

Cable glands



Cable glands

The European Technical Standard DIN EN 50 262

Metric cable glands for electric installations - the end of the PG-Cable glands threads.

- The technical standards "Cable Glands for cables and conductors with PG standard threads" DIN 46320 (P1 - P4), DIN 46255, DIN 46259, DIN 46319 and DIN VDE 0619 became invalid on the 31 December 1999.
- Cable glands with PG threads are no longer standard.
- The design approvals granted in accordance with DIN VDE 0619: 1987 – 09 remained valid until 31.3.2001.
- The European Standard "Metric Cable Glands for Electrical Installations" EN 50 262 became valid on 1.4.1999.
- The EN Standard EN 50 262 is mandatory in all member countries of the European Union (EU) and associated countries collaborating with CENELEC (European Committee For Electrotechnical Standardization) who adopt the standard.
- That means that only metric cable glands are permitted to be used in new constructions as of 1.3.2001 in those countries described above.

We offer cable glands as a well balanced assortment for different applications.

- Cable glands made from plastic and brass
- EMC cable glands
- For hazardous areas in accordance with EN 50014, EN 50019 and ATEX
- VDE, CSA and UL approved

Cable entries, for example for enclosures or heavy duty connectors can be easily and reliably installed.

DIN 40050 protection classes:

- IP 54** Protection against dust accumulation as well as protection against water splash
- IP 65** Protection against dust inflow as well as protection against hose water
- IP 66** Protection against dust inflow as well as protection in the case of overflowing
- IP 68** Protection against dust inflow as well as protection when submerging
- IP 69** Protection against water under pressure

Labelling of explosion protected electric equipment according to 'old' Ex approvals.

Name of manufacturer or logo	Type designation from manufacturer	Examination certificate number of EU test site	Symbol for electrical equipment certified by EU test site	Conformity to european standards certified	Risk of explosion	Abbreviation of protection classes used	Group of electrical devices
	16		 ATEX	E	Ex	e i	II

Cable glands

Labeling of devices and protection systems according ATEX

The following information must be clearly and permanently readable on every device and protection system:

Example:

Name of manufacturer or logo	Type/size designation from manufacturer	Number of EU-type-examination test certificate EU test site	Symbol of protection from explosion	Symbol of device group and category	Conformity to european standards certified	Risk of explosion	Abbreviation of applied type of protection classes	Device group
				II 2 G	E	EX	e ia	II

Cable glands with metric connection thread

With the taking of effect of European standard EN 50 262 – metric cable glands for electric installation – the Europe-wide introduction of the metric ISO fine thread in cable glands took place on 01.01.2000.

The EN 60 423 standard lists the individual thread sizes. The previously-known thread sizes PG 7 to PG 48 (10 sizes) were replaced by the metric sizes M 12 to M 63 (8 sizes). This catalogue contains a large selection of metric cable glands Ex cables and cable entries for use in hazardous areas.

Cable glands

Cable glands

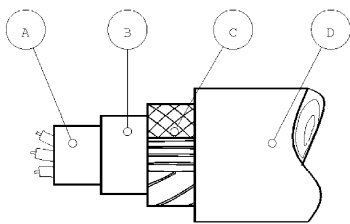
Criteria for the selection of cable glands Type ADE

- Define the installation area, in which you want to use the glands
- Define the cable types to determine the requested functions
- Check the dimensions of the outer cable sheath
- Check the size and type of reinforcement
- Check the dimensions of the inner cable sheath
- Check the dimensions of the lead sheath
- Determine the environmental condition
- Check the accessories

Installation instructions for endangered areas in accordance with the Standards CENELEC EN 50014 - 50018 - 50019

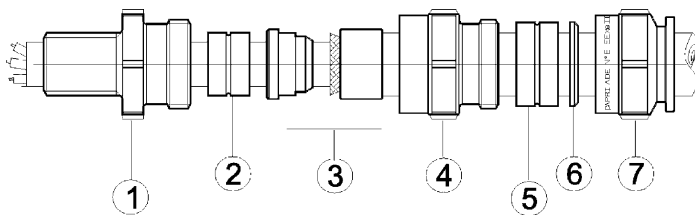
- Increased safety to Standard EN 50019; direct thread insertion into the enclosure or with a lock nut.
Unused insertions have to be closed with a certified stopping plug.
- Flame protected in accordance with EN 50018; direct thread insertion into the enclosure with five full pitches (approx. 8 mm);
Unused insertion have to be closed with a certified stopping plug.

Armoured cable



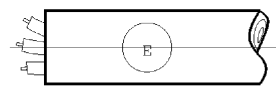
- A: Inner sheath
B: Lead sheath
C: Armouring (steel strip / SWA / braided)
D: Outer sheath

Cable glands for armoured cable



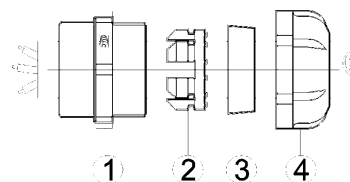
- 1: Gland
2: Sealing washer for inner cable sheath
3: Clamping module / Earthing of armouring
4: Base
5: Sealing washer for outer cable sheath
6: Washers
7: Union nut

Non-armoured cable

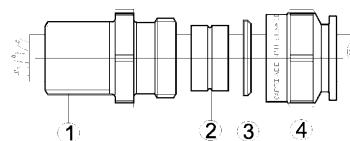


- E: Outer sheath

Cable glands for non-armoured cable



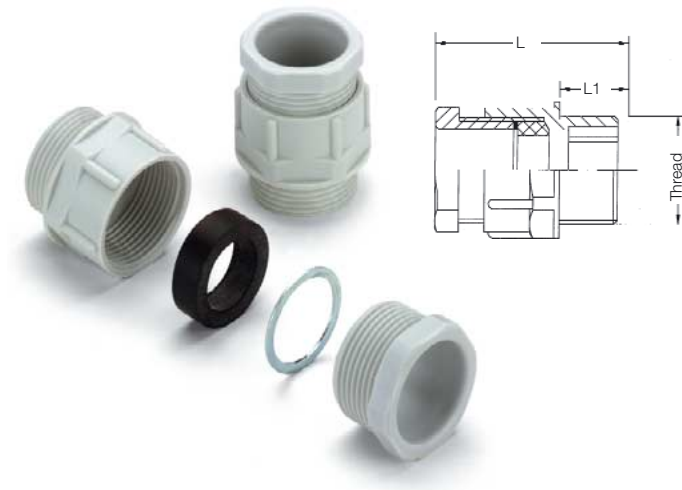
- 1: Gland
2: Clamping module
3: Sealing washer
4: Union nut



- 1: Gland
2: Sealing washer
3: Washer
4: Union nut

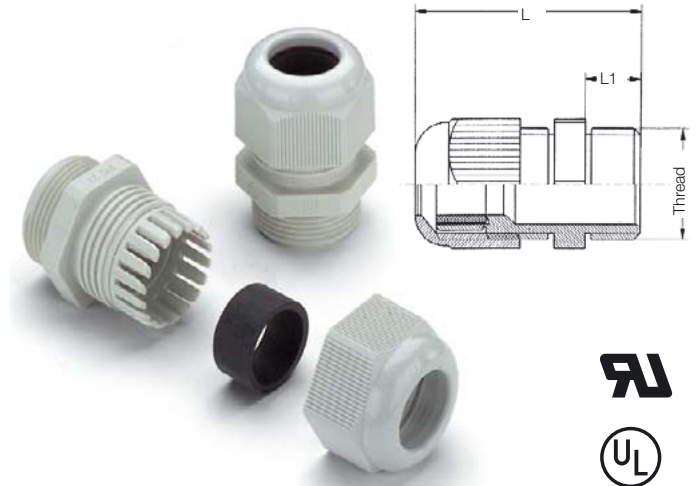
Cable glands

Plastic IP54



Reasonably priced cable glands IP 54

Plastic IP68



Plastic cable glands IP68; VDE, CSA and UL tested; halogene-free.

EN 50262: metric

Technical data

Material:	Polyamide connection thread M Polystyrene connection thread PG
Sealing:	Soft rubber
Temperature:	-20°C ... +60°C
Protection class:	IP54 (with thread sealing ring type GWDR ...-PO = IP65)
Colour:	similar grey RAL 7035

Ordering data

Type	Thread	Clamp range	L	L1	SW1/SW2	Qty.	Cat. No.
Metric gland plastic IP54							
VGM12-K54	M 12 x 1.5	6.0 - 8.0	32	11	19/16	50	1777080000
VGM16-K54	M 16 x 1.5	8.0 - 10.0	32	11	19/16	50	1777070000
VGM20-K54	M 20 x 1.5	8.0 - 10.0	35	11	22/19	50	1777050000
VGM25-K54	M 25 x 1.5	12.0 - 14.0	39	11	27/23	50	1777030000
VGM25-K54	M 25 x 1.5	15.0 - 17.0	39	11	27/23	50	1778830000
VGM32-K54	M 32 x 1.5	24.0 - 26.0	44.50	11	42/40	25	1777020000
VGM40-K54	M 40 x 1.5	28.0 - 30.0	44.50	11	42/40	25	1777010000
VGM50-K54	M 50 x 1.5	31.0 - 33.0	53	11	53/50	10	1776990000
VGM63-K54	M 63 x 1.5	45.0 - 47.0	58	11	65/60	10	1776980000

PG gland plastic IP54							
VG 7-K54	PG 7	5.0 - 7.0	28	8	15/13	50	0521560000
VG 9-K54	PG 9	6.0 - 8.0	29	8	19/17	50	0261560000
VG 11-K54	PG 11	8.0 - 10.0	32	8	22/19	50	0260760000
VG 13.5-K54	PG 13.5	10.0 - 12.0	34	9	24/21	50	0260860000
VG 16-K54	PG 16	12.0 - 14.0	38	10	27/23	25	0261460000
VG 21-K54	PG 21	15.0 - 17.0	43.5	11	32/30	20	0260960000
VG 29-K54	PG 29	24.0 - 26.0	44.5	11	42/40	20	0261060000
VG 36-K54	PG 36	31.0 - 33.0	55	13	53/50	10	0497660000
VG 42-K54	PG 42	39.0 - 40.0	60	13	60/55	10	0497760000
VG 48-K54	PG 48	45.0 - 47.0	61	14	65/60	5	1718760000

all sizes in mm

Technical data

Material:	Polyamide
Sealing:	Neoprene
Temperature:	-40°C ... +70°C (peak +100°C)
Protection class:	IP68 / 5 bar in the stated clamping range with GWDR
Colour:	similar grey RAL 7035

