HUMMEL

smart & reliable connections

CABLE GLANDS AND CABLE PROTECTION SYSTEMS




HUMMEL

SMART & RELIABLE CONNECTIONS

HUMMEL AG

HUMMEL AG stands for reliability and soundness. That makes the medium-sized family-owned company in its third generation, future-proof and calculable for its business partners. Reliability and top quality also characterise the products. Customers value HUMMEL AG as an innovative producer of high-quality electromechanical components and customised products.

With in-house development, in-house production and in-house assembly, the company has an remarkable production depth. As a renowned manufacturer of cable glands, connectors, special customised parts and heating accessories, HUMMEL is equally specialised in plastic machining and metalworking.

Apart from its headquarters in Denzlingen in southern Baden, HUMMEL has production locations in Waldkirch, in France, China, Italy, Brazil and India. There are HUMMEL branches in Scandinavia, England, Poland and Korea. It also has a worldwide network with sales partners.

HUMMEL cable glands are premium segment products. The choice is enormous, the quality is outstanding. The cable glands made of plastic, brass or stainless steel have been put to the test for many years, function very reliably and have all relevant approvals.
HUMMEL is a certified manufacturer of components for which particular explosion protection is specified and which are used in particularly rough environments.

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LEGEND

Installation instructions

Multiple seal insert: The cable diameter may be 20 % less than the drill diameter, however, maximum 1 mm less than the hole diameter.
Ribbon cable seal insert: The cable used may be less than the clamping range specified by the manufacturer by maximum 1 mm in length and maximum 1 mm in width. The geometries of the cable and the hole pattern must match (half-round or straight at the sides).

Fire protection classes according to UL94

V0: self-extinguishing after 10 seconds at the latest, burning droplets are not permitted, afterglow for maximum 30 seconds
V1: self-extinguishing after 30 seconds at the latest, burning droplets are not permitted, afterglow for maximum 60 seconds
V2: self-extinguishing after 30 seconds at the latest, burning droplets are permitted

Abbreviations used

CR	Chlorinated rubber
FKM	Fluorinated rubber
Ms	Brass
NBR	Acrylonitrile butadiene rubber
PA	Polyamide
PE	Polyethylene
PP	Polypropylene
PVC	Polyvinylchlorid
PVDF	Polyvinylidene fluoride
VMQ	Silicone

Note on the storage of items with elastomer components

// Storage protected from light
// Protection against ozone exposure
// Storage at room temperature
// Protection against moisture
For further information see DIN 7716

Norms

	Railway	Fire protection on railway vehicles according to EN 45545
	Chemicals	Resistant to acids and chemicals
	EMC	Cable glands with EMC protection (electromagnetic compatibility)
	Ex d/ Ex e	Explosion protection Ex d (flameproof enclosure) and Ex e (increased safety)
	Leadfree	Cable glands made of lead-free brass
	RoHS	Restrictions of Hazardous Substances: EU Directive on the use of hazardous substances
	Temperature	Temperature range from –60°C to +200°C

Abbreviations and techn. features

A [mm]	Linear dimension A in mm
A1 [mm]	Clamping range 1
A2 [mm]	Clamping range 2
max. A2 [mm]	max. cable diameter, clamping range 2
max. A3 [mm]	max. cable diameter, clamping range 3
AG	External thread
B [mm]	Linear dimension B in mm
C [mm]	Linear dimension C in mm
d [mm]	Diameter in mm
D [mm]	Diameter in mm
DN	Nominal diameter in mm
E [mm]	Linear dimension E in mm
F [mm]	Linear dimension F in mm
GL [mm]	Thread length in mm
H [mm]	Height in mm
h [mm]	Height
H1 [mm]	Height 1 in mm
H2 [mm]	Height 2 in mm
IG	Internal thread
Item-No	Item number
K1 [mm]	Reinforcement, clamping ring 1 in mm
K2 [mm]	Reinforcement, clamping ring 2 in mm
K3 [mm]	Reinforcement, clamping ring 3 in mm
L [mm]	Length in mm
s [mm]	Thickness
SW [mm]	Width across flats in mm
Ø [mm]	Diameter in mm
	Cable diameter in mm
	Tightening torque in Nm
	Allen key
	Minimum bending radius in mm

Certificates

ABS	Approval for ship building and offshore applications
ATEX	Certification for components in potentially explosive atmospheres (ATEX Directive 2014/34/EU)
CE	EU Declaration of Conformity
CSA	CSA approval for Canadian Standards
CSA C/US	CSA approval for Canadian and US Standards
DNV	Certificate for use in the maritime sector
ECOLAB	Certified resistance to ECOLAB cleaning agent
IECEx	Certification for components in potentially explosive atmospheres
INMETRO	Certification for components in potentially explosive atmospheres in Brazil
ktl	Certificate for the export of components to Korea
UL	UL approval for US Standards
UL f1	Certificate of outdoor resistance according to UL 746 C
UL C	UL approval for Canadian and US Standards
UR	UL approval recognized for US Standards
UR C	UL approval recognized for Canadian and US Standards
VDE	Seal of approval by the VDE, Association for Electrical Engineering, Electronics and Information Technology

HSK-M cable glands are also available lead-free

The cable glands of the premium HSK-M series are also available as lead-free versions. This means that users already have an alternative to conventional metal glands. The lead-free cable glands are an investment in future-proofing and sustainability. They already meet the RoHS and REACH requirements of tomorrow.

The metric versions M12 to M63 of the HSK-M cable gland series are available. Customised further options are offered on request.

Customers do not have to worry about functionality. All technical properties such as temperature range, leak-tightness, impact resistance and strain relief remain unchanged. The existing approvals also apply equally to the lead-free cable glands.

They are easy to handle. The lead-free cable glands retain the old article numbers and are simply supplemented with the suffix "LF" (Lead Free). The product itself is also marked with the suffix "LF" on the union nut. This prevents mix-ups.



PLASTIC CABLE GLANDS

HUMMEL HSK-K series cable glands lie in the premium segment and meet the highest demands for quality and safety. When it comes to fire protection, sealing ability and impact resistance, numerous certifications prove performance at the highest level. HUMMEL customers can rely on this.

// HSK-K: Polyamide cable glands
// HSK-K-PVDF: Cable glands for use at high temperatures
// HSK-K-Multi: Glands for applications with several cables
// HSK-K-Flaka: With fitting for flat cables
// HSK-K-Flex: Offers bending protection for dynamic applications
// HSK-W: Versions with a folding bracket for mounting with 90° cabling

In each case, HUMMEL offers different clamping areas, thread lengths, thread types and various sealing materials for different temperature ranges. The cable glands have all relevant approvals for international markets and a wide range of sectors.



HSK-K: The right solution for every application

HUMMEL has a huge range of cable glands for industrial applications on offer. The plastic cable glands of the HSK-K series meet all requirements for tough industrial environments indoors and outdoors. They have all the relevant certificates and can therefore be used worldwide, which is why customers have the choice between metric thread types, PG and NPT threads. There are also cable glands for flat cables, ones with multiple inserts and glands with a flexible cable outlet.

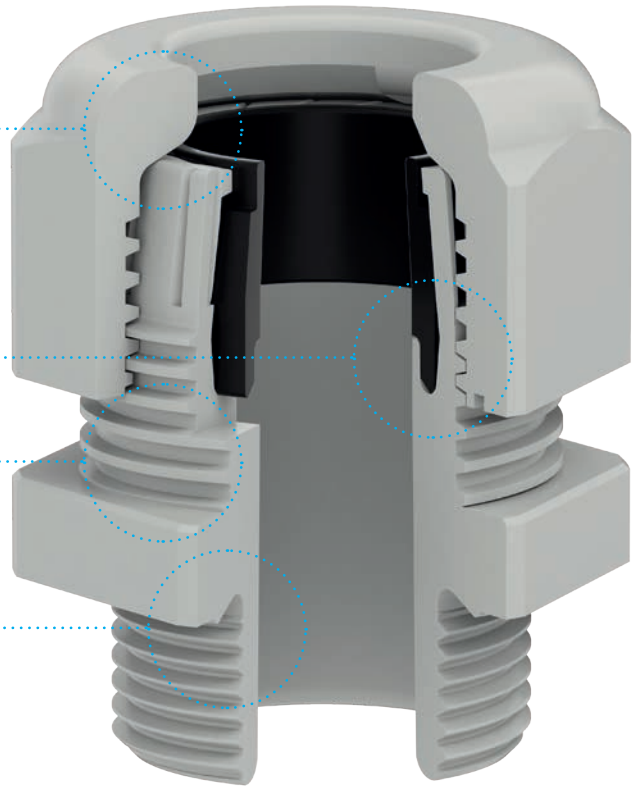
- Protection class IP 54, IP 68 up to 10 bar / 30 min and IP 69K
- RoHS and REACH/SVHC compliant
- Free of conflict materials
- Free of halogen and phosphorus
- Fire protection class V0 according to UL94
- Outdoor resistant polyamide according to UL 746C f1 (HSK-K black)

Overlapping clamping plates prevent the moulded seal from being torn out and thus increase the safety of the system

The chambered moulded seal results in protection class IP 68 up to 10 bar / 30 min

The trapezoidal thread guarantees a stable transfer of force

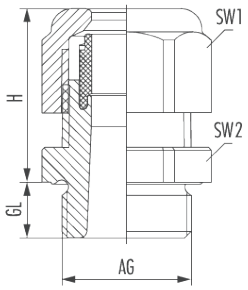
A chambered O-ring seals the gland on the housing optimally and guarantees a tight fit during assembly



HSK-K (metric)







Material	Polyamide V0 according to UL94
Seal	NBR
Protection class	IP 54 / with additional O-ring: IP68 - 10bar/30min / IP 69 K
Type Rating by	UL 50E / 4 / 4X / 6 (with additional O-ring) / 12
Temperature range	-40°C to +100°C
Colour	black / grey
RAL	9005 / 7035

RoHS

// Other sizes and colors on request
// With additional premounted O-ring on request
// Other sealing material e.g. Silicone on request

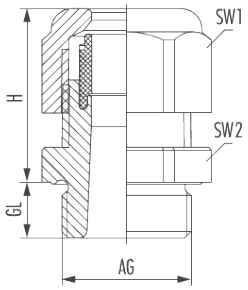
AG	⌀k mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No black	Item-No grey
M12 x 1,5	2 – 5	8	21	15/15	1,5	1.209.1201.51	1.209.1200.51
M12 x 1,5	3 – 6,5	8	21	15/15	1,5	1.209.1201.50	1.209.1200.50
M16 x 1,5	2 – 6	8	22	19/19	2	1.209.1601.51	1.209.1600.51
M16 x 1,5	4 – 8	8	22	19/19	2	1.209.1601.50	1.209.1600.50
M16 x 1,5	5 – 10	8	25	22/22	3	1.219.1601.50	1.219.1600.50
M20 x 1,5	5 – 9	9	27	24/24	3	1.209.2001.51	1.209.2000.51
M20 x 1,5	6 – 12	9	27	24/24	4,5	1.209.2001.50	1.209.2000.50
M20 x 1,5	10 – 14	9	28	27/27	4,5	1.219.2001.50	1.219.2000.50
M25 x 1,5	9 – 16	11	31	33/33	4	1.209.2501.51	1.209.2500.51
M25 x 1,5	13 – 18	11	31	30/30	5	1.219.2501.50	1.219.2500.50
M25 x 1,5	13 – 18	11	31	33/33	5	1.209.2501.50	1.209.2500.50
M32 x 1,5	13 – 20	11	39	42/42	6	1.209.3201.51	1.209.3200.51
M32 x 1,5	18 – 25	11	39	42/42	6,5	1.209.3201.50	1.209.3200.50
M40 x 1,5	20 – 26	13	48	53/53	9	1.209.4001.51	1.209.4000.51
M40 x 1,5	22 – 32	13	48	53/53	10	1.209.4001.50	1.209.4000.50
M50 x 1,5	25 – 31	13	49	60/60	11	1.209.5001.51	1.209.5000.51
M50 x 1,5	32 – 38	13	49	60/60	15	1.209.5001.50	1.209.5000.50
M63 x 1,5	29 – 35	14	49	65/68	12	1.209.6301.51	1.209.6300.51
M63 x 1,5	37 – 44	14	49	65/68	18	1.209.6301.50	1.209.6300.50

Plastic cable glands

HSK-K (metric-long)







Material	Polyamide V0 according to UL94
Seal	NBR
Protection class	IP 54 / with additional O-ring: IP68 - 10bar/30min / IP 69 K
Type Rating by	UL 50E / 4 / 4X / 6 (with additional O-ring) / 12
Temperature range	-40°C to +100°C
Colour	black / grey
RAL	9005 / 7035

RoHS

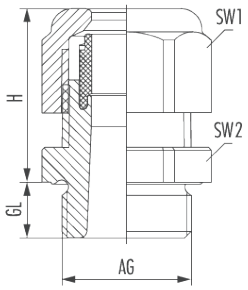
// Other sizes and colors on request
// With additional premounted O-ring on request
// Other sealing material e.g. Silicone on request

AG	⌀k mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No black	Item-No grey
M12 x 1,5	2 – 5	15	21	15/15	1,5	1.209.1201.31	1.209.1200.31
M12 x 1,5	3 – 6,5	15	21	15/15	1,5	1.209.1201.30	1.209.1200.30
M16 x 1,5	2 – 6	15	22	19/19	2	1.209.1601.31	1.209.1600.31
M16 x 1,5	4 – 8	15	22	19/19	2	1.209.1601.30	1.209.1600.30
M16 x 1,5	5 – 10	15	25	22/22	3	1.219.1601.30	1.219.1600.30
M20 x 1,5	5 – 9	15	27	24/24	3	1.209.2001.31	1.209.2000.31
M20 x 1,5	6 – 12	15	27	24/24	4,5	1.209.2001.30	1.209.2000.30
M20 x 1,5	10 – 14	15	28	27/27	4,5	1.219.2001.30	1.219.2000.30
M25 x 1,5	9 – 16	15	31	33/33	4	1.209.2501.31	1.209.2500.31
M25 x 1,5	13 – 18	15	31	33/33	5	1.209.2501.30	1.209.2500.30
M32 x 1,5	13 – 20	15	39	42/42	6	1.209.3201.31	1.209.3200.31
M32 x 1,5	18 – 25	15	39	42/42	6,5	1.209.3201.30	1.209.3200.30
M40 x 1,5	20 – 26	18	48	53/53	9	1.209.4001.31	
M40 x 1,5	22 – 32	18	48	53/53	10	1.209.4001.30	
M50 x 1,5	25 – 31	18	49	60/60	11	1.209.5001.31	
M50 x 1,5	32 – 38	18	49	60/60	15	1.209.5001.30	
M63 x 1,5	29 – 35	18	49	65/68	12	1.209.6301.31	
M63 x 1,5	37 – 44	18	49	65/68	18	1.209.6301.30	

HSK-K (PG)







Material	Polyamide V0 according to UL94
Seal	NBR
Protection class	IP 54 / with additional O-ring: IP68 - 10bar/30min / IP 69 K
Type Rating by	UL 50E / 4 / 4X / 6 (with additional O-ring) / 12
Temperature range	-40°C to +100°C
Colour	black / grey
RAL	9005 / 7035

RoHS

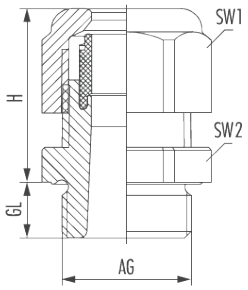
// Other sizes and colors on request
// With additional premounted O-ring on request
// Other sealing material e.g. Silicone on request

AG	⌀k mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No black	Item-No grey
PG 7	2 – 5	8	21	15/15	1,5	1.209.0701.15	1.209.0700.15
PG 7	3 – 6,5	8	21	15/15	1,5	1.209.0701.14	1.209.0700.14
PG 9	2 – 6	8	22	19/19	2	1.209.0901.15	1.209.0900.15
PG 9	4 – 8	8	22	19/19	2	1.209.0901.14	1.209.0900.14
PG 11	3 – 7	8	25	22/22	2,5	1.209.1101.15	1.209.1100.15
PG 11	5 – 10	8	25	22/22	3	1.209.1101.14	1.209.1100.14
PG 13,5	5 – 9	9	27	24/24	3	1.209.1301.15	1.209.1300.15
PG 13,5	6 – 12	9	27	24/24	4,5	1.209.1301.14	1.209.1300.14
PG 16	7 – 12	10	28	27/27	3,5	1.209.1601.15	1.209.1600.15
PG 16	10 – 14	10	28	27/27	4,5	1.209.1601.14	1.209.1600.14
PG 21	9 – 16	11	31	33/33	4	1.209.2101.15	1.209.2100.15
PG 21	13 – 18	11	31	33/33	5	1.209.2101.14	1.209.2100.14
PG 29	13 – 20	11	39	42/42	6	1.209.2901.15	1.209.2900.15
PG 29	18 – 25	11	39	42/42	6,5	1.209.2901.14	1.209.2900.14
PG 36	20 – 26	13	48	53/53	9	1.209.3601.15	
PG 36	22 – 32	13	48	53/53	10	1.209.3601.14	
PG 42	25 – 31	13	49	60/60	11	1.209.4201.15	
PG 42	32 – 38	13	49	60/60	15	1.209.4201.14	
PG 48	29 – 35	14	49	65/65	12	1.209.4801.15	
PG 48	37 – 44	14	49	65/65	18	1.209.4801.14	

Plastic cable glands

HSK-K (PG-long)





Material	Polyamide V0 according to UL94
Seal	NBR
Protection class	IP 54 / with additional O-ring: IP68 - 10bar/30min / IP 69 K
Type Rating by	UL 50E / 4 / 4X / 6 (with additional O-ring) / 12
Temperature range	-40°C to +100°C
Colour	black
RAL	9005

RoHS

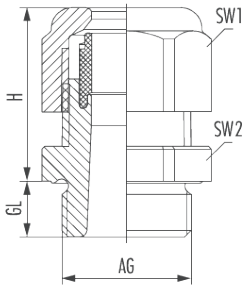
// Other sizes and colors on request
// With additional premounted O-ring on request
// Other sealing material e.g. Silicone on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
PG 7	2 – 5	15	21	15/15	1,5	1.209.0701.61
PG 7	3 – 6,5	15	21	15/15	1,5	1.209.0701.60
PG 9	4 – 8	15	22	19/19	2	1.209.0901.60
PG 11	3 – 7	15	25	22/22	2,5	1.209.1101.61
PG 11	5 – 10	15	25	22/22	3	1.209.1101.60
PG 13,5	5 – 9	15	27	24/24	3	1.209.1301.61
PG 13,5	6 – 12	15	27	24/24	4,5	1.209.1301.60
PG 16	7 – 12	15	28	27/27	3,5	1.209.1601.61
PG 16	10 – 14	15	28	27/27	4,5	1.209.1601.60
PG 21	9 – 16	15	31	33/33	4	1.209.2101.61
PG 21	13 – 18	15	31	33/33	5	1.209.2101.60
PG 29	13 – 20	15	39	42/42	6	1.209.2901.61
PG 29	18 – 25	15	39	42/42	6,5	1.209.2901.60
PG 36	22 – 32	18	48	53/53	10	1.209.3601.60

HSK-K (NPT)







Material	Polyamide V0 according to UL94
Seal	NBR
Protection class	IP 54 / with additional O-ring: IP68 - 10bar/30min / IP 69 K
Type Rating by	UL 50E / 4 / 4X / 6 (with additional O-ring) / 12
Temperature range	-40°C to +100°C
Colour	black / grey
RAL	9005 / 7035

RoHS

// Other sizes and colors on request
// With additional premounted O-ring on request
// Other sealing material e.g. Silicone on request

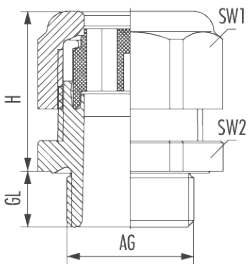
AG	⌀k mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No black	Item-No grey
NPT 3/8"	2 – 6	15	22	19/22	2	1.209.3801.71	1.209.3800.71
NPT 3/8"	4 – 8	15	22	19/22	2	1.209.3801.70	1.209.3800.70
NPT 1/2"	5 – 9	13	27	24/24	3	1.209.1201.71	1.209.1200.71
NPT 1/2"	6 – 12	13	27	24/24	4,5	1.209.1201.70	1.209.1200.70
NPT 1/2"	10 – 14	13	28	27/27	4,5	1.209.1217.70	1.209.1216.70
NPT 3/4"	9 – 16	14	31	33/33	4	1.209.3401.71	1.209.3400.71
NPT 3/4"	13 – 18	14	31	33/33	5	1.209.3401.70	1.209.3400.70
NPT 1"	13 – 20	19	39	42/42	6	1.209.1001.71	1.209.1000.71
NPT 1"	18 – 25	19	39	42/42	6,5	1.209.1001.70	1.209.1000.70
NPT 1 1/4"	13 – 20	16	39	42/46	6	1.209.5401.71	
NPT 1 1/4"	18 – 25	16	39	42/46	6,5	1.209.5401.70	
NPT 1 1/2"	20 – 26	20	48	53/53	9	1.209.6401.71	
NPT 1 1/2"	22 – 32	20	48	53/53	10	1.209.6401.70	

Plastic cable glands

HSK-K-Multi (metric, PG, NPT)







Material	Polyamide V0 according to UL94
Seal	Elastomer
Protection class	IP 54 / with additional O-ring: IP68 - 10bar/30min / IP 69 K
Temperature range	-40°C to +100°C
Colour	black / grey
RAL	9005 / 7035

RoHS

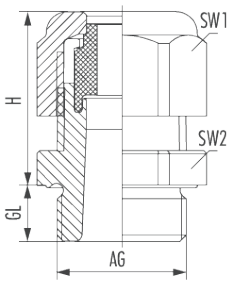
// With additional premounted O-ring on the connection thread on request
// Elongated threads on request
// Further seal inserts on request

AG	GL mm	H mm	SW1/SW2 mm	Nm	Number of holes x d	Item-No black	Item-No grey
M16 x 1,5	8	22	19/19	3	2 x 3	1.597.1601.51	
M20 x 1,5	9	27	24/24	4,5	2 x 5	1.597.2003.51	1.597.2003.50
M20 x 1,5	9	28	27/27	3	2 x 6	1.597.2005.51	
M25 x 1,5	11	31	33/33	5	3 x 7	1.597.2501.51	1.597.2501.50
M25 x 1,5	11	31	33/33	5	4 x 6	1.597.2500.51	1.597.2500.50
M32 x 1,5	11	39	42/42	6,5	4 x 9		1.597.3201.50
M32 x 1,5	11	39	42/42	6,5	6 x 6,5	1.597.3200.51	1.597.3200.50
M40 x 1,5	13	48	53/53	10	2 x 15	1.597.4003.51	
M40 x 1,5	13	48	53/53	10	7 x 9	1.597.4001.51	1.597.4001.50
M63 x 1,5	14	49	65/68	22	3 x 18	1.597.6302.51	
M63 x 1,5	14	49	65/68	22	6 x 12	1.597.6301.51	
PG 9	8	22	19/19	3	2 x 3	1.597.0901.01	
PG 11	8	25	22/22	3	2 x 4		1.597.1102.00
PG 11	8	25	22/22	3	3 x 3	1.597.1101.01	
PG 16	10	28	27/27	4,5	2 x 6		1.597.1605.00
PG 16	10	28	27/27	4,5	6 x 4	1.597.1604.01	
PG 21	11	31	33/33	5	4 x 6	1.597.2100.01	
NPT 3/8"	15	22	19/22	3	2 x 3	1.597.3801.71	
NPT 1/2"	13	27	24/24	4,5	2 x 5	1.597.1203.71	
NPT 1/2"	13	27	24/24	4,5	3 x 4	1.597.1202.71	
NPT 1/2"	13	28	27/27	4,5	2 x 6	1.597.1221.71	1.597.1221.70
NPT 1/2"	13	28	27/27	4,5	6 x 4	1.597.1220.71	
NPT 3/4"	14	31	33/33	5	3 x 7	1.597.3401.71	1.597.3401.70
NPT 3/4"	14	31	33/33	5	4 x 6	1.597.3400.71	
NPT 1"	19	39	42/42	6,5	4 x 9	1.597.1001.71	
NPT 1"	19	39	42/42	6,5	6 x 6,5	1.597.1000.71	
NPT 1 1/2"	20	48	53/53	10	5 x 9	1.597.6400.71	1.597.6400.70
NPT 1 1/2"	20	48	53/53	10	7 x 9	1.597.6401.71	

HSK-K-Flaka (metric, NPT)







Material	Polyamide V0 according to UL94
Seal	Elastomer
Protection class	IP 54 / with additional O-ring: IP68 - 10bar/30min / IP 69 K
Temperature range	-40°C to +100°C
Colour	black / grey
RAL	9005 / 7035

RoHS

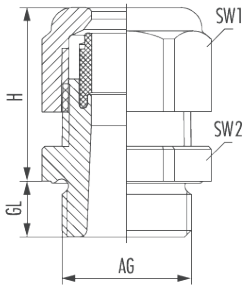
// With additional premounted O-ring on the connection thread on request
// Elongated threads on request
// Further seal inserts on request

AG	GL mm	H mm	SW1/SW2 mm	Nm	Item-No black	Item-No grey
M20 x 1,5	9	27	24/24			1.587.2011.50
M20 x 1,5	9	28	27/27	4,5	1.587.2018.51	1.587.2018.50
M25 x 1,5	11	31	33/33	5		1.587.2500.50
NPT 1/2"	13	28	27/27	4,5	1.587.1216.71	
NPT 3/4"	14	31	33/33	5	1.587.3400.71	
NPT 1"	19	39	42/42	6,5	1.587.1000.71	

Plastic cable glands

HSK-K-PVDF (metric, NPT)





Material	PVDF V0 according to UL94
Seal	FKM
Protection class	IP 54 / with additional O-ring: IP68 - 10bar/30min / IP 69 K
Type Rating by	UL 50E / 4 / 4X / 6 (with additional O-ring) / 12
Temperature range	-35°C to +150°C
Colour	natural

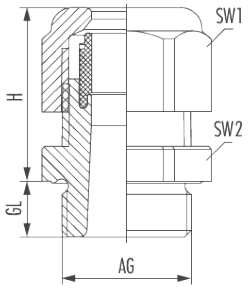
RoHS

// Other sizes on request
// With additional premounted O-ring on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	2 – 5	8	21	15/15	1,5	1.299.1200.51
M12 x 1,5	3 – 6,5	8	21	15/15	1,5	1.299.1200.50
M16 x 1,5	2 – 6	8	22	19/19	2	1.299.1600.51
M16 x 1,5	4 – 8	8	22	19/19	2	1.299.1600.50
M20 x 1,5	5 – 9	9	27	24/24	3	1.299.2000.51
M20 x 1,5	6 – 12	9	27	24/24	3	1.299.2000.50
M25 x 1,5	9 – 16	11	31	33/33	4	1.299.2500.51
M25 x 1,5	13 – 18	11	31	33/33	4	1.299.2500.50
M32 x 1,5	13 – 20	11	39	42/42	6	1.299.3200.51
M32 x 1,5	18 – 25	11	39	42/42	6	1.299.3200.50
NPT 3/8"	2 – 6	15	22	19/22	2	1.299.3800.71
NPT 3/8"	4 – 8	15	22	19/22	2	1.299.3800.70
NPT 1/2"	5 – 9	13	27	24/24	3	1.299.1200.71
NPT 1/2"	6 – 12	13	27	24/24	4,5	1.299.1200.70
NPT 1/2"	10 – 14	13	28	27/27	4,5	1.299.1216.70
NPT 3/4"	9 – 16	14	31	33/33	4	1.299.3400.71
NPT 3/4"	13 – 18	14	31	33/33	5	1.299.3400.70

HSK-K-PVDF (PG)





Material	PVDF V0 according to UL94
Seal	FKM
Protection class	IP 54 / with additional O-ring: IP68 - 10bar/30min / IP 69 K
Type Rating by	UL 50E / 4 / 4X / 6 (with additional O-ring) / 12
Temperature range	-35°C to +150°C
Colour	natural

RoHS

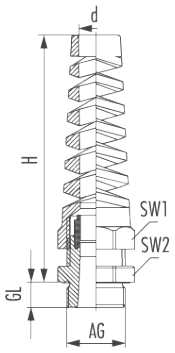
// Other sizes on request
// With additional premounted O-ring on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
PG 7	2 – 5	8	21	15/15	1,5	1.299.0700.15
PG 7	3 – 6,5	8	21	15/15	1,5	1.299.0700.14
PG 9	2 – 6	8	22	19/19	2	1.299.0900.15
PG 9	4 – 8	8	22	19/19	2	1.299.0900.14
PG 11	3 – 7	8	25	22/22	3	1.299.1100.15
PG 11	5 – 10	8	25	22/22	3	1.299.1100.14
PG 13,5	5 – 9	9	27	24/24	3	1.299.1300.15
PG 13,5	6 – 12	9	27	24/24	3	1.299.1300.14
PG 16	7 – 12	10	28	27/27	3,5	1.299.1600.15
PG 16	10 – 14	10	28	27/27	4,5	1.299.1600.14
PG 21	13 – 18	11	31	33/33	4	1.299.2100.14
PG 36	22 – 32	13	48	53/53	10	1.299.3600.14
PG 42	32 – 38	13	49	60/60	15	1.299.4200.14

Plastic cable glands

HSK-K-Flex (metric, PG, NPT)





Material	Polyamide
Seal	NBR
Protection class	IP 54 / with additional O-ring: IP68 - 10bar/30min / IP 69 K
Temperature range	-40°C to +100°C
Colour	black
RAL	9005

RoHS

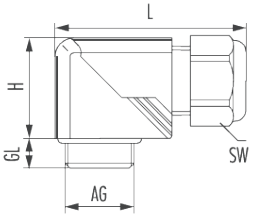
// Other sizes and colors on request
// Elongated threads on request
// With additional premounted O-ring on the connection thread on request
// Other sealing material e.g. Silicone on request

AG	⌀k mm	d mm	H mm	SW1/SW2 mm	Nm	GL mm	Item-No
M12 x 1,5	2 – 5	7,23	54	15/15	1,5	8	1.293.1201.51
M12 x 1,5	3 – 6,5	7,23	54	15/15	1,5	8	1.293.1201.50
M16 x 1,5	3 – 7	10,71	78	22/22	2,5	8	1.294.1601.51
M16 x 1,5	4 – 8	8,88	63	19/19	2	8	1.293.1601.50
M16 x 1,5	5 – 10	10,71	78	22/22	3	8	1.294.1601.50
M20 x 1,5	5 – 9	13,25	90	24/24	3	9	1.293.2001.51
M20 x 1,5	6 – 12	13,25	90	24/24	4,5	9	1.293.2001.50
M20 x 1,5	10 – 14	15,39	100	27/27	4,5	9	1.294.2001.50
M25 x 1,5	9 – 16	20,02	114	33/33	4	11	1.293.2501.51
M25 x 1,5	13 – 18	20,02	114	33/33	5	11	1.293.2501.50
PG 7	2 – 5	7,23	54	15/15	1,5	8	1.293.0701.15
PG 7	3 – 6,5	7,23	54	15/15	1,5	8	1.293.0701.14
PG 9	2 – 6	8,88	63	19/19	2	8	1.293.0901.15
PG 9	4 – 8	8,88	63	19/19	2	8	1.293.0901.14
PG 11	3 – 7	10,71	78	22/22	2,5	8	1.293.1101.15
PG 11	5 – 10	10,71	78	22/22	3	8	1.293.1101.14
PG 13,5	5 – 9	13,25	90	24/24	3	9	1.293.1301.15
PG 13,5	6 – 12	13,25	90	24/24	4,5	9	1.293.1301.14
PG 16	7 – 12	15,39	100	27/27	3,5	10	1.293.1601.15
PG 16	10 – 14	15,39	100	27/27	4,5	10	1.293.1601.14
PG 21	9 – 16	20,02	114	33/33	4	11	1.293.2101.15
PG 21	13 – 18	20,02	114	33/33	5	11	1.293.2101.14
NPT 3/8"	2 – 6	8,88	63	19/22	2	15	1.293.3801.71
NPT 3/8"	4 – 8	8,88	63	19/22	2	15	1.293.3801.70
NPT 1/2"	5 – 9	13,25	90	24/24	3	13	1.293.1201.71
NPT 1/2"	6 – 12	13,25	90	24/24	4,5	13	1.293.1201.70
NPT 1/2"	7 – 12	15,39	100	27/27	3,5	13	1.293.1217.71
NPT 1/2"	10 – 14	15,39	100	27/27	4,5	13	1.293.1217.70
NPT 3/4"	9 – 16	20,02	114	33/33	4	14	1.293.3401.71
NPT 3/4"	13 – 18	20,02	114	33/33	5	14	1.293.3401.70

HSK-W (metric, PG, NPT)







Material	Polyamide
Seal	NBR
Material o-ring	NBR
Protection class	IP 68 - 1bar/30min
Temperature range	-40°C to +100°C
Colour	black / grey
RAL	9005 / 7035

RoHS

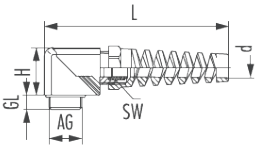
// Other sizes and colors on request
// Other sealing material e.g. Silicone on request

AG	⌀ mm	GL mm	H mm	L mm	SW mm	Nm	Item-No black	Item-No grey
M16 x 1,5	2 – 6	8	23	45	19	2,5	1.313.1601.51	1.313.1600.51
M16 x 1,5	4 – 8	8	23	45	19	2,5	1.313.1601.50	1.313.1600.50
M20 x 1,5	5 – 9	9	30,5	57	24	4	1.313.2001.51	1.313.2000.51
M20 x 1,5	6 – 12	9	30,5	57	24	4	1.313.2001.50	1.313.2000.50
M25 x 1,5	9 – 16	11	40	73	33	6	1.313.2501.51	1.313.2500.51
M25 x 1,5	13 – 18	11	40	73	33	6	1.313.2501.50	1.313.2500.50
M32 x 1,5	13 – 20	11	51,5	91	42	9	1.313.3201.51	
M32 x 1,5	18 – 25	11	51,5	91	42	9	1.313.3201.50	1.313.3200.50
PG 9	2 – 6	8	23	45	19	2,5	1.313.0901.15	
PG 9	4 – 8	8	23	45	19	2,5	1.313.0901.14	
PG 11	3 – 7	8	27	50	22	2,5	1.313.1101.15	
PG 11	5 – 10	8	27	50	22	4	1.313.1101.14	
PG 13,5	5 – 9	9	30,5	57	24	4	1.313.1301.15	
PG 13,5	6 – 12	9	30,5	57	24	4	1.313.1301.14	
PG 16	7 – 12	10	32,5	59	27	4	1.313.1601.15	
PG 16	10 – 14	10	32,5	59	27	6	1.313.1601.14	
PG 21	9 – 16	11	40	73	33	6	1.313.2101.15	
PG 21	13 – 18	11	40	73	33	6	1.313.2101.14	
PG 29	13 – 20	11	51,5	91	42	9	1.313.2901.15	
PG 29	18 – 25	11	51,5	91	42	9	1.313.2901.14	
NPT 3/8"	2 – 6	15	23	45	19	2,5	1.313.3801.71	
NPT 3/8"	4 – 8	15	23	45	19	2,5	1.313.3801.70	
NPT 1/2"	5 – 9	13	32,5	57	24	4	1.313.1201.71	
NPT 1/2"	6 – 12	13	32,5	57	24	4	1.313.1201.70	
NPT 1/2"	7 – 12	13	32,5	59	27	4	1.313.1217.71	
NPT 1/2"	10 – 14	13	32,5	59	27	6	1.313.1217.70	
NPT 3/4"	9 – 16	13	40	73	33	6	1.313.3401.71	
NPT 3/4"	13 – 18	13	40	73	33	6	1.313.3401.70	
NPT 1"	13 – 20	19	51,5	91	42	9	1.313.1001.71	
NPT 1"	18 – 25	19	51,5	91	42	9	1.313.1001.70	

Plastic cable glands

HSK-W-Flex (metric, PG, NPT)





Material	Polyamide
Seal	NBR
Material o-ring	NBR
Protection class	IP 68 - 1bar/30min
Temperature range	-40°C to +100°C
Colour	black
RAL	9005

RoHS

// Other sizes and colors on request
// Other sealing material e.g. Silicone on request

AG	⌀ mm	d mm	GL mm	H mm	L mm	SW mm	Nm	Item-No
M16 x 1,5	4 – 8	8,88	8	23	85	19	2,5	1.314.1601.50
M20 x 1,5	6 – 12	13,25	9	30,5	119	24	4	1.314.2001.50
M25 x 1,5	9 – 16	20,02	11	40	156	33	6	1.314.2501.51
M25 x 1,5	13 – 18	20,02	11	40	156	33	6	1.314.2501.50
PG 11	3 – 7	10,71	8	27	103	22	2,5	1.314.1101.15
PG 11	5 – 10	10,71	8	27	103	22	4	1.314.1101.14
PG 13,5	6 – 12	13,25	9	30,5	119	24	4	1.314.1301.14
NPT 3/8"	4 – 8	8,88	15	23	85	19	2,5	1.314.3801.70
NPT 1/2"	5 – 9	13,25	13	30,5	119	24	4	1.314.1201.71
NPT 1/2"	6 – 12	13,25	13	30,5	119	24	4	1.314.1201.70
NPT 1/2"	10 – 14	15,39	13	31,5	130	27	6	1.314.1217.70
NPT 3/4"	9 – 16	20,02	13	40	156	33	6	1.314.3401.71
NPT 3/4"	13 – 18	20,02	13	40	156	33	6	1.314.3401.70

METAL CABLE GLANDS

Brass (nickel-plated) and stainless steel cable glands are very robust and generally suitable for industrial applications. The HSK series offers a huge range of solutions – for common, and also very unusual, applications. Uncompromising use of high-quality materials ensures the outstanding quality of HUMMEL products.

