

## Kapitel 5



# **Ex**-Skydd (Ex e / Ex d)

**Ex**-protection (Ex e / Ex d)

Ex cable glands compression / Ex cable glands lamellas /

Ex conduit glands & conduits / Ex accessories



**Progress-M/EX**

Material: Messing vernickelt  
Dichteinsatz: TPE  
O-Ring: FPM  
Einsatztemperatur: -60°C bis 100°C  
Schutzart: IP 66/IP 68 (bis 10 bar)

Material: brass, nickel-plated  
Sealing insert: TPE  
O-ring: FPM  
Temperature range: -60°C to 100°C  
Protection type: IP 66/IP 68 (up to 10 bar)



101.10  
101.60

Zertifikate: SEV 15 ATEX 0152 X  
IECEX SEV 15.0019X

Certificates: SEV 15 ATEX 0152 X  
IECEX SEV 15.0019X

Weitere internationale Zulassungen vorhanden

Further international approvals available

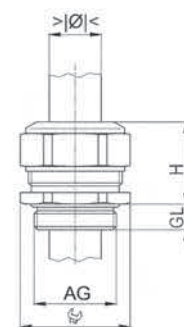


II 2G Ex eb IIC Gb  
II 2D Ex tb IIIC Db

| Gewinde<br>Entry Thread<br>AG |  |  | H<br>mm | GL<br>mm | Progress MS EX | HUGRO No. |
|-------------------------------|--|--|---------|----------|----------------|-----------|
|-------------------------------|--|--|---------|----------|----------------|-----------|

| kurzes Anschlussgewinde / short entry thread |            |    |    |   |               |             |
|--|------------|----|----|---|---------------|-------------|
| M 8 x 1,25                                   | 3 - 3,5    | 11 | 14 | 5 | EX1000.08.035 | 101.0803.10 |
| M 8 x 1,25                                   | 4 - 5      | 11 | 14 | 5 | EX1000.08.050 | 101.0805.10 |
| M 10 x 1,5                                   | 3 - 4      | 13 | 15 | 5 | EX1000.10.040 | 101.1004.10 |
| M 10 x 1,5                                   | 4,5 - 6    | 13 | 15 | 5 | EX1000.10.060 | 101.1006.10 |
| M 12 x 1,5                                   | 5 - 6,5    | 15 | 17 | 5 | EX1000.12.065 | 101.1506.10 |
| M 12 x 1,5                                   | 6,5 - 8    | 15 | 17 | 5 | EX1000.12.080 | 101.1508.10 |
| M 16 x 1,5                                   | 4,5 - 6    | 18 | 20 | 5 | EX1000.17.060 | 101.1706.10 |
| M 16 x 1,5                                   | 6 - 8      | 18 | 20 | 5 | EX1000.17.080 | 101.1708.10 |
| M 20 x 1,5                                   | 6 - 8      | 24 | 21 | 6 | EX1000.20.080 | 101.2008.10 |
| M 20 x 1,5                                   | 8 - 11     | 24 | 21 | 6 | EX1000.20.110 | 101.2011.10 |
| M 25 x 1,5                                   | 9,5 - 12,5 | 30 | 25 | 7 | EX1000.25.125 | 101.2512.10 |
| M 25 x 1,5                                   | 12,5 - 16  | 30 | 25 | 7 | EX1000.25.160 | 101.2516.10 |
| M 32 x 1,5                                   | 14 - 17    | 36 | 28 | 8 | EX1000.32.170 | 101.3217.10 |
| M 32 x 1,5                                   | 17 - 21    | 36 | 28 | 8 | EX1000.32.210 | 101.3221.10 |
| M 40 x 1,5                                   | 20 - 24    | 46 | 31 | 8 | EX1000.40.240 | 101.4024.10 |
| M 40 x 1,5                                   | 24 - 28,5  | 46 | 31 | 8 | EX1000.40.285 | 101.4028.10 |

| langes Anschlussgewinde / long entry thread |            |    |    |    |               |             |
|---|------------|----|----|----|---------------|-------------|
| M 8 x 1,25                                  | 3 - 3,5    | 11 | 14 | 10 | EX1100.08.035 | 101.0803.60 |
| M 8 x 1,25                                  | 4 - 5      | 11 | 14 | 10 | EX1100.08.050 | 101.0805.60 |
| M 10 x 1,5                                  | 3 - 4      | 13 | 15 | 10 | EX1100.10.040 | 101.1004.60 |
| M 10 x 1,5                                  | 4,5 - 6    | 13 | 15 | 10 | EX1100.10.060 | 101.1006.60 |
| M 12 x 1,5                                  | 5 - 6,5    | 15 | 17 | 10 | EX1100.12.065 | 101.1506.60 |
| M 12 x 1,5                                  | 6,5 - 8    | 15 | 17 | 10 | EX1100.12.080 | 101.1508.60 |
| M 16 x 1,5                                  | 4,5 - 6    | 18 | 20 | 10 | EX1100.17.060 | 101.1706.60 |
| M 16 x 1,5                                  | 6 - 8      | 18 | 20 | 10 | EX1100.17.080 | 101.1708.60 |
| M 20 x 1,5                                  | 6 - 8      | 24 | 21 | 10 | EX1100.20.080 | 101.2008.60 |
| M 20 x 1,5                                  | 8 - 11     | 24 | 21 | 10 | EX1100.20.110 | 101.2011.60 |
| M 25 x 1,5                                  | 9,5 - 12,5 | 30 | 25 | 11 | EX1100.25.125 | 101.2512.60 |
| M 25 x 1,5                                  | 12,5 - 16  | 30 | 25 | 11 | EX1100.25.160 | 101.2516.60 |
| M 32 x 1,5                                  | 14 - 17    | 36 | 28 | 13 | EX1100.32.170 | 101.3217.60 |
| M 32 x 1,5                                  | 17 - 21    | 36 | 28 | 13 | EX1100.32.210 | 101.3221.60 |
| M 40 x 1,5                                  | 20 - 24    | 46 | 31 | 13 | EX1100.40.240 | 101.4024.60 |
| M 40 x 1,5                                  | 24 - 28,5  | 46 | 31 | 13 | EX1100.40.285 | 101.4028.60 |



**Progress-M/EX (Pg)**

Material: Messing vernickelt  
 Dichteinsatz: TPE  
 O-Ring: FPM  
 Einsatztemperatur: -60°C bis 100°C  
 Schutzart: IP 66/IP 68 (bis 10 bar)

Material: brass, nickel-plated  
 Sealing insert: TPE  
 O-ring: FPM  
 Temperature range: -60°C to 100°C  
 Protection type: IP 66/IP 68 (up to 10 bar)



101.10  
101.60

Zertifikate: SEV 15 ATEX 0152 X  
IECEX SEV 15.0019 X

Certificates: SEV 15 ATEX 0152 X  
IECEX SEV 15.0019 X



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Further international approvals available

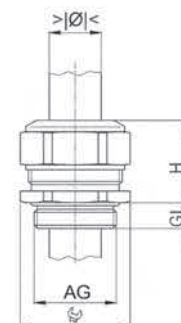


II 2G Ex eb IIC Gb  
II 2D Ex tb IIIC Db

| Gewinde<br>Entry Thread<br>AG |  |  | H<br>mm | GL<br>mm | Progress MS EX | HUGRO No. |
|-------------------------------|--|--|---------|----------|----------------|-----------|
|-------------------------------|--|--|---------|----------|----------------|-----------|

| kurzes Anschlussgewinde / short entry thread |            |    |    |     |               |             |
|--|------------|----|----|-----|---------------|-------------|
| Pg 7   | 5 - 6,5    | 15 | 17 | 6   | EX1000.07.065 | 101.0706.10 |
| Pg 7   | 6,5 - 8    | 15 | 17 | 6   | EX1000.07.080 | 101.0708.10 |
| Pg 9   | 4,5 - 6    | 18 | 20 | 6   | EX1000.09.060 | 101.0906.10 |
| Pg 9   | 6 - 8      | 18 | 20 | 6   | EX1000.09.080 | 101.0908.10 |
| Pg 11  | 4 - 5,5    | 21 | 21 | 6   | EX1000.11.055 | 101.1105.10 |
| Pg 11  | 5,5 - 8,5  | 21 | 21 | 6   | EX1000.11.085 | 101.1108.10 |
| Pg 13,5                                      | 6 - 8      | 24 | 21 | 6   | EX1000.13.080 | 101.1308.10 |
| Pg 13,5                                      | 8 - 11     | 24 | 21 | 6   | EX1000.13.110 | 101.1311.10 |
| Pg 16  | 6 - 8      | 24 | 21 | 6   | EX1000.16.080 | 101.1608.10 |
| Pg 16  | 8 - 11     | 24 | 21 | 6   | EX1000.16.110 | 101.1611.10 |
| Pg 21  | 9,5 - 12,5 | 30 | 25 | 7,5 | EX1000.21.125 | 101.2112.10 |
| Pg 21  | 12,5 - 16  | 30 | 25 | 7,5 | EX1000.21.160 | 101.2116.10 |
| Pg 29  | 16 - 19    | 38 | 28 | 8   | EX1000.29.190 | 101.2919.10 |
| Pg 29  | 19 - 23    | 38 | 28 | 8   | EX1000.29.230 | 101.2923.10 |
| Pg 36  | 21,5 - 26  | 50 | 32 | 8   | EX1000.36.260 | 101.3626.10 |
| Pg 36  | 26 - 30,5  | 50 | 32 | 8   | EX1000.36.305 | 101.3630.10 |

| langes Anschlussgewinde / long entry thread |            |    |    |    |               |             |
|---|------------|----|----|----|---------------|-------------|
| Pg 7  | 5 - 6,5    | 15 | 17 | 10 | EX1100.07.065 | 101.0706.60 |
| Pg 7  | 6,5 - 8    | 15 | 17 | 10 | EX1100.07.080 | 101.0708.60 |
| Pg 9  | 4,5 - 6    | 18 | 20 | 10 | EX1100.09.060 | 101.0906.60 |
| Pg 9  | 6 - 8      | 18 | 20 | 10 | EX1100.09.080 | 101.0908.60 |
| Pg 11                                       | 4 - 5,5    | 21 | 21 | 10 | EX1100.11.055 | 101.1105.60 |
| Pg 11                                       | 5,5 - 8,5  | 21 | 21 | 10 | EX1100.11.085 | 101.1108.60 |
| Pg 13,5                                     | 6 - 8      | 24 | 21 | 10 | EX1100.13.080 | 101.1308.60 |
| Pg 13,5                                     | 8 - 11     | 24 | 21 | 10 | EX1100.13.110 | 101.1311.60 |
| Pg 16                                       | 6 - 8      | 24 | 21 | 10 | EX1100.16.080 | 101.1608.60 |
| Pg 16                                       | 8 - 11     | 24 | 21 | 10 | EX1100.16.110 | 101.1611.60 |
| Pg 21                                       | 9,5 - 12,5 | 30 | 25 | 12 | EX1100.21.125 | 101.2112.60 |
| Pg 21                                       | 12,5 - 16  | 30 | 25 | 12 | EX1100.21.160 | 101.2116.60 |
| Pg 29                                       | 16 - 19    | 38 | 28 | 12 | EX1100.29.190 | 101.2919.60 |
| Pg 29                                       | 19 - 23    | 38 | 28 | 12 | EX1100.29.230 | 101.2923.60 |
| Pg 36                                       | 21,5 - 26  | 50 | 32 | 15 | EX1100.36.260 | 101.3626.60 |
| Pg 36                                       | 26 - 30,5  | 50 | 32 | 15 | EX1100.36.305 | 101.3630.60 |



Progress-M/MF-EX

Material: Messing vernickelt  
Dichteinsatz: TPE / NBR<sup>1)</sup>  
O-Ring: FPM  
Einsatztemperatur: -60°C bis 100°C  
Schutzart: IP 66 / IP 68

Material: brass, nickel-plated  
Sealing insert: TPE / NBR<sup>1)</sup>  
O-ring: FPM  
Temperature range: -60°C to 100°C  
Protection type: IP 66 / IP 68



101.14

Zertifikate: SEV 15 ATEX 0152 X  
IECEX SEV 15.0019 X

Certificates: SEV 15 ATEX 0152 X  
IECEX SEV 15.0019 X



IECEX Zulassung in Vorbereitung




IECEX approval in preparation

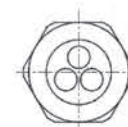
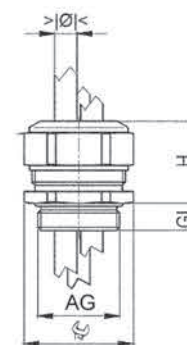


II 2G Ex eb IIC Gb  
II 2D Ex tb IIIC Db

Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG |  |  |  | H<br>mm | GL<br>mm | Progress MS<br>Multi EX | HUGRO No.                  |
|-------------------------------|---|---|---|---------|----------|-------------------------|----------------------------|
| M 12 x 1,5                    | 0,6 - 1,0 <sup>1)</sup>   | 3   | 15  | 17      | 5        | EX1310.12.3.010         | 101.15103.14 <sup>1)</sup> |
| M 16 x 1,5                    | 1,0 - 1,5 <sup>1)</sup>   | 4   | 18  | 20      | 5        | EX1310.17.4.015         | 101.17154.14 <sup>1)</sup> |
| M 16 x 1,5                    | 2,0 - 3,0   | 2   | 18  | 20      | 5        | EX1310.17.2.030         | 101.17302.14               |
| M 20 x 1,5                    | 2,5 - 3,0   | 6   | 24  | 21      | 6        | EX1310.20.6.030         | 101.20306.14               |
| M 20 x 1,5                    | 3,5 - 5,0   | 2   | 24  | 21      | 6        | EX1310.20.2.050         | 101.20502.14               |
| M 20 x 1,5                    | 3,5 - 5,0   | 4   | 24  | 21      | 6        | EX1310.20.4.050         | 101.20504.14               |
| M 20 x 1,5                    | 4,5 - 6,0   | 3   | 24  | 21      | 6        | EX1310.20.3.060         | 101.20603.14               |
| M 20 x 1,5                    | 5,5 - 7,5   | 2   | 24  | 21      | 6        | EX1310.20.2.075         | 101.20752.14               |
| M 25 x 1,5                    | 5,0 - 6,0   | 6   | 30  | 25      | 7        | EX1310.25.6.060         | 101.25606.14               |
| M 25 x 1,5                    | 6,0 - 7,0   | 3   | 30  | 25      | 7        | EX1310.25.3.070         | 101.25703.14               |
| M 25 x 1,5                    | 5,5 - 7,0   | 4   | 30  | 25      | 7        | EX1310.25.4.070         | 101.25704.14               |
| M 25 x 1,5                    | 7,5 - 9,0   | 3   | 30  | 25      | 7        | EX1310.25.3.090         | 101.25903.14               |
| M 25 x 1,5                    | 8,0 - 10,0  | 2   | 30  | 25      | 7        | EX1310.25.2.100         | 101.25102.14               |
| M 32 x 1,5                    | 6,0 - 10,0  | 6   | 36  | 28      | 8        | EX1310.32.6.070         | 101.32706.14               |
| M 32 x 1,5                    | 7,5 - 9,0   | 4   | 36  | 28      | 8        | EX1310.32.4.090         | 101.32904.14               |
| M 40 x 1,5                    | 8,0 - 9,0 <sup>1)</sup>   | 7   | 46  | 31      | 8        | EX1310.40.7.090         | 101.40907.14 <sup>1)</sup> |
| M 40 x 1,5                    | 14,0 - 15,0 <sup>1)</sup>   | 2   | 46  | 31      | 8        | EX1310.40.2.150         | 101.40152.14 <sup>1)</sup> |
| M 50 x 1,5                    | 9,0 - 10,0 <sup>1)</sup>  | 4   | 55  | 34      | 9        | EX1310.50.4.100         | 101.50104.14 <sup>1)</sup> |
| M 63 x 1,5                    | 11,0 - 12,0 <sup>1)</sup>   | 6   | 70  | 37      | 9        | EX1310.63.6.120         | 101.63126.14 <sup>1)</sup> |
| M 63 x 1,5                    | 17,0 - 18,0 <sup>1)</sup>   | 3   | 70  | 37      | 9        | EX1310.63.3.180         | 101.63183.14 <sup>1)</sup> |



Eigenschaften:  
<sup>1)</sup> NBR-Dichteinsatz

Characteristics:  
<sup>1)</sup> NBR-sealing

**Progress-M / MF-EX (Pg)**

Material: Messing vernickelt  
Dichteinsatz: TPE / NBR<sup>1)</sup>  
Einsatztemperatur: -60°C bis 100°C  
Schutzart: IP 66 / IP 68

Material: brass, nickel-plated  
Sealing insert: TPE / NBR<sup>1)</sup>  
Temperature range: -60°C to 100°C  
Protection type: IP 66 / IP 68



101.14

Zertifikate: SEV 15 ATEX 0152 X  
IECEx SEV 15.0019 X

Certificates: SEV 15 ATEX 0152 X  
IECEx SEV 15.0019 X

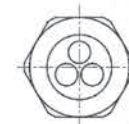
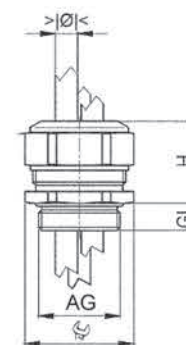
Weitere internationale Zulassungen vorhanden

Further international approvals available



II 2G Ex eb IIC Gb  
II 2D Ex tb IIIC Db

| Gewinde<br>Entry Thread<br>AG                |                           |   |    | H<br>mm | GL<br>mm | Progress MS<br>Multi EX | HUGRO No.                  |
|--|---------------------------|---|----|---------|----------|-------------------------|----------------------------|
| kurzes Anschlussgewinde / short entry thread |                           |   |    |         |          |                         |                            |
| Pg 9   | 1,0 - 1,5 <sup>1)</sup>   | 4 | 18 | 20      | 6        | EX1310.09.4.015         | 101.09154.14 <sup>1)</sup> |
| Pg 9   | 2,0 - 3,0                 | 2 | 18 | 20      | 6        | EX1310.09.2.030         | 101.09302.14               |
| Pg 11  | 2,0 - 3,0 <sup>1)</sup>   | 3 | 21 | 21      | 6        | EX1310.11.3.030         | 101.11303.14 <sup>1)</sup> |
| Pg 11  | 3,0 - 4,0 <sup>1)</sup>   | 2 | 21 | 21      | 6        | EX1310.11.2.030         | 101.11402.14 <sup>1)</sup> |
| Pg 11  | 3,5 - 5,0                 | 2 | 21 | 21      | 6        | EX1310.11.2.050         | 101.11502.14               |
| Pg 13  | 2,5 - 4,0 <sup>1)</sup>   | 2 | 24 | 23      | 6        | EX1310.13.3.040         | 101.13403.14 <sup>1)</sup> |
| Pg 13  | 3,5 - 5,0                 | 2 | 24 | 23      | 6        | EX1310.13.2.050         | 101.13502.14               |
| Pg 16  | 2,5 - 3,0                 | 6 | 24 | 23      | 6        | EX1310.16.6.030         | 101.16306.14               |
| Pg 16  | 3,0 - 4,0 <sup>1)</sup>   | 6 | 24 | 23      | 6        | EX1310.16.6.040         | 101.16406.14 <sup>1)</sup> |
| Pg 16  | 4,5 - 6,0                 | 2 | 24 | 23      | 6        | EX1310.16.2.060         | 101.16602.14               |
| Pg 16  | 4,5 - 6,0                 | 3 | 24 | 23      | 6        | EX1310.16.3.060         | 101.16603.14               |
| Pg 21  | 5,5 - 7,0                 | 3 | 30 | 28      | 7        | EX1310.21.4.070         | 101.21704.14               |
| Pg 21  | 7,5 - 9,0                 | 3 | 30 | 28      | 7        | EX1310.21.3.090         | 101.21903.14               |
| Pg 29  | 5,5 - 6,5 <sup>1)</sup>   | 6 | 38 | 28      | 8        | EX1310.29.6.065         | 101.29656.14 <sup>1)</sup> |
| Pg 29  | 8,0 - 9,0 <sup>1)</sup>   | 3 | 38 | 28      | 8        | EX1310.29.3.090         | 101.29903.14 <sup>1)</sup> |
| Pg 36  | 9,0 - 10,0 <sup>1)</sup>  | 4 | 50 | 32      | 8        | EX1310.36.4.100         | 101.36104.14 <sup>1)</sup> |
| Pg 36  | 14,0 - 15,0 <sup>1)</sup> | 2 | 50 | 32      | 8        | EX1310.36.2.150         | 101.36152.14 <sup>1)</sup> |
| Pg 48  | 11,0 - 12,0 <sup>1)</sup> | 6 | 65 | 37      | 11       | EX1310.48.6.120         | 101.48126.14 <sup>1)</sup> |
| Pg 48  | 17,0 - 18,0 <sup>1)</sup> | 3 | 65 | 37      | 11       | EX1310.48.6.180         | 101.48183.14 <sup>1)</sup> |



**Eigenschaft:**

<sup>1)</sup> NBR-Dichteinsatz

**Characteristics:**

<sup>1)</sup> NBR-sealing

**Progress-EMV / EX**

Material: Messing vernickelt  
 Dichteinsatz: TPE  
 O-Ring: FPM  
 Einsatztemperatur: -60°C bis 100°C  
 Schutzart: IP 66 / IP 68 (bis 10 bar)

Material: brass, nickel-plated  
 Sealing insert: TPE  
 O-ring: FPM  
 Temperature range: -60°C to 100°C  
 Protection type: IP 66 / IP 68 (up to 10 bar)



107.10

Zertifikate: SEV 15 ATEX 0152 X  
 IECEx SEV 15.0019 X

Certificates: SEV 15 ATEX 0152 X  
 IECEx SEV 15.0019 X



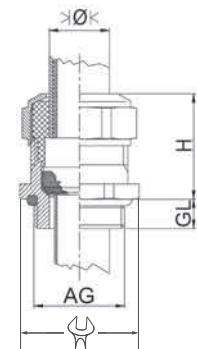
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Further international approvals available



II 2G Ex eb IIC Gb  
 II 2D Ex tb IIIC Db

| Gewinde<br>Entry Thread<br>AG | mm        | mm | H<br>mm | GL<br>mm | Progress MS<br>EMV EX | HUGRO No.   |
|-------------------------------|-----------|----|---------|----------|-----------------------|-------------|
| M 8 x 1,25                    | 2,5 - 3,5 | 11 | 14      | 5        | EX1080.08.035         | 107.0803.10 |
| M 8 x 1,25                    | 3 - 4     | 11 | 14      | 5        | EX1080.08.040         | 107.0804.10 |
| M 10 x 1,5                    | 3 - 4     | 13 | 15      | 5        | EX1080.10.040         | 107.1004.10 |
| M 10 x 1,5                    | 4 - 6     | 13 | 15      | 5        | EX1080.10.060         | 107.1006.10 |
| M 12 x 1,5                    | 4,5 - 6   | 15 | 17      | 5        | EX1080.12.060         | 107.1506.10 |
| M 12 x 1,5                    | 6 - 7,5   | 15 | 17      | 5        | EX1080.12.075         | 107.1507.10 |
| M 16 x 1,5                    | 6 - 8     | 18 | 20      | 5        | EX1080.17.080         | 107.1708.10 |
| M 16 x 1,5                    | 8 - 10    | 18 | 22      | 5        | EX1080.17.100         | 107.1710.10 |
| M 20 x 1,5                    | 8 - 11    | 24 | 21      | 6        | EX1080.20.110         | 107.2011.10 |
| M 20 x 1,5                    | 12,5 - 14 | 24 | 23      | 6        | EX1080.20.140         | 107.2014.10 |
| M 25 x 1,5                    | 13 - 16   | 30 | 25      | 7        | EX1080.25.160         | 107.2516.10 |
| M 25 x 1,5                    | 17 - 19   | 30 | 28      | 7        | EX1080.25.190         | 107.2519.10 |
| M 32 x 1,5                    | 17 - 21   | 36 | 29      | 8        | EX1080.32.210         | 107.3221.10 |
| M 40 x 1,5                    | 23 - 28,5 | 46 | 31      | 8        | EX1080.40.285         | 107.4028.10 |
| Pg 7                          | 4,5 - 6   | 15 | 17      | 6        | EX1080.07.060         | 107.0706.10 |
| Pg 7                          | 6 - 7,5   | 15 | 17      | 6        | EX1080.07.075         | 107.0707.10 |
| Pg 9                          | 6 - 8     | 18 | 20      | 6        | EX1080.09.080         | 107.0908.10 |
| Pg 9                          | 8 - 10    | 18 | 22      | 6        | EX1080.09.100         | 107.0910.10 |
| Pg 11                         | 5,5 - 8,5 | 21 | 21      | 6        | EX1080.11.085         | 107.1108.10 |
| Pg 11                         | 8,5 - 12  | 21 | 21      | 6        | EX1080.11.120         | 107.1112.10 |
| Pg 13,5                       | 8 - 11    | 24 | 21      | 6        | EX1080.13.110         | 107.1311.10 |
| Pg 13,5                       | 12,5 - 14 | 24 | 23      | 6        | EX1080.13.140         | 107.1314.10 |
| Pg 16                         | 8 - 11    | 24 | 21      | 6        | EX1080.16.110         | 107.1611.10 |
| Pg 16                         | 12,5 - 14 | 24 | 23      | 6        | EX1080.16.140         | 107.1614.10 |
| Pg 21                         | 13 - 16   | 30 | 25      | 7,5      | EX1080.21.160         | 107.2116.10 |
| Pg 21                         | 17 - 19   | 30 | 28      | 7,5      | EX1080.21.190         | 107.2119.10 |
| Pg 29                         | 19 - 23   | 38 | 29      | 8        | EX1080.29.230         | 107.2923.10 |
| Pg 29                         | 23 - 25,5 | 38 | 29      | 8        | EX1080.29.255         | 107.2925.10 |
| Pg 36                         | 25 - 30,5 | 50 | 32      | 8        | EX1080.36.305         | 107.3630.10 |

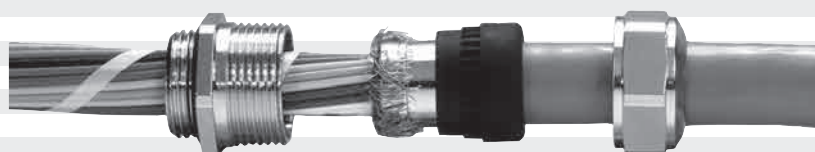


**Eigenschaften:**

- einfache, schnelle und sichere Montage
- sehr guter Schirmkontakt 360° über Kontakthülse
- konstante Kontaktqualität mit kleinster Kopplungsimpedanz

**Characteristics:**

- easy, fast and safe to install
- efficient 360° shield contact with contact socket
- constant contact quality with low impedance



Progress-EMV easyConnect / ZE-EX

Material: Messing vernickelt  
Schrauben: rostfreier Stahl A2  
Dichteinsatz: TPE  
O-Ring: FPM  
Einsatztemperatur: -60°C bis 100°C  
Schutzart: IP 66 / IP 68

Material: brass, nickel-plated  
Screws: stainless steel A2  
Sealing insert: TPE  
O-ring: FPM  
Temperature range: -60°C to 100°C  
Protection type: IP 66 / IP 68





107.ZE

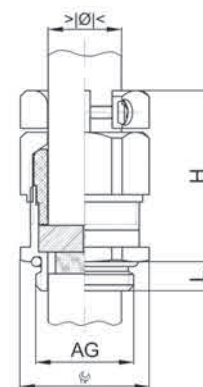
Zertifikate: SEV 15 ATEX 0151  
IECEX SEV 15.0018  
SEV 15 ATEX 0152 X\*  
IECEX SEV 15.0019 X\*

Certificates: SEV 15 ATEX 0151  
IECEX SEV 15.0018  
SEV 15 ATEX 0152 X\*  
IECEX SEV 15.0019 X\*



II 2G Ex eb IIC Gb  
II 2D Ex tb IIIC Db

| Gewinde<br>Entry Thread<br>AG               |  |  | H<br>mm | GL<br>mm | Progress MS EMV<br>easyCONNECT KB | HUGRO No.        |
|---|---|---|---------|----------|-----------------------------------|------------------|
| M 12 x 1,5                                  | 5 - 6,5   | 15 / 16   | 31      | 5        | EX1803.83.12.065                  | 107.1506.10.ZE * |
| M 16 x 1,5                                  | 6 - 10  | 18 / 19   | 33      | 5        | EX1803.83.17                      | 107.1702.10.ZE   |
| M 20 x 1,5                                  | 8 - 15  | 24  | 35      | 6        | EX1803.83.20                      | 107.2002.10.ZE   |
| M 25 x 1,5                                  | 12,5 - 20,5   | 30  | 40      | 7        | EX1803.83.25                      | 107.2502.10.ZE   |
| M 32 x 1,5                                  | 17 - 25,5   | 36  | 45      | 8        | EX1803.83.32                      | 107.3202.10.ZE   |
| M 40 x 1,5                                  | 24 - 33   | 46  | 51      | 8        | EX1803.83.40                      | 107.4002.10.ZE   |
| M 50 x 1,5                                  | 33 - 42   | 55  | 57      | 9        | EX1803.83.50                      | 107.5002.10.ZE   |
| M 63 x 1,5                                  | 40 - 52   | 70  | 60      | 10       | EX1803.83.63                      | 107.6302.10.ZE   |
| langes Anschlussgewinde / long entry thread |   |   |         |          |                                   |                  |
| M 12 x 1,5                                  | 5 - 6,5   | 15 / 16   | 31      | 10       | EX1813.83.12.065                  | 107.1506.30.ZE * |
| M 16 x 1,5                                  | 6 - 10  | 18 / 19   | 33      | 10       | EX1813.83.17                      | 107.1702.30.ZE   |
| M 20 x 1,5                                  | 8 - 15  | 24  | 35      | 10       | EX1813.83.20                      | 107.2002.30.ZE   |
| M 25 x 1,5                                  | 12,5 - 20,5   | 30  | 40      | 11       | EX1813.83.25                      | 107.2502.30.ZE   |
| M 32 x 1,5                                  | 17 - 25,5   | 36  | 45      | 13       | EX1813.83.32                      | 107.3202.30.ZE   |
| M 40 x 1,5                                  | 24 - 33   | 46  | 51      | 13       | EX1813.83.40                      | 107.4002.30.ZE   |
| M 50 x 1,5                                  | 33 - 42   | 55  | 57      | 14       | EX1813.83.50                      | 107.5002.30.ZE   |
| M 63 x 1,5                                  | 40 - 52   | 70  | 60      | 14       | EX1813.83.63                      | 107.6302.30.ZE   |



EF

Material: Messing blank  
Dichteinsatz: CR (doppelte Abdichtung)  
Einsatztemperatur: -35 °C bis 90 °C  
Schutzart: IP 66 + IP 68

Material: brass  
Sealing insert: CR (double seal)  
Temperature range: -35 °C to 90 °C  
Protection type: IP 66 + IP 68



115.01

Zertifikat: SIRA 01 ATEX 1271 X  
SIRA 09 ATEX 1221 X  
IECEx SIR 07.0097 X

Certificate: SIRA 01 ATEX 1271 X  
SIRA 09 ATEX 1221 X  
IECEx SIR 07.0097 X




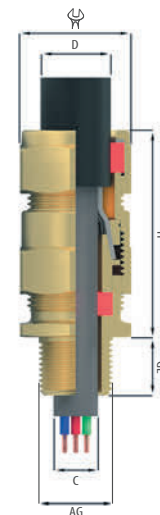
Weitere internationale Zulassungen vorhanden

Further international approvals available



II 1D 2G Ex db IIC Gb  
Ex eb IIC Gb  
Ex ta IIIC Da

| Gewinde<br>Entry Thread<br>AG | D<br>Außenmantel<br>Outer Sheath<br>Ø mm | C<br>Innenmantel<br>Inner Sheath<br>Ø mm |  mm | H<br>mm | GL<br>mm | E1WBF           | HUGRO No.      |
|-------------------------------|--|--|--|---------|----------|-----------------|----------------|
| M 16 x 1,5                    | 8,4 - 13,5                               | 4 - 8,4                                  | 24   | 58      | 16       | E1WBF/16/M16    | 115.1717.01.W  |
| M 16 x 1,5                    | 4,9 - 10,3                               | 4 - 8,4                                  | 24   | 58      | 16       | E1WBFR/16/M16   | 115.1717.01.WR |
| M 20 x 1,5                    | 8,4 - 13,5                               | 4 - 8,4                                  | 24   | 58      | 16       | E1WBF/16/M20    | 115.2017.01.W  |
| M 20 x 1,5                    | 4,9 - 10,3                               | 4 - 8,4                                  | 24   | 58      | 16       | E1WBFR/16/M20   | 115.2017.01.WR |
| M 20 x 1,5                    | 12,9 - 16                                | 8 - 11,7                                 | 24   | 58      | 16       | E1WBF/20S/M20   | 115.2025.01.W  |
| M 20 x 1,5                    | 9,4 - 12,5                               | 8 - 11,7                                 | 24   | 58      | 16       | E1WBFR/20S/M20  | 115.2025.01.WR |
| M 20 x 1,5                    | 15,5 - 21,1                              | 6,7 - 14                                 | 30   | 58      | 16       | E1WBF/20/M20    | 115.2020.01.W  |
| M 20 x 1,5                    | 12 - 17,6                                | 6,7 - 14                                 | 30   | 58      | 16       | E1WBFR/20/M20   | 115.2020.01.WR |
| M 25 x 1,5                    | 20,3 - 27,4                              | 13 - 20                                  | 38   | 58      | 16       | E1WBF/25/M25    | 115.2525.01.W  |
| M 25 x 1,5                    | 16,8 - 23,9                              | 13 - 20                                  | 38   | 58      | 16       | E1WBFR/25/M25   | 115.2525.01.WR |
| M 32 x 1,5                    | 26,7 - 34                                | 19 - 26,3                                | 46   | 65      | 16       | E1WBF/32/M32    | 115.3232.01.W  |
| M 32 x 1,5                    | 23,2 - 30,5                              | 19 - 26,3                                | 46   | 65      | 16       | E1WBFR/32/M32   | 115.3232.01.WR |
| M 40 x 1,5                    | 33 - 40,6                                | 25 - 32,2                                | 55   | 72      | 16       | E1WBF/40/M40    | 115.4040.01.W  |
| M 40 x 1,5                    | 28,6 - 36,2                              | 25 - 32,2                                | 55   | 72      | 16       | E1WBFR/40/M40   | 115.4040.01.WR |
| M 50 x 1,5                    | 39,4 - 46,7                              | 31,5 - 38,2                              | 65   | 73      | 16       | E1WBF/50S/M50   | 115.5055.01.W  |
| M 50 x 1,5                    | 34,8 - 42,4                              | 31,5 - 38,2                              | 65   | 73      | 16       | E1WBFR/50S/M50  | 115.5055.01.WR |
| M 50 x 1,5                    | 45,7 - 53,2                              | 36,5 - 44,1                              | 65   | 73      | 16       | E1WBF/50/M50    | 115.5050.01.W  |
| M 50 x 1,5                    | 41,1 - 48,5                              | 36,5 - 44,1                              | 65   | 73      | 16       | E1WBFR/50/M50   | 115.5050.01.WR |
| M 63 x 1,5                    | 52,1 - 59,5                              | 42,5 - 50,1                              | 80   | 76      | 19       | E1WBF/63S/M63   | 115.6365.01.W  |
| M 63 x 1,5                    | 47,5 - 54,8                              | 42,5 - 50,1                              | 80   | 76      | 19       | E1WBFR/63S/M63  | 115.6365.01.WR |
| M 63 x 1,5                    | 58,4 - 65,8                              | 49,5 - 56                                | 80   | 76      | 19       | E1WBF/63/M63    | 115.6363.01.W  |
| M 63 x 1,5                    | 53,8 - 61,2                              | 49,5 - 56                                | 80   | 76      | 19       | E1WBFR/63/M63   | 115.6363.01.WR |
| M 75 x 1,5                    | 64,8 - 72,2                              | 54,5 - 62                                | 90   | 82      | 19       | E1WBF/75S/M75   | 115.7475.01.W  |
| M 75 x 1,5                    | 60,2 - 68                                | 54,5 - 62                                | 90   | 82      | 19       | E1WBFR/75S/M75  | 115.7475.01.WR |
| M 75 x 1,5                    | 71,1 - 78                                | 60,5 - 68                                | 90   | 82      | 19       | E1WBF/75/M75    | 115.7474.01.W  |
| M 75 x 1,5                    | 66,5 - 73,4                              | 60,5 - 68                                | 90   | 82      | 19       | E1WBFR/75/M75   | 115.7474.01.WR |
| M 80 x 2                      | 77 - 84                                  | 62,2 - 72                                | 104  | 110     | 25       | E1WBF/80/M80    | 115.8A8A.01.W  |
| M 80 x 2                      | 79,6 - 90                                | 62,2 - 72                                | 104  | 110     | 25       | E1WBF/80H/M80   | 115.8A8A.01.WE |
| M 85 x 2                      | 79,6 - 90                                | 69 - 78                                  | 104  | 110     | 25       | E1WBF/85/M85    | 115.8F8F.01.W  |
| M 85 x 2                      | 75 - 85,4                                | 69 - 78                                  | 104  | 110     | 25       | E1WBFR/85/M85   | 115.8F8F.01.WR |
| M 90 x 2                      | 88 - 96                                  | 74 - 84                                  | 114  | 110     | 25       | E1WBF/90/M90    | 115.9A9A.01.W  |
| M 90 x 2                      | 92 - 102                                 | 74 - 84                                  | 114  | 110     | 25       | E1WBFR/90H/M90  | 115.9A9A.01.WE |
| M 100 x 2                     | 92 - 102                                 | 82 - 90                                  | 114  | 110     | 25       | E1WBF/100/M100  | 115.9K9K.01.W  |
| M 100 x 2                     | 87,4 - 97,4                              | 82 - 90                                  | 114  | 110     | 25       | E1WBFR/100/M100 | 115.9K9K.01.WR |



|                             |                              |                                       |
|-----------------------------|------------------------------|---------------------------------------|
| Kabel mit                   | Cable with                   | Bestell-Nummer / Reference no.:       |
| Stahlgeflechtarmierung SWB: | woven steel wire armour SWB: | "W" ersetzen durch X / exchange for X |
| Stahlbandarmierung STA:     | steel tape armour STA:       | "W" ersetzen durch Z / exchange for Z |

| Exd-Anwendung / Exd Application: |                          |                    |               |
|----------------------------------|--------------------------|--------------------|---------------|
| Gas-Gruppe                       | Innere Zündquelle        | Gehäuse-Volumen    | Zone          |
| Gas Group                        | Internal Ignition Source | Enclosure Volume   | Zone          |
| IIA, IIB, IIC                    | nein / no                | alle / any         | 1 oder / or 2 |
| IIA, IIB                         | ja / yes                 | alle / any         | 2             |
| IIA, IIB                         | ja / yes                 | ≤ 2 Liter / litres | 1             |

| EExe-Anwendung / EExe Application: |  |
|------------------------------------|--|
| Gruppe / Group II                  |  |
| Gas (G) Zone 1 + 2                 |  |
| Staub / Dust (D) Zone 21 + 22      |  |



**EXIOS**

Material: Messing blank  
Dichtungen: (Silikon), VMQ  
Klemmeinsatz: PA 6  
Armierung: Metallic Armour or Screen  
Temperaturbereich: -60 °C – 105 °C  
Dichtigkeit: IP 66, 67 und 68 (5 bar)

Material: brass  
Seals / O-Rings: (silicone), VMQ  
Clamping insert: PA 6  
Armour: metallic armour or Screen  
Temperature Range: -60 °C – 105 °C (-76 °F – 221 °F)  
Protection: IP 66, 67 and 68 (5 bar)



116.04

Zertifikate: BVS 10 ATEX E 062 X  
IECEx BVS 10.0078X

Certificates: BVS 10 ATEX E 062 X  
IECEx BVS 10.0078X







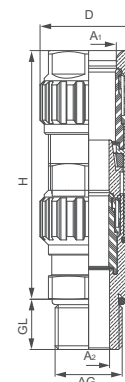
Weitere internationale Zulassungen vorhanden