Ordering data

Type	Thread	Clamp range	L	L1	SW	Qty.	Cat. No.
Metric gland plastic Approval: VDE							
VG M 12 - K 68	M 12 x 1.5	3.0 - 6.5	31	8	15	50	1772280000
VG M 16 - K 68	M 16 x 1.5	5.0 - 10.0	35	10	22	50	1772290000
VG M 20 - K 68	M 20 x 1.5	6.0 - 12.0	43	10	24	50	1772300000
VG M 25 - K 68	M 25 x 1.5	13.0 - 18.0	48	10	33	25	1772310000
VG M 32 - K 68	M 32 x 1.5	18.0 - 25.0	61	15	42	20	1772320000
VG M 40 - K 68	M 40 x 1.5	22.0 - 32.0	72	15	53	20	1772330000
VG M 50 - K 68	M 50 x 1.5	30.0 - 38.0	74	18	60	10	1772340000
VG M 63 - K 68	M 63 x 1.5	34.0 - 44.0	75	18	65	5	1772350000

PG gland plastic Approval: VDE/UL							
VG 7-K68	PG 7	3.0 - 6.5	30.5	8.0	15	50	1568970000
VG 9-K68	PG 9	4.0 - 8.0	34	8.0	19	50	1568980000
VG 11-K68	PG 11	5.0 - 10.0	37	8.0	22	50	1568990000
VG 13.5-K68	PG 13.5	6.0 - 12.0	39	9.0	24	50	1569000000
VG 16-K68	PG 16	10.0 - 14.0	42.5	10.0	27	25	1569010000
VG 21-K68	PG 21	13.0 - 18.0	48	11.0	33	20	1569020000
VG 29-K68	PG 29	18.0 - 25.0	53	11.0	42	20	1569030000
VG 36-K68	PG 36	22.0 - 32.0	65	13.0	53	10	1569040000
VG 42-K68	PG 42	30.0 - 38.0	68	13.0	60	10	1569050000
VG 48-K68	PG 48	34.0 - 44.0	69	14.0	65	5	1718770000

NPT gland plastic Approval: UL/CSA							
VG NPT 3/8" 5-10-K 68	NPT 3/8"	5.0 - 10.0	42	15	22	50	1772520000
VG NPT 1/2" 6-12-K 68	NPT 1/2"	6.0 - 12.0	42	15	24	50	1772550000
VG NPT 1/2" 10-14-K 68	NPT 1/2"	10.0 - 14.0	45	15	27	25	1772560000
VG NPT 3/4" 13-18-K 68	NPT 3/4"	13.0 - 18.0	46	15	33	20	1772590000
VG NPT 1" 18-25-K 68	NPT 1"	18.0 - 25.0	60	18	42	20	1772600000

all sizes in mm

Cable glands

Cable glands brass IP54



Brass cable gland with hexagon threaded glands

Cable glands brass IP68



Brass cable gland IP68 with strain relief.

Reduced clamping range on request.

Multiple seal insert on request.

Technical data

Material:	Nickel plated brass
Sealing:	Soft rubber
Temperature:	-20°C ... +60°C
Protection class:	IP54 (with thread sealing ring Type GWDR ...-PO = IP65)

Ordering data

Type	Thread	Clamp range	L	L1	SW1/SW2	Qty.	Cat. No.
Metric gland brass IP 54, hexagonal							
VGM12-MS54	M 12 x 1.5	5.0 - 7.0	21.50	6	14/13	100	1778410000
VGM12-MS54	M 12 x 1.5	6.0 - 8.0	22	6	17/15	100	1778400000
VGM16-MS54	M 16 x 1.5	8.0 - 10.0	26	6	20/18	100	1778390000
VGM20-MS54	M 20 x 1.5	8.0 - 10.0	26.50	6.50	22/18	50	1778380000
VGM20-MS54	M 20 x 1.5	10.0 - 12.0	26.50	6.50	22/20	50	1778370000
VGM25-MS54	M 25 x 1.5	12.0 - 14.0	27.50	7	27/22	50	1778360000
VGM25-MS54	M 25 x 1.5	15.0 - 17.0	29.50	7	30/28	50	1778350000
VGM32-MS54	M 32 x 1.5	24.0 - 26.0	33	8	40/38	25	1778340000
VGM40-MS54	M 40 x 1.5	28.0 - 30.0	33	8	43/37	25	1778330000
VGM50-MS54	M 50 x 1.5	31.0 - 33.0	39	9	55/47	10	1778320000
VGM50-MS54	M 50 x 1.5	39.0 - 41.0	43	9	57/54	5	1778310000
VGM63-MS54	M 63 x 1.5	45.0 - 47.0	45	10	68/60	5	1778300000

PG gland brass IP 54, hexagonal

VG 7-MS54	PG 7	5.0 - 7.0	20.5	5	14/13	50	0521500000
VG 9-MS54	PG 9	6.0 - 8.0	22	6	17/15	50	0261500000
VG 11-MS54	PG 11	8.0 - 10.0	26	6	20/18	50	0260700000
VG 13.5-MS54	PG 13.5	10.0 - 12.0	26	6.5	22/20	50	0260800000
VG 16-MS54	PG 16	12.0 - 14.0	27	6.5	24/22	25	0261400000
VG 21-MS54	PG 21	15.0 - 17.0	29.5	7	30/28	20	0260900000
VG 29-MS54	PG 29	24.0 - 26.0	33	8	40/37	20	0261000000
VG 36-MS54	PG 36	33.0 - 35.0	39	9	50/47	10	0497600000
VG 42-MS54	PG 42	41.0 - 43.0	44	10	57/54	10	0497700000
VG 48-MS54	PG 48	45.0 - 47.0	45	10	64/60	5	1718780000

all sizes in mm

Technical data

Material:	Nickel plated brass
Sealing:	Neoprene
Temperature:	-40°C ... +70°C (peak +100°C)
Protection class:	IP 68 / 5 bar with GWDR in the clamping area

Ordering data

Type	Thread	Clamp range	L	L1	SW	Qty.	Cat. No.
Metric gland brass							
VG M 12 - MS 68 M 12 x 1.5		3.0 - 6.5	24	5	14	50	1772200000
VG M 16 - MS 68 M 16 x 1.5		5.5 - 10.0	28	5.5	17	50	1772210000
VG M 20 - MS 68 M 20 x 1.5		8.0 - 13.0	32	6	22	50	1772220000
VG M 25 - MS 68 M 25 x 1.5		11.0 - 18.0	35	7	30	20	1772230000
VG M 32 - MS 68 M 32 x 1.5		15.0 - 21.0	39	8	34	20	1772240000
VG M 40 - MS 68 M 40 x 1.5		19.0 - 27.0	53	8	44	10	1772250000
VG M 50 - MS 68 M 50 x 1.5		26.0 - 35.0	55	9	55	10	1772260000
VG M 63 - MS 68 M 63 x 1.5		34.0 - 45.0	58	10	66	5	1772270000

PG gland brass IP 68

VG 7-MS68	PG 7	3.0 - 6.5	23	5	14	50	1569060000
VG 9-MS68	PG 9	4.0 - 10.0	27	6	17	50	1569070000
VG 11-MS68	PG 11	5.0 - 10.0	28.5	6	20	50	1569080000
VG 13.5-MS68	PG 13.5	6.0 - 12.0	29.5	6.5	22	50	1569090000
VG 16-MS68	PG 16	10.0 - 14.0	29.5	6.5	24	25	1569100000
VG 21-MS68	PG 21	13.0 - 18.0	33.5	7	30	20	1569110000
VG 29-MS68	PG 29	18.0 - 25.0	37.5	8	40	20	1569120000
VG 36-MS68	PG 36	22.0 - 32.0	45	9	50	10	1569130000
VG 42-MS68	PG 42	30.0 - 38.0	47.5	10	57	10	1569140000
VG 48-MS68	PG 48	34.0 - 44.0	50.5	10	64	5	1718790000

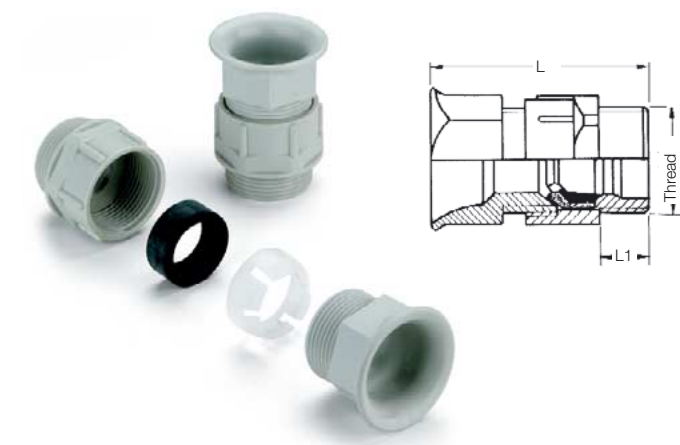
NPT gland brass

VG NPT 3/8" - MS 68NPT 3/8"		4.0 - 8.0	36	15	17	50	1772370000
VG NPT 1/2" - MS 68NPT 1/2"		6.0 - 12.0	36	13	22	50	1772380000
VG NPT 3/4" - MS 68NPT 3/4"		13.0 - 18.0	39	13	30	20	1772390000

all sizes in mm

Cable glands

Plastic cable glands with bending protection



Cable gland with bending protection and internal strain relief. Clamping profile made of Hostaform C.

Technical data

Material:	Polyamide, glass fibre reinforced
Sealing:	Soft rubber
Temperature:	-10°C...+80°C
Protection class:	IP 65
Colour:	similar Grey RAL 7035

Ordering data

Type	Thread	Clamp range	L	L1	SW	Qty.	Cat. No.
Metric KV cable gland plastic bending protection							
VGM12-K65 BS	M 12 x 1.5	6.0 - 8.0	40	11	19	50	1778750000
VGM16-K65 BS	M 16 x 1.5	6.0 - 8.0	40	11	19	50	1778760000
VGM20-K65 BS	M 20 x 1.5	8.0 - 10.0	45	11	22	50	1778770000
VGM20-K65 BS	M 20 x 1.5	10.0 - 12.0	57	11	24	50	1778780000
VGM25-K65 BS	M 25 x 1.5	12.0 - 14.0	51	11	27	50	1778790000
VGM25-K65 BS	M 25 x 1.5	14.0 - 18.0	53	11	33	25	1778800000
VGM32-K65 BS	M 32 x 1.5	18.0 - 24.0	60	11	42	25	1778810000
PG-KV plastic bending protection							
VG 7-K65 BS	PG 7	4.0 - 6.0	36	8	15	50	1720400000
VG 9-K65 BS	PG 9	6.0 - 8.0	37	8	19	50	1720410000
VG 11-K65 BS	PG 11	8.0 - 10.0	42	8	22	50	1720420000
VG 13.5-K65 BS	PG 13.5	10.0 - 12.0	45	9	24	50	1720430000
VG 16-K65 BS	PG 16	12.0 - 14.0	50	10	27	25	1720440000
VG 21-K65 BS	PG 21	14.0 - 18.0	53	11	32	20	1720450000
VG 29-K65 BS	PG 29	18.0 - 24.0	60	11	42	20	1720460000

all sizes in mm

Cable glands brass with bending protection



Cable gland with bending protection and internal strain relief. Without external strain relief clamp. Clamping profile made of Hostaform C.