// HSK-M: Nickel-plated brass cable glands
// HSK-INOX: Stainless steel cable glands in a range of variants
// HSK-M-Multi: Glands for applications with several cables
// HSK-M-Flex: With bending protection
// HSK-Mini: For threads smaller than M12
// HSK-XL: Cable glands with threads from M63 to M90
// HSK-MZ: Additional clamping for particularly high tension relief

In each case, HUMMEL offers different clamping areas, thread lengths, thread types and various sealing materials for different temperature ranges. The cable glands have all relevant approvals for international markets and a wide range of sectors.



HSK-M: Reliable, robust solutions for industry

Cable glands from the HSK-M premium series are available in brass and stainless steel. They are designed for industrial use and are characterised by a high degree of tightness, shock resistance and strain relief for the cables.

- // Protection class IP 66, IP 68 up to 10 bar / 30 min and IP 69K
- // RoHS and REACH/SVHC compliant
- // Free of conflict materials
- // Free of halogen and phosphorus
- // Fire protection class V0 according to UL94
- // Anti-twist protection for cables in the clamping insert

Overlapping clamping plates prevent the moulded seal from being torn out and thus increase the safety of the system

The internal sealing edge ensures optimum tightness between clamping insert and intermediate socket

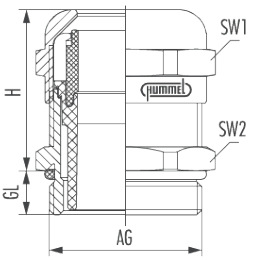
The chambered moulded seal results in protection class IP 68 up to 10 bar / 30 min

The anti-twist protection prevents the clamp insert and cable from twisting during installation



HSK-M (metric/-long)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

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

RoHS

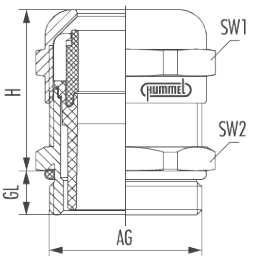
LEAD FREE

AG	⌀ mm	H mm	SW1/SW2 mm	Nm	GL mm	Item-No short	GL mm	Item-No long
M12 x 1,5	2 – 5	19	14/14	4	6,5	1.609.1200.51	10	1.609.1200.31
M12 x 1,5	3 – 6,5	19	14/14	4	6,5	1.609.1200.50	10	1.609.1200.30
M16 x 1,5	2 – 6	21	17/19	6	6	1.609.1600.51	10	1.609.1600.31
M16 x 1,5	4 – 8	21	17/19	6	6	1.609.1600.50	10	1.609.1600.30
M16 x 1,5	5 – 10	22	20/20	5	6	1.609.1611.50	10	1.609.1611.30
M20 x 1,5	5 – 9	23	22/22	8	6	1.609.2000.51	10	1.609.2000.31
M20 x 1,5	6 – 12	23	22/22	8	6	1.609.2000.50	10	1.609.2000.30
M20 x 1,5	10 – 14	24	24/24	10	6	1.609.2016.50	10	1.609.2016.30
M25 x 1,5	9 – 16	26	30/30	12	7	1.609.2500.51	12	1.609.2500.31
M25 x 1,5	13 – 18	26	30/30	12	7	1.609.2500.50	12	1.609.2500.30
M32 x 1,5	13 – 20	31	40/40	15	8	1.609.3200.51	12	1.609.3200.31
M32 x 1,5	15 – 21	33	36/36	13	8	1.609.3200.52	12	1.609.3200.32
M32 x 1,5	18 – 25	31	40/40	15	8	1.609.3200.50	12	1.609.3200.30
M40 x 1,5	19 – 27	33	46/46	15	8	1.609.4000.52	15	1.609.4000.32
M40 x 1,5	20 – 26	37	50/50	15	8	1.609.4000.51	15	1.609.4000.31
M40 x 1,5	22 – 32	37	50/50	15	8	1.609.4000.50	15	1.609.4000.30
M50 x 1,5	25 – 31	37	57/57	24	9	1.609.5000.51	15	1.609.5000.31
M50 x 1,5	32 – 38	37	57/57	24	9	1.609.5000.50	15	1.609.5000.30
M63 x 1,5	29 – 35	38	64/68	30	10	1.609.6300.51	15	1.609.6300.31
M63 x 1,5	37 – 44	38	64/68	30	10	1.609.6300.50	15	1.609.6300.30

Metal cable glands

HSK-M (PG/-long)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

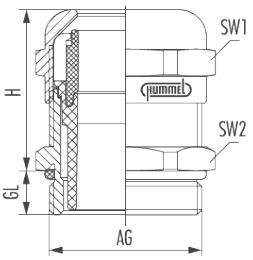
RoHS

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

AG	⌀ mm	H mm	SW1/SW2 mm	Nm	GL mm	Item-No short	GL mm	Item-No long
PG 7	2 – 5	19	14/14	4	5	1.609.0700.15		
PG 7	3 – 6,5	19	14/14	4	5	1.609.0700.01	10	1.609.0700.60
PG 9	2 – 6	21	17/17	6	6	1.609.0900.15		
PG 9	4 – 8	21	17/17	6	6	1.609.0900.01	10	1.609.0900.60
PG 11	3 – 7	22	20/20	5	6	1.609.1100.15		
PG 11	5 – 10	22	20/20	5	6	1.609.1100.01	10	1.609.1100.60
PG 13,5	5 – 9	24	22/22	8	6,5	1.609.1300.15		
PG 13,5	6 – 12	24	22/22	8	6,5	1.609.1300.01	10	1.609.1300.60
PG 16	7 – 12	23	24/24	10	6,5	1.609.1600.15		
PG 16	10 – 14	23	24/24	10	6,5	1.609.1600.01	10	1.609.1600.60
PG 21	9 – 16	24	30/30	12	7	1.609.2100.15		
PG 21	13 – 18	24	30/30	12	7	1.609.2100.01	12	1.609.2100.60
PG 29	13 – 20	29	40/40	15	8	1.609.2900.15		
PG 29	18 – 25	29	40/40	15	8	1.609.2900.01	12	1.609.2900.60
PG 36	22 – 32	35	50/50	15	8	1.609.3600.01	15	1.609.3600.60
PG 42	25 – 31	37	57/57	24	9	1.609.4200.15		
PG 42	32 – 38	37	57/57	24	9	1.609.4200.01	15	1.609.4200.60
PG 48	37 – 44	38	64/64	30	10	1.609.4800.01	15	1.609.4800.60

HSK-M (NPT)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

RoHS

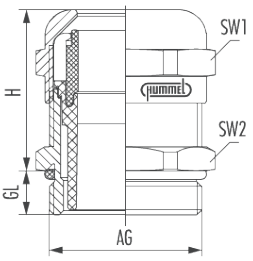
// Other sealing material e.g. Silicone on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
NPT 3/8"	2 – 6	15	21	17/19	6	1.609.3800.71
NPT 3/8"	4 – 8	15	21	17/19	6	1.609.3800.70
NPT 1/2"	5 – 9	13	24	22/24	8	1.609.1200.71
NPT 1/2"	6 – 12	13	24	22/24	8	1.609.1200.70
NPT 3/4"	9 – 16	13	25	30/30	12	1.609.3400.71
NPT 3/4"	13 – 18	13	25	30/30	12	1.609.3400.70
NPT 1"	13 – 20	19	29	40/40	15	1.609.1000.71
NPT 1"	18 – 25	19	29	40/40	15	1.609.1000.70

Metal cable glands

HSK-M-PVDF (metric/-long)





Material	Nickel-plated brass
Clamping insert	PVDF
Seal	FKM
Material o-ring	FKM
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-35°C to +150°C

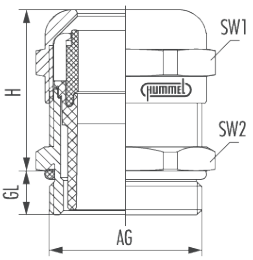
RoHS

// Other sizes on request

AG	⌀k mm	H mm	SW1/SW2 mm	Nm	GL mm	Item-No short	GL mm	Item-No long
M12 x 1,5	2 – 5	19	14/14	4	6,5	1.699.1200.51	10	1.699.1200.31
M12 x 1,5	3 – 6,5	19	14/14	4	6,5	1.699.1200.50	10	1.699.1200.30
M16 x 1,5	2 – 6	21	17/19	6	6	1.699.1600.51	10	1.699.1600.31
M16 x 1,5	4 – 8	21	17/19	6	6	1.699.1600.50	10	1.699.1600.30
M16 x 1,5	5 – 10	22	20/20	6	6	1.699.1611.50		
M20 x 1,5	5 – 9	23	22/22	8	6	1.699.2000.51	10	1.699.2000.31
M20 x 1,5	6 – 12	23	22/22	8	6	1.699.2000.50	10	1.699.2000.30
M20 x 1,5	10 – 14	24	24/24	10	6	1.699.2016.50	10	1.699.2016.30
M25 x 1,5	9 – 16	26	30/30	10	7	1.699.2500.51	12	1.699.2500.31
M25 x 1,5	13 – 18	26	30/30	10	7	1.699.2500.50	12	1.699.2500.30
M32 x 1,5	13 – 20	31	40/40	13	8	1.699.3200.51	12	1.699.3200.31
M32 x 1,5	18 – 25	31	40/40	13	8	1.699.3200.50	12	1.699.3200.30
M40 x 1,5	20 – 26	37	50/50	15	8	1.699.4000.51	15	1.699.4000.31
M40 x 1,5	22 – 32	37	50/50	15	8	1.699.4000.50	15	1.699.4000.30

HSK-M-PVDF (PG, NPT)





Material	Nickel-plated brass
Clamping insert	PVDF
Seal	FKM
Material o-ring	FKM
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-35°C to +150°C

RoHS

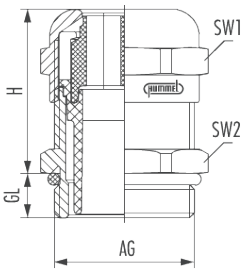
// Other sizes on request

AG	⌀ mm	H mm	SW1/SW2 mm	Nm	GL mm	Item-No
PG 7	2 – 5	19	14/14	4	5	1.699.0700.15
PG 7	3 – 6,5	19	14/14	4	5	1.699.0700.01
PG 9	2 – 6	21	17/17	6	6	1.699.0900.15
PG 9	4 – 8	21	17/17	6	6	1.699.0900.01
PG 11	3 – 7	22	20/20	6	6	1.699.1100.15
PG 11	5 – 10	22	20/20	6	6	1.699.1100.01
PG 21	13 – 18	24	30/30	10	12	1.699.2100.60
PG 29	18 – 25	29	40/40	13	12	1.699.2900.60
PG 36	22 – 32	35	50/50	15	15	1.699.3600.60
NPT 3/8"	2 – 6	21	17/19	6	15	1.699.3800.71
NPT 1/2"	5 – 9	24	22/24	8	13	1.699.1200.71
NPT 1/2"	6 – 12	24	22/24	8	13	1.699.1200.70
NPT 3/4"	9 – 16	25	30/30	10	13	1.699.3400.71

Metal cable glands

HSK-M-Multi (metric, PG, NPT)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	Elastomer
Material o-ring	NBR
Protection class	IP 68 – 10 bar and optimum assignment of all bores / IP 65
Temperature range	-40°C to +100°C

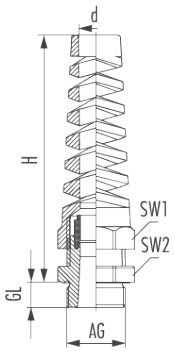
RoHS

// AISI on request
// Further seal inserts on request
// Elongated threads on request
// Type "Number of holes x d = -": without hole

AG	GL mm	H mm	SW1/SW2 mm	Nm	Number of holes x d	Item-No
M20 x 1,5	6	23	22/22	10	2 x 5	1.697.2003.50
M20 x 1,5	6	23	22/22	10	6 x 3	1.697.2001.50
M20 x 1,5	6	23	22/22	8	2 x 5	1.697.2024.50
M25 x 1,5	7	26	30/30	10	2 x 8	1.697.2502.50
M25 x 1,5	7	26	30/30	12	3 x 7	1.697.2501.50
M25 x 1,5	7	26	30/30	12	4 x 6	1.697.2500.50
M32 x 1,5	8	31	40/40	15	4 x 9	1.697.3201.50
M32 x 1,5	8	31	40/40	15	6 x 6,5	1.697.3200.50
M40 x 1,5	8	37	50/50	15	2 x 15	1.697.4003.50
M63 x 1,5	10	38	64/68	30	3 x 18	1.697.6302.50
PG 9	6	21	17/17	5	2 x 3	1.697.0901.01
PG 16	6,5	23	24/24	10	2 x 6	1.697.1605.01
NPT 3/8"	15	21	17/19	5	2 x 3	1.697.3801.70
NPT 1/2"	13	24	24/24	10	2 x 5	1.697.1203.70
NPT 1/2"	13	24	24/24	10	3 x 4	1.697.1202.70
NPT 3/4"	13	25	30/30	12	3 x 7	1.697.3401.70
NPT 3/4"	13	25	30/30	12	4 x 6	1.697.3400.70
NPT 1"	19	29	40/40	15	4 x 9	1.697.1001.70
NPT 1"	19	29	40/40	15	6 x 6,5	1.697.1000.70

HSK-M-Flex (metric, PG, NPT)





Material	Nickel-plated brass
Steel spring	INOX 1.4310
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

RoHS

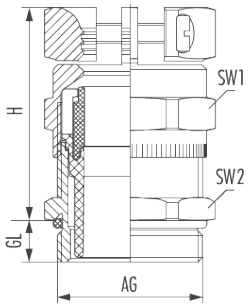
// Other sizes on request
// Elongated threads on request
// Other sealing material e.g. Silicone on request

AG	⌀ mm	d mm	H mm	SW1/SW2 mm	Nm	GL mm	Item-No
M12 x 1,5	2 – 5	6,8	55	14/14	4	6,5	1.623.1200.51
M12 x 1,5	3 – 6,5	6,8	55	14/14	4	6,5	1.623.1200.50
M16 x 1,5	4 – 8	8,2	66	19/19	6	6	1.623.1600.50
M16 x 1,5	5 – 10	10,3	77	20/20	5	6	1.623.1611.50
M20 x 1,5	5 – 9	12,3	88	22/22	8	6	1.623.2000.51
M20 x 1,5	6 – 12	12,3	88	22/22	8	6	1.623.2000.50
PG 7	2 – 5	6,8	55	14/14	4	5	1.623.0700.15
PG 7	3 – 6,5	6,8	55	14/14	4	5	1.623.0700.01
PG 9	4 – 8	8,2	66	17/17	6	6	1.623.0900.01
PG 11	5 – 10	10,3	77	20/20	5	6	1.623.1100.01
PG 13,5	6 – 12	12,3	88	22/22	8	6,5	1.623.1300.01
PG 16	10 – 14	14,3	98	24/24	10	6,5	1.623.1600.01
NPT 3/8"	4 – 8	8,2	66	17/19	6	15	1.623.3800.70
NPT 1/2"	6 – 12	12,3	88	22/24	8	13	1.623.1200.70
NPT 3/4"	9 – 16	18,4	111	33/33	12	13	1.623.3400.71
NPT 3/4"	13 – 18	18,4	111	33/33	12	13	1.623.3400.70

Metal cable glands

HSK-MZ (metric)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

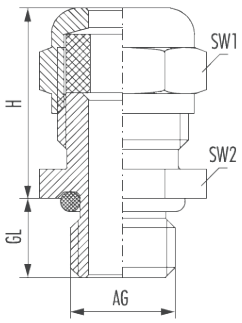
RoHS

// Elongated threads on request
// Other sealing material e.g. Silicone on request

AG	⌀K mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	3 – 6,5	26	14/14	4	1.690.1200.50
M16 x 1,5	4 – 8	28	19/19	6	1.690.1600.50
M16 x 1,5	5 – 10	30	20/20	5	1.690.1611.50
M20 x 1,5	6 – 12	33	22/22	8	1.690.2000.50
M20 x 1,5	10 – 14	33	24/24	10	1.690.2016.50
M25 x 1,5	13 – 18	37	30/30	12	1.690.2500.50
M32 x 1,5	18 – 25	43	40/40	15	1.690.3200.50
M40 x 1,5	22 – 32	50	50/50	15	1.690.4000.50
M50 x 1,5	25 – 31	51	57/57	24	1.690.5000.51
M50 x 1,5	32 – 38	51	57/57	24	1.690.5000.50
M63 x 1,5	29 – 35	52	64/68	30	1.690.6300.51
M63 x 1,5	37 – 44	52	64/68	30	1.690.6300.50

HSK-Mini (metric)





Material	Nickel-plated brass
Seal	TPE / FKM
Material o-ring	NBR / FKM
Protection class	IP 68 - 1bar/30min
Temperature range	-25°C to +200°C / -20°C to +100°C

RoHS

// Other thread pitches on request
// AISI on request

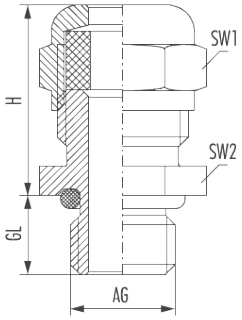
AG	⌀k mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No -20°C to +100°C	Item-No -25°C to +200°C
M6 x 1	2 – 3,2	6	10	8/8	1	1.106.0601.50	1.106.0600.55
M8 x 0,75	2 – 4,5	3,5	14,3	11/11	2	1.112.0801.01	
M8 x 1,25	3 – 5	6	13	11/11	2	1.106.0801.50	1.106.0800.55
M8 x 1,25	3 – 5	10	13	11/11	2	1.106.0801.30	
M10 x 1,5	4 – 6	6	14	12/12	1	1.106.1001.50	1.106.1000.55

CE

Metal cable glands

HSK-Mini-INOX (metric)





Material	INOX 1.4305
Seal	TPE / FKM
Material o-ring	NBR / FKM
Protection class	IP 68 - 1bar/30min
Temperature range	-25°C to +200°C / -20°C to +100°C

RoHS

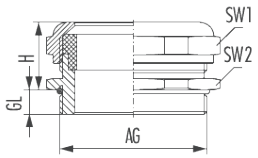
// Other thread pitches on request
// Other sizes on request

AG	⌀k mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No -20°C to +100°C	Item-No -25°C to +200°C
M8 x 1,25	3 – 5	6	13	11/11	2	1.129.0800.50	1.129.0800.55
M10 x 1,5	4 – 6	6	14	12/12	1		1.129.1000.55

CE

HSK-XL (metric)





Material	Nickel-plated brass
Seal	NBR
Material o-ring	NBR
Protection class	IP 68 - 1bar/30min
Temperature range	-20°C to +100°C

RoHS

// AISI on request

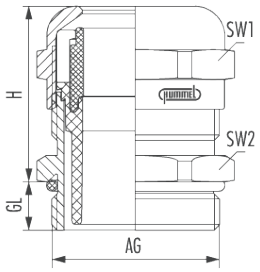
AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M63 x 1,5	48 – 55	10	42	75/75	40	1.106.6375.50
M75 x 1,5	48 – 55	15	42	80/80	40	1.106.7500.50
M75 x 1,5	53 – 60	15	42	85/85	60	1.106.7500.51
M80 x 2	58 – 65	15	42	90/90	70	1.106.8000.50
M90 x 2	63 – 70	15	42	100/100	140	1.106.9000.50
M90 x 2	68 – 75	15	52	100/100	140	1.106.9000.51

CE

Metal cable glands

HSK-INOX (metric)





Material	INOX 1.4305 / INOX 1.4404
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

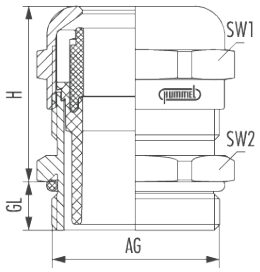
RoHS

// Other colors on request
// Other thread pitches on request

AG	⌀k mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No INOX 1.4305	Item-No INOX 1.4404
M12 x 1,5	2 – 5	6,5	19	14/14	4	1.695.1200.51	
M12 x 1,5	3 – 6,5	6,5	19	14/14	4	1.695.1200.50	1.675.1200.50
M16 x 1,5	3 – 7	6	22	22/22	5	1.695.1600.51	1.675.1600.51
M16 x 1,5	5 – 10	6	22	22/22	5	1.695.1600.50	1.675.1600.50
M20 x 1,5	7 – 12	6	23	24/24	10	1.695.2000.51	1.675.2000.51
M20 x 1,5	10 – 14	6	23	24/24	10	1.695.2000.50	1.675.2000.50
M25 x 1,5	9 – 16	7	24	30/30	12	1.695.2500.51	1.675.2500.51
M25 x 1,5	13 – 18	7	24	30/30	12	1.695.2500.50	1.675.2500.50
M32 x 1,5	13 – 20	8	31	41/41	15	1.695.3200.51	1.675.3200.51
M32 x 1,5	18 – 25	8	31	41/41	15	1.695.3200.50	1.675.3200.50
M40 x 1,5	20 – 26	8	37	50/50	15	1.695.4000.51	1.675.4000.51
M40 x 1,5	22 – 32	8	37	50/50	15	1.695.4000.50	1.675.4000.50
M50 x 1,5	25 – 31	9	37	60/60	24	1.695.5000.51	1.675.5000.51
M50 x 1,5	32 – 38	9	37	60/60	24	1.695.5000.50	1.675.5000.50
M63 x 1,5	29 – 35	10	38	64/68	30	1.695.6300.51	1.675.6300.51
M63 x 1,5	37 – 44	10	38	64/68	30	1.695.6300.50	1.675.6300.50

HSK-INOX (PG, NPT)





Material	INOX 1.4305 / INOX 1.4404
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

RoHS

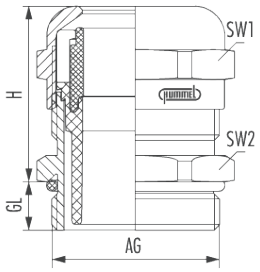
// Other sizes on request

AG	⌀k mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No INOX 1.4305	Item-No INOX 1.4404
PG 7	2 – 5	5	19	14/14	4	1.695.0700.15	
PG 7	3 – 6,5	5	19	14/14	4	1.695.0700.01	
PG 9	4 – 8	6	21	17/17	6	1.695.0900.01	
PG 11	3 – 7	6	22	22/22	5	1.695.1100.15	
PG 11	5 – 10	6	22	22/22	5	1.695.1100.01	
PG 13,5	5 – 9	6,5	24	22/22	8	1.695.1300.15	
PG 13,5	6 – 12	6,5	24	22/22	8	1.695.1300.01	
PG 16	7 – 12	6,5	23	24/24	10	1.695.1600.15	
PG 16	10 – 14	6,5	23	24/24	10	1.695.1600.01	
PG 21	9 – 16	7	24	30/30	12	1.695.2100.15	
PG 21	13 – 18	7	24	30/30	12	1.695.2100.01	
NPT 3/8"	2 – 6	15	21	17/19	6		1.675.3800.71
NPT 3/8"	4 – 8	15	21	17/19	6		1.675.3800.70
NPT 1/2"	5 – 9	13	24	22/24	8		1.675.1200.71
NPT 1/2"	6 – 12	13	24	22/24	8		1.675.1200.70
NPT 3/4"	9 – 16	13	25	30/30	12		1.675.3400.71
NPT 3/4"	13 – 18	13	25	30/30	12		1.675.3400.70
NPT 1"	13 – 20	19	29	41/41	15		1.675.1000.71
NPT 1"	18 – 25	19	29	41/41	15		1.675.1000.70

Metal cable glands

HSK-INOX-PVDF (metric)





Material	INOX 1.4404 / INOX 1.4305
Clamping insert	PVDF
Seal	FKM
Material o-ring	FKM
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-35°C to +150°C

RoHS

// Other sizes on request

AG	⌀k mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No INOX 1.4305	Item-No INOX 1.4404
M12 x 1,5	2 – 5	6,5	19	14/14	4	1.696.1200.51	1.676.1200.51
M12 x 1,5	3 – 6,5	6,5	19	14/14	4	1.696.1200.50	1.676.1200.50
M16 x 1,5	3 – 7	6	22	22/22	5	1.696.1600.51	1.676.1600.51
M16 x 1,5	5 – 10	6	22	22/22	5	1.696.1600.50	1.676.1600.50
M20 x 1,5	7 – 12	6	23	24/24	10	1.696.2000.51	1.676.2000.51
M20 x 1,5	10 – 14	6	23	24/24	10	1.696.2000.50	1.676.2000.50
M25 x 1,5	9 – 16	7	24	30/30	12	1.696.2500.51	1.676.2500.51
M25 x 1,5	13 – 18	7	24	30/30	12	1.696.2500.50	1.676.2500.50
M32 x 1,5	13 – 20	8	31	41/41	15	1.696.3200.51	1.676.3200.51
M32 x 1,5	18 – 25	8	31	41/41	15	1.696.3200.50	1.676.3200.50

EMC CABLE GLANDS

Protecting power units and electronic components from electromagnetic influences is becoming increasingly important. Cable management and connection solutions are of particularly high importance in this regard.
Only a secure, long-lasting, 360° shield connection guarantees lasting protection for technical equipment.

// HSK-M-EMC: The standard version with very good shield effectiveness
// HSK-M-EMC-D: Simple, quick fitting with maximum EMC protection
// PVDF-variants for applications in the particularly high temperature range
// Flex variants with integrated bending protection
// Glands with additional tension relief (HSK-M-EMC-MZ)
// Stainless steel variants with outstanding shielding effectiveness

In each case, HUMMEL offers different clamping areas, thread lengths, thread types and various sealing materials for different temperature ranges. The cable glands have all relevant approvals for international markets and a wide range of sectors.



Full safety: 360 degree EMC connection

EMC cable glands protect electrical equipment from electromagnetic interference. As a premium manufacturer, HUMMEL relies here on innovative technology and high-quality materials. Therefore, users can rely on permanent protection, especially when it comes to a safe EMC connection.
HUMMEL cable glands with EMC protection are available in different versions:

HSK-M-EMC-D: This premium variant has a metallized clamping body, which ensures a continuous contact with the braided shield of the cable, even in dynamic applications.

Metrica-M-EMC-E: This cable gland also uses the clamping body principle. This ensures a significantly shorter installation time than with conventional EMC cable glands.

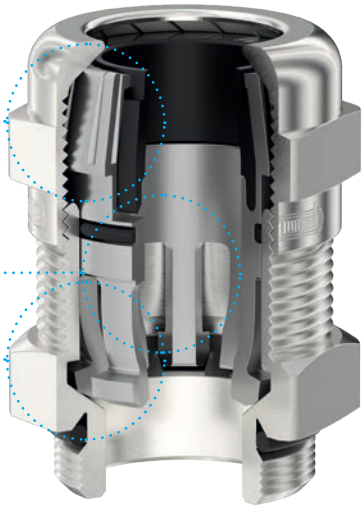
HSK-M-EMC: This cable gland also offers reliable protection against electromagnetic influences. It follows the classic mounting principle, in which the shield is separated and connected to the gland.

