CML 18ATEX1321X, CML 18ATEX4313X ATEX CERTIFICATION CODE (a) II 2G Ex eb IIC Gb, II 1D Ex ta IIIC Da 🗟 II 3G Ex nR IIC Gc

UKEX CERTIFICATION No. CML 21UKEX1245X, CML 21UKEX4246X

UKEX CERTIFICATION CODE (x) II 2G Ex eb IIC Gb, II 1D Ex ta IIIC Da : 🖾 II 3G Ex nR IIC Gc

IECEx CERTIFICATION No : IECEx 18.0179X

: Ex eb IIC Gb, Ex ta IIIC Da, Ex nR IIC Gc

### INSTALLATION INSTRUCTIONS

IECEX CERTIFICATION CODE

- 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.
- 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)
- 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.
- The standard product temperature range is -60°C to +130°C. The equipment should not be used outside of this range.
- Cable glands do not have any serviceable parts and are therefore not intended to be repaired.
- 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.
- 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
- 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.
- 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 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.
- 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.
- 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)

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					

## SPECIFIC CONDITIONS OF USE

- All cable gland types and sizes are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.
- When the cable glands are supplied with an entry thread that is one size up from the nominal gland size, designated with the letter 'B' after the gland size, e.g. 328\*\*\*\*, they shall not be used with any adaptor device.
- The cable glands shall only be used where the temperature, at the point of entry, is in the following ranges:
- EPDM (Black): -60°C +130°C

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

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 IEC 60079-0:2018, EN 60079-1:2014, EN IEC 60079-7:2015 + A1:2018, EN IEC 60079-15:2019, EN 60079-31:2014



onathan Hichens - Lead Certification Engineer - (Authorised Person)

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



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





# **INSTALLATION INSTRUCTIONS** FOR A2e / RA2e CABLE GLAND

CABLE GLAND 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)