Technical data

Material:	Nickel plated brass
Sealing:	Soft rubber
Temperature:	-10°C...+80°C
Protection class:	IP 65

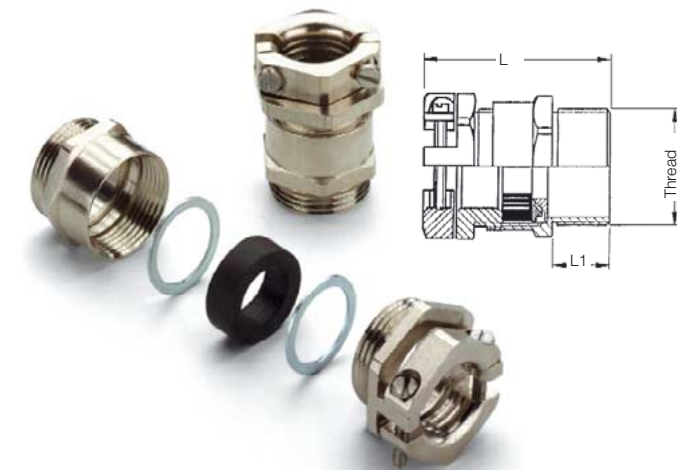
Ordering data

Type	Thread	Clamp range	L	L1	SW1/SW2	Qty.	Cat. No.
PG-KV cable gland Brass bending protection							
VG 9-MS65 BS	PG 9	6.0 - 8.0	35	6	19/15	50	1720340000
VG 11-MS65 BS	PG 11	8.0 - 10.0	35	6	22/19	50	1720350000
VG 13.5-MS65 BS	PG 13.5	10.0 - 12.0	36	6.5	24/20	50	1720360000
VG 16-MS65 BS	PG 16	12.0 - 14.0	40	7	27/30	25	1720370000
VG 21-MS65 BS	PG 21	14.0 - 18.0	44	7	32/34	20	1720380000
VG 29-MS65 BS	PG 29	18.0 - 24.0	50	8	41/46	20	1720390000

all sizes in mm

Cable glands

Cable glands brass IP54 with gripping jaw



With cantered strain relief

Cable glands brass for Ex-areas



For use in hazardous areas. These cable glands are tested for higher safety specifications with certified conformity to approvals LCIE 97ATEX6005X.
Variant for EMC applications are available.

Technical data

Material:	Nickel plated brass
Sealing:	Universal sealing ring neoprene
Temperature:	-30°C ... +90°C
Protection class:	IP54 (with thread sealing ring type GWDR ...-PO = IP65)

Technical data

Material:	Nickel plated brass
Sealing:	Neoprene
Temperature:	-20°C ... +100°C
Protection class:	IP66 (with thread sealing ring Type GWDR ...-NP = IP68/20 bar) ATEX certification available

Ordering data

Type	Thread	Clamp range	L	L1	SW1/SW2	Qty.	Cat. No.
Metric gland brass IP 54, hexagonal							
VG M12-MS54ZE	M 12 x 1.5	5.0 - 7.0	21.50	6	14	100	1778420000
VG M12-MS54ZE	M 12 x 1.5	4.0 - 9.5	22	6	17	100	1778430000
VG M16-MS54ZE	M 16 x 1.5	4.0 - 9.5	26	6	18	100	1778440000
VG M20-MS54ZE	M 20 x 1.5	6.0 - 11.5	26.50	6.50	22	50	1778450000
VG M20-MS54ZE	M 20 x 1.5	6.0 - 13.5	26.50	6.50	22	50	1778460000
VG M25-MS54ZE	M 25 x 1.5	6.0 - 15.5	27.50	7	30	50	1778470000
VG M25-MS54ZE	M 25 x 1.5	9.0 - 21.5	29.50	7	30	50	1778480000
VG M32-MS54ZE	M 32 x 1.5	17.0 - 29.5	33	8	39	25	1778490000
VGM40-MS54ZE	M 40 x 1.5	17.0 - 29.5	33	8	43	25	1778500000
VG M50-MS54ZE	M 50 x 1.5	23.0 - 36.5	39	9	55	10	1778510000
VG M50-MS54ZE	M 50 x 1.5	29.0 - 42.5	43	9	57	5	1778520000
VG M63-MS54ZE	M 63 x 1.5	35.0 - 46.5	45	10	68	5	1778530000

PG gland brass IP 54, hexagonal

VG 7-MS54-ZE	PG 7	5.0 - 7.0	27	5	14/16	50	1718800000
VG 9-MS54-ZE	PG 9	4.0 - 11.0	30.5	6	17/19	50	1718810000
VG 11-MS54-ZE	PG 11	6.0 - 13.0	31.5	6	20/22	50	1718820000
VG 13.5-MS54-ZE	PG 13.5	6.0 - 13.0	32	6.5	22/24	50	1718830000
VG 16-MS54-ZE	PG 16	6.0 - 16.0	33	6.5	24/27	25	1718840000
VG 21-MS54-ZE	PG 21	9.0 - 20.0	38	7	30/34	20	1718850000
VG 29-MS54-ZE	PG 29	17.0 - 28.0	43	8	40/42	20	1718860000
VG 36-MS54-ZE	PG 36	23.0 - 34.0	49.5	9	50/52	10	1718870000
VG 42-MS54-ZE	PG 42	29.0 - 40.0	53.5	10	57/62	10	1718880000
VG 48-MS54-ZE	PG 48	35.0 - 46.0	55	10	64/68	5	1718890000

all sizes in mm

Ordering data

Type	Thread	Clamp range	L	L1	SW	Qty.	Cat. No.
Metric gland brass-KV for Eex-e							
VG M 16-Exe MS	M 16 x 1.5	7.0 - 11.0	28	8	22	50	1737210000
VG M 20-Exe MS	M 20 x 1.5	8.5 - 13.0	28	8	24	50	1737220000
VG M 25-Exe MS	M 25 x 1.5	13.5 - 18.0	33	9	30	25	1737230000
VG M 32-Exe MS	M 32 x 1.5	17.5 - 25.0	38	10	41	20	1737240000
VG M 40-Exe MS	M 40 x 1.5	24.5 - 33.5	49	11	52	10	1737250000
VG M 50-Exe MS	M 50 x 1.5	33.0 - 43.0	54	12	63	5	1737260000
VG M 63-Exe MS	M 63 x 1.5	43.5 - 55.0	60	13	77	5	1737270000

PG gland brass-KV for Eex-e

VG 7-Exe MS	PG 7	4.0 - 8.0	24	7	18	50	1718990000
VG 9-Exe MS	PG 9	6.0 - 11.0	28	8	22	50	1719000000
VG 11-Exe MS	PG 11	7.5 - 13.0	28	8	24	50	1719010000
VG 13.5-Exe MS	PG 13.5	7.5 - 13.0	32	8	24	50	1719020000
VG 16-Exe MS	PG 16	12.5 - 18.0	33	9	30	25	1719030000
VG 21-Exe MS	PG 21	17.5 - 23.5	38	10	41	20	1719040000
VG 29-Exe MS	PG 29	24.5 - 31.5	49	11	52	20	1719050000
VG 36-Exe MS	PG 36	33.0 - 40.5	54	12	63	10	1719060000
VG 42-Exe MS	PG 42	33.0 - 43.0	54	12	63	10	1719070000
VG 48-Exe MS	PG 48	42.5 - 52.5	60	13	77	5	1719080000

NPT brass KV for Eex-e

VG NPT 1/2" Eex-e MS	NPT 1/2"	8.5 - 13.0	36	16	24	50	1778160000
VG NPT 3/4" Eex-e MS	NPT 3/4"	13.5 - 18.0	40	16	30	25	1778150000
VG NPT 1" Eex-e MS	NPT 1"	17.5 - 25.0	48	20	41	1	1778140000
VG NPT 1 1/4" Eex-e MS	NPT 1 1/4"	24.5 - 33.5	58	20	52	1	1778130000
VG NPT 1 1/2" Eex-e MS	NPT 1 1/2"	24.5 - 33.5	58	20	52	1	1778120000
VG NPT 2" Eex-e MS	NPT 2"	33.0 - 43.0	62	20	63	1	1778110000
VG NPT 2 1/2" Eex-e MS	NPT 2 1/2"	43.5 - 55.0	75	28	77	1	1778090000

all sizes in mm

Cable glands

Plastic cable glands for EExe-areas



For use in hazardous areas (EEx e II). These cable glands are tested for higher safety specifications with certified conformity to approvals LCIE 97ATEX6007X.

The clamping profile serves as an internal strain relief.

The sealing ring is constructed with a membrane against dust, which can be easily pierced.

Technical data

Material:	Polyamide
Sealing:	Santoprene
Temperature:	-40°C ... +90°C
Protection class:	IP66 (with thread sealing ring) Type GWDR ...-NP = IP68/5 bar) ATEX available
Colour:	similar Black RAL 9005

Ordering data

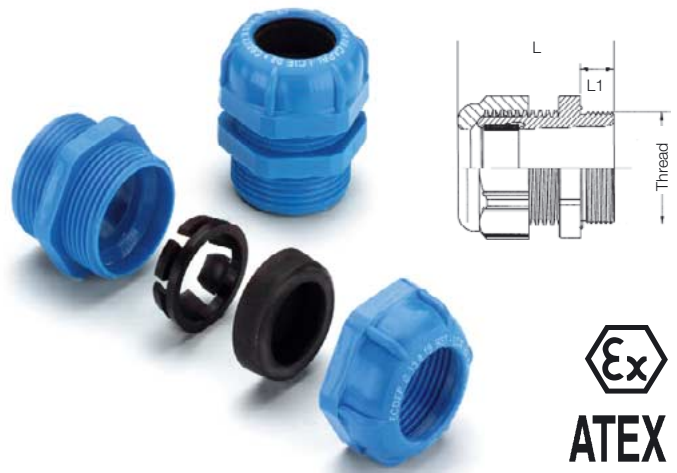
Type	Thread	Clamp range	L	L1	SW	Qty.	Cat. No.
Metric plastic cable glands for EExe-areas							
VG M 16-Exe SW	M 16 x 1.5	5.0 - 8.0	34	12	19	50	1737280000
VG M 20-Exe SW	M 20 x 1.5	8.0 - 13.0	35	12	24	50	1737290000
VG M 25-Exe SW	M 25 x 1.5	13.0 - 19.0	42	13	32	25	1737300000
VG M 32-Exe SW	M 32 x 1.5	17.0 - 25.0	44	15	41	20	1737310000
VG M 40-Exe SW	M 40 x 1.5	24.0 - 32.0	50	15	52	10	1737320000
VG M 50-Exe SW	M 50 x 1.5	29.0 - 38.0	56	16	59	5	1737330000
VG M 63-Exe SW	M 63 x 1.5	36.0 - 44.0	58	16	65	5	1737340000

PG plastic cable glands for EExe-areas

VG 7-Exe SW	PG 7	3.5 - 6.0	27	9	15	50	1569360000
VG 9-Exe SW	PG 9	5.0 - 8.0	31	9	19	50	1490500000
VG 11-Exe SW	PG 11	6.0 - 10.0	31	9	22	50	1490600000
VG 13.5-Exe SW	PG 13.5	8.0 - 13.0	33	10	24	50	1490700000
VG 16-Exe SW	PG 16	10.0 - 15.0	33	10	26	25	1490800000
VG 21-Exe SW	PG 21	13.0 - 19.0	40	11	32	20	1490900000
VG 29-Exe SW	PG 29	17.0 - 25.0	41	12	41	20	1491000000
VG 36-Exe SW	PG 36	24.0 - 32.0	49	14	52	10	1491100000
VG 42-Exe SW	PG 42	28.0 - 38.0	56	16	59	10	1491200000
VG 48-Exe SW	PG 48	34.0 - 44.0	60	16	65	5	1718970000

all sizes in mm

Plastic cable glands for EExi-areas



For use in explosion endangered areas (EEx i). These cable glands are tested for higher safety specifications with certified conformity to approvals LCIE 97ATEX6007X. The clamping profile is used as an internal strain relief. The sealing ring is constructed with a membrane against dust, which can be easily pierced.