Further international approvals available



Class I Div 2 Groups A, B, C, D  
Class II Div 1 Groups E, F, G  
II 1D Ex ta IIIC Da  
II 2G Ex de IIC Gb

| Gewinde<br>Entry Thread<br>AG |  |  |  | H<br>max. mm | GL<br>mm | D<br>mm | Armierung / Armour  |            | EXIOS         | HUGRO No.   |
|-------------------------------|---|---|---|--------------|----------|---------|--|------------|---------------|-------------|
|                               |   |   |   |              |          |         | Klemmring / Clamping Ring  |            |               |             |
|                               |   |   |   |              |          |         | 1  | 2          |               |             |
| M 16 x 1,5                    | 6 – 12  | 3 – 8,1   | 22  | 69,5         | 16       | 27      | 0 – 0,7  | 0,7 – 1,25 | 1.605.1600.50 | 116.1712.04 |
| M 20 x 1,5                    | 6 – 12  | 3 – 8,1   | 22  | 69,5         | 16       | 27      | 0 – 0,7  | 0,7 – 1,25 | 1.605.2000.50 | 116.2012.04 |
| M 20 x 1,5                    | 9 – 16  | 6 – 12  | 24  | 74,3         | 16       | 29      | 0 – 0,7  | 0,7 – 1,25 | 1.605.2000.51 | 116.2016.04 |
| M 20 x 1,5                    | 12,5 – 20,5   | 9 – 14  | 30  | 80,5         | 16       | 35      | 0 – 0,7  | 0,7 – 1,4  | 1.605.2000.52 | 116.2020.04 |
| M 25 x 1,5                    | 12,5 – 20,5   | 9 – 14  | 30  | 80,5         | 16       | 35      | 0 – 0,7  | 0,7 – 1,4  | 1.605.2500.51 | 116.2520.04 |
| M 25 x 1,5                    | 16,9 – 26   | 12,5 – 20,5   | 36  | 91           | 16       | 42      | 0 – 0,7  | 0,9 – 1,6  | 1.605.2500.50 | 116.2526.04 |
| M 32 x 1,5                    | 22 – 33   | 16,9 – 26   | 46  | 96           | 16       | 52      | 0 – 0,7  | 1,3 – 2,0  | 1.605.3200.50 | 116.3233.04 |
| M 40 x 1,5                    | 28 – 41   | 22 – 33   | 55  | 107          | 16       | 64      | 0 – 0,7  | 1,3 – 2,0  | 1.605.4000.50 | 116.4041.04 |
| M 50 x 1,5                    | 36 – 52,6   | 28,9 – 44,4   | 65  | 131,5        | 16       | 73      | 0 – 1,0  | 1,5 – 2,5  | 1.605.5000.50 | 116.5053.04 |
| M 63 x 1,5                    | 46 – 65,3   | 39,9 – 56,3   | 80  | 144,5        | 16       | 90      | 0 – 1,0  | 1,5 – 2,5  | 1.605.6300.50 | 116.6365.04 |
| M 75 x 1,5                    | 57 – 78   | 50,5 – 68,2   | 95  | 154          | 16       | 107     | 0 – 1,0  | 1,5 – 2,5  | 1.605.7500.50 | 116.7478.04 |
| NPT 3/8"                      | 6 – 12  | 3 – 8,1   | 22  | 69,5         | 16       | 27      | 0 – 0,7  | 0,7 – 1,25 | 1.605.3800.70 | 116.3912.04 |
| NPT 1/2"                      | 9 – 16  | 6 – 12  | 24  | 74,3         | 20       | 29      | 0 – 0,7  | 0,7 – 1,25 | 1.605.1200.70 | 116.1916.04 |
| NPT 1/2"                      | 12,5 – 20,5   | 16,9 – 26   | 30  | 80,5         | 20       | 35      | 0 – 0,7  | 0,7 – 1,4  | 1.605.1200.71 | 116.1920.04 |
| NPT 3/4"                      | 16,9 – 26   | 12,5 – 20,5   | 36  | 91           | 20,5     | 42      | 0 – 0,7  | 0,9 – 1,6  | 1.605.3400.70 | 116.3526.04 |
| NPT 1"                        | 22 – 33   | 16,9 – 26   | 46  | 96           | 25       | 52      | 0 – 0,7  | 1,3 – 2,0  | 1.605.1000.70 | 116.7533.04 |
| NPT 1 1/4"                    | 28 – 41   | 22 – 33   | 55  | 107          | 26       | 64      | 0 – 0,7  | 1,3 – 2,0  | 1.605.5400.70 | 116.7641.04 |
| NPT 1 1/2"                    | 28 – 41   | 22 – 33   | 55  | 107          | 26,5     | 64      | 0 – 0,7  | 1,3 – 2,0  | 1.605.6400.70 | 116.7741.04 |
| NPT 2"                        | 36 – 52,6   | 28,9 – 44,4   | 65  | 131,5        | 27       | 73      | 0 – 1,0  | 1,5 – 2,5  | 1.605.2000.70 | 116.7853.04 |
| NPT 2 1/2"                    | 46 – 65,3   | 39,9 – 56,3   | 80  | 144,5        | 40       | 90      | 0 – 1,0  | 1,5 – 2,5  | 1.605.5200.70 | 116.7965.04 |
| NPT 3"                        | 57 – 78   | 50,5 – 68,2   | 95  | 154          | 41,5     | 107     | 0 – 1,0  | 1,5 – 2,5  | 1.605.3000.70 | 116.8078.04 |



EXPLO

Material: Messing vernickelt  
Schrauben: rostfreier Stahl A2  
Dichteinsatz: NBR  
O-Ring: FPM  
Einsatztemperatur: -40°C bis 100°C  
Schutzart: IP 68 (30 bar)

Material: brass, nickel-plated  
Screws: stainless steel A2  
Sealing insert: NBR  
O-ring: FPM  
Temperature range: -40°C to 100°C  
Protection type: IP 68 (30 bar)

**Ex d**



Auf Anfrage  
on request

118.00

Zertifikate: PTB 00 ATEX 1059  
IECEX PTB 12.0056

Certificates: PTB 00 ATEX 1059  
IECEX PTB 12.0056




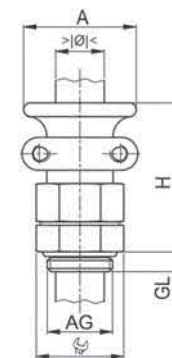
Weitere internationale Zulassungen vorhanden

Further international approvals available



II 2G Ex db eb IIC  
II 2D Ex ta IIIC

| Gewinde<br>Entry Thread<br>AG | $\varnothing$<br>mm | <br>mm | A<br>mm | H<br>mm | GL<br>mm | EXPLO No.          | HUGRO No. |
|-------------------------------|---------------------|---|---------|---------|----------|--------------------|-----------|
| M 16 x 1,5                    | 7 - 9               | 20  | 27      | 57      | 12       | 1817.09.26         | 118.1709  |
| M 20 x 1,5                    | 9 - 11              | 24  | 30      | 57      | 12       | 1820.11.26         | 118.2011  |
| M 20 x 1,5                    | 11 - 13             | 26  | 32      | 57      | 14       | 1820.16.26         | 118.2013  |
| M 25 x 1,5                    | 13 - 16,5           | 32  | 40      | 67      | 16       | 1825.21.26         | 118.2516  |
| M 25 x 1,5                    | 16,5 - 20           | 36  | 44      | 67      | 16       | 1825.21.27         | 118.2520  |
| M 32 x 1,5                    | 20 - 24             | 45  | 48      | 78      | 17       | 1832.29.26         | 118.3224  |
| M 40 x 1,5                    | 24 - 28             | 45  | 52      | 78      | 17       | 1840.29.27         | 118.4028  |
| M 50 x 1,5                    | 28 - 32             | 55  | 60      | 85      | 17       | 1850.36.26         | 118.5032  |
| M 50 x 1,5                    | 32 - 36             | 55  | 64      | 85      | 17       | 1850.36.27         | 118.5036  |
| M 63 x 1,5                    | 36 - 40             | 70  | 75      | 88      | 20       | 1863.48.26         | 118.6340  |
| M 63 x 1,5                    | 40 - 44             | 70  | 80      | 88      | 20       | 1863.48.27         | 118.6344  |
|                               |                     |   |         |         |          |                    |           |
| Pg 9                          | 7 - 9               | 20  | 27      | 57      | 12       | 1809.26            | 118.0909  |
| Pg 11                         | 9 - 11              | 24  | 30      | 57      | 12       | 1811.26            | 118.1111  |
| Pg 13,5                       | 11 - 13             | 26  | 32      | 57      | 14       | 1813.26            | 118.1313  |
| Pg 16                         | 11 - 13             | 26  | 32      | 57      | 14       | 1816.26            | 118.1613  |
| Pg 21                         | 13 - 16,5           | 32  | 40      | 67      | 16       | 1821.26            | 118.2116  |
| Pg 21                         | 16,5 - 20           | 36  | 44      | 67      | 16       | 1821.27            | 118.2120  |
| Pg 29                         | 20 - 24             | 45  | 48      | 78      | 17       | 1829.26            | 118.2924  |
| Pg 29                         | 24 - 28             | 45  | 52      | 78      | 17       | 1829.27            | 118.2928  |
| Pg 36                         | 28 - 32             | 55  | 60      | 85      | 17       | 1836.26            | 118.3632  |
| Pg 36                         | 32 - 36             | 55  | 64      | 85      | 17       | 1836.27            | 118.3636  |
| Pg 48                         | 36 - 40             | 64  | 75      | 88      | 20       | 1848.48.26         | 118.4840  |
| Pg 48                         | 40 - 44             | 64  | 80      | 88      | 20       | 1848.48.27         | 118.4844  |
|                               |                     |   |         |         |          |                    |           |
| 3/8" NPT                      | 7 - 9               | 20  | 27      | 57      | 15,5     | 18 3/8 NPT.09.26   | 118.3909  |
| 1/2" NPT                      | 9 - 11              | 24  | 30      | 57      | 20       | 18 1/2 NPT.11.26   | 118.1911  |
| 1/2" NPT                      | 11 - 13             | 26  | 32      | 57      | 20       | 18 1/2 NPT.16.26   | 118.1913  |
| 3/4" NPT                      | 9 - 11              | 27  | 30      | 57      | 20       | 18 3/4 NPT.11.26   | 118.3511  |
| 3/4" NPT                      | 11 - 13             | 26  | 32      | 57      | 20       | 18 3/4 NPT.16.26   | 118.3513  |
| 3/4" NPT                      | 13 - 16,5           | 32  | 40      | 67      | 20       | 18 3/4 NPT.21.26   | 118.3516  |
| 1" NPT                        | 13 - 16,5           | 32  | 40      | 67      | 25       | 18 1 NPT.21.26     | 118.7516  |
| 1" NPT                        | 16,5 - 20           | 36  | 44      | 67      | 25       | 18 1 NPT.21.27     | 118.7520  |
| 1 1/4" NPT                    | 20 - 24             | 45  | 48      | 78      | 26       | 18 1 1/4 NPT.29.26 | 118.7624  |
| 1 1/4" NPT                    | 24 - 28             | 45  | 52      | 78      | 26       | 18 1 1/4 NPT.29.27 | 118.7628  |
| 1 1/2" NPT                    | 28 - 32             | 55  | 60      | 85      | 26       | 18 1 1/2 NPT.36.26 | 118.7732  |
| 1 1/2" NPT                    | 32 - 36             | 55  | 64      | 85      | 26       | 18 1 1/2 NPT.36.27 | 118.7736  |
|                               |                     |   |         |         |          |                    |           |
| G 3/8"                        | 7 - 9               | 20  | 27      | 57      | 12       | 183/8G.09.26       | 118.3809  |
| G 1/2"                        | 9 - 11              | 24  | 30      | 57      | 14       | 181/2G.11.26       | 118.1211  |
| G 1/2"                        | 11 - 13             | 26  | 32      | 57      | 14       | 181/2G.16.26       | 118.1213  |
| G 3/4"                        | 13 - 16,5           | 32  | 40      | 67      | 16       | 183/4G.21.26       | 118.3416  |
| G 3/4"                        | 16,5 - 20           | 36  | 44      | 67      | 16       | 183/4G.21.27       | 118.3420  |
| G 1"                          | 20 - 24             | 45  | 48      | 78      | 17       | 181G.29.26         | 118.8524  |
| G 1 1/4"                      | 24 - 28             | 45  | 52      | 78      | 17       | 181 1/4G.29.27     | 118.8728  |
| G 1 1/2"                      | 28 - 32             | 55  | 60      | 85      | 17       | 181 1/2G.36.26     | 118.8932  |
| G 2"                          | 36 - 40             | 64  | 75      | 88      | 20       | 1848.26            | 118.9148  |
| G 2"                          | 40 - 44             | 64  | 80      | 88      | 20       | 1848.27            | 118.9144  |



**Ex Compact**

|                    |   |                    |   |
|--------------------|---|--------------------|---|
| Material:          | Messing vernickelt                        | Material:          | brass, nickel-plated                    |
| Dichteinsatz:      | NBR                                       | Sealing insert:    | NBR                                     |
| O-Ring:            | FPM                                       | O-ring:            | FPM                                     |
| Einsatztemperatur: | -60°C bis 105°C                           | Temperature range: | -60°C to 105°C                          |
| Schutzart:         | IP 66 / IP 68 (30 bar)                    | Protection type:   | IP 66 / IP 68 (30 bar)                  |
| Zertifikate:       | PTB 10 ATEX 1034 X<br>IECEX PTB 12.0055 X | Certificates:      | PTB 10 ATEX 1034<br>IECEX PTB 12.0055 X |

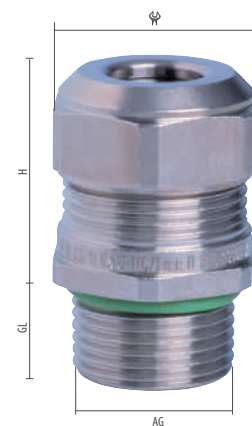


118.00



II 2G Ex db eb IIC  
II 2D Ex ta IIIC

| Gewinde<br>Entry Thread<br>AG |           |    | H<br>mm | GL<br>mm | Ex Compact MS | HUGRO No.   |
|-------------------------------|-----------|----|---------|----------|---------------|-------------|
| M 16 x 1,5                    | 3 - 7     | 21 | 25      | 12       | EX1126.17.070 | 118.1707.00 |
| M 16 x 1,5                    | 5 - 10    | 24 | 25      | 12       | EX1126.17.100 | 118.1710.00 |
| M 20 x 1,5                    | 5 - 11    | 24 | 25      | 12       | EX1126.20.110 | 118.2011.00 |
| M 20 x 1,5                    | 9 - 14    | 30 | 25      | 12       | EX1126.20.140 | 118.2014.00 |
| M 25 x 1,5                    | 7,5 - 15  | 32 | 26,5    | 12       | EX1126.25.150 | 118.2515.00 |
| M 25 x 1,5                    | 12,5 - 18 | 32 | 26,5    | 12       | EX1126.25.180 | 118.2518.00 |
| M 32 x 1,5                    | 17 - 23   | 41 | 32      | 12       | EX1126.32.230 | 118.3223.00 |
| M 32 x 1,5                    | 21 - 26   | 41 | 32      | 12       | EX1126.32.260 | 118.3226.00 |
| M 40 x 1,5                    | 21 - 26   | 41 | 32      | 14       | EX1126.40.260 | 118.4026.00 |
| M 40 x 1,5                    | 24 - 32   | 50 | 33      | 14       | EX1126.40.320 | 118.4032.00 |
| M 50 x 1,5                    | 28 - 36   | 55 | 33      | 14       | EX1126.50.360 | 118.5036.00 |
| M 50 x 1,5                    | 35 - 42   | 60 | 34      | 14       | EX1126.50.420 | 118.5042.00 |
| M 63 x 1,5                    | 36 - 44   | 65 | 35      | 14       | EX1126.63.440 | 118.6344.00 |
| M 63 x 1,5                    | 43 - 50   | 70 | 35      | 14       | EX1126.63.500 | 118.6350.00 |



**Kabelverschraubungen  
mit Zugentlastung**

**Cable Glands  
with traction relief**

**Ex Compact / ZE-EX**

|                    |                                       |                    |                                       |
|--------------------|---------------------------------------|--------------------|---------------------------------------|
| Material:          | Messing vernickelt                    | Material:          | brass, nickel-plated                  |
| Schrauben:         | rostfreier Stahl A2                   | Screws:            | stainless steel A2                    |
| Dichteinsatz:      | NBR                                   | Sealing insert:    | NBR                                   |
| O-Ring:            | FPM                                   | O-ring:            | FPM                                   |
| Einsatztemperatur: | -60°C bis 105°C                       | Temperature range: | -60°C to 105°C                        |
| Schutzart:         | IP 66 / IP 68 (30 bar)                | Protection type:   | IP 66 / IP 68 (30 bar)                |
| Zertifikate:       | SEV 17 ATEX 0153<br>IECEX SEV 17.0017 | Certificates:      | SEV 17 ATEX 0153<br>IECEX SEV 17.0017 |

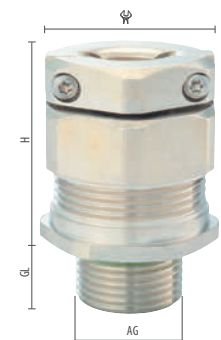


118.ZE



II 2G Ex db eb IIC Gb  
II 2D Ex tb IIIC Db

| Gewinde<br>Entry Thread<br>AG |           |    | H<br>mm | GL<br>mm | Ex Compact MS KB | HUGRO No.      |
|-------------------------------|-----------|----|---------|----------|------------------|----------------|
| M 16 x 1,5                    | 3 - 7     | 21 | 34      | 12       | EX1826.17.070    | 118.1707.00.ZE |
| M 16 x 1,5                    | 5 - 10    | 24 | 35      | 12       | EX1826.17.100    | 118.1710.00.ZE |
| M 20 x 1,5                    | 5 - 11    | 24 | 35      | 12       | EX1826.20.110    | 118.2011.00.ZE |
| M 20 x 1,5                    | 9 - 14    | 30 | 35      | 12       | EX1826.20.140    | 118.2014.00.ZE |
| M 25 x 1,5                    | 7,5 - 15  | 32 | 37      | 12       | EX1826.25.150    | 118.2515.00.ZE |
| M 25 x 1,5                    | 12,5 - 18 | 32 | 37      | 12       | EX1826.25.180    | 118.2518.00.ZE |
| M 32 x 1,5                    | 17 - 23   | 41 | 42      | 12       | EX1826.32.230    | 118.3223.00.ZE |
| M 32 x 1,5                    | 21 - 26   | 41 | 42      | 12       | EX1826.32.260    | 118.3226.00.ZE |
| M 40 x 1,5                    | 21 - 26   | 41 | 42      | 14       | EX1826.40.260    | 118.4026.00.ZE |
| M 40 x 1,5                    | 24 - 32   | 50 | 47      | 14       | EX1826.40.320    | 118.4032.00.ZE |
| M 50 x 1,5                    | 28 - 36   | 55 | 48      | 14       | EX1826.50.360    | 118.5036.00.ZE |
| M 50 x 1,5                    | 35 - 42   | 60 | 50      | 14       | EX1826.50.420    | 118.5042.00.ZE |
| M 63 x 1,5                    | 36 - 44   | 65 | 51      | 14       | EX1826.63.440    | 118.6344.00.ZE |
| M 63 x 1,5                    | 43 - 50   | 70 | 51      | 14       | EX1826.63.500    | 118.6350.00.ZE |



## ALF

Material: Messing blank  
 Dichteinsatz: CR  
 O-Ring \*: CR  
 Einsatztemperatur: -35 °C bis 90 °C  
 Schutzart: IP 66 + IP 68

Material: brass  
 Sealing insert: CR  
 O-ring \*: CR  
 Temperature range: -35 °C to 90 °C  
 Protection type: IP 66 + IP 68



119.01

Zertifikat: SIRA 01 ATEX 1272 X  
 SIRA 09 ATEX 1221 X  
 IECEX SIR 07.0096 X

Certificate: SIRA 01 ATEX 1272 X  
 SIRA 09 ATEX 1221 X  
 IECEX SIR 07.0096 X





Weitere internationale Zulassungen vorhanden

Further international approvals available



II 1D 2G Ex db IIC Gb  
 Ex eb IIC Gb  
 Ex ta IIC Da

| Gewinde<br>Entry Thread<br>AG |  |  | H<br>mm | GL<br>mm | A2LBF            | HUGRO No.   |
|-------------------------------|---|---|---------|----------|------------------|-------------|
| M 16 x 1,5                    | 4 - 8,4   | 25,4  | 33      | 16       | A2LBF/16/M16     | 119.1717.01 |
| M 20 x 1,5                    | 7,2 - 11,7  | 25,4  | 33      | 16       | A2LBF/20S/M20    | 119.2025.01 |
| M 20 x 1,5                    | 9,6 - 14  | 30  | 33      | 16       | A2LBF/20/M20     | 119.2020.01 |
| M 25 x 1,5                    | 13,5 - 20   | 38  | 33      | 16       | A2LBF/25/M25     | 119.2525.01 |
| M 32 x 1,5                    | 19,5 - 26,3   | 46  | 33      | 16       | A2LBF/32/M32     | 119.3232.01 |
| M 40 x 1,5                    | 23,0 - 32,2   | 55  | 37      | 16       | A2LBF/40/M40     | 119.4040.01 |
| M 50 x 1,5                    | 28,1 - 38,2   | 65  | 37      | 16       | A2LBF/50S/M50    | 119.5055.01 |
| M 50 x 1,5                    | 33,1 - 44,1   | 65  | 37      | 16       | A2LBF/50/M50     | 119.5050.01 |
| M 63 x 1,5                    | 39,2 - 50,1   | 80  | 37      | 19       | A2LBF/63S/M63    | 119.6365.01 |
| M 63 x 1,5                    | 46,7 - 56   | 80  | 37      | 19       | A2LBF/63/M63     | 119.6363.01 |
| M 75 x 1,5                    | 52,1 - 62   | 90  | 37      | 19       | A2LBF/75S/M75    | 119.7475.01 |
| M 75 x 1,5                    | 58 - 68   | 90  | 37      | 19       | A2LBF/75/M75     | 119.7474.01 |
| M 80 x 2                      | 62,2 - 72   | 104   | 50      | 25       | A2LBF/80/M80     | 119.8A8A.01 |
| M 85 x 2                      | 69 - 78   | 104   | 50      | 25       | A2LBF/85/M85     | 119.8F8F.01 |
| M 90 x 2                      | 74 - 84   | 114   | 50      | 25       | A2LBF/90/M90     | 119.9A9A.01 |
| M 100 x 2                     | 82 - 90   | 114   | 50      | 25       | A2LBF/100/M100   | 119.9K9K.01 |
| 1/2" NPT                      | 4 - 8,4   | 24  | 33      | 19,9     | A2LBF/16/050NPT  | 119.1917.01 |
| 1/2" NPT                      | 7,2 - 11,7  | 24  | 33      | 19,9     | A2LBF/20S/050NPT | 119.1925.01 |
| 1/2" NPT                      | 9,6 - 14  | 30  | 33      | 19,9     | A2LBF/20/050NPT  | 119.1920.01 |
| 3/4" NPT                      | 13,5 - 20   | 38  | 33      | 20,1     | A2LBF/25/075NPT  | 119.3525.01 |
| 1" NPT                        | 19,5 - 26,3   | 46  | 33      | 21,5     | A2LBF/32/100NPT  | 119.7532.01 |
| 1 1/4" NPT                    | 23 - 32,2   | 55  | 37      | 25,6     | A2LBF/40/125NPT  | 119.7640.01 |
| 1 1/2" NPT                    | 28,1 - 38,2   | 65  | 37      | 26       | A2LBF/50S/150NPT | 119.7755.01 |
| 2" NPT                        | 33,1 - 44,1   | 65  | 37      | 26,9     | A2LBF/50/200NPT  | 119.7850.01 |

\* nur metrische Größen

\* only metric sizes

## Auf Anfrage:

- weitere Größen und Ausführungen
- andere Gewinde wie Pg, NPS, BSP etc.
- in Messing vernickelt
- in Edelstahl A4
- in Aluminium
- für Temperaturbereich -60°C bis 180°C

## On request:

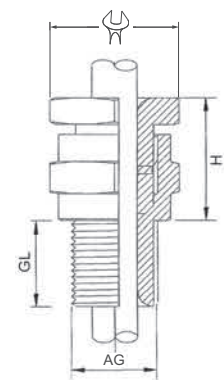
- further sizes
- other entry threads like Pg, NPS, BSP etc.
- brass, nickel-plated
- stainless steel 316
- aluminium
- for temperature range -60°C to 180°C

## Exd-Anwendung / Exd Application:

| Gas-Gruppe<br>Gas Group | Innere Zündquelle<br>Internal Ignition Source | Gehäuse-Volumen<br>Enclosure Volume | Zone<br>Zone  |
|-------------------------|---|-------------------------------------|---------------|
| IIA, IIB, IIC           | nein / no                                     | alle / any                          | 1 oder / or 2 |
| IIA, IIB                | ja / yes                                      | alle / any                          | 2             |
| IIA, IIB                | ja / yes                                      | ≤ 2 Liter / litres                  | 1             |

## EExe-Anwendung / EExe Application:

| Gruppe / Group II             |
|-------------------------------|
| Gas (G) Zone 1 + 2            |
| Staub / Dust (D) Zone 21 + 22 |
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Progress-M/ZE-EX

Material: Messing vernickelt  
Schrauben: rostfreier Stahl A2  
Dichteinsatz: TPE (zweiteilig)  
O-Ring: FPM  
Einsatztemperatur: -60°C bis 100°C  
Schutzart: IP 66/IP 68 (bis 10 bar)

Material: brass, nickel-plated  
Screws: stainless steel A2  
Sealing insert: TPE (two-piece)  
O-ring: FPM  
Temperature range: -40°C to 100°C  
Protection type: IP 66/IP 68 (up to 10 bar)

**Ex e**

  
**RoHS**  
Conformant  
Auf Anfrage  
on request

144.10

Zertifikate: SEV 15 ATEX 0151 X  
IECEX SEV 15.0018 X

Certificates: SEV 15 ATEX 0151 X  
IECEX SEV 15.0018 X

**CE**



Weitere internationale Zulassungen vorhanden

Further international approvals available

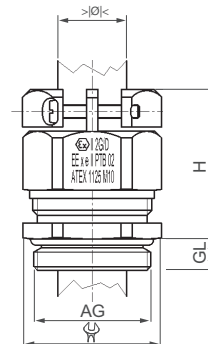




II 2G Ex eb IIC Gb  
II 2D Ex tb IIIC Db

| Gewinde<br>Entry Thread<br>AG |  |  | H<br>mm | GL<br>mm | Progress<br>MS KB EX | HUGRO No.     |
|-------------------------------|---|---|---------|----------|----------------------|---------------|
| M 12 x 1,5                    | 5 - 6,5   | 15/16   | 26      | 5        | EX1803.12.03.065     | 144.1506.10 * |
| M 12 x 1,5                    | 6,5 - 8   | 15/16   | 26      | 5        | EX1803.12.03.080     | 144.1508.10 * |
| M 16 x 1,5                    | 6 - 10,5  | 18/19   | 30      | 5        | EX1803.17            | 144.1702.10   |
| M 20 x 1,5                    | 8 - 15  | 24  | 31      | 6        | EX1803.20            | 144.2002.10   |
| M 25 x 1,5                    | 12,5 - 20,5   | 30  | 35      | 7        | EX1803.25            | 144.2502.10   |
| M 32 x 1,5                    | 17 - 25,5   | 36  | 40      | 8        | EX1803.32            | 144.3202.10   |
| M 40 x 1,5                    | 24 - 33   | 46  | 44      | 8        | EX1803.40            | 144.4002.10   |
| M 50 x 1,5                    | 33 - 42   | 55  | 49      | 9        | EX1803.50            | 144.5002.10   |
| M 63 x 1,5                    | 40 - 52   | 70  | 55      | 10       | EX1803.63            | 144.6302.10   |
|                               |   |   |         |          |                      |               |
| Pg 7                          | 5 - 6,5   | 15/16   | 26      | 6        | EX1803.07.03.065     | 144.0706.10 * |
| Pg 7                          | 6,5 - 8   | 15/16   | 26      | 6        | EX1803.07.03.080     | 144.0708.10 * |
| Pg 9                          | 6 - 10,5  | 18/19   | 30      | 6        | EX1803.09            | 144.0902.10   |
| Pg 11                         | 5,5 - 12  | 21  | 31      | 6        | EX1803.11            | 144.1102.10   |
| Pg 13,5                       | 8 - 15  | 24  | 31      | 6        | EX1803.13            | 144.1302.10   |
| Pg 16                         | 8 - 15  | 24  | 31      | 6        | EX1803.16            | 144.1602.10   |
| Pg 21                         | 12,5 - 20,5   | 30  | 35      | 7,5      | EX1803.21            | 144.2102.10   |
| Pg 29                         | 19 - 27,5   | 38  | 40      | 8        | EX1803.29            | 144.2902.10   |
| Pg 36                         | 26 - 35   | 50  | 47      | 8        | EX1803.36            | 144.3602.10   |
| Pg 42                         | 33 - 42   | 55  | 49      | 10       | EX1803.42            | 144.4202.10   |
| Pg 48                         | 37 - 49   | 65  | 51      | 11       | EX1803.48            | 144.4802.10   |

\*) einteiliger Dichteinsatz / one-piece sealing



Progress-M/BZ-EX

Material: Messing vernickelt  
Schrauben: rostfreier Stahl A2  
Dichteinsatz: TPE (zweiteilig)  
O-Ring: FPM  
Einsatztemperatur: -60°C bis 100°C  
Schutzart: IP 66/IP 68 (bis 10 bar)

Material: brass, nickel-plated  
Screws: stainless steel A2  
Sealing insert: TPE (two-piece)  
O-ring: FPM  
Temperature range: -60°C to +100°C  
Protection type: IP 66/IP 69K

**Ex e**



147.10  
147.30

Zertifikate: SEV 15 ATEX 0151 X  
IECEx SEV 15.0018 X

Certificates: SEV 15 ATEX 0151 X  
IECEx SEV 15.0018 X





Weitere internationale Zulassungen vorhanden

Further international approvals available

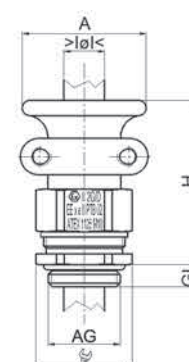


II 2G Ex eb IIC Gb  
II 2D Ex tb IIIC Db

| Gewinde<br>Entry Thread<br>AG |  |  | A<br>mm | H<br>mm | GL<br>mm | Progress<br>MS T + KB EX | HUGRO No. |
|-------------------------------|---|---|---------|---------|----------|--------------------------|-----------|
|-------------------------------|---|---|---------|---------|----------|--------------------------|-----------|

| kurzes Anschlussgewinde / short entry thread |             |    |      |    |     |           |             |
|--|-------------|----|------|----|-----|-----------|-------------|
| M 16 x 1,5                                   | 6 - 10,5    | 18 | 28   | 43 | 5   | EX1801.17 | 147.1702.10 |
| M 20 x 1,5                                   | 8 - 15      | 24 | 34   | 46 | 6   | EX1801.20 | 147.2002.10 |
| M 25 x 1,5                                   | 12,5 - 20,5 | 30 | 44   | 52 | 7   | EX1801.25 | 147.2502.10 |
| M 32 x 1,5                                   | 17 - 25,5   | 36 | 49,5 | 59 | 8   | EX1801.32 | 147.3202.10 |
| M 40 x 1,5                                   | 24 - 33     | 46 | 57   | 59 | 8   | EX1801.40 | 147.4002.10 |
|  |             |    |      |    |     |           |             |
| Pg 9   | 6 - 10,5    | 18 | 28   | 43 | 6   | EX1801.09 | 147.0902.10 |
| Pg 11  | 5,5 - 12    | 21 | 30   | 43 | 6   | EX1801.11 | 147.1102.10 |
| Pg 13,5                                      | 8 - 15      | 24 | 34   | 46 | 6   | EX1801.13 | 147.1302.10 |
| Pg 16  | 8 - 15      | 24 | 34   | 46 | 6   | EX1801.16 | 147.1602.10 |
| Pg 21  | 12,5 - 20,5 | 30 | 44   | 52 | 7,5 | EX1801.21 | 147.2102.10 |
| Pg 29  | 19 - 27,5   | 38 | 50   | 59 | 8   | EX1801.29 | 147.2902.10 |

| langes Anschlussgewinde / long entry thread |             |    |      |    |    |           |             |
|---|-------------|----|------|----|----|-----------|-------------|
| M 16 x 1,5                                  | 6 - 10,5    | 18 | 28   | 43 | 10 | EX1811.17 | 147.1702.30 |
| M 20 x 1,5                                  | 8 - 15      | 24 | 34   | 46 | 10 | EX1811.20 | 147.2002.30 |
| M 25 x 1,5                                  | 12,5 - 20,5 | 30 | 44   | 52 | 11 | EX1811.25 | 147.2502.30 |
| M 32 x 1,5                                  | 17 - 25,5   | 36 | 49,5 | 59 | 13 | EX1811.32 | 147.3202.30 |
| M 40 x 1,5                                  | 24 - 33     | 46 | 57   | 59 | 13 | EX1811.40 | 147.4002.30 |
|   |             |    |      |    |    |           |             |
| Pg 9  | 6 - 10,5    | 18 | 28   | 43 | 10 | EX1811.09 | 147.0902.30 |
| Pg 11                                       | 5,5 - 12    | 21 | 30   | 43 | 10 | EX1811.11 | 147.1102.30 |
| Pg 13,5                                     | 8 - 15      | 24 | 34   | 46 | 10 | EX1811.13 | 147.1302.30 |
| Pg 16                                       | 8 - 15      | 24 | 34   | 46 | 10 | EX1811.16 | 147.1602.30 |
| Pg 21                                       | 12,5 - 20,5 | 30 | 44   | 52 | 12 | EX1811.21 | 147.2102.30 |
| Pg 29                                       | 19 - 27,5   | 38 | 50   | 59 | 12 | EX1811.29 | 147.2902.30 |



**Progress-EMV/ZE-EX**

Material: Messing vernickelt  
Schrauben: rostfreier Stahl A2  
Dichteinsatz: TPE  
O-Ring: FPM  
Einsatztemperatur: -60°C bis 100°C  
Schutzart: IP 66/IP 68 (bis 10 bar)

Material: brass, nickel-plated  
Screws: stainless steel A2  
Sealing insert: TPE  
O-ring: FPM  
Temperature range: -60°C to 100°C  
Protection type: IP 66/IP 68 (up to 10 bar)



148.10

Zertifikate: SEV 15 ATEX 0151  
IECEX SEV 15.0018  
SEV 15 ATEX 0152 X\*  
IECEX SEV 15.0019 X\*



Certificates: SEV 15 ATEX 0151  
IECEX SEV 15.0018  
SEV 15 ATEX 0152 X\*  
IECEX SEV 15.0019 X\*

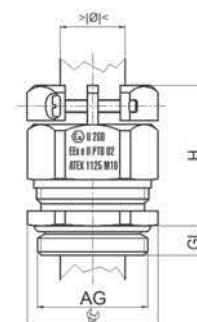


II 2G Ex eb IIC Gb  
II 2D Ex tb IIIC Db

Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG | <br>mm | <br>mm | H<br>mm | GL<br>mm | Progress MS<br>EMV KB EX | HUGRO No.     |
|-------------------------------|---|---|---------|----------|--------------------------|---------------|
| M 12 x 1,5                    | 4,5 - 6   | 15/16   | 26      | 5        | EX1803.80.12.060         | 148.1506.10 * |
| M 12 x 1,5                    | 6 - 7,5   | 15/16   | 26      | 5        | EX1803.80.12.075         | 148.1507.10 * |
| M 16 x 1,5                    | 6 - 8   | 18/19   | 30      | 5        | EX1803.80.17.080         | 148.1708.10   |
| M 16 x 1,5                    | 8 - 10  | 18/19   | 30      | 5        | EX1803.80.17.100         | 148.1710.10   |
| M 20 x 1,5                    | 8 - 11  | 24  | 31      | 6        | EX1803.80.20.110         | 148.2011.10   |
| M 20 x 1,5                    | 11 - 14   | 24  | 31      | 6        | EX1803.80.20.140         | 148.2014.10   |
| M 25 x 1,5                    | 13 - 16   | 30  | 35      | 7        | EX1803.80.25.160         | 148.2516.10   |
| M 25 x 1,5                    | 16 - 19   | 30  | 35      | 7        | EX1803.80.25.190         | 148.2519.10   |
| M 32 x 1,5                    | 18 - 21   | 36  | 40      | 8        | EX1803.80.32.210         | 148.3221.10   |
| M 32 x 1,5                    | 21 - 25   | 36  | 40      | 8        | EX1803.80.32.250         | 148.3225.10   |
| M 40 x 1,5                    | 24 - 28,5   | 46  | 44      | 8        | EX1803.80.40.285         | 148.4028.10   |
| M 40 x 1,5                    | 28,5 - 32   | 46  | 44      | 8        | EX1803.80.40.320         | 148.4032.10   |
| M 50 x 1,5                    | 33 - 37   | 55  | 49      | 9        | EX1803.80.50.370         | 148.5037.10   |
| M 50 x 1,5                    | 37 - 41   | 55  | 49      | 9        | EX1803.80.50.410         | 148.5041.10   |
| M 63 x 1,5                    | 40 - 46   | 70  | 55      | 10       | EX1803.80.63.460         | 148.6346.10   |
| M 63 x 1,5                    | 46 - 50   | 70  | 55      | 10       | EX1803.80.63.500         | 148.6350.10   |
|                               |   |   |         |          |                          |               |
| Pg 7                          | 4,5 - 6   | 15/16   | 26      | 6        | EX1803.80.07.060         | 148.0706.10 * |
| Pg 7                          | 6 - 7,5   | 15/16   | 26      | 6        | EX1803.80.07.075         | 148.0707.10 * |
| Pg 9                          | 6 - 8   | 18/19   | 30      | 6        | EX1803.80.09.080         | 148.0908.10   |
| Pg 9                          | 8 - 10  | 18/19   | 30      | 6        | EX1803.80.09.100         | 148.0910.10   |
| Pg 11                         | 5,5 - 8,5   | 21  | 31      | 6        | EX1803.80.11.085         | 148.1108.10   |
| Pg 11                         | 8,5 - 12  | 21  | 31      | 6        | EX1803.80.11.120         | 148.1112.10   |
| Pg 13,5                       | 8 - 11  | 24  | 31      | 6        | EX1803.80.13.110         | 148.1311.10   |
| Pg 13,5                       | 11 - 14   | 24  | 31      | 6        | EX1803.80.13.140         | 148.1314.10   |
| Pg 16                         | 8 - 11  | 24  | 31      | 6        | EX1803.80.16.110         | 148.1611.10   |
| Pg 16                         | 11 - 14   | 24  | 31      | 6        | EX1803.80.16.140         | 148.1614.10   |
| Pg 21                         | 13 - 16   | 30  | 35      | 7,5      | EX1803.80.21.160         | 148.2116.10   |
| Pg 21                         | 16 - 19   | 30  | 35      | 7,5      | EX1803.80.21.190         | 148.2119.10   |
| Pg 29                         | 19 - 23   | 38  | 40      | 8        | EX1803.80.29.230         | 148.2923.10   |
| Pg 29                         | 23 - 25,5   | 38  | 40      | 8        | EX1803.80.29.255         | 148.2925.10   |
| Pg 36                         | 25 - 30,5   | 50  | 47      | 8        | EX1803.80.36.305         | 148.3630.10   |
| Pg 36                         | 30,5 - 35   | 50  | 47      | 8        | EX1803.80.36.350         | 148.3635.10   |
| Pg 42                         | 33 - 37   | 55  | 49      | 10       | EX1803.80.42.370         | 148.4237.10   |
| Pg 42                         | 37 - 41   | 55  | 49      | 10       | EX1803.80.42.410         | 148.4241.10   |
| Pg 48                         | 39 - 43   | 65  | 51      | 11       | EX1803.80.48.430         | 148.4843.10   |
| Pg 48                         | 43 - 46,5   | 65  | 51      | 11       | EX1803.80.48.465         | 148.4846.10   |



**Eigenschaften:**

- einfache, schnelle und sichere Montage
- sehr guter Schirmkontakt 360° über Kontakthülse
- konstante Kontaktqualität mit kleinster Kopplungsimpedanz

**Characteristics:**

- easy, fast and safe to install
- efficient 360° shield contact with contact socket
- constant contact quality with low impedances

**WAZU-M/EX**

Material: Messing vernickelt  
 Klemmeinsatz: PA, VO nach UL 94  
 Dichtung: NBR  
 O-Ring: NBR  
 Einsatztemperatur: -20 °C bis 95 °C  
 Schutzart: IP 68 - 10 bar / 30 min  
 IP 69 K