HSK-M-EMC-D

Overlapping clamping plates prevent the moulded seal from being torn out

The metallised clamp insert ensures optimum shielding values

Sturdy contact plates make reliable contact, even in dynamic applications



HSK-M-EMC

Overlapping clamping plates prevent the moulded seal from being torn out

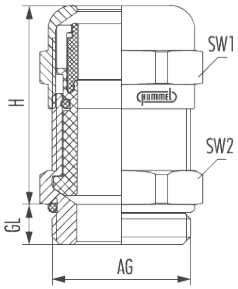
The internal sealing edge ensures optimum tightness between clamping insert and intermediate socket

Secure 360° contact. Internal O-ring presses the braid against the inter-mediate socket



HSK-M-EMC-D (metric/-long)





Material	Nickel-plated brass
Clamping insert	Metallized polyamide
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

RoHS

EMV EMC

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

AG	⌀k mm	H mm	SW1/SW2 mm	Nm	GL mm	Item-No short	GL mm	Item-No long
M12 x 1,5	3 – 6,5	25	14/14	6	6,5	1.631.1200.50	10	1.631.1200.30
M16 x 1,5	4 – 8	29	17/19	9	6	1.631.1609.50	10	1.631.1609.30
M16 x 1,5	5 – 10	32	20/20	11	6	1.631.1600.50	10	1.631.1600.30
M20 x 1,5	6 – 12	32,5	22/22	12	6	1.631.2013.50	10	1.631.2013.30
M20 x 1,5	10 – 14	33	24/24	13	6	1.631.2000.50	10	1.631.2000.30
M25 x 1,5	13 – 18	39	30/30	13	7	1.631.2500.50	12	1.631.2500.30
M32 x 1,5	18 – 25	45	40/40	17,5	8	1.631.3200.50	12	1.631.3200.30
M40 x 1,5	24 – 32	51	50/50	25	8	1.631.4000.50	15	1.631.4000.30
M50 x 1,5	32 – 38	57,5	57/57	29	9	1.631.5000.50	15	1.631.5000.30
M63 x 1,5	37 – 44	52	64/68	38	10	1.631.6300.50	15	1.631.6300.30

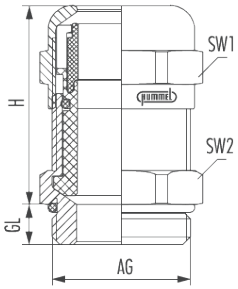
to the product video

to the assembly instruction

EMC cable glands

HSK-M-EMC-D (PG, NPT)





Material	Nickel-plated brass
Clamping insert	Metallized polyamide
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

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

RoHS

EMV EMC

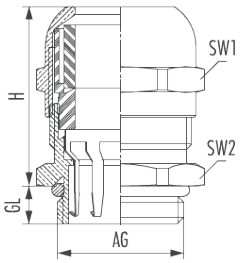
AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
PG 7	3 – 6,5	5	24	14/14	6	1.631.0700.01
PG 9	4 – 8	6	28	17/17	9	1.631.0900.01
PG 11	5 – 10	6	29	20/20	11	1.631.1100.01
PG 13,5	6 – 12	6,5	31	22/22	12	1.631.1300.01
PG 16	10 – 14	6,5	32	24/24	13	1.631.1600.01
PG 21	13 – 18	7	38	30/30	13	1.631.2100.01
PG 29	18 – 25	8	43	40/40	17,5	1.631.2900.01
PG 36	24 – 32	8	48	50/50	25	1.631.3600.01
NPT 3/8"	4 – 8	15	29	17/19	9	1.631.3800.70
NPT 1/2"	6 – 12	13	32,5	22/24	12	1.631.1200.70
NPT 3/4"	13 – 18	13	39	30/30	13	1.631.3400.70

to the product video

to the assembly instruction

METRICA-M-EMC-E (metric)





Material	Nickel-plated brass
Clamping insert	Polyamide
Seal	NBR
Material o-ring	NBR
Protection class	IP 68 - 5bar/30min
Temperature range	-40°C to +100°C

RoHS

EMV EMC

// Other sizes on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M16 x 1,5	4,5 – 10	6	24,4	19/19	6,5	1.607.1600.50
M20 x 1,5	6 – 12	6	25,4	22/22	6	1.607.2013.50
M20 x 1,5	7,5 – 14	6	28,3	24/24	8	1.607.2000.50
M25 x 1,5	9 – 17	7	29,3	29/29	9,5	1.607.2500.50
M32 x 1,5	11 – 21	8	37,7	34/34	13,5	1.607.3200.50

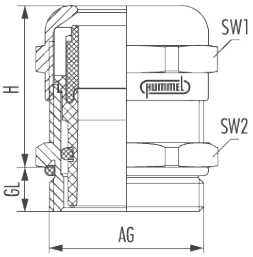
to the product video

to the assembly instruction

EMC cable glands

HSK-M-EMC (metric/-long)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

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

AG	⌀ mm	H mm	SW1/SW2 mm	Nm	GL mm	Item-No short	GL mm	Item-No long
M12 x 1,5	2 – 5	19	14/14	4	6,5	1.691.1200.51	10	1.691.1200.31
M12 x 1,5	3 – 6,5	19	14/14	4	6,5	1.691.1200.50	10	1.691.1200.30
M16 x 1,5	3 – 7	22	20/20	5	6	1.691.1600.51	10	1.691.1600.31
M16 x 1,5	5 – 10	22	20/20	5	6	1.691.1600.50	10	1.691.1600.30
M20 x 1,5	7 – 12	24	24/24	10	6	1.691.2000.51	10	1.691.2000.31
M20 x 1,5	10 – 14	24	24/24	10	6	1.691.2000.50	10	1.691.2000.30
M25 x 1,5	9 – 16	26	30/30	12	7	1.691.2500.51	12	1.691.2500.31
M25 x 1,5	13 – 18	26	30/30	12	7	1.691.2500.50	12	1.691.2500.30
M32 x 1,5	13 – 20	31	40/40	15	8	1.691.3200.51	12	1.691.3200.31
M32 x 1,5	15 – 21	33	36/36	15	8	1.691.3200.52	12	1.691.3200.32
M32 x 1,5	18 – 25	31	40/40	15	8	1.691.3200.50	12	1.691.3200.30
M40 x 1,5	19 – 27	33	46/46	15	8	1.691.4000.52	15	1.691.4000.32
M40 x 1,5	22 – 32	37	50/50	15	8	1.691.4000.50	15	1.691.4000.30
M50 x 1,5	25 – 31	37	57/57	24	9	1.691.5000.51	15	1.691.5000.31
M50 x 1,5	32 – 38	37	57/57	24	9	1.691.5000.50	15	1.691.5000.30
M63 x 1,5	29 – 35	38	64/68	30	10	1.691.6300.51		
M63 x 1,5	37 – 44	38	64/68	30	10	1.691.6300.50	15	1.691.6300.30

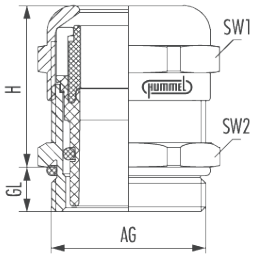
to the product video

to the assembly instruction

Dimensions and specifications may be changed without prior notice

HSK-M-EMC (PG/-long)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

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

RoHS

EMV EMC

AG	⌀ mm	H mm	SW1/SW2 mm	Nm	GL mm	Item-No short	GL mm	Item-No long
PG 7	3 – 6,5	19	14/14	4	5	1.691.0700.01	10	1.691.0700.60
PG 9	2 – 6	21	17/17	6	6	1.691.0900.15		
PG 9	4 – 8	21	17/17	6	6	1.691.0900.01	10	1.691.0900.60
PG 11	3 – 7	22	20/20	5	6	1.691.1100.15		
PG 11	5 – 10	22	20/20	5	6	1.691.1100.01	10	1.691.1100.60
PG 13,5	5 – 9	24	22/22	8	6,5	1.691.1300.15		
PG 13,5	6 – 12	24	22/22	8	6,5	1.691.1300.01	10	1.691.1300.60
PG 16	7 – 12	23	24/24	10	6,5	1.691.1600.15		
PG 16	10 – 14	23	24/24	10	6,5	1.691.1600.01	10	1.691.1600.60
PG 21	9 – 16	24	30/30	12	7	1.691.2100.15	12	1.691.2100.61
PG 21	13 – 18	24	30/30	12	7	1.691.2100.01	12	1.691.2100.60
PG 29	13 – 20	29	40/40	15	8	1.691.2900.15		
PG 29	18 – 25	29	40/40	15	8	1.691.2900.01	12	1.691.2900.60
PG 36	20 – 26	35	50/50	15	8	1.691.3600.15		
PG 36	22 – 32	35	50/50	15	8	1.691.3600.01		
PG 42	25 – 31	37	57/57	24	9	1.691.4200.15		
PG 42	32 – 38	37	57/57	24	9	1.691.4200.01		
PG 48	29 – 35	38	64/64	30	10	1.691.4800.15		
PG 48	37 – 44	38	64/64	30	10	1.691.4800.01		

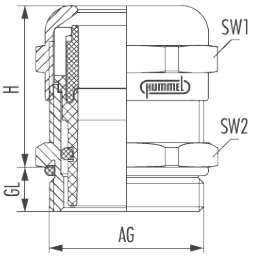
to the product video

to the assembly instruction

EMC cable glands

HSK-M-EMC (NPT)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

RoHS

EMV EMC

// Other sealing material e.g. Silicone on request
// Other sizes on request

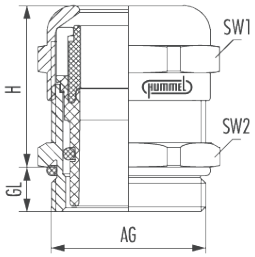
AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
NPT 3/8"	2 – 6	15	21	17/19	6	1.691.3800.71
NPT 3/8"	4 – 8	15	21	17/19	6	1.691.3800.70
NPT 1/2"	5 – 9	13	24	22/24	8	1.691.1200.71
NPT 1/2"	6 – 12	13	24	22/24	8	1.691.1200.70
NPT 3/4"	9 – 16	13	25	30/30	12	1.691.3400.71
NPT 3/4"	13 – 18	13	25	30/30	12	1.691.3400.70

to the product video

to the assembly instruction

HSK-M-PVDF-EMC (metric)





Material	Nickel-plated brass
Clamping insert	PVDF
Seal	FKM
Material o-ring	FKM
Protection class	IP 69 K / IP 68 – 10 bar / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-35°C to +150°C

RoHS

EMV EMC

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

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	3 – 6,5	6,5	19	14/14	4	1.698.1200.50
M16 x 1,5	4 – 8	6	23	17/19	10	1.698.1600.50
M16 x 1,5	5 – 10	6	22	20/20	5	1.698.1611.50
M20 x 1,5	7 – 12	6	24	24/24	10	1.698.2000.51
M20 x 1,5	10 – 14	6	24	24/24	10	1.698.2000.50

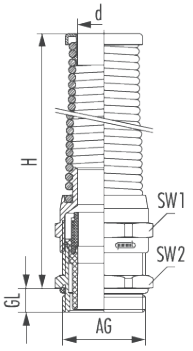
to the product video

to the assembly instruction

EMC cable glands

HSK-M-Flex-EMC (metric/-long)





Material	Nickel-plated brass
Steel spring	INOX 1.4310
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

RoHS

EMV EMC

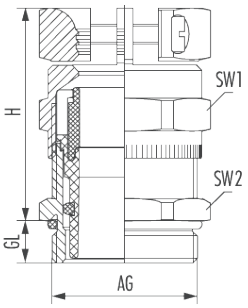
// Also available in PVDF (-35°C to +150°C)
// Other sealing material e.g. Silicone on request
// Elongated threads on request

AG	⌀ mm	d mm	H mm	SW1/SW2 mm	Nm	GL mm	Item-No short	GL mm	Item-No long
M12 x 1,5	3 – 6,5	6,8	55	14/14	4	6,5	1.624.1200.50	10	1.624.1200.30
M16 x 1,5	5 – 10	10,3	77	20/20	5	6	1.624.1600.50	10	1.624.1600.30
M20 x 1,5	7 – 12	14,3	98	24/24	10	6	1.624.2000.51		
M20 x 1,5	10 – 14	14,3	98	24/24	10	6	1.624.2000.50	10	1.624.2000.30
M25 x 1,5	13 – 18	18,4	111	30/30	12	7	1.624.2500.50	12	1.624.2500.30

to the product video

HSK-MZ-EMC (metric)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

RoHS

EMV EMC

// *Also available in PVDF on request (-35°C to +150°C)
// Other sealing material e.g. Silicone on request

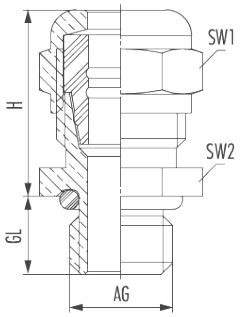
AG	⌀ mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	3 – 6,5	26	14/14	4	1.692.1200.50
M16 x 1,5	5 – 10	29	20/20	5	1.692.1600.50
M20 x 1,5	10 – 14	32	24/24	10	1.692.2000.50
M25 x 1,5	13 – 18	35	30/30	12	1.692.2500.50
M32 x 1,5	18 – 25	41	40/40	15	1.692.3200.50
M40 x 1,5	22 – 32	48	50/50	15	1.692.4000.50
M50 x 1,5	32 – 38	51	57/57	24	1.692.5000.50
M63 x 1,5	37 – 44	52	64/68	30	1.692.6300.50

to the product video

EMC cable glands

HSK-Mini EMC (metric)





Material	Nickel-plated brass
Seal	TPE
Material o-ring	NBR
Protection class	IP 68 - 1bar/30min
Temperature range	-20°C to +100°C

// Other thread pitches on request
// AISI on request

RoHS

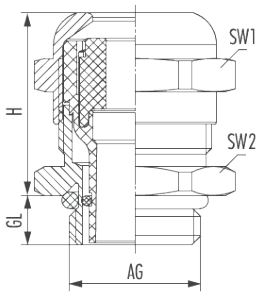
AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M8 x 1,25	3 – 5	6	13	11/11	2	1.119.0800.50
M10 x 1,5	4 – 6	6	14	12/12	1	1.119.1000.50

to the product video

CE

HSK-INOX-EMC (metric)





Material	INOX 1.4305
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-40°C to +100°C

RoHS

EMV EMC

// Other types of stainless steels available on request
// Other sizes on request
// Other thread pitches on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	2 – 5	6,5	19	14/14	4	1.693.1200.51
M12 x 1,5	3 – 6,5	6,5	19	14/14	4	1.693.1200.50
M16 x 1,5	3 – 7	6	21	22/22	5	1.693.1600.51
M16 x 1,5	5 – 10	6	21	22/22	5	1.693.1600.50
M20 x 1,5	7 – 12	6	23	24/24	10	1.693.2000.51
M20 x 1,5	10 – 14	6	23	24/24	10	1.693.2000.50
M25 x 1,5	9 – 16	7	26	30/30	12	1.693.2500.51
M25 x 1,5	13 – 18	7	26	30/30	12	1.693.2500.50
M32 x 1,5	13 – 20	8	31	41/41	15	1.693.3200.51
M32 x 1,5	18 – 25	8	31	41/41	15	1.693.3200.50

to the product video

VariaPro: From M12 to M63

The cable glands of the VariaPro series are available in sizes from M12 to M63. These cable glands therefore cover a clamping range from 2 to 54 millimetre cable diameter for discerning markets. The reducer insert in the moulded seal is responsible for this. Users therefore gain maximum flexibility, simplified procurement processes and lean warehousing.

VariaPro is available with three characteristics. The VariaPro Temp version is designed for extreme temperatures. It covers a temperature range from -60 to +200° Celsius. On the other hand, the rail version meets the strictest fire protection standards and can therefore be used in all trains of the European rail network.

All versions have an integrated EMC link in the standard and fulfil protection class IP 68 up to 10 bar / 30min.

VariaPro Rail

EN 45545

VariaPro Temp

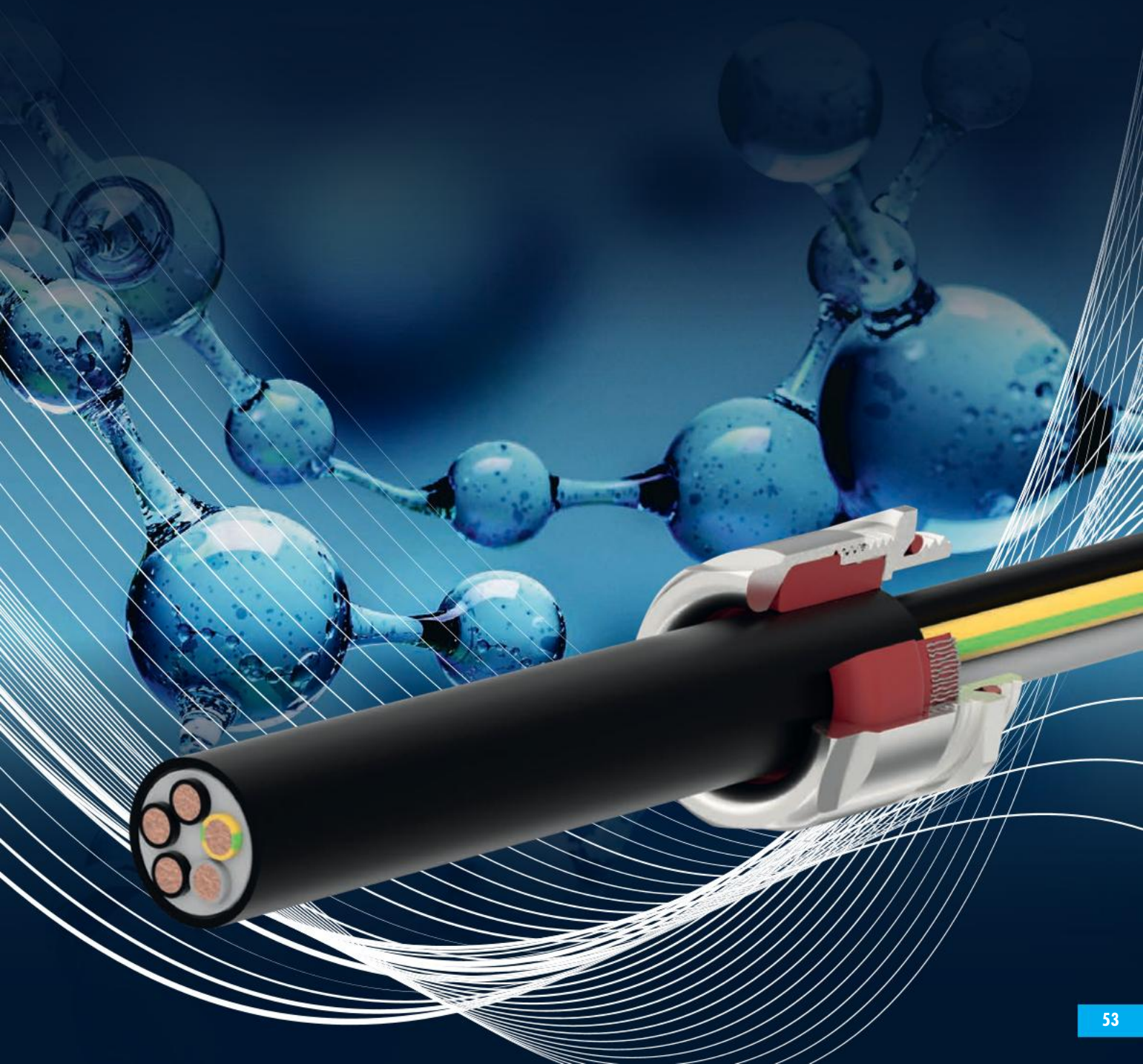
+200 °C
-60 °C



CABLE GLANDS FOR SPECIAL APPLICATIONS

With the VariaPro series, HUMMEL focusses on very special applications and the particular requirements of selected sectors. The VariaPro cable glands have been designed for very special sector requirements in each case. Their specific strengths with regard to temperature, fire protection or hygiene are certified which means they can be used without restriction in these extreme applications.

// VariaPro Rail: The cable gland with railway approval EN 45545-3
// VariaPro Temp: Suitable for particularly low and extremely high temperatures
// HSK-INOX-HD-PRO: Developed for areas with a high level of hygienic requirements



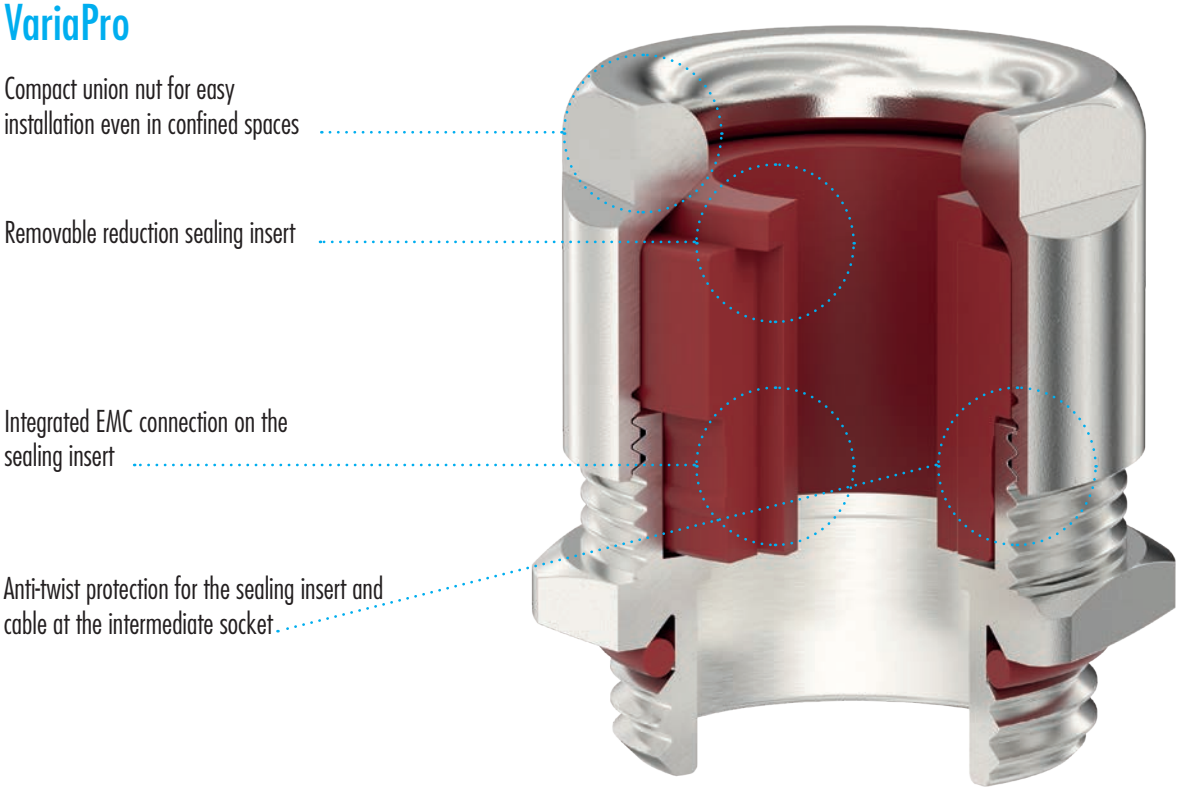
VariaPro: Outstanding technical properties

Demanding markets with special challenges – these are ideal conditions for VariaPro. These cable glands impress with numerous technical features. The large clamping ranges of all variants are outstanding. For users this means high flexibility, easy procurement and lean warehousing.
Simple assembly is also user-friendly. Two different wrench sizes on one gland facilitate tightening. The optimised ergonomics also ensure a better grip of the tool.

Technical features

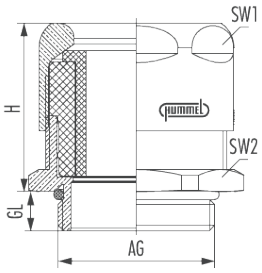
// Available sizes M12 to M63
// Integrated EMC connection
// Protection class IP 68 up to 10 bar / 30 min
// Robust design and slimline construction
// Large clamping range through a reduction insert

VariaPro



VariaPro Rail (metric)





Material	Nickel-plated brass
Seal	EPDM
Material o-ring	EPDM
Protection class	IP68 - 10bar/30min
Integrity	E20 / E30
Temperature range	-40°C to +100°C

RoHS

EMV EMC

// DIN EN 45545-2 and DIN EN 45545-3
// Large clamping range through reduction insert
// Integrated anti-twist protection during cable installation

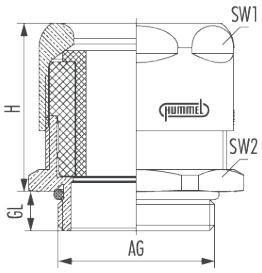
AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	2 – 8	6,5	20	16/17	3	1.750.1200.50
M12 x 1,5	5 – 8	6,5	20	16/17	5	1.750.1200.51
M16 x 1,5	4 – 11	7	24,5	19/20	5	1.750.1600.50
M16 x 1,5	7 – 11	7	24,5	19/20	8	1.750.1600.51
M20 x 1,5	7 – 14	6	27	22/24	6	1.750.2000.50
M20 x 1,5	10 – 14	6	27	22/24	6	1.750.2000.51
M25 x 1,5	11 – 18	7	29	27/30	10	1.750.2500.50
M25 x 1,5	14,5 – 18	7	29	27/30	10	1.750.2500.51
M32 x 1,5	16 – 25	8	34	36/40	12	1.750.3200.50
M32 x 1,5	20,5 – 25	8	34	36/40	12	1.750.3200.51
M40 x 1,5	21 – 32	8	40	46/50	15	1.750.4000.50
M40 x 1,5	26,5 – 32	8	40	46/50	15	1.750.4000.51
M50 x 1,5	31 – 42	9	48	57/57	20	1.750.5000.50
M50 x 1,5	35 – 42	9	48	57/57	20	1.750.5000.51
M63 x 1,5	41 – 54	10	47,5	65/68	32	1.750.6300.50
M63 x 1,5	46,5 – 54	10	47,5	65/68	37	1.750.6300.51

to the product video

Cable glands for special applications

VariaPro Temp (metric)





Material	Nickel-plated brass
Seal	VMQ (silicone)
Material o-ring	VMQ (silicone)
Protection class	IP68 - 10bar/30min
Temperature range	-60°C to +200°C

RoHS

EMV EMC

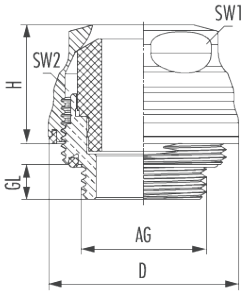
// Suitable for absolute low and high temperature applications
// Integrated possibility for EMC connection
// Large clamping range through reduction insert
// Integrated anti-twist protection during cable installation

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	2 – 8	6,5	20	16/17	3	1.751.1200.50
M12 x 1,5	5 – 8	6,5	20	16/17	5	1.751.1200.51
M16 x 1,5	4 – 11	7	24,5	19/20	5	1.751.1600.50
M16 x 1,5	7 – 11	7	22,8	19/20	8	1.751.1600.51
M20 x 1,5	7 – 14	6	27	22/24	6	1.751.2000.50
M20 x 1,5	10 – 14	6	27	22/24	6	1.751.2000.51
M25 x 1,5	11 – 18	7	29	27/30	18	1.751.2500.50
M25 x 1,5	14,5 – 18	7	29	27/30	10	1.751.2500.51
M32 x 1,5	16 – 25	8	34	36/40	24	1.751.3200.50
M32 x 1,5	20,5 – 25	8	34	36/40	20	1.751.3200.51
M40 x 1,5	21 – 32	8	40	46/50	20	1.751.4000.50
M40 x 1,5	26,5 – 32	8	40	46/50	20	1.751.4000.51
M50 x 1,5	31 – 42	9	48	57/57	20	1.751.5000.50
M50 x 1,5	35 – 42	9	48	57/57	20	1.751.5000.51
M63 x 1,5	41 – 54	10	47,5	65/68	32	1.751.6300.50
M63 x 1,5	46,5 – 54	10	47,5	65/68	37	1.751.6300.51

CE

HSK-INOX-HD-Pro (metric)





Material	INOX 1.4404
Seal	VMQ (silicone)
Protection class	IP 66 / IP 69 K / IP68 - 10bar/30min
Temperature range	-40°C to +120°C

EMV EMC

// EMC connection integrated
// VDMA Riboflavin cleaning test passed
// EHEDG 01 cleaning test passed

AG	⌀k mm	D mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	5 – 6,5	21	6	19	14/14	8	1.740.1203.50
M16 x 1,5	6 – 7,5	27	6	20	19/21	15	1.740.1603.51
M16 x 1,5	7,5 – 10	27	6	20	19/21	15	1.740.1603.50
M20 x 1,5	9 – 12	33	6	22,5	24/27	30	1.740.2003.51
M20 x 1,5	11 – 13,5	33	6	22,5	24/27	30	1.740.2003.50
M25 x 1,5	14 – 16	38	7	23,5	30/30	35	1.740.2503.52
M25 x 1,5	15 – 18	38	7	23,5	30/30	35	1.740.2503.50
M32 x 1,5	18 – 21	45	8	26,5	36/36	40	1.740.3203.51
M32 x 1,5	21 – 25	45	8	26,5	36/36	40	1.740.3203.50

to the assembly instruction

HUMMEL AG on social media

Apart from the HUMMEL website (www.hummel.com), information, news, videos and posts are available on different social media channels. The target group-specific topics to choose from range from training at HUMMEL, product innovations, information about events and reviews or even simply the light and amusing side of everyday working at HUMMEL AG.

YouTube

Youtube: On the HUMMEL Youtube channel there are many video clips of

// Product presentations
// Installation/Assembly videos
// 3-D animations
// Training videos

https://www.youtube.com/user/HummelAGET

Facebook: Here the topics primarily cover training at HUMMEL and everyday work in the company.

https://www.facebook.com/Hummel.AG

LinkedIn

Linkedin: Following is worthwhile! All product innovations and news are published on LinkedIn promptly.

https://www.linkedin.com/company/10651915



DIN CABLE GLANDS

These cable glands have been designed to meet the requirements of very special norms and standards. This means they have a different construction and function compared to the premium cable glands in the HSK series. DIN cable glands offer very special clamping areas and feature a very low construction height.

// DIN 46320: Brass cable glands
// Z (DIN 46320): Cable glands with extra high tension relief

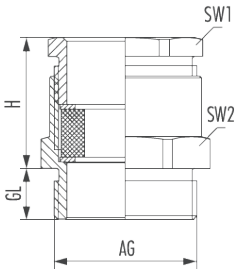
In each case, HUMMEL offers different clamping areas and thread types.



DIN cable glands

DIN 46320 (PG)





Material	Nickel-plated brass
Seal	NBR
Protection class	IP 54 / IP 65 in case of additional flat seal at connection thread
Temperature range	-20°C to +80°C

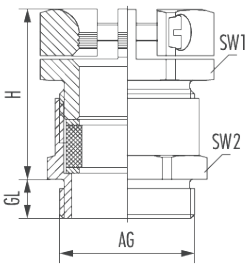
RoHS

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Item-No
PG 7	6 – 8	5	15	13/14	1.101.0703.01
PG 9	4 – 10	6	15	15/17	1.101.0901.01
PG 11	6,5 – 12	6	17	18/20	1.101.1101.01
PG 13,5	6,5 – 13,5	6,5	20	20/22	1.101.1301.01
PG 16	6,5 – 16	6,5	22	22/24	1.101.1601.01

CE

DIN 46320 Z (metric, PG)





Material	Nickel-plated brass
Seal	NBR
Protection class	IP 54 / IP 65 in case of additional flat seal at connection thread
Temperature range	-20°C to +80°C

RoHS

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Version	Item-No
M20 x 1,5	7,5 – 12	6	26	22/22	with cut-out sealing ring	1.105.2000.52
M20 x 1,5	8,5 – 13,5	6	27,5	24/22	with cut-out sealing ring	1.105.2013.52
M20 x 1,5	10,5 – 15	6	28,5	26/24	with cut-out sealing ring	1.105.2016.52
M25 x 1,5	13 – 20	6	33	33/30	with cut-out sealing ring	1.105.2500.52
M32 x 1,5	19 – 28	6	36	42/39	with cut-out sealing ring	1.105.3200.52
M40 x 1,5	24 – 34	7	41	52/50	with cut-out sealing ring	1.105.4000.52
M50 x 1,5	34 – 40	8	45	59/57	with cut-out sealing ring	1.105.5000.52
PG 13,5	8,5 – 13,5	6,5	27,5	24/22	with cut-out sealing ring	1.105.1301.01
PG 16	10,5 – 16	6,5	28,5	26/24	with cut-out sealing ring	1.105.1601.01
PG 21	13 – 20	7	33	33/30	with cut-out sealing ring	1.105.2101.01
PG 29	19 – 28	8	36	42/40	with cut-out sealing ring	1.105.2901.01

CE

PRODUCTION DEPTH

Competence, know-how and decades of experience are guarantors of success. HUMMEL has now been involved in metal working and machining for more than 70 years. The machinery includes the latest generation of lathes, milling and zinc die casting machines. In the electroplating department the products are given professional surface treatment.
The in-house mould-making department supplies the moulds for the in-house injection casting and die casting facility. HUMMEL products are produced in-house in automatic and semi-automatic assembly.

- IN-HOUSE DEVELOPMENT AND CAD DEPARTMENT
- PROTOTYPE CONSTRUCTION
- EXPERIENCED PROJECT AND PROCESS MANAGEMENT
- QUALITY MANAGEMENT WITH CERTIFICATIONS
- METALWORKING
- PLASTICS PROCESSING
- SURFACE TREATMENT, FINISHING
- MODERN MACHINERY
- ASSEMBLY
- IN-HOUSE TEST LABORATORY
- IN-HOUSE CABLE ASSEMBLY
- WAREHOUSE AND LOGISTICS MANAGEMENT



ACCESSORIES

That finishing touch for many applications: accessories. Seemingly insignificant, but actually extremely important. For the desired functionality is often only achieved with the right accessories. That's why HUMMEL offers a huge range of accessory components which are aligned perfectly with the cable glands and have been tried and tested over many years.