Technical data

Material:	Polyamide
Sealing:	Santoprene
Temperature:	-40°C ... +90°C
Protection class:	IP66 (with thread sealing ring) Type GWDR ...-NP = IP68/5 bar) ATEX granted
Colour:	similar Blue RAL 5012

Ordering data

Type	Thread	Clamp range	L	L1	SW	Qty.	Cat. No.
PG plastic cable glands for EExi-areas							
VG M 16-Exi BL	M 16 x 1.5	5.0 - 8.0	34	12	19	50	1737350000
VG M 20-Exi BL	M 20 x 1.5	8.0 - 13.0	35	12	24	50	1737360000
VG M 25-Exi BL	M 25 x 1.5	13.0 - 19.0	42	13	32	25	1737370000
VG M 32-Exi BL	M 32 x 1.5	17.0 - 25.0	44	15	41	20	1737380000
VG M 40-Exi BL	M 40 x 1.5	24.0 - 32.0	50	15	52	10	1737390000
VG M 50-Exi BL	M 50 x 1.5	29.0 - 38.0	56	16	59	5	1737400000
VG M 63-Exi BL	M 63 x 1.5	36.0 - 44.0	58	16	67/65	5	1737410000

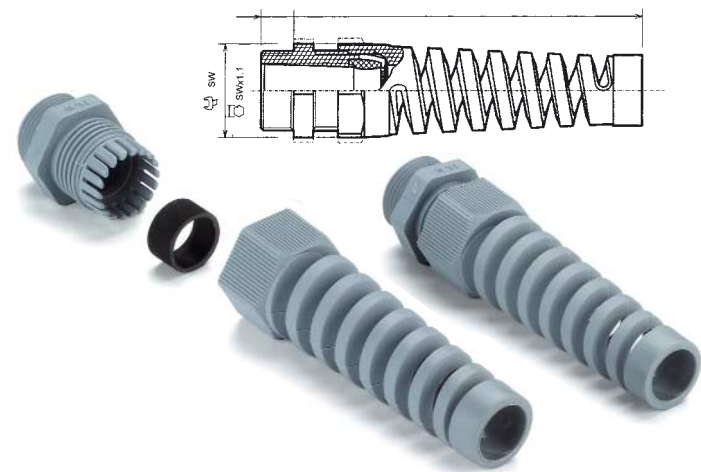
PG plastic cable glands for EExi-areas

VG 7-Exi BL	PG 7	3.5 - 6.0	27	9	15	50	1569370000
VG 9-Exi BL	PG 9	5.0 - 8.0	31	9	19	50	1491300000
VG 11-Exi BL	PG 11	6.0 - 10.0	31	9	22	50	1491400000
VG 13.5-Exi BL	PG 13.5	8.0 - 13.0	33	10	24	50	1491500000
VG 16-Exi BL	PG 16	10.0 - 15.0	33	10	26	25	1491600000
VG 21-Exi BL	PG 21	13.0 - 19.0	40	11	32	20	1491700000
VG 29-Exi BL	PG 29	17.0 - 25.0	41	12	41	20	1491800000
VG 36-Exi BL	PG 36	24.0 - 32.0	49	14	52	10	1491900000
VG 42-Exi BL	PG 42	28.0 - 38.0	56	16	59	10	1492000000
VG 48-Exi BL	PG 48	34.0 - 44.0	60	16	65	5	1718980000

all sizes in mm

Cable glands

Plastic cable glands with strain relief spiral cap



Cable gland specially for moveable connections.; Approvals to VDE and UL; halogen-free.

Reduced clamping range on request

EN 50262: metric

Technical data

Material:	Polyamide 6
Sealing:	Neoprene
Temperature:	-40°C...+70°C (peak 150°C)
Protection class:	IP 68 / 5 bar with GWDR
Colour:	similar grey RAL 7035 (on request 9005)

Ordering data

Type	Thread	Clamp range	L	L1	SW	Qty.	Cat. No.
Metric.plastic-KV with strain relief spiral cap							
VGM12-K68 SKS	M 12 x 1.5	3.0 - 6.5	66.5	8	15	100	1776700000
VGM16-K68 SKS	M 16 x 1.5	5.0 - 10.0	80	10	22	50	1776710000
VGM20-K68 SKS	M 20 x 1.5	6.0 - 12.0	106	11	24	50	1778860000
VGM20-K68 SKS	M 20 x 1.5	10.0 - 14.0	106	15	27	50	1776720000
VGM25-K68 SKS	M 25 x 1.5	13.0 - 18.0	129	15	33	25	1776730000
PG plastic cable glands with strain relief spiral cap							
VG 7-K68 SKS	PG 7	3.0 - 6.5	62	8	15	50	1720470000
VG 9-K68 SKS	PG 9	4.0 - 8.0	78	8	19	50	1720480000
VG 11-K68 SKS	PG 11	5.0 - 10.0	84	8	22	50	1720490000
VG 13.5-K68 SKS	PG 13.5	6.0 - 12.0	105	9	24	50	1720500000
VG 16-K68 SKS	PG 16	10.0 - 14.0	117	10	27	25	1720510000
VG 21-K68 SKS	PG 21	13.0 - 18.0	130	11	33	20	1720520000

all sizes in mm

Cable Gland ADE 1F



For use in hazardous areas
EEx e II,
EEx d IIB,
EEx d II C ≤ 2000 cm³

These cable glands are certified in accordance with LCIE 97ATEX6008X.

Technical data

Material:	Nickel plated brass (on request stainless steel)
Sealing:	Neoprene
Temperature:	-40 °C - 100 °C
Protection class:	IP 68 (10 bar) ATEX available

Ordering data

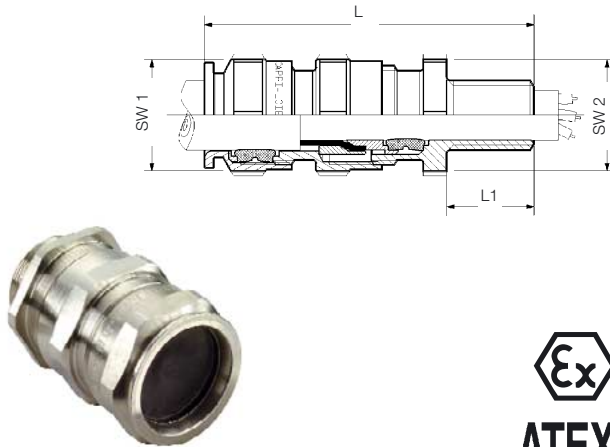
Type	Thread	Protecting cap	Clamp range	L	L1	SW1	SW2	Qty.	Cat. No.
Metric cable glands									
VG ADE 1/M 12 Exe/d	M 12 x 1.5	4	4.0 - 8.0	35	15	15	15	5	1736690000
VG ADE 1/M 16 Exe/d	M 16 x 1.5	5	6.0 - 12.0	37	15	19	19	5	1736700000
VG ADE 1/M 20 Exe/d	M 20 x 1.5	6	8.5 - 16.0	40	15	24	24	2	1736710000
VG ADE 1/M 25 Exe/d	M 25 x 1.5	7	12.0 - 20.5	42	15	30	30	2	1736720000
VG ADE 1/M 32 Exe/d	M 32 x 1.5	8	16.0 - 27.5	49	15	41	41	2	1736730000
VG ADE 1/M 40 Exe/d	M 40 x 1.5	9	21.0 - 34.0	51	15	48	48	2	1736740000
VG ADE 1/M 50 Exe/d	M 50 x 1.5	10	27.0 - 41.0	55	16	55	55	1	1736750000
VG ADE 1/M 63 Exe/d	M 63 x 1.5	12	40.0 - 56.0	60	17	72	72	1	1736760000
VG ADE 1/M 75 Exe/d	M 75 x 1.5	13	47.0 - 65.0	67	18	85	85	1	1736770000
VG ADE 1/M 80 Exe/d	M 80 x 2	14	54.0 - 73.0	76	20	95	95	1	1736780000
VG ADE 1/M 90 Exe/d	M 90 x 2	15	63.0 - 82.0	83	22	110	110	1	1736790000
VG ADE 1/M 100 Exe/d	M 100 x 2	16	72.0 - 92.0	84	22	120	120	1	1736800000

all sizes in mm



Cable glands

ADE 4F



For use in hazardous areas:

EEx e II,
EEx d IIB,
EEx d II C ≤ 2000 cm³

These cable glands are certified in accordance with
LCIE 97ATEX6008X.

On request: silicone sealing ring, halogen-free,
Working temperature: -70 °C - +220 °C.