Material: brass, nickel-plated  
 Clamping insert: PA (nylon), VO acc. to UL 94  
 Sealing insert: NBR  
 O-ring: NBR  
 Temperature range: -20 °C to 95 °C  
 Protection type: IP 68 - 10 bar / 30 min  
 IP 69 K

**Ex e**



Auf Anfrage  
on request

154.10  
154.30

Zertifikate: DMT 03 ATEX E 051 X  
 IECEx BVS 07.0019 X

Certificates: DMT 03 ATEX E 051 X  
 IECEx BVS 07.0019 X



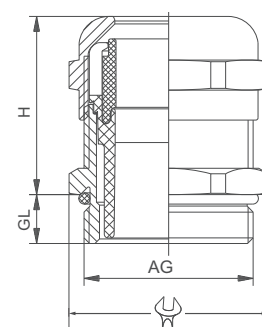
II 1D Ex ta IIC Da  
 II 2G Ex eb IIC Gb



Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG                       |         |         | H<br>mm | GL<br>mm | HSK-M-Ex      | HUGRO No.   |
|---|---------|---------|---------|----------|---------------|-------------|
| <b>kurzes Anschlussgewinde / short entry thread</b> |         |         |         |          |               |             |
| M 12 x 1,5  | 2 - 5   | 14      | 19      | 6,5      | 1.610.1200.51 | 154.1505.10 |
| M 12 x 1,5  | 3 - 6,5 | 14      | 19      | 6,5      | 1.610.1200.50 | 154.1507.10 |
| M 16 x 1,5  | 2 - 6   | 19/17   | 21      | 6        | 1.610.1600.51 | 154.1706.10 |
| M 16 x 1,5  | 4 - 8   | 19/17   | 21      | 6        | 1.610.1600.50 | 154.1708.10 |
| M 16 x 1,5  | 5 - 10  | 20      | 22      | 6        | 1.610.1611.50 | 154.1710.10 |
| M 20 x 1,5  | 5 - 9   | 22      | 23      | 6        | 1.610.2000.51 | 154.2009.10 |
| M 20 x 1,5  | 6 - 12  | 22      | 23      | 6        | 1.610.2000.50 | 154.2012.10 |
| M 20 x 1,5  | 10 - 14 | 24      | 24      | 6        | 1.610.2016.50 | 154.2014.10 |
| M 25 x 1,5  | 10 - 16 | 30      | 25      | 7        | 1.610.2500.51 | 154.2516.10 |
| M 25 x 1,5  | 14 - 18 | 30      | 25      | 7        | 1.610.2500.50 | 154.2518.10 |
| M 32 x 1,5  | 13 - 20 | 40      | 31      | 8        | 1.610.3200.51 | 154.3220.10 |
| M 32 x 1,5  | 20 - 25 | 40      | 31      | 8        | 1.610.3200.50 | 154.3225.10 |
| M 40 x 1,5  | 20 - 26 | 50      | 37      | 8        | 1.610.4000.51 | 154.4026.10 |
| M 40 x 1,5  | 22 - 32 | 50      | 37      | 8        | 1.610.4000.50 | 154.4032.10 |
| M 50 x 1,5  | 25 - 31 | 57      | 37      | 9        | 1.610.5000.51 | 154.5031.10 |
| M 50 x 1,5  | 32 - 38 | 57      | 37      | 9        | 1.610.5000.50 | 154.5038.10 |
| M 63 x 1,5  | 29 - 35 | 68/64   | 38      | 10       | 1.610.6300.51 | 154.6335.10 |
| M 63 x 1,5  | 37 - 44 | 68/64   | 38      | 10       | 1.610.6300.50 | 154.6344.10 |
| <b>langes Anschlussgewinde / long entry thread</b>  |         |         |         |          |               |             |
| M 12 x 1,5  | 2 - 5   | 14      | 19      | 10       | 1.610.1200.31 | 154.1505.30 |
| M 12 x 1,5  | 3 - 6,5 | 14      | 19      | 10       | 1.610.1200.30 | 154.1507.30 |
| M 16 x 1,5  | 2 - 6   | 19/17   | 21      | 10       | 1.610.1600.31 | 154.1706.30 |
| M 16 x 1,5  | 4 - 8   | 19/17   | 21      | 10       | 1.610.1600.30 | 154.1708.30 |
| M 16 x 1,5  | 5 - 10  | 20      | 22      | 10       | 1.610.1611.30 | 154.1710.30 |
| M 20 x 1,5  | 5 - 9   | 22      | 23      | 10       | 1.610.2000.31 | 154.2009.30 |
| M 20 x 1,5  | 6 - 12  | 22      | 23      | 10       | 1.610.2000.30 | 154.2012.30 |
| M 20 x 1,5  | 10 - 14 | 24      | 24      | 10       | 1.610.2016.30 | 154.2014.30 |
| M 25 x 1,5  | 10 - 16 | 30      | 25      | 12       | 1.610.2500.31 | 154.2516.30 |
| M 25 x 1,5  | 14 - 18 | 30      | 25      | 12       | 1.610.2500.30 | 154.2518.30 |
| M 32 x 1,5  | 13 - 20 | 40      | 31      | 12       | 1.610.3200.31 | 154.3220.30 |
| M 32 x 1,5  | 20 - 25 | 40      | 31      | 12       | 1.610.3200.30 | 154.3225.30 |
| M 40 x 1,5  | 20 - 26 | 50      | 37      | 15       | 1.610.4000.31 | 154.4026.30 |
| M 40 x 1,5  | 22 - 32 | 50      | 37      | 15       | 1.610.4000.30 | 154.4032.30 |
| M 50 x 1,5  | 25 - 31 | 57      | 37      | 15       | 1.610.5000.31 | 154.5031.30 |
| M 50 x 1,5  | 32 - 38 | 57      | 37      | 15       | 1.610.5000.30 | 154.5038.30 |
| M 63 x 1,5  | 29 - 35 | 68/64   | 38      | 15       | 1.610.6300.31 | 154.6335.30 |
| M 63 x 1,5  | 37 - 44 | 68/64   | 38      | 15       | 1.610.6300.30 | 154.6344.30 |
| 3/8" NPT  | 2 - 6   | 19 / 17 | 21      | 15       | 1.610.3800.71 | 154.3906.10 |
| 3/8" NPT  | 4 - 8   | 19 / 17 | 21      | 15       | 1.610.3800.70 | 154.3908.10 |
| 1/2" NPT  | 5 - 9   | 24 / 22 | 24      | 13       | 1.610.1200.71 | 154.1909.10 |
| 1/2" NPT  | 6 - 12  | 24 / 22 | 24      | 13       | 1.610.1200.70 | 154.1912.10 |
| 3/4" NPT  | 10 - 16 | 30      | 25      | 13       | 1.610.3400.71 | 154.3516.10 |
| 3/4" NPT  | 14 - 18 | 30      | 25      | 13       | 1.610.3400.70 | 154.3518.10 |
| 1" NPT  | 13 - 20 | 40      | 31      | 19       | 1.610.1000.71 | 154.7520.10 |
| 1" NPT  | 20 - 25 | 40      | 31      | 19       | 1.610.1000.70 | 154.7525.10 |





**WAZU-M / MF-EX**

Material: Messing vernickelt  
Klemmeinsatz: PA, VO nach UL 94  
Dichteinsatz: Elastomer  
O-Ring: NBR  
Einsatztemperatur: -20 °C bis 95 °C  
Schutzart: IP 65 / 68

Material: brass, nickel-plated  
Clamping insert: PA (nylon), VO acc. to UL 94  
Sealing insert: elastomer  
O-ring: NBR  
Temperature range: -20 °C to 95 °C  
Protection type: IP 65 / 68



154.14

Zertifikate: DMT 03 ATEX E 051 X  
IECEX BVS07.0019 X

Certificates: DMT 03 ATEX E 051 X  
IECEX BVS07.0019 X





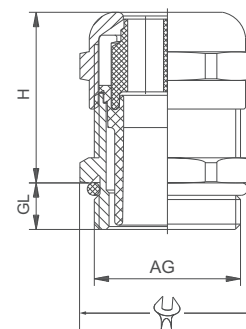
Weitere internationale Zulassungen vorhanden

Further international approvals available



II 1D Ex ta IIIC Da  
II 2G Ex eb IIC Gb

| Gewinde<br>Entry Thread<br>AG |  |  | H<br>mm | GL<br>mm | HSK-M-MULTI-Ex | HUGRO No.    |
|-------------------------------|---|---|---------|----------|----------------|--------------|
| M 16 x 1,5                    | 4 x 1,4   | 19/17   | 21      | 6        | 1.687.1600.50  | 154.17144.14 |
| M 16 x 1,5                    | 2 x 3   | 19/17   | 21      | 6        | 1.687.1601.50  | 154.17302.14 |
| M 20 x 1,5                    | 6 x 3   | 22  | 23      | 6        | 1.687.2001.50  | 154.20306.14 |
| M 20 x 1,5                    | 2 x 5   | 22  | 23      | 6        | 1.687.2003.50  | 154.20502.14 |
| M 25 x 1,5                    | 4 x 6   | 30  | 25      | 7        | 1.687.2500.50  | 154.25604.14 |
| M 25 x 1,5                    | 3 x 7   | 30  | 25      | 7        | 1.687.2501.50  | 154.25703.14 |
| M 32 x 1,5                    | 6 x 6,5   | 40  | 31      | 8        | 1.687.3200.50  | 154.32656.14 |
| M 32 x 1,5                    | 4 x 9   | 40  | 31      | 8        | 1.687.3201.50  | 154.32904.14 |
| M 40 x 1,5                    | 7 x 9   | 50  | 37      | 8        | 1.687.4001.50  | 154.40907.14 |
| M 40 x 1,5                    | 2 x 15  | 50  | 37      | 8        | 1.687.4003.50  | 154.40152.14 |
| M 63 x 1,5                    | 6 x 12  | 68/64   | 38      | 10       | 1.687.6301.50  | 154.63126.14 |
| M 63 x 1,5                    | 3 x 18  | 68/64   | 38      | 10       | 1.687.6302.50  | 154.63183.14 |
| 3/8" NPT                      | 4 x 1,4   | 19/17   | 21      | 15       | 1.687.3800.70  | 154.39144.14 |
| 3/8" NPT                      | 2 x 3   | 19/17   | 21      | 15       | 1.687.3801.70  | 154.39302.14 |
| 1/2" NPT                      | 3 x 4   | 24/22   | 23      | 13       | 1.687.1220.70  | 154.19403.14 |
| 1/2" NPT                      | 2 x 5   | 24/22   | 23      | 13       | 1.687.1221.70  | 154.19502.14 |
| 3/4" NPT                      | 4 x 6   | 30  | 25      | 13       | 1.687.3400.70  | 154.35604.14 |
| 3/4" NPT                      | 3 x 7   | 30  | 25      | 13       | 1.687.3401.70  | 154.35703.14 |
| 1" NPT                        | 6 x 6,5   | 40  | 31      | 19       | 1.687.1000.70  | 154.75656.14 |
| 1" NPT                        | 4 x 9   | 40  | 31      | 19       | 1.687.1001.70  | 154.75904.14 |



Weitere Ausführungen auf Anfrage

Further versions on request

**Montagehinweis:**

Der Kabeldurchmesser darf 20 % des Bohrungsdurchmessers, max. jedoch 1 mm, unterschreiten.

**Notice:**

Cable diameter should not be less than 20 % of hole diameter but the difference between hole and cable diameter should never exceed 1 mm

# Kabelverschraubungen mit mehreren Durchführungen

# Cable Glands with multi-holed insert

## WAZU-M / MF-EX (Pg)

Material: Messing vernickelt  
 Klemmeinsatz: PA, VO nach UL 94  
 Dichteinsatz: Elastomer  
 O-Ring: NBR  
 Einsatztemperatur: -20 °C bis 95 °C  
 Schutzart: IP 65 / 68

Material: brass, nickel-plated  
 Clamping insert: PA (nylon), VO acc. to UL 94  
 Sealing insert: elastomer  
 O-ring: NBR  
 Temperature range: -20 °C to 95 °C  
 Protection type: IP 65 / 68

**Ex e**



154.14

Zertifikate: DMT 03 ATEX E 051 X  
 IECEx BVS07.0019 X

Certificates: DMT 03 ATEX E 051 X  
 IECEx BVS07.0019 X





Weitere internationale Zulassungen vorhanden

Further international approvals available



II 1D Ex ta IIIC Da  
 II 2G Ex eb IIC Gb

| Gewinde<br>Entry Thread<br>AG |  mm |  mm | H<br>mm | GL<br>mm | HSK-M-Multi-Ex | HUGRO No.    |
|-------------------------------|--|--|---------|----------|----------------|--------------|
| Pg 9                          | 4 x 1,4  | 17   | 21      | 6        | 1.687.0900.01  | 154.09144.14 |
| Pg 9                          | 2 x 3  | 17   | 21      | 6        | 1.687.0901.01  | 154.09302.14 |
| Pg 11                         | 3 x 3  | 20   | 22      | 6        | 1.687.1101.01  | 154.11303.14 |
| Pg 11                         | 2 x 4  | 20   | 22      | 6        | 1.687.1102.01  | 154.11402.14 |
| Pg 13,5                       | 3 x 4  | 22   | 23      | 6,5      | 1.687.1302.01  | 154.13403.14 |
| Pg 13,5                       | 2 x 5  | 22   | 23      | 6,5      | 1.687.1303.01  | 154.13502.14 |
| Pg 16                         | 4 x 4  | 24   | 24      | 6,5      | 1.687.1602.01  | 154.16404.14 |
| Pg 16                         | 6 x 4  | 24   | 24      | 6,5      | 1.687.1604.01  | 154.16406.14 |
| Pg 16                         | 3 x 5,6  | 24   | 24      | 6,5      | 1.687.1606.01  | 154.16563.14 |
| Pg 16                         | 2 x 6  | 24   | 24      | 6,5      | 1.687.1605.01  | 154.16602.14 |
| Pg 21                         | 4 x 6  | 30   | 25      | 7        | 1.687.2100.01  | 154.21604.14 |
| Pg 21                         | 3 x 7  | 30   | 25      | 7        | 1.687.2101.01  | 154.21703.14 |
| Pg 29                         | 6 x 6,5  | 40   | 31      | 8        | 1.687.2900.01  | 154.29656.14 |
| Pg 29                         | 4 x 9  | 40   | 31      | 8        | 1.687.2901.01  | 154.29904.14 |
| Pg 36                         | 7 x 9  | 50   | 37      | 8        | 1.687.3601.01  | 154.36907.14 |
| Pg 36                         | 2 x 15   | 50   | 37      | 8        | 1.687.3603.01  | 154.36152.14 |
| Pg 48                         | 6 x 12   | 64   | 38      | 10       | 1.687.4801.01  | 154.48126.14 |
| Pg 48                         | 3 x 18   | 64   | 38      | 10       | 1.687.4802.01  | 154.48183.14 |

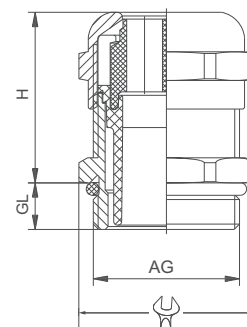
Weitere Ausführungen auf Anfrage Further versions on request

**Montagehinweis:**

Der Kabeldurchmesser darf 20% des Bohrungsdurchmessers, max. jedoch 1 mm, unterschreiten.

**Notice:**

Cable diameter should not be less than 20% of hole diameter but the difference between hole and cable diameter should never exceed 1 mm



**WAZU-M / FK-EX**

Material: Messing vernickelt  
Klemmeinsatz: PA, VO nach UL 94  
Dichteinsatz: Elastomer  
O-Ring: NBR  
Einsatztemperatur: -20 °C bis 95 °C  
Schutzart: IP 65 / 68

Material: brass, nickel-plated  
Clamping insert: PA (nylon), VO acc. to UL 94  
Sealing insert: elastomer  
O-ring: NBR  
Temperature range: -20 °C to 95 °C  
Protection type: IP 65 / 68

**Ex e**



154.15

Zertifikate: DMT 03 ATEX E 051 X  
IECEX BVS07.0019 X



Certificates: DMT 03 ATEX E 051 X  
IECEX BVS07.0019 X

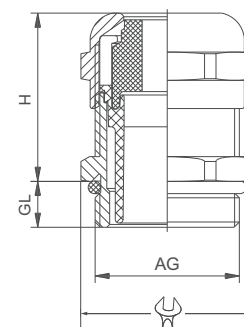


II 1D Ex ta IIIC Da  
II 2G Ex eb IIC Gb

Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG |  |  | H<br>mm | GL<br>mm | HSK-M-FLAKA-Ex | HUGRO No.   |
|-------------------------------|---|---|---------|----------|----------------|-------------|
| M 20 x 1,5                    | 12,0 x 7  | 24  | 24      | 6        | 1.689.2017.50  | 154.2002.15 |
| M 20 x 1,5                    | 14,0 x 6  | 24  | 24      | 6        | 1.689.2018.50  | 154.2003.15 |
| M 25 x 1,5                    | 14,0 x 6  | 30  | 25      | 7        | 1.689.2500.50  | 154.2501.15 |
| M 25 x 1,5                    | 14,0 x 7  | 30  | 25      | 7        | 1.689.2501.50  | 154.2502.15 |
| M 32 x 1,5                    | 22,0 x 8  | 40  | 31      | 8        | 1.689.3200.50  | 154.3201.15 |
| M 40 x 1,5                    | 28,5 x 10   | 50  | 37      | 8        | 1.689.4000.50  | 154.4001.15 |
| M 40 x 1,5                    | 29,0 x 5,5  | 50  | 37      | 8        | 1.689.4001.50  | 154.4002.15 |
| M 40 x 1,5                    | 30,5 x 12   | 50  | 37      | 8        | 1.689.4002.50  | 154.4003.15 |
| M 40 x 1,5                    | 31,0 x 7,5  | 50  | 37      | 8        | 1.689.4003.50  | 154.4004.15 |
| M 50 x 1,5                    | 33,5 x 11,5   | 57  | 37      | 9        | 1.689.5000.50  | 154.5001.15 |
| M 63 x 1,5                    | 38,0 x 12   | 68/64   | 38      | 10       | 1.689.6300.50  | 154.6301.15 |
| Pg 16                         | 12,0 x 7  | 24  | 24      | 6,5      | 1.689.1601.01  | 154.1602.15 |
| Pg 16                         | 14,0 x 6  | 24  | 24      | 6,5      | 1.689.1602.01  | 154.1603.15 |
| Pg 21                         | 14,0 x 6  | 30  | 25      | 7        | 1.689.2100.01  | 154.2101.15 |
| Pg 21                         | 14,0 x 7  | 30  | 25      | 7        | 1.689.2101.01  | 154.2102.15 |
| Pg 29                         | 22,0 x 8  | 40  | 31      | 8        | 1.689.2900.01  | 154.2901.15 |
| Pg 36                         | 28,5 x 10   | 50  | 37      | 8        | 1.689.3600.01  | 154.3601.15 |
| Pg 36                         | 29,0 x 5,5  | 50  | 37      | 8        | 1.689.3601.01  | 154.3602.15 |
| Pg 36                         | 30,5 x 12   | 50  | 37      | 8        | 1.689.3602.01  | 154.3603.15 |
| Pg 36                         | 31,0 x 7,5  | 50  | 37      | 8        | 1.689.3603.01  | 154.3604.15 |
| Pg 42                         | 33,5 x 11,5   | 57  | 37      | 9        | 1.689.4200.01  | 154.4201.15 |
| Pg 48                         | 38,0 x 12   | 64  | 38      | 10       | 1.689.4802.01  | 154.4801.15 |
| 3/4" NPT                      | 14,0 x 6  | 30  | 25      | 13       | 1.689.3400.70  | 154.3501.15 |
| 3/4" NPT                      | 14,0 x 7  | 30  | 25      | 13       | 1.689.3401.70  | 154.3502.15 |
| 1" NPT                        | 22,0 x 8  | 40  | 31      | 19       | 1.689.1000.70  | 154.7501.15 |



Weitere Ausführungen auf Anfrage

Further versions on request

**WAZU-M/EX**

Material: Messing vernickelt  
Klemmeinsatz: PA, VO nach UL 94  
Dichtung: NBR  
O-Ring: NBR  
Einsatztemperatur: -60°C bis 95°C  
Schutzart: IP 68 - 10 bar / 30 min  
IP 69 K

Material: brass, nickel-plated  
Clamping insert: PA (nylon), VO acc. to UL 94  
Sealing insert: NBR  
O-ring: NBR  
Temperature range: -60°C to 95°C  
Protection type: IP 68 - 10 bar / 30 min  
IP 69 K

**Ex e**



154.17  
154.37

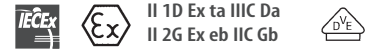
Zertifikate: KEMA 99ATEX6971 X  
IECEx KEM 07.0014 X

Certificates: KEMA 99ATEX6971 X  
IECEx KEM 07.0014 X



Weitere internationale Zulassungen vorhanden

Further international approvals available

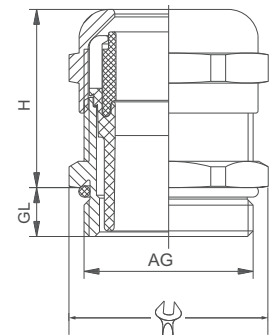


| Gewinde<br>Entry Thread<br>AG |  |  | H<br>mm | GL<br>mm | HSK-M-Ex | HUGRO No. |
|-------------------------------|--|--|---------|----------|----------|-----------|
|-------------------------------|--|--|---------|----------|----------|-----------|

| kurzes Anschlussgewinde / short entry thread |         |       |    |     |               |             |
|--|---------|-------|----|-----|---------------|-------------|
| M 12 x 1,5                                   | 2 - 5   | 14    | 19 | 6,5 | 1.640.1200.51 | 154.1505.17 |
| M 12 x 1,5                                   | 3 - 6,5 | 14    | 19 | 6,5 | 1.640.1200.50 | 154.1507.17 |
| M 16 x 1,5                                   | 2 - 6   | 19/17 | 21 | 6   | 1.640.1600.51 | 154.1706.17 |
| M 16 x 1,5                                   | 4 - 8   | 19/17 | 21 | 6   | 1.640.1600.50 | 154.1708.17 |
| M 16 x 1,5                                   | 5 - 10  | 20    | 22 | 6   | 1.640.1611.50 | 154.1710.17 |
| M 20 x 1,5                                   | 5 - 9   | 22    | 23 | 6   | 1.640.2000.51 | 154.2009.17 |
| M 20 x 1,5                                   | 6 - 12  | 22    | 23 | 6   | 1.640.2000.50 | 154.2012.17 |
| M 20 x 1,5                                   | 10 - 14 | 24    | 24 | 6   | 1.640.2016.50 | 154.2014.17 |
| M 25 x 1,5                                   | 10 - 16 | 30    | 25 | 7   | 1.640.2500.51 | 154.2516.17 |
| M 25 x 1,5                                   | 14 - 18 | 30    | 25 | 7   | 1.640.2500.50 | 154.2518.17 |
| M 32 x 1,5                                   | 13 - 20 | 40    | 31 | 8   | 1.640.3200.51 | 154.3220.17 |
| M 32 x 1,5                                   | 20 - 25 | 40    | 31 | 8   | 1.640.3200.50 | 154.3225.17 |
| M 40 x 1,5                                   | 20 - 26 | 50    | 37 | 8   | 1.640.4000.51 | 154.4026.17 |
| M 40 x 1,5                                   | 22 - 32 | 50    | 37 | 8   | 1.640.4000.50 | 154.4032.17 |
| M 50 x 1,5                                   | 25 - 31 | 57    | 37 | 9   | 1.640.5000.51 | 154.5031.17 |
| M 50 x 1,5                                   | 32 - 38 | 57    | 37 | 9   | 1.640.5000.50 | 154.5038.17 |
| M 63 x 1,5                                   | 29 - 35 | 68/64 | 38 | 10  | 1.640.6300.51 | 154.6335.17 |
| M 63 x 1,5                                   | 37 - 44 | 68/64 | 38 | 10  | 1.640.6300.50 | 154.6344.17 |

| langes Anschlussgewinde / long entry thread |         |       |    |    |               |             |
|---|---------|-------|----|----|---------------|-------------|
| M 12 x 1,5                                  | 2 - 5   | 14    | 19 | 10 | 1.640.1200.31 | 154.1505.37 |
| M 12 x 1,5                                  | 3 - 6,5 | 14    | 19 | 10 | 1.640.1200.30 | 154.1507.37 |
| M 16 x 1,5                                  | 2 - 6   | 19/17 | 21 | 10 | 1.640.1600.31 | 154.1706.37 |
| M 16 x 1,5                                  | 4 - 8   | 19/17 | 21 | 10 | 1.640.1600.30 | 154.1708.37 |
| M 16 x 1,5                                  | 5 - 10  | 20    | 22 | 10 | 1.640.1611.30 | 154.1710.37 |
| M 20 x 1,5                                  | 5 - 9   | 22    | 23 | 10 | 1.640.2000.31 | 154.2009.37 |
| M 20 x 1,5                                  | 6 - 12  | 22    | 23 | 10 | 1.640.2000.30 | 154.2012.37 |
| M 20 x 1,5                                  | 10 - 14 | 24    | 24 | 10 | 1.640.2016.30 | 154.2014.37 |
| M 25 x 1,5                                  | 10 - 16 | 30    | 25 | 12 | 1.640.2500.31 | 154.2516.37 |
| M 25 x 1,5                                  | 14 - 18 | 30    | 25 | 12 | 1.640.2500.30 | 154.2518.37 |
| M 32 x 1,5                                  | 13 - 20 | 40    | 31 | 12 | 1.640.3200.31 | 154.3220.37 |
| M 32 x 1,5                                  | 20 - 25 | 40    | 31 | 12 | 1.640.3200.30 | 154.3225.37 |
| M 40 x 1,5                                  | 20 - 26 | 50    | 37 | 15 | 1.640.4000.31 | 154.4026.37 |
| M 40 x 1,5                                  | 22 - 32 | 50    | 37 | 15 | 1.640.4000.30 | 154.4032.37 |
| M 50 x 1,5                                  | 25 - 31 | 57    | 37 | 15 | 1.640.5000.31 | 154.5031.37 |
| M 50 x 1,5                                  | 32 - 38 | 57    | 37 | 15 | 1.640.5000.30 | 154.5038.37 |
| M 63 x 1,5                                  | 29 - 35 | 68/64 | 38 | 15 | 1.640.6300.31 | 154.6335.37 |
| M 63 x 1,5                                  | 37 - 44 | 68/64 | 38 | 15 | 1.640.6300.30 | 154.6344.37 |

|          |         |         |    |    |               |             |
|----------|---------|---------|----|----|---------------|-------------|
| 3/8" NPT | 2 - 6   | 19 / 17 | 21 | 15 | 1.640.3800.71 | 154.3906.17 |
| 3/8" NPT | 4 - 8   | 19 / 17 | 21 | 15 | 1.640.3800.70 | 154.3908.17 |
| 1/2" NPT | 5 - 9   | 24 / 22 | 24 | 13 | 1.640.1200.71 | 154.1909.17 |
| 1/2" NPT | 6 - 12  | 24 / 22 | 24 | 13 | 1.640.1200.70 | 154.1912.17 |
| 3/4" NPT | 10 - 16 | 30      | 25 | 13 | 1.640.3400.71 | 154.3516.17 |
| 3/4" NPT | 14 - 18 | 30      | 25 | 13 | 1.640.3400.70 | 154.3518.17 |
| 1" NPT   | 13 - 20 | 40      | 31 | 19 | 1.640.1000.71 | 154.7520.17 |
| 1" NPT   | 20 - 25 | 40      | 31 | 19 | 1.640.1000.70 | 154.7525.17 |



**WAZU-M/ED**

Material: Messing vernickelt  
 Klemmeinsatz: PA, VO nach UL 94  
 Dichteinsatz: FKM  
 O-Ring: FKM  
 Einsatztemperatur: -60°C bis 105°C  
 Schutzart: IP 68 - 10 bar / 30 min  
 IP 69 K

Material: brass, nickel-plated  
 Clamping insert: PA (nylon), VO acc. to UL 94  
 Sealing insert: FKM  
 O-ring: FKM  
 Temperature range: -60°C to 105°C  
 Protection type: IP 68 - 10 bar / 30 min  
 IP 69 K



154.ED

Zertifikate: KEMA 99 ATEX 6968 X  
 IECEx KEM 07.0013 X

Certificate: KEMA 99 ATEX 6968 X  
 IECEx KEM 07.0013 X

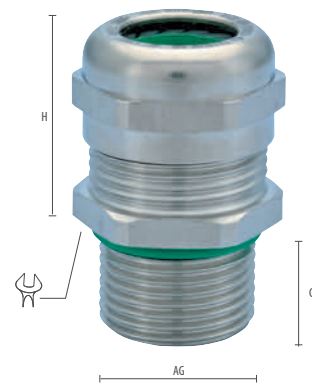


II 1D Ex ta IIIC Da  
 II 2G Ex db IIC Gb

Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG | mm      | mm | H<br>mm | GL<br>mm | HSK-M-Ex-d    | HUGRO No.   |
|-------------------------------|---------|----|---------|----------|---------------|-------------|
| M 12 x 1,5                    | 3 - 6,5 | 14 | 19      | 16       | 1.622.1200.50 | 154.1507.ED |
| M 16 x 1,5                    | 5 - 10  | 20 | 22      | 16       | 1.622.1600.50 | 154.1710.ED |
| M 20 x 1,5                    | 10 - 14 | 24 | 25      | 16       | 1.622.2000.50 | 154.2014.ED |
| M 25 x 1,5                    | 13 - 18 | 30 | 26,5    | 16       | 1.622.2500.50 | 154.2518.ED |
| M 32 x 1,5                    | 18 - 25 | 40 | 32      | 16       | 1.622.3200.50 | 154.3225.ED |
| M 40 x 1,5                    | 22 - 32 | 50 | 38,5    | 16       | 1.622.4000.50 | 154.4032.ED |
| 3/8" NPT                      | 5 - 10  | 20 | 22      | 16       | 1.622.3800.70 | 154.3910.ED |
| 1/2" NPT                      | 10 - 14 | 24 | 25      | 20       | 1.622.1200.70 | 154.1914.ED |
| 3/4" NPT                      | 13 - 18 | 30 | 26,5    | 20,5     | 1.622.3400.70 | 154.3518.ED |
| 1" NPT                        | 18 - 25 | 40 | 32      | 25       | 1.622.1000.70 | 154.7525.ED |
| 1 1/4" NPT                    | 22 - 32 | 50 | 38,5    | 26       | 1.622.5400.70 | 154.7632.ED |
| 1 1/2" NPT                    | 22 - 32 | 50 | 38,5    | 26,5     | 1.622.6400.70 | 154.7732.ED |



Kabelverschraubungen

mit Zugentlastung

Cable Glands

with traction relief

**WAZU-MZ/ED**

Material: Messing vernickelt  
 Klemmeinsatz: PA, VO nach UL 94  
 Dichteinsatz: FKM  
 O-Ring: FKM  
 Einsatztemperatur: -60°C bis 105°C  
 Schutzart: IP 68 - 10 bar / 30 min  
 IP 69 K

Material: brass, nickel-plated  
 Clamping insert: PA (nylon), VO acc. to UL 94  
 Sealing insert: FPM  
 o-ring: FPM  
 Temperature range: -60°C to 105°C  
 Protection type: IP 68 - 10 bar / 30 min  
 IP 69 K



155.ED

Zertifikate: KEMA 99 ATEX 6968 X  
 IECEx KEM 07.0013 X

Certificate: KEMA 99 ATEX 6968 X  
 IECEx KEM 07.0013 X

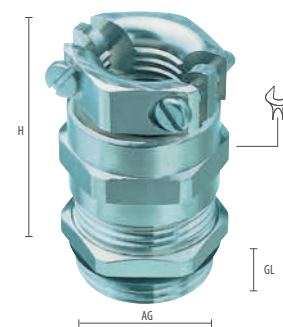


II 1D Ex ta IIIC Da  
 II 2G Ex db IIC Gb

Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG | mm      | mm | H<br>mm | GL<br>mm | HSK-MZ-Ex-d   | HUGRO No.   |
|-------------------------------|---------|----|---------|----------|---------------|-------------|
| M 12 x 1,5                    | 3 - 6,5 | 14 | 26      | 16       | 1.628.1200.50 | 155.1507.ED |
| M 16 x 1,5                    | 5 - 10  | 20 | 30      | 16       | 1.628.1600.50 | 155.1710.ED |
| M 20 x 1,5                    | 10 - 14 | 24 | 34      | 16       | 1.628.2000.50 | 155.2014.ED |
| M 25 x 1,5                    | 13 - 18 | 30 | 38      | 16       | 1.628.2500.50 | 155.2518.ED |
| M 32 x 1,5                    | 18 - 25 | 40 | 44      | 16       | 1.628.3200.50 | 155.3225.ED |
| M 40 x 1,5                    | 22 - 32 | 50 | 51,5    | 16       | 1.628.4000.50 | 155.4032.ED |
| 3/8" NPT                      | 5 - 10  | 20 | 30      | 16       | 1.628.3800.70 | 155.3910.ED |
| 1/2" NPT                      | 10 - 14 | 24 | 34      | 20       | 1.628.1200.70 | 155.1914.ED |
| 3/4" NPT                      | 13 - 18 | 30 | 38      | 20,5     | 1.628.3400.70 | 155.3518.ED |
| 1" NPT                        | 18 - 25 | 40 | 44      | 25       | 1.628.1000.70 | 155.7525.ED |
| 1 1/4" NPT                    | 22 - 32 | 50 | 51,5    | 26       | 1.628.5400.70 | 155.7632.ED |
| 1 1/2" NPT                    | 22 - 32 | 50 | 51,5    | 26,5     | 1.628.6400.70 | 155.7732.ED |



WAZU-MZ/EX

Material: Messing vernickelt  
Klemmeinsatz: PA, VO nach UL 94  
Dichtung: NBR  
O-Ring: NBR  
Einsatztemperatur: -20°C bis 95°C  
Schutzart: IP 68 - 10 bar / 30 min  
IP 69 K

Material: brass, nickel-plated  
Clamping insert: PA (nylon), VO acc. to UL 94  
Sealing insert: NBR  
O-ring: NBR  
Temperature range: -20°C to 95°C  
Protection type: IP 68 - 10 bar / 30 min  
IP 69 K

**Ex e**



Auf Anfrage  
on request

155.10  
155.30

Zertifikate: DMT 03 ATEX E 051 X  
IECEx BVS07.0019 X



Certificates: DMT 03 ATEX E 051 X  
IECEx BVS07.0019 X

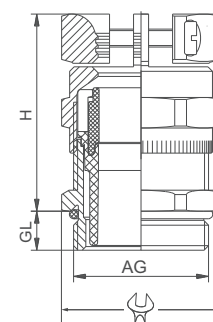


II 1D Ex ta IIC Da  
II 2G Ex eb IIC Gb

Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG                       |  |  | H<br>mm | GL<br>mm | HSK-MZ-Ex     | HUGRO No.   |
|---|---|---|---------|----------|---------------|-------------|
| <b>kurzes Anschlussgewinde / short entry thread</b> |   |   |         |          |               |             |
| M 12 x 1,5  | 3 - 6,5   | 14  | 26      | 6,5      | 1.611.1200.50 | 155.1507.10 |
| M 16 x 1,5  | 4 - 8   | 19  | 28      | 6        | 1.611.1600.50 | 155.1708.10 |
| M 16 x 1,5  | 5 - 10  | 20  | 30      | 6        | 1.611.1611.50 | 155.1710.10 |
| M 20 x 1,5  | 6 - 12  | 22  | 33      | 6        | 1.611.2000.50 | 155.2012.10 |
| M 20 x 1,5  | 10 - 14   | 24  | 33      | 6        | 1.611.2016.50 | 155.2014.10 |
| M 25 x 1,5  | 14 - 18   | 30  | 37      | 7        | 1.611.2500.50 | 155.2518.10 |
| M 32 x 1,5  | 20 - 25   | 40  | 43      | 8        | 1.611.3200.50 | 155.3225.10 |
| M 40 x 1,5  | 24 - 32   | 50  | 50      | 8        | 1.611.4000.50 | 155.4032.10 |
| M 50 x 1,5  | 32 - 38   | 57  | 51      | 9        | 1.611.5000.50 | 155.5038.10 |
| M 63 x 1,5  | 37 - 44   | 68/64   | 52      | 10       | 1.611.6300.50 | 155.6344.10 |
| Pg 7  | 3 - 6,5   | 14  | 26      | 5        | 1.611.0700.01 | 155.0707.10 |
| Pg 9  | 4 - 8   | 17  | 28      | 6        | 1.611.0900.01 | 155.0908.10 |
| Pg 11   | 5 - 10  | 20  | 30      | 6        | 1.611.1100.01 | 155.1110.10 |
| Pg 13,5   | 7 - 12  | 22  | 33      | 6        | 1.611.1300.01 | 155.1312.10 |
| Pg 16   | 10 - 14   | 24  | 33      | 6        | 1.611.1600.01 | 155.1614.10 |
| Pg 21   | 13 - 18   | 30  | 37      | 7        | 1.611.2100.01 | 155.2118.10 |
| Pg 29   | 20 - 25   | 40  | 43      | 8        | 1.611.2900.01 | 155.2925.10 |
| Pg 36   | 24 - 32   | 50  | 50      | 8        | 1.611.3600.01 | 155.3632.10 |
| Pg 42   | 32 - 38   | 57  | 51      | 9        | 1.611.4200.01 | 155.4238.10 |
| Pg 48   | 37 - 44   | 64  | 52      | 10       | 1.611.4800.01 | 155.4844.10 |
| <b>langes Anschlussgewinde / long entry thread</b>  |   |   |         |          |               |             |
| M 12 x 1,5  | 3 - 6,5   | 14  | 26      | 10       | 1.611.1200.30 | 155.1507.30 |
| M 16 x 1,5  | 5 - 10  | 20  | 30      | 10       | 1.611.1611.30 | 155.1710.30 |
| M 20 x 1,5  | 10 - 14   | 24  | 33      | 10       | 1.611.2016.30 | 155.2014.30 |
| M 25 x 1,5  | 14 - 18   | 30  | 37      | 12       | 1.611.2500.30 | 155.2518.30 |
| M 32 x 1,5  | 20 - 25   | 40  | 43      | 12       | 1.611.3200.30 | 155.3225.30 |
| M 40 x 1,5  | 24 - 32   | 50  | 50      | 15       | 1.611.4000.30 | 155.4032.30 |
| M 50 x 1,5  | 32 - 38   | 57  | 51      | 15       | 1.611.5000.30 | 155.5038.30 |
| M 63 x 1,5  | 37 - 44   | 68/64   | 52      | 15       | 1.611.6300.30 | 155.6344.30 |
| Pg 7  | 3 - 6,5   | 14  | 26      | 10       | 1.611.0700.60 | 155.0707.30 |
| Pg 9  | 4 - 8   | 17  | 28      | 10       | 1.611.0900.60 | 155.0908.30 |
| Pg 11   | 5 - 10  | 20  | 30      | 10       | 1.611.1100.60 | 155.1110.30 |
| Pg 13,5   | 7 - 12  | 22  | 33      | 10       | 1.611.1300.60 | 155.1312.30 |
| Pg 16   | 10 - 14   | 24  | 33      | 10       | 1.611.1600.60 | 155.1614.30 |
| Pg 21   | 13 - 18   | 30  | 37      | 12       | 1.611.2100.60 | 155.2118.30 |
| Pg 29   | 20 - 25   | 40  | 43      | 12       | 1.611.2900.60 | 155.2925.30 |
| Pg 36   | 24 - 32   | 50  | 50      | 15       | 1.611.3600.60 | 155.3632.30 |
| Pg 42   | 32 - 38   | 57  | 51      | 15       | 1.611.4200.60 | 155.4238.30 |
| Pg 48   | 37 - 44   | 64  | 52      | 15       | 1.611.4800.60 | 155.4844.30 |
| 3/8" NPT  | 4 - 8   | 19/17   | 28      | 15       | 1.611.3800.70 | 155.3908.10 |
| 1/2" NPT  | 7 - 12  | 24/22   | 33      | 13       | 1.611.1200.70 | 155.1912.10 |
| 3/4" NPT  | 13 - 18   | 30  | 37      | 13       | 1.611.3400.70 | 155.3518.10 |
| 1" NPT  | 20 - 25   | 40  | 43      | 19       | 1.611.1000.70 | 155.7525.10 |



**WAZU-S/EX**

Material: Edelstahl (1.4305)  
Klemmeinsatz: PA, VO nach UL 94  
Dichtung: NBR  
O-Ring: NBR  
Einsatztemperatur: -20°C bis 95°C  
Schutzart: IP 68 - 10 bar / 30 min  
IP 69 K

