448	TRS448V13
For AL serie terminals		
50	AL50	AL50V13
60	AL60	AL60V13
70	AL70	AL70V13
95	AL95	AL95V13



## Hydraulic compression heads

For crimping tubular lugs SU 210 K and VF 210 K



SU 210 K




VF 210 K



- SU 210 K: shape opened shell
- VF 210 K: shape closed shell
- **General features:**
  - power: 200 KN
  - crimping of non-insulated terminals from 10 to 500 mm<sup>2</sup>
  - corrosion preventive protection: nickel plated shell and chromium-plated piston
  - dies indexation and locking system
  - can be connected on 700 bars hydraupneumatic pump
  - delivered with female semi-coupler part number RFK-M38NPT
  - length: 260 mm (SU 210 K) 275 mm (VF 210 K)
  - weight: 5,8 Kg (SU 210 K) 6,2 Kg (VF 210 K)



\* Accessories

For the half-shell dies crimping, order the adapter part number S 21.

**Part number: SU 210 K/VF 210 K**

		Dies part number
Conductor size (mm <sup>2</sup> )	Terminals type	SU210K/VF210K + S21
For ELS/FLS serie terminals		
10	ELS	ELSV20
16	FLS	FLSV20
For TN serie terminals		
25	TN25	TN25V20
35	TN35	TN35V20
50	TN50	TN50V20
70	TN70	TN70V20
95	TN 95	TN95V20
120	TN120	TN120V20
150	TN150	TN150V20
185	TN185	TN185V20
240	TN240	TN240V20
300	TN300	TN300V20
For TR serie terminals		
95	TR95	TR95V20
120	TR120	TR120V20
150	TR150	TR150V20
185	TR185	TR185V20
240	TR240	TR240V20
300	TR300	TR300V20
400	TR400	TR400V20
500	TR500	TR500V20

		Dies part number
Conductor size (mm <sup>2</sup> )	Terminals type	SU210K/VF210K + S21
For TRS serie terminals		
95	TRS95	TRS95V20
120	TRS446	TRS446V20
120	TRS448	TRS448V20
150	TRS450	TRS450V20
185	TRS452	TRS452V20
240	TRS455	TRS455V20
240	TRS453	TRS453V20
400	TRS456	TRS456V20
185	TRS185 - TRS185-1B	TRS185V20
240	TRS240 - TRS240-1B	TRS240V20
240	TRS242-12	TRS258V20
400	TRS400	TRS400V20
50	TRS262	TRS262V20S (core crimping)
		TRS262V20F (insulation crimping)
95	TRS246	TRS246SV20 (core crimping)
		TRS246FV20 (insulation crimping)

		Dies part number
Conductor size (mm <sup>2</sup> )	Terminals type	SU210K/VF210K + S21
For AL serie terminals		
50	AL50	AL50V20
60	AL60	AL60V20
70	AL70	AL70V20
95	AL95	AL95V20
120	AL120	AL120V20
150	AL150 - AL150B	AL150V20
185	AL185	AL185V20
240	AL240	AL240V20
300	AL300	AL300V20
460	AL460	AL460V20



## P39 hydraulic pump

- **General features:**
- One gear hand pump
- Pressure: 700 bars
- Safety valve restricting maximum pressure
- Oil tank: 0,7 l
- Length: 400 mm
- Weight: 4,9 Kg
- Box on request: part number VAL 29
- Fitted with a 1,8 m hydraulic flexible with one semi-coupler RMK-F38NPT

Part number: P 39 K



VAL 29

## SPM4091 hydraulic pump

- **General features:**
- two gear foot pump
- Pressure: 700 bars
- Automatic release
- "U" shape seating offering high steadiness
- Oil tank: 1 l
- Length: 700 mm
- Weight: 12,9 Kg
- Box on request, part n° VAL22CR
- Fitted with a 3 m hydraulic flexible with one semi-coupler RMK-F38NPT