		Available Entry Threads (Alternate Metric Thread Lengths Available)		Overall Cable Diameter			RA2e Across		A2e Across		Combined Ordering Reference						
	Stand	dard		Option	Overall Caple Diameter		Across Flats	Corners	Flats	Corners	Protrusion	(*Brass Metric)			Shroud (A2e)	Shroud (RAZe)	Cable Gland Weight
Metric	Thread Length (Metric)	NPT	Thread Length (NPT)	NPT	Min	Max	Max	Max	Max	Max	zengui	Size	Туре	Ordering Suffix	(ALC)	(20)	(Kgs)
M16	10.0			-	3.2	8.7	27.0	29.7	24.0	26.4	28.2	16	RA2E	1RA	PVC04	PVC05	0.060
M20	10.0	1/2"	19.9	3/4"	3.2	8.7	27.0	29.7	24.0	26.4	25.4	20516	RA2E	1RA	PVC04	PVC05	0.070
M20	10.0	1/2"	19.9	3/4"	6.1	11.7	27.0	29.7	24.0	26.4	25.4	205	RA2E	1RA	PVC04	PVC05	0.060
M20	10.0	1/2"	19.9	3/4"	6.5	14.0	27.0	29.7	27.0	29.7	27.3	20	RA2E	1RA	PVC05	PVC05	0.070
M25	10.0	3/4"	20.2	1"	11.1	20.0	36.0	39.6	36.0	39.6	35.8	25	RA2E	1RA	PVC09	PVC09	0.130
M32	10.0	1"	25.0	1 1/4"	17.0	26.3	41.0	45.1	41.0	45.1	34.5	32	RA2E	1RA	PVC10	PVC10	0.150
M40	15.0	1 1/4"	25.6	1 1/2"	23.5	32.2	50.0	55.0	50.0	55.0	35.7	40	RA2E	1RA	PVC13	PVC13	0.200
M50	15.0	1 1/2"	26.1	2"	31.0	38.2	60.0	66.0	55.0	60.5	32.5	505	RA2E	1RA	PVC15	PVC18	0.260
M50	15.0	2"	26.9	2 1/2"	35.6	44.0	60.0	66.0	60.0	66.0	36.3	50	RA2E	1RA	PVC18	PVC18	0.270
M63	15.0	2"	26.9	2 1/2"	41.5	49.9	75.0	82.5	70.5	77.6	33.8	635	RA2E	1RA	PVC21	PVC23	0.430
M63	15.0	2 1/2"	39.9	3"	47.2	55.9	75.0	82.5	75.0	82.5	36.0	63	RA2E	1RA	PVC23	PVC23	0.400
M75	15.0	2 1/2"	39.9	3"	54.0	61.9	90.0	99.0	80.0	88.0	36.2	755	RA2E	1RA	PVC24	PVC27	0.520
M75	15.0	3"	41.5	3 1/2"	61.1	67.9	89.0	97.9	84.0	92.4	40.9	75	RA2E	1RA	PVC26	PVC27	0.500
M90	24.0	3 1/2"	42.8	4"	66.6	79.9	108.0	118.8	108.0	118.8	55.4	90	RA2E	1RA	PVC31	PVC31	1.600
M100	24.0	3 1/2"	42.8	4"	76.0	91.0	123.0	135.3	123.0	135.3	55.4	100	RA2E	1RA	LSF33	LSF33	1.780
M115	24.0	4"	44.0	5"	86.0	97.9	133.4	146.7	133.4	146.7	65.4	115	RA2E	1RA	LSF34	LSF34	2.670
M130	24.0	5"	46.8		97.0	114.9	152.4	167.6	152.4	167.6	74.1	130	RA2E	1RA	LSF35	LSF35	3.800
	M16 M20 M20 M20 M20 M32 M40 M50 M50 M63 M63 M75 M75 M75 M90 M100 M115	Metric Length (Metric) (Metric	Metric Length NPT (Metric) NPT	Metric Length (WET) NPT Length (NFT)   M16 10.0 . .   M20 10.0 112" 19.9   M20 10.0 112" 19.9   M20 10.0 34" 20.2   M35 10.0 34" 20.2   M32 10.0 1" 25.0   M50 1 1 14" 25.6 M50   M50 15.0 1 12" 26.9   M63 15.0 2" 26.9   M63 15.0 2 12" 39.9   M75 15.0 2 12" 39.9   M75 15.0 3 12" 42.8   M00 24.0 3 12" 42.8   M100 24.0 3 12" 44.0	Metric Length (MET) NPT Length (NFT) NPT   M16 10.0 . . .   M20 10.0 10.7 19.9 34"   M20 10.0 10.2" 19.9 34"   M20 10.0 34" 20.2 1"   M32 10.0 1" 25.0 11.4"   M40 15.0 1 14" 25.6 11.2"   M50 15.0 1 12" 26.9 2 12"   M63 15.0 2" 26.9 2 12"   M63 15.0 2 12" 39.9 3"   M75 15.0 2 12" 39.9 3"   M75 15.0 3 12" 42.8 4"   M80 24.0 3 12" 42.8 4"   M15 24.0 4" 44.0 5"	Metric Length (Metric) NPT Length (NPT) NPT Min   M16 10.0 . . . . 3.2   M20 10.0 112" 19.9 34" 6.1   M20 10.0 112" 19.9 34" 6.1   M25 10.0 34" 20.2 1" 11.1   M32 10.0 1" 25.0 114" 17.0   M40 15.0 114" 25.0 114" 22.3 31.0   M50 15.0 114" 25.0 114" 23.0 31.0 31.0 45.0 41.5 43.0 45.0 41.5 45.0 41.7 25.0 114" 17.0 31.0 45.0 41.5 45.0 41.5 45.0 41.5 45.0 41.5 45.0 41.5 45.0 41.5 45.0 41.5 45.0 41.5 45.0 41.5 45.0 41.5 45.0 41.5 45.0 41.5	Metric Length (Metric) NPT (Metric) Length (Metric) NPT (Metric) Min Max   M16 10.0 . . . . 3.2 8.7   M00 10.0 112° 19.9 34° 3.2 8.7   M20 10.0 112° 19.9 34° 6.1 11.7   M25 10.0 34° 20.2 1° 11.1 20.0   M22 10.0 1° 25.0 114° 17.0 26.3   M40 15.0 114° 25.6 112° 31.0 38.2   M50 15.0 2° 26.1 2° 31.0 38.2 46.9   M63 15.0 2° 26.9 212° 35.6 44.0 46.9	Metric Length (Metric) NPT (Metric) Length (Metric) NPT (Metric) Min Max Max   M16 10.0 . . . . . . 3.2 8.7 22.0   M20 10.0 112° 19.9 34° 3.2 8.7 27.0   M20 10.0 112° 19.9 34° 6.1 11.7 27.0   M25 10.0 34° 20.2 1" 11.1 20.0 36.0   M32 10.0 11° 25.0 114° 170 28.3 41.0   M40 15.0 110° 25.0 114° 172 33.2 50.0   M50 15.0 210° 26.1 2" 31.6 40.6 60.0   M63 15.0 2° 26.9 210° 41.5 49.9 75.0   M83 15.0 2° 26.9 210° 41.5 49.9 75.0   M84 15.0	Metric Length (Metric) NPT (MPT) Length (NPT) MIn Max Max   M16 10.0 . . . . 3.2 8.7 22.0 29.7   M20 10.0 112° 19.9 34° 3.2 8.7 22.0 29.7   M20 10.0 112° 19.9 34° 6.1 11.7 22.0 29.7   M25 10.0 34° 20.2 1° 11.1 20.0 36.0 38.6   M22 10.0 11° 25.0 1142° 17.0 26.3 41.0 45.1   M40 15.0 114° 25.6 1142° 23.5 32.2 50.0 55.0   M50 15.0 22° 26.1 2° 35.6 44.0 60.0 66.0 66.0   M63 15.0 22° 26.9 210° 41.5 49.9 35.0 82.5   M63 15.0 22° 39.9	Metric Length (Metric) NPT (MPT) Length (MPT) MIn Max Max Max   M16 10.0 . . . . . 3.2 8.7 22.0 29.7 24.0   M00 10.0 112° 19.9 34° 3.2 8.7 22.0 29.7 24.0   M00 10.0 112° 19.9 34° 6.1 11.7 27.0 29.7 22.0   M5 10.0 34° 9.2 1° 11.1 20.0 38.6 38.6 38.6 38.6 36.0 38.6 38.6 38.6 36.0 38.6 38.6 36.0 38.6 38.6 36.0 38.6 38.6 36.0 38.6 38.6 38.0 38.6 38.6 38.0 38.6 38.0 38.6 38.0 38.0 38.5 59.0 55.0 55.0 55.0 55.0 55.0 55.0 55.0 55.0 55.0 55.0 55.0 <t< td=""><td>Metric Length NFT Length NFT (MPT) MIn Min Max Max Max Max   M16 10.0 - - - 3.2 8.7 27.0 22.7 24.0 26.4   M20 10.0 112" 19.9 34" 3.2 8.7 27.0 29.7 24.0 26.4   M20 10.0 112" 19.9 34" 6.1 11.7 27.0 29.7 24.0 26.4   M20 10.0 142" 19.9 34" 6.5 11.0 27.0 29.7 22.0 26.4   M55 10.0 34" 20.2 1" 11.1 20.0 39.6 39.6 39.6 39.6 36.3 48.6 48.6 41.0 45.1 41.0 45.1 41.0 45.1 41.0 45.1 41.0 45.1 41.0 45.0 49.0 39.0 39.6 35.0 55.0 55.0 55.0 &lt;</td><td>    Netric   Chergth   Netro   Chergth   Netro  </td><td>    Metric   Clength (Metric)   NPT (NPT)   Min   Max   Max</td><td>  Thread   Net   Clength (Metric)   NFT (Net)   NFT (Net)   NFT   Min   Max   Max   Max   Max   Max   Max   Max   Max   NFT   Net   Net   NFT   Net   Net   NFT   Net   Net  </td><td>Metric Length (Metric) NPT (Metric) Introduction (Metric) NPT (NPT) Min Max M</td><td>                                     </td><td>  Thread   Cength (Metric)   NPT   (NPT)   Min   Max   Max  </td></t<>	Metric Length NFT Length NFT (MPT) MIn Min Max Max Max Max   M16 10.0 - - - 3.2 8.7 27.0 22.7 24.0 26.4   M20 10.0 112" 19.9 34" 3.2 8.7 27.0 29.7 24.0 26.4   M20 10.0 112" 19.9 34" 6.1 11.7 27.0 29.7 24.0 26.4   M20 10.0 142" 19.9 34" 6.5 11.0 27.0 29.7 22.0 26.4   M55 10.0 34" 20.2 1" 11.1 20.0 39.6 39.6 39.6 39.6 36.3 48.6 48.6 41.0 45.1 41.0 45.1 41.0 45.1 41.0 45.1 41.0 45.1 41.0 45.0 49.0 39.0 39.6 35.0 55.0 55.0 55.0 <	Netric   Chergth   Netro   Chergth   Netro	Metric   Clength (Metric)   NPT (NPT)   Min   Max   Max	Thread   Net   Clength (Metric)   NFT (Net)   NFT (Net)   NFT   Min   Max   Max   Max   Max   Max   Max   Max   Max   NFT   Net   Net   NFT   Net   Net   NFT   Net   Net	Metric Length (Metric) NPT (Metric) Introduction (Metric) NPT (NPT) Min Max M		Thread   Cength (Metric)   NPT   (NPT)   Min   Max   Max

