EU Type Examination Certificate CML 18ATEX1321X Issue 1

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

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 CML B.V., Chamber of Commerce No 6738671, Hoogoorddreef 15, Amsterdam, 1101 BA, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

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 conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.

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

EN 60079-31:2014

10 The equipment shall be marked with the following:

II 2G

Ex db IIC Gb

Ex eb IIC Gb

II 1D

Ex ta IIIC Da

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

R C Marshall
Certification Officer

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.

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 areidentical 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

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
16	M16x1.5	3.2	8.7
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 .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

A2E-FF, A2F-FFand 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

Notes:

- Sira 13ATEX1068X is superseded by this certificate.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by Sira 13ATEX1068X.
- Where Sira 13ATEX1068X is specified in other product certification, or other technical specifications, this certificate reference for the product shall be used in its place; updating of the other product certificate or technical specification is not required.

Variation 1

This variation introduces the following modifications:

i. The introduction of a universal certificate schedule drawing detailing critical parts.
ii. The removal of Group I marking and the associated Condition of Manufacture and Specific Condition of Use.
iii. The introduction of the A2FRC-FF model.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	26 Mar 2019	R12060G/00	Issue of Prime Certificate
1	20 Apr 2020	R12735C/00 R12922A	Introduction of Variation 1

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

13 Conditions of Manufacture

None.

14 Specific Conditions of Use (Special Conditions)

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 18ATEX1321X**
Equipment	**Cable Gland Types A****
Manufacturer	**CMP Products Ltd**

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
GA177	1 of 1	08	26 Mar 2019	A2FRC General arrangement and marking
GA208	1 of 1	06	26 Mar 2019	A2F-FC General arrangement and marking
GA325	1 of 1	05	26 Mar 2019	A2F-HC General arrangement and marking
GA348	1 of 1	03	26 Mar 2019	A2F/A2E General arrangement and marking
SCH0321	1 of 1	01	26 Mar 2019	Component parts
SCH0393	1 of 1	00	26 Mar 2019	Cable gland Type suffix ‘C’ front entry component

Issue 1

Drawing No	Sheets	Rev	Approved date	Title
GA177	1 of 1	09	20 Apr 2020	A2FRC/BA2FRC/CA2FRC General Arrangement
GA208	1 of 1	07	20 Apr 2020	A2-FC/BA2F-FC/CA2F-FC GA Drawing
GA325	1 of 1	06	20 Apr 2020	A2F-HC/BA2-HC/CA2-HC General Arrangement
GA348	1 of 1	04	20 Apr 2020	A2F/A2E/A2FFF/A2EFF/BA2F/BA2E/ CA2F/CA2E//BA2FFF/BA2EFF/CA2FFF/ CA”EFF General Arrangemet