CABLE TERMINATIONS

FLP TR

Ex db I/IIC, Ex eb I/IIC, Ex ta IIIC, Ex nR IIC

COMPRESSION GLAND for Unarmoured Cable

Features and Benefits

- For Group I underground mines, Group II, III, Zone 1, 2, 21 and 22 hazardous areas.
- No loose parts that can get lost.
- Fitted with specially formulated captive elastomeric seal provides Built-in Safety™.
- Provided with an extra gripper seal to grip the cable.
- Precision manufactured from high-quality brass (Marine Grade Electroless Nickel Plated™) available in stainless steel 316/316L on request.
- Supplied with a thread-sealing gasket (parallel threads only).

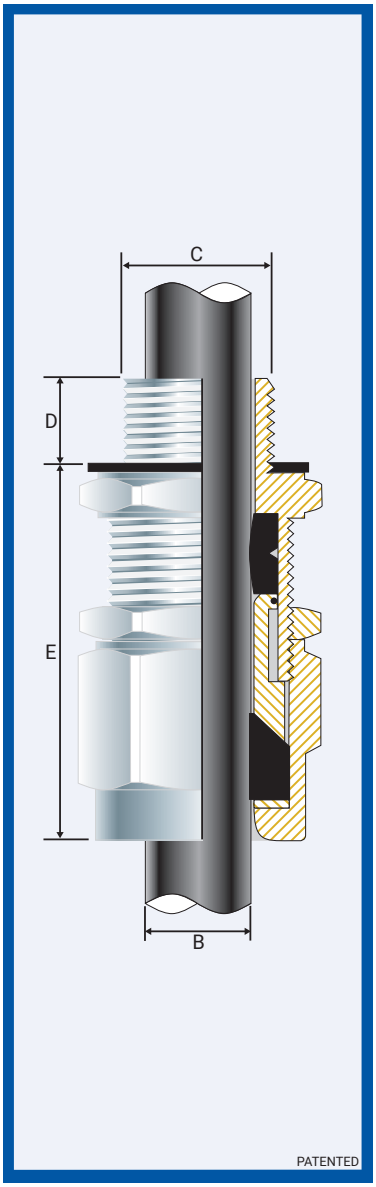
IP68 | 30 BAR SEAL

Technical Data

Type:	FLP TR
Gland Material:	Brass (Marine Grade Electroless Nickel Plated™), Stainless Steel 316/316L
Seal Material:	Standard Thermoset Elastomer or Extreme Temperature Seals
Sealing Gasket Material:	HDPE, Nylon 66 or PTFE
Cable Type:	Unarmoured
Sealing Area:	Outer sheath
Optional Accessories:	Adaptor, Reducer and Shroud
Note:	The installer should ensure that the materials are suitable for the installation environment.

Standards and Certifications

Equipment Protection Levels:	IECEx/INMETRO: Ex db I Mb / Ex be I Mb / Ex db IIC Gb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da ATEX/UKEX: Ⓔx I M2, Ⓔx II 2/3G 1D, Ex db I Mb/ IIC Gb, Ex eb I Mb/IIC Gb, Ex nR IIC Gc, Ex ta IIIC Da TR CU: Ex 1Ex d IIC Gb X / PB Ex d I Mb X / 1Ex e IIC Gb X / РП Ex e I Mc X / 2Ex nR IIC Gc X / Ex tb IIIC Db X	
Continuous Operating Temp:	Standard Seals: -60°C to +95°C/100°C (HDPE/Nylon Sealing Gasket) Extreme Temp. Seals: -60°C to +160°C (PTFE Sealing Gasket)	
Conformance:	Standards:	Certificate:
IEC/BS EN	IEC/BS EN 62444	CML 14CA364
IECEx	IEC 60079 Part 0, 1, 7, 15, 31	IECEx TSA 22.0011X
ATEX	EN 60079 Part 0, 1, 7, 31 EN 60079 Part 0, 15	CML 16ATEX1001X CML 16ATEX4002X
UKEX	BS EN 60079 Part 0, 1, 7, 31 BS EN 60079 Part 0, 15	CML 21UKEX1011X CML 21UKEX4006X
INMETRO (Brazil)	ABNT NBR IEC 60079 Part 0, 1, 7, 15, 31	TÜV 15.0483X
TR CU (Russia)	ГОСТ 31610-0, 15, ГОСТ IEC 60079-1 ГОСТ Р МЭК 60079-7, 31	ЕАЭС RU C-ZA.HA91.B.00245/21
SANS	SANS/IEC 60079 Part 0, 1, 7, 15, 31 SANS 808	MASC MS/22-9001X
IP66/68 - Parallel IP65 - Tapered	SANS/IEC 60529	MASC MS/22-9001X
IP68 - Tapered and approved grease	IEC 60529	IECEx CML 18.0018X
Deluge Protection	DTS-01	CML 14CA370-2
Corrosion Protection	ASTM B117-11, BS EN ISO 3231	EXOVA N968667
Marine ABS	IEC 60079 Part 0, 1, 7, 15, 31, IEC 60529	ABS 20-1952706-1-PDA
DNV-GL	IEC 60079 Part 0, 1, 7, IEC 60529	DNV-GL TAE0000010



PATENTED

Conditions for Safe Use - X

- The cable glands shall only be used where the temperature, at the point of entry, is between -60°C to +95°C (standard seal & HDPE sealing gasket), -60°C to +100°C (standard seal and Nylon sealing gasket) or -60°C to +160°C (extreme temp. seal & PTFE sealing gasket) depending on seal and gasket used.
- For unfilled cable use a CCG VORTEx® barrier gland should be used.

