



INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND TYPES CWe & CXe

FOR TERMINATION OF CABLES WITH WIRE BRAID USING GLAND TYPE CXe OR SINGLE WIRE ARMOUR (SWA) USING GLAND TYPE CWe FOR USE IN EXPLOSIVE ATMOSPHERES.

INCORPORATING EU DECLARATION OF CONFORMITY TO DIRECTIVE 2014/34/EU



CWe = SWA, AWA
CXe = Braid, Tape, etc armour

TECHNICAL DATA

CABLE GLAND TYPE : CWe, CXe
INGRESS PROTECTION : IP66, IP67, IP68, NEMA 4X
DESIGN STANDARDS : BS 6121:1989, EN 62444, IEC 62444
PROCESS CONTROL SYSTEM : ISO 9001
: ISO/IEC 80079-34:2011

EXPLOSIVE ATMOSPHERES CLASSIFICATION

ATEX CERTIFICATION No : CML 18ATEX1323X, CML 18ATEX4315X
ATEX CERTIFICATION CODE : II 2G, II 1D, Ex eb IIC Gb, Ex ta IIIC Da
IECEx CERTIFICATION No : IECEx CML 18.0180X
IECEx CERTIFICATION CODE : Ex eb IIC Gb, Ex ta IIIC Da

INSTALLATION INSTRUCTIONS

- Installation should only be performed by a competent person using the correct tools. Spanners should be used for tightening. Read all instructions before beginning installation.
- The interface between a cable entry device and its associated enclosure / cable entry will require additional sealing to achieve ingress protection (IP) ratings higher than IP54. The minimum protection level is IP54 for explosive gas atmospheres and IP6X for explosive dust atmospheres. Parallel threads (and tapered threads when using a non-threaded entry) require a CMP sealing washer or integral O-ring face seal (where available) to maintain IP66, 67 and 68 (when applicable). It is the installer's responsibility to ensure the IP rating is maintained at the interface.
Note: When fitted to a threaded entry, all tapered threads will automatically provide an ingress protection rating of IP68.
- A CMP earth tag should be used when it is necessary to provide an earth bond connection. CMP earth tags have been independently tested to comply with Category B rating specified in IEC 62444 (there are no ratings stated in IEC 60079-0). Ratings are shown in the associated table. CMP earth tags slip over the cable gland or accessory entry thread from inside/outside the enclosure and must be secured with a locknut (if fitted internally).
- Metric entry threads comply with ISO 965-1 and ISO 965-3 with a 6g tolerance as required by IEC 60079-1:2014. The CMP standard metric thread pitch is 1.5mm for threads up to M75, and 2.0mm from M90 and above. Special thread pitches between 0.7 – 2.0mm are available on all products on request. See certificate for details of other thread types. NPT threads are in accordance with ASME B1.20.1-2013 gauging to CI 3.2 for external threads. For details of other thread types refer to IECEx certificate.
- Enclosures must be strong enough to support the cable and cable gland assembly. The enclosure surface finish must be smooth and flat to facilitate sealing with an O-ring or Entry Thread Sealing Washer for the required IP rating.
- Enclosure walls must be sufficiently strong enough to support the cable and cable gland assembly. Enclosure entries shall be perpendicular. Any draft angles from the casting/moulding process should have a perpendicular flat spot machined to facilitate sealing with an O-ring or Entry Thread Sealing Washer.
- CMP Products recommends that when using the cable gland with a through-hole, the hole must be circular, free of burrs and the diameter no larger than 0.7mm above the thread major diameter. A suitable CMP Products locknut shall be used to secure the product. See CMP Products catalogue for locknut options.
- Cable glands do not have any serviceable parts and are therefore not intended to be repaired.

CMP Earth Tag Size	Short Circuit Ratings Symmetrical Fault Current (kA) for 1 second
20	3.06
25	4.06
32	5.40
40	7.20
50	10.40
63	10.40
75	10.40

SPECIAL CONDITIONS FOR SAFE USE

- The glands when used for terminating braided cables are only suitable for fixed installations. Cables must be efficiently clamped to prevent pulling or twisting.

ACCESSORIES

The following accessories are available from CMP Products, as optional extras, to assist with fixing, sealing and earthing :-
Locknut, Earth Tag, Serrated Washer, Entry Thread (I.P) Sealing Washer, Shroud

