

## UK Type Examination Certificate CML 21UKEX1245X Issue 1

### United Kingdom Conformity Assessment

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 2 Equipment **Cable Gland Types A\*\***
- 3 Manufacturer **CMP Products Ltd**
- 4 Address **Unit 36 Nelson Way,  
Nelson Park East,  
Cramlington,  
NE23 1WH,  
United Kingdom**

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential reports listed in Section 12.

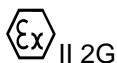
7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.

8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018                      EN 60079-1:2014                      EN IEC 60079-7:2015+A1:2018  
IEC 60079-31:2022

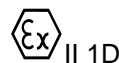
10 The equipment shall be marked with the following:



Ex db IIC Gb

Ex eb IIC Gb

Ta=                      -60°C to +130°C (standard seal)  
                             -20°C to +200°C (high temperature seal)



Ex ta IIIC Da





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## 11 Description

### A2F Range

The A2F Range of Cable Glands are metallic and are intended to terminate circular braided or unarmoured cables into a threaded entry point within enclosures without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice. They consist of a male-threaded front entry component and a seal actuation nut. The front entry component, fitted with an elastomeric displacement sealing ring, and nylon 6 stepped skid washer, is intended to screw into an entry point of its associated enclosure. The seal actuation nut threads into the front entry component thereby effecting flameproof and environmental sealing onto the cable outer sheath.

### A2E Range

The A2E Range of Cable Glands are identical to the A2F Range, except the entry thread engagement lengths are minimised.

### A2FRC Range

The A2FRC Range of Cable Glands are intended to terminate circular braided or unarmoured cables into enclosures without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice. They consist of a male-threaded front entry component, a seal actuation nut and either an outer captivated or running coupling. The front entry component, fitted with an elastomeric displacement sealing ring, is intended to screw into an entry point of its associated enclosure. The seal actuation nut threads into the front entry component thereby effecting flameproof and environmental sealing onto the cable outer sheath. The outer running coupling is retained in the seal actuation nut using the carbon steel 'C' clip, or a similar arrangement to allow free running thread connection to conduit.

### A2F-FC Range

The A2F-FC Range of Cable Glands are intended to terminate circular braided or unarmoured cables into enclosures without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice. They also provide an anchor for a flexible metallic conduit which can protect the cable from damage. They consist of a male-threaded front entry component, a seal actuation nut and a conduit anchor element that screws into the inside of the conduit. The front entry component, fitted with an elastomeric displacement sealing ring, is intended to screw into an entry point of its associated enclosure. The seal actuation nut threads into the front entry component thereby effecting flameproof and environmental sealing onto the cable outer sheath. The conduit anchor is secured between the seal actuation nut and seal to form a skid washer.

### A2F-HC Range

The A2F-HC Range of Cable Glands are intended to terminate circular braided or unarmoured cables into enclosures without compromising the explosion protection provided by the enclosures in accordance with the relevant codes of practice. They also provide an anchor for a flexible hose which can protect the cable from damage. They consist of a male-threaded front entry component, a seal actuation nut with a hose anchor to which a hose can be attached using a jubilee clip or similar. The front entry component, fitted with an elastomeric displacement sealing ring and skid washer, is intended to screw into an entry point of its associated enclosure. The seal actuation nut threads into the front entry component thereby effecting flameproof and environmental sealing onto the cable outer sheath.



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### **A2F-FF Range**

The A2F-FF Range of Cable Glands are intended to terminate flat braided or unarmoured cables into a threaded entry point within enclosures without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice. They consist of a male-threaded front entry component and a seal actuation nut. The front entry component fitted with an elastomeric displacement sealing ling, and nylon 6 stepped skid washer, is intended to screw into an entry point of its associated enclosure. The seal actuation nut threads into the front entry component thereby effecting flameproof and environmental sealing onto the cable outer sheath.

### **A2E-FF Range**

The A2E-FF Range of Cable Glands are identical to the A2F-FF Range, except the entry thread engagement lengths are minimised.

### **A2FRC-FF**

The A2FRC-FF Range of Cable Glands are identical to the A2FRC Range, except the the seal is intended for use with flat cable.

### **Design options**

The front entry component may be manufactured with a profiled groove to captivate an O-ring seal which locates on the mating face with the associated enclosure. This option having the gland type designation prefixed with the letter R, e.g. 25RA2F.

### **Materials of manufacture:**

The Cable Glands Type A\*\* are manufactured in brass, aluminium, mild steel and stainless steel. All brass manufactured parts can be optionally nickel plated. All mild steel manufactured parts can be optionally zinc plated.

### **Examples of alternative entry component threadforms:**

ET (Conduit)  
PG  
BSPP  
BSPT  
ISO  
NPT  
NPSM

Metric entry threads of all model series to be manufactured with a pitch between 0.7 mm and 2.0 mm, with 1.5 mm as standard.

Alternative material of manufacture of the skid washer to be the same as the gland material.