Technical data

Material:	Nickel plated brass (on request stainless steel)
Sealing:	Neoprene
Temperature:	-40 °C - 100 °C
Protection class:	IP 68 (10 bar)
	ATEX available

Ordering data

Type	Thread	Sealing ring	Cable Ø outside	Armoured	Cable Ø inside	L	L1	SW1	SW2	Qty.	Cat. No.
Metric gland											
VG ADE 4F/M 12 Exe/d	M 12 x 1.5	5	6.0 - 12.0	0 - 0.9	4.0 - 8.0	51	15	19	19	5	1736810000
VG ADE 4F/M 16 Exe/d	M 16 x 1.5	6	8.5 - 16.0	0 - 1.25	6.0 - 12.0	57	15	24	24	5	1736820000
VG ADE 4F/M 20 Exe/d	M 20 x 1.5	7	12.0 - 21.0	0 - 1.25	8.5 - 15.5	61	15	30	30	2	1736830000
VG ADE 4F/M 25 Exe/d	M 25 x 1.5	8	16.0 - 27.5	0 - 1.6	12.0 - 20.5	71	15	41	41	2	1736840000
VG ADE 4F/M 32 Exe/d	M 32 x 1.5	9	21.0 - 34.0	0 - 1.6	16.0 - 27.5	78	15	48	48	2	1736850000
VG ADE 4F/M 40 Exe/d	M 40 x 1.5	10	27.0 - 41.0	0 - 2	21.0 - 34.0	83	15	55	55	2	1736860000
VG ADE 4F/M 50 Exe/d	M 50 x 1.5	11	33.0 - 48.0	0 - 2.5	27.0 - 41.0	90	16	64	64	1	1736870000
VG ADE 4F/M 63 Exe/d	M 63 x 1.5	13	47.0 - 65.0	0 - 2.5	40.0 - 56.0	102	17	85	85	1	1736880000
VG ADE 4F/M 75 Exe/d	M 75 x 1.5	14	54.0 - 74.0	0 - 2.5	47.0 - 65.0	110	18	95	95	1	1736890000
VG ADE 4F/M 80 Exe/d	M 80 x 2	15	63.0 - 83.0	0 - 3.15	54.0 - 73.0	124	20	110	110	1	1736900000
VG ADE 4F/M 90 Exe/d	M 90 x 2	16	72.0 - 93.0	0 - 3.15	63.0 - 82.0	130	22	120	120	1	1736910000

all sizes in mm

EMC cable glands



High shielding factor up to 100 dB. An endless lock washer is pressed against the cable armour by two conical rings; thus guaranteeing a reliable and safe contact. This ensures that the shield braiding is inserted into the enclosure.

Technical data

Material:	Nickel plated brass
Sealing:	TPE-V /thermoplastic Elastomer
O-Ring:	Perbunan
Temperature:	-40°C ... +135°C (peak 150°C)
Protection class:	IP 68

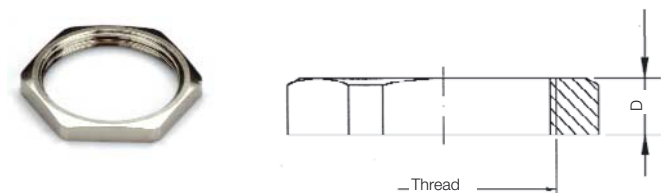
Ordering data

Type	Thread	Clamp range	Armour-Ø	L	SW	Qty.	Cat. No.
Metric cable glands brass							
VG EMC M18x1.5	M 18x1.5	6.0 - 9.5	3.0 - 7.0	26.7	24	5	1706920000
VG EMC M20x1.5	M 20x1.5	7.0 - 11.0	4.0 - 8.5	26.7	24	5	1706940000
VG EMC M24x1.5	M 24x1.5	16.5 - 14.0	8.0 - 12.0	33.5	30	5	1706930000
VG EMC M25x1.5	M 25x1.5	16.5 - 14.0	8.0 - 12.0	33.5	30	5	1706950000
PG cable gland brass							
VG EMC Pg 7/9	PG 7 / 9	4.0 - 6.0	1.5 - 4.0	32.9	17	20	1713870000
VG EMC Pg 9/11	PG 9 / 11	6.5 - 9.5	2.5 - 6.5	32.9	20	20	1706860000
VG EMC Pg 11	PG 11	6.0 - 9.0	3.5 - 7.5	39.6	24	20	1706870000
VG EMC Pg 13.5	PG 13.5	7.0 - 10.5	4.0 - 8.5	39.0	24	10	1706880000
VG EMC Pg 16	PG 16	10.0 - 14.0	8.0 - 13.0	40.5	30	10	1706890000
VG EMC Pg 16	PG 16	14.0 - 18.0	8.0 - 13.0	40.5	30	10	1713880000
VG EMC Pg 21	PG 21	14.0 - 18.0	10.0 - 15.0	40.5	35	10	1706900000
VG EMC Pg 21	PG 21	17.0 - 28.0	12.5 - 17.5	40.5	35	10	1713890000
VG EMC Pg 29	PG 29	22.0 - 26.0	15.0 - 21.0	43.5	40	5	1706910000
VG EMC Pg 29	PG 29	25.0 - 29.0	18.0 - 25.0	55.3	40	5	1713900000
VG EMC Pg 36	PG 36	32.0 - 27.0	18.0 - 25.0	55.3	40	5	1770410000

all sizes in mm

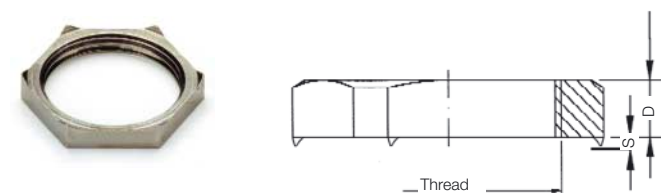
Cable glands

Lock nut brass



Lock nut for securing brass cable glands in accordance with DIN 46320

Lock nut with EMC



These lock nuts are equipped with six cutting elements, which cut into the painted insulating layer of the enclosure; thus creating an optimum contact.

Technical data

Material: Nickel plated brass (on request stainless steel)

Ordering data

Type	Thread	D	SW	Qty.	Cat. No.
Metric gland lock nut brass					
SKMU M 12-MS	M 12 x 1.5	2.8	14	50	1772360000
SKMU M 16-MS	M 16 x 1.5	2.8	18	50	1736990000
SKMU M 20-MS	M 20 x 1.5	3	23	50	1737000000
SKMU M 25-MS	M 25 x 1.5	3	28	25	1737010000
SKMU M 32-MS	M 32 x 1.5	4	36	20	1737020000
SKMU M 40-MS	M 40 x 1.5	4.5	44	10	1737030000
SKMU M 50-MS	M 50 x 1.5	5	54	5	1737040000
SKMU M 63-MS	M 63 x 1.5	6	70	5	1737050000
SKMU M 75-MS	M 75 x 1.5	8	85	5	1737060000

PG gland lock nut brass

SKMU Pg7-MS	PG 7	2.8	15	50	1694070000
SKMU Pg9-MS	PG 9	2.8	18	50	1694080000
SKMU Pg11-MS	PG 11	3.0	21	50	1694090000
SKMU Pg13.5-MS	PG 13.5	3.0	23	50	1694100000
SKMU Pg16-MS	PG 16	3.0	26	25	1694110000
SKMU Pg21-MS	PG 21	3.5	32	20	1719200000
SKMU Pg29-MS	PG 29	4.0	41	20	1719210000
SKMU Pg36-MS	PG 36	5.0	51	10	1719220000
SKMU Pg42-MS	PG 42	5.0	58	10	1719230000
SKMU Pg48-MS	PG 48	5.5	64	5	1719240000

all sizes in mm

Technical data

Material: Nickel plated brass

Ordering data

Type	Thread	D	S	SW	Qty.	Cat. No.
Metric gland lock nut EMC brass						approx.
SKMU EMC M10	M 10 x 1	3.10	1.0	12	100	1777600000
SKMU EMC M12	M 12 x 1.5	3.60	1.0	14	100	1777610000
SKMU EMC M16	M 16 x 1.5	3.60	1.0	18	100	1777620000
SKMU EMC M20	M 20 x 1.5	3.60	1.0	23	100	1777630000
SKMU EMC M25	M 25 x 1.5	3.60	1.0	28	50	1777640000
SKMU EMC M32	M 32 x 1.5	4.10	1.0	36	25	1777650000
SKMU EMC M40	M 40 x 1.5	4.60	1.0	44	25	1777660000
SKMU EMC M50	M 50 x 1.5	4.60	1.0	54	10	1777670000
SKMU EMC M63	M 63 x 1.5	6.60	1.0	70	10	1777680000

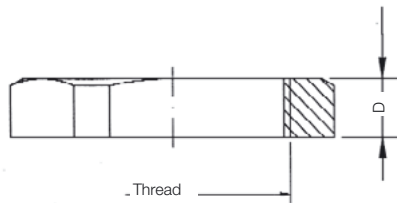
PG gland lock nut brass with EMC

SKMU EMC Pg7	PG 7	4.7	1.0	15	20	1718900000
SKMU EMC Pg9	PG 9	4.7	1.0	18	20	1718910000
SKMU EMC Pg11	PG 11	4.7	1.0	21	20	1718920000
SKMU EMC Pg13.5	PG 13.5	4.7	1.0	23	10	1718930000
SKMU EMC Pg16	PG 16	4.7	1.0	26	10	1718940000
SKMU EMC Pg21	PG 21	5.2	1.0	32	10	1718950000
SKMU EMC Pg29	PG 29	5.7	1.0	41	5	1718960000

all sizes in mm

Cable glands

Lock nut Plastic



Lock nut for securing plastic cable glands in accordance with DIN 46320.

Technical data

Material:	Polyamide, glass fibre reinforced
Temperature:	-40°C ... +70°C
Colour:	similar grey RAL 7035
DIN:	46320

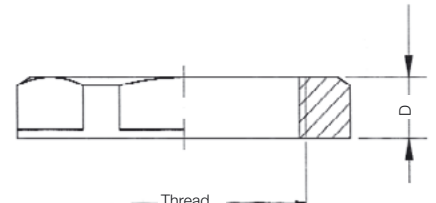
Ordering data

Type	Thread	D	SW	Qty.	Cat. No.
Metric gland lock nut plastic grey					
SKMU M12-K GR	M 12 x 1.5	5	18	50	1772440000
SKMU M16-K GR	M 16 x 1.5	5	22	50	1772450000
SKMU M20-K GR	M 20 x 1.5	6	26	50	1772460000
SKMU M25-K GR	M 25 x 1.5	6	32	25	1772470000
SKMU M32-K GR	M 32 x 1.5	7	41	20	1772480000
SKMU M40-K GR	M 40 x 1.5	7	50	20	1772490000
SKMU M50-K GR	M 50 x 1.5	8	60	10	1772500000
SKMU M63-K GR	M 63 x 1.5	8	75	10	1772510000

PG gland lock nut plastic grey					
SKMU Pg7-K GR	PG 7	5.0	19	50	1697440000
SKMU Pg9-K GR	PG 9	5.0	22	50	1697450000
SKMU Pg11-K GR	PG 11	5.0	24	50	1697460000
SKMU Pg13.5-K GR	PG 13.5	6.0	27	50	1697470000
SKMU Pg16-K GR	PG 16	6.0	30	25	1697480000
SKMU Pg21-K GR	PG 21	7.0	36	20	1698220000
SKMU Pg29-K GR	PG 29	7.0	46	20	1698230000
SKMU Pg36-K GR	PG 36	8.0	60	10	1698240000
SKMU Pg42-K GR	PG 42	8.0	65	10	1698250000
SKMU Pg48-K GR	PG 48	8.0	70	5	1719090000

all sizes in mm

Lock nut Plastic Ex



Lock nut for securing cable glands used in Ex-areas in accordance with LCIE 97ATEX6007X.

