

## CABLE GLANDS







HUMMEL AG is a renowned manufacturer of connection technology and components for electric and heating areas. The medium sized family business stands for quality, precision, reliability and pronounced service consciousness. A wide vertical range of manufacture with in-house development, construction, toolmaking, manufacturing, electroplating and assembling from a single source, offers best conditions for implementing individual solutions.



# connections



// Conforming to RoHS and REACH / SVHC

// Free of conflict minerals

// Halogen- and phosphorous-free

// Fire protection class V0 according to UL 94

// Outdoor durable polyamide according to UL 746C f1 (HSK-K black)

// Protection IP 66 and IP 68 – 10 bar according to DIN EN 60529

// Protection IP 69K according to DIN 40050-9

// Patented ratchet and spline secures

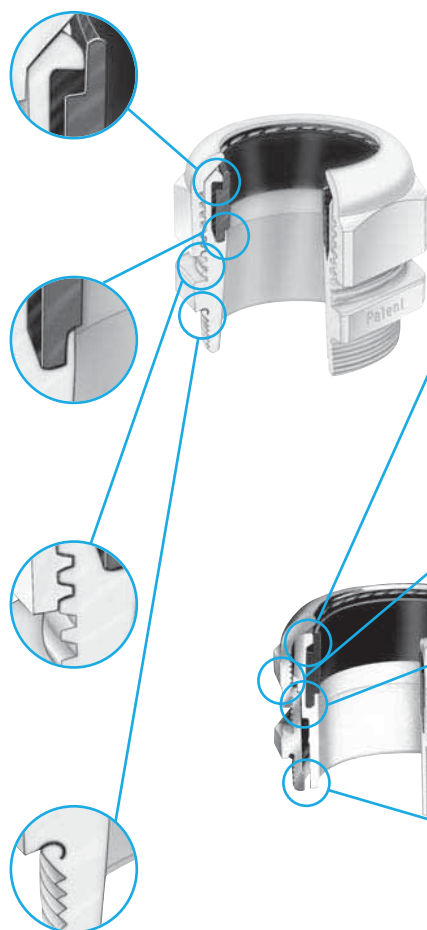
## HSK-K

Flexible overlapping clamping splines prevent the form seal from being pulled out of the fitting

The form seal allows for an IP 68 (10 bar) rating

The rugged lead screw results in a dependable transmission of force between nut and body

The concentric seal ridge and molded groove for an optional O-Ring results in a liquid tight seal between body and housing



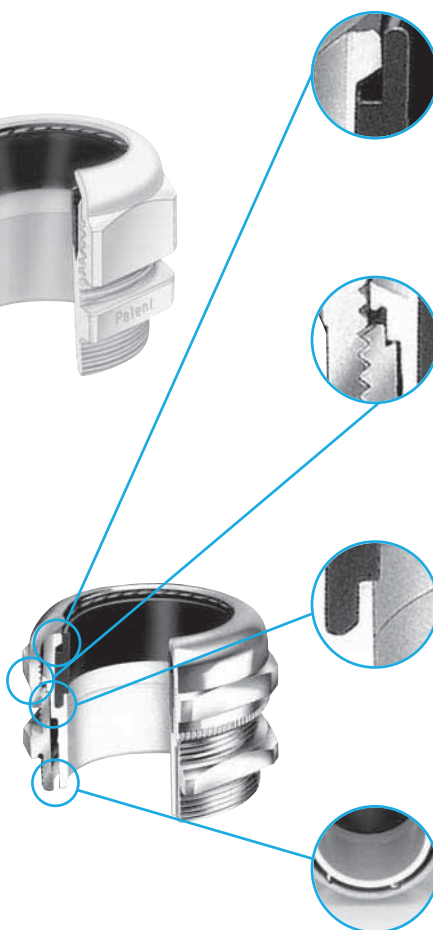
## HSK-M

Flexible overlapping clamping splines prevent the form seal from being pulled out of the fitting

The internal sealing edge results in a superior seal between the splined Nylon clamping insert and the nickel plated brass body

The form seal allows for an IP 68 (10 bar) rating

Rotation of the cable during installation is prevented due to the internal splines





// Conforming to RoHS and REACH / SVHC

// Free of conflict minerals

// Halogen- and phosphorous-free

// Fire protection class V0 according to UL 94

// Protection IP 66 and IP 68 – 10 bar according to DIN EN 60529

// Protection IP 69K according to DIN 40050-9

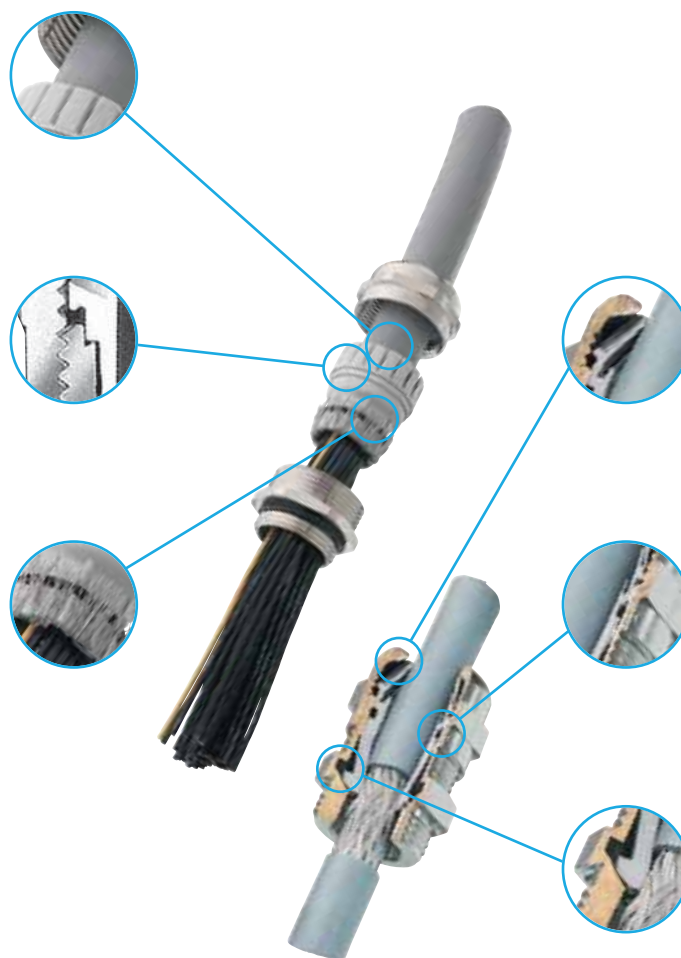
// Quick assembly and reliable grounding of shielded cables

## HSK-M-EMC

Flexible overlapping clamping splines prevent the form seal from being pulled out of the fitting

The internal sealing edge results in a superior seal between the splined Nylon clamping insert and the nickel plated brass body

Patented 360° grounding due to the internal O-Ring, which results in a perfect contact between braided shield of cable and fitting



## HSK-M-EMC-D

Flexible overlapping clamping splines prevent the form seal from being pulled out of the fitting

Metalised spline insert provides electrical conductivity

Flexible contact points allow contact with variable braid diameters

## HSK-INOX HYGIENIC-DESIGN

HSK-INOX-HD-Pro // HSK-INOX-HD

### Cope with all hygienic requirements

The hygienic design Cable Glands of HUMMEL AG have been developed for applications with special requirements. They are used in areas where high hygienic standards for cleaning are demanded. These are areas where deposits of bacteria and microorganisms need to be avoided.

### Fields of application

- // Food industry
- // Packaging machinery
- // Beverage industry
- // Biotechnical plants
- // Pharma industry
- // Chemical industry



HSK-INOX-HD-Pro



ideal for high-pressure cleaning

Recommended in all areas, which are cleaned by high-pressure cleaning:  
HSK-INOX-HD-Pro

HSK-INOX-HD



ideal for foam-cleaning

Excellent solution for applications, which are cared with foam-cleaning:  
HSK-INOX-HD



### HSK-INOX-HD-Pro: One without corners and edges

- // EHEDG-certified
- // High-pressure tested (IP 69K)
- // Free of halogens and phosphate
- // Operating temperature -40 °C to +120 °C (-40 °F to +248 °F)

### The approved HUMMEL-advantages

- // Fast and easy assembly without special tools
- // Surface roughness  $\leq Ra\ 0,8\ \mu m$
- // Resistant stainless steel enclosure
- // High chemical resistance

The elastic membrane sealing avoids cable slipping

Easy cleaning, because of missing corners and edges.

Resistant enclosure made of stainless steel (AISI 316L)

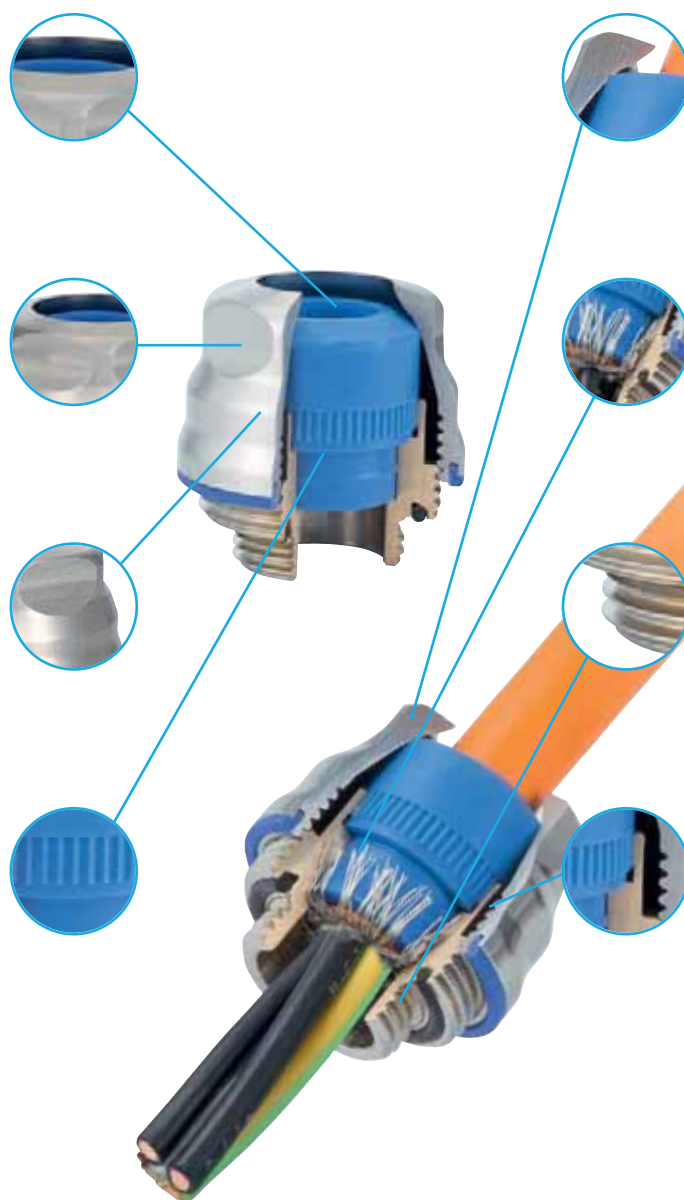
High-quality silicone sealing

High strain relief

360° EMC contacting

Connection thread M 12 to M 32

No twisting of the seal inserts and cables



## HSK-K-Ex-ACTIVE

HSK-K-Ex-Active // HSK-K-Multi-Ex-Active // HSK-K-FLAKA-Ex-Active

### Cable gland made of polyamide for hazardous areas according to the latest standards

The HSK-K-Ex-Active has been developed to meet the stringent requirements of EN 60079-0:2012. The cable gland, made of special formulated fibreglass reinforced polyamide, combines all features of the established HSK-K-Ex series and the latest approvals according to ATEX and IECEx.

The HSK-K-Ex-Active has been designed for applications in electrical equipment, which require types of protection Ex e and Ex t according to the latest standards EN 60079-0, 60079-7 and 60079-31.

// Zones 1, 2, 20, 21, 22

// Sizes: M 12 – M 63, NPT 3/8" – NPT 1 1/2"

// Temperature Range: -20°C – 85°C (-4°F – 185°F)

// EC-Type Examination Certificate: BVS 14 ATEX E 025 X

// IECEx Certificate of Conformity: IECEx BVS 14.0020X

// Marking:

II 2G Ex eb IIC Gb

II 1D Ex ta IIIC Da

// According to the latest EN Standards:

EN 60079-0:2012 IEC 60079-0:2011

EN 60079-7:2007 IEC 60079-7:2015

EN 60079-31:2014 IEC 60079-31:2013

EN 60529



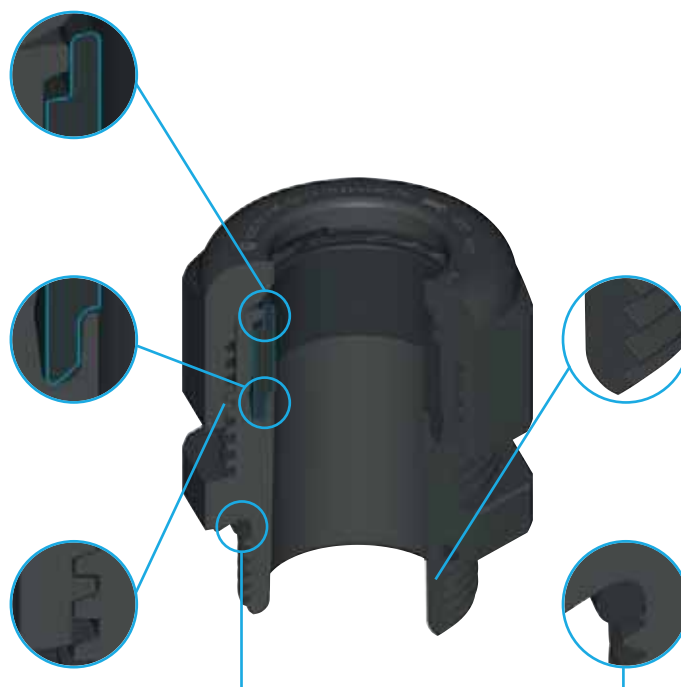


- // Halogen-free
- // Protection IP 68 – 10 bar according to DIN EN 60529
- // Vibration-protected dome nut
- // Wide clamping range
- // Applicable up to +85° C (185° F)
- // Abrasion resistant marking
- // O-Ring as standard
- // Applicable in zone 1 and zone 20

**Overlapping clamping splines**  
avoid tearing out the gland seal  
and ensure an extremely high  
integrated strain-relief

**Form seal** for reliable sealing  
at protection class IP 68 up to  
10 bar

**HUMMEL acme screw thread**  
for dependable transmission of  
force between dome nut and  
gland body



**Molded O-Ring groove**  
results in a reliable tightening  
between gland body and  
installation

**Smooth internal shape**  
for easy assembling and ideal  
protection of the cable sheath

# TABLE OF CONTENT

## Industrial cable glands

### HSK cable glands

► 13



### HSK-EMC cable glands

► 31



### HSK cable glands for special applications

► 41



### METRICA cable glands

► 61



### Miscellaneous cable glands

► 67



### Accessories

► 75



### EXIOS Standard, MZ, Barrier

► 105



### EXIOS A2F

► 112



### HSK-Ex e cable glands

► 115



### HSK-EMC-Ex-e cable glands

► 125



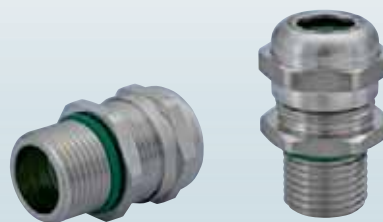
### HSK-Ex e cable glands for special applications

► 133



### HSK-Ex d cable glands

► 139



### Ex accessories

► 143



### Index

► 160

### Technical Information

► 154

### Assembly Instructions

► 158

### HUMMEL International

► 166



## CABLE PROTECTION SYSTEMS

### Reliable protection for cables

In industry, cables and wires are exposed to exceptional loads. Heat and cold, tensile and compressive loads, and wear-and-tear cause damage to cables and can result in malfunctions and loss of production. HUMMEL AG cable protection conduits provide reliable protection. Like a chameleon, the cable protection range is extremely versatile. The Poleon plastic range and the galvanised steel protective tubing of the Meleon range offer suitable solutions for every application. A wide range of fittings makes it easy for planners and designers to find the right answer for every requirement.

- // **Poleon** — the flexible polyamide cable conduit
- // **Meleon** — cable conduit made of galvanised steel
- // **Meleon Pro** — multi-layer variants for heavy loads
- // **PoleonFit** — fittings, designed for every type of installation
- // **MeleonFit** — ideal for all Meleon metal protective conduits
- // **MeleonFit Pro** — fittings for exceptionally robust usage



Complete catalog with all details and information  
on our homepage ([www.hummel.com](http://www.hummel.com))



# POLEON // MELEON // MELEON PRO

# INDUSTRIAL CABLE GLANDS

## HSK cable glands

Cable glands of the HSK-series fulfil the highest demands of quality and security. Outstanding high-grade materials are used together with innovative technology to offer premium products.

You can find in this chapter:

HSK cable gland, made of

- // Polyamide
- // PVDF
- // Nickel plated brass
- // Various grades of stainless steel

We provide variable clamping ranges, thread lengths, thread types plus different sealing materials and temperature ranges. Our range is completed by global certifications.

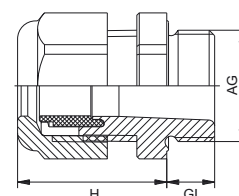
If there are still open requests from your side, please contact us. We are looking forward to developing solutions together. You profit from our vast knowledge in development, engineering and production technology.





|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Polyamide VO according to UL 94                                                    |
| Seal                  | Buna-N                                                                             |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)<br>with additional O-Ring              |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)                                                  |
| Colors                | grey (RAL 7035), black (RAL 9005),<br>blue (RAL 5012) for the intrinsic safety „I“ |

- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material e.g. Silicone upon request
- // Other colors on request



| AG         | Ø<br>mm | GL<br>mm | H<br>mm | Ø<br>mm | Number<br>grey | Number<br>black | Number<br>blue |
|------------|---------|----------|---------|---------|----------------|-----------------|----------------|
| M 12 x 1,5 | 3–6,5   | 8        | 21      | 15      | 1.209.1200.50  | 1.209.1201.50   | 1.209.1202.50  |
| M 12 x 1,5 | 2–5     | 8        | 21      | 15      | 1.209.1200.51  | 1.209.1201.51   | 1.209.1202.51  |
| M 16 x 1,5 | 4–8     | 8        | 22      | 19      | 1.209.1600.50  | 1.209.1601.50   | 1.209.1602.50  |
| M 16 x 1,5 | 2–6     | 8        | 22      | 19      | 1.209.1600.51  | 1.209.1601.51   | 1.209.1602.51  |
| M 16 x 1,5 | 5–10    | 8        | 25      | 22      | 1.219.1600.50  | 1.219.1601.50   | 1.219.1602.50  |
| M 20 x 1,5 | 6–12    | 9        | 27      | 24      | 1.209.2000.50  | 1.209.2001.50   | 1.209.2002.50  |
| M 20 x 1,5 | 5–9     | 9        | 27      | 24      | 1.209.2000.51  | 1.209.2001.51   | 1.209.2002.51  |
| M 20 x 1,5 | 10–14   | 9        | 28      | 27      | 1.219.2000.50  | 1.219.2001.50   | 1.219.2002.50  |
| M 25 x 1,5 | 13–18   | 11       | 31      | 30      | 1.219.2500.50  | 1.219.2501.50   | 1.219.2502.50  |
| M 25 x 1,5 | 13–18   | 11       | 31      | 33      | 1.209.2500.50  | 1.209.2501.50   | 1.209.2502.50  |
| M 25 x 1,5 | 9–16    | 11       | 31      | 33      | 1.209.2500.51  | 1.209.2501.51   | 1.209.2502.51  |
| M 32 x 1,5 | 15–21   | 11       | 39      | 36      | 1.219.3200.50  | 1.219.3201.50   | 1.219.3202.50  |
| M 32 x 1,5 | 18–25   | 11       | 39      | 42      | 1.209.3200.50  | 1.209.3201.50   | 1.209.3202.50  |
| M 32 x 1,5 | 13–20   | 11       | 39      | 42      | 1.209.3200.51  | 1.209.3201.51   | 1.209.3202.51  |
| M 40 x 1,5 | 19–27   | 13       | 47      | 46      | 1.219.4000.50  | 1.219.4001.50   | 1.219.4002.50  |
| M 40 x 1,5 | 22–32   | 13       | 48      | 53      | 1.209.4000.50  | 1.209.4001.50   | 1.209.4002.50  |
| M 40 x 1,5 | 20–26   | 13       | 48      | 53      | 1.209.4000.51  | 1.209.4001.51   | 1.209.4002.51  |
| M 50 x 1,5 | 32–38   | 13       | 49      | 60      | 1.209.5000.50  | 1.209.5001.50   | 1.209.5002.50  |
| M 50 x 1,5 | 25–31   | 13       | 49      | 60      | 1.209.5000.51  | 1.209.5001.51   | 1.209.5002.51  |
| M 63 x 1,5 | 37–44   | 14       | 49      | 65 / 68 | 1.209.6300.50  | 1.209.6301.50   | 1.209.6302.50  |
| M 63 x 1,5 | 29–35   | 14       | 49      | 65 / 68 | 1.209.6300.51  | 1.209.6301.51   | 1.209.6302.51  |

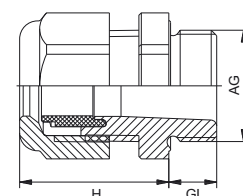
## HSK-K

Metr.-elongated



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Polyamide VO according to UL 94                                                    |
| Seal                  | Buna-N                                                                             |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)<br>with additional O-Ring              |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)                                                  |
| Colors                | grey (RAL 7035), black (RAL 9005),<br>blue (RAL 5012) for the intrinsic safety „I“ |

- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material e.g. Silicone upon request
- // Other colors on request

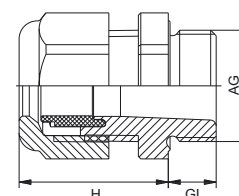


| AG         | Ø<br>mm | GL<br>mm | H<br>mm | Ø<br>mm | Number<br>grey | Number<br>black | Number<br>blue |
|------------|---------|----------|---------|---------|----------------|-----------------|----------------|
| M 12 x 1,5 | 3–6,5   | 15       | 21      | 15      | 1.209.1200.30  | 1.209.1201.30   | 1.209.1202.30  |
| M 12 x 1,5 | 2–5     | 15       | 21      | 15      | 1.209.1200.31  | 1.209.1201.31   | 1.209.1202.31  |
| M 16 x 1,5 | 4–8     | 15       | 22      | 19      | 1.209.1600.30  | 1.209.1601.30   | 1.209.1602.30  |
| M 16 x 1,5 | 2–6     | 15       | 22      | 19      | 1.209.1600.31  | 1.209.1601.31   | 1.209.1602.31  |
| M 16 x 1,5 | 5–10    | 15       | 25      | 22      | 1.219.1600.30  | 1.219.1601.30   | 1.219.1602.30  |
| M 20 x 1,5 | 6–12    | 15       | 27      | 24      | 1.209.2000.30  | 1.209.2001.30   | 1.209.2002.30  |
| M 20 x 1,5 | 5–9     | 15       | 27      | 24      | 1.209.2000.31  | 1.209.2001.31   | 1.209.2002.31  |
| M 20 x 1,5 | 10–14   | 15       | 28      | 27      | 1.219.2000.30  | 1.219.2001.30   | 1.219.2002.30  |
| M 25 x 1,5 | 13–18   | 15       | 31      | 33      | 1.209.2500.30  | 1.209.2501.30   | 1.209.2502.30  |
| M 25 x 1,5 | 9–16    | 15       | 31      | 33      | 1.209.2500.31  | 1.209.2501.31   | 1.209.2502.31  |
| M 32 x 1,5 | 18–25   | 15       | 39      | 42      | 1.209.3200.30  | 1.209.3201.30   | 1.209.3202.30  |
| M 32 x 1,5 | 13–20   | 15       | 39      | 42      | 1.209.3200.31  | 1.209.3201.31   | 1.209.3202.31  |
| M 40 x 1,5 | 22–32   | 18       | 48      | 53      | 1.209.4000.30  | 1.209.4001.30   | 1.209.4002.30  |
| M 40 x 1,5 | 20–26   | 18       | 48      | 53      | 1.209.4000.31  | 1.209.4001.31   | 1.209.4002.31  |
| M 50 x 1,5 | 32–38   | 18       | 49      | 60      | 1.209.5000.30  | 1.209.5001.30   | 1.209.5002.30  |
| M 50 x 1,5 | 25–31   | 18       | 49      | 60      | 1.209.5000.31  | 1.209.5001.31   | 1.209.5002.31  |
| M 63 x 1,5 | 37–44   | 18       | 49      | 65 / 68 | 1.209.6300.30  | 1.209.6301.30   | 1.209.6302.30  |
| M 63 x 1,5 | 29–35   | 18       | 49      | 65 / 68 | 1.209.6300.31  | 1.209.6301.31   | 1.209.6302.31  |



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Polyamide VO according to UL 94                                                    |
| Seal                  | Buna-N                                                                             |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)<br>with additional O-Ring              |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)                                                  |
| Colors                | grey (RAL 7035), black (RAL 9005),<br>blue (RAL 5012) for the intrinsic safety „I“ |

- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material e.g. Silicone upon request
- // Other colors on request



| AG      | Ø<br>mm | GL<br>mm | H<br>mm | Ø<br>mm | Number<br>grey | Number<br>black | Number<br>blue |
|---------|---------|----------|---------|---------|----------------|-----------------|----------------|
| PG 7    | 3–6,5   | 8        | 21      | 15      | 1.209.0700.14  | 1.209.0701.14   | 1.209.0702.14  |
| PG 7    | 2–5     | 8        | 21      | 15      | 1.209.0700.15  | 1.209.0701.15   | 1.209.0702.15  |
| PG 9    | 4–8     | 8        | 22      | 19      | 1.209.0900.14  | 1.209.0901.14   | 1.209.0902.14  |
| PG 9    | 2–6     | 8        | 22      | 19      | 1.209.0900.15  | 1.209.0901.15   | 1.209.0902.15  |
| PG 11   | 5–10    | 8        | 25      | 22      | 1.209.1100.14  | 1.209.1101.14   | 1.209.1102.14  |
| PG 11   | 3–7     | 8        | 25      | 22      | 1.209.1100.15  | 1.209.1101.15   | 1.209.1102.15  |
| PG 13,5 | 6–12    | 9        | 27      | 24      | 1.209.1300.14  | 1.209.1301.14   | 1.209.1302.14  |
| PG 13,5 | 5–9     | 9        | 27      | 24      | 1.209.1300.15  | 1.209.1301.15   | 1.209.1302.15  |
| PG 16   | 10–14   | 10       | 28      | 27      | 1.209.1600.14  | 1.209.1601.14   | 1.209.1602.14  |
| PG 16   | 7–12    | 10       | 28      | 27      | 1.209.1600.15  | 1.209.1601.15   | 1.209.1602.15  |
| PG 21   | 13–18   | 11       | 31      | 33      | 1.209.2100.14  | 1.209.2101.14   | 1.209.2102.14  |
| PG 21   | 9–16    | 11       | 31      | 33      | 1.209.2100.15  | 1.209.2101.15   | 1.209.2102.15  |
| PG 29   | 18–25   | 11       | 39      | 42      | 1.209.2900.14  | 1.209.2901.14   | 1.209.2902.14  |
| PG 29   | 13–20   | 11       | 39      | 42      | 1.209.2900.15  | 1.209.2901.15   | 1.209.2902.15  |
| PG 36   | 22–32   | 13       | 48      | 53      | 1.209.3600.14  | 1.209.3601.14   | 1.209.3602.14  |
| PG 36   | 20–26   | 13       | 48      | 53      | 1.209.3600.15  | 1.209.3601.15   | 1.209.3602.15  |
| PG 42   | 32–38   | 13       | 49      | 60      | 1.209.4200.14  | 1.209.4201.14   | 1.209.4202.14  |
| PG 42   | 25–31   | 13       | 49      | 60      | 1.209.4200.15  | 1.209.4201.15   | 1.209.4202.15  |
| PG 48   | 37–44   | 14       | 49      | 65      | 1.209.4800.14  | 1.209.4801.14   | 1.209.4802.14  |
| PG 48   | 29–35   | 14       | 49      | 65      | 1.209.4800.15  | 1.209.4801.15   | 1.209.4802.15  |

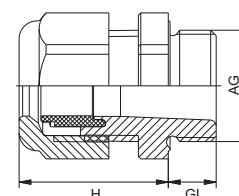
## HSK-K

## PG-elongated



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Polyamide VO according to UL 94                                                    |
| Seal                  | Buna-N                                                                             |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)<br>with additional O-Ring              |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)                                                  |
| Colors                | grey (RAL 7035), black (RAL 9005),<br>blue (RAL 5012) for the intrinsic safety „I“ |

- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material e.g. Silicone upon request
- // Other colors on request



| AG      | Ø<br>mm | GL<br>mm | H<br>mm | Ø<br>mm | Number<br>grey | Number<br>black | Number<br>blue |
|---------|---------|----------|---------|---------|----------------|-----------------|----------------|
| PG 7    | 3–6,5   | 15       | 21      | 15      | 1.209.0700.60  | 1.209.0701.60   | 1.209.0702.60  |
| PG 7    | 2–5     | 15       | 21      | 15      | 1.209.0700.61  | 1.209.0701.61   | 1.209.0702.61  |
| PG 9    | 4–8     | 15       | 22      | 19      | 1.209.0900.60  | 1.209.0901.60   | 1.209.0902.60  |
| PG 9    | 2–6     | 15       | 22      | 19      | 1.209.0900.61  | 1.209.0901.61   | 1.209.0902.61  |
| PG 11   | 5–10    | 15       | 25      | 22      | 1.209.1100.60  | 1.209.1101.60   | 1.209.1102.60  |
| PG 11   | 3–7     | 15       | 25      | 22      | 1.209.1100.61  | 1.209.1101.61   | 1.209.1102.61  |
| PG 13,5 | 6–12    | 15       | 27      | 24      | 1.209.1300.60  | 1.209.1301.60   | 1.209.1302.60  |
| PG 13,5 | 5–9     | 15       | 27      | 24      | 1.209.1300.61  | 1.209.1301.61   | 1.209.1302.61  |
| PG 16   | 10–14   | 15       | 28      | 27      | 1.209.1600.60  | 1.209.1601.60   | 1.209.1602.60  |
| PG 16   | 7–12    | 15       | 28      | 27      | 1.209.1600.61  | 1.209.1601.61   | 1.209.1602.61  |
| PG 21   | 13–18   | 15       | 31      | 33      | 1.209.2100.60  | 1.209.2101.60   | 1.209.2102.60  |
| PG 21   | 9–16    | 15       | 31      | 33      | 1.209.2100.61  | 1.209.2101.61   | 1.209.2102.61  |
| PG 29   | 18–25   | 15       | 39      | 42      | 1.209.2900.60  | 1.209.2901.60   | 1.209.2902.60  |
| PG 29   | 13–20   | 15       | 39      | 42      | 1.209.2900.61  | 1.209.2901.61   | 1.209.2902.61  |
| PG 36   | 22–32   | 18       | 48      | 53      | 1.209.3600.60  | 1.209.3601.60   | 1.209.3602.60  |
| PG 36   | 20–26   | 18       | 48      | 53      | 1.209.3600.61  | 1.209.3601.61   | 1.209.3602.61  |
| PG 42   | 32–38   | 18       | 49      | 60      | 1.209.4200.60  | 1.209.4201.60   | 1.209.4202.60  |
| PG 42   | 25–31   | 18       | 49      | 60      | 1.209.4200.61  | 1.209.4201.61   | 1.209.4202.61  |
| PG 48   | 37–44   | 18       | 49      | 65      | 1.209.4800.60  | 1.209.4801.60   | 1.209.4802.60  |
| PG 48   | 29–35   | 18       | 49      | 65      | 1.209.4800.61  | 1.209.4801.61   | 1.209.4802.61  |

# HSK CABLE GLANDS

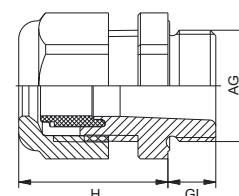
## HSK-K

## NPT



|                       |                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------|
| Material              | Polyamide VO according to UL 94                                                   |
| Seal                  | Buna-N                                                                            |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)<br>with additional O-Ring             |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)                                                 |
| Colors                | grey (RAL 7035), black (RAL 9005)<br>blue (RAL 5012) for the intrinsic safety „I“ |

- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material e.g. Silicone upon request
- // Other colors on request



| AG            | Ø<br>mm | GL<br>mm | H<br>mm | Ø<br>mm | Number<br>grey | Number<br>schwarz | Number<br>blue |
|---------------|---------|----------|---------|---------|----------------|-------------------|----------------|
| NPT 3/8"      | 4–8     | 15       | 22      | 19 / 22 | 1.209.3800.70  | 1.209.3801.70     | 1.209.3802.70  |
| NPT 3/8"      | 2–6     | 15       | 22      | 19 / 22 | 1.209.3800.71  | 1.209.3801.71     | 1.209.3802.71  |
| NPT 1/2"      | 6–12    | 13       | 27      | 24      | 1.209.1200.70  | 1.209.1201.70     | 1.209.1202.70  |
| NPT 1/2"      | 5–9     | 13       | 27      | 24      | 1.209.1200.71  | 1.209.1201.71     | 1.209.1202.71  |
| NPT 1/2" (16) | 10–14   | 13       | 28      | 27      | 1.209.1216.70  | 1.209.1217.70     | 1.209.1218.70  |
| NPT 1/2" (16) | 7–12    | 13       | 28      | 27      | 1.209.1216.71  | 1.209.1217.71     | 1.209.1218.71  |
| NPT 3/4"      | 13–18   | 14       | 31      | 33      | 1.209.3400.70  | 1.209.3401.70     | 1.209.3402.70  |
| NPT 3/4"      | 9–16    | 14       | 31      | 33      | 1.209.3400.71  | 1.209.3401.71     | 1.209.3402.71  |
| NPT 1"        | 18–25   | 19       | 39      | 42      | 1.209.1000.70  | 1.209.1001.70     | 1.209.1002.70  |
| NPT 1"        | 13–20   | 19       | 39      | 42      | 1.209.1000.71  | 1.209.1001.71     | 1.209.1002.71  |
| NPT 1 1/4"    | 18–25   | 16       | 39      | 42 / 46 | 1.209.5400.70  | 1.209.5401.70     | 1.209.5402.70  |
| NPT 1 1/4"    | 13–20   | 16       | 39      | 42 / 46 | 1.209.5400.71  | 1.209.5401.71     | 1.209.5402.71  |
| NPT 1 1/2"    | 22–32   | 20       | 48      | 53      | 1.209.6400.70  | 1.209.6401.70     | 1.209.6402.70  |
| NPT 1 1/2"    | 20–26   | 20       | 48      | 53      | 1.209.6400.71  | 1.209.6401.71     | 1.209.6402.71  |

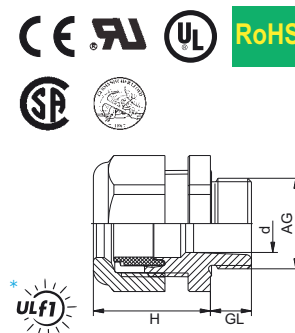
## HSK-KE

PG



- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material and colors upon request
- // \* in black color

|                       |                                                                       |
|-----------------------|-----------------------------------------------------------------------|
| Material              | Polyamide VO according to UL 94                                       |
| Seal                  | Buna-N                                                                |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)<br>with additional O-Ring |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)                                     |
| Colors                | grey (RAL 7035), black (RAL 9005)                                     |



| AG      | $\varnothing$<br>mm | d<br>mm | GL<br>mm | H<br>mm | <br>mm | Number<br>grey | Number<br>black |
|---------|---------------------|---------|----------|---------|-----------------------------------------------------------------------------------------|----------------|-----------------|
| PG 7    | 4–8                 | 7       | 8        | 22      | 19                                                                                      | 1.590.0700.14  | 1.590.0701.14   |
| PG 7    | 2–6                 | 7       | 8        | 22      | 19                                                                                      | 1.590.0700.15  | 1.590.0701.15   |
| PG 9    | 5–10                | 9       | 8        | 25      | 22                                                                                      | 1.590.0900.14  | 1.590.0901.14   |
| PG 9    | 3–7                 | 9       | 8        | 25      | 22                                                                                      | 1.590.0900.15  | 1.590.0901.15   |
| PG 11   | 6–12                | 10,5    | 8        | 24      | 24                                                                                      | 1.590.1100.14  | 1.590.1101.14   |
| PG 11   | 5–9                 | 10,5    | 8        | 24      | 24                                                                                      | 1.590.1100.15  | 1.590.1101.15   |
| PG 13,5 | 10–14               | 12,5    | 9        | 28      | 27                                                                                      | 1.590.1300.14  | 1.590.1301.14   |
| PG 13,5 | 7–12                | 12,5    | 9        | 28      | 27                                                                                      | 1.590.1300.15  | 1.590.1301.15   |
| PG 16   | 13–18               | 15      | 10       | 31      | 33                                                                                      | 1.590.1600.14  | 1.590.1601.14   |
| PG 16   | 9–16                | 15      | 10       | 31      | 33                                                                                      | 1.590.1600.15  | 1.590.1601.15   |

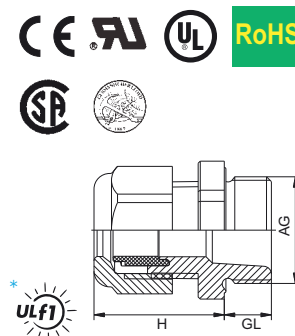
## HSK-KR

PG



- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material and colors upon request
- // \* in black color

|                       |                                                                       |
|-----------------------|-----------------------------------------------------------------------|
| Material              | Polyamide VO according to UL 94                                       |
| Seal                  | Buna-N                                                                |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)<br>with additional O-Ring |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)                                     |
| Colors                | grey (RAL 7035), black (RAL 9005)                                     |



| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm | Number<br>grey | Number<br>black |
|---------|---------------------|----------|---------|-------------------------------------------------------------------------------------------|----------------|-----------------|
| PG 9    | 3–6,5               | 8        | 21      | 19                                                                                        | 1.591.0900.14  | 1.591.0901.14   |
| PG 9    | 2–5                 | 8        | 21      | 19                                                                                        | 1.591.0900.15  | 1.591.0901.15   |
| PG 11   | 4–8                 | 8        | 22      | 22                                                                                        | 1.591.1100.14  | 1.591.1101.14   |
| PG 11   | 2–6                 | 8        | 22      | 22                                                                                        | 1.591.1100.15  | 1.591.1101.15   |
| PG 13,5 | 5–10                | 9        | 25      | 24                                                                                        | 1.591.1300.14  | 1.591.1301.14   |
| PG 13,5 | 3–7                 | 9        | 25      | 24                                                                                        | 1.591.1300.15  | 1.591.1301.15   |
| PG 16   | 6–12                | 10       | 27      | 27                                                                                        | 1.591.1600.14  | 1.591.1601.14   |
| PG 16   | 5–9                 | 10       | 27      | 27                                                                                        | 1.591.1600.15  | 1.591.1601.15   |
| PG 21   | 10–14               | 11       | 28      | 33                                                                                        | 1.591.2100.14  | 1.591.2101.14   |
| PG 21   | 7–12                | 11       | 28      | 33                                                                                        | 1.591.2100.15  | 1.591.2101.15   |

# HSK CABLE GLANDS

## HSK-K-PVDF

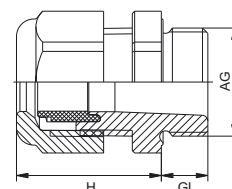
Metr.



|                       |                                                                       |
|-----------------------|-----------------------------------------------------------------------|
| Material              | PVDF V0 according to UL 94                                            |
| Seal                  | FKM                                                                   |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)<br>with additional O-Ring |
| Operating Temperature | -35 °C – 150 °C                                                       |
| Colors                | nature                                                                |



- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material e.g. Silicone upon request
- // Other colors on request



| AG         | Ø<br>mm | GL<br>mm | H<br>mm | R<br>mm | Number        |
|------------|---------|----------|---------|---------|---------------|
| M 12 x 1,5 | 3–6,5   | 8        | 21      | 15      | 1.299.1200.50 |
| M 12 x 1,5 | 2–5     | 8        | 21      | 15      | 1.299.1200.51 |
| M 16 x 1,5 | 4–8     | 8        | 22      | 19      | 1.299.1600.50 |
| M 16 x 1,5 | 2–6     | 8        | 22      | 19      | 1.299.1600.51 |
| M 20 x 1,5 | 6–12    | 9        | 27      | 24      | 1.299.2000.50 |
| M 20 x 1,5 | 5–9     | 9        | 27      | 24      | 1.299.2000.51 |
| M 25 x 1,5 | 13–18   | 11       | 31      | 33      | 1.299.2500.50 |
| M 25 x 1,5 | 9–16    | 11       | 31      | 33      | 1.299.2500.51 |
| M 32 x 1,5 | 18–25   | 11       | 39      | 42      | 1.299.3200.50 |
| M 32 x 1,5 | 13–20   | 11       | 39      | 42      | 1.299.3200.51 |

## HSK-K-PVDF

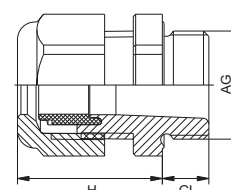
PG



|                       |                                                                       |
|-----------------------|-----------------------------------------------------------------------|
| Material              | PVDF V0 according to UL 94                                            |
| Seal                  | FKM                                                                   |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)<br>with additional O-Ring |
| Operating Temperature | -35 °C – 150 °C                                                       |
| Colors                | nature                                                                |



- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material e.g. Silicone upon request
- // Other colors on request



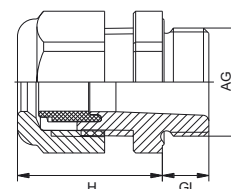
| AG      | Ø<br>mm | GL<br>mm | H<br>mm | mm | Number        |
|---------|---------|----------|---------|----|---------------|
| PG 7    | 3–6,5   | 8        | 21      | 15 | 1.299.0700.14 |
| PG 7    | 2–5     | 8        | 21      | 15 | 1.299.0700.15 |
| PG 9    | 4–8     | 8        | 22      | 19 | 1.299.0900.14 |
| PG 9    | 2–6     | 8        | 22      | 19 | 1.299.0900.15 |
| PG 11   | 5–10    | 8        | 25      | 22 | 1.299.1100.14 |
| PG 11   | 3–7     | 8        | 25      | 22 | 1.299.1100.15 |
| PG 13,5 | 6–12    | 9        | 27      | 24 | 1.299.1300.14 |
| PG 13,5 | 5–9     | 9        | 27      | 24 | 1.299.1300.15 |
| PG 16   | 10–14   | 10       | 28      | 27 | 1.299.1600.14 |
| PG 16   | 7–12    | 10       | 28      | 27 | 1.299.1600.15 |
| PG 21   | 13–18   | 11       | 31      | 33 | 1.299.2100.14 |
| PG 21   | 9–16    | 11       | 31      | 33 | 1.299.2100.15 |
| PG 29   | 18–25   | 11       | 39      | 42 | 1.299.2900.14 |
| PG 29   | 13–20   | 11       | 39      | 42 | 1.299.2900.15 |
| PG 36   | 22–32   | 13       | 48      | 53 | 1.299.3600.14 |
| PG 36   | 20–26   | 13       | 48      | 53 | 1.299.3600.15 |
| PG 42   | 32–38   | 13       | 49      | 60 | 1.299.4200.14 |
| PG 42   | 25–31   | 13       | 49      | 60 | 1.299.4200.15 |
| PG 48   | 37–44   | 14       | 49      | 65 | 1.299.4800.14 |
| PG 48   | 29–35   | 14       | 49      | 65 | 1.299.4800.15 |



|                       |                                                                       |
|-----------------------|-----------------------------------------------------------------------|
| Material              | PVDF V0 according to UL 94                                            |
| Seal                  | FKM                                                                   |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)<br>with additional O-Ring |
| Operating Temperature | -35 °C – 150 °C                                                       |
| Colors                | nature                                                                |



- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material e.g. Silicone upon request
- // Other colors on request



| AG            | Ø<br>mm | GL<br>mm | H<br>mm | <br>mm | Number        |
|---------------|---------|----------|---------|-------------------------------------------------------------------------------------------|---------------|
| NPT 3/8"      | 4 – 8   | 15       | 22      | 19 / 22                                                                                   | 1.299.3800.70 |
| NPT 3/8"      | 2 – 6   | 15       | 22      | 19 / 22                                                                                   | 1.299.3800.71 |
| NPT 1/2"      | 6 – 12  | 13       | 27      | 24                                                                                        | 1.299.1200.70 |
| NPT 1/2"      | 5 – 9   | 13       | 27      | 24                                                                                        | 1.299.1200.71 |
| NPT 1/2" (16) | 10 – 14 | 13       | 28      | 27                                                                                        | 1.299.1216.70 |
| NPT 1/2" (16) | 7 – 12  | 13       | 28      | 27                                                                                        | 1.299.1216.71 |
| NPT 3/4"      | 13 – 18 | 14       | 31      | 33                                                                                        | 1.299.3400.70 |
| NPT 3/4"      | 9 – 16  | 14       | 31      | 33                                                                                        | 1.299.3400.71 |

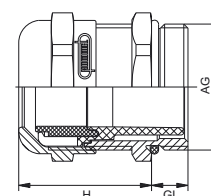
## HSK-M / HSK-M-PVDF

Metr.



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                |
| Clamping insert       | Polyamide / PVDF                                                                   |
| Seal                  | Buna-N / FKM                                                                       |
| O-Ring                | Buna-N / FKM                                                                       |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                        |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) (PA)<br>-35 °C – 150 °C (-31 °F – 302 °F) (PVDF) |

// Other sealing material e.g. Silicone upon request  
 // Please see page 56 for size < M 12 and > M 63



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm  | Number<br>HSK-M<br>-40 °C – 100 °C | Number<br>HSK-M-PVDF<br>-35 °C – 150 °C |
|------------|---------------------|----------|---------|---------|------------------------------------|-----------------------------------------|
| M 12 x 1,5 | 3–6,5               | 6,5      | 19      | 14      | 1.609.1200.50                      | 1.699.1200.50                           |
| M 12 x 1,5 | 2–5                 | 6,5      | 19      | 14      | 1.609.1200.51                      | 1.699.1200.51                           |
| M 16 x 1,5 | 4–8                 | 6        | 21      | 17 / 19 | 1.609.1600.50                      | 1.699.1600.50                           |
| M 16 x 1,5 | 2–6                 | 6        | 21      | 17 / 19 | 1.609.1600.51                      | 1.699.1600.51                           |
| M 16 x 1,5 | 5–10                | 6        | 22      | 20      | 1.609.1611.50                      | 1.699.1611.50                           |
| M 20 x 1,5 | 6–12                | 6        | 23      | 22      | 1.609.2000.50                      | 1.699.2000.50                           |
| M 20 x 1,5 | 5–9                 | 6        | 23      | 22      | 1.609.2000.51                      | 1.699.2000.51                           |
| M 20 x 1,5 | 10–14               | 6        | 24      | 24      | 1.609.2016.50                      | 1.699.2016.50                           |
| M 25 x 1,5 | 13–18               | 7        | 26      | 30      | 1.609.2500.50                      | 1.699.2500.50                           |
| M 25 x 1,5 | 9–16                | 7        | 26      | 30      | 1.609.2500.51                      | 1.699.2500.51                           |
| M 32 x 1,5 | 18–25               | 8        | 31      | 40      | 1.609.3200.50                      | 1.699.3200.50                           |
| M 32 x 1,5 | 13–20               | 8        | 31      | 40      | 1.609.3200.51                      | 1.699.3200.51                           |
| M 32 x 1,5 | 15–21               | 8        | 33      | 36      | 1.609.3200.52                      |                                         |
| M 40 x 1,5 | 22–32               | 8        | 37      | 50      | 1.609.4000.50                      | 1.699.4000.50                           |
| M 40 x 1,5 | 20–26               | 8        | 37      | 50      | 1.609.4000.51                      | 1.699.4000.51                           |
| M 40 x 1,5 | 19–27               | 8        | 33      | 46      | 1.609.4000.52                      |                                         |
| M 50 x 1,5 | 32–38               | 9        | 37      | 57      | 1.609.5000.50                      |                                         |
| M 50 x 1,5 | 25–31               | 9        | 37      | 57      | 1.609.5000.51                      |                                         |
| M 63 x 1,5 | 37–44               | 10       | 38      | 64 / 68 | 1.609.6300.50                      |                                         |
| M 63 x 1,5 | 29–35               | 10       | 38      | 64 / 68 | 1.609.6300.51                      |                                         |

# HSK CABLE GLANDS

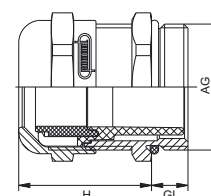
## HSK-M / HSK-M-PVDF

Metr.-elongated



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                |
| Clamping insert       | Polyamide / PVDF                                                                   |
| Seal                  | Buna-N / FKM                                                                       |
| O-Ring                | Buna-N / FKM                                                                       |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                        |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) (PA)<br>-35 °C – 150 °C (-31 °F – 302 °F) (PVDF) |

// Other sealing material e.g. Silicone upon request  
 // Please see page 56 for size < M 12 and > M 63



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm  | Number<br>HSK-M<br>-40 °C – 100 °C | Number<br>HSK-M-PVDF<br>-35 °C – 150 °C |
|------------|---------------------|----------|---------|---------|------------------------------------|-----------------------------------------|
| M 12 x 1,5 | 3–6,5               | 10       | 19      | 14      | 1.609.1200.30                      | 1.699.1200.30                           |
| M 12 x 1,5 | 2–5                 | 10       | 19      | 14      | 1.609.1200.31                      | 1.699.1200.31                           |
| M 16 x 1,5 | 4–8                 | 10       | 21      | 17 / 19 | 1.609.1600.30                      | 1.699.1600.30                           |
| M 16 x 1,5 | 2–6                 | 10       | 21      | 17 / 19 | 1.609.1600.31                      | 1.699.1600.31                           |
| M 16 x 1,5 | 5–10                | 10       | 22      | 20      | 1.609.1611.30                      | 1.699.1611.30                           |
| M 20 x 1,5 | 6–12                | 10       | 23      | 22      | 1.609.2000.30                      | 1.699.2000.30                           |
| M 20 x 1,5 | 5–9                 | 10       | 23      | 22      | 1.609.2000.31                      | 1.699.2000.31                           |
| M 20 x 1,5 | 10–14               | 10       | 24      | 24      | 1.609.2016.30                      | 1.699.2016.30                           |
| M 25 x 1,5 | 13–18               | 12       | 26      | 30      | 1.609.2500.30                      | 1.699.2500.30                           |
| M 25 x 1,5 | 9–16                | 12       | 26      | 30      | 1.609.2500.31                      | 1.699.2500.31                           |
| M 32 x 1,5 | 18–25               | 12       | 31      | 40      | 1.609.3200.30                      | 1.699.3200.30                           |
| M 32 x 1,5 | 13–20               | 12       | 31      | 40      | 1.609.3200.31                      | 1.699.3200.31                           |
| M 32 x 1,5 | 15–21               | 12       | 37      | 36      | 1.609.3200.32                      |                                         |
| M 40 x 1,5 | 22–32               | 15       | 37      | 50      | 1.609.4000.30                      | 1.699.4000.30                           |
| M 40 x 1,5 | 20–26               | 15       | 37      | 50      | 1.609.4000.31                      | 1.699.4000.31                           |
| M 40 x 1,5 | 19–27               | 15       | 37      | 46      | 1.609.4000.32                      |                                         |
| M 50 x 1,5 | 32–38               | 15       | 37      | 57      | 1.609.5000.30                      |                                         |
| M 50 x 1,5 | 25–31               | 15       | 37      | 57      | 1.609.5000.31                      |                                         |
| M 63 x 1,5 | 37–44               | 15       | 38      | 64 / 68 | 1.609.6300.30                      |                                         |
| M 63 x 1,5 | 29–35               | 15       | 38      | 64 / 68 | 1.609.6300.31                      |                                         |

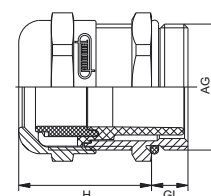
## HSK-M / HSK-M-PVDF

PG



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                |
| Clamping insert       | Polyamide / PVDF                                                                   |
| Seal                  | Buna-N / FKM                                                                       |
| O-Ring                | Buna-N / FKM                                                                       |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                        |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) (PA)<br>-35 °C – 150 °C (-31 °F – 302 °F) (PVDF) |

// Other sealing material e.g. Silicone upon request



| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm | Number<br>HSK-M<br>-40 °C – 100 °C | Number<br>HSK-M-PVDF<br>-35 °C – 150 °C |
|---------|---------------------|----------|---------|--------|------------------------------------|-----------------------------------------|
| PG 7    | 3–6,5               | 5        | 19      | 14     | 1.609.0700.01                      | 1.699.0700.01                           |
| PG 7    | 2–5                 | 5        | 19      | 14     | 1.609.0700.15                      | 1.699.0700.15                           |
| PG 9    | 4–8                 | 6        | 21      | 17     | 1.609.0900.01                      | 1.699.0900.01                           |
| PG 9    | 2–6                 | 6        | 21      | 17     | 1.609.0900.15                      | 1.699.0900.15                           |
| PG 11   | 5–10                | 6        | 22      | 20     | 1.609.1100.01                      | 1.699.1100.01                           |
| PG 11   | 3–7                 | 6        | 22      | 20     | 1.609.1100.15                      | 1.699.1100.15                           |
| PG 13,5 | 6–12                | 6,5      | 24      | 22     | 1.609.1300.01                      | 1.699.1300.01                           |
| PG 13,5 | 5–9                 | 6,5      | 24      | 22     | 1.609.1300.15                      | 1.699.1300.15                           |
| PG 16   | 10–14               | 6,5      | 23      | 24     | 1.609.1600.01                      | 1.699.1600.01                           |
| PG 16   | 7–12                | 6,5      | 23      | 24     | 1.609.1600.15                      | 1.699.1600.15                           |
| PG 21   | 13–18               | 7        | 24      | 30     | 1.609.2100.01                      | 1.699.2100.01                           |
| PG 21   | 9–16                | 7        | 24      | 30     | 1.609.2100.15                      | 1.699.2100.15                           |
| PG 29   | 18–25               | 8        | 29      | 40     | 1.609.2900.01                      | 1.699.2900.01                           |
| PG 29   | 13–20               | 8        | 29      | 40     | 1.609.2900.15                      | 1.699.2900.15                           |
| PG 36   | 22–32               | 8        | 35      | 50     | 1.609.3600.01                      | 1.699.3600.01                           |
| PG 36   | 20–26               | 8        | 35      | 50     | 1.609.3600.15                      | 1.699.3600.15                           |
| PG 42   | 32–38               | 9        | 37      | 57     | 1.609.4200.01                      | 1.699.4200.01                           |
| PG 42   | 25–31               | 9        | 37      | 57     | 1.609.4200.15                      | 1.699.4200.15                           |
| PG 48   | 37–44               | 10       | 38      | 64     | 1.609.4800.01                      | 1.699.4800.01                           |
| PG 48   | 29–35               | 10       | 38      | 64     | 1.609.4800.15                      | 1.699.4800.15                           |

# HSK CABLE GLANDS

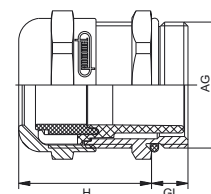
HSK-M / HSK-M-PVDF

PG-elongated



|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                 |
| Clamping insert       | Polyamide / PVDF                                                                    |
| Seal                  | Buna-N / FKM                                                                        |
| O-Ring                | Buna-N / FKM                                                                        |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                         |
| Operating Temperature | --40 °C – 100 °C (-40 °F – 212 °F) (PA)<br>-35 °C – 150 °C (-31 °F – 302 °F) (PVDF) |

// Other sealing material e.g. Silicone upon request



| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm | Number<br>HSK-M<br>-40 °C – 100 °C | Number<br>HSK-M-PVDF<br>-35 °C – 150 °C |
|---------|---------------------|----------|---------|--------|------------------------------------|-----------------------------------------|
| PG 7    | 3–6,5               | 10       | 19      | 14     | 1.609.0700.60                      | 1.699.0700.60                           |
| PG 7    | 2–5                 | 10       | 19      | 14     | 1.609.0700.61                      | 1.699.0700.61                           |
| PG 9    | 4–8                 | 10       | 21      | 17     | 1.609.0900.60                      | 1.699.0900.60                           |
| PG 9    | 2–6                 | 10       | 21      | 17     | 1.609.0900.61                      | 1.699.0900.61                           |
| PG 11   | 5–10                | 10       | 22      | 20     | 1.609.1100.60                      | 1.699.1100.60                           |
| PG 11   | 3–7                 | 10       | 22      | 20     | 1.609.1100.61                      | 1.699.1100.61                           |
| PG 13,5 | 6–12                | 10       | 24      | 22     | 1.609.1300.60                      | 1.699.1300.60                           |
| PG 13,5 | 5–9                 | 10       | 24      | 22     | 1.609.1300.61                      | 1.699.1300.61                           |
| PG 16   | 10–14               | 10       | 23      | 24     | 1.609.1600.60                      | 1.699.1600.60                           |
| PG 16   | 7–12                | 10       | 23      | 24     | 1.609.1600.61                      | 1.699.1600.61                           |
| PG 21   | 13–18               | 12       | 24      | 30     | 1.609.2100.60                      | 1.699.2100.60                           |
| PG 21   | 9–16                | 12       | 24      | 30     | 1.609.2100.61                      | 1.699.2100.61                           |
| PG 29   | 18–25               | 12       | 29      | 40     | 1.609.2900.60                      | 1.699.2900.60                           |
| PG 29   | 13–20               | 12       | 29      | 40     | 1.609.2900.61                      | 1.699.2900.61                           |
| PG 36   | 22–32               | 15       | 35      | 50     | 1.609.3600.60                      | 1.699.3600.60                           |
| PG 36   | 20–26               | 15       | 35      | 50     | 1.609.3600.61                      | 1.699.3600.61                           |
| PG 42   | 32–38               | 15       | 37      | 57     | 1.609.4200.60                      | 1.699.4200.60                           |
| PG 42   | 25–31               | 15       | 37      | 57     | 1.609.4200.61                      | 1.699.4200.61                           |
| PG 48   | 37–44               | 15       | 38      | 64     | 1.609.4800.60                      | 1.699.4800.60                           |
| PG 48   | 29–35               | 15       | 38      | 64     | 1.609.4800.61                      | 1.699.4800.61                           |

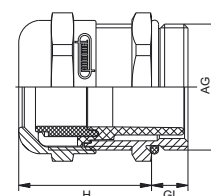
## HSK-M / HSK-M-PVDF

NPT



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                |
| Clamping insert       | Polyamide / PVDF                                                                   |
| Seal                  | Buna-N / FKM                                                                       |
| O-Ring                | Buna-N / FKM                                                                       |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                        |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) (PA)<br>-35 °C – 150 °C (-31 °F – 302 °F) (PVDF) |

// Other sealing material e.g. Silicone upon request

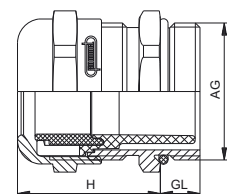


| AG       | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm  | Number<br>HSK-M<br>-40 °C – 100 °C | Number<br>HSK-M-PVDF<br>-35 °C – 150 °C |
|----------|---------------------|----------|---------|---------|------------------------------------|-----------------------------------------|
| NPT 3/8" | 4–8                 | 15       | 21      | 17 / 19 | 1.609.3800.70                      | 1.699.3800.70                           |
| NPT 3/8" | 2–6                 | 15       | 21      | 17 / 19 | 1.609.3800.71                      | 1.699.3800.71                           |
| NPT 1/2" | 6–12                | 13       | 24      | 22 / 24 | 1.609.1200.70                      | 1.699.1200.70                           |
| NPT 1/2" | 5–9                 | 13       | 24      | 22 / 24 | 1.609.1200.71                      | 1.699.1200.71                           |
| NPT 3/4" | 13–18               | 13       | 25      | 30      | 1.609.3400.70                      | 1.699.3400.70                           |
| NPT 3/4" | 9–16                | 13       | 25      | 30      | 1.609.3400.71                      | 1.699.3400.71                           |
| NPT 1"   | 18–25               | 19       | 29      | 40      | 1.609.1000.70                      |                                         |
| NPT 1"   | 13–20               | 19       | 29      | 40      | 1.609.1000.71                      |                                         |



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | INOX 1.4305 / 1.4404                                                               |
| Clamping insert       | Polyamide / PVDF                                                                   |
| Seal                  | Buna-N / FKM                                                                       |
| O-Ring                | Buna-N / FKM                                                                       |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                        |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) (PA)<br>-35 °C – 150 °C (-31 °F – 302 °F) (PVDF) |

// Other sealing material e.g. Silicone upon request



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number<br>HSK-INOX<br>1.4305<br>-40 °C – 100 °C | Number<br>HSK-INOX-PVDF<br>1.4305<br>-35 °C – 150 °C | Number<br>HSK-INOX<br>1.4404<br>-40 °C – 100 °C | Number<br>HSK-INOX-PVDF<br>1.4404<br>-35 °C – 150 °C |
|------------|---------------------|----------|---------|---------------------|-------------------------------------------------|------------------------------------------------------|-------------------------------------------------|------------------------------------------------------|
| M 12 x 1,5 | 3–6,5               | 6,5      | 19      | 14                  | 1.695.1200.50                                   | 1.696.1200.50                                        | 1.675.1200.50                                   | 1.676.1200.50                                        |
| M 12 x 1,5 | 2–5                 | 6,5      | 19      | 14                  | 1.695.1200.51                                   | 1.696.1200.51                                        | 1.675.1200.51                                   | 1.676.1200.51                                        |
| M 16 x 1,5 | 5–10                | 6        | 22      | 22                  | 1.695.1600.50                                   | 1.696.1600.50                                        | 1.675.1600.50                                   | 1.676.1600.50                                        |
| M 16 x 1,5 | 3–7                 | 6        | 22      | 22                  | 1.695.1600.51                                   | 1.696.1600.51                                        | 1.675.1600.51                                   | 1.676.1600.51                                        |
| M 20 x 1,5 | 10–14               | 6        | 23      | 24                  | 1.695.2000.50                                   | 1.696.2000.50                                        | 1.675.2000.50                                   | 1.676.2000.50                                        |
| M 20 x 1,5 | 7–12                | 6        | 23      | 24                  | 1.695.2000.51                                   | 1.696.2000.51                                        | 1.675.2000.51                                   | 1.676.2000.51                                        |
| M 25 x 1,5 | 13–18               | 7        | 24      | 30                  | 1.695.2500.50                                   | 1.696.2500.50                                        | 1.675.2500.50                                   | 1.676.2500.50                                        |
| M 25 x 1,5 | 9–16                | 7        | 24      | 30                  | 1.695.2500.51                                   | 1.696.2500.51                                        | 1.675.2500.51                                   | 1.676.2500.51                                        |
| M 32 x 1,5 | 18–25               | 8        | 31      | 41                  | 1.695.3200.50                                   | 1.696.3200.50                                        | 1.675.3200.50                                   | 1.676.3200.50                                        |
| M 32 x 1,5 | 13–20               | 8        | 31      | 41                  | 1.695.3200.51                                   | 1.696.3200.51                                        | 1.675.3200.51                                   | 1.676.3200.51                                        |
| M 40 x 1,5 | 22–32               | 8        | 37      | 50                  | 1.695.4000.50                                   | 1.696.4000.50                                        | 1.675.4000.50                                   | 1.676.4000.50                                        |
| M 40 x 1,5 | 20–26               | 8        | 37      | 50                  | 1.695.4000.51                                   | 1.696.4000.51                                        | 1.675.4000.51                                   | 1.676.4000.51                                        |
| M 50 x 1,5 | 32–38               | 9        | 37      | 60                  | 1.695.5000.50                                   |                                                      | 1.675.5000.50                                   |                                                      |
| M 50 x 1,5 | 25–31               | 9        | 37      | 60                  | 1.695.5000.51                                   |                                                      | 1.675.5000.51                                   |                                                      |
| M 63 x 1,5 | 37–44               | 10       | 38      | 64/68               | 1.695.6300.50                                   |                                                      | 1.675.6300.50                                   |                                                      |
| M 63 x 1,5 | 29–35               | 10       | 38      | 64/68               | 1.695.6300.51                                   |                                                      | 1.675.6300.51                                   |                                                      |

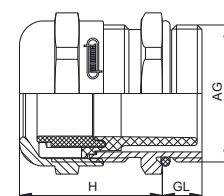
## HSK-INOX / HSK-INOX-PVDF

PG



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | INOX 1.4305 / 1.4404                                                               |
| Clamping insert       | Polyamide / PVDF                                                                   |
| Seal                  | Buna-N / FKM                                                                       |
| O-Ring                | Buna-N / FKM                                                                       |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                        |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) (PA)<br>-35 °C – 150 °C (-31 °F – 302 °F) (PVDF) |

// Other sealing material e.g. Silicone upon request



| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number<br>HSK-INOX<br>1.4305<br>-40 °C – 100 °C | Number<br>HSK-INOX-PVDF<br>1.4305<br>-35 °C – 150 °C | Number<br>HSK-INOX<br>1.4404<br>-40 °C – 100 °C | Number<br>HSK-INOX-PVDF<br>1.4404<br>-35 °C – 150 °C |
|---------|---------------------|----------|---------|---------------------|-------------------------------------------------|------------------------------------------------------|-------------------------------------------------|------------------------------------------------------|
| PG 7    | 3–6,5               | 5        | 19      | 14                  | 1.695.0700.01                                   | 1.696.0700.01                                        | 1.675.0700.01                                   | 1.676.0700.01                                        |
| PG 7    | 2–5                 | 5        | 19      | 14                  | 1.695.0700.15                                   | 1.696.0700.15                                        | 1.675.0700.15                                   | 1.676.0700.15                                        |
| PG 9    | 4–8                 | 6        | 21      | 17                  | 1.695.0900.01                                   | 1.696.0900.01                                        | 1.675.0900.01                                   | 1.676.0900.01                                        |
| PG 9    | 2–6                 | 6        | 21      | 17                  | 1.695.0900.15                                   | 1.696.0900.15                                        | 1.675.0900.15                                   | 1.676.0900.15                                        |
| PG 11   | 5–10                | 6        | 22      | 22                  | 1.695.1100.01                                   | 1.696.1100.01                                        | 1.675.1100.01                                   | 1.676.1100.01                                        |
| PG 11   | 3–7                 | 6        | 22      | 22                  | 1.695.1100.15                                   | 1.696.1100.15                                        | 1.675.1100.15                                   | 1.676.1100.15                                        |
| PG 13,5 | 6–12                | 6,5      | 24      | 22                  | 1.695.1300.01                                   | 1.696.1300.01                                        | 1.675.1300.01                                   | 1.676.1300.01                                        |
| PG 13,5 | 5–9                 | 6,5      | 24      | 22                  | 1.695.1300.15                                   | 1.696.1300.15                                        | 1.675.1300.15                                   | 1.676.1300.15                                        |
| PG 16   | 10–14               | 6,5      | 23      | 24                  | 1.695.1600.01                                   | 1.696.1600.01                                        | 1.675.1600.01                                   | 1.676.1600.01                                        |
| PG 16   | 7–12                | 6,5      | 23      | 24                  | 1.695.1600.15                                   | 1.696.1600.15                                        | 1.675.1600.15                                   | 1.676.1600.15                                        |
| PG 21   | 13–18               | 7        | 24      | 30                  | 1.695.2100.01                                   | 1.696.2100.01                                        | 1.675.2100.01                                   | 1.676.2100.01                                        |
| PG 21   | 9–16                | 7        | 24      | 30                  | 1.695.2100.15                                   | 1.696.2100.15                                        | 1.675.2100.15                                   | 1.676.2100.15                                        |
| PG 29   | 18–25               | 8        | 29      | 41                  | 1.695.2900.01                                   | 1.696.2900.01                                        | 1.675.2900.01                                   | 1.676.2900.01                                        |
| PG 29   | 13–20               | 8        | 29      | 41                  | 1.695.2900.15                                   | 1.696.2900.15                                        | 1.675.2900.15                                   | 1.676.2900.15                                        |
| PG 36   | 22–32               | 8        | 35      | 50                  | 1.695.3600.01                                   | 1.696.3600.01                                        | 1.675.3600.01                                   | 1.676.3600.01                                        |
| PG 36   | 20–26               | 8        | 35      | 50                  | 1.695.3600.15                                   | 1.696.3600.15                                        | 1.675.3600.15                                   | 1.676.3600.15                                        |
| PG 42   | 32–38               | 9        | 37      | 57                  | 1.695.4200.01                                   | 1.696.4200.01                                        | 1.675.4200.01                                   | 1.676.4200.01                                        |
| PG 42   | 25–31               | 9        | 37      | 57                  | 1.695.4200.15                                   | 1.696.4200.15                                        | 1.675.4200.15                                   | 1.676.4200.15                                        |
| PG 48   | 37–44               | 10       | 38      | 64                  | 1.695.4800.01                                   | 1.696.4800.01                                        | 1.675.4800.01                                   | 1.676.4800.01                                        |
| PG 48   | 29–35               | 10       | 38      | 64                  | 1.695.4800.15                                   | 1.696.4800.15                                        | 1.675.4800.15                                   | 1.676.4800.15                                        |

# HSK CABLE GLANDS

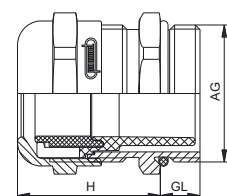
## HSK-INOX / HSK-INOX-PVDF

NPT



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | INOX 1.4305 / 1.4404                                                               |
| Clamping insert       | Polyamide / PVDF                                                                   |
| Seal                  | Buna-N / FKM                                                                       |
| O-Ring                | Buna-N / FKM                                                                       |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                        |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) (PA)<br>-35 °C – 150 °C (-31 °F – 302 °F) (PVDF) |

- // PVDF type upon request
- // Other sealing material e.g. Silicone upon request



| AG       | Ø<br>mm | GL<br>mm | H<br>mm | mm      | Number<br>HSK-INOX<br>1.4305 | Number<br>HSK-INOX<br>1.4404 |
|----------|---------|----------|---------|---------|------------------------------|------------------------------|
| NPT 3/8" | 4–8     | 15       | 21      | 17 / 19 | 1.695.3800.70                | 1.675.3800.70                |
| NPT 3/8" | 2–6     | 15       | 21      | 17 / 19 | 1.695.3800.71                | 1.675.3800.71                |
| NPT 1/2" | 6–12    | 13       | 24      | 22 / 24 | 1.695.1200.70                | 1.675.1200.70                |
| NPT 1/2" | 5–9     | 13       | 24      | 22 / 24 | 1.695.1200.71                | 1.675.1200.71                |
| NPT 3/4" | 13–18   | 13       | 25      | 30      | 1.695.3400.70                | 1.675.3400.70                |
| NPT 3/4" | 9–16    | 13       | 25      | 30      | 1.695.3400.71                | 1.675.3400.71                |
| NPT 1"   | 18–25   | 19       | 29      | 41      | 1.695.1000.70                | 1.675.1000.70                |
| NPT 1"   | 13–20   | 19       | 29      | 41      | 1.695.1000.71                | 1.675.1000.71                |

# INDUSTRIAL CABLE GLANDS

## HSK-EMC cable glands

Cable glands of the HSK-series fulfil the highest demands of quality and security. Outstanding high-grade materials are used together with innovative technology to offer premium products.

