CCG CABLE TERMINATIONS

FLP Hose

Ex db I/IIC, Ex eb I/IIC, Ex tb 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.
- Fitted complete with a specially formulated elastomeric captive seal for Built-in Safety™.
- A hose tail provides for clamping a protective hose over the cable.
- Precision manufactured from high-quality brass (Marine Grade Electroless Nickel Plated™) available in stainless steel 316/316L on request.
- Complete with sealing gasket and an end cap safety gauge for correct gland selection.

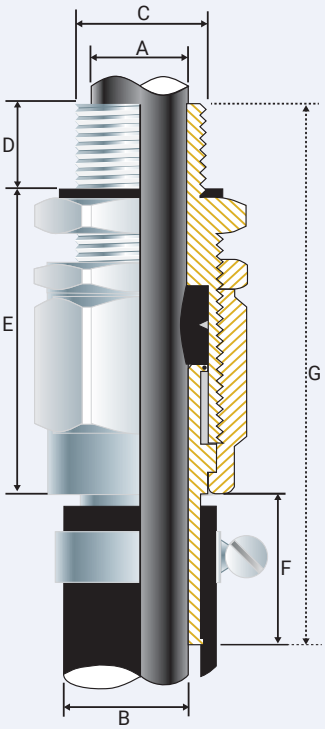
IP68 | Ex 30 BAR SEAL

Technical Data

Type:	FLP Hose
Gland Material:	Brass (Marine Grade Electroless Nickel Plated™), Stainless Steel 316/316L
Seal Material:	Thermoset Elastomer Standard or Extreme Temperature Seals
Seal 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: Ex d I Mb/ IIC Gb, Ex e I Mb/IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db ATEX: Ⓔx I M2, II 2 GD, II 3G, Ex db I Mb/ IIC Gb, Ex eb I Mb/IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db TR CU: 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)	
Conformance:	Standards:	Certificate:
IEC/BS EN	IEC/BS EN 62444	CML 14CA364
IECEx	IEC 60079 Parts 0, 1, 7, 15, 31	IECEx ITA 12.0014X
ATEX	EN 60079 Parts 0, 1, 7, 31 EN 60079 Parts 0,15	CML 16ATEX1001X CML 16ATEX4002X
INMETRO (Brazil)	ABNT NBR IEC 60079 Parts 0, 1, 7, 15, 31	TÜV 15.0483X
TR CU (Russia)	ГОСТ Р МЭК 60079-0, 7, 15, 31 ГОСТ IEC 60079-1	TC RU C-ZA.ME92.B.00690
SANS	SANS 60079 Parts 0, 1, 7, 15, 31 and SANS 808	MASC MS/13-028X
IP66/68 - Parallel IP65 - Tapered	SANS/IEC 60529 SANS/IEC 60529	MASC MS/13-028X
Corrosion Protection	ASTM B117-11, BS EN ISO 3231	EXOVA N968667
Marine ABS	IEC/EN 60079 Parts 0, 1, 7, 15, 31	ABS 20-SG1952706-PDA



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 and +95°C (standard seal & HDPE sealing gasket), +100°C (standard seal and Nylon sealing gasket) or +160°C (extreme temp. seal & PTFE sealing gasket).

Product Code	Gland Size Reference	Metric Entry Thread		NPT Entry Thread		Cable Detail		To Suit Hose Size (Nom)		Max Length 'E'	Coupler Length Min 'F'	Max. Overall Length 'G'	Hexagonal Detail		Install Torque Value Nm
		'C'	Min 'D'	'C'	Min 'D'	Min 'A'	Max 'A'	Metric 'B'	Imperial 'B'				Max 'Flats'	Max 'Crns'	
052700-16	00-16ss	M20x1.5	15	-	-	3.0	8.0	15.0	-	46.0	25.0	86.0	25.0	28.0	35.0
052700	00-20ss	M20x1.5	15	½/¾	15	3.0	8.0	15.0	-	46.0	25.0	86.0	25.0	28.0	35.0
0527-0	0-20s	M20x1.5	15	½/¾	15	8.0	11.5	15.0	½	46.0	25.0	86.0	25.0	28.0	35.0
052701	1-20	M20x1.5	15	½/¾	15	11.0	14.5	17.5	¾	48.0	25.0	86.0	27.0	30.0	35.0
052702	2-25	M25x1.5	15	¾/1	15/19	14.0	20.2	25.9	1	60.0	25.0	100.0	40.0	45.0	50.0
052703	3-32	M32x1.5	15	1/1¼	19	20.0	26.5	32.2	1¼	76.0	30.0	120.0	45.0	51.0	70.0
052704	4-40	M40x1.5	15	1¼/1½	19/21	26.5	34.0	39.2	1½	84.0	35.0	140.0	55.0	62.0	90.0
052755	5s-50s	M50x1.5	15	1½/2	21	32.5	38.0	45.0	1¾	90.0	40.0	150.0	70.0	79.0	100.0
052705	5-50	M50x1.5	15	1½/2	21	38.0	44.5	51.0	2	90.0	40.0	150.0	70.0	79.0	100.0
052765	6s-63s	M63x1.5	15	2/2½	21/30	44.5	50.0	63.0	2¼	96.0	45.0	160.0	85.0	96.0	120.0
052706	6-63	M63x1.5	15	2/2½	21/30	50.0	56.0	63.0	2½	96.0	45.0	160.0	85.0	96.0	120.0
052707	7-75	M75x1.5	15	2½/3	30/32	56.0	65.0	76.2	3	105.0	50.0	170.0	96.0	108.0	120.0

All dimensions except NPT are in mm. Intermediate thread sizes are available on request.