Material: stainless steel (1.4305)  
Clamping insert: PA (nylon), VO acc. to UI 94  
Sealing insert: NBR  
O-ring: NBR  
Temperature range: -20°C to 95°C  
Protection type: IP 68 - 10 bar / 30 min  
IP 69 K

**Ex e**

156.10

Zertifikate: DMT 03 ATEX E 051 X  
IECEx BVS 07.0019 X

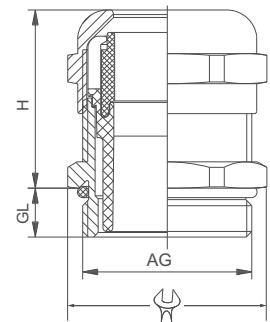
Certificates: DMT 03 ATEX E 051 X  
IECEx BVS 07.0019 X



Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG |         |    | H<br>mm | GL<br>mm | HSK-INOX-Ex   | HUGRO No.   |
|-------------------------------|---------|----|---------|----------|---------------|-------------|
| M 12 x 1,5                    | 2 - 5   | 14 | 19      | 6,5      | 1.612.1200.51 | 156.1505.10 |
| M 12 x 1,5                    | 3 - 6,5 | 14 | 19      | 6,5      | 1.612.1200.50 | 156.1507.10 |
| M 16 x 1,5                    | 3 - 7   | 22 | 22      | 6        | 1.612.1600.51 | 156.1707.10 |
| M 16 x 1,5                    | 5 - 10  | 22 | 22      | 6        | 1.612.1600.50 | 156.1710.10 |
| M 20 x 1,5                    | 7 - 12  | 24 | 24      | 6        | 1.612.2000.51 | 156.2012.10 |
| M 20 x 1,5                    | 10 - 14 | 24 | 24      | 6        | 1.612.2000.50 | 156.2014.10 |
| M 25 x 1,5                    | 9 - 16  | 30 | 25      | 7        | 1.612.2500.51 | 156.2516.10 |
| M 25 x 1,5                    | 13 - 18 | 30 | 25      | 7        | 1.612.2500.50 | 156.2518.10 |
| M 32 x 1,5                    | 13 - 20 | 41 | 31      | 8        | 1.612.3200.51 | 156.3220.10 |
| M 32 x 1,5                    | 20 - 25 | 41 | 31      | 8        | 1.612.3200.50 | 156.3225.10 |
| M 40 x 1,5                    | 20 - 26 | 50 | 37      | 8        | 1.612.4000.51 | 156.4026.10 |
| M 40 x 1,5                    | 22 - 32 | 50 | 37      | 8        | 1.612.4000.50 | 156.4032.10 |



**WAZU-S/EX**

Material: Edelstahl (1.4305)  
Klemmeinsatz: PA, VO nach UL 94  
Dichtung: NBR  
O-Ring: NBR  
Einsatztemperatur: -60°C bis 95°C  
Schutzart: IP 68 - 10 bar / 30 min  
IP 69 K

Material: stainless steel (1.4305)  
Clamping insert: PA (nylon), VO acc. to UI 94  
Sealing insert: NBR  
O-ring: NBR  
Temperature range: -60°C to 95°C  
Protection type: IP 68 - 10 bar / 30 min  
IP 69 K

**Ex e**

156.17

Zertifikate: KEMA 99 ATEX 6971 X  
IECEx KEM 07.0014 X

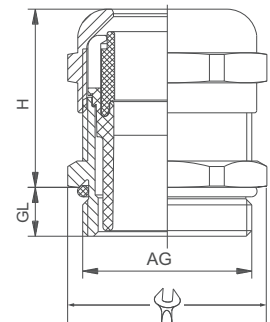
Certificates: KEMA 99 ATEX 6971 X  
IECEx KEM 07.0014 X



Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG |         |    | H<br>mm | GL<br>mm | HSK-INOX-Ex   | HUGRO No.   |
|-------------------------------|---------|----|---------|----------|---------------|-------------|
| M 12 x 1,5                    | 2 - 5   | 14 | 19      | 6,5      | 1.642.1200.51 | 156.1505.17 |
| M 12 x 1,5                    | 3 - 6,5 | 14 | 19      | 6,5      | 1.642.1200.50 | 156.1507.17 |
| M 16 x 1,5                    | 3 - 7   | 22 | 22      | 6        | 1.642.1600.51 | 156.1707.17 |
| M 16 x 1,5                    | 5 - 10  | 22 | 22      | 6        | 1.642.1600.50 | 156.1710.17 |
| M 20 x 1,5                    | 7 - 12  | 24 | 24      | 6        | 1.642.2000.51 | 156.2012.17 |
| M 20 x 1,5                    | 10 - 14 | 24 | 24      | 6        | 1.642.2000.50 | 156.2014.17 |
| M 25 x 1,5                    | 9 - 16  | 30 | 25      | 7        | 1.642.2500.51 | 156.2516.17 |
| M 25 x 1,5                    | 13 - 18 | 30 | 25      | 7        | 1.642.2500.50 | 156.2518.17 |
| M 32 x 1,5                    | 13 - 20 | 41 | 31      | 8        | 1.642.3200.51 | 156.3220.17 |
| M 32 x 1,5                    | 20 - 25 | 41 | 31      | 8        | 1.642.3200.50 | 156.3225.17 |
| M 40 x 1,5                    | 20 - 26 | 50 | 37      | 8        | 1.642.4000.51 | 156.4026.17 |
| M 40 x 1,5                    | 22 - 32 | 50 | 37      | 8        | 1.642.4000.50 | 156.4032.17 |



WAZU-EMV/EX

Material: Messing vernickelt  
Klemmeinsatz: PA, VO nach UL 94  
Dichtung: NBR  
O-Ring: NBR  
Einsatztemperatur: -20 °C bis 95 °C  
Schutzart: IP 68 - 10 bar / 30 min  
IP 69 K

Material: brass, nickel-plated  
Clamping insert: PA (nylon), VO acc. to UL 94  
Sealing insert: NBR  
O-ring: NBR  
Temperature range: -20 °C to 95 °C  
Protection type: IP 68 - 10 bar / 30 min  
IP 69 K

**Ex e**

  
**RoHS**  
Auf Anfrage  
on request

157.10  
157.30



Zertifikate: DMT 03 ATEX E 051 X  
IECEx BVS 07.0019 X

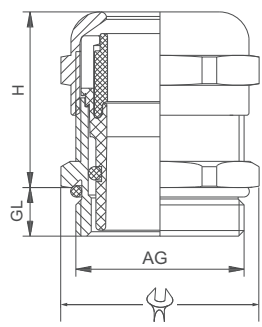
Certificates: DMT 03 ATEX E 051 X  
IECEx BVS 07.0019 X

  
II 1D Ex ta IIIC Da  
II 2G Ex eb IIC Gb

Weitere internationale Zulassungen vorhanden

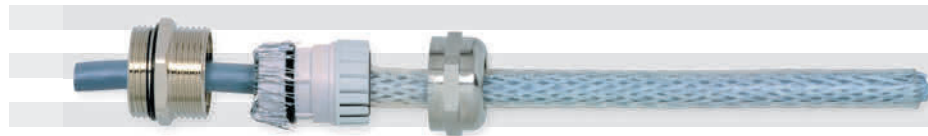
Further international approvals available

| Gewinde<br>Entry Thread<br>AG                       |  |  | H<br>mm | GL<br>mm | HSK-M-EMV-Ex  | HUGRO No.   |
|---|---|---|---------|----------|---------------|-------------|
| <b>kurzes Anschlussgewinde / short entry thread</b> |   |   |         |          |               |             |
| M 12 x 1,5  | 2 - 5   | 14  | 19      | 6,5      | 1.616.1200.51 | 157.1505.10 |
| M 12 x 1,5  | 3 - 6,5   | 14  | 19      | 6,5      | 1.616.1200.50 | 157.1507.10 |
| M 16 x 1,5  | 3 - 7   | 20  | 22      | 6        | 1.616.1600.51 | 157.1707.10 |
| M 16 x 1,5  | 5 - 10  | 20  | 22      | 6        | 1.616.1600.50 | 157.1710.10 |
| M 20 x 1,5  | 7 - 12  | 24  | 24      | 6        | 1.616.2000.51 | 157.2012.10 |
| M 20 x 1,5  | 10 - 14   | 24  | 24      | 6        | 1.616.2000.50 | 157.2014.10 |
| M 25 x 1,5  | 10 - 16   | 30  | 25      | 7        | 1.616.2500.51 | 157.2516.10 |
| M 25 x 1,5  | 14 - 18   | 30  | 25      | 7        | 1.616.2500.50 | 157.2518.10 |
| M 32 x 1,5  | 13 - 20   | 40  | 31      | 8        | 1.616.3200.51 | 157.3220.10 |
| M 32 x 1,5  | 20 - 25   | 40  | 31      | 8        | 1.616.3200.50 | 157.3225.10 |
| M 40 x 1,5  | 20 - 26   | 50  | 37      | 8        | 1.616.4000.51 | 157.4026.10 |
| M 40 x 1,5  | 22 - 32   | 50  | 37      | 8        | 1.616.4000.50 | 157.4032.10 |
| M 50 x 1,5  | 25 - 31   | 57  | 37      | 9        | 1.616.5000.51 | 157.5031.10 |
| M 50 x 1,5  | 32 - 38   | 57  | 37      | 9        | 1.616.5000.50 | 157.5038.10 |
| M 63 x 1,5  | 29 - 35   | 68/64   | 38      | 10       | 1.616.6300.51 | 157.6335.10 |
| M 63 x 1,5  | 37 - 44   | 68/64   | 38      | 10       | 1.616.6300.50 | 157.6344.10 |
| <b>langes Anschlussgewinde / long entry thread</b>  |   |   |         |          |               |             |
| M 12 x 1,5  | 2 - 5   | 14  | 19      | 10       | 1.616.1200.31 | 157.1505.30 |
| M 12 x 1,5  | 3 - 6,5   | 14  | 19      | 10       | 1.616.1200.30 | 157.1507.30 |
| M 16 x 1,5  | 3 - 7   | 20  | 22      | 10       | 1.616.1600.31 | 157.1707.30 |
| M 16 x 1,5  | 5 - 10  | 20  | 22      | 10       | 1.616.1600.30 | 157.1710.30 |
| M 20 x 1,5  | 7 - 12  | 24  | 24      | 10       | 1.616.2000.31 | 157.2012.30 |
| M 20 x 1,5  | 10 - 14   | 24  | 24      | 10       | 1.616.2000.30 | 157.2014.30 |
| M 25 x 1,5  | 10 - 16   | 30  | 25      | 12       | 1.616.2500.31 | 157.2516.30 |
| M 25 x 1,5  | 14 - 18   | 30  | 25      | 12       | 1.616.2500.30 | 157.2518.30 |
| M 32 x 1,5  | 13 - 20   | 40  | 31      | 12       | 1.616.3200.31 | 157.3220.30 |
| M 32 x 1,5  | 20 - 25   | 40  | 31      | 12       | 1.616.3200.30 | 157.3225.30 |
| M 40 x 1,5  | 20 - 26   | 50  | 37      | 15       | 1.616.4000.31 | 157.4026.30 |
| M 40 x 1,5  | 22 - 32   | 50  | 37      | 15       | 1.616.4000.30 | 157.4032.30 |
| 3/8" NPT  | 2 - 6   | 19/17   | 21      | 15       | 1.616.3800.71 | 157.3906.10 |
| 3/8" NPT  | 4 - 8   | 19/17   | 21      | 15       | 1.616.3800.70 | 157.3908.10 |
| 1/2" NPT  | 5 - 9   | 24/22   | 24      | 13       | 1.616.1200.71 | 157.1909.10 |
| 1/2" NPT  | 6 - 12  | 24/22   | 24      | 13       | 1.616.1200.70 | 157.1912.10 |
| 3/4" NPT  | 10 - 16   | 30  | 25      | 13       | 1.616.3400.71 | 157.3516.10 |
| 3/4" NPT  | 14 - 18   | 30  | 25      | 13       | 1.616.3400.70 | 157.3518.10 |



**Einfache Handhabung:**  
Das Abschirmgeflecht muss nur über den Kunststoffeinsatz gestülpt werden und den O-Ring ca. 2 mm überdecken.

**Simple installation:**  
The braided shield has to be turned up over the clamping insert and must overlap the O-ring by approx. 2 mm.





WAZU-EMV / EX

Material: Messing vernickelt  
Klemmeinsatz: PA, VO nach UL 94  
Dichtung: NBR  
O-Ring: NBR  
Einsatztemperatur: -60°C bis 95°C  
Schutzart: IP 68 - 10 bar / 30 min  
IP 69 K

Material: brass, nickel-plated  
Clamping insert: PA (nylon), VO acc. to UL 94  
Sealing insert: NBR  
O-ring: NBR  
Temperature range: -60°C to 95°C  
Protection type: IP 68 - 10 bar / 30 min  
IP 69 K

**Ex e**



Auf Anfrage  
on request

157.17



Zertifikate: KEMA 99 ATEX 6971 X  
IECEX KEM 07.0014 X

Certificates: KEMA 99 ATEX 6971 X  
IECEX KEM 07.0014 X



Weitere internationale Zulassungen vorhanden

Further international approvals available

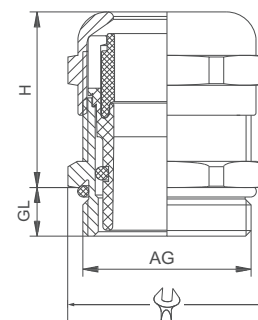
| Gewinde<br>Entry Thread<br>AG                |  |  | H<br>mm | GL<br>mm | HSK-M-EMV-Ex  | HUGRO No.   |
|--|---|---|---------|----------|---------------|-------------|
| kurzes Anschlussgewinde / short entry thread |   |   |         |          |               |             |
| M 12 x 1,5                                   | 2 - 5   | 14  | 19      | 6,5      | 1.646.1200.51 | 157.1505.17 |
| M 12 x 1,5                                   | 3 - 6,5   | 14  | 19      | 6,5      | 1.646.1200.50 | 157.1507.17 |
| M 16 x 1,5                                   | 3 - 7   | 20  | 22      | 6        | 1.646.1600.51 | 157.1707.17 |
| M 16 x 1,5                                   | 5 - 10  | 20  | 22      | 6        | 1.646.1600.50 | 157.1710.17 |
| M 20 x 1,5                                   | 7 - 12  | 24  | 24      | 6        | 1.646.2000.51 | 157.2012.17 |
| M 20 x 1,5                                   | 10 - 14   | 24  | 24      | 6        | 1.646.2000.50 | 157.2014.17 |
| M 25 x 1,5                                   | 10 - 16   | 30  | 25      | 7        | 1.646.2500.51 | 157.2516.17 |
| M 25 x 1,5                                   | 14 - 18   | 30  | 25      | 7        | 1.646.2500.50 | 157.2518.17 |
| M 32 x 1,5                                   | 13 - 20   | 40  | 31      | 8        | 1.646.3200.51 | 157.3220.17 |
| M 32 x 1,5                                   | 20 - 25   | 40  | 31      | 8        | 1.646.3200.50 | 157.3225.17 |
| M 40 x 1,5                                   | 20 - 26   | 50  | 37      | 8        | 1.646.4000.51 | 157.4026.17 |
| M 40 x 1,5                                   | 22 - 32   | 50  | 37      | 8        | 1.646.4000.50 | 157.4032.17 |
| M 50 x 1,5                                   | 25 - 31   | 57  | 37      | 9        | 1.646.5000.51 | 157.5031.17 |
| M 50 x 1,5                                   | 32 - 38   | 57  | 37      | 9        | 1.646.5000.50 | 157.5038.17 |
| M 63 x 1,5                                   | 29 - 35   | 68/64   | 38      | 10       | 1.646.6300.51 | 157.6335.17 |
| M 63 x 1,5                                   | 37 - 44   | 68/64   | 38      | 10       | 1.646.6300.50 | 157.6344.17 |
| 3/8" NPT                                     | 2 - 6   | 19/17   | 21      | 15       | 1.646.3800.71 | 157.3906.17 |
| 3/8" NPT                                     | 4 - 8   | 19/17   | 21      | 15       | 1.646.3800.70 | 157.3908.17 |
| 1/2" NPT                                     | 5 - 9   | 24/22   | 24      | 13       | 1.646.1200.71 | 157.1909.17 |
| 1/2" NPT                                     | 6 - 12  | 24/22   | 24      | 13       | 1.646.1200.70 | 157.1912.17 |
| 3/4" NPT                                     | 10 - 16   | 30  | 25      | 13       | 1.646.3400.71 | 157.3516.17 |
| 3/4" NPT                                     | 14 - 18   | 30  | 25      | 13       | 1.646.3400.70 | 157.3518.17 |

**Einfache Handhabung:**

Das Abschirmgeflecht muss nur über den Kunststoffeinsatz gestülpt werden und den O-Ring ca. 2 mm überdecken.

**Simple installation:**

The braided shield has to be turned up over the clamping insert and must overlap the O-ring by approx. 2 mm.



WAZU-EMV-Z/EX

Material: Messing vernickelt  
Klemmeinsatz: PA, VO nach UL 94  
Dichtung: NBR  
O-Ring: NBR  
Einsatztemperatur: -20°C bis 95°C  
Schutzart: IP 68 - 10 bar / 30 min  
IP 69 K

Material: brass, nickel-plated  
Clamping insert: PA (nylon), VO acc. to UL 94  
Sealing insert: NBR  
O-ring: NBR  
Temperature range: -20°C to 95°C  
Protection type: IP 68 - 10 bar / 30 min  
IP 69 K

**Ex e**



158.10  
158.30

Zertifikate: DMT 03 ATEX E 051 X  
IECEx BVS07.0019 X



Certificates: DMT 03 ATEX E 051 X  
IECEx BVS07.0019 X

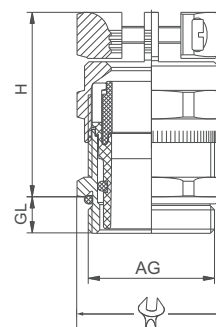


II 1D Ex ta IIIC Da  
II 2G Ex eb IIC Gb

Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG                |  |  | H<br>mm | GL<br>mm | HSK-MZ-EMV-Ex | HUGRO No.   |
|--|---|---|---------|----------|---------------|-------------|
| kurzes Anschlussgewinde / short entry thread |   |   |         |          |               |             |
| M 12 x 1,5                                   | 3 - 6,5   | 14  | 26      | 6,5      | 1.617.1200.50 | 158.1507.10 |
| M 16 x 1,5                                   | 5 - 10  | 20  | 30      | 6        | 1.617.1600.50 | 158.1710.10 |
| M 20 x 1,5                                   | 10 - 14   | 24  | 33      | 6        | 1.617.2000.50 | 158.2014.10 |
| M 25 x 1,5                                   | 14 - 18   | 30  | 37      | 7        | 1.617.2500.50 | 158.2518.10 |
| M 32 x 1,5                                   | 20 - 25   | 40  | 43      | 8        | 1.617.3200.50 | 158.3225.10 |
| M 40 x 1,5                                   | 24 - 32   | 50  | 50      | 8        | 1.617.4000.50 | 158.4032.10 |
| M 50 x 1,5                                   | 32 - 38   | 57  | 51      | 9        | 1.617.5000.50 | 158.5038.10 |
| M 63 x 1,5                                   | 37 - 44   | 68/64   | 52      | 10       | 1.617.6300.50 | 158.6344.10 |
| Pg 7   | 3 - 6,5   | 14  | 26      | 5        | 1.617.0700.01 | 158.0707.10 |
| Pg 9   | 4 - 8   | 17  | 28      | 6        | 1.617.0900.01 | 158.0908.10 |
| Pg 11  | 5 - 10  | 20  | 30      | 6        | 1.617.1100.01 | 158.1110.10 |
| Pg 13,5                                      | 7 - 12  | 22  | 33      | 6,5      | 1.617.1300.01 | 158.1312.10 |
| Pg 16  | 10 - 14   | 24  | 33      | 6,5      | 1.617.1600.01 | 158.1614.10 |
| Pg 21  | 13 - 18   | 30  | 37      | 7        | 1.617.2100.01 | 158.2118.10 |
| Pg 29  | 20 - 25   | 40  | 43      | 8        | 1.617.2900.01 | 158.2925.10 |
| Pg 36  | 24 - 32   | 50  | 50      | 8        | 1.617.3600.01 | 158.3632.10 |
| Pg 42  | 32 - 38   | 57  | 51      | 9        | 1.617.4200.01 | 158.4238.10 |
| Pg 48  | 37 - 44   | 64  | 52      | 10       | 1.617.4800.01 | 158.4844.10 |
| langes Anschlussgewinde / long entry thread  |   |   |         |          |               |             |
| M 12 x 1,5                                   | 3 - 6,5   | 14  | 26      | 10       | 1.617.1200.30 | 158.1507.30 |
| M 16 x 1,5                                   | 5 - 10  | 20  | 30      | 10       | 1.617.1600.30 | 158.1710.30 |
| M 20 x 1,5                                   | 10 - 14   | 24  | 33      | 10       | 1.617.2000.30 | 158.2014.30 |
| M 25 x 1,5                                   | 14 - 18   | 30  | 37      | 12       | 1.617.2500.30 | 158.2518.30 |
| M 32 x 1,5                                   | 20 - 25   | 40  | 43      | 12       | 1.617.3200.30 | 158.3225.30 |
| M 40 x 1,5                                   | 24 - 32   | 50  | 50      | 15       | 1.617.4000.30 | 158.4032.30 |
| Pg 7   | 3 - 6,5   | 14  | 26      | 10       | 1.617.0700.60 | 158.0707.30 |
| Pg 9   | 4 - 8   | 17  | 28      | 10       | 1.617.0900.60 | 158.0908.30 |
| Pg 11  | 5 - 10  | 20  | 30      | 10       | 1.617.1100.60 | 158.1110.30 |
| Pg 13,5                                      | 7 - 12  | 22  | 33      | 10       | 1.617.1300.60 | 158.1312.30 |
| Pg 16  | 10 - 14   | 24  | 33      | 10       | 1.617.1600.60 | 158.1614.30 |
| Pg 21  | 13 - 18   | 30  | 37      | 12       | 1.617.2100.60 | 158.2118.30 |
| Pg 29  | 20 - 25   | 40  | 43      | 12       | 1.617.2900.60 | 158.2925.30 |
| Pg 36  | 24 - 32   | 50  | 50      | 15       | 1.617.3600.60 | 158.3632.30 |
| Pg 42  | 32 - 38   | 57  | 51      | 15       | 1.617.4200.60 | 158.4238.30 |
| Pg 48  | 37 - 44   | 64  | 52      | 15       | 1.617.4800.60 | 158.4844.30 |
| 3/8" NPT                                     | 4 - 8   | 19/17   | 28      | 15       | 1.617.3800.70 | 158.3908.10 |
| 1/2" NPT                                     | 7 - 12  | 24/22   | 33      | 13       | 1.617.1200.70 | 158.1912.10 |
| 3/4" NPT                                     | 13 - 18   | 30  | 37      | 13       | 1.617.3500.70 | 158.3518.10 |



Einfache Handhabung:

Das Abschirmgeflecht muss nur über den Kunststoffeinsatz gestülpt werden und den O-Ring ca. 2 mm überdecken.

Simple installation:

The braided shield has to be turned up over the clamping insert and must overlap the O-ring by approx. 2mm.



WAZU-EV/EX

Material: Messing vernickelt  
Klemmeinsatz: PA, metallisiert  
Dichteinsatz: NBR  
O-Ring: NBR  
Einsatztemperatur: -20 °C bis 95 °C  
Schutzart: IP 68 - 10 bar / 30 min  
IP 69 K



Material: brass, nickel-plated  
Clamping insert: metal coated PA (nylon)  
Sealing insert: NBR  
O-ring: NBR  
Temperature range: -20 °C to 95 °C  
Protection type: IP 68 - 10 bar / 30 min  
IP 69 K

Zertifikate: DMT 03 ATEX E 051 X  
IECEX BVS 07.0019 X

Certificates: DMT 03 ATEX E 051 X  
IECEX BVS 07.0019 X

Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG                       |  |  | H<br>mm | GL<br>mm | HSK-M-EMV-D-Ex | HUGRO No.   |
|---|---|---|---------|----------|----------------|-------------|
| <b>kurzes Anschlussgewinde / short entry thread</b> |   |   |         |          |                |             |
| M 16 x 1,5  | 5 - 10  | 20  | 29      | 6        | 1.636.1600.50  | 159.1710.10 |
| M 20 x 1,5  | 10 - 14   | 24  | 31      | 6        | 1.636.2000.50  | 159.2014.10 |
| M 25 x 1,5  | 13 - 18   | 30  | 38      | 7        | 1.636.2500.50  | 159.2518.10 |
| M 32 x 1,5  | 18 - 25   | 40  | 43      | 8        | 1.636.3200.50  | 159.3225.10 |
| M 40 x 1,5  | 24 - 32   | 50  | 51      | 8        | 1.636.4000.50  | 159.4032.10 |
| <b>Pg</b>   |   |   |         |          |                |             |
| Pg 11   | 5 - 10  | 20  | 29      | 6        | 1.636.1100.01  | 159.1110.10 |
| Pg 13,5   | 6 - 12  | 22  | 31      | 6,5      | 1.636.1300.01  | 159.1312.10 |
| Pg 16   | 10 - 14   | 24  | 32      | 6,5      | 1.636.1600.01  | 159.1614.10 |
| Pg 21   | 13 - 18   | 30  | 38      | 7        | 1.636.2100.01  | 159.2118.10 |
| Pg 29   | 18 - 25   | 40  | 43      | 8        | 1.636.2900.01  | 159.2925.10 |
| Pg 36   | 24 - 32   | 50  | 48      | 8        | 1.636.3600.01  | 159.3632.10 |
| <b>langes Anschlussgewinde / long entry thread</b>  |   |   |         |          |                |             |
| M 16 x 1,5  | 5 - 10  | 20  | 29      | 10       | 1.636.1600.30  | 159.1710.30 |
| M 20 x 1,5  | 10 - 14   | 24  | 31      | 10       | 1.636.2000.30  | 159.2014.30 |
| M 25 x 1,5  | 13 - 18   | 30  | 38      | 12       | 1.636.2500.30  | 159.2518.30 |
| M 32 x 1,5  | 18 - 25   | 40  | 43      | 12       | 1.636.3200.30  | 159.3225.30 |
| M 40 x 1,5  | 24 - 32   | 50  | 51      | 15       | 1.636.4000.30  | 159.4032.30 |

**Ex e**

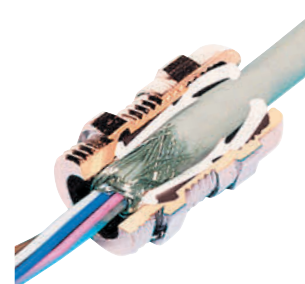
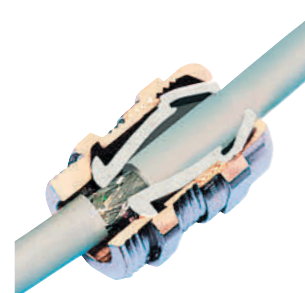
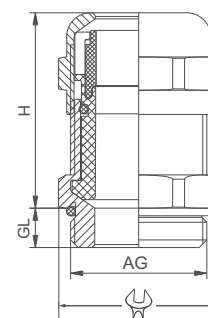


Auf Anfrage  
on request

159.10  
159.30



II 1D Ex ta IIIC Da  
II 2G Ex eb IIC Gb



# Barrier Kabelverschraubungen

für alle armierten Kabeltypen; doppelte Abdichtung

## CR-C

|                                      |   |                                      |   |
|--------------------------------------|---|--------------------------------------|---|
| <b>Material:</b><br>Dichteinsatz:    | Messing blank<br>Verbund-Innendichtung (Barriere)<br>und elastomere Außendichtung aus<br>Silikon-LSOH | <b>Material:</b><br>Sealing insert:  | brass<br>compound (barrier) inner<br>seal & silicone LSOH elastomeric<br>outer seal |
| <b>O-Ring:</b><br>Temperaturbereich: | Silikon<br>-60 °C – 135 °C  | <b>O-ring:</b><br>Temperature Range: | silicone<br>-60 °C – 135 °C (-76 °F – 275 °F)                                       |
| <b>Schutzart:</b>                    | IP 66 / 68  | <b>Protection:</b>                   | IP 66 / 68  |
| <b>Zertifikate:</b>                  | SIRA 03ATEX1479X<br>& SIRA 09ATEX4124X<br>IECEX SIR 07.0098X  | <b>Certificates:</b>                 | SIRA 03ATEX1479X<br>& SIRA 09ATEX4124X<br>IECEX SIR 07.0098X                        |

**Ex e**

**Ex d**



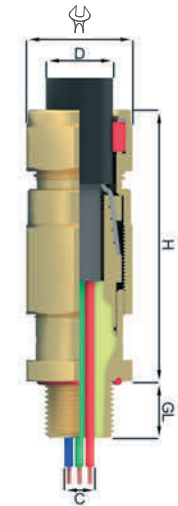
1CC.03

Weitere internationale Zulassungen vorhanden

Further international approvals available



| Gewinde<br>Entry Thread<br>AG | max. Anz. Adern<br>Max. Number<br>Of Cores | max. Über<br>Max. Over<br>Cores Ø mm | D<br>Außenmantel<br>Outer Sheat<br>Ø mm | C<br>Innenmantel<br>Inner Sheat<br>Ø mm | H<br>mm | GL<br>mm | CR-C | HUGRO No.       |               |
|-------------------------------|--|--------------------------------------|---|---|---------|----------|------|-----------------|---------------|
| M 20 x 1.5                    | 15   | 10,4                                 | 8,4 - 13,5                              | 11,7                                    | 25,4    | 79       | 16   | CR-CB/16/M20    | 1CC.201714.03 |
| M 20 x 1.5                    | 15   | 10,4                                 | 6,7 - 10,3                              | 11,7                                    | 25,4    | 79       | 16   | CR-CBR/16/M20   | 1CC.201710.03 |
| M 20 x 1.5                    | 35   | 10,4                                 | 11,5 - 16,0                             | 11,7                                    | 25,4    | 79       | 16   | CR-CB/20S/M20   | 1CC.202516.03 |
| M 20 x 1.5                    | 35   | 10,4                                 | 9,4 - 12,5                              | 11,7                                    | 25,4    | 79       | 16   | CR-CBR/20S/M20  | 1CC.202513.03 |
| M 20 x 1.5                    | 40   | 12,5                                 | 15,5 - 21,1                             | 12,5                                    | 30      | 79       | 16   | CR-CB/20/M20    | 1CC.202021.03 |
| M 20 x 1.5                    | 40   | 12,5                                 | 12,0 - 17,6                             | 14,0                                    | 30      | 79       | 16   | CR-CBR/20/M20   | 1CC.202018.03 |
| M 25 x 1.5                    | 60   | 17,8                                 | 20,3 - 27,4                             | 20,0                                    | 37,6    | 89       | 16   | CR-CB/25/M25    | 1CC.252527.03 |
| M 25 x 1.5                    | 60   | 17,8                                 | 16,8 - 23,9                             | 20                                      | 37,6    | 89       | 16   | CR-CBR/25/M25   | 1CC.252524.03 |
| M 32 x 1.5                    | 80   | 23,5                                 | 26,7 - 34,0                             | 26,3                                    | 46,0    | 110      | 16   | CR-CB/32/M32    | 1CC.323234.03 |
| M 32 x 1.5                    | 80   | 23,5                                 | 23,2 - 30,5                             | 26,3                                    | 46,0    | 110      | 16   | CR-CBR/32/M32   | 1CC.323231.03 |
| M 40 x 1.5                    | 130  | 28,8                                 | 33,0 - 40,6                             | 32,2                                    | 55,0    | 110      | 16   | CR-CB/40/M40    | 1CC.404041.03 |
| M 40 x 1.5                    | 130  | 28,8                                 | 28,6 - 36,2                             | 32,2                                    | 55,0    | 110      | 16   | CR-CBR/40/M40   | 1CC.404036.03 |
| M 50 x 1.5                    | 200  | 34,2                                 | 39,4 - 46,7                             | 38,2                                    | 65,0    | 125      | 16   | CR-CB/50/M50    | 1CC.505547.03 |
| M 50 x 1.5                    | 200  | 34,2                                 | 34,8 - 42,4                             | 38,2                                    | 65,0    | 125      | 16   | CR-CBR/50S/M50  | 1CC.505542.03 |
| M 50 x 1.5                    | 400  | 39,4                                 | 45,7 - 53,2                             | 44,1                                    | 65,0    | 125      | 16   | CR-CB/50/M50    | 1CC.505053.03 |
| M 50 x 1.5                    | 400  | 39,4                                 | 41,1 - 48,5                             | 44,1                                    | 65,0    | 125      | 16   | CR-CBR/50/M50   | 1CC.505049.03 |
| M 63 x 1.5                    | 400  | 44,8                                 | 52,1 - 59,5                             | 50,1                                    | 80,0    | 125      | 19   | CR-CB/63S/M63   | 1CC.636560.03 |
| M 63 x 1.5                    | 400  | 44,8                                 | 47,5 - 54,8                             | 50,1                                    | 80,0    | 125      | 19   | CR-CBR/63S/M63  | 1CC.636555.03 |
| M 63 x 1.5                    | 425  | 50,0                                 | 58,4 - 65,8                             | 56,0                                    | 80,0    | 125      | 19   | CR-CB/63/M63    | 1CC.636366.03 |
| M 63 x 1.5                    | 425  | 50,0                                 | 53,8 - 61,2                             | 56,0                                    | 80,0    | 125      | 19   | CR-CBR/63/M63   | 1CC.636361.03 |
| M 75 x 1.5                    | 425  | 55,4                                 | 64,8 - 72,2                             | 62,0                                    | 90,0    | 130      | 19   | CR-CB/75S/M75   | 1CC.747572.03 |
| M 75 x 1.5                    | 425  | 55,4                                 | 60,2 - 68,0                             | 62,0                                    | 90,0    | 130      | 19   | CR-CBR/75S/M75  | 1CC.747568.03 |
| M 75 x 1.5                    | 425  | 60,8                                 | 71,1 - 78,0                             | 68,0                                    | 90,0    | 130      | 19   | CR-CB/75/M75    | 1CC.747478.03 |
| M 75 x 1.5                    | 425  | 60,8                                 | 66,5 - 73,4                             | 68,0                                    | 90,0    | 130      | 19   | CR-CBR/75/M75   | 1CC.747473.03 |
| M 80 x 2.0                    | 425  | 64,4                                 | 77,0 - 84,0                             | 72,0                                    | 104,0   | 162      | 25   | CR-CB/80/M80    | 1CC.8A8A84.03 |
| M 80 x 2.0                    | 425  | 64,4                                 | 71,9 - 79,4                             | 72,0                                    | 104,0   | 162      | 25   | CR-CBR/80/M80   | 1CC.8A8A79.03 |
| M 85 x 2.0                    | 425  | 69,8                                 | 79,6 - 90,0                             | 78,0                                    | 104,0   | 162      | 25   | CR-CB/85/M85    | 1CC.8F8F90.03 |
| M 85 x 2.0                    | 425  | 69,8                                 | 75,0 - 85,4                             | 78,0                                    | 104,0   | 162      | 25   | CR-CBR/85/M85   | 1CC.8F8F85.03 |
| M 90 x 2.0                    | 425  | 75,1                                 | 88,0 - 96,0                             | 84,0                                    | 114,0   | 162      | 25   | CR-CB/90/M90    | 1CC.9A9A96.03 |
| M 90 x 2.0                    | 425  | 75,1                                 | 82,0 - 91,4                             | 84,0                                    | 114,0   | 162      | 25   | CR-CBR/90/M90   | 1CC.9A9A91.03 |
| M 100 x 2.0                   | 425  | 80,5                                 | 92,0 - 102,0                            | 90,0                                    | 114,0   | 162      | 25   | CR-CB/100/M100  | 1CC.9K9K10.03 |
| M 100 x 2.0                   | 425  | 80,5                                 | 87,4 - 97,4                             | 90,0                                    | 114,0   | 162      | 25   | CR-CBR/100/M100 | 1CC.9K9K97.03 |



|   |   |
|---|---|
| <b>HÄRTUNGSZEIT:</b><br>Bei 21 °C kann der Leiteranschluss nach 1 Stunde erfolgen. Die Mischkammer kann nach 4 Stunden vollständig inspiziert und das Gerät dann unter Spannung gesetzt werden. | <b>CURING TIME:</b><br>At 21 °C Conductor termination can be effected after 1 hour. Compound chamber can be fully inspected after 4 hours and the equipment then energised. |
|---|---|

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|--|--|
| Dieser Verschraubungstyp ist mit einer Universalklemme für stahldraht-armiertes Kabel, Kabel mit Stahlgeflecht- oder Stahlbandarmierung ausgerüstet. | This cable gland type provides an universal armour clamp for steel wire, steel taped, screened or braided cable. |
|--|--|

|  |   |
|--|---|
| <b>Auf Anfrage:</b><br>- NPT Gewinde<br>- in Messing vernickelt<br>- in Edelstahl A4 | <b>On request:</b><br>- NPT thread<br>- brass, nickel-plated<br>- stainless steel 316 |
|--|---|

ATEX I M2 II 1D 2G Ex db I Mb / Ex db IIC Gb / Ex eb I Mb / Ex eb IIC Gb / Ex ta IIC Da II 3G Ex nR IIC Gc  
IECEX Ex db I Mb / Ex db IIC Gb / Ex eb I Mb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIC Da

# Barrier Kabelverschraubungen

für nicht armierte Kabel; doppelte Abdichtung

## CR-U

|                           |  |                           |  |
|---------------------------|--|---------------------------|--|
| <b>Material:</b>          | Messing blank  | <b>Material:</b>          | brass  |
| <b>Dichteinsatz:</b>      | Verbund-Innendichtung (Barriere) und elastomere Außendichtung aus Silikon-LSOH | <b>Sealing insert:</b>    | compound (barrier) inner seal & silicone LSOH elastomeric outer seal |
| <b>O-Ring:</b>            | Silikon  | <b>O-ring:</b>            | silicone   |
| <b>Temperaturbereich:</b> | -60 °C – 135 °C  | <b>Temperature Range:</b> | -60 °C – 135 °C (-76 °F – 275 °F)                                    |
| <b>Schutzart:</b>         | IP 66 / 68   | <b>Protection:</b>        | IP 66 / 68   |
| <b>Zertifikate:</b>       | SIRA 03ATEX1479X & SIRA 09ATEX4124X IECEx SIR 07.0098.X                        | <b>Certificates:</b>      | SIRA 03ATEX1479X & SIRA 09ATEX4124X IECEx SIR 07.0098.X              |

**Ex e**

**Ex d**



Auf Anfrage on request

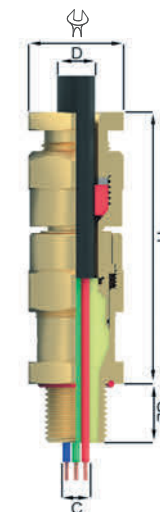
1CU.03

Weitere internationale Zulassungen vorhanden

Further international approvals available



| Gewinde<br>Entry Thread<br>AG | max. Anz. Adern<br>Max. Number<br>Of Cores | C<br>Max. Over<br>Cores Ø mm | D<br>Außenmantel<br>Outer Sheat<br>Ø mm |  | H<br>mm | GL<br>mm | CR-C           | HUGRO No.     |
|-------------------------------|--|------------------------------|---|--|---------|----------|----------------|---------------|
| M 20 x 1.5                    | 15   | 10,4                         | 3,4 - 8,4                               |  | 25,4    | 73       | CR-UB/16/M20   | 1CU.201708.03 |
| M 20 x 1.5                    | 35   | 10,4                         | 4,8 - 11,7                              |  | 25,4    | 73       | CR-UB/20S/M20  | 1CU.202512.03 |
| M 20 x 1.5                    | 40   | 12,5                         | 9,5 - 14,0                              |  | 30      | 73       | CR-UB/20/M20   | 1CU.202014.03 |
| M 25 x 1.5                    | 60   | 17,8                         | 11,7 - 20,0                             |  | 37,6    | 74       | CR-UB/25/M25   | 1CU.252520.03 |
| M 32 x 1.5                    | 80   | 23,5                         | 18,1 - 26,3                             |  | 46,0    | 80       | CR-UB/32/M32   | 1CU.323226.03 |
| M 40 x 1.5                    | 130  | 28,8                         | 22,6 - 32,2                             |  | 55,0    | 87       | CR-UB/40/M40   | 1CU.404032.03 |
| M 50 x 1.5                    | 200  | 34,2                         | 28,2 - 38,2                             |  | 65,0    | 87       | CR-UB/50S/M50  | 1CU.505538.03 |
| M 50 x 1.5                    | 400  | 39,4                         | 33,1 - 44,1                             |  | 65,0    | 87       | CR-UB/50/M50   | 1CU.505044.03 |
| M 63 x 1.5                    | 400  | 44,8                         | 39,3 - 50,1                             |  | 80,0    | 88       | CR-UB/63S/M63  | 1CU.636550.03 |
| M 63 x 1.5                    | 425  | 50,0                         | 46,7 - 56,0                             |  | 80,0    | 88       | CR-UB/63/M63   | 1CU.636356.03 |
| M 75 x 1.5                    | 425  | 55,4                         | 52,3 - 62,0                             |  | 90,0    | 97       | CR-UB/75S/M75  | 1CU.747562.03 |
| M 75 x 1.5                    | 425  | 60,8                         | 58,0 - 68,0                             |  | 90,0    | 97       | CR-UB/75/M75   | 1CU.747468.03 |
| M 80 x 2.0                    | 425  | 64,4                         | 61,9 - 72,0                             |  | 104,0   | 123      | CR-UB/80/M80   | 1CU.8A8A72.03 |
| M 85 x 2.0                    | 425  | 69,8                         | 69,1 - 78,0                             |  | 104,0   | 123      | CR-UB/85/M85   | 1CU.8F8F78.03 |
| M 90 x 2.0                    | 425  | 75,1                         | 74,1 - 84,0                             |  | 114,0   | 123      | CR-UB/90/M90   | 1CU.9A9A84.03 |
| M 100 x 2.0                   | 425  | 80,5                         | 81,8 - 90,0                             |  | 114,0   | 123      | CR-UB/100/M100 | 1CU.9K9K90.03 |



**HÄRTUNGSZEIT:**

Bei 21°C kann der Leiteranschluss nach 1 Stunde erfolgen. Die Mischkammer kann nach 4 Stunden vollständig inspiziert und das Gerät dann unter Spannung gesetzt werden.