// Accessories in plastic, brass and stainless steel
// Plugs and locknuts
// O-rings and connecting thread sealing rings
// Various Multi inserts
// Reduction and expansion parts

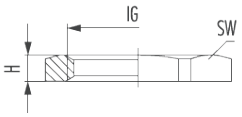
The accessories come in a range of materials, sizes and thread types. HUMMEL accessories also have all relevant approvals for international markets.



Accessories

Locknut GM-FS (metric, PG, NPT)





Material	Polyamide, fiber reinforced / Polyamide V0 according to UL94
Temperature range	-40°C to +100°C
Colour	black / grey
RAL	9005 / 7035

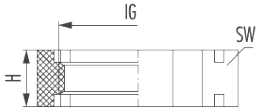
RoHS



IG	H mm	SW mm	Item-No black	Item-No grey
M12 x 1,5	5	17	1.262.1201.50	1.262.1200.50
M16 x 1,5	5	22	1.262.1601.50	1.262.1600.50
M20 x 1,5	6	27	1.262.2001.50	1.262.2000.50
M25 x 1,5	6,5	32	1.262.2501.50	1.262.2500.50
M32 x 1,5	7	41	1.262.3201.50	1.262.3200.50
M40 x 1,5	7	50	1.262.4001.50	1.262.4000.50
M50 x 1,5	8	60	1.262.5001.50	1.262.5000.50
M63 x 1,5	8	75	1.262.6301.50	1.262.6300.50
PG 7	5,8	19	1.262.0701.11	1.262.0700.11
PG 9	6,8	22	1.262.0901.11	1.262.0900.11
PG 11	6,8	24	1.262.1101.11	1.262.1100.11
PG 13,5	6	27	1.262.1301.11	1.262.1300.11
PG 16	6	30	1.262.1601.11	1.262.1600.11
PG 21	7	36	1.262.2101.11	1.262.2100.11
PG 29	7	46	1.262.2901.11	1.262.2900.11
PG 36	8	60	1.262.3601.11	1.262.3600.11
PG 42	8	65	1.262.4201.11	1.262.4200.11
PG 48	8	70	1.262.4801.11	1.262.4800.11
NPT 3/8"	6,8	24	1.262.3801.70	1.262.3800.70
NPT 1/2"	6,8	27	1.262.1201.70	1.262.1200.70
NPT 3/4"	6,75	32	1.262.3401.70	1.262.3400.70
NPT 1"	7,8	40	1.262.1001.70	1.262.1000.70

Locknut for breather drain GM-KS (metric)





Material	Polyamide
Temperature range	-40°C to +100°C
Colour	black / grey
RAL	9005 / 7035

IG	H mm	SW mm	Item-No black	Item-No grey
M25 x 1,5	9	30	1.263.2501.50	1.263.2500.50

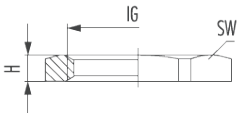
Accessories

Locknut GM-Ms (metric, PG)

Material	Nickel-plated brass

RoHS





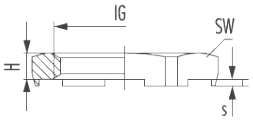
IG	H mm	SW mm	Item-No
M12 x 1,5	2,8	15	1.161.1200.50
M16 x 1,5	2,8	19	1.161.1600.50
M20 x 1,5	3	23	1.161.2000.50
M25 x 1,5	3,5	29	1.161.2500.50
M32 x 1,5	4	36	1.161.3200.50
M40 x 1,5	4,5	41	1.161.4000.50
M50 x 1,5	5,5	55	1.161.5000.50
M63 x 1,5	6	70	1.161.6300.50
M75 x 1,5	8	85	1.161.7500.50
M80 x 2	8	90	1.161.8000.50
M90 x 2	8	100	1.161.9000.50
PG 7	2,8	15	1.161.0700.01
PG 9	2,8	18	1.161.0900.01
PG 11	3	21	1.161.1100.01
PG 13,5	3	23	1.161.1300.01
PG 16	3	26	1.161.1600.01
PG 21	3,5	32	1.161.2100.01
PG 29	4	41	1.161.2900.01
PG 36	5	51	1.161.3600.01
PG 42	5	60	1.161.4200.01
PG 48	5,5	64	1.161.4800.01

Locknut GM-EMC (metric, PG)

Material	Nickel-plated brass

RoHS





IG	H mm	s mm	SW mm	Item-No
M12 x 1,5	2,8	0,7	15	1.167.1200.50
M16 x 1,5	2,8	0,7	19	1.167.1600.50
M20 x 1,5	3	0,7	24	1.167.2000.50
M25 x 1,5	3,5	0,7	30	1.167.2500.50
M32 x 1,5	4,5	0,7	36	1.167.3200.50
M40 x 1,5	5	0,7	46	1.167.4000.50
M50 x 1,5	5	0,7	60	1.167.5000.50
M63 x 1,5	6	0,7	70	1.167.6300.50
PG 7	2,8	0,7	15	1.167.0700.01
PG 9	2,8	0,7	18	1.167.0900.01
PG 11	3	0,7	21	1.167.1100.01
PG 13,5	3	0,7	23	1.167.1300.01
PG 16	3	0,7	26	1.167.1600.01
PG 21	3,5	0,7	32	1.167.2100.01
PG 29	4	0,7	41	1.167.2900.01
PG 36	5	0,7	51	1.167.3600.01
PG 42	5	0,7	60	1.167.4200.01
PG 48	5,5	0,7	64	1.167.4800.01

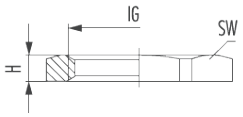
Accessories

Locknut GM-INOX (metric, PG)

Material	INOX 1.4305

RoHS

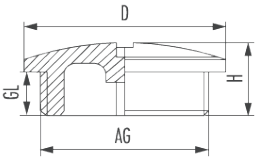




IG	H mm	SW mm	Item-No
M12 x 1,5	2,8	15	1.161.1200.58
M16 x 1,5	2,8	19	1.161.1600.58
M20 x 1,5	2,8	24	1.161.2000.58
M25 x 1,5	3,5	30	1.161.2500.58
M32 x 1,5	3,5	36	1.161.3200.58
M40 x 1,5	5	46	1.161.4000.58
M50 x 1,5	5	55	1.161.5000.58
M63 x 1,5	6	70	1.161.6300.58
PG 7	2,8	17	1.161.0700.08
PG 9	2,8	22	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

Plug V-N-FS (metric, PG)





Material	Polyamide
Protection class	IP 54
Temperature range	-40°C to +100°C
Colour	black / grey
RAL	9005 / 7035

RoHS

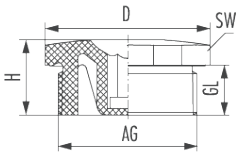


AG	D mm	GL mm	H mm	Item-No black	Item-No grey
M12 x 1,5	15	6	10	1.251.1201.50	1.251.1200.50
M16 x 1,5	20	7	11	1.251.1601.50	1.251.1600.50
M20 x 1,5	25	6	9,5	1.251.2001.50	1.251.2000.50
M25 x 1,5	30	11	15,5	1.251.2501.50	1.251.2500.50
M32 x 1,5	38	11	16	1.251.3201.50	1.251.3200.50
M40 x 1,5	46	13	18	1.251.4001.50	1.251.4000.50
M50 x 1,5	56	13	18,5	1.251.5001.50	1.251.5000.50
M63 x 1,5	69	15	19	1.251.6301.50	1.251.6300.50
PG 7	15	6	8	1.251.0701.11	1.251.0700.11
PG 9	19	6	9	1.251.0901.11	1.251.0900.11
PG 11	22	6	9	1.251.1101.11	1.251.1100.11
PG 13,5	25	6	9,5	1.251.1301.11	1.251.1300.11
PG 16	27	6	9,5	1.251.1601.11	1.251.1600.11
PG 21	33	8	11	1.251.2101.11	1.251.2100.11
PG 29	44	8	12	1.251.2901.11	1.251.2900.11
PG 36	55	10	15	1.251.3601.11	1.251.3600.11
PG 42	62	10	16	1.251.4201.11	1.251.4200.11
PG 48	69	12	16	1.251.4801.11	1.251.4800.11

Accessories

Plug V-NE (metric, PG)





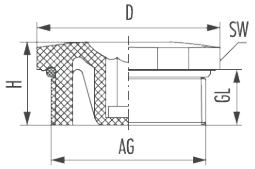
Material	Polyamide, fiber reinforced
Protection class	IP 54
Temperature range	-20°C to +80°C
Colour	black
RAL	9005

RoHS

AG	D mm	GL mm	H mm	SW mm	⌀	Item-No
M12 x 1,5	16,5	8,5	13	15	6	1.255.1201.50
M16 x 1,5	20,5	8,5	13	19	8	1.255.1601.50
M20 x 1,5	25,5	9	14,5	24	8	1.255.2001.50
M25 x 1,5	30,5	10,5	16	28	8	1.255.2501.50
M32 x 1,5	38	11,5	17,5	36	8	1.255.3201.50
M40 x 1,5	48	11,5	18	46	8	1.255.4001.50
M50 x 1,5	60	13,5	20	55	8	1.255.5001.50
M63 x 1,5	75	14,5	21	70	8	1.255.6301.50
PG 7	16,5	8,5	13	15	6	1.255.0701.11
PG 9	20,5	8,5	13	19	8	1.255.0901.11
PG 11	25,5	9	14,5	24	8	1.255.1101.11
PG 13,5	25,5	9	14,5	24	8	1.255.1301.11
PG 16	30,5	10,5	16	28	8	1.255.1601.11
PG 21	38	11,5	17,5	36	8	1.255.2101.11
PG 29	48	11,5	18	46	8	1.255.2901.11
PG 36	60	13,5	20	55	8	1.255.3601.11
PG 42	65	13,5	20	60	8	1.255.4201.11
PG 48	75	14,5	21	70	8	1.255.4801.11

Plug V-NE-SD (metric, PG)





Material	Polyamide, fiber reinforced
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Temperature range	-20°C to +80°C
Colour	black
RAL	9005

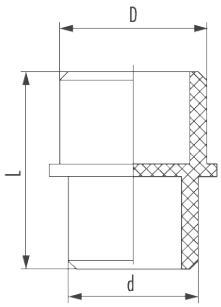
RoHS

AG	D mm	GL mm	H mm	SW mm	⬡	Item-No
M12 x 1,5	16,5	8,5	13	15	6	1.256.1201.50
M16 x 1,5	20,5	8,5	13	19	8	1.256.1601.50
M20 x 1,5	25,5	9	14,5	24	8	1.256.2001.50
M25 x 1,5	30,5	10,5	16	28	8	1.256.2501.50
M32 x 1,5	38	11,5	17,5	36	8	1.256.3201.50
M40 x 1,5	48	11,5	18	46	8	1.256.4001.50
M50 x 1,5	60	13,5	20	55	8	1.256.5001.50
M63 x 1,5	75	14,5	21	70	8	1.256.6301.50
PG 7	16,5	8,5	13	15	6	1.256.0701.11
PG 9	20,5	8,5	13	19	8	1.256.0901.11
PG 11	25,5	9	14,5	24	8	1.256.1101.11
PG 13,5	25,5	9	14,5	24	8	1.256.1301.11
PG 16	30,5	10,5	16	28	8	1.256.1601.11
PG 21	38	11,5	17,5	36	8	1.256.2101.11
PG 29	48	11,5	18	46	8	1.256.2901.11
PG 36	60	13,5	20	55	8	1.256.3601.11
PG 42	65	13,5	20	60	8	1.256.4201.11
PG 48	75	14,5	21	70	8	1.256.4801.11

Accessories

Plug HSK-V





Material	Polyamide
Temperature range	-40°C to +100°C
Colour	black
RAL	9005

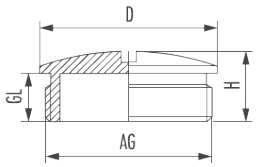
RoHS

// Dome plugs for cable glands

Suitable for AG	Suitable for AG2	Suitable for AG3	d mm	D mm	L mm	Item-No
PG 7	M12 x 1,5		4,5	6	15	1.280.0007.00
PG 9	M16 x 1,5	NPT 3/8"	5,5	7,5	17	1.280.0009.00
PG 11	M16 x 1,5 / 11		6,5	9,5	19	1.280.0011.00
PG 13,5	M20 x 1,5	NPT 1/2"	8,5	11,5	19	1.280.0013.00
PG 16	M20 x 1,5 / 16	NPT 1/2" / 16	11,5	13,5	19,5	1.280.0016.00
PG 21	M25 x 1,5	NPT 3/4"	15,5	17,5	23,5	1.280.0021.00
PG 29	M32 x 1,5	NPT 1" / NPT 1 1/4"	19	24	26	1.280.0029.00
PG 36	M40 x 1,5	NPT 1 1/2"	25	31	28	1.280.0036.00
PG 42	M50 x 1,5		30	37	28	1.280.0042.00
PG 48	M63 x 1,5		34	43	28	1.280.0048.00

Plug V-N-Ms (metric)





Material	Nickel-plated brass
Protection class	IP 54

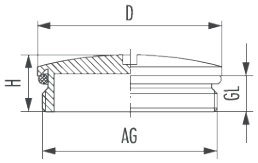
RoHS

AG	D mm	GL mm	H mm	Item-No
M12 x 1,5	14	5	7,5	1.052.1200.50
M16 x 1,5	18	5	8	1.052.1600.50
M20 x 1,5	22	6,5	9,5	1.052.2000.50
M25 x 1,5	28	7	11	1.052.2500.50
M32 x 1,5	35	8	12	1.052.3200.50
M40 x 1,5	45	8,5	13	1.052.4000.50
M50 x 1,5	54	9	15	1.052.5000.50
M63 x 1,5	67	10	16	1.052.6300.50

Accessories

Plug V-N-Ms-SD (metric, PG)





Material	Nickel-plated brass
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Temperature range	-40°C to +80°C

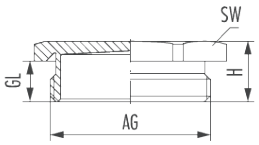
RoHS

// Other O-Ring materials on request

AG	D mm	GL mm	H mm	Item-No
M12 x 1,5	14	6,5	9,5	1.052.1201.50
M16 x 1,5	20	6	9	1.052.1601.50
M20 x 1,5	24	6,5	9,5	1.052.2001.50
M25 x 1,5	28	7	11	1.052.2501.50
M32 x 1,5	35	8	12,5	1.052.3201.50
M40 x 1,5	45	8	12	1.052.4001.50
M50 x 1,5	55	9	15	1.052.5001.50
M63 x 1,5	68	10	16	1.052.6301.50
PG 7	14	4,8	8	1.052.0701.01
PG 9	17	5,5	9	1.052.0901.01
PG 11	20	5,5	9	1.052.1101.01
PG 13,5	22	6	9,5	1.052.1301.01
PG 16	24	6	9,5	1.052.1601.01
PG 21	30	6,5	11	1.052.2101.01
PG 29	39	7,5	12	1.052.2901.01
PG 36	50	9	15	1.052.3601.01
PG 42	57	10	16	1.052.4201.01
PG 48	64	10	16	1.052.4801.01

Plug V-NE-Ms (metric, PG)





Material	Nickel-plated brass
Protection class	IP 54

RoHS

// Without o-ring
// NPT thread on request
// Elongated threads on request

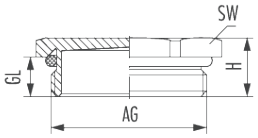
AG	GL mm	H mm	SW mm	Item-No
M12 x 1,5	6,5	9,5	14	1.155.1200.50
M16 x 1,5	6	9	19	1.155.1600.50
M20 x 1,5	6	9,5	22	1.155.2000.50
M25 x 1,5	7	10,5	30	1.155.2500.50
M32 x 1,5	8	12,5	41	1.155.3200.50
M40 x 1,5	8	13	46	1.155.4000.50
M50 x 1,5	9	15	55	1.155.5000.50
M63 x 1,5	10	16,5	70	1.155.6300.50
PG 9	6	9	17	1.155.0900.01
PG 11	6	9,5	20	1.155.1100.01
PG 13,5	6,5	10	22	1.155.1300.01
PG 16	6,5	10	24	1.155.1600.01
PG 21	7	10,5	30	1.155.2100.01
PG 29	8	12,5	41	1.155.2900.01

Accessories

Plug V-NE-Ms-SD (metric, PG)







Material	Nickel-plated brass
Material o-ring	NBR / FKM
Protection class	IP 69 K / IP68 - 10bar/30min
Temperature range	-20°C to +180°C / -20°C to +95°C

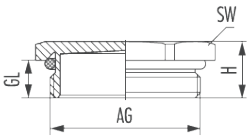
RoHS

// NPT thread on request
// Elongated threads on request
// Other O-Ring materials on request

AG	GL mm	H mm	SW mm	Item-No NBR -20°C to +95°C	Item-No FKM -20°C to +180°C
M12 x 1,5	6,5	9,5	14	1.156.1200.50	1.157.1200.50
M16 x 1,5	6	9	19	1.156.1600.50	1.157.1600.50
M20 x 1,5	6	9,5	22	1.156.2000.50	1.157.2000.50
M25 x 1,5	7	10,5	30	1.156.2500.50	1.157.2500.50
M32 x 1,5	8	12,5	41	1.156.3200.50	1.157.3200.50
M40 x 1,5	8	13	46	1.156.4000.50	1.157.4000.50
M50 x 1,5	9	15	55	1.156.5000.50	1.157.5000.50
M63 x 1,5	10	16,5	70	1.156.6300.50	1.157.6300.50
PG 7	5	8	14	1.156.0700.01	
PG 9	6	9	17	1.156.0900.01	
PG 11	6	9,5	20	1.156.1100.01	
PG 13,5	6,5	10	22	1.156.1300.01	
PG 16	6,5	10	24	1.156.1600.01	
PG 21	7	10,5	30	1.156.2100.01	
PG 29	8	12,5	41	1.156.2900.01	
PG 36	8	13	50	1.156.3600.01	
PG 42	9	15	58	1.156.4200.01	
PG 48	10	16,5	65	1.156.4800.01	

Plug V-INOX metric (metric, PG)









Material	INOX 1.4305
Material o-ring	VMQ (silicone) / FKM / NBR
Protection class	IP 69 K / IP 68 – 10 bar / IP68 - 10bar/30min
Temperature range	-20°C to +95°C / -60°C to +180°C / -20°C to +180°C

RoHS

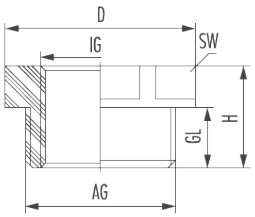
// Elongated threads on request
// Other sizes on request

AG	GL mm	H mm	SW mm	Item-No NBR -20°C to +95°C	Item-No FKM -20°C to +180°C	Item-No VMQ (silicone) -60°C to +180°C
M12 x 1,5	6,5	9,5	14	1.152.1200.50	1.153.1200.50	1.154.1200.50
M16 x 1,5	6	9	19	1.152.1600.50	1.153.1600.50	1.154.1600.50
M20 x 1,5	6	9,5	22	1.152.2000.50	1.153.2000.50	1.154.2000.50
M25 x 1,5	7	10,5	30	1.152.2500.50	1.153.2500.50	1.154.2500.50
M32 x 1,5	8	12,5	41	1.152.3200.50	1.153.3200.50	1.154.3200.50
M40 x 1,5	8	13	46	1.152.4000.50	1.153.4000.50	1.154.4000.50
PG 7	5	8	14	1.152.0700.01		
PG 9	6	9	17	1.152.0900.01		
PG 11	6	9,5	20	1.152.1100.01		
PG 13,5	6,5	10	22	1.152.1300.01		
PG 16	6,5	10	24	1.152.1600.01		
PG 21	7	10,5	30	1.152.2100.01		
PG 29	8	12,5	41	1.152.2900.01		
PG 36	8	13	50	1.152.3600.01		

Accessories

Adapter R-FS type A (metric)





Material	Polyamide
Temperature range	-40°C to +80°C
Colour	grey
RAL	7035

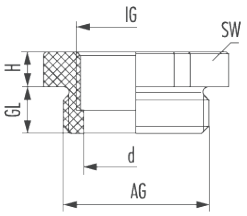
RoHS

// For further sizes see type B or C

AG	IG	Type	D mm	GL mm	H mm	SW mm	Item-No
M16 x 1,5	M12 x 1,5	A	24	9	16	22	1.272.1612.50
M20 x 1,5	M16 x 1,5	A	27	9	16	24	1.272.2016.50
M25 x 1,5	M20 x 1,5	A	32	10	17	29	1.272.2520.50
M32 x 1,5	M25 x 1,5	A	40	12	19	36	1.272.3225.50
M40 x 1,5	M32 x 1,5	A	51	12	19	46	1.272.4032.50
M50 x 1,5	M40 x 1,5	A	61	14	21	55	1.272.5040.50
M63 x 1,5	M50 x 1,5	A	75	15	22	65	1.272.6350.50

Reducer R-M-PA Type B (metric)





Material	Polyamide
Temperature range	-20°C to +80°C
Colour	black
RAL	9005

RoHS

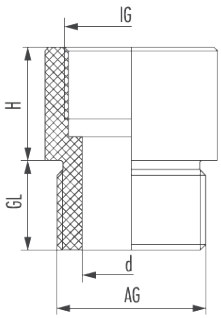
// For further sizes see type A or C

AG	IG	Type	d mm	GL mm	H mm	SW mm	Item-No
M16 x 1,5	M12 x 1,5	B	10	8	6	20	1.273.1612.50
M20 x 1,5	M16 x 1,5	B	13,5	8	6	25	1.273.2016.50
M25 x 1,5	M20 x 1,5	B	18	8	6	29	1.273.2520.50
M32 x 1,5	M25 x 1,5	B	23	10	6	36	1.273.3225.50

Accessories

Adapter R-M-PA type C (metric, PG)





Material	Polypropylene
Temperature range	-20°C to +80°C
Colour	black
RAL	9005

RoHS

// For further sizes see type A or B

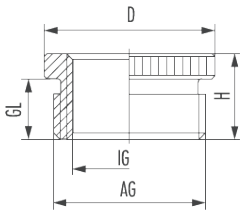
AG	IG	Type	d mm	GL mm	H mm	Item-No
M40 x 1,5	M32 x 1,5	C	30	15	5	1.273.4032.50
M50 x 1,5	M40 x 1,5	C	38	15	5	1.273.5040.50
M63 x 1,5	M50 x 1,5	C	48	15	5	1.273.6350.50
PG 11	M16 x 1,5	C	11,5	15	19	1.273.1116.11
PG 21	M25 x 1,5	C	20,5	15	19	1.273.2125.11
PG 29	M32 x 1,5	C	28	15	19	1.273.2932.11
PG 36	M40 x 1,5	C	38	15	5	1.273.3640.11
PG 42	M40 x 1,5	C	38	15	5	1.273.4240.11

Adapter R-H (metric, PG)

Material	Nickel-plated brass

RoHS



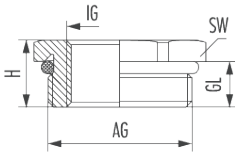


AG	IG	D mm	GL mm	H mm	Item-No
M16 x 1,5	M12 x 1,5	20	6	8,5	1.076.1612.50
M20 x 1,5	M12 x 1,5	24	6,5	9	1.076.2012.50
M20 x 1,5	M16 x 1,5	24	6,5	9	1.076.2016.50
M25 x 1,5	M16 x 1,5	30	7	10	1.076.2516.50
M25 x 1,5	M20 x 1,5	30	7	10	1.076.2520.50
M32 x 1,5	M20 x 1,5	37	8	11,5	1.076.3220.50
M32 x 1,5	M25 x 1,5	37	8	11,5	1.076.3225.50
M40 x 1,5	M25 x 1,5	43	8	11,5	1.076.4025.50
M40 x 1,5	M32 x 1,5	43	9	12,5	1.076.4032.50
M50 x 1,5	M32 x 1,5	56	10	14	1.076.5032.50
M50 x 1,5	M40 x 1,5	56	10	14	1.076.5040.50
M63 x 1,5	M40 x 1,5	66	10	14	1.076.6340.50
M63 x 1,5	M50 x 1,5	66	10	14	1.076.6350.50
PG 9	PG 7	17	6	8,5	1.071.0907.01
PG 11	PG 9	20	6	8,5	1.071.1109.01
PG 13,5	PG 11	22	6,5	9	1.071.1311.01
PG 16	PG 9	24	6,5	9,5	1.071.1609.01
PG 16	PG 11	24	6,5	9,5	1.071.1611.01
PG 16	PG 13,5	24	6,5	9,5	1.071.1613.01
PG 21	PG 16	30	7	10	1.071.2116.01
PG 29	PG 21	39	8	11,5	1.071.2921.01
PG 36	PG 29	50	9	12,5	1.071.3629.01
PG 42	PG 36	57	10	14	1.071.4236.01
PG 48	PG 36	64	10	14	1.071.4836.01
PG 48	PG 42	64	10	14	1.071.4842.01

Accessories

Adapter RSD-Ms (metric, PG)





Material	Nickel-plated brass
Material o-ring	NBR
Temperature range	-40°C to +100°C

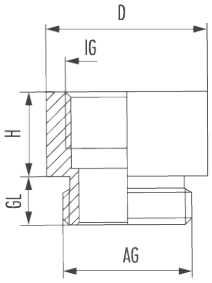
RoHS

// O-ring made of FKM / VMQ on request

AG	IG	GL mm	H mm	SW mm	Item-No
M16 x 1,5	M12 x 1,5	6	8,5	18	1.077.1612.50
M20 x 1,5	M12 x 1,5	6	9	22	1.077.2012.50
M20 x 1,5	M16 x 1,5	6	9	22	1.077.2016.50
M25 x 1,5	M16 x 1,5	7	10	27	1.077.2516.50
M25 x 1,5	M20 x 1,5	7	10	27	1.077.2520.50
M32 x 1,5	M16 x 1,5	8	11	34	1.077.3216.50
M32 x 1,5	M20 x 1,5	8	11,5	35	1.077.3220.50
M32 x 1,5	M25 x 1,5	8	11	34	1.077.3225.50
M40 x 1,5	M20 x 1,5	8	12	43	1.077.4020.50
M40 x 1,5	M25 x 1,5	9	13,5	43	1.077.4025.50
M40 x 1,5	M32 x 1,5	9	13,5	43	1.077.4032.50
M50 x 1,5	M25 x 1,5	9	13	55	1.077.5025.50
M50 x 1,5	M32 x 1,5	10	14	54	1.077.5032.50
M50 x 1,5	M40 x 1,5	9	13	55	1.077.5040.50
M63 x 1,5	M32 x 1,5	10	14	65	1.077.6332.50
M63 x 1,5	M40 x 1,5	10	14	65	1.077.6340.50
M63 x 1,5	M50 x 1,5	10	14	68	1.077.6350.50
PG 9	PG 7	6	8,8	17	1.077.0907.01
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 13,5	7	10,3	30	1.077.2113.01
PG 21	PG 16	7	10,3	30	1.077.2116.01
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

Adapter RE-Ms (metric, PG)





Material	Nickel-plated brass

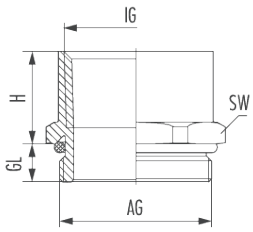
RoHS

AG	IG	D mm	GL mm	H mm	Item-No
M16 x 1,5	PG 9	20	6	10,5	1.039.1609.01
M20 x 1,5	PG 16	24	6,5	12,5	1.039.2016.01
M25 x 1,5	PG 16	28	6,5	12,5	1.039.2516.01
M25 x 1,5	PG 21	30	6,5	14,5	1.039.2521.01
M32 x 1,5	PG 29	39	7	16	1.039.3229.01
PG 9	M16 x 1,5	20	6	10,5	1.039.0916.01
PG 11	M20 x 1,5	22	6,5	12,5	1.039.1120.01
PG 13,5	M20 x 1,5	22	6,5	12,5	1.039.1320.01
PG 16	M25 x 1,5	27	6,5	14,5	1.039.1625.01

Accessories

Adapter RE-Ms (metric, PG, NPT)





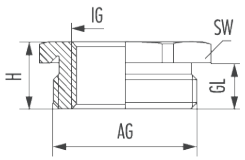
Material	Nickel-plated brass
Material o-ring	NBR
Temperature range	-40°C to +100°C

RoHS

AG	IG	GL mm	H mm	SW mm	Item-No
M16 x 1,5	NPT 1/2"	6	17	24	1.171.1612.50
M20 x 1,5	NPT 1/2"	6	17	24	1.171.2012.50
M25 x 1,5	NPT 1/2"	7	8	30	1.171.2512.50
M25 x 1,5	NPT 3/4"	7	19	30	1.171.2534.50
M32 x 1,5	NPT 1"	8	25	40	1.171.3210.50
M32 x 1,5	NPT 1 1/4"	8	25	46	1.171.3254.50
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 RS-INOX (metric, PG)





Material	INOX 1.4305
Temperature range	-20°C to +95°C

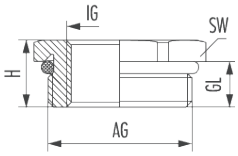
RoHS

AG	IG	GL mm	H mm	SW mm	Item-No
M16 x 1,5	M12 x 1,5	6	9	19	1.094.1612.50
M20 x 1,5	M12 x 1,5	6	9,5	22	1.094.2012.50
M20 x 1,5	M16 x 1,5	6	9,5	22	1.094.2016.50
M25 x 1,5	M16 x 1,5	7	10,5	30	1.094.2516.50
M25 x 1,5	M20 x 1,5	7	10,5	30	1.094.2520.50
M32 x 1,5	M20 x 1,5	8	12,5	41	1.094.3220.50
M32 x 1,5	M25 x 1,5	8	12,5	41	1.094.3225.50
M40 x 1,5	M32 x 1,5	8	13	46	1.094.4032.50
M50 x 1,5	M40 x 1,5	9	15	55	1.094.5040.50
M63 x 1,5	M50 x 1,5	10	16,5	65	1.094.6350.50

Accessories

Adapter RSD-INOX (metric, PG)





Material	INOX 1.4305
Material o-ring	NBR
Protection class	IP68 - 10bar/30min / IP 69 K
Temperature range	-20°C to +95°C

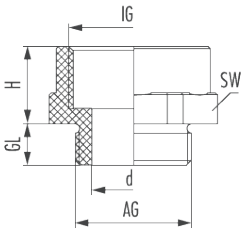
RoHS

// Other O-Ring materials on request

AG	IG	GL mm	H mm	SW mm	Item-No
M16 x 1,5	M12 x 1,5	6	9	19	1.097.1612.50
M20 x 1,5	M12 x 1,5	6	9,5	22	1.097.2012.50
M20 x 1,5	M16 x 1,5	6	9,5	22	1.097.2016.50
M25 x 1,5	M16 x 1,5	7	10,5	30	1.097.2516.50
M25 x 1,5	M20 x 1,5	7	10,5	30	1.097.2520.50
M32 x 1,5	M20 x 1,5	8	12,5	41	1.097.3220.50
M32 x 1,5	M25 x 1,5	8	12,5	41	1.097.3225.50
M40 x 1,5	M32 x 1,5	8	13	46	1.097.4032.50
M50 x 1,5	M25 x 1,5	9	15	55	1.097.5025.50
M50 x 1,5	M40 x 1,5	9	15	55	1.097.5040.50
M63 x 1,5	M50 x 1,5	10	16,5	65	1.097.6350.50

Adapter E-M-PA type A (metric, PG)





Material	Polyamide
Temperature range	-20°C to +80°C
Colour	black
RAL	9005

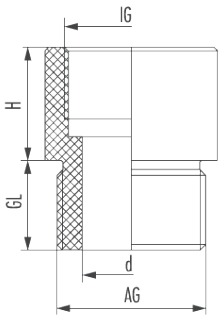
RoHS

// For further sizes see type C

AG	IG	Type	d mm	GL mm	H mm	SW mm	Item-No
M12 x 1,5	M16 x 1,5	A	6,5	8	12	21	1.239.1216.50
M16 x 1,5	M20 x 1,5	A	9	8	13	25	1.239.1620.50
M20 x 1,5	M25 x 1,5	A	14	8	15	30	1.239.2025.50
PG 9	M16 x 1,5	A	9	8	12	21	1.239.0916.11
PG 13,5	M20 x 1,5	A	14	8	13	25	1.239.1320.11
PG 16	M25 x 1,5	A	16	8	15	30	1.239.1625.11
PG 21	M32 x 1,5	A	21	8	15	37	1.239.2132.11
PG 29	M40 x 1,5	A	30	10	17	45	1.239.2940.11

Adapter E-M-PA type C (metric)





Material	Polypropylene
Temperature range	-20°C to +80°C
Colour	black
RAL	9005

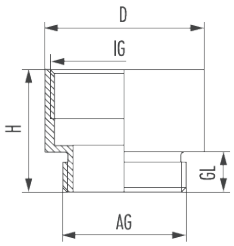
RoHS

// For further sizes see type A

AG	IG	Type	d mm	GL mm	H mm	Item-No
M25 x 1,5	M32 x 1,5	C	16,5	15	15	1.239.2532.50
M32 x 1,5	M40 x 1,5	C	23	15	19,5	1.239.3240.50
M40 x 1,5	M50 x 1,5	C	30	15	19,5	1.239.4050.50
M50 x 1,5	M63 x 1,5	C	39	15	20	1.239.5063.50

