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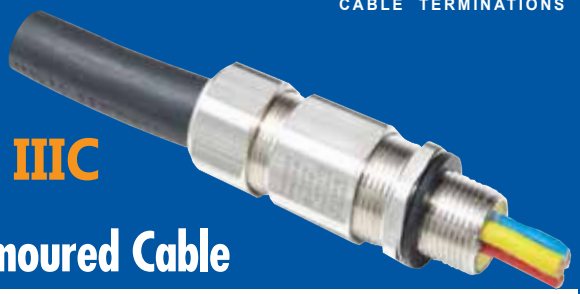
CCG CABLE TERMINATIONS

E1EX~QS

Quick Stop-Ex Injection Resin™

Ex d IIC, Ex e IIC, Ex nR IIC, Ex tb IIIC



BARRIER GLAND for Steel and Aluminium Armoured Cable

Features and Benefits

- For use indoors, outdoors and hazardous areas with unfilled hygroscopic multicore cables.
- Two part handling, no loose parts.
- Captive Cone and Cone Ring provides an armour clamp and earth bond for steel wire armour and aluminium armour.
- Instantly mixed and injected Resin. Resin forms a 100% barrier seal around the individual cores of the cable.
- Prevents gas and moisture transmitting down cable. Prevents explosive gases transmitting down cable.

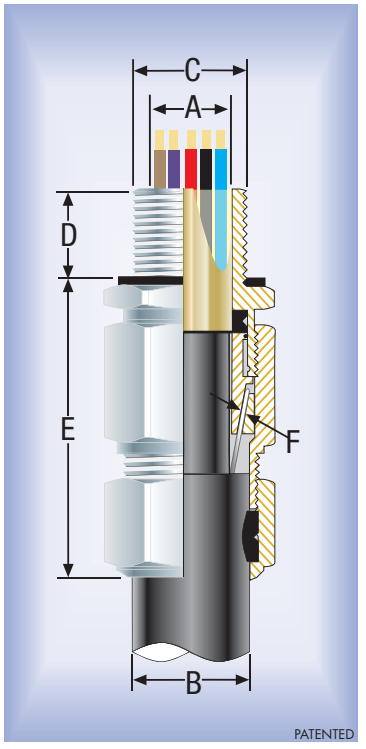
Technical Data

Type:	E1EX~QS
Gland Material:	Brass (Nickel Plated), Stainless Steel
Seal Material:	Thermoset Elastomer, Quick setting Barrier Resin
Cable Type:	Steel Wire Armour, Aluminium Armour
Armour Clamping:	Captive Cone and Cone Ring
Sealing Area:	Inner and Outer Sheath
Optional Accessories:	Adaptor, Earth Tag, Locknut, Reducer, Serrated Washer and Shroud

Standards and Certifications

Equipment Protection Levels:	Ex d IIC Gb, Ex e IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db II 2G, II 2D, II 3G	
Certification:		Standards:
Australian/New Zealand/IEC	IECEx ITA 12.0014X	IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31
ATEX	TÜV 13 ATEX 7397X	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31
	TÜV 13 ATEX 7422X	EN 60079-0, EN 60079-15
SANS/IEC	MASC MS/13-028X	SANS/IEC 60079-0, SANS/IEC 60079-1, SANS/IEC 60079-7, SANS/IEC 60079-15, SANS/IEC 60079-31
Marine	09-SG435709-PDA	
Operating Temperature:	-20°C to +95°C	
Ingress Protection:	IP 66/68 (2m)	IEC 60529

IECEx Ex CE ATEX MASC SABS APPROVED ABS



PATENTED

Installation Standards

The use of E1EX~QS Barrier Cable Gland is prescribed by the installation standards as follows:

• Ex d	AS/NZS/SANS/IEC 60079-14	Paragraph 9.3
• Ex d	AS/NZS/SANS/IEC 60079-14	Paragraph 10.4.2
• Ex nR	AS/NZS/SANS/IEC 60079-14	Paragraph 14.3.2.2
• Ex p	AS/NZS/SANS/IEC 60079-14	Paragraph 13.1.7
• Ex i	AS/NZS/SANS/IEC 60079-14	Paragraph 5.9