**CURING TIME:**

At 21°C Conductor termination can be effected after 1 hour. Compound chamber can be fully inspected after 4 hours and the equipment then energised.

**Auf Anfrage:**

- NPT Gewinde
- in Messing vernickelt
- in Edelstahl A4

**On request:**

- NPT thread
- brass, nickel-plated
- stainless steel 316

ATEX I M2 II 1D 2G Ex db I Mb / Ex db IIC Gb / Ex eb I Mb / Ex eb IIC Gb / Ex ta IIIC Da II 3G Ex nR IIC Gc  
IECEx db I Mb / Ex db IIC Gb / Ex eb I Mb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da

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# Barrier Kabelverschraubungen

für nicht armierte Kabel

# Barrier Cable Glands

for unarmoured cable

## CR-X

Material: Messing blank  
 Dichteinsatz: Verbund-Innendichtung (Barriere)  
 O-Ring: Silikon  
 Temperaturbereich: -60 °C – 135 °C  
 Schutzart: IP 66 / 68  
 Zertifikate: SIRA 03ATEX1479X  
 & SIRA 09ATEX4124X  
 IECEx SIR 07.0098X

Material: brass  
 Sealing insert: compound (barrier) inner seal  
 O-ring: silicone  
 Temperature Range: -60 °C – 135 °C (-76 °F – 275 °F)  
 Protection: IP 66 / 68  
 Certificates: SIRA 03ATEX1479X  
 & SIRA 09ATEX4124X  
 IECEx SIR 07.0098X




1CX.03

Weitere internationale Zulassungen vorhanden

Further international approvals available



| Gewinde<br>Entry Thread<br>AG | max. Anz. Adern<br>Max. Number<br>Of Cores | C<br>Max. Over<br>Cores Ø mm | D<br>Außenmantel<br>Outer Sheat<br>Ø mm |  mm | H<br>mm | GL<br>mm | CR-C           | HUGRO No.   |
|-------------------------------|--|------------------------------|---|--|---------|----------|----------------|-------------|
| M 20 x 1.5                    | 35   | 10,4                         | 11,7                                    | 25,4   | 42      | 16       | CR-XB/205/M20  | 1CX.2025.03 |
| M 20 x 1.5                    | 40   | 12,5                         | 14,0                                    | 30   | 44      | 16       | CR-XB/20/M20   | 1CX.2020.03 |
| M 25 x 1.5                    | 60   | 17,8                         | 20,0                                    | 37,6   | 48      | 16       | CR-XB/25/M25   | 1CX.2525.03 |
| M 32 x 1.5                    | 80   | 23,5                         | 26,3                                    | 46,0   | 53      | 16       | CR-XB/32/M32   | 1CX.3232.03 |
| M 40 x 1.5                    | 130  | 28,8                         | 32,2                                    | 55,0   | 54      | 16       | CR-XB/40/M40   | 1CX.4040.03 |
| M 50 x 1.5                    | 400  | 39,4                         | 44,1                                    | 65,0   | 54      | 16       | CR-XB/50/M50   | 1CX.5050.03 |
| M 63 x 1.5                    | 425  | 50,0                         | 56,0                                    | 80,0   | 55      | 19       | CR-XB/63/M63   | 1CX.6363.03 |
| M 75 x 1.5                    | 425  | 60,8                         | 68,0                                    | 90,0   | 60      | 19       | CR-XB/75/M75   | 1CX.7474.03 |
| M 80 x 2.0                    | 425  | 64,4                         | 72,0                                    | 104,0  | 80      | 25       | CR-XB/80/M80   | 1CX.8A8A.03 |
| M 85 x 2.0                    | 425  | 69,8                         | 78,0                                    | 104,0  | 80      | 25       | CR-XB/85/M85   | 1CX.8F8F.03 |
| M 90 x 2.0                    | 425  | 75,1                         | 84,0                                    | 114,0  | 85      | 25       | CR-XB/90/M90   | 1CX.9A9A.03 |
| M 100 x 2.0                   | 425  | 80,5                         | 90,0                                    | 114,0  | 85      | 25       | CR-XB/100/M100 | 1CX.9K9K.03 |

**HÄRTUNGSZEIT:**

Bei 21°C kann nach 1 Stunde ein Leiterabbruch erfolgen. Die Verbindungskammer kann nach 4 Stunden vollständig inspiziert und das Gerät dann mit Strom versorgt werden.

**CURING TIME:**

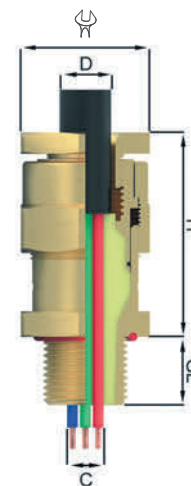
At 21°C Conductor termination can be effected after 1 hour. Compound chamber can be fully inspected after 4 hours and the equipment then energised.

**Auf Anfrage:**

- NPT Gewinde
- in Messing vernickelt
- in Edelstahl A4

**On request:**

- NPT thread
- brass, nickel-plated
- stainless steel 316



ATEX I M2 II 1D 2G Ex db I Mb / Ex db IIC Gb / Ex eb I Mb / Ex eb IIC Gb / Ex ta IIIC Da II 3G Ex nR IIC Gc  
 IECEx db I Mb / Ex db IIC Gb / Ex eb I Mb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da

**Progress-P / EX**

Material: PA, glasfaserverstärkt  
 Farbe: grau / schwarz / blau-schwarz  
 Dichteinsatz: TPE / NBR \*  
 Einsatztemperatur: -20°C bis 85°C  
 Schutzart: IP 66 / IP 68

Material: PA (nylon), glass-fibre reinforced  
 Colour: grey / black / blue-black  
 Sealing insert: TPE / NBR \*  
 Temperature range: -20°C to 85°C  
 Protection type: IP 66 / IP 68

**Ex e**

**180.10**  
**180.11**  
**180.14**

Zertifikate: SEV 15 ATEX 0152 X  
 IECEx SEV 15.0019 X

Certificates: SEV 15 ATEX 0152 X  
 IECEx SEV 15.0019 X



Weitere internationale Zulassungen vorhanden

Further international approvals available

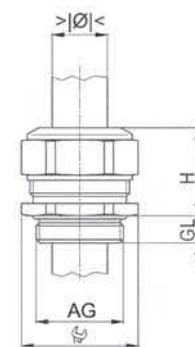


II 2G Ex eb IIC Gb  
 II 2D Ex tb IIIC Db  
 II 2G Ex ia IIC Ga  
 II 2D Ex ia IIIC Da

\* NBR-Dichteinsatz

\* NBR-sealing

| Gewinde<br>Entry Thread<br>AG | mm          | mm | H<br>mm | GL<br>mm | Progress GFK EX | HUGRO No.     |
|-------------------------------|-------------|----|---------|----------|-----------------|---------------|
| M 16 x 1,5                    | 4,5 - 6     | 21 | 26      | 12       | EX15xx.17.060   | 180.1706.1x   |
| M 16 x 1,5                    | 6 - 8       | 21 | 26      | 12       | EX15xx.17.080   | 180.1708.1x   |
| M 20 x 1,5                    | 6 - 8       | 27 | 28      | 13       | EX15xx.20.080   | 180.2008.1x   |
| M 20 x 1,5                    | 8 - 11      | 27 | 28      | 13       | EX15xx.20.110   | 180.2011.1x   |
| M 25 x 1,5                    | 9,5 - 12,5  | 34 | 33      | 13       | EX15xx.25.125   | 180.2512.1x   |
| M 25 x 1,5                    | 12,5 - 16   | 34 | 33      | 13       | EX15xx.25.160   | 180.2516.1x   |
| M 25 x 1,5                    | 16 - 19     | 34 | 33      | 13       | EX15xx.25.190   | 180.2519.1x   |
| M 25 x 1,5                    | 19 - 20,5   | 34 | 33      | 13       | EX15xx.25.205   | 180.2520.1x   |
| M 32 x 1,5                    | 20 - 21     | 41 | 35      | 15       | EX15xx.32.210   | 180.3221.1x   |
| M 32 x 1,5                    | 21 - 22     | 41 | 35      | 15       | EX15xx.32.220   | 180.3222.1x * |
| M 32 x 1,5                    | 22 - 23     | 41 | 35      | 15       | EX15xx.32.230   | 180.3223.1x * |
| M 32 x 1,5                    | 23 - 25,5   | 41 | 35      | 15       | EX15xx.32.255   | 180.3225.1x   |
| M 40 x 1,5                    | 25,5 - 27   | 50 | 40      | 15       | EX15xx.40.270   | 180.4027.1x * |
| M 40 x 1,5                    | 27 - 28,5   | 50 | 40      | 15       | EX15xx.40.285   | 180.4028.1x   |
| M 40 x 1,5                    | 28,5 - 30   | 50 | 40      | 15       | EX15xx.40.300   | 180.4030.1x * |
| M 40 x 1,5                    | 30 - 33     | 50 | 40      | 15       | EX15xx.40.330   | 180.4033.1x   |
| M 50 x 1,5                    | 33 - 35     | 60 | 42      | 16       | EX15xx.50.350   | 180.5035.1x * |
| M 50 x 1,5                    | 35 - 37     | 60 | 42      | 16       | EX15xx.50.370   | 180.5037.1x   |
| M 50 x 1,5                    | 37 - 39     | 60 | 42      | 16       | EX15xx.50.390   | 180.5039.1x * |
| M 50 x 1,5                    | 39 - 42     | 60 | 42      | 16       | EX15xx.50.420   | 180.5042.1x   |
| M 63 x 1,5                    | 42 - 44     | 75 | 48      | 16       | EX15xx.63.440   | 180.6344.1x * |
| M 63 x 1,5                    | 44 - 46     | 75 | 48      | 16       | EX15xx.63.460   | 180.6346.1x   |
| M 63 x 1,5                    | 46 - 48     | 75 | 48      | 16       | EX15xx.63.480   | 180.6348.1x * |
| M 63 x 1,5                    | 48 - 52     | 75 | 48      | 16       | EX15xx.63.520   | 180.6352.1x   |
| Pg 9                          | 4,5 - 6     | 21 | 26      | 12       | EX15xx.09.060   | 180.0906.1x   |
| Pg 9                          | 6 - 8       | 21 | 26      | 12       | EX15xx.09.080   | 180.0908.1x   |
| Pg 11                         | 4 - 5,5     | 24 | 28      | 12       | EX15xx.11.055   | 180.1105.1x   |
| Pg 11                         | 5,5 - 8,5   | 24 | 28      | 12       | EX15xx.11.085   | 180.1108.1x   |
| Pg 13,5                       | 6 - 8       | 27 | 28      | 13       | EX15xx.13.080   | 180.1308.1x   |
| Pg 13,5                       | 8 - 11      | 27 | 28      | 13       | EX15xx.13.110   | 180.1311.1x   |
| Pg 16                         | 6 - 8       | 27 | 28      | 13       | EX15xx.16.080   | 180.1608.1x   |
| Pg 16                         | 8 - 11      | 27 | 28      | 13       | EX15xx.16.110   | 180.1611.1x   |
| Pg 21                         | 9,5 - 12,5  | 34 | 33      | 13       | EX15xx.21.125   | 180.2112.1x   |
| Pg 21                         | 12,5 - 16   | 34 | 33      | 13       | EX15xx.21.160   | 180.2116.1x   |
| Pg 21                         | 16 - 19     | 34 | 33      | 13       | EX15xx.21.190   | 180.2119.1x   |
| Pg 21                         | 19 - 20,5   | 34 | 33      | 13       | EX15xx.21.205   | 180.2120.1x   |
| Pg 29                         | 19,5 - 21   | 41 | 36      | 13       | EX15xx.29.210   | 180.2921.1x * |
| Pg 29                         | 21 - 23     | 41 | 36      | 13       | EX15xx.29.230   | 180.2923.1x   |
| Pg 29                         | 23 - 25     | 41 | 36      | 13       | EX15xx.29.250   | 180.2925.1x * |
| Pg 29                         | 25 - 27,5   | 41 | 36      | 13       | EX15xx.29.275   | 180.2927.1x   |
| Pg 36                         | 27 - 28,5   | 55 | 42      | 16       | EX15xx.36.285   | 180.3628.1x * |
| Pg 36                         | 28,5 - 30,5 | 55 | 42      | 16       | EX15xx.36.305   | 180.3630.1x   |
| Pg 36                         | 30,5 - 32,5 | 55 | 42      | 16       | EX15xx.36.325   | 180.3632.1x * |
| Pg 36                         | 32,5 - 35   | 55 | 42      | 16       | EX15xx.36.350   | 180.3635.1x   |
| Pg 42                         | 33 - 35     | 60 | 42      | 16       | EX15xx.42.350   | 180.4235.1x * |
| Pg 42                         | 35 - 37     | 60 | 42      | 16       | EX15xx.42.370   | 180.4237.1x   |
| Pg 42                         | 37 - 39     | 60 | 42      | 16       | EX15xx.42.390   | 180.4239.1x * |
| Pg 42                         | 39 - 42     | 60 | 42      | 16       | EX15xx.42.420   | 180.4242.1x   |
| Pg 48                         | 41 - 43     | 70 | 46      | 16       | EX15xx.48.430   | 180.4843.1x   |
| Pg 48                         | 43 - 45     | 70 | 46      | 16       | EX15xx.48.450   | 180.4845.1x * |
| Pg 48                         | 45 - 47     | 70 | 46      | 16       | EX15xx.48.470   | 180.4847.1x * |
| Pg 48                         | 47 - 49     | 70 | 46      | 16       | EX15xx.48.490   | 180.4849.1x   |



|  |                                   |        |       |
|--|-----------------------------------|--------|-------|
| <b>Bestell-Nummern sind zu ergänzen:</b> |                                   | 15xx   | .1x   |
| Reference numbers have to be completed   | grau / grey:                      | = 1571 | = .10 |
|  | schwarz / black:                  | = 1540 | = .11 |
|  | blau-schwarz / blue-black (Ex i): | = 1530 | = .14 |

**Progress-P / MF-EX**

**Material:** PA glasfaserverstärkt  
**Farbe:** grau RAL 7035 / schwarz RAL 9005  
**Dichteinsatz:** TPE / NBR<sup>1)</sup>  
**Einsatztemperatur:** -20°C bis 85°C  
**Schutzart:** IP 66 / IP 68

**Material:** PA (nylon), glass-fibre reinforced  
**Colours:** grey RAL 7035 / black RAL 9005  
**Sealing insert:** TPE / NBR<sup>1)</sup>  
**Temperature range:** -20°C to 85°C  
**Protection type:** IP 66 / IP 68

**Ex e**

**180.80**  
**180.81**

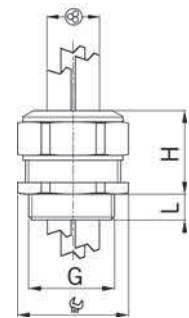
**Zertifikate:** SEV 15 ATEX 0152 X  
IECEX SEV 15.0019 X

**Certificates:** BVS 14 ATEX E 025 X  
IECEX BVS 14.0020 X



**II 2G Ex eb IIC Gb**  
**II 2D Ex tb IIIC Db**

| Gewinde<br>Entry Thread<br>AG |         |   |    | H<br>mm | GL<br>mm | Progress GFK<br>Multi EX | HUGRO No.                  |
|-------------------------------|---------|---|----|---------|----------|--------------------------|----------------------------|
| M 16 x 1,5                    | 1 - 1,5 | 4 | 21 | 26      | 12       | EX1571.17.4.015          | 180.17154.80 <sup>1)</sup> |
| M 16 x 1,5                    | 2 - 3   | 2 | 21 | 26      | 12       | EX1571.17.2.030          | 180.17302.80               |
| M 20 x 1,5                    | 2,5 - 3 | 6 | 27 | 28      | 13       | EX1571.20.6.030          | 180.20306.80               |
| M 20 x 1,5                    | 3,5 - 5 | 2 | 27 | 27      | 13       | EX1571.20.2.050          | 180.20502.80               |
| M 25 x 1,5                    | 5 - 6   | 6 | 34 | 33      | 13       | EX1571.25.6.060          | 180.25606.80               |
| M 25 x 1,5                    | 5,5 - 7 | 4 | 34 | 33      | 13       | EX1571.25.4.070          | 180.25704.80               |
| M 25 x 1,5                    | 7,5 - 9 | 3 | 34 | 33      | 13       | EX1571.25.3.090          | 180.25903.80               |
| M 25 x 1,5                    | 8 - 10  | 2 | 34 | 33      | 13       | EX1571.25.2.100          | 180.25102.80               |
| M 32 x 1,5                    | 6 - 7   | 6 | 41 | 35      | 15       | EX1571.32.6.070          | 180.32706.80               |
| M 32 x 1,5                    | 7,5 - 9 | 4 | 41 | 35      | 15       | EX1571.32.4.090          | 180.32904.80               |
| M 40 x 1,5                    | 8 - 9   | 7 | 50 | 40      | 15       | EX1571.40.7.090          | 180.40907.80 <sup>1)</sup> |
| M 40 x 1,5                    | 14 - 15 | 2 | 50 | 40      | 15       | EX1571.40.2.150          | 180.40152.81 <sup>1)</sup> |
| M 50 x 1,5                    | 9 - 10  | 4 | 60 | 42      | 16       | EX1571.50.4.100          | 180.50104.80 <sup>1)</sup> |
| M 63 x 1,5                    | 11 - 12 | 6 | 75 | 48      | 16       | EX1571.63.6.120          | 180.63126.81 <sup>1)</sup> |
| M 63 x 1,5                    | 17 - 18 | 3 | 75 | 48      | 16       | EX1571.63.3.180          | 180.63183.80 <sup>1)</sup> |



**schwarz RAL 9005 / black RAL 9005**

|            |         |   |    |    |    |                 |                            |
|------------|---------|---|----|----|----|-----------------|----------------------------|
| M 16 x 1,5 | 1 - 1,5 | 4 | 21 | 26 | 12 | EX1540.17.4.015 | 180.17154.81 <sup>1)</sup> |
| M 16 x 1,5 | 2 - 3   | 2 | 21 | 26 | 12 | EX1540.17.2.030 | 180.17302.81               |
| M 20 x 1,5 | 2,5 - 3 | 6 | 27 | 28 | 13 | EX1540.20.6.030 | 180.20306.81               |
| M 20 x 1,5 | 3,5 - 5 | 2 | 27 | 27 | 13 | EX1540.20.2.050 | 180.20502.81               |
| M 25 x 1,5 | 5 - 6   | 6 | 34 | 33 | 13 | EX1540.25.6.060 | 180.25606.81               |
| M 25 x 1,5 | 5,5 - 7 | 4 | 34 | 33 | 13 | EX1540.25.4.070 | 180.25704.81               |
| M 25 x 1,5 | 7,5 - 9 | 3 | 34 | 33 | 13 | EX1540.25.3.090 | 180.25903.81               |
| M 25 x 1,5 | 8 - 10  | 2 | 34 | 33 | 13 | EX1540.25.2.100 | 180.25102.81               |
| M 32 x 1,5 | 6 - 7   | 6 | 41 | 35 | 15 | EX1540.32.6.070 | 180.32706.81               |
| M 32 x 1,5 | 7,5 - 9 | 4 | 41 | 35 | 15 | EX1540.32.4.090 | 180.32904.81               |
| M 40 x 1,5 | 8 - 9   | 7 | 50 | 40 | 15 | EX1540.40.7.090 | 180.40907.81 <sup>1)</sup> |
| M 40 x 1,5 | 14 - 15 | 2 | 50 | 40 | 15 | EX1540.40.2.150 | 180.40152.81 <sup>1)</sup> |
| M 50 x 1,5 | 9 - 10  | 4 | 60 | 42 | 16 | EX1540.50.4.100 | 180.50104.81 <sup>1)</sup> |
| M 63 x 1,5 | 11 - 12 | 6 | 75 | 48 | 16 | EX1540.63.6.120 | 180.63126.81 <sup>1)</sup> |
| M 63 x 1,5 | 17 - 18 | 3 | 75 | 48 | 16 | EX1540.63.3.180 | 180.63183.81 <sup>1)</sup> |





**Progress-P / MF-EX (Pg)**

**Material:** PA glasfaserverstärkt  
**Farbe:** grau RAL 7035 / schwarz RAL 9005  
**Dichteinsatz:** TPE / NBR<sup>1)</sup>  
**Einsatztemperatur:** -20°C bis 85°C  
**Schutzart:** IP 66 / IP 68

**Material:** PA (nylon), glass-fibre reinforced  
**Colours:** grey RAL 7035 / black RAL 9005  
**Sealing insert:** TPE / NBR<sup>1)</sup>  
**Temperature range:** -20°C to 85°C  
**Protection type:** IP 66 / IP 68

**Ex e**

**180.80**  
**180.81**

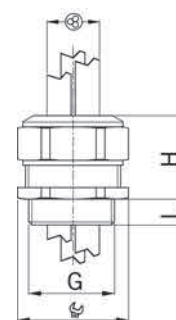
**Zertifikate:** SEV 15 ATEX 0152 X  
IECEX SEV 15.0019 X

**Certificates:** BVS 14 ATEX E 025 X  
IECEX BVS 14.0020 X



**II 2G Ex eb IIC Gb**  
**II 2D Ex tb IIIC Db**

| Gewinde<br>Entry Thread<br>AG |           |   |    | H<br>mm | GL<br>mm | Progress GFK<br>Multi EX | HUGRO No.                  |
|-------------------------------|-----------|---|----|---------|----------|--------------------------|----------------------------|
| Pg 9                          | 1 - 1,5   | 4 | 21 | 26      | 12       | EX1571.09.4.015          | 180.09154.80 <sup>1)</sup> |
| Pg 9                          | 2 - 3     | 2 | 21 | 26      | 12       | EX1571.09.2.030          | 180.09302.80               |
| Pg 11                         | 2 - 3     | 3 | 24 | 28      | 12       | EX1571.11.3.030          | 180.11303.80 <sup>1)</sup> |
| Pg 11                         | 3,5 - 5   | 2 | 24 | 28      | 12       | EX1571.11.2.050          | 180.11502.80               |
| Pg 13                         | 2,5 - 4   | 3 | 27 | 28      | 13       | EX1571.13.3.040          | 180.13403.80 <sup>1)</sup> |
| Pg 13                         | 3,5 - 5   | 2 | 27 | 28      | 13       | EX1571.13.2.050          | 180.13502.80               |
| Pg 16                         | 2,5 - 3   | 6 | 27 | 28      | 13       | EX1571.16.6.030          | 180.16306.80               |
| Pg 16                         | 4,5 - 6   | 3 | 27 | 28      | 13       | EX1571.16.3.060          | 180.16603.80               |
| Pg 21                         | 5,5 - 7   | 4 | 34 | 33      | 13       | EX1571.21.4.070          | 180.21704.80               |
| Pg 21                         | 7,5 - 9   | 3 | 34 | 33      | 13       | EX1571.21.3.090          | 180.21903.80               |
| Pg 29                         | 5,5 - 6,5 | 6 | 41 | 36      | 13       | EX1571.29.6.065          | 180.29656.80 <sup>1)</sup> |
| Pg 29                         | 8 - 9     | 3 | 41 | 36      | 13       | EX1571.29.3.090          | 180.29903.80 <sup>1)</sup> |
| Pg 36                         | 9 - 10    | 4 | 55 | 42      | 16       | EX1571.36.4.100          | 180.36104.80 <sup>1)</sup> |
| Pg 36                         | 14 - 15   | 2 | 55 | 42      | 16       | EX1571.36.2.150          | 180.36152.80 <sup>1)</sup> |
| Pg 42                         | 9 - 10    | 4 | 60 | 42      | 16       | EX1571.42.4.100          | 180.42104.80 <sup>1)</sup> |
| Pg 48                         | 11 - 12   | 6 | 70 | 46      | 16       | EX1571.48.6.120          | 180.48126.80 <sup>1)</sup> |
| Pg 48                         | 17 - 18   | 3 | 70 | 46      | 16       | EX1571.48.3.180          | 180.48183.80 <sup>1)</sup> |



| schwarz RAL 9005 / black RAL 9005 |           |   |    |    |    |                 |                            |
|-----------------------------------|-----------|---|----|----|----|-----------------|----------------------------|
| Pg 9                              | 1 - 1,5   | 4 | 21 | 26 | 12 | EX1540.09.4.015 | 180.09154.81 <sup>1)</sup> |
| Pg 9                              | 2 - 3     | 2 | 21 | 26 | 12 | EX1540.09.2.030 | 180.09302.81               |
| Pg 11                             | 2 - 3     | 3 | 24 | 28 | 12 | EX1540.11.3.030 | 180.11303.81 <sup>1)</sup> |
| Pg 11                             | 3,5 - 5   | 2 | 24 | 28 | 12 | EX1540.11.2.050 | 180.11502.81               |
| Pg 13                             | 2,5 - 4   | 3 | 27 | 28 | 13 | EX1540.13.3.040 | 180.13403.81 <sup>1)</sup> |
| Pg 13                             | 3,5 - 5   | 2 | 27 | 28 | 13 | EX1540.13.2.050 | 180.13502.81               |
| Pg 16                             | 2,5 - 3   | 6 | 27 | 28 | 13 | EX1540.16.6.030 | 180.16306.81               |
| Pg 16                             | 4,5 - 6   | 3 | 27 | 28 | 13 | EX1540.16.3.060 | 180.16603.81               |
| Pg 21                             | 5,5 - 7   | 4 | 34 | 33 | 13 | EX1540.21.4.070 | 180.21704.81               |
| Pg 21                             | 7,5 - 9   | 3 | 34 | 33 | 13 | EX1540.21.3.090 | 180.21903.81               |
| Pg 29                             | 5,5 - 6,5 | 6 | 41 | 36 | 13 | EX1540.29.6.065 | 180.29656.81 <sup>1)</sup> |
| Pg 29                             | 8-9       | 3 | 41 | 36 | 13 | EX1540.29.3.090 | 180.29903.81 <sup>1)</sup> |
| Pg 36                             | 9 - 10    | 4 | 55 | 42 | 16 | EX1540.36.4.100 | 180.36104.81 <sup>1)</sup> |
| Pg 36                             | 14 - 15   | 2 | 55 | 42 | 16 | EX1540.36.2.150 | 180.36152.81 <sup>1)</sup> |
| Pg 42                             | 9 - 10    | 4 | 60 | 42 | 16 | EX1540.42.4.100 | 180.42104.81 <sup>1)</sup> |
| Pg 48                             | 11 - 12   | 6 | 70 | 46 | 16 | EX1540.48.6.120 | 180.48126.81 <sup>1)</sup> |
| Pg 48                             | 17 - 18   | 3 | 70 | 46 | 16 | EX1540.48.3.180 | 180.48183.81 <sup>1)</sup> |



WAZU-EX / Active

Material: PA, V0 nach UL 94  
 Farbe: schwarz / blau-schwarz  
 Dichteinsatz: NBR  
 O-Ring: NBR  
 Einsatztemperatur: -20°C bis 85°C  
 Schutzart: IP 68 - 10 bar / 30 min  
 Zertifikate: BVS 14 ATEX E 025 X  
 IECEx BVS 14.0020 X

Material: PA (nylon), V0 acc. to UL 94  
 Colour: black / blue-black  
 Sealing insert: NBR  
 O-ring: NBR  
 Temperature range: -20°C to 85°C  
 Protection type: IP 68 - 10 bar / 30 min  
 Certificates: BVS 14 ATEX E 025 X  
 IECEx BVS 14.0020 X



184.11 184.31  
 184.14 184.34



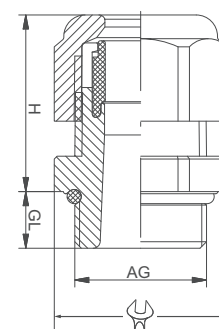
II 2G Ex eb IIC Gb  
 II 1D Ex ta IIIC Da

Class I Div 2 Groups A, B, C, D  
 Class II Div 1 Groups E, F, G

Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG                |       |         | H<br>mm | GL<br>mm | HSK-K-Ex-Active | HUGRO No.      |
|--|-------|---------|---------|----------|-----------------|----------------|
| kurzes Anschlussgewinde / short entry thread |       |         |         |          |                 |                |
| M 12 x 1,5                                   | 2-5   | 15      | 21      | 8        | 1.292.120x.51   | 184.1505.AC.1x |
| M 12 x 1,5                                   | 3-6,5 | 15      | 21      | 8        | 1.292.120x.50   | 184.1507.AC.1x |
| M 16 x 1,5                                   | 3-6   | 19      | 22      | 8        | 1.292.160x.51   | 184.1706.AC.1x |
| M 16 x 1,5                                   | 4-8   | 19      | 22      | 8        | 1.292.160x.50   | 184.1708.AC.1x |
| M 16 x 1,5                                   | 3-7   | 22      | 25      | 8        | 1.292.161x.51   | 184.1707.AC.1x |
| M 16 x 1,5                                   | 5-10  | 22      | 25      | 8        | 1.292.161x.50   | 184.1710.AC.1x |
| M 20 x 1,5                                   | 5-9   | 24      | 27      | 9        | 1.292.200x.51   | 184.2009.AC.1x |
| M 20 x 1,5                                   | 6-12  | 24      | 27      | 9        | 1.292.200x.50   | 184.2012.AC.1x |
| M 20 x 1,5                                   | 7-12  | 27      | 28      | 9        | 1.292.201x.51*  | 184.2312.AC.1x |
| M 20 x 1,5                                   | 10-14 | 27      | 28      | 9        | 1.292.201x.50*  | 184.2014.AC.1x |
| M 25 x 1,5                                   | 9-16  | 33      | 31      | 11       | 1.292.250x.51   | 184.2516.AC.1x |
| M 25 x 1,5                                   | 13-18 | 33      | 31      | 11       | 1.292.250x.50   | 184.2518.AC.1x |
| M 32 x 1,5                                   | 13-20 | 42      | 39      | 11       | 1.292.320x.51   | 184.3220.AC.1x |
| M 32 x 1,5                                   | 18-25 | 42      | 39      | 11       | 1.292.320x.50   | 184.3225.AC.1x |
| M 40 x 1,5                                   | 20-26 | 53      | 48      | 13       | 1.292.400x.51   | 184.4026.AC.1x |
| M 40 x 1,5                                   | 22-32 | 53      | 48      | 13       | 1.292.400x.50   | 184.4032.AC.1x |
| M 50 x 1,5                                   | 25-31 | 60      | 49      | 13       | 1.292.500x.51   | 184.5031.AC.1x |
| M 50 x 1,5                                   | 32-38 | 60      | 49      | 13       | 1.292.500x.50   | 184.5038.AC.1x |
| M 63 x 1,5                                   | 29-35 | 65/68   | 49      | 14       | 1.292.630x.51   | 184.6335.AC.1x |
| M 63 x 1,5                                   | 37-44 | 65 / 68 | 49      | 14       | 1.292.630x.50   | 184.6344.AC.1x |



Bestell-Nr. sind zu ergänzen:  
 Reference numbers have to be completed:

|                           |            |      |
|---------------------------|------------|------|
| schwarz / black           | x = 1 (6*) | = 11 |
| blau-schwarz / blue-black | x = 2 (7*) | = 14 |

langes Anschlussgewinde / long entry thread

|            |       |         |    |    |                |                |
|------------|-------|---------|----|----|----------------|----------------|
| M 12 x 1,5 | 2-5   | 15      | 21 | 15 | 1.292.120x.31  | 184.1505.AC.3x |
| M 12 x 1,5 | 3-6,5 | 15      | 21 | 15 | 1.292.120x.30  | 184.1507.AC.3x |
| M 16 x 1,5 | 3-6   | 19      | 22 | 15 | 1.292.160x.31  | 184.1706.AC.3x |
| M 16 x 1,5 | 4-8   | 19      | 22 | 15 | 1.292.160x.30  | 184.1708.AC.3x |
| M 16 x 1,5 | 3-7   | 22      | 25 | 15 | 1.292.161x.31  | 184.1707.AC.3x |
| M 16 x 1,5 | 5-10  | 22      | 25 | 15 | 1.292.161x.30  | 184.1710.AC.3x |
| M 20 x 1,5 | 5-9   | 24      | 27 | 15 | 1.292.200x.31  | 184.2009.AC.3x |
| M 20 x 1,5 | 6-12  | 24      | 27 | 15 | 1.292.200x.30  | 184.2012.AC.3x |
| M 20 x 1,5 | 7-12  | 27      | 28 | 15 | 1.292.201x.31* | 184.2312.AC.3x |
| M 20 x 1,5 | 10-14 | 27      | 28 | 15 | 1.292.201x.30* | 184.2014.AC.3x |
| M 25 x 1,5 | 9-16  | 33      | 31 | 15 | 1.292.250x.31  | 184.2516.AC.3x |
| M 25 x 1,5 | 13-18 | 33      | 31 | 15 | 1.292.250x.30  | 184.2518.AC.3x |
| M 32 x 1,5 | 13-20 | 42      | 39 | 15 | 1.292.320x.31  | 184.3220.AC.3x |
| M 32 x 1,5 | 18-25 | 42      | 39 | 15 | 1.292.320x.30  | 184.3225.AC.3x |
| M 40 x 1,5 | 20-26 | 53      | 48 | 18 | 1.292.400x.31  | 184.4026.AC.3x |
| M 40 x 1,5 | 22-32 | 53      | 48 | 18 | 1.292.400x.30  | 184.4032.AC.3x |
| M 50 x 1,5 | 25-31 | 60      | 49 | 18 | 1.292.500x.31  | 184.5031.AC.3x |
| M 50 x 1,5 | 32-38 | 60      | 49 | 18 | 1.292.500x.30  | 184.5038.AC.3x |
| M 63 x 1,5 | 29-35 | 65/68   | 49 | 18 | 1.292.630x.31  | 184.6335.AC.3x |
| M 63 x 1,5 | 37-44 | 65 / 68 | 49 | 18 | 1.292.630x.30  | 184.6344.AC.3x |

Bestell-Nr. sind zu ergänzen:  
 Reference numbers have to be completed:

|                           |            |      |
|---------------------------|------------|------|
| schwarz / black           | x = 1 (6*) | = 31 |
| blau-schwarz / blue-black | x = 2 (7*) | = 34 |

**WAZU-EX / Active (NPT)**

Material: PA, V0 nach UL 94  
 Farbe: schwarz / blau-schwarz  
 Dichteinsatz: NBR  
 O-Ring: NBR  
 Einsatztemperatur: -20 °C bis 85 °C  
 Schutzart: IP 68 - 10 bar / 30 min  
 Zertifikate: BVS 14 ATEX E 025 X  
 IECEx BVS 14.0020 X

Material: PA (nylon), V0 acc. to UL 94  
 Colour: black / blue-black  
 Sealing insert: NBR  
 O-ring: NBR  
 Temperature range: -20 °C to 85 °C  
 Protection type: IP 68 - 10 bar / 30 min  
 Certificates: BVS 14 ATEX E 025 X  
 IECEx BVS 14.0020 X

**Ex e**

**184.11**  
**184.14**

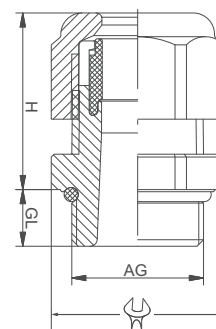
Weitere internationale Zulassungen vorhanden

Further international approvals available



**II 2G Ex eb IIC Gb**  
**II 1D Ex ta IIIC Da**  
  
Class I Div 2 Groups A, B, C, D  
Class II Div 1 Groups E, F, G

| Gewinde<br>Entry Thread<br>AG |         |         | H<br>mm | GL<br>mm | HSK-K-Ex-Active | HUGRO No.      |
|-------------------------------|---------|---------|---------|----------|-----------------|----------------|
| NPT 3/8"                      | 2 – 6   | 19 / 22 | 22      | 15       | 1.292.380x.71   | 184.3906.AC.1x |
| NPT 3/8"                      | 4 – 8   | 19 / 22 | 22      | 15       | 1.292.380x.70   | 184.3908.AC.1x |
| NPT 1/2"                      | 5 – 9   | 24      | 27      | 13       | 1.292.120x.71   | 184.1909.AC.1x |
| NPT 1/2"                      | 6 – 12  | 24      | 27      | 13       | 1.292.120x.70   | 184.1912.AC.1x |
| NPT 1/2" (16)                 | 7 – 12  | 27      | 28      | 13       | 1.292.121x.71*  | 184.1913.AC.1x |
| NPT 1/2" (16)                 | 10 – 14 | 27      | 28      | 13       | 1.292.121x.70*  | 184.1914.AC.1x |
| NPT 3/4"                      | 9 – 16  | 33      | 31      | 14       | 1.292.340x.71   | 184.3516.AC.1x |
| NPT 3/4"                      | 13 – 18 | 33      | 31      | 14       | 1.292.340x.70   | 184.3518.AC.1x |
| NPT 1"                        | 13 – 20 | 42      | 39      | 19       | 1.292.100x.71   | 184.7520.AC.1x |
| NPT 1"                        | 18 – 25 | 42      | 39      | 19       | 1.292.100x.70   | 184.7525.AC.1x |
| NPT 1 1/4"                    | 13 – 20 | 42 / 46 | 39      | 16       | 1.292.540x.71   | 184.7620.AC.1x |
| NPT 1 1/4"                    | 18 – 25 | 42 / 46 | 39      | 16       | 1.292.540x.70   | 184.7625.AC.1x |
| NPT 1 1/2"                    | 20 – 26 | 53      | 48      | 20       | 1.292.640x.71   | 184.7726.AC.1x |
| NPT 1 1/2"                    | 22 – 32 | 53      | 48      | 20       | 1.292.640x.70   | 184.7732.AC.1x |



Bestell-Nr. sind zu ergänzen:

Reference numbers have to be completed:

schwarz / black x = 1 (6\*) = 11  
 blau-schwarz / blue-black x = 2 (7\*) = 14

**WAZU-MF/EX-Active**

Material: PA, V0 nach UL 94  
Farbe: schwarz / blau-schwarz  
Dichteinsatz: Elastomer  
O-Ring: NBR  
Einsatztemperatur: -20°C bis 85°C  
Schutzart: IP 68 - 10 bar / 30 min  
Zertifikate: BVS 14 ATEX E 025 X  
IECEx BVS 14.0020 X

Material: PA (nylon), V0 acc. to UL 94  
Colours: black / blue-black  
Sealing insert: elastomer  
O-ring: NBR  
Temperature range: -20°C to 85°C  
Protection type: IP 68 - 10 bar / 30 min  
Certificates: BVS 14 ATEX E 025 X  
IECEx BVS 14.0020 X

**Ex e**

**184.81**  
**184.84**



Weitere internationale Zulassungen vorhanden

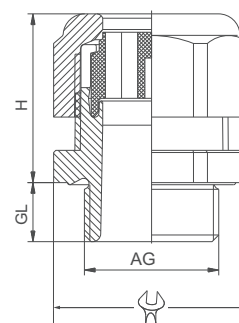
Further international approvals available



**II 2G Ex eb IIC Gb**  
**II 1D Ex ta IIIC Da**

Class I Div 2 Groups A, B, C, D  
Class II Div 1 Groups E, F, G

| Gewinde<br>Entry Thread<br>AG |  |  | H<br>mm | GL<br>mm | HSK-K-Multi-<br>Ex-Active | HUGRO No.       |
|-------------------------------|---|---|---------|----------|---------------------------|-----------------|
| M 16 x 1,5                    | 4 x 1,4   | 19  | 22      | 8        | 1.581.1600.5x             | 184.17144.AC.8x |
| M 16 x 1,5                    | 2 x 3   | 19  | 22      | 8        | 1.581.1601.5x             | 184.17302.AC.8x |
| M 20 x 1,5                    | 6 x 3   | 24  | 27      | 9        | 1.581.2001.5x             | 184.20306.AC.8x |
| M 20 x 1,5                    | 2 x 5   | 24  | 27      | 9        | 1.581.2003.5x             | 184.20502.AC.8x |
| M 25 x 1,5                    | 4 x 6   | 33  | 30      | 11       | 1.581.2500.5x             | 184.25604.AC.8x |
| M 25 x 1,5                    | 3 x 7   | 33  | 30      | 11       | 1.581.2501.5x             | 184.25703.AC.8x |
| M 32 x 1,5                    | 6 x 6,5   | 42  | 38      | 11       | 1.581.3200.5x             | 184.32656.AC.8x |
| M 32 x 1,5                    | 4 x 9   | 42  | 38      | 11       | 1.581.3201.5x             | 184.32904.AC.8x |
| M 40 x 1,5                    | 7 x 9   | 53  | 45      | 13       | 1.581.4001.5x             | 184.40907.AC.8x |
| M 40 x 1,5                    | 2 x 15  | 53  | 45      | 13       | 1.581.4003.5x             | 184.40152.AC.8x |
| M 63 x 1,5                    | 6 x 12  | 68 / 65   | 47      | 14       | 1.581.6301.5x             | 184.63126.AC.8x |
| M 63 x 1,5                    | 3 x 18  | 68 / 65   | 47      | 14       | 1.581.6302.5x             | 184.63183.AC.8x |
|                               |   |   |         |          |                           |                 |
| 3/8" NPT                      | 4 x 1,4   | 22 / 19   | 22      | 15       | 1.581.3800.7x             | 184.39144.AC.8x |
| 3/8" NPT                      | 2 x 3   | 22 / 19   | 22      | 15       | 1.581.3801.7x             | 184.39302.AC.8x |
| 1/2" NPT                      | 3 x 4   | 24  | 27      | 13       | 1.581.1202.7x             | 184.19403.AC.8x |
| 1/2" NPT                      | 2 x 5   | 24  | 27      | 13       | 1.581.1203.7x             | 184.19502.AC.8x |
| 3/4" NPT                      | 4 x 6   | 33  | 30      | 14       | 1.581.3400.7x             | 184.35604.AC.8x |
| 3/4" NPT                      | 3 x 7   | 33  | 30      | 14       | 1.581.3401.7x             | 184.35703.AC.8x |
| 1" NPT                        | 6 x 6,5   | 42  | 38      | 19       | 1.581.1000.7x             | 184.75656.AC.8x |
| 1" NPT                        | 4 x 9   | 42  | 38      | 19       | 1.581.1001.7x             | 184.75904.AC.8x |
| 1 1/2" NPT                    | 5 x 9   | 53  | 45      | 20       | 1.581.6400.7x             | 184.77905.AC.8x |
| 1 1/2" NPT                    | 7 x 9   | 53  | 45      | 20       | 1.581.6401.7x             | 184.77907.AC.8x |



**Bestell-Nr. sind zu ergänzen:**

Reference numbers have to be completed:

|                           |       |      |
|---------------------------|-------|------|
| schwarz / black           | x = 1 | = 81 |
| blau-schwarz / blue-black | x = 2 | = 84 |

Weitere Ausführungen auf Anfrage Further versions on request

**Montagehinweis:**

Der Kabeldurchmesser darf 20% des Bohrungsdurchmessers, max. jedoch 1 mm, unterschreiten.