Adapter E-Ms (metric, PG)





Material	Nickel-plated brass

RoHS

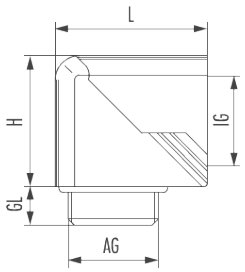
AG	IG	D mm	GL mm	H mm	Item-No
M12 x 1,5	M16 x 1,5	18	5	15	1.033.1216.50
M16 x 1,5	M20 x 1,5	22	6	17,5	1.033.1620.50
M20 x 1,5	M25 x 1,5	27	6,5	19	1.033.2025.50
M25 x 1,5	M32 x 1,5	34	6,5	21	1.033.2532.50
M32 x 1,5	M40 x 1,5	42	7	23	1.033.3240.50
M40 x 1,5	M50 x 1,5	53	9	31	1.033.4050.50
M50 x 1,5	M63 x 1,5	66	9	31	1.033.5063.50
PG 7	PG 9	17	5	15	1.033.0709.01
PG 9	PG 11	20	6	16,5	1.033.0911.01
PG 9	PG 13,5	22	6	17,5	1.033.0913.01
PG 11	PG 13,5	22	6	17,5	1.033.1113.01
PG 11	PG 16	24	6	18,5	1.033.1116.01
PG 13,5	PG 16	24	6,5	19	1.033.1316.01
PG 16	PG 21	30	6,5	21	1.033.1621.01
PG 21	PG 29	39	7	23	1.033.2129.01
PG 29	PG 36	50	8	27,5	1.033.2936.01
PG 36	PG 42	57	9	31	1.033.3642.01
PG 42	PG 48	64	10	33	1.033.4248.01

Accessories

Rightangle snap elbow (metric)







Material	Polyamide
Material o-ring	NBR
Protection class	IP 68
Temperature range	-20°C to +80°C
Colour	black / grey
RAL	9005 / 7035

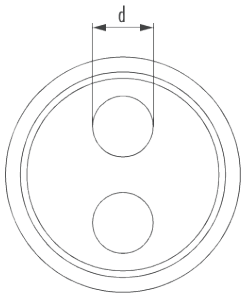
RoHS

// Other sizes on request

AG	IG	GL mm	H mm	L mm	Item-No black	Item-No grey
M16 x 1,5	M16 x 1,5	8	23	28,5	1.316.1601.50	1.316.1600.50
M20 x 1,5	M20 x 1,5	9	30,5	35	1.316.2001.50	1.316.2000.50
M25 x 1,5	M25 x 1,5	11	40	49	1.316.2501.50	1.316.2500.50

Multiple cable insertion HSK-ME





Material	Elastomer
Temperature range	-40°C to +100°C

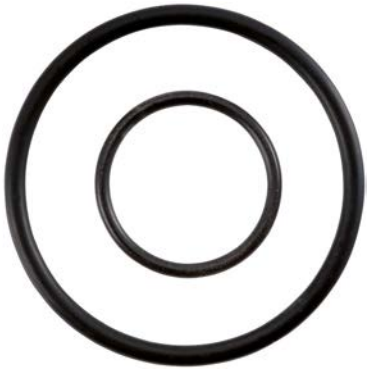
RoHS

// Further seal inserts on request
// The inserts are exclusively capable for the glands of the HSK series
// *Slotted variant for inserting pre-assembled cables and lines

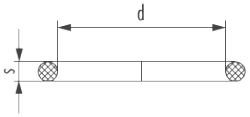
Suitable for AG	Suitable for AG2	Suitable for AG3	Number of holes x d	Item-No	Number of holes x d	Item-No	Number of holes x d	Item-No
PG 7	M12 x 1,5		1 x 1,5*	1.089.0712.19	-	1.089.0799.19		
PG 9 / KR PG 11	M16 x 1,5	NPT 3/8"	2 x 3	1.089.0901.19	4 x 2,3	1.089.0908.19	6 x 1,4	1.089.0905.19
PG 9 / KR PG 11	M16 x 1,5	NPT 3/8"	-	1.089.0999.19	2 x 1,7	1.089.0903.19	3 x 1,7	1.089.0906.19
PG 11 / KR PG 13,5	M16 x 1,5 / 11		2 x 4	1.089.1102.19	3 x 3	1.089.1101.19		
PG 13,5 / KE PG 11 / KR PG 16	M20 x 1,5	NPT 1/2"	1 x 5*	1.089.1312.19	1 x 4,6	1.089.1310.19	2 x 5,2	1.089.1305.19
PG 13,5 / KE PG 11 / KR PG 16	M20 x 1,5	NPT 1/2"	2 x 2,5	1.089.1308.19	2 x 5	1.089.1303.19		
PG 16 / KE PG 13,5 / KR PG 21	M20 x 1,5 / 16	NPT 1/2" / 16	2 x 6	1.089.1605.19	-	1.089.1699.19	2 x 4,5	1.089.1614.19
PG 16 / KE PG 13,5 / KR PG 21	M20 x 1,5 / 16	NPT 1/2" / 16	3 x 5,6	1.089.1606.19	3 x 4	1.089.1601.19	4 x 4	1.089.1602.19
PG 16 / KE PG 13,5 / KR PG 21	M20 x 1,5 / 16	NPT 1/2" / 16	6 x 4	1.089.1604.19				
PG 21 / KE PG 16	M25 x 1,5	NPT 3/4"	1 x 5,8*	1.089.2113.19	1 x 8	1.089.2104.19	-	1.089.2199.19
PG 21 / KE PG 16	M25 x 1,5	NPT 3/4"	1 x 7*	1.089.2117.19	2 x 8	1.089.2102.19	2 x 7,4	1.089.2108.19
PG 21 / KE PG 16	M25 x 1,5	NPT 3/4"	4 x 5	1.089.2103.19	4 x 6	1.089.2100.19		
PG 29	M32 x 1,5	NPT 1 1/4"	2 x 11	1.089.2908.19	6 x 6,5	1.089.2900.19	-	1.089.2999.19
PG 29	M32 x 1,5	NPT 1 1/4"	4 x 9	1.089.2901.19	4 x 9,5	1.089.2902.19		
PG 36	M40 x 1,5	NPT 1 1/2"	2 x 15	1.089.3603.19	7 x 9	1.089.3601.19	-	1.089.3699.19
PG 36	M40 x 1,5	NPT 1 1/2"	6 x 8	1.089.3602.19	10 x 5	1.089.3621.19		
PG 48	M63 x 1,5		-	1.089.4899.19				

Accessories

O-Rings







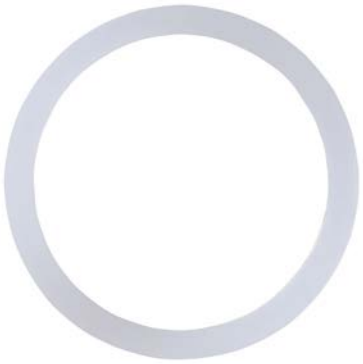
Material	VMQ (silicone) / FKM / NBR
Temperature range	-40°C to +100°C / -20°C to +200°C / -60°C to +200°C

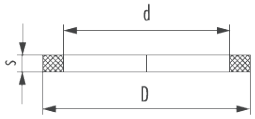
// Temperature limit

RoHS

Suitable for AG	d mm	s mm	Item-No NBR	Item-No FKM	Item-No VMQ (silicone)
M12 x 1,5 / PG 7	10	1,5	1.321.1200.57	1.321.1200.58	1.321.1200.59
M16 x 1,5 / PG 9	12	1,5	1.321.1600.57	1.321.1600.58	1.321.1600.59
M20 x 1,5 / PG 13,5	17	1,8	1.321.2000.57	1.321.2000.58	1.321.2000.59
M25 x 1,5	22	2	1.321.2500.57	1.321.2500.58	1.321.2500.59
M32 x 1,5	29	2	1.321.3200.57	1.321.3200.58	1.321.3200.59
M40 x 1,5	35	2	1.321.4000.57	1.321.4000.58	1.321.4000.59
M50 x 1,5 / PG 36	43	2	1.321.5000.57	1.321.5000.58	1.321.5000.59
M63 x 1,5 / PG 48	55	2	1.321.6300.57	1.321.6300.58	1.321.6300.59
PG 11	16	1,5	1.321.1100.17	1.321.1100.21	1.321.1100.22
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 42	50	2	1.321.4200.17	1.321.4200.21	1.321.4200.22
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"	25	2			1.321.3400.79
NPT 3/4"	25	2,5	1.321.3400.77	1.321.3400.78	
NPT 1"	29	2			1.321.1000.79
NPT 1"	30	2,5	1.321.1000.77	1.321.1000.78	
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 made of polyethylene





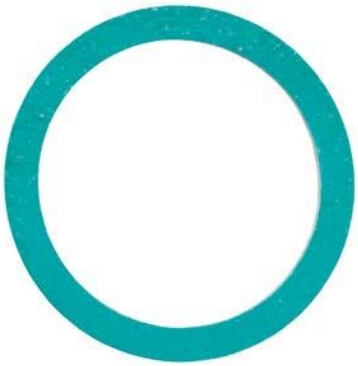
Material	Polyethylene
Temperature range	-30°C to +70°C

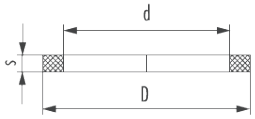
RoHS

Suitable for AG	d mm	D mm	s mm	Item-No
M12 x 1,5	12	16	2	1.325.1200.59
M16 x 1,5	16	20	2	1.325.1600.59
M20 x 1,5	20	24	2	1.325.2000.59
M25 x 1,5	25	31	2	1.325.2500.59
M32 x 1,5	32	38	2	1.325.3200.59
M40 x 1,5	40	52,7	2	1.325.4000.59
M50 x 1,5	50	58	2	1.325.5000.59
M63 x 1,5	63	72	2	1.325.6300.59
PG 7	12,5	16,5	2	1.325.0700.19
PG 9	15,2	19	2	1.325.0900.19
PG 11	18,6	22,5	2	1.325.1100.19
PG 13,5	20,4	25	2	1.325.1300.19
PG 16	22,5	27	2	1.325.1600.19
PG 21	28,3	33,5	2	1.325.2100.19
PG 29	37	43,5	2	1.325.2900.19
PG 36	47	55	2	1.325.3600.19
PG 42	54	63	2	1.325.4200.19

Accessories

Thread seal ring made of fibre composite material





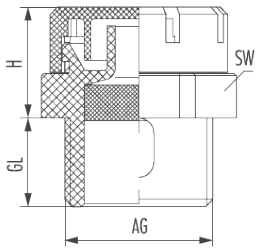
Material	Fiber composite
Temperature range	-50°C to +250°C

RoHS

Suitable for AG	d mm	D mm	s mm	Item-No
M12 x 1,5	12	16	2	1.325.1200.50
M16 x 1,5	16	20	2	1.325.1600.50
M20 x 1,5	20	25	2	1.325.2000.50
M25 x 1,5	25	31	2	1.325.2500.50
M32 x 1,5	32	38	2	1.325.3200.50
M40 x 1,5	40	48	2	1.325.4000.50
M50 x 1,5	50	58	2	1.325.5000.50
M63 x 1,5	63	72	2	1.325.6300.50
PG 7	12,5	16,5	1,5	1.325.0700.20
PG 9	15,2	19	1,5	1.325.0900.20
PG 11	18,6	22,5	1,5	1.325.1100.20
PG 13,5	20,4	25	1,5	1.325.1300.20
PG 16	22,5	27	1,5	1.325.1600.20
PG 21	28,3	33,5	2	1.325.2100.20
PG 29	37	43,5	2	1.325.2900.20
PG 48	59,3	69	2	1.325.4800.20

Breather drain KS (metric)





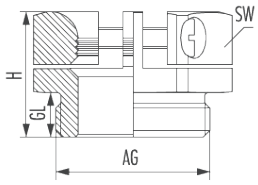
Material	Polyamide
Protection class	IP 54
Temperature range	-40°C to +100°C
Colour	black / grey
RAL	9005 / 7035

AG	GL mm	H mm	SW mm	Item-No black	Item-No grey
M25 x 1,5	15	21,5	30	1.213.2501.50	1.213.2500.50

Accessories

Compression clamp KLE (metric, PG)





Material	Nickel-plated brass

RoHS

// Other sizes on request

AG	⌀ mm	GL mm	H mm	SW mm	Item-No
M12 x 1,5	5 – 7,5	5,5	15	16	1.143.1200.50
M16 x 1,5	7 – 10	6	16	19	1.143.1600.50
M20 x 1,5	10 – 14	6,5	18	24	1.143.2000.50
M25 x 1,5	12 – 21,5	8	21	34	1.143.2500.50
M32 x 1,5	16 – 27	8	22	42	1.143.3200.50
M40 x 1,5	22 – 33	9,5	25,5	52	1.143.4000.50
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

Ex CABLE GLANDS

HUMMEL offers a wide range of cable glands for explosion protection areas. This includes cable glands for ignition protection types Ex d, Ex e and Ex t. For areas where “Increased Safety” (Ex e) is prescribed, HUMMEL offers plastic and metal cable glands, also with multi or flat cable inserts. Cable glands for ignition type Ex d meet the requirements for “Pressure-tight Encapsulation”. This prevents transfer of an explosion in the housing interior to the exterior.

// HSK-K-Ex-Active, the plastic cable gland for ex-areas
// Ex e metal cable glands with various inserts
// Ex d metal cable glands for pressure-tight encapsulation
// Ex t metal cable glands for dust explosion protection through encapsulation

HUMMEL has many years of experience in handling components for explosion-protection areas. This is why we have a sophisticated range of explosion area products in a range of materials and designs.



Polyamide cable glands for areas at risk of explosion

The cable gland made of specially formulated, fibreglass reinforced polyamide is designed for use on electrical equipment with protection types Ex e and Ex t. It has been developed in accordance with current international and national standards in accordance with the respective standards:

- ATEX / IECEx
- HazLoc according to cCSAus standard
- CCC certification for China

// Free of halogen
// Protection class IP 68 up to 10 bar / 30 min
// Union nut vibration protection
// Wear-resistant labelling
// Suitable for use in Class II Division 1; Class I Zone 1; Class II Zone 1

HSK-K-Ex-Active

Overlapping clamping plates guarantee high cable strain relief

The chambered moulded seal securely seals the cable off

The HUMMEL trapezoidal thread guarantees a stable transfer of force

A chambered O-ring reliably seals the cable gland off from the housing



Reliable explosion protection

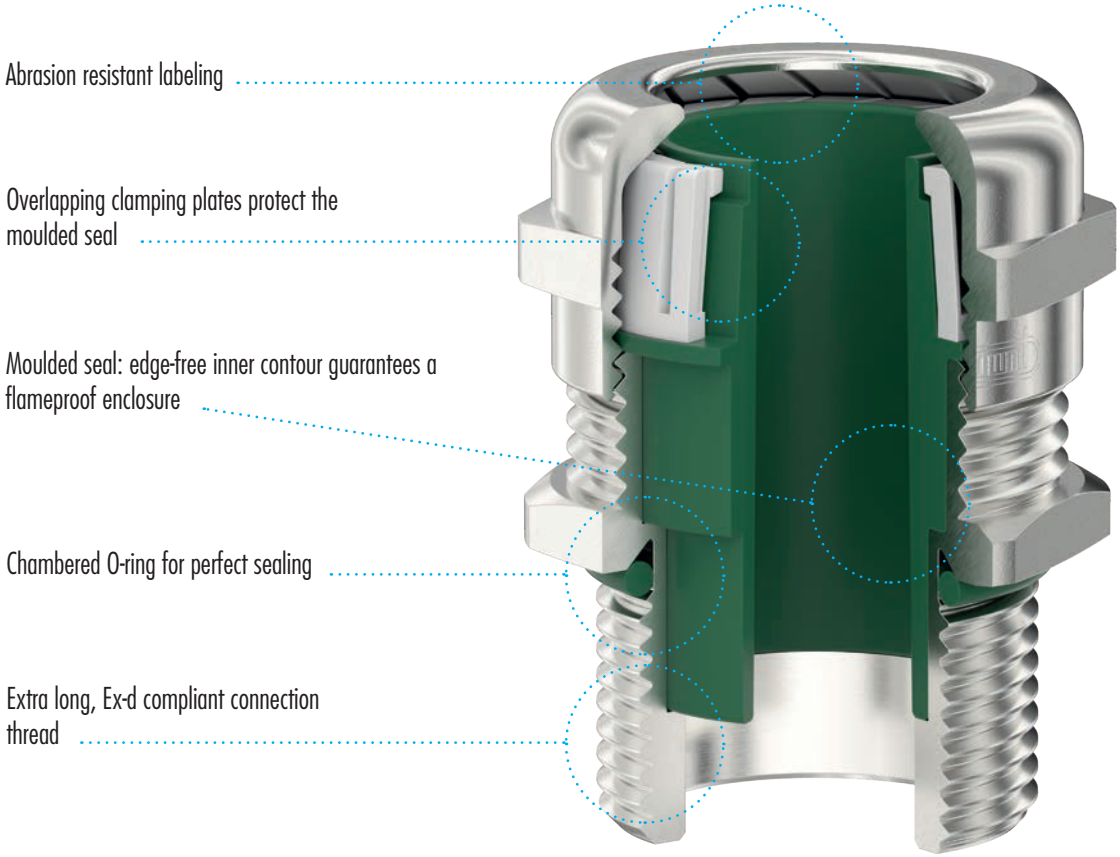
Not all forms of explosion protection are equal. There are different scenarios and areas of application which require different types of explosion protection. Ex cable glands from HUMMEL offer protection in a wide range of environments.

Ex e Increased safety: The cable gland prevents the occurrence of sparks and arcs inside or on external parts of electrical equipment, which do not occur during normal operation in according to DIN EN IEC 60079-7.

Ex d Flameproof enclosure: Parts which can ignite an explosive atmosphere are firmly set in an enclosure. The housing withstands the explosion pressure and prevents transmission to the outside according to DIN EN IEC 60079-1.

Ex t Equipment dust explosion protection by enclosure: The cable gland protects the enclosure in accordance with DIN EN IEC 60079-31.

HSK-M-Ex d

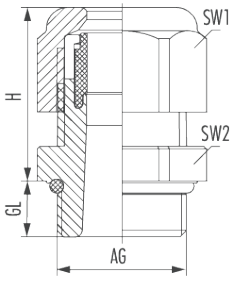


Ex cable glands

HSK-K-Ex-Active (metric)







Material	Polyamide, fiber reinforced
Seal	NBR
Material o-ring	NBR
Protection class	IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da / Class II Div 1 Groups E,F,G
Temperature range	-20°C to +85°C
Colour	black / blue-black
RAL	9005 / 5012

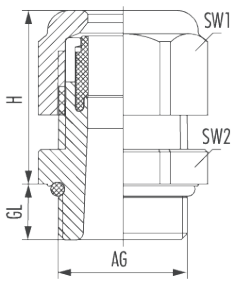
RoHS

AG	⌀k mm	H mm	SW1/SW2 mm	Nm	Item-No black	Item-No blue-black
M12 x 1,5	2 – 5	21	15/15	2	1.292.1201.51	
M12 x 1,5	3 – 6,5	21	15/15	1,5	1.292.1201.50	
M16 x 1,5	3 – 6	22	19/19	2	1.292.1601.51	1.292.1602.51
M16 x 1,5	4 – 8	22	19/19	2	1.292.1601.50	1.292.1602.50
M16 x 1,5	5 – 10	25	22/22	3	1.292.1611.50	1.292.1612.50
M20 x 1,5	5 – 9	27	24/24	4,5	1.292.2001.51	1.292.2002.51
M20 x 1,5	6 – 12	27	24/24	4,5	1.292.2001.50	1.292.2002.50
M20 x 1,5	10 – 14	28	27/27	4,5	1.292.2016.50	1.292.2017.50
M25 x 1,5	9 – 16	31	33/33	5	1.292.2501.51	1.292.2502.51
M25 x 1,5	13 – 18	31	33/33	5	1.292.2501.50	1.292.2502.50
M32 x 1,5	13 – 20	39	42/42	6,5	1.292.3201.51	1.292.3202.51
M32 x 1,5	18 – 25	39	42/42	6,5	1.292.3201.50	1.292.3202.50
M40 x 1,5	20 – 26	48	53/53	10	1.292.4001.51	
M40 x 1,5	22 – 32	48	53/53	10	1.292.4001.50	
M50 x 1,5	25 – 31	49	60/60	15	1.292.5001.51	
M50 x 1,5	32 – 38	49	60/60	15	1.292.5001.50	
M63 x 1,5	29 – 35	49	65/68	22	1.292.6301.51	
M63 x 1,5	37 – 44	49	65/68	22	1.292.6301.50	

to the assembly instruction

HSK-K-Ex-Active (metric long)





Material	Polyamide, fiber reinforced
Seal	NBR
Material o-ring	NBR
Protection class	IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da / Class II Div 1 Groups E,F,G
Temperature range	-20°C to +85°C
Colour	black
RAL	9005

RoHS

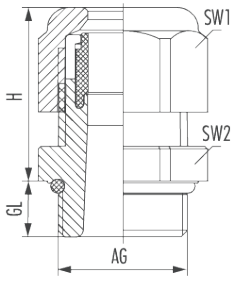
AG	⌀ mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	2 – 5	21	15/15	2	1.292.1201.31
M12 x 1,5	3 – 6,5	21	15/15	1,5	1.292.1201.30
M16 x 1,5	3 – 6	22	19/19	2	1.292.1601.31
M16 x 1,5	4 – 8	22	19/19	2	1.292.1601.30
M16 x 1,5	5 – 10	25	22/22	3	1.292.1611.30
M20 x 1,5	5 – 9	27	24/24	4,5	1.292.2001.31
M20 x 1,5	6 – 12	27	24/24	4,5	1.292.2001.30
M20 x 1,5	7 – 12	28	27/27	4,5	1.292.2016.31
M20 x 1,5	10 – 14	28	27/27	4,5	1.292.2016.30
M25 x 1,5	9 – 16	31	33/33	5	1.292.2501.31
M25 x 1,5	13 – 18	31	33/33	5	1.292.2501.30
M32 x 1,5	13 – 20	39	42/42	6,5	1.292.3201.31
M32 x 1,5	18 – 25	39	42/42	6,5	1.292.3201.30
M40 x 1,5	20 – 26	48	53/53	10	1.292.4001.31
M40 x 1,5	22 – 32	48	53/53	10	1.292.4001.30
M50 x 1,5	25 – 31	49	60/60	15	1.292.5001.31
M50 x 1,5	32 – 38	49	60/60	15	1.292.5001.30
M63 x 1,5	29 – 35	49	65/68	22	1.292.6301.31
M63 x 1,5	37 – 44	49	65/68	22	1.292.6301.30

to the assembly instruction

Ex cable glands

HSK-K-Ex-Active (NPT)





Material	Polyamide, fiber reinforced
Seal	NBR
Material o-ring	NBR
Protection class	IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da / Class II Div 1 Groups E,F,G
Temperature range	-20°C to +85°C
Colour	black
RAL	9005

RoHS

// with blue union nut on request

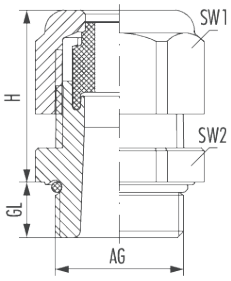
AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
NPT 3/8"	3 – 6	15	22	19/22	2	1.292.3801.71
NPT 3/8"	4 – 8	15	22	19/22	2	1.292.3801.70
NPT 1/2"	5 – 9	13	27	24/24	4,5	1.292.1201.71
NPT 1/2"	6 – 12	13	27	24/24	4,5	1.292.1201.70
NPT 1/2"	7 – 12	13	28	27/27	4,5	1.292.1216.71
NPT 1/2"	10 – 14	13	28	27/27	4,5	1.292.1216.70
NPT 3/4"	9 – 16	14	31	33/33	5	1.292.3401.71
NPT 3/4"	13 – 18	14	31	33/33	5	1.292.3401.70
NPT 1"	13 – 20	19	39	42/42	6,5	1.292.1001.71
NPT 1"	18 – 25	19	39	42/42	6,5	1.292.1001.70
NPT 1 1/4"	18 – 25	16	39	42/46	6,5	1.292.5401.70
NPT 1 1/2"	22 – 32	20	48	53/53	10	1.292.6401.70

to the assembly instruction

HSK-K-Multi-Ex-Active (metric, NPT)







Material	Polyamide, fiber reinforced
Seal	Elastomer
Material o-ring	NBR
Protection class	IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da / Class II Div 1 Groups E,F,G
Temperature range	-20°C to +85°C
Colour	black / blue-black
RAL	9005 / 5012

RoHS

// Further seal inserts on request
// Installation note: The cable diameter may be less than the drill diameter by 20%, but not more than 1 mm

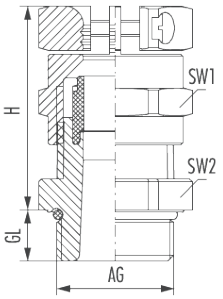
AG	GL mm	H mm	SW1/SW2 mm	Nm	Number of holes x d	Item-No black	Item-No blue-black
M16 x 1,5	8	22	19/19	2	2 x 3	1.581.1601.51	
M20 x 1,5	9	27	24/24	4,5	2 x 5	1.581.2003.51	
M25 x 1,5	11	31	33/33	5	3 x 7	1.581.2501.51	
M25 x 1,5	11	31	33/33	5	4 x 6	1.581.2500.51	
M32 x 1,5	11	39	42/42	6,5	4 x 9		1.581.3201.52
M32 x 1,5	11	39	42/42	6,5	6 x 6,5	1.581.3200.51	
NPT 3/8"	15	22	19/22	2	2 x 3		1.581.3801.72

to the assembly instruction

Ex cable glands

HSK-K-MZ-Ex (metric, PG)





Material	Polyamide
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Temperature range	-20°C to +70°C
Colour	black
RAL	9005

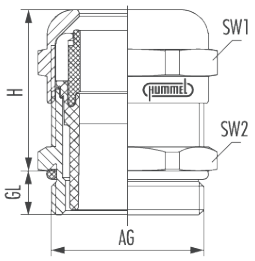
RoHS

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M16 x 1,5	4 – 8	15	29	19/19	3	1.215.1601.50
M20 x 1,5	7 – 12	15	35,5	24/24	3,5	1.215.2001.50
M25 x 1,5	13 – 18	11	41	33/33	5	1.215.2501.50
M32 x 1,5	18 – 25	11	49	42/42	6,5	1.215.3201.50
M40 x 1,5	22 – 32	13	58	53/53	10	1.215.4001.50
M50 x 1,5	32 – 38	13	61,5	60/60	15	1.215.5001.50
M63 x 1,5	37 – 44	14	62	65/68	18	1.215.6301.50

to the assembly instruction

HSK-M Ex (metric)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-20°C to +95°C / -60°C to +95°C

RoHS

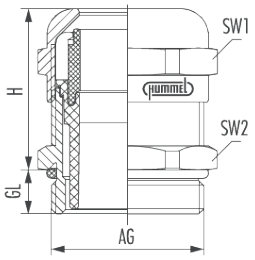
AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No -20°C to +95°C	Item-No -60°C to +95°C
M12 x 1,5	2 – 5	6,5	19	14/14	4	1.610.1200.51	1.640.1200.51
M12 x 1,5	3 – 6,5	6,5	19	14/14	4	1.610.1200.50	1.640.1200.50
M16 x 1,5	2 – 6	6	21	17/19	6	1.610.1600.51	1.640.1600.51
M16 x 1,5	3 – 7	6	22	20/20	5	1.610.1611.51	
M16 x 1,5	4 – 8	6	21	17/19	6	1.610.1600.50	1.640.1600.50
M16 x 1,5	5 – 10	6	22	20/20	5	1.610.1611.50	1.640.1611.50
M20 x 1,5	5 – 9	6	23	22/22	8	1.610.2000.51	1.640.2000.51
M20 x 1,5	6 – 12	6	23	22/22	8	1.610.2000.50	1.640.2000.50
M20 x 1,5	7 – 12	6	24	24/24	10	1.610.2016.51	1.640.2016.51
M20 x 1,5	10 – 14	6	24	24/24	10	1.610.2016.50	1.640.2016.50
M25 x 1,5	10 – 16	7	26	30/30	12	1.610.2500.51	1.640.2500.51
M25 x 1,5	14 – 18	7	26	30/30	12	1.610.2500.50	1.640.2500.50
M32 x 1,5	13 – 20	8	31	40/40	15	1.610.3200.51	
M32 x 1,5	20 – 25	8	31	40/40	15	1.610.3200.50	
M40 x 1,5	20 – 26	8	37	50/50	15	1.610.4000.51	
M40 x 1,5	22 – 32	8	37	50/50	15	1.610.4000.50	
M50 x 1,5	25 – 31	9	37	57/57	24	1.610.5000.51	
M50 x 1,5	32 – 38	9	37	57/57	24	1.610.5000.50	
M63 x 1,5	29 – 35	10	38	64/68	30	1.610.6300.51	
M63 x 1,5	37 – 44	10	38	64/68	30	1.610.6300.50	

to the assembly instruction

Ex cable glands

HSK-M Ex (metric-long)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-20°C to +95°C

RoHS

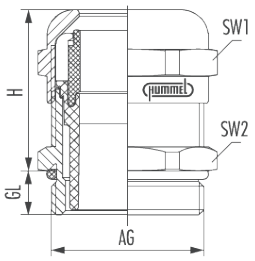
// Other sizes on request
// extended temperature range on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M16 x 1,5	4 – 8	10	21	17/19	6	1.610.1600.30
M16 x 1,5	5 – 10	10	22	20/20	5	1.610.1611.30
M20 x 1,5	5 – 9	10	23	22/22	8	1.610.2000.31
M20 x 1,5	6 – 12	10	23	22/22	8	1.610.2000.30
M20 x 1,5	7 – 12	10	24	24/24	10	1.610.2016.31
M20 x 1,5	10 – 14	10	24	24/24	10	1.610.2016.30
M25 x 1,5	14 – 18	12	26	30/30	12	1.610.2500.30

to the assembly instruction

HSK-M-Ex (PG)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-20°C to +95°C

RoHS

// Other sizes on request
// extended temperature range on request
// Elongated threads on request

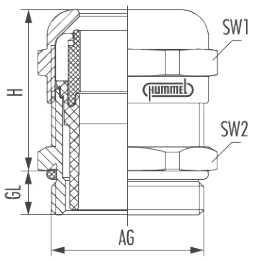
AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
PG 7	3 – 6,5	5	19	14/14	4	1.610.0700.01
PG 9	4 – 8	6	21	17/17	6	1.610.0900.01
PG 11	3 – 7	6	22	20/20	5	1.610.1100.15
PG 11	5 – 10	6	22	20/20	5	1.610.1100.01
PG 13,5	6 – 12	6,5	24	22/22	8	1.610.1300.01
PG 16	10 – 14	6,5	23	24/24	10	1.610.1600.01
PG 21	14 – 18	7	24	30/30	12	1.610.2100.01

to the assembly instruction

Ex cable glands

HSK-M-Ex (NPT)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-20°C to +95°C

RoHS

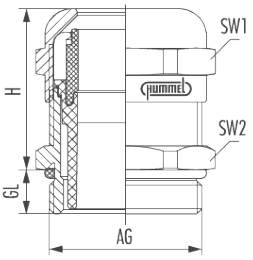
// extended temperature range on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
NPT 3/8"	2 – 6	15	21	17/19	6	1.610.3800.71
NPT 3/8"	4 – 8	15	21	17/19	6	1.610.3800.70
NPT 1/2"	5 – 9	13	24	22/24	8	1.610.1200.71
NPT 1/2"	6 – 12	13	24	22/24	8	1.610.1200.70
NPT 3/4"	10 – 16	13	25	30/30	12	1.610.3400.71
NPT 3/4"	14 – 18	13	25	30/30	12	1.610.3400.70
NPT 1"	13 – 20	19	29	40/40	15	1.610.1000.71
NPT 1"	20 – 25	19	29	40/40	15	1.610.1000.70

to the assembly instruction

HSK-M-PVDF-Ex (metric)





Material	Nickel-plated brass
Clamping insert	PVDF
Seal	FKM
Material o-ring	FKM
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-20°C to +130°C

RoHS

// extended temperature range on request
// Other thread pitches on request

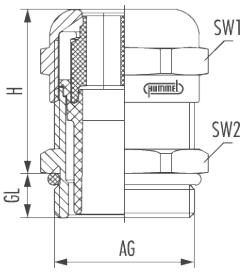
AG	⌀ mm	H mm	SW1/SW2 mm	Nm	Item-No
M16 x 1,5	5 – 10	22	20/20	5	1.660.1611.50
M20 x 1,5	7 – 12	23	22/22	8	1.660.2000.50
M20 x 1,5	10 – 14	24	24/24	10	1.660.2016.50
M25 x 1,5	10 – 16	26	30/30	12	1.660.2500.51
M32 x 1,5	13 – 20	31	40/40	15	1.660.3200.51

to the assembly instruction

Ex cable glands

HSK-M-Multi-Ex (metric, NPT)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	Elastomer
Material o-ring	NBR
Protection class	and optimum assignment of all holes / IP 65 / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Temperature range	-20°C to +95°C