Number of turns to tighten	Outer Seal Tightening Guide												
	GLAND SIZE												
	20516	20S	20	25S	25	32	40	50S	50	63S	63	75S	75
0.5	13.2	15.9	20.9	22.0	26.2	33.9							
1	12.5	15.3	20.0	21.2	25.4	32.9	40.4	46.7	52.8	59.2	65.9	72.1	78.5
1.5	11.9	14.7	19.0	20.4	24.6	31.9	39.0	45.4	51.4	57.7	64.6	70.6	77.2
2	11.2	14.2	18.1	19.6	23.8	30.8	37.6	44.1	50.0	56.2	63.4	69.2	75.9
2.5	10.5	13.6	17.2	18.8	23.0	29.8	36.2	42.9	48.7	54.7	62.1	67.7	74.6
3	9.8	13.0	16.2	18.0	22.2	28.8	34.8	41.6	47.3	53.2	60.9	66.3	73.3
3.5	9.2	12.4	15.3	17.2	21.4	27.8	33.5	40.3	45.9	51.6	59.6	64.8	71.9
4	8.5	11.8	14.4	16.4	20.6	26.8	32.1	39.0	44.5	50.1	58.4	63.4	70.6
4.5	7.8	11.2	13.4	15.6	19.8	25.7	30.7	37.8	43.2	48.6	57.1	61.9	69.3
5	7.1	10.7	12.5	14.8	19.0	24.7	29.3	36.5	41.8	47.1	55.9	60.5	68.0
5.5	6.5	10.1	12.0	14.0	18.2	23.7	27.9	35.2	40.4	45.6	54.6	59.0	66.7
6	5.8	9.5											

Cable Gland Size	Metric	Thread Length (Metric)	Cable Bedding Diameter	Overall Cable Diameter	Armour Range						Across Flats	Across Corners	Protrusion Length	CW Ordering Reference (Brass Metric)	CX Ordering Reference (Brass Metric)	Shroud	Cable Gland Weight (Kgs)
					Grooved Cone (X)			Stepped Cone (W)									
					Min	Max	Max	Min	Max	Max							
20x16	M20	15.0	8.7	6.1	13.1	0.8	1.25	0.3	1.0	24.0	26.4	48.0	20S16CWE1RA	20S16CXE1RA	PVC04	0.10	
20S	M20	15.0	11.7	9.5	15.9	0.8	1.25	0.3	1.0	24.0	26.4	48.0	20SCWE1RA	20SCXE1RA	PVC04	0.10	
20	M20	15.0	14.0	12.5	20.9	0.8	1.25	0.4	1.0	30.5	33.6	48.0	20CWE1RA	20CXE1RA	PVC06	0.15	
25S	M25	15.0	20.0	14.0	22.0	1.25	1.6	0.4	1.2	37.5	41.3	56.0	25SCWE1RA	25SCXE1RA	PVC09	0.22	
25	M25	15.0	20.0	18.2	26.2	1.25	1.6	0.4	1.2	37.5	41.3	56.0	25CWE1RA	25CXE1RA	PVC09	0.22	
32	M32	15.0	26.0	23.7	33.9	1.6	2.0	0.4	1.2	46.0	50.6	54.0	32CWE1RA	32CXE1RA	PVC11	0.31	
40	M40	15.0	32.2	27.9	40.4	1.6	2.0	0.4	1.6	55.0	60.5	58.0	40CWE1RA	40CXE1RA	PVC15	0.45	
50S	M50	15.0	38.2	35.2	46.7	2.0	2.5	0.4	1.6	60.0	66.0	61.0	50SCWE1RA	50SCXE1RA	PVC18	0.57	
50	M50	15.0	44.1	40.4	53.0	2.0	2.5	0.6	1.6	70.1	77.1	60.0	50CWE1RA	50CXE1RA	PVC21	0.75	
63S	M63	15.0	50.0	45.6	59.4	2.0	2.5	0.6	1.6	75.0	82.5	74.0	63SCWE1RA	63SCXE1RA	PVC23	1.04	
63	M63	15.0	56.0	54.6	65.8	2.0	2.5	0.6	1.6	80.0	88.0	71.0	63CWE1RA	63CXE1RA	PVC25	1.02	
75S	M75	15.0	62.0	59.0	72.0	2.0	2.5	0.6	1.6	90.0	99.0	86.0	75SCWE1RA	75SCXE1RA	PVC28	1.79	
75	M75	15.0	64.2	66.7	78.4	2.5	3.0	0.6	1.6	100.0	110.0	82.0	75CWE1RA	75CXE1RA	PVC30	2.09	
90	M90	24.0	78.6	76.2	90.3	3.15	4.0	0.8	1.6	114.3	125.7	95.0	90CWE1RA	90CXE1RA	PVC32	3.04	
100	M100	24.0	91.0	86.1	101.4	3.15	4.0	0.8	1.6	123.0	135.3	95.0	100CWE1RA	100CXE1RA	LSF33	3.13	
115	M115	24.0	98.0	101.5	110.2	3.15	4.0	0.8	1.6	134.4	146.7	107.5	115CWE1RA	115CXE1RA	LSF34	4.48	
130	M130	24.0	115.0	110.2	123.2	3.15	4.0	0.8	1.6	152.4	167.6	110.0	130CWE1RA	130CXE1RA	LSF35	5.76	

*For material options add the following suffix to the Ordering Reference: Brass (no suffix required); Nickel Plated Brass 'S'; 316 Grade Stainless Steel '4'; Copper-Free Aluminium '1'
For NPT options add the following digits to the material suffix: 1/2" = 31; 3/4" = 32; 1" = 33; 1 1/4" = 34; 1 1/2" = 35; 2" = 36; 2 1/2" = 37; 3" = 38; 3 1/2" = 39; 4" = 310 (Brass requires prefix '0')
Examples: 32CWE1RA534 = Nickel Plated Brass 1-1/4" NPT, 50SCWE1RA035 = Brass 1-1/2" NPT, 25CWE1RA432 = Stainless Steel 3/4" NPT, 20CWE1RA5 = Nickel Plated Brass M20
Dimensions are displayed in millimetres unless otherwise stated

NOTE: *CMP SOLO LSF Halogen Free Shrouds also available for the full range on request. + Alternative armour clamping range available for non-standard armour sizes.
Marine Approvals including Lloyds & ABS are also available from CMP Products.