Part number: SPM 4091 K



VAL 22 CR

## PA 133 K hydraulic pump

- **General features:**
- Single stage pump with pneumatic engine
- Pressure: 700 bars
- Compressed air supply: 7 bars maxi
- Three ways distributors maintaining pressure when air supply is interrupted
- Oil tank: 0,6 l
- Length: 700 mm
- Weight: 4,9 Kg
- Fitted with a female semi-coupling RFK-M38NPT
- Hydraulic hoses (see page 49)

Part number: PA 133 K



## SPT20-586CM hydraulic set

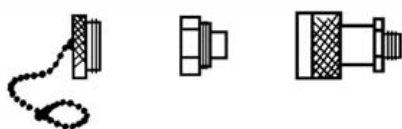
- **General features:**
- Compact and portable electro-hydraulic set
- Electric engine: 220 V - 50 Hz
- Power: 0,34 kW
- 4 m low tension remote control (input-bearing-output)
- Flow: - 0-20 bars: 2,60 l/mn  
- 20-700 bars: 0,32 l/mn
- Oil tank: 2 l
- Dimensions: 186x160x350 mm
- Weight: 15,5 Kg
- Fitted with a female semi-coupling RFK-M38NPT
- Hydraulic hoses (see page 49)

Part number: SPT 20-586 KCM



## Hydraulic coupling

Part number	Dimensions
RMK-F38NPT	3/8 - 18 NPT
RFK-M38NPT	3/8 - 18 NPT

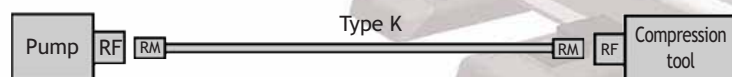


Male coupling, assembly through 3/8 NPT threaded hole

**Part number: RMK - F 38 NPT**

Female coupling, assembly through 3/8 NPT threaded muff joint

**Part number: RFK - M38 NPT**



Standard equipments of our tooling

## Hydraulic hoses

Part number	Dimensions
F 4622 K	1,80 m
F 4623 K	3 m
F 4626 K	6 m

Other dimensions on request.



## Hydraulic oils

Part number	Applications	Capacity (l)
HF 95 X	PA 133 and P 39	1
BH-2	Other tools	2





### HS 6000

The cutting pliers HS 600 has been designed for an easy and precised cut thanks to its blades micro-serrated and its robustness. Handles and the general form of this pliers enables excellent handling.

Cannot cut steel.

- Length: 150 mm
- Weight: 0,09 Kg

Part number: HS 6000



### MO 66105

The pliers MO 66105 enables the easy plug of red and blue disconnects terminals of 2,8; 4,8; 5 and 6,35.

- General features:
  - chrome-vanadium steel.
  - insulated handles up to 1000 V.

ISOLATION COMPLIANT WITH CEI-60900

- Length: 210 mm
- Weight: 0,19 Kg

Part number: MO 66105



## EK50 integrated electric motor cable-cutter

### ● Cutting capacity:

- Insulated or non insulated copper cables up to 500 mm<sup>2</sup>
- Insulated or non insulated aluminium cables up to 630 mm<sup>2</sup>

Cannot cut steel.

### ● General features:

- Electrical motor coupled with an epicyclical gear train speed reducer
- Mobile blade tilting on 360°
- Double control (forward/backward) with safety lock
- Equipped with a circuit-breaker to protect against the cutting of a cable larger than tool capacity
- Dimensions: 370 x 150 x 100 mm.
- Weight: 2,700 Kg

### \* Accessories:

- Power supply: 14,4 V DC for Ni-Cd battery  
Part n° **BA1420**: 2 Ah - Weight: 0,78 Kg. To be inserted in the handle
- Charger for 50/60 Hz alternating current for accelerated or boost charges, part n° **CT1415 HC**
- Carrying case in option part n° **CM EK50**



EK 50



BA 1420



CT 1415 HC



CMEK 50

part number: EK 50

\* Accessories to be ordered separately.



This documentation is not as per agreement.  
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**Non-contractual pictures**



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## Railways connections



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