**Notice:**

Cable diameter should not be less than 20% of hole diameter but the difference between hole and cable diameter should never exceed 1 mm

WAZU-FK/EX-Active

Material: PA, V0 nach UL 94  
Farbe: schwarz / blau-schwarz  
Dichteinsatz: Elastomer  
O-Ring: NBR  
Einsatztemperatur: -20 °C bis 85 °C  
Schutzart: IP 68  
Zertifikate: BVS 14 ATEX E 025 X  
IECEX BVS 14.0020 X

Material: PA (nylon), V0 acc. to UL 94  
Colour: black / blue-black  
Sealing insert: elastomer  
O-ring: NBR  
Temperature range: -20 °C to 85 °C  
Protection type: IP 68  
Certificates: BVS 14 ATEX E 025 X  
IECEX BVS 14.0020 X

**Ex e** **184.84**  
**184.86**



Weitere internationale Zulassungen vorhanden

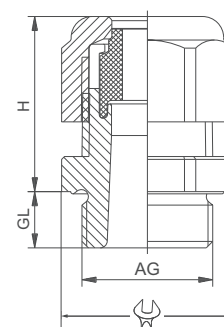
Further international approvals available



II 2G Ex eb IIC Gb  
II 1D Ex ta IIIC Da

Class I Div 2 Groups A, B, C, D  
Class II Div 1 Groups E, F, G

| Gewinde<br>Entry Thread<br>AG | <br>mm | <br>mm | H<br>mm | GL<br>mm | HSK-K-FLAKA-<br>Ex-Active | HUGRO No.      |
|-------------------------------|---|---|---------|----------|---------------------------|----------------|
| M 20 x 1,5                    | 12,0 x 7  | 27  | 28      | 9        | 1.582.2017.5x             | 184.2002.AC.8x |
| M 20 x 1,5                    | 14,0 x 6  | 27  | 28      | 9        | 1.582.2018.5x             | 184.2003.AC.8x |
| M 25 x 1,5                    | 14,0 x 6  | 33  | 30      | 11       | 1.582.2500.5x             | 184.2501.AC.8x |
| M 25 x 1,5                    | 14,0 x 7  | 33  | 30      | 11       | 1.582.2501.5x             | 184.2502.AC.8x |
| M 32 x 1,5                    | 22,0 x 8  | 42  | 38      | 13       | 1.582.3200.5x             | 184.3201.AC.8x |
| M 40 x 1,5                    | 28,5 x 10   | 53  | 45      | 13       | 1.582.4000.5x             | 184.4001.AC.8x |
| M 40 x 1,5                    | 29,0 x 5,5  | 53  | 45      | 13       | 1.582.4001.5x             | 184.4002.AC.8x |
| M 40 x 1,5                    | 30,5 x 12   | 53  | 45      | 13       | 1.582.4002.5x             | 184.4003.AC.8x |
| M 40 x 1,5                    | 31,0 x 7,5  | 53  | 45      | 13       | 1.582.4003.5x             | 184.4004.AC.8x |
| M 50 x 1,5                    | 33,5 x 11,5   | 60  | 47      | 13       | 1.582.5000.5x             | 184.5001.AC.8x |
| 1/2" NPT                      | 12,0 x 7  | 27  | 28      | 13       | 1.582.1217.7x             | 184.1902.AC.8x |
| 1/2" NPT                      | 14,0 x 6  | 27  | 28      | 13       | 1.582.1218.7x             | 184.1903.AC.8x |
| 3/4" NPT                      | 14,0 x 6  | 33  | 30      | 14       | 1.582.3400.7x             | 184.3501.AC.8x |
| 3/4" NPT                      | 14,0 x 7  | 33  | 30      | 14       | 1.582.3401.7x             | 184.3502.AC.8x |
| 1" NPT                        | 22,0 x 8  | 42  | 38      | 19       | 1.582.1000.7x             | 154.7501.AC.8x |
| 1 1/4" NPT                    | 22,0 x 8  | 46/42   | 38      | 16       | 1.582.5400.7x             | 184.7601.AC.8x |
| 1 1/2" NPT                    | 28,5 x 10   | 53  | 45      | 20       | 1.582.6400.7x             | 184.7701.AC.8x |
| 1 1/2" NPT                    | 29,0 x 5,5  | 53  | 45      | 20       | 1.582.6401.7x             | 184.7702.AC.8x |
| 1 1/2" NPT                    | 30,5 x 12   | 53  | 45      | 20       | 1.582.6402.7x             | 184.7703.AC.8x |
| 1 1/2" NPT                    | 31,0 x 7,5  | 53  | 45      | 20       | 1.582.6403.7x             | 184.7704.AC.8x |



Bestell-Nr. sind zu ergänzen:

Reference numbers have to be completed:

|                           |       |      |
|---------------------------|-------|------|
| schwarz / black           | x = 1 | = 86 |
| blau-schwarz / blue-black | x = 2 | = 84 |

Weitere Ausführungen auf Anfrage Further versions on request

Einbauhinweis Flachkabel-Dichteinsatz:

Das verwendete Kabel darf maximal 1 mm in der Länge und maximal 1 mm in der Breite den vom Hersteller angegebenen Klemmbereich unterschreiten. Die Geometrien des Kabels und des Lochbildes müssen übereinstimmen (an den Seiten halbrund oder gerade).

Installation Instructions flat cable inserts:

The clamping range of the cable used may not deviate from the manufacturer-specified minimum values by more than 1 mm in length and 1 mm in width. The geometries of the cable and the insert hole must be compatible (semicircular or straight at the sides).

WAZU-EZ

Material: PA + Al  
Farbe: schwarz  
Dichteinsatz: NBR  
O-Ring: NBR  
Einsatztemperatur: -20°C bis 70°C  
Schutzart: IP 68 - 10 bar / 30 min,  
IP 69 K

Material: PA + Al  
Colour: black  
Sealing insert: NBR  
O-ring: NBR  
Temperature range: -20°C to 70°C  
Protection type: IP 68 - 10 bar / 30 min,  
IP 69 K



184.EZ

Zertifikate: KEMA 99 ATEX 6971 X  
IECEX KEM 07.0014 X

Certificates: KEMA 99 ATEX 6971 X  
IECEX KEM 07.0014 X

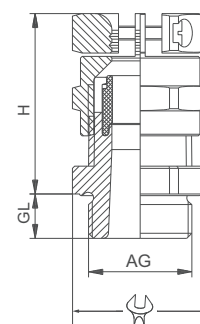


II 1D Ex ta IIIC Da  
II 2G Ex eb IIC Gb

Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG | mm      | mm    | H<br>mm | GL<br>mm | HSK-K-MZ-Ex   | HUGRO No.   |
|-------------------------------|---------|-------|---------|----------|---------------|-------------|
| M 16 x 1,5                    | 4 - 8   | 19    | 29      | 15       | 1.215.1601.50 | 184.1708.EZ |
| M 20 x 1,5                    | 6 - 12  | 24    | 35      | 15       | 1.215.2001.50 | 184.2012.EZ |
| M 25 x 1,5                    | 13 - 18 | 33    | 41      | 11       | 1.215.2501.50 | 184.2518.EZ |
| M 32 x 1,5                    | 18 - 25 | 42    | 49      | 11       | 1.215.3201.50 | 184.3225.EZ |
| M 40 x 1,5                    | 22 - 32 | 53    | 58      | 13       | 1.215.4001.50 | 184.4032.EZ |
| M 50 x 1,5                    | 32 - 38 | 60    | 61      | 13       | 1.215.5001.50 | 184.5038.EZ |
| M 63 x 1,5                    | 37 - 44 | 68/65 | 62      | 14       | 1.215.6301.50 | 184.6344.EZ |
| Pg 9                          | 4 - 8   | 19    | 29      | 15       | 1.215.0901.14 | 184.0908.EZ |
| Pg 11                         | 6 - 10  | 22    | 32      | 15       | 1.215.1101.14 | 184.1110.EZ |
| Pg 13,5                       | 6 - 12  | 24    | 35      | 15       | 1.215.1301.14 | 184.1312.EZ |
| Pg 16                         | 10 - 14 | 27    | 37      | 10       | 1.215.1601.14 | 184.1614.EZ |
| Pg 21                         | 13 - 18 | 33    | 41      | 11       | 1.215.2101.14 | 184.2118.EZ |
| Pg 29                         | 18 - 25 | 42    | 49      | 11       | 1.215.2901.14 | 184.2925.EZ |
| Pg 36                         | 22 - 32 | 53    | 58      | 13       | 1.215.3601.14 | 184.3632.EZ |
| Pg 42                         | 32 - 38 | 60    | 61      | 13       | 1.215.4201.14 | 184.4238.EZ |
| Pg 48                         | 37 - 44 | 65    | 62      | 14       | 1.215.4801.14 | 184.4844.EZ |



## BXA Barrier

Material: Messing vernickelt  
 Klemmring: PTFE  
 Dichtungsmittel: 2-Komponenten Epoxidharz  
 Einschraubhülse: Messing vernickelt  
 O-Ringe: Silikon  
 Einsatztemperatur: -60 °C bis 130 °C  
 Schutzart: IP 66 / IP 67

Material: brass, nickel-plated  
 Clamping insert: PTFE  
 Sealant: 2-component epoxy resin  
 Screw-in sleeve: brass, nickel-plated  
 O-rings: Silicone  
 Temperature range: -60 °C up to +130 °C  
 Protection type: IP 66 / IP 67

Zertifikate: CESI 14 ATEX 069 X  
 IECEx CES 15.0001 X


Certificates: CESI 14 ATEX 069 X  
 IECEx CES 15.0001 X

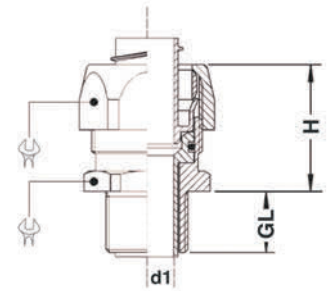


262.00



Ex db IIC Gb  
 Ex eb IIC Gb  
 Ex tb III C Db

| Gewinde<br>Entry Thread<br>AG | für Schutzschläuche<br>for conduit references | <br>mm | d1<br>mm | H<br>mm | GL<br>mm | TYP BXA   | HUGRO No.   |
|-------------------------------|---|---|----------|---------|----------|-----------|-------------|
| M16x1,5                       | 44x.1218.xx                                   | 26/25   | 10,4     | 29      | 15       | 836.016.0 | 262.1738.00 |
| M20x1,5                       | 44x.1621.xx                                   | 30/28   | 13,8     | 31      | 15       | 836.020.0 | 262.2012.00 |
| M25x1,5                       | 44x.2126.xx                                   | 35/34   | 18,5     | 32      | 15       | 836.025.0 | 262.2534.00 |
| M32x1,5                       | 44x.2633.xx                                   | 45/43   | 23,8     | 33      | 15       | 836.032.0 | 262.3285.00 |
| M40x1,5                       | 44x.3542.xx                                   | 55/52   | 31,9     | 38      | 15       | 836.040.0 | 262.4087.00 |
| Ohne O-Ring                   |   | Whitout o-ring  |          |         |          |           |             |
| 1/2" NPT                      | 44x.1218.xx                                   | 26/25   | 10,4     | 29      | 20       | 837.012.0 | 262.1938.00 |
| 1/2" NPT                      | 44x.1621.xx                                   | 30/28   | 13,8     | 31      | 20       | 837.016.0 | 262.1912.00 |
| 3/4" NPT                      | 44x.2126.xx                                   | 35/34   | 18,5     | 32      | 21       | 837.020.0 | 262.3534.00 |
| 1" NPT                        | 44x.2633.xx                                   | 45/43   | 23,8     | 33      | 25       | 837.026.0 | 262.7585.00 |
| 1 1/4" NPT                    | 44x.3542.xx                                   | 55/52   | 31,9     | 38      | 26       | 837.035.0 | 262.7687.00 |



## BXA-316 Barrier

Material: Edelstahl (1.4401)  
 Klemmring: PTFE  
 Dichtungsmittel: 2-Komponenten Epoxidharz  
 Einschraubhülse: Messing vernickelt  
 O-Ringe: Silikon  
 Einsatztemperatur: -60 °C bis 130 °C  
 Schutzart: IP 66 / IP 67

Material: stainless steel (1.4401)  
 Clamping insert: PTFE  
 Sealant: 2-component epoxy resin  
 Screw-in sleeve: brass, nickel-plated  
 O-rings: Silicone  
 Temperature range: -60 °C up to +130 °C  
 Protection type: IP 66 / IP 67


Zertifikate: CESI 14 ATEX 069 X  
 IECEx CES 15.0001 X

Certificates: CESI 14 ATEX 069 X  
 IECEx CES 15.0001 X



Ex db IIC Gb  
 Ex eb IIC Gb  
 Ex tb III C Db

262.40

| Gewinde<br>Entry Thread<br>AG | für Schutzschläuche<br>for conduit references | <br>mm | d1<br>mm | H<br>mm | GL<br>mm | TYP BXA-316 | HUGRO No.   |
|-------------------------------|---|---|----------|---------|----------|-------------|-------------|
| M16x1,5                       | 44x.1218.xx                                   | 26/25   | 10,4     | 29      | 15       | 836.016.9   | 262.1738.40 |
| M20x1,5                       | 44x.1621.xx                                   | 30/28   | 13,8     | 31      | 15       | 836.020.9   | 262.2012.40 |
| M25x1,5                       | 44x.2126.xx                                   | 35/34   | 18,5     | 32      | 15       | 836.025.9   | 262.2534.40 |
| M32x1,5                       | 44x.2633.xx                                   | 45/43   | 23,8     | 33      | 15       | 836.032.9   | 262.3285.40 |
| M40x1,5                       | 44x.3542.xx                                   | 55/52   | 31,9     | 38      | 15       | 836.040.9   | 262.4087.40 |
| Ohne O-Ring                   |   | Whitout o-ring  |          |         |          |             |             |
| 1/2" NPT                      | 44x.1218.xx                                   | 26/25   | 10,4     | 29      | 20       | 837.012.9   | 262.1938.40 |
| 1/2" NPT                      | 44x.1621.xx                                   | 30/28   | 13,8     | 31      | 20       | 837.016.9   | 262.1912.40 |
| 3/4" NPT                      | 44x.2126.xx                                   | 35/34   | 18,5     | 32      | 21       | 837.020.9   | 262.3534.40 |
| 1" NPT                        | 44x.2633.xx                                   | 45/43   | 23,8     | 33      | 25       | 837.026.9   | 262.7585.40 |
| 1 1/4" NPT                    | 44x.3542.xx                                   | 55/52   | 31,9     | 38      | 26       | 837.035.9   | 262.7687.40 |



|                    |   |                    |   |
|--------------------|---|--------------------|---|
| Material:          | Messing<br>Edelstahl (1.4401)             | Material:          | brass<br>stainless steel (1.4401)         |
| Einsatztemperatur: | -60°C bis 200°C                           | Temperature range: | -60°C to 200°C                            |
| Schutzart:         | IP 66 / IP 68                             | Protection type:   | IP 66 / IP 68                             |
| Zertifikate:       | ITS 16 ATEX 101340U<br>IECEx ITS 16.0015U | Certificates:      | ITS 16 ATEX 101340U<br>IECEx ITS 16.0015U |



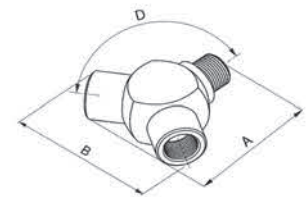
333.00  
333.40



Ex db IIC Gb  
Ex eb IIC Gb  
Ex tb IIIC Db IP 6X



| Gewinde<br>Entry Thread<br>AG | GL / AG<br>mm | IG<br>mm       | A (max.)<br>mm | B (max.)<br>mm | D<br>Winkel<br>angle | A-Nummer<br>A-Reference | HUGRO No.    |
|-------------------------------|---------------|----------------|----------------|----------------|----------------------|-------------------------|--------------|
| M 16 x 1,5                    | 15            | 2 x M 16 x 1,5 | 65             | 75             | 120°                 | AYUx00303               | 333.17217.x0 |
| M 20 x 1,5                    | 15            | 2 x M 20 x 1,5 | 65             | 75             | 120°                 | AYUx00404               | 333.20220.x0 |
| M 25 x 1,5                    | 15            | 2 x M 25 x 1,5 | 67             | 78             | 120°                 | AYUx00505               | 333.25225.x0 |
| M 32 x 1,5                    | 15            | 2 x M 32 x 1,5 | 70             | 81             | 120°                 | AYUx00606               | 333.32232.x0 |
| M 40 x 1,5                    | 15            | 2 x M 40 x 1,5 | 89             | 102            | 120°                 | AYUx00707               | 333.40240.x0 |
| M 50 x 1,5                    | 15            | 2 x M 50 x 1,5 | 104            | 120            | 120°                 | AYUx00808               | 333.50250.x0 |
| M 63 x 1,5                    | 15            | 2 x M 63 x 1,5 | 131            | 151            | 120°                 | AYUx00909               | 333.63263.x0 |
| M 75 x 1,5                    | 15            | 2 x M 75 x 1,5 | 153            | 177            | 120°                 | AYUx01010               | 333.74274.x0 |
| 1/2" NPT                      | 20,2          | 2 x 1/2" NPT   | 65             | 75             | 120°                 | AYUx02929               | 333.19219.x0 |
| 3/4" NPT                      | 20,5          | 2 x 3/4" NPT   | 67             | 78             | 120°                 | AYUx03030               | 333.35235.x0 |
| 1" NPT                        | 25,3          | 2 x 1" NPT     | 78             | 90             | 120°                 | AYUx03131               | 333.75275.x0 |
| 1 1/4" NPT                    | 26            | 2 x 1 1/4" NPT | 89             | 102            | 120°                 | AYUx03232               | 333.76276.x0 |
| 1 1/2" NPT                    | 26,5          | 2 x 1 1/2" NPT | 104            | 120            | 120°                 | AYUx03333               | 333.77277.x0 |
| 2" NPT                        | 27,2          | 2 x 2" NPT     | 131            | 151            | 120°                 | AYUx03434               | 333.78278.x0 |
| 2 1/2" NPT                    | 40,5          | 2 x 2 1/2" NPT | 153            | 177            | 120°                 | AYUx03535               | 333.79279.x0 |



**Bestell-Nr. sind zu ergänzen**  
Reference numbers have to be completed:

|                                      |       |       |
|--------------------------------------|-------|-------|
| Messing blank / brass                | x = 1 | x = 0 |
| Edelstahl (1.4401) / stainless steel | x = 3 | x = 4 |

**Auf Anfrage:** - in Messing vernickelt  
**On request:** - brass, nickel-plated





## HCI-316

|                    |   |                    |   |
|--------------------|---|--------------------|---|
| Material:          | Edelstahl (1.4401)<br>mit Baumwollfadendichtung | Material:          | Stainless steel (1.4401)<br>with cotton packing |
| Mantel:            | PVC, bleifrei, glatt                            | Covering:          | PVC, lead-free, smooth                          |
| Farbe:             | schwarz   | Colour:            | black   |
| Einsatztemperatur: | -45 °C bis 105 °C                               | Temperature range: | -45 °C up to 105 °C                             |
| Schutzart:         | IP 66 / IP 67                                   | Protection type:   | IP 66 / IP 67                                   |

Ex e

440.41

Ex d

| NW<br>(Zoll)                       | Innen-/Außen-Ø<br>Inside / outside dia.<br>mm | R<br>mm<br>±10%                  | Rollenlänge<br>Coil length<br>m | Empfohlene Versch.<br>Recomm. connectors | schwarz / black<br>HUGRO No. |
|------------------------------------|---|----------------------------------|---------------------------------|--|------------------------------|
| 3/8"                               | 12,6 x 17,8                                   | 85                               | 30                              | 262.xx38.40                              | 440.1218.41                  |
| 1/2"                               | 16,0 x 21,1                                   | 110                              | 30                              | 262.xx12.40                              | 440.1621.41                  |
| 3/4"                               | 21,0 x 26,4                                   | 140                              | 30                              | 262.xx34.40                              | 440.2126.41                  |
| 1"                                 | 26,5 x 33,1                                   | 170                              | 30                              | 262.xx85.40                              | 440.2633.41                  |
| <b>Eigenschaften:</b>              |   | <b>Characteristics:</b>          |                                 |  |                              |
| - besonders flüssigkeitsdicht      |   | - extremely liquid-tight         |                                 |  |                              |
| - Freilandverlegung                |   | - outdoor installation           |                                 |  |                              |
| - UV- und Sonnenlichtbeständig     |   | - UV and sunlight resistant      |                                 |  |                              |
| - Öl und Fettbeständig             |   | - Oil and grease resistant       |                                 |  |                              |
| <b>Empfohlene Verschraubungen:</b> |   | <b>Recommended connectors:</b>   |                                 |  |                              |
| - siehe Seite 145                  |   | - please have a look on page 145 |                                 |  |                              |



## HFI-316

|                    |   |                    |   |
|--------------------|---|--------------------|---|
| Material:          | Edelstahl (1.4401)<br>mit Baumwollfadendichtung | Material:          | Stainless steel (1.4401)<br>with cotton packing |
| Mantel:            | Polyurethan, glatt                              | Covering:          | Polyurethane, smooth                            |
| Farbe:             | blau / schwarz                                  | Colour:            | blue / black                                    |
| Einsatztemperatur: | -55 °C bis 105 °C                               | Temperature range: | -55 °C up to 105 °C                             |
| Schutzart:         | IP 66 / IP 67                                   | Protection type:   | IP 66 / IP 67                                   |

Ex e

441.41

Ex d

441.44

| NW<br>(Zoll)                       | Innen-/Außen-Ø<br>Inside / outside dia.<br>mm | R<br>mm<br>±10%                  | Rollenlänge<br>Coil length<br>m | Empfohlene Versch.<br>Recomm. connectors | blau / blue<br>HUGRO No. | schwarz / black<br>HUGRO No. |
|------------------------------------|---|----------------------------------|---------------------------------|--|--------------------------|------------------------------|
| 3/8"                               | 12,6 x 17,8                                   | 85                               | 30                              | 262.xx38.40                              | 441.1218.44              | 441.1218.41                  |
| 1/2"                               | 16,0 x 21,1                                   | 110                              | 30                              | 262.xx12.40                              | 444.1621.44              | 444.1621.41                  |
| 3/4"                               | 21,0 x 26,4                                   | 140                              | 30                              | 262.xx34.40                              | 444.2126.44              | 444.2126.41                  |
| 1"                                 | 26,5 x 33,1                                   | 170                              | 30                              | 262.xx85.40                              | 441.2633.44              | 441.2633.41                  |
| <b>Eigenschaften:</b>              |   | <b>Characteristics:</b>          |                                 |  |                          |                              |
| - besonders flüssigkeitsdicht      |   | - extremely liquid-tight         |                                 |  |                          |                              |
| - Freilandverlegung                |   | - outdoor installation           |                                 |  |                          |                              |
| - UV- und Sonnenlichtbeständig     |   | - UV and sunlight resistant      |                                 |  |                          |                              |
| - Öl und Fettbeständig             |   | - Oil and grease resistant       |                                 |  |                          |                              |
| <b>Empfohlene Verschraubungen:</b> |   | <b>Recommended connectors:</b>   |                                 |  |                          |                              |
| - siehe Seite 145                  |   | - please have a look on page 145 |                                 |  |                          |                              |



HCX

|                    |   |                    |   |
|--------------------|---|--------------------|---|
| Material:          | Stahl verzinkt<br>mit Baumwollfadendichtung | Material:          | steel galvanized<br>with cotton packing |
| Mantel:            | TPE, bleifrei, glatt                        | Covering:          | TPE, lead-free, smooth                  |
| Farbe:             | schwarz                                     | Colour:            | black                                   |
| Einsatztemperatur: | -55 °C bis 145 °C                           | Temperature range: | -55 °C up to 145 °C                     |
| Schutzart:         | IP 66 / IP 67                               | Protection type:   | IP 66 / IP 67                           |

**Ex e**  
**Ex d**

444.01

| NW<br>(Zoll) | Innen-/Außen-Ø<br>Inside / outside dia.<br>mm | R<br>mm<br>± 10% | Rollenlänge<br>Coil length<br>m | Empfohlene Verschr.<br>Recomm. connectors | HUGRO No.   |
|--------------|---|------------------|---------------------------------|---|-------------|
| 3/8"         | 12,6 x 17,8                                   | 85               | 30                              | 262.xx38.00                               | 444.1218.01 |
| 1/2"         | 16,0 x 21,1                                   | 110              | 30                              | 262.xx12.00                               | 444.1621.01 |
| 3/4"         | 21,0 x 26,4                                   | 140              | 30                              | 262.xx34.00                               | 444.2126.01 |
| 1"           | 26,5 x 33,1                                   | 170              | 30                              | 262.xx85.00                               | 444.2633.01 |
| 1 1/4"       | 35,1 x 41,8                                   | 215              | 15                              | 262.xx87.00                               | 444.3542.01 |



|                                    |  |
|------------------------------------|--|
| <b>Eigenschaften:</b>              | <b>Characteristics:</b>                |
| - besonders flüssigkeitsdicht      | - extremely liquid-tight               |
| - Erd- und Freilandverlegung       | - underground and outdoor installation |
| - UV- und Sonnenlichtbeständig     | - UV and sunlight resistant            |
| <b>Empfohlene Verschraubungen:</b> | <b>Recommended connectors:</b>         |
| - siehe Seite 145                  | - please have a look on page 145       |

AS

|                    |   |                    |   |
|--------------------|---|--------------------|---|
| Material:          | Stahl verzinkt<br>mit Baumwollfadendichtung | Material:          | steel galvanized<br>with cotton packing |
| Mantel:            | spezial PVC, antistatisch, glatt            | Covering:          | special PVC, anti-static, smooth        |
| Farbe:             | schwarz                                     | Colour:            | black                                   |
| Einsatztemperatur: | -25 °C bis 70 °C                            | Temperature range: | -25 °C up to 70 °C                      |
| Schutzart:         | IP 66 / IP 67                               | Protection type:   | IP 66 / IP 67                           |

**Ex e**  
**Ex d**

446.01

| NW<br>(Zoll) | Innen-/Außen-Ø<br>Inside / outside dia.<br>mm | R<br>mm<br>± 10% | Rollenlänge<br>Coil length<br>m | Empfohlene Verschr.<br>Recomm. connectors | HUGRO No.   |
|--------------|---|------------------|---------------------------------|---|-------------|
| 3/8"         | 12,6 x 17,8                                   | 85               | 30                              | 262.xx38.00                               | 446.1218.01 |
| 1/2"         | 16,0 x 21,1                                   | 110              | 30                              | 262.xx12.00                               | 446.1621.01 |
| 3/4"         | 21,0 x 26,4                                   | 140              | 30                              | 262.xx34.00                               | 446.2126.01 |
| 1"           | 26,5 x 33,1                                   | 170              | 30                              | 262.xx85.00                               | 446.2633.01 |
| 1 1/4"       | 35,1 x 41,8                                   | 215              | 15                              | 262.xx87.00                               | 446.3542.01 |



|                                    |  |
|------------------------------------|--|
| <b>Eigenschaften:</b>              | <b>Characteristics:</b>                |
| - antistatisch                     | - anti-static                          |
| - besonders flüssigkeitsdicht      | - extremely liquid-tight               |
| - Erd- und Freilandverlegung       | - underground and outdoor installation |
| - UV- und Sonnenlichtbeständig     | - UV and sunlight resistant            |
| <b>Empfohlene Verschraubungen:</b> | <b>Recommended connectors:</b>         |
| - siehe Seite 145                  | - please have a look on page 145       |

Material: Messing vernickelt  
 O-Ring: FPM\* / NBR  
 Einsatztemperatur: SEV -60°C bis 100°C  
 DMT -20°C bis 95°C  
 Schutzart: IP 66 / IP 68 (bis 10 bar)  
 Zertifikate: SEV 15 ATEX 0151 X  
 IECEx SEV 15.0018X  
 SEV 15 ATEX 0152 X\*  
 IECEx SEV 15.0019X\*  
 DMT 03 ATEX E 049  
 IECEx BVS 07.0021

Material: brass, nickel-plated  
 O-ring: FPM\* / NBR  
 Temperature range: SEV -60°C bis 100°C  
 DMT -20°C to 95°C  
 Protection type: IP 66 / IP 68 (up to 10 bar)  
 Certificates: SEV 15 ATEX 0151 X  
 IECEx SEV 15.0018X  
 SEV 15 ATEX 0152 X\*  
 IECEx SEV 15.0019X\*  
 DMT 03 ATEX E 049  
 IECEx BVS 07.0021



Auf Anfrage  
on request

527.10  
527.EX

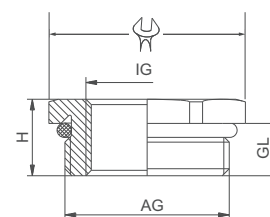


II 2G Ex eb IIC Gb\*  
 II 2D Ex tb IIIC Db  
 II 1 D Ex ta IIIC Da

Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Thread<br>AG | Gewinde<br>Thread<br>IG | <br>mm | H<br>mm | GL<br>mm | A-Nummer<br>A-Reference<br>RSD-MS-Ex | HUGRO No.     |
|-------------------------|-------------------------|--------|---------|----------|--------------------------------------|---------------|
| M 10 x 1,5              | M 8 x 1,25              | 13     | 13      | 5        | EX3500.10.08                         | 527.1008.EX * |
| M 12 x 1,5              | M 8 x 1,25              | 15     | 8       | 5        | EX3500.12.08                         | 527.1508.EX * |
| M 12 x 1,5              | M 10 x 1,5              | 15     | 13      | 5        | EX3500.12.10                         | 527.1510.EX * |
| M 16 x 1,5              | M 10 x 1,5              | 18     | 8       | 5        | EX3500.17.10                         | 527.1710.EX   |
| M 16 x 1,5              | M 12 x 1,5              | 17     | 8,5     | 5        | 1.078.1612.50                        | 527.1715.10   |
| M 20 x 1,5              | M 12 x 1,5              | 22     | 9       | 6        | 1.078.2012.50                        | 527.2015.10   |
| M 20 x 1,5              | M 16 x 1,5              | 22     | 9       | 6        | 1.078.2016.50                        | 527.2017.10   |
| M 25 x 1,5              | M 16 x 1,5              | 27     | 10      | 7        | 1.078.2516.50                        | 527.2517.10   |
| M 25 x 1,5              | M 20 x 1,5              | 27     | 10      | 7        | 1.078.2520.50                        | 527.2520.10   |
| M 32 x 1,5              | M 16 x 1,5              | 34     | 11      | 8        | 1.078.3216.50                        | 527.3217.10   |
| M 32 x 1,5              | M 20 x 1,5              | 34     | 11,5    | 8        | 1.078.3220.50                        | 527.3220.10   |
| M 32 x 1,5              | M 25 x 1,5              | 34     | 11,5    | 8        | 1.078.3225.50                        | 527.3225.10   |
| M 40 x 1,5              | M 20 x 1,5              | 43     | 12      | 8        | 1.078.4020.50                        | 527.4020.10   |
| M 40 x 1,5              | M 25 x 1,5              | 43     | 12,5    | 8        | 1.078.4025.50                        | 527.4025.10   |
| M 40 x 1,5              | M 32 x 1,5              | 43     | 12,5    | 8        | 1.078.4032.50                        | 527.4032.10   |
| M 50 x 1,5              | M 25 x 1,5              | 55     | 13      | 9        | 1.078.5025.50                        | 527.5025.10   |
| M 50 x 1,5              | M 32 x 1,5              | 55     | 14      | 9        | 1.078.5032.50                        | 527.5032.10   |
| M 50 x 1,5              | M 40 x 1,5              | 55     | 14      | 9        | 1.078.5040.50                        | 527.5040.10   |
| M 63x1,5                | M 32 x 1,5              | 65     | 14      | 10       | 1.078.6332.50                        | 527.6332.10   |
| M 63x1,5                | M 40 x 1,5              | 65     | 14      | 10       | 1.078.6340.50                        | 527.6340.10   |
| M 63x1,5                | M 50 x 1,5              | 65     | 14      | 10       | 1.078.6350.50                        | 527.6350.10   |
| Pg 9                    | Pg 7                    | 17     | 8,8     | 6        | 1.078.0907.01                        | 527.0907.10   |
| Pg 11                   | Pg 7                    | 20     | 9       | 6        | 1.078.1107.01                        | 527.1107.10   |
| Pg 11                   | Pg 9                    | 20     | 9       | 6        | 1.078.1109.01                        | 527.1109.10   |
| Pg 13,5                 | Pg 9                    | 22     | 9,5     | 6,5      | 1.078.1309.01                        | 527.1309.10   |
| Pg 13,5                 | Pg 11                   | 22     | 9,5     | 6,5      | 1.078.1311.01                        | 527.1311.10   |
| Pg 16                   | Pg 9                    | 24     | 9,5     | 6,5      | 1.078.1609.01                        | 527.1609.10   |
| Pg 16                   | Pg 11                   | 24     | 9,5     | 6,5      | 1.078.1611.01                        | 527.1611.10   |
| Pg 16                   | Pg 13,5                 | 24     | 9,5     | 6,5      | 1.078.1613.01                        | 527.1613.10   |
| Pg 21                   | Pg 11                   | 30     | 10,3    | 7        | 1.078.2111.01                        | 527.2111.10   |
| Pg 21                   | Pg 13,5                 | 30     | 10,3    | 7        | 1.078.2113.01                        | 527.2113.10   |
| Pg 21                   | Pg 16                   | 30     | 10,3    | 7        | 1.078.2116.01                        | 527.2116.10   |
| Pg 29                   | Pg 16                   | 40     | 11,5    | 8        | 1.078.2916.01                        | 527.2916.10   |
| Pg 29                   | Pg 21                   | 40     | 11,5    | 8        | 1.078.2921.01                        | 527.2921.10   |
| Pg 36                   | Pg 21                   | 50     | 12,5    | 9        | 1.078.3621.01                        | 527.3621.10   |
| Pg 36                   | Pg 29                   | 50     | 12,5    | 9        | 1.078.3629.01                        | 527.3629.10   |
| Pg 42                   | Pg 29                   | 57     | 13,5    | 10       | 1.078.4229.01                        | 527.4229.10   |
| Pg 42                   | Pg 36                   | 57     | 13,5    | 10       | 1.078.4236.01                        | 527.4236.10   |
| Pg 48                   | Pg 36                   | 64     | 13,5    | 10       | 1.078.4836.01                        | 527.4836.10   |
| Pg 48                   | Pg 42                   | 64     | 13,5    | 10       | 1.078.4842.01                        | 527.4842.10   |



Material: Edelstahl (1.4305)  
O-Ring: NBR / VMQ (Silikon)  
Einsatztemperatur: NBR: -20 °C bis 95 °C  
VMQ: -60 °C bis 180 °C  
Schutzart: IP68 - 10 bar / 30 min,  
IP69 K  
Zertifikate: DMT 03 ATEX E 049  
IECEX BVS 07.0021

Material: stainless steel (1.4305)  
O-ring: NBR / VMQ (silikon)  
Temperature range: NBR: -20 °C to 95 °C  
VMQ: -60 °C bis 180 °C  
Protection type: IP68 - 10 bar / 30 min,  
IP69 K  
Certificates: DMT 03 ATEX E 049  
IECEX BVS 07.0021