FLP HOSE GLAND Ex db I/IIC, Ex eb I/IIC, Ex tb IIIC, Ex nR IIC

ENCLOSURES AND EQUIPMENT TO WHICH CABLE GLANDS ARE FITTED:-

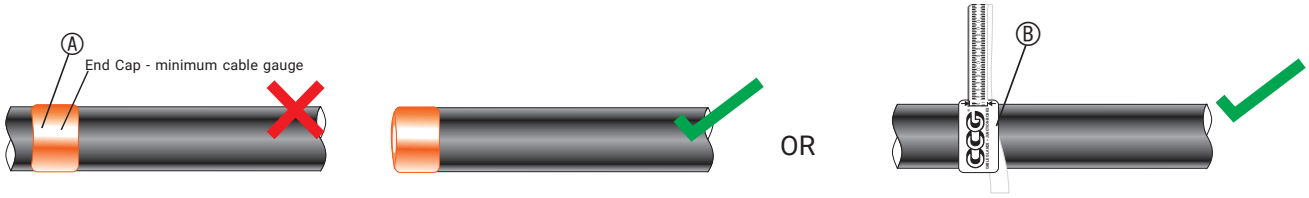
- Must be made from materials which are compatible with the cable gland materials.
- Have a sealing area around the cable gland entry point with a surface roughness < Ra 6.3 µm.
- Have entries that are perpendicular to the enclosure face in the area where the cable gland will seal to within 2.5°.
- Are 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

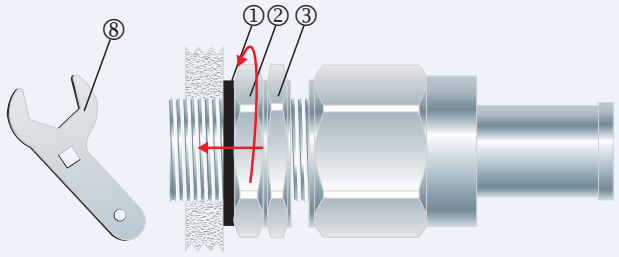
- The same thread size as the cable gland. (Thread adapters should be used to correct any mismatch).
- With a thread tolerance of metric class '6H' or equivalent.
- Where the thread length is a minimum of 10mm for Ex d applications or 3mm for all other applications

OR CLEARANCE HOLES (not Ex d)

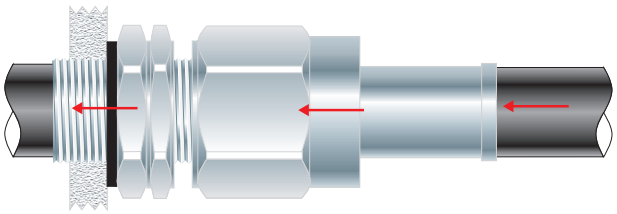
- Where the hole size is the thread nominal size with a tolerance of +0.1 to +0.7mm. (e.g. the clearance hole for an M20 thread will have a diameter between 20.1mm and 20.7mm).
- Through material that is between 1mm and 12mm thick. (Thicker materials can be accommodated using glands with extended entry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



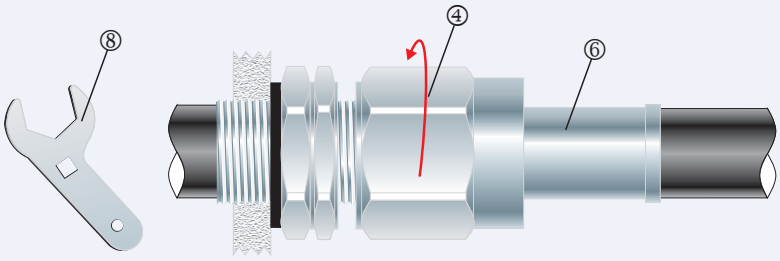
1. Check the correct gland size using an end cap (patented) Ⓐ. If the cable inner sheath passes through the hole in the end cap Ⓐ, use a gland one size smaller. For accurate sizing, use a CCG Dimension Tape Ⓑ on the cable sheath dimension.



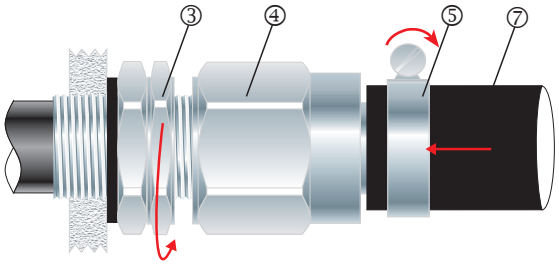
2. To maintain IP66/68 ensure the gasket ① is in place. Screw the gland unit into the apparatus. Tighten the inner ② to the installation torque using a CCG Spanner ⑧. Ensure the locknut ③ is screwed up against the gland inner ②.



3. Pass the cable end through the gland assembly.



4. Tighten the outer nut ④ to the installation torque using a CCG Spanner ⑧ to produce a seal and grip on the cable.



5. Slide the protective hose ⑦ over the hose tail ⑥ and tighten the hose clamp ⑤. Tighten locknut ③ up against the outer nut ④.