Technical data

Material:	Polyamide
Temperature:	-40°C ... +70°C
Colour:	similar black RAL 9005

Ordering data

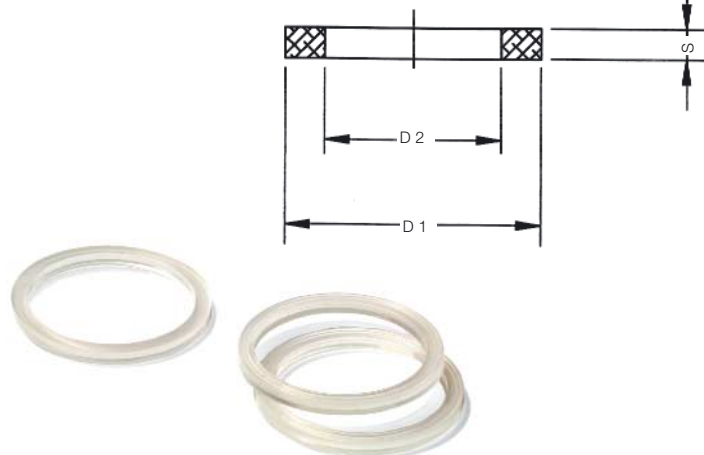
Type	Thread	D	SW	Qty.	Cat. No.
Metric gland lock nut plastic Ex					
SKMU M 16-K SW	M 16 x 1.5	5.0	22	50	1736920000
SKMU M 20-K SW	M 20 x 1.5	6.0	26	50	1736930000
SKMU M 25-K SW	M 25 x 1.5	6.0	32	25	1736940000
SKMU M 32-K SW	M 32 x 1.5	7.0	41	20	1736950000
SKMU M 40-K SW	M 40 x 1.5	7.0	50	10	1736960000
SKMU M 50-K SW	M 50 x 1.5	8.0	60	5	1736970000
SKMU M 63-K SW	M 63 x 1.5	8.0	75	5	1736980000

PG gland lock nut plastic Ex					
SKMU Pg7-K SW	PG 7	5.0	19	50	1719100000
SKMU Pg9-K SW	PG 9	5.0	22	50	1719110000
SKMU Pg11-K SW	PG 11	5.0	24	50	1719120000
SKMU Pg13.5-K SW	PG 13.5	6.0	27	50	1719130000
SKMU Pg16-K SW	PG 16	6.0	30	25	1719140000
SKMU Pg21-K SW	PG 21	7.0	36	20	1719150000
SKMU Pg29-K SW	PG 29	7.0	46	20	1719160000
SKMU Pg36-K SW	PG 36	8.0	60	10	1719170000
SKMU Pg42-K SW	PG 42	8.0	65	10	1719180000
SKMU Pg48-K SW	PG 48	8.0	70	5	1719190000

all sizes in mm

Cable glands

Threaded sealing rings



To increase the protection class of cable glands.

Technical data

Material: Polyethylene
DIN: 46320

Ordering data

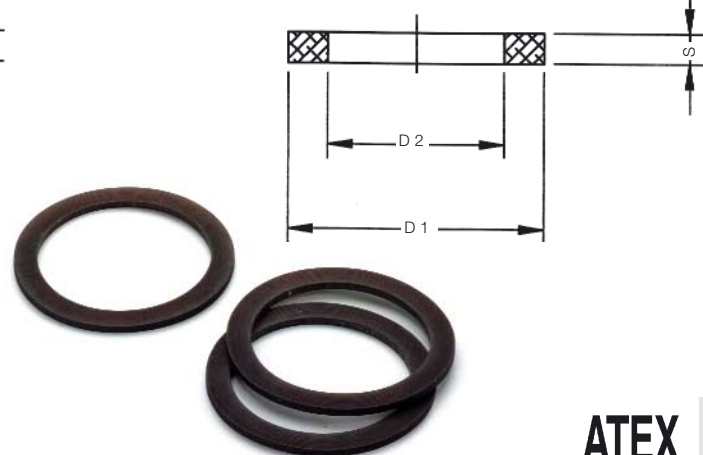
Type	Thread	D1	D2	S	Qty.	Cat. No.
Metric threaded sealing rings, polyethylene						
GWDR M12-PO	M 12 x 1.5	16	12	1.5	100	1777920000
GWDR M16-PO	M 16 x 1.5	20	16	1.5	100	1777930000
GWDR M20-PO	M 20 x 1.5	24	20	2.0	100	1777940000
GWDR M25-PO	M 25 x 1.5	29	25	2.0	100	1777950000
GWDR M32-PO	M 32 x 1.5	36	32	2.0	50	1777960000
GWDR M40-PO	M 40 x 1.5	44	40	2.0	50	1777970000
GWDR M50-PO	M 50 x 1.5	54	50	2.0	25	1777980000
GWDR M63-PO	M 63 x 1.5	67	63	2.0	10	1777990000

PG Threaded sealing rings, polyethylene

GWDR Pg7-PO	PG 7	16.5	12.5	1.6	50	1719440000
GWDR Pg9-PO	PG 9	19	15.3	1.6	50	1719450000
GWDR Pg11-PO	PG 11	22.5	18.6	1.8	50	1719460000
GWDR Pg13.5-PO	PG 13.5	25	20.4	1.8	50	1719470000
GWDR Pg16-PO	PG 16	27	22.5	1.8	25	1719480000
GWDR Pg21-PO	PG 21	33.5	28.5	2.2	20	1719490000
GWDR Pg29-PO	PG 29	43.5	37.0	2.2	20	1719500000
GWDR Pg36-PO	PG 36	55	47.0	2.7	10	1719510000
GWDR Pg42-PO	PG 42	63	54.0	3.2	10	1719520000
GWDR Pg48-PO	PG 48	69	59.3	3.2	5	1719530000

all sizes in mm

Threaded sealing rings



To increase the protection class of cable glands in Ex areas in accordance with LCIE 97ATEX6007X.

Technical data

Material: Neoprene
DIN: 46320

Ordering data

Type	Thread	D1	D2	S	Qty.	Cat. No.
Metric threaded sealing rings, neoprene						
GWDR M 16-NP	M 16	22	16	1.2	20	1736230000
GWDR M 20-NP	M 20	24	20	1.2	20	1736240000
GWDR M 25-NP	M 25	30	25	1.5	20	1736250000
GWDR M 32-NP	M 32	42	32	1.5	20	1736260000
GWDR M 40-NP	M 40	52	40	1.5	10	1736270000
GWDR M 50-NP	M 50	63	50	1.5	10	1736280000
GWDR M 63-NP	M 63	77	63	2	10	1736290000

PG threaded sealing rings, neoprene

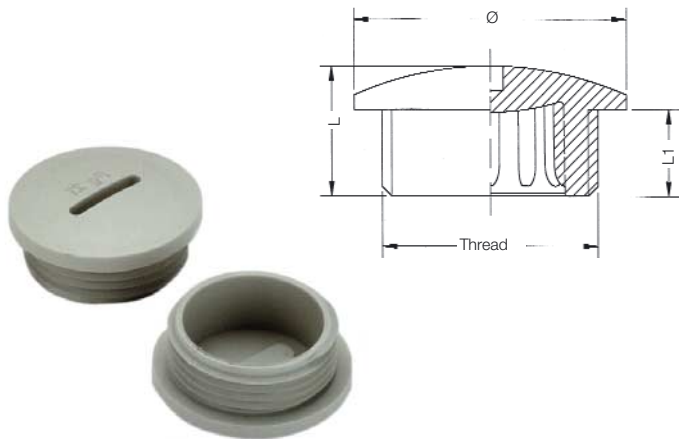
GWDR Pg7-NP	PG 7	17	11.6	1.2	50	1719540000
GWDR Pg9-NP	PG 9	21	14.0	1.2	50	1719550000
GWDR Pg11-NP	PG 11	24	17.0	1.2	50	1719560000
GWDR Pg13.5-NP	PG 13.5	27	19.5	1.2	50	1719570000
GWDR Pg16-NP	PG 16	30	22.5	1.2	25	1719580000
GWDR Pg21-NP	PG 21	35	28.3	1.5	20	1719590000
GWDR Pg29-NP	PG 29	45	37.0	1.5	20	1719600000
GWDR Pg36-NP	PG 36	60	47.0	1.5	10	1719610000
GWDR Pg42-NP	PG 42	65	54.0	1.5	10	1719620000
GWDR Pg48-NP	PG 48	71	59.3	1.5	5	1719630000

all sizes in mm

ATEX

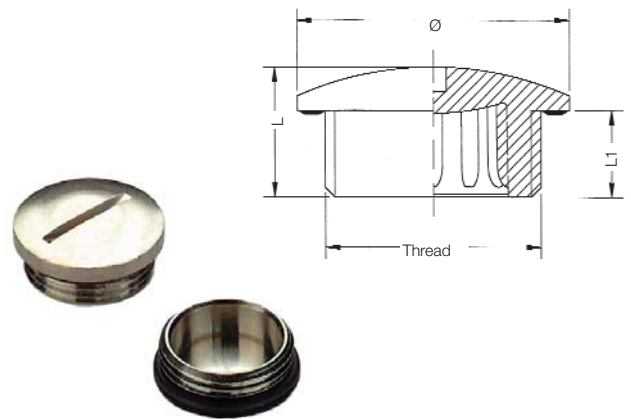
Cable glands

Sealing plug, plastic



Glass-fibre reinforced polyamide offers excellent resistance to numerous chemicals.

Sealing plug, brass



Self-sealing version with O-ring made of perbunan. Also available with a hexagon head.