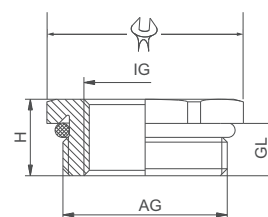
**Ex e**

**527.30.EX**  
**527.34.EX**



II 2G Ex eb IIC Gb  
II 1D Ex ta IIIC Da

| Gewinde<br>Thread<br>AG | Gewinde<br>Thread<br>IG | <br>mm | H<br>mm | GL<br>mm | A-Nummer<br>A-Reference<br>RSD-INOX Ex | HUGRO No.      |
|-------------------------|-------------------------|--------|---------|----------|--|----------------|
| <b>NBR</b>              |                         |        |         |          |  |                |
| M 16 x 1,5              | M 12 x 1,5              | 19     | 10      | 5        | 1.098.1612.50                          | 527.1715.30.EX |
| M 20 x 1,5              | M 12 x 1,5              | 22     | 9,5     | 6        | 1.098.2012.50                          | 527.2015.30.EX |
| M 20 x 1,5              | M 16 x 1,5              | 22     | 9,5     | 6        | 1.098.2016.50                          | 527.2017.30.EX |
| M 25 x 1,5              | M 16 x 1,5              | 30     | 8,5     | 7        | 1.098.2516.50                          | 527.2517.30.EX |
| M 25 x 1,5              | M 20 x 1,5              | 30     | 8,5     | 7        | 1.098.2520.50                          | 527.2520.30.EX |
| M 32 x 1,5              | M 16 x 1,5              | 41     | 8,5     | 8        | 1.098.3216.50                          | 527.3217.30.EX |
| M 32 x 1,5              | M 20 x 1,5              | 41     | 4,5     | 8        | 1.098.3220.50                          | 527.3220.30.EX |
| M 32 x 1,5              | M 25 x 1,5              | 41     | 4,5     | 8        | 1.098.3225.50                          | 527.3225.30.EX |
| M 40 x 1,5              | M 20 x 1,5              | 46     | 9       | 8        | 1.098.4020.50                          | 527.4020.30.EX |
| M 40 x 1,5              | M 25 x 1,5              | 46     | 9       | 8        | 1.098.4025.50                          | 527.4025.30.EX |
| M 40 x 1,5              | M 32 x 1,5              | 46     | 9       | 8        | 1.098.4032.50                          | 527.4032.30.EX |
| M 50 x 1,5              | M 25 x 1,5              | 55     | 4,5     | 9        | 1.098.5025.50                          | 527.5025.30.EX |
| M 50 x 1,5              | M 32 x 1,5              | 55     | 4,5     | 9        | 1.098.5032.50                          | 527.5032.30.EX |
| M 50 x 1,5              | M 40 x 1,5              | 55     | 4,5     | 9        | 1.098.5040.50                          | 527.5040.30.EX |
| M 63 x 1,5              | M 32 x 1,5              | 65     | 6,5     | 9        | 1.098.6332.50                          | 527.6332.30.EX |
| M 63 x 1,5              | M 40 x 1,5              | 65     | 6,5     | 10       | 1.098.6340.50                          | 527.6340.30.EX |
| M 63 x 1,5              | M 50 x 1,5              | 65     | 6,5     | 10       | 1.098.6350.50                          | 527.6350.30.EX |



| <b>VMQ</b> |            |    |     |    |               |                |
|------------|------------|----|-----|----|---------------|----------------|
| M 16 x 1,5 | M 12 x 1,5 | 19 | 10  | 5  | 1.099.1612.50 | 527.1715.34.EX |
| M 20 x 1,5 | M 12 x 1,5 | 22 | 9,5 | 6  | 1.099.2012.50 | 527.2015.34.EX |
| M 20 x 1,5 | M 16 x 1,5 | 22 | 9,5 | 6  | 1.099.2016.50 | 527.2017.34.EX |
| M 25 x 1,5 | M 16 x 1,5 | 30 | 8,5 | 7  | 1.099.2516.50 | 527.2517.34.EX |
| M 25 x 1,5 | M 20 x 1,5 | 30 | 8,5 | 7  | 1.099.2520.50 | 527.2520.34.EX |
| M 32 x 1,5 | M 16 x 1,5 | 41 | 8,5 | 8  | 1.099.3216.50 | 527.3217.34.EX |
| M 32 x 1,5 | M 20 x 1,5 | 41 | 4,5 | 8  | 1.099.3220.50 | 527.3220.34.EX |
| M 32 x 1,5 | M 25 x 1,5 | 41 | 4,5 | 8  | 1.099.3225.50 | 527.3225.34.EX |
| M 40 x 1,5 | M 20 x 1,5 | 46 | 9   | 8  | 1.099.4020.50 | 527.4020.34.EX |
| M 40 x 1,5 | M 25 x 1,5 | 46 | 9   | 8  | 1.099.4025.50 | 527.4025.34.EX |
| M 40 x 1,5 | M 32 x 1,5 | 46 | 9   | 8  | 1.099.4032.50 | 527.4032.34.EX |
| M 50 x 1,5 | M 25 x 1,5 | 55 | 4,5 | 9  | 1.099.5025.50 | 527.5025.34.EX |
| M 50 x 1,5 | M 32 x 1,5 | 55 | 4,5 | 9  | 1.099.5032.50 | 527.5032.34.EX |
| M 50 x 1,5 | M 40 x 1,5 | 55 | 4,5 | 9  | 1.099.5040.50 | 527.5040.34.EX |
| M 63 x 1,5 | M 32 x 1,5 | 65 | 6,5 | 9  | 1.099.6332.50 | 527.6332.34.EX |
| M 63 x 1,5 | M 40 x 1,5 | 65 | 6,5 | 10 | 1.099.6340.50 | 527.6340.34.EX |
| M 63 x 1,5 | M 50 x 1,5 | 65 | 6,5 | 10 | 1.099.6350.50 | 527.6350.34.EX |



Material: Messing vernickelt  
O-Ring: FPM  
Einsatztemperatur: -60°C bis 100°C  
Schutzart: IP 66 / IP 68

Material: brass, nickel-plated  
O-ring: FPM  
Temperature range: -60°C to 100°C  
Protection type: IP 66 / IP 68



Auf Anfrage  
on request

530.EX  
531.EX

Zertifikate: SEV 15 ATEX 0151 X  
IECEX SEV 15.0018X  
SEV 15 ATEX 0152 X\*  
IECEX SEV 15.0019X\*


Certificates: SEV 15 ATEX 0151 X  
IECEX SEV 15.0018X  
SEV 15 ATEX 0152 X\*  
IECEX SEV 15.0019X\*

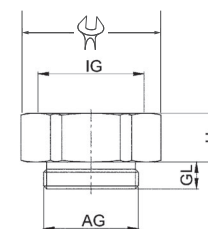


II 2G Ex eb IIC Gb  
II 2D Ex tb IIIC Db

Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Thread<br>AG | Gewinde<br>Thread<br>IG | <br>mm | H<br>mm | GL<br>mm | A-Nummer<br>A-Reference | HUGRO No.     |
|-------------------------|-------------------------|---|---------|----------|-------------------------|---------------|
| M 8 x 1,25              | M 10 x 1,5              | 13  | 9       | 5        | EX3600.08.10            | 530.0810.EX * |
| M 10 x 1,5              | M 12 x 1,5              | 15  | 9       | 5        | EX3600.10.12            | 530.1015.EX * |
| M 10 x 1,5              | M 16 x 1,5              | 18  | 9       | 5        | EX3600.10.17            | 530.1017.EX * |
| M 12 x 1,5              | M 16 x 1,5              | 18  | 9       | 5        | EX3600.12.17            | 530.1517.EX * |
| M 16 x 1,5              | M 20 x 1,5              | 24  | 10      | 5        | EX3600.17.20            | 530.1720.EX   |
| M 20 x 1,5              | M 25 x 1,5              | 30  | 11,5    | 6        | EX3600.20.25            | 530.2025.EX   |
| M 25 x 1,5              | M 32 x 1,5              | 36  | 14      | 7        | EX3600.25.32            | 530.2532.EX   |
| M 32 x 1,5              | M 40 x 1,5              | 46  | 14      | 8        | EX3600.32.40            | 530.3240.EX   |
| M 40 x 1,5              | M 50 x 1,5              | 55  | 16      | 8        | EX3600.40.50            | 530.4050.EX   |
| M 50 x 1,5              | M 63 x 1,5              | 70  | 17      | 9        | EX3600.50.63            | 530.5063.EX   |
|                         |                         |   |         |          |                         |               |
| Pg 7                    | M 8 x 1,25              | 15  | 3       | 6        | EX3500.07.08            | 531.0708.EX   |
| Pg 7                    | M 10 x 1,5              | 15  | 7       | 6        | EX3500.07.10            | 531.0710.EX   |
| Pg 7                    | M 12 x 1,5              | 15  | 9       | 6        | EX3600.07.12            | 531.0715.EX * |
| Pg 7                    | M 16 x 1,5              | 18  | 9       | 6        | EX3600.07.17            | 531.0717.EX * |
| Pg 9                    | M 8 x 1,25              | 18  | 3       | 6        | EX3500.09.08            | 531.0908.EX   |
| Pg 9                    | M 10 x 1,5              | 18  | 3       | 6        | EX3500.09.10            | 531.0910.EX   |
| Pg 9                    | M 12 x 1,5              | 18  | 8       | 6        | EX3500.09.12            | 531.0915.EX   |
| Pg 9                    | M 16 x 1,5              | 18  | 9,5     | 6        | EX3600.09.17            | 531.0917.EX   |
| Pg 9                    | M 20 x 1,5              | 24  | 10,5    | 6        | EX3600.09.20            | 531.0920.EX   |
| Pg 11                   | M 8 x 1,25              | 21  | 3       | 6        | EX3500.11.08            | 531.1108.EX   |
| Pg 11                   | M 10 x 1,5              | 21  | 3       | 6        | EX3500.11.10            | 531.1110.EX   |
| Pg 11                   | M 12 x 1,5              | 21  | 3       | 6        | EX3500.11.12            | 531.1115.EX   |
| Pg 11                   | M 16 x 1,5              | 21  | 8       | 6        | EX3500.11.17            | 531.1117.EX   |
| Pg 11                   | M 20 x 1,5              | 24  | 10,5    | 6        | EX3600.11.20            | 531.1120.EX   |
| Pg 11                   | M 25 x 1,5              | 30  | 11,5    | 6        | EX3600.11.25            | 531.1125.EX   |
| Pg 13,5                 | M 12 x 1,5              | 24  | 3       | 6        | EX3500.13.12            | 531.1315.EX   |
| Pg 13,5                 | M 16 x 1,5              | 24  | 3       | 6        | EX3500.13.17            | 531.1317.EX   |
| Pg 13,5                 | M 20 x 1,5              | 24  | 10,5    | 6        | EX3600.13.20            | 531.1320.EX   |
| Pg 13,5                 | M 25 x 1,5              | 30  | 11,5    | 6        | EX3600.13.25            | 531.1325.EX   |
| Pg 16                   | M 12 x 1,5              | 24  | 3       | 6        | EX3500.16.12            | 531.1615.EX   |
| Pg 16                   | M 16 x 1,5              | 24  | 3       | 6        | EX3500.16.17            | 531.1617.EX   |
| Pg 16                   | M 20 x 1,5              | 24  | 10,5    | 6        | EX3500.16.20            | 531.1620.EX   |
| Pg 16                   | M 25 x 1,5              | 30  | 11,5    | 6        | EX3600.16.25            | 531.1625.EX   |
| Pg 16                   | M 32 x 1,5              | 36  | 13,5    | 6        | EX3600.16.32            | 531.1632.EX   |
| Pg 21                   | M 16 x 1,5              | 30  | 3,5     | 7,5      | EX3500.21.17            | 531.2117.EX   |
| Pg 21                   | M 20 x 1,5              | 30  | 3,5     | 7,5      | EX3500.21.20            | 531.2120.EX   |
| Pg 21                   | M 25 x 1,5              | 30  | 10,5    | 7,5      | EX3500.21.25            | 531.2125.EX   |
| Pg 21                   | M 32 x 1,5              | 36  | 14      | 7,5      | EX3600.21.32            | 531.2132.EX   |
| Pg 21                   | M 40 x 1,5              | 46  | 14      | 7,5      | EX3600.21.40            | 531.2140.EX   |
| Pg 29                   | M 25 x 1,5              | 38  | 4       | 8        | EX3500.29.25            | 531.2925.EX   |
| Pg 29                   | M 32 x 1,5              | 38  | 13      | 8        | EX3500.29.32            | 531.2932.EX   |
| Pg 29                   | M 40 x 1,5              | 46  | 14      | 8        | EX3600.29.40            | 531.2940.EX   |
| Pg 29                   | M 50 x 1,5              | 55  | 16      | 8        | EX3600.29.50            | 531.2950.EX   |
| Pg 36                   | M 32 x 1,5              | 50  | 4,5     | 8        | EX3500.36.32            | 531.3632.EX   |
| Pg 36                   | M 40 x 1,5              | 50  | 4,5     | 8        | EX3500.36.40            | 531.3640.EX   |
| Pg 36                   | M 50 x 1,5              | 55  | 16      | 8        | EX3600.36.50            | 531.3650.EX   |
| Pg 36                   | M 63 x 1,5              | 70  | 17      | 8        | EX3600.36.63            | 531.3663.EX   |
| Pg 42                   | M 32 x 1,5              | 55  | 5       | 10       | EX3500.42.32            | 531.4232.EX   |
| Pg 42                   | M 40 x 1,5              | 55  | 5       | 10       | EX3500.42.40            | 531.4240.EX   |
| Pg 42                   | M 50 x 1,5              | 55  | 15      | 10       | EX3500.42.50            | 531.4250.EX   |
| Pg 42                   | M 63 x 1,5              | 70  | 17      | 10       | EX3600.42.63            | 531.4263.EX   |
| Pg 48                   | M 40 x 1,5              | 65  | 5,5     | 11       | EX3500.48.40            | 531.4840.EX   |
| Pg 48                   | M 50 x 1,5              | 65  | 5,5     | 11       | EX3500.48.50            | 531.4850.EX   |
| Pg 48                   | M 63 x 1,5              | 70  | 17      | 11       | EX3600.48.63            | 531.4863.EX   |



Auf Anfrage:  
für höhere Temperaturbereiche bis 200°C

On request:  
for higher temperature up to 200°C

Material: Messing blank  
O-Ring: EPDM  
Einsatztemperatur: -40°C bis 100°C  
Schutzart: IP 68

Material: brass  
O-ring: EPDM  
Temperature range: -40°C to 100°C  
Protection type: IP 68

**Ex e**  
**Ex d**



535.11  
535.22  
535.33

Zertifikate: IST 16 ATEX 101336 X  
IECEX IST 16.0011 X

Certificates: IST 16 ATEX 101336 X  
IECEX IST 16.0011 X

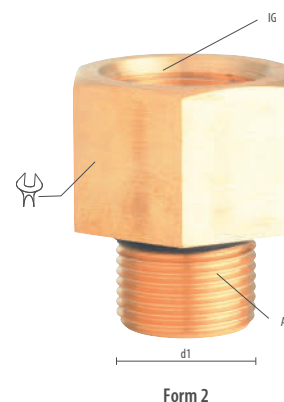
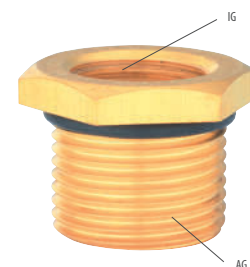
Weitere internationale Zulassungen vorhanden

Further international approvals available



Ex d I/II C Mb/Gb  
Ex e I/II C Mb/Gb  
Ex tb III C Db

| Gewinde Thread |          |      |       |      |             | Gewinde Thread |      |      |       |      |             |
|----------------|----------|------|-------|------|-------------|----------------|------|------|-------|------|-------------|
| AG             | IG       | mm   | d1 mm | Form | HUGRO No.   | AG             | IG   | mm   | d1 mm | Form | HUGRO No.   |
| <b>M</b>       |          |      |       |      |             | <b>Pg</b>      |      |      |       |      |             |
| 16 x 1,5       | 20 x 1,5 | 23,4 | 11    | 2    | 535.1720.22 | 7              | 9    | 23,4 | 7     | 2    | 535.0709.11 |
| 20 x 1,5       | 16 x 1,5 | 23,4 | -     | 1    | 535.2017.22 | 9              | 7    | 23,4 | 10    | 2    | 535.0907.11 |
| 20 x 1,5       | 25 x 1,5 | 27,9 | 15    | 2    | 535.2025.22 | 9              | 11   | 23,4 | 10    | 2    | 535.0911.11 |
| 25 x 1,5       | 16 x 1,5 | 27,9 | -     | 1    | 535.2517.22 | 11             | 7    | 23,4 | -     | 1    | 535.1107.11 |
| 25 x 1,5       | 20 x 1,5 | 27,9 | -     | 1    | 535.2520.22 | 11             | 9    | 23,4 | 14    | 2    | 535.1109.11 |
| 25 x 1,5       | 32 x 1,5 | 27,9 | 20,8  | 2    | 535.2532.22 | 11             | 13,5 | 23,4 | 14    | 2    | 535.1113.11 |
| 32 x 1,5       | 20 x 1,5 | 37,6 | -     | 1    | 535.3220.22 | 13,5           | 9    | 23,4 | -     | 1    | 535.1309.11 |
| 32 x 1,5       | 25 x 1,5 | 37,6 | -     | 1    | 535.3225.22 | 13,5           | 11   | 23,4 | 15    | 2    | 535.1311.11 |
| 32 x 1,5       | 40 x 1,5 | 37,6 | 26,8  | 2    | 535.3240.22 | 13,5           | 16   | 30,5 | 15    | 2    | 535.1316.11 |
| 40 x 1,5       | 25 x 1,5 | 47,2 | -     | 1    | 535.4025.22 | 16             | 11   | 23,4 | -     | 1    | 535.1611.11 |
| 40 x 1,5       | 32 x 1,5 | 47,2 | -     | 1    | 535.4032.22 | 16             | 13,5 | 23,4 | -     | 1    | 535.1613.11 |
| 40 x 1,5       | 50 x 1,5 | 47,2 | 33,5  | 2    | 535.4050.22 | 16             | 21   | 33   | 17,5  | 2    | 535.1621.11 |
| 50 x 1,5       | 32 x 1,5 | 56   | -     | 1    | 535.5032.22 | 21             | 13,5 | 30,5 | -     | 1    | 535.2113.11 |
| 50 x 1,5       | 40 x 1,5 | 56   | -     | 1    | 535.5040.22 | 21             | 16   | 30,5 | -     | 1    | 535.2116.11 |
| 50 x 1,5       | 63 x 1,5 | 56   | 44    | 2    | 535.5063.22 | 21             | 29   | 42,4 | 23,5  | 2    | 535.2129.11 |
| 63 x 1,5       | 40 x 1,5 | 70   | -     | 1    | 535.6340.22 | 29             | 16   | 42,4 | -     | 1    | 535.2916.11 |
| 63 x 1,5       | 50 x 1,5 | 70   | -     | 1    | 535.6350.22 | 29             | 21   | 42,4 | -     | 1    | 535.2921.11 |
| 63 x 1,5       | 75 x 1,5 | 70   | 55    | 2    | 535.6374.22 | 29             | 36   | 56   | 31    | 2    | 535.2936.11 |
| 75 x 1,5       | 50 x 1,5 | 80   | -     | 1    | 535.7450.22 | 36             | 21   | 56   | -     | 1    | 535.3621.11 |
| 75 x 1,5       | 63 x 1,5 | 80   | -     | 1    | 535.7463.22 | 36             | 29   | 56   | -     | 1    | 535.3629.11 |
|                |          |      |       |      |             | 36             | 42   | 70   | 40    | 2    | 535.3642.11 |
|                |          |      |       |      |             | 42             | 29   | 56   | -     | 1    | 535.4229.11 |
| <b>NPT</b>     |          |      |       |      |             | <b>NPT</b>     |      |      |       |      |             |
| 1/2"           | 3/4"     | 27,9 | 15    | 2    | 535.1935.33 | 42             | 36   | 56   | -     | 1    | 535.4236.11 |
| 3/4"           | 1/2"     | 27,9 | -     | 1    | 535.3519.33 | 42             | 48   | 70   | 48    | 2    | 535.4248.11 |
| 3/4"           | 1"       | 37,6 | 20,5  | 2    | 535.3575.33 | 48             | 36   | 70   | -     | 1    | 535.4836.11 |
| 1"             | 1/2"     | 37,6 | -     | 1    | 535.7519.33 | 48             | 42   | 70   | -     | 1    | 535.4842.11 |
| 1"             | 3/4"     | 37,6 | -     | 1    | 535.7535.33 |                |      |      |       |      |             |
| 1"             | 1 1/4"   | 47,2 | 26,8  | 2    | 535.7576.33 |                |      |      |       |      |             |
| 1 1/4"         | 3/4"     | 47,2 | -     | 1    | 535.7635.33 |                |      |      |       |      |             |
| 1 1/4"         | 1"       | 47,2 | -     | 1    | 535.7675.33 |                |      |      |       |      |             |
| 1 1/4"         | 1 1/2"   | 56   | 33,5  | 2    | 535.7677.33 |                |      |      |       |      |             |
| 1 1/2"         | 1"       | 56   | -     | 1    | 535.7775.33 |                |      |      |       |      |             |
| 1 1/2"         | 1 1/4"   | 56   | -     | 1    | 535.7776.33 |                |      |      |       |      |             |
| 1 1/2"         | 2"       | 70   | 41    | 2    | 535.7778.33 |                |      |      |       |      |             |
| 2"             | 1 1/4"   | 70   | -     | 1    | 535.7876.33 |                |      |      |       |      |             |
| 2"             | 1 1/2"   | 70   | -     | 1    | 535.7877.33 |                |      |      |       |      |             |
| 2"             | 2 1/2"   | 80   | 54    | 2    | 535.7879.33 |                |      |      |       |      |             |
| 2 1/2"         | 1 1/2"   | 80   | -     | 1    | 535.7977.33 |                |      |      |       |      |             |
| 2 1/2"         | 2"       | 80   | -     | 1    | 535.7978.33 |                |      |      |       |      |             |
| 2 1/2"         | 3"       | 95   | 64    | 2    | 535.7980.33 |                |      |      |       |      |             |
| 3"             | 2"       | 95   | -     | 1    | 535.8078.33 |                |      |      |       |      |             |
| 3"             | 2 1/2"   | 95   | -     | 1    | 535.8079.33 |                |      |      |       |      |             |



**Auf Anfrage:**  
- weitere Größen (Kombinationen)  
- andere Gewinde  
- in Messing vernickelt  
- in Edelstahl  
- andere Materialien

**On request:**  
- further sizes (combinations)  
- other threads  
- brass, nickel-plated  
- stainless steel  
- other materials

Material: Messing blank  
O-Ring: EPDM  
Einsatztemperatur: -40°C bis 100°C  
Schutzart: IP 68

Material: brass  
O-ring: EPDM  
Temperature range: -40°C to 100°C  
Protection type: IP 68

**Ex e**  
**Ex d**



535.12 535.23  
535.13 535.31  
535.21 535.32

Zertifikate: IST 16 ATEX 101336 X  
IECEx IST 16.0011 X

Certificates: IST 16 ATEX 101336 X  
IECEx IST 16.0011 X

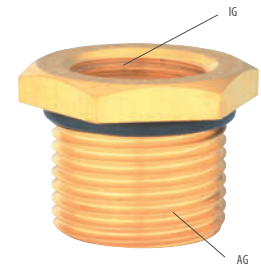
Weitere internationale Zulassungen vorhanden

Further international approvals available

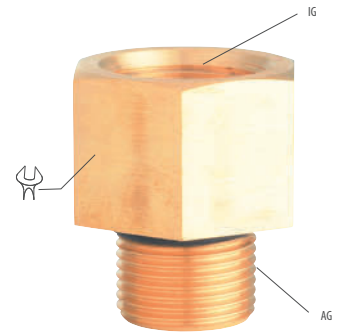


Ex d I/II C Mb/Gb  
Ex e I/II C Mb/Gb  
Ex tb III C Db

| Gewinde Thread |        |      |       |      |             | Gewinde Thread |          |      |       |      |             |
|----------------|--------|------|-------|------|-------------|----------------|----------|------|-------|------|-------------|
| AG             | IG     | mm   | d1 mm | Form | HUGRO No.   | AG             | IG       | mm   | d1 mm | Form | HUGRO No.   |
| <b>M Pg</b>    |        |      |       |      |             | <b>Pg M</b>    |          |      |       |      |             |
| 16 x 1,5       | 9      | 23,4 | 11    | 2    | 535.1709.21 | 9              | 16 x 1,5 | 23,4 | 10    | 2    | 535.0917.12 |
| 16 x 1,5       | 11     | 23,4 | 11    | 2    | 535.1711.21 | 11             | 16 x 1,5 | 23,4 | 14    | 2    | 535.1117.12 |
| 16 x 1,5       | 13,5   | 23,4 | 11    | 2    | 535.1713.21 | 11             | 20 x 1,5 | 23,4 | 14    | 2    | 535.1120.12 |
| 20 x 1,5       | 11     | 23,4 | 15    | 2    | 535.2011.21 | 13,5           | 16 x 1,5 | 23,4 | -     | 1    | 535.1317.12 |
| 20 x 1,5       | 13,5   | 23,4 | 15    | 2    | 535.2013.21 | 13,5           | 20 x 1,5 | 23,4 | 15    | 2    | 535.1320.12 |
| 20 x 1,5       | 16     | 23,4 | 15    | 2    | 535.2016.21 | 13,5           | 25 x 1,5 | 30,5 | 15    | 2    | 535.1325.12 |
| 25 x 1,5       | 13,5   | 27,9 | -     | 1    | 535.2513.21 | 16             | 20 x 1,5 | 23,4 | 17,5  | 2    | 535.1620.12 |
| 25 x 1,5       | 16     | 27,9 | 20,5  | 2    | 535.2516.21 | 16             | 25 x 1,5 | 30,5 | 17,5  | 2    | 535.1625.12 |
| 25 x 1,5       | 21     | 27,9 | 20,5  | 2    | 535.2521.21 | 21             | 25 x 1,5 | 30,5 | 23,5  | 2    | 535.2125.12 |
| 32 x 1,5       | 21     | 37,6 | 26,8  | 2    | 535.3221.21 | 21             | 32 x 1,5 | 37,6 | 23,5  | 2    | 535.2132.12 |
| 32 x 1,5       | 29     | 37,6 | 26,8  | 2    | 535.3229.21 | 29             | 32 x 1,5 | 42,4 | -     | 1    | 535.2932.12 |
| 40 x 1,5       | 29     | 47,2 | 33,5  | 2    | 535.4029.21 | 29             | 40 x 1,5 | 47,2 | 31    | 2    | 535.2940.12 |
| 40 x 1,5       | 36     | 47,2 | 33,5  | 2    | 535.4036.21 | 36             | 40 x 1,5 | 56   | -     | 1    | 535.3640.12 |
| 50 x 1,5       | 36     | 56   | 44    | 2    | 535.5036.21 | 36             | 50 x 1,5 | 56   | 40    | 2    | 535.3650.12 |
| 50 x 1,5       | 42     | 56   | 44    | 2    | 535.5042.21 | 42             | 50 x 1,5 | 56   | 48    | 2    | 535.4250.12 |
| 63 x 1,5       | 42     | 70   | -     | 1    | 535.6342.21 | 42             | 63 x 1,5 | 70   | 48    | 2    | 535.4263.12 |
| 63 x 1,5       | 48     | 70   | 55    | 2    | 535.6348.21 | 48             | 50 x 1,5 | 70   | -     | 1    | 535.4850.12 |
| 75 x 1,5       | 42     | 80   | -     | 1    | 535.7442.21 | 48             | 63 x 1,5 | 70   | 53    | 2    | 535.4863.12 |
| 75 x 1,5       | 48     | 80   | -     | 1    | 535.7448.21 | 48             | 75 x 1,5 | 80   | 53    | 2    | 535.4874.12 |
| <b>M NPT</b>   |        |      |       |      |             | <b>NPT M</b>   |          |      |       |      |             |
| 16 x 1,5       | 1/2"   | 23,4 | 11    | 2    | 535.1719.23 | 1/2"           | 20 x 1,5 | 23,4 | 15    | 2    | 535.1920.32 |
| 20 x 1,5       | 1/2"   | 23,4 | 15    | 2    | 535.2019.23 | 1/2"           | 25 x 1,5 | 30,5 | 15    | 2    | 535.1925.32 |
| 20 x 1,5       | 3/4"   | 30,5 | 15    | 2    | 535.2035.23 | 3/4"           | 20 x 1,5 | 27,9 | -     | 1    | 535.3520.32 |
| 25 x 1,5       | 3/4"   | 30,5 | 20,5  | 2    | 535.2535.23 | 3/4"           | 25 x 1,5 | 30,5 | 20,5  | 2    | 535.3525.32 |
| 25 x 1,5       | 1"     | 37,6 | 20,5  | 2    | 535.2575.23 | 1"             | 25 x 1,5 | 37,6 | -     | 1    | 535.7525.32 |
| 32 x 1,5       | 1"     | 37,6 | 26,8  | 2    | 535.3275.23 | 1"             | 32 x 1,5 | 37,6 | 26,8  | 2    | 535.7532.32 |
| 32 x 1,5       | 1 1/4" | 47,2 | 26,8  | 2    | 535.3276.23 | 1 1/4"         | 40 x 1,5 | 47,2 | 33,5  | 2    | 535.7640.32 |
| 40 x 1,5       | 1 1/4" | 47,2 | 33,5  | 2    | 535.4076.23 | 1 1/4"         | 50 x 1,5 | 56   | 33,5  | 2    | 535.7650.32 |
| 40 x 1,5       | 1 1/2" | 56   | 33,5  | 2    | 535.4077.23 | 1 1/2"         | 50 x 1,5 | 56   | 41    | 2    | 535.7750.32 |
| 50 x 1,5       | 1 1/2" | 56   | 44    | 2    | 535.5077.23 | 1 1/2"         | 63 x 1,5 | 70   | 41    | 2    | 535.7763.32 |
| 50 x 1,5       | 2"     | 70   | 44    | 2    | 535.5078.23 | 2"             | 50 x 1,5 | 70   | -     | 1    | 535.7850.32 |
| 63 x 1,5       | 2"     | 70   | 55    | 2    | 535.6378.23 | 2"             | 63 x 1,5 | 70   | 54    | 2    | 535.7863.32 |
| 75 x 1,5       | 2 1/2" | 80   | 64    | 2    | 535.7479.23 | 2 1/2"         | 75 x 1,5 | 80   | 64    | 2    | 535.7974.32 |
| <b>Pg NPT</b>  |        |      |       |      |             | <b>NPT Pg</b>  |          |      |       |      |             |
| 9              | 1/2"   | 23,4 | 10    | 2    | 535.0919.13 | 1/2"           | 9        | 23,4 | -     | 1    | 535.1909.31 |
| 11             | 1/2"   | 23,4 | 14    | 2    | 535.1119.13 | 1/2"           | 11       | 23,4 | 15    | 2    | 535.1911.31 |
| 13,5           | 1/2"   | 23,4 | 15    | 2    | 535.1319.13 | 1/2"           | 13,5     | 23,4 | 15    | 2    | 535.1913.31 |
| 16             | 1/2"   | 23,4 | 17,5  | 2    | 535.1619.13 | 1/2"           | 16       | 30,5 | 15    | 2    | 535.1916.31 |
| 16             | 3/4"   | 30,5 | 17,5  | 2    | 535.1635.13 | 3/4"           | 11       | 27,9 | -     | 1    | 535.3511.31 |
| 21             | 3/4"   | 30,5 | 23,5  | 2    | 535.2135.13 | 3/4"           | 13,5     | 27,9 | -     | 1    | 535.3513.31 |
| 21             | 1"     | 37,6 | 23,5  | 2    | 535.2175.13 | 3/4"           | 16       | 30,5 | 20,5  | 2    | 535.3516.31 |
| 29             | 1"     | 42,4 | -     | 1    | 535.2975.13 | 3/4"           | 21       | 37,6 | 20,5  | 2    | 535.3521.31 |
| 29             | 1 1/4" | 47,2 | 31    | 2    | 535.2976.13 | 1"             | 21       | 37,6 | 26,8  | 2    | 535.7521.31 |
| 36             | 1 1/4" | 56   | -     | 1    | 535.3676.13 | 1"             | 29       | 42,4 | 26,8  | 2    | 575.7529.31 |
| 36             | 1 1/2" | 56   | 40    | 2    | 535.3677.13 | 1 1/4"         | 29       | 47,2 | 33,5  | 2    | 575.7629.31 |
| 42             | 1 1/2" | 56   | 48    | 2    | 535.4277.13 | 1 1/4"         | 36       | 56   | 33,5  | 2    | 535.7636.31 |
| 42             | 2"     | 70   | 48    | 2    | 535.4278.13 | 1 1/2"         | 36       | 56   | 41    | 2    | 535.7736.31 |
| 48             | 1 1/2" | 70   | -     | 1    | 535.4877.13 | 1 1/2"         | 42       | 70   | 41    | 2    | 535.7742.31 |
| 48             | 2"     | 70   | 53    | 2    | 535.4878.13 | 2"             | 48       | 70   | 54    | 2    | 535.7848.31 |
| 48             | 2 1/2" | 80   | 53    | 2    | 535.4879.13 | 2 1/2"         | 48       | 80   | -     | 1    | 535.7948.31 |



Form 1



Form 2

Bitte den Hinweis auf der vorangegangenen Seite beachten

For some notes please refer to the page before

Material: Messing vernickelt  
O-Ring: FPM  
Einsatztemperatur: -60°C bis 100°C  
Schutzart: IP 66 / IP 68

Material: brass, nickel-plated  
O-ring: FPM  
Temperature range: -60°C to 100°C  
Protection type: IP 66 / IP 68

**Ex e**



**545.EX**

Zertifikate: SEV 15 ATEX 0151 X  
IECEX SEV 15.0018X

Certificates: SEV 15 ATEX 0151 X  
IECEX SEV 15.0018X

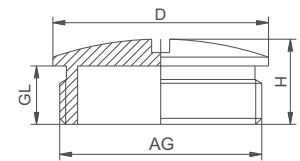
Weitere internationale Zulassungen vorhanden

Further international approvals available



II 2G Ex eb IIC Gb  
II 2D Ex tb IIIC Db

| Gewinde<br>Thread<br>AG | D<br>mm | H<br>mm | GL<br>mm | A-Nummer<br>A-Reference | HUGRO No. |
|-------------------------|---------|---------|----------|-------------------------|-----------|
| M 8 x 1,25              | 10      | 8       | 5        | EX8708.08               | 545.08.EX |
| M 10 x 1,5              | 12      | 8       | 5        | EX8710.08               | 545.10.EX |
| M 12 x 1,5              | 14      | 8       | 5        | EX8712.08               | 545.15.EX |
| M 16 x 1,5              | 19      | 8       | 5        | EX8717.08               | 545.17.EX |
| M 20 x 1,5              | 24      | 9       | 6        | EX8720.08               | 545.20.EX |
| M 25 x 1,5              | 28      | 11      | 7        | EX8725.08               | 545.25.EX |
| M 32 x 1,5              | 35      | 12      | 8        | EX8732.08               | 545.32.EX |
| M 40 x 1,5              | 45      | 14      | 8        | EX8740.08               | 545.40.EX |
| M 50 x 1,5              | 55      | 15      | 9        | EX8750.08               | 545.50.EX |
| M 63 x 1,5              | 70      | 16      | 10       | EX8763.08               | 545.63.EX |
| Pg 7                    | 14      | 8       | 5        | EX8707.08               | 545.07.EX |
| Pg 9                    | 17      | 9       | 6        | EX8709.08               | 545.09.EX |
| Pg 11                   | 20      | 9       | 6        | EX8711.08               | 545.11.EX |
| Pg 13,5                 | 22      | 9,5     | 6,5      | EX8713.08               | 545.13.EX |
| Pg 16                   | 24      | 9,5     | 6,5      | EX8716.08               | 545.16.EX |
| Pg 21                   | 30      | 11      | 7        | EX8721.08               | 545.21.EX |
| Pg 29                   | 39      | 12      | 8        | EX8729.08               | 545.29.EX |
| Pg 36                   | 50      | 15      | 9        | EX8736.08               | 545.36.EX |
| Pg 48                   | 65      | 16      | 10       | EX8748.08               | 545.48.EX |





Material: Messing vernickelt  
 O-Ring: NBR oder FKM  
 Einsatztemperatur: 548.10 -20°C bis 95°C  
 548.13 -20°C bis 180°C  
 Schutzart: IP 68 - 10 bar / 30 min  
 IP 69 K

Material: brass, nickel-plated  
 O-ring: NBR or FKM  
 Temperature range: 548.10 -20°C to 95°C  
 548.13 -20°C to 180°C  
 Protection type: IP 68 - 10 bar / 30 min  
 IP 69K

**Ex e**



**548.10**  
**548.13**

Zertifikate: DMT 03 ATEX E 049  
 IECEx BVS 07.0021

Certificates: DMT 03 ATEX E 049  
 IECEx BVS 07.0021




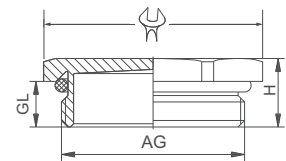
Weitere internationale Zulassungen vorhanden


Further international approvals available



II 1D Ex ta IIIC Da  
 II 2G Ex e IIC Gb

| Gewinde<br>Entry Thread<br>AG | <br>mm | H<br>mm | GL<br>mm | V-Ms-Ex       | NBR-O-Ring<br>HUGRO No. |
|-------------------------------|---|---------|----------|---------------|-------------------------|
| M 12 x 1,5                    | 14  | 8       | 5        | 1.197.1200.50 | 548.15.10               |
| M 16 x 1,5                    | 19  | 9       | 6        | 1.197.1600.50 | 548.17.10               |
| M 20 x 1,5                    | 22  | 9,5     | 6        | 1.197.2000.50 | 548.20.10               |
| M 25 x 1,5                    | 30  | 10,5    | 7        | 1.197.2500.50 | 548.25.10               |
| M 32 x 1,5                    | 41  | 12,5    | 8        | 1.197.3200.50 | 548.32.10               |
| M 40 x 1,5                    | 46  | 13      | 8        | 1.197.4000.50 | 548.40.10               |
| M 50 x 1,5                    | 55  | 15      | 9        | 1.197.5000.50 | 548.50.10               |
| M 63 x 1,5                    | 70  | 16,5    | 10       | 1.197.6300.50 | 548.63.10               |
| Pg 7                          | 14  | 8       | 5        | 1.197.0700.01 | 548.07.10               |
| Pg 9                          | 17  | 9       | 6        | 1.197.0900.01 | 548.09.10               |
| Pg 11                         | 20  | 9,5     | 6        | 1.197.1100.01 | 548.11.10               |
| Pg 13,5                       | 22  | 10      | 6,5      | 1.197.1300.01 | 548.13.10               |
| Pg 16                         | 24  | 10      | 6,5      | 1.197.1600.01 | 548.16.10               |
| Pg 21                         | 30  | 10,5    | 7        | 1.197.2100.01 | 548.21.10               |
| Pg 29                         | 41  | 12,5    | 8        | 1.197.2900.01 | 548.29.10               |
| Pg 36                         | 50  | 13      | 8        | 1.197.3600.01 | 548.36.10               |
| Pg 42                         | 58  | 15      | 9        | 1.197.4200.01 | 548.42.10               |
| Pg 48                         | 65  | 16,5    | 10       | 1.197.4800.01 | 548.48.10               |



| Gewinde<br>Entry Thread<br>AG | <br>mm | H<br>mm | GL<br>mm | V-Ms-FPM-Ex   | FPM-O-Ring<br>HUGRO No. |
|-------------------------------|---|---------|----------|---------------|-------------------------|
| M 12 x 1,5                    | 14  | 8       | 5        | 1.198.1200.50 | 548.15.13               |
| M 16 x 1,5                    | 19  | 9       | 6        | 1.198.1600.50 | 548.17.13               |
| M 20 x 1,5                    | 22  | 9,5     | 6        | 1.198.2000.50 | 548.20.13               |
| M 25 x 1,5                    | 30  | 10,5    | 7        | 1.198.2500.50 | 548.25.13               |
| M 32 x 1,5                    | 41  | 12,5    | 8        | 1.198.3200.50 | 548.32.13               |
| M 40 x 1,5                    | 46  | 13      | 8        | 1.198.4000.50 | 548.40.13               |
| M 50 x 1,5                    | 55  | 15      | 9        | 1.198.5000.50 | 548.50.13               |
| M 63 x 1,5                    | 70  | 16,5    | 10       | 1.198.6300.50 | 548.63.13               |
| Pg 7                          | 14  | 8       | 5        | 1.198.0700.01 | 548.07.13               |
| Pg 9                          | 17  | 9       | 6        | 1.198.0900.01 | 548.09.13               |
| Pg 11                         | 20  | 9,5     | 6        | 1.198.1100.01 | 548.11.13               |
| Pg 13,5                       | 22  | 10      | 6,5      | 1.198.1300.01 | 548.13.13               |
| Pg 16                         | 24  | 10      | 6,5      | 1.198.1600.01 | 548.16.13               |
| Pg 21                         | 30  | 10,5    | 7        | 1.198.2100.01 | 548.21.13               |
| Pg 29                         | 41  | 12,5    | 8        | 1.198.2900.01 | 548.29.13               |
| Pg 36                         | 50  | 13      | 8        | 1.198.3600.01 | 548.36.13               |
| Pg 42                         | 58  | 15      | 9        | 1.198.4200.01 | 548.42.13               |
| Pg 48                         | 65  | 16,5    | 10       | 1.198.4800.01 | 548.48.13               |