### You can find in this chapter:

HSK cable gland series with 360° EMC connection

- // HSK-M-EMC-D EMC version with best EMI attenuation for fast and easy installation
- // HSK-M-EMC standard EMC version with very good screen attenuation
- // HSK-M-PVDF-EMC high temperature EMC version with very good screen attenuation
- // HSK-M-EMC-MZ/Flex standard EMC version with additional bending protection or additional strain relief
- // HSK-INOX-EMC standard EMC version with very good screen attenuation, made of stainless steel

We provide variable clamping ranges, thread lengths, thread types plus different sealing materials and temperature ranges. Our range is completed by global certifications.

If there are still open requests from your side, please contact us. We are looking forward to developing solutions together. You profit from our vast knowledge in development, engineering and production technology.



# HSK-EMC CABLE GLANDS

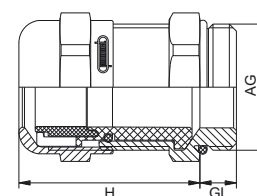
## HSK-M-EMC-D

Metr., Metr.-elongated



|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Nickel plated brass                         |
| Clamping insert       | Metalised polyamide                         |
| Seal                  | Buna-N                                      |
| O-Ring                | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)           |

// Other sealing material e.g. Silicone upon request



| AG         | Ø mm  | H mm | Ø mm  | GL mm | Number        | GL mm | Number elongated |
|------------|-------|------|-------|-------|---------------|-------|------------------|
| M 12 x 1,5 | 3–6,5 | 25   | 14    | 6,5   | 1.631.1200.50 | 10    | 1.631.1200.30    |
| M 16 x 1,5 | 4–8   | 29   | 17/19 | 6     | 1.631.1609.50 | 10    | 1.631.1609.30    |
| M 16 x 1,5 | 5–10  | 32   | 20    | 6     | 1.631.1600.50 | 10    | 1.631.1600.30    |
| M 20 x 1,5 | 6–12  | 32,5 | 22    | 6     | 1.631.2013.50 | 10    | 1.631.2013.30    |
| M 20 x 1,5 | 10–14 | 33   | 24    | 6     | 1.631.2000.50 | 10    | 1.631.2000.30    |
| M 25 x 1,5 | 13–18 | 39   | 30    | 7     | 1.631.2500.50 | 12    | 1.631.2500.30    |
| M 32 x 1,5 | 18–25 | 45   | 40    | 8     | 1.631.3200.50 | 12    | 1.631.3200.30    |
| M 40 x 1,5 | 24–32 | 51   | 50    | 8     | 1.631.4000.50 | 15    | 1.631.4000.30    |
| M 50 x 1,5 | 32–38 | 57,5 | 57    | 9     | 1.631.5000.50 | 15    | 1.631.5000.30    |
| M 63 x 1,5 | 37–44 | 52   | 64/68 | 10    | 1.631.6300.50 | 15    | 1.631.6300.30    |



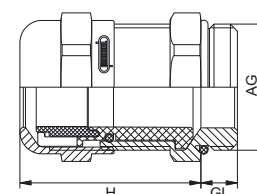
## HSK-M-EMC-D

PG, NPT



|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Nickel plated brass                         |
| Clamping insert       | Metalised polyamide                         |
| Seal                  | Buna-N                                      |
| O-Ring                | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)           |

// Other sealing material e.g. Silicone upon request



| AG       | Ø<br>mm | GL<br>mm | H<br>mm | R<br>mm | Number        |
|----------|---------|----------|---------|---------|---------------|
| PG 7     | 3–6,5   | 5        | 24      | 14      | 1.631.0700.01 |
| PG 9     | 4–8     | 6        | 28      | 17      | 1.631.0900.01 |
| PG 11    | 5–10    | 6        | 29      | 20      | 1.631.1100.01 |
| PG 13,5  | 6–12    | 6,5      | 31      | 22      | 1.631.1300.01 |
| PG 16    | 10–14   | 6,5      | 32      | 24      | 1.631.1600.01 |
| PG 21    | 13–18   | 7        | 38      | 30      | 1.631.2100.01 |
| PG 29    | 18–25   | 8        | 43      | 40      | 1.631.2900.01 |
| PG 36    | 24–32   | 8        | 48      | 50      | 1.631.3600.01 |
| PG 42    | 32–38   | 9        | 45      | 57      | 1.631.4200.01 |
| PG 48    | 37–44   | 10       | 46      | 64      | 1.631.4800.01 |
| NPT 3/8" | 4–8     | 15       | 29      | 17 / 19 | 1.631.3800.70 |
| NPT 1/2" | 6–12    | 13       | 32,5    | 22 / 24 | 1.631.1200.70 |
| NPT 3/4" | 13–18   | 13       | 39      | 30      | 1.631.3400.70 |

# HSK-EMC CABLE GLANDS

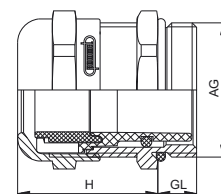
## HSK-M-EMC / HSK-M-PVDF-EMC

## Metr., Metr.-elongated

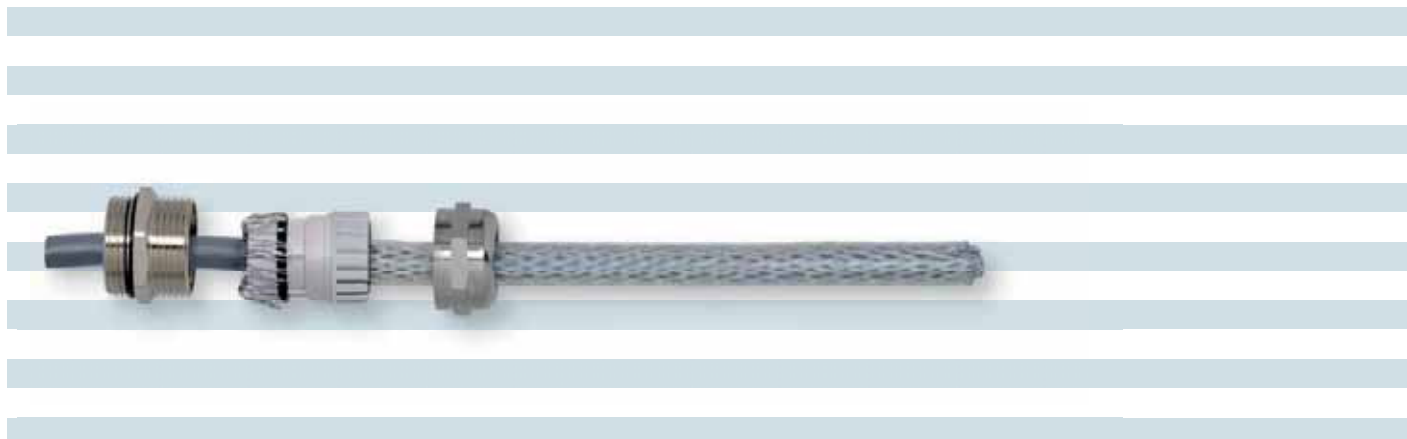


|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                |
| Clamping insert       | Polyamide / PVDF                                                                   |
| Seal                  | Buna-N / FKM                                                                       |
| O-Ring                | Buna-N / FKM                                                                       |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                        |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) (PA)<br>-35 °C – 150 °C (-31 °F – 302 °F) (PVDF) |

// Other sealing material e.g. Silicone upon request  
 // Please see page 56 for HSK-Mini EMC M 8 and M10



| AG         | $\varnothing$ mm | H mm | $\varnothing$ mm | GL mm | Number HSK-M-EMC -40 °C – 100 °C | Number HSK-M-PVDF-EMC -35 °C – 150 °C | GL mm | Number HSK-M-EMC elongated -40 °C – 100 °C |
|------------|------------------|------|------------------|-------|----------------------------------|---------------------------------------|-------|--------------------------------------------|
| M 12 x 1,5 | 3–6,5            | 19   | 14               | 6,5   | 1.691.1200.50                    | 1.698.1200.50                         | 10    | 1.691.1200.30                              |
| M 12 x 1,5 | 2–5              | 19   | 14               | 6,5   | 1.691.1200.51                    | 1.698.1200.51                         | 10    | 1.691.1200.31                              |
| M 16 x 1,5 | 5–10             | 22   | 20               | 6     | 1.691.1600.50                    | 1.698.1611.50                         | 10    | 1.691.1600.30                              |
| M 16 x 1,5 | 3–7              | 22   | 20               | 6     | 1.691.1600.51                    | 1.698.1611.51                         | 10    | 1.691.1600.31                              |
| M 20 x 1,5 | 10–14            | 24   | 24               | 6     | 1.691.2000.50                    | 1.698.2000.50                         | 10    | 1.691.2000.30                              |
| M 20 x 1,5 | 7–12             | 24   | 24               | 6     | 1.691.2000.51                    | 1.698.2000.51                         | 10    | 1.691.2000.31                              |
| M 25 x 1,5 | 13–18            | 26   | 30               | 7     | 1.691.2500.50                    | 1.698.2500.50                         | 12    | 1.691.2500.30                              |
| M 25 x 1,5 | 9–16             | 26   | 30               | 7     | 1.691.2500.51                    | 1.698.2500.51                         | 12    | 1.691.2500.31                              |
| M 32 x 1,5 | 18–25            | 31   | 40               | 8     | 1.691.3200.50                    |                                       | 12    | 1.691.3200.30                              |
| M 32 x 1,5 | 13–20            | 31   | 40               | 8     | 1.691.3200.51                    |                                       | 12    | 1.691.3200.31                              |
| M 32 x 1,5 | 15–21            | 33   | 36               | 8     | 1.691.3200.52                    |                                       | 12    | 1.691.3200.32                              |
| M 40 x 1,5 | 22–32            | 37   | 50               | 8     | 1.691.4000.50                    |                                       | 15    | 1.691.4000.30                              |
| M 40 x 1,5 | 20–26            | 37   | 50               | 8     | 1.691.4000.51                    |                                       | 15    | 1.691.4000.31                              |
| M 40 x 1,5 | 19–27            | 33   | 46               | 8     | 1.691.4000.52                    |                                       | 15    | 1.691.4000.32                              |
| M 50 x 1,5 | 32–38            | 37   | 57               | 9     | 1.691.5000.50                    |                                       | 15    | 1.691.5000.30                              |
| M 50 x 1,5 | 25–31            | 37   | 57               | 9     | 1.691.5000.51                    |                                       | 15    | 1.691.5000.31                              |
| M 63 x 1,5 | 37–44            | 38   | 64 / 68          | 10    | 1.691.6300.50                    |                                       | 15    | 1.691.6300.30                              |
| M 63 x 1,5 | 29–35            | 38   | 64 / 68          | 10    | 1.691.6300.51                    |                                       | 15    | 1.691.6300.31                              |



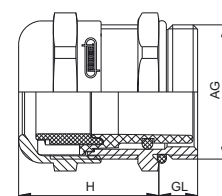
## HSK-M-EMC / HSK-M-PVDF-EMC

PG, PG-elongated, NPT



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                |
| Clamping insert       | Polyamide / PVDF                                                                   |
| Seal                  | Buna-N / FKM                                                                       |
| O-Ring                | Buna-N / FKM                                                                       |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                        |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) (PA)<br>-35 °C – 150 °C (-31 °F – 302 °F) (PVDF) |

// Other sealing material e.g. Silicone upon request



| AG       | Ø mm  | H mm | mm      | GL mm | Number HSK-M-EMC -40 °C – 100 °C | Number HSK-M-PVDF-EMC -35 °C – 150 °C | GL mm | Number HSK-M-EMC elongated -40 °C – 100 °C |
|----------|-------|------|---------|-------|----------------------------------|---------------------------------------|-------|--------------------------------------------|
| PG 7     | 3–6,5 | 19   | 14      | 5     | 1.691.0700.01                    | 1.698.0700.01                         | 10    | 1.691.0700.60                              |
| PG 7     | 2–5   | 19   | 14      | 5     | 1.691.0700.15                    | 1.698.0700.15                         | 10    | 1.691.0700.61                              |
| PG 9     | 4–8   | 21   | 17      | 6     | 1.691.0900.01                    | 1.698.0900.01                         | 10    | 1.691.0900.60                              |
| PG 9     | 2–6   | 21   | 17      | 6     | 1.691.0900.15                    | 1.698.0900.15                         | 10    | 1.691.0900.61                              |
| PG 11    | 5–10  | 22   | 20      | 6     | 1.691.1100.01                    | 1.698.1100.01                         | 10    | 1.691.1100.60                              |
| PG 11    | 3–7   | 22   | 20      | 6     | 1.691.1100.15                    | 1.698.1100.15                         | 10    | 1.691.1100.61                              |
| PG 13,5  | 6–12  | 24   | 22      | 6,5   | 1.691.1300.01                    | 1.698.1300.01                         | 10    | 1.691.1300.60                              |
| PG 13,5  | 5–9   | 24   | 22      | 6,5   | 1.691.1300.15                    | 1.698.1300.15                         | 10    | 1.691.1300.61                              |
| PG 16    | 10–14 | 23   | 24      | 6,5   | 1.691.1600.01                    | 1.698.1600.01                         | 10    | 1.691.1600.60                              |
| PG 16    | 7–12  | 23   | 24      | 6,5   | 1.691.1600.15                    | 1.698.1600.15                         | 10    | 1.691.1600.61                              |
| PG 21    | 13–18 | 24   | 30      | 7     | 1.691.2100.01                    | 1.698.2100.01                         | 12    | 1.691.2100.60                              |
| PG 21    | 9–16  | 24   | 30      | 7     | 1.691.2100.15                    | 1.698.2100.15                         | 12    | 1.691.2100.61                              |
| PG 29    | 18–25 | 29   | 40      | 8     | 1.691.2900.01                    | 1.698.2900.01                         | 12    | 1.691.2900.60                              |
| PG 29    | 13–20 | 29   | 40      | 8     | 1.691.2900.15                    | 1.698.2900.15                         | 12    | 1.691.2900.61                              |
| PG 36    | 22–32 | 35   | 50      | 8     | 1.691.3600.01                    | 1.698.3600.01                         | 15    | 1.691.3600.60                              |
| PG 36    | 20–26 | 35   | 50      | 8     | 1.691.3600.15                    | 1.698.3600.15                         | 15    | 1.691.3600.61                              |
| PG 42    | 32–38 | 37   | 57      | 9     | 1.691.4200.01                    |                                       | 15    | 1.691.4200.60                              |
| PG 42    | 25–31 | 37   | 57      | 9     | 1.691.4200.15                    |                                       | 15    | 1.691.4200.61                              |
| PG 48    | 37–44 | 38   | 64      | 10    | 1.691.4800.01                    |                                       | 15    | 1.691.4800.60                              |
| PG 48    | 29–35 | 38   | 64      | 10    | 1.691.4800.15                    |                                       | 15    | 1.691.4800.61                              |
| NPT 3/8" | 4–8   | 21   | 17 / 19 | 15    | 1.691.3800.70                    |                                       |       |                                            |
| NPT 3/8" | 2–6   | 21   | 17 / 19 | 15    | 1.691.3800.71                    |                                       |       |                                            |
| NPT 1/2" | 6–12  | 24   | 22 / 24 | 13    | 1.691.1200.70                    |                                       |       |                                            |
| NPT 1/2" | 5–9   | 24   | 22 / 24 | 13    | 1.691.1200.71                    |                                       |       |                                            |
| NPT 3/4" | 13–18 | 25   | 30      | 13    | 1.691.3400.70                    |                                       |       |                                            |
| NPT 3/4" | 9–16  | 25   | 30      | 13    | 1.691.3400.71                    |                                       |       |                                            |

# HSK-EMC CABLE GLANDS

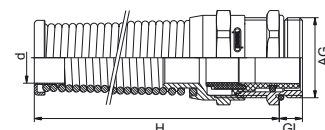
## HSK-M-Flex-EMC

## Metr., Metr.-elongated

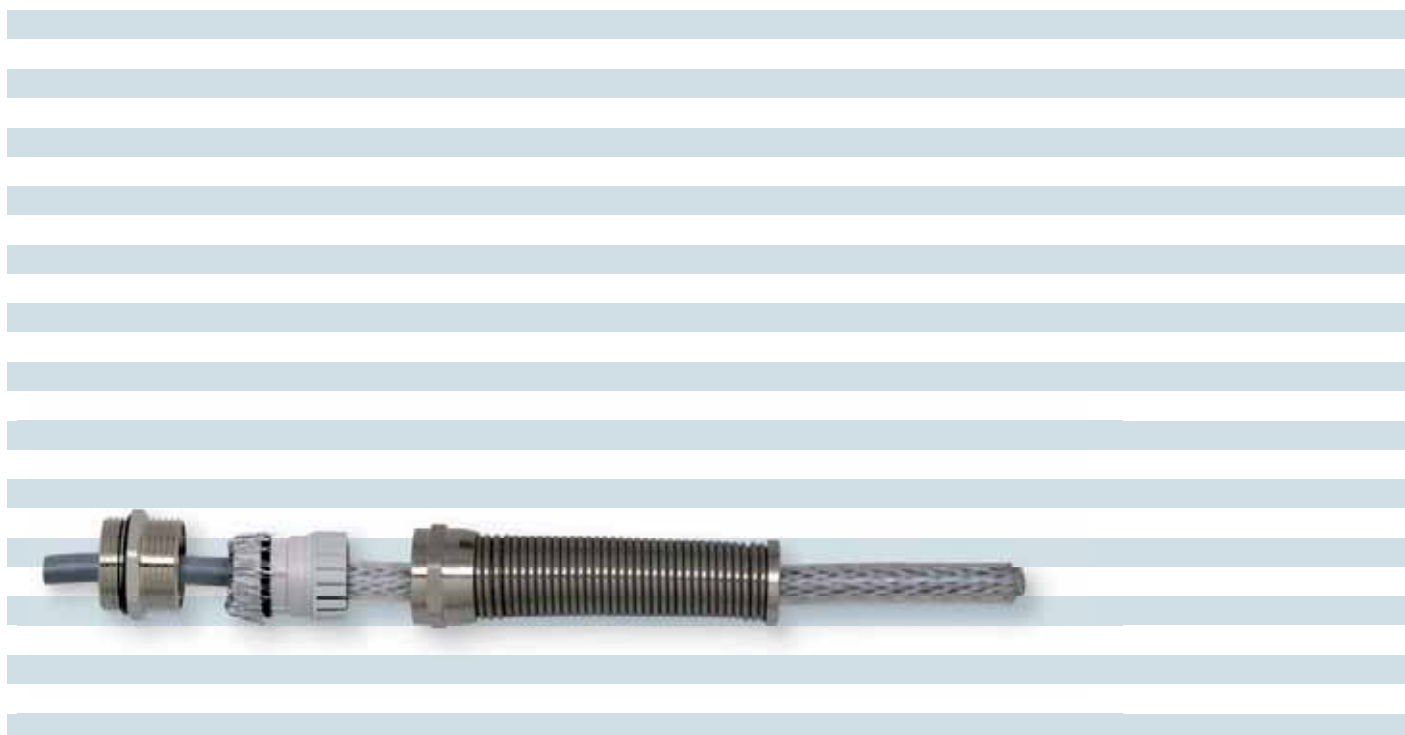


|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Nickel plated brass                         |
| Steel spring          | INOX 1.4310                                 |
| Clamping insert       | Polyamide                                   |
| Seal                  | Buna-N                                      |
| O-Ring                | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)           |

// Other sealing material e.g. Silicone upon request



| AG         | Ø<br>mm | H<br>mm | d<br>mm | R<br>mm | GL<br>mm | Number        | GL<br>mm | Number<br>elongated |
|------------|---------|---------|---------|---------|----------|---------------|----------|---------------------|
| M 12 x 1,5 | 3–6,5   | 55      | 6,8     | 14      | 6,5      | 1.624.1200.50 | 10       | 1.624.1200.30       |
| M 12 x 1,5 | 2–5     | 55      | 6,8     | 14      | 6,5      | 1.624.1200.51 | 10       | 1.624.1200.31       |
| M 16 x 1,5 | 5–10    | 77      | 10,3    | 20      | 6        | 1.624.1600.50 | 10       | 1.624.1600.30       |
| M 16 x 1,5 | 3–7     | 77      | 10,3    | 20      | 6        | 1.624.1600.51 | 10       | 1.624.1600.31       |
| M 20 x 1,5 | 10–14   | 98      | 14,3    | 24      | 6        | 1.624.2000.50 | 10       | 1.624.2000.30       |
| M 20 x 1,5 | 7–12    | 98      | 14,3    | 24      | 6        | 1.624.2000.51 | 10       | 1.624.2000.31       |
| M 25 x 1,5 | 13–18   | 111     | 18,4    | 30      | 7        | 1.624.2500.50 | 12       | 1.624.2500.30       |
| M 25 x 1,5 | 9–16    | 111     | 18,4    | 30      | 7        | 1.624.2500.51 | 12       | 1.624.2500.31       |



## HSK-M-Flex-EMC

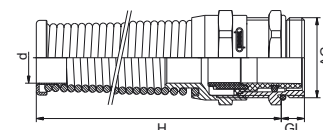
PG, PG-elongated, NPT



|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Nickel plated brass                         |
| Steel spring          | INOX 1.4310                                 |
| Clamping insert       | Polyamide                                   |
| Seal                  | Buna-N                                      |
| O-Ring                | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)           |



// Other sealing material e.g. Silicone upon request  
 // Also available in PVDF



| AG           | Øk<br>mm | H<br>mm | d<br>mm | R<br>mm | GL<br>mm | Number        | GL<br>mm | Number<br>elongated |
|--------------|----------|---------|---------|---------|----------|---------------|----------|---------------------|
| PG 7         | 3–6,5    | 55      | 6,8     | 14      | 5        | 1.624.0700.01 | 10       | 1.624.0700.60       |
| PG 7         | 2–5      | 55      | 6,8     | 14      | 5        | 1.624.0700.15 | 10       | 1.624.0700.61       |
| PG 9         | 4–8      | 66      | 8,2     | 17      | 6        | 1.624.0900.01 | 10       | 1.624.0900.60       |
| PG 9         | 2–6      | 66      | 8,2     | 17      | 6        | 1.624.0900.15 | 10       | 1.624.0900.61       |
| PG 11        | 5–10     | 77      | 10,3    | 20      | 6        | 1.624.1100.01 | 10       | 1.624.1100.60       |
| PG 11        | 3–7      | 77      | 10,3    | 20      | 6        | 1.624.1100.15 | 10       | 1.624.1100.61       |
| PG 13,5      | 6–12     | 88      | 12,3    | 22      | 6,5      | 1.624.1300.01 | 10       | 1.624.1300.60       |
| PG 13,5      | 5–9      | 88      | 12,3    | 22      | 6,5      | 1.624.1300.15 | 10       | 1.624.1300.61       |
| PG 16        | 10–14    | 98      | 14,3    | 24      | 6,5      | 1.624.1600.01 | 10       | 1.624.1600.60       |
| PG 16        | 7–12     | 98      | 14,3    | 24      | 6,5      | 1.624.1600.15 | 10       | 1.624.1600.61       |
| PG 21        | 13–18    | 111     | 18,4    | 30      | 7        | 1.624.2100.01 | 12       | 1.624.2100.60       |
| PG 21        | 9–16     | 111     | 18,4    | 30      | 7        | 1.624.2100.15 | 12       | 1.624.2100.61       |
| NPT 3/8"     | 4–8      | 66      | 8,2     | 17 / 19 | 15       | 1.624.3800.70 |          |                     |
| NPT 3/8" NPT | 2–6      | 66      | 8,2     | 17 / 19 | 15       | 1.624.3800.71 |          |                     |
| NPT 1/2" NPT | 6–12     | 88      | 12,3    | 22 / 24 | 13       | 1.624.1200.70 |          |                     |
| NPT 1/2" NPT | 5–9      | 88      | 12,3    | 22 / 24 | 13       | 1.624.1200.71 |          |                     |
| NPT 3/4" NPT | 13–18    | 111     | 18,4    | 30      | 13       | 1.624.3400.70 |          |                     |
| NPT 3/4" NPT | 9–16     | 111     | 18,4    | 30      | 13       | 1.624.3400.71 |          |                     |

# HSK-EMC CABLE GLANDS

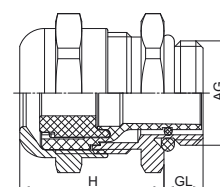
## HSK-INOX-EMC

Metr.



|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | 1.4305                                      |
| Clamping insert       | Polyamide                                   |
| Seal                  | Buna-N                                      |
| O-Ring                | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)           |

// Stainless steel 1.4404 on request



| AG         | Ø<br>mm | H<br>mm | <br>mm | GL<br>mm | Number        |
|------------|---------|---------|-------------------------------------------------------------------------------------------|----------|---------------|
| M 12 x 1,5 | 3–6,5   | 19      | 14                                                                                        | 6,5      | 1.693.1200.50 |
| M 12 x 1,5 | 2–5     | 19      | 14                                                                                        | 6,5      | 1.693.1200.51 |
| M 16 x 1,5 | 5–10    | 21      | 20                                                                                        | 6        | 1.693.1600.50 |
| M 16 x 1,5 | 3–7     | 21      | 20                                                                                        | 6        | 1.693.1600.51 |
| M 20 x 1,5 | 10–14   | 23      | 24                                                                                        | 6        | 1.693.2000.50 |
| M 20 x 1,5 | 7–12    | 23      | 24                                                                                        | 6        | 1.693.2000.51 |
| M 25 x 1,5 | 13–18   | 26      | 30                                                                                        | 7        | 1.693.2500.50 |
| M 25 x 1,5 | 9–16    | 26      | 30                                                                                        | 7        | 1.693.2500.51 |
| M 32 x 1,5 | 18–25   | 31      | 40                                                                                        | 8        | 1.693.3200.50 |
| M 32 x 1,5 | 13–20   | 31      | 40                                                                                        | 8        | 1.693.3200.51 |
| M 40 x 1,5 | 22–32   | 37      | 50                                                                                        | 8        | 1.693.4000.50 |
| M 40 x 1,5 | 20–26   | 37      | 50                                                                                        | 8        | 1.693.4000.51 |

## HSK-INOX-EMC

PG

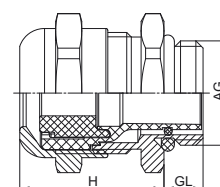


|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | 1.4305                                      |
| Clamping insert       | Polyamide                                   |
| Seal                  | Buna-N                                      |
| O-Ring                | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)           |



RoHS

// Stainless steel 1.4404 on request



| AG      | Ø<br>mm | H<br>mm | <br>mm | GL<br>mm | Number        |
|---------|---------|---------|--------|----------|---------------|
| PG 7    | 3–6,5   | 19      | 14     | 5        | 1.693.0700.01 |
| PG 7    | 2–5     | 19      | 14     | 5        | 1.693.0700.15 |
| PG 9    | 4–8     | 21      | 17     | 6        | 1.693.0900.01 |
| PG 9    | 2–6     | 21      | 17     | 6        | 1.693.0900.15 |
| PG 11   | 5–10    | 22      | 22     | 6        | 1.693.1100.01 |
| PG 11   | 3–7     | 22      | 22     | 6        | 1.693.1100.15 |
| PG 13,5 | 6–12    | 24      | 22     | 6,5      | 1.693.1300.01 |
| PG 13,5 | 5–9     | 24      | 22     | 6,5      | 1.693.1300.15 |
| PG 16   | 10–14   | 23      | 24     | 6,5      | 1.693.1600.01 |
| PG 16   | 7–12    | 23      | 24     | 6,5      | 1.693.1600.15 |
| PG 21   | 13–18   | 24      | 30     | 7        | 1.693.2100.01 |
| PG 21   | 9–16    | 24      | 30     | 7        | 1.693.2100.15 |
| PG 29   | 18–25   | 29      | 41     | 8        | 1.693.2900.01 |
| PG 29   | 13–20   | 29      | 41     | 8        | 1.693.2900.15 |
| PG 36   | 22–32   | 35      | 50     | 8        | 1.693.3600.01 |
| PG 36   | 20–26   | 35      | 50     | 8        | 1.693.3600.15 |

# HSK-EMC CABLE GLANDS

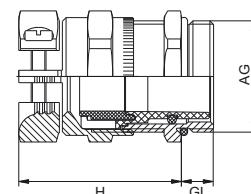
## HSK-MZ-EMC

Metr., Metr.-elongated, PG, PG-elongated, NPT



|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Nickel plated brass                         |
| Clamping insert       | Polyamide                                   |
| Seal                  | Buna-N                                      |
| O-Ring                | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)           |

// Other sealing material e.g. Silicone upon request  
 // Also available in PVDF \*



| AG         | Ø mm  | H mm | R mm    | GL mm | Number        | GL mm | Number elongated |
|------------|-------|------|---------|-------|---------------|-------|------------------|
| M 12 x 1,5 | 3–6,5 | 26   | 14      | 6,5   | 1.692.1200.50 | 10    | 1.692.1200.30    |
| M 16 x 1,5 | 6–10  | 29   | 20      | 6     | 1.692.1600.50 | 10    | 1.692.1600.30    |
| M 20 x 1,5 | 10–14 | 32   | 24      | 6     | 1.692.2000.50 | 10    | 1.692.2000.30    |
| M 25 x 1,5 | 13–18 | 35   | 30      | 7     | 1.692.2500.50 | 12    | 1.692.2500.30    |
| M 32 x 1,5 | 18–25 | 41   | 40      | 8     | 1.692.3200.50 | 12    | 1.692.3200.30    |
| M 40 x 1,5 | 22–32 | 48   | 50      | 8     | 1.692.4000.50 | 15    | 1.692.4000.30    |
| M 50 x 1,5 | 32–38 | 51   | 57      | 9     | 1.692.5000.50 | 15    | 1.692.5000.30    |
| M 50 x 1,5 | 25–31 | 51   | 57      | 9     | 1.692.5000.51 | 15    | 1.692.5000.31    |
| M 63 x 1,5 | 37–44 | 52   | 64 / 68 | 10    | 1.692.6300.50 | 15    | 1.692.6300.30    |
| M 63 x 1,5 | 29–35 | 52   | 64 / 68 | 10    | 1.692.6300.51 | 15    | 1.692.6300.31    |
| PG 7*      | 3–6,5 | 26   | 14      | 5     | 1.692.0700.01 | 10    | 1.692.0700.60    |
| PG 9*      | 4–8   | 28   | 17      | 6     | 1.692.0900.01 | 10    | 1.692.0900.60    |
| PG 11*     | 6–10  | 29   | 20      | 6     | 1.692.1100.01 | 10    | 1.692.1100.60    |
| PG 13,5*   | 6–12  | 33   | 22      | 6,5   | 1.692.1300.01 | 10    | 1.692.1300.60    |
| PG 16*     | 10–14 | 32   | 24      | 6,5   | 1.692.1600.01 | 10    | 1.692.1600.60    |
| PG 21*     | 13–18 | 35   | 30      | 7     | 1.692.2100.01 | 12    | 1.692.2100.60    |
| PG 29*     | 18–25 | 41   | 40      | 8     | 1.692.2900.01 | 12    | 1.692.2900.60    |
| PG 36*     | 22–32 | 48   | 50      | 8     | 1.692.3600.01 | 15    | 1.692.3600.60    |
| PG 42*     | 32–38 | 51   | 57      | 9     | 1.692.4200.01 | 15    | 1.692.4200.60    |
| PG 42*     | 25–31 | 51   | 57      | 9     | 1.692.4200.15 | 15    | 1.692.4200.61    |
| PG 48*     | 37–44 | 51   | 64      | 10    | 1.692.4800.01 | 15    | 1.692.4800.60    |
| PG 48*     | 29–35 | 51   | 64      | 10    | 1.692.4800.15 | 15    | 1.692.4800.61    |
| NPT 3/8"   | 4–8   | 28   | 17 / 19 | 15    | 1.692.3800.70 |       |                  |
| NPT 1/2"   | 6–12  | 29   | 22 / 24 | 13    | 1.692.1200.70 |       |                  |
| NPT 3/4"   | 13–18 | 35   | 30      | 13    | 1.692.3400.70 |       |                  |



# INDUSTRIAL CABLE GLANDS

## HSK cable glands for special applications

Cable glands of the HSK-series fulfil highest demands of quality and security.

Outstanding high-grade materials are used together with innovative technology to offer premium products.

### You can find in this chapter:

HSK cable gland series for special applications

- // HSK-INOX-HD-Pro designed for areas in which a hygienic design is needed
- // HSK-Multi with inserts for connecting of more than one cable or flat cables
- // HSK-Flex with bending protection for dynamic applications
- // HSK-W with snap elbow for easy mounting of 90° cable outlet
- // HSK-Mini for smaller sizes than M 12
- // HSK-XL cable glands with M 63 – M 110 or G threads with extended clamping range
- // HSK-MZ with additional strain relief

We provide variable clamping ranges, thread lengths, thread types plus different sealing materials and temperature ranges. Our range is completed by global certifications.

For any further question please do not hesitate to contact us. We look forward to develop solutions together with you. You profit from our vast knowledge in development, engineering and production technology.



# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

## HSK-INOX-HD-Pro

Metr.

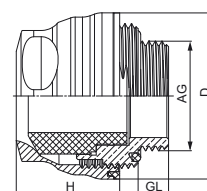


|                       |                                         |
|-----------------------|-----------------------------------------|
| Material HD-enclosure | 1.4404 / AISI 316 L                     |
| Sealing HD-enclosure  | VMQ (Silicone), blue (similar RAL 5012) |
| Protection            | IP 66, IP 68 to 10 bar, IP 69K          |
| Operating Temperature | -40 °C – 120 °C (-40 °F – 248 °F)       |

- // EMC connection integrated
- // VDMA Riboflavin cleaning test passed
- // EHEDG 01 cleaning test passed
- // EHEDG certificate EL class I AUX approved



ideal for high-pressure cleaning



| AG         | Ø<br>mm | GL<br>mm | H<br>mm | D<br>mm | mm      | Number        |
|------------|---------|----------|---------|---------|---------|---------------|
| M 12 x 1,5 | 5–6,5   | 6        | 19      | 21      | 14      | 1.740.1203.50 |
| M 16 x 1,5 | 7,5–10  | 6        | 20      | 27      | 19 / 21 | 1.740.1603.50 |
| M 16 x 1,5 | 6–7,5   | 6        | 20      | 27      | 19 / 21 | 1.740.1603.51 |
| M 20 x 1,5 | 11–13,5 | 6        | 22,5    | 33      | 24 / 27 | 1.740.2003.50 |
| M 20 x 1,5 | 9–12    | 6        | 22,5    | 33      | 24 / 27 | 1.740.2003.51 |
| M 20 x 1,5 | 11–13,5 | 6        | 20      | 28      | 21 / 24 | 1.740.2003.54 |
| M 25 x 1,5 | 15–18   | 7        | 23,5    | 38      | 30      | 1.740.2503.50 |
| M 25 x 1,5 | 14–16   | 7        | 23,5    | 38      | 30      | 1.740.2503.52 |
| M 32 x 1,5 | 21–25   | 8        | 26,5    | 45      | 36      | 1.740.3203.50 |
| M 32 x 1,5 | 18–21   | 8        | 26,5    | 45      | 36      | 1.740.3203.51 |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

## HSK-INOX-HD

Metr.

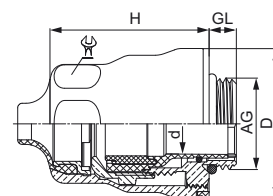
EMC



|                       |                                         |
|-----------------------|-----------------------------------------|
| Material HD-enclosure | 1.4404 / AISI 316 L                     |
| Sealing HD-enclosure  | VMQ (Silicone), blue (similar RAL 5012) |
| Protection            | IP 68                                   |
| Operating Temperature | -40 °C – 120 °C (-40 °F – 248 °F)       |

- // EMC integrated
- // VDMA Riboflavintest fulfilled and passed
- // Durability and cleanability tested and passed with compounds from ECOLAB

ideal for  
foam-cleaning



| AG         | Ø<br>mm | d<br>mm | GL<br>mm | H<br>mm | D<br>mm | Wrench<br>mm | Number        |
|------------|---------|---------|----------|---------|---------|--------------|---------------|
| M 12 x 1,5 | 3,5–6,5 | 5,8     | 6        | 30      | 21      | 14           | 1.740.1202.50 |
| M 16 x 1,5 | 5–10    | 9,3     | 6        | 34      | 27      | 18 / 20      | 1.740.1602.50 |
| M 20 x 1,5 | 10–14   | 13,2    | 6        | 34,5    | 33      | 24           | 1.740.2002.50 |
| M 25 x 1,5 | 13–18   | 17,3    | 7        | 41,5    | 40      | 27 / 30      | 1.740.2502.50 |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

## HSK-K-Multi

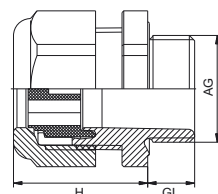
Metr., PG, NPT



|                       |                                         |
|-----------------------|-----------------------------------------|
| Material              | Polyamide VO according to UL 94         |
| Seal                  | Elastomer                               |
| Protection            | IP 65 /<br>IP 68 with additional O-Ring |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)       |
| Colors                | grey (RAL 7035), black (RAL 9005)       |



- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material and colors upon request
- // Elongated threads on request
- // Installation instructions see page 156
- // Further seal inserts on page 88 or on request
- // The shown inserts are samples, more inserts (also customer specific) upon request



| AG            | GL<br>mm | H<br>mm | mm      | Number<br>of holes<br>x d | Number<br>grey | Number<br>black | Number<br>of holes<br>x d | Number<br>grey | Number<br>black |
|---------------|----------|---------|---------|---------------------------|----------------|-----------------|---------------------------|----------------|-----------------|
| M 16 x 1,5    | 8        | 22      | 19      | 4 x 1,4                   | 1.597.1600.50  | 1.597.1600.51   | 2 x 3                     | 1.597.1601.50  | 1.597.1601.51   |
| M 20 x 1,5    | 9        | 27      | 24      | 6 x 3                     | 1.597.2001.50  | 1.597.2001.51   | 2 x 5                     | 1.597.2003.50  | 1.597.2003.51   |
| M 25 x 1,5    | 11       | 31      | 33      | 4 x 6                     | 1.597.2500.50  | 1.597.2500.51   | 3 x 7                     | 1.597.2501.50  | 1.597.2501.51   |
| M 32 x 1,5    | 11       | 39      | 42      | 6 x 6,5                   | 1.597.3200.50  | 1.597.3200.51   | 4 x 9                     | 1.597.3201.50  | 1.597.3201.51   |
| M 40 x 1,5    | 13       | 48      | 53      | 7 x 9                     | 1.597.4001.50  | 1.597.4001.51   | 2 x 15                    | 1.597.4003.50  | 1.597.4003.51   |
| M 50 x 1,5    | 13       | 49      | 60      |                           | 1.597.5099.50  | 1.597.5099.51   |                           |                |                 |
| M 63 x 1,5    | 14       | 49      | 65 / 68 | 6 x 12                    | 1.597.6301.50  | 1.597.6301.51   | 3 x 18                    | 1.597.6302.50  | 1.597.6302.51   |
| PG 7          | 8        | 21      | 15      |                           | 1.597.0799.00  |                 |                           |                |                 |
| PG 9          | 8        | 22      | 19      | 4 x 1,4                   | 1.597.0900.00  | 1.597.0900.01   | 2 x 3                     | 1.597.0901.00  | 1.597.0901.01   |
| PG 11         | 8        | 25      | 22      | 2 x 4                     | 1.597.1102.00  | 1.597.1102.01   | 3 x 3                     | 1.597.1101.00  | 1.597.1101.01   |
| PG 13,5       | 9        | 27      | 24      | 3 x 4                     | 1.597.1302.00  | 1.597.1302.01   | 2 x 5                     | 1.597.1303.00  | 1.597.1303.01   |
| PG 16         | 10       | 28      | 27      | 4 x 4                     | 1.597.1602.00  | 1.597.1602.01   | 6 x 4                     | 1.597.1604.00  | 1.597.1604.01   |
| PG 16         | 10       | 28      | 27      | 3 x 5,6                   | 1.597.1606.00  | 1.597.1606.01   | 2 x 6                     | 1.597.1605.00  | 1.597.1605.01   |
| PG 21         | 11       | 31      | 33      | 4 x 6                     | 1.597.2100.00  | 1.597.2100.01   | 3 x 7                     | 1.597.2101.00  | 1.597.2101.01   |
| PG 29         | 11       | 39      | 42      | 6 x 6,5                   | 1.597.2900.00  | 1.597.2900.01   | 4 x 9                     | 1.597.2901.00  | 1.597.2901.01   |
| PG 36         | 13       | 48      | 53      | 7 x 9                     | 1.597.3601.00  | 1.597.3601.01   | 2 x 15                    | 1.597.3603.00  | 1.597.3603.01   |
| PG 42         | 13       | 49      | 60      |                           | 1.597.4299.00  |                 |                           |                |                 |
| PG 48         | 14       | 49      | 65      | 6 x 12                    | 1.597.4801.00  | 1.597.4801.01   | 3 x 18                    | 1.597.4802.00  | 1.597.4802.01   |
| NPT 3/8"      | 15       | 22      | 19 / 22 | 4 x 1,4                   | 1.597.3800.70  | 1.597.3800.71   | 2 x 3                     | 1.597.3801.70  | 1.597.3801.71   |
| NPT 1/2"      | 13       | 27      | 24      | 3 x 4                     | 1.597.1202.70  | 1.597.1202.71   | 2 x 5                     | 1.597.1203.70  | 1.597.1203.71   |
| NPT 1/2" (16) | 13       | 28      | 27      | 6 x 4                     | 1.597.1220.70  | 1.597.1220.71   | 2 x 6                     | 1.597.1221.70  | 1.597.1221.71   |
| NPT 3/4"      | 14       | 31      | 33      | 4 x 6                     | 1.597.3400.70  | 1.597.3400.71   | 3 x 7                     | 1.597.3401.70  | 1.597.3401.71   |
| NPT 1"        | 19       | 39      | 42      | 6 x 6,5                   | 1.597.1000.70  | 1.597.1000.71   | 4 x 9                     | 1.597.1001.70  | 1.597.1001.71   |
| NPT 1 1/4"    | 16       | 39      | 42 / 46 |                           | 1.597.5499.70  | 1.597.5499.71   |                           |                |                 |
| NPT 1 1/2"    | 20       | 48      | 53      | 5 x 9                     | 1.597.6400.70  | 1.597.6400.71   | 7 x 9                     | 1.597.6401.70  | 1.597.6401.71   |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

## HSK-K-FLAKA

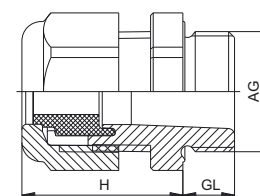
Metr., PG, NPT



|                       |                                         |
|-----------------------|-----------------------------------------|
| Material              | Polyamide VO according to UL 94         |
| Seal                  | Elastomer                               |
| Protection            | IP 65 /<br>IP 68 with additional O-Ring |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)       |
| Colors                | grey (RAL 7035), black (RAL 9005)       |



- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material and colors upon request
- // Elongated threads on request
- // Installation instructions see page 156
- // The shown inserts are samples, more inserts upon request



| AG            | GL<br>mm | H<br>mm | mm      | Dimensions<br>w x h<br>mm | Number<br>grey | Number<br>black | Dimensions<br>w x h<br>mm | Number<br>grey | Number<br>black |
|---------------|----------|---------|---------|---------------------------|----------------|-----------------|---------------------------|----------------|-----------------|
| M 20 x 1,5    | 9        | 28      | 27      | 11,5 x 5                  | 1.587.2016.50  | 1.587.2016.51   | 12 x 7                    | 1.587.2017.50  | 1.587.2017.51   |
| M 20 x 1,5    | 9        | 28      | 27      | 14x 6                     | 1.587.2018.50  | 1.587.2018.51   |                           |                |                 |
| M 25 x 1,5    | 11       | 31      | 33      | 14x 6                     | 1.587.2500.50  | 1.587.2500.51   | 14 x 7                    | 1.587.2501.50  | 1.587.2501.51   |
| M 32 x 1,5    | 11       | 39      | 42      | 22x 8                     | 1.587.3200.50  | 1.587.3200.51   |                           |                |                 |
| M 40 x 1,5    | 13       | 48      | 53      | 28,5x 10                  | 1.587.4000.50  | 1.587.4000.51   | 29 x 5,5                  | 1.587.4001.50  | 1.587.4001.51   |
| M 40 x 1,5    | 13       | 48      | 53      | 30,5x 12                  | 1.587.4002.50  | 1.587.4002.51   | 31 x 7,5                  | 1.587.4003.50  | 1.587.4003.51   |
| M 50 x 1,5    | 13       | 49      | 60      | 33,5x 11,5                | 1.587.5000.50  | 1.587.5000.51   |                           |                |                 |
| M 63 x 1,5    | 14       | 49      | 65 / 68 | 38x 12                    | 1.587.6300.50  | 1.587.6301.51   |                           |                |                 |
| PG 16         | 10       | 28      | 27      | 11,5x 5                   | 1.587.1600.00  | 1.587.1600.01   | 12 x 7                    | 1.587.1601.00  | 1.587.1601.01   |
| PG 16         | 10       | 28      | 27      | 14x 6                     | 1.587.1602.00  | 1.587.1602.01   |                           |                |                 |
| PG 21         | 11       | 31      | 33      | 14x 6                     | 1.587.2100.00  | 1.587.2100.01   | 14 x 7                    | 1.587.2101.00  | 1.587.2101.01   |
| PG 29         | 11       | 39      | 42      | 22x 8                     | 1.587.2900.00  | 1.587.2900.01   |                           |                |                 |
| PG 36         | 13       | 48      | 53      | 28,5x 10                  | 1.587.3600.00  | 1.587.3600.01   | 29 x 5,5                  | 1.587.3601.00  | 1.587.3601.01   |
| PG 36         | 13       | 48      | 53      | 30,5x 12                  | 1.587.3602.00  | 1.587.3602.01   | 31 x 7,5                  | 1.587.3603.00  | 1.587.3603.01   |
| PG 42         | 13       | 49      | 60      | 33,5x 11,5                | 1.587.4200.00  | 1.587.4200.01   |                           |                |                 |
| PG 48         | 14       | 49      | 65      | 38x 12                    | 1.587.4800.00  | 1.587.4800.01   |                           |                |                 |
| NPT 1/2" (16) | 13       | 28      | 27      | 11,5x 5,5                 | 1.587.1216.70  | 1.587.1216.71   | 12 x 7                    | 1.587.1217.70  | 1.587.1217.71   |
| NPT 1/2" (16) | 13       | 28      | 27      | 14x 6                     | 1.587.1218.70  | 1.587.1218.71   |                           |                |                 |
| NPT 3/4"      | 14       | 31      | 33      | 14x 6                     | 1.587.3400.70  | 1.587.3400.71   |                           |                |                 |
| NPT 1"        | 19       | 39      | 42      | 22x 8                     | 1.587.1000.70  | 1.587.1000.71   |                           |                |                 |
| NPT 1 1/4"    | 16       | 39      | 42 / 46 | 22x 8                     | 1.587.5400.70  | 1.587.5400.71   |                           |                |                 |
| NPT 1 1/2"    | 20       | 48      | 53      | 28,5x 10                  | 1.587.6400.70  | 1.587.6400.71   | 29 x 5,5                  | 1.587.6401.70  | 1.587.6401.71   |
| NPT 1 1/2"    | 20       | 48      | 53      | 30,5x 12                  | 1.587.6402.70  | 1.587.6402.71   | 31 x 7,5                  | 1.587.6403.70  | 1.587.6403.71   |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

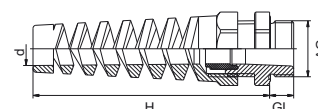
## HSK-K-Flex

## Metr., Metr.-elongated



|                       |                                                   |
|-----------------------|---------------------------------------------------|
| Material              | Polyamide                                         |
| Seal                  | Buna-N                                            |
| Protection            | IP 68 – 10 bar /<br>IP 69K with additional O-Ring |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)                 |
| Colors                | grey (RAL 7035), black (RAL 9005)                 |

- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material e.g. Silicone upon request
- // Other colors on request



| AG         | $\varnothing$<br>mm | H<br>mm | d<br>mm | mm | GL<br>mm | Number<br>grey | Number<br>black | GL<br>mm | Number<br>grey<br>elongated | Number<br>black<br>elongated |
|------------|---------------------|---------|---------|----|----------|----------------|-----------------|----------|-----------------------------|------------------------------|
| M 12 x 1,5 | 3–6,5               | 54      | 7       | 15 | 8        | 1.293.1200.50  | 1.293.1201.50   | 15       | 1.293.1200.30               | 1.293.1201.30                |
| M 12 x 1,5 | 2–5                 | 54      | 7       | 15 | 8        | 1.293.1200.51  | 1.293.1201.51   | 15       | 1.293.1200.31               | 1.293.1201.31                |
| M 16 x 1,5 | 4–8                 | 63      | 8,5     | 19 | 8        | 1.293.1600.50  | 1.293.1601.50   | 15       | 1.293.1600.30               | 1.293.1601.30                |
| M 16 x 1,5 | 2–6                 | 63      | 8,5     | 19 | 8        | 1.293.1600.51  | 1.293.1601.51   | 15       | 1.293.1600.31               | 1.293.1601.31                |
| M 16 x 1,5 | 5–10                | 78      | 10,5    | 22 | 8        | 1.294.1600.50  | 1.294.1601.50   | 15       | 1.294.1600.30               | 1.294.1601.30                |
| M 16 x 1,5 | 3–7                 | 78      | 10,5    | 22 | 8        | 1.294.1600.51  | 1.294.1601.51   | 15       | 1.294.1600.31               | 1.294.1601.31                |
| M 20 x 1,5 | 6–12                | 90      | 13      | 24 | 9        | 1.293.2000.50  | 1.293.2001.50   | 15       | 1.293.2000.30               | 1.293.2001.30                |
| M 20 x 1,5 | 5–9                 | 90      | 13      | 24 | 9        | 1.293.2000.51  | 1.293.2001.51   | 15       | 1.293.2000.31               | 1.293.2001.31                |
| M 20 x 1,5 | 10–14               | 100     | 15,5    | 27 | 9        | 1.294.2000.50  | 1.294.2001.50   | 15       | 1.294.2000.30               | 1.294.2001.30                |
| M 20 x 1,5 | 7–12                | 100     | 15,5    | 27 | 9        | 1.294.2000.51  | 1.294.2001.51   | 15       | 1.294.2000.31               | 1.294.2001.31                |
| M 25 x 1,5 | 13–18               | 114     | 20      | 33 | 11       | 1.293.2500.50  | 1.293.2501.50   | 15       | 1.293.2500.30               | 1.293.2501.30                |
| M 25 x 1,5 | 9–16                | 114     | 20      | 33 | 11       | 1.293.2500.51  | 1.293.2501.51   | 15       | 1.293.2500.31               | 1.293.2501.31                |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

## HSK-K-Flex

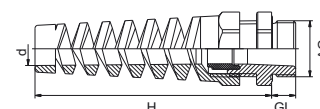
PG, PG-elongated, NPT



|                       |                                                   |
|-----------------------|---------------------------------------------------|
| Material              | Polyamide                                         |
| Seal                  | Buna-N                                            |
| Protection            | IP 68 – 10 bar /<br>IP 69K with additional O-Ring |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)                 |
| Colors                | grey (RAL 7035), black (RAL 9005)                 |



- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other sealing material e.g. Silicone upon request
- // Other colors on request



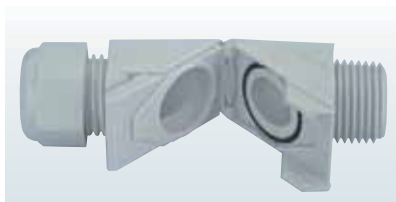
| AG            | $\varnothing$<br>mm | H<br>mm | d<br>mm | mm    | GL<br>mm | Number<br>grey | Number<br>black | GL<br>mm | Number<br>grey<br>elongated | Number<br>black<br>elongated |
|---------------|---------------------|---------|---------|-------|----------|----------------|-----------------|----------|-----------------------------|------------------------------|
| PG 7*         | 3–6,5               | 54      | 7       | 15    | 8        | 1.293.0700.14  | 1.293.0701.14   | 15       | 1.293.0700.60               | 1.293.0701.60                |
| PG 7*         | 2–5                 | 54      | 7       | 15    | 8        | 1.293.0700.15  | 1.293.0701.15   | 15       | 1.293.0700.61               | 1.293.0701.61                |
| PG 9*         | 4–8                 | 63      | 8,5     | 19    | 8        | 1.293.0900.14  | 1.293.0901.14   | 15       | 1.293.0900.60               | 1.293.0901.60                |
| PG 9*         | 2–6                 | 63      | 8,5     | 19    | 8        | 1.293.0900.15  | 1.293.0901.15   | 15       | 1.293.0900.61               | 1.293.0901.61                |
| PG 11*        | 5–10                | 78      | 10,5    | 22    | 8        | 1.293.1100.14  | 1.293.1101.14   | 15       | 1.293.1100.60               | 1.293.1101.60                |
| PG 11*        | 3–7                 | 78      | 10,5    | 22    | 8        | 1.293.1100.15  | 1.293.1101.15   | 15       | 1.293.1100.61               | 1.293.1101.61                |
| PG 13,5*      | 6–12                | 90      | 13      | 24    | 9        | 1.293.1300.14  | 1.293.1301.14   | 15       | 1.293.1300.60               | 1.293.1301.60                |
| PG 13,5*      | 5–9                 | 90      | 13      | 24    | 9        | 1.293.1300.15  | 1.293.1301.15   | 15       | 1.293.1300.61               | 1.293.1301.61                |
| PG 16*        | 10–14               | 100     | 15,5    | 27    | 10       | 1.293.1600.14  | 1.293.1601.14   | 15       | 1.293.1600.60               | 1.293.1601.60                |
| PG 16*        | 7–12                | 100     | 15,5    | 27    | 10       | 1.293.1600.15  | 1.293.1601.15   | 15       | 1.293.1600.61               | 1.293.1601.61                |
| PG 21*        | 13–18               | 114     | 20      | 33    | 11       | 1.293.2100.14  | 1.293.2101.14   | 15       | 1.293.2100.60               | 1.293.2101.60                |
| PG 21*        | 9–16                | 114     | 20      | 33    | 11       | 1.293.2100.15  | 1.293.2101.15   | 15       | 1.293.2100.61               | 1.293.2101.61                |
|               |                     |         |         |       |          |                |                 |          |                             |                              |
| NPT 3/8"      | 4–8                 | 63      | 8,5     | 22/19 | 15       | 1.293.3800.70  | 1.293.3801.70   |          |                             |                              |
| NPT 3/8"      | 2–6                 | 63      | 8,5     | 22/19 | 15       | 1.293.3800.71  | 1.293.3801.71   |          |                             |                              |
| NPT 1/2"      | 6–12                | 90      | 13      | 24    | 13       | 1.293.1200.70  | 1.293.1201.70   |          |                             |                              |
| NPT 1/2"      | 5–9                 | 90      | 13      | 24    | 13       | 1.293.1200.71  | 1.293.1201.71   |          |                             |                              |
| NPT 1/2" (16) | 10–14               | 100     | 15,5    | 27    | 13       | 1.293.1216.70  | 1.293.1217.70   |          |                             |                              |
| NPT 1/2" (16) | 7–12                | 100     | 15,5    | 27    | 13       | 1.293.1216.71  | 1.293.1217.71   |          |                             |                              |
| NPT 3/4"      | 13–18               | 114     | 20      | 33    | 14       | 1.293.3400.70  | 1.293.3401.70   |          |                             |                              |
| NPT 3/4"      | 9–16                | 114     | 20      | 33    | 14       | 1.293.3400.71  | 1.293.3401.71   |          |                             |                              |

\* Also available as KE-Flex with enlarged clamping range and as KR-Flex with reduced clamping range, see clamping range page 19

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

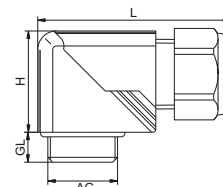
## HSK-W

Metr.