RoHS

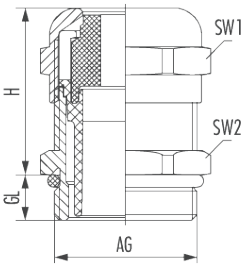
// Further seal inserts on request

AG	GL mm	H mm	SW1/SW2 mm	Nm	Number of holes x d	Item-No
M20 x 1,5	6	23	22/22	8	6 x 3	1.687.2001.50
M32 x 1,5	8	31	40/40	15	4 x 9	1.687.3201.50
M32 x 1,5	8	31	40/40	15	6 x 6,5	1.687.3200.50
NPT 1"	19	29	40/40	15	4 x 9	1.687.1001.70

to the assembly instruction

HSK-M-Flaka-Ex (metric)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	Elastomer
Material o-ring	NBR
Protection class	IP 68 – 10 bar and optimum assignment of all bores / IP 65
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Temperature range	-20°C to +95°C

RoHS

// Further seal inserts on request

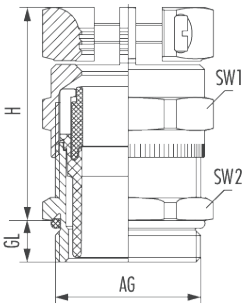
AG	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M20 x 1,5	6	24	24/24	10	1.689.2017.50
M40 x 1,5	8	37	50/50	15	1.689.4003.50
M63 x 1,5	10	38	64/68	30	1.689.6300.50

to the assembly instruction

Ex cable glands

HSK-MZ-Ex (metric)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-60°C to +95°C

RoHS

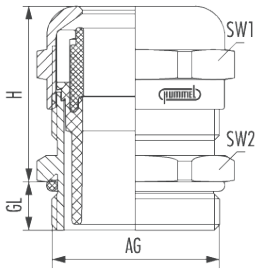
// extended temperature range on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	3 – 6,5	6,5	26	14/14	4	1.641.1200.50
M16 x 1,5	5 – 10	6	30	20/20	5	1.641.1611.50
M20 x 1,5	7 – 12	6	33	22/22	10	1.641.2000.50
M20 x 1,5	10 – 14	6	33	24/24	10	1.641.2016.50
M25 x 1,5	14 – 18	7	37	30/30	12	1.641.2500.50
M32 x 1,5	20 – 25	8	43	40/40	15	1.641.3200.50

to the assembly instruction

HSK-INOX-Ex (metric)





Material	INOX 1.4305
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-20°C to +95°C

RoHS

// extended temperature range on request

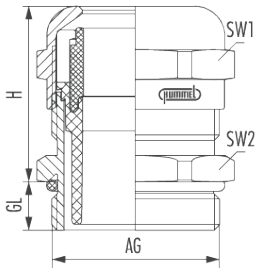
AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	2 – 5	6,5	19	14/14	4	1.612.1200.51
M12 x 1,5	3 – 6,5	6,5	19	14/14	4	1.612.1200.50
M16 x 1,5	3 – 7	6	22	22/22	5	1.612.1600.51
M16 x 1,5	5 – 10	6	22	22/22	5	1.612.1600.50
M20 x 1,5	7 – 12	6	23	24/24	10	1.612.2000.51
M20 x 1,5	10 – 14	6	23	24/24	10	1.612.2000.50
M25 x 1,5	9 – 16	7	24	30/30	12	1.612.2500.51
M25 x 1,5	13 – 18	7	24	30/30	12	1.612.2500.50
M32 x 1,5	13 – 20	8	29	41/41	15	1.612.3200.51
M32 x 1,5	20 – 25	8	29	41/41	15	1.612.3200.50

to the assembly instruction

Ex cable glands

HSK-INOX-PVDF-Ex (metric)





Material	INOX 1.4305
Clamping insert	PVDF
Seal	FKM
Material o-ring	FKM
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-20°C to +130°C

RoHS

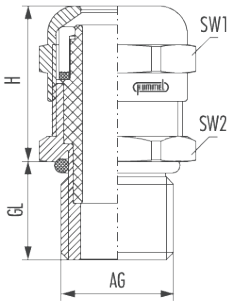
// Other sizes on request
// Other thread pitches on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M16 x 1,5	3 – 7	6	22	22/22	5	1.662.1600.51
M16 x 1,5	5 – 10	6	22	22/22	5	1.662.1600.50
M20 x 1,5	7 – 12	6	23	24/24	10	1.662.2000.51
M20 x 1,5	10 – 14	6	23	24/24	10	1.662.2000.50
M25 x 1,5	9 – 16	7	24	30/30	12	1.662.2500.51

to the assembly instruction

HSK-M-Ex d (metric, NPT)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	FKM
Material o-ring	FKM
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex db IIC Gb
Temperature range	-60°C to +105°C

RoHS

// Other sizes on request

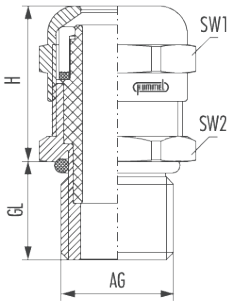
AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	2 – 5	16	18,7	14/14	7,5	1.622.1200.51
M12 x 1,5	3 – 6,5	16	18,7	14/14	7,5	1.622.1200.50
M16 x 1,5	3 – 7	16	22	20/20	9	1.622.1600.51
M16 x 1,5	5 – 10	16	22	20/20	9	1.622.1600.50
M20 x 1,5	7 – 12	16	25	24/24	10	1.622.2000.51
M20 x 1,5	10 – 14	16	25	24/24	10	1.622.2000.50
M25 x 1,5	9 – 16	16	26,5	30/30	12	1.622.2500.51
M25 x 1,5	13 – 18	16	26,5	30/30	12	1.622.2500.50
M32 x 1,5	14 – 20	16	32	40/40	15	1.622.3200.51
M32 x 1,5	18 – 25	16	32	40/40	15	1.622.3200.50
M40 x 1,5	22 – 32	16	38,5	50/50	24	1.622.4000.50
NPT 1/2"	7 – 12	20	25	24/24	10	1.622.1200.71
NPT 1/2"	10 – 14	20	25	24/24	10	1.622.1200.70
NPT 3/4"	9 – 16	20,5	26,5	30/30	12	1.622.3400.71
NPT 3/4"	13 – 18	20,5	26,5	30/30	12	1.622.3400.70

to the assembly instruction

Ex cable glands

HSK-M-PVDF-Ex d (metric, NPT)





Material	Nickel-plated brass
Clamping insert	PVDF
Seal	FKM
Material o-ring	FKM
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex db IIC Gb
Temperature range	-20°C to +130°C

RoHS

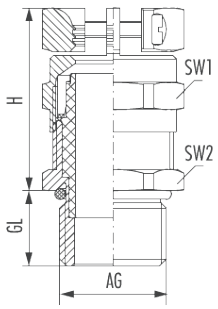
// Other sizes on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	2 – 5	16	18,7	14/14	7,5	1.634.1200.51
M16 x 1,5	5 – 10	16	22	20/20	9	1.634.1600.50
M20 x 1,5	7 – 12	16	25	24/24	10	1.634.2000.51
M25 x 1,5	9 – 16	16	26,5	30/30	12	1.634.2500.51
NPT 1/2"	7 – 12	20	25	24/24	10	1.634.1200.71
NPT 3/4"	13 – 18	20,5	26,5	30/30	12	1.634.3400.70

to the assembly instruction

HSK-MZ-Ex d (metric)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	FKM
Material o-ring	FKM
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex db IIC Gb
Temperature range	-60°C to +105°C

RoHS

// Other sizes on request

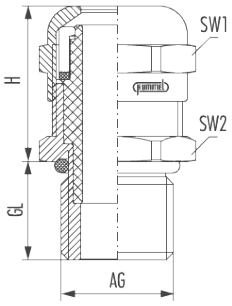
AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	3 – 6,5	16	26	14/14	7,5	1.628.1200.50
M16 x 1,5	5 – 10	16	30,2	20/20	9	1.628.1600.50
M20 x 1,5	10 – 14	16	34	24/24	10	1.628.2000.50
M25 x 1,5	13 – 18	16	37,8	30/30	12	1.628.2500.50

to the assembly instruction

Ex cable glands

HSK-INOX-Ex d (metric, NPT)





Material	INOX 1.4404
Clamping insert	Polyamide V0 according to UL94
Seal	FKM
Material o-ring	FKM
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex db IIC Gb
Temperature range	-60°C to +105°C

RoHS

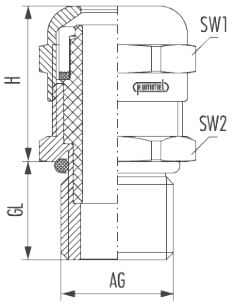
// Other sizes on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	2 – 5	16	19	14/14	7,5	1.632.1200.51
M12 x 1,5	3 – 6,5	16	19	14/14	7,5	1.632.1200.50
M16 x 1,5	3 – 7	16	22	22/22	9	1.632.1600.51
M16 x 1,5	5 – 10	16	22	22/22	9	1.632.1600.50
M20 x 1,5	7 – 12	16	25	24/24	10	1.632.2000.51
M20 x 1,5	10 – 14	16	25	24/24	10	1.632.2000.50
M25 x 1,5	9 – 16	14	26,5	30/30	12	1.632.2500.51
M25 x 1,5	13 – 18	16	26,5	30/30	12	1.632.2500.50
M32 x 1,5	14 – 20	16	32	41/41	15	1.632.3200.51
M32 x 1,5	18 – 25	16	32	41/41	15	1.632.3200.50
M40 x 1,5	20 – 26	16	38,5	50/50	24	1.632.4000.51
M40 x 1,5	22 – 32	16	38,5	50/50	24	1.632.4000.50
NPT 1/2"	7 – 12	20	25	24/24	10	1.632.1200.71
NPT 1/2"	10 – 14	20	25	24/24	10	1.632.1200.70
NPT 3/4"	9 – 16	20,5	26,5	30/30	12	1.632.3400.71
NPT 3/4"	13 – 18	20,5	26,5	30/30	12	1.632.3400.70

to the assembly instruction

HSK-INOX-PVDF-Ex d (metric, NPT)





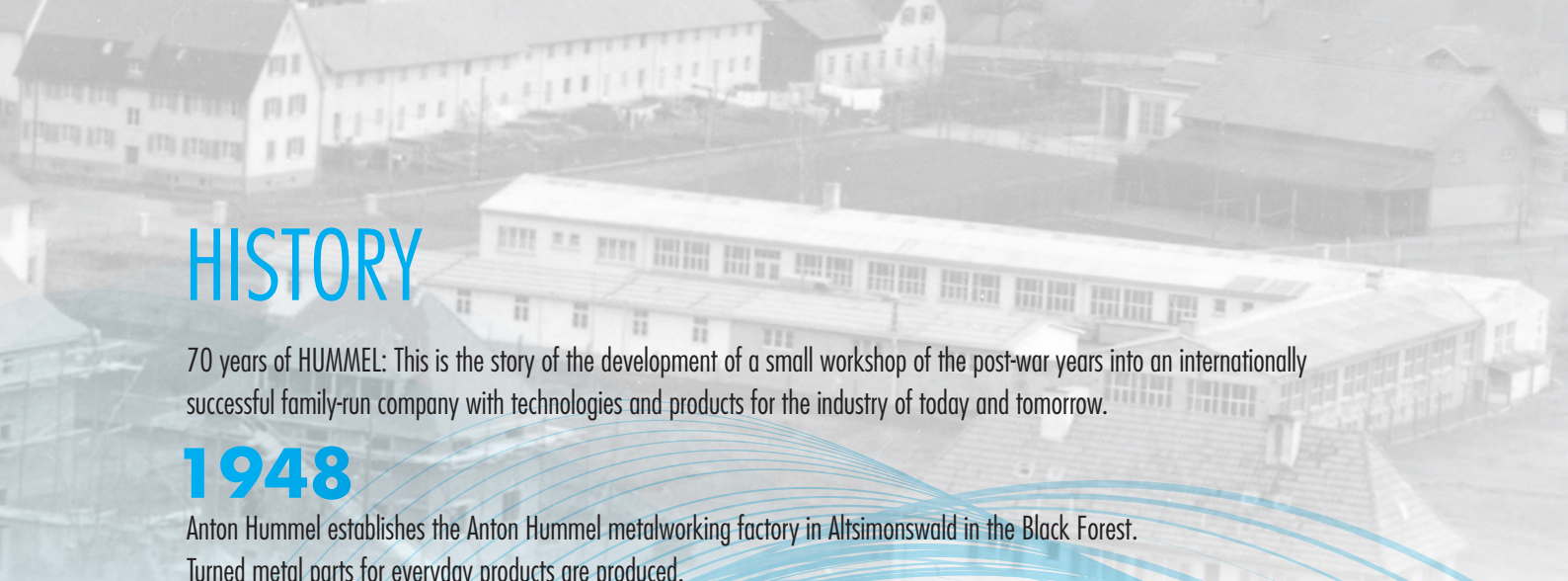
Material	INOX 1.4404
Clamping insert	PVDF
Seal	FKM
Material o-ring	FKM
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex db IIC Gb
Temperature range	-20°C to +130°C

RoHS

// Other sizes on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	2 – 5	16	19	14/14	7,5	1.633.1200.51
M12 x 1,5	3 – 6,5	16	19	14/14	7,5	1.633.1200.50
M16 x 1,5	3 – 7	16	22	22/22	9	1.633.1600.51
M16 x 1,5	5 – 10	16	22	22/22	9	1.633.1600.50
M20 x 1,5	7 – 12	16	25	24/24	10	1.633.2000.51
M20 x 1,5	10 – 14	16	25	24/24	10	1.633.2000.50
M25 x 1,5	9 – 16	16	26,5	30/30	12	1.633.2500.51
M25 x 1,5	13 – 18	16	26,5	30/30	12	1.633.2500.50
M32 x 1,5	18 – 25	16	32	41/41	15	1.633.3200.50
NPT 3/8"	5 – 10	16	22	22/22	9	1.633.3800.70
NPT 1/2"	7 – 12	20	25	24/24	10	1.633.1200.71
NPT 1/2"	10 – 14	20	25	24/24	10	1.633.1200.70
NPT 3/4"	9 – 16	20,5	26,5	30/30	12	1.633.3400.71
NPT 3/4"	13 – 18	20,5	26,5	30/30	12	1.633.3400.70

to the assembly instruction



HISTORY

70 years of HUMMEL: This is the story of the development of a small workshop of the post-war years into an internationally successful family-run company with technologies and products for the industry of today and tomorrow.

1948

Anton Hummel establishes the Anton Hummel metalworking factory in Altsimonswald in the Black Forest.
Turned metal parts for everyday products are produced.

1951

Start of cable gland production. Experience acquired from the production of nuts and bolts is the basis for the development of cable glands – and it remains one of the most successful product segments of HUMMEL to this day.

1952

Move from Altsimonswald to Waldkirch. HUMMEL builds a hall-type building there to accommodate the production, warehouse and administration. At the same time, production of vent valves for radiators starts

1970

Start of plastics production in Waldkirch. Beforehand, parts of the metalworking were moved to Kenzingen-Nordweil.
The rotatable vent valve is patented and millions are sold in the ensuing years.

1972

Helmut Hummel becomes managing director of Anton Hummel Metallwarenfabrik GmbH.
The second generation takes on responsibility for the up-and-coming family business.

1994

HUMMEL builds a logistics centre for its electrical engineering division in Denzlingen. That is the starting signal for numerous other construction phases in the new location. At the same time, cable glands for the explosion-proof segment are launched on the market.

1999

Internationalisation begins with the formation of HUMMEL China. Branches in Italy, Brazil and Russia follow as well as sales offices in Sweden and England. Meanwhile the development of circular connectors begins at the headquarters.

2008

The company's headquarters is moved from Waldkirch to Denzlingen. Beforehand, a new administration building was erected, a fully-automatic high-bay storage was built and the production buildings were extended by house mouldmaking and injection casting.

2013

The company's headquarter is moved from Waldkirch to Denzlingen. Beforehand, a new administration building was erected, a fully-automatic high-bay storage was built and the production buildings were extended by house mouldmaking and injection casting.

2018

HUMMEL celebrates its 70-year company anniversary, records a new sales record of 71.5 million euros, has around 600 employees and is present worldwide with its branches, sales offices and a large partner network.

2023

HUMMEL celebrates its 75-year company anniversary, with a strategic realignment, the challenges of the future are being addressed

EMC-Ex e CABLE GLANDS

Safe EMC protection plus explosion area approval: This is what EMC Ex e cable glands deliver. HUMMEL also offers a range of designs for particular requirements here, too. These include cable glands for high-temperature applications, designs for very easy fitting and also stainless steel versions.

// HSK-M-EMC-D-Ex: Fast, easy fitting, combined with maximum EMC protection and explosion protection
// HSK-M-EMC-Ex: Cable glands with excellent shielding properties and explosion protection
// HSK-MZ-EMC-Ex: Glands with a high level of tension-relief, EMC and explosion protection
// HSK-INOX-EMC-Ex: Stainless steel cable glands, EMC and explosion protection

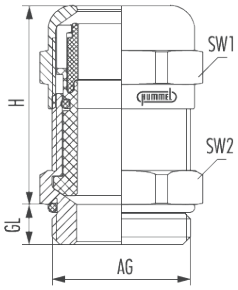
HUMMEL has many years of experience in handling components for explosion-protection areas. This is why we have a sophisticated range of explosion area products in a range of materials and designs.



EMC-Ex e cable glands

HSK-M-EMC-D-Ex (metric)





Material	Nickel-plated brass
Clamping insert	Metallized polyamide
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Temperature range	-20°C to +95°C / -60°C to +95°C

RoHS

EMV EMC

// Elongated threads on request
// Other sizes on request

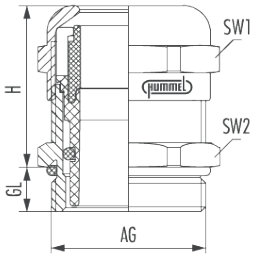
AG	⌀k mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No -20°C to +95°C	Item-No -60°C to +95°C
M16 x 1,5	5 – 10	6	29	20/20	11	1.636.1600.50	1.637.1600.50
M16 x 1,5	5 – 10	10	29	20/20	11	1.636.1600.30	1.637.1600.30
M20 x 1,5	10 – 14	6	31	24/24	13	1.636.2000.50	1.637.2000.50
M20 x 1,5	10 – 14	10	31	24/24	13	1.636.2000.30	1.637.2000.30
M25 x 1,5	13 – 18	7	38	30/30	15	1.636.2500.50	1.637.2500.50
M25 x 1,5	13 – 18	12	38	30/30	15	1.636.2500.30	1.637.2500.30
M32 x 1,5	18 – 25	8	43	40/40	17,5	1.636.3200.50	
M32 x 1,5	18 – 25	12	43	40/40	17,5	1.636.3200.30	
M40 x 1,5	24 – 32	8	51	50/50	25	1.636.4000.50	

to the product video

to the assembly instruction

HSK-M-EMC-Ex (metric)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-20°C to +95°C / -60°C to +95°C

RoHS

EMV EMC

// Other thread pitches on request
// extended temperature range on request

AG	⌀k mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No -20°C to +95°C	Item-No -60°C to +95°C
M12 x 1,5	2 – 5	6,5	19	14/14	4	1.616.1200.51	
M12 x 1,5	3 – 6,5	6,5	19	14/14	4	1.616.1200.50	1.646.1200.50
M16 x 1,5	3 – 7	6	22	20/20	5	1.616.1600.51	1.646.1600.51
M16 x 1,5	5 – 10	6	22	20/20	5	1.616.1600.50	1.646.1600.50
M20 x 1,5	7 – 12	6	23	24/24	10	1.616.2000.51	1.646.2000.51
M20 x 1,5	10 – 14	6	23	24/24	10	1.616.2000.50	1.646.2000.50
M25 x 1,5	10 – 16	7	24	30/30	12	1.616.2500.51	1.646.2500.51
M25 x 1,5	14 – 18	7	24	30/30	12	1.616.2500.50	1.646.2500.50
M32 x 1,5	13 – 20	8	31	40/40	15	1.616.3200.51	1.646.3200.51
M32 x 1,5	20 – 25	8	31	40/40	15	1.616.3200.50	1.646.3200.50
M40 x 1,5	20 – 26	8	37	50/50	15	1.616.4000.51	1.646.4000.51
M40 x 1,5	22 – 32	8	37	50/50	15	1.616.4000.50	1.646.4000.50
M50 x 1,5	25 – 31	9	37	57/57	24	1.616.5000.51	
M50 x 1,5	32 – 38	9	37	57/57	24	1.616.5000.50	
M63 x 1,5	37 – 44	10	38	64/68	30	1.616.6300.50	

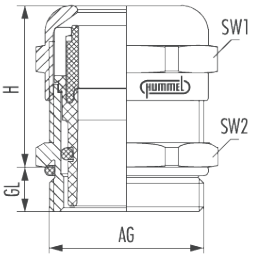
to the product video

to the assembly instruction

EMC-Ex e cable glands

HSK-M-EMC-Ex (NPT)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-20°C to +95°C

RoHS

EMV EMC

// Other thread pitches on request
// extended temperature range on request

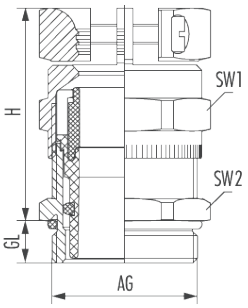
AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
NPT 1/2"	5 – 9	13	24	22/24	8	1.616.1200.71
NPT 1/2"	6 – 12	13	24	22/24	8	1.616.1200.70
NPT 3/4"	10 – 16	13	25	30/30	12	1.616.3400.71

to the product video

to the assembly instruction

HSK-MZ-EMC-Ex (metric)





Material	Nickel-plated brass
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-20°C to +95°C / -60°C to +95°C

RoHS

EMV EMC

// Elongated threads on request

AG	⌀k mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No -20°C to +95°C	Item-No -60°C to +95°C
M12 x 1,5	3 – 6,5	6,5	26	14/14	4	1.617.1200.50	
M16 x 1,5	5 – 10	6	29	20/20	5	1.617.1600.50	1.647.1600.50
M20 x 1,5	10 – 14	6	32	24/24	10	1.617.2000.50	1.647.2000.50
M25 x 1,5	13 – 17	7	35	30/30	12	1.617.2500.50	
M32 x 1,5	20 – 25	8	41	40/40	15		1.647.3200.50

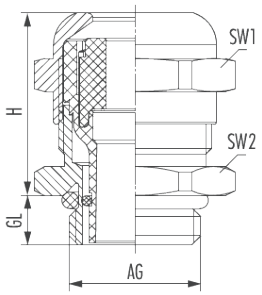
to the product video

to the assembly instruction

EMC-Ex e cable glands

HSK-INOX-EMC-Ex (metric)





Material	INOX 1.4305
Clamping insert	Polyamide V0 according to UL94
Seal	NBR
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Type Rating by	UL 50E / 4X / 6 / 4
Temperature range	-60°C to +95°C

RoHS

EMV EMC

// Elongated threads on request

AG	⌀ mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M12 x 1,5	2 – 5	6,5	19	14/14	4	1.673.1200.51
M12 x 1,5	3 – 6,5	6,5	19	14/14	4	1.673.1200.50
M16 x 1,5	3 – 7	6	21	22/22	5	1.673.1600.51
M16 x 1,5	5 – 10	6	21	22/22	5	1.673.1600.50
M20 x 1,5	7 – 12	6	23	24/24	10	1.673.2000.51
M20 x 1,5	10 – 14	6	23	24/24	10	1.673.2000.50
M25 x 1,5	9 – 16	7	26	30/30	12	1.673.2500.51
M25 x 1,5	13 – 18	7	26	30/30	12	1.673.2500.50
M32 x 1,5	13 – 20	8	31	41/41	15	1.673.3200.51
M32 x 1,5	18 – 25	8	31	41/41	15	1.673.3200.50
M40 x 1,5	20 – 26	8	37	50/50	15	1.673.4000.51
M40 x 1,5	22 – 32	8	37	50/50	15	1.673.4000.50

to the product video

to the assembly instruction

Ex ACCESSORIES

Cable glands for explosion protection areas also demand accessories specifically designed for those areas. HUMMEL has a wide range of accessories specially developed for this sector. These accessories meet all the requirements for Ex-areas and are backed up by all the necessary certification and approvals.

// Accessories in plastic, brass and stainless steel
// Plugs with explosion area approval
// Reduction fittings in a wide range of different sizes

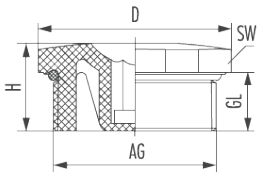
The accessories come in a range of materials, sizes and thread types.



Ex Accessories

Plug V-Ex (metric, PG)





Material	Polyamide, fiber reinforced
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex e IIC Gb
Temperature range	-20°C to +90°C
Colour	black
RAL	9005

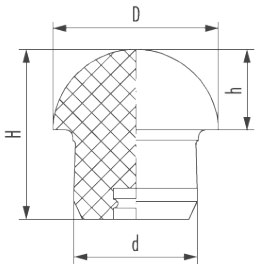
RoHS

AG	D mm	GL mm	H mm	SW mm	⌀	Item-No
M12 x 1,5	16,5	8,5	13	15	6	1.297.1201.50
M16 x 1,5	20,5	8,5	13	19	8	1.297.1601.50
M20 x 1,5	25,5	9	14,5	24	8	1.297.2001.50
M25 x 1,5	30,5	10,5	16	28	8	1.297.2501.50
M32 x 1,5	38	11,5	17,5	36	8	1.297.3201.50
M40 x 1,5	48	11,5	18	46	8	1.297.4001.50
M50 x 1,5	60	13,5	20	55	8	1.297.5001.50
M63 x 1,5	75	14,5	21	70	8	1.297.6301.50
PG 7	16,5	8,5	13	15	6	1.297.0701.11
PG 9	20,5	8,5	13	19	8	1.297.0901.11
PG 11	25,5	9	14,5	24	8	1.297.1101.11
PG 13,5	25,5	9	14,5	24	8	1.297.1301.11
PG 16	30,5	10,5	16	28	8	1.297.1601.11
PG 21	38	11,5	17,5	36	8	1.297.2101.11
PG 29	48	11,5	18	46	8	1.297.2901.11
PG 36	60	13,5	20	55	8	1.297.3601.11
PG 42	65	13,5	20	60	8	1.297.4201.11
PG 48	75	14,5	21	70	8	1.297.4801.11

to the assembly instruction

Plug HSK-V-Ex





Material	Elastomer
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex e IIC Gb
Temperature range	-40°C to +95°C
Colour	black
RAL	9005

RoHS

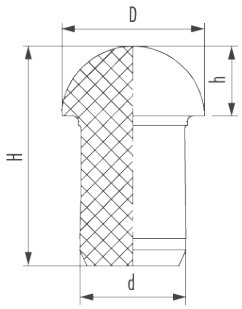
Suitable for AG	Suitable for AG2	Suitable for AG3	D mm	d mm	H mm	h mm	Item-No
PG 7	M12 x 1,5		8,5	6,3	11,5	4,5	1.296.0701.11
PG 9	M16 x 1,5	NPT 3/8"	11	7,8	13,5	5,5	1.296.0901.11
PG 11	M16 x 1,5		13,5	9,8	14,5	5,5	1.296.1101.11
PG 13,5	M20 x 1,5	NPT 1/2"	16	11,8	18	8	1.296.1301.11
PG 16	M20 x 1,5	NPT 1/2" / 16	18,5	13,8	19	9	1.296.1601.11
PG 21	M25 x 1,5	NPT 3/4"	22	17,8	22	11	1.296.2101.11
PG 29	M32 x 1,5	NPT 1" / NPT 1 1/4"	29	25	25	10	1.296.2901.11
PG 36	M40 x 1,5	NPT 1 1/2"	38	32	28	11	1.296.3601.11
PG 42	M50 x 1,5		43	38	30	12	1.296.4201.11
PG 48	M63 x 1,5		49	44	30	12	1.296.4801.11

to the assembly instruction

Ex Accessories

Plug HSK-V-Ex (MZ version)





Material	Elastomer
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex e IIC Gb
Temperature range	-40°C to +95°C
Colour	black
RAL	9005

RoHS

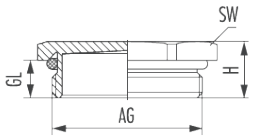
// This closure fits on all HSK screw fittings with additional strain relief (double bracket)

Suitable for AG	Suitable for AG2	Suitable for AG3	D mm	d mm	H mm	h mm	Item-No
PG 7	M12 x 1,5		8,5	6,3	18	4,5	1.296.0701.61
PG 9	M16 x 1,5	NPT 3/8"	11	7,8	20,5	5,5	1.296.0901.61
PG 11	M16 x 1,5		13,5	9,8	22	5,5	1.296.1101.61
PG 13,5	M20 x 1,5	NPT 1/2"	16	11,8	26,5	8	1.296.1301.61
PG 16	M20 x 1,5	NPT 1/2" / 16	18,5	13,8	28,8	9	1.296.1601.61
PG 21	M25 x 1,5	NPT 3/4"	22	17,8	32	11	1.296.2101.61
PG 29	M32 x 1,5	NPT 1" / NPT 1 1/4"	29	25	35,5	10	1.296.2901.61
PG 36	M40 x 1,5	NPT 1 1/2"	38	32	39	11	1.296.3601.61

to the assembly instruction

Plug V-Ms-Ex (metric, PG)





Material	Nickel-plated brass
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex e IIC Gb
Temperature range	-20°C to +95°C

RoHS

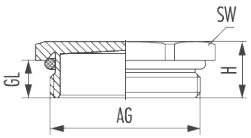
AG	GL mm	H mm	SW mm	Item-No
M12 x 1,5	6,5	9,5	14	1.197.1200.50
M16 x 1,5	6	9	19	1.197.1600.50
M20 x 1,5	6	9,5	22	1.197.2000.50
M25 x 1,5	7	10,5	30	1.197.2500.50
M32 x 1,5	8	12,5	41	1.197.3200.50
M40 x 1,5	8	13	46	1.197.4000.50
M50 x 1,5	9	15	55	1.197.5000.50
M63 x 1,5	10	16,5	70	1.197.6300.50
PG 7	5	8	14	1.197.0700.01
PG 9	6	9	17	1.197.0900.01
PG 11	6	9,5	20	1.197.1100.01
PG 13,5	6,5	10	22	1.197.1300.01
PG 16	6,5	10	24	1.197.1600.01
PG 21	7	10,5	30	1.197.2100.01
PG 29	8	12,5	41	1.197.2900.01
PG 36	8	13	50	1.197.3600.01
PG 42	9	15	58	1.197.4200.01
PG 48	10	16,5	65	1.197.4800.01

to the assembly instruction

Ex Accessories

Plug V-Ms-FKM-Ex (metric)





Material	Nickel-plated brass
Material o-ring	VMQ (silicone) / FKM
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex e IIC Gb
Temperature range	-20°C to +180°C / -60°C to +180°C

RoHS



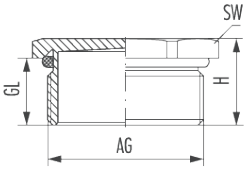
AG	GL mm	H mm	SW mm	Item-No -20°C to +180°C FKM	Item-No -60°C to +180°C VMQ (silicone)
M12 x 1,5	6,5	9,5	14	1.198.1200.50	1.199.1200.50
M16 x 1,5	6	9	19	1.198.1600.50	1.199.1600.50
M20 x 1,5	6	9,5	22	1.198.2000.50	1.199.2000.50
M25 x 1,5	7	10,5	30	1.198.2500.50	1.199.2500.50
M32 x 1,5	8	12,5	41	1.198.3200.50	1.199.3200.50
M40 x 1,5	8	13	46	1.198.4000.50	1.199.4000.50
M50 x 1,5	9	15	55	1.198.5000.50	1.199.5000.50
M63 x 1,5	10	16,5	70	1.198.6300.50	1.199.6300.50

to the assembly instruction

Plug V-Ms-Ex d (metric)







Material	Nickel-plated brass
Material o-ring	VMQ (silicone) / FKM / NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex db eb IIC Gb
Temperature range	-20°C to +95°C / -60°C to +180°C / -20°C to +180°C