Technical data

Material:	Polyamide, glass fibre reinforced
Temperature:	-40°C ... +100°C
Protection class:	IP54 (with thread sealing ring Type GWDR ...-PO = IP66)
Colour:	similar Grey RAL 7035
DIN:	46320

Technical data

Material:	Nickel plated brass
Sealing:	O-Ring Perbunan
Temperature:	-40°C ... +100°C
Protection class:	IP65

Ordering data

Type	Thread	L	L1	Head Ø	Qty.	Cat. No.
Metric sealing plug, plastic						
VP M12-K54	M12 x 1.5	10.0	6	15	100	1776930000
VP M16-K54	M16 x 1.5	11.5	7	19	100	1776920000
VP M20-K54	M20 x 1.5	12.5	7.5	22	100	1776910000
VP M25-K54	M25 x 1.5	15.0	11	27	100	1776900000
VP M32-K54	M32 x 1.5	16.0	11	34	100	1776940000
VP M40-K54	M40 x 1.5	18.0	12	42	50	1776950000
VP M50-K54	M50 x 1.5	20.0	13	52	50	1776960000
VP M63-K54	M63 x 1.5	20.0	14	65	50	1776970000

PG sealing plug, plastic

VP 7-K54	PG 7	8	6	15	50	1719250000
VP 9-K54	PG 9	9	6	19	50	0294760000
VP 11-K54	PG 11	10.5	6.5	22	50	0294860000
VP 13.5-K54	PG 13.5	9.5	6	25	50	0294960000
VP 16-K54	PG 16	9.5	6	27	25	0295060000
VP 21-K54	PG 21	11	8	33	20	0295160000
VP 29-K54	PG 29	12	8	44	20	0501160000
VP 36-K54	PG 36	15	10	55	10	0501260000
VP 42-K54	PG 42	16	10	62	10	0501360000
VP 48-K54	PG 48	16	12	69	5	1719260000

all sizes in mm

Ordering data

Type	Thread	L	L1	Head-Ø	Qty.	Cat. No.
Metric sealing plug, brass						
VP M16 - MS65	M 16		5.0	18	100	1777730000
VP M20 - MS65	M 20		6.5	22	100	1777740000
VP M25 - MS65	M 25		7.0	28	100	1777750000
VP M32 - MS65	M 32		8.0	35	50	1777760000
VP M40 - MS65	M 40		8.0	45	50	1777770000
VP M50 - MS65	M 50		9.0	55	25	1777780000
VP M63 - MS65	M 63		10.0	68	10	1777790000

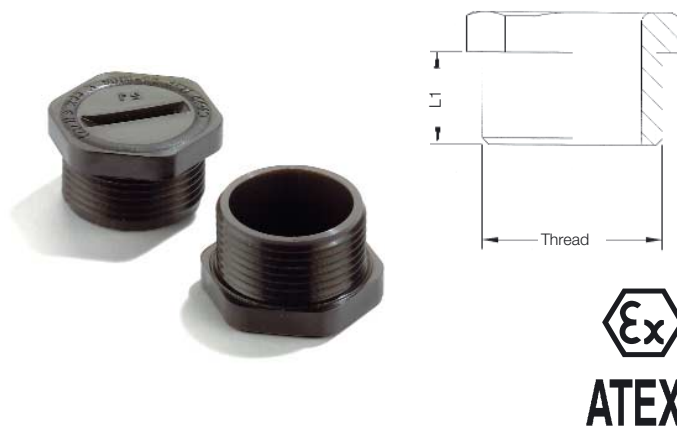
PG sealing plug, brass

VP 7-MS65	PG 7	8	5	16	50	0521600000
VP 9-MS65	PG 9	7.9	4.5	19	50	0294700000
VP 11-MS65	PG 11	7.9	4.5	22	50	0294800000
VP 13.5-K65	PG 13.5	9.5	6	24	50	0294900000
VP 16-MS65	PG 16	9	6	26	25	0295000000
VP 21-MS65	PG 21	10	6	32	20	0295100000
VP 29-MS65	PG 29	12	8	39	20	0501100000
VP 36-MS65	PG 36	15	9	50	10	0501200000
VP 42-MS65	PG 42	16	10	57	10	0501300000
VP 48-MS65	PG 48	16	10	64	5	1719270000

all sizes in mm

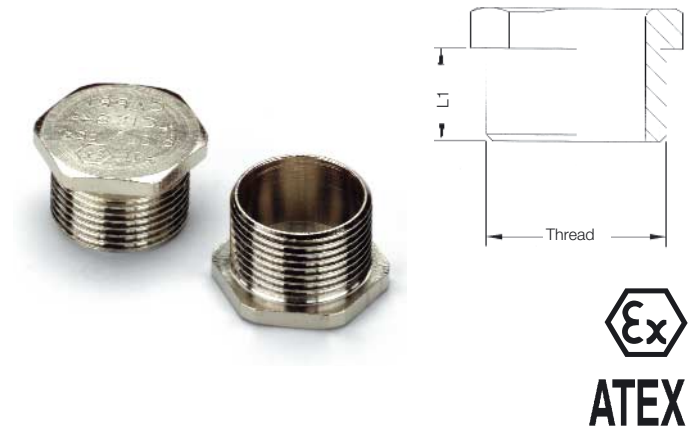
Cable glands

Sealing plug plastic EExe



Sealing plugs for Ex areas in accordance with LCIE 97ATEX6003X. Also available with metric ISO thread

Sealing plug brass EExe / EExd



Hexagon head version for Ex-areas (EExe II). Approvals in accordance with LCIE 98ATEX0001X. Also available with metric ISO thread.

Technical data

Material:	Polyamide
Temperature:	-40°C ... +100°C
Protection class:	IP54 (with thread sealing ring Type GWDR ...-PO = IP66)
	ATEX granted
Colour:	similar Black RAL 9005

Ordering data

Type	Thread	L	L1	SW	Qty.	Cat. No.
Metric sealing plug, plastic EExe						
VP M 16-Exe SW	M 16 x 1.5	19	15	19	50	1737070000
VP M 20-Exe SW	M 20 x 1.5	19	15	23	50	1737080000
VP M 25-Exe SW	M 25 x 1.5	20	15	28	25	1737090000
VP M 32-Exe SW	M 32 x 1.5	20.5	15	36	20	1737100000
VP M 40-Exe SW	M 40 x 1.5	20.5	15	44	10	1737110000
VP M 50-Exe SW	M 50 x 1.5	21	15	54	5	1737120000
VP M 63-Exe SW	M 63 x 1.5	21.5	15	67	5	1737130000

PG sealing plug, plastic EExe

VP 7-Exe SW	PG 7	12	8	15	50	1719280000
VP 9-Exe SW	PG 9	14.5	10	19	50	1719290000
VP 11-Exe SW	PG 11	15	10.5	22	50	1569380000
VP 13.5-Exe SW	PG 13.5	16	11	24	50	1569390000
VP 16-Exe SW	PG 16	17	12	27	25	1569400000
VP 21-Exe SW	PG 21	18	12.5	32	20	1569410000
VP 29-Exe SW	PG 29	19	13.5	40	20	1719300000
VP 36-Exe SW	PG 36	21	15	54	10	1719310000
VP 42-Exe SW	PG 42	21.5	15	59	10	1719320000
VP 48-Exe SW	PG 48	22	15.5	64	5	1719330000

all sizes in mm

Technical data

Material:	Nickel plated brass
Temperature:	-40°C ... +100°C
Protection class:	IP54 (with thread sealing ring Type GWDR ...-NP = IP66)
	ATEX granted

Ordering data

Type	Thread	L	L1	SW	Qty.	Cat. No.
Metric sealing plug, brass EExe						
VP M 16-Exe SW	M 16 x 1.5	18	15	18	50	1737140000
VP M 20-Exe SW	M 20 x 1.5	18	15	23	50	1737150000
VP M 25-Exe SW	M 25 x 1.5	18.5	15	28	25	1737160000
VP M 32-Exe SW	M 32 x 1.5	19	15	36	20	1737170000
VP M 40-Exe SW	M 40 x 1.5	19	15	44	10	1737180000
VP M 50-Exe SW	M 50 x 1.5	21	16	54	5	1737190000
VP M 63-Exe SW	M 63 x 1.5	24	17	67	5	1737200000

PG sealing plug, brass EExe

VP 7-Exe MS	PG 7	18	15	15	50	1719340000
VP 9-Exe MS	PG 9	18	15	18	50	1719350000
VP 11-Exe MS	PG 11	18	15	21	50	1719360000
VP 13.5-Exe MS	PG 13.5	18	15	23	50	1719370000
VP 16-Exe MS	PG 16	18	15	26	25	1719380000
VP 21-Exe MS	PG 21	18	15	32	20	1719390000
VP 29-Exe MS	PG 29	19	15	41	20	1719400000
VP 36-Exe MS	PG 36	20	15	51	10	1719410000
VP 42-Exe MS	PG 42	20	15	58	10	1719420000
VP 48-Exe MS	PG 48	20.5	15	64	5	1719430000

all sizes in mm

Cable glands

Adaptors



Technical data

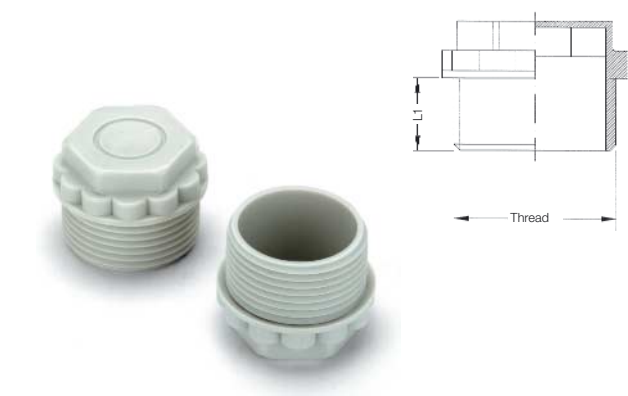
Material:	Nickel plated brass
Temperature:	-40°C ... +100°C
Protection class:	IP54 (with thread sealing ring Type GWDR ...-NP = IP66)
Approval:	in accordance with LCIE 97ATEX6001X

Metric PG adaptors, available soon.
Please contact us

Male thread	3" NPT	2 1/2" NPT	2" NPT	1 1/2" NPT	1 1/4" NPT	1" NPT	3/4" NPT	1/2" NPT	M 75	M 63	M 50	M 40	M 32	M 25	M 20	M 16
Female thread																
M 16	1737420000	1737430000	1737440000	1737450000	1737460000	1737470000	1737480000	1737490000	1737500000	1737510000	1737520000	1737530000	1737540000	1737550000	1737560000	1737570000
M 20	1737580000	1737590000	1737600000	1737610000	1737620000	1737630000	1737640000	1737650000	1737660000	1737670000	1737680000	1737690000	1737700000	1737710000	1737720000	1737730000
M 25	1737740000	1737750000	1737760000	1737770000	1737780000	1737790000	1737800000	1737810000	1737820000	1737830000	1737840000	1737850000	1737860000	1737870000	1737880000	
M 32	1737890000	1737900000	1737910000	1737920000	1737930000	1737940000	1737950000		1737960000	1737970000	1737980000	1737990000	1738000000	1738010000		
M 40	1738020000	1738030000	1738040000	1738050000	1738060000	1738070000			1738080000	1738090000	1738100000	1738110000	1738120000			
M 50	1738130000	1738140000	1738150000	1738160000	1738170000				1738180000	1738190000	1738200000	1738210000				
M 63	1738220000	1738230000	1738240000	1738250000					1738260000	1738270000	1738280000					
M 75	1738290000	1738300000	1738310000						1738320000	1738330000						
1/2" NPT	1738340000	1738350000	1738360000	1738370000	1738380000	1738390000	1738400000	1738410000	1738420000	1738430000	1738440000	1738450000	1738460000	1738470000	1738480000	1738490000
3/4" NPT	1738500000	1738510000	1738520000	1738530000	1738540000	1738550000	1738560000	1738570000	1738580000	1738590000	1738600000	1738610000	1738620000	1738630000	1738640000	
1" NPT	1738650000	1738660000	1738670000	1738680000	1738690000	1738700000			1738710000	1738720000	1738730000	1738740000	1738750000	1738760000		
1 1/4" NPT	1738770000	1738780000	1738790000	1738800000	1738810000	1738820000			1738830000	1738840000	1738850000	1738860000	1738870000			
1 1/2" NPT	1738880000	1738890000	1738900000	1738910000	1738920000				1738930000	1738940000	1738950000	1738960000				
2" NPT	1738970000	1738980000	1738990000	1739000000					1739010000	1739020000	1739030000					
2 1/2" NPT	1739040000	1739050000	1739060000						1739070000	1739080000						
3" NPT	1739090000	1739100000							1739110000							