// Other sealing material e.g. Silicone upon request  
// Other colors on request

|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| Seal / O-Ring         | Buna-N                            |
| Protection            | IP 68                             |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |
| Colors                | grey (RAL 7035), black (RAL 9005) |



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | L<br>mm | $\frac{R}{mm}$ | $\frac{H}{mm}$ | Number<br>grey | Number<br>black |
|------------|---------------------|----------|---------|---------|----------------|----------------|----------------|-----------------|
| M 16 x 1,5 | 4–8                 | 8        | 23      | 45      | 5              | 19             | 1.313.1600.50  | 1.313.1601.50   |
| M 16 x 1,5 | 2–6                 | 8        | 23      | 45      | 5              | 19             | 1.313.1600.51  | 1.313.1601.51   |
| M 20 x 1,5 | 6–12                | 9        | 30,5    | 57      | 7              | 24             | 1.313.2000.50  | 1.313.2001.50   |
| M 20 x 1,5 | 5–9                 | 9        | 30,5    | 57      | 7              | 24             | 1.313.2000.51  | 1.313.2001.51   |
| M 25 x 1,5 | 13–18               | 11       | 40      | 73      | 10             | 33             | 1.313.2500.50  | 1.313.2501.50   |
| M 25 x 1,5 | 9–16                | 11       | 40      | 73      | 10             | 33             | 1.313.2500.51  | 1.313.2501.51   |
| M 32 x 1,5 | 18–25               | 11       | 51,5    | 91      | 14             | 42             | 1.313.3200.50  | 1.313.3201.50   |
| M 32 x 1,5 | 13–20               | 11       | 51,5    | 91      | 14             | 42             | 1.313.3200.51  | 1.313.3201.51   |

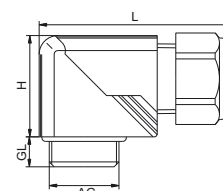
## HSK-W

NPT



// Glands not fitted with O-Rings  
// Other sealing material e.g. Silicone upon request  
// Other colors on request

|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| Seal / O-Ring         | Buna-N                            |
| Protection            | IP 68                             |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |
| Colors                | grey (RAL 7035), black (RAL 9005) |



| AG            | $\varnothing$<br>mm | GL<br>mm | H<br>mm | L<br>mm | $\frac{R}{mm}$ | $\frac{H}{mm}$ | Number<br>grey | Number<br>black |
|---------------|---------------------|----------|---------|---------|----------------|----------------|----------------|-----------------|
| NPT 3/8"      | 4–8                 | 15       | 23      | 45      | 5              | 19             | 1.313.3800.70  | 1.313.3801.70   |
| NPT 3/8"      | 2–6                 | 15       | 23      | 45      | 5              | 19             | 1.313.3800.71  | 1.313.3801.71   |
| NPT 1/2"      | 6–12                | 13       | 32,5    | 57      | 7              | 24             | 1.313.1200.70  | 1.313.1201.70   |
| NPT 1/2"      | 5–9                 | 13       | 32,5    | 57      | 7              | 24             | 1.313.1200.71  | 1.313.1201.71   |
| NPT 1/2" (16) | 10–14               | 13       | 31,5    | 59      | 8              | 27             | 1.313.1216.70  | 1.313.1217.70   |
| NPT 1/2" (16) | 7–12                | 13       | 31,5    | 59      | 8              | 27             | 1.313.1216.71  | 1.313.1217.71   |
| NPT 3/4"      | 13–18               | 13       | 40      | 73      | 10             | 33             | 1.313.3400.70  | 1.313.3401.70   |
| NPT 3/4"      | 9–16                | 13       | 40      | 73      | 10             | 33             | 1.313.3400.71  | 1.313.3401.71   |
| NPT 1"        | 18–25               | 19       | 51,5    | 91      | 14             | 42             | 1.313.1000.70  | 1.313.1001.70   |
| NPT 1"        | 13–20               | 19       | 51,5    | 91      | 14             | 42             | 1.313.1000.71  | 1.313.1001.71   |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

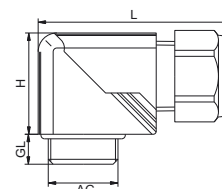
## HSK-W

PG



// Other sealing material e.g. Silicone upon request  
// Other colors on request

|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| Seal / O-Ring         | Buna-N                            |
| Protection            | IP 68                             |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |
| Colors                | grey (RAL 7035), black (RAL 9005) |



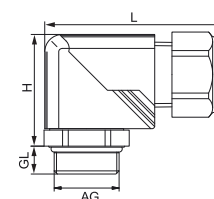
| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | L<br>mm | $\frac{R}{mm}$ | $\frac{mm}{mm}$ | Number<br>grey | Number<br>black |
|---------|---------------------|----------|---------|---------|----------------|-----------------|----------------|-----------------|
| PG 9    | 4–8                 | 8        | 23      | 45      | 5              | 19              | 1.313.0900.14  | 1.313.0901.14   |
| PG 9    | 2–6                 | 8        | 23      | 45      | 5              | 19              | 1.313.0900.15  | 1.313.0901.15   |
| PG 11   | 5–10                | 8        | 27      | 50      | 6              | 22              | 1.313.1100.14  | 1.313.1101.14   |
| PG 11   | 3–7                 | 8        | 27      | 50      | 6              | 22              | 1.313.1100.15  | 1.313.1101.15   |
| PG 13,5 | 6–12                | 9        | 30,5    | 57      | 7              | 24              | 1.313.1300.14  | 1.313.1301.14   |
| PG 13,5 | 5–9                 | 9        | 30,5    | 57      | 7              | 24              | 1.313.1300.15  | 1.313.1301.15   |
| PG 16   | 10–14               | 10       | 32,5    | 59      | 8              | 27              | 1.313.1600.14  | 1.313.1601.14   |
| PG 16   | 7–12                | 10       | 32,5    | 59      | 8              | 27              | 1.313.1600.15  | 1.313.1601.15   |
| PG 21   | 13–18               | 11       | 40      | 73      | 10             | 33              | 1.313.2100.14  | 1.313.2101.14   |
| PG 21   | 9–16                | 11       | 40      | 73      | 10             | 33              | 1.313.2100.15  | 1.313.2101.15   |
| PG 29   | 18–25               | 11       | 51,5    | 91      | 14             | 42              | 1.313.2900.14  | 1.313.2901.14   |
| PG 29   | 13–20               | 11       | 51,5    | 91      | 14             | 42              | 1.313.2900.15  | 1.313.2901.15   |

## HSK-W rotating version



// Other sealing material e.g. Silicone upon request  
// Other colors on request

|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| Seal / O-Ring         | Buna-N                            |
| Protection            | IP 68                             |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |
| Colors                | grey (RAL 7035), black (RAL 9005) |



| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | L<br>mm | $\frac{R}{mm}$ | $\frac{mm}{mm}$ | Number<br>grey | Number<br>black |
|---------|---------------------|----------|---------|---------|----------------|-----------------|----------------|-----------------|
| PG 9    | 4–8                 | 8        | 28      | 45      | 5              | 19              | 1.317.0900.14  | 1.317.0901.14   |
| PG 9    | 2–6                 | 8        | 28      | 45      | 5              | 19              | 1.317.0900.15  | 1.317.0901.15   |
| PG 11   | 5–10                | 8        | 32      | 50      | 6              | 22              | 1.317.1100.14  | 1.317.1101.14   |
| PG 11   | 3–7                 | 8        | 32      | 50      | 6              | 22              | 1.317.1100.15  | 1.317.1101.15   |
| PG 13,5 | 6–12                | 9        | 35,5    | 57      | 7              | 24              | 1.317.1300.14  | 1.317.1301.14   |
| PG 13,5 | 5–9                 | 9        | 35,5    | 57      | 7              | 24              | 1.317.1300.15  | 1.317.1301.15   |
| PG 16   | 10–14               | 10       | 38,5    | 59      | 8              | 27              | 1.317.1600.14  | 1.317.1601.14   |
| PG 16   | 7–12                | 11       | 46      | 73      | 10             | 33              | 1.317.1600.15  | 1.317.1601.15   |
| PG 21   | 13–18               | 11       | 46      | 73      | 10             | 33              | 1.317.2100.14  | 1.317.2101.14   |
| PG 21   | 9–16                | 11       | 46      | 73      | 10             | 33              | 1.317.2100.15  | 1.317.2101.15   |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

## HSK-W-Flex

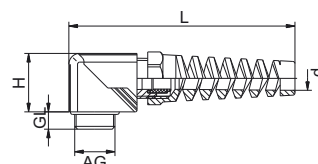
Metr., PG, NPT



|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| Seal/O-Ring           | Buna-N                            |
| Protection            | IP 68                             |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |
| Colors                | grey (RAL 7035), black (RAL 9005) |

// Other sealing material e.g. Silicone upon request

// Other colors on request



| AG             | $\varnothing$<br>mm | d<br>mm | GL<br>mm | H<br>mm | L<br>mm | R<br>mm |    | Number<br>grey | Number<br>black |
|----------------|---------------------|---------|----------|---------|---------|---------|----|----------------|-----------------|
| M 16 x 1,5     | 4–8                 | 8,5     | 8        | 23      | 85      | 5       | 19 | 1.314.1600.50  | 1.314.1601.50   |
| M 16 x 1,5     | 2–6                 | 8,5     | 8        | 23      | 85      | 5       | 19 | 1.314.1600.51  | 1.314.1601.51   |
| M 20 x 1,5     | 6–12                | 13      | 9        | 30,5    | 119     | 7       | 24 | 1.314.2000.50  | 1.314.2001.50   |
| M 20 x 1,5     | 5–9                 | 13      | 9        | 30,5    | 119     | 7       | 24 | 1.314.2000.51  | 1.314.2001.51   |
| M 25 x 1,5     | 13–18               | 20      | 11       | 40      | 156     | 10      | 33 | 1.314.2500.50  | 1.314.2501.50   |
| M 25 x 1,5     | 9–16                | 20      | 11       | 40      | 156     | 10      | 33 | 1.314.2500.51  | 1.314.2501.51   |
|                |                     |         |          |         |         |         |    |                |                 |
| PG 9           | 4–8                 | 8,5     | 8        | 23      | 85      | 5       | 19 | 1.314.0900.14  | 1.314.0901.14   |
| PG 9           | 2–6                 | 8,5     | 8        | 23      | 85      | 5       | 19 | 1.314.0900.15  | 1.314.0901.15   |
| PG 11          | 5–10                | 10,5    | 8        | 27      | 103     | 6       | 22 | 1.314.1100.14  | 1.314.1101.14   |
| PG 11          | 3–7                 | 10,5    | 8        | 27      | 103     | 6       | 22 | 1.314.1100.15  | 1.314.1101.15   |
| PG 13,5        | 6–12                | 13      | 9        | 30,5    | 119     | 7       | 24 | 1.314.1300.14  | 1.314.1301.14   |
| PG 13,5        | 5–9                 | 13      | 9        | 30,5    | 119     | 7       | 24 | 1.314.1300.15  | 1.314.1301.15   |
| PG 16          | 10–14               | 15,5    | 10       | 32,5    | 130     | 8       | 27 | 1.314.1600.14  | 1.314.1601.14   |
| PG 16          | 7–12                | 15,5    | 10       | 32,5    | 130     | 8       | 27 | 1.314.1600.15  | 1.314.1601.15   |
| PG 21          | 13–18               | 20      | 11       | 40      | 156     | 10      | 33 | 1.314.2100.14  | 1.314.2101.14   |
| PG 21          | 9–16                | 20      | 11       | 40      | 156     | 10      | 33 | 1.314.2100.15  | 1.314.2101.15   |
|                |                     |         |          |         |         |         |    |                |                 |
| NPT* 3/8"      | 4–8                 | 8,5     | 15       | 23      | 85      | 5       | 19 | 1.314.3800.70  | 1.314.3801.70   |
| NPT* 3/8"      | 2–6                 | 8,5     | 15       | 23      | 85      | 5       | 19 | 1.314.3800.71  | 1.314.3801.71   |
| NPT* 1/2"      | 6–12                | 13      | 13       | 30,5    | 119     | 7       | 24 | 1.314.1200.70  | 1.314.1201.70   |
| NPT* 1/2"      | 5–9                 | 13      | 13       | 30,5    | 119     | 7       | 24 | 1.314.1200.71  | 1.314.1201.71   |
| NPT* 1/2" (16) | 10–14               | 15,5    | 13       | 31,5    | 130     | 8       | 27 | 1.314.1216.70  | 1.314.1217.70   |
| NPT* 1/2" (16) | 7–12                | 15,5    | 13       | 31,5    | 130     | 8       | 27 | 1.314.1216.71  | 1.314.1217.71   |
| NPT* 3/4"      | 13–18               | 20      | 13       | 40      | 156     | 10      | 33 | 1.314.3400.70  | 1.314.3401.70   |
| NPT* 3/4"      | 9–16                | 20      | 13       | 40      | 156     | 10      | 33 | 1.314.3400.71  | 1.314.3401.71   |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

## HSK-M-Multi

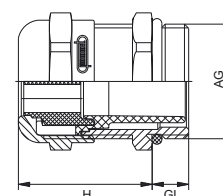
Metr., PG, NPT



|                       |                                                 |
|-----------------------|-------------------------------------------------|
| Material              | Nickel plated brass                             |
| Clamping insert       | Polyamide                                       |
| Seal                  | Elastomer                                       |
| O-Ring                | Buna-N                                          |
| Protection            | IP 65 /<br>IP 68 10 bar possible with ideal fit |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)               |



- // Other sealing material e.g. Silicone upon request
- // Stainless steel on request
- // Elongated threads on request
- // Installation instructions see page 156
- // The shown inserts are samples, more seal inserts on page 88 or on request



| AG         | GL<br>mm | H<br>mm | Ø<br>mm | Number<br>of holes<br>x d | Number        | Number<br>of holes<br>x d | Number        |
|------------|----------|---------|---------|---------------------------|---------------|---------------------------|---------------|
| M 12 x 1,5 | 6,5      | 19      | 14      |                           | 1.697.1299.50 |                           | 1.697.1299.50 |
| M 16 x 1,5 | 6        | 21      | 17 / 19 | 4 x 1,4                   | 1.697.1600.50 | 2 x 3                     | 1.697.1601.50 |
| M 20 x 1,5 | 6        | 23      | 22      | 6 x 3                     | 1.697.2001.50 | 2 x 5                     | 1.697.2003.50 |
| M 25 x 1,5 | 7        | 26      | 30      | 4 x 6                     | 1.697.2500.50 | 3 x 7                     | 1.697.2501.50 |
| M 32 x 1,5 | 8        | 31      | 40      | 6 x 6,5                   | 1.697.3200.50 | 4 x 9                     | 1.697.3201.50 |
| M 40 x 1,5 | 8        | 37      | 50      | 7 x 9                     | 1.697.4001.50 | 2 x 15                    | 1.697.4003.50 |
| M 50 x 1,5 | 9        | 37      | 57      |                           | 1.697.5099.50 |                           |               |
| M 63 x 1,5 | 10       | 38      | 64 / 68 | 6 x 12                    | 1.697.6301.50 | 3 x 18                    | 1.697.6302.50 |
| PG 7       | 5        | 19      | 14      |                           | 1.697.0799.01 |                           | 1.697.0799.01 |
| PG 9       | 6        | 21      | 17      | 4 x 1,4                   | 1.697.0900.01 | 2 x 3                     | 1.697.0901.01 |
| PG 11      | 6        | 22      | 20      | 2 x 4                     | 1.697.1102.01 | 3 x 3                     | 1.697.1101.01 |
| PG 13,5    | 6,5      | 24      | 22      | 3 x 4                     | 1.697.1302.01 | 2 x 5                     | 1.697.1303.01 |
| PG 16      | 6,5      | 23      | 24      | 4 x 4                     | 1.697.1602.01 | 6 x 4                     | 1.697.1604.01 |
| PG 16      | 6,5      | 23      | 24      | 3 x 5,6                   | 1.697.1606.01 | 2 x 6                     | 1.697.1605.01 |
| PG 21      | 7        | 24      | 30      | 4 x 6                     | 1.697.2100.01 | 3 x 7                     | 1.697.2101.01 |
| PG 29      | 8        | 29      | 40      | 6 x 6,5                   | 1.697.2900.01 | 4 x 9                     | 1.697.2901.01 |
| PG 36      | 8        | 35      | 50      | 7 x 9                     | 1.697.3601.01 | 2 x 15                    | 1.697.3603.01 |
| PG 42      | 9        | 37      | 57      |                           | 1.697.4299.01 |                           | 1.697.4299.01 |
| PG 48      | 10       | 38      | 64      | 6 x 12                    | 1.697.4801.01 | 3 x 18                    | 1.697.4802.01 |
| NPT 3/8"   | 15       | 21      | 17 / 19 | 4 x 1,4                   | 1.697.3800.70 | 2 x 3                     | 1.697.3801.70 |
| NPT 1/2"   | 13       | 24      | 24      | 3 x 4                     | 1.697.1202.70 | 2 x 5                     | 1.697.1203.70 |
| NPT 3/4"   | 13       | 25      | 30      | 4 x 6                     | 1.697.3400.70 | 3 x 7                     | 1.697.3401.70 |
| NPT 1"     | 19       | 29      | 40      | 6 x 6,5                   | 1.697.1000.70 | 4 x 9                     | 1.697.1001.70 |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

## HSK-M-FLAKA

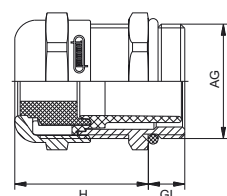
Metr., PG, NPT



|                       |                                                 |
|-----------------------|-------------------------------------------------|
| Material              | Nickel plated brass                             |
| Clamping insert       | Polyamide                                       |
| Seal                  | Elastomer                                       |
| O-Ring                | Buna-N                                          |
| Protection            | IP 65 /<br>IP 68 10 bar possible with ideal fit |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)               |



- // Other sealing material e.g. Silicone upon request
- // Stainless steel on request
- // Elongated threads on request
- // Installation instructions see page 156
- // The shown inserts are samples, more inserts upon request



| AG         | GL<br>mm | H<br>mm | mm      | w x h<br>mm | Number        | w x h<br>mm | Number        |
|------------|----------|---------|---------|-------------|---------------|-------------|---------------|
| M 20 x 1,5 | 6        | 24      | 24      | 11,5 x 5    | 1.688.2016.50 | 12 x 7      | 1.688.2017.50 |
| M 20 x 1,5 | 6        | 24      | 24      | 14 x 6      | 1.688.2018.50 |             |               |
| M 25 x 1,5 | 7        | 26      | 30      | 14 x 6      | 1.688.2500.50 | 14 x 7      | 1.688.2501.50 |
| M 32 x 1,5 | 8        | 31      | 40      | 22 x 8      | 1.688.3200.50 |             |               |
| M 40 x 1,5 | 8        | 37      | 50      | 28,5 x 10   | 1.688.4000.50 | 29 x 5,5    | 1.688.4001.50 |
| M 40 x 1,5 | 8        | 37      | 50      | 30,5 x 12   | 1.688.4002.50 | 31 x 7,5    | 1.688.4003.50 |
| M 50 x 1,5 | 9        | 37      | 57      | 33,5 x 11,5 | 1.688.5000.50 |             |               |
| M 63 x 1,5 | 10       | 38      | 64 / 68 | 38 x 12     | 1.688.6300.50 |             |               |
| PG 16      | 6,5      | 23      | 24      | 11,5 x 5    | 1.688.1600.01 | 12 x 7      | 1.688.1601.01 |
| PG 16      | 6,5      | 23      | 24      | 14 x 6      | 1.688.1602.01 |             |               |
| PG 21      | 7        | 24      | 30      | 14 x 6      | 1.688.2100.01 | 14 x 7      | 1.688.2101.01 |
| PG 29      | 8        | 29      | 40      | 22 x 8      | 1.688.2900.01 |             |               |
| PG 36      | 8        | 35      | 50      | 28,5 x 10   | 1.688.3600.01 | 29 x 5,5    | 1.688.3601.01 |
| PG 36      | 8        | 35      | 50      | 30,5 x 12   | 1.688.3602.01 | 31 x 7,5    | 1.688.3603.01 |
| PG 42      | 9        | 37      | 57      | 33,5 x 11,5 | 1.688.4200.01 |             |               |
| PG 48      | 10       | 38      | 64      | 38 x 12     | 1.688.4802.01 |             |               |
| NPT 3/4"   | 13       | 25      | 30      | 14 x 6      | 1.688.3400.70 | 14 x 7      | 1.688.3401.70 |
| NPT 1"     | 19       | 29      | 40      | 22 x 8      | 1.688.1000.70 |             |               |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

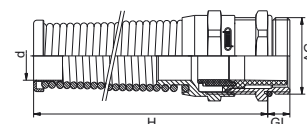
## HSK-M-Flex

Metr. / Metr.-elongated



|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Nickel plated brass                         |
| Steel spring          | INOX 1.4310                                 |
| Clamping insert       | Polyamide                                   |
| Seal                  | Buna-N                                      |
| O-Ring                | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)           |

// Other sealing material e.g. Silicone upon request



| AG         | Ø<br>mm | H<br>mm | d<br>mm | mm | GL<br>mm | Number        | GL<br>mm | Number<br>elongated |
|------------|---------|---------|---------|----|----------|---------------|----------|---------------------|
| M 12 x 1,5 | 3–6,5   | 55      | 6,8     | 14 | 6,5      | 1.623.1200.50 | 10       | 1.623.1200.30       |
| M 12 x 1,5 | 2–5     | 55      | 6,8     | 14 | 6,5      | 1.623.1200.51 | 10       | 1.623.1200.31       |
| M 16 x 1,5 | 4–8     | 66      | 8,2     | 19 | 6        | 1.623.1600.50 | 10       | 1.623.1600.30       |
| M 16 x 1,5 | 2–6     | 66      | 8,2     | 19 | 6        | 1.623.1600.51 | 10       | 1.623.1600.31       |
| M 16 x 1,5 | 5–10    | 77      | 10,3    | 20 | 6        | 1.623.1611.50 | 10       | 1.623.1611.30       |
| M 16 x 1,5 | 3–7     | 77      | 10,3    | 20 | 6        | 1.623.1611.51 | 10       | 1.623.1611.31       |
| M 20 x 1,5 | 6–12    | 88      | 12,3    | 22 | 6        | 1.623.2000.50 | 10       | 1.623.2000.30       |
| M 20 x 1,5 | 5–9     | 88      | 12,3    | 22 | 6        | 1.623.2000.51 | 10       | 1.623.2000.31       |
| M 20 x 1,5 | 10–14   | 98      | 14,3    | 24 | 6        | 1.623.2016.50 | 10       | 1.623.2016.30       |
| M 20 x 1,5 | 7–12    | 98      | 14,3    | 24 | 6        | 1.623.2016.51 | 10       | 1.623.2016.31       |
| M 25 x 1,5 | 13–18   | 111     | 18,4    | 30 | 7        | 1.623.2500.50 | 12       | 1.623.2500.30       |
| M 25 x 1,5 | 9–16    | 111     | 18,4    | 30 | 7        | 1.623.2500.51 | 12       | 1.623.2500.31       |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

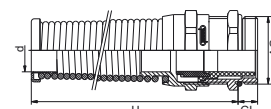
## HSK-M-Flex

## PG, PG-elongated



|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Nickel plated brass                         |
| Steel spring          | INOX 1.4310                                 |
| Clamping insert       | Polyamide                                   |
| Seal / O-Ring         | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)           |

// Other sealing material e.g. Silicone upon request



| AG      | Ø<br>mm | H<br>mm | d<br>mm | mm | GL<br>mm | Number        | GL<br>mm | Number<br>elongated |
|---------|---------|---------|---------|----|----------|---------------|----------|---------------------|
| PG 7    | 3–6,5   | 55      | 6,8     | 14 | 5        | 1.623.0700.01 | 10       | 1.623.0700.60       |
| PG 7    | 2–5     | 55      | 6,8     | 14 | 5        | 1.623.0700.15 | 10       | 1.623.0700.61       |
| PG 9    | 4–8     | 66      | 8,2     | 17 | 6        | 1.623.0900.01 | 10       | 1.623.0900.60       |
| PG 9    | 2–6     | 66      | 8,2     | 17 | 6        | 1.623.0900.15 | 10       | 1.623.0900.61       |
| PG 11   | 5–10    | 77      | 10,3    | 20 | 6        | 1.623.1100.01 | 10       | 1.623.1100.60       |
| PG 11   | 3–7     | 77      | 10,3    | 20 | 6        | 1.623.1100.15 | 10       | 1.623.1100.61       |
| PG 13,5 | 6–12    | 88      | 12,3    | 22 | 6,5      | 1.623.1300.01 | 10       | 1.623.1300.60       |
| PG 13,5 | 5–9     | 88      | 12,3    | 22 | 6,5      | 1.623.1300.15 | 10       | 1.623.1300.61       |
| PG 16   | 10–14   | 98      | 14,3    | 24 | 6,5      | 1.623.1600.01 | 10       | 1.623.1600.60       |
| PG 16   | 7–12    | 98      | 14,3    | 24 | 6,5      | 1.623.1600.15 | 10       | 1.623.1600.61       |
| PG 21   | 13–18   | 111     | 18,4    | 30 | 7        | 1.623.2100.01 | 12       | 1.623.2100.60       |
| PG 21   | 9–16    | 111     | 18,4    | 30 | 7        | 1.623.2100.15 | 12       | 1.623.2100.61       |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

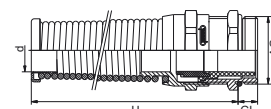
## HSK-M-Flex

NPT



|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Nickel plated brass                         |
| Steel spring          | INOX 1.4310                                 |
| Clamping insert       | Polyamide                                   |
| Seal / O-Ring         | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)           |

// Other sealing material e.g. Silicone upon request



| AG       | $\varnothing$<br>mm | GL<br>mm | H<br>mm | d<br>mm | <br>mm | Number        |
|----------|---------------------|----------|---------|---------|--------|---------------|
| NPT 3/8" | 4–8                 | 15       | 66      | 8,2     | 17/19  | 1.623.3800.70 |
| NPT 3/8" | 2–6                 | 15       | 66      | 8,2     | 17/19  | 1.623.3800.71 |
| NPT 1/2" | 6–12                | 13       | 88      | 12,3    | 22/24  | 1.623.1200.70 |
| NPT 1/2" | 5–9                 | 13       | 88      | 12,3    | 22/24  | 1.623.1200.71 |
| NPT 3/4" | 13–18               | 13       | 111     | 18,4    | 33     | 1.623.3400.70 |
| NPT 3/4" | 9–16                | 13       | 111     | 18,4    | 33     | 1.623.3400.71 |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

## HSK-MINI

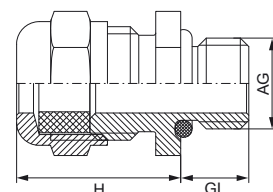
Metr., PG



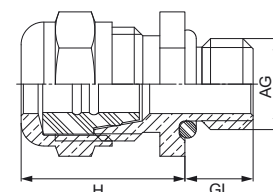
|                       |                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------|
| Material              | Nickel plated brass / INOX 1.4305                                                          |
| Seal                  | Buna-N / TPE / FKM                                                                         |
| O-Ring                | Buna-N / FKM                                                                               |
| Protection            | IP 68                                                                                      |
| Operating Temperature | -20 °C – 100 °C (-4 °F – 212 °F) (Buna-N / TPE)<br>-25 °C – 200 °C (-13 °F – 392 °F) (FKM) |



HSK-Mini



HSK-Mini EMC



| AG                        | Ø<br>mm | GL<br>mm | H<br>mm | Ø<br>mm | Number<br>Buna-N / TPE | Number<br>FKM |
|---------------------------|---------|----------|---------|---------|------------------------|---------------|
| M 6 x 1                   | 2–3,2   | 6        | 10      | 8       | 1.106.0601.50          | 1.106.0600.55 |
| M 8 x 0,75                | 2–4,5   | 3,5      | 14,3    | 11      | 1.112.0801.01          |               |
| M 8 x 1,25                | 3–5     | 6        | 13      | 11      | 1.106.0801.50          | 1.106.0800.55 |
| M 10 x 1,5                | 4–6     | 6        | 14      | 12      | 1.106.1001.50          | 1.106.1000.55 |
| PG 7                      | 2–4,5   | 3,5      | 14,3    | 11 / 15 | 1.112.0708.01          |               |
| <b>HSK-Mini elongated</b> |         |          |         |         |                        |               |
| M 8 x 1,25                | 3–5     | 10       | 13      | 11      | 1.106.0801.30          | 1.106.0800.35 |
| M 10 x 1,5                | 4–6     | 10       | 14      | 12      | 1.106.1001.30          | 1.106.1000.35 |
| <b>HSK-Mini EMC</b>       |         |          |         |         |                        |               |
| M 8 x 1,25                | 3–5     | 6        | 13      | 11      | 1.119.0800.50          |               |
| M 10 x 1,5                | 4–6     | 6        | 14      | 12      | 1.119.1000.50          |               |
| <b>HSK-Mini INOX</b>      |         |          |         |         |                        |               |
| M 8 x 1,25                | 3–5     | 6        | 13      | 11      | 1.129.0800.50          | 1.129.0800.55 |
| M 10 x 1,5                | 4–6     | 6        | 14      | 12      | 1.129.1000.50          | 1.129.1000.55 |

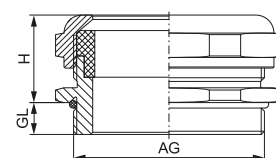
# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

## HSK-XL

Metr.



|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Nickel plated brass              |
| Seal                  | Buna-N                           |
| O-Ring                | Buna-N                           |
| Protection            | IP 68                            |
| Operating Temperature | -20 °C – 100 °C (-4 °F – 212 °F) |



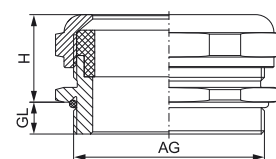
| AG         | Ø<br>mm | GL<br>mm | H<br>mm | Ø<br>mm | Number        |
|------------|---------|----------|---------|---------|---------------|
| M 63 x 1,5 | 48–55   | 10       | 42      | 75      | 1.106.6375.50 |
| M 75 x 1,5 | 48–55   | 15       | 42      | 80      | 1.106.7500.50 |
| M 75 x 1,5 | 53–60   | 15       | 42      | 85      | 1.106.7500.51 |
| M 80 x 2   | 58–65   | 15       | 42      | 90      | 1.106.8000.50 |
| M 90 x 2   | 63–70   | 15       | 42      | 100     | 1.106.9000.50 |
| M 90 x 2   | 68–75   | 15       | 52      | 100     | 1.106.9000.51 |
| M 100 x 2  | 78–85   | 20       | 52      | 110     | 1.106.1000.50 |
| M 100 x 2  | 73–80   | 20       | 52      | 110     | 1.106.1000.51 |
| M 110 x 2  | 83–90   | 20       | 52      | 120     | 1.106.1100.51 |

## HSK-XL

PG



|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Nickel plated brass              |
| Seal                  | Buna-N                           |
| O-Ring                | Buna-N                           |
| Protection            | IP 68                            |
| Operating Temperature | -20 °C – 100 °C (-4 °F – 212 °F) |



| AG       | Ø<br>mm | GL<br>mm | H<br>mm | Ø<br>mm | Number        |
|----------|---------|----------|---------|---------|---------------|
| G 2 1/2" | 48–55   | 18       | 42      | 80      | 1.106.5200.01 |
| G 2 1/2" | 53–60   | 18       | 42      | 85      | 1.106.5201.01 |
| G 3"     | 58–65   | 18       | 42      | 90/95   | 1.106.3000.01 |
| G 3"     | 63–70   | 18       | 42      | 100     | 1.106.3001.01 |
| G 4"     | 68–75   | 22       | 52      | 100/120 | 1.106.4000.01 |
| G 4"     | 73–80   | 22       | 52      | 110/120 | 1.106.4001.01 |
| G 4"     | 78–85   | 22       | 52      | 110/120 | 1.106.4002.01 |
| G 4"     | 83–90   | 22       | 52      | 120     | 1.106.4003.01 |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

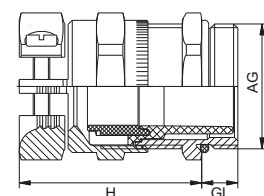
## HSK-MZ / HSK-MZ-PVDF

## Metr., Metr.-elongated



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                |
| Clamping insert       | Polyamide / PVDF                                                                   |
| Seal                  | Buna-N / FKM                                                                       |
| O-Ring                | Buna-N / FKM                                                                       |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)<br>within the specified clamping range |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) (PA)<br>-35 °C – 150 °C (-31 °F – 302 °F) (PVDF) |

// Other sealing material e.g. Silicone upon request



| AG         | $\varnothing$<br>mm | H<br>mm | $\varnothing$<br>mm | GL<br>mm | Number<br>HSK-MZ<br>-40 °C – 100 °C | Number<br>HSK-MZ-PVDF<br>-35 °C – 150 °C | GL<br>mm | Number<br>HSK-MZ elongated<br>-40 °C – 100 °C |
|------------|---------------------|---------|---------------------|----------|-------------------------------------|------------------------------------------|----------|-----------------------------------------------|
| M 12 x 1,5 | 3–6,5               | 26      | 14                  | 6,5      | 1.690.1200.50                       | 1.669.1200.50                            | 10       | 1.690.1200.30                                 |
| M 16 x 1,5 | 4–8                 | 28      | 17 / 19             | 6        | 1.690.1600.50                       | 1.669.1600.50                            | 10       | 1.690.1600.30                                 |
| M 16 x 1,5 | 6–10                | 30      | 20                  | 6        | 1.690.1611.50                       | 1.669.1611.50                            | 10       | 1.690.1611.30                                 |
| M 20 x 1,5 | 6–12                | 33      | 22                  | 6        | 1.690.2000.50                       | 1.669.2000.50                            | 10       | 1.690.2000.30                                 |
| M 20 x 1,5 | 10–14               | 33      | 24                  | 6        | 1.690.2016.50                       | 1.669.2016.50                            | 10       | 1.690.2016.30                                 |
| M 25 x 1,5 | 13–18               | 37      | 30                  | 7        | 1.690.2500.50                       | 1.669.2500.50                            | 12       | 1.690.2500.30                                 |
| M 32 x 1,5 | 18–25               | 43      | 40                  | 8        | 1.690.3200.50                       | 1.669.3200.50                            | 12       | 1.690.3200.30                                 |
| M 40 x 1,5 | 22–32               | 50      | 50                  | 8        | 1.690.4000.50                       | 1.669.4000.50                            | 15       | 1.690.4000.30                                 |
| M 50 x 1,5 | 32–38               | 51      | 57                  | 9        | 1.690.5000.50                       |                                          | 15       | 1.690.5000.30                                 |
| M 50 x 1,5 | 25–31               | 51      | 57                  | 9        | 1.690.5000.51                       |                                          | 15       | 1.690.5000.31                                 |
| M 63 x 1,5 | 37–44               | 52      | 64 / 68             | 10       | 1.690.6300.50                       |                                          | 15       | 1.690.6300.30                                 |
| M 63 x 1,5 | 29–35               | 52      | 64 / 68             | 10       | 1.690.6300.51                       |                                          | 15       | 1.690.6300.31                                 |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

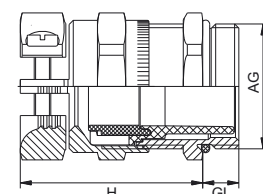
HSK-MZ / HSK-MZ-PVDF

PG, PG-elongated, NPT



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                |
| Clamping insert       | Polyamide / PVDF                                                                   |
| Seal                  | Buna-N / FKM                                                                       |
| O-Ring                | Buna-N / FKM                                                                       |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                        |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) (PA)<br>-35 °C – 150 °C (-31 °F – 302 °F) (PVDF) |

// Other sealing material e.g. Silicone upon request



| AG       | Ø<br>mm | H<br>mm | <br>mm | GL<br>mm | Number<br>HSK-MZ<br>-40 °C – 100 °C | Number<br>HSK-MZ-PVDF<br>-35 °C – 150 °C | GL<br>mm | Number<br>elongated |
|----------|---------|---------|--------|----------|-------------------------------------|------------------------------------------|----------|---------------------|
| PG 7     | 3–6,5   | 26      | 14     | 5        | 1.690.0700.01                       | 1.669.0700.01                            | 10       | 1.690.0700.60       |
| PG 9     | 4–8     | 28      | 17     | 6        | 1.690.0900.01                       | 1.669.0900.01                            | 10       | 1.690.0900.60       |
| PG 11    | 6–10    | 30      | 20     | 6        | 1.690.1100.01                       | 1.669.1100.01                            | 10       | 1.690.1100.60       |
| PG 13,5  | 6–12    | 33      | 22     | 6,5      | 1.690.1300.01                       | 1.669.1300.01                            | 10       | 1.690.1300.60       |
| PG 16    | 10–14   | 33      | 24     | 6,5      | 1.690.1600.01                       | 1.669.1600.01                            | 10       | 1.690.1600.60       |
| PG 21    | 13–18   | 37      | 30     | 7        | 1.690.2100.01                       | 1.669.2100.01                            | 12       | 1.690.2100.60       |
| PG 29    | 18–25   | 43      | 40     | 8        | 1.690.2900.01                       | 1.669.2900.01                            | 12       | 1.690.2900.60       |
| PG 36    | 22–36   | 50      | 50     | 8        | 1.690.3600.01                       | 1.669.3600.01                            | 15       | 1.690.3600.60       |
| PG 42    | 32–38   | 51      | 57     | 9        | 1.690.4200.01                       | 1.669.4200.01                            | 15       | 1.690.4200.60       |
| PG 42    | 25–31   | 51      | 57     | 9        | 1.690.4200.15                       | 1.669.4200.15                            | 15       | 1.690.4200.61       |
| PG 48    | 37–44   | 52      | 64     | 10       | 1.690.4800.01                       | 1.669.4800.01                            | 15       | 1.690.4800.60       |
| PG 48    | 29–35   | 51      | 64     | 10       | 1.690.4800.15                       | 1.669.4800.15                            | 15       | 1.690.4800.61       |
| NPT 3/8" | 4–8     | 28      | 17/19  | 15       | 1.690.3800.70                       | 1.669.3800.70                            |          |                     |
| NPT 1/2" | 7–12    | 33      | 22/24  | 13       | 1.690.1200.70                       | 1.669.1200.70                            |          |                     |
| NPT 3/4" | 13–18   | 37      | 30     | 13       | 1.690.3400.70                       | 1.669.3400.70                            |          |                     |
| NPT 1"   | 18–25   | 43      | 40     | 19       | 1.690.1000.70                       |                                          |          |                     |

# HSK CABLE GLANDS FOR SPECIAL APPLICATIONS

HSK-M-W

Metr., PG

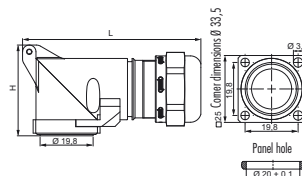


|                       |                                        |
|-----------------------|----------------------------------------|
| Material              | Zinc die casting / Nickel plated brass |
| Clamping insert       | Polyamide                              |
| Seal ring             | Buna-N                                 |
| O-Ring                | Buna-N                                 |
| Protection            | IP 68                                  |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)      |

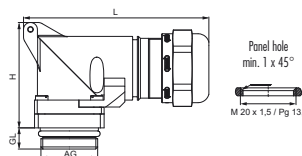
// Other sealing material e.g. Silicone upon request



With mounting flange



With threaded connection



| AG                       | mm    | GL | H  | L  | R | mm | Number        |
|--------------------------|-------|----|----|----|---|----|---------------|
| With mounting flange     |       |    |    |    |   |    |               |
|                          | 10–14 |    | 29 | 66 | 7 | 25 | 1.309.2000.50 |
|                          | 7–12  |    | 29 | 66 | 7 | 25 | 1.309.2000.51 |
| With threaded connection |       |    |    |    |   |    |               |
| M 20 x 1,5               | 10–14 | 6  | 37 | 66 | 7 | 25 | 1.309.2020.50 |
|                          | 7–12  | 6  | 37 | 66 | 7 | 25 | 1.309.2020.51 |
| PG 13,5                  | 10–14 | 6  | 37 | 66 | 7 | 25 | 1.309.2013.50 |
|                          | 7–12  | 6  | 37 | 66 | 7 | 25 | 1.309.2013.51 |

# INDUSTRIAL CABLE GLANDS

## METRICA cable glands

Cable glands of the METRICA series are based on metric dimensions. So these glands offer space saving with optimised clamping ranges.

Both plastic and nickel plated brass versions feature recessed grooves for O-rings on the connecting thread. In combination with the sealing O-Ring these glands keep the protection rating IP 68 also with the high pressure of 10 bars.

You can find in this chapter:

METRICA cable glands made of

- // Polyamide
- // polyamide with bending protection
- // brass nickel plated
- // brass nickel plated EMC and EMC-E version for easy installation

We provide variable clamping ranges and thread lengths.

For any further question please do not hesitate to contact us. We look forward to develop solutions together with you.

You profit from our vast knowledge in development, engineering and production technology.



# METRICA CABLE GLANDS

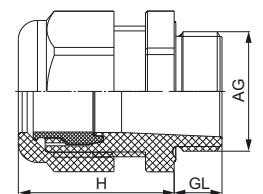
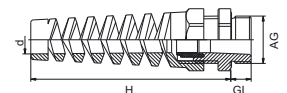
## METRICA-P, METRICA-P-Flex

Metr.



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Polyamide                                                                          |
| Seal                  | Buna-N                                                                             |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)<br>within the specified clamping range |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)                                                  |
| Colors                | grey (RAL 7035), black (RAL 9005),<br>blue (RAL 5012) for the intrinsic safety „I“ |

- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other colors on request



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm | d<br>mm | Number<br>grey | Number<br>black | Number<br>blue |
|------------|---------------------|----------|---------|--------|---------|----------------|-----------------|----------------|
| M 12 x 1,5 | 4–7                 | 8        | 22      | 15     |         | 1.218.1200.50  | 1.218.1201.50   | 1.218.1202.50  |
| M 12 x 1,5 | 2–5                 | 8        | 22      | 15     |         | 1.218.1200.51  | 1.218.1201.51   | 1.218.1202.51  |
| M 16 x 1,5 | 6–10                | 8        | 26      | 19     |         | 1.218.1600.50  | 1.218.1601.50   | 1.218.1602.50  |
| M 16 x 1,5 | 3–7                 | 8        | 26      | 19     |         | 1.218.1600.51  | 1.218.1601.51   | 1.218.1602.51  |
| M 20 x 1,5 | 8–13                | 9        | 29      | 24     |         | 1.218.2000.50  | 1.218.2001.50   | 1.218.2002.50  |
| M 20 x 1,5 | 7–10                | 9        | 29      | 24     |         | 1.218.2000.51  | 1.218.2001.51   | 1.218.2002.51  |
| M 25 x 1,5 | 11–17               | 10       | 33      | 30     |         | 1.218.2500.50  | 1.218.2501.50   | 1.218.2502.50  |
| M 25 x 1,5 | 8–13                | 10       | 33      | 30     |         | 1.218.2500.51  | 1.218.2501.51   | 1.218.2502.51  |
| M 32 x 1,5 | 11–21               | 10       | 41      | 36     |         | 1.218.3200.50  | 1.218.3201.50   | 1.218.3202.50  |
| M 32 x 1,5 | 10–15               | 10       | 41      | 36     |         | 1.218.3200.51  | 1.218.3201.51   | 1.218.3202.51  |
| M 40 x 1,5 | 19–28               | 12       | 46      | 46     |         | 1.218.4000.50  | 1.218.4001.50   | 1.218.4002.50  |
| M 40 x 1,5 | 15–23               | 12       | 46      | 46     |         | 1.218.4000.51  | 1.218.4001.51   | 1.218.4002.51  |
| M 50 x 1,5 | 27–35               | 12       | 52      | 55     |         | 1.218.5000.50  | 1.218.5001.50   | 1.218.5002.50  |
| M 50 x 1,5 | 22–29               | 12       | 52      | 55     |         | 1.218.5000.51  | 1.218.5001.51   | 1.218.5002.51  |
| M 63 x 1,5 | 36–48               | 12       | 57      | 68     |         | 1.218.6300.50  | 1.218.6301.50   | 1.218.6302.50  |
| M 63 x 1,5 | 28–39               | 12       | 57      | 68     |         | 1.218.6300.51  | 1.218.6301.51   | 1.218.6302.51  |

### METRICA-P-Flex

|            |       |    |      |    |      |               |               |  |
|------------|-------|----|------|----|------|---------------|---------------|--|
| M 12 x 1,5 | 4–7   | 8  | 55,5 | 15 | 7,5  | 1.238.1200.50 | 1.238.1201.50 |  |
| M 12 x 1,5 | 2–5   | 8  | 55,5 | 15 | 7,5  | 1.238.1200.51 | 1.238.1201.51 |  |
| M 16 x 1,5 | 6–10  | 8  | 67   | 19 | 10,5 | 1.238.1600.50 | 1.238.1601.50 |  |
| M 16 x 1,5 | 3–7   | 8  | 67   | 19 | 10,5 | 1.238.1600.51 | 1.238.1601.51 |  |
| M 20 x 1,5 | 8–13  | 9  | 92,5 | 24 | 14   | 1.238.2000.50 | 1.238.2001.50 |  |
| M 20 x 1,5 | 7–10  | 9  | 92,5 | 24 | 14   | 1.238.2000.51 | 1.238.2001.51 |  |
| M 25 x 1,5 | 11–17 | 10 | 113  | 30 | 19   | 1.238.2500.50 | 1.238.2501.50 |  |
| M 25 x 1,5 | 8–13  | 10 | 113  | 30 | 19   | 1.238.2500.51 | 1.238.2501.51 |  |

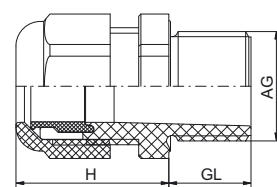
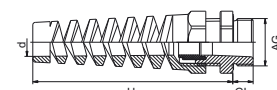
## METRICA-P, METRICA-P-Flex

Metr.-elongated



|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Material              | Polyamide                                                                          |
| Seal                  | Buna-N                                                                             |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)<br>within the specified clamping range |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)                                                  |
| Colors                | grey (RAL 7035), black (RAL 9005),<br>blue (RAL 5012) for the intrinsic safety „I“ |

- // With additional pre-assembled O-Ring upon request
- // Please find suitable O-Ring on page 90
- // Other colors on request



| AG         | Ø mm  | GL mm | H mm | mm | d mm | Number grey   | Number black  | Number blue   |
|------------|-------|-------|------|----|------|---------------|---------------|---------------|
| M 12 x 1,5 | 4–7   | 15    | 22   | 15 |      | 1.218.1200.30 | 1.218.1201.30 | 1.218.1202.30 |
| M 12 x 1,5 | 2–5   | 15    | 22   | 15 |      | 1.218.1200.31 | 1.218.1201.31 | 1.218.1202.31 |
| M 16 x 1,5 | 6–10  | 15    | 26   | 19 |      | 1.218.1600.30 | 1.218.1601.30 | 1.218.1602.30 |
| M 16 x 1,5 | 3–7   | 15    | 26   | 19 |      | 1.218.1600.31 | 1.218.1601.31 | 1.218.1602.31 |
| M 20 x 1,5 | 8–13  | 15    | 29   | 24 |      | 1.218.2000.30 | 1.218.2001.30 | 1.218.2002.30 |
| M 20 x 1,5 | 7–10  | 15    | 29   | 24 |      | 1.218.2000.31 | 1.218.2001.31 | 1.218.2002.31 |
| M 25 x 1,5 | 11–17 | 15    | 33   | 30 |      | 1.218.2500.30 | 1.218.2501.30 | 1.218.2502.30 |
| M 25 x 1,5 | 8–13  | 15    | 33   | 30 |      | 1.218.2500.31 | 1.218.2501.31 | 1.218.2502.31 |
| M 32 x 1,5 | 11–21 | 15    | 41   | 36 |      | 1.218.3200.30 | 1.218.3201.30 | 1.218.3202.30 |
| M 32 x 1,5 | 10–15 | 15    | 41   | 36 |      | 1.218.3200.31 | 1.218.3201.31 | 1.218.3202.31 |
| M 40 x 1,5 | 19–28 | 18    | 46   | 46 |      | 1.218.4000.30 | 1.218.4001.30 | 1.218.4002.30 |
| M 40 x 1,5 | 15–23 | 18    | 46   | 46 |      | 1.218.4000.31 | 1.218.4001.31 | 1.218.4002.31 |
| M 50 x 1,5 | 27–35 | 18    | 52   | 55 |      | 1.218.5000.30 | 1.218.5001.30 | 1.218.5002.30 |
| M 50 x 1,5 | 22–29 | 18    | 52   | 55 |      | 1.218.5000.31 | 1.218.5001.31 | 1.218.5002.31 |
| M 63 x 1,5 | 36–48 | 18    | 57   | 68 |      | 1.218.6300.30 | 1.218.6301.30 | 1.218.6302.30 |
| M 63 x 1,5 | 28–39 | 18    | 57   | 68 |      | 1.218.6300.31 | 1.218.6301.31 | 1.218.6302.31 |

### METRICA-P-Flex

|            |       |    |      |    |      |               |               |  |
|------------|-------|----|------|----|------|---------------|---------------|--|
| M 12 x 1,5 | 4–7   | 15 | 55,5 | 15 | 7,5  | 1.238.1200.30 | 1.238.1201.30 |  |
| M 12 x 1,5 | 2–5   | 15 | 55,5 | 15 | 7,5  | 1.238.1200.31 | 1.238.1201.31 |  |
| M 16 x 1,5 | 6–10  | 15 | 67   | 19 | 10,5 | 1.238.1600.30 | 1.238.1601.30 |  |
| M 16 x 1,5 | 3–7   | 15 | 67   | 19 | 10,5 | 1.238.1600.31 | 1.238.1601.31 |  |
| M 20 x 1,5 | 8–13  | 15 | 92,5 | 24 | 14   | 1.238.2000.30 | 1.238.2001.30 |  |
| M 20 x 1,5 | 7–10  | 15 | 92,5 | 24 | 14   | 1.238.2000.31 | 1.238.2001.31 |  |
| M 25 x 1,5 | 11–17 | 15 | 113  | 30 | 19   | 1.238.2500.30 | 1.238.2501.30 |  |
| M 25 x 1,5 | 8–13  | 15 | 113  | 30 | 19   | 1.238.2500.31 | 1.238.2501.31 |  |

# METRICA CABLE GLANDS

## METRICA-M

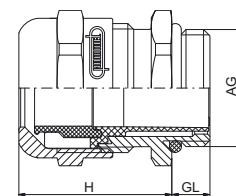
## Metr., Metr.-elongated



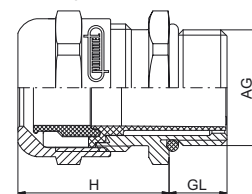
|                       |                                    |
|-----------------------|------------------------------------|
| Material              | Nickel plated brass                |
| Clamping insert       | Polyamide                          |
| Seal                  | Buna-N                             |
| O-Ring                | Buna-N                             |
| Protection            | IP 68 – 10 bar (NEMA 6 – 150 PSIG) |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)  |



Metr.



Metr.-elongated



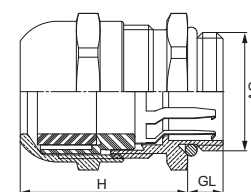
| AG         | Ø mm  | H mm | mm | GL mm | Number        | GL mm | Number elongated |
|------------|-------|------|----|-------|---------------|-------|------------------|
| M 12 x 1,5 | 4–7   | 20   | 14 | 6     | 1.618.1200.50 | 10    | 1.618.1200.30    |
| M 12 x 1,5 | 2–5   | 20   | 14 | 6     | 1.618.1200.51 | 10    | 1.618.1200.31    |
| M 16 x 1,5 | 6–10  | 25   | 19 | 6     | 1.618.1600.50 | 10    | 1.618.1600.30    |
| M 16 x 1,5 | 3–7   | 25   | 19 | 6     | 1.618.1600.51 | 10    | 1.618.1600.31    |
| M 20 x 1,5 | 8–13  | 26   | 24 | 6,5   | 1.618.2000.50 | 10    | 1.618.2000.30    |
| M 20 x 1,5 | 7–10  | 26   | 24 | 6,5   | 1.618.2000.51 | 10    | 1.618.2000.31    |
| M 25 x 1,5 | 11–17 | 29   | 29 | 7     | 1.618.2500.50 | 12    | 1.618.2500.30    |
| M 25 x 1,5 | 8–13  | 29   | 29 | 7     | 1.618.2500.51 | 12    | 1.618.2500.31    |
| M 32 x 1,5 | 11–21 | 37   | 34 | 8     | 1.618.3200.50 | 12    | 1.618.3200.30    |
| M 32 x 1,5 | 10–15 | 37   | 34 | 8     | 1.618.3200.51 | 12    | 1.618.3200.31    |
| M 40 x 1,5 | 19–28 | 40,5 | 44 | 8     | 1.618.4000.50 | 15    | 1.618.4000.30    |
| M 40 x 1,5 | 15–23 | 40,5 | 44 | 8     | 1.618.4000.51 | 15    | 1.618.4000.31    |
| M 50 x 1,5 | 27–35 | 49,5 | 55 | 9     | 1.618.5000.50 | 15    | 1.618.5000.30    |
| M 50 x 1,5 | 22–29 | 49,5 | 55 | 9     | 1.618.5000.51 | 15    | 1.618.5000.31    |
| M 63 x 1,5 | 34–48 | 49   | 68 | 10    | 1.618.6300.50 | 15    | 1.618.6300.30    |
| M 63 x 1,5 | 28–39 | 49   | 68 | 10    | 1.618.6300.51 | 15    | 1.618.6300.31    |

## METRICA-M-EMC-E

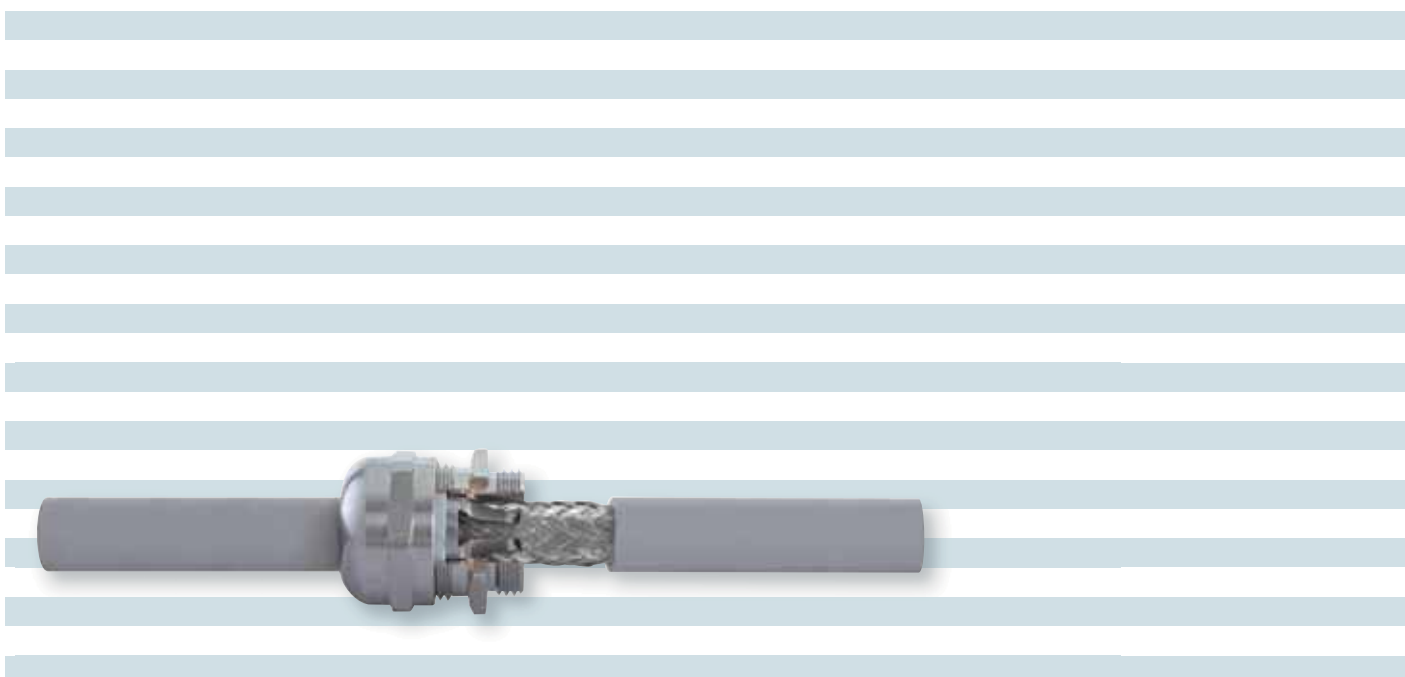
Metr.



|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Nickel plated brass               |
| Clamping insert       | Polyamide                         |
| Seal                  | Buna-N                            |
| O-Ring                | Buna-N                            |
| Protection            | IP 68 – 5 bar                     |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |



| AG         | Ø<br>mm | GL<br>mm | H<br>mm | Ø<br>mm | Number        |
|------------|---------|----------|---------|---------|---------------|
| M 12 x 1,5 | 3–6,5   | 6        | 19,4    | 14      | 1.607.1200.50 |
| M 16 x 1,5 | 4,5–10  | 6        | 24,4    | 19      | 1.607.1600.50 |
| M 20 x 1,5 | 6–12    | 6        | 25,4    | 22      | 1.607.2013.50 |
| M 20 x 1,5 | 7,5–14  | 6        | 28,3    | 24      | 1.607.2000.50 |
| M 25 x 1,5 | 9–17    | 7        | 29,3    | 29      | 1.607.2500.50 |
| M 32 x 1,5 | 11–21   | 8        | 37,7    | 34      | 1.607.3200.50 |
| M 40 x 1,5 | 19–28   | 8        | 40,7    | 44      | 1.607.4000.50 |
| M 50 x 1,5 | 27–35   | 9        | 50,7    | 55      | 1.607.5000.50 |
| M 63 x 1,5 | 34–48   | 10       | 55,7    | 68      | 1.607.6300.50 |



# METRICA CABLE GLANDS

## METRICA-M-EMC

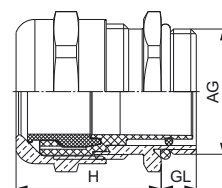
## Metr., Metr.-elongated



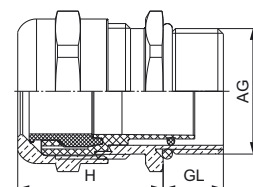
|                       |                                    |
|-----------------------|------------------------------------|
| Material              | Nickel plated brass                |
| Clamping insert       | Polyamide                          |
| Seal                  | Buna-N                             |
| O-Ring                | Buna-N                             |
| Protection            | IP 68 – 10 bar (NEMA 6 – 150 PSIG) |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F)  |



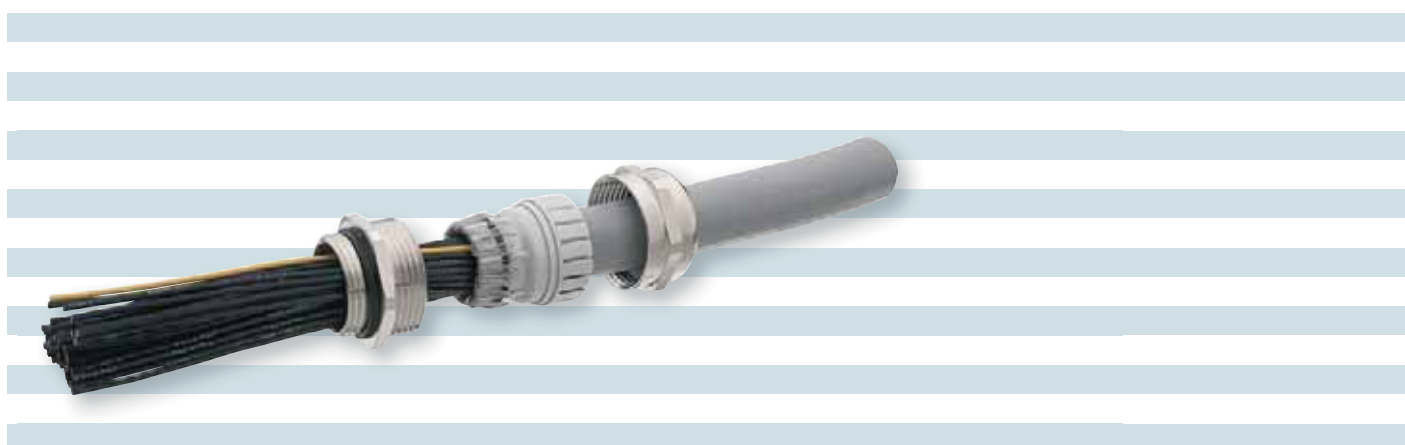
Metr.



Metr.-elongated



| AG         | Ø mm  | H mm | mm | GL mm | Number        | GL mm | Number elongated |
|------------|-------|------|----|-------|---------------|-------|------------------|
| M 12 x 1,5 | 4–7   | 20   | 14 | 6     | 1.683.1200.50 | 10    | 1.683.1200.30    |
| M 12 x 1,5 | 2–5   | 20   | 14 | 6     | 1.683.1200.51 | 10    | 1.683.1200.31    |
| M 16 x 1,5 | 6–10  | 25   | 19 | 6     | 1.683.1600.50 | 10    | 1.683.1600.30    |
| M 16 x 1,5 | 3–7   | 25   | 19 | 6     | 1.683.1600.51 | 10    | 1.683.1600.31    |
| M 20 x 1,5 | 8–13  | 26   | 24 | 6,5   | 1.683.2000.50 | 10    | 1.683.2000.30    |
| M 20 x 1,5 | 7–10  | 26   | 24 | 6,5   | 1.683.2000.51 | 10    | 1.683.2000.31    |
| M 25 x 1,5 | 11–17 | 29   | 29 | 7     | 1.683.2500.50 | 12    | 1.683.2500.30    |
| M 25 x 1,5 | 8–13  | 29   | 29 | 7     | 1.683.2500.51 | 12    | 1.683.2500.31    |
| M 32 x 1,5 | 11–21 | 37   | 34 | 8     | 1.683.3200.50 | 12    | 1.683.3200.30    |
| M 32 x 1,5 | 10–15 | 37   | 34 | 8     | 1.683.3200.51 | 12    | 1.683.3200.31    |
| M 40 x 1,5 | 19–28 | 40,5 | 44 | 8     | 1.683.4000.50 | 15    | 1.683.4000.30    |
| M 40 x 1,5 | 15–23 | 40,5 | 44 | 8     | 1.683.4000.51 | 15    | 1.683.4000.31    |
| M 50 x 1,5 | 27–35 | 49,5 | 55 | 9     | 1.683.5000.50 | 15    | 1.683.5000.30    |
| M 50 x 1,5 | 22–29 | 49,5 | 55 | 9     | 1.683.5000.51 | 15    | 1.683.5000.31    |
| M 63 x 1,5 | 34–48 | 49   | 68 | 10    | 1.683.6300.50 | 15    | 1.683.6300.30    |
| M 63 x 1,5 | 28–39 | 49   | 68 | 10    | 1.683.6300.51 | 15    | 1.683.6300.31    |



# INDUSTRIAL CABLE GLANDS

## Miscellaneous cable glands

Cable glands in this chapter have different designs to the modern clamping finger cable glands. Some types are perfect for high temperature applications or provide special options for clamping ranges.

You can find in this chapter:

Miscellaneous cable glands series

- // WADI-A-FKM without clamping cartridge, made of metal with FKM sealing for higher durability and for high temperature applications
- // DIN 46320 pressure screw gland made of polyamide or brass nickel plated
- // Z (DIN 46320) pressure screw gland with additional strain relief
- // SE (DIN 46320) pressure screw with EMC connection
- // ZSE (DIN 46320) pressure screw with additional strain relief and EMC connection

We provide variable clamping ranges and thread lengths.

For any further question please do not hesitate to contact us. We look forward to develop solutions together with you.

You profit from our vast knowledge in development, engineering and production technology.



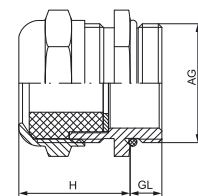
# MISCELLANEOUS CABLE GLANDS

## WADI-A-FKM

Metr.



|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Nickel plated brass               |
| Seal ring             | FKM                               |
| O-Ring                | FKM                               |
| Protection            | IP 68 (NEMA 6)                    |
| Operating Temperature | -25 °C – 200 °C (-13 °F – 392 °F) |



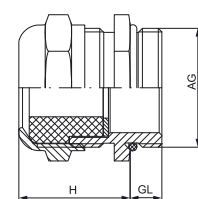
| AG         | Ø<br>mm | GL<br>mm | H<br>mm | Ø<br>mm | Number        |
|------------|---------|----------|---------|---------|---------------|
| M 12 x 1,5 | 4–6     | 5        | 18      | 14      | 1.106.1200.58 |
| M 16 x 1,5 | 7–9     | 5        | 19      | 18      | 1.106.1600.58 |
| M 20 x 1,5 | 10–13   | 6        | 21      | 22      | 1.106.2000.58 |
| M 25 x 1,5 | 15–18   | 7        | 23      | 28      | 1.106.2500.58 |
| M 32 x 1,5 | 20–24   | 8        | 26      | 35      | 1.106.3200.58 |
| M 40 x 1,5 | 27–32   | 8        | 27      | 45      | 1.106.4000.58 |
| M 50 x 1,5 | 35–40   | 10       | 28      | 55      | 1.106.5000.58 |
| M 63 x 1,5 | 45–52   | 10       | 36      | 68      | 1.106.6300.58 |

## WADI-A-FKM

PG



|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Nickel plated brass               |
| Seal ring             | FKM                               |
| O-Ring                | FKM                               |
| Protection            | IP 68 (NEMA 6)                    |
| Operating Temperature | -25 °C – 200 °C (-13 °F – 392 °F) |



| AG      | Ø<br>mm | GL<br>mm | H<br>mm | Ø<br>mm | Number        |
|---------|---------|----------|---------|---------|---------------|
| PG 7    | 5–7     | 6        | 16      | 14      | 1.106.0700.80 |
| PG 9    | 6–8     | 6        | 17      | 18      | 1.106.0900.80 |
| PG 9    | 7–10    | 6        | 17      | 18      | 1.106.0901.80 |
| PG 11   | 6–8     | 6        | 20      | 18      | 1.106.1100.80 |
| PG 11   | 7–10    | 6        | 20      | 18      | 1.106.1101.80 |
| PG 11   | 8–12    | 6        | 20      | 18      | 1.106.1102.80 |
| PG 13,5 | 11–15   | 6        | 21      | 24      | 1.106.1300.80 |
| PG 16   | 11–15   | 6        | 21      | 24      | 1.106.1600.80 |
| PG 21   | 15–20,5 | 7,5      | 22,5    | 32      | 1.106.2100.80 |
| PG 29   | 20–27   | 8        | 24      | 40      | 1.106.2900.80 |
| PG 36   | 30–35   | 8        | 29      | 50      | 1.106.3600.80 |

| AG    | Ø<br>mm | GL<br>mm | H<br>mm | Ø<br>mm | Number        |
|-------|---------|----------|---------|---------|---------------|
| PG 42 | 40–45   | 10       | 31      | 60      | 1.106.4200.80 |
| PG 48 | 42–49   | 11       | 33      | 64      | 1.106.4800.80 |

## DIN 46320-A-FS with Seal ring No. 6

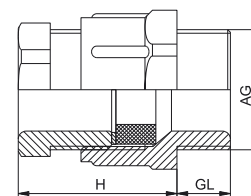
PG



// Metric thread on request  
// Please see page 91 for suitable thread seal ring

|                       |                                       |
|-----------------------|---------------------------------------|
| Material              | Polyamide                             |
| Seal ring             | Buna-N                                |
| Protection            | IP 54,<br>with thread seal ring IP 65 |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)       |
| Colors                | grey (RAL 7035)                       |

RoHS



| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm  | Number        |
|---------|---------------------|----------|---------|---------|---------------|
| PG 7    | 3,5–6               | 8        | 20      | 15 / 13 | 1.202.0700.11 |
| PG 9    | 4,5–7               | 8        | 21      | 19 / 16 | 1.202.0900.11 |
| PG 11   | 6–9                 | 8        | 22      | 22 / 19 | 1.202.1100.11 |
| PG 13,5 | 9–12                | 9        | 26      | 24 / 21 | 1.202.1300.11 |
| PG 16   | 11–14               | 10       | 28      | 27 / 23 | 1.202.1600.11 |
| PG 21   | 14–18               | 11       | 32      | 33 / 30 | 1.202.2100.11 |
| PG 29   | 18–25               | 11       | 35      | 42 / 40 | 1.202.2900.11 |
| PG 36   | 25–32               | 13       | 39      | 53 / 50 | 1.202.3600.11 |
| PG 42   | 30–38               | 13       | 44      | 60 / 55 | 1.202.4200.11 |
| PG 48   | 34–42               | 14       | 44      | 65 / 60 | 1.202.4800.11 |

## DIN 46320-A-FS with multiperforated seal ring No. 7

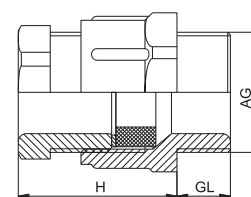
PG



// Metric thread on request  
// Please see page 91 for suitable thread seal ring

|                       |                                       |
|-----------------------|---------------------------------------|
| Material              | Polyamide                             |
| Seal ring             | Buna-N (multiperforated)              |
| Protection            | IP 54,<br>with thread seal ring IP 65 |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)       |
| Colors                | grey (RAL 7035)                       |

RoHS



| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm  | Number        |
|---------|---------------------|----------|---------|---------|---------------|
| PG 9    | 4–10                | 8        | 21      | 19 / 16 | 1.202.0901.11 |
| PG 11   | 6,5–12              | 8        | 22      | 22 / 19 | 1.202.1101.11 |
| PG 13,5 | 6,5–13,5            | 9        | 26      | 24 / 21 | 1.202.1301.11 |
| PG 16   | 6,5–16              | 10       | 28      | 27 / 23 | 1.202.1601.11 |
| PG 21   | 9–20                | 11       | 32      | 33 / 30 | 1.202.2101.11 |
| PG 29   | 17–28               | 11       | 35      | 42 / 40 | 1.202.2901.11 |
| PG 36   | 23–34               | 13       | 39      | 53 / 50 | 1.202.3601.11 |
| PG 42   | 29–40               | 13       | 44      | 60 / 55 | 1.202.4201.11 |
| PG 48   | 35–46               | 14       | 44      | 65 / 60 | 1.202.4801.11 |

## MISCELLANEOUS CABLE GLANDS

### DIN 46320-C4-Ms with Seal ring No. 6

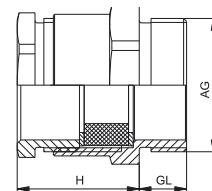
PG



- // Metric thread on request
- // Please see page 91 for suitable thread seal ring
- // This cable gland is available with additional strain relief (see page 71 / 72) and EMC attenuation (see page 73 / 74)

|                       |                                       |
|-----------------------|---------------------------------------|
| Material              | Nickel plated brass                   |
| Seal ring             | Buna-N                                |
| Protection            | IP 54,<br>with thread seal ring IP 65 |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)       |

RoHS



| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number        |
|---------|---------------------|----------|---------|---------------------|---------------|
| PG 7    | 6–8                 | 5        | 15      | 14 / 13             | 1.101.0703.01 |
| PG 9    | 8–10                | 6        | 15      | 17 / 15             | 1.101.0903.01 |
| PG 11   | 10–12               | 6        | 17      | 20 / 18             | 1.101.1103.01 |
| PG 13,5 | 12–14               | 6,5      | 20      | 22 / 20             | 1.101.1303.01 |
| PG 16   | 14–16               | 6,5      | 22      | 24 / 22             | 1.101.1603.01 |
| PG 21   | 17–19               | 7        | 24      | 30 / 28             | 1.101.2103.01 |
| PG 29   | 26–28               | 8        | 26      | 40 / 37             | 1.101.2903.01 |
| PG 36   | 33–35               | 9        | 30      | 50 / 47             | 1.101.3603.01 |
| PG 42   | 39–41               | 10       | 34      | 57 / 54             | 1.101.4203.01 |
| PG 48   | 45–47               | 10       | 37      | 64 / 60             | 1.101.4803.01 |

### DIN 46320-C4-Ms with multiperforated seal ring No. 7

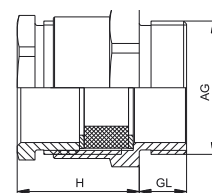
PG



- // Metric thread on request
- // Please see page 91 for suitable thread seal ring
- // This cable gland is available with additional strain relief (see page 71 / 72) and EMC attenuation (see page 73 / 74)

|                       |                                       |
|-----------------------|---------------------------------------|
| Material              | Nickel plated brass                   |
| Seal ring             | Buna-N (multiperforated)              |
| Protection            | IP 54,<br>with thread seal ring IP 65 |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)       |

RoHS



| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number        |
|---------|---------------------|----------|---------|---------------------|---------------|
| PG 9    | 4–10                | 6        | 15      | 17 / 15             | 1.101.0901.01 |
| PG 11   | 6,5–12              | 6        | 17      | 20 / 18             | 1.101.1101.01 |
| PG 13,5 | 6,5–13,5            | 6,5      | 20      | 22 / 20             | 1.101.1301.01 |
| PG 16   | 6,5–16              | 6,5      | 22      | 24 / 22             | 1.101.1601.01 |
| PG 21   | 9–20                | 7        | 24      | 30 / 28             | 1.101.2101.01 |
| PG 29   | 17–28               | 8        | 26      | 40 / 37             | 1.101.2901.01 |
| PG 36   | 23–34               | 9        | 30      | 50 / 47             | 1.101.3601.01 |
| PG 42   | 29–40               | 10       | 34      | 57 / 54             | 1.101.4201.01 |
| PG 48   | 35–46               | 10       | 37      | 64 / 60             | 1.101.4801.01 |

## MISCELLANEOUS CABLE GLANDS

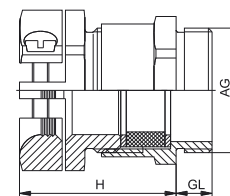
### Z (DIN 46320-C4-Ms with Seal ring No. 6 with additional strain relief)

Metr.



