TECHNICAL DATA

CABLE GLAND TYPE	: A2e100, RA2e100
INGRESS PROTECTION	: IP66, IP67, IP68
PROCESS CONTROL SYSTEM	: ISO 9001 ISO/IEC 80079-34:2011

EXPLOSIVE ATMOSPHERES CLASSIFICATION

ATEX CERTIFICATION No	: CML 18ATEX3309, CML 18ATEX4311
ATEX CERTIFICATION CODE	: Ⓔx II 2G Ex eb IIC Gb, II 1D Ex ta IIIC Da IP66, IP67, IP68 Ⓔx II 3G Ex nR IIC Gc Ⓔx I M2 Ex eb I Mb
UKEX CERTIFICATION No	: CML 21UKEX3244, CML 21UKEX4248
UKEX CERTIFICATION CODE	: Ⓔx II 2G Ex eb IIC Gb, II 1D Ex ta IIIC Da IP66, IP67, IP68 Ⓔx II 3G Ex nR IIC Gc Ⓔx I M2 Ex eb I Mb
IECEx CERTIFICATION No	: IECEx CML 18.0174
IECEx CERTIFICATION CODE	: Ex eb IIC Gb, Ex ta IIIC Da, Ex nR IIC Gc, Ex eb I Mb IP66, IP67, IP68

IMPORTANT NOTES FOR INSTALLERS

1. Read all instructions before beginning installation. Installation shall only be performed by competent, suitably trained personnel (in accordance with EN/IEC 60079-14) using the correct tools; spanners should be used for tightening.
2. Inspection and maintenance shall only be performed by competent, suitably trained personnel (in accordance with EN/IEC 60079-14 (Initial Inspection) and EN/IEC 60079-17).
3. 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 installers 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 IP66.
4. The standard product temperature range is -60°C to +130°C. The equipment should not be used outside of this range.
5. Cable glands do not have any serviceable parts and are therefore not intended to be repaired.
6. Cable glands are manufactured from Brass, Nickel Plated Brass, Stainless Steel, Mild Steel or Aluminium, with Silicone seals. The end user shall consider the performance of these materials with regard to attack by aggressive substances that may be present in the hazardous area. Consideration should be given to potential degradation due to galvanic corrosion at the interface of dis-similar metallic materials.
7. It is the end user's responsibility to ensure the equipment materials are suitable for their final installation location. If in doubt consult CMP Products Limited.
8. Once installed do not dismantle except for inspection. An inspection should be conducted as per IEC / EN 60079-17 by a qualified person. After inspection the gland should be re-assembled as instructed, ensuring the outer seal nut is correctly tightened to ensure the cable is secured.
9. 3/8" NPT, Ingress Discs (all materials) and Aluminium Cable Glands not to be used for Group I applications.
10. 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 Cl 3.2 for external threads. For details of other thread types refer to IECEx certificate
11. 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.
12. Enclosure will need to be sufficiently strong to support the cable and cable gland assembly. Enclosure entries must 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.
13. CMP Products recommends 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.
14. 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 (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).

SPECIFIC CONDITIONS OF USE

None

ACCESSORIES

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

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

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 UK statutory requirements SI 2016 No. 1107 (as amended). This is shown in the following harmonised/designated standards;
EN 60079-0:2018, EN 60079-7:2015, EN 60079-15:2010, EN 60079-31:2014, BS 6121:1989, EN 62444:2013

J. Hichens

Jonathan Hichens - Lead Certification Engineer - (Authorised Person)
CMP Products Limited, Cramlington, NE23 1WH, UK

EU Economic Operator: CMP Products Germany GmbH. Address: Lukasstraße 25a, 52070 Aachen
17th March 2020

CE 2776
UK CA 2503

Notified Body: CML B.V., Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands

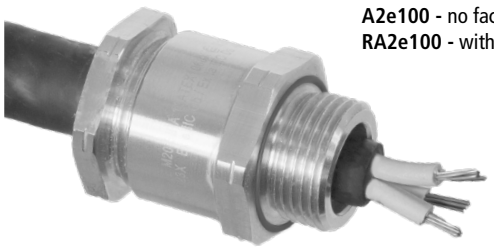
Approved Body: Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ

SCAN FOR INSTALLATION VIDEOS

INSTALLATION INSTRUCTIONS FOR A2e100, RA2e100 CABLE GLAND

A2E100, RA2E100 AND LOW PROFILE VARIANT CABLE GLANDS FOR USE WITH UNARMOURED AND BRAID ARMOURED CABLES

INCORPORATING EU DECLARATION OF CONFORMITY TO DIRECTIVE 2014/34/EU AND UK STATUTORY REQUIREMENTS SI 2016 No. 1107 (AS AMENDED)