RoHS

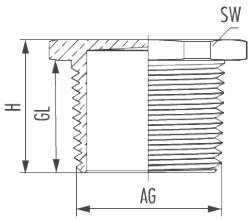
AG	GL mm	H mm	SW mm	Item-No NBR -20°C to +95°C	Item-No FKM -20°C to +180°C	Item-No VMQ (silicone) -60°C to +180°C
M12 x 1,5	16	21	14	1.875.1200.50	1.876.1200.50	1.877.1200.50
M16 x 1,5	16	20	19	1.875.1600.50	1.876.1600.50	1.877.1600.50
M20 x 1,5	16	19,5	22	1.875.2000.50	1.876.2000.50	1.877.2000.50
M25 x 1,5	16	19,5	30	1.875.2500.50	1.876.2500.50	1.877.2500.50
M32 x 1,5	16	20,5	41	1.875.3200.50	1.876.3200.50	1.877.3200.50
M40 x 1,5	16	21	46	1.875.4000.50	1.876.4000.50	1.877.4000.50
M50 x 1,5	16	22	55	1.875.5000.50	1.876.5000.50	1.877.5000.50
M63 x 1,5	16	22,5	70	1.875.6300.50	1.876.6300.50	1.877.6300.50

to the assembly instruction

Ex Accessories

Plug V-Ms-Ex d (NPT)





Material	Nickel-plated brass
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex db eb IIC Gb

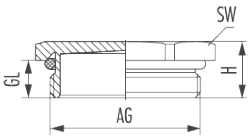
RoHS

AG	GL mm	H mm	SW mm	Item-No
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

to the assembly instruction

Plug V-INOX-Ex (metric)





Material	INOX 1.4305
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex e IIC Gb
Temperature range	-20°C to +95°C

RoHS

AG	GL mm	H mm	SW mm	Item-No
M12 x 1,5	6,5	9,5	14	1.192.1200.50
M16 x 1,5	6	9	19	1.192.1600.50
M20 x 1,5	6	9,5	22	1.192.2000.50
M25 x 1,5	7	10,5	30	1.192.2500.50
M32 x 1,5	8	12,5	41	1.192.3200.50
M40 x 1,5	8	13	46	1.192.4000.50
M50 x 1,5	9	15	55	1.192.5000.50
M63 x 1,5	10	16,5	70	1.192.6300.50

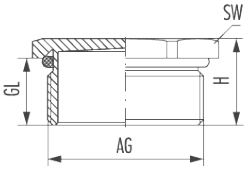
to the assembly instruction

Ex Accessories

Plug V-INOX-Ex d (metric)







Material	INOX 1.4404
Material o-ring	VMQ (silicone) / NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex db eb IIC Gb
Temperature range	-20°C to +95°C / -60°C to +180°C

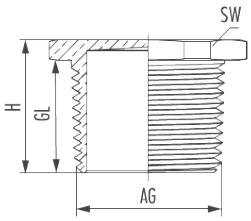
RoHS

AG	GL mm	H mm	SW mm	Item-No -20°C to +95°C	Item-No -60°C to +180°C VMQ (silicone)
M12 x 1,5	16	19	14		1.897.1200.50
M16 x 1,5	16	19	19	1.895.1600.50	1.897.1600.50
M20 x 1,5	16	19,5	22	1.895.2000.50	1.897.2000.50
M25 x 1,5	16	19,5	30	1.895.2500.50	1.897.2500.50
M32 x 1,5	16	20,5	41	1.895.3200.50	1.897.3200.50
M40 x 1,5	16	21	46	1.895.4000.50	1.897.4000.50
M50 x 1,5	16	22	55		1.897.5000.50
M63 x 1,5	16	22,5	70		1.897.6300.50

to the assembly instruction

Plug V-INOX-Ex d (NPT)





Material	INOX 1.4404
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex db eb IIC Gb

RoHS

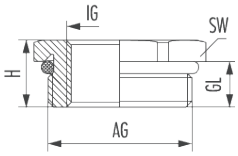
AG	GL mm	H mm	SW mm	Item-No
NPT 3/8"	16	20	16	1.897.3800.70
NPT 1/2"	20	23,5	24	1.897.1200.70
NPT 3/4"	20,5	24	30	1.897.3400.70

to the assembly instruction

Ex Accessories

Adapter RSD-Ms-Ex (metric, PG)





Material	Nickel-plated brass
Material o-ring	NBR
Protection class	IP 68 – 10 bar / IP 69 K
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Temperature range	-20°C to +95°C

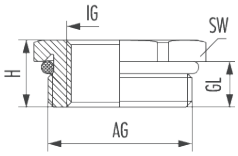
RoHS

AG	IG	GL mm	H mm	SW mm	Item-No
M16 x 1,5	M12 x 1,5	6	8,5	18	1.078.1612.50
M20 x 1,5	M12 x 1,5	6	9	22	1.078.2012.50
M20 x 1,5	M16 x 1,5	6	9	22	1.078.2016.50
M25 x 1,5	M16 x 1,5	7	10	29	1.078.2516.50
M25 x 1,5	M20 x 1,5	7	10	29	1.078.2520.50
M32 x 1,5	M16 x 1,5	8	11	34	1.078.3216.50
M32 x 1,5	M20 x 1,5	8	11,5	35	1.078.3220.50
M32 x 1,5	M25 x 1,5	8	11	34	1.078.3225.50
M40 x 1,5	M20 x 1,5	8	12	43	1.078.4020.50
M40 x 1,5	M25 x 1,5	9	13,5	43	1.078.4025.50
M40 x 1,5	M32 x 1,5	9	13,5	43	1.078.4032.50
M50 x 1,5	M25 x 1,5	9	13	55	1.078.5025.50
M50 x 1,5	M32 x 1,5	10	14	54	1.078.5032.50
M50 x 1,5	M40 x 1,5	9	13	55	1.078.5040.50
M63 x 1,5	M32 x 1,5	10	14	65	1.078.6332.50
M63 x 1,5	M40 x 1,5	10	14	65	1.078.6340.50
M63 x 1,5	M50 x 1,5	10	14	68	1.078.6350.50
PG 9	PG 7	6	8,8	17	1.078.0907.01
PG 11	PG 9	6	9	20	1.078.1109.01
PG 16	PG 9	6,5	9,5	24	1.078.1609.01
PG 16	PG 11	6,5	9,5	24	1.078.1611.01
PG 16	PG 13,5	6,5	9,5	24	1.078.1613.01
PG 21	PG 13,5	7	10,3	30	1.078.2113.01
PG 21	PG 16	7	10,3	30	1.078.2116.01
PG 29	PG 21	8	11,5	40	1.078.2921.01
PG 36	PG 29	9	12,5	50	1.078.3629.01

to the assembly instruction

Adapter RSD-Ms-VMQ-Ex (metric, PG)





Material	Nickel-plated brass
Material o-ring	VMQ (silicone)
Protection class	IP 68 – 10 bar / IP 69 K
Ex-protection level	II 2G Ex eb IIC Gb / II 1D Ex ta IIIC Da
Temperature range	-60°C to +180°C

RoHS

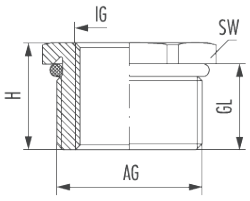
AG	IG	GL mm	H mm	SW mm	Item-No
M20 x 1,5	M16 x 1,5	6	9	22	1.079.2016.50
M25 x 1,5	M16 x 1,5	7	10	29	1.079.2516.50
M25 x 1,5	M20 x 1,5	7	10	29	1.079.2520.50
M32 x 1,5	M20 x 1,5	8	11	34	1.079.3220.50
M32 x 1,5	M25 x 1,5	8	11	34	1.079.3225.50
M40 x 1,5	M32 x 1,5	9	13,5	43	1.079.4032.50
M50 x 1,5	M40 x 1,5	9	13	55	1.079.5040.50
M63 x 1,5	M50 x 1,5	10	14	68	1.079.6350.50

to the assembly instruction

Ex Accessories

Adapter RSD-Ms-Ex d (metric)





Material	Nickel-plated brass
Material o-ring	VMQ (silicone) / NBR
Protection class	IP 68 – 10 bar / IP 69 K
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex db eb IIC Gb
Temperature range	-20°C to +95°C / -60°C to +180°C

RoHS

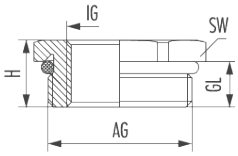


AG	IG	GL mm	H mm	SW mm	Item-No -20°C to +95°C NBR	Item-No -60°C to +180°C VMQ (silicone)
M16 x 1,5	M12 x 1,5	16	19	19	1.878.1612.50	1.879.1612.50
M20 x 1,5	M16 x 1,5	16	19,5	22	1.878.2016.50	1.879.2016.50
M25 x 1,5	M16 x 1,5	16	19,5	30	1.878.2516.50	1.879.2516.50
M25 x 1,5	M20 x 1,5	16	19,5	30	1.878.2520.50	1.879.2520.50
M32 x 1,5	M16 x 1,5	16	20,5	41	1.878.3216.50	1.879.3216.50
M32 x 1,5	M20 x 1,5	16	20,5	41	1.878.3220.50	1.879.3220.50
M32 x 1,5	M25 x 1,5	16	20,5	41	1.878.3225.50	1.879.3225.50
M40 x 1,5	M20 x 1,5	16	21	46	1.878.4020.50	1.879.4020.50
M40 x 1,5	M25 x 1,5	16	21	46	1.878.4025.50	1.879.4025.50
M40 x 1,5	M32 x 1,5	16	21	46	1.878.4032.50	1.879.4032.50
M50 x 1,5	M32 x 1,5	16	21	55	1.878.5032.50	1.879.5032.50

to the assembly instruction

Reducer RSD-INOX-Ex (metric)





Material	INOX 1.4305
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex e IIC Gb
Temperature range	-20°C to +95°C

RoHS

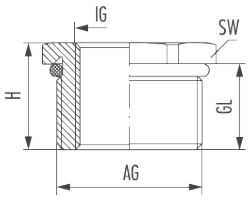
AG	IG	GL mm	H mm	SW mm	Item-No
M16 x 1,5	M12 x 1,5	5	15	19	1.098.1612.50
M20 x 1,5	M12 x 1,5	6	15,5	22	1.098.2012.50
M20 x 1,5	M16 x 1,5	6	15,5	22	1.098.2016.50
M25 x 1,5	M20 x 1,5	7	15,5	30	1.098.2520.50
M32 x 1,5	M25 x 1,5	8	12,5	41	1.098.3225.50
M40 x 1,5	M32 x 1,5	8	17	46	1.098.4032.50
M50 x 1,5	M40 x 1,5	9	13,5	55	1.098.5040.50
M63 x 1,5	M50 x 1,5	10	16,5	65	1.098.6350.50

to the assembly instruction

Ex Accessories

Adapter RSD-INOX-Ex d (metric)





Material	INOX 1.4404
Material o-ring	NBR
Protection class	IP 69 K / IP68 - 10bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / II 2G Ex db eb IIC Gb
Temperature range	-20°C to +95°C

RoHS

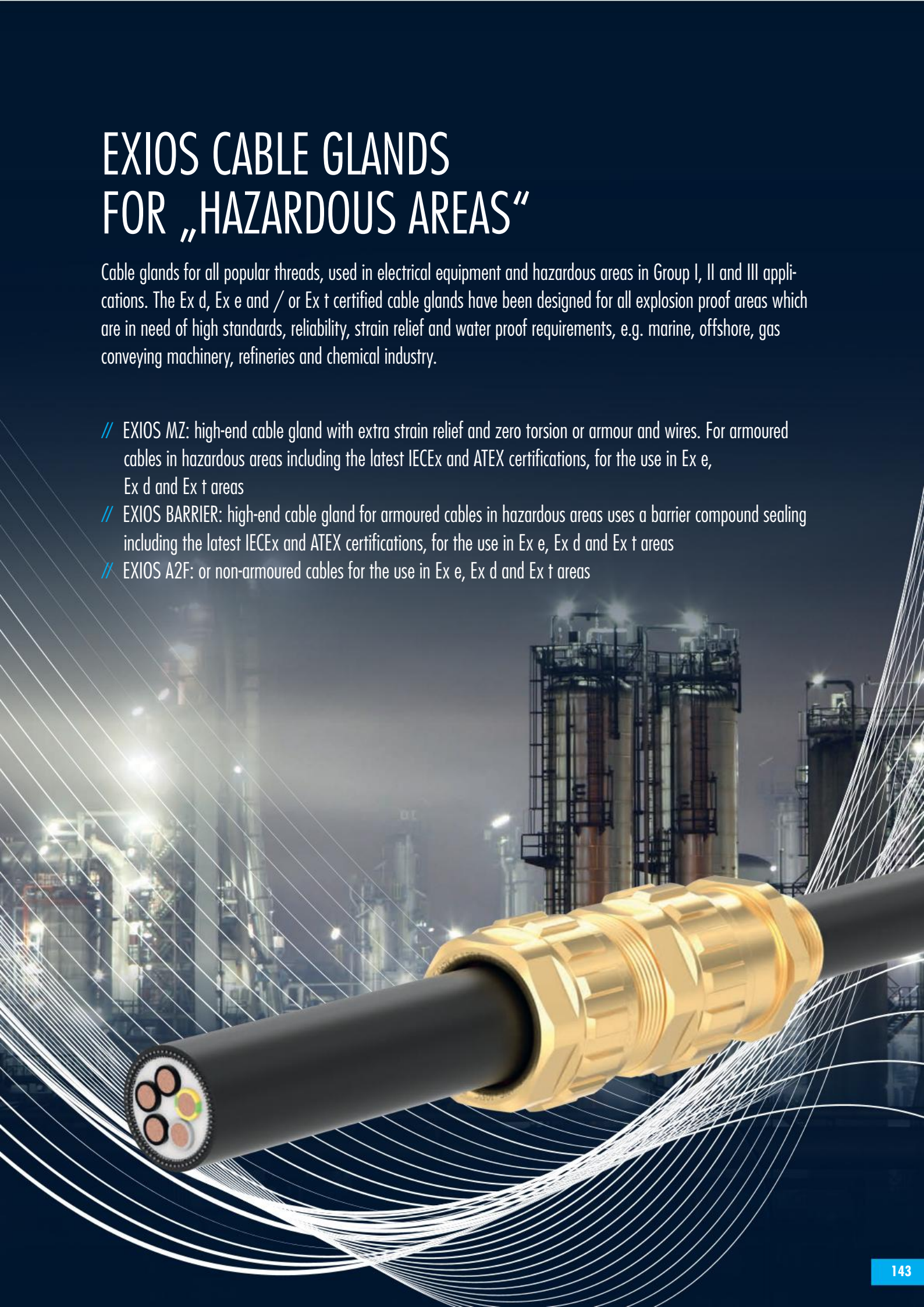
AG	IG	GL mm	H mm	SW mm	Item-No
M16 x 1,5	M12 x 1,5	16	19	19	1.898.1612.50
M20 x 1,5	M12 x 1,5	16	19,5	22	1.898.2012.50
M20 x 1,5	M16 x 1,5	16	19,5	22	1.898.2016.50
M25 x 1,5	M20 x 1,5	16	19,5	30	1.898.2520.50
M32 x 1,5	M20 x 1,5	16	20,5	41	1.898.3220.50
M32 x 1,5	M25 x 1,5	16	20,5	41	1.898.3225.50
M40 x 1,5	M32 x 1,5	16	21	46	1.898.4032.50

to the assembly instruction

EXIOS 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 t 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.

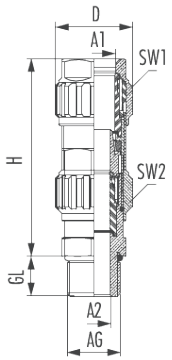
- // EXIOS MZ: high-end cable gland with extra strain relief and zero torsion or armour and wires. For armoured cables in hazardous areas including the latest IECEx and ATEX certifications, for the use in Ex e, Ex d and Ex t areas
- // EXIOS BARRIER: high-end cable gland for armoured cables in hazardous areas uses a barrier compound sealing including the latest IECEx and ATEX certifications, for the use in Ex e, Ex d and Ex t areas
- // EXIOS A2F: or non-armoured cables for the use in Ex e, Ex d and Ex t areas



EXIOS cable glands for “Hazardous Areas”

EXIOS Standard brass (metric)





Material	Brass
Clamping insert	Polyamide 6
Seal	VMQ (silicone)
Material o-ring	VMQ (silicone)
Armour	Metallic armour or screen
Protection class	IP 67 / IP 66 / IP 68 - 5bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / Class I Div 2 Groups A,B,C,D / II 2G Ex db eb IIC Gb / Class II Div 1 Groups E,F,G
Temperature range	-60°C to +105°C

RoHS

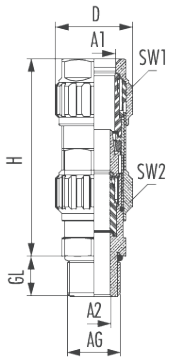
AG	Size	D mm	A1 mm	A2 mm	H mm	GL mm	SW1/SW2 mm	Nm	K1 mm	K2 mm	K3 mm		Item-No
M20 x 1,5	20-1	27	6 – 12	3 – 8,1		69,5	16	22/22	8	0 – 0,7	0,7 – 1,25		1.605.2000.50
M20 x 1,5	20-2	29	9 – 16	6 – 12		74,3	16	24/24	8	0 – 0,7	0,7 – 1,25		1.605.2000.51
M20 x 1,5	20-3	35	12,5 – 20,5	9 – 14		80,5	16	30/30	12	0 – 0,7	0,7 – 1,4		1.605.2000.52
M25 x 1,5	20-3	35	12,5 – 20,5	9 – 14		80,5	16	30/30	12	0 – 0,7	0,7 – 1,4		1.605.2500.51
M25 x 1,5	25	42	16,9 – 26	12,5 – 20,5		91	16	36/36	18	0 – 0,7	0,9 – 1,6	0,7 – 1,4	1.605.2500.50
M32 x 1,5	32	52	22 – 33	16,9 – 26		96	16	46/46	30	0 – 0,7	1,3 – 2	0,7 – 1,4	1.605.3200.50
M40 x 1,5	40	64	28 – 41	22 – 33		107	16	55/55	50	0 – 0,7	1,3 – 2	0,7 – 1,4	1.605.4000.50
M50 x 1,5	50	73	36 – 52,6	28,9 – 44,4		131,5	16	65/65	60	0 – 1	1,5 – 2,5	1 – 2	1.605.5000.50
M63 x 1,5	63	90	46 – 65,3	39,9 – 56,3		144,5	16	80/80	65	0 – 1	1,5 – 2,5	1 – 2	1.605.6300.50

to the product video

to the assembly instruction

EXIOS Standard nickel-plated brass (metric, NPT)





Material	Nickel-plated brass
Clamping insert	Polyamide 6
Seal	VMQ (silicone)
Material o-ring	VMQ (silicone)
Armour	Metallic armour or screen
Protection class	IP 67 / IP 66 / IP 68 - 5bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / Class I Div 2 Groups A,B,C,D / II 2G Ex db eb IIC Gb / Class II Div 1 Groups E,F,G
Temperature range	-60°C to +105°C

RoHS

AG	Size	D mm	A1 mm	A2 mm	H mm	GL mm	SW1/SW2 mm	Nm	K1 mm	K2 mm	K3 mm	Item-No
M16 x 1,5	20-1	27	6 – 12	3 – 8,1	69,5	16	22/22	8	0 – 0,7	0,7 – 1,25		1.605.1603.50
M20 x 1,5	20-1	27	6 – 12	3 – 8,1	69,5	16	22/22	8	0 – 0,7	0,7 – 1,25		1.605.2003.50
M20 x 1,5	20-2	29	9 – 16	6 – 12	74,3	16	24/24	8	0 – 0,7	0,7 – 1,25		1.605.2003.51
M20 x 1,5	20-3	35	12,5 – 20,5	9 – 14	80,5	16	30/30	12	0 – 0,7	0,9 – 1,6	0,7 – 1,4	1.605.2003.52
M25 x 1,5	20-3	35	12,5 – 20,5	9 – 14	80,5	16	30/30	12	0 – 0,7	0,9 – 1,6	0,7 – 1,4	1.605.2503.51
M25 x 1,5	25	42	16,9 – 26	12,5 – 20,5	91	16	36/36	18	0 – 1	1,5 – 2,5	1 – 2	1.605.2503.50
M32 x 1,5	32	52	22 – 33	16,9 – 26	96	16	46/46	30	0 – 1	1,5 – 2,5	1 – 2	1.605.3203.50
M40 x 1,5	40	64	28 – 41	22 – 33	107	16	55/55	50	0 – 0,7	1,3 – 2	0,7 – 1,4	1.605.4003.50
M50 x 1,5	50	73	36 – 52,6	28,9 – 44,4	131,5	16	65/65	60	0 – 1	1,5 – 2,5	1 – 2	1.605.5003.50
M63 x 1,5	63	90	46 – 65,3	39,9 – 56,3	144,5	16	80/80	65	0 – 1	1,5 – 2,5	1 – 2	1.605.6303.50
M75 x 1,5	75	107	57 – 78	50,5 – 68,2	154	16	95/95	135	0 – 1	1,5 – 2,5	1 – 2	1.605.7503.50
NPT 3/8"	20-1	27	6 – 12	3 – 8,1	69,5	16	22/22	8	0 – 0,7	0,7 – 1,25		1.605.3803.70
NPT 1/2"	20-2	29	9 – 16	6 – 12	74,3	20	24/24	8	0 – 0,7	0,7 – 1,25		1.605.1203.70
NPT 1/2"	20-3	35	12,5 – 20,5	9 – 14	80,5	20	30/30	12	0 – 0,7	0,7 – 1,4		1.605.1203.71
NPT 3/4"	25	42	16,9 – 26	12,5 – 20,5	91	20,5	36/36	18	0 – 0,7	1,3 – 2	0,7 – 1,4	1.605.3403.70
NPT 1"	32	52	22 – 33	16,9 – 26	96	25	46/46	30	0 – 0,7	1,3 – 2	0,7 – 1,4	1.605.1003.70
NPT 1 1/4"	40	64	28 – 41	22 – 33	107	26	55/55	50	0 – 0,7	1,3 – 2	0,7 – 1,4	1.605.5403.70
NPT 1 1/2"	40	64	28 – 41	22 – 33	107	26,5	55/55	50	0 – 0,7	1,3 – 2	0,7 – 1,4	1.605.6403.70
NPT 2"	50	73	36 – 52,6	28,9 – 44,4	131,5	27	65/65	60	0 – 0,7	0,7 – 1,4		1.605.2003.70
NPT 2 1/2"	63	90	46 – 65,3	39,9 – 56,3	144,5	40	80/80	65	0 – 1	1,5 – 2,5	1 – 2	1.605.5203.70
NPT 3"	75	107	57 – 78	50,5 – 68,2	154	41,5	95/95	135	0 – 0,7	0,7 – 1,4		1.605.3003.70

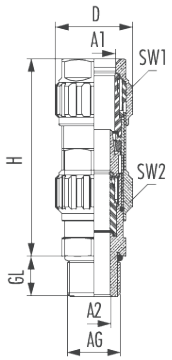
to the product video

to the assembly instruction

EXIOS cable glands for “Hazardous Areas”

EXIOS Standard INOX (metric, NPT)





Material	INOX 1.4404
Clamping insert	Polyamide 6
Seal	VMQ (silicone)
Material o-ring	VMQ (silicone)
Armour	Metallic armour or screen
Protection class	IP 67 / IP 66 / IP 68 - 5bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / Class I Div 2 Groups A,B,C,D / II 2G Ex db eb IIC Gb / Class II Div 1 Groups E,F,G
Temperature range	-60°C to +105°C

RoHS

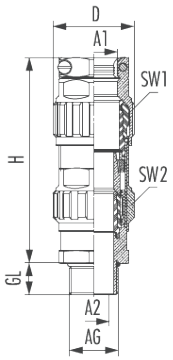
AG	Size	D mm	A1 mm	A2 mm	H mm	GL mm	SW1/SW2 mm	Nm	K1 mm	K2 mm	K3 mm	Item-No
M16 x 1,5	20-1	27	6 – 12	3 – 8,1	69,5	16	22/22	8	0 – 0,7	0,7 – 1,25		1.605.1602.50
M20 x 1,5	20-1	27	6 – 12	3 – 8,1	69,5	16	22/22	8	0 – 0,7	0,7 – 1,25		1.605.2002.50
M20 x 1,5	20-2	29	9 – 16	6 – 12	74,3	16	24/24	8	0 – 0,7	0,7 – 1,25		1.605.2002.51
M20 x 1,5	20-3	35	12,5 – 20,5	9 – 14	80,5	16	30/30	12	0 – 0,7	0,9 – 1,6	0,7 – 1,4	1.605.2002.52
M25 x 1,5	20-3	35	12,5 – 20,5	9 – 14	80,5	16	30/30	12	0 – 0,7	0,9 – 1,6	0,7 – 1,4	1.605.2502.51
M25 x 1,5	25	42	16,9 – 26	12,5 – 20,5	91	16	36/36	18	0 – 1	1,5 – 2,5	1 – 2	1.605.2502.50
M32 x 1,5	32	52	22 – 33	16,9 – 26	96	16	46/46	30	0 – 1	1,5 – 2,5	1 – 2	1.605.3202.50
M40 x 1,5	40	64	28 – 41	22 – 33	107	16	55/55	50	0 – 0,7	1,3 – 2	0,7 – 1,4	1.605.4002.50
M50 x 1,5	50	73	36 – 52,6	28,9 – 44,4	131,5	16	65/65	60	0 – 1	1,5 – 2,5	1 – 2	1.605.5002.50
M63 x 1,5	63	90	46 – 65,3	39,9 – 56,3	144,5	16	80/80	65	0 – 1	1,5 – 2,5	1 – 2	1.605.6302.50
M75 x 1,5	75	107	57 – 78	50,5 – 68,2	154	16	95/95	135	0 – 1	1,5 – 2,5	1 – 2	1.605.7502.50
NPT 3/8"	20-1	27	6 – 12	3 – 8,1	69,5	16	22/22	8	0 – 0,7	0,7 – 1,25		1.605.3802.70
NPT 1/2"	20-2	29	9 – 16	6 – 12	74,3	20	24/24	8	0 – 0,7	0,7 – 1,25		1.605.1202.70
NPT 1/2"	20-3	35	12,5 – 20,5	9 – 14	80,5	20	30/30	12	0 – 0,7	0,7 – 1,4		1.605.1202.71
NPT 3/4"	25	42	16,9 – 26	12,5 – 20,5	91	20,5	36/36	18	0 – 0,7	1,3 – 2	0,7 – 1,4	1.605.3402.70
NPT 1"	32	52	22 – 33	16,9 – 26	96	25	46/46	30	0 – 0,7	1,3 – 2	0,7 – 1,4	1.605.1002.70
NPT 1 1/4"	40	64	28 – 41	22 – 33	107	26	55/55	50	0 – 0,7	1,3 – 2	0,7 – 1,4	1.605.5402.70
NPT 1 1/2"	40	64	28 – 41	22 – 33	107	26,5	55/55	50	0 – 0,7	1,3 – 2	0,7 – 1,4	1.605.6402.70
NPT 2"	50	73	36 – 52,6	28,9 – 44,4	131,5	27	65/65	60	0 – 0,7	0,7 – 1,4		1.605.2002.70
NPT 2 1/2"	63	90	46 – 65,3	39,9 – 56,3	144,5	40	80/80	65	0 – 1	1,5 – 2,5	1 – 2	1.605.5202.70
NPT 3"	75	107	57 – 78	50,5 – 68,2	154	41,5	95/95	135	0 – 0,7	0,7 – 1,4		1.605.3002.70

to the product video

to the assembly instruction

EXIOS MZ nickel plated brass (metric)





Material	Nickel-plated brass
Clamping insert	Polyamide 6
Seal	VMQ (silicone)
Material o-ring	VMQ (silicone)
Armour	Metallic armour or screen
Protection class	IP 67 / IP 66 / IP 68 - 5bar/30min
Ex-protection level	II 1D Ex ta IIIC Da / Class I Div 2 Groups A,B,C,D / II 2G Ex db eb IIC Gb / Class II Div 1 Groups E,F,G
Temperature range	-60°C to +105°C

RoHS

// brass blank on request
// NPT connection thread on request

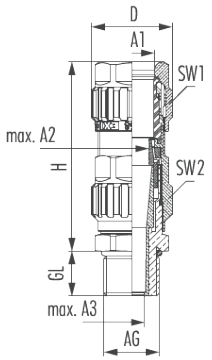
AG	Size	D mm	A1 mm	A2 mm	GL mm	H mm	SW1/SW2 mm	Nm	K1 mm	K2 mm	K3 mm	Item-No
M16 x 1,5	20-1	27	6 – 11	3 – 8,1	16	79	22/22	8	0 – 0,7	0,7 – 1,25		1.6Z5.1603.50
M20 x 1,5	20-1	27	6 – 11	3 – 8,1	16	79	22/22	8	0 – 0,7	0,7 – 1,25		1.6Z5.2003.50
M20 x 1,5	20-2	29	9 – 13	9 – 12	16	83,8	24/24	8	0 – 0,7	0,7 – 1,25		1.6Z5.2003.51
M20 x 1,5	20-3	35	12,5 – 17,5	9 – 14	16	91,5	30/30	12	0 – 0,7	0,7 – 1,4		1.6Z5.2003.52
M25 x 1,5	20-3	35	12,5 – 17,5	9 – 14	16	91,5	30/30	12	0 – 0,7	0,7 – 1,4		1.6Z5.2503.51
M25 x 1,5	25	42	16,9 – 24	12,5 – 20,5	16	105,7	36/36	18	0 – 0,7	0,9 – 1,6	0,7 – 1,4	1.6Z5.2503.50
M32 x 1,5	32	52	22 – 32,5	16,9 – 26	16	107	46/46	30	0 – 0,7	1,3 – 2	0,7 – 1,4	1.6Z5.3203.50
M40 x 1,5	40	64	28 – 39,5	22 – 33	16	120	55/55	50	0 – 0,7	1,3 – 2	0,7 – 1,4	1.6Z5.4003.50
M50 x 1,5	50	73	36 – 49	28,9 – 44,4	16	144,5	65/65	60	0 – 1	1,5 – 2,5	1 – 2	1.6Z5.5003.50
M63 x 1,5	63	90	46 – 64	39,9 – 56,3	16	157,5	80/80	65	0 – 1	1,5 – 2,5	1 – 2	1.6Z5.6303.50

to the assembly instruction

EXIOS cable glands for "Hazardous Areas"

EXIOS Barrier nickel-plated brass (metric, NPT)





Material	Nickel-plated brass
Clamping insert	Polyamide 6
Seal	VMQ (silicone)
Material o-ring	VMQ (silicone)
Armour	Metallic armour or screen
Compound	Two-component epoxy compound
Protection class	IP 67 / IP 66 / IP 68 - 5bar/30min
Ex-protection level	Class I Div 2 Groups A,B,C,D / I M2 Ex de / I Mb IIC Gb / I M2 Ex ta IIIC Da / Class II Div 1 Groups E,F,G
Temperature range	-60°C to +85°C

RoHS

AG	Size	D mm	A1 mm	max. A2 mm	max. A3 mm	GL mm	H mm	SW1/SW2 mm	Nm	max. No. cores	K1 mm	K2 mm	Item-No
M16 x 1,5	20-1	27	6 – 12	8,2	7,9	16	64	22/22	8	8	0 – 0,7	0,7 – 1,25	1.606.1603.50
M20 x 1,5	20-1	27	6 – 12	8,2	7,9	16	64	22/22	8	8	0 – 0,7	0,7 – 1,25	1.606.2003.50
M20 x 1,5	20-2	29	9 – 16	12	8,8	16	68	24/24	12	10	0 – 0,7	0,7 – 1,25	1.606.2003.51
M20 x 1,5	20-3	35	12,5 – 20,5	14	11,5	16	73	30/30	12	15	0 – 0,7	0,7 – 1,4	1.606.2003.52
M25 x 1,5	20-3	35	12,5 – 20,5	14	11,5	16	73	30/30	12	15	0 – 0,7	0,7 – 1,4	1.606.2503.51
M25 x 1,5	25	42	16,9 – 26	20	16,4	16	81,3	36/36	18	25	0 – 0,7	0,9 – 1,6	1.606.2503.50
M32 x 1,5	32	52	22 – 33	26	21,4	16	85,5	46/46	30	45	0 – 0,7	1,3 – 2	1.606.3203.50
M40 x 1,5	40	64	28 – 41	33,2	27,6	16	94,4	55/55	50	70	0 – 0,7	1,3 – 2	1.606.4003.50
M50 x 1,5	50	73	36 – 52,6	44,2	37,5	16	116,3	65/65	60	85	0 – 1	1,5 – 2,5	1.606.5003.50
M63 x 1,5	63	90	46 – 65,3	56,2	47,3	16	127,6	80/80	65	120	0 – 1	1,5 – 2,5	1.606.6303.50
M75 x 1,5	75	107	57 – 78	68,2	58,0	16	136,5	95/95	135	150	0 – 1	1,5 – 2,5	1.606.7503.50
NPT 3/8"	20-1	27	6 – 12	8,2	7,9	16	64	22/22	8	8	0 – 0,7	0,7 – 1,25	1.606.3803.70
NPT 1/2"	20-2	29	9 – 16	12	8,8	20	68	24/24	12	10	0 – 0,7	0,7 – 1,25	1.606.1203.70
NPT 1/2"	20-3	35	12,5 – 20,5	14	11,5	20	73	30/30	12	15	0 – 0,7	0,7 – 1,4	1.606.1203.71
NPT 3/4"	25	42	16,9 – 26	20	16,4	20,5	81,3	36/36	18	25	0 – 0,7	0,9 – 1,6	1.606.3403.70
NPT 1"	32	52	22 – 32,5	26	21,4	25	85,5	46/46	30	45	0 – 0,7	1,3 – 2	1.606.1003.70
NPT 1 1/4"	40	64	28 – 41	33,2	27,6	26	94,4	55/55	50	70	0 – 0,7	1,3 – 2	1.606.5403.70
NPT 1 1/2"	40	64	28 – 41	33,2	27,6	26,5	94,4	55/55	50	70	0 – 0,7	1,3 – 2	1.606.6403.70
NPT 2"	50	73	36 – 52,6	44,2	37,5	27	116,3	65/65	60	85	0 – 1	1,5 – 2,5	1.606.2003.70
NPT 2 1/2"	63	90	46 – 65,3	56,2	47,3	40	127,6	80/80	65	120	0 – 1	1,5 – 2,5	1.606.5203.70
NPT 3"	75	107	57 – 78	68,2	58,0	41,5	136,5	95/95	135	150	0 – 1	1,5 – 2,5	1.606.3003.70