// Please see page 91 for suitable thread seal ring

|                       |                                       |
|-----------------------|---------------------------------------|
| Material              | Nickel plated brass                   |
| Seal ring             | Buna-N                                |
| Protection            | IP 54,<br>with thread seal ring IP 65 |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)       |



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm  | Number        |
|------------|---------------------|----------|---------|---------|---------------|
| M 12 x 1,5 | 6–8                 | 5        | 22      | 14 / 16 | 1.105.1200.51 |
| M 16 x 1,5 | 8–10                | 5        | 25      | 18 / 19 | 1.105.1600.51 |
| M 20 x 1,5 | 10–12               | 6        | 26      | 22 / 22 | 1.105.2000.51 |
| M 20 x 1,5 | 12–14               | 6        | 27,5    | 22 / 24 | 1.105.2013.51 |
| M 20 x 1,5 | 13–15               | 6        | 28,5    | 24 / 26 | 1.105.2016.51 |
| M 25 x 1,5 | 17–19               | 6        | 33      | 30 / 33 | 1.105.2500.51 |
| M 32 x 1,5 | 26–27               | 6        | 36      | 39 / 42 | 1.105.3200.51 |
| M 40 x 1,5 | 33–35               | 7        | 41      | 50 / 52 | 1.105.4000.51 |
| M 50 x 1,5 | 39–41               | 8        | 45      | 57 / 59 | 1.105.5000.51 |
| M 63 x 1,5 | 43–45               | 9        | 48      | 66 / 64 | 1.105.6300.51 |

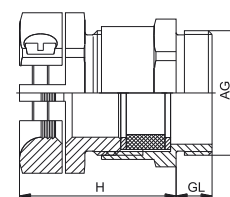
### Z (DIN 46320-C4-Ms with multiperforated seal ring No. 7 with additional strain relief)

Metr.



// Please see page 91 for suitable thread seal ring

|                       |                                       |
|-----------------------|---------------------------------------|
| Material              | Nickel plated brass                   |
| Seal ring             | Buna-N (multiperforated)              |
| Protection            | IP 54,<br>with thread seal ring IP 65 |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)       |



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm  | Number        |
|------------|---------------------|----------|---------|---------|---------------|
| M 16 x 1,5 | 6,5–10              | 5        | 25      | 18 / 19 | 1.105.1600.52 |
| M 20 x 1,5 | 7,5–12              | 6        | 26      | 22 / 22 | 1.105.2000.52 |
| M 20 x 1,5 | 8,5–13,5            | 6        | 27,5    | 22 / 24 | 1.105.2013.52 |
| M 20 x 1,5 | 10,5–15             | 6        | 28,5    | 24 / 26 | 1.105.2016.52 |
| M 25 x 1,5 | 13–20               | 6        | 33      | 30 / 33 | 1.105.2500.52 |
| M 32 x 1,5 | 19–28               | 6        | 36      | 39 / 42 | 1.105.3200.52 |
| M 40 x 1,5 | 24–34               | 7        | 41      | 50 / 52 | 1.105.4000.52 |
| M 50 x 1,5 | 34–40               | 8        | 45      | 57 / 59 | 1.105.5000.52 |
| M 63 x 1,5 | 39–46               | 9        | 48      | 66 / 64 | 1.105.6300.52 |

## MISCELLANEOUS CABLE GLANDS

### Z (DIN 46320-C4-Ms with Seal ring No. 6 with additional strain relief)

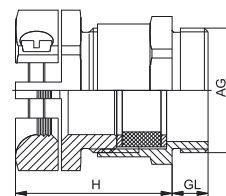
PG



// Please see page 91 for suitable thread seal ring  
// Please see page 74 for the EMC version of this gland

|                       |                                       |
|-----------------------|---------------------------------------|
| Material              | Nickel plated brass                   |
| Seal ring             | Buna-N                                |
| Protection            | IP 54,<br>with thread seal ring IP 65 |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)       |

RoHS



| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number<br>NBR<br>-20 °C – 80 °C |
|---------|---------------------|----------|---------|---------------------|---------------------------------|
| PG 7    | 6–8                 | 5        | 22      | 14 / 16             | 1.105.0703.01                   |
| PG 9    | 8–10                | 6        | 25      | 17 / 19             | 1.105.0903.01                   |
| PG 11   | 10–12               | 6        | 26      | 20 / 22             | 1.105.1103.01                   |
| PG 13,5 | 12–14               | 6,5      | 27,5    | 22 / 24             | 1.105.1303.01                   |
| PG 16   | 14–16               | 6,5      | 28,5    | 24 / 26             | 1.105.1603.01                   |
| PG 21   | 17–19               | 7        | 33      | 30 / 33             | 1.105.2103.01                   |
| PG 29   | 26–28               | 8        | 36      | 40 / 42             | 1.105.2903.01                   |
| PG 36   | 33–35               | 9        | 41      | 50 / 52             | 1.105.3603.01                   |
| PG 42   | 39–41               | 10       | 45      | 57 / 59             | 1.105.4203.01                   |
| PG 48   | 43–45               | 10       | 48      | 64 / 64             | 1.105.4803.01                   |

### Z (DIN 46320-C4-Ms with multiperforated seal ring No. 7 with additional strain relief)

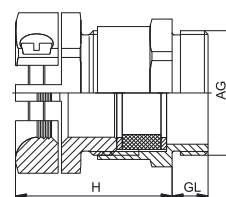
PG



// Please see page 91 for suitable thread seal ring  
// Please see page 74 for the EMC version of this gland

|                       |                                       |
|-----------------------|---------------------------------------|
| Material              | Nickel plated brass                   |
| Seal ring             | Buna-N (multiperforated)              |
| Protection            | IP 54,<br>with thread seal ring IP 65 |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)       |

RoHS



| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number        |
|---------|---------------------|----------|---------|---------------------|---------------|
| PG 9    | 6,5–10              | 6        | 25      | 17 / 19             | 1.105.0901.01 |
| PG 11   | 7,5–12              | 6        | 26      | 20 / 22             | 1.105.1101.01 |
| PG 13,5 | 8,5–13,5            | 6,5      | 27,5    | 22 / 24             | 1.105.1301.01 |
| PG 16   | 10,5–16             | 6,5      | 28,5    | 24 / 26             | 1.105.1601.01 |
| PG 21   | 13–20               | 7        | 33      | 30 / 33             | 1.105.2101.01 |
| PG 29   | 19–28               | 8        | 36      | 40 / 42             | 1.105.2901.01 |
| PG 36   | 24–34               | 9        | 41      | 50 / 52             | 1.105.3601.01 |
| PG 42   | 34–40               | 10       | 45      | 57 / 59             | 1.105.4201.01 |
| PG 48   | 39–46               | 10       | 48      | 64 / 64             | 1.105.4801.01 |

# MISCELLANEOUS CABLE GLANDS

SE (DIN 46320-C4 with EMC attenuation with multiperforated seal ring No. 7)

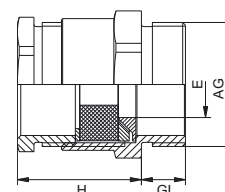
PG

RoHS



|                       |                                       |
|-----------------------|---------------------------------------|
| Material              | Nickel plated brass                   |
| Seal ring             | Buna-N                                |
| Protection            | IP 54,<br>with thread seal ring IP 65 |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)       |

// Please see page 91 for suitable thread seal ring



| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm | E<br>mm | Number        |
|---------|---------------------|----------|---------|-------------------------------------------------------------------------------------------|---------|---------------|
| PG 9    | 4–10                | 7        | 17      | 17 / 15                                                                                   | 6       | 1.680.0906.01 |
| PG 11   | 6,5–12              | 7        | 20      | 20 / 18                                                                                   | 8       | 1.680.1108.01 |
| PG 13,5 | 6,5–13,5            | 8        | 21      | 22 / 20                                                                                   | 10      | 1.680.1310.01 |
| PG 13,5 | 6,5–13,5            | 8        | 21      | 22 / 20                                                                                   | 12      | 1.680.1312.01 |
| PG 16   | 6,5–16              | 8        | 24      | 24 / 22                                                                                   | 12      | 1.680.1612.01 |
| PG 16   | 6,5–16              | 8        | 24      | 24 / 22                                                                                   | 14      | 1.680.1614.01 |
| PG 21   | 9–20                | 10       | 27      | 30 / 28                                                                                   | 15      | 1.680.2115.01 |
| PG 21   | 9–20                | 10       | 27      | 30 / 28                                                                                   | 18      | 1.680.2118.01 |
| PG 29   | 17–28               | 10       | 30      | 40 / 37                                                                                   | 20      | 1.680.2920.01 |
| PG 29   | 17–28               | 10       | 30      | 40 / 37                                                                                   | 24      | 1.680.2924.01 |

# MISCELLANEOUS CABLE GLANDS

**ZSE (DIN 46320-C4 with EMC attenuation and multiperforated seal ring No. 7 with additional strain relief)**

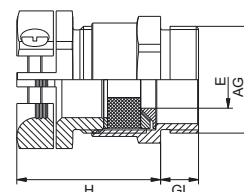
**PG**



|                       |                                       |
|-----------------------|---------------------------------------|
| Material              | Nickel plated brass                   |
| Seal ring             | Buna-N                                |
| Protection            | IP 54,<br>with thread seal ring IP 65 |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)       |

**RoHS**

// Please see page 91 for suitable thread seal ring



| AG      | Ø<br>mm  | GL<br>mm | H<br>mm | Ø<br>mm | E<br>mm | Number        |
|---------|----------|----------|---------|---------|---------|---------------|
| PG 9    | 6,5–10   | 7        | 27      | 17 / 19 | 6       | 1.681.0906.01 |
| PG 11   | 7,5–12   | 7        | 29      | 20 / 22 | 7       | 1.681.1107.01 |
| PG 11   | 7,5–12   | 7        | 29      | 20 / 22 | 8       | 1.681.1108.01 |
| PG 13,5 | 8,5–13,5 | 8        | 30      | 22 / 24 | 10      | 1.681.1310.01 |
| PG 13,5 | 8,5–13,5 | 8        | 30      | 22 / 24 | 12      | 1.681.1312.01 |
| PG 16   | 10,5–16  | 8        | 31      | 24 / 26 | 12      | 1.681.1612.01 |
| PG 16   | 10,5–16  | 8        | 31      | 24 / 26 | 14      | 1.681.1614.01 |
| PG 21   | 13–20    | 10       | 36      | 30 / 33 | 15      | 1.681.2115.01 |
| PG 21   | 13–20    | 10       | 36      | 30 / 33 | 18      | 1.681.2118.01 |
| PG 29   | 19–28    | 10       | 40      | 40 / 42 | 20      | 1.681.2920.01 |
| PG 29   | 19–28    | 10       | 40      | 40 / 42 | 24      | 1.681.2924.01 |

# INDUSTRIAL CABLE GLANDS

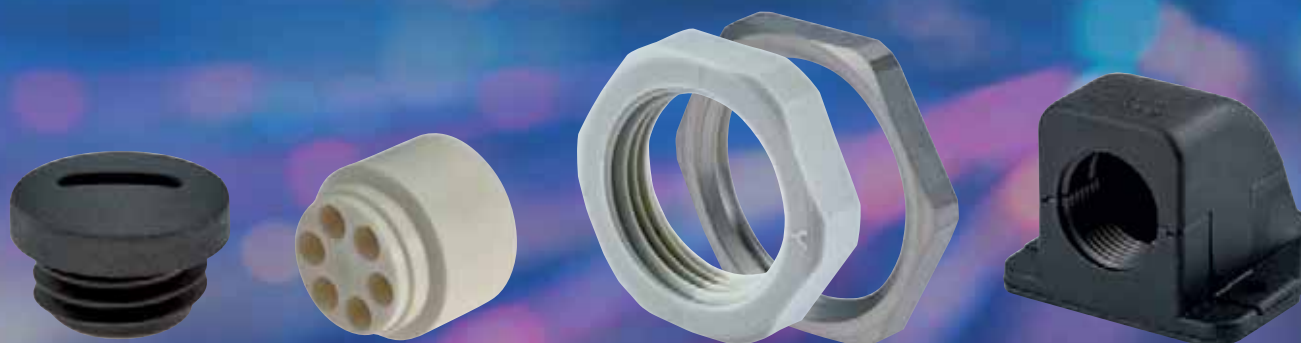
## Accessories

You can find in this chapter:

Accessories for all series of our industrial cable glands:

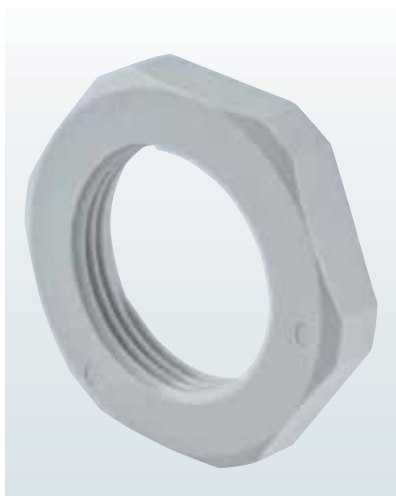
- // Accessories made of plastic from page 76
- // Accessories made of nickel plated brass from page 92
- // Accessories made of stainless steel from page 101

For any further question please do not hesitate to contact us. We look forward to develop solutions together with you. You profit from our vast knowledge in development, engineering and production technology.



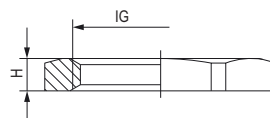
## Locknut GM-FS

Metr., PG, NPT



|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |
| Colors                | grey (RAL 7035), black (RAL 9005) |

// Other colors on request



| IG         | H<br>mm | <br>mm | Number<br>PA<br>grey | Number<br>PA<br>black |
|------------|---------|-------------------------------------------------------------------------------------------|----------------------|-----------------------|
| M 12 x 1,5 | 5       | 17                                                                                        | 1.262.1200.50        | 1.262.1201.50         |
| M 16 x 1,5 | 5       | 22                                                                                        | 1.262.1600.50        | 1.262.1601.50         |
| M 20 x 1,5 | 6       | 27                                                                                        | 1.262.2000.50        | 1.262.2001.50         |
| M 25 x 1,5 | 6,5     | 32                                                                                        | 1.262.2500.50        | 1.262.2501.50         |
| M 32 x 1,5 | 7       | 41                                                                                        | 1.262.3200.50        | 1.262.3201.50         |
| M 40 x 1,5 | 7       | 50                                                                                        | 1.262.4000.50        | 1.262.4001.50         |
| M 50 x 1,5 | 8       | 60                                                                                        | 1.262.5000.50        | 1.262.5001.50         |
| M 63 x 1,5 | 8       | 75                                                                                        | 1.262.6300.50        | 1.262.6301.50         |
|            |         |                                                                                           |                      |                       |
| PG 7       | 5       | 19                                                                                        | 1.262.0700.11        | 1.262.0701.11         |
| PG 9       | 5       | 22                                                                                        | 1.262.0900.11        | 1.262.0901.11         |
| PG 11      | 5       | 24                                                                                        | 1.262.1100.11        | 1.262.1101.11         |
| PG 13,5    | 6       | 27                                                                                        | 1.262.1300.11        | 1.262.1301.11         |
| PG 16      | 6       | 30                                                                                        | 1.262.1600.11        | 1.262.1601.11         |
| PG 21      | 7       | 36                                                                                        | 1.262.2100.11        | 1.262.2101.11         |
| PG 29      | 7       | 46                                                                                        | 1.262.2900.11        | 1.262.2901.11         |
| PG 36      | 8       | 60                                                                                        | 1.262.3600.11        | 1.262.3601.11         |
| PG 42      | 8       | 65                                                                                        | 1.262.4200.11        | 1.262.4201.11         |
| PG 48      | 8       | 70                                                                                        | 1.262.4800.11        | 1.262.4801.11         |
|            |         |                                                                                           |                      |                       |
| NPT 3/8"   | 7       | 24                                                                                        | 1.262.3800.70        | 1.262.3801.70         |
| NPT 1/2"   | 6       | 27                                                                                        | 1.262.1200.70        | 1.262.1201.70         |
| NPT 3/4"   | 7       | 32                                                                                        | 1.262.3400.70        | 1.262.3401.70         |
| NPT 1"     | 7       | 40                                                                                        | 1.262.1000.70        | 1.262.1001.70         |

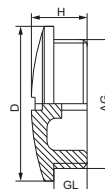
## Plug V-N-FS

Metr.



// Other colors on request

|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| Protection            | IP 54                             |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |
| Colors                | grey (RAL 7035), black (RAL 9005) |



| AG         | GL<br>mm | H<br>mm | D<br>mm | Number<br>PA<br>grey | Number<br>PA<br>black |
|------------|----------|---------|---------|----------------------|-----------------------|
| M 12 x 1,5 | 6        | 10      | 15      | 1.251.1200.50        | 1.251.1201.50         |
| M 16 x 1,5 | 7        | 11,5    | 20      | 1.251.1600.50        | 1.251.1601.50         |
| M 20 x 1,5 | 6        | 9,5     | 25      | 1.251.2000.50        | 1.251.2001.50         |
| M 25 x 1,5 | 11       | 15,5    | 30      | 1.251.2500.50        | 1.251.2501.50         |
| M 32 x 1,5 | 11       | 16      | 38      | 1.251.3200.50        | 1.251.3201.50         |
| M 40 x 1,5 | 13       | 18      | 46      | 1.251.4000.50        | 1.251.4001.50         |
| M 50 x 1,5 | 13       | 18,5    | 56      | 1.251.5000.50        | 1.251.5001.50         |
| M 63 x 1,5 | 15       | 19      | 69      | 1.251.6300.50        | 1.251.6301.50         |

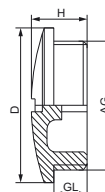
## Plug V-N-FS

PG



// Other colors on request

|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| Protection            | IP 54                             |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |
| Colors                | grey (RAL 7035), black (RAL 9005) |



| AG      | GL<br>mm | H<br>mm | D<br>mm | Number<br>PA<br>grey | Number<br>PA<br>black |
|---------|----------|---------|---------|----------------------|-----------------------|
| PG 7    | 6        | 8       | 15      | 1.251.0700.11        | 1.251.0701.11         |
| PG 9    | 6        | 9       | 19      | 1.251.0900.11        | 1.251.0901.11         |
| PG 11   | 6        | 9       | 22      | 1.251.1100.11        | 1.251.1101.11         |
| PG 13,5 | 6        | 9,5     | 25      | 1.251.1300.11        | 1.251.1301.11         |
| PG 16   | 6        | 9,5     | 27      | 1.251.1600.11        | 1.251.1601.11         |
| PG 21   | 8        | 11      | 33      | 1.251.2100.11        | 1.251.2101.11         |
| PG 29   | 8        | 12      | 44      | 1.251.2900.11        | 1.251.2901.11         |
| PG 36   | 10       | 15      | 55      | 1.251.3600.11        | 1.251.3601.11         |
| PG 42   | 10       | 16      | 62      | 1.251.4200.11        | 1.251.4201.11         |
| PG 48   | 12       | 16      | 69      | 1.251.4800.11        | 1.251.4801.11         |

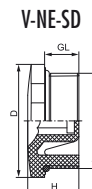
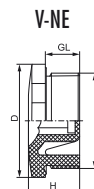
## Plug V-NE / V-NE-SD

Metr.



// Please find suitable O-Ring on page 90

|                       |                                                   |
|-----------------------|---------------------------------------------------|
| Material              | Polyamid, fiber reinforced                        |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)                   |
| O-Ring                | Buna-N                                            |
| Colors                | black (RAL 9005)                                  |
| Protection            | IP 54 (V-NE)<br>IP 68 – 10 bar / IP 69K (V-NE-SD) |



| AG         | GL<br>mm | H<br>mm | D<br>mm | mm | mm | Number<br>V-NE<br>without O-Ring | Number<br>V-NE-SD |
|------------|----------|---------|---------|----|----|----------------------------------|-------------------|
| M 12 x 1,5 | 8,5      | 13      | 16,5    | 15 | 6  | 1.255.1201.50                    | 1.256.1201.50     |
| M 16 x 1,5 | 8,5      | 13      | 20,5    | 19 | 8  | 1.255.1601.50                    | 1.256.1601.50     |
| M 20 x 1,5 | 9        | 14,5    | 25,5    | 24 | 8  | 1.255.2001.50                    | 1.256.2001.50     |
| M 25 x 1,5 | 10,5     | 16      | 30,5    | 28 | 8  | 1.255.2501.50                    | 1.256.2501.50     |
| M 32 x 1,5 | 11,5     | 17,5    | 38      | 36 | 8  | 1.255.3201.50                    | 1.256.3201.50     |
| M 40 x 1,5 | 11,5     | 18      | 48      | 46 | 8  | 1.255.4001.50                    | 1.256.4001.50     |
| M 50 x 1,5 | 13,5     | 20      | 60      | 55 | 8  | 1.255.5001.50                    | 1.256.5001.50     |
| M 63 x 1,5 | 14,5     | 21      | 75      | 70 | 8  | 1.255.6301.50                    | 1.256.6301.50     |

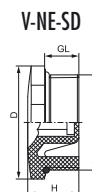
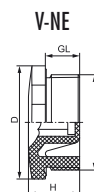
## Plug V-NE / V-NE-SD

PG



// Please find suitable O-Ring on page 90

|                       |                                                   |
|-----------------------|---------------------------------------------------|
| Material              | Polyamid, fiber reinforced                        |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)                   |
| O-Ring                | Buna-N                                            |
| Colors                | black (RAL 9005)                                  |
| Protection            | IP 54 (V-NE)<br>IP 68 – 10 bar / IP 69K (V-NE-SD) |



| AG      | GL<br>mm | H<br>mm | D<br>mm | mm | mm | Number<br>V-NE<br>without O-Ring | Number<br>V-NE-SD |
|---------|----------|---------|---------|----|----|----------------------------------|-------------------|
| PG 7    | 8,5      | 13      | 16,5    | 15 | 6  | 1.255.0701.11                    | 1.256.0701.11     |
| PG 9    | 8,5      | 13      | 20,5    | 19 | 8  | 1.255.0901.11                    | 1.256.0901.11     |
| PG 11   | 9        | 14,5    | 25,5    | 24 | 8  | 1.255.1101.11                    | 1.256.1101.11     |
| PG 13,5 | 9        | 14,5    | 25,5    | 24 | 8  | 1.255.1301.11                    | 1.256.1301.11     |
| PG 16   | 10,5     | 16      | 30,5    | 28 | 8  | 1.255.1601.11                    | 1.256.1601.11     |
| PG 21   | 11,5     | 17,5    | 38      | 36 | 8  | 1.255.2101.11                    | 1.256.2101.11     |
| PG 29   | 11,5     | 18      | 48      | 46 | 8  | 1.255.2901.11                    | 1.256.2901.11     |
| PG 36   | 13,5     | 20      | 60      | 55 | 8  | 1.255.3601.11                    | 1.256.3601.11     |
| PG 42   | 13,5     | 20      | 65      | 60 | 8  | 1.255.4201.11                    | 1.256.4201.11     |
| PG 48   | 14,5     | 21      | 75      | 70 | 8  | 1.255.4801.11                    | 1.256.4801.11     |

## DS

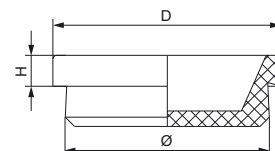
Metr.



// For through holes or threaded holes

|                       |                                 |
|-----------------------|---------------------------------|
| Material              | Elastomer                       |
| Protection            | IP 54                           |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F) |

RoHS



| Ø<br>mm | D<br>mm | H<br>mm | Number        |
|---------|---------|---------|---------------|
| 12      | 17      | 5       | 1.250.1201.50 |
| 16      | 20      | 5       | 1.250.1601.50 |
| 20      | 25      | 5       | 1.250.2001.50 |
| 25      | 30      | 5       | 1.250.2501.50 |
| 32      | 37      | 5       | 1.250.3201.50 |
| 40      | 45      | 5       | 1.250.4001.50 |
| 50      | 56      | 5       | 1.250.5001.50 |
| 63      | 70      | 5       | 1.250.6301.50 |

## WN

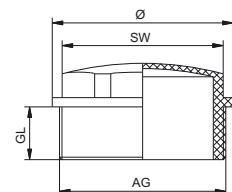
Metr.



|                       |                                 |
|-----------------------|---------------------------------|
| Material              | Polyethylene                    |
| Protection            | IP 54                           |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F) |



RoHS



| AG         | GL<br>mm | Ø<br>mm | mm | Number        |
|------------|----------|---------|----|---------------|
| M 16 x 1,5 | 9        | 19,8    | 15 | 1.282.1600.50 |
| M 20 x 1,5 | 12       | 24      | 19 | 1.282.2000.50 |
| M 25 x 1,5 | 12       | 29,5    | 24 | 1.282.2500.50 |
| M 32 x 1,5 | 14       | 37,5    | 30 | 1.282.3200.50 |
| M 40 x 1,5 | 14       | 45,8    | 37 | 1.282.4000.50 |
| M 50 x 1,5 | 18       | 55,8    | 46 | 1.282.5000.50 |
| M 63 x 1,5 | 20       | 68,8    | 56 | 1.282.6300.50 |

## Plug HSK-V

Metr., PG, NPT

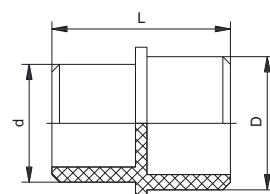


|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |
| Colors                | black (RAL 9005)                  |

// Fasteners for cable glands (HSK and METRICA series)



RoHS



| Fits the following sizes |         |                   | D<br>mm | d<br>mm | L<br>mm | Number        |
|--------------------------|---------|-------------------|---------|---------|---------|---------------|
| M 12 x 1,5               | PG 7    |                   | 6       | 4,5     | 15      | 1.280.0007.00 |
| M 16 x 1,5               | PG 9    | NPT 3/8"          | 7,5     | 5,5     | 17      | 1.280.0009.00 |
| M 16 x 1,5/11            | PG 11   |                   | 9,5     | 6,5     | 19      | 1.280.0011.00 |
| M 20 x 1,5               | PG 13,5 | NPT 1/2"          | 11,5    | 8,5     | 19      | 1.280.0013.00 |
| M 20 x 1,5/16            | PG 16   | NPT 1/2" (16)     | 13,5    | 11,5    | 19,5    | 1.280.0016.00 |
| M 25 x 1,5               | PG 21   | NPT 3/4"          | 17,5    | 15,5    | 23,5    | 1.280.0021.00 |
| M 32 x 1,5               | PG 29   | NPT 1" NPT 1 1/4" | 24      | 19      | 26      | 1.280.0029.00 |
| M 40 x 1,5               | PG 36   | NPT 1 1/2"        | 31      | 25      | 28      | 1.280.0036.00 |
| M 50 x 1,5               | PG 42   |                   | 37      | 30      | 28      | 1.280.0042.00 |
| M 63 x 1,5               | PG 48   |                   | 43      | 34      | 28      | 1.280.0048.00 |

## Adapter R-FS

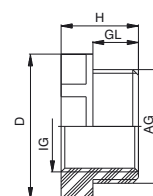
Metr., PG



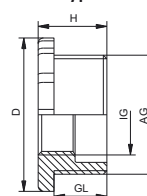
|                       |                                                                                                     |
|-----------------------|-----------------------------------------------------------------------------------------------------|
| Material              | Styrene Butadiene / Polyamide                                                                       |
| Operating Temperature | -20 °C – 70 °C (-4 °F – 156 °F) (Styrene Butadiene)<br>-40 °C – 80 °C (-40 °F – 176 °F) (Polyamide) |
| Colors                | grey (RAL 7035)                                                                                     |



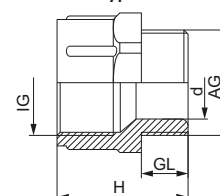
Type A



Type B



Type C



| AG                                     | IG         | Type | GL<br>mm | H<br>mm | D<br>mm | d<br>mm | <br>mm | Number<br>SB  | Number<br>PA  |
|----------------------------------------|------------|------|----------|---------|---------|---------|-------------------------------------------------------------------------------------------|---------------|---------------|
| M 16 x 1,5                             | M 12 x 1,5 | A    | 9        | 16      | 24      |         | 22                                                                                        |               | 1.272.1612.50 |
| M 20 x 1,5                             | M 16 x 1,5 | A    | 9        | 16      | 27      |         | 24                                                                                        |               | 1.272.2016.50 |
| M 25 x 1,5                             | M 20 x 1,5 | A    | 10       | 17      | 32      |         | 29                                                                                        |               | 1.272.2520.50 |
| M 32 x 1,5                             | M 25 x 1,5 | A    | 12       | 19      | 40      |         | 36                                                                                        |               | 1.272.3225.50 |
| M 40 x 1,5                             | M 32 x 1,5 | A    | 12       | 19      | 51      |         | 46                                                                                        |               | 1.272.4032.50 |
| M 50 x 1,5                             | M 40 x 1,5 | A    | 14       | 21      | 61      |         | 55                                                                                        |               | 1.272.5040.50 |
| M 63 x 1,5                             | M 50 x 1,5 | A    | 15       | 22      | 75      |         | 65                                                                                        |               | 1.272.6350.50 |
| PG 13,5                                | PG 9       | B    | 8        | 12      | 27      |         |                                                                                           | 1.271.1309.10 | 1.272.1309.11 |
| PG 16                                  | PG 9       | B    | 10       | 13      | 29      |         |                                                                                           | 1.271.1609.10 | 1.272.1609.11 |
| PG 16                                  | PG 11      | B    | 10       | 13      | 29      |         |                                                                                           | 1.271.1611.10 | 1.272.1611.11 |
| PG 21                                  | PG 13,5    | B    | 11       | 13,5    | 36      |         |                                                                                           | 1.271.2113.10 | 1.272.2113.11 |
| PG 21                                  | PG 16      | B    | 11       | 13,5    | 36      |         |                                                                                           | 1.271.2116.10 | 1.272.2116.11 |
| PG 29                                  | PG 21      | B    | 11       | 13,5    | 46      |         |                                                                                           | 1.271.2921.10 | 1.272.2921.11 |
| PG 36                                  | PG 29      | B    | 11       | 15      | 58      |         |                                                                                           | 1.271.3629.10 | 1.272.3629.11 |
| <b>Reducing intermediate connector</b> |            |      |          |         |         |         |                                                                                           |               |               |
| PG 9                                   | PG 7       | C    | 8        | 14      |         | 19      | 15                                                                                        | 1.235.0907.10 | 1.236.0907.11 |
| PG 11                                  | PG 9       | C    | 8        | 18      |         | 22,5    | 19                                                                                        | 1.235.1109.10 | 1.236.1109.11 |
| PG 13,5                                | PG 11      | C    | 9        | 21      |         | 25,5    | 22                                                                                        | 1.235.1311.10 | 1.236.1311.11 |
| PG 16                                  | PG 13,5    | C    | 10       | 25      |         | 28,5    | 24                                                                                        | 1.235.1613.10 | 1.236.1613.11 |

## Adapter R-M-PA

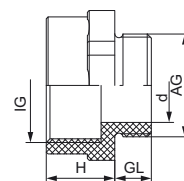
Metr., PG



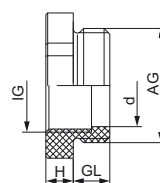
|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |
| Colors                | black (RAL 9005)                  |



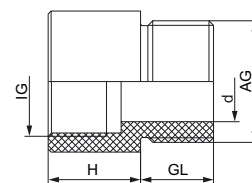
Type A



Type B



Type C



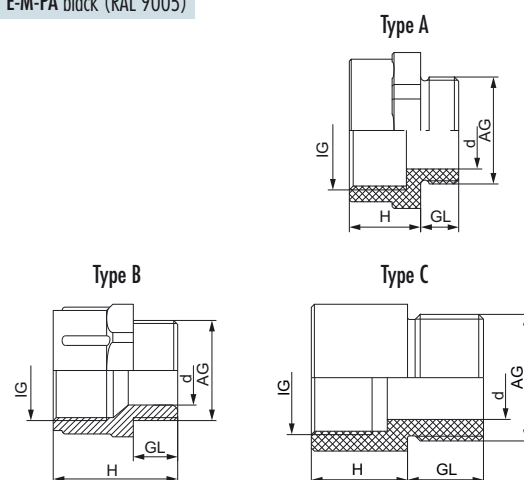
| AG         | IG         | Type | GL<br>mm | H<br>mm | d<br>mm | mm | Number        |
|------------|------------|------|----------|---------|---------|----|---------------|
| M 16 x 1,5 | M 12 x 1,5 | B    | 8        | 6       | 10      | 20 | 1.273.1612.50 |
| M 20 x 1,5 | M 16 x 1,5 | B    | 8        | 6       | 13,5    | 25 | 1.273.2016.50 |
| M 25 x 1,5 | M 20 x 1,5 | B    | 8        | 6       | 18      | 29 | 1.273.2520.50 |
| M 32 x 1,5 | M 25 x 1,5 | B    | 10       | 6       | 23      | 36 | 1.273.3225.50 |
| M 40 x 1,5 | M 32 x 1,5 | C    | 15       | 5       | 30      |    | 1.273.4032.50 |
| M 50 x 1,5 | M 40 x 1,5 | C    | 15       | 5       | 38      |    | 1.273.5040.50 |
| M 63 x 1,5 | M 50 x 1,5 | C    | 15       | 5       | 48      |    | 1.273.6350.50 |
| M 25 x 1,5 | PG 13,5    | B    | 8        | 6       | 18      | 29 | 1.273.2513.50 |
| M 25 x 1,5 | PG 16      | A    | 8        | 14      | 18      | 29 | 1.273.2516.50 |
| M 32 x 1,5 | PG 21      | A    | 10       | 15      | 25      | 36 | 1.273.3221.50 |
| M 40 x 1,5 | PG 29      | A    | 10       | 15      | 33      | 45 | 1.273.4029.50 |
| M 50 x 1,5 | PG 36      | A    | 12       | 17      | 43      | 55 | 1.273.5036.50 |
| M 63 x 1,5 | PG 42      | C    | 15       | 5       | 52      |    | 1.273.6342.50 |
| PG 9       | M 12 x 1,5 | C    | 15       | 19      | 8,5     |    | 1.273.0912.11 |
| PG 11      | M 16 x 1,5 | C    | 15       | 19      | 11,5    |    | 1.273.1116.11 |
| PG 13,5    | M 16 x 1,5 | B    | 8        | 6       | 14      | 25 | 1.273.1316.11 |
| PG 16      | M 20 x 1,5 | A    | 8        | 13      | 16      | 27 | 1.273.1620.11 |
| PG 21      | M 25 x 1,5 | C    | 15       | 19      | 20,5    |    | 1.273.2125.11 |
| PG 29      | M 32 x 1,5 | C    | 15       | 19      | 28      |    | 1.273.2932.11 |
| PG 36      | M 40 x 1,5 | C    | 15       | 5       | 38      |    | 1.273.3640.11 |
| PG 42      | M 40 x 1,5 | C    | 15       | 5       | 38      |    | 1.273.4240.11 |
| PG 48      | M 50 x 1,5 | C    | 15       | 5       | 38      |    | 1.273.4850.11 |

## Adapter E-M-PA, K-FS

Metr., PG



|                       |                                                        |
|-----------------------|--------------------------------------------------------|
| Material              | Polyamide (Type A / Type B),<br>Polypropylene (Type C) |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)                        |
| Colors                | K-FS grey (RAL 7035),<br>E-M-PA black (RAL 9005)       |



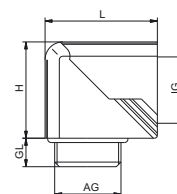
| AG         | IG         | Type | GL<br>mm | H<br>mm | d<br>mm | mm | Number        |
|------------|------------|------|----------|---------|---------|----|---------------|
| M 12 x 1,5 | M 16 x 1,5 | A    | 8        | 12      | 6,5     | 21 | 1.239.1216.50 |
| M 16 x 1,5 | M 20 x 1,5 | A    | 8        | 13      | 9       | 25 | 1.239.1620.50 |
| M 20 x 1,5 | M 25 x 1,5 | A    | 8        | 15      | 14      | 30 | 1.239.2025.50 |
| M 25 x 1,5 | M 32 x 1,5 | C    | 15       | 15      | 16,5    |    | 1.239.2532.50 |
| M 32 x 1,5 | M 40 x 1,5 | C    | 15       | 19,5    | 23      |    | 1.239.3240.50 |
| M 40 x 1,5 | M 50 x 1,5 | C    | 15       | 19,5    | 30      |    | 1.239.4050.50 |
| M 50 x 1,5 | M 63 x 1,5 | C    | 15       | 20      | 39      |    | 1.239.5063.50 |
| M 12 x 1,5 | PG 7       | A    | 8        | 12      | 6,5     | 17 | 1.239.1207.50 |
| M 16 x 1,5 | PG 9       | C    | 1        | 19      | 8,5     |    | 1.239.1609.50 |
| M 20 x 1,5 | PG 13,5    | A    | 8        | 13      | 14      | 25 | 1.239.2013.50 |
| M 63 x 1,5 | PG 48      | C    | 15       | 20      | 51      |    | 1.239.6348.50 |
| PG 7       | M 12 x 1,5 | C    | 15       | 19      | 6       |    | 1.239.0712.11 |
| PG 9       | M 16 x 1,5 | A    | 8        | 12      | 9       | 21 | 1.239.0916.11 |
| PG 11      | M 20 x 1,5 | C    | 15       | 19      | 11,5    |    | 1.239.1120.11 |
| PG 13,5    | M 20 x 1,5 | A    | 8        | 13      | 14      | 25 | 1.239.1320.11 |
| PG 16      | M 25 x 1,5 | A    | 8        | 15      | 16      | 30 | 1.239.1625.11 |
| PG 21      | M 32 x 1,5 | A    | 8        | 15      | 21      | 37 | 1.239.2132.11 |
| PG 29      | M 40 x 1,5 | A    | 10       | 17      | 30      | 45 | 1.239.2940.11 |
| PG 36      | M 50 x 1,5 | C    | 15       | 19,5    | 37      |    | 1.239.3650.11 |
| PG 42      | M 50 x 1,5 | C    | 15       | 19,5    | 43      |    | 1.239.4250.11 |
| PG 48      | M 63 x 1,5 | C    | 15       | 20      | 48      |    | 1.239.4863.11 |
| PG 11      | PG 13,5    | B    | 8        | 15      | 12,5    | 24 | 1.233.1113.11 |
| PG 13,5    | PG 16      | B    | 9        | 16      | 15      | 27 | 1.233.1316.11 |
| PG 16      | PG 21      | B    | 10       | 19      | 16      | 32 | 1.233.1621.11 |
| PG 21      | PG 29      | B    | 11       | 21      | 22,5    | 42 | 1.233.2129.11 |

## 90° Snap Elbow

Metr., PG, NPT



|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| O-Ring                | Buna-N                            |
| Protection            | IP 68 (NEMA 6)                    |
| Operating Temperature | -20 °C – 80 °C (-4 °F – 176 °F)   |
| Colors                | grey (RAL 7035), black (RAL 9005) |



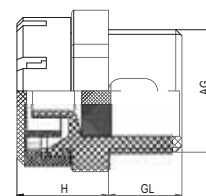
| AG         | IG         | GL<br>mm | H<br>mm | L<br>mm | R<br>mm | mm | Number<br>grey | Number<br>black |
|------------|------------|----------|---------|---------|---------|----|----------------|-----------------|
| M 16 x 1,5 | M 16 x 1,5 | 8        | 23      | 28,5    | 5       | 19 | 1.316.1600.50  | 1.316.1601.50   |
| M 20 x 1,5 | M 20 x 1,5 | 9        | 30,5    | 35      | 7       | 24 | 1.316.2000.50  | 1.316.2001.50   |
| M 25 x 1,5 | M 25 x 1,5 | 11       | 40      | 49      | 10      | 33 | 1.316.2500.50  | 1.316.2501.50   |
| PG 9       | M 16 x 1,5 | 8        | 23      | 28,5    | 5       | 19 | 1.316.0900.11  | 1.316.0901.11   |
| PG 13,5    | M 20 x 1,5 | 9        | 30,5    | 35      | 7       | 24 | 1.316.1300.11  | 1.316.1301.11   |
| PG 21      | M 25 x 1,5 | 11       | 40      | 49      | 10      | 33 | 1.316.2100.11  | 1.316.2101.11   |
| M 16 x 1,5 | PG 9       | 8        | 23      | 28,5    | 5       | 19 | 1.315.1600.50  | 1.315.1601.50   |
| M 20 x 1,5 | PG 13,5    | 9        | 30,5    | 35      | 7       | 24 | 1.315.2000.50  | 1.315.2001.50   |
| M 25 x 1,5 | PG 21      | 11       | 40      | 49      | 10      | 33 | 1.315.2500.50  | 1.315.2501.50   |
| M 32 x 1,5 | PG 29      | 11       | 51,5    | 60      | 14      | 42 | 1.315.3200.50  | 1.315.3201.50   |
| PG 9       | PG 9       | 8        | 23      | 28,5    | 5       | 19 | 1.315.0900.11  | 1.315.0901.11   |
| PG 11      | PG 11      | 8        | 27      | 31,5    | 6       | 22 | 1.315.1100.11  | 1.315.1101.11   |
| PG 13,5    | PG 13,5    | 9        | 30,5    | 35      | 7       | 24 | 1.315.1300.11  | 1.315.1301.11   |
| PG 16      | PG 16      | 10       | 32,5    | 37,5    | 8       | 27 | 1.315.1600.11  | 1.315.1601.11   |
| PG 21      | PG 21      | 11       | 40      | 49      | 10      | 33 | 1.315.2100.11  | 1.315.2101.11   |
| PG 29      | PG 29      | 11       | 51,5    | 60      | 14      | 42 | 1.315.2900.11  | 1.315.2901.11   |
| NPT 3/8"   | PG 9       | 15       | 23      | 28,5    | 5       | 19 | 1.315.3800.70  | 1.315.3801.70   |
| NPT 1/2"   | PG 13,5    | 13       | 30,5    | 35      | 7       | 24 | 1.315.1200.70  | 1.315.1201.70   |
| NPT 3/4"   | PG 21      | 13       | 40      | 49      | 10      | 33 | 1.315.3400.70  | 1.315.3401.70   |
| NPT 1"     | PG 29      | 19       | 51,5    | 60      | 14      | 42 | 1.315.1000.70  | 1.315.1001.70   |

## KS

Metr.



|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| Protection            | IP 54                             |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |
| Colors                | grey (RAL 7035), black (RAL 9005) |



| AG         | GL<br>mm | H<br>mm | <br>mm | Number<br>grey | Number<br>black |
|------------|----------|---------|-----------------------------------------------------------------------------------------|----------------|-----------------|
| M 25 x 1,5 | 15       | 21,5    | 30                                                                                      | 1.213.2500.50  | 1.213.2501.50   |
|            |          |         |                                                                                         |                |                 |
|            |          |         |                                                                                         |                |                 |
|            |          |         |                                                                                         |                |                 |
|            |          |         |                                                                                         |                |                 |
|            |          |         |                                                                                         |                |                 |
|            |          |         |                                                                                         |                |                 |
|            |          |         |                                                                                         |                |                 |

## GM-KS

Metr.



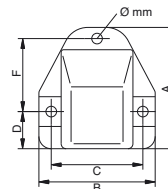
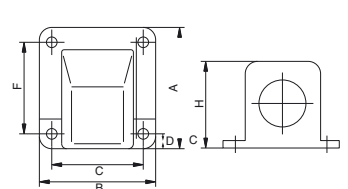
|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |
| Colors                | grey (RAL 7035), black (RAL 9005) |



| AG         | H<br>mm | <br>mm | Number<br>grey | Number<br>black |
|------------|---------|-------------------------------------------------------------------------------------------|----------------|-----------------|
| M 25 x 1,5 | 9       | 30                                                                                        | 1.263.2500.50  | 1.263.2501.50   |
|            |         |                                                                                           |                |                 |
|            |         |                                                                                           |                |                 |
|            |         |                                                                                           |                |                 |
|            |         |                                                                                           |                |                 |
|            |         |                                                                                           |                |                 |
|            |         |                                                                                           |                |                 |
|            |         |                                                                                           |                |                 |



|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Polyamide                         |
| Seal                  | Buna-N                            |
| Protection            | IP 54                             |
| Operating Temperature | -40 °C – 110 °C (-40 °F – 230 °F) |
| Colors                | grey (RAL 7011), black (RAL 9005) |


**Flange 1**

**Flange 2**


| Size       | Flange | Ø mm | A mm | B mm | C mm | D mm | F mm | H mm | Number grey   | Number black  |
|------------|--------|------|------|------|------|------|------|------|---------------|---------------|
| M 16 x 1,5 | 1      | 4,3  | 49   | 47   | 37   | 15,5 | 29   | 35   | 1.312.1600.50 | 1.312.1601.50 |
| M 20 x 1,5 | 1      | 4,5  | 49   | 47   | 37   | 15,5 | 29   | 35   | 1.312.2000.50 | 1.312.2001.50 |
| M 25 x 1,5 | 1      | 6,0  | 69   | 65   | 51,5 | 21,5 | 41,5 | 44   | 1.312.2500.50 | 1.312.2501.50 |
| M 32 x 1,5 | 2      | 6,5  | 90   | 78   | 64,5 | 9,5  | 64,5 | 55   | 1.312.3200.50 | 1.312.3201.50 |
| M 40 x 1,5 | 2      | 6,5  | 99   | 94   | 79,5 | 10,5 | 79,5 | 66   | 1.312.4000.50 | 1.312.4001.50 |
| M 50 x 1,5 | 2      | 6,5  | 116  | 101  | 87,5 | 12,5 | 87,5 | 76   | 1.312.5000.50 | 1.312.5001.50 |
| PG 11      | 1      | 4,3  | 49   | 47   | 37   | 15,5 | 29   | 35   | 1.312.1100.11 | 1.312.1101.11 |
| PG 16      | 1      | 4,3  | 49   | 47   | 37   | 15,5 | 29   | 35   | 1.312.1600.11 | 1.312.1601.11 |
| PG 21      | 1      | 6,0  | 69   | 65   | 51,5 | 21,5 | 41,5 | 44   | 1.312.2100.11 | 1.312.2101.11 |
| PG 29      | 2      | 6,5  | 90   | 78   | 64,5 | 9,5  | 64,5 | 55   | 1.312.2900.11 | 1.312.2901.11 |
| PG 36      | 2      | 6,5  | 99   | 94   | 79,5 | 10,5 | 79,5 | 66   | 1.312.3600.11 | 1.312.3601.11 |
| PG 48      | 2      | 6,5  | 116  | 101  | 87,5 | 12,5 | 87,5 | 76   | 1.312.4800.11 | 1.312.4801.11 |

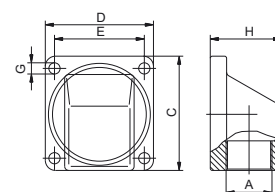
## PG



|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Polyamide                        |
| O-Ring                | Buna-N                           |
| Protection            | IP 65                            |
| Operating Temperature | -20 °C – 95 °C (- 4 °F – 203 °F) |
| Colors                | grey (RAL 7011)                  |

RoHS

// Metric threads with O-Ring thread seal available



| A       | C<br>mm | D<br>mm | E<br>mm | G<br>mm | H<br>mm | Number        |
|---------|---------|---------|---------|---------|---------|---------------|
| PG 9    | 50      | 45      | 37      | 4,3     | 29      | 1.306.0900.14 |
| PG 11   | 50      | 45      | 37      | 4,3     | 29      | 1.306.1100.14 |
| PG 13,5 | 56      | 53      | 44      | 5,5     | 35      | 1.306.1300.14 |
| PG 16   | 56      | 53      | 44      | 5,5     | 35      | 1.306.1600.14 |
| PG 21   | 68      | 68      | 55,5    | 5,5     | 43      | 1.306.2100.14 |
| PG 29   | 74      | 70      | 60      | 5,5     | 52      | 1.306.2900.14 |
| PG 36   | 93      | 88      | 72      | 6,5     | 68      | 1.306.3600.14 |

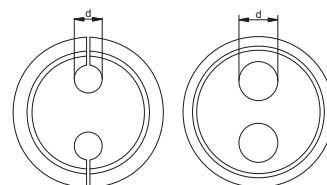


|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Elastomer                         |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |

// Installation instructions see page 156  
 // The shown inserts are samples, more inserts upon request

! The inserts are exclusively capable  
 for the glands of the HSK series

Slit version



| Fits the following sizes |                               |                     | Number of holes x d | Number        | Number of holes x d | Number        | Number without holes |
|--------------------------|-------------------------------|---------------------|---------------------|---------------|---------------------|---------------|----------------------|
| M 12 x 1,5               | PG 7 / KR PG 9                |                     | 1,5*                | 1.089.0712.19 |                     |               | 1.089.0799.19        |
| M 16 x 1,5               | PG 9 / KE PG 7 / KR PG 11     | NPT 3/8"            | 4 x 1,4             | 1.089.0900.19 | 2 x 3               | 1.089.0901.19 | 1.089.0999.19        |
|                          |                               |                     | 5 x 1,6             | 1.089.0902.19 | 10 x 1,4            | 1.089.0904.19 |                      |
|                          |                               |                     | 4 x 2,3             | 1.089.0908.19 | 1 x 2,2*            | 1.089.0916.19 |                      |
| M 16 x 1,5 / 11          | PG 11 / KE PG 9 / KR PG 13,5  |                     | 2 x 3               | 1.089.1100.19 | 3 x 3               | 1.089.1101.19 | 1.089.1199.19        |
|                          |                               |                     | 2 x 4               | 1.089.1102.19 | 3 x 1,5             | 1.089.1103.19 |                      |
| M 20 x 1,5               | PG 13,5 / KE PG 11 / KR PG 16 | NPT 1/2"            | 3 x 2               | 1.089.1300.19 | 6 x 3               | 1.089.1301.19 | 1.089.1399.19        |
|                          |                               |                     | 3 x 4               | 1.089.1302.19 | 2 x 5               | 1.089.1303.19 |                      |
|                          |                               |                     | 3 x 3               | 1.089.1304.19 | 1 x 5*              | 1.089.1312.19 |                      |
| M 20 x 1,5 / 16          | PG 16 / KE PG 13,5 / KR PG 21 | NPT 1/2" (16)       | 4 x 4               | 1.089.1602.19 | 5 x 4               | 1.089.1603.19 | 1.089.1699.19        |
|                          |                               |                     | 6 x 4               | 1.089.1604.19 | 2 x 6               | 1.089.1605.19 |                      |
|                          |                               |                     | 6 x 3               | 1.089.1607.19 | 3 x 4               | 1.089.1601.19 |                      |
|                          |                               |                     | 4 x 5               | 1.089.1611.19 | 2 x 4,5             | 1.089.1614.19 |                      |
| M 25 x 1,5               | PG 21 / KE PG 16              | NPT 3/4"            | 4 x 6               | 1.089.2100.19 | 3 x 7               | 1.089.2101.19 | 1.089.2199.19        |
|                          |                               |                     | 2 x 8               | 1.089.2102.19 | 4 x 5               | 1.089.2103.19 |                      |
|                          |                               |                     | 3 x 5,2             | 1.089.2106.19 | 1 x 5,8*            | 1.089.2113.19 |                      |
| M 32 x 1,5               | PG 29                         | NPT 1" / NPT 1 1/4" | 6 x 6,5             | 1.089.2900.19 | 4 x 9               | 1.089.2901.19 | 1.089.2999.19        |
|                          |                               |                     | 2 x 6               | 1.089.2905.19 |                     |               |                      |
| M 40 x 1,5               | PG 36                         | NPT 1 1/2"          | 5 x 9               | 1.089.3600.19 | 7 x 9               | 1.089.3601.19 | 1.089.3699.19        |
|                          |                               |                     | 6 x 8               | 1.089.3602.19 | 2 x 15              | 1.089.3603.19 |                      |
| M 50 x 1,5               | PG 42                         |                     |                     |               |                     |               | 1.089.4299.19        |
| M 63 x 1,5               | PG 48                         |                     | 8 x 10              | 1.089.4800.19 | 6 x 12              | 1.089.4801.19 | 1.089.4899.19        |

\* Slit version to accommodate terminated cable

## HSK-FLAKA

Metr., PG, NPT



**Material** Elastomer

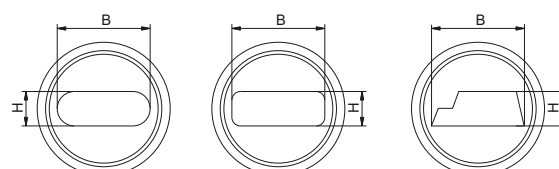
**Operating Temperature** -40 °C – 100 °C (-40 °F – 212 °F)

RoHS

- // Installation instructions see page 156
- // The shown inserts are samples, more inserts upon request

! The inserts are exclusively capable  
• for the glands of the HSK series

ASI-BUS



| Fits the following sizes |                               |                 | w x h<br>mm          | Number        | w x h<br>mm | Number        |
|--------------------------|-------------------------------|-----------------|----------------------|---------------|-------------|---------------|
| M 20 x 1,5               | PG 13,5                       | NPT 1/2"        | (ASI-BUS) 10,4 x 4,2 | 1.091.1300.19 |             |               |
| M 20 x 1,5/16            | PG 16 / KE PG 13,5 / KR PG 21 | NPT 1/2" (16)   | 14 x 6               | 1.091.1600.19 | 11,5 x 5    | 1.091.1601.19 |
| M 20 x 1,5/16            | PG 16 / KE PG 13,5 / KR PG 21 | NPT 1/2" (16)   | 12 x 7               | 1.091.1602.19 |             |               |
| M 25 x 1,5               | PG 21 / KE PG 16              | NPT 3/4"        | 14 x 6               | 1.091.2100.19 | 14 x 7      | 1.091.2101.19 |
| M 32 x 1,5               | PG 29                         | NPT 1" / 1 1/4" | 22 x 8               | 1.091.2900.19 |             |               |
| M 40 x 1,5               | PG 36                         | NPT 1 1/2"      | 28,5 x 10            | 1.091.3600.19 | 29 x 5,5    | 1.091.3601.19 |
| M 50 x 1,5               | PG 42                         |                 | 33,5 x 11,5          | 1.091.4200.19 |             |               |
| M 63 x 1,5               | PG 48                         |                 | 38 x 12              | 1.091.4800.19 |             |               |

## O-Ring

Metr., PG, NPT

RoHS



### O-Ring Buna-N

|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Buna-N                            |
| Operating Temperature | -30 °C – 120 °C (-22 °F – 248 °F) |

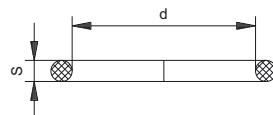
### O-Ring FKM

|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | FKM                               |
| Operating Temperature | -40 °C – 200 °C (-40 °F – 392 °F) |

### O-Ring VMQ

|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | VMQ (Silicone)                    |
| Operating Temperature | -60 °C – 250 °C (-76 °F – 482 °F) |

// O-Ring for HSK-K



| Fits the following sizes | d mm | S mm | Number Buna-N | Number FKM    | Number VMQ    |
|--------------------------|------|------|---------------|---------------|---------------|
| M 12 x 1,5               | 10   | 1,5  | 1.321.1200.57 | 1.321.1200.58 | 1.321.1200.59 |
| M 16 x 1,5               | 12   | 1,5  | 1.321.1600.57 | 1.321.1600.58 | 1.321.1600.59 |
| M 20 x 1,5               | 17   | 1,8  | 1.321.2000.57 | 1.321.2000.58 | 1.321.2000.59 |
| M 25 x 1,5               | 22   | 2    | 1.321.2500.57 | 1.321.2500.58 | 1.321.2500.59 |
| M 32 x 1,5               | 29   | 2    | 1.321.3200.57 | 1.321.3200.58 | 1.321.3200.59 |
| M 40 x 1,5               | 35   | 2    | 1.321.4000.57 | 1.321.4000.58 | 1.321.4000.59 |
| M 50 x 1,5               | 43   | 2    | 1.321.5000.57 | 1.321.5000.58 | 1.321.5000.59 |
| M 63 x 1,5               | 55   | 2    | 1.321.6300.57 | 1.321.6300.58 | 1.321.6300.59 |
|                          |      |      |               |               |               |
| PG 7                     | 10   | 1,5  | 1.321.0700.17 | 1.321.0700.21 | 1.321.0700.22 |
| PG 9                     | 12   | 1,5  | 1.321.0900.17 | 1.321.0900.21 | 1.321.0900.22 |
| PG 11                    | 16   | 1,5  | 1.321.1100.17 | 1.321.1100.21 | 1.321.1100.22 |
| PG 13,5                  | 17   | 1,8  | 1.321.1300.17 | 1.321.1300.21 | 1.321.1300.22 |
| PG 16                    | 18   | 1,5  | 1.321.1600.17 | 1.321.1600.21 | 1.321.1600.22 |
| PG 21                    | 26   | 2    | 1.321.2100.17 | 1.321.2100.21 | 1.321.2100.22 |
| PG 29                    | 33   | 2    | 1.321.2900.17 | 1.321.2900.21 | 1.321.2900.22 |
| PG 36                    | 43   | 2    | 1.321.3600.17 | 1.321.3600.21 | 1.321.3600.22 |
| PG 42                    | 50   | 2    | 1.321.4200.17 | 1.321.4200.21 | 1.321.4200.22 |
| PG 48                    | 55   | 2    | 1.321.4800.17 | 1.321.4800.21 | 1.321.4800.22 |
|                          |      |      |               |               |               |
| NPT 3/8"                 | 13   | 2    | 1.321.3800.77 | 1.321.3800.78 | 1.321.3800.79 |
| NPT 1/2"                 | 19   | 1,8  | 1.321.1200.77 | 1.321.1200.78 | 1.321.1200.79 |
| NPT 3/4"                 | 22   | 2,5  | 1.321.3400.77 | 1.321.3400.78 | 1.321.3400.79 |
| NPT 1"                   | 29   | 2    | 1.321.1000.77 | 1.321.1000.78 | 1.321.1000.79 |
| NPT 1 1/4"               | 38   | 2,5  | 1.321.5400.77 | 1.321.5400.78 | 1.321.5400.79 |
| NPT 1 1/2"               | 45   | 2,5  | 1.321.6400.77 | 1.321.6400.78 | 1.321.6400.79 |

## Thread Seal Ring

Metr.



// GFK thread seal see page 113

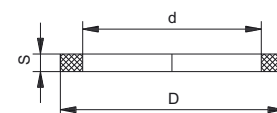
### Thread Seal Ring PE

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Polyethylene                     |
| Operating Temperature | -30 °C – 70 °C (-22 °F – 158 °F) |

### Thread Seal Ring HD

|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Fiber-reinforced plastic          |
| Operating Temperature | -40 °C – 300 °C (-40 °F – 572 °F) |

RoHS



| Fits the following sizes | d mm | D mm | S mm | Number Polyethylene | Number Fiber-reinforced plastic |
|--------------------------|------|------|------|---------------------|---------------------------------|
| M 12 x 1,5               | 12   | 16   | 2    | 1.325.1200.59       | 1.325.1200.50                   |
| M 16 x 1,5               | 16   | 20   | 2    | 1.325.1600.59       | 1.325.1600.50                   |
| M 20 x 1,5               | 20   | 25   | 2    | 1.325.2000.59       | 1.325.2000.50                   |
| M 25 x 1,5               | 25   | 31   | 2    | 1.325.2500.59       | 1.325.2500.50                   |
| M 32 x 1,5               | 32   | 38   | 2    | 1.325.3200.59       | 1.325.3200.50                   |
| M 40 x 1,5               | 40   | 52,7 | 2    | 1.325.4000.59       | 1.325.4000.50                   |
| M 50 x 1,5               | 50   | 58   | 2    | 1.325.5000.59       | 1.325.5000.50                   |
| M 63 x 1,5               | 63   | 72   | 2    | 1.325.6300.59       | 1.325.6300.50                   |

## Thread Seal Ring

PG



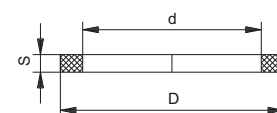
### Thread Seal Ring PE

|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Polyethylene                     |
| Operating Temperature | -30 °C – 70 °C (-22 °F – 158 °F) |

### Thread Seal Ring HD

|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Fiber-reinforced plastic          |
| Operating Temperature | -40 °C – 300 °C (-40 °F – 572 °F) |

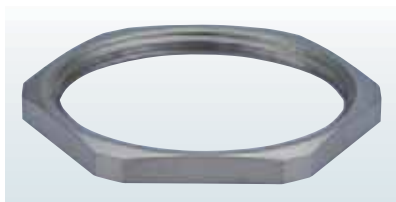
RoHS



| Fits the following sizes | d mm | D mm | S Polyethylene mm | S Fiber-reinforced plastic mm | Number Polyethylene | Number Fiber-reinforced plastic |
|--------------------------|------|------|-------------------|-------------------------------|---------------------|---------------------------------|
| PG 7                     | 12,5 | 16,5 | 2                 | 1,5                           | 1.325.0700.19       | 1.325.0700.20                   |
| PG 9                     | 15,2 | 19   | 2                 | 1,5                           | 1.325.0900.19       | 1.325.0900.20                   |
| PG 11                    | 18,6 | 22,5 | 2                 | 1,5                           | 1.325.1100.19       | 1.325.1100.20                   |
| PG 13,5                  | 20,4 | 25   | 2                 | 1,5                           | 1.325.1300.19       | 1.325.1300.20                   |
| PG 16                    | 22,5 | 27   | 2                 | 1,5                           | 1.325.1600.19       | 1.325.1600.20                   |
| PG 21                    | 28,3 | 33,5 | 2                 | 2                             | 1.325.2100.19       | 1.325.2100.20                   |
| PG 29                    | 37   | 43,5 | 2                 | 2                             | 1.325.2900.19       | 1.325.2900.20                   |
| PG 36                    | 47   | 55   | 2                 | 2                             | 1.325.3600.19       | 1.325.3600.20                   |
| PG 42                    | 54   | 63   | 2                 | 2                             | 1.325.4200.19       | 1.325.4200.20                   |
| PG 48                    | 59,3 | 69   | 2                 | 2                             | 1.325.4800.19       | 1.325.4800.20                   |

## Locknut GM-Ms

Metr., PG, G

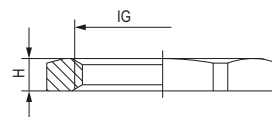


Material

Nickel plated brass



RoHS



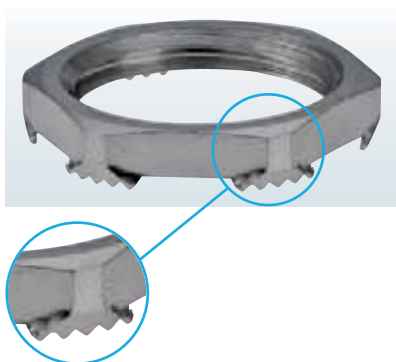
| IG         | H<br>mm | <br>mm | Number        |
|------------|---------|-----------------------------------------------------------------------------------------|---------------|
| M 12 x 1,5 | 2,8     | 15                                                                                      | 1.161.1200.50 |
| M 16 x 1,5 | 2,8     | 19                                                                                      | 1.161.1600.50 |
| M 20 x 1,5 | 3,0     | 23                                                                                      | 1.161.2000.50 |
| M 25 x 1,5 | 3,5     | 29                                                                                      | 1.161.2500.50 |
| M 32 x 1,5 | 4,0     | 36                                                                                      | 1.161.3200.50 |
| M 40 x 1,5 | 4,5     | 45                                                                                      | 1.161.4000.50 |
| M 50 x 1,5 | 5,5     | 55                                                                                      | 1.161.5000.50 |
| M 63 x 1,5 | 6,0     | 70                                                                                      | 1.161.6300.50 |
| M 75 x 1,5 | 8,0     | 85                                                                                      | 1.161.7500.50 |
| M 80 x 2   | 8,0     | 90                                                                                      | 1.161.8000.50 |
| M 90 x 2   | 8,0     | 100                                                                                     | 1.161.9000.50 |

| IG        | H<br>mm | <br>mm | Number        |
|-----------|---------|-----------------------------------------------------------------------------------------|---------------|
| M 100 x 2 | 11      | 115                                                                                     | 1.161.1000.50 |
| M 110 x 2 | 11      | 125                                                                                     | 1.161.1100.50 |
| PG 7      | 2,8     | 15                                                                                      | 1.161.0700.01 |
| PG 9      | 2,8     | 18                                                                                      | 1.161.0900.01 |
| PG 11     | 3,0     | 21                                                                                      | 1.161.1100.01 |
| PG 13,5   | 3,0     | 23                                                                                      | 1.161.1300.01 |
| PG 16     | 3,0     | 26                                                                                      | 1.161.1600.01 |
| PG 21     | 3,5     | 32                                                                                      | 1.161.2100.01 |
| PG 29     | 4,0     | 41                                                                                      | 1.161.2900.01 |
| PG 36     | 5,0     | 51                                                                                      | 1.161.3600.01 |

| IG       | H<br>mm | <br>mm | Number        |
|----------|---------|-------------------------------------------------------------------------------------------|---------------|
| PG 42    | 5,0     | 60                                                                                        | 1.161.4200.01 |
| PG 48    | 5,5     | 64                                                                                        | 1.161.4800.01 |
| G 2 1/2" | 7       | 80                                                                                        | 1.106.5200.99 |
| G 3"     | 8       | 95                                                                                        | 1.106.3000.99 |
| G 4"     | 11      | 125                                                                                       | 1.106.4000.99 |

## Locknut GM-EMV

Metr., PG

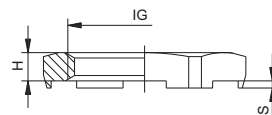


Material

Messing vernickelt



RoHS

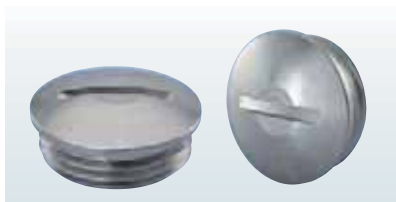


| IG         | H<br>mm | <br>mm | S<br>mm | Number        |
|------------|---------|-------------------------------------------------------------------------------------------|---------|---------------|
| M 12 x 1,5 | 2,8     | 15                                                                                        | 0,7     | 1.167.1200.50 |
| M 16 x 1,5 | 2,8     | 19                                                                                        | 0,7     | 1.167.1600.50 |
| M 20 x 1,5 | 3,0     | 24                                                                                        | 0,7     | 1.167.2000.50 |
| M 25 x 1,5 | 3,5     | 30                                                                                        | 0,7     | 1.167.2500.50 |
| M 32 x 1,5 | 4,5     | 36                                                                                        | 0,7     | 1.167.3200.50 |
| M 40 x 1,5 | 5,0     | 46                                                                                        | 0,7     | 1.167.4000.50 |
| M 50 x 1,5 | 5,0     | 60                                                                                        | 0,7     | 1.167.5000.50 |
| M 63 x 1,5 | 6,0     | 70                                                                                        | 0,7     | 1.167.6300.50 |

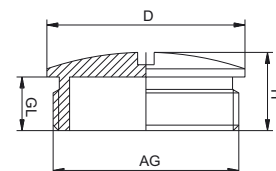
| IG      | H<br>mm | <br>mm | S<br>mm | Number        |
|---------|---------|---------------------------------------------------------------------------------------------|---------|---------------|
| PG 7    | 2,8     | 15                                                                                          | 0,7     | 1.167.0700.01 |
| PG 9    | 2,8     | 18                                                                                          | 0,7     | 1.167.0900.01 |
| PG 11   | 3,0     | 21                                                                                          | 0,7     | 1.167.1100.01 |
| PG 13,5 | 3,0     | 23                                                                                          | 0,7     | 1.167.1300.01 |
| PG 16   | 3,0     | 26                                                                                          | 0,7     | 1.167.1600.01 |
| PG 21   | 3,5     | 32                                                                                          | 0,7     | 1.167.2100.01 |
| PG 29   | 4,0     | 41                                                                                          | 0,7     | 1.167.2900.01 |
| PG 36   | 5,0     | 51                                                                                          | 0,7     | 1.167.3600.01 |
| PG 42   | 5,0     | 60                                                                                          | 0,7     | 1.167.4200.01 |
| PG 48   | 5,5     | 64                                                                                          | 0,7     | 1.167.4800.01 |

## Plug V-N-Ms

Metr., PG



|            |                     |
|------------|---------------------|
| Material   | Nickel plated brass |
| Protection | IP 54               |

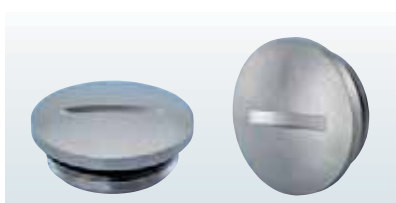


| AG         | GL<br>mm | H<br>mm | D<br>mm | Number        |
|------------|----------|---------|---------|---------------|
| M 12 x 1,5 | 5        | 7,5     | 14      | 1.052.1200.50 |
| M 16 x 1,5 | 5        | 9,0     | 18      | 1.052.1600.50 |
| M 20 x 1,5 | 6,5      | 9,5     | 22      | 1.052.2000.50 |
| M 25 x 1,5 | 7        | 11,0    | 28      | 1.052.2500.50 |
| M 32 x 1,5 | 8        | 12,0    | 35      | 1.052.3200.50 |
| M 40 x 1,5 | 8,5      | 13,0    | 44      | 1.052.4000.50 |
| M 50 x 1,5 | 9        | 15,0    | 54      | 1.052.5000.50 |
| M 63 x 1,5 | 10       | 16,0    | 67      | 1.052.6300.50 |

| AG      | GL<br>mm | H<br>mm | D<br>mm | Number        |
|---------|----------|---------|---------|---------------|
| PG 7    | 5        | 8       | 14      | 1.052.0700.01 |
| PG 9    | 6        | 9       | 17      | 1.052.0900.01 |
| PG 11   | 6        | 9       | 20      | 1.052.1100.01 |
| PG 13,5 | 6,5      | 9,5     | 22      | 1.052.1300.01 |
| PG 16   | 6,5      | 9,5     | 24      | 1.052.1600.01 |
| PG 21   | 7        | 11      | 30      | 1.052.2100.01 |
| PG 29   | 8        | 12      | 39      | 1.052.2900.01 |
| PG 36   | 9        | 15      | 50      | 1.052.3600.01 |
| PG 42   | 10       | 16      | 57      | 1.052.4200.01 |
| PG 48   | 10       | 16      | 64      | 1.052.4800.01 |

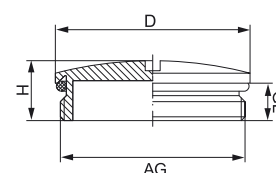
## Plug V-N-Ms-SD

Metr., PG



// Other O-Ring materials upon request

|                       |                               |
|-----------------------|-------------------------------|
| Material              | Nickel plated brass           |
| O-Ring                | Buna-N                        |
| Protection            | IP 68 (NEMA 6)                |
| Operating Temperature | -40 °C – 80 °C 40 °F – 176 °F |



| AG         | GL<br>mm | H<br>mm | D<br>mm | Number        |
|------------|----------|---------|---------|---------------|
| M 12 x 1,5 | 6,5      | 9,5     | 14      | 1.052.1201.50 |
| M 16 x 1,5 | 6        | 9       | 20      | 1.052.1601.50 |
| M 20 x 1,5 | 6,5      | 9,5     | 24      | 1.052.2001.50 |
| M 25 x 1,5 | 7        | 11      | 28      | 1.052.2501.50 |
| M 32 x 1,5 | 8        | 12,5    | 35      | 1.052.3201.50 |
| M 40 x 1,5 | 8        | 12      | 45      | 1.052.4001.50 |
| M 50 x 1,5 | 9        | 15      | 55      | 1.052.5001.50 |
| M 63 x 1,5 | 10       | 16      | 68      | 1.052.6301.50 |

| AG      | GL<br>mm | H<br>mm | D<br>mm | Number        |
|---------|----------|---------|---------|---------------|
| PG 7    | 4,8      | 8       | 14      | 1.052.0701.01 |
| PG 9    | 5,5      | 9       | 17      | 1.052.0901.01 |
| PG 11   | 5,5      | 9       | 20      | 1.052.1101.01 |
| PG 13,5 | 6        | 9,5     | 22      | 1.052.1301.01 |
| PG 16   | 6        | 9,5     | 24      | 1.052.1601.01 |
| PG 21   | 6,5      | 11      | 30      | 1.052.2101.01 |
| PG 29   | 7,5      | 12      | 39      | 1.052.2901.01 |
| PG 36   | 9        | 15      | 50      | 1.052.3601.01 |
| PG 42   | 10       | 16      | 57      | 1.052.4201.01 |
| PG 48   | 10       | 16      | 64      | 1.052.4801.01 |

## Plug V-NE-Ms

Metr.