Product Code	Gland Size Reference	Metric Entry Thread		NPT Entry Thread		Cable Detail		Maximum Length 'E'	Hexagonal Detail		Installation Torque Value Nm
		'C'	Min 'D'	'C'	Min 'D'	Min 'B'	Max 'B'		Max 'Flats'	Max 'Crns'	
052400-16	00-16ss	M16x1.5	15	-	-	3.0	8.0	46.0	25.0	28.0	32.5
052400	00-20ss	M20x1.5	15	½/¾	15	3.0	8.0	46.0	25.0	28.0	32.5
0524-0	0-20s	M20x1.5	15	½/¾	15	8.0	11.5	46.0	25.0	28.0	32.5
052401	1-20	M20x1.5	15	½/¾	15	11.5	14.0	48.0	27.0	30.0	32.5
052402	2-25	M25x1.5	15	¾/1	15/19	14.0	20.2	60.0	40.0	45.0	47.5
052403	3-32	M32x1.5	15	1/1¼	19	20.0	26.5	76.0	45.0	51.0	55.0
052404	4-40	M40x1.5	15.0	1¼/1½	19/21	26.5	34.0	84.0	55.0	62.0	65.0
052455	5s-50s	M50x1.5	15.0	1½/2	21	32.5	38.0	90.0	70.0	79.0	82.5
052405	5-50	M50x1.5	15.0	1½/2	21	38.0	44.5	90.0	70.0	79.0	82.5
052465	6s-63s	M63x1.5	15.0	2/2½	21/30	44.5	50.0	96.0	85.0	96.0	97.5
052406	6-63	M63x1.5	15.0	2/2½	21/30	50.0	56.0	96.0	85.0	96.0	97.5
052407	7-75	M75x1.5	15.0	2½/3	30/32	56.0	65.0	105.0	96.0	108.0	115.5

All dimensions except NPT are in mm. Intermediate thread sizes are available on request. NPT threads should be tightened "wrench tight".

FLP TR Compression Gland

ENCLOSURES AND EQUIPMENT TO WHICH CABLE GLANDS ARE FITTED:-

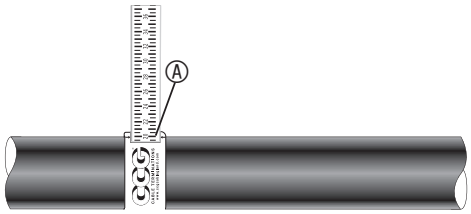
- Must be made from materials which are compatible with the cable gland materials.
- Have a sealing area around the cable gland entry point with a surface roughness < Ra 6.3 µm.
- Have entries that are perpendicular to the enclosure face in the area where the cable gland will seal to within 2.5°.
- Are sealed using the supplied sealing gasket (parallel threads) or by fully tightening into a threaded entry (tapered threads). Note that for tapered threads the IP rating can be improved to IP68 with the use of a suitable thread sealant.

MUST HAVE THREADED ENTRIES

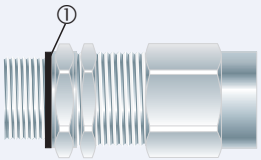
- The same thread size as the cable gland. (Thread adapters should be used to correct any mismatch).
- With a thread tolerance of metric class '6H' or equivalent.
- Where the thread length is a minimum of 10mm for Ex d applications or 3mm for all other applications

OR CLEARANCE HOLES (not Ex d)

- Where the hole size is the thread nominal size with a tolerance of +0.1 to +0.7mm. (e.g. the clearance hole for an M20 thread will have a diameter between 20.1mm and 20.7mm).
- Through material that is between 1mm and 12mm thick. (Thicker materials can be accommodated using glands with extended entry threads.)



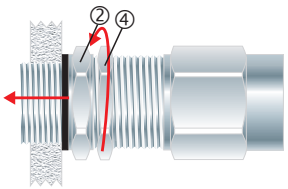
1. For accurate sizing, use a CCG Dimension Tape Ⓐ on the outer cable sheath.



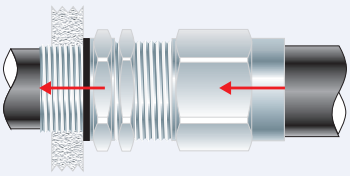
If a gland with NPT threads is fitted to a threaded entry then IP68 (2m) can be achieved by applying one of the following tested and certified grease types:- Renolit Lubrene CA700 or LX220, Renolit EP2 LC-WP2 or Moly LX2, Dow Corning 4 Electrical Compound.

Note: Locknut and sealing washer for metric only.

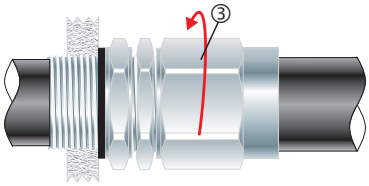
2. To maintain the IP66/68 ensure the gasket ① is in place.



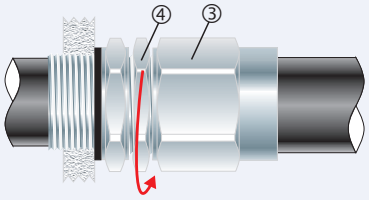
3. Screw the gland unit into the apparatus and tighten the inner ② to the installation torque. Ensure the locknut ④ is screwed up against the inner ②.



4. Pass the cable end through the gland assembly.



5. Tighten the outer ③ to the installation torque to produce a seal and grip on the cable.



6. Tighten the locknut ④ up against the outer ③.