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Above ordering reference for RA2e, Remove 'R' for A2e with no face seal included Standard Seal (Black) Temperature Range = -60°C to +130°C For high temperature variants (-60°C to + 200°C) see A2eHT/RA2eHT products.



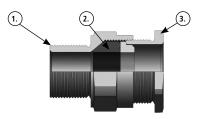
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FI441						
Revision	Date					
15	09/21					
12	08/20					
0	04/21					
	Revision 15					

# INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND TYPES RA2e, A2e

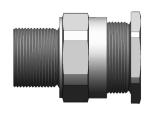
# CABLE GLAND COMPONENTS

- 1. Entry Item
- 2. Seal
- 3. Seal Nut



# PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING THE INSTALLATION

1. It is not necessary to dismantle the gland any further than illustrated below.



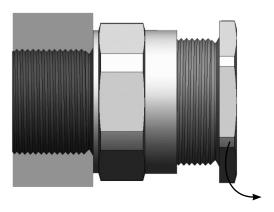
2. Fit the gland into the equipment and fully tighten the entry item (1). RA2e '0' ring face seal will engage when fully tightened



3. 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.



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



5. Pass the cable through the gland to the desired position, then tighten the seal nut by hand until resistance is felt (when the seal contacts the cable). Tighten with a spanner one further turn.