Material: Messing vernickelt  
O-Ring: FPM  
Einsatztemperatur: -40°C bis 100°C  
Schutzart: IP 68 (30 bar)  
  
Zertifikate: PTB 00 ATEX 1059  
IECEX PTB 12.0056

Material: brass, nickel-plated  
O-ring: FPM  
Temperature range: -40°C to 100°C  
Protection type: IP 68 (30 bar)  
  
Certificates: PTB 00 ATEX 1059  
IECEX PTB 12.0056



548.EX

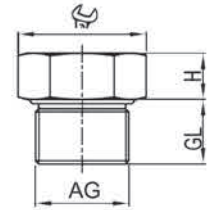


ATEX II 2GD  
II 2G Ex db eb IIC  
II 2D Ex ta IIC

Weitere internationale Zulassungen vorhanden

Further international approvals available

| Gewinde<br>Entry Thread<br>AG | mm | H<br>mm | GL<br>mm | A-Nummer<br>A-Reference | HUGRO No. |
|-------------------------------|----|---------|----------|-------------------------|-----------|
| M 12 x 1,5                    | 15 | 5       | 15       | 8710.12                 | 548.15.EX |
| M 16 x 1,5                    | 18 | 6       | 15       | 8710.17                 | 548.17.EX |
| M 20 x 1,5                    | 20 | 8       | 15       | 8710.20                 | 548.20.EX |
| M 25 x 1,5                    | 30 | 10      | 15       | 8710.25                 | 548.25.EX |
| M 32 x 1,5                    | 36 | 12      | 15       | 8710.32                 | 548.32.EX |
| M 40 x 1,5                    | 46 | 12      | 15       | 8710.40                 | 548.40.EX |
| M 50 x 1,5                    | 55 | 12      | 15       | 8710.50                 | 548.50.EX |
| M 63 x 1,5                    | 70 | 12      | 15       | 8710.63                 | 548.63.EX |
| Pg 7                          | 16 | 6,4     | 10,5     | 8710.07                 | 548.07.EX |
| Pg 9                          | 18 | 7,5     | 12       | 8710.09                 | 548.09.EX |
| Pg 11                         | 21 | 8,8     | 12       | 8710.11                 | 548.11.EX |
| Pg 13,5                       | 24 | 10      | 14       | 8710.13                 | 548.13.EX |
| Pg 16                         | 27 | 11,5    | 14       | 8710.16                 | 548.16.EX |
| Pg 21                         | 32 | 14      | 16       | 8710.21                 | 548.21.EX |
| Pg 29                         | 41 | 17      | 17       | 8710.29                 | 548.29.EX |
| Pg 36                         | 55 | 22,5    | 17       | 8710.36                 | 548.36.EX |




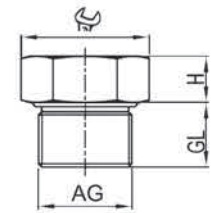
|                    |   |                    |   |
|--------------------|---|--------------------|---|
| Material:          | Edelstahl (1.4404)                              | Material:          | stainless steel (1.4404)                      |
| O-Ring:            | NBR / VMQ (Silikon)                             | O-ring:            | NBR / VMQ (silikon)                           |
| Einsatztemperatur: | NBR: -20 °C bis 95 °C<br>VMQ: -60 °C bis 180 °C | Temperature range: | NBR: -20 °C to 95 °C<br>VMQ: -60 °C to 180 °C |
| Schutzart:         | IP68 - 10 bar / 30 min,<br>IP69 K               | Protection type:   | IP68 - 10 bar / 30 min,<br>IP69 K             |
| Zertifikate:       | KEMA 06 ATEX 0024<br>IECEX KEM 07.0012          | Certificates:      | KEMA 06 ATEX 0024<br>IECEX KEM 07.0012        |

**Ex d** 548.40  
548.44



II 2G Ex db eb IIC Gb  
II 1D Ex ta IIIC Da

| Gewinde<br>Entry Thread<br>AG | <br>mm | H<br>mm | GL<br>mm | A-Nummer<br>A-Reference<br>V-INOX-Ex d | HUGRO No. |
|-------------------------------|---|---------|----------|--|-----------|
| <b>NBR</b>                    |   |         |          |  |           |
| M12 x 1,5                     | 14  | 3       | 16       | 1.895.1200.50                          | 548.15.40 |
| M16 x 1,5                     | 19  | 3       | 16       | 1.895.1600.50                          | 548.17.40 |
| M20 x 1,5                     | 22  | 3,5     | 16       | 1.895.2000.50                          | 548.20.40 |
| M25 x 1,5                     | 30  | 3,5     | 16       | 1.895.2500.50                          | 548.25.40 |
| M32 x 1,5                     | 41  | 4,5     | 16       | 1.895.3200.50                          | 548.32.40 |
| M40 x 1,5                     | 46  | 5       | 16       | 1.895.4000.50                          | 548.40.40 |
| M50 x 1,5                     | 55  | 6       | 16       | 1.895.5000.50                          | 548.50.40 |
| M63 x 1,5                     | 70  | 6,5     | 16       | 1.895.6300.50                          | 548.63.40 |
| <b>VMQ</b>                    |   |         |          |  |           |
| M12 x 1,5                     | 14  | 3       | 16       | 1.897.1200.50                          | 548.15.44 |
| M16 x 1,5                     | 19  | 3       | 16       | 1.897.1600.50                          | 548.17.44 |
| M20 x 1,5                     | 22  | 3,5     | 16       | 1.897.2000.50                          | 548.20.44 |
| M25 x 1,5                     | 30  | 3,5     | 16       | 1.897.2500.50                          | 548.25.44 |
| M32 x 1,5                     | 41  | 4,5     | 16       | 1.897.3200.50                          | 548.32.44 |
| M40 x 1,5                     | 46  | 5       | 16       | 1.897.4000.50                          | 548.40.44 |
| M50 x 1,5                     | 55  | 6       | 16       | 1.897.5000.50                          | 548.50.44 |
| M63 x 1,5                     | 70  | 6,5     | 16       | 1.897.6300.50                          | 548.63.44 |



Material: Messing blank  
Schutzart: IP 66/68\*

Zertifikate: IST 16 ATEX 101335 X  
IECEX IST 16.0012 X

Material: brass  
Protection type: IP 66/68\*

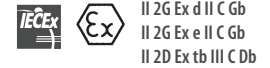
Certificates: IST 16 ATEX 101335 X  
IECEX IST 16.0012 X




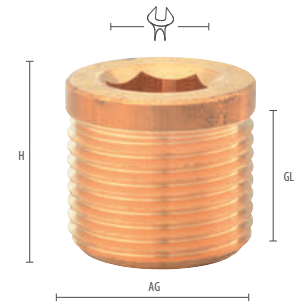
549.00  
549.50  
549.MB

Weitere internationale Zulassungen vorhanden

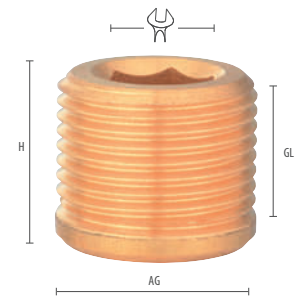
Further international approvals available



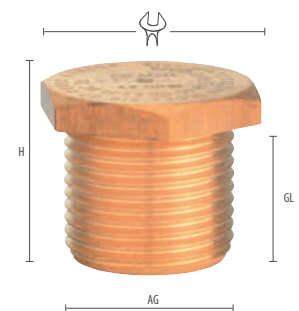
| Gewinde<br>Entry Thread<br>AG | H<br>mm | GL<br>mm | Form A<br>HUGRO No. | Form B<br>HUGRO No. | <br>mm | H<br>mm | GL<br>mm | Form C<br>HUGRO No. |
|-------------------------------|---------|----------|---------------------|---------------------|---|---------|----------|---------------------|
| M 16 x 1,5                    | 17      | 16       | 549.17              | 549.17.50           | 19  | 20,5    | 17       | 549.17.MB *         |
| M 20 x 1,5                    | 17      | 16       | 549.20              | 549.20.50           | 23,3  | 20,5    | 17       | 549.20.MB *         |
| M 25 x 1,5                    | 17      | 16       | 549.25              | 549.25.50           | 28  | 20,5    | 17       | 549.25.MB *         |
| M 32 x 1,5                    | 17      | 16       | 549.32              | 549.32.50           | 37,5  | 21      | 17       | 549.32.MB *         |
| M 40 x 1,5                    | 17      | 16       | 549.40              | 549.40.50           | 47  | 22      | 17       | 549.40.MB *         |
| M 50 x 1,5                    | 17      | 16       | 549.50              | 549.50.50           | 56  | 23      | 17       | 549.50.MB *         |
| M 63 x 1,5                    | 17      | 16       | 549.63              | 549.63.50           | 70  | 24      | 17       | 549.63.MB *         |
| M 75 x 1,5                    | 17      | 16       | 549.74              | 549.74.50           | 80  | 25      | 17       | 549.74.MB *         |
| Pg 7                          | 17      | 16       | 549.07              | 549.07.50           | 16  | 20,5    | 17       | 549.07.MB *         |
| Pg 9                          | 17      | 16       | 549.09              | 549.09.50           | 19  | 20,5    | 17       | 549.09.MB *         |
| Pg 11                         | 17      | 16       | 549.11              | 549.11.50           | 23,3  | 20,5    | 17       | 549.11.MB *         |
| Pg 13,5                       | 17      | 16       | 549.13              | 549.13.50           | 23,3  | 20,5    | 17       | 549.13.MB *         |
| Pg 16                         | 17      | 16       | 549.16              | 549.16.50           | 23,3  | 20,5    | 17       | 549.16.MB *         |
| Pg 21                         | 17      | 16       | 549.21              | 549.21.50           | 30,5  | 21      | 17       | 549.21.MB *         |
| Pg 29                         | 17      | 16       | 549.29              | 549.29.50           | 42,4  | 22      | 17       | 549.29.MB *         |
| Pg 36                         | 17      | 16       | 549.36              | 549.36.50           | 56  | 23      | 17       | 549.36.MB *         |
| Pg 42                         | 17      | 16       | 549.42              | 549.42.50           | 56  | 23      | 17       | 549.42.MB *         |
| Pg 48                         | 17      | 16       | 549.48              | 549.48.50           | 70  | 24      | 17       | 549.48.MB *         |
| 3/8" NPT                      | 10      | 10       | 549.39              | 549.39.50           | 19  | 20,5    | 15       | 549.39.MB           |
| 1/2" NPT                      | 12      | 12       | 549.19              | 549.19.50           | 23,3  | 20,5    | 17       | 549.19.MB           |
| 3/4" NPT                      | 12      | 12       | 549.35              | 549.35.50           | 28  | 20,5    | 17       | 549.35.MB           |
| 1" NPT                        | 15      | 15       | 549.75              | 549.75.50           | 37,6  | 21      | 17       | 549.75.MB           |
| 1 1/4" NPT                    | 16      | 16       | 549.76              | 549.76.50           | 47,2  | 22      | 18       | 549.76.MB           |
| 1 1/2" NPT                    | 16,5    | 16,5     | 549.77              | 549.77.50           | 56  | 23      | 18       | 549.77.MB           |
| 2" NPT                        | 17      | 17       | 549.78              | 549.78.50           | 70  | 24      | 18       | 549.78.MB           |



Form A



Form B



Form C

|  |   |
|--|---|
| <b>Ausführung A:</b><br>Montage von außen<br>Inbus 10mm  | <b>Design A:</b><br>Tightened from the outside<br>Allen key 10 mm   |
| <b>Ausführung B:</b><br>Montage von innen<br>Inbus 10mm  | <b>Design B:</b><br>Tightened from the inside<br>Allen key 10 mm  |
| <b>Ausführung C:</b><br>mit 6kt.-Kopf  | <b>Design C:</b><br>Hexagon headed  |
| <b>Auf Anfrage:</b><br>- andere Gewinde<br>- in Messing vernickelt<br>- in Edelstahl<br>- andere Materialien | <b>On request:</b><br>- other entry threads<br>- brass, nickel-plated<br>- stainless steel<br>- other materials |

Material: PA, glasfaserverstärkt  
 Farbe: schwarz  
 O-Ring: EPDM  
 Einsatztemperatur: -20°C bis 65°C  
 Schutzart: IP 68

Material: PA (nylon), glass fibre-reinforced  
 Colour: black  
 O-ring: EPDM  
 Temperature range: -20°C to 65°C  
 Protection type: IP 68

**Ex e**

573.11  
 573.22  
 573.33

Zertifikate: IST 16 ATEX 101336 X  
 IECEx IST 16.0011 X

Certificates: IST 16 ATEX 101336 X  
 IECEx IST 16.0011 X

Weitere internationale Zulassungen vorhanden

Further international approvals available



| Gewinde    |            |      |      |      |             | Gewinde   |           |      |      |      |             |
|------------|------------|------|------|------|-------------|-----------|-----------|------|------|------|-------------|
| Thread     | IG         | Ø    | d1   | Form | HUGRO No.   | Thread    | IG        | Ø    | d1   | Form | HUGRO No.   |
| AG         |            | mm   | mm   |      |             | AG        |           | mm   | mm   |      |             |
| <b>M</b>   | <b>M</b>   |      |      |      |             | <b>Pg</b> | <b>Pg</b> |      |      |      |             |
| 16 x 1,5   | 20 x 1,5   | 24   | 8    | 2    | 573.1720.22 | 7         | 9         | 25   | 5,5  | 2    | 573.0709.11 |
| 20 x 1,5   | 16 x 1,5   | 25   | -    | 1    | 573.2017.22 | 9         | 7         | 25   | 8    | 2    | 573.0907.11 |
| 20 x 1,5   | 25 x 1,5   | 27,5 | 12,5 | 2    | 573.2025.22 | 9         | 11        | 27,5 | 8    | 2    | 573.0911.11 |
| 25 x 1,5   | 16 x 1,5   | 30   | -    | 1    | 573.2517.22 | 11        | 7         | 27,5 | -    | 1    | 573.1107.11 |
| 25 x 1,5   | 20 x 1,5   | 30   | -    | 1    | 573.2520.22 | 11        | 9         | 27,5 | 11   | 2    | 573.1109.11 |
| 25 x 1,5   | 32 x 1,5   | 35,5 | 17,5 | 2    | 573.2532.22 | 11        | 13,5      | 27,5 | 11   | 2    | 573.1113.11 |
| 32 x 1,5   | 20 x 1,5   | 38   | -    | 1    | 573.3220.22 | 13,5      | 9         | 27,5 | -    | 1    | 573.1309.11 |
| 32 x 1,5   | 25 x 1,5   | 38   | -    | 1    | 573.3225.22 | 13,5      | 11        | 27,5 | 12,9 | 2    | 573.1311.11 |
| 32 x 1,5   | 40 x 1,5   | 41   | 24,5 | 2    | 573.3240.22 | 13,5      | 16        | 27,5 | 12,9 | 2    | 573.1316.11 |
| 40 x 1,5   | 25x1,5     | 46   | -    | 1    | 573.4025.22 | 16        | 11        | 27,5 | -    | 1    | 573.1611.11 |
| 40 x 1,5   | 32x1,5     | 46   | -    | 1    | 573.4032.22 | 16        | 13,5      | 27,5 | -    | 1    | 573.1613.11 |
| 40 x 1,5   | 50x1,5     | 50   | 32,5 | 2    | 573.4050.22 | 16        | 21        | 33   | 15   | 2    | 573.1621.11 |
| 50 x 1,5   | 32x1,5     | 56   | -    | 1    | 573.5032.22 | 21        | 13,5      | 33   | -    | 1    | 573.2113.11 |
| 50 x 1,5   | 40x1,5     | 56   | -    | 1    | 573.5040.22 | 21        | 16        | 33   | -    | 1    | 573.2116.11 |
| 50 x 1,5   | 63x1,5     | 60   | 42,5 | 2    | 573.5063.22 | 21        | 29        | 43   | 20,8 | 2    | 573.2129.11 |
| 63 x 1,5   | 40x1,5     | 70   | -    | 1    | 573.6340.22 | 29        | 16        | 43   | -    | 1    | 573.2916.11 |
| 63 x 1,5   | 50x1,5     | 70   | -    | 1    | 573.6350.22 | 29        | 21        | 43   | -    | 1    | 573.2921.11 |
| 63 x 1,5   | 75x1,5     | 75   | 55   | 2    | 573.6374.22 | 29        | 36        | 56   | 29,5 | 2    | 573.2936.11 |
| 75 x 1,5   | 50x1,5     | 81   | -    | 1    | 573.7450.22 | 36        | 21        | 56   | -    | 1    | 573.3621.11 |
| 75 x 1,5   | 63x1,5     | 81   | -    | 1    | 573.7463.22 | 36        | 29        | 56   | -    | 1    | 573.3629.11 |
|            |            |      |      |      |             | 36        | 42        | 60   | 39,5 | 2    | 573.3642.11 |
|            |            |      |      |      |             | 42        | 29        | 60   | -    | 1    | 573.4229.11 |
| <b>NPT</b> | <b>NPT</b> |      |      |      |             | 42        | 36        | 60   | -    | 1    | 573.4236.11 |
| 1/2"       | 3/4"       | 35,5 | 12   | 2    | 573.1935.33 | 42        | 48        | 65   | 46,5 | 2    | 573.4248.11 |
| 3/4"       | 1/2"       | 35,5 | -    | 1    | 573.3519.33 | 48        | 36        | 65   | -    | 1    | 573.4836.11 |
| 3/4"       | 1"         | 41   | 17   | 2    | 573.3575.33 | 48        | 42        | 65   | -    | 1    | 573.4842.11 |
| 1"         | 1/2"       | 41   | -    | 1    | 573.7519.33 |           |           |      |      |      |             |
| 1"         | 3/4"       | 41   | -    | 1    | 573.7535.33 |           |           |      |      |      |             |
| 1"         | 1 1/4"     | 55   | 23   | 2    | 573.7576.33 |           |           |      |      |      |             |
| 1 1/4"     | 3/4"       | 55   | -    | 1    | 573.7635.33 |           |           |      |      |      |             |
| 1 1/4"     | 1"         | 55   | -    | 1    | 573.7675.33 |           |           |      |      |      |             |
| 1 1/4"     | 1 1/2"     | 60   | 32   | 2    | 573.7677.33 |           |           |      |      |      |             |
| 1 1/2"     | 1"         | 60   | -    | 1    | 573.7775.33 |           |           |      |      |      |             |
| 1 1/2"     | 1 1/4"     | 60   | -    | 1    | 573.7776.33 |           |           |      |      |      |             |
| 1 1/2"     | 2"         | 70   | 38   | 2    | 573.7778.33 |           |           |      |      |      |             |
| 2"         | 1 1/4"     | 70   | -    | 1    | 573.7876.33 |           |           |      |      |      |             |
| 2"         | 1 1/2"     | 70   | -    | 1    | 573.7877.33 |           |           |      |      |      |             |
| 2"         | 2 1/2"     | 80   | 50   | 2    | 573.7879.33 |           |           |      |      |      |             |
| 2 1/2"     | 1 1/2"     | 80   | -    | 1    | 573.7977.33 |           |           |      |      |      |             |
| 2 1/2"     | 2"         | 80   | -    | 1    | 573.7978.33 |           |           |      |      |      |             |
| 2 1/2"     | 3"         | 95   | 60   | 2    | 573.7980.33 |           |           |      |      |      |             |
| 3"         | 2"         | 95   | -    | 1    | 573.8078.33 |           |           |      |      |      |             |
| 3"         | 2 1/2"     | 95   | -    | 1    | 573.8079.33 |           |           |      |      |      |             |



Form 1



Form 2

Weitere Größen (Kombinationen) und andere Gewinde auf Anfrage Further sizes (combinations) and other threads on request

Material: PA, glasfaserverstärkt  
Farbe: schwarz  
O-Ring: EPDM  
Einsatztemperatur: -20°C bis 65°C  
Schutzart: IP 68

Material: PA (nylon), glass fibre-reinforced  
Colour: black  
O-ring: EPDM  
Temperature range: -20°C to 65°C  
Protection type: IP 68

**Ex e**

573.12 573.23  
573.13 573.31  
573.21 573.32

Zertifikate: IST 16 ATEX 101336 X  
IECEX IST 16.0011 X

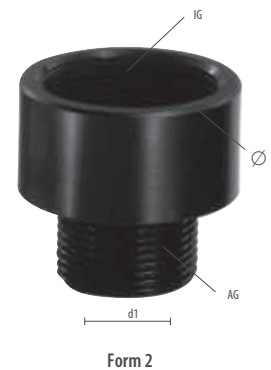
Certificates: IST 16 ATEX 101336 X  
IECEX IST 16.0011 X

Weitere internationale Zulassungen vorhanden

Further international approvals available



| Gewinde Thread |            |      |       |      |             | Gewinde Thread |           |      |       |      |             |
|----------------|------------|------|-------|------|-------------|----------------|-----------|------|-------|------|-------------|
| AG             | IG         | Ø mm | d1 mm | Form | HUGRO No.   | AG             | IG        | Ø mm | d1 mm | Form | HUGRO No.   |
| <b>M</b>       | <b>Pg</b>  |      |       |      |             | <b>Pg</b>      | <b>M</b>  |      |       |      |             |
| 16 x 1,5       | 9          | 27,5 | 8     | 2    | 573.1709.21 | 9              | 16 x 1,5  | 25   | 8     | 2    | 573.0917.12 |
| 16 x 1,5       | 11         | 27,5 | 8     | 2    | 573.1711.21 | 11             | 16 x 1,5  | 27,5 | 11    | 2    | 573.1117.12 |
| 16 x 1,5       | 13,5       | 27,5 | 8     | 2    | 573.1713.21 | 11             | 20 x 1,5  | 27,5 | 11    | 2    | 573.1120.12 |
| 20 x 1,5       | 11         | 27,5 | 12,5  | 2    | 573.2011.21 | 13,5           | 16 x 1,5  | 25   | -     | 1    | 573.1317.12 |
| 20 x 1,5       | 13,5       | 27,5 | 12,5  | 2    | 573.2013.21 | 13,5           | 20 x 1,5  | 27,5 | 12,9  | 2    | 573.1320.12 |
| 20 x 1,5       | 16         | 35   | 12,5  | 2    | 573.2016.21 | 13,5           | 25 x 1,5  | 35,5 | 12,9  | 2    | 573.1325.12 |
| 25 x 1,5       | 13,5       | 30   | -     | 1    | 573.2513.21 | 16             | 20 x 1,5  | 27,5 | 15    | 2    | 573.1620.12 |
| 25 x 1,5       | 16         | 35,5 | 17,5  | 2    | 573.2516.21 | 16             | 25 x 1,5  | 35,5 | 15    | 2    | 573.1625.12 |
| 25 x 1,5       | 21         | 35,5 | 17,5  | 2    | 573.2521.21 | 21             | 25 x 1,5  | 35,5 | 20,8  | 2    | 573.2125.12 |
| 32 x 1,5       | 21         | 41   | 24,5  | 2    | 573.3221.21 | 21             | 32 x 1,5  | 41   | 20,8  | 2    | 573.2132.12 |
| 32 x 1,5       | 29         | 50   | 24,5  | 2    | 573.3229.21 | 29             | 32 x 1,5  | 43   | -     | 1    | 573.2932.12 |
| 40 x 1,5       | 29         | 50   | 32,5  | 2    | 573.4029.21 | 29             | 40 x 1,5  | 50   | 29,5  | 2    | 573.2940.12 |
| 40 x 1,5       | 36         | 60   | 32,5  | 2    | 573.4036.21 | 36             | 40 x 1,5  | 56   | -     | 1    | 573.3640.12 |
| 50 x 1,5       | 36         | 60   | 42,5  | 2    | 573.5036.21 | 36             | 50 x 1,5  | 60   | 39,5  | 2    | 573.3650.12 |
| 50 x 1,5       | 42         | 70   | 42,5  | 2    | 573.5042.21 | 42             | 50 x 1,5  | 60   | 46,5  | 2    | 573.4250.12 |
| 63 x 1,5       | 42         | 70   | -     | 1    | 573.6342.21 | 42             | 63 x 1,5  | 80   | 46,5  | 2    | 573.4263.12 |
| 63 x 1,5       | 48         | 70   | 55    | 2    | 573.6348.21 | 48             | 50 x 1,5  | 65   | -     | 1    | 573.4850.12 |
| 75 x 1,5       | 42         | 81   | -     | 1    | 573.7442.21 | 48             | 63 x 1,5  | 80   | 51,8  | 2    | 573.4863.12 |
| 75 x 1,5       | 48         | 81   | -     | 1    | 573.7448.21 | 48             | 75 x 1,5  | 90   | 51,8  | 2    | 573.4874.12 |
| <b>M</b>       | <b>NPT</b> |      |       |      |             | <b>NPT</b>     | <b>M</b>  |      |       |      |             |
| 16 x 1,5       | 1/2"       | 27,5 | 8     | 2    | 573.1719.23 | 1/2"           | 20 x 1,5  | 27,5 | 12    | 2    | 573.1920.32 |
| 20 x 1,5       | 1/2"       | 27,5 | 12,5  | 2    | 573.2019.23 | 1/2"           | 25 x 1,5  | 35,5 | 12    | 2    | 573.1925.32 |
| 20 x 1,5       | 3/4"       | 35,5 | 12,5  | 2    | 573.2035.23 | 3/4"           | 20 x 1,5  | 33   | -     | 1    | 573.3520.32 |
| 25 x 1,5       | 3/4"       | 35,5 | 17,5  | 2    | 573.2535.23 | 3/4"           | 25 x 1,5  | 35,5 | 17    | 2    | 573.3525.32 |
| 25 x 1,5       | 1"         | 41   | 17,5  | 2    | 573.2575.23 | 1"             | 25 x 1,5  | 43   | -     | 1    | 573.7525.32 |
| 32 x 1,5       | 1"         | 41   | 24,5  | 2    | 573.3275.23 | 1"             | 32 x 1,5  | 43   | 23    | 2    | 573.7532.32 |
| 32 x 1,5       | 1 1/4"     | 55   | 24,5  | 2    | 573.3276.23 | 1 1/4"         | 40 x 1,5  | 50   | 32    | 2    | 573.7640.32 |
| 40 x 1,5       | 1 1/4"     | 55   | 32,5  | 2    | 573.4076.23 | 1 1/4"         | 50 x 1,5  | 60   | 32    | 2    | 573.7650.32 |
| 40 x 1,5       | 1 1/2"     | 60   | 32,5  | 2    | 573.4077.23 | 1 1/2"         | 50 x 1,5  | 60   | 38    | 2    | 573.7750.32 |
| 50 x 1,5       | 1 1/2"     | 60   | 42,5  | 2    | 573.5077.23 | 1 1/2"         | 63 x 1,5  | 80   | 38    | 2    | 573.7763.32 |
| 50 x 1,5       | 2"         | 70   | 42,5  | 2    | 573.5078.23 | 2"             | 50 x 1,5  | 70   | -     | 1    | 573.7850.32 |
| 63 x 1,5       | 2"         | 70   | 55    | 2    | 573.6378.23 | 2"             | 63 x 1,5  | 80   | 50    | 2    | 573.7863.32 |
| 75 x 1,5       | 2 1/2"     | 80   | 66    | 2    | 573.7479.23 | 2 1/2"         | 75 x 1,5  | 90   | 64    | 2    | 573.7974.32 |
| <b>Pg</b>      | <b>NPT</b> |      |       |      |             | <b>NPT</b>     | <b>Pg</b> |      |       |      |             |
| 9              | 1/2"       | 27,5 | 8     | 2    | 573.0919.13 | 1/2"           | 9         | 27,5 | -     | 1    | 573.1909.31 |
| 11             | 1/2"       | 27,5 | 11    | 2    | 573.1119.13 | 1/2"           | 11        | 27,5 | 12    | 2    | 573.1911.31 |
| 13,5           | 1/2"       | 27,5 | 12,9  | 2    | 573.1319.13 | 1/2"           | 13,5      | 27,5 | 12    | 2    | 573.1913.31 |
| 16             | 1/2"       | 27,5 | 15    | 2    | 573.1619.13 | 1/2"           | 16        | 35,5 | 12    | 2    | 573.1916.31 |
| 16             | 3/4"       | 35,5 | 15    | 2    | 573.1635.13 | 3/4"           | 11        | 33   | -     | 1    | 573.3511.31 |
| 21             | 3/4"       | 35,5 | 20,8  | 2    | 573.2135.13 | 3/4"           | 13,5      | 33   | -     | 1    | 573.3513.31 |
| 21             | 1"         | 41   | 20,8  | 2    | 573.2175.13 | 3/4"           | 16        | 35,5 | 17    | 2    | 573.3516.31 |
| 29             | 1"         | 43   | -     | 1    | 573.2975.13 | 3/4"           | 21        | 43   | 17    | 2    | 573.3521.31 |
| 29             | 1 1/4"     | 50   | 29,5  | 2    | 573.2976.13 | 1"             | 21        | 50   | 23    | 2    | 573.7521.31 |
| 36             | 1 1/4"     | 56   | -     | 1    | 573.3676.13 | 1"             | 29        | 50   | 23    | 2    | 575.7529.31 |
| 36             | 1 1/2"     | 60   | 39,5  | 2    | 573.3677.13 | 1 1/4"         | 29        | 50   | 32    | 2    | 575.7629.31 |
| 42             | 1 1/2"     | 60   | 46,5  | 2    | 573.4277.13 | 1 1/4"         | 36        | 60   | 32    | 2    | 573.7636.31 |
| 42             | 2"         | 70   | 46,5  | 2    | 573.4278.13 | 1 1/2"         | 36        | 60   | 38    | 2    | 573.7736.31 |
| 48             | 1 1/2"     | 65   | -     | 1    | 573.4877.13 | 1 1/2"         | 42        | 70   | 38    | 2    | 573.7742.31 |
| 48             | 2"         | 70   | 51,8  | 2    | 573.4878.13 | 2"             | 48        | 70   | 50    | 2    | 573.7848.31 |
| 48             | 2 1/2"     | 80   | 51,8  | 2    | 573.4879.13 | 2 1/2"         | 48        | 80   | 64    | 2    | 573.7948.31 |



Weitere Größen (Kombinationen) und andere Gewinde auf Anfrage Further sizes (combinations) and other threads on request

# Druckausgleichselement mit Membrane

# Pressure balance element with membrane



Material: Messing vernickelt  
Membrane: PES Polyethersulfon  
O-Ring: FPM  
Einsatztemperatur: -60 °C bis 100 °C  
Schutzart: IIP 66 / IP 68 / IP 69

Material: brass, nickel-plated  
Membrane: PES polyethersulfon  
O-ring: FPM  
Temperature range: -60 °C to 100 °C  
Protection type: IIP 66 / IP 68 / IP 69



556.EX

Zertifikat: SEV 16 ATEX 0143  
IECEX SEV 16.0010

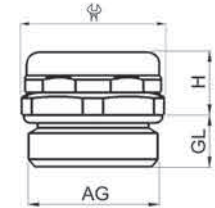
Certificate: SEV 16 ATEX 0143  
IECEX SEV 16.0010



| Gewinde<br>Entry Thread<br>AG |    | H<br>mm | GL<br>mm | EX DAE       | HUGRO No.   |
|-------------------------------|----|---------|----------|--------------|-------------|
| M 12 x 1,5                    | 18 | 9,5     | 8        | EX2450.12.34 | 556.15PS.EX |
| M 16 x 1,5                    | 18 | 9,5     | 8        | EX2450.17.34 | 556.17PS.EX |
| M 20 x 1,5                    | 22 | 9,5     | 8        | EX2450.20.34 | 556.20PS.EX |



II 2G Ex eb IIC Gb  
II 2D Ex tb IIIC Db



| Auf Anfrage:                     | On request:                        |
|----------------------------------|------------------------------------|
| - in Edelstahl 1.4305 und 1.4435 | - stainless steel 1.4305 or 1.4435 |
| - Ex de Version                  | - Ex de version                    |

# Blindstopfen/ Verschluss-Schrauben

# Stopping Plugs

Material: PA  
Farbe: schwarz  
O-Ring: NBR  
Einsatztemperatur: -20 °C bis 90 °C  
Schutzart: IP 68 - 10 bar / 30 min  
IP 69K

Material: PA (nylon)  
Colour: black  
O-ring: NBR  
Temperature range: -20 °C to 90 °C  
Protection type: IP 68 - 10 bar / 30 min  
IP 69K



586.11

Zertifikate: DMT 03 ATEX E 049  
IECEX BVS 07.0021

Certificates: DMT 03 ATEX E 049  
IECEX BVS 07.0021



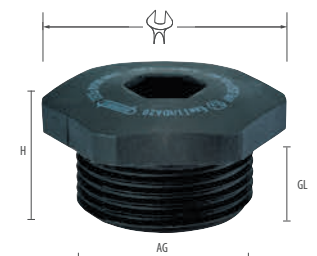
Weitere internationale Zulassungen vorhanden

Further international approvals available



II 1D Ex ta IIIC Da  
II 2G Ex e IIC Gb

| Gewinde<br>Entry Thread<br>AG |    | H<br>mm | GL<br>mm |   | V-EX          | HUGRO No. |
|-------------------------------|----|---------|----------|---|---------------|-----------|
| M 12 x 1,5                    | 15 | 13      | 8,5      | 6 | 1.297.1201.50 | 586.15.11 |
| M 16 x 1,5                    | 19 | 13      | 8,5      | 8 | 1.297.1601.50 | 586.17.11 |
| M 20 x 1,5                    | 24 | 14,5    | 9        | 8 | 1.297.2001.50 | 586.20.11 |
| M 25 x 1,5                    | 28 | 16      | 10,5     | 8 | 1.297.2501.50 | 586.25.11 |
| M 32 x 1,5                    | 36 | 17,5    | 11,5     | 8 | 1.297.3201.50 | 586.32.11 |
| M 40 x 1,5                    | 46 | 18      | 11,5     | 8 | 1.297.4001.50 | 586.40.11 |
| M 50 x 1,5                    | 55 | 20      | 13,5     | 8 | 1.297.5001.50 | 586.50.11 |
| M 63 x 1,5                    | 70 | 21      | 14,5     | 8 | 1.297.6301.50 | 586.63.11 |
| Pg 7                          | 15 | 13      | 8,5      | 6 | 1.297.0701.11 | 586.07.11 |
| Pg 9                          | 19 | 13      | 8,5      | 8 | 1.297.0901.11 | 586.09.11 |
| Pg 11                         | 24 | 14,5    | 9        | 8 | 1.297.1101.11 | 586.11.11 |
| Pg 13,5                       | 24 | 14,5    | 9        | 8 | 1.297.1301.11 | 586.13.11 |
| Pg 16                         | 28 | 16      | 10,5     | 8 | 1.297.1601.11 | 586.16.11 |
| Pg 21                         | 36 | 17,5    | 11,5     | 8 | 1.297.2101.11 | 586.21.11 |
| Pg 29                         | 46 | 18      | 11,5     | 8 | 1.297.2901.11 | 586.29.11 |
| Pg 36                         | 55 | 20      | 13,5     | 8 | 1.297.3601.11 | 586.36.11 |
| Pg 42                         | 60 | 20      | 13,5     | 8 | 1.297.4201.11 | 586.42.11 |
| Pg 48                         | 70 | 21      | 14,5     | 8 | 1.297.4801.11 | 586.48.11 |



Material: PA, glasfaserverstärkt  
Farbe: schwarz  
O-Ring: CR  
Einsatztemperatur: -20°C bis 65°C  
Schutzart: IP 68

Material: PA (nylon), glass fibre-reinforced  
Colour: black  
O-ring: CR  
Temperature range: -20°C to 65°C  
Protection type: IP 68

**Ex e**

587.11

Zertifikat: IST 16 ATEX 101335 X  
IECEX IST 16.0012 X

Certificate: IST 16 ATEX 101335 X  
IECEX IST 16.0012 X

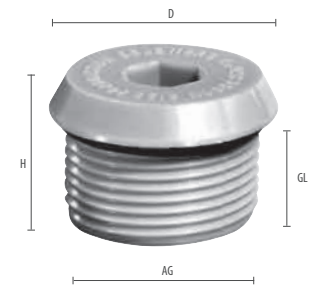


II 2G Ex e IIC Gb  
II 2G Ex tb IIIC

| Gewinde<br>Entry Thread<br>AG | D<br>mm | H<br>mm | GL<br>mm | mm | schwarz/black<br>HUGRO No. |
|-------------------------------|---------|---------|----------|----|----------------------------|
| M 16 x 1,5                    | 20,5    | 20      | 15       | 6  | 587.17.11                  |
| M 20 x 1,5                    | 25      | 20      | 15       | 10 | 587.20.11                  |
| M 25 x 1,5                    | 30      | 20      | 15       | 10 | 587.25.11                  |
| M 32 x 1,5                    | 38      | 20      | 15       | 10 | 587.32.11                  |
| M 40 x 1,5                    | 46      | 20      | 15       | 19 | 587.40.11                  |
| M 50 x 1,5                    | 56      | 20      | 15       | 19 | 587.50.11                  |
| M 63 x 1,5                    | 69      | 20      | 15       | 19 | 587.63.11                  |
| M 75 x 1,5                    | 81      | 20      | 15       | 19 | 587.74.11                  |
| 3/8" NPT                      | 25,1    | 20      | 15       | 10 | 587.39.11                  |
| 1/2" NPT                      | 27,5    | 20      | 15       | 10 | 587.19.11                  |
| 3/4" NPT                      | 33      | 20      | 15       | 10 | 587.35.11                  |
| 1" NPT                        | 44      | 20      | 15       | 19 | 587.75.11                  |
| 1 1/4" NPT                    | 56,1    | 20      | 15       | 19 | 587.76.11                  |
| 1 1/2" NPT                    | 56      | 20      | 15       | 19 | 587.77.11                  |
| 2" NPT                        | 69      | 20      | 15       | 19 | 587.78.11                  |

Weitere Größen und andere Gewinde auf Anfrage

Other sizes and other threads on request



## Verschlüsse

für Ex-Kabelverschraubungen WAZU

## Plugs

for Ex cable glands WAZU

### WAZU-V/EX

Material: Elastomer  
Farbe: schwarz  
Einsatztemperatur: -40°C bis 95°C

Material: elastomer  
Colour: black  
Temperature range: -40°C to 95°C

**Ex e**

684.11

Zertifikate: BSV 03 ATEX E 298  
IECEX BVS 07.0022 X

Certificates: BSV 03 ATEX E 298  
IECEX BVS 07.0022 X



II 1D Ex ta IIIC Da  
II 2G Ex e IIC Gb

Weitere internationale Zulassungen vorhanden

Further international approvals available

| für Nenngröße<br>for size  | für Hutmutter SW<br>for dome nut A/F |         | D<br>mm | d<br>mm | H<br>mm | L<br>mm | HUGRO No. |
|----------------------------|--------------------------------------|---------|---------|---------|---------|---------|-----------|
|                            | Metall                               | Plastic |         |         |         |         |           |
| M 12 + Pg 7                | 14                                   | 15      | 9,5     | 6,3     | 11,5    | 7       | 684.07.11 |
| M 16 + Pg 9 + 3/8" NPT     | 17                                   | 19      | 11      | 7,8     | 13,5    | 8       | 684.09.11 |
| M 16 + Pg 11 + 3/8" NPT    | 20                                   | 22      | 13,5    | 9,8     | 14,5    | 9       | 684.11.11 |
| M 20 + Pg 13,5 + 1/2" NPT  | 22                                   | 24      | 16      | 11,8    | 18      | 10      | 684.13.11 |
| M 20 + Pg 16 + 1/2" NPT    | 24                                   | 27      | 18,5    | 13,8    | 19      | 10      | 684.16.11 |
| M 25 + Pg 21 + 3/4" NPT    | 30                                   | 33      | 22      | 17,8    | 22      | 11      | 684.21.11 |
| M 32 + Pg 29 + 1" + 1 1/4" | 40                                   | 42      | 29      | 25      | 25      | 15      | 684.29.11 |
| M 40 + Pg 36 + 1 1/2" NPT  | 50                                   | 53      | 38      | 32      | 28      | 17      | 684.36.11 |
| M 50 + Pg 42               | 57                                   | 60      | 43      | 38      | 30      | 18      | 684.42.11 |
| M 63 + Pg 48               | 68 / 64                              | 68 / 65 | 49      | 44      | 30      | 18      | 684.48.11 |