A2e100 - no face seal
RA2e100 - with face seal

Cable Gland Selection Table

Cable Gland Size	Available Entry Threads (Alternative Metric Thread Lengths Available)					Overall Cable Diameter		RA2E100 Across Flats	RA2E100 Across Corners	A2E100 Across Flats	A2E100 Across Corners	Protrusion Length	Combined Ordering Reference (Brass Metric)		
	Standard				Option										
	Metric	Thread Length (Metric)	NPT	Thread Length (NPT)	NPT	Min	Max	Max	Max	Max	Max	Max	Size	Type	Ordering Suffix
16	M16	15.0	3/8"	15.3	-	3.2	8.0	24.0	26.4	24.0	26.4	34.9	16	A2E100	1RA
16P	M16	15.0	-	-	-	3.2	8.0	-	-	22.0	24.2	34.7	16P	A2E100	1RA
20S16	M20	15.0	1/2"	19.9	3/4"	3.2	8.0	27.0	29.7	24.0	26.4	32.9	20S16	A2E100	1RA
20S16P	M20	15.0	-	-	-	3.2	8.0	-	-	22.0	24.2	32.4	20S16P	A2E100	1RA
20S	M20	15.0	1/2"	19.9	3/4"	6.5	11.2	27.0	29.7	24.0	26.4	34.9	20S	A2E100	1RA
20SP	M20	15.0	-	-	-	6.5	11.2	-	-	22.0	24.2	34.4	20SP	A2E100	1RA
20	M20	15.0	1/2"	19.9	3/4"	7.0	13.5	27.0	29.7	27.0	29.7	36.8	20	A2E100	1RA
20P	M20	15.0	-	-	-	7.0	13.5	-	-	24.0	26.4	41.1	20P	A2E100	1RA
20L	M20	15.0	1/2"	19.9	3/4"	8.7	14.0	27.0	29.7	27.0	29.7	35.3	20L	A2E100	1RA
20LP	M20	15.0	-	-	-	8.7	14.0	-	-	24.0	26.4	41.1	20LP	A2E100	1RA
25	M25	15.0	3/4"	20.2	1"	11.5	19.5	36.0	39.6	36.0	39.6	43.1	25	A2E100	1RA
25P	M25	15.0	-	-	-	11.5	19.5	-	-	32.0	35.2	49.4	25P	A2E100	1RA
25L	M25	15.0	3/4"	20.2	1"	14.0	20.0	36.0	39.6	36.0	39.6	42.6	25L	A2E100	1RA
25LP	M25	15.0	-	-	-	14.0	20.0	-	-	32.0	35.2	49.4	25LP	A2E100	1RA
32	M32	15.0	1"	25.0	1 1/4"	19.0	25.5	41.0	45.1	41.0	45.1	41.5	32	A2E100	1RA
32L	M32	15.0	1"	25.0	1 1/4"	20.2	26.3	41.0	45.1	41.0	45.1	41.5	32L	A2E100	1RA
40	M40	15.0	1 1/4"	25.6	1 1/2"	25.0	32.2	50.0	55.0	50.0	55.0	39.1	40	A2E100	1RA
50S	M50	15.0	1 1/2"	26.1	2"	31.0	38.2	60.0	66.0	55.0	60.5	41.4	50S	A2E100	1RA
50	M50	15.0	2"	26.9	2 1/2"	35.6	44.0	60.0	66.0	60.0	66.0	45.8	50	A2E100	1RA
63S	M63	15.0	2"	26.9	2 1/2"	41.5	49.9	75.0	82.5	70.5	77.6	43.3	63S	A2E100	1RA
63	M63	15.0	2 1/2"	39.9	3"	48.2	54.9	75.0	82.5	75.0	82.5	43.6	63	A2E100	1RA
75S	M75	15.0	2 1/2"	39.9	3"	54.0	61.9	89.9	98.9	84.0	92.4	45.4	75S	A2E100	1RA
75	M75	15.0	3"	41.5	3 1/2"	61.1	67.9	89.9	98.9	84.0	92.4	49.0	75	A2E100	1RA
90	M90	24.0	3"	41.5	3 1/2"	66.6	79.9	108.0	118.8	108.0	118.8	66.0	90	A2E100	1RA
100	M100	24.0	3 1/2"	42.8	4"	76.0	89.0	123.0	135.3	123.0	135.3	72.2	100	A2E100	1RA
115	M115	24.0	4"	44.0	5"	86.0	97.9	133.4	146.7	133.4	146.7	69.9	115	A2E100	1RA
130	M130	24.0	5"	46.8	-	97.0	114.9	152.4	167.6	152.4	167.6	81.1	130	A2E100	1RA

Dimensions are displayed in millimetres unless otherwise stated

In the above example ordering references, add 'R' for RA2e100 cable glands (with 'O' Ring face seal included) e.g. 32RA2E1001RA4

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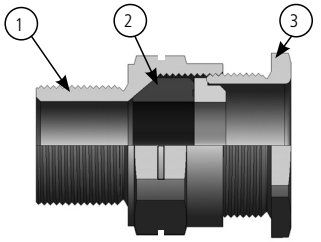
FI493		
Certificate	Revision	Date
UKEX	0	04/21
IFS	16	10/21
ATEX / IECEx	11	4/19

INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND A2e100, RA2e100

CABLE GLAND COMPONENTS

1. Entry Item
2. Seal
3. Seal Nut



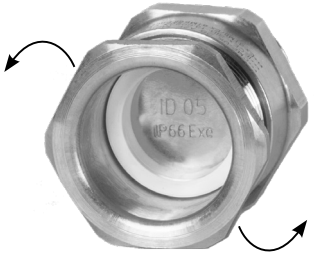
PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING THE INSTALLATION

USING OPTIONAL CMP INGRESS DISCS

CMP ingress discs are used as a means of maintaining the integrity of the enclosure and exclude dust and moisture, enabling the cable Gland to be installed prior to the cable.

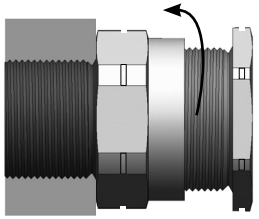
Ingress discs are rated to IP66.

Do not re-use the disc once removed.



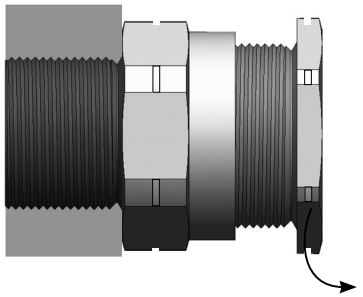
*Seal nut (3) should be loosened to relax the seal (2) then tightened using finger pressure until light resistance is felt, then turn the seal nut:
16 – 25 = 1 turns
32 – 90 = 1.5 turns
100 – 130 = 2 turns
with a spanner

1. Fit the gland into the equipment and fully tighten the entry item (1). RA2e100 'O' ring face seal will engage when fully tightened



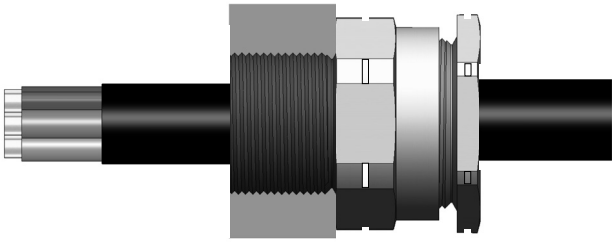
2. Determine the conductor length required to suit the installation and prepare the cable accordingly, removing part of the outer sheath where required to reveal the insulated conductors.

3. Slacken the seal nut (3) to relax the seal (2).



4. Only using finger pressure, tighten the seal nut until light resistance to tightening is met.

Then use the seal tightening guide table below, to determine how much further to tighten the seal using a spanner.



Outer Seal Tightening Guide

Number of turns to tighten	GLAND SIZE																			
	16/16P	20S16/20S16P	20S/20SP	20/20P	20L/20LP	25/25P	25L/25LP	32	32L	40	50S	50	63S	63	75S	75	90	100	115	130
	CABLE DIAMETER																			
1.0										32.2		44.0	49.6		61.9			89.0		114.7
1.5	8.0	8.0			14.0	19.5	20.0	25.9	25.9	31.5	37.7	43.4	48.9	54.5	61.3	67.5		87.9	97.9	113.4
2.0	7.1	7.1	11.2	13.0	13.0	18.7	19.2	25.0	25.0	30.7	36.9	42.7	48.2	53.9	60.6	66.7		87.2	96.9	112.1
2.5	6.0	6.0	10.6	11.9	11.9	17.8	18.4	24.1	24.1	29.9	36.0	42.0	47.5	53.2	59.9	65.8		86.5	95.9	110.8
3.0	4.8	4.8	9.9	10.8	10.8	16.9	17.7	23.1	23.1	29.1	35.3	41.3	46.8	52.4	59.2	65.0	79.7	85.7	94.8	109.6
3.5	3.2	3.2	9.1	9.7	9.7	15.9	16.9	22.0	22.0	28.2	34.6	40.7	46.1	51.7	58.4	64.1	77.4	85.0	93.8	108.3
4.0			8.0	8.6	8.7	14.8	16.2	20.9	20.9	27.4	33.9	40.0	45.4	50.8	57.5	63.3	75.1	84.3	92.7	107.1
4.5			6.5	7.5		14.0	15.4	19.6	20.2	26.5	33.3	39.3	44.6	49.9	56.6	62.4	72.9	83.6	91.7	105.8
5.0						12.1	14.7			25.5	32.6	38.7	43.8	48.8	55.5	61.6	70.7	82.8	90.6	104.6
5.5							14.0				32.1	38.0	43.1		54.0		68.6	82.1	89.6	103.4
6.0											31.5	37.3	42.3				66.6	81.4	86 to 89	102.2
6.5											31.0	36.7	41.5					80.7		101.0
7.0												36.0						76 to 79.9		99.8
7.5																				98.6
8.0																				97.5

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