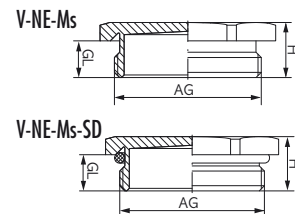


// Other O-Ring materials upon request

|                                   |                                                                                    |
|-----------------------------------|------------------------------------------------------------------------------------|
| Material                          | Nickel plated brass                                                                |
| V-NE-Ms                           |                                                                                    |
| Protection                        | IP 54                                                                              |
| V-NE-Ms-SD / V-NE-Ms-SD-FKM       |                                                                                    |
| Protection                        | IP 68 – 10 bar / IP 69K                                                            |
| O-Ring /<br>Operating Temperature | Buna-N / -20 °C – 95 °C (-4 °F – 203 °F)<br>FKM / -20 °C – 180 °C (-4 °F – 356 °F) |



RoHS



| AG         | GL<br>mm | H<br>mm | mm | Number<br>V-NE-Ms<br>without O-Ring | Number<br>V-NE-Ms-SD<br>-20 °C – 95 °C | Number<br>V-NE-Ms-SD-FKM<br>-20 °C – 180 °C |
|------------|----------|---------|----|-------------------------------------|----------------------------------------|---------------------------------------------|
| M 12 x 1,5 | 6,5      | 9,5     | 14 | 1.155.1200.50                       | 1.156.1200.50                          | 1.157.1200.50                               |
| M 16 x 1,5 | 6        | 9       | 19 | 1.155.1600.50                       | 1.156.1600.50                          | 1.157.1600.50                               |
| M 20 x 1,5 | 6        | 9,5     | 22 | 1.155.2000.50                       | 1.156.2000.50                          | 1.157.2000.50                               |
| M 25 x 1,5 | 7        | 10,5    | 30 | 1.155.2500.50                       | 1.156.2500.50                          | 1.157.2500.50                               |
| M 32 x 1,5 | 8        | 12,5    | 41 | 1.155.3200.50                       | 1.156.3200.50                          | 1.157.3200.50                               |
| M 40 x 1,5 | 8        | 13      | 46 | 1.155.4000.50                       | 1.156.4000.50                          | 1.157.4000.50                               |
| M 50 x 1,5 | 9        | 15      | 55 | 1.155.5000.50                       | 1.156.5000.50                          | 1.157.5000.50                               |
| M 63 x 1,5 | 10       | 16,5    | 70 | 1.155.6300.50                       | 1.156.6300.50                          | 1.157.6300.50                               |

## Plug V-NE-Ms

PG

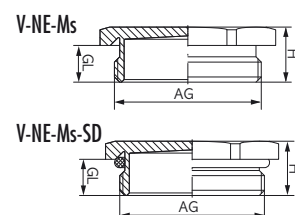


// Other O-Ring materials upon request

|                                   |                                                                                    |
|-----------------------------------|------------------------------------------------------------------------------------|
| Material                          | Nickel plated brass                                                                |
| V-NE-Ms                           |                                                                                    |
| Protection                        | IP 54                                                                              |
| V-NE-Ms-SD / V-NE-Ms-SD-FKM       |                                                                                    |
| Protection                        | IP 68 – 10 bar / IP 69K                                                            |
| O-Ring /<br>Operating Temperature | Buna-N / -20 °C – 95 °C (-4 °F – 203 °F)<br>FKM / -20 °C – 180 °C (-4 °F – 356 °F) |



RoHS



| AG      | GL<br>mm | H<br>mm | mm | Number<br>V-NE-Ms<br>without O-Ring | Number<br>V-NE-Ms-SD<br>-20 °C – 95 °C | Number<br>V-NE-Ms-SD-FKM<br>-20 °C – 180 °C |
|---------|----------|---------|----|-------------------------------------|----------------------------------------|---------------------------------------------|
| PG 7    | 5        | 8       | 14 | 1.155.0700.01                       | 1.156.0700.01                          | 1.157.0700.01                               |
| PG 9    | 6        | 9       | 17 | 1.155.0900.01                       | 1.156.0900.01                          | 1.157.0900.01                               |
| PG 11   | 6        | 9,5     | 20 | 1.155.1100.01                       | 1.156.1100.01                          | 1.157.1100.01                               |
| PG 13,5 | 6,5      | 10      | 22 | 1.155.1300.01                       | 1.156.1300.01                          | 1.157.1300.01                               |
| PG 16   | 6,5      | 10      | 24 | 1.155.1600.01                       | 1.156.1600.01                          | 1.157.1600.01                               |
| PG 21   | 7        | 10,5    | 30 | 1.155.2100.01                       | 1.156.2100.01                          | 1.157.2100.01                               |
| PG 29   | 8        | 12,5    | 41 | 1.155.2900.01                       | 1.156.2900.01                          | 1.157.2900.01                               |
| PG 36   | 8        | 13      | 50 | 1.155.3600.01                       | 1.156.3600.01                          | 1.157.3600.01                               |
| PG 42   | 9        | 15      | 58 | 1.155.4200.01                       | 1.156.4200.01                          | 1.157.4200.01                               |
| PG 48   | 10       | 16,5    | 65 | 1.155.4800.01                       | 1.156.4800.01                          | 1.157.4800.01                               |

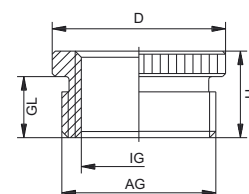
## Adapter R-H

Metr., PG



Material

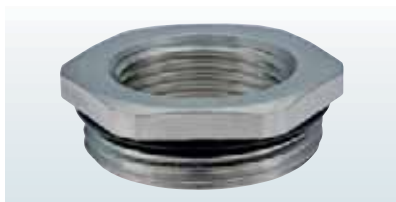
Nickel plated brass



| AG         | IG         | GL<br>mm | H<br>mm | D<br>mm | Number        |
|------------|------------|----------|---------|---------|---------------|
| M 16 x 1,5 | M 12 x 1,5 | 6,0      | 8,5     | 18      | 1.076.1612.50 |
| M 20 x 1,5 | M 12 x 1,5 | 6,5      | 9,0     | 24      | 1.076.2012.50 |
| M 20 x 1,5 | M 16 x 1,5 | 6,5      | 9,0     | 24      | 1.076.2016.50 |
| M 25 x 1,5 | M 16 x 1,5 | 7,0      | 10,0    | 30      | 1.076.2516.50 |
| M 25 x 1,5 | M 20 x 1,5 | 7,0      | 10,0    | 30      | 1.076.2520.50 |
| M 32 x 1,5 | M 20 x 1,5 | 8,0      | 11,5    | 39      | 1.076.3220.50 |
| M 32 x 1,5 | M 25 x 1,5 | 8,0      | 11,5    | 39      | 1.076.3225.50 |
| M 40 x 1,5 | M 25 x 1,5 | 8,0      | 11,5    | 43      | 1.076.4025.50 |
| M 40 x 1,5 | M 32 x 1,5 | 9,0      | 12,5    | 43      | 1.076.4032.50 |
| M 50 x 1,5 | M 32 x 1,5 | 10,0     | 14,0    | 57      | 1.076.5032.50 |
| M 50 x 1,5 | M 40 x 1,5 | 10,0     | 14,0    | 57      | 1.076.5040.50 |
| M 63 x 1,5 | M 40 x 1,5 | 10,0     | 14,0    | 64      | 1.076.6340.50 |
| M 63 x 1,5 | M 50 x 1,5 | 10,0     | 14,0    | 64      | 1.076.6350.50 |
|            |            |          |         |         |               |
| PG 9       | PG 7       | 6        | 8,5     | 17      | 1.071.0907.01 |
| PG 11      | PG 7       | 6        | 8,5     | 20      | 1.071.1107.01 |
| PG 11      | PG 9       | 6        | 8,5     | 20      | 1.071.1109.01 |
| PG 13,5    | PG 9       | 6,5      | 9       | 22      | 1.071.1309.01 |
| PG 13,5    | PG 11      | 6,5      | 9       | 22      | 1.071.1311.01 |
| PG 16      | PG 9       | 6,5      | 9,5     | 24      | 1.071.1609.01 |
| PG 16      | PG 11      | 6,5      | 9,5     | 24      | 1.071.1611.01 |
| PG 16      | PG 13,5    | 6,5      | 9,5     | 24      | 1.071.1613.01 |
| PG 21      | PG 11      | 7        | 10      | 30      | 1.071.2111.01 |
| PG 21      | PG 13,5    | 7        | 10      | 30      | 1.071.2113.01 |
| PG 21      | PG 16      | 7        | 10      | 30      | 1.071.2116.01 |
| PG 29      | PG 16      | 8        | 11,5    | 39      | 1.071.2916.01 |
| PG 29      | PG 21      | 8        | 11,5    | 39      | 1.071.2921.01 |
| PG 36      | PG 21      | 9        | 12,5    | 50      | 1.071.3621.01 |
| PG 36      | PG 29      | 9        | 12,5    | 50      | 1.071.3629.01 |
| PG 42      | PG 29      | 10       | 14      | 57      | 1.071.4229.01 |
| PG 42      | PG 36      | 10       | 14      | 57      | 1.071.4236.01 |
| PG 48      | PG 36      | 10       | 14      | 64      | 1.071.4836.01 |
| PG 48      | PG 42      | 10       | 14      | 64      | 1.071.4842.01 |

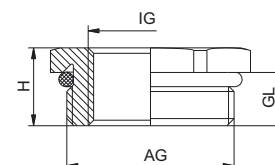
## Adapter RSD-Ms

Metr.



// Other O-Ring materials upon request

|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Nickel plated brass               |
| O-Ring                | Buna-N                            |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |

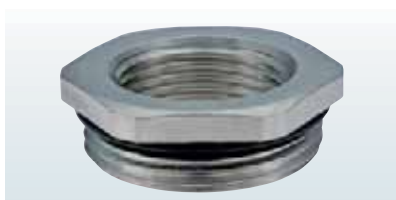


| AG         | IG<br>mm   | GL<br>mm | H<br>mm |  mm | Number        |
|------------|------------|----------|---------|--------------------------------------------------------------------------------------|---------------|
| M 16 x 1,5 | M 12 x 1,5 | 5        | 8       | 17                                                                                   | 1.077.1612.50 |
| M 20 x 1,5 | M 12 x 1,5 | 6        | 9       | 22                                                                                   | 1.077.2012.50 |
| M 20 x 1,5 | M 16 x 1,5 | 6        | 9       | 22                                                                                   | 1.077.2016.50 |
| M 25 x 1,5 | M 16 x 1,5 | 7        | 10      | 29                                                                                   | 1.077.2516.50 |
| M 25 x 1,5 | M 20 x 1,5 | 7        | 10      | 29                                                                                   | 1.077.2520.50 |
| M 32 x 1,5 | M 16 x 1,5 | 8        | 11      | 34                                                                                   | 1.077.3216.50 |
| M 32 x 1,5 | M 20 x 1,5 | 8        | 11      | 34                                                                                   | 1.077.3220.50 |
| M 32 x 1,5 | M 25 x 1,5 | 8        | 11      | 34                                                                                   | 1.077.3225.50 |
| M 40 x 1,5 | M 20 x 1,5 | 8        | 12      | 43                                                                                   | 1.077.4020.50 |
| M 40 x 1,5 | M 25 x 1,5 | 8        | 12      | 43                                                                                   | 1.077.4025.50 |
| M 40 x 1,5 | M 32 x 1,5 | 8        | 12      | 43                                                                                   | 1.077.4032.50 |

| AG         | IG<br>mm   | GL<br>mm | H<br>mm |  mm | Number        |
|------------|------------|----------|---------|----------------------------------------------------------------------------------------|---------------|
| M 50 x 1,5 | M 25 x 1,5 | 9        | 13      | 55                                                                                     | 1.077.5025.50 |
| M 50 x 1,5 | M 32 x 1,5 | 9        | 13      | 55                                                                                     | 1.077.5032.50 |
| M 50 x 1,5 | M 40 x 1,5 | 9        | 13      | 55                                                                                     | 1.077.5040.50 |
| M 63 x 1,5 | M 32 x 1,5 | 10       | 14      | 65                                                                                     | 1.077.6332.50 |
| M 63 x 1,5 | M 40 x 1,5 | 10       | 14      | 65                                                                                     | 1.077.6340.50 |
| M 63 x 1,5 | M 50 x 1,5 | 10       | 14      | 65                                                                                     | 1.077.6350.50 |

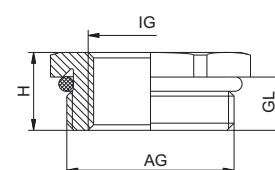
## Adapter RSD-Ms

PG



// Other O-Ring materials upon request

|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Nickel plated brass               |
| O-Ring                | Buna-N                            |
| Operating Temperature | -40 °C – 100 °C (-40 °F – 212 °F) |



| AG      | IG<br>mm | GL<br>mm | H<br>mm |  mm | Number        |
|---------|----------|----------|---------|----------------------------------------------------------------------------------------|---------------|
| PG 9    | PG 7     | 6        | 8,8     | 17                                                                                     | 1.077.0907.01 |
| PG 11   | PG 7     | 6        | 9       | 20                                                                                     | 1.077.1107.01 |
| PG 11   | PG 9     | 6        | 9       | 20                                                                                     | 1.077.1109.01 |
| PG 13,5 | PG 9     | 6,5      | 9,5     | 22                                                                                     | 1.077.1309.01 |
| PG 13,5 | PG 11    | 6,5      | 9,5     | 22                                                                                     | 1.077.1311.01 |
| PG 16   | PG 9     | 6,5      | 9,5     | 24                                                                                     | 1.077.1609.01 |
| PG 16   | PG 11    | 6,5      | 9,5     | 24                                                                                     | 1.077.1611.01 |
| PG 16   | PG 13,5  | 6,5      | 9,5     | 24                                                                                     | 1.077.1613.01 |
| PG 21   | PG 11    | 7        | 10,3    | 30                                                                                     | 1.077.2111.01 |
| PG 21   | PG 13,5  | 7        | 10,3    | 30                                                                                     | 1.077.2113.01 |
| PG 21   | PG 16    | 7        | 10,3    | 30                                                                                     | 1.077.2116.01 |

| AG    | IG<br>mm | GL<br>mm | H<br>mm |  mm | Number        |
|-------|----------|----------|---------|------------------------------------------------------------------------------------------|---------------|
| PG 29 | PG 16    | 8        | 11,5    | 40                                                                                       | 1.077.2916.01 |
| PG 29 | PG 21    | 8        | 11,5    | 40                                                                                       | 1.077.2921.01 |
| PG 36 | PG 21    | 9        | 12,5    | 50                                                                                       | 1.077.3621.01 |
| PG 36 | PG 29    | 9        | 12,5    | 50                                                                                       | 1.077.3629.01 |
| PG 42 | PG 29    | 10       | 13,5    | 57                                                                                       | 1.077.4229.01 |
| PG 42 | PG 36    | 10       | 13,5    | 57                                                                                       | 1.077.4236.01 |
| PG 48 | PG 36    | 10       | 13,5    | 64                                                                                       | 1.077.4836.01 |
| PG 48 | PG 42    | 10       | 13,5    | 64                                                                                       | 1.077.4842.01 |

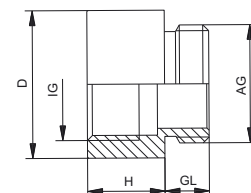
## Adapter RE-Ms

Metr., PG



Material

Nickel plated brass



| AG         | IG<br>mm | GL<br>mm | H<br>mm | D<br>mm | Number        |
|------------|----------|----------|---------|---------|---------------|
| M 16 x 1,5 | PG 9     | 6        | 10,5    | 20      | 1.039.1609.01 |
| M 20 x 1,5 | PG 11    | 6,5      | 12,5    | 22      | 1.039.2011.01 |
| M 20 x 1,5 | PG 13,5  | 6,5      | 12,5    | 22      | 1.039.2013.01 |
| M 20 x 1,5 | PG 16    | 6,5      | 12,5    | 24      | 1.039.2016.01 |
| M 25 x 1,5 | PG 16    | 6,5      | 12,5    | 28      | 1.039.2516.01 |
| M 25 x 1,5 | PG 21    | 6,5      | 14,5    | 30      | 1.039.2521.01 |
| M 32 x 1,5 | PG 29    | 7        | 16      | 39      | 1.039.3229.01 |
|            |          |          |         |         |               |
|            |          |          |         |         |               |
|            |          |          |         |         |               |

| AG      | IG<br>mm   | GL<br>mm | H<br>mm | D<br>mm | Number        |
|---------|------------|----------|---------|---------|---------------|
| PG 9    | M 16 x 1,5 | 6        | 10,5    | 20      | 1.039.0916.01 |
| PG 11   | M 20 x 1,5 | 6,5      | 12,5    | 22      | 1.039.1120.01 |
| PG 13,5 | M 20 x 1,5 | 6,5      | 12,5    | 22      | 1.039.1320.01 |
| PG 16   | M 25 x 1,5 | 6,5      | 14,5    | 27      | 1.039.1625.01 |
|         |            |          |         |         |               |
|         |            |          |         |         |               |
|         |            |          |         |         |               |

## Adapter RE-Ms

Metr., PG

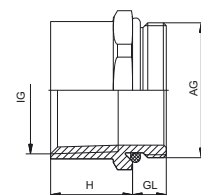


Material

Nickel plated brass

O-Ring

Buna-N



| AG         | IG<br>mm   | GL<br>mm | H<br>mm | mm | Number        |
|------------|------------|----------|---------|----|---------------|
| M 16 x 1,5 | NPT 1/2"   | 6        | 17      | 24 | 1.171.1612.50 |
| M 20 x 1,5 | NPT 1/2"   | 6        | 17      | 24 | 1.171.2012.50 |
| M 25 x 1,5 | NPT 1/2"   | 7        | 8       | 30 | 1.171.2512.50 |
| M 25 x 1,5 | NPT 3/4"   | 7        | 19      | 30 | 1.171.2534.50 |
| M 32 x 1,5 | NPT 1"     | 8        | 25      | 40 | 1.171.3210.50 |
| M 32 x 1,5 | NPT 1 1/4" | 8        | 25      | 46 | 1.171.3254.50 |
|            |            |          |         |    |               |
|            |            |          |         |    |               |
|            |            |          |         |    |               |

| AG      | IG<br>mm | GL<br>mm | H<br>mm | mm | Number        |
|---------|----------|----------|---------|----|---------------|
| PG 11   | NPT 1/2" | 6        | 16,7    | 24 | 1.171.1112.01 |
| PG 13,5 | NPT 1/2" | 6,5      | 17      | 24 | 1.171.1312.01 |
| PG 16   | NPT 1/2" | 6,5      | 16,5    | 24 | 1.171.1612.01 |
| PG 21   | NPT 1/2" | 7        | 8       | 30 | 1.171.2112.01 |
| PG 21   | NPT 3/4" | 7        | 17      | 30 | 1.171.2134.01 |
| PG 29   | NPT 1"   | 8        | 12      | 40 | 1.171.2910.01 |
|         |          |          |         |    |               |
|         |          |          |         |    |               |
|         |          |          |         |    |               |

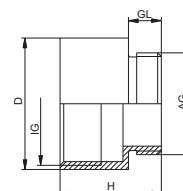
## Adapter E-Ms

Metr.



Material

Nickel plated brass



| AG         | IG         | GL<br>mm | H<br>mm | D<br>mm | Number        |
|------------|------------|----------|---------|---------|---------------|
| M 12 x 1,5 | M 16 x 1,5 | 5        | 15      | 18      | 1.033.1216.50 |
| M 16 x 1,5 | M 20 x 1,5 | 6        | 17,5    | 22      | 1.033.1620.50 |
| M 20 x 1,5 | M 25 x 1,5 | 6,5      | 19      | 27      | 1.033.2025.50 |
| M 25 x 1,5 | M 32 x 1,5 | 6,5      | 21      | 34      | 1.033.2532.50 |
| M 32 x 1,5 | M 40 x 1,5 | 7        | 23      | 42      | 1.033.3240.50 |
| M 40 x 1,5 | M 50 x 1,5 | 9        | 31      | 53      | 1.033.4050.50 |
| M 50 x 1,5 | M 63 x 1,5 | 9        | 31      | 66      | 1.033.5063.50 |

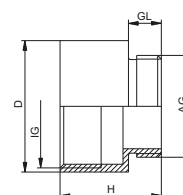
## Adapter E-Ms

PG



Material

Nickel plated brass



| AG      | IG      | GL<br>mm | H<br>mm | D<br>mm | Number        |
|---------|---------|----------|---------|---------|---------------|
| PG 7    | PG 9    | 5        | 15      | 17      | 1.033.0709.01 |
| PG 9    | PG 11   | 6        | 16,5    | 20      | 1.033.0911.01 |
| PG 9    | PG 13,5 | 6        | 17,5    | 22      | 1.033.0913.01 |
| PG 11   | PG 13,5 | 6        | 17,5    | 22      | 1.033.1113.01 |
| PG 11   | PG 16   | 6        | 18,5    | 24      | 1.033.1116.01 |
| PG 11   | PG 21   | 6        | 20,5    | 30      | 1.033.1121.01 |
| PG 13,5 | PG 16   | 6,5      | 19      | 24      | 1.033.1316.01 |
| PG 13,5 | PG 21   | 6,5      | 21      | 30      | 1.033.1321.01 |
| PG 16   | PG 21   | 6,5      | 21      | 30      | 1.033.1621.01 |
| PG 16   | PG 29   | 6,5      | 22,5    | 39      | 1.033.1629.01 |
| PG 21   | PG 29   | 7        | 23      | 39      | 1.033.2129.01 |

| AG    | IG    | GL<br>mm | H<br>mm | D<br>mm | Number        |
|-------|-------|----------|---------|---------|---------------|
| PG 29 | PG 36 | 8        | 27,5    | 50      | 1.033.2936.01 |
| PG 36 | PG 42 | 9        | 31      | 57      | 1.033.3642.01 |
| PG 42 | PG 48 | 10       | 33      | 64      | 1.033.4248.01 |

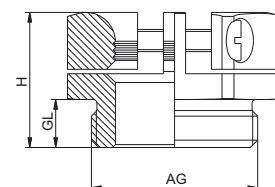
## KLE

Metr.



Material

Nickel plated brass



| AG         | $\varnothing$<br>mm | GL  | H<br>mm | <br>mm | Number        |
|------------|---------------------|-----|---------|--------|---------------|
| M 12 x 1,5 | 5–7,5               | 5,5 | 15,0    | 16     | 1.143.1200.50 |
| M 16 x 1,5 | 7–10                | 6,0 | 16,0    | 19     | 1.143.1600.50 |
| M 20 x 1,5 | 10–14               | 6,5 | 18,0    | 24     | 1.143.2000.50 |
| M 25 x 1,5 | 12–21,5             | 8,0 | 21,0    | 34     | 1.143.2500.50 |
| M 32 x 1,5 | 16–27               | 8,0 | 22,0    | 42     | 1.143.3200.50 |
| M 40 x 1,5 | 22–33               | 9,5 | 25,5    | 52     | 1.143.4000.50 |

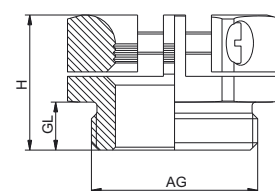
## KLE

PG



Material

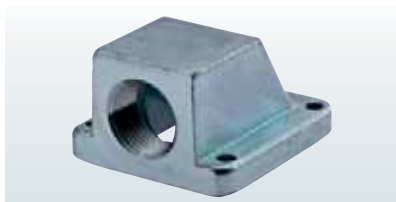
Nickel plated brass



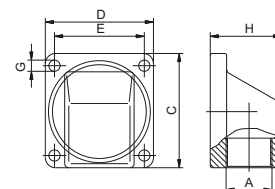
| AG      | $\varnothing$<br>mm | GL  | H<br>mm | <br>mm | Number        |
|---------|---------------------|-----|---------|--------|---------------|
| PG 7    | 5,5–8               | 5,5 | 14,8    | 16     | 1.143.0700.01 |
| PG 9    | 6,5–10              | 6   | 16,6    | 19     | 1.143.0900.01 |
| PG 11   | 7,5–12              | 6   | 17,3    | 22     | 1.143.1100.01 |
| PG 13,5 | 8,5–14              | 6,5 | 17,8    | 24     | 1.143.1300.01 |
| PG 16   | 9,5–16              | 6,5 | 18,3    | 26     | 1.143.1600.01 |
| PG 21   | 12–21               | 7,5 | 20,8    | 33     | 1.143.2100.01 |
| PG 29   | 19–30               | 8   | 21,8    | 42     | 1.143.2900.01 |
| PG 36   | 25–37               | 9,5 | 25,3    | 52     | 1.143.3600.01 |
| PG 42   | 31–43               | 10  | 26,3    | 59     | 1.143.4200.01 |
| PG 48   | 35–48               | 11  | 27,3    | 64     | 1.143.4800.01 |

## FW-ZN

Metr.



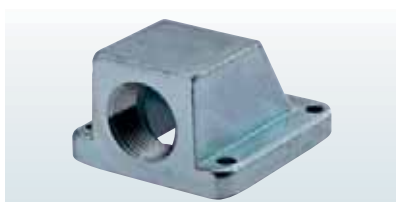
|                       |                                 |
|-----------------------|---------------------------------|
| Material              | Zinc die casting                |
| O-Ring                | Buna-N                          |
| Protection            | IP 65                           |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) |



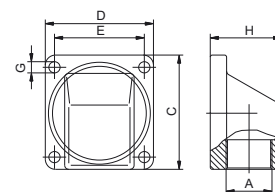
| A          | C<br>mm | D<br>mm | E<br>mm | G<br>mm | H<br>mm | Number        |
|------------|---------|---------|---------|---------|---------|---------------|
| M 20 x 1,5 | 56      | 53      | 44      | 5,5     | 35      | 1.306.2000.50 |
| M 25 x 1,5 | 65      | 63      | 54      | 5,5     | 42      | 1.306.2500.50 |
| M 32 x 1,5 | 75      | 71      | 60      | 5,5     | 52      | 1.306.3200.50 |
| M 50 x 1,5 | 93      | 89      | 72      | 6,5     | 69      | 1.306.5000.50 |
| M 63 x 1,5 | 114     | 96      | 84      | 6,5     | 74      | 1.306.6300.50 |

## FW-ZN

PG



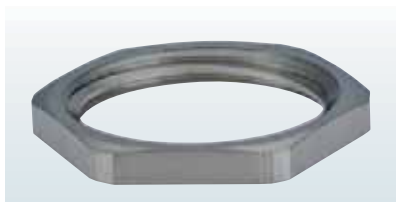
|                       |                                 |
|-----------------------|---------------------------------|
| Material              | Zinc die casting                |
| O-Ring                | Buna-N                          |
| Protection            | IP 65                           |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) |



| A       | C<br>mm | D<br>mm | E<br>mm | G<br>mm | H<br>mm | Number        |
|---------|---------|---------|---------|---------|---------|---------------|
| PG 9    | 50      | 45      | 37      | 4,3     | 30      | 1.306.0900.05 |
| PG 11   | 50      | 45      | 37      | 4,3     | 30      | 1.306.1100.05 |
| PG 13,5 | 56      | 53      | 44      | 5,5     | 35      | 1.306.1300.05 |
| PG 16   | 56      | 53      | 44      | 5,5     | 35      | 1.306.1600.05 |
| PG 21   | 65      | 63      | 54      | 5,5     | 42      | 1.306.2100.05 |
| PG 29   | 74      | 70      | 60      | 5,5     | 52      | 1.306.2900.05 |
| PG 36   | 94      | 89      | 72      | 6,5     | 69      | 1.306.3600.05 |
| PG 42   | 114     | 96      | 84      | 6,5     | 74      | 1.306.4200.05 |
| PG 48   | 114     | 96      | 84      | 6,5     | 74      | 1.306.4800.05 |

## Locknut GM-INOX

Metr.

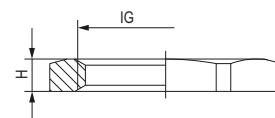


Material

INOX 1.4305



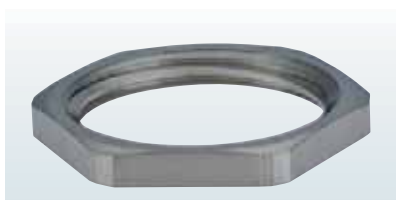
// Other sizes upon request  
// Other steel upon request



| IG         | H<br>mm | mm | Number        |
|------------|---------|----|---------------|
| M 12 x 1,5 | 2,8     | 15 | 1.161.1200.58 |
| M 16 x 1,5 | 2,8     | 19 | 1.161.1600.58 |
| M 20 x 1,5 | 3       | 24 | 1.161.2000.58 |
| M 25 x 1,5 | 3,5     | 30 | 1.161.2500.58 |
| M 32 x 1,5 | 3,5     | 36 | 1.161.3200.58 |
| M 40 x 1,5 | 5       | 46 | 1.161.4000.58 |
| M 50 x 1,5 | 5       | 57 | 1.161.5000.58 |
| M 63 x 1,5 | 6       | 70 | 1.161.6300.58 |

## Locknut GM-INOX

PG

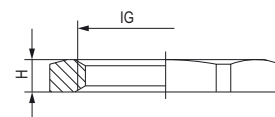


Material

INOX 1.4305



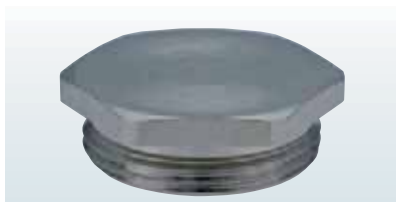
// Other sizes upon request  
// Other steel upon request



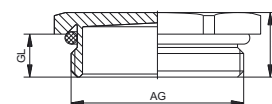
| IG      | H<br>mm | mm | Number        |
|---------|---------|----|---------------|
| PG 7    | 2,8     | 17 | 1.161.0700.08 |
| PG 9    | 2,8     | 22 | 1.161.0900.08 |
| PG 11   | 3       | 22 | 1.161.1100.08 |
| PG 13,5 | 3       | 24 | 1.161.1300.08 |
| PG 16   | 3       | 27 | 1.161.1600.08 |
| PG 21   | 3,5     | 32 | 1.161.2100.08 |
| PG 29   | 4       | 41 | 1.161.2900.08 |
| PG 36   | 5       | 50 | 1.161.3600.08 |

## Plug V-INOX

Metr.



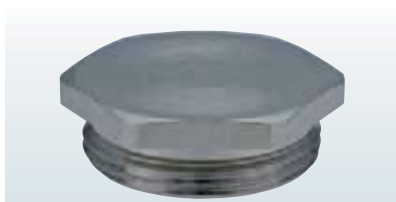
|                       |                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------|
| Material              | INOX 1.4305                                                                                                                  |
| O-Ring                | Buna-N / FKM / VMQ                                                                                                           |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                                  |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N),<br>-20 °C – 180 °C (-4 °F – 356 °F) (FKM), -60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



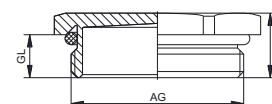
| AG         | GL<br>mm | H<br>mm |  mm | Number<br>V-INOX-NBR<br>-20 °C – 95 °C | Number<br>V-INOX-FKM<br>-20 °C – 180 °C | Number<br>V-INOX-VMQ<br>-60 °C – 180 °C |
|------------|----------|---------|--------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|-----------------------------------------|
| M 12 x 1,5 | 6,5      | 9,5     | 14                                                                                   | 1.152.1200.50                          | 1.153.1200.50                           | 1.154.1200.50                           |
| M 16 x 1,5 | 6        | 9       | 19                                                                                   | 1.152.1600.50                          | 1.153.1600.50                           | 1.154.1600.50                           |
| M 20 x 1,5 | 6        | 9,5     | 22                                                                                   | 1.152.2000.50                          | 1.153.2000.50                           | 1.154.2000.50                           |
| M 25 x 1,5 | 7        | 10,5    | 30                                                                                   | 1.152.2500.50                          | 1.153.2500.50                           | 1.154.2500.50                           |
| M 32 x 1,5 | 8        | 12,5    | 41                                                                                   | 1.152.3200.50                          | 1.153.3200.50                           | 1.154.3200.50                           |
| M 40 x 1,5 | 8        | 13      | 46                                                                                   | 1.152.4000.50                          | 1.153.4000.50                           | 1.154.4000.50                           |

## Plug V-INOX

PG



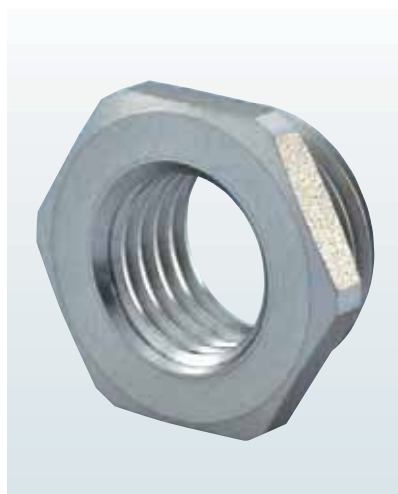
|                       |                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------|
| Material              | INOX 1.4305                                                                                                                  |
| O-Ring                | Buna-N / FKM / VMQ                                                                                                           |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                                  |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N),<br>-20 °C – 180 °C (-4 °F – 356 °F) (FKM), -60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



| AG      | GL<br>mm | H<br>mm |  mm | Number<br>V-INOX-NBR<br>-20 °C – 95 °C | Number<br>V-INOX-FKM<br>-20 °C – 180 °C | Number<br>V-INOX-VMQ<br>-60 °C – 180 °C |
|---------|----------|---------|----------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|-----------------------------------------|
| PG 7    | 5        | 8       | 14                                                                                     | 1.152.0700.01                          | 1.153.0700.01                           | 1.154.0700.01                           |
| PG 9    | 6        | 9       | 17                                                                                     | 1.152.0900.01                          | 1.153.0900.01                           | 1.154.0900.01                           |
| PG 11   | 6        | 9,5     | 20                                                                                     | 1.152.1100.01                          | 1.153.1100.01                           | 1.154.1100.01                           |
| PG 13,5 | 6,5      | 10      | 22                                                                                     | 1.152.1300.01                          | 1.153.1300.01                           | 1.154.1300.01                           |
| PG 16   | 6,5      | 10      | 24                                                                                     | 1.152.1600.01                          | 1.153.1600.01                           | 1.154.1600.01                           |
| PG 21   | 7        | 10,5    | 30                                                                                     | 1.152.2100.01                          | 1.153.2100.01                           | 1.154.2100.01                           |
| PG 29   | 8        | 12,5    | 41                                                                                     | 1.152.2900.01                          | 1.153.2900.01                           | 1.154.2900.01                           |
| PG 36   | 8        | 13      | 50                                                                                     | 1.152.3600.01                          | 1.153.3600.01                           | 1.154.3600.01                           |

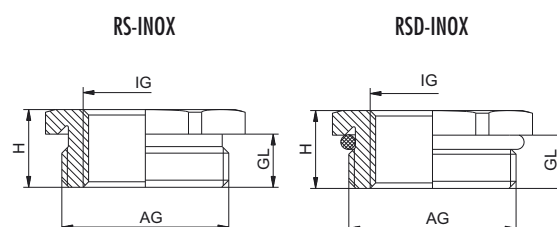
## Adapter RS-INOX / RSD-INOX

Metr.



|                       |                                 |
|-----------------------|---------------------------------|
| Material              | INOX 1.4305                     |
| O-Ring                | Buna-N                          |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) |

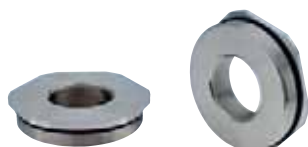
// Other O-Ring materials upon request



| AG         | IG         | GL<br>mm | H<br>mm | mm | Number<br>RS-INOX<br>without O-Ring | Number<br>RSD-INOX |
|------------|------------|----------|---------|----|-------------------------------------|--------------------|
| M 16 x 1,5 | M 12 x 1,5 | 6        | 9       | 19 | 1.094.1612.50                       | 1.097.1612.50      |
| M 20 x 1,5 | M 12 x 1,5 | 6        | 9,5     | 22 | 1.094.2012.50                       | 1.097.2012.50      |
| M 20 x 1,5 | M 16 x 1,5 | 6        | 9,5     | 22 | 1.094.2016.50                       | 1.097.2016.50      |
| M 25 x 1,5 | M 16 x 1,5 | 7        | 10,5    | 27 | 1.094.2516.50                       | 1.097.2516.50      |
| M 25 x 1,5 | M 20 x 1,5 | 7        | 10,5    | 27 | 1.094.2520.50                       | 1.097.2520.50      |
| M 32 x 1,5 | M 16 x 1,5 | 8        | 12,5    | 34 | 1.094.3216.50                       | 1.097.3216.50      |
| M 32 x 1,5 | M 20 x 1,5 | 8        | 12,5    | 34 | 1.094.3220.50                       | 1.097.3220.50      |
| M 32 x 1,5 | M 25 x 1,5 | 8        | 12,5    | 34 | 1.094.3225.50                       | 1.097.3225.50      |
| M 40 x 1,5 | M 20 x 1,5 | 8        | 13      | 43 | 1.094.4020.50                       | 1.097.4020.50      |
| M 40 x 1,5 | M 25 x 1,5 | 8        | 13      | 43 | 1.094.4025.50                       | 1.097.4025.50      |
| M 40 x 1,5 | M 32 x 1,5 | 8        | 13      | 43 | 1.094.4032.50                       | 1.097.4032.50      |
| M 50 x 1,5 | M 25 x 1,5 | 9        | 15      | 55 | 1.094.5025.50                       | 1.097.5025.50      |
| M 50 x 1,5 | M 32 x 1,5 | 9        | 15      | 55 | 1.094.5032.50                       | 1.097.5032.50      |
| M 50 x 1,5 | M 40 x 1,5 | 9        | 15      | 55 | 1.094.5040.50                       | 1.097.5040.50      |
| M 63 x 1,5 | M 32 x 1,5 | 10       | 16,5    | 65 | 1.094.6332.50                       | 1.097.6332.50      |
| M 63 x 1,5 | M 40 x 1,5 | 10       | 16,5    | 65 | 1.094.6340.50                       | 1.097.6340.50      |
| M 63 x 1,5 | M 50 x 1,5 | 10       | 16,5    | 65 | 1.094.6350.50                       | 1.097.6350.50      |

## Adapter RS-INOX / RSD-INOX

PG

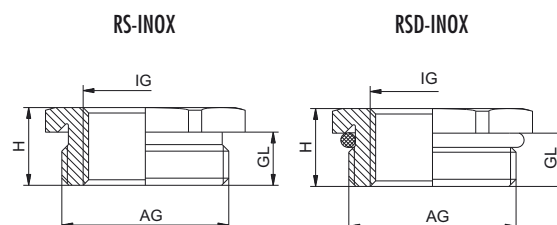


|                       |                                 |
|-----------------------|---------------------------------|
| Material              | INOX 1.4305                     |
| O-Ring                | Buna-N                          |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) |



RoHS

// Other O-Ring materials upon request



| AG      | IG      | GL<br>mm | H<br>mm |  mm | Number<br>RS-INOX<br>without O-Ring | Number<br>RSD-INOX |
|---------|---------|----------|---------|----------------------------------------------------------------------------------------|-------------------------------------|--------------------|
| PG 9    | PG 7    | 6        | 8,8     | 17                                                                                     | 1.094.0907.01                       | 1.097.0907.01      |
| PG 11   | PG 7    | 6        | 9       | 22                                                                                     | 1.094.1107.01                       | 1.097.1107.01      |
| PG 11   | PG 9    | 6        | 9       | 22                                                                                     | 1.094.1109.01                       | 1.097.1109.01      |
| PG 13,5 | PG 9    | 6,5      | 9,5     | 22                                                                                     | 1.094.1309.01                       | 1.097.1309.01      |
| PG 13,5 | PG 11   | 6,5      | 9,5     | 22                                                                                     | 1.094.1311.01                       | 1.097.1311.01      |
| PG 16   | PG 9    | 6,5      | 9,5     | 24                                                                                     | 1.094.1609.01                       | 1.097.1609.01      |
| PG 16   | PG 11   | 6,5      | 9,5     | 24                                                                                     | 1.094.1611.01                       | 1.097.1611.01      |
| PG 16   | PG 13,5 | 6,5      | 9,5     | 24                                                                                     | 1.094.1613.01                       | 1.097.1613.01      |
| PG 21   | PG 11   | 7        | 10,3    | 30                                                                                     | 1.094.2111.01                       | 1.097.2111.01      |
| PG 21   | PG 13,5 | 7        | 10,3    | 30                                                                                     | 1.094.2113.01                       | 1.097.2113.01      |
| PG 21   | PG 16   | 7        | 10,3    | 30                                                                                     | 1.094.2116.01                       | 1.097.2116.01      |
| PG 29   | PG 16   | 8        | 11,5    | 41                                                                                     | 1.094.2916.01                       | 1.097.2916.01      |
| PG 29   | PG 21   | 8        | 11,5    | 41                                                                                     | 1.094.2921.01                       | 1.097.2921.01      |
| PG 36   | PG 21   | 9        | 12,5    | 50                                                                                     | 1.094.3621.01                       | 1.097.3621.01      |
| PG 36   | PG 29   | 9        | 12,5    | 50                                                                                     | 1.094.3629.01                       | 1.097.3629.01      |
| PG 42   | PG 29   | 10       | 13,5    | 60                                                                                     | 1.094.4229.01                       | 1.097.4229.01      |
| PG 42   | PG 36   | 10       | 13,5    | 60                                                                                     | 1.094.4236.01                       | 1.097.4236.01      |
| PG 48   | PG 36   | 10       | 13,5    | 65                                                                                     | 1.094.4836.01                       | 1.097.4836.01      |
| PG 48   | PG 42   | 10       | 13,5    | 65                                                                                     | 1.094.4842.01                       | 1.097.4842.01      |

# CABLE GLANDS FOR „HAZARDOUS AREAS“



Cable glands for all popular threads, used in electrical equipment and hazardous areas in Group I, II and III applications. The Ex d, Ex e and /or Ex ta certified cable glands have been designed for all explosion proof areas which are in need of high standards, reliability, strain relief and water proof requirements, e.g. marine, offshore, gas conveying machinery, refineries and chemical industry.

- // **EXIOS<sup>+</sup> STANDARD** The innovative HUMMEL high-end cable gland for armoured cables in hazardous areas including the latest IECEx and ATEX certifications, for the use in Ex e, Ex d and Ex ta areas
- // **EXIOS<sup>+</sup> MZ** High-end cable gland with extra strain relief and zero torsion on armour and wires. For armoured cables in hazardous areas including the latest IECEx and ATEX certifications, for the use in Ex e, Ex d and Ex ta areas.
- // **EXIOS<sup>+</sup> BARRIER** High-end cable gland for armoured cables in hazardous areas uses a barrier compound sealing. Including the latest IECEx and ATEX certifications, for the use in Ex e, Ex d and Ex ta areas.
- // **EXIOS<sup>+</sup> A2F** For non-armoured cables for the use in Ex e and Ex d areas
- // Accessories

For any further question please do not hesitate to contact us. We look forward to develop solutions together with you. You profit from our vast knowledge in development, engineering and production technology.



# CABLE GLANDS FOR „HAZARDOUS AREAS“

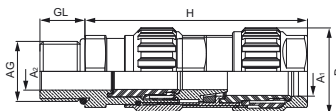
**EXIOS<sup>+</sup> STANDARD**

**Metr., NPT**



|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Brass                             |
| Seal                  | Silicone, VMQ                     |
| Clamping insert       | PA 6                              |
| Armouring             | Metallic Armour or Screen         |
| Protection            | IP 66, 67 and 68 (5 bar)          |
| Operating Temperature | -60° C – 105 °C (-76 °F – 221 °F) |

// INOX on request



| AG         | Size | Ø A1<br>mm | Ø A2<br>mm | GL<br>mm | H max.<br>mm | mm | D<br>mm | Armouring Ø mm     |                    |                           | Number        |
|------------|------|------------|------------|----------|--------------|----|---------|--------------------|--------------------|---------------------------|---------------|
|            |      |            |            |          |              |    |         | Clamping ring<br>1 | Clamping ring<br>2 | Clamping ring<br>optional |               |
| M 16 x1,5  | 20-1 | 6-12       | 3-8,1      | 16       | 69,5         | 22 | 27      | 0-0,7              | 0,7-1,25           |                           | 1.605.1600.50 |
| M 20 x1,5  | 20-1 | 6-12       | 3-8,1      | 16       | 69,5         | 22 | 27      | 0-0,7              | 0,7-1,25           |                           | 1.605.2000.50 |
| M 20 x1,5  | 20-2 | 9-16       | 6-12       | 16       | 74,3         | 24 | 29      | 0-0,7              | 0,7-1,25           |                           | 1.605.2000.51 |
| M 20 x1,5  | 20-3 | 12,5-20,5  | 9-14       | 16       | 80,5         | 30 | 35      | 0-0,7              | 0,7-1,4            |                           | 1.605.2000.52 |
| M 25 x1,5  | 20-3 | 12,5-20,5  | 9-14       | 16       | 80,5         | 30 | 35      | 0-0,7              | 0,7-1,4            |                           | 1.605.2500.51 |
| M 25 x1,5  | 25   | 16,9-26    | 12,5-20,5  | 16       | 91           | 36 | 42      | 0-0,7              | 0,9-1,6            | 0,7-1,4                   | 1.605.2500.50 |
| M 32 x1,5  | 32   | 22-33      | 16,9-26    | 16       | 96           | 46 | 52      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.605.3200.50 |
| M 40 x1,5  | 40   | 28-41      | 22-33      | 16       | 107          | 55 | 64      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.605.4000.50 |
| M 50 x1,5  | 50   | 36-52,6    | 28,9-44,4  | 16       | 131,5        | 65 | 73      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.605.5000.50 |
| M 63 x1,5  | 63   | 46-65,3    | 39,9-56,3  | 16       | 144,5        | 80 | 90      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.605.6300.50 |
| M 75 x1,5  | 75   | 57-78      | 50,5-68,2  | 16       | 154          | 95 | 107     | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.605.7500.50 |
| NPT 3/8"   | 20-1 | 6-12       | 3-8,1      | 16       | 69,5         | 22 | 27      | 0-0,7              | 0,7-1,25           |                           | 1.605.3800.70 |
| NPT 1/2"   | 20-2 | 9-16       | 6-12       | 20       | 74,3         | 24 | 29      | 0-0,7              | 0,7-1,25           |                           | 1.605.1200.70 |
| NPT 1/2"   | 20-3 | 12,5-20,5  | 9-14       | 20       | 80,5         | 30 | 35      | 0-0,7              | 0,7-1,4            |                           | 1.605.1200.71 |
| NPT 3/4"   | 25   | 16,9-26    | 12,5-20,5  | 20,5     | 91           | 36 | 42      | 0-0,7              | 0,9-1,6            | 0,7-1,4                   | 1.605.3400.70 |
| NPT 1"     | 32   | 22-33      | 16,9-26    | 25       | 96           | 46 | 52      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.605.1000.70 |
| NPT 1 1/4" | 40   | 28-41      | 22-33      | 26       | 107          | 55 | 64      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.605.5400.70 |
| NPT 1 1/2" | 40   | 28-41      | 22-33      | 26,5     | 107          | 55 | 64      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.605.6400.70 |
| NPT 2"     | 50   | 36-52,6    | 28,9-44,4  | 27       | 131,5        | 65 | 73      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.605.2000.70 |
| NPT 2 1/2" | 63   | 46-65,3    | 39,9-56,3  | 40       | 144,5        | 80 | 90      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.605.5200.70 |
| NPT 3"     | 75   | 57-78      | 50,5-68,2  | 41,5     | 154          | 95 | 107     | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.605.3000.70 |

# CABLE GLANDS FOR „HAZARDOUS AREAS“

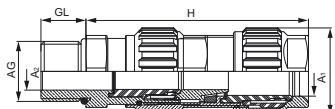
**EXIOS<sup>+</sup> STANDARD**

**Metr., NPT**



|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Nickel plated brass               |
| Seal                  | Silicone, VMQ                     |
| Clamping insert       | PA 6                              |
| Armouring             | Metallic Armour or Screen         |
| Protection            | IP 66, 67 and 68 (5 bar)          |
| Operating Temperature | -60° C – 105° C (-76 °F – 221 °F) |

// INOX on request



| AG         | Size | Ø A1<br>mm | Ø A2<br>mm | GL<br>mm | H max.<br>mm | Ø<br>mm | D<br>mm | Armouring Ø mm     |                    |                           | Number        |
|------------|------|------------|------------|----------|--------------|---------|---------|--------------------|--------------------|---------------------------|---------------|
|            |      |            |            |          |              |         |         | Clamping ring<br>1 | Clamping ring<br>2 | Clamping ring<br>optional |               |
| M 16 x1,5  | 20-1 | 6-12       | 3-8,1      | 16       | 69,5         | 22      | 27      | 0-0,7              | 0,7-1,25           |                           | 1.605.1603.50 |
| M 20 x1,5  | 20-1 | 6-12       | 3-8,1      | 16       | 69,5         | 22      | 27      | 0-0,7              | 0,7-1,25           |                           | 1.605.2003.50 |
| M 20 x1,5  | 20-2 | 9-16       | 6-12       | 16       | 74,3         | 24      | 29      | 0-0,7              | 0,7-1,25           |                           | 1.605.2003.51 |
| M 20 x1,5  | 20-3 | 12,5-20,5  | 9-14       | 16       | 80,5         | 30      | 35      | 0-0,7              | 0,7-1,4            |                           | 1.605.2003.52 |
| M 25 x1,5  | 20-3 | 12,5-20,5  | 9-14       | 16       | 80,5         | 30      | 35      | 0-0,7              | 0,7-1,4            |                           | 1.605.2503.51 |
| M 25 x1,5  | 25   | 16,9-26    | 12,5-20,5  | 16       | 91           | 36      | 42      | 0-0,7              | 0,9-1,6            | 0,7-1,4                   | 1.605.2503.50 |
| M 32 x1,5  | 32   | 22-33      | 16,9-26    | 16       | 96           | 46      | 52      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.605.3203.50 |
| M 40 x1,5  | 40   | 28-41      | 22-33      | 16       | 107          | 55      | 64      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.605.4003.50 |
| M 50 x1,5  | 50   | 36-52,6    | 28,9-44,4  | 16       | 131,5        | 65      | 73      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.605.5003.50 |
| M 63 x1,5  | 63   | 46-65,3    | 39,9-56,3  | 16       | 144,5        | 80      | 90      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.605.6303.50 |
| M 75 x1,5  | 75   | 57-78      | 50,5-68,2  | 16       | 154          | 95      | 107     | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.605.7503.50 |
|            |      |            |            |          |              |         |         |                    |                    |                           |               |
| NPT 3/8"   | 20-1 | 6-12       | 3-8,1      | 16       | 69,5         | 22      | 27      | 0-0,7              | 0,7-1,25           |                           | 1.605.3803.70 |
| NPT 1/2"   | 20-2 | 9-16       | 6-12       | 20       | 74,3         | 24      | 29      | 0-0,7              | 0,7-1,25           |                           | 1.605.1203.70 |
| NPT 1/2"   | 20-3 | 12,5-20,5  | 9-14       | 20       | 80,5         | 30      | 35      | 0-0,7              | 0,7-1,4            |                           | 1.605.1203.71 |
| NPT 3/4"   | 25   | 16,9-26    | 12,5-20,5  | 20,5     | 91           | 36      | 42      | 0-0,7              | 0,9-1,6            | 0,7-1,4                   | 1.605.3403.70 |
| NPT 1"     | 32   | 22-33      | 16,9-26    | 25       | 96           | 46      | 52      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.605.1003.70 |
| NPT 1 1/4" | 40   | 28-41      | 22-33      | 26       | 107          | 55      | 64      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.605.5403.70 |
| NPT 1 1/2" | 40   | 28-41      | 22-33      | 26,5     | 107          | 55      | 64      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.605.6403.70 |
| NPT 2"     | 50   | 36-52,6    | 28,9-44,4  | 27       | 131,5        | 65      | 73      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.605.2003.70 |
| NPT 2 1/2" | 63   | 46-65,3    | 39,9-56,3  | 40       | 144,5        | 80      | 90      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.605.5203.70 |
| NPT 3"     | 75   | 57-78      | 50,5-68,2  | 41,5     | 154          | 95      | 107     | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.605.3003.70 |

# CABLE GLANDS FOR „HAZARDOUS AREAS“

**EXIOS<sup>+</sup>MZ**

**Metr., NPT**



|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Brass                             |
| Seal                  | Silicone, VMQ                     |
| Clamping insert       | PA 6                              |
| Armouring             | Metallic Armour or Screen         |
| Protection            | IP 66, 67 and 68 (5 bar)          |
| Operating Temperature | -60° C – 105° C (-76 °F – 221 °F) |

// INOX on request



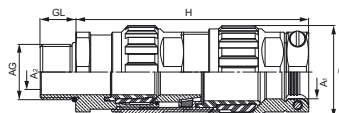
**ATEX<sup>Ex</sup>** BVS 10 ATEX E 062 X

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

**IECEx** IECEx BVS 10.0078X

**EAC** RU C-DE.ГБ05.8.00077

**CSA** 12.2557737X



| AG         | Size | A1<br>mm  | A2<br>mm  | GL<br>mm | H max.<br>mm | mm | D<br>mm | Armouring Ø mm     |                    |                           | Number        |
|------------|------|-----------|-----------|----------|--------------|----|---------|--------------------|--------------------|---------------------------|---------------|
|            |      |           |           |          |              |    |         | Clamping ring<br>1 | Clamping ring<br>2 | Clamping ring<br>optional |               |
| M 16 x1,5  | 20-1 | 6-11      | 3-8,1     | 16       | 79           | 22 | 27      | 0-0,7              | 0,7-1,25           |                           | 1.675.1600.50 |
| M 20 x1,5  | 20-1 | 6-11      | 3-8,1     | 16       | 79           | 22 | 27      | 0-0,7              | 0,7-1,25           |                           | 1.675.2000.50 |
| M 20 x1,5  | 20-2 | 9-13      | 6-12      | 16       | 83,8         | 24 | 29      | 0-0,7              | 0,7-1,25           |                           | 1.675.2000.51 |
| M 20 x1,5  | 20-3 | 12,5-17,5 | 9-14      | 16       | 91,5         | 30 | 35      | 0-0,7              | 0,7-1,4            |                           | 1.675.2000.52 |
| M 25 x1,5  | 20-3 | 12,5-17,5 | 9-14      | 16       | 91,5         | 30 | 35      | 0-0,7              | 0,7-1,4            |                           | 1.675.2500.51 |
| M 25 x1,5  | 25   | 16,9-24   | 12,5-20,5 | 16       | 105,7        | 36 | 42      | 0-0,7              | 0,9-1,6            | 0,7-1,4                   | 1.675.2500.50 |
| M 32 x1,5  | 32   | 22-32,5   | 16,9-26   | 16       | 107          | 46 | 52      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.675.3200.50 |
| M 40 x1,5  | 40   | 28-41     | 22-33     | 16       | 120          | 55 | 64      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.675.4000.50 |
| M 50 x1,5  | 50   | 36-39,5   | 28,9-44,4 | 16       | 144,5        | 65 | 73      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.675.5000.50 |
| M 63 x1,5  | 63   | 46-64     | 39,9-56,3 | 16       | 157,5        | 80 | 90      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.675.6300.50 |
| M 75 x1,5  | 75   | 57-78     | 50,5-68,2 | 16       | 167          | 95 | 107     | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.675.7500.50 |
| NPT 3/8"   | 20-1 | 6-11      | 3-8,1     | 16       | 79           | 22 | 27      | 0-0,7              | 0,7-1,25           |                           | 1.675.3800.70 |
| NPT 1/2"   | 20-2 | 9-13      | 6-12      | 20       | 83,8         | 24 | 29      | 0-0,7              | 0,7-1,25           |                           | 1.675.1200.70 |
| NPT 1/2"   | 20-3 | 12,5-17,5 | 9-14      | 20       | 91,5         | 30 | 35      | 0-0,7              | 0,7-1,4            |                           | 1.675.1200.71 |
| NPT 3/4"   | 25   | 16,9-24   | 12,5-20,5 | 20,5     | 105,7        | 36 | 42      | 0-0,7              | 0,9-1,6            | 0,7-1,4                   | 1.675.3400.70 |
| NPT 1"     | 32   | 22-32,5   | 16,9-26   | 25       | 107          | 46 | 52      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.675.1000.70 |
| NPT 1 1/4" | 40   | 28-39,5   | 22-33     | 26       | 120          | 55 | 64      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.675.5400.70 |
| NPT 1 1/2" | 40   | 28-39,5   | 22-33     | 26,5     | 120          | 55 | 64      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.675.6400.70 |
| NPT 2"     | 50   | 36-49     | 28,9-44,4 | 27       | 144,5        | 65 | 73      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.675.2000.70 |
| NPT 2 1/2" | 63   | 46-64     | 39,9-56,3 | 40       | 157,5        | 80 | 90      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.675.5200.70 |
| NPT 3"     | 75   | 57-78     | 50,5-68,2 | 41,5     | 167          | 95 | 107     | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.675.3000.70 |

# CABLE GLANDS FOR „HAZARDOUS AREAS“

**EXIOS<sup>+</sup>MZ**

Metr., NPT



|                       |                                   |
|-----------------------|-----------------------------------|
| Material              | Nickel plated brass               |
| Seal                  | Silicone, VMQ                     |
| Clamping insert       | PA 6                              |
| Armouring             | Metallic Armour or Screen         |
| Protection            | IP 66, 67 and 68 (5 bar)          |
| Operating Temperature | -60° C – 105 °C (-76 °F – 221 °F) |

// INOX on request



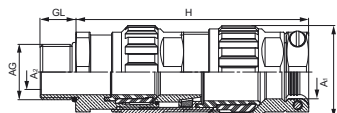
**ATEX** BVS 10 ATEX E 062 X

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

**IECEx** IECEx BVS 10.0078X

**EAC** RU C-DE.ГБ05.8.00077

**CSA** 12.2557737X



| AG         | Size | Ø A1<br>mm | Ø A2<br>mm | GL<br>mm | H max.<br>mm | Ø<br>mm | D<br>mm | Armouring Ø mm     |                    |                           | Number        |
|------------|------|------------|------------|----------|--------------|---------|---------|--------------------|--------------------|---------------------------|---------------|
|            |      |            |            |          |              |         |         | Clamping ring<br>1 | Clamping ring<br>2 | Clamping ring<br>optional |               |
| M 16 x1,5  | 20-1 | 6-11       | 3-8,1      | 16       | 79           | 22      | 27      | 0-0,7              | 0,7-1,25           |                           | 1.675.1603.50 |
| M 20 x1,5  | 20-1 | 6-11       | 3-8,1      | 16       | 79           | 22      | 27      | 0-0,7              | 0,7-1,25           |                           | 1.675.2003.50 |
| M 20 x1,5  | 20-2 | 9-13       | 6-12       | 16       | 83,8         | 24      | 29      | 0-0,7              | 0,7-1,25           |                           | 1.675.2003.51 |
| M 20 x1,5  | 20-3 | 12,5-17,5  | 9-14       | 16       | 91,5         | 30      | 35      | 0-0,7              | 0,7-1,4            |                           | 1.675.2003.52 |
| M 25 x1,5  | 20-3 | 12,5-17,5  | 9-14       | 16       | 91,5         | 30      | 35      | 0-0,7              | 0,7-1,4            |                           | 1.675.2503.51 |
| M 25 x1,5  | 25   | 16,9-24    | 12,5-20,5  | 16       | 105,7        | 36      | 42      | 0-0,7              | 0,9-1,6            | 0,7-1,4                   | 1.675.2503.50 |
| M 32 x1,5  | 32   | 22-32,5    | 16,9-26    | 16       | 107          | 46      | 52      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.675.3203.50 |
| M 40 x1,5  | 40   | 28-41      | 22-33      | 16       | 120          | 55      | 64      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.675.4003.50 |
| M 50 x1,5  | 50   | 36-39,5    | 28,9-44,4  | 16       | 144,5        | 65      | 73      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.675.5003.50 |
| M 63 x1,5  | 63   | 46-64      | 39,9-56,3  | 16       | 157,5        | 80      | 90      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.675.6303.50 |
| M 75 x1,5  | 75   | 57-78      | 50,5-68,2  | 16       | 167          | 95      | 107     | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.675.7503.50 |
| NPT 3/8"   | 20-1 | 6-11       | 3-8,1      | 16       | 79           | 22      | 27      | 0-0,7              | 0,7-1,25           |                           | 1.675.3803.70 |
| NPT 1/2"   | 20-2 | 9-13       | 6-12       | 20       | 83,8         | 24      | 29      | 0-0,7              | 0,7-1,25           |                           | 1.675.1203.70 |
| NPT 1/2"   | 20-3 | 12,5-17,5  | 9-14       | 20       | 91,5         | 30      | 35      | 0-0,7              | 0,7-1,4            |                           | 1.675.1203.71 |
| NPT 3/4"   | 25   | 16,9-24    | 12,5-20,5  | 20,5     | 105,7        | 36      | 42      | 0-0,7              | 0,9-1,6            | 0,7-1,4                   | 1.675.3403.70 |
| NPT 1"     | 32   | 22-32,5    | 16,9-26    | 25       | 107          | 46      | 52      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.675.1003.70 |
| NPT 1 1/4" | 40   | 28-39,5    | 22-33      | 26       | 120          | 55      | 64      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.675.5403.70 |
| NPT 1 1/2" | 40   | 28-39,5    | 22-33      | 26,5     | 120          | 55      | 64      | 0-0,7              | 1,3-2,0            | 0,7-1,4                   | 1.675.6403.70 |
| NPT 2"     | 50   | 36-49      | 28,9-44,4  | 27       | 144,5        | 65      | 73      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.675.2003.70 |
| NPT 2 1/2" | 63   | 46-64      | 39,9-56,3  | 40       | 157,5        | 80      | 90      | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.675.5203.70 |
| NPT 3"     | 75   | 57-78      | 50,5-68,2  | 41,5     | 167          | 95      | 107     | 0-1,0              | 1,5-2,5            | 1,0-2,0                   | 1.675.3003.70 |