Alternative 'C' clip plate finish (where applicable):

- Stainless steel
- Phosphor bronze
- Beryllium copper



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The option to fit a flat blanking disc between the seal and the skid washer to maintain a minimum IP66 ingress protection. The disc to be marked 'Ex eb only' to indicate that the gland is not suitable for use in flameproof applications when it is fitted.

**Type designation:**

The gland and seal sizes are determined by the entry thread and cable range take sizes:

Gland Size	Entry Thread	Cable Sheath Ø (mm)	
		Min.	Max
16s*	M16x1.5	2.0	7.4
16	M16x1.5	3.2	8.7
20s/16s*	M20x1.5	2.0	7.4
20s/16	M20x1.5	3.2	8.7
20s	M20x1.5	6.1	11.7
20	M20x1.5	6.5	14.0
25	M25x1.5	11.1	20.0
32	M32x1.5	17.0	26.3
40	M40x1.5	23.5	32.2
50s	M50x1.5	31.0	38.2
50	M50x1.5	35.6	44.1
63s	M63x 1.5	41.5	50.0
63	M63x1.5	47.2	56.0
75s	M75x1.5	54.0	62.0
75	M75x1.5	61.1	68.0
90	M90x2.0	66.6	80.0
100	M100x2.0	76.0	91.0
115	M115x2.0	86.0	98.0
130	M130x2.0	97.0	115.0

\* Only available in standard seal material

A2E-FF, A2F-FF and A2FRC-FF in these sizes only

Gland Size	Entry Thread	Cable Sheath Ø (mm)	
		Min.	Max.
20s	M20x1.5	4.0 x 6.2	6.8 x 11.7
20	M20x1.5	5.7 x 8.0	8.7 x 13.5



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### Variation 1

This variation introduces the following modifications:

- i. To update sizes 16, and 20s16 to include a new seal option.
- ii. To update IEC 60079-31 to the latest edition.

### 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	25 Jun 2021	R13914AH/00	Issue of the prime certificate. CMI 18ATEX1321, Issue 0 is attached and shall be referred to in conjunction with this certificate.
1	22 Dec 2023	R17021A/00	Introduction of Variation 1

Note: Drawings that describe the equipment are listed in the Annex.

### 13 Conditions of Manufacture

None.

### 14 Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

- i. 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. 32B\*\*\*\*, they shall not be used with any adaptor device.
- ii. The cable glands shall only be used where the temperature, at the point of entry, is in the following ranges:

Outer sheath seal material	Temperature range	Colour I.D.
EPDM 70 (5079B115)	-60°C to +130°C	Black
FKM (9079B0662)	-20°C to +200°C	Red (muddy brown)

- iii. For flameproof applications, cable gland types CA2F, CA2F-RC, CA2F-FC, CA2F-HC and CA2F-FF are to be installed in associated flameproof equipment having a minimum wall thickness as follows:
  - 10.5 mm minimum for cable gland having entry thread sizes M16x1.5 to M75x1.5
  - 12.5 mm minimum for cable gland having entry thread sizes M90x2.0 to M115x2.0

## Certificate Annex

**Certificate Number** CML 21UKEX1245X  
**Equipment** Cable Gland Types A\*\*  
**Manufacturer** CMP Products Ltd



The following documents describe the equipment defined in this certificate:

### Issue 0

For drawings describing the equipment, refer to attached certificate CML 18ATEX1321X. In addition to the drawings listed on CML 18ATEX1321X, the following drawings include the additional marking required for this UK Type Examination certification:

Drawing No	Sheets	Rev	Approved date	Title
GA177	1 of 1	10	25 June 2021	A2FRC / BA2FRC / CA2FRC GENERAL ARRANGEMENT
GA208	1 of 1	08	25 June 2021	A2F-FC / BA2F-FC / CA2F-FC GA DRAWING
GA325	1 of 1	07	25 June 2021	A2F-HC / BA2F-HC / CA2F-HC GENERAL ARRANGEMENT
GA348	1 of 1	05	25 June 2021	A2F / A2E / A2FFF / A2EFF / BA2F / BA2E / CA2F / CA2E / BA2FFF / BA2EFF / CA2FFF / CA2EFF GENERAL ARRANGEMENT

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Drawing No	Sheets	Rev	Approved date	Title
GA177	1 of 1	11	22 Dec 2023	A2FRC/BA2FRC/CA2FRC General Arrangement
GA208	1 of 1	09	22 Dec 2023	A2-FC/BA2F-FC/CA2F-FC GA Drawing
GA325	1 of 1	08	22 Dec 2023	A2F-HC/BA2-HC/CA2-HC General Arrangement
GA348	1 of 1	06	22 Dec 2023	A2F/A2E/A2FFF/A2EFF/BA2F/BA2E/CA2F/CA2E//BA2FFF/BA2EFF/CA2FFF/CA2EFF General Arrangement
SCH0321	1 of 1	02	22 Dec 2023	Component parts