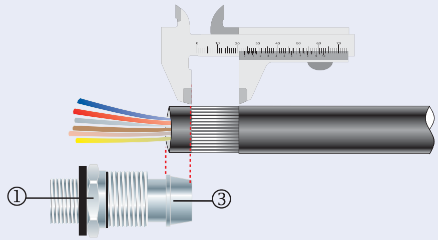
Product Code	Gland Size Reference	Metric Entry Thread		NPT Entry Thread		Cable Details (Dia)				Max Length 'E'	Armour Dia		Hexagonal Detail		Install. Torque Value Nm
		'C'	Min 'D'	'C'	Min 'D'	Min 'A'	Max 'A'	Min 'B'	Max 'B'		Min 'F'	Max 'F'	'Flats'	'Crns'	
056000-16	*00-16ss	M16x1.5	15	-	-	3.0	8.5	8.0	13.5	60.0	0.20	1.25	▲ 24.0	27.0	21.0
056000	*00-20ss	M20x1.5	15	½/¾	15	3.0	8.5	8.0	13.5	60.0	0.20	1.25	▲ 24.0	27.0	21.0
0560-0	*0-20s	M20x1.5	15	½/¾	15	7.0	12.0	11.5	16.0	60.0	0.20	1.25	▲ 24.0	27.0	21.0
056001	*1-20	M20x1.5	15	½/¾	15	9.0	15.0	14.5	20.5	63.0	0.20	1.25	▲ 27.0	30.4	21.0
056022	*2s-25s	M25x1.5	15	¾/1	15/19	11.0	17.5	16.0	24.5	70.0	0.20	1.60	▲ 35.0	39.4	30.0
056002	*2-25	M25x1.5	15	¾/1	15/19	14.0	20.0	20.5	26.5	70.0	0.20	1.60	▲ 35.0	39.4	30.0
056033	*3s-32s	M32x1.5	15	1/1¼	19	15.0	22.0	23.0	30.5	76.0	0.20	2.00	▲ 42.0	47.3	42.0
056003	*3-32	M32x1.5	15	1/1¼	19	19.0	26.5	26.5	33.5	76.0	0.20	2.00	▲ 42.0	47.3	42.0
056044	4s-40s	M40x1.5	15	1¼/1½	19/21	22.0	31.5	30.0	39.5	93.0	0.30	2.00	▲ 52.0	58.5	52.0
056004	4-40	M40x1.5	15	1¼/1½	19/21	26.0	34.0	33.0	42.5	93.0	0.30	2.00	▲ 52.0	58.5	52.0
056055	5s-50s	M50x1.5	15	1½/2	21	29.0	38.0	34.0	47.5	102.0	0.40	2.50	▲ 65.0	73.1	57.0
056005	5-50	M50x1.5	15	1½/2	21	34.0	44.5	42.5	52.5	102.0	0.40	2.50	▲ 65.0	73.1	57.0
056066	6s-63s	M63x1.5	15	2/2½	21/30	38.0	50.0	45.5	60.5	130.0	0.40	2.50	▲ 80.0	90.0	66.0
056006	6-63	M63x1.5	15	2/2½	21/30	44.0	56.5	52.5	65.5	130.0	0.40	2.50	▲ 80.0	90.0	66.0
056077	7s-75s	M75x1.5	15	2½/3	30/32	50.0	62.0	57.0	72.5	138.0	0.40	3.15	▲ 96.0	108.0	72.0
056007	7-75	M75x1.5	15	2½/3	30/32	56.0	67.5	65.5	78.0	138.0	0.40	3.15	▲ 96.0	108.0	72.0
056008	8-80	M80x2.0	20	-	-	59.0	69.0	65.0	77.5	195.0	2.50	3.15	▲ 96.0	108.0	80.0
056099	9s-90s	M90x2.0	20	-	-	66.0	75.0	73.0	86.5	204.0	3.00	3.50	✦111.0	124.9	89.0
056009	9-90	M90x2.0	20	-	-	74.0	81.5	82.0	90.5	204.0	3.00	3.50	✦111.0	124.9	89.0
056010	10-100	M100x2.0	20	-	-	81.0	91.0	91.0	100.0	209.0	3.00	3.50	✦ 125.0	140.6	98.0
056011	11-115	M115x2.0	20	-	-	86.0	98.0	100.0	114.0	209.0	3.00	4.00	✦ 135.0	151.9	175.0
056012	12-120	M120x2.0	20	-	-	96.0	103.0	103.0	118.0	209.0	3.00	4.00	✦ 140.0	157.5	175.0
056013	13-130	M130x2.0	20	-	-	100.0	115.0	113.0	124.0	209.0	3.00	4.00	✦ 146.0	164.3	175.0

All dimensions except NPT are in mm.
Metric glands may be utilized with a locknut for use on Ex e, Ex nR, Ex t equipment.
*For use with CCG Posi Fit Box. ▲For use with CCG Hex Spanner. ✦For use with CCG C Spanner.

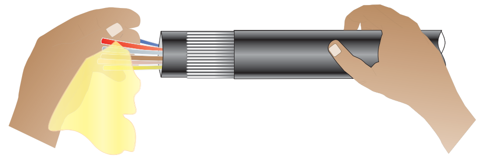
E1EX~QS Barrier Gland Ex d IIC, Ex e IIC, Ex nR IIC, Ex tb IIIC

1. Separate the inner ① from the body ②. Cut back the cable outer sheath to expose the armour to a length as per the table below. Strip back the inner bedding to expose the inner cable cores using the cone ③ as a gauge.