Cable glands

Stopper
Seal stopper



Closed version which can be can also be used as as a simple sealing plug

Technical data

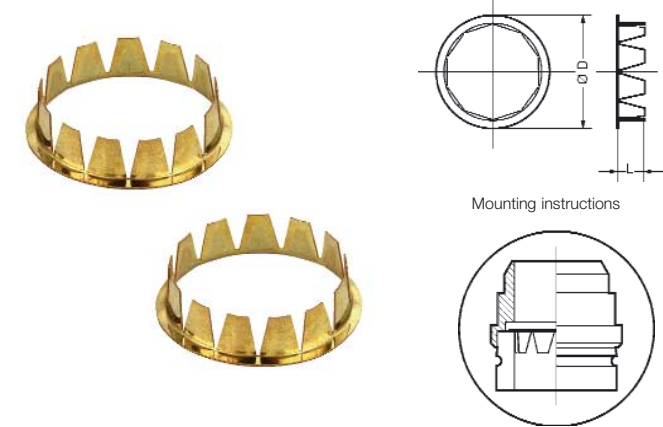
Material:	Polyethylene
Temperature:	-20°C ... +70°C
Protection class:	IP 54
Colour:	similar grey RAL 7035

Ordering data

Type	Thread	L1	Qty.	Cat. No.
PG seal stopper				
DN Pg9	PG 9	9.5	50	1719640000
DN Pg11	PG 11	10	50	1719650000
DN Pg13.5	PG 13.5	12	50	1719660000
DN Pg16	PG 16	12	25	1719670000
DN Pg21	PG 21	14	20	1719680000
DN Pg29	PG 29	16	20	1719690000
DN Pg36	PG 36	19	10	1719700000
DN Pg42	PG 42	23	10	1719710000
DN Pg48	PG 48	24	5	1719720000

all sizes in mm

Accessories
Earthing washer, brass for lead-sheathed cables



In order to improve conductivity, the earthing washer is inserted into the cable gland when using lead-sheathed cables.
Please refer to the mounting instructions.

Technical data

Material:	brass
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Ordering data

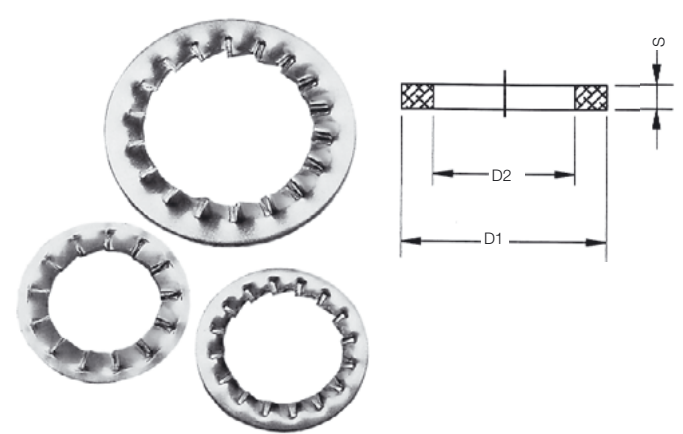
Type	Cable Ø	D	L	Qty.	Cat. No.
EA VS No. 6	6.0 - 11.0	13.9	4	20	1736370000
EA VS No. 7	9.0 - 15.0	18.3	4.8	20	1736380000
EA VS No. 8	12.0 - 20.0	23.8	5.7	20	1736390000
EA VS No. 9	18.0 - 26.5	31	7.2	20	1736400000
EA VS No. 10	21.0 - 32.5	38.3	8.2	20	1736410000
EA VS No. 11	28.0 - 39.5	45.3	8.8	20	1736420000
EA VS No. 12	33.0 - 46.5	52.8	9.5	20	1736430000
EA VS No. 13	40.0 - 54.5	60.8	10.1	10	1736440000
EA VS No. 14	46.5 - 61.0	71	11.4	10	1736450000
EA VS No. 15	54.0 - 72.5	80.5	12.6	10	1736460000
EA VS No. 16	63.0 - 81.5	89.5	12.6	5	1736470000

all sizes in mm

Cable glands

Accessories

Serated lock washer



Technical data

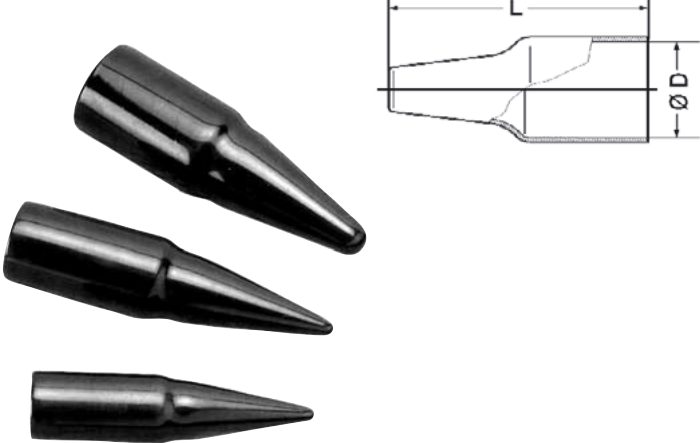
Material:	Steel, nickel plated

Ordering data

Type	Thread	D1	D2	S	Qty.	Cat. No.
Metric safety washers						
SZS M 16	M 16	–	–	–	10	1736300000
SZS M 20	M 20	32.8	21.5	1.5	10	1736310000
SZS M 25	M 25	39.8	26.5	1.9	10	1736320000
SZS M 32	M 32	49.3	32.8	1.5	10	1736330000
SZS M 40	M 40	64.5	42.2	1.8	5	1736340000
SZS M 50	M 50	80	53	1.8	5	1736350000
SZS M 63	M 63	100	64	1.9	5	1736360000

all sizes in mm

Protecting cap (shroud)



The protective cap is simply slid or pulled over the cable gland. The use of protective caps achieves a more effective sealing of the cable glands via the exterior cable sheath. This method of sealing protects cable glands in corrosive atmospheres.

Technical data

Material:	PVC
Temperature:	-40 °C - 100 °C
Colour:	Black

Ordering data

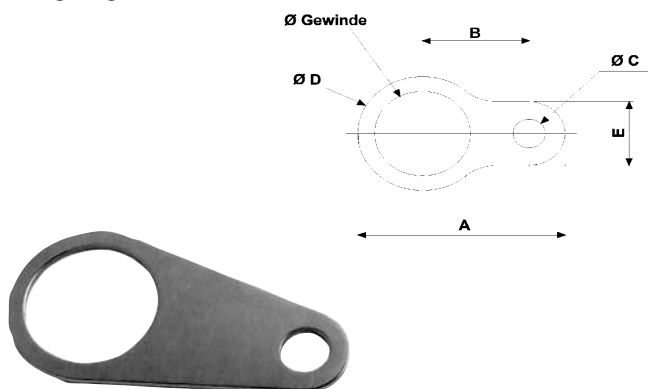
Type	Cable Ø	D	L	L1	Qty.	Cat. No.
Protection cap No. 4	6.0 - 12.0	20	90	42	20	1736560000
Protection cap No. 5	6.0 - 12.0	20	90	42	20	1736570000
Protection cap No. 6	8.5 - 16.0	25	110	50	20	1736580000
Protection cap No. 7	10.0 - 21.0	31	110	50	20	1736590000
Protection cap No. 8	16.0 - 27.5	43	125	60	20	1736600000
Protection cap No. 9	21.0 - 34.0	50	135	70	20	1736610000
Protection cap No. 10	27.0 - 41.0	57	150	75	20	1736620000
Protection cap No. 11	33.0 - 48.0	67	165	80	10	1736630000
Protection cap No. 12	40.0 - 56.0	75	170	82	10	1736640000
Protection cap No. 13	47.0 - 65.0	89	190	97	10	1736650000
Protection cap No. 14	54.0 - 74.0	100	205	105	5	1736660000
Protection cap No. 15	63.0 - 83.0	115	245	120	5	1736670000
Protection cap No. 16	72.0 - 93.0	125	245	120	5	1736680000

all sizes in mm

Cable glands

Accessories

Earthing ring, brass



The earthing ring is slid over the entry thread. An improved connection between the enclosure and earth or other conductive components is created by the use of earthing rings.

Pressure compensating elements



Enclosures for electrical and electronic modules are used in environments with harsh climate changes. Temperature fluctuations can lead to considerable pressure fluctuations within a liquid-tight container. If negative pressure levels resulting from temperature fluctuations are sufficient, moist air will penetrate in to the enclosure to compensate the pressure. After a number of temperature fluctuation cycles, condensation can form in the enclosure if ventilation via the seal is inadequate.

Our GORE-TEX® pressure compensation element, **DAE PG**, protects electrical and electronic components against failure: the enclosure can "breathe" even though according to IP standards it is liquid-tight.

Technical data

Material: Nickel plated brass

Technical data

Operating temperature	- 40°C to + 100°C
Protection class	IP 69 K
Material	PBT- GF 20
Colour	similar to grey RAL 7038 / black RAL 9005
Connection thread	PG7
Osmotic potential of membrane	> 0.6 bar (membrane side)
Air flow rate, at 70 mbar.	≥ 12l /h
Membrane characteristics	water and oil resistant
Weathering behaviour (Xenotest 3.600 h)	No or very slight yellowing and alteration of the surface
	No significant alteration to the mechanical characteristics

Ordering data

Type	Thread	A	B	C	D	E	Qty.	Cat. No.
Metric safety washers, brass								
EA-RING MS/M 16	M 16	48.75	30	6.75	24.50	13	20	1736480000
EA-RING MS/M 20	M 20	53.80	33	7	28.60	13	20	1736490000
EA-RING MS/M 25	M 20	61.50	36	10.50	34	17	20	1736500000
EA-RING MS/M 32	M 32	73	41	12.20	42	22	20	1736510000
EA-RING MS/M 40	M 40	86.50	44.50	13.50	54	30	10	1736520000
EA-RING MS/M 50	M 50	111.50	58	13.50	67	40	10	1736530000
EA-RING MS/M 63	M 63	125.50	67	13.50	77	40	10	1736540000
EA-RING MS/M 75	M 75	137.50	73	13.50	89	40	10	1736550000

all sizes in mm

Ordering data

Type	Thread	Qty.	Cat. No.
DAE PG 7 grey	PG7	10	1753530000
DAE M 12 black	M12	10	1806480000