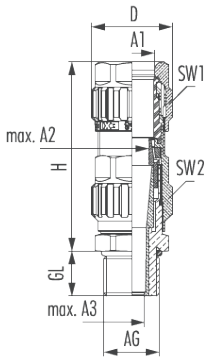
to the product video

to the assembly instruction

Dimensions and specifications may be changed without prior notice

EXIOS Barrier INOX (metric, NPT)





Material	INOX 1.4404
Clamping insert	Polyamide 6
Seal	VMQ (silicone)
Material o-ring	VMQ (silicone)
Armour	Metallic armour or screen
Compound	Two-component epoxy compound
Protection class	IP 67 / IP 66 / IP 68 - 5bar/30min
Ex-protection level	Class I Div 2 Groups A,B,C,D / I M2 Ex de / I Mb IIC Gb / I M2 Ex ta IIIC Da / Class II Div 1 Groups E,F,G
Temperature range	-60°C to +85°C

RoHS

AG	Size	D mm	A1 mm	max. A2 mm	max. A3 mm	GL mm	H mm	SW1/SW2 mm	Nm	max. No. cores	K1 mm	K2 mm	Item-No
M16 x 1,5	20-1	27	6 – 12	8,2	7,9	16	68,5	22/22	8	8	0 – 0,7	0,7 – 1,25	1.606.1602.50
M20 x 1,5	20-1	27	6 – 12	8,2	7,9	16	68,5	22/22	8	8	0 – 0,7	0,7 – 1,25	1.606.2002.50
M20 x 1,5	20-2	29	9 – 16	12	8,8	16	74,3	24/24	12	10	0 – 0,7	0,7 – 1,25	1.606.2002.51
M20 x 1,5	20-3	35	12,5 – 20,5	14	11,5	16	80,5	30/30	12	15	0 – 0,7	0,7 – 1,4	1.606.2002.52
M25 x 1,5	20-3	35	12,5 – 20,5	14	11,5	16	80,5	30/30	12	15	0 – 0,7	0,7 – 1,4	1.606.2502.51
M25 x 1,5	25	42	17 – 26	20	16,4	16	91	36/36	18	25	0 – 0,7	0,9 – 1,6	1.606.2502.50
M32 x 1,5	32	52	22 – 33	26	21,4	16	96	46/46	30	45	0 – 0,7	1,3 – 2	1.606.3202.50
M40 x 1,5	40	64	28 – 41	33,2	27,6	16	107	55/55	50	70	0 – 0,7	1,3 – 2	1.606.4002.50
M50 x 1,5	50	73	36 – 52,6	44,2	37,5	16	131,5	65/65	60	85	0 – 1	1,5 – 2,5	1.606.5002.50
M63 x 1,5	63	90	46 – 66	56,2	47,3	16	144,5	80/80	65	120	0 – 1	1,5 – 2,5	1.606.6302.50
M75 x 1,5	75	107	58 – 78	68,2	58	16	154	59/59	135	150	0 – 1	1,5 – 2,5	1.606.7502.50
NPT 3/8"	20-1	27	6 – 12	8,2	7,9	16	64	22/22	8	8	0 – 0,7	0,7 – 1,25	1.606.3802.70
NPT 1/2"	20-2	29	9 – 16	12	8,8	16	68	24/24	12	10	0 – 0,7	0,7 – 1,25	1.606.1202.70
NPT 1/2"	20-3	35	12,5 – 20,5	14	11,5	16	73	30/30	12	15	0 – 0,7	0,7 – 1,4	1.606.1202.71
NPT 3/4"	25	42	17 – 26	20	16,4	16	81,3	36/36	18	25	0 – 0,7	0,9 – 1,6	1.606.3402.70
NPT 1"	32	52	22 – 33	26	21,4	16	85,5	46/46	30	45	0 – 0,7	1,3 – 2	1.606.1002.70
NPT 1 1/4"	40	64	28 – 41	33,2	27,6	16	94,4	55/55	50	70	0 – 0,7	1,3 – 2	1.606.5402.70
NPT 1 1/2"	40	64	28 – 41	33,2	27,6	16	94,4	55/55	50	70	0 – 0,7	1,3 – 2	1.606.6402.70
NPT 2"	50	73	36 – 52,6	44,2	37,5	16	116,3	65/65	60	85	0 – 1	1,5 – 2,5	1.606.2002.70
NPT 2 1/2"	63	90	46 – 66	56,2	47,3	16	127,6	80/80	65	120	0 – 1	1,5 – 2,5	1.606.5202.70
NPT 3"	75	107	58 – 78	68,2	58	16	136,5	95/95	135	150	0 – 1	1,5 – 2,5	1.606.3002.70

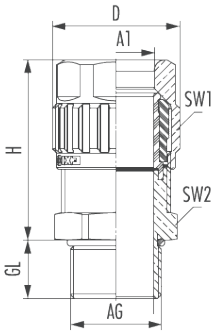
to the product video

to the assembly instruction

EXIOS cable glands for “Hazardous Areas”

EXIOS A2F nickel-plated brass (metric, NPT)





Material	Nickel-plated brass
Clamping insert	Polyamide 6
Seal	VMQ (silicone)
Material o-ring	VMQ (silicone)
Protection class	IP 67 / IP 66 / IP 68 - 5bar/30min
Ex-protection level	Class I Div 2 Groups A,B,C,D / II 2G Ex db eb IIC Gb / II 1D Ex ta IIIC Da / Class II Div 1 Groups E,F,G
Temperature range	-60°C to +105°C

RoHS

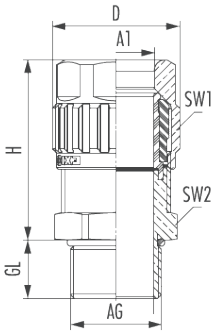
AG	Size	D mm	A1 mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M16 x 1,5	20-1	27	6 – 12	16	35,6	22/22	8	1.608.1603.50
M20 x 1,5	20-1	27	6 – 12	16	35,6	22/22	8	1.608.2003.50
M20 x 1,5	20-2	29	9 – 16	16	39,7	24/24	8	1.608.2003.51
M25 x 1,5	20-3	35	12,5 – 20,5	16	47,5	30/30	12	1.608.2503.50
M32 x 1,5	25	42	16,9 – 26	16	47,8	36/36	18	1.608.3203.50
M40 x 1,5	32	52	22 – 33	16	51,1	46/46	30	1.608.4003.50
M50 x 1,5	40	64	28 – 41	16	56,8	55/55	50	1.608.5003.50
M63 x 1,5	50	73	40 – 52,6	16	65,4	65/65	60	1.608.6303.50
M75 x 1,5	63	90	51 – 65,3	16	70,3	80/80	65	1.608.7503.50
M90 x 2,0	75	107	62 – 78	20	76,2	95/95	135	1.608.9003.50
NPT 1/2"	20-1	29	6 – 12	20	39,7	24/24	8	1.608.1203.70
NPT 1/2"	20-2	27	9 – 16	20	35,6	22/24	8	1.608.1203.71
NPT 3/4"	20-3	35	12,5 – 20,5	20,5	47,5	30/30	12	1.608.3403.70
NPT 1"	25	42	16,9 – 26	25	47,8	36/36	18	1.608.1003.70
NPT 1 1/4"	32	52	22 – 33	26	51,1	46/46	30	1.608.5403.70
NPT 1 1/2"	40	64	28 – 41	26,5	56,8	55/55	50	1.608.6403.70
NPT 2"	50	73	40 – 52,6	27	65,4	65/65	60	1.608.2003.70
NPT 2 1/2"	63	90	51 – 61	40	70,3	80/80	65	1.608.5203.70
NPT 3"	75	107	62 – 78	41,5	76,2	95/95	135	1.608.3003.70

to the product video

to the assembly instruction

EXIOS A2F INOX (metric, NPT)





Material	INOX 1.4404
Clamping insert	Polyamide 6
Seal	VMQ (silicone)
Material o-ring	VMQ (silicone)
Protection class	IP 67 / IP 66 / IP 68 - 5bar/30min
Ex-protection level	Class I Div 2 Groups A,B,C,D / II 2G Ex db eb IIC Gb / II 1D Ex ta IIIC Da / Class II Div 1 Groups E,F,G
Temperature range	-60°C to +105°C

RoHS

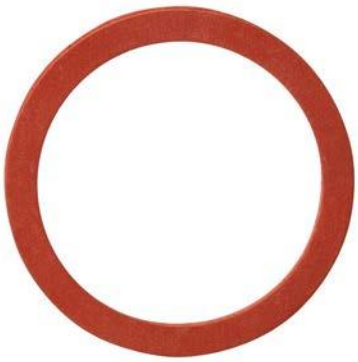
AG	Size	D mm	A1 mm	GL mm	H mm	SW1/SW2 mm	Nm	Item-No
M16 x 1,5	20-1	27	6 – 12	16	35,6	22/22	8	1.608.1602.50
M20 x 1,5	20-1	27	6 – 12	16	35,6	22/22	8	1.608.2002.50
M20 x 1,5	20-2	29	9 – 16	16	39,7	24/24	8	1.608.2002.51
M25 x 1,5	20-3	35	12,5 – 20,5	16	47,5	30/30	12	1.608.2502.50
M32 x 1,5	25	42	16,9 – 26	16	47,8	36/36	18	1.608.3202.50
M40 x 1,5	32	52	22 – 33	16	51,1	46/46	30	1.608.4002.50
M50 x 1,5	40	64	28 – 41	16	56,8	55/55	50	1.608.5002.50
M63 x 1,5	50	73	40 – 52,6	16	65,4	65/65	60	1.608.6302.50
M75 x 1,5	63	90	51 – 65,3	16	72	80/80	65	1.608.7502.50
M90 x 1,5	75	107	62 – 78	20	76,2	95/95	135	1.608.9002.50
NPT 3/8"	20-1	27	6 – 12	16	35,6	22/22	8	1.608.3802.70
NPT 1/2"	20-1	29	6 – 12	20	39,7	24/24	8	1.608.1202.70
NPT 1/2"	20-2	27	9 – 16	20	35,6	22/22	8	1.608.1202.71
NPT 3/4"	20-3	35	12,5 – 20,5	20,5	47,5	30/30	12	1.608.3402.70
NPT 1"	25	42	16,9 – 26	25	47,8	36/36	18	1.608.1002.70
NPT 1 1/4"	32	52	22 – 33	26	51,1	46/46	30	1.608.5402.70
NPT 1 1/2"	40	64	28 – 41	26,5	56,8	55/55	50	1.608.6402.70
NPT 2"	50	73	40 – 52,6	27	65,4	65/65	60	1.608.2002.70
NPT 2 1/2"	63	90	51 – 61	40	70,3	80/80	65	1.608.5202.70
NPT 3"	75	107	62 – 78	41,5	76,2	95/95	135	1.608.3002.70

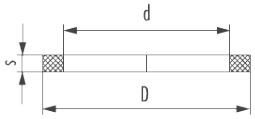
to the product video

to the assembly instruction

EXIOS cable glands for “Hazardous Areas”

Thread seal ring (metric, NPT)





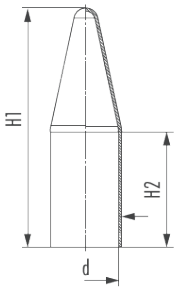
Material	Plastic, glass fiber reinforced
Temperature range	-60°C to +105°C

RoHS

Suitable for AG	D mm	d mm	s mm	Item-No
M16 x 1,5	25	16,5	1,5	1.326.1600.50
M20 x 1,5	28,7	20,5	1,5	1.326.2000.50
M25 x 1,5	36	25,5	1,5	1.326.2500.50
M32 x 1,5	42,5	32,5	1,5	1.326.3200.50
M40 x 1,5	52	40,5	1,5	1.326.4000.50
M50 x 1,5	65	50,5	1,5	1.326.5000.50
M63 x 1,5	79,4	63,5	1,5	1.326.6300.50
M75 x 1,5	90,5	75,5	1,5	1.326.7500.50
NPT 3/8"	22,2	17,5	1,5	1.326.3800.70
NPT 1/2"	30	22	1,5	1.326.1200.70
NPT 3/4"	38	27,2	1,5	1.326.3400.70
NPT 1"	46	33,7	1,5	1.326.1000.70
NPT 1 1/4"	55,5	42,8	1,5	1.326.5400.70
NPT 1 1/2"	58,8	48,6	1,5	1.326.6400.70
NPT 2"	79,4	60,9	1,5	1.326.2000.70
NPT 2 1/2"	90,5	74	1,5	1.326.5200.70
NPT 3"	114,3	90,5	1,5	1.326.3000.70

PVC shroud





Material	PVC

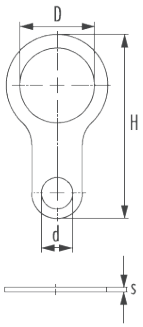
RoHS

Suitable for size	d mm	H1 mm	H2 mm	Item-No
20-1	26	115	60	1.802.2000.50
20-2	28	125	70	1.802.2000.51
20-3	34	130	65	1.802.2000.52
25	42	160	90	1.802.2500.50
32	51	165	95	1.802.3200.50
40	63	200	110	1.802.4000.50
50	72	210	115	1.802.5000.50
63	88	245	140	1.802.6300.50
75	108	245	140	1.802.7500.50

EXIOS cable glands for “Hazardous Areas”

Earthtag (metric, NPT)





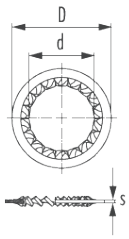
Material	Brass

RoHS

Suitable for AG	D mm	d mm	s mm	H mm	Item-No
M16 x 1,5	16,2	6,7	1,5	49	1.022.1600.50
M20 x 1,5	21	7	1,5	54	1.022.2000.50
M25 x 1,5	25,5	10,5	1,5	61,5	1.022.2500.50
M32 x 1,5	32,5	12,2	1,5	73	1.022.3200.50
M40 x 1,5	40,5	13,5	1,5	86,5	1.022.4000.50
M50 x 1,5	51	13,5	1,5	112	1.022.5000.50
M63 x 1,5	64	13,5	1,5	126	1.022.6300.50
M75 x 1,5	76,2	13,5	1,5	138	1.022.7500.50
NPT 3/8"	17,5	7	1,5	53,8	1.022.3800.70
NPT 1/2"	21,5	7	1,5	53,5	1.022.1200.70
NPT 3/4"	26,7	10,5	1,5	61,5	1.022.3400.70
NPT 1"	34,5	12,2	1,5	73	1.022.1000.70
NPT 1 1/4"	43,5	13,5	1,5	86,5	1.022.5400.70
NPT 1 1/2"	51	13,5	1,5	112	1.022.6400.70
NPT 2"	61,2	13,5	1,5	126	1.022.2000.70
NPT 2 1/2"	76,2	13,5	1,5	138	1.022.5200.70

Serrated Washer (metric, NPT)





Material	Stainless steel

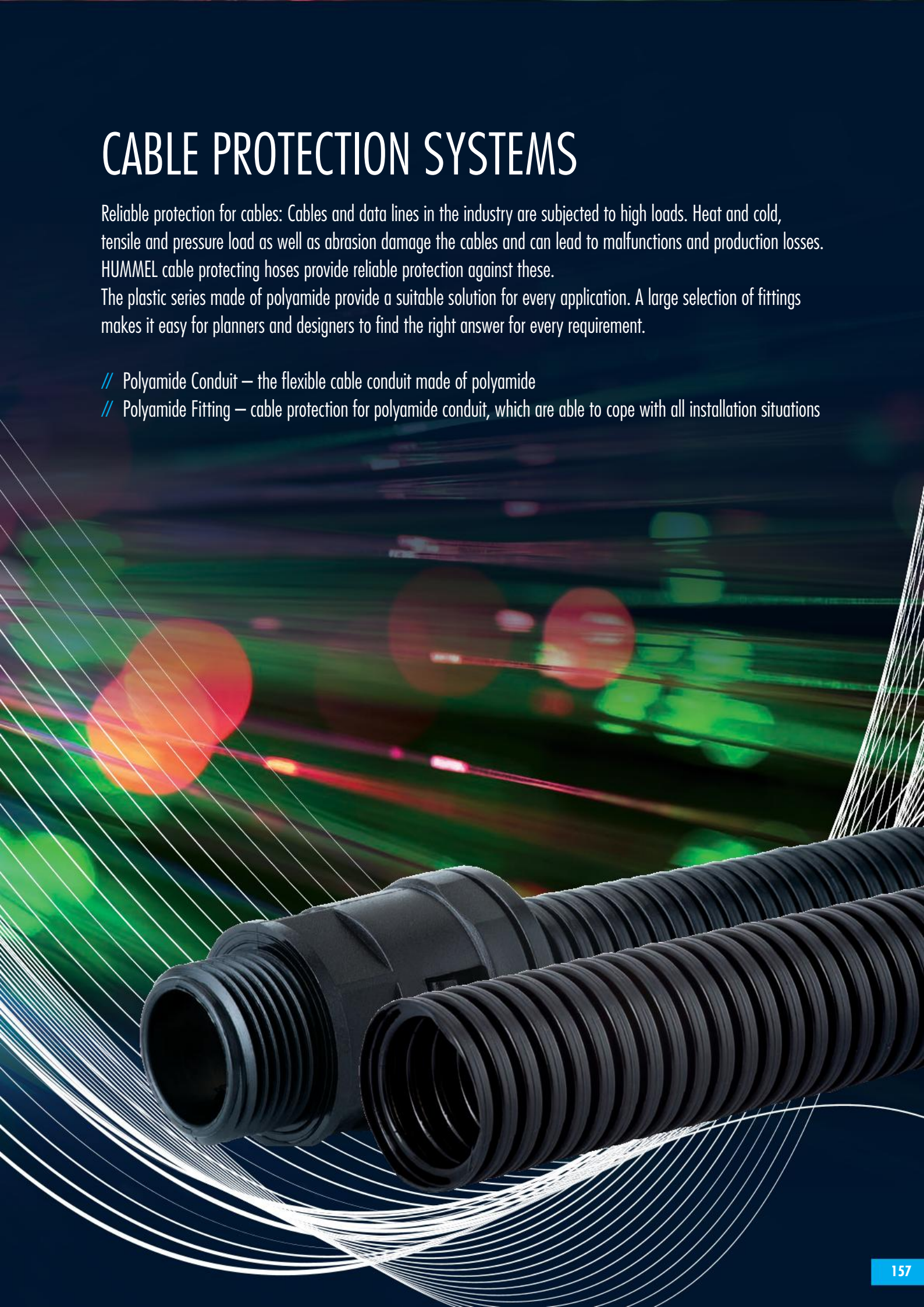
RoHS

Suitable for AG	D mm	d mm	s mm	Item-No
M16 x 1,5	26,5	17	1,5	1.329.1600.50
M20 x 1,5	33,5	21,5	1,5	1.329.2000.50
M25 x 1,5	39	26	1,5	1.329.2500.50
M32 x 1,5	48	30,5	1,5	1.329.3200.50
M40 x 1,5	59,5	40,5	1,5	1.329.4000.50
M50 x 1,5	71	51,5	1,5	1.329.5000.50
M63 x 1,5	87	64	1,5	1.329.6300.50
M75 x 1,5	102,5	76,5	1,5	1.329.7500.50
NPT 3/8"	30	19,5	1,5	1.329.3800.70
NPT 1/2"	39	23,5	1,5	1.329.1200.70
NPT 3/4"	42	29,5	1,5	1.329.3400.70
NPT 1"	49,5	35	1,5	1.329.1000.70
NPT 1 1/4"	59,5	44	1,5	1.329.5400.70
NPT 1 1/2"	71	51,5	1,5	1.329.6400.70
NPT 2"	86,6	61,5	1,5	1.329.2000.70
NPT 2 1/2"	102,5	76,5	1,5	1.329.5200.70

CABLE PROTECTION SYSTEMS

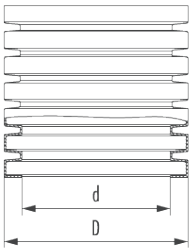
Reliable protection for cables: Cables and data lines in the industry are subjected to high loads. Heat and cold, tensile and pressure load as well as abrasion damage the cables and can lead to malfunctions and production losses. HUMMEL cable protecting hoses provide reliable protection against these.
The plastic series made of polyamide provide a suitable solution for every application. A large selection of fittings makes it easy for planners and designers to find the right answer for every requirement.

// Polyamide Conduit – the flexible cable conduit made of polyamide
// Polyamide Fitting – cable protection for polyamide conduit, which are able to cope with all installation situations



Polyamide conduit





Material	Polyamide
Temperature range	-40°C to +120°C
Colour	black
RAL	9005

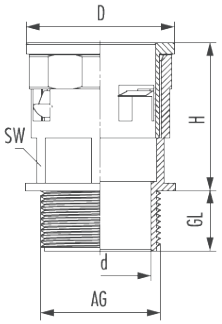
RoHS

// Raw material according to UL94

Size DN	d mm	D mm	mm	Item-No
7	6,5	10	25	1.510.0701.14
10	10	13	25	1.510.0901.14
12	12	15,8	35	1.510.1101.14
14	14,2	18,4	35	1.510.1301.14
17	16,5	21,2	40	1.510.1601.14
23	23	28,4	45	1.510.2101.14
29	29	34,5	55	1.510.2901.14
37	36	42,5	65	1.510.3601.14

Polyamid-Fitting (metric, PG)





Material	Polyamide
Protection class	IP 55
Temperature range	-30°C to +80°C
Colour	black
RAL	9005

RoHS

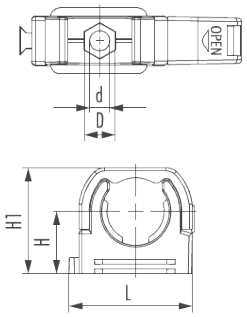
// Raw material according to UL94
// Locknut optional
// Easy disassembly without tools



AG	d mm	D mm	GL mm	H mm	SW mm	Suitable for polyamide hose DN	Item-No
M12	6,9	18,7	11	26	15	7	1.533.1201.50
M16	10,9	21,7	11	26	18	10	1.533.1601.51
M16	10,9	26	11	26,5	20	12	1.533.1601.50
M20	14,7	28	11	31	23	14	1.533.2001.51
M20	15,2	32	13	33	27	17	1.533.2001.50
M25	18,7	39,5	16	39	34	23	1.533.2501.50
M32	25,7	46,5	16	43	40	29	1.533.3201.50
M40	32,7	55,5	16	45,5	50	37	1.533.4001.50
PG7	6,9	18,7	11	26	15	7	1.533.0701.14
PG9	10,3	21,7	11	26	18	10	1.533.0901.14
PG11	13,3	26	11	26,5	20	12	1.533.1101.14
PG13,5	15,3	28	11	31	23	14	1.533.1301.14
PG16	16,6	32	13	33	27	17	1.533.1601.14
PG21	22,3	39,5	16	39	34	23	1.533.2101.14
PG29	31,7	46,5	16	43	40	29	1.533.2901.14
PG36	40,5	55,5	16	45,5	50	36	1.533.3601.14
PG48	51,7	67,5	16	47,5	62	48	1.533.4801.14

Polyamide fitting clip





Material	Polyamide
Temperature range	-30°C to +80°C
Colour	black
RAL	9005

RoHS

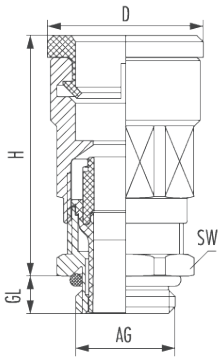
// Raw material according to UL94

Daniel liefert mir die fehlenden Werte noch

Size DN	d mm	D mm	H mm	H1 mm	L mm	Suitable for polyamide hose DN	Item-No
7				15	24,5	7	1.534.0701.00
10	5	7	15,75	27,5	28,7	10	1.534.0901.00
12	5,3	8,3	13,1	24	29,8	12	1.534.1101.00
14	5,3	8,5	17,75	29,3	35,2	14	1.534.1401.00
17	5,3	8,5	19,75	33,2	40,2	17	1.534.1601.00
23	5,3	8,7	23,5	40,5	52,6	23	1.534.2101.00
29	6,5	11	27	48	60,7	29	1.534.2901.00
37	6,5	11	30,4	57	69	37	1.534.3601.00

Polyamide fitting Duo-Ms (metric)





Material	Nickel-plated brass
Clamping insert	Polyamide
Seal	NBR
Protection class	IP 68 / IP 69 K / IP68 - 10bar/30min
Temperature range	-40°C to +100°C

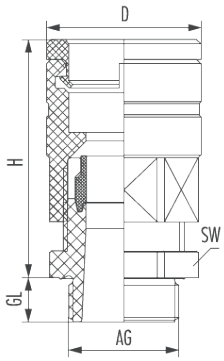
RoHS

// 2 in 1 cable gland and conduit fitting
// Easy disassembly without tools

AG	⌀ mm	D mm	GL mm	H mm	SW mm	Suitable for polyamide hose DN	Item-No
M16	5 – 10	23	6	36	20	10	1.547.1610.50
M20	5 – 9	25	6	39,5	22	12	1.547.2012.51
M20	6 – 12	25	6	39,5	22	12	1.547.2012.50
M20	7 – 12	29	6	40,5	28	14	1.547.2014.51
M20	10 – 14	29	6	40,5	28	14	1.547.2014.50
M25	9 – 16	30	7	44,5	30	17	1.547.2517.51
M25	13 – 18	30	7	44,5	30	17	1.547.2517.50
M32	13 – 20	39	8	50,5	40	23	1.547.3223.51
M32	18 – 24	39	8	50,5	40	23	1.547.3223.50
M40	20 – 26	45	8	56,5	50	29	1.547.4029.51
M40	22 – 31	45	8	56,5	50	29	1.547.4029.50
M50	25 – 31	52	9	57,5	57	37	1.547.5037.51
M50	32 – 36	52	9	57,5	57	37	1.547.5037.50

Polyamide fitting Duo-PA (metric)





Material	Polyamide
Seal	NBR
Protection class	IP 54 / IP 68 with additional O-ring:IP68 - 10bar/30min / IP 69 K
Temperature range	-40°C to +100°C
Colour	black
RAL	9005

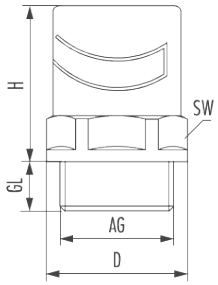
RoHS

// 2 in 1 cable gland and conduit fitting
// Easy disassembly without tools
// Other sizes on request
// NPT connection thread on request

AG	⌀ mm	D mm	GL mm	H mm	SW mm	Suitable for polyamide hose DN	Item-No
M16	3 – 7	23	8	40	22	10	1.542.1610.51
M16	5 – 10	23	8	40	22	10	1.542.1610.50
M20	5 – 9	25	10	44	24	12	1.542.2012.51
M20	6 – 12	25	10	44	24	12	1.542.2012.50
M20	7 – 12	29	10	46	27	14	1.542.2014.51
M20	10 – 14	29	10	46	27	14	1.542.2014.50
M25	9 – 16	30	11	50	33	17	1.542.2517.51
M25	13 – 18	30	11	50	33	17	1.542.2517.50
M32	13 – 20	39	11	60	42	23	1.542.3223.51
M32	18 – 24	39	11	60	42	23	1.542.3223.50

Polyamide fitting N (metric, PG, NPT)





Material	Polyamide
Protection class	IP 54 / IP 65 in case of fixed mounting and o-ring on the connection thread
Temperature range	-20°C to +80°C
Colour	black
RAL	9005

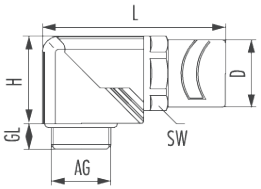
RoHS

// Protection against unintended disconnect. Use screwdriver to disassemble
// Other sizes on request

AG	D mm	GL mm	H mm	SW mm	Suitable for polyamide hose DN	Item-No
M16 x 1,5	20	8	23	17	10	1.511.1601.50
M20 x 1,5	26,5	9	28	24	14	1.511.2001.50
M25 x 1,5	38,5	11	32	35	23	1.511.2501.50
M32 x 1,5	46	11	35	42	29	1.511.3201.50
PG 9	19	8	23	17	10	1.511.0901.14
PG 11	23	8	25	21	12	1.511.1101.14
PG 13,5	26,5	9	28	24	14	1.511.1301.14
PG 16	30	10	29	27	17	1.511.1601.14
PG 21	38,5	11	32	35	23	1.511.2101.14
PG 29	46	11	35	42	29	1.511.2901.14
PG 36	54,5	13	41	50	37	1.511.3601.14
NPT 3/8"	19	15	23	17	10	1.511.3801.70
NPT 1/2"	30	13	29	27	17	1.511.1217.70
NPT 3/4"	38,5	13	32	35	23	1.511.3401.70
NPT 1"	46	15	35	42	29	1.511.1001.70

Polyamide fitting W (metric)





Material	Polyamide
Protection class	IP 54 / IP 65 in case of fixed mounting and o-ring on the connection thread / IP 65 in case of fixed mounting
Temperature range	-20°C to +80°C
Colour	black
RAL	9005

RoHS

// Protection against unintended disconnect. Use screwdriver to disassemble

AG	D mm	GL mm	H mm	L mm	SW mm	Suitable for polyamide hose DN	Item-No
M16 x 1,5	17	8	23	51,5	17	10	1.513.1601.50
M20 x 1,5	26,5	9	30,5	52	24	14	1.513.2001.50

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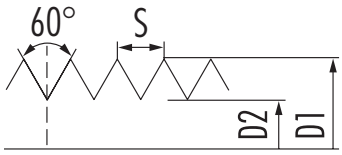
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1.078.	Adapter RSD-Ms-Ex (metric, PG)	140
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1.697.	HSK-M-Multi (metric, PG, NPT)	30
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1.699.	HSK-M-PVDF (PG, NPT)	29
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1.641.	HSK-MZ-Ex (metric)	114
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1.647.	HSK-MZ-EMC-Ex (metric)	127
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1.898.	Adapter RSD-INOX-Ex d (metric)	144

TECHNICAL INFORMATION

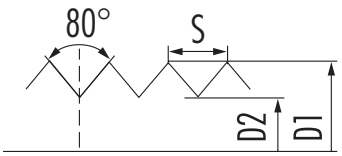
Thread Specifications

Metric ISO Thread Specifications



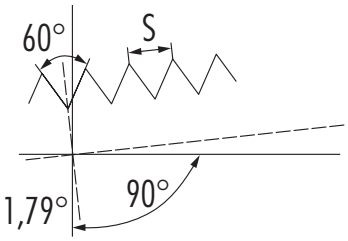
Size	Pitch (S) mm	Outside-Ø (D1) mm	Inside-Ø (D2) mm	Through hole mm
M 12 x 1.5	1.5	12	10.38	12.2
M 16 x 1.5	1.5	16	14.38	16.2
M 20 x 1.5	1.5	20	18.38	20.2
M 25 x 1.5	1.5	25	23.38	25.2
M 32 x 1.5	1.5	32	30.38	32.2
M 40 x 1.5	1.5	40	38.38	40.2
M 50 x 1.5	1.5	50	48.38	50.2
M 63 x 1.5	1.5	63	61.38	63.2

PG Thread Specifications



Size	Pitch (S) mm	Outside-Ø (D1) mm	Inside-Ø (D2) mm	Through hole 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 (S) mm	Outside-Ø (D1) mm	Number of pitches n
NPT 1/4"	1.411	13.716	18
NPT 3/8"	1.411	17.145	18
NPT 1/2"	1.814	21.336	14
NPT 3/4"	1.814	26.67	14
NPT 1"	2.208	33.4	11 1/2
NPT 1 1/4"	2.208	42.164	11 1/2
NPT 1 1/2"	2.208	48.26	11 1/2
NPT 2"	2.208	60.325	11 1/2
NPT 2 1/2"	3.175	73.025	8
NPT 3"	3.175	88.9	8
NPT 3 1/2"	3.175	101.6	8

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