F1438		
Certification	Revision	Revision
IFS	10	05/19
ATEX / IECEx	8	04/19



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CMP Products Limited on its sole responsibility declares that the equipment referred to herein conforms to the requirements of the ATEX Directive 2014/34/EU and the following standards: -

EN 60079-0:2018, EN 60079-1:2014, EN 60079-7:2015, EN 60079-15:2015+A1:2018, EN 60079-31:2014, BS 6121:1989, EN 62444:2013

David Willcock

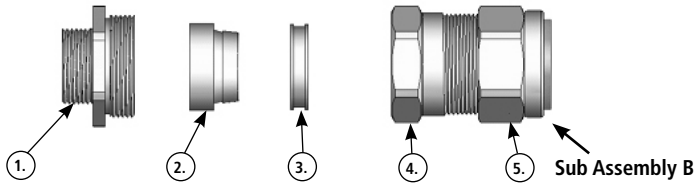
David Willcock – Certification Engineer (Authorised Person)

CMP Products Limited, Cramlington, NE23 1WH, UK
15th April 2019

INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND TYPES CWe & CXe

CABLE GLAND COMPONENTS - It is not necessary to dismantled the cable gland any further than illustrated below

- 1. Entry Component
- 2. Detachable Armour Cone
- 3. AnyWay Clamping Ring
- 4. Body
- 5. Outer Seal Nut



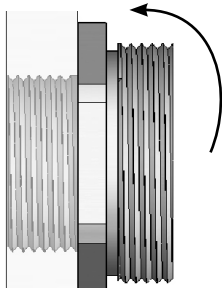
PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING THE INSTALLATION

1. Separate components (1), (2) and (3) from Sub-Assembly B. If required, fit a shroud over the cable outer sheath. Prepare the cable by removing the cable outer sheath and the braid/armour to suit the geometry of the equipment. Remove a further 18mm (max) of outer sheath to expose the armour. If applicable remove any tapes or wrappings to expose the inner sheath.

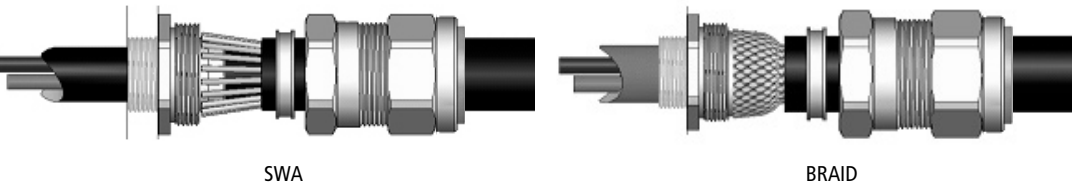
NOTE: On maximum size cables the clamping ring may only pass over the armour.



2. Secure the Entry Component (1) into the equipment as indicated.

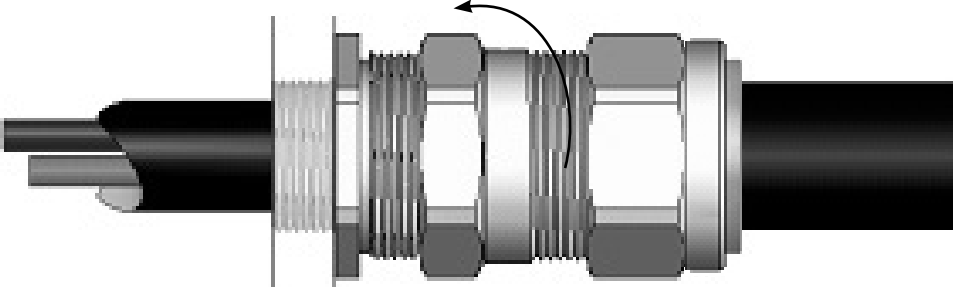


3. Locate the Detachable Armour Cone (2) into the Entry Component. Pass the cable through the entry item and evenly space the braid/armour around the cone.



4. While continuing to push the cable forward to maintain contact between the braid armour and the Cone (2), tighten the Body (4) by hand until the AnyWay Clamping Ring (3) is felt to have engaged the braid/armour.

Hold the Entry Component (1) with a spanner and tighten the Body (4) using a spanner until all available threads are used, the body and entry item are metal to metal and cannot be tightened further.



5. Only using finger pressure, tighten the outer seal nut assembly (5) until light resistance to tightening is met.

Then either use the outer seal tightening guide tape or table on the rear of the page to determine how much further to tighten the seal using a spanner (using the outer seal tightening guide is recommended).

Wrap the outer seal tightening guide tape around the cable to show the amount of spanner turns needed (as shown here). Make sure the correct side of the outer seal tightening guide tape is used depending on the cable gland size.