# CABLE GLANDS FOR „HAZARDOUS AREAS“

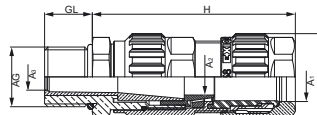
**EXIOS<sup>+</sup> BARRIER**

**Metr., NPT**



|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Brass                            |
| Seal                  | Silicone, VMQ                    |
| Clamping insert       | PA 6                             |
| Armouring             | Metallic Armour or Screen        |
| Compound              | Two-component epoxy compound     |
| Protection            | IP 66, 67 and 68 (5 bar)         |
| Operating Temperature | -60 °C – 85 °C (-76 °F – 185 °F) |

// INOX on request



| AG         | Size | Ø A1<br>mm | Ø A2<br>mm | Ø A3<br>mm | GL<br>mm | H max.<br>mm | Ø<br>mm | D<br>mm | Max.<br>No. cores | Armouring Ø mm<br>Clamping ring 1 | Clamping ring 2 | Number        |
|------------|------|------------|------------|------------|----------|--------------|---------|---------|-------------------|-----------------------------------|-----------------|---------------|
| M 16 x1,5  | 20-1 | 6-12       | 8,2        | 7,9        | 16       | 68,5         | 22      | 27      | 8                 | 0-0,7                             | 0,7-1,25        | 1.606.1600.50 |
| M 20 x1,5  | 20-1 | 6-12       | 8,2        | 7,9        | 16       | 68,5         | 22      | 27      | 8                 | 0-0,7                             | 0,7-1,25        | 1.606.2000.50 |
| M 20 x1,5  | 20-2 | 9-16       | 12         | 8,8        | 16       | 74,3         | 24      | 29      | 10                | 0-0,7                             | 0,7-1,25        | 1.606.2000.51 |
| M 20 x1,5  | 20-3 | 12,5-20,5  | 14         | 11,5       | 16       | 80,5         | 30      | 35      | 15                | 0-0,7                             | 0,7-1,4         | 1.606.2000.52 |
| M 25 x1,5  | 20-3 | 12,5-20,5  | 14         | 11,5       | 16       | 80,5         | 30      | 35      | 15                | 0-0,7                             | 0,7-1,4         | 1.606.2500.51 |
| M 25 x1,5  | 25   | 16,9-26    | 20         | 16,4       | 16       | 91           | 36      | 42      | 25                | 0-0,7                             | 0,9-1,6         | 1.606.2500.50 |
| M 32 x1,5  | 32   | 22-32,5    | 26         | 21,4       | 16       | 96           | 46      | 52      | 45                | 0-0,7                             | 1,3-2,0         | 1.606.3200.50 |
| M 40 x1,5  | 40   | 28-41      | 33,2       | 27,6       | 16       | 107          | 55      | 64      | 70                | 0-0,7                             | 1,3-2,0         | 1.606.4000.50 |
| M 50 x1,5  | 50   | 36-52,6    | 44,2       | 37,5       | 16       | 131,5        | 65      | 73      | 85                | 0-1,0                             | 1,5-2,5         | 1.606.5000.50 |
| M 63 x1,5  | 63   | 46-65,3    | 56,2       | 47,3       | 16       | 144,5        | 80      | 90      | 120               | 0-1,0                             | 1,5-2,5         | 1.606.6300.50 |
| M 75 x1,5  | 75   | 57-78      | 68,2       | 58,0       | 16       | 154          | 95      | 107     | 150               | 0-1,0                             | 1,5-2,5         | 1.606.7500.50 |
| NPT 3/8"   | 20-1 | 6-12       | 8,2        | 7,9        | 16       | 64           | 22      | 27      | 8                 | 0-0,7                             | 0,7-1,25        | 1.606.3800.70 |
| NPT 1/2"   | 20-2 | 9-12       | 12         | 8,8        | 20       | 68           | 24      | 29      | 10                | 0-0,7                             | 0,7-1,25        | 1.606.1200.70 |
| NPT 1/2"   | 20-3 | 12,5-20,5  | 14         | 11,5       | 20       | 73           | 30      | 35      | 15                | 0-0,7                             | 0,7-1,4         | 1.606.1200.71 |
| NPT 3/4"   | 25   | 16,9-26    | 20         | 16,4       | 20,5     | 81,3         | 36      | 42      | 25                | 0-0,7                             | 0,9-1,6         | 1.606.3400.70 |
| NPT 1"     | 32   | 22-32,5    | 26         | 21,4       | 25       | 85,5         | 46      | 52      | 45                | 0-0,7                             | 1,3-2,0         | 1.606.1000.70 |
| NPT 1 1/4" | 40   | 28-41      | 33,2       | 27,6       | 26       | 94,4         | 55      | 64      | 70                | 0-0,7                             | 1,3-2,0         | 1.606.5400.70 |
| NPT 1 1/2" | 40   | 28-41      | 33,2       | 27,6       | 26,5     | 94,4         | 55      | 64      | 70                | 0-0,7                             | 1,3-2,0         | 1.606.6400.70 |
| NPT 2"     | 50   | 36-52,6    | 44,2       | 37,5       | 27       | 116,3        | 65      | 73      | 85                | 0-1,0                             | 1,5-2,5         | 1.606.2000.70 |
| NPT 2 1/2" | 63   | 46-65,3    | 56,2       | 47,3       | 40       | 127,6        | 80      | 90      | 120               | 0-1,0                             | 1,5-2,5         | 1.606.5200.70 |
| NPT 3"     | 75   | 57-78      | 68,2       | 58,0       | 41,5     | 136,5        | 95      | 107     | 150               | 0-1,0                             | 1,5-2,5         | 1.606.3000.70 |

# CABLE GLANDS FOR „HAZARDOUS AREAS“

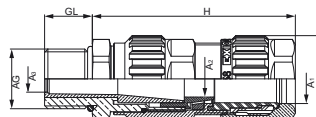
**EXIOS<sup>+</sup> BARRIER**

**Metr., NPT**



|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Nickel plated brass              |
| Seal                  | Silicone, VMQ                    |
| Clamping insert       | PA 6                             |
| Armouring             | Metallic Armour or Screen        |
| Compound              | Two-component epoxy compound     |
| Protection            | IP 66, 67 and 68 (5 bar)         |
| Operating Temperature | -60 °C – 85 °C (-76 °F – 185 °F) |

// INOX on request



| AG         | Size | Ø A1<br>mm | Ø A2<br>mm | Ø A3<br>mm | GL<br>mm | H max.<br>mm | mm | D<br>mm | Max.<br>No. cores | Armouring Ø mm<br>Clamping ring 1 Clamping ring 2 |          | Number        |
|------------|------|------------|------------|------------|----------|--------------|----|---------|-------------------|---------------------------------------------------|----------|---------------|
| M 16 x1,5  | 20-1 | 6-12       | 8,2        | 7,9        | 16       | 68,5         | 22 | 27      | 8                 | 0-0,7                                             | 0,7-1,25 | 1.606.1603.50 |
| M 20 x1,5  | 20-1 | 6-12       | 8,2        | 7,9        | 16       | 68,5         | 22 | 27      | 8                 | 0-0,7                                             | 0,7-1,25 | 1.606.2003.50 |
| M 20 x1,5  | 20-2 | 9-16       | 12         | 8,8        | 16       | 74,3         | 24 | 29      | 10                | 0-0,7                                             | 0,7-1,25 | 1.606.2003.51 |
| M 20 x1,5  | 20-3 | 12,5-20,5  | 14         | 11,5       | 16       | 80,5         | 30 | 35      | 15                | 0-0,7                                             | 0,7-1,4  | 1.606.2003.52 |
| M 25 x1,5  | 20-3 | 12,5-20,5  | 14         | 11,5       | 16       | 80,5         | 30 | 35      | 15                | 0-0,7                                             | 0,7-1,4  | 1.606.2503.51 |
| M 25 x1,5  | 25   | 16,9-26    | 20         | 16,4       | 16       | 91           | 36 | 42      | 25                | 0-0,7                                             | 0,9-1,6  | 1.606.2503.50 |
| M 32 x1,5  | 32   | 22-32,5    | 26         | 21,4       | 16       | 96           | 46 | 52      | 45                | 0-0,7                                             | 1,3-2,0  | 1.606.3203.50 |
| M 40 x1,5  | 40   | 28-41      | 33,2       | 27,6       | 16       | 107          | 55 | 64      | 70                | 0-0,7                                             | 1,3-2,0  | 1.606.4003.50 |
| M 50 x1,5  | 50   | 36-52,6    | 44,2       | 37,5       | 16       | 131,5        | 65 | 73      | 85                | 0-1,0                                             | 1,5-2,5  | 1.606.5003.50 |
| M 63 x1,5  | 63   | 46-65,3    | 56,2       | 47,3       | 16       | 144,5        | 80 | 90      | 120               | 0-1,0                                             | 1,5-2,5  | 1.606.6303.50 |
| M 75 x1,5  | 75   | 57-78      | 68,2       | 58,0       | 16       | 154          | 95 | 107     | 150               | 0-1,0                                             | 1,5-2,5  | 1.606.7503.50 |
| NPT 3/8"   | 20-1 | 6-12       | 8,2        | 7,9        | 16       | 64           | 22 | 27      | 8                 | 0-0,7                                             | 0,7-1,25 | 1.606.3803.70 |
| NPT 1/2"   | 20-2 | 9-12       | 12         | 8,8        | 20       | 68           | 24 | 29      | 10                | 0-0,7                                             | 0,7-1,25 | 1.606.1203.70 |
| NPT 1/2"   | 20-3 | 12,5-20,5  | 14         | 11,5       | 20       | 73           | 30 | 35      | 15                | 0-0,7                                             | 0,7-1,4  | 1.606.1203.71 |
| NPT 3/4"   | 25   | 16,9-26    | 20         | 16,4       | 20,5     | 81,3         | 36 | 42      | 25                | 0-0,7                                             | 0,9-1,6  | 1.606.3403.70 |
| NPT 1"     | 32   | 22-32,5    | 26         | 21,4       | 25       | 85,5         | 46 | 52      | 45                | 0-0,7                                             | 1,3-2,0  | 1.606.1003.70 |
| NPT 1 1/4" | 40   | 28-41      | 33,2       | 27,6       | 26       | 94,4         | 55 | 64      | 70                | 0-0,7                                             | 1,3-2,0  | 1.606.5403.70 |
| NPT 1 1/2" | 40   | 28-41      | 33,2       | 27,6       | 26,5     | 94,4         | 55 | 64      | 70                | 0-0,7                                             | 1,3-2,0  | 1.606.6403.70 |
| NPT 2"     | 50   | 36-52,6    | 44,2       | 37,5       | 27       | 116,3        | 65 | 73      | 85                | 0-1,0                                             | 1,5-2,5  | 1.606.2003.70 |
| NPT 2 1/2" | 63   | 46-65,3    | 56,2       | 47,3       | 40       | 127,6        | 80 | 90      | 120               | 0-1,0                                             | 1,5-2,5  | 1.606.5203.70 |
| NPT 3"     | 75   | 57-78      | 68,2       | 58,0       | 41,5     | 136,5        | 95 | 107     | 150               | 0-1,0                                             | 1,5-2,5  | 1.606.3003.70 |

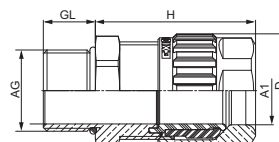
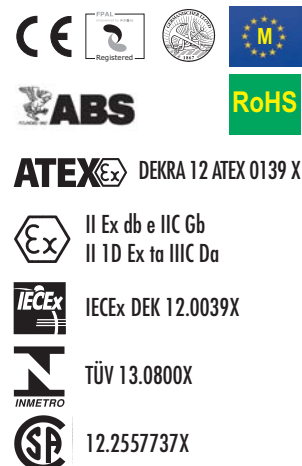
# CABLE GLANDS FOR „HAZARDOUS AREAS“

**EXIOS<sup>+</sup> A2F**



|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Brass                            |
| Seal                  | Silicone, VMQ                    |
| Clamping insert       | PA 6                             |
| Protection            | IP 66, 67 and 68 (5 bar)         |
| Operating Temperature | -60 °C – 85 °C (-76 °F – 185 °F) |

// INOX on request



| AG         | Size | Ø A1<br>mm | GL<br>mm | H max.<br>mm | mm    | D<br>mm | Number        | Number<br>Nickel plated brass |
|------------|------|------------|----------|--------------|-------|---------|---------------|-------------------------------|
| M 16 x 1,5 | 20-1 | 6-12       | 16       | 36,5         | 22    | 27      | 1.608.1600.50 | 1.608.1603.50                 |
| M 20 x 1,5 | 20-1 | 6-12       | 16       | 36,5         | 22    | 27      | 1.608.2000.50 | 1.608.2003.50                 |
| M 20 x 1,5 | 20-2 | 9-16       | 16       | 41           | 24    | 29      | 1.608.2000.51 | 1.608.2003.51                 |
| M 25 x 1,5 | 20-3 | 12,5-20,5  | 16       | 48           | 30    | 35      | 1.608.2500.50 | 1.608.2503.50                 |
| M 32 x 1,5 | 25   | 16,9-26    | 16       | 48,5         | 36    | 42      | 1.608.3200.50 | 1.608.3203.50                 |
| M 40 x 1,5 | 32   | 22-33      | 16       | 54           | 46    | 52      | 1.608.4000.50 | 1.608.4003.50                 |
| M 50 x 1,5 | 40   | 28-41      | 16       | 60           | 55    | 64      | 1.608.5000.50 | 1.608.5003.50                 |
| M 63 x 1,5 | 50   | 40-52,6    | 16       | 67           | 65    | 73      | 1.608.6300.50 | 1.608.6303.50                 |
| M 75 x 1,5 | 63   | 51-65,3    | 16       | 72           | 80    | 90      | 1.608.7500.50 | 1.608.7503.50                 |
|            |      |            |          |              |       |         |               |                               |
| NPT 3/8"   | 20-1 | 6-12       | 16       | 35,6         | 22    | 27      | 1.608.3800.70 | 1.608.3803.70                 |
| NPT 1/2"   | 20-1 | 6-12       | 20       | 35,6         | 22/24 | 27      | 1.608.1200.70 | 1.608.1203.70                 |
| NPT 1/2"   | 20-2 | 9-16       | 20       | 39,7         | 24    | 29      | 1.608.1200.71 | 1.608.1203.71                 |
| NPT 3/4"   | 20-3 | 12,5-20,5  | 20,5     | 47,5         | 30    | 35      | 1.608.3400.70 | 1.608.3403.70                 |
| NPT 1"     | 25   | 16,9-26    | 25       | 47,8         | 36    | 42      | 1.608.1000.70 | 1.608.1003.70                 |
| NPT 1 1/4" | 32   | 22-33      | 26       | 51,1         | 46    | 52      | 1.608.5400.70 | 1.608.5403.70                 |
| NPT 1 1/2" | 40   | 28-41      | 26,5     | 56,8         | 55    | 64      | 1.608.6400.70 | 1.608.6403.70                 |
| NPT 2"     | 50   | 40-52,6    | 27       | 65,4         | 65    | 73      | 1.608.2000.70 | 1.608.2003.70                 |
| NPT 2 1/2" | 63   | 51-61      | 40       | 70,3         | 80    | 90      | 1.608.5200.70 | 1.608.5203.70                 |
| NPT 3"     | 75   | 62-78      | 41,5     | 76,2         | 95    | 107     | 1.608.3000.70 | 1.608.3003.70                 |

## Red Fibre Washer

Metr., NPT



GFK thread seal

Material

Fiber reinforced Nylon

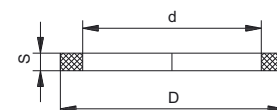
Operating Temperature

-60 °C – 105 °C (113 – 76 °F – 221 °F)

EAC



RoHS



| Fits the following sizes | D    | d    | S   | Number        |
|--------------------------|------|------|-----|---------------|
| M 16                     | 24   | 16,1 | 1,5 | 1.326.1600.50 |
| M 20                     | 28,5 | 20,5 | 1,5 | 1.326.2000.50 |
| M 25                     | 36,5 | 25,5 | 1,6 | 1.326.2500.50 |
| M 32                     | 42,5 | 32,5 | 1,6 | 1.326.3200.50 |
| M 40                     | 51,5 | 40   | 1,5 | 1.326.4000.50 |
| M 50                     | 61,5 | 51   | 1,6 | 1.326.5000.50 |
| M 63                     | 76   | 63,5 | 1,6 | 1.326.6300.50 |
| M 75                     | 87,5 | 75,5 | 1,8 | 1.326.7500.50 |

| Fits the following sizes | D     | d    | S   | Number        |
|--------------------------|-------|------|-----|---------------|
| 3/8"                     | 25,5  | 17,5 | 1,5 | 1.326.3800.70 |
| 1/2"                     | 30    | 22   | 1,5 | 1.326.1200.70 |
| 3/4"                     | 33,5  | 26,5 | 1,5 | 1.326.3400.70 |
| 1"                       | 42,5  | 34   | 1,6 | 1.326.1000.70 |
| 1 1/4"                   | 52    | 42,5 | 1,6 | 1.326.5400.70 |
| 1 1/2"                   | 58,7  | 50   | 1,5 | 1.326.6400.70 |
| 2"                       | 69,5  | 60,8 | 1,6 | 1.326.2000.70 |
| 2 1/2"                   | 83    | 73,8 | 1,5 | 1.326.5200.70 |
| 3"                       | 114,5 | 91,5 | 1,8 | 1.326.3000.70 |

## PVC Shroud

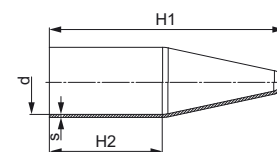


Material

PVC

EAC

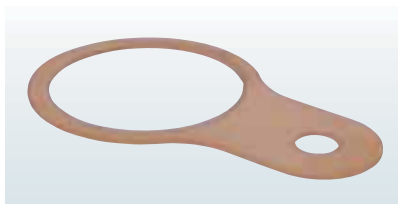
RoHS



| Fits the following sizes | H1 mm | H2 mm | d mm | Number        |
|--------------------------|-------|-------|------|---------------|
| 20 – 1                   | 115   | 60    | 26   | 1.802.2000.50 |
| 20 – 2                   | 125   | 70    | 28   | 1.802.2000.51 |
| 20 – 3                   | 130   | 65    | 34   | 1.802.2000.52 |
| 25                       | 160   | 90    | 42   | 1.802.2500.50 |
| 32                       | 165   | 95    | 51   | 1.802.3200.50 |
| 40                       | 200   | 110   | 63   | 1.802.4000.50 |
| 50                       | 210   | 115   | 72   | 1.802.5000.50 |
| 63                       | 245   | 140   | 88   | 1.802.6300.50 |
| 75                       | 245   | 140   | 108  | 1.802.7500.50 |

## Earthtag

Metr., NPT

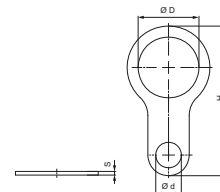


Material

Brass

EAC

RoHS



| Size | D    | d    | s   | H     | Number        |
|------|------|------|-----|-------|---------------|
| M 16 | 16   | 6,5  | 1,5 | 50,5  | 1.022.1600.50 |
| M 20 | 21   | 7    | 1,5 | 54    | 1.022.2000.50 |
| M 25 | 25,5 | 10,5 | 1,5 | 61,5  | 1.022.2500.50 |
| M 32 | 33,5 | 12,5 | 1,5 | 77    | 1.022.3200.50 |
| M 40 | 40,5 | 13,5 | 1,5 | 86,5  | 1.022.4000.50 |
| M 50 | 51   | 13,5 | 1,5 | 111   | 1.022.5000.50 |
| M 63 | 64   | 1,5  | 1,5 | 128,5 | 1.022.6300.50 |
| M 75 | 75,5 | 13   | 1,5 | 138   | 1.022.7500.50 |

| Size   | D    | d    | s   | H     | Number        |
|--------|------|------|-----|-------|---------------|
| 1/2"   | 21,5 | 7    | 1,6 | 53,5  | 1.022.1200.70 |
| 3/4"   | 27   | 10,5 | 1,6 | 61,5  | 1.022.3400.70 |
| 1"     | 35   | 12,5 | 1,6 | 73    | 1.022.1000.70 |
| 1 1/4" | 43,5 | 13,5 | 1,6 | 87    | 1.022.5400.70 |
| 1 1/2" | 51   | 12,5 | 1,6 | 112   | 1.022.6400.70 |
| 2"     | 61   | 13,5 | 1,6 | 125,5 | 1.022.2000.70 |
| 2 1/2" | 76   | 13,5 | 1,6 | 138   | 1.022.5200.70 |

## Serrated Washer

Metr., NPT

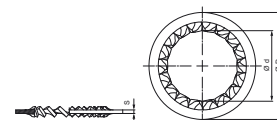


Material

INOX 1.4401

EAC

RoHS



| Size | D     | d    | s   | Number        |
|------|-------|------|-----|---------------|
| M 16 | 26,5  | 17   | 1,5 | 1.329.1600.50 |
| M 20 | 33,5  | 21,5 | 1,5 | 1.329.2000.50 |
| M 25 | 39    | 26   | 1,5 | 1.329.2500.50 |
| M 32 | 48    | 30,5 | 1,5 | 1.329.3200.50 |
| M 40 | 59,5  | 40,5 | 1,5 | 1.329.4000.50 |
| M 50 | 71    | 51,5 | 1,5 | 1.329.5000.50 |
| M 63 | 87    | 64   | 1,5 | 1.329.6300.50 |
| M 75 | 102,5 | 76,5 | 1,5 | 1.329.7500.50 |

| Size   | D     | d    | s   | Number        |
|--------|-------|------|-----|---------------|
| 3/8"   | 30    | 19,5 | 1,5 | 1.329.3800.70 |
| 1/2"   | 39    | 23,5 | 1,5 | 1.329.1200.70 |
| 3/4"   | 42    | 29,5 | 1,5 | 1.329.3400.70 |
| 1"     | 49,5  | 35   | 1,5 | 1.329.1000.70 |
| 1 1/4" | 59,5  | 44   | 1,5 | 1.329.5400.70 |
| 1 1/2" | 71    | 51,5 | 1,5 | 1.329.6400.70 |
| 2"     | 86,6  | 61,5 | 1,5 | 1.329.2000.70 |
| 2 1/2" | 102,5 | 76,5 | 1,5 | 1.329.5200.70 |

# CABLE GLANDS FOR „HAZARDOUS AREAS“

## HSK-Ex e cable glands

Cable glands of the HSK-Ex e-series have been designed for standard applications in hazardous locations type „e“ according to EN 60079-0 and EN 60079-7.

### You can find in this chapter:

HSK-Ex e cable gland series Ex e proofed (for increased safety)

- // HSK-K-Ex-Active cable gland made of polyamide according to the latest Ex e standards
- // HSK-M-Ex cable glands made of nickel plated brass for different temperature ranges
- // HSK-INOX-Ex cable glands made of stainless steel for different temperature ranges
- // HSK-PVDF-Ex cable glands made of metal for higher temperatures

We provide variable clamping ranges, thread lengths, thread types plus different sealing materials and temperature ranges. Our range is completed by global certifications.

For any further question please do not hesitate to contact us. We look forward to develop solutions together with you. You profit of our vast knowledge in development, engineering and production technology





|                       |                                                       |
|-----------------------|-------------------------------------------------------|
| Material              | fibreglass reinforced polyamide V0 according to UL 94 |
| Seal                  | Buna-N                                                |
| O-Ring                | Buna-N                                                |
| Protection            | IP 68 – 10 bar within the specified clamping range    |
| Operating Temperature | -20 °C – 85 °C (-4 °F – 185 °F)                       |
| Colors                | black (RAL 9005) / blue-black (RAL 5012)              |

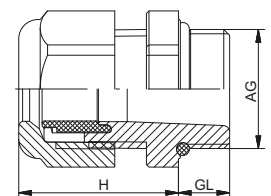
// FKM and VMQ O-Ring upon request



**ATEX** II 2G Ex eb IIC Gb  
II TD Ex ta IIIC Da

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

For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](#).



| AG         | Ø mm  | mm      | H mm | GL mm | Number black  | Number blue-black | GL mm | Number black elongated | Number blue-black elongated |
|------------|-------|---------|------|-------|---------------|-------------------|-------|------------------------|-----------------------------|
| M 12 x 1,5 | 3–6,5 | 15      | 21   | 8     | 1.292.1201.50 | 1.292.1202.50     | 15    | 1.292.1201.30          | 1.292.1202.30               |
| M 12 x 1,5 | 2–5   | 15      | 21   | 8     | 1.292.1201.51 | 1.292.1202.51     | 15    | 1.292.1201.31          | 1.292.1202.31               |
| M 16 x 1,5 | 4–8   | 19      | 22   | 8     | 1.292.1601.50 | 1.292.1602.50     | 15    | 1.292.1601.30          | 1.292.1602.30               |
| M 16 x 1,5 | 3–6   | 19      | 22   | 8     | 1.292.1601.51 | 1.292.1602.51     | 15    | 1.292.1601.31          | 1.292.1602.31               |
| M 16 x 1,5 | 5–10  | 22      | 25   | 8     | 1.292.1611.50 | 1.292.1612.50     | 15    | 1.292.1611.30          | 1.292.1612.30               |
| M 16 x 1,5 | 3–7   | 22      | 25   | 8     | 1.292.1611.51 | 1.292.1612.51     | 15    | 1.292.1611.31          | 1.292.1612.31               |
| M 20 x 1,5 | 6–12  | 24      | 27   | 9     | 1.292.2001.50 | 1.292.2002.50     | 15    | 1.292.2001.30          | 1.292.2002.30               |
| M 20 x 1,5 | 5–9   | 24      | 27   | 9     | 1.292.2001.51 | 1.292.2002.51     | 15    | 1.292.2001.31          | 1.292.2002.31               |
| M 20 x 1,5 | 10–14 | 27      | 28   | 9     | 1.292.2016.50 | 1.292.2017.50     | 15    | 1.292.2016.30          | 1.292.2017.30               |
| M 20 x 1,5 | 7–12  | 27      | 28   | 9     | 1.292.2016.51 | 1.292.2017.51     | 15    | 1.292.2016.31          | 1.292.2017.31               |
| M 25 x 1,5 | 13–18 | 33      | 31   | 11    | 1.292.2501.50 | 1.292.2502.50     | 15    | 1.292.2501.30          | 1.292.2502.30               |
| M 25 x 1,5 | 9–16  | 33      | 31   | 11    | 1.292.2501.51 | 1.292.2502.51     | 15    | 1.292.2501.31          | 1.292.2502.31               |
| M 32 x 1,5 | 18–25 | 42      | 39   | 11    | 1.292.3201.50 | 1.292.3202.50     | 15    | 1.292.3201.30          | 1.292.3202.30               |
| M 32 x 1,5 | 13–20 | 42      | 39   | 11    | 1.292.3201.51 | 1.292.3202.51     | 15    | 1.292.3201.31          | 1.292.3202.31               |
| M 40 x 1,5 | 22–32 | 53      | 48   | 13    | 1.292.4001.50 | 1.292.4002.50     | 18    | 1.292.4001.30          | 1.292.4002.30               |
| M 40 x 1,5 | 20–26 | 53      | 48   | 13    | 1.292.4001.51 | 1.292.4002.51     | 18    | 1.292.4001.31          | 1.292.4002.31               |
| M 50 x 1,5 | 32–38 | 60      | 49   | 13    | 1.292.5001.50 | 1.292.5002.50     | 18    | 1.292.5001.30          | 1.292.5002.30               |
| M 50 x 1,5 | 25–31 | 60      | 49   | 13    | 1.292.5001.51 | 1.292.5002.51     | 18    | 1.292.5001.31          | 1.292.5002.31               |
| M 63 x 1,5 | 37–44 | 65 / 68 | 49   | 14    | 1.292.6301.50 | 1.292.6302.50     | 18    | 1.292.6301.30          | 1.292.6302.30               |
| M 63 x 1,5 | 29–35 | 65 / 68 | 49   | 14    | 1.292.6301.51 | 1.292.6302.51     | 18    | 1.292.6301.31          | 1.292.6302.31               |

## HSK-K-Ex-Active

NPT



|                       |                                                       |
|-----------------------|-------------------------------------------------------|
| Material              | fibreglass reinforced polyamide V0 according to UL 94 |
| Seal                  | Buna-N                                                |
| O-Ring                | Buna-N                                                |
| Protection            | IP 68 – 10 bar within the specified clamping range    |
| Operating Temperature | -20 °C – 85 °C (-4 °F – 185 °F)                       |
| Colors                | black (RAL 9005) / blue-black (RAL 5012)              |

// FKM and VMQ O-Ring upon request



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

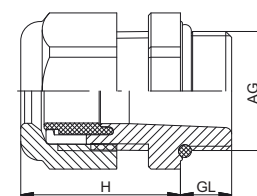


Class I Div 2 Groups A, B, C, D  
Class II Div 1 Groups E, F, G

For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



in black color



| AG            | Ø mm  | mm      | H mm | GL mm | Number black  | Number blue-black |
|---------------|-------|---------|------|-------|---------------|-------------------|
| NPT 3/8"      | 4–8   | 19 / 22 | 22   | 15    | 1.292.3801.70 | 1.292.3802.70     |
| NPT 3/8"      | 3–6   | 19 / 22 | 22   | 15    | 1.292.3801.71 | 1.292.3802.71     |
| NPT 1/2"      | 6–12  | 24      | 27   | 13    | 1.292.1201.70 | 1.292.1202.70     |
| NPT 1/2"      | 5–9   | 24      | 27   | 13    | 1.292.1201.71 | 1.292.1202.71     |
| NPT 1/2" (16) | 10–14 | 27      | 28   | 13    | 1.292.1216.70 | 1.292.1217.70     |
| NPT 1/2" (16) | 7–12  | 27      | 28   | 13    | 1.292.1216.71 | 1.292.1217.71     |
| NPT 3/4"      | 13–18 | 33      | 31   | 14    | 1.292.3401.70 | 1.292.3402.70     |
| NPT 3/4"      | 9–16  | 33      | 31   | 14    | 1.292.3401.71 | 1.292.3402.71     |
| NPT 1"        | 18–25 | 42      | 39   | 19    | 1.292.1001.70 | 1.292.1002.70     |
| NPT 1"        | 13–20 | 42      | 39   | 19    | 1.292.1001.71 | 1.292.1002.71     |
| NPT 1 1/4"    | 18–25 | 42 / 46 | 39   | 16    | 1.292.5401.70 | 1.292.5402.70     |
| NPT 1 1/4"    | 13–20 | 42 / 46 | 39   | 16    | 1.292.5401.71 | 1.292.5402.71     |
| NPT 1 1/2"    | 22–32 | 53      | 48   | 20    | 1.292.6401.70 | 1.292.6402.70     |
| NPT 1 1/2"    | 20–26 | 53      | 48   | 20    | 1.292.6401.71 | 1.292.6402.71     |



|                       |                                                       |
|-----------------------|-------------------------------------------------------|
| Material              | fibreglass reinforced polyamide V0 according to UL 94 |
| Seal                  | Elastomer                                             |
| O-Ring                | Buna-N                                                |
| Protection            | IP 68 – 10 bar within the specified clamping range    |
| Operating Temperature | -20 °C – 85 °C (-4 °F – 185 °F)                       |
| Colors                | black (RAL 9005) / blue-black (RAL 5012)              |

- // FKM and VMQ O-Ring upon request
- // The shown inserts are samples, more inserts upon request

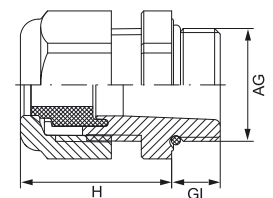
**Installation Instructions:** Cable diameter should not be less than 20 % of hole diameter and the difference between cable diameter and hole should never exceed 1 mm (.04").



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

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

For the **international certificates** please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG            | mm      | H mm | GL mm | Number of holes x d | Number black  | Number blue-black | Number of holes x d | Number black elongated | Number blue-black elongated |
|---------------|---------|------|-------|---------------------|---------------|-------------------|---------------------|------------------------|-----------------------------|
| M 16 x 1,5    | 19      | 22   | 8     | 4 x 1,4             | 1.581.1600.51 | 1.581.1600.52     | 2 x 3               | 1.581.1601.51          | 1.581.1601.52               |
| M 20 x 1,5    | 24      | 27   | 9     | 6 x 3               | 1.581.2001.51 | 1.581.2001.52     | 2 x 5               | 1.581.2003.51          | 1.581.2003.52               |
| M 25 x 1,5    | 33      | 31   | 11    | 4 x 6               | 1.581.2500.51 | 1.581.2500.52     | 3 x 7               | 1.581.2501.51          | 1.581.2501.52               |
| M 32 x 1,5    | 42      | 39   | 11    | 6 x 6,5             | 1.581.3200.51 | 1.581.3200.52     | 4 x 9               | 1.581.3201.51          | 1.581.3201.52               |
| M 40 x 1,5    | 53      | 48   | 13    | 7 x 9               | 1.581.4001.51 | 1.581.4001.52     | 2 x 15              | 1.581.4003.51          | 1.581.4003.52               |
| M 50 x 1,5    | 60      | 49   | 13    |                     | 1.581.5099.51 | 1.581.5099.52     |                     |                        |                             |
| M 63 x 1,5    | 65 / 68 | 49   | 14    | 6 x 12              | 1.581.6301.51 | 1.581.6301.52     | 3 x 18              | 1.581.6302.51          | 1.581.6302.52               |
| NPT 3/8"      | 19 / 22 | 22   | 15    | 4 x 1,4             | 1.581.3800.71 | 1.581.3800.72     | 2 x 3               | 1.581.3801.71          | 1.581.3801.72               |
| NPT 1/2"      | 24      | 27   | 13    | 3 x 4               | 1.581.1202.71 | 1.581.1202.72     | 2 x 5               | 1.581.1203.71          | 1.581.1203.72               |
| NPT 1/2" (16) | 27      | 28   | 13    | 6 x 4               | 1.581.1220.71 | 1.581.1220.72     | 2 x 6               | 1.581.1221.71          | 1.581.1221.72               |
| NPT 3/4"      | 33      | 31   | 14    | 4 x 6               | 1.581.3400.71 | 1.581.3400.72     | 3 x 7               | 1.581.3401.71          | 1.581.3401.72               |
| NPT 1"        | 42      | 39   | 19    | 6 x 6,5             | 1.581.1000.71 | 1.581.1000.72     | 4 x 9               | 1.581.1001.71          | 1.581.1001.72               |
| NPT 1 1/4"    | 42 / 46 | 39   | 16    |                     | 1.581.5499.71 | 1.581.5499.72     |                     |                        |                             |
| NPT 1 1/2"    | 53      | 48   | 20    | 5 x 9               | 1.581.6400.71 | 1.581.6400.72     | 7 x 9               | 1.581.6401.71          | 1.581.6401.72               |

## HSK-K-FLAKA-Ex-Active

Metr., NPT



|                       |                                                       |
|-----------------------|-------------------------------------------------------|
| Material              | fibreglass reinforced polyamide V0 according to UL 94 |
| Seal                  | Elastomer                                             |
| O-Ring                | Buna-N                                                |
| Protection            | IP 68 – 10 bar within the specified clamping range    |
| Operating Temperature | -20 °C – 85 °C (-4 °F – 185 °F)                       |
| Colors                | black (RAL 9005) / blue-black (RAL 5012)              |

- // FKM and VMQ O-Ring upon request
- // The shown inserts are samples, more inserts upon request

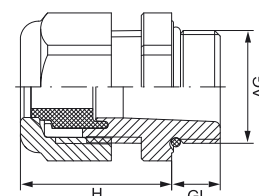
**Installation Instructions:** The clamping range of the cable used may not deviate from the manufacturer-specified minimum values by more than 1 mm in length and 1 mm in width. The geometries of the cable and the insert hole must be compatible (semi-circular or straight at the sides).



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

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

For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](#).



| AG            | mm    | H  | GL | mm | Dimensions<br>w x h<br>mm | Number<br>black | Number<br>blue-black | Dimensions<br>w x h<br>mm | Number<br>black | Number<br>blue-black |
|---------------|-------|----|----|----|---------------------------|-----------------|----------------------|---------------------------|-----------------|----------------------|
| M 20 x 1,5    | 27    | 28 | 9  |    | 12 x 7                    | 1.582.2017.51   | 1.582.2017.52        | 14 x 6                    | 1.582.2018.51   | 1.582.2018.52        |
| M 25 x 1,5    | 33    | 31 | 11 |    | 14 x 6                    | 1.582.2500.51   | 1.582.2500.52        | 14,5 x 7,2                | 1.582.2501.51   | 1.582.2501.52        |
| M 32 x 1,5    | 42    | 39 | 11 |    | 22 x 8                    | 1.582.3200.51   | 1.582.3200.52        |                           |                 |                      |
| M 40 x 1,5    | 53    | 48 | 13 |    | 28,5 x 10                 | 1.582.4000.51   | 1.582.4000.52        | 29 x 5,5                  | 1.582.4001.51   | 1.582.4001.52        |
| M 40 x 1,5    | 53    | 48 | 13 |    | 30,5 x 12                 | 1.582.4002.51   | 1.582.4002.52        | 31 x 7,5                  | 1.582.4003.51   | 1.582.4003.52        |
| M 50 x 1,5    | 60    | 49 | 13 |    | 33,5 x 11,5               | 1.582.5000.51   | 1.582.5000.52        |                           |                 |                      |
| NPT 1/2" (16) | 27    | 28 | 13 |    | 12 x 7                    | 1.582.1217.71   | 1.582.1217.72        | 14x 6                     | 1.582.1218.71   | 1.582.1218.72        |
| NPT 3/4"      | 33    | 31 | 14 |    | 14 x 6                    | 1.582.3400.71   | 1.582.3400.72        |                           |                 |                      |
| NPT 1"        | 42    | 39 | 19 |    | 22 x 8                    | 1.582.1000.71   | 1.582.1000.72        |                           |                 |                      |
| NPT 1 1/4"    | 42/46 | 39 | 16 |    | 22 x 8                    | 1.582.5400.71   | 1.582.5400.72        |                           |                 |                      |
| NPT 1 1/2"    | 53    | 48 | 16 |    | 28,5 x 10                 | 1.582.6400.71   | 1.582.6400.72        | 29 x 5,5                  | 1.582.6401.71   | 1.582.6401.72        |
| NPT 1 1/2"    | 53    | 48 | 20 |    | 30,5 x 12                 | 1.582.6402.71   | 1.582.6402.72        | 31 x 7,5                  | 1.582.6403.71   | 1.582.6403.72        |

# HSK-Ex e CABLE GLANDS

HSK-M-Ex / HSK-M-PVDF-Ex

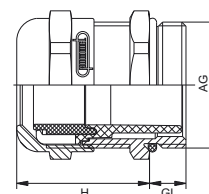
Metr.



|                       |                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                                                     |
| Clamping insert       | Polyamide / PVDF                                                                                                        |
| Seal                  | Buna-N / FKM                                                                                                            |
| O-Ring                | Buna-N / FKM                                                                                                            |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                             |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (PA)<br>-60 °C – 95 °C (-76 °F – 203 °F) (PA) / -20 °C – 130 °C (-4 °F – 266 °F) (PVDF) |



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG         | Ø mm  | GL mm | H mm | mm      | Number<br>HSK-M-Ex<br>-20 °C – 95 °C | Number<br>HSK-M-Ex<br>-60 °C – 95 °C | Number<br>HSK-M-PVDF-Ex<br>-20 °C – 130 °C |
|------------|-------|-------|------|---------|--------------------------------------|--------------------------------------|--------------------------------------------|
| M 12 x 1,5 | 3–6,5 | 6,5   | 19   | 14      | 1.610.1200.50                        | 1.640.1200.50                        | 1.660.1200.50                              |
| M 12 x 1,5 | 2–5   | 6,5   | 19   | 14      | 1.610.1200.51                        | 1.640.1200.51                        | 1.660.1200.51                              |
| M 16 x 1,5 | 4–8   | 6     | 21   | 17 / 19 | 1.610.1600.50                        | 1.640.1600.50                        | 1.660.1600.50                              |
| M 16 x 1,5 | 2–6   | 6     | 21   | 17 / 19 | 1.610.1600.51                        | 1.640.1600.51                        | 1.660.1600.51                              |
| M 16 x 1,5 | 6–10  | 6     | 22   | 20      | 1.610.1611.50                        | 1.640.1611.50                        | 1.660.1611.50                              |
| M 16 x 1,5 | 3–7   | 6     | 22   | 20      | 1.610.1611.51                        | 1.640.1611.51                        | 1.660.1611.51                              |
| M 20 x 1,5 | 7–12  | 6     | 23   | 22      | 1.610.2000.50                        | 1.640.2000.50                        | 1.660.2000.50                              |
| M 20 x 1,5 | 5–9   | 6     | 23   | 22      | 1.610.2000.51                        | 1.640.2000.51                        | 1.660.2000.51                              |
| M 20 x 1,5 | 10–14 | 6     | 24   | 24      | 1.610.2016.50                        | 1.640.2016.50                        | 1.660.2016.50                              |
| M 20 x 1,5 | 7–12  | 6     | 24   | 24      | 1.610.2016.51                        | 1.640.2016.51                        | 1.660.2016.51                              |
| M 25 x 1,5 | 14–18 | 7     | 26   | 30      | 1.610.2500.50                        | 1.640.2500.50                        | 1.660.2500.50                              |
| M 25 x 1,5 | 10–16 | 7     | 26   | 30      | 1.610.2500.51                        | 1.640.2500.51                        | 1.660.2500.51                              |
| M 32 x 1,5 | 20–25 | 8     | 31   | 40      | 1.610.3200.50                        | 1.640.3200.50                        | 1.660.3200.50                              |
| M 32 x 1,5 | 13–20 | 8     | 31   | 40      | 1.610.3200.51                        | 1.640.3200.51                        | 1.660.3200.51                              |
| M 40 x 1,5 | 22–32 | 8     | 37   | 50      | 1.610.4000.50                        | 1.640.4000.50                        | 1.660.4000.50                              |
| M 40 x 1,5 | 20–26 | 8     | 37   | 50      | 1.610.4000.51                        | 1.640.4000.51                        | 1.660.4000.51                              |
| M 50 x 1,5 | 32–38 | 9     | 37   | 57      | 1.610.5000.50                        | 1.640.5000.50                        |                                            |
| M 50 x 1,5 | 25–31 | 9     | 37   | 57      | 1.610.5000.51                        | 1.640.5000.51                        |                                            |
| M 63 x 1,5 | 37–44 | 10    | 38   | 64 / 68 | 1.610.6300.50                        | 1.640.6300.50                        |                                            |
| M 63 x 1,5 | 29–35 | 10    | 38   | 64 / 68 | 1.610.6300.51                        | 1.640.6300.51                        |                                            |

## HSK-M-Ex / HSK-M-PVDF-Ex

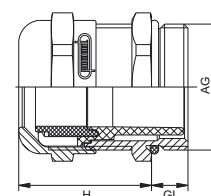
Metr.-elongated



|                       |                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                                                     |
| Clamping insert       | Polyamide / PVDF                                                                                                        |
| Seal                  | Buna-N / FKM                                                                                                            |
| O-Ring                | Buna-N / FKM                                                                                                            |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                             |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (PA)<br>-60 °C – 95 °C (-76 °F – 203 °F) (PA) / -20 °C – 130 °C (-4 °F – 266 °F) (PVDF) |



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG         | Ø<br>mm | GL<br>mm | H<br>mm | mm      | Number<br>HSK-M-Ex<br>-20 °C – 95 °C | Number<br>HSK-M-Ex<br>-60 °C – 95 °C | Number<br>HSK-M-PVDF-Ex<br>-20 °C – 130 °C |
|------------|---------|----------|---------|---------|--------------------------------------|--------------------------------------|--------------------------------------------|
| M 12 x 1,5 | 3–6,5   | 10       | 19      | 14      | 1.610.1200.30                        | 1.640.1200.30                        | 1.660.1200.30                              |
| M 12 x 1,5 | 2–5     | 10       | 19      | 14      | 1.610.1200.31                        | 1.640.1200.31                        | 1.660.1200.31                              |
| M 16 x 1,5 | 4–8     | 10       | 21      | 17 / 19 | 1.610.1600.30                        | 1.640.1600.30                        | 1.660.1600.30                              |
| M 16 x 1,5 | 2–6     | 10       | 21      | 17 / 19 | 1.610.1600.31                        | 1.640.1600.31                        | 1.660.1600.31                              |
| M 16 x 1,5 | 6–10    | 10       | 22      | 20      | 1.610.1611.30                        | 1.640.1611.30                        | 1.660.1611.30                              |
| M 16 x 1,5 | 3–7     | 10       | 22      | 20      | 1.610.1611.31                        | 1.640.1611.31                        | 1.660.1611.31                              |
| M 20 x 1,5 | 7–12    | 10       | 23      | 22      | 1.610.2000.30                        | 1.640.2000.30                        | 1.660.2000.30                              |
| M 20 x 1,5 | 5–9     | 10       | 23      | 22      | 1.610.2000.31                        | 1.640.2000.31                        | 1.660.2000.31                              |
| M 20 x 1,5 | 10–14   | 10       | 24      | 24      | 1.610.2016.30                        | 1.640.2016.30                        | 1.660.2016.30                              |
| M 20 x 1,5 | 7–12    | 10       | 24      | 24      | 1.610.2016.31                        | 1.640.2016.31                        | 1.660.2016.31                              |
| M 25 x 1,5 | 14–18   | 12       | 26      | 30      | 1.610.2500.30                        | 1.640.2500.30                        | 1.660.2500.30                              |
| M 25 x 1,5 | 10–16   | 12       | 26      | 30      | 1.610.2500.31                        | 1.640.2500.31                        | 1.660.2500.31                              |
| M 32 x 1,5 | 20–25   | 12       | 31      | 40      | 1.610.3200.30                        | 1.640.3200.30                        | 1.660.3200.30                              |
| M 32 x 1,5 | 13–20   | 12       | 31      | 40      | 1.610.3200.31                        | 1.640.3200.31                        | 1.660.3200.31                              |
| M 40 x 1,5 | 22–32   | 15       | 37      | 50      | 1.610.4000.30                        | 1.640.4000.30                        | 1.660.4000.30                              |
| M 40 x 1,5 | 20–26   | 15       | 37      | 50      | 1.610.4000.31                        | 1.640.4000.31                        | 1.660.4000.31                              |
| M 50 x 1,5 | 32–38   | 15       | 37      | 57      | 1.610.5000.30                        | 1.640.5000.30                        |                                            |
| M 50 x 1,5 | 25–31   | 15       | 37      | 57      | 1.610.5000.31                        | 1.640.5000.31                        |                                            |
| M 63 x 1,5 | 37–44   | 15       | 38      | 64 / 68 | 1.610.6300.30                        | 1.640.6300.30                        |                                            |
| M 63 x 1,5 | 29–35   | 15       | 38      | 64 / 68 | 1.610.6300.31                        | 1.640.6300.31                        |                                            |

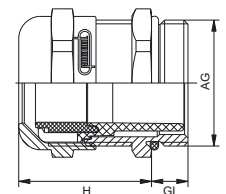
# HSK-Ex e CABLE GLANDS

## HSK-M-Ex / HSK-M-PVDF-Ex

PG, NPT



|                       |                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                                                     |
| Clamping insert       | Polyamide / PVDF                                                                                                        |
| Seal                  | Buna-N / FKM                                                                                                            |
| O-Ring                | Buna-N / FKM                                                                                                            |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                             |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (PA)<br>-60 °C – 95 °C (-76 °F – 203 °F) (PA) / -20 °C – 130 °C (-4 °F – 266 °F) (PVDF) |



| AG       | Ø mm  | GL mm | H mm | mm      | Number<br>HSK-M-Ex<br>-20 °C – 95 °C | Number<br>HSK-M-Ex<br>-60 °C – 95 °C | Number<br>HSK-M-PVDF-Ex<br>-20 °C – 130 °C |
|----------|-------|-------|------|---------|--------------------------------------|--------------------------------------|--------------------------------------------|
| PG 7     | 3–6,5 | 5     | 19   | 14      | 1.610.0700.01                        | 1.640.0700.01                        | 1.660.0700.01                              |
| PG 7     | 2–5   | 5     | 19   | 14      | 1.610.0700.15                        | 1.640.0700.15                        | 1.660.0700.15                              |
| PG 9     | 4–8   | 6     | 21   | 17      | 1.610.0900.01                        | 1.640.0900.01                        | 1.660.0900.01                              |
| PG 9     | 2–6   | 6     | 21   | 17      | 1.610.0900.15                        | 1.640.0900.15                        | 1.660.0900.15                              |
| PG 11    | 6–10  | 6     | 22   | 20      | 1.610.1100.01                        | 1.640.1100.01                        | 1.660.1100.01                              |
| PG 11    | 3–7   | 6     | 22   | 20      | 1.610.1100.15                        | 1.640.1100.15                        | 1.660.1100.15                              |
| PG 13,5  | 7–12  | 6,5   | 24   | 22      | 1.610.1300.01                        | 1.640.1300.01                        | 1.660.1300.01                              |
| PG 13,5  | 5–9   | 6,5   | 24   | 22      | 1.610.1300.15                        | 1.640.1300.15                        | 1.660.1300.15                              |
| PG 16    | 10–14 | 6,5   | 23   | 24      | 1.610.1600.01                        | 1.640.1600.01                        | 1.660.1600.01                              |
| PG 16    | 7–12  | 6,5   | 23   | 24      | 1.610.1600.15                        | 1.640.1600.15                        | 1.660.1600.15                              |
| PG 21    | 14–18 | 7     | 24   | 30      | 1.610.2100.01                        | 1.640.2100.01                        | 1.660.2100.01                              |
| PG 21    | 10–16 | 7     | 24   | 30      | 1.610.2100.15                        | 1.640.2100.15                        | 1.660.2100.15                              |
| PG 29    | 20–25 | 8     | 29   | 40      | 1.610.2900.01                        | 1.640.2900.01                        | 1.660.2900.01                              |
| PG 29    | 13–20 | 8     | 29   | 40      | 1.610.2900.15                        | 1.640.2900.15                        | 1.660.2900.15                              |
| PG 36    | 22–32 | 8     | 35   | 50      | 1.610.3600.01                        | 1.640.3600.01                        | 1.660.3600.01                              |
| PG 36    | 20–26 | 8     | 35   | 50      | 1.610.3600.15                        | 1.640.3600.15                        | 1.660.3600.15                              |
| PG 42    | 32–38 | 9     | 37   | 57      | 1.610.4200.01                        | 1.640.4200.01                        | 1.660.4200.01                              |
| PG 42    | 25–31 | 9     | 37   | 57      | 1.610.4200.15                        | 1.640.4200.15                        | 1.660.4200.15                              |
| PG 48    | 37–44 | 10    | 38   | 64      | 1.610.4800.01                        | 1.640.4800.01                        | 1.660.4800.01                              |
| PG 48    | 29–35 | 10    | 38   | 64      | 1.610.4800.15                        | 1.640.4800.15                        | 1.660.4800.15                              |
| NPT 3/8" | 4–8   | 15    | 21   | 17 / 19 | 1.610.3800.70                        | 1.640.3800.70                        | 1.660.3800.70                              |
| NPT 3/8" | 2–6   | 15    | 21   | 17 / 19 | 1.610.3800.71                        | 1.640.3800.71                        | 1.660.3800.71                              |
| NPT 1/2" | 7–12  | 13    | 24   | 22 / 24 | 1.610.1200.70                        | 1.640.1200.70                        | 1.660.1200.70                              |
| NPT 1/2" | 5–9   | 13    | 24   | 22 / 24 | 1.610.1200.71                        | 1.640.1200.71                        | 1.660.1200.71                              |
| NPT 3/4" | 14–18 | 13    | 25   | 30      | 1.610.3400.70                        | 1.640.3400.70                        | 1.660.3400.70                              |
| NPT 3/4" | 10–16 | 13    | 25   | 30      | 1.610.3400.71                        | 1.640.3400.71                        | 1.660.3400.71                              |
| NPT 1"   | 20–25 | 19    | 29   | 40      | 1.610.1000.70                        | 1.640.1000.70                        | 1.660.1000.70                              |
| NPT 1"   | 13–20 | 19    | 29   | 40      | 1.610.1000.71                        | 1.640.1000.71                        | 1.660.1000.71                              |

## HSK-M-Ex / HSK-M-PVDF-Ex

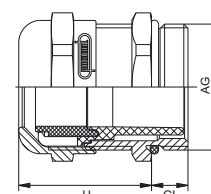
## PG-elongated



|                       |                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                                                     |
| Clamping insert       | Polyamide / PVDF                                                                                                        |
| Seal                  | Buna-N / FKM                                                                                                            |
| O-Ring                | Buna-N / FKM                                                                                                            |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                             |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (PA)<br>-60 °C – 95 °C (-76 °F – 203 °F) (PA) / -20 °C – 130 °C (-4 °F – 266 °F) (PVDF) |



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG      | Ø<br>mm | GL<br>mm | H<br>mm | mm | Number<br>HSK-M-Ex<br>-20 °C – 95 °C | Number<br>HSK-M-Ex<br>-60 °C – 95 °C | Number<br>HSK-M-PVDF-Ex<br>-20 °C – 130 °C |
|---------|---------|----------|---------|----|--------------------------------------|--------------------------------------|--------------------------------------------|
| PG 7    | 3–6,5   | 10       | 19      | 14 | 1.610.0700.60                        | 1.640.0700.60                        | 1.660.0700.60                              |
| PG 7    | 2–5     | 10       | 19      | 14 | 1.610.0700.61                        | 1.640.0700.61                        | 1.660.0700.61                              |
| PG 9    | 4–8     | 10       | 21      | 17 | 1.610.0900.60                        | 1.640.0900.60                        | 1.660.0900.60                              |
| PG 9    | 2–6     | 10       | 21      | 17 | 1.610.0900.61                        | 1.640.0900.61                        | 1.660.0900.61                              |
| PG 11   | 6–10    | 10       | 22      | 20 | 1.610.1100.60                        | 1.640.1100.60                        | 1.660.1100.60                              |
| PG 11   | 3–7     | 10       | 22      | 20 | 1.610.1100.61                        | 1.640.1100.61                        | 1.660.1100.61                              |
| PG 13,5 | 7–12    | 10       | 24      | 22 | 1.610.1300.60                        | 1.640.1300.60                        | 1.660.1300.60                              |
| PG 13,5 | 5–9     | 10       | 24      | 22 | 1.610.1300.61                        | 1.640.1300.61                        | 1.660.1300.61                              |
| PG 16   | 10–14   | 10       | 23      | 24 | 1.610.1600.60                        | 1.640.1600.60                        | 1.660.1600.60                              |
| PG 16   | 7–12    | 10       | 23      | 24 | 1.610.1600.61                        | 1.640.1600.61                        | 1.660.1600.61                              |
| PG 21   | 14–18   | 12       | 24      | 30 | 1.610.2100.60                        | 1.640.2100.60                        | 1.660.2100.60                              |
| PG 21   | 10–16   | 12       | 24      | 30 | 1.610.2100.61                        | 1.640.2100.61                        | 1.660.2100.61                              |
| PG 29   | 20–25   | 12       | 29      | 40 | 1.610.2900.60                        | 1.640.2900.60                        | 1.660.2900.60                              |
| PG 29   | 13–20   | 12       | 29      | 40 | 1.610.2900.61                        | 1.640.2900.61                        | 1.660.2900.61                              |
| PG 36   | 22–32   | 15       | 35      | 50 | 1.610.3600.60                        | 1.640.3600.60                        | 1.660.3600.60                              |
| PG 36   | 20–26   | 15       | 35      | 50 | 1.610.3600.61                        | 1.640.3600.61                        | 1.660.3600.61                              |
| PG 42   | 32–38   | 15       | 37      | 57 | 1.610.4200.60                        | 1.640.4200.60                        | 1.660.4200.60                              |
| PG 42   | 25–31   | 15       | 37      | 57 | 1.610.4200.61                        | 1.640.4200.61                        | 1.660.4200.61                              |
| PG 48   | 37–44   | 15       | 38      | 64 | 1.610.4800.60                        | 1.640.4800.60                        | 1.660.4800.60                              |
| PG 48   | 29–35   | 15       | 38      | 64 | 1.610.4800.61                        | 1.640.4800.61                        | 1.660.4800.61                              |

# HSK-Ex e CABLE GLANDS

## HSK-INOX-Ex / HSK-INOX-PVDF-Ex

Metr., PG

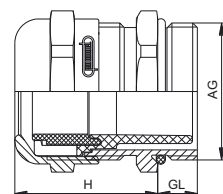


|                       |                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Material              | INOX (1.4305)                                                                                                           |
| Clamping insert       | Polyamide / PVDF                                                                                                        |
| Seal                  | Buna-N / FKM                                                                                                            |
| O-Ring                | Buna-N / FKM                                                                                                            |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                             |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (PA)<br>-60 °C – 95 °C (-76 °F – 203 °F) (PA) / -20 °C – 130 °C (-4 °F – 266 °F) (PVDF) |

// AISI 316L on request



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm | Number<br>HSK-INOX-Ex<br>-20 °C – 95 °C | Number<br>HSK-INOX-Ex<br>-60 °C – 95 °C | Number<br>HSK-INOX-PVDF-Ex<br>-20 °C – 130 °C |
|------------|---------------------|----------|---------|--------|-----------------------------------------|-----------------------------------------|-----------------------------------------------|
| M 12 x 1,5 | 3–6,5               | 6,5      | 19      | 14     | 1.612.1200.50                           | 1.642.1200.50                           | 1.662.1200.50                                 |
| M 12 x 1,5 | 2–5                 | 6,5      | 19      | 14     | 1.612.1200.51                           | 1.642.1200.51                           | 1.662.1200.51                                 |
| M 16 x 1,5 | 5–10                | 6        | 22      | 22     | 1.612.1600.50                           | 1.642.1600.50                           | 1.662.1600.50                                 |
| M 16 x 1,5 | 3–7                 | 6        | 22      | 22     | 1.612.1600.51                           | 1.642.1600.51                           | 1.662.1600.51                                 |
| M 20 x 1,5 | 10–14               | 6        | 23      | 24     | 1.612.2000.50                           | 1.642.2000.50                           | 1.662.2000.50                                 |
| M 20 x 1,5 | 7–12                | 6        | 23      | 24     | 1.612.2000.51                           | 1.642.2000.51                           | 1.662.2000.51                                 |
| M 25 x 1,5 | 13–18               | 7        | 24      | 30     | 1.612.2500.50                           | 1.642.2500.50                           | 1.662.2500.50                                 |
| M 25 x 1,5 | 9–16                | 7        | 24      | 30     | 1.612.2500.51                           | 1.642.2500.51                           | 1.662.2500.51                                 |
| M 32 x 1,5 | 20–25               | 8        | 29      | 41     | 1.612.3200.50                           | 1.642.3200.50                           | 1.662.3200.50                                 |
| M 32 x 1,5 | 13–20               | 8        | 29      | 41     | 1.612.3200.51                           | 1.642.3200.51                           | 1.662.3200.51                                 |
| M 40 x 1,5 | 22–32               | 8        | 35      | 50     | 1.612.4000.50                           | 1.642.4000.50                           | 1.662.4000.50                                 |
| M 40 x 1,5 | 20–26               | 8        | 35      | 50     | 1.612.4000.51                           | 1.642.4000.51                           | 1.662.4000.51                                 |

# CABLE GLANDS FOR „HAZARDOUS AREAS“

## HSK-EMC-Ex e cable glands

Cable glands of the HSK-EMC-Ex-series have been designed for standard applications in hazardous locations type „e“ according to EN 60079-0 and EN 60079-7.

### You can find in this chapter:

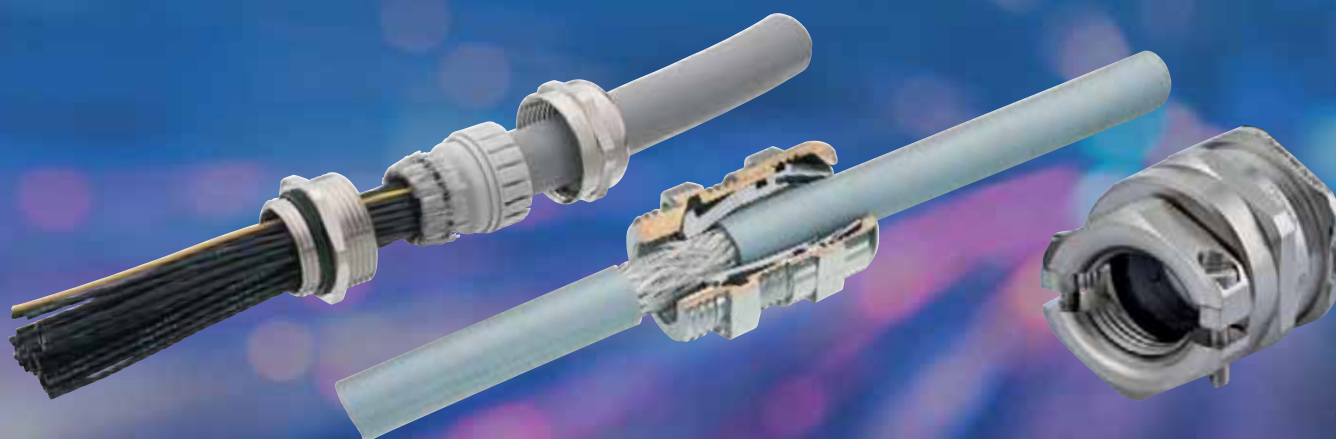
HSK-EMV cable gland series Ex e proofed and 360° EMC connection

- // HSK-M-EMC-D-Ex EMC cable gland with best EMI attenuation for easy installation
- // HSK-M-EMC-Ex standard EMC version with very good screen attenuation
- // HSK-M-PVDF-EMC-Ex high temperature EMC version with very good screen attenuation
- // HSK-INOX-EMC-Ex standard EMC version with additional bending protection, made of stainless steel
- // HSK-PVDF-EMC-Ex standard EMC version for higher temperatures, made of brass nickel plated or stainless steel
- // HSK-MZ-EMC-Ex standard EMC version with very good screen attenuation and additional strain relief

We provide variable clamping ranges, thread lengths, thread types plus different sealing materials and temperature ranges. Our range is completed by global certifications.

For any further question please do not hesitate to contact us. We look forward to develop solutions together with you.

You profit of our vast knowledge in development, engineering and production technology.



# HSK-EMC-Ex e CABLE GLANDS

## HSK-M-EMC-D-Ex

Metr.