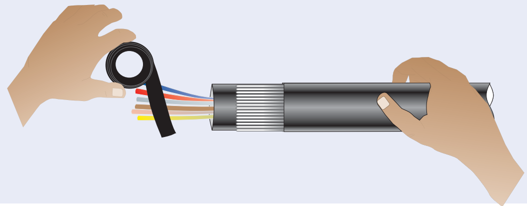
Gland Size	SWA Length	Gland Size	SWA Length	Gland Size	SWA Length	Gland Size	SWA Length
00-16ss	20.0	3s-32s	30.0	6s-63s	45.0	9-90	50.0
00-20ss	20.0	3-32	30.0	6-63	45.0	10-100	60.0
0-20s	20.0	4s-40s	30.0	7s-75s	50.0	11-115	60.0
1-20	25.0	4-40	30.0	7-75	50.0	12-120	60.0
2s-25s	25.0	5s-50s	35.0	8-80	50.0	13-130	60.0
2-25	25.0	5-50	35.0	9s-90s	50.0		



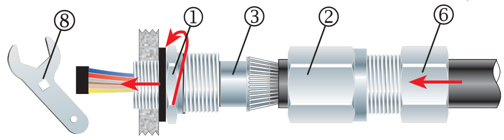
2. Using a cloth, clean the cable cores.



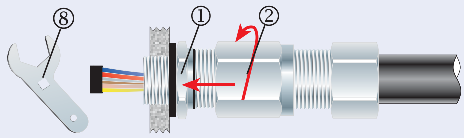
3. Using the insulation tape bundle the cores together at the end.



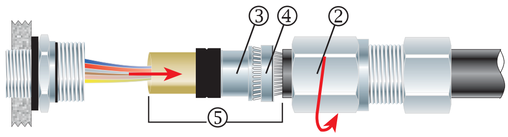
4. Screw the inner ① into the apparatus and tighten to the installation torque using a CCG Spanner ⑧. If the apparatus is untapped use a locknut. Pass the bundled cable cores through the outer nut ⑥ and body ②. Pass the bundled cables cores through the inner ① and inner diaphragm seal and splay the armour wires over the cone ③.



5. Screw the body ② onto the inner ① until hand tight, then tighten with a CCG Spanner ⑧ with ¾ turn.



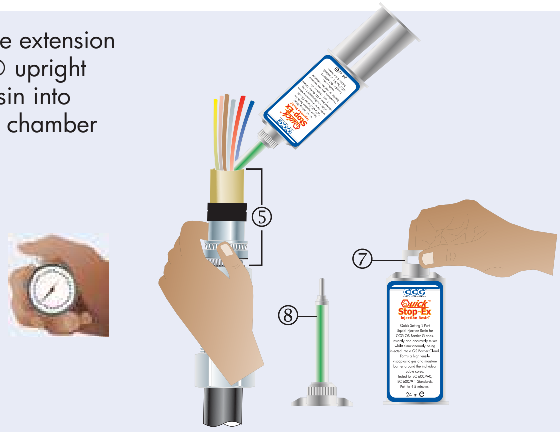
6. Unscrew the body ②. Check that the armouring has locked between the cone ③ and the cone ring ④. Withdraw the gland sub-assembly ⑤ and bundled cables . Remove insulation tape.



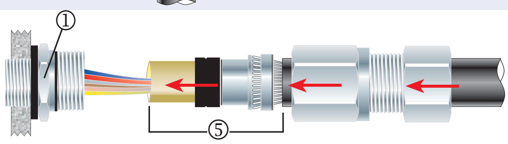
7. Remove the cap ⑦ from resin applicator and attach the mixing nozzle ⑧ (use extension nozzle for small multicore cables). Whilst holding the gland sub-assembly ⑤ upright and holding the diaphragm seal firmly against the cable sheath inject the resin into the resin chamber. Make sure the resin fills all the way to the top of the resin chamber and wipe any excess resin away.

Wait for the resin to set from a liquid to a gel,
This should take: 15 minutes at 10°C
7 minutes at 20°C
6 minutes at 30°C
5 minutes at 40°C

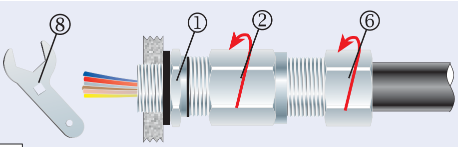
If there is still Resin left in the tube, discard the mixing nozzle ⑧ and replace the cap ⑦ for use with the next gland.



8. Re-insert the gland sub-assembly ⑤ back into the inner ①.



9. Tighten the body ② onto the inner ① to the required torque using a CCG Spanner ⑧. Tighten the outer nut ⑥ to produce a moisture proof seal by turning untill the seal makes contact with the outer sheath of cable and then make one full turn.



YouTube Instruction Video: *www.youtube.c*

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