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                     |
|-----------------------|---------------------------------------------------------------------|
| Material              | Nickel plated brass                                                 |
| Clamping insert       | Metalised Polyamide                                                 |
| Seal / O-Ring         | Buna-N                                                              |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                         |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F)<br>-60 °C – 95 °C (-76 °F – 203 °F) |



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number<br>HSK-M-EMC-D-Ex<br>-20 °C – 95 °C | Number<br>HSK-M-EMC-D-Ex<br>-60 °C – 95 °C |
|------------|---------------------|----------|---------|---------------------|--------------------------------------------|--------------------------------------------|
| M 16 x 1,5 | 5–10                | 6        | 29      | 20                  | 1.636.1600.50                              | 1.637.1600.50                              |
| M 20 x 1,5 | 10–14               | 6        | 31      | 24                  | 1.636.2000.50                              | 1.637.2000.50                              |
| M 25 x 1,5 | 13–18               | 7        | 38      | 30                  | 1.636.2500.50                              | 1.637.2500.50                              |
| M 32 x 1,5 | 18–25               | 8        | 43      | 40                  | 1.636.3200.50                              | 1.637.3200.50                              |
| M 40 x 1,5 | 24–32               | 8        | 51      | 50                  | 1.636.4000.50                              | 1.637.4000.50                              |

## HSK-M-EMC-D-Ex

Metr.-elongated



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                     |
|-----------------------|---------------------------------------------------------------------|
| Material              | Nickel plated brass                                                 |
| Clamping insert       | Metalised Polyamide                                                 |
| Seal / O-Ring         | Buna-N                                                              |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                         |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F)<br>-60 °C – 95 °C (-76 °F – 203 °F) |



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number<br>HSK-M-EMC-D-Ex<br>-20 °C – 95 °C | Number<br>HSK-M-EMC-D-Ex<br>-60 °C – 95 °C |
|------------|---------------------|----------|---------|---------------------|--------------------------------------------|--------------------------------------------|
| M 16 x 1,5 | 5–10                | 10       | 29      | 20                  | 1.636.1600.30                              | 1.637.1600.30                              |
| M 20 x 1,5 | 10–14               | 10       | 31      | 24                  | 1.636.2000.30                              | 1.637.2000.30                              |
| M 25 x 1,5 | 13–18               | 12       | 38      | 30                  | 1.636.2500.30                              | 1.637.2500.30                              |
| M 32 x 1,5 | 18–25               | 12       | 43      | 40                  | 1.636.3200.30                              | 1.637.3200.30                              |
| M 40 x 1,5 | 24–32               | 15       | 51      | 50                  | 1.636.4000.30                              | 1.637.4000.30                              |

## HSK-M-EMC-D-Ex

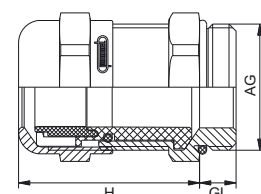
PG



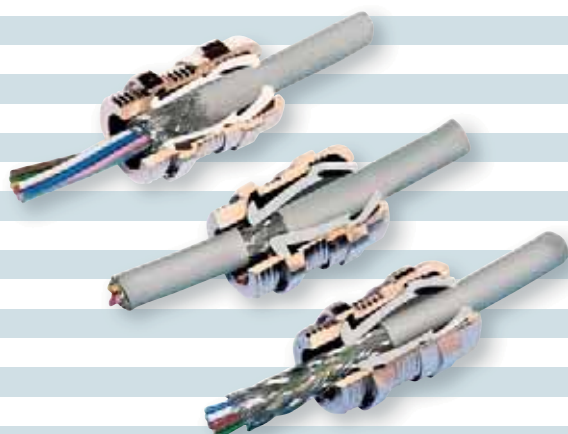
|                       |                                                                     |
|-----------------------|---------------------------------------------------------------------|
| Material              | Nickel plated brass                                                 |
| Clamping insert       | Metalised Polyamide                                                 |
| Seal                  | Buna-N                                                              |
| O-Ring                | Buna-N                                                              |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                         |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F)<br>-60 °C – 95 °C (-76 °F – 203 °F) |



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG      | $\varnothing$ mm | GL mm | H mm | $\varnothing$ mm | Number<br>HSK-M-EMC-D-Ex<br>-20 °C – 95 °C | Number<br>HSK-M-EMC-D-Ex<br>-60 °C – 95 °C |
|---------|------------------|-------|------|------------------|--------------------------------------------|--------------------------------------------|
| PG 11   | 5–10             | 6     | 29   | 20               | 1.636.1100.01                              | 1.637.1100.01                              |
| PG 13,5 | 7–12             | 6,5   | 31   | 22               | 1.636.1300.01                              | 1.637.1300.01                              |
| PG 16   | 10–14            | 6,5   | 32   | 24               | 1.636.1600.01                              | 1.637.1600.01                              |
| PG 21   | 13–18            | 7     | 38   | 30               | 1.636.2100.01                              | 1.637.2100.01                              |
| PG 29   | 18–25            | 8     | 43   | 40               | 1.636.2900.01                              | 1.637.2900.01                              |
| PG 36   | 22–32            | 8     | 48   | 50               | 1.636.3600.01                              | 1.637.3600.01                              |

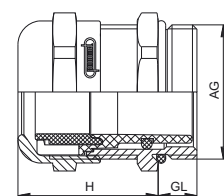




|                       |                                                                     |
|-----------------------|---------------------------------------------------------------------|
| Material              | Nickel plated brass                                                 |
| Clamping insert       | Polyamide                                                           |
| Seal                  | Buna-N                                                              |
| O-Ring                | Buna-N                                                              |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                         |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F)<br>-60 °C – 95 °C (-76 °F – 203 °F) |



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG         | Ø<br>mm | GL<br>mm | H<br>mm | mm      | Number<br>HSK-M-EMC-Ex<br>-20 °C – 95 °C | Number<br>HSK-M-EMC-Ex<br>-60 °C – 95 °C |
|------------|---------|----------|---------|---------|------------------------------------------|------------------------------------------|
| M 12 x 1,5 | 3–6,5   | 6,5      | 19      | 14      | 1.616.1200.50                            | 1.646.1200.50                            |
| M 12 x 1,5 | 2–5     | 6,5      | 19      | 14      | 1.616.1200.51                            | 1.646.1200.51                            |
| M 16 x 1,5 | 6–10    | 6        | 22      | 20      | 1.616.1600.50                            | 1.646.1600.50                            |
| M 16 x 1,5 | 3–7     | 6        | 22      | 20      | 1.616.1600.51                            | 1.646.1600.51                            |
| M 20 x 1,5 | 10–14   | 6        | 23      | 24      | 1.616.2000.50                            | 1.646.2000.50                            |
| M 20 x 1,5 | 7–12    | 6        | 23      | 24      | 1.616.2000.51                            | 1.646.2000.51                            |
| M 25 x 1,5 | 14–18   | 7        | 24      | 30      | 1.616.2500.50                            | 1.646.2500.50                            |
| M 25 x 1,5 | 10–16   | 7        | 24      | 30      | 1.616.2500.51                            | 1.646.2500.51                            |
| M 32 x 1,5 | 20–25   | 8        | 31      | 40      | 1.616.3200.50                            | 1.646.3200.50                            |
| M 32 x 1,5 | 13–20   | 8        | 31      | 40      | 1.616.3200.51                            | 1.646.3200.51                            |
| M 40 x 1,5 | 22–32   | 8        | 37      | 50      | 1.616.4000.50                            | 1.646.4000.50                            |
| M 40 x 1,5 | 20–26   | 8        | 37      | 50      | 1.616.4000.51                            | 1.646.4000.51                            |
| M 50 x 1,5 | 32–38   | 9        | 37      | 57      | 1.616.5000.50                            | 1.646.5000.50                            |
| M 50 x 1,5 | 25–31   | 9        | 37      | 57      | 1.616.5000.51                            | 1.646.5000.51                            |
| M 63 x 1,5 | 37–44   | 10       | 38      | 64 / 68 | 1.616.6300.50                            | 1.646.6300.50                            |
| M 63 x 1,5 | 29–35   | 10       | 38      | 64 / 68 | 1.616.6300.51                            | 1.646.6300.51                            |

## HSK-M-EMC-Ex / HSK-M-EMC-PVDF-Ex

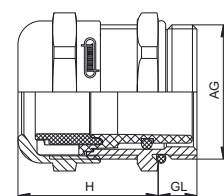
PG, NPT



|                       |                                                                                                               |
|-----------------------|---------------------------------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                                           |
| Clamping insert       | Polyamide / PVDF                                                                                              |
| Seal                  | Buna-N / FKM                                                                                                  |
| O-Ring                | Buna-N / FKM                                                                                                  |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                   |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F)<br>-60 °C – 95 °C (-76 °F – 203 °F) / -20 °C – 130 °C (-4 °F – 266 °F) (PVDF) |



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



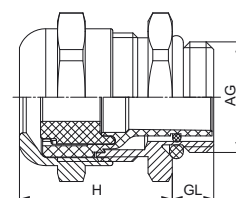
| AG       | Ø<br>mm | GL<br>mm | H<br>mm | mm      | Number<br>HSK-M-EMC-Ex<br>-20 °C – 95 °C | Number<br>HSK-M-EMC-Ex<br>-60 °C – 95 °C | Number<br>HSK-M-PVDF-EMC-Ex<br>-20 °C – 130 °C |
|----------|---------|----------|---------|---------|------------------------------------------|------------------------------------------|------------------------------------------------|
| PG 7     | 3–6,5   | 5        | 19      | 14      | 1.616.0700.01                            | 1.646.0700.01                            | 1.666.0700.01                                  |
| PG 7     | 2–5     | 5        | 19      | 14      | 1.616.0700.15                            | 1.646.0700.15                            | 1.666.0700.15                                  |
| PG 9     | 4–8     | 6        | 21      | 17      | 1.616.0900.01                            | 1.646.0900.01                            | 1.666.0900.01                                  |
| PG 9     | 2–6     | 6        | 21      | 17      | 1.616.0900.15                            | 1.646.0900.15                            | 1.666.0900.15                                  |
| PG 11    | 6–10    | 6        | 22      | 20      | 1.616.1100.01                            | 1.646.1100.01                            | 1.666.1100.01                                  |
| PG 11    | 3–7     | 6        | 22      | 20      | 1.616.1100.15                            | 1.646.1100.15                            | 1.666.1100.15                                  |
| PG 13,5  | 7–12    | 6,5      | 24      | 22      | 1.616.1300.01                            | 1.646.1300.01                            | 1.666.1300.01                                  |
| PG 13,5  | 5–9     | 6,5      | 24      | 22      | 1.616.1300.15                            | 1.646.1300.15                            | 1.666.1300.15                                  |
| PG 16    | 10–14   | 6,5      | 23      | 24      | 1.616.1600.01                            | 1.646.1600.01                            | 1.666.1600.01                                  |
| PG 16    | 7–12    | 6,5      | 23      | 24      | 1.616.1600.15                            | 1.646.1600.15                            | 1.666.1600.15                                  |
| PG 21    | 14–18   | 7        | 24      | 30      | 1.616.2100.01                            | 1.646.2100.01                            | 1.666.2100.01                                  |
| PG 21    | 10–16   | 7        | 24      | 30      | 1.616.2100.15                            | 1.646.2100.15                            | 1.666.2100.15                                  |
| PG 29    | 20–25   | 8        | 29      | 40      | 1.616.2900.01                            | 1.646.2900.01                            | 1.666.2900.01                                  |
| PG 29    | 13–20   | 8        | 29      | 40      | 1.616.2900.15                            | 1.646.2900.15                            | 1.666.2900.15                                  |
| PG 36    | 22–32   | 8        | 35      | 50      | 1.616.3600.01                            | 1.646.3600.01                            | 1.666.3600.01                                  |
| PG 36    | 20–26   | 8        | 35      | 50      | 1.616.3600.15                            | 1.646.3600.15                            | 1.666.3600.15                                  |
| PG 42    | 32–38   | 9        | 37      | 57      | 1.616.4200.01                            | 1.646.4200.01                            | 1.666.4200.01                                  |
| PG 42    | 25–31   | 9        | 37      | 57      | 1.616.4200.15                            | 1.646.4200.15                            | 1.666.4200.15                                  |
| PG 48    | 37–44   | 10       | 38      | 64      | 1.616.4800.01                            | 1.646.4800.01                            | 1.666.4800.01                                  |
| PG 48    | 29–35   | 10       | 38      | 64      | 1.616.4800.15                            | 1.646.4800.15                            | 1.666.4800.15                                  |
| NPT 3/8" | 4–8     | 15       | 21      | 17 / 19 | 1.616.3800.70                            | 1.646.3800.70                            | 1.666.3800.70                                  |
| NPT 3/8" | 2–6     | 15       | 21      | 17 / 19 | 1.616.3800.71                            | 1.646.3800.71                            | 1.666.3800.71                                  |
| NPT 1/2" | 7–12    | 13       | 24      | 22 / 24 | 1.616.1200.70                            | 1.646.1200.70                            | 1.666.1200.70                                  |
| NPT 1/2" | 5–9     | 13       | 24      | 22 / 24 | 1.616.1200.71                            | 1.646.1200.71                            | 1.666.1200.71                                  |
| NPT 3/4" | 14–18   | 13       | 25      | 30      | 1.616.3400.70                            | 1.646.3400.70                            | 1.666.3400.70                                  |
| NPT 3/4" | 10–16   | 13       | 25      | 30      | 1.616.3400.71                            | 1.646.3400.71                            | 1.666.3400.71                                  |



|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | 1.4305                                      |
| Clamping insert       | Polyamide                                   |
| Seal                  | Buna-N                                      |
| O-Ring                | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -60 °C – 95 °C (-76 °F – 203 °F)            |



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG         | Øk<br>mm | GL<br>mm | H<br>mm | R<br>mm | Number        |
|------------|----------|----------|---------|---------|---------------|
| M 12 x 1,5 | 3–6,5    | 6,5      | 19      | 14      | 1.673.1200.50 |
| M 12 x 1,5 | 2–5      | 6,5      | 19      | 14      | 1.673.1200.51 |
| M 16 x 1,5 | 5–10     | 6        | 21      | 20      | 1.673.1600.50 |
| M 16 x 1,5 | 3–7      | 6        | 21      | 20      | 1.673.1600.51 |
| M 20 x 1,5 | 10–14    | 6        | 23      | 24      | 1.673.2000.50 |
| M 20 x 1,5 | 7–12     | 6        | 23      | 24      | 1.673.2000.51 |
|            |          |          |         |         |               |
| M 25 x 1,5 | 13–18    | 7        | 26      | 30      | 1.673.2500.50 |
| M 25 x 1,5 | 9–16     | 7        | 26      | 30      | 1.673.2500.51 |
| M 32 x 1,5 | 18–25    | 8        | 31      | 41      | 1.673.3200.50 |
| M 32 x 1,5 | 13–20    | 8        | 31      | 41      | 1.673.3200.51 |
| M 40 x 1,5 | 22–32    | 8        | 37      | 50      | 1.673.4000.50 |
| M 40 x 1,5 | 20–26    | 8        | 37      | 50      | 1.673.4000.51 |
|            |          |          |         |         |               |
| PG 7       | 3–6,5    | 5        | 19      | 14      | 1.673.0700.01 |
| PG 7       | 2–5      | 5        | 19      | 14      | 1.673.0700.15 |
| PG 9       | 4–8      | 6        | 21      | 17      | 1.673.0900.01 |
| PG 9       | 2–6      | 6        | 21      | 17      | 1.673.0900.15 |
| PG 11      | 5–10     | 6        | 22      | 22      | 1.673.1100.01 |
| PG 11      | 3–7      | 6        | 22      | 22      | 1.673.1100.15 |
| PG 13,5    | 7–12     | 6,5      | 24      | 22      | 1.673.1300.01 |
| PG 13,5    | 5–9      | 6,5      | 24      | 22      | 1.673.1300.15 |
| PG 16      | 10–14    | 6,5      | 23      | 24      | 1.673.1600.01 |
| PG 16      | 7–12     | 6,5      | 23      | 24      | 1.673.1600.15 |
| PG 21      | 13–18    | 7        | 24      | 30      | 1.673.2100.01 |
| PG 21      | 9–16     | 7        | 24      | 30      | 1.673.2100.15 |
| PG 29      | 18–25    | 8        | 29      | 41      | 1.673.2900.01 |
| PG 29      | 13–20    | 8        | 29      | 41      | 1.673.2900.15 |
| PG 36      | 22–32    | 8        | 35      | 50      | 1.673.3600.01 |
| PG 36      | 20–26    | 8        | 35      | 50      | 1.673.3600.15 |

## HSK-MZ-EMC-Ex

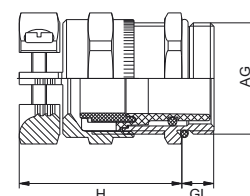
Metr.



|                       |                                                                     |
|-----------------------|---------------------------------------------------------------------|
| Material              | Nickel plated brass                                                 |
| Clamping insert       | Polyamide                                                           |
| Seal                  | Buna-N                                                              |
| O-Ring                | Buna-N                                                              |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                         |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F)<br>-60 °C – 95 °C (-76 °F – 203 °F) |



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | <br>mm | Number<br>HSK-M-EMC-Ex<br>-20 °C – 95 °C | Number<br>HSK-M-EMC-Ex<br>-60 °C – 95 °C |
|------------|---------------------|----------|---------|--------|------------------------------------------|------------------------------------------|
| M 12 x 1,5 | 3–6,5               | 6,5      | 26      | 14     | 1.617.1200.50                            | 1.647.1200.50                            |
| M 16 x 1,5 | 6–10                | 6        | 29      | 20     | 1.617.1600.50                            | 1.647.1600.50                            |
| M 20 x 1,5 | 10–14               | 6        | 32      | 24     | 1.617.2000.50                            | 1.647.2000.50                            |
| M 25 x 1,5 | 14–18               | 7        | 35      | 30     | 1.617.2500.50                            | 1.647.2500.50                            |
| M 32 x 1,5 | 20–25               | 8        | 41      | 40     | 1.617.3200.50                            | 1.647.3200.50                            |
| M 40 x 1,5 | 24–32               | 8        | 48      | 50     | 1.617.4000.50                            | 1.647.4000.50                            |
| M 50 x 1,5 | 32–38               | 9        | 51      | 57     | 1.617.5000.50                            | 1.647.5000.50                            |
| M 50 x 1,5 | 28–31               | 9        | 51      | 57     | 1.617.5000.51                            | 1.647.5000.51                            |
| M 63 x 1,5 | 37–44               | 10       | 52      | 68     | 1.617.6300.50                            | 1.647.6300.50                            |
| M 63 x 1,5 | 32–35               | 10       | 52      | 68     | 1.617.6300.51                            | 1.647.6300.51                            |

# HSK-EMC-Ex e CABLE GLANDS

HSK-MZ-EMC-Ex / HSK-MZ-EMC-PVDF-Ex

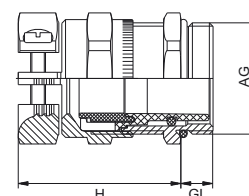
PG, NPT



|                       |                                                                     |
|-----------------------|---------------------------------------------------------------------|
| Material              | Nickel plated brass                                                 |
| Clamping insert       | Polyamide / PVDF                                                    |
| Seal                  | Buna-N                                                              |
| O-Ring                | Buna-N                                                              |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                         |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F)<br>-60 °C – 95 °C (-76 °F – 203 °F) |



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG       | $\varnothing$ mm | GL mm | H mm | $\varnothing$ mm | Number<br>HSK-MZ-EMC-Ex<br>-20 °C – 95 °C | Number<br>HSK-MZ-EMC-Ex<br>-60 °C – 95 °C | Number<br>HSK-MZ-PVDF-EMC-Ex<br>-20 °C – 130 °C |
|----------|------------------|-------|------|------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------------|
| PG 7     | 3–6,5            | 5     | 26   | 14               | 1.617.0700.01                             | 1.647.0700.01                             | 1.667.0700.01                                   |
| PG 9     | 4–8              | 6     | 28   | 17               | 1.617.0900.01                             | 1.647.0900.01                             | 1.667.0900.01                                   |
| PG 11    | 6–10             | 6     | 29   | 20               | 1.617.1100.01                             | 1.647.1100.01                             | 1.667.1100.01                                   |
| PG 13,5  | 7–12             | 6,5   | 33   | 22               | 1.617.1300.01                             | 1.647.1300.01                             | 1.667.1300.01                                   |
| PG 16    | 10–14            | 6,5   | 32   | 24               | 1.617.1600.01                             | 1.647.1600.01                             | 1.667.1600.01                                   |
| PG 21    | 13–18            | 7     | 35   | 30               | 1.617.2100.01                             | 1.647.2100.01                             | 1.667.2100.01                                   |
| PG 29    | 20–25            | 8     | 41   | 40               | 1.617.2900.01                             | 1.647.2900.01                             | 1.667.2900.01                                   |
| PG 36    | 24–32            | 8     | 48   | 50               | 1.617.3600.01                             | 1.647.3600.01                             | 1.667.3600.01                                   |
| PG 42    | 32–38            | 9     | 51   | 57               | 1.617.4200.01                             | 1.647.4200.01                             | 1.667.4200.01                                   |
| PG 42    | 28–31            | 9     | 51   | 57               | 1.617.4200.15                             | 1.647.4200.15                             | 1.667.4200.15                                   |
| PG 48    | 37–44            | 10    | 51   | 64               | 1.617.4800.01                             | 1.647.4800.01                             | 1.667.4800.01                                   |
| PG 48    | 32–35            | 10    | 51   | 64               | 1.617.4800.15                             | 1.647.4800.15                             | 1.667.4800.15                                   |
| NPT 3/8" | 4–8              | 15    | 27   | 17/19            | 1.617.3800.70                             | 1.647.3800.70                             | 1.667.3800.70                                   |
| NPT 1/2" | 7–12             | 13    | 31   | 22/24            | 1.617.1200.70                             | 1.647.1200.70                             | 1.667.1200.70                                   |
| NPT 3/4" | 13–18            | 13    | 36   | 30               | 1.617.3400.70                             | 1.647.3400.70                             | 1.667.3400.70                                   |

# CABLE GLANDS FOR „HAZARDOUS AREAS“

## HSK-Ex e cable glands for special applications

Cable glands of the HSK-Ex e-series have been designed for standard applications in hazardous locations type „e“ according to EN 60079-0 and EN 60079-7.

You can find in this chapter:

HSK cable gland series Ex e proofed

- // HSK-M-Multi-Ex cable glands with inserts for connecting of more than one cable
- // HSK-M-FLAKA-Ex cable glands with inserts for flat cable
- // HSK-MZ-Ex cable glands with additional strain relief

We provide variable clamping ranges, thread lengths, thread types plus different sealing materials and temperature ranges. Our range is completed by global certifications.

For any further question please do not hesitate to contact us. We look forward to develop solutions together with you.

You profit of our vast knowledge in development, engineering and production technology.



# HSK-Ex e CABLE GLANDS FOR SPECIAL APPLICATIONS

## HSK-K-MZ-Ex

Metr.

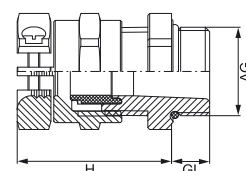


For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Polyamide-AL                                |
| Seal                  | Buna-N                                      |
| O-Ring                | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -20 °C – 70 °C (-4 °F – 158 °F)             |



II 2G 1D



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number        |
|------------|---------------------|----------|---------|---------------------|---------------|
| M 16 x 1,5 | 4–8                 | 15       | 29      | 19                  | 1.215.1601.50 |
| M 20 x 1,5 | 7–12                | 15       | 35,5    | 24                  | 1.215.2001.50 |
| M 25 x 1,5 | 13–18               | 11       | 41      | 33                  | 1.215.2501.50 |
| M 32 x 1,5 | 18–25               | 11       | 49      | 42                  | 1.215.3201.50 |
| M 40 x 1,5 | 22–32               | 13       | 58      | 53                  | 1.215.4001.50 |
| M 50 x 1,5 | 32–38               | 13       | 61,5    | 60                  | 1.215.5001.50 |
| M 63 x 1,5 | 37–44               | 14       | 62      | 65 / 68             | 1.215.6301.50 |

## HSK-K-MZ-Ex

PG

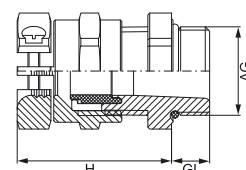


For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Polyamide-AL                                |
| Seal                  | Buna-N                                      |
| O-Ring                | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -20 °C – 70 °C (-4 °F – 158 °F)             |



II 2G 1D



| AG      | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number        |
|---------|---------------------|----------|---------|---------------------|---------------|
| PG 9    | 4–8                 | 15       | 29      | 19                  | 1.215.0901.14 |
| PG 11   | 6–10                | 15       | 32,5    | 22                  | 1.215.1101.14 |
| PG 13,5 | 7–12                | 15       | 35,5    | 24                  | 1.215.1301.14 |
| PG 16   | 10–14               | 10       | 37,5    | 27                  | 1.215.1601.14 |
| PG 21   | 13–18               | 11       | 41      | 33                  | 1.215.2101.14 |
| PG 29   | 18–25               | 11       | 49      | 42                  | 1.215.2901.14 |
| PG 36   | 22–32               | 13       | 58      | 53                  | 1.215.3601.14 |
| PG 42   | 32–38               | 13       | 61,5    | 60                  | 1.215.4201.14 |
| PG 48   | 37–44               | 14       | 62      | 65                  | 1.215.4801.14 |

# HSK-Ex e CABLE GLANDS FOR SPECIAL APPLICATIONS

## HSK-M-Multi-Ex

Metr., PG, NPT

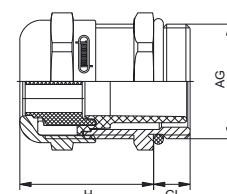


|                       |                                 |
|-----------------------|---------------------------------|
| Material              | Nickel plated brass             |
| Clamping insert       | Polyamide                       |
| Seal                  | Elastomer                       |
| O-Ring                | Buna-N                          |
| Protection            | IP 68                           |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) |

- // Stainless steel on request
- // The shown inserts are samples, more inserts upon request



For the international certificates please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG         | GL<br>mm | H<br>mm | mm      | Number<br>of holes<br>x d | Number        | Number<br>of holes<br>x d | Number        |
|------------|----------|---------|---------|---------------------------|---------------|---------------------------|---------------|
| M 16 x 1,5 | 6        | 21      | 17 / 19 | 4 x 1,4                   | 1.687.1600.50 | 2 x 3                     | 1.687.1601.50 |
| M 20 x 1,5 | 6        | 23      | 22      | 6 x 3                     | 1.687.2001.50 | 2 x 5                     | 1.687.2003.50 |
| M 25 x 1,5 | 7        | 26      | 30      | 4 x 6                     | 1.687.2500.50 | 3 x 7                     | 1.687.2501.50 |
| M 32 x 1,5 | 8        | 31      | 40      | 6 x 6,5                   | 1.687.3200.50 | 4 x 9                     | 1.687.3201.50 |
| M 40 x 1,5 | 8        | 37      | 50      | 7 x 9                     | 1.687.4001.50 | 2 x 15                    | 1.687.4003.50 |
| M 50 x 1,5 | 9        | 37      | 57      |                           |               |                           | 1.687.5099.50 |
| M 63 x 1,5 | 10       | 38      | 64 / 68 | 6 x 12                    | 1.687.6301.50 | 3 x 18                    | 1.687.6302.50 |
| PG 9       | 6        | 21      | 17      | 4 x 1,4                   | 1.687.0900.01 | 2 x 3                     | 1.687.0901.01 |
| PG 11      | 6        | 22      | 20      | 2 x 4                     | 1.687.1102.01 | 3 x 3                     | 1.687.1101.01 |
| PG 13,5    | 6,5      | 24      | 22      | 3 x 4                     | 1.687.1302.01 | 2 x 5                     | 1.687.1303.01 |
| PG 16      | 6,5      | 23      | 24      | 4 x 4                     | 1.687.1602.01 | 6 x 4                     | 1.687.1604.01 |
| PG 16      | 6,5      | 23      | 24      | 3 x 5,6                   | 1.687.1606.01 | 2 x 6                     | 1.687.1605.01 |
| PG 21      | 7        | 24      | 30      | 4 x 6                     | 1.687.2100.01 | 3 x 7                     | 1.687.2101.01 |
| PG 29      | 8        | 29      | 40      | 6 x 6,5                   | 1.687.2900.01 | 4 x 9                     | 1.687.2901.01 |
| PG 36      | 8        | 35      | 50      | 7 x 9                     | 1.687.3601.01 | 2 x 15                    | 1.687.3603.01 |
| PG 48      | 10       | 38      | 64      | 6 x 12                    | 1.687.4801.01 | 3 x 18                    | 1.687.4802.01 |
| NPT 3/8"   | 15       | 21      | 17 / 19 | 4 x 1,4                   | 1.687.3800.70 | 2 x 3                     | 1.687.3801.70 |
| NPT 1/2"   | 13       | 24      | 24      | 3 x 4                     | 1.687.1220.70 | 2 x 5                     | 1.687.1203.70 |
| NPT 3/4"   | 13       | 25      | 30      | 4 x 6                     | 1.687.3400.70 | 3 x 7                     | 1.687.3401.70 |
| NPT 1"     | 19       | 29      | 40      | 6 x 6,5                   | 1.687.1000.70 | 4 x 9                     | 1.687.1001.70 |

# HSK-Ex e CABLE GLANDS FOR SPECIAL APPLICATIONS

## HSK-M-FLAKA-Ex

Metr.



// Stainless steel on request  
// The shown inserts are samples, more inserts upon request

For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                 |
|-----------------------|---------------------------------|
| Material              | Nickel plated brass             |
| Clamping insert       | Polyamide                       |
| Seal                  | Elastomer                       |
| O-Ring                | Buna-N                          |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) |



| AG         | GL<br>mm | H<br>mm | mm      | w x h<br>mm | Number        | w x h<br>mm | Number        |
|------------|----------|---------|---------|-------------|---------------|-------------|---------------|
| M 20 x 1,5 | 6        | 24      | 24      | 12 x 7      | 1.689.2017.50 | 14 x 6      | 1.689.2018.50 |
| M 25 x 1,5 | 7        | 26      | 30      | 14 x 6      | 1.689.2500.50 | 14 x 7      | 1.689.2501.50 |
| M 32 x 1,5 | 8        | 31      | 40      | 22 x 8      | 1.689.3200.50 |             |               |
| M 40 x 1,5 | 8        | 37      | 50      | 28,5 x 10   | 1.689.4000.50 | 29 x 5,5    | 1.689.4001.50 |
| M 40 x 1,5 | 8        | 37      | 50      | 30,5 x 12   | 1.689.4002.50 | 31 x 7,5    | 1.689.4003.50 |
| M 50 x 1,5 | 9        | 37      | 57      | 33,5 x 11,5 | 1.689.5000.50 |             |               |
| M 63 x 1,5 | 10       | 38      | 64 / 68 | 38 x 12     | 1.689.6300.50 |             |               |

## HSK-M-FLAKA-Ex

PG, NPT



// Stainless steel on request  
// The shown inserts are samples, more inserts upon request

For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                 |
|-----------------------|---------------------------------|
| Material              | Nickel plated brass             |
| Clamping insert       | Polyamide                       |
| Seal                  | Elastomer                       |
| O-Ring                | Buna-N                          |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) |



| AG       | GL<br>mm | H<br>mm | mm | w x h<br>mm | Number        | w x h<br>mm | Number        |
|----------|----------|---------|----|-------------|---------------|-------------|---------------|
| PG 16    | 6,5      | 23      | 24 | 12 x 7      | 1.689.1601.01 | 14 x 6      | 1.689.1602.01 |
| PG 21    | 7        | 24      | 30 | 14 x 6      | 1.689.2100.01 | 14 x 7      | 1.689.2101.01 |
| PG 29    | 8        | 29      | 40 | 22 x 8      | 1.689.2900.01 |             |               |
| PG 36    | 8        | 35      | 50 | 28,5 x 10   | 1.689.3600.01 | 29 x 5,5    | 1.689.3601.01 |
| PG 36    | 8        | 35      | 50 | 30,5 x 12   | 1.689.3602.01 | 31 x 7,5    | 1.689.3603.01 |
| PG 42    | 9        | 37      | 57 | 33,5 x 11,5 | 1.689.4200.01 |             |               |
| PG 48    | 10       | 38      | 64 | 38 x 12     | 1.689.4802.01 |             |               |
| NPT 3/4" | 13       | 25      | 30 | 14 x 6      | 1.689.3400.70 | 14 x 7      | 1.689.3401.70 |
| NPT 1"   | 19       | 29      | 40 | 22 x 8      | 1.689.1000.70 |             |               |

# HSK-Ex e CABLE GLANDS FOR SPECIAL APPLICATIONS

HSK-MZ-Ex / HSK-MZ-PVDF-Ex

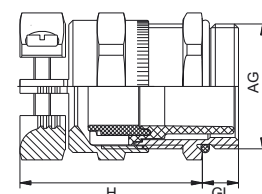
Metr.



|                       |                                                                                                               |
|-----------------------|---------------------------------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                                           |
| Clamping insert       | Polyamide / PVDF                                                                                              |
| Seal                  | Buna-N / FKM                                                                                                  |
| O-Ring                | Buna-N / FKM                                                                                                  |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                   |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F)<br>-60 °C – 95 °C (-76 °F – 203 °F) / -20 °C – 130 °C (-4 °F – 266 °F) (PVDF) |



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number<br>HSK-MZ-Ex<br>-20 °C – 95 °C | Number<br>HSK-MZ-Ex<br>-60 °C – 95 °C | Number<br>HSK-MZ-PVDF-Ex<br>-20 °C – 130 °C |
|------------|---------------------|----------|---------|---------------------|---------------------------------------|---------------------------------------|---------------------------------------------|
| M 12 x 1,5 | 3–6,5               | 6,5      | 26      | 14                  | 1.611.1200.50                         | 1.641.1200.50                         | 1.661.1200.50                               |
| M 16 x 1,5 | 4–8                 | 6        | 28      | 19                  | 1.611.1600.50                         | 1.641.1600.50                         | 1.661.1600.50                               |
| M 16 x 1,5 | 6–10                | 6        | 30      | 20                  | 1.611.1611.50                         | 1.641.1611.50                         | 1.661.1611.50                               |
| M 20 x 1,5 | 7–12                | 6        | 33      | 22                  | 1.611.2000.50                         | 1.641.2000.50                         | 1.661.2000.50                               |
| M 20 x 1,5 | 10–14               | 6        | 33      | 24                  | 1.611.2016.50                         | 1.641.2016.50                         | 1.661.2016.50                               |
| M 25 x 1,5 | 14–18               | 7        | 37      | 30                  | 1.611.2500.50                         | 1.641.2500.50                         | 1.661.2500.50                               |
| M 32 x 1,5 | 20–25               | 8        | 43      | 40                  | 1.611.3200.50                         | 1.641.3200.50                         | 1.661.3200.50                               |
| M 40 x 1,5 | 24–32               | 8        | 50      | 50                  | 1.611.4000.50                         | 1.641.4000.50                         | 1.661.4000.50                               |
| M 50 x 1,5 | 32–38               | 9        | 51      | 57                  | 1.611.5000.50                         | 1.641.5000.50                         |                                             |
| M 63 x 1,5 | 37–44               | 10       | 52      | 64 / 68             | 1.611.6300.50                         | 1.641.6300.50                         |                                             |

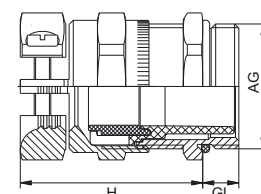
# HSK-Ex e CABLE GLANDS FOR SPECIAL APPLICATIONS

HSK-MZ-Ex / HSK-MZ-PVDF-Ex

PG, NPT



|                       |                                                                                                               |
|-----------------------|---------------------------------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                                           |
| Clamping insert       | Polyamide / PVDF                                                                                              |
| Seal                  | Buna-N / FKM                                                                                                  |
| O-Ring                | Buna-N / FKM                                                                                                  |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                   |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F)<br>-60 °C – 95 °C (-76 °F – 203 °F) / -20 °C – 130 °C (-4 °F – 266 °F) (PVDF) |



| AG       | $\varnothing$ mm | GL mm | H mm | $\varnothing$ mm | Number<br>HSK-MZ-Ex<br>-20 °C – 95 °C | Number<br>HSK-MZ-Ex<br>-60 °C – 95 °C | Number<br>HSK-MZ-PVDF-Ex<br>-20 °C – 130 °C |
|----------|------------------|-------|------|------------------|---------------------------------------|---------------------------------------|---------------------------------------------|
| PG 7     | 3–6,5            | 5     | 26   | 14               | 1.611.0700.01                         | 1.641.0700.01                         | 1.661.0700.01                               |
| PG 9     | 4–8              | 6     | 28   | 17               | 1.611.0900.01                         | 1.641.0900.01                         | 1.661.0900.01                               |
| PG 11    | 6–10             | 6     | 30   | 20               | 1.611.1100.01                         | 1.641.1100.01                         | 1.661.1100.01                               |
| PG 13,5  | 7–12             | 6     | 33   | 22               | 1.611.1300.01                         | 1.641.1300.01                         | 1.661.1300.01                               |
| PG 16    | 10–14            | 6     | 33   | 24               | 1.611.1600.01                         | 1.641.1600.01                         | 1.661.1600.01                               |
| PG 21    | 13–18            | 7     | 37   | 30               | 1.611.2100.01                         | 1.641.2100.01                         | 1.661.2100.01                               |
| PG 29    | 20–25            | 8     | 43   | 40               | 1.611.2900.01                         | 1.641.2900.01                         | 1.661.2900.01                               |
| PG 36    | 24–32            | 8     | 50   | 50               | 1.611.3600.01                         | 1.641.3600.01                         | 1.661.3600.01                               |
| PG 42    | 32–38            | 9     | 51   | 57               | 1.611.4200.01                         | 1.641.4200.01                         | 1.661.4200.01                               |
| PG 48    | 37–44            | 10    | 52   | 64               | 1.611.4800.01                         | 1.641.4800.01                         | 1.661.4800.01                               |
| NPT 3/8" | 4–8              | 15    | 28   | 17 / 19          | 1.611.3800.70                         | 1.641.3800.70                         | 1.661.3800.70                               |
| NPT 1/2" | 7–12             | 13    | 33   | 22 / 24          | 1.611.1200.70                         | 1.641.1200.70                         | 1.661.1200.70                               |
| NPT 3/4" | 13–18            | 13    | 37   | 30               | 1.611.3400.70                         | 1.641.3400.70                         | 1.661.3400.70                               |
| NPT 1"   | 20–25            | 19    | 43   | 40               | 1.611.1000.70                         | 1.641.1000.70                         |                                             |

# CABLE GLANDS FOR „HAZARDOUS AREAS“

## HSK-Ex d cable glands

Cable glands of the HSK-Ex d series have been designed for standard applications in hazardous locations type „e“ and/or „d“ according to EN 60079-0, EN 60079-1 and EN 60079-7

You can find in this chapter:

HSK-Ex d cable gland, made of

// Brass

// Brass with additional stain-relief

// Acid-resistant stainless steel

We provide variable clamping ranges, thread types and temperature ranges. Our range is completed by global certifications. For any further question please do not hesitate to contact us. We look forward to develop solutions together with you. You profit of our vast knowledge in development, engineering and production technology.



# HSK-Ex d CABLE GLANDS

## HSK-M-Ex d / HSK-M-PVDF-Ex d

Metr.

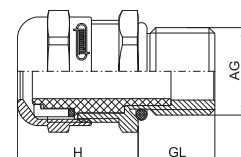


For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                               |
| Clamping insert       | Polyamide / PVDF                                                                  |
| Seal / O-Ring         | FKM / FKM                                                                         |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                       |
| Operating Temperature | -60 °C – 105 °C (-76 °F – 221 °F) (PA)<br>-20 °C – 130 °C (-4 °F – 266 °F) (PVDF) |



II 2G 1D Ex d IIC



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number<br>HSK-M-Ex d<br>-60 °C – 105 °C | Number<br>HSK-M-PVDF-Ex d<br>-20 °C – 130 °C |
|------------|---------------------|----------|---------|---------------------|-----------------------------------------|----------------------------------------------|
| M 12 x 1,5 | 3–6,5               | 16       | 18,7    | 14                  | 1.622.1200.50                           | 1.634.1200.50                                |
| M 12 x 1,5 | 2–5                 | 16       | 18,7    | 14                  | 1.622.1200.51                           | 1.634.1200.51                                |
| M 16 x 1,5 | 5–10                | 16       | 22      | 20                  | 1.622.1600.50                           | 1.634.1600.50                                |
| M 16 x 1,5 | 3–7                 | 16       | 22      | 20                  | 1.622.1600.51                           | 1.634.1600.51                                |
| M 20 x 1,5 | 10–14               | 16       | 25      | 24                  | 1.622.2000.50                           | 1.634.2000.50                                |
| M 20 x 1,5 | 7–12                | 16       | 25      | 24                  | 1.622.2000.51                           | 1.634.2000.51                                |
| M 25 x 1,5 | 13–18               | 16       | 26,5    | 30                  | 1.622.2500.50                           | 1.634.2500.50                                |
| M 25 x 1,5 | 9–16                | 16       | 26,5    | 30                  | 1.622.2500.51                           | 1.634.2500.51                                |
| M 32 x 1,5 | 18–25               | 16       | 32      | 40                  | 1.622.3200.50                           | 1.634.3200.50                                |
| M 32 x 1,5 | 14–20               | 16       | 32      | 40                  | 1.622.3200.51                           | 1.634.3200.51                                |
| M 40 x 1,5 | 22–32               | 16       | 38,5    | 50                  | 1.622.4000.50                           | 1.634.4000.50                                |
| M 40 x 1,5 | 20–26               | 16       | 38,5    | 50                  | 1.622.4000.51                           | 1.634.4000.51                                |

## HSK-M-Ex d / HSK-M-PVDF-Ex d

NPT

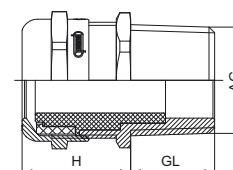


For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                               |
| Clamping insert       | Polyamide / PVDF                                                                  |
| Seal / O-Ring         | FKM / FKM                                                                         |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                       |
| Operating Temperature | -60 °C – 105 °C (-76 °F – 221 °F) (PA)<br>-20 °C – 130 °C (-4 °F – 266 °F) (PVDF) |



II 2G 1D Ex d IIC



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number<br>HSK-M-Ex d<br>-60 °C – 105 °C | Number<br>HSK-M-PVDF-Ex d<br>-20 °C – 130 °C |
|------------|---------------------|----------|---------|---------------------|-----------------------------------------|----------------------------------------------|
| NPT 3/8"   | 5–10                | 16       | 22      | 20                  | 1.622.3800.70                           | 1.634.3800.70                                |
| NPT 3/8"   | 3–7                 | 16       | 22      | 20                  | 1.622.3800.71                           | 1.634.3800.71                                |
| NPT 1/2"   | 10–14               | 20       | 25      | 24                  | 1.622.1200.70                           | 1.634.1200.70                                |
| NPT 1/2"   | 7–12                | 20       | 25      | 24                  | 1.622.1200.71                           | 1.634.1200.71                                |
| NPT 3/4"   | 13–18               | 20,5     | 26,5    | 30                  | 1.622.3400.70                           | 1.634.3400.70                                |
| NPT 3/4"   | 9–16                | 20,5     | 26,5    | 30                  | 1.622.3400.71                           | 1.634.3400.71                                |
| NPT 1"     | 18–25               | 25       | 32      | 40                  | 1.622.1000.70                           | 1.622.1000.71                                |
| NPT 1"     | 14–20               | 25       | 32      | 40                  | 1.622.1000.71                           | 1.622.1000.71                                |
| NPT 1 1/4" | 22–32               | 26       | 38,5    | 50                  | 1.622.5400.70                           | 1.622.5400.71                                |
| NPT 1 1/4" | 20–26               | 26       | 38,5    | 50                  | 1.622.5400.71                           | 1.622.5400.71                                |
| NPT 1 1/2" | 22–32               | 26,5     | 38,5    | 50                  | 1.622.6400.70                           | 1.622.6400.71                                |
| NPT 1 1/2" | 20–26               | 26,5     | 38,5    | 50                  | 1.622.6400.71                           | 1.622.6400.71                                |

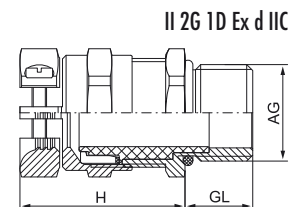
## HSK-MZ-Ex d

Metr.



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Nickel plated brass                         |
| Clamping insert       | Polyamide                                   |
| Seal / O-Ring         | FKM                                         |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -60 °C – 105 °C (-76 °F – 221 °F)           |



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number<br>HSK-MZ-Ex d<br>-60 °C – 105 °C |
|------------|---------------------|----------|---------|---------------------|------------------------------------------|
| M 12 x 1,5 | 3–6,5               | 16       | 26      | 14                  | 1.628.1200.50                            |
| M 16 x 1,5 | 5–10                | 16       | 30,2    | 20                  | 1.628.1600.50                            |
| M 20 x 1,5 | 10–14               | 16       | 34      | 24                  | 1.628.2000.50                            |
| M 25 x 1,5 | 13–18               | 16       | 37,8    | 30                  | 1.628.2500.50                            |
| M 32 x 1,5 | 18–25               | 16       | 44      | 40                  | 1.628.3200.50                            |
| M 40 x 1,5 | 22–32               | 16       | 51,5    | 50                  | 1.628.4000.50                            |

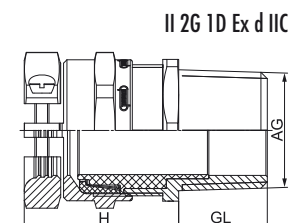
## HSK-MZ-Ex d

NPT



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Nickel plated brass                         |
| Clamping insert       | Polyamide                                   |
| Seal / O-Ring         | FKM                                         |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -60 °C – 105 °C (-76 °F – 221 °F)           |



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number<br>HSK-MZ-Ex d<br>-60 °C – 105 °C |
|------------|---------------------|----------|---------|---------------------|------------------------------------------|
| NPT 3/8"   | 5–10                | 16       | 30      | 20                  | 1.628.3800.70                            |
| NPT 1/2"   | 10–14               | 20       | 33,6    | 24                  | 1.628.1200.70                            |
| NPT 3/4"   | 13–18               | 20,5     | 37,8    | 30                  | 1.628.3400.70                            |
| NPT 1"     | 18–25               | 25       | 44      | 40                  | 1.628.1000.70                            |
| NPT 1 1/4" | 22–32               | 26       | 51,5    | 50                  | 1.628.5400.70                            |
| NPT 1 1/2" | 22–32               | 26,5     | 51,5    | 50                  | 1.628.6400.70                            |

# HSK-Ex d CABLE GLANDS

## HSK-INOX-Ex d / HSK-INOX-PVDF-Ex d

Metr.

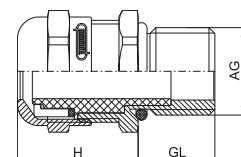


For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------|
| Material              | INOX (1.4404)                                                                     |
| Clamping insert       | Polyamide / PVDF                                                                  |
| Seal / O-Ring         | FKM / FKM                                                                         |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                       |
| Operating Temperature | -60 °C – 105 °C (-76 °F – 221 °F) (PA)<br>-20 °C – 130 °C (-4 °F – 266 °F) (PVDF) |



II 2G 1D Ex d IIC



| AG         | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number<br>HSK-INOX-Ex d<br>-60 °C – 105 °C | Number<br>HSK-INOX-PVDF-Ex d<br>-20 °C – 130 °C |
|------------|---------------------|----------|---------|---------------------|--------------------------------------------|-------------------------------------------------|
| M 12 x 1,5 | 3–6,5               | 16       | 19      | 14                  | 1.632.1200.50                              | 1.633.1200.50                                   |
| M 12 x 1,5 | 2–5                 | 16       | 19      | 14                  | 1.632.1200.51                              | 1.633.1200.51                                   |
| M 16 x 1,5 | 5–10                | 16       | 22      | 20                  | 1.632.1600.50                              | 1.633.1600.50                                   |
| M 16 x 1,5 | 3–7                 | 16       | 22      | 20                  | 1.632.1600.51                              | 1.633.1600.51                                   |
| M 20 x 1,5 | 10–14               | 16       | 25      | 24                  | 1.632.2000.50                              | 1.633.2000.50                                   |
| M 20 x 1,5 | 7–12                | 16       | 25      | 24                  | 1.632.2000.51                              | 1.633.2000.51                                   |
| M 25 x 1,5 | 13–18               | 16       | 26,5    | 30                  | 1.632.2500.50                              | 1.633.2500.50                                   |
| M 25 x 1,5 | 9–16                | 16       | 26,5    | 30                  | 1.632.2500.51                              | 1.633.2500.51                                   |
| M 32 x 1,5 | 18–25               | 16       | 32      | 40                  | 1.632.3200.50                              | 1.633.3200.50                                   |
| M 32 x 1,5 | 14–20               | 16       | 32      | 40                  | 1.632.3200.51                              | 1.633.3200.51                                   |
| M 40 x 1,5 | 22–32               | 16       | 38,5    | 50                  | 1.632.4000.50                              | 1.633.4000.50                                   |
| M 40 x 1,5 | 20–26               | 16       | 38,5    | 50                  | 1.632.4000.51                              | 1.633.4000.51                                   |

## HSK-INOX-Ex d / HSK-INOX-PVDF-Ex d

NPT

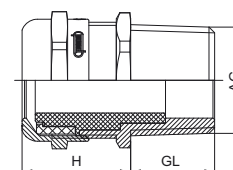


For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------|
| Material              | INOX (1.4404)                                                                     |
| Clamping insert       | Polyamide / PVDF                                                                  |
| Seal / O-Ring         | FKM / FKM                                                                         |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                       |
| Operating Temperature | -60 °C – 105 °C (-76 °F – 221 °F) (PA)<br>-20 °C – 130 °C (-4 °F – 266 °F) (PVDF) |



II 2G 1D Ex d IIC



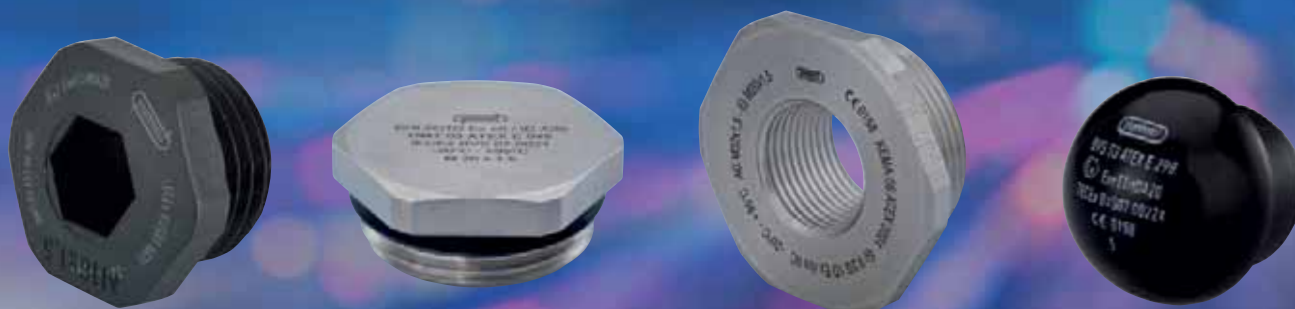
| AG       | $\varnothing$<br>mm | GL<br>mm | H<br>mm | $\varnothing$<br>mm | Number<br>HSK-INOX-Ex d<br>-60 °C – 105 °C | Number<br>HSK-INOX-PVDF-Ex d<br>-20 °C – 130 °C |
|----------|---------------------|----------|---------|---------------------|--------------------------------------------|-------------------------------------------------|
| NPT 3/8" | 5–10                | 16       | 22      | 20                  | 1.632.3800.70                              | 1.633.3800.70                                   |
| NPT 3/8" | 3–7                 | 16       | 22      | 20                  | 1.632.3800.71                              | 1.633.3800.71                                   |
| NPT 1/2" | 10–14               | 20       | 25      | 24                  | 1.632.1200.70                              | 1.633.1200.70                                   |
| NPT 1/2" | 7–12                | 20       | 25      | 24                  | 1.632.1200.71                              | 1.633.1200.71                                   |
| NPT 3/4" | 13–18               | 20,5     | 26,5    | 30                  | 1.632.3400.70                              | 1.633.3400.70                                   |
| NPT 3/4" | 9–16                | 20,5     | 26,5    | 30                  | 1.632.3400.71                              | 1.633.3400.71                                   |

# CABLE GLANDS FOR „HAZARDOUS AREAS“

## Ex accessories

You can find in this chapter accessories for all series of our industrial cable glands for hazardous locations with protection „e“ and/or „d“:

- // Accessories made of plastic starting on page 144
- // Accessories made of nickel plated brass starting on page 146
- // Accessories made of stainless steel starting on page 150



## Plug V-Ex

Metr.

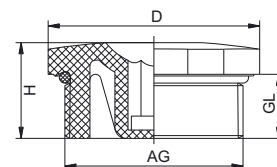


For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Polyamide, fiber reinforced                 |
| O-Ring                | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F)             |
| Colors                | black (RAL 9005)                            |



II 2G 1D



| AG         | GL<br>mm | H<br>mm | D<br>mm |  mm |  mm | Number        |
|------------|----------|---------|---------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------|
| M 12 x 1,5 | 8,5      | 13      | 16,5    | 15                                                                                   | 6                                                                                    | 1.297.1201.50 |
| M 16 x 1,5 | 8,5      | 13      | 20,5    | 19                                                                                   | 8                                                                                    | 1.297.1601.50 |
| M 20 x 1,5 | 9        | 14,5    | 25,5    | 24                                                                                   | 8                                                                                    | 1.297.2001.50 |
| M 25 x 1,5 | 10,5     | 16      | 30,5    | 28                                                                                   | 8                                                                                    | 1.297.2501.50 |
| M 32 x 1,5 | 11,5     | 17,5    | 38      | 36                                                                                   | 8                                                                                    | 1.297.3201.50 |
| M 40 x 1,5 | 11,5     | 18      | 48      | 46                                                                                   | 8                                                                                    | 1.297.4001.50 |
| M 50 x 1,5 | 13,5     | 20      | 60      | 55                                                                                   | 8                                                                                    | 1.297.5001.50 |
| M 63 x 1,5 | 14,5     | 21      | 75      | 70                                                                                   | 8                                                                                    | 1.297.6301.50 |

## Plug V-Ex

PG

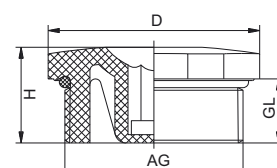


For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                             |
|-----------------------|---------------------------------------------|
| Material              | Polyamide, fiber reinforced                 |
| O-Ring                | Buna-N                                      |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG) |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F)             |
| Colors                | black (RAL 9005)                            |



II 2G 1D



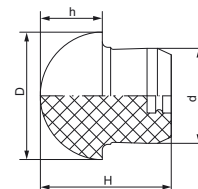
| AG      | GL<br>mm | H<br>mm | D<br>mm |  mm |  mm | Number        |
|---------|----------|---------|---------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------|
| PG 7    | 8,5      | 13      | 16,5    | 15                                                                                     | 6                                                                                      | 1.297.0701.11 |
| PG 9    | 8,5      | 13      | 20,5    | 19                                                                                     | 8                                                                                      | 1.297.0901.11 |
| PG 11   | 9        | 14,5    | 25,5    | 24                                                                                     | 8                                                                                      | 1.297.1101.11 |
| PG 13,5 | 9        | 14,5    | 25,5    | 24                                                                                     | 8                                                                                      | 1.297.1301.11 |
| PG 16   | 10,5     | 16      | 30,5    | 28                                                                                     | 8                                                                                      | 1.297.1601.11 |
| PG 21   | 11,5     | 17,5    | 38      | 36                                                                                     | 8                                                                                      | 1.297.2101.11 |
| PG 29   | 11,5     | 18      | 48      | 46                                                                                     | 8                                                                                      | 1.297.2901.11 |
| PG 36   | 13,5     | 20      | 60      | 55                                                                                     | 8                                                                                      | 1.297.3601.11 |
| PG 42   | 13,5     | 20      | 65      | 60                                                                                     | 8                                                                                      | 1.297.4201.11 |
| PG 48   | 14,5     | 21      | 75      | 70                                                                                     | 8                                                                                      | 1.297.4801.11 |

## Plug HSK-V-Ex

Metr., PG, NPT



|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Elastomer                        |
| Operating Temperature | -40 °C – 95 °C (-40 °F – 203 °F) |
| Colors                | black (RAL 9005)                 |



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

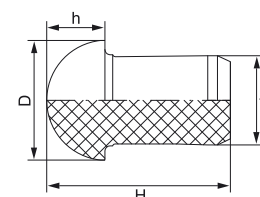
| Fits the following sizes |            |                   | D<br>mm | d<br>mm | H<br>mm | h<br>mm | Number        |
|--------------------------|------------|-------------------|---------|---------|---------|---------|---------------|
| PG 7                     | M 12 x 1,5 |                   | 9,5     | 6,3     | 11,5    | 4,5     | 1.296.0701.11 |
| PG 9                     | M 16 x 1,5 | NPT 3/8"          | 11      | 7,8     | 13,5    | 5,5     | 1.296.0901.11 |
| PG 11                    | M 16 x 1,5 |                   | 13,5    | 9,8     | 14,5    | 5,5     | 1.296.1101.11 |
| PG 13,5                  | M 20 x 1,5 | NPT 1/2"          | 16      | 11,8    | 18      | 8       | 1.296.1301.11 |
| PG 16                    | M 20 x 1,5 | NPT 1/2"/16       | 18,5    | 13,8    | 19      | 9       | 1.296.1601.11 |
| PG 21                    | M 25 x 1,5 | NPT 3/4"          | 22      | 17,8    | 22      | 11      | 1.296.2101.11 |
| PG 29                    | M 32 x 1,5 | NPT 1" NPT 1 1/4" | 29      | 25      | 25      | 10      | 1.296.2901.11 |
| PG 36                    | M 40 x 1,5 | NPT 1 1/2"        | 38      | 32      | 28      | 11      | 1.296.3601.11 |
| PG 42                    | M 50 x 1,5 |                   | 43      | 38      | 30      | 12      | 1.296.4201.11 |
| PG 48                    | M 63 x 1,5 |                   | 49      | 44      | 30      | 12      | 1.296.4801.11 |

## Plug HSK-V-Ex MZ version

Metr., PG, NPT



|                       |                                  |
|-----------------------|----------------------------------|
| Material              | Elastomer                        |
| Operating Temperature | -40 °C – 95 °C (-40 °F – 203 °F) |
| Colors                | black (RAL 9005)                 |



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

// This plug is suitable in all HSK glands with additional strain relief

| Fits the following sizes |            |                   | D<br>mm | d<br>mm | H<br>mm | h<br>mm | Number        |
|--------------------------|------------|-------------------|---------|---------|---------|---------|---------------|
| PG 7                     | M 12 x 1,5 |                   | 9,5     | 6,3     | 18      | 4,5     | 1.296.0701.61 |
| PG 9                     | M 16 x 1,5 | NPT 3/8"          | 11      | 7,8     | 20,5    | 5,5     | 1.296.0901.61 |
| PG 11                    | M 16 x 1,5 |                   | 13,5    | 9,8     | 22      | 5,5     | 1.296.1101.61 |
| PG 13,5                  | M 20 x 1,5 | NPT 1/2"          | 16      | 11,8    | 26,5    | 8       | 1.296.1301.61 |
| PG 16                    | M 20 x 1,5 | NPT 1/2"/16       | 18,5    | 13,8    | 28,4    | 9       | 1.296.1601.61 |
| PG 21                    | M 25 x 1,5 | NPT 3/4"          | 22      | 17,8    | 32      | 11      | 1.296.2101.61 |
| PG 29                    | M 32 x 1,5 | NPT 1" NPT 1 1/4" | 29      | 25      | 35,5    | 10      | 1.296.2901.61 |
| PG 36                    | M 40 x 1,5 | NPT 1 1/2"        | 38      | 32      | 39      | 11      | 1.296.3601.61 |

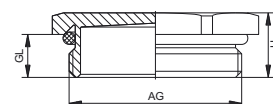
## Plug V-Ms-Ex / V-Ms-FKM-Ex / V-Ms-VMQ-Ex

Metr.



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                                                          |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                                  |
| V-Ms-Ex O-Ring        | Buna-N                                                                                                                       |
| V-Ms-FKM-Ex O-Ring    | FKM                                                                                                                          |
| V-Ms-VMQ-Ex O-Ring    | VMQ                                                                                                                          |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N)<br>-20 °C – 180 °C (-4 °F – 356 °F) (FKM) / -60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



| AG         | GL<br>mm | H<br>mm | mm | Number<br>V-Ms-Ex<br>-20 °C – 95 °C | Number<br>V-Ms-FKM-Ex<br>-20 °C – 180 °C | Number<br>V-Ms-VMQ-Ex<br>-60 °C – 180 °C |
|------------|----------|---------|----|-------------------------------------|------------------------------------------|------------------------------------------|
| M 12 x 1,5 | 6,5      | 9,5     | 14 | 1.197.1200.50                       | 1.198.1200.50                            | 1.199.1200.50                            |
| M 16 x 1,5 | 6        | 9       | 19 | 1.197.1600.50                       | 1.198.1600.50                            | 1.199.1600.50                            |
| M 20 x 1,5 | 6        | 9,5     | 22 | 1.197.2000.50                       | 1.198.2000.50                            | 1.199.2000.50                            |
| M 25 x 1,5 | 7        | 10,5    | 30 | 1.197.2500.50                       | 1.198.2500.50                            | 1.199.2500.50                            |
| M 32 x 1,5 | 8        | 12,5    | 41 | 1.197.3200.50                       | 1.198.3200.50                            | 1.199.3200.50                            |
| M 40 x 1,5 | 8        | 13      | 46 | 1.197.4000.50                       | 1.198.4000.50                            | 1.199.4000.50                            |
| M 50 x 1,5 | 9        | 15      | 55 | 1.197.5000.50                       | 1.198.5000.50                            | 1.199.5000.50                            |
| M 63 x 1,5 | 10       | 16,5    | 70 | 1.197.6300.50                       | 1.198.6300.50                            | 1.199.6300.50                            |

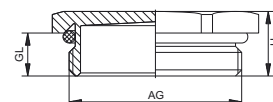
## Plug V-Ms-Ex / V-Ms-FKM-Ex / V-Ms-VMQ-Ex

PG



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                                                          |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                                  |
| V-Ms-Ex O-Ring        | Buna-N                                                                                                                       |
| V-Ms-FKM-Ex O-Ring    | FKM                                                                                                                          |
| V-Ms-VMQ-Ex O-Ring    | VMQ                                                                                                                          |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N)<br>-20 °C – 180 °C (-4 °F – 356 °F) (FKM) / -60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



| AG      | GL<br>mm | H<br>mm | mm | Number<br>V-Ms-Ex<br>-20 °C – 95 °C | Number<br>V-Ms-FKM-Ex<br>-20 °C – 180 °C | Number<br>V-Ms-VMQ-Ex<br>-60 °C – 180 °C |
|---------|----------|---------|----|-------------------------------------|------------------------------------------|------------------------------------------|
| PG 7    | 5        | 8       | 14 | 1.197.0700.01                       | 1.198.0700.01                            | 1.199.0700.01                            |
| PG 9    | 6        | 9       | 17 | 1.197.0900.01                       | 1.198.0900.01                            | 1.199.0900.01                            |
| PG 11   | 6        | 9,5     | 20 | 1.197.1100.01                       | 1.198.1100.01                            | 1.199.1100.01                            |
| PG 13,5 | 6,5      | 10      | 22 | 1.197.1300.01                       | 1.198.1300.01                            | 1.199.1300.01                            |
| PG 16   | 6,5      | 10      | 24 | 1.197.1600.01                       | 1.198.1600.01                            | 1.199.1600.01                            |
| PG 21   | 7        | 10,5    | 30 | 1.197.2100.01                       | 1.198.2100.01                            | 1.199.2100.01                            |
| PG 29   | 8        | 12,5    | 41 | 1.197.2900.01                       | 1.198.2900.01                            | 1.199.2900.01                            |
| PG 36   | 8        | 13      | 50 | 1.197.3600.01                       | 1.198.3600.01                            | 1.199.3600.01                            |
| PG 42   | 9        | 15      | 58 | 1.197.4200.01                       | 1.198.4200.01                            | 1.199.4200.01                            |
| PG 48   | 10       | 16,5    | 65 | 1.197.4800.01                       | 1.198.4800.01                            | 1.199.4800.01                            |

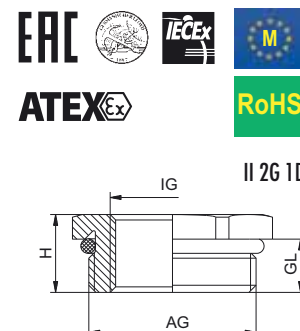
## Adapter RSD-MS-Ex

Metr.



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                 |
| O-Ring                | Buna-N / VMQ                                                                        |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                         |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N)<br>-60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



| AG         | IG         | GL<br>mm | mm | Number<br>NBR<br>-20 °C – 95 °C | Number<br>VMQ<br>-60 °C – 180 °C |
|------------|------------|----------|----|---------------------------------|----------------------------------|
| M 16 x 1,5 | M 12 x 1,5 | 5        | 17 | 1.078.1612.50                   | 1.079.1612.50                    |
| M 20 x 1,5 | M 12 x 1,5 | 6        | 22 | 1.078.2012.50                   | 1.079.2012.50                    |
| M 20 x 1,5 | M 16 x 1,5 | 6        | 22 | 1.078.2016.50                   | 1.079.2016.50                    |
| M 25 x 1,5 | M 16 x 1,5 | 7        | 29 | 1.078.2516.50                   | 1.079.2516.50                    |
| M 25 x 1,5 | M 20 x 1,5 | 7        | 29 | 1.078.2520.50                   | 1.079.2520.50                    |
| M 32 x 1,5 | M 16 x 1,5 | 8        | 34 | 1.078.3216.50                   | 1.079.3216.50                    |
| M 32 x 1,5 | M 20 x 1,5 | 8        | 34 | 1.078.3220.50                   | 1.079.3220.50                    |
| M 32 x 1,5 | M 25 x 1,5 | 8        | 34 | 1.078.3225.50                   | 1.079.3225.50                    |
| M 40 x 1,5 | M 20 x 1,5 | 8        | 43 | 1.078.4020.50                   | 1.079.4020.50                    |
| M 40 x 1,5 | M 25 x 1,5 | 8        | 43 | 1.078.4025.50                   | 1.079.4025.50                    |
| M 40 x 1,5 | M 32 x 1,5 | 8        | 43 | 1.078.4032.50                   | 1.079.4032.50                    |
| M 50 x 1,5 | M 25 x 1,5 | 9        | 55 | 1.078.5025.50                   | 1.079.5025.50                    |

| AG         | IG         | GL<br>mm | mm | Number<br>NBR<br>-20 °C – 95 °C | Number<br>VMQ<br>-60 °C – 180 °C |
|------------|------------|----------|----|---------------------------------|----------------------------------|
| M 50 x 1,5 | M 32 x 1,5 | 9        | 55 | 1.078.5032.50                   | 1.079.5032.50                    |
| M 50 x 1,5 | M 40 x 1,5 | 9        | 55 | 1.078.5040.50                   | 1.079.5040.50                    |
| M 63 x 1,5 | M 32 x 1,5 | 10       | 65 | 1.078.6332.50                   | 1.079.6332.50                    |
| M 63 x 1,5 | M 40 x 1,5 | 10       | 65 | 1.078.6340.50                   | 1.079.6340.50                    |
| M 63 x 1,5 | M 50 x 1,5 | 10       | 65 | 1.078.6350.50                   | 1.079.6350.50                    |

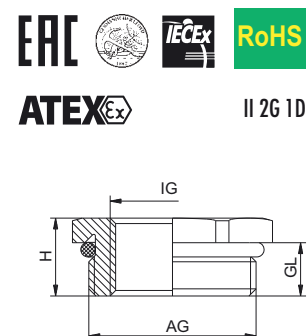
## Adapter RSD-MS-Ex

PG



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                 |
| O-Ring                | Buna-N / VMQ                                                                        |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                         |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N)<br>-60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



| AG      | IG      | GL<br>mm | H<br>mm | mm | Number<br>NBR<br>-20 °C – 95 °C | Number<br>VMQ<br>-60 °C – 180 °C |
|---------|---------|----------|---------|----|---------------------------------|----------------------------------|
| PG 9    | PG 7    | 6        | 8,8     | 17 | 1.078.0907.01                   | 1.079.0907.01                    |
| PG 11   | PG 7    | 6        | 9       | 20 | 1.078.1107.01                   | 1.079.1107.01                    |
| PG 11   | PG 9    | 6        | 9       | 20 | 1.078.1109.01                   | 1.079.1109.01                    |
| PG 13,5 | PG 9    | 6,5      | 9,5     | 22 | 1.078.1309.01                   | 1.079.1309.01                    |
| PG 16   | PG 9    | 6,5      | 9,5     | 24 | 1.078.1609.01                   | 1.079.1609.01                    |
| PG 16   | PG 11   | 6,5      | 9,5     | 24 | 1.078.1611.01                   | 1.079.1611.01                    |
| PG 16   | PG 13,5 | 6,5      | 9,5     | 24 | 1.078.1613.01                   | 1.079.1613.01                    |
| PG 21   | PG 11   | 7        | 10,3    | 30 | 1.078.2111.01                   | 1.079.2111.01                    |
| PG 21   | PG 13,5 | 7        | 10,3    | 30 | 1.078.2113.01                   | 1.079.2113.01                    |
| PG 21   | PG 16   | 7        | 10,3    | 30 | 1.078.2116.01                   | 1.079.2116.01                    |
| PG 29   | PG 16   | 8        | 11,5    | 40 | 1.078.2916.01                   | 1.079.2916.01                    |
| PG 29   | PG 21   | 8        | 11,5    | 40 | 1.078.2921.01                   | 1.079.2921.01                    |

| AG    | IG    | GL<br>mm | H<br>mm | mm | Number<br>NBR<br>-20 °C – 95 °C | Number<br>VMQ<br>-60 °C – 180 °C |
|-------|-------|----------|---------|----|---------------------------------|----------------------------------|
| PG 36 | PG 21 | 9        | 12,5    | 50 | 1.078.3621.01                   | 1.079.3621.01                    |
| PG 36 | PG 29 | 9        | 12,5    | 50 | 1.078.3629.01                   | 1.079.3629.01                    |
| PG 42 | PG 29 | 10       | 13,5    | 57 | 1.078.4229.01                   | 1.079.4229.01                    |
| PG 42 | PG 36 | 10       | 13,5    | 57 | 1.078.4236.01                   | 1.079.4236.01                    |
| PG 48 | PG 36 | 10       | 13,5    | 64 | 1.078.4836.01                   | 1.079.4836.01                    |
| PG 48 | PG 42 | 10       | 13,5    | 64 | 1.078.4842.01                   | 1.079.4842.01                    |

## Plug V-Ms-Ex d

Metr., NPT

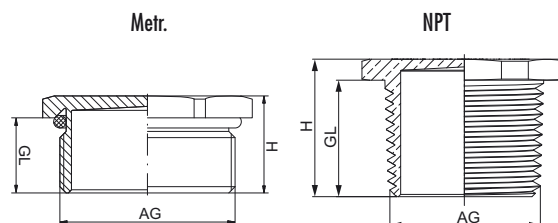


|                       |                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                                                          |
| O-Ring                | Buna-N / FKM / VMQ                                                                                                           |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                                  |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N)<br>-20 °C – 180 °C (-4 °F – 356 °F) (FKM) / -60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



II 2G 1D

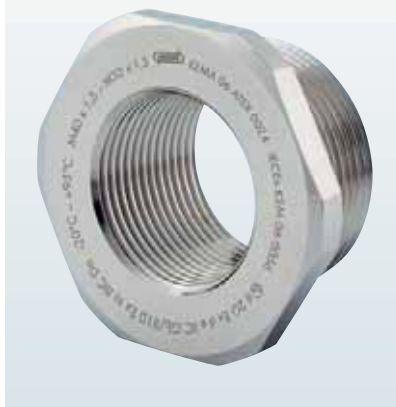
For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG         | GL<br>mm | H<br>mm | mm | Number<br>without O-Ring | Number<br>Buna-N<br>-20 °C – 95 °C | Number<br>FKM<br>-20 °C – 180 °C | Number<br>VMQ<br>-60 °C – 180 °C |
|------------|----------|---------|----|--------------------------|------------------------------------|----------------------------------|----------------------------------|
| M 12 x 1,5 | 16       | 21      | 14 |                          | 1.875.1200.50                      | 1.876.1200.50                    | 1.877.1200.50                    |
| M 16 x 1,5 | 16       | 20      | 19 |                          | 1.875.1600.50                      | 1.876.1600.50                    | 1.877.1600.50                    |
| M 20 x 1,5 | 16       | 19,5    | 22 |                          | 1.875.2000.50                      | 1.876.2000.50                    | 1.877.2000.50                    |
| M 25 x 1,5 | 16       | 19,5    | 30 |                          | 1.875.2500.50                      | 1.876.2500.50                    | 1.877.2500.50                    |
| M 32 x 1,5 | 16       | 20,5    | 41 |                          | 1.875.3200.50                      | 1.876.3200.50                    | 1.877.3200.50                    |
| M 40 x 1,5 | 16       | 21      | 46 |                          | 1.875.4000.50                      | 1.876.4000.50                    | 1.877.4000.50                    |
| M 50 x 1,5 | 16       | 22      | 55 |                          | 1.875.5000.50                      | 1.876.5000.50                    | 1.877.5000.50                    |
| M 63 x 1,5 | 16       | 22,5    | 70 |                          | 1.875.6300.50                      | 1.876.6300.50                    | 1.877.6300.50                    |
| NPT 3/8"   | 16       | 20      | 16 | 1.877.3800.70            |                                    |                                  |                                  |
| NPT 1/2"   | 20       | 23,5    | 24 | 1.877.1200.70            |                                    |                                  |                                  |
| NPT 3/4"   | 20,5     | 24      | 30 | 1.877.3400.70            |                                    |                                  |                                  |
| NPT 1"     | 25       | 29,5    | 41 | 1.877.1000.70            |                                    |                                  |                                  |
| NPT 1 1/4" | 26       | 31      | 46 | 1.877.5400.70            |                                    |                                  |                                  |
| NPT 1 1/2" | 26,5     | 32,5    | 55 | 1.877.6400.70            |                                    |                                  |                                  |

## Adapter RSD-MS-Ex d

Metr.

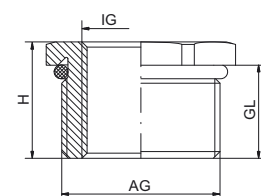


|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| Material              | Nickel plated brass                                                                 |
| O-Ring                | Buna-N / FKM                                                                        |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                         |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N)<br>-60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



II 2G 1D Ex d IIC

For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG         | IG         | GL<br>mm | H<br>mm | mm | Number<br>Buna-N<br>-20 °C – 95 °C | Number<br>VMQ<br>-60 °C – 180 °C |
|------------|------------|----------|---------|----|------------------------------------|----------------------------------|
| M 16 x 1,5 | M 12 x 1,5 | 16       | 19      | 19 | 1.878.1612.50                      | 1.879.1612.50                    |
| M 20 x 1,5 | M 12 x 1,5 | 16       | 19,5    | 22 | 1.878.2012.50                      | 1.879.2012.50                    |
| M 20 x 1,5 | M 16 x 1,5 | 16       | 19,5    | 22 | 1.878.2016.50                      | 1.879.2016.50                    |
| M 25 x 1,5 | M 16 x 1,5 | 16       | 19,5    | 30 | 1.878.2516.50                      | 1.879.2516.50                    |
| M 25 x 1,5 | M 20 x 1,5 | 16       | 19,5    | 30 | 1.878.2520.50                      | 1.879.2520.50                    |
| M 32 x 1,5 | M 16 x 1,5 | 16       | 20,5    | 41 | 1.878.3216.50                      | 1.879.3216.50                    |
| M 32 x 1,5 | M 20 x 1,5 | 16       | 20,5    | 41 | 1.878.3220.50                      | 1.879.3220.50                    |
| M 32 x 1,5 | M 25 x 1,5 | 16       | 20,5    | 41 | 1.878.3225.50                      | 1.879.3225.50                    |
| M 40 x 1,5 | M 20 x 1,5 | 16       | 21      | 46 | 1.878.4020.50                      | 1.879.4020.50                    |
| M 40 x 1,5 | M 25 x 1,5 | 16       | 21      | 46 | 1.878.4025.50                      | 1.879.4025.50                    |
| M 40 x 1,5 | M 32 x 1,5 | 16       | 21      | 46 | 1.878.4032.50                      | 1.879.4032.50                    |
| M 50 x 1,5 | M 25 x 1,5 | 16       | 21      | 55 | 1.878.5025.50                      | 1.879.5025.50                    |
| M 50 x 1,5 | M 32 x 1,5 | 16       | 21      | 55 | 1.878.5032.50                      | 1.879.5032.50                    |

## Plug V-INOX-Ex

Metr.

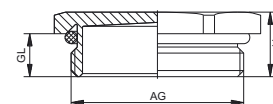


For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------|
| Material              | INOX (1.4305)                                                                                                                |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                                  |
| V-INOX-Ex O-Ring      | Buna-N                                                                                                                       |
| V-INOX-FKM-Ex O-Ring  | FKM                                                                                                                          |
| V-INOX-VMQ-Ex O-Ring  | VMQ                                                                                                                          |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N)<br>-20 °C – 180 °C (-4 °F – 356 °F) (FKM) / -60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



II 2G 1D



| AG         | GL<br>mm | H<br>mm | mm | Number<br>V-INOX-Ex<br>-20 °C – 95 °C | Number<br>V-INOX-FKM-Ex<br>-20 °C – 180 °C | Number<br>V-INOX-VMQ-Ex<br>-60 °C – 180 °C |
|------------|----------|---------|----|---------------------------------------|--------------------------------------------|--------------------------------------------|
| M 12 x 1,5 | 6,5      | 9,5     | 14 | 1.192.1200.50                         | 1.193.1200.50                              | 1.194.1200.50                              |
| M 16 x 1,5 | 6        | 9       | 19 | 1.192.1600.50                         | 1.193.1600.50                              | 1.194.1600.50                              |
| M 20 x 1,5 | 6        | 9,5     | 22 | 1.192.2000.50                         | 1.193.2000.50                              | 1.194.2000.50                              |
| M 25 x 1,5 | 7        | 10,5    | 30 | 1.192.2500.50                         | 1.193.2500.50                              | 1.194.2500.50                              |
| M 32 x 1,5 | 8        | 12,5    | 41 | 1.192.3200.50                         | 1.193.3200.50                              | 1.194.3200.50                              |
| M 40 x 1,5 | 8        | 13      | 46 | 1.192.4000.50                         | 1.193.4000.50                              | 1.194.4000.50                              |
| M 50 x 1,5 | 9        | 15      | 55 | 1.192.5000.50                         | 1.193.5000.50                              | 1.194.5000.50                              |
| M 63 x 1,5 | 10       | 16,5    | 70 | 1.192.6300.50                         | 1.193.6300.50                              | 1.194.6300.50                              |

## Plug V-INOX-Ex

PG

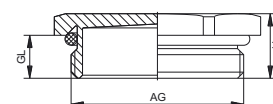


For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------|
| Material              | INOX (1.4305)                                                                                                                |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                                  |
| V-INOX-Ex O-Ring      | Buna-N                                                                                                                       |
| V-INOX-FKM-Ex O-Ring  | FKM                                                                                                                          |
| V-INOX-VMQ-Ex O-Ring  | VMQ                                                                                                                          |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N)<br>-20 °C – 180 °C (-4 °F – 356 °F) (FKM) / -60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



II 2G 1D



| AG      | GL<br>mm | H<br>mm | mm | Number<br>V-INOX-Ex<br>-20 °C – 95 °C | Number<br>V-INOX-FKM-Ex<br>-20 °C – 180 °C | Number<br>V-INOX-VMQ-Ex<br>-60 °C – 180 °C |
|---------|----------|---------|----|---------------------------------------|--------------------------------------------|--------------------------------------------|
| PG 7    | 5        | 8       | 14 | 1.192.0700.01                         | 1.193.0700.01                              | 1.194.0700.01                              |
| PG 9    | 6        | 9       | 17 | 1.192.0900.01                         | 1.193.0900.01                              | 1.194.0900.01                              |
| PG 11   | 6        | 9,5     | 20 | 1.192.1100.01                         | 1.193.1100.01                              | 1.194.1100.01                              |
| PG 13,5 | 6,5      | 10      | 22 | 1.192.1300.01                         | 1.193.1300.01                              | 1.194.1300.01                              |
| PG 16   | 6,5      | 10      | 24 | 1.192.1600.01                         | 1.193.1600.01                              | 1.194.1600.01                              |
| PG 21   | 7        | 10,5    | 30 | 1.192.2100.01                         | 1.193.2100.01                              | 1.194.2100.01                              |
| PG 29   | 8        | 12,5    | 41 | 1.192.2900.01                         | 1.193.2900.01                              | 1.194.2900.01                              |
| PG 36   | 8        | 13      | 50 | 1.192.3600.01                         | 1.193.3600.01                              | 1.194.3600.01                              |
| PG 42   | 9        | 15      | 58 | 1.192.4200.01                         | 1.193.4200.01                              | 1.194.4200.01                              |
| PG 48   | 10       | 16,5    | 65 | 1.192.4800.01                         | 1.193.4800.01                              | 1.194.4800.01                              |

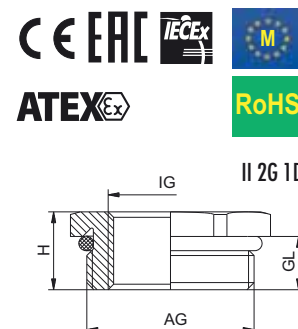
## Adapter RSD-INOX-Ex

Metr.



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| Material              | INOX (1.4305)                                                                       |
| O-Ring                | Buna-N / VMQ                                                                        |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                         |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N)<br>-60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



| AG         | IG         | GL<br>mm |    | Number<br>Buna-N<br>-20 °C – 95 °C | Number<br>VMQ<br>-60 °C – 180 °C |
|------------|------------|----------|----|------------------------------------|----------------------------------|
| M 16 x 1,5 | M 12 x 1,5 | 5        | 17 | 1.098.1612.50                      | 1.099.1612.50                    |
| M 20 x 1,5 | M 12 x 1,5 | 6        | 22 | 1.098.2012.50                      | 1.099.2012.50                    |
| M 20 x 1,5 | M 16 x 1,5 | 6        | 22 | 1.098.2016.50                      | 1.099.2016.50                    |
| M 25 x 1,5 | M 16 x 1,5 | 7        | 27 | 1.098.2516.50                      | 1.099.2516.50                    |
| M 25 x 1,5 | M 20 x 1,5 | 7        | 27 | 1.098.2520.50                      | 1.099.2520.50                    |
| M 32 x 1,5 | M 16 x 1,5 | 8        | 34 | 1.098.3216.50                      | 1.099.3216.50                    |
| M 32 x 1,5 | M 20 x 1,5 | 8        | 34 | 1.098.3220.50                      | 1.099.3220.50                    |
| M 32 x 1,5 | M 25 x 1,5 | 8        | 34 | 1.098.3225.50                      | 1.099.3225.50                    |
| M 40 x 1,5 | M 20 x 1,5 | 8        | 43 | 1.098.4020.50                      | 1.099.4020.50                    |
| M 40 x 1,5 | M 25 x 1,5 | 8        | 43 | 1.098.4025.50                      | 1.099.4025.50                    |
| M 40 x 1,5 | M 32 x 1,5 | 8        | 43 | 1.098.4032.50                      | 1.099.4032.50                    |
| M 50 x 1,5 | M 25 x 1,5 | 9        | 55 | 1.098.5025.50                      | 1.099.5025.50                    |

| AG         | IG         | GL<br>mm |    | Number<br>Buna-N<br>-20 °C – 95 °C | Number<br>VMQ<br>-60 °C – 180 °C |
|------------|------------|----------|----|------------------------------------|----------------------------------|
| M 50 x 1,5 | M 32 x 1,5 | 9        | 55 | 1.098.5032.50                      | 1.099.5032.50                    |
| M 50 x 1,5 | M 40 x 1,5 | 9        | 55 | 1.098.5040.50                      | 1.099.5040.50                    |
| M 63 x 1,5 | M 32 x 1,5 | 10       | 65 | 1.098.6332.50                      | 1.099.6332.50                    |
| M 63 x 1,5 | M 40 x 1,5 | 10       | 65 | 1.098.6340.50                      | 1.099.6340.50                    |
| M 63 x 1,5 | M 50 x 1,5 | 10       | 65 | 1.098.6350.50                      | 1.099.6350.50                    |

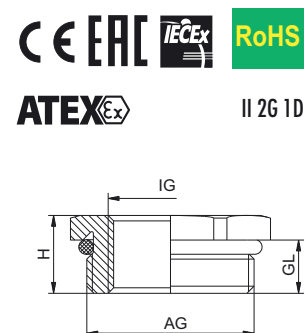
## Adapter RSD-INOX-Ex

PG



For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).

|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| Material              | INOX (1.4305)                                                                       |
| O-Ring                | Buna-N / VMQ                                                                        |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                         |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N)<br>-60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



| AG      | IG      | GL<br>mm | H<br>mm |    | Number<br>Buna-N<br>-20 °C – 95 °C | Number<br>VMQ<br>-60 °C – 180 °C |
|---------|---------|----------|---------|----|------------------------------------|----------------------------------|
| PG 9    | PG 7    | 6        | 8,8     | 17 | 1.098.0907.01                      | 1.099.0907.01                    |
| PG 11   | PG 7    | 6        | 9       | 20 | 1.098.1107.01                      | 1.099.1107.01                    |
| PG 11   | PG 9    | 6        | 9       | 20 | 1.098.1109.01                      | 1.099.1109.01                    |
| PG 13,5 | PG 9    | 6,5      | 9,5     | 22 | 1.098.1309.01                      | 1.099.1309.01                    |
| PG 13,5 | PG 11   | 6,5      | 9,5     | 22 | 1.098.1311.01                      | 1.099.1311.01                    |
| PG 16   | PG 9    | 6,5      | 9,5     | 24 | 1.098.1609.01                      | 1.099.1609.01                    |
| PG 16   | PG 11   | 6,5      | 9,5     | 24 | 1.098.1611.01                      | 1.099.1611.01                    |
| PG 16   | PG 13,5 | 6,5      | 9,5     | 24 | 1.098.1613.01                      | 1.099.1613.01                    |
| PG 21   | PG 11   | 7        | 10,3    | 30 | 1.098.2111.01                      | 1.099.2111.01                    |
| PG 21   | PG 13,5 | 7        | 10,3    | 30 | 1.098.2113.01                      | 1.099.2113.01                    |
| PG 21   | PG 16   | 7        | 10,3    | 30 | 1.098.2116.01                      | 1.099.2116.01                    |
| PG 29   | PG 16   | 8        | 11,5    | 40 | 1.098.2916.01                      | 1.099.2916.01                    |

| AG    | IG    | GL<br>mm | H<br>mm |    | Number<br>Buna-N<br>-20 °C – 95 °C | Number<br>VMQ<br>-60 °C – 180 °C |
|-------|-------|----------|---------|----|------------------------------------|----------------------------------|
| PG 29 | PG 21 | 8        | 11,5    | 40 | 1.098.2921.01                      | 1.099.2921.01                    |
| PG 36 | PG 21 | 9        | 12,5    | 50 | 1.098.3621.01                      | 1.099.3621.01                    |
| PG 36 | PG 29 | 9        | 12,5    | 50 | 1.098.3629.01                      | 1.099.3629.01                    |
| PG 42 | PG 29 | 10       | 13,5    | 57 | 1.098.4229.01                      | 1.099.4229.01                    |
| PG 42 | PG 36 | 10       | 13,5    | 57 | 1.098.4236.01                      | 1.099.4236.01                    |
| PG 48 | PG 36 | 10       | 13,5    | 64 | 1.098.4836.01                      | 1.099.4836.01                    |
| PG 48 | PG 42 | 10       | 13,5    | 64 | 1.098.4842.01                      | 1.099.4842.01                    |

## Plug V-INOX-Ex d

Metr., NPT

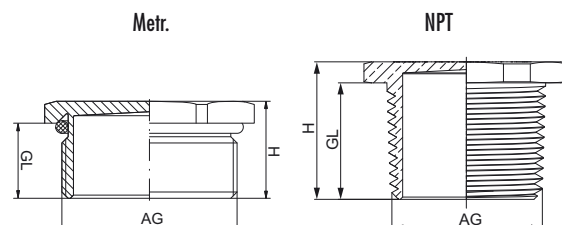


|                       |                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------|
| Material              | INOX (1.4404)                                                                                                                |
| O-Ring                | Buna-N / FKM / VMQ                                                                                                           |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                                                                  |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N)<br>-20 °C – 180 °C (-4 °F – 356 °F) (FKM) / -60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



II 2G 1D Ex d IIC

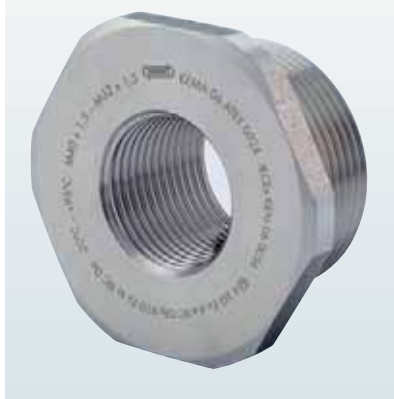
For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG         | GL<br>mm | H<br>mm | mm | Number<br>without O-Ring | Number<br>Buna-N<br>-20 °C – 95 °C | Number<br>FKM<br>-20 °C – 180 °C | Number<br>VMQ<br>-60 °C – 180 °C |
|------------|----------|---------|----|--------------------------|------------------------------------|----------------------------------|----------------------------------|
| M 12 x 1,5 | 16       | 19      | 14 |                          | 1.895.1200.50                      | 1.896.1200.50                    | 1.897.1200.50                    |
| M 16 x 1,5 | 16       | 19      | 19 |                          | 1.895.1600.50                      | 1.896.1600.50                    | 1.897.1600.50                    |
| M 20 x 1,5 | 16       | 19,5    | 22 |                          | 1.895.2000.50                      | 1.896.2000.50                    | 1.897.2000.50                    |
| M 25 x 1,5 | 16       | 19,5    | 30 |                          | 1.895.2500.50                      | 1.896.2500.50                    | 1.897.2500.50                    |
| M 32 x 1,5 | 16       | 20,5    | 41 |                          | 1.895.3200.50                      | 1.896.3200.50                    | 1.897.3200.50                    |
| M 40 x 1,5 | 16       | 21      | 46 |                          | 1.895.4000.50                      | 1.896.4000.50                    | 1.897.4000.50                    |
| M 50 x 1,5 | 16       | 22      | 55 |                          | 1.895.5000.50                      | 1.896.5000.50                    | 1.897.5000.50                    |
| M 63 x 1,5 | 16       | 22,5    | 70 |                          | 1.895.6300.50                      | 1.896.6300.50                    | 1.897.6300.50                    |
| NPT 3/8"   | 16       | 20      | 19 | 1.897.3800.70            |                                    |                                  |                                  |
| NPT 1/2"   | 20       | 23,5    | 24 | 1.897.1200.70            |                                    |                                  |                                  |
| NPT 3/4"   | 20,5     | 24      | 30 | 1.897.3400.70            |                                    |                                  |                                  |
| NPT 1"     | 25       | 29,5    | 41 | 1.897.1000.70            |                                    |                                  |                                  |
| NPT 1 1/4" | 26       | 31      | 46 | 1.897.5400.70            |                                    |                                  |                                  |
| NPT 1 1/2" | 26,5     | 32,5    | 55 | 1.897.6400.70            |                                    |                                  |                                  |

## Adapter RSD-INOX-Ex d

Metr.

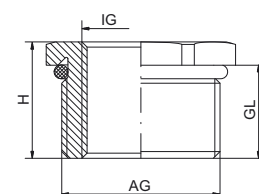


|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| Material              | INOX (1.4404)                                                                       |
| O-Ring                | Buna-N / FKM                                                                        |
| Protection            | IP 68 – 10 bar / IP 69K (NEMA 6 – 150 PSIG)                                         |
| Operating Temperature | -20 °C – 95 °C (-4 °F – 203 °F) (Buna-N)<br>-60 °C – 180 °C (-76 °F – 356 °F) (VMQ) |



II 2G 1D Ex d IIC

For the [international certificates](#) please see page 154 / 155 or our homepage [www.hummel.com](http://www.hummel.com).



| AG         | IG         | GL<br>mm | H<br>mm | mm | Number<br>Buna-N<br>-20 °C – 95 °C | Number<br>VMQ<br>-60 °C – 180 °C |
|------------|------------|----------|---------|----|------------------------------------|----------------------------------|
| M 16 x 1,5 | M 12 x 1,5 | 16       | 19      | 19 | 1.898.1612.50                      | 1.899.1612.50                    |
| M 20 x 1,5 | M 12 x 1,5 | 16       | 19,5    | 22 | 1.898.2012.50                      | 1.899.2012.50                    |
| M 20 x 1,5 | M 16 x 1,5 | 16       | 19,5    | 22 | 1.898.2016.50                      | 1.899.2016.50                    |
| M 25 x 1,5 | M 16 x 1,5 | 16       | 19,5    | 30 | 1.898.2516.50                      | 1.899.2516.50                    |
| M 25 x 1,5 | M 20 x 1,5 | 16       | 19,5    | 30 | 1.898.2520.50                      | 1.899.2520.50                    |
| M 32 x 1,5 | M 16 x 1,5 | 16       | 20,5    | 41 | 1.898.3216.50                      | 1.899.3216.50                    |
| M 32 x 1,5 | M 20 x 1,5 | 16       | 20,5    | 41 | 1.898.3220.50                      | 1.899.3220.50                    |
| M 32 x 1,5 | M 25 x 1,5 | 16       | 20,5    | 41 | 1.898.3225.50                      | 1.899.3225.50                    |
| M 40 x 1,5 | M 20 x 1,5 | 16       | 21      | 46 | 1.898.4020.50                      | 1.899.4020.50                    |
| M 40 x 1,5 | M 25 x 1,5 | 16       | 21      | 46 | 1.898.4025.50                      | 1.899.4025.50                    |
| M 40 x 1,5 | M 32 x 1,5 | 16       | 21      | 46 | 1.898.4032.50                      | 1.899.4032.50                    |

# TECHNICAL INFORMATION

## Other International Ex-Certifications



South Korea KTL 14-KB4B0



Russia PPC 00-27485  
POCC-DE-RG05-B03140, POCC-RU-0001-11TB05



China CQST CNEx06.1147U  
CQST CNEx06.1148U



|        |                       |                        |
|--------|-----------------------|------------------------|
| Brazil | INMETRO MC AEX-4665-X | INMETRO MC AEX-6203-X  |
|        | INMETRO MC AEX-5233-X | INMETRO MC AEX-6410-X, |
|        | INMETRO MC AEX-5234-X | INMETRO MC AEX-6411-X  |
|        | INMETRO MC AEX-5235-X | INMETRO MC AEX-6412-X  |
|        | INMETRO MC AEX-8528   | INMETRO MC AEX-8822-X  |



|                    |                    |
|--------------------|--------------------|
| IECEX BVS 07.0019X | IECEX KEM 06.0056  |
| IECEX BVS 07.0021  | IECEX KEM 07.0012  |
| IECEX BVS 07.0020X | IECEX KEM 07.0014X |
| IECEX BVS 07.0022X | IECEX KEM 07.0013X |
| IECEX BVS 10.0078X |                    |
| IECEX DEK 12.0039X |                    |

| Page                | Article                | Number            | Temperature Range | Approval G (Gas) | Approval D (Dust) | EC-Type Examination Certificate |
|---------------------|------------------------|-------------------|-------------------|------------------|-------------------|---------------------------------|
| 147                 | RSD-MS-Ex              | 1.078.*           | -20 °C–95 °C      | x                | x                 | DMT 03 ATEX E 049               |
| 147                 | RSD-MS-Ex              | 1.079.*           | -60 °C–180 °C     | x                | x                 | DMT 03 ATEX E 049               |
| 151                 | RSD-INOX-Ex            | 1.098.*           | -20 °C–180 °C     | x                | x                 | DMT 03 ATEX E 049               |
| 151                 | RSD-INOX-Ex            | 1.099.*           | -60 °C–180 °C     | x                | x                 | DMT 03 ATEX E 049               |
| 150                 | V-INOX-Ex              | 1.192.*           | -20 °C–95 °C      | x                | x                 | DMT 03 ATEX E 049               |
| 150                 | V-INOX-FKM-Ex          | 1.193.*           | -20 °C–180 °C     | x                | x                 | DMT 03 ATEX E 049               |
| 150                 | V-INOX-VMQ-Ex          | 1.194.*           | -60 °C–180 °C     | x                | x                 | DMT 03 ATEX E 049               |
| 146                 | V-MS-Ex                | 1.197.*           | -20 °C–95 °C      | x                | x                 | DMT 03 ATEX E 049               |
| 146                 | V-MS-FKM-Ex            | 1.198.*           | -20 °C–180 °C     | x                | x                 | DMT 03 ATEX E 049               |
| 146                 | V-MS-VMQ-Ex            | 1.199.*           | -60 °C–180 °C     | x                | x                 | DMT 03 ATEX E 049               |
| 134                 | HSK-K-MZ-Ex            | 1.215.*           | -20 °C–70 °C      | x                | x                 | KEMA 99 ATEX 6971 X             |
| 116, 117            | HSK-K-Ex-Active        | 1.292.*           | -20 °C–85 °C      | x                | x                 | BVS 14 ATEX E 025 X             |
| 145                 | HSK-V-Ex / HSK-V-Ex Mz | 1.296.*           | -20 °C–95 °C      | x                | x                 | BVS 03 ATEX E 298 X             |
| 144                 | V-Ex                   | 1.297.*           | -20 °C–90 °C      | x                | x                 | DMT 03 ATEX E 049               |
| 136                 | HSK-M-FLAKA-Ex         | 1.689.*           | -20 °C–95 °C      | x                | x                 | DMT 03 ATEX E 051 X             |
| 106, 107            | EXIOS Standard         | 1.605.*           | -60 °C–105 °C     | x                | x                 | BVS 10 ATEX E 062 X             |
| 110, 111            | EXIOS Barrier          | 1.606.*           | -60 °C–85 °C      | x                | x                 | Sira 11 ATEX 1110 X             |
| 112                 | EXIOS A2F              | 1.608.*           | -60 °C–105 °C     | x                | x                 | DEKRA 12 ATEX 0139 X            |
| 120 – 123, 128, 129 | HSK-M / EMC-Ex         | 1.610.* / 1.616.* | -20 °C–95 °C      | x                | x                 | DMT 03 ATEX E 051 X             |
| 131, 132, 137, 138  | HSK-MZ / EMC-Ex        | 1.611.* / 1.617.* | -20 °C–95 °C      | x                | x                 | DMT 03 ATEX E 051 X             |
| 124                 | HSK-INOX-Ex            | 1.612.*           | -20 °C–95 °C      | x                | x                 | DMT 03 ATEX E 051 X             |
| 140                 | HSK-M-Ex d             | 1.622.*           | -60 °C–105 °C     | x                | x                 | KEMA 99 ATEX 6968 X             |
| 141                 | HSK-MZ-Ex d            | 1.628.*           | -60 °C–105 °C     | x                | x                 | KEMA 99 ATEX 6968 X             |
| 142                 | HSK-INOX-Ex d          | 1.632.*           | -60 °C–105 °C     | x                | x                 | KEMA 99 ATEX 6968 X             |
| 142                 | HSK-INOX-PVDF-Ex d     | 1.633.*           | -20 °C–130 °C     | x                | x                 | KEMA 99 ATEX 6968 X             |
| 140                 | HSK-M-PVDF-Ex d        | 1.634.*           | -20 °C–130 °C     | x                | x                 | KEMA 99 ATEX 6968 X             |
| 126, 127            | HSK-M-EMC-D-Ex         | 1.636.*           | -20 °C–95 °C      | x                | x                 | DMT 03 ATEX E 051 X             |
| 126, 127            | HSK-M-EMC-D-Ex         | 1.637.*           | -60 °C–95 °C      | x                | x                 | KEMA 99 ATEX 6971 X             |
| 120 – 123, 128, 129 | HSK-M / EMC-Ex         | 1.640.* / 1.646.* | -60 °C–95 °C      | x                | x                 | KEMA 99 ATEX 6971 X             |
| 131, 132            | HSK-MZ / EMC-Ex        | 1.647.*           | -60 °C–95 °C      | x                | x                 | KEMA 99 ATEX 6971 X             |
| 124                 | HSK-INOX-Ex            | 1.642.*           | -60 °C–95 °C      | x                | x                 | KEMA 99 ATEX 6971 X             |
| 120 – 123           | HSK-M-PVDF-Ex          | 1.660.*           | -20 °C–130 °C     | x                | x                 | KEMA 99 ATEX 6971 X             |
| 137, 138            | HSK-MZ-PVDF-Ex         | 1.661.*           | -20 °C–130 °C     | x                | x                 | KEMA 99 ATEX 6971 X             |
| 124                 | HSK-INOX-PVDF-Ex       | 1.662.*           | -20 °C–130 °C     | x                | x                 | KEMA 99 ATEX 6971 X             |
| 129                 | HSK-M-EMC-PVDF-Ex      | 1.666.*           | -20 °C–130 °C     | x                | x                 | KEMA 99 ATEX 6971 X             |
| 131, 132            | HSK-MZ-EMC-PVDF-Ex     | 1.667.*           | -20 °C–130 °C     | x                | x                 | KEMA 99 ATEX 6971 X             |
| 135                 | HSK-M-Multi-Ex         | 1.687.*           | -20 °C–95 °C      | x                | x                 | DMT 03 ATEX E 051 X             |
| 148, 152            | V-MS- / INOX-Ex d      | 1.875.* / 1.895.* | -20 °C–95 °C      | x                | x                 | KEMA 06 ATEX 0024               |
| 148, 152            | V-MS- / INOX-FKM-Ex d  | 1.876.* / 1.896.* | -20 °C–180 °C     | x                | x                 | KEMA 06 ATEX 0024               |
| 148, 152            | V-MS- / INOX-VMQ-Ex d  | 1.877.* / 1.897.* | -60 °C–180 °C     | x                | x                 | KEMA 06 ATEX 0024               |
| 149, 153            | RSD-MS- / INOX-Ex d    | 1.878.* / 1.898.* | -20 °C–95 °C      | x                | x                 | KEMA 06 ATEX 0024               |
| 149, 153            | RSD-MS- / INOX-Ex d    | 1.879.* / 1.899.* | -60 °C–180 °C     | x                | x                 | KEMA 06 ATEX 0024               |

# TECHNICAL INFORMATION

## International Protection, EN 60529

| 1. Code                                                                                |                                                                              | 2. Code | Penetration of water |       |       |       |       |       |       |       |       |  |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------|---------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Protection against human access to hazardous parts                                     | Protection of equipment against penetration of solid foreign objects         |         | IP x0                | IP x1 | IP x2 | IP x3 | IP x4 | IP x5 | IP x6 | IP x7 | IP x8 |  |
| Non-protected                                                                          | Non-protected                                                                | IP 0x   | IP 00                |       |       |       |       |       |       |       |       |  |
| Protected against access to hazardous parts with the back of the hand                  | Protected against solid foreign objects larger in diameter than 50 mm        | IP 1x   | IP 10                | IP 11 | IP 12 |       |       |       |       |       |       |  |
| Protected against access to hazardous parts with a finger                              | Protected against solid foreign object larger in diameter than 12,5 mm       | IP 2x   | IP 20                | IP 21 | IP 22 | IP 23 |       |       |       |       |       |  |
| Protected against access to hazardous parts with a tool larger in diameter than 25 mm  | Protected against solid foreign objects larger in diameter than 2,5 mm       | IP 3x   | IP 30                | IP 31 | IP 32 | IP 33 | IP 34 |       |       |       |       |  |
| Protected against access to hazardous parts with a wire larger in diameter than 1,0 mm | Protected against solid foreign objects larger in diameter than 1 mm         | IP 4x   | IP 40                | IP 41 | IP 42 | IP 43 | IP 44 |       |       |       |       |  |
| Protected against access to hazardous parts with a wire larger in diameter than 1,0 mm | Prevents penetration of dust sufficient to cause damage inside the equipment | IP 5x   | IP 50                |       |       |       | IP 54 | IP 55 |       |       |       |  |
| Protected against access to hazardous parts with a wire larger in diameter than 1,0 mm | Dust proof                                                                   | IP 6x   | IP 60                |       |       |       |       | IP 65 | IP 66 | IP 67 | IP 68 |  |

### Product Material Abbreviations

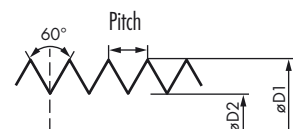
|      |                       |
|------|-----------------------|
| CR   | Chloroprene rubber    |
| FKM  | Fluorelastomer        |
| Ms   | Nickel plated brass   |
| NBR  | Buna-N                |
| PA   | Polyamide             |
| PE   | Polyethylene          |
| PP   | Polypropylene         |
| PVC  | Polyvinylchloride     |
| PVDF | Polyvinylidenfluoride |
| SB   | Styrene Butadiene     |
| VMQ  | Silicone              |

### Installation Instructions

**Multi hole inserts:** Cable diameter should not be less than 20 % of hole diameter and the difference between cable diameter and hole should never exceed 1 mm (.04").

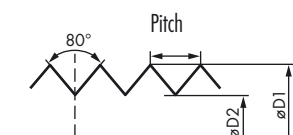
**Flat cable inserts:** The clamping range of the cable used may not deviate from the manufacturer-specified minimum values by more than 1 mm in length and 1 mm in width. The geometries of the cable and the insert hole must be compatible (semicircular or straight at the sides).

## Metric ISO Thread Specifications



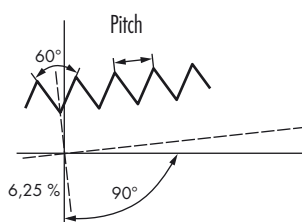
| Size       | Pitch<br>mm | Outside- $\varnothing$<br>D1<br>mm | Inside- $\varnothing$<br>D2<br>mm | Through hole<br>mm |
|------------|-------------|------------------------------------|-----------------------------------|--------------------|
| M 12 x 1,5 | 1,5         | 12                                 | 10,38                             | 12,2               |
| M 16 x 1,5 | 1,5         | 16                                 | 14,38                             | 16,2               |
| M 20 x 1,5 | 1,5         | 20                                 | 18,38                             | 20,2               |
| M 25 x 1,5 | 1,5         | 25                                 | 23,38                             | 25,2               |
| M 32 x 1,5 | 1,5         | 32                                 | 30,38                             | 32,2               |
| M 40 x 1,5 | 1,5         | 40                                 | 38,38                             | 40,2               |
| M 50 x 1,5 | 1,5         | 50                                 | 48,38                             | 50,2               |
| M 63 x 1,5 | 1,5         | 63                                 | 61,38                             | 63,2               |

## PG Thread Specifications



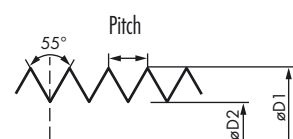
| Size    | Pitch<br>mm | Outside- $\varnothing$<br>D1<br>mm | Inside- $\varnothing$<br>D2<br>mm | Through hole<br>mm |
|---------|-------------|------------------------------------|-----------------------------------|--------------------|
| PG 7    | 1,270       | 12,5                               | 11,28                             | 12,7               |
| PG 9    | 1,410       | 15,2                               | 13,86                             | 15,4               |
| PG 11   | 1,410       | 18,6                               | 17,26                             | 18,8               |
| PG 13,5 | 1,410       | 20,4                               | 19,06                             | 20,7               |
| PG 16   | 1,410       | 22,5                               | 21,16                             | 22,8               |
| PG 21   | 1,588       | 28,3                               | 26,78                             | 28,6               |
| PG 29   | 1,588       | 37,0                               | 35,48                             | 37,4               |
| PG 36   | 1,588       | 47,0                               | 45,48                             | 47,5               |
| PG 42   | 1,588       | 54,0                               | 52,48                             | 54,5               |
| PG 48   | 1,588       | 59,3                               | 57,78                             | 59,8               |

## NPT Thread Specifications



| Size       | Pitch<br>mm | Outside- $\varnothing$<br>mm | Number<br>of pitches<br>n |
|------------|-------------|------------------------------|---------------------------|
| 1/4" NPT   | 1,411       | 13,716                       | 18                        |
| 3/8" NPT   | 1,411       | 17,145                       | 18                        |
| 1/2" NPT   | 1,814       | 21,336                       | 14                        |
| 3/4" NPT   | 1,814       | 26,67                        | 14                        |
| 1" NPT     | 2,208       | 33,4                         | 11 1/2                    |
| 1 1/4" NPT | 2,208       | 42,164                       | 11 1/2                    |
| 1 1/2" NPT | 2,208       | 48,26                        | 11 1/2                    |
| 2" NPT     | 2,208       | 60,325                       | 11 1/2                    |
| 2 1/2" NPT | 3,175       | 73,025                       | 8                         |
| 3" NPT     | 3,175       | 88,9                         | 8                         |
| 3 1/2" NPT | 3,175       | 101,6                        | 8                         |

## British G Thread Specifications



| Size     | Pitch<br>mm | Outside- $\varnothing$<br>D1<br>mm | Inside- $\varnothing$<br>D2<br>mm | Through hole<br>mm |
|----------|-------------|------------------------------------|-----------------------------------|--------------------|
| G 1/4"   | 1,337       | 13,157                             | 11,445                            | 13,4               |
| G 3/8"   | 1,337       | 16,662                             | 14,950                            | 17,0               |
| G 1/2"   | 1,814       | 20,955                             | 18,631                            | 21,3               |
| G 5/8"   | 1,814       | 26,441                             | 24,117                            | 26,8               |
| G 1"     | 2,309       | 33,249                             | 30,291                            | 33,7               |
| G 1 1/4" | 2,309       | 41,910                             | 38,952                            | 42,4               |
| G 1 1/2" | 2,309       | 47,803                             | 44,845                            | 48,3               |
| G 2"     | 2,309       | 59,614                             | 56,656                            | 60,2               |
| G 2 1/2" | 2,309       | 75,184                             | 72,226                            | 75,7               |
| G 3"     | 2,309       | 87,884                             | 84,926                            | 88,5               |
| G 3 1/2" | 2,309       | 100,330                            | 97,372                            | 101,0              |
| G 4"     | 2,309       | 113,030                            | 110,072                           | 114,0              |

## ASSEMBLY INSTRUCTIONS

### HSK-M-EMC / METRICA-M-EMC



#### Step 1

- // Strip cable
- // Expose braided shield



#### Step 2

- // Feed cable through dome nut and clamping insert
- // Fold braided shield over clamping insert
- // Make sure that braided shield overlaps the O-Ring by 3/32" (2 mm)



#### Step 3

- // Push clamping insert into body and tighten dome nut
- // Assemble into housing
- // Finished!



### Option 1 – Feed-through of cable and shield (braided or foil)

- // Expose shield approximately 7/16" (10 mm)
- // Insert cable into fitting until the shield reaches the contact position
- // Tighten dome nut



### Option 2 – Feed-through of shield (braided or foil)

- // Remove cable jacket to expose the shield as required
- // Insert cable into fitting until the shield reaches the contact position
- // Tighten dome nut



### Option 3 – Termination of the braided shield in the fitting

- // Strip cable jacket and braided shield to different lengths
- // For small diameter cables fold the braided shield back over the cable jacket
- // Insert cable into fitting until the shield reaches the contact position
- // Tighten dome nut

## Numerical Index

| Productnumber | Description     | Page               | Productnumber | Description            | Page       | Productnumber | Description                  | Page      |
|---------------|-----------------|--------------------|---------------|------------------------|------------|---------------|------------------------------|-----------|
| 1.022         | Earthtag        | 114                | 1.255         | VNE                    | 78         | 1.637         | HSK-M-EMC-D-Ex               | 126, 127  |
| 1.033         | E-Ms            | 98                 | 1.256         | VNE-SD                 | 78         | 1.640         | HSK-M-Ex                     | 120 – 123 |
| 1.039         | RE-Ms           | 97                 | 1.262         | GM-FS                  | 76         | 1.641         | HSK-MZ-Ex                    | 137, 138  |
| 1.052         | VN-Ms           | 93                 | 1.263         | GM-KS                  | 85         | 1.642         | HSK-INOX-Ex                  | 124       |
| 1.052         | VN-Ms-SD        | 93                 | 1.271         | R-FS                   | 81         | 1.646         | HSK-M-EMC-Ex                 | 128, 129  |
| 1.071         | RH              | 95                 | 1.272         | R-FS                   | 81         | 1.647         | HSK-MZ-EMC-Ex                | 131, 132  |
| 1.076         | RH              | 95                 | 1.273         | R-M-PA                 | 82         | 1.660         | HSK-M-PVDF-Ex                | 120 – 123 |
| 1.077         | RSD-Ms          | 96                 | 1.280         | HSK-V                  | 80         | 1.661         | HSK-MZ-PVDF-Ex               | 137, 138  |
| 1.078         | RSD-Ms-Ex       | 147                | 1.282         | VN                     | 79         | 1.662         | HSK-INOX-PVDF-Ex             | 124       |
| 1.079         | RSD-Ms-Ex       | 147                | 1.292         | HSK-K-Ex-Active        | 116, 117   | 1.666         | HSK-M-EMC-PVDF-Ex            | 129       |
| 1.089         | HSK-ME          | 88                 | 1.293         | HSK-K-Flex             | 46, 47     | 1.667         | HSK-MZ-EMC-PVDF-Ex           | 132       |
| 1.091         | HSK-FLAKA       | 89                 | 1.294         | HSK-K-Flex             | 46         | 1.669         | HSK-MZ-PVDF                  | 58, 59    |
| 1.094         | RS-INOX         | 103, 104           | 1.296         | HSK-V-Ex               | 145        | 1.673         | HSK-INOX-EMC-Ex              | 130       |
| 1.097         | RSD-INOX        | 103, 104           | 1.296         | HSK-V-Ex MZ Version    | 145        | 1.675         | HSK-INOX                     | 28, 29    |
| 1.098         | RSD-INOX-Ex     | 151                | 1.297         | V-Ex                   | 144        | 1.676         | HSK-INOX-PVDF                | 28, 29    |
| 1.099         | RSD-INOX-Ex     | 151                | 1.299         | HSK-K-PVDF             | 20, 21     | 1.680         | SE                           | 73        |
| 1.101         | DIN 46320-C4-Ms | 70                 | 1.306         | FW-T                   | 87         | 1.681         | ZSE                          | 74        |
| 1.105         | Z               | 71, 72             | 1.306         | FW-ZN                  | 100        | 1.683         | METRICAM-EMC                 | 66        |
| 1.106         | GM-Ms           | 92                 | 1.309         | HSK-M-W                | 86         | 1.687         | HSK-M-Multi-Ex               | 135       |
| 1.106         | HSK-MINI        | 56                 | 1.312         | KF-G                   | 60         | 1.688         | HSK-M-FLAKA                  | 52        |
| 1.106         | HSK-XL          | 57                 | 1.313         | HSK-W                  | 48, 49     | 1.689         | HSK-M-FLAKA-Ex               | 136       |
| 1.106         | WADI-AFKM       | 68                 | 1.314         | HSK-W-Flex             | 50         | 1.690         | HSK-MZ                       | 58, 59    |
| 1.112         | HSK-MINI        | 56                 | 1.315         | 90° Snap Elbow         | 84         | 1.691         | HSK-M-EMC                    | 34, 35    |
| 1.119         | HSK-MIN-EMC     | 56                 | 1.316         | 90° Snap Elbow         | 84         | 1.692         | HSK-MZ-EMC                   | 40        |
| 1.129         | HSK-MIN-INOX    | 56                 | 1.317         | HSK-W rotating version | 49         | 1.693         | HSK-INOX-EMC                 | 38, 39    |
| 1.143         | KLE             | 99                 | 1.321         | O-Ring                 | 90         | 1.695         | HSK-INOX                     | 28, 29    |
| 1.152         | V-INOX-NBR      | 102                | 1.325         | Thread Seal Ring       | 91         | 1.696         | HSK-INOX-PVDF                | 28, 29    |
| 1.153         | V-INOX-FKM      | 102                | 1.326         | Thread Seal Ring       | 113        | 1.697         | HSK-M-Multi                  | 51        |
| 1.154         | V-INOX-VMQ      | 102                | 1.329         | Serrated Washer        | 114        | 1.698         | HSK-M-PVDF-EMC               | 34, 35    |
| 1.155         | VNE-Ms          | 94                 | 1.581         | HSK-K-Multi-Ex-Active  | 118        | 1.699         | HSK-M-PVDF                   | 23 – 27   |
| 1.156         | VNE-Ms-SD       | 94                 | 1.582         | HSK-K-FLAKA-Ex-Active  | 119        | 1.625         | EXIOS MZ                     | 108, 109  |
| 1.157         | VNE-Ms-SD-FKM   | 94                 | 1.587         | HSK-K-FLAKA            | 45         | 1.740         | HSK-INOX-HD-Pro, HSK-INOX-HD | 42, 43    |
| 1.161         | GM-Ms           | 92                 | 1.590         | HSK-KE                 | 19         | 1.802         | PVC Shroud                   | 113       |
| 1.161         | GM-INOX         | 101                | 1.591         | HSK-KR                 | 19         | 1.875         | V-Ms-Ex d                    | 148       |
| 1.167         | GM-EMC          | 92                 | 1.597         | HSK-K-Multi            | 44         | 1.876         | V-Ms-Ex d                    | 148       |
| 1.171         | RE-Ms           | 97                 | 1.605         | EXIOS Standard         | 106, 107   | 1.877         | V-Ms-Ex d                    | 148       |
| 1.192         | V-INOX-Ex       | 150                | 1.606         | EXIOS Barrier          | 110, 111   | 1.878         | RSD-Ms-Ex d                  | 149       |
| 1.193         | V-INOX-Ex       | 150                | 1.607         | METRICAM-EMC-E         | 65         | 1.879         | RSD-Ms-Ex d                  | 149       |
| 1.194         | V-INOX-Ex       | 150                | 1.608         | EXIOS AZF              | 112        | 1.895         | V-INOX-Ex d                  | 152       |
| 1.197         | V-Ms-Ex         | 146                | 1.609         | HSK-M                  | 23 – 27    | 1.896         | V-INOX-Ex d                  | 152       |
| 1.198         | V-Ms-FKM-Ex     | 146                | 1.610         | HSK-M-Ex               | 120 – 123  | 1.897         | V-INOX-Ex d                  | 152       |
| 1.199         | V-Ms-VMQ-Ex     | 146                | 1.611         | HSK-MZ-Ex              | 137, 138   | 1.898         | RSD-INOX-Ex d                | 153       |
| 1.202         | DIN 46320-AFS   | 69                 | 1.612         | HSK-INOX-Ex            | 137, 138   | 1.899         | RSD-INOX-Ex d                | 153       |
| 1.209         | HSK-K           | 14, 15, 16, 17, 18 | 1.616         | HSK-M-EMC-Ex           | 128, 129   |               |                              |           |
| 1.213         | KS              | 85                 | 1.617         | HSK-MZ-EMC-Ex          | 131 – 132  |               |                              |           |
| 1.215         | HSK-K-MZ-Ex     | 134                | 1.618         | METRICAM               | 64         |               |                              |           |
| 1.218         | METRICAP        | 62, 63             | 1.622         | HSK-M-Ex d             | 140        |               |                              |           |
| 1.219         | HSK-K           | 14, 15             | 1.623         | HSK-M-Flex             | 53, 54, 55 |               |                              |           |
| 1.233         | K-FS            | 83                 | 1.624         | HSK-M-Flex-EMC         | 36, 37     |               |                              |           |
| 1.235         | R-FS            | 81                 | 1.628         | HSK-MZ-Ex d            | 141        |               |                              |           |
| 1.236         | R-FS            | 81                 | 1.631         | HSK-M-EMC-D            | 32, 33     |               |                              |           |
| 1.238         | METRICAP-Flex   | 62, 63             | 1.632         | HSK-INOX-Ex d          | 140        |               |                              |           |
| 1.239         | R-M-PA          | 83                 | 1.633         | HSK-INOX-PVDF-Ex d     | 142        |               |                              |           |
| 1.250         | DS              | 79                 | 1.634         | HSK-M-PVDF-Ex d        | 142        |               |                              |           |
| 1.251         | VN-FS           | 77                 | 1.636         | HSK-M-EMC-D-Ex         | 126, 127   |               |                              |           |

## Alphabetical Index

| Productnumber | Description                  | Page               | Productnumber | Description            | Page      | Productnumber | Description      | Page     |
|---------------|------------------------------|--------------------|---------------|------------------------|-----------|---------------|------------------|----------|
| 1.315         | 90° Snap Elbow               | 84                 | 1.622         | HSK-M-Ex d             | 140       | 1.097         | RSD-INOX         | 103, 104 |
| 1.316         | 90° Snap Elbow               | 84                 | 1.688         | HSK-M-FLAKA            | 52        | 1.098         | RSD-INOX-Ex      | 151      |
| 1.202         | DIN 46320-AFS                | 69                 | 1.689         | HSK-M-FLAKA-Ex         | 136       | 1.099         | RSD-INOX-Ex      | 151      |
| 1.101         | DIN 46320-C4-Ms              | 70                 | 1.623         | HSK-M-Flex             | 53, 54    | 1.898         | RSD-INOX-Ex d    | 153      |
| 1.250         | DS                           | 79                 | 1.624         | HSK-M-Flex-EMC         | 36, 37    | 1.899         | RSD-INOX-Ex d    | 153      |
| 1.033         | E-Ms                         | 98                 | 1.697         | HSK-M-Multi            | 51        | 1.077         | RSD-Ms           | 96       |
| 1.022         | Earthtag                     | 114                | 1.687         | HSK-M-Multi-Ex         | 135       | 1.078         | RSD-Ms-Ex        | 147      |
| 1.608         | EXIOS A2F                    | 112                | 1.699         | HSK-M-PVDF             | 23 – 27   | 1.079         | RSD-Ms-Ex        | 147      |
| 1.606         | EXIOS Barrier                | 110, 111           | 1.698         | HSK-M-PVDF-EMC         | 34, 35    | 1.878         | RSD-Ms-Ex d      | 149      |
| 1.625         | EXIOS MZ                     | 108, 109           | 1.660         | HSK-M-PVDF-Ex          | 120 – 123 | 1.879         | RSD-Ms-Ex d      | 149      |
| 1.605         | EXIOS Standard               | 106, 107           | 1.634         | HSK-M-PVDF-Ex d        | 140       | 1.680         | SE               | 73       |
| 1.306         | FW-T                         | 87                 | 1.309         | HSK-M-W                | 60        | 1.329         | Serrated Washer  | 114      |
| 1.306         | FW-ZN                        | 100                | 1.089         | HSK-ME                 | 88        | 1.325         | Thread Seal Ring | 91       |
| 1.167         | GM-EMV                       | 92                 | 1.106         | HSK-MINI               | 56        | 1.326         | Thread Seal Ring | 113      |
| 1.262         | GM-FS                        | 76                 | 1.112         | HSK-MINI               | 56        | 1.297         | V-Ex             | 144      |
| 1.161         | GM-INOX                      | 101                | 1.119         | HSK-MINI-EMC           | 56        | 1.192         | V-INOX-Ex        | 150      |
| 1.263         | GM-KS                        | 85                 | 1.129         | HSK-MINI-INOX          | 56        | 1.193         | V-INOX-Ex        | 150      |
| 1.106         | GM-Ms                        | 92                 | 1.690         | HSK-MZ                 | 58, 59    | 1.194         | V-INOX-Ex        | 150      |
| 1.161         | GM-Ms                        | 92                 | 1.692         | HSK-MZ-EMC             | 40        | 1.895         | V-INOX-Ex d      | 152      |
| 1.091         | HSK-FLAKA                    | 89                 | 1.617         | HSK-MZ-EMC-Ex          | 131 – 132 | 1.896         | V-INOX-Ex d      | 152      |
| 1.675         | HSK-INOX                     | 28, 29             | 1.647         | HSK-MZ-EMC-Ex          | 131, 132  | 1.897         | V-INOX-Ex d      | 152      |
| 1.695         | HSK-INOX                     | 28, 29             | 1.667         | HSK-MZ-EMC-PVDF-Ex     | 132       | 1.153         | V-INOX-FKM       | 102      |
| 1.693         | HSK-INOX-EMC                 | 38, 39             | 1.611         | HSK-MZ-Ex              | 137, 138  | 1.152         | V-INOX-NBR       | 102      |
| 1.673         | HSK-INOX-EMC-Ex              | 130                | 1.641         | HSK-MZ-Ex              | 137, 138  | 1.154         | V-INOX-VMQ       | 102      |
| 1.612         | HSK-INOX-Ex                  | 124                | 1.628         | HSK-MZ-Ex d            | 141       | 1.197         | V-Ms-Ex          | 146      |
| 1.642         | HSK-INOX-Ex                  | 124                | 1.669         | HSK-MZ-PVDF            | 58, 59    | 1.875         | V-Ms-Ex d        | 148      |
| 1.632         | HSK-INOX-Ex d                | 140                | 1.661         | HSK-MZ-PVDF-Ex         | 137, 138  | 1.876         | V-Ms-Ex d        | 148      |
| 1.740         | HSK-INOX-HD-Pro, HSK-INOX-HD | 42, 43             | 1.280         | HSK-V                  | 80        | 1.877         | V-Ms-Ex d        | 148      |
| 1.676         | HSK-INOX-PVDF                | 28, 29             | 1.296         | HSK-V-Ex               | 145       | 1.198         | V-Ms-FKM-Ex      | 146      |
| 1.696         | HSK-INOX-PVDF                | 28, 29             | 1.296         | HSK-V-Ex MZ version    | 145       | 1.199         | V-Ms-VMQ-Ex      | 146      |
| 1.662         | HSK-INOX-PVDF-Ex             | 124                | 1.313         | HSK-W                  | 48, 49    | 1.251         | V-N-FS           | 77       |
| 1.633         | HSK-INOX-PVDF-Ex d           | 142                | 1.317         | HSK-W rotating version | 49        | 1.052         | V-N-Ms           | 93       |
| 1.209         | HSK-K                        | 14, 15, 16, 17, 18 | 1.314         | HSK-W-Flex             | 50        | 1.052         | V-N-Ms-SD        | 93       |
| 1.219         | HSK-K                        | 14, 15             | 1.106         | HSK-XL                 | 56, 57    | 1.255         | V-NE             | 78       |
| 1.292         | HSK-K-Ex-Active              | 116, 117           | 1.233         | K-FS                   | 83        | 1.155         | V-NE-Ms          | 94       |
| 1.587         | HSK-K-FLAKA                  | 45                 | 1.312         | K-F-G                  | 86        | 1.156         | V-NE-Ms-SD       | 94       |
| 1.582         | HSK-K-FLAKA-Ex-Active        | 119                | 1.143         | KLE                    | 99        | 1.157         | V-NE-Ms-SD-FKM   | 94       |
| 1.293         | HSK-K-Flex                   | 46, 47             | 1.213         | KS                     | 85        | 1.256         | V-NE-SD          | 78       |
| 1.294         | HSK-K-Flex                   | 46                 | 1.618         | METRICAM               | 64        | 1.106         | WADI-A-FKM       | 68       |
| 1.597         | HSK-K-Multi                  | 44                 | 1.683         | METRICAM-EMC           | 66        | 1.282         | WN               | 79       |
| 1.581         | HSK-K-Multi-Ex-Active        | 118                | 1.607         | METRICAM-EMC-Ex        | 65        | 1.105         | Z                | 71, 72   |
| 1.215         | HSK-K-MZ-Ex                  | 134                | 1.218         | METRICAP               | 62, 63    | 1.681         | ZSE              | 74       |
| 1.299         | HSK-K-PVDF                   | 20, 21             | 1.238         | METRICAP-Flex          | 62, 63    |               |                  |          |
| 1.590         | HSK-KE                       | 19                 | 1.321         | O-Ring                 | 90        |               |                  |          |
| 1.591         | HSK-KR                       | 19                 | 1.039         | RE-Ms                  | 97        |               |                  |          |
| 1.609         | HSK-M                        | 23 – 27            | 1.171         | RE-Ms                  | 97        |               |                  |          |
| 1.691         | HSK-M-EMC                    | 34, 35             | 1.235         | R-FS                   | 81        |               |                  |          |
| 1.631         | HSK-M-EMC-D                  | 32, 33             | 1.236         | R-FS                   | 81        |               |                  |          |
| 1.636         | HSK-M-EMC-D-Ex               | 126, 127           | 1.271         | R-FS                   | 81        |               |                  |          |
| 1.637         | HSK-M-EMC-D-Ex               | 126, 127           | 1.272         | R-FS                   | 81        |               |                  |          |
| 1.616         | HSK-M-EMC-Ex                 | 128, 129           | 1.071         | R-H                    | 95        |               |                  |          |
| 1.646         | HSK-M-EMC-Ex                 | 128, 129           | 1.076         | R-H                    | 95        |               |                  |          |
| 1.666         | HSK-M-EMC-PVDF-Ex            | 129                | 1.239         | R-M-PA                 | 83        |               |                  |          |
| 1.610         | HSK-M-Ex                     | 120 – 123          | 1.273         | R-M-PA                 | 82        |               |                  |          |
| 1.640         | HSK-M-Ex                     | 120 – 123          | 1.094         | RS-INOX                | 103, 104  |               |                  |          |

### Limited Liability

Products, design, colors and dimensions are subject to change without prior notice. We reserve the right to make technical improvements on all our products, currently ordered or for future orders. It is the users responsibility to verify all dimensions and technical data. HUMMEL AG will assume no liability regarding information provided to the user by published literature or inside technical staff, its distributors and outside sales personnel. Errors in the catalog can occur and shall not create any liability whatsoever for HUMMEL AG. All information provided by HUMMEL AG is without guarantee and must be verified by the user.

### Imprint

#### Graphic & Layout:

HUMMEL AG, Marketing & Communications, Lise-Meitner-Str. 2, 79211 Denzlingen, Germany, Tel. +49 (0) 76 66 9 11 10-842, Fax +49 (0) 76 66 9 11 10-20, [info@hummel.com](mailto:info@hummel.com)

#### Printer:

Druckerei Furtwängler GmbH, 79211 Denzlingen, Germany, Tel. +49 (0) 76 66 / 13 31. Printed on recycled paper in May 2017.







## Europe

### HUMMEL France

**HUMMEL s.a.r.l.**  
4, rue des fleurs  
68190 Ungersheim / France

Tel. +33 (0) 3 89 / 55 37 20  
Fax +33 (0) 3 89 / 53 80 27  
E-Mail [info.fr@hummel.com](mailto:info.fr@hummel.com)  
[www.hummel.com](http://www.hummel.com)

### HUMMEL UK

**HUMMEL UK Limited**  
Office 3, Momentum House  
Enterprise Way, Lowton St Marys,  
Warrington, Cheshire, WA3 2BP  
United Kingdom

Tel. +44 (0) 19 42 / 60 56 95  
Fax +44 (0) 19 42 / 26 93 24  
E-Mail [info.uk@hummel.com](mailto:info.uk@hummel.com)  
[www.hummel.com](http://www.hummel.com)

### HUMMEL Italy

**HUMMEL S.r.l.**  
Via Valdellatorre 182  
10091 Alpignano (Torino) / Italy

Tel. +39 / (0) 11 / 9 68 26 38  
Fax +39 / (0) 11 / 9 78 55 50  
E-Mail [info.it@hummel.com](mailto:info.it@hummel.com)  
[www.hummel.com](http://www.hummel.com)

### HUMMEL Austria

#### HUMMEL Sales Office Austria

Tel. +43 (0) 6 64 / 2 52 31 32  
E-Mail [info.at@hummel.com](mailto:info.at@hummel.com)  
[www.hummel.com](http://www.hummel.com)

### HUMMEL Poland

**HUMMEL Sales Office Poland**  
Al. 23 Stycznia 26 lok. 20  
86-300 Grudziadz / Polen

Tel. +48 (662) 38 27 99  
Fax +48 (56) 643 00 11  
E-Mail [info.pl@hummel.com](mailto:info.pl@hummel.com)  
[www.hummel.com](http://www.hummel.com)

### HUMMEL Russia

**OOO HUMMEL**  
Retschnikow 21, Strojenije 6  
115142 Moskau / Russia

Tel. +7 / 499 / 782-40-68  
Fax +7 / 499 / 614-67-40  
E-Mail [info.ru@hummel.com](mailto:info.ru@hummel.com)  
[www.hummel-russia.ru](http://www.hummel-russia.ru)

### HUMMEL Scandinavia

#### HUMMEL Connector Systems AB

Tel. +46 (0) 73 / 800 12 00  
E-Mail [info.se@hummel.com](mailto:info.se@hummel.com)  
[www.hummel.com](http://www.hummel.com)

## Asia

### HUMMEL China

**HUMMEL Connector Systems (Shanghai) Co., Ltd.**  
Room 1701 Central Plaza  
No.227 Huang Pi (N) Road  
200003 Shanghai / P.R. China

Tel. +86 / 21 63 75 85-51  
Fax +86 / 21 63 75 85-53  
E-Mail [info.hcs.cn@hummel.com](mailto:info.hcs.cn@hummel.com)  
[www.hummel.com](http://www.hummel.com)

### HUMMEL India

**HUMMEL Connector Systems Pvt. Ltd.**  
1211, Surya Kiran Building, 19,  
Kasturba Gandhi Marg  
110001 New Delhi / India

Tel. +91 / 11 / 430075-21 / -23  
Fax +91 / 11 / 430075-22  
E-Mail [info.in@hummel.com](mailto:info.in@hummel.com)  
[www.hummel.com](http://www.hummel.com)

### HUMMEL South Korea

**HUMMEL AG Korea Branch**  
#628 Ssangyong Platinum River,  
659, Olympic-ro,  
Gangdong-gu, Seoul,  
134-874 Korea

Tel. +82 (0) 2 470 2762  
Fax +82 (0) 2 470 2763  
E-Mail [info.kr@hummel.com](mailto:info.kr@hummel.com)  
[www.hummel.com](http://www.hummel.com)

## South America

### HUMMEL Brazil

**HUMMEL Connector Systems Ltda.**  
Rua Derville Gabriel Pereira, 280  
Barro Preto — Centro Empresarial Tatui I  
CEP 18280-614 — Tatui / SP / Brazil

Tel. +55 (15) 33 22-70 00  
Fax +55 (15) 33 22-70 26  
E-Mail [vendas@hummel.com.br](mailto:vendas@hummel.com.br)  
[www.hummel.com.br](http://www.hummel.com.br)



# ELECTRIC COMPONENTS

## Cable Glands

Polyamide-, Brass- and Stainless steel,  
EMC-connections, Ex e-, Ex d-, Ex ta-Cable Glands



## Circular Connectors

M 8 to M 40, INOX, TWILOCK, Industrial Ethernet,  
Power, Signal, Hybrid-Connector, Moulded Cordsets



## Industrial Enclosures

Enclosures made of PC, Polyester, Aluminium and Stainless Steel,  
Customized Systems, Enclosure-Configurator



## Conduit Systems

Corrugated Conduit Systems, Conduit Cable Glands, Angled Systems,  
combined Cable Glands, Accessories



## Cable Assembly

Moulded Signal- and Power Circular Connectors,  
Servo Cables, Cable Sets



[www.hummel.com](http://www.hummel.com)

HUMMEL AG

Lise-Meitner-Straße 2  
79211 Denzlingen  
Germany  
[www.hummel.com](http://www.hummel.com)

Tel. +49 (0) 76 66 / 9 11 10-0  
Fax +49 (0) 76 66 / 9 11 10-20  
E-Mail [info@hummel.com](mailto:info@hummel.com)

