IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx SIR 13.0023X issue No.:1

Certificate history:
Issue No. 1 (2013-6-6)
Issue No. 0 (2013-5-3)

Status: **Current**

Date of Issue: **2013-06-06** Page 1 of 4

Applicant: **CMP Products Ltd**
Glasshouse Street
St Peters
Newcastle upon Tyne
NE6 1BS
United Kingdom

Electrical Apparatus: **Cable Gland Types A****
Optional accessory:

Type of Protection: **Flameproof, Increased Safety, Restricted Breathing and Dust Protection by Enclosure**

Marking:

Ex e I Mb Note 3		Ex e IIC Gb	Ex ta IIIC Da
Ex d I Mb Note 3		Ex d IIC Gb	
		Ex nR IIC Gc	
		Ta =	-60°C to +130°C Note 1
			-20°C to +200°C Note2

Note 3 Not applicable to A2FRC

Note 1 When fitted with the standard seal
Note 2 When fitted with the high temperature seal

Approved for issue on behalf of the IECEx Certification Body: P J Walsh

Position: Technical Advisor

Signature: *(for printed version)* PJ Walsh

Date: 2013-06-06

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

SIRA Certification Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom

sira CERTIFICATION

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Manufacturer: **CMP Products Ltd**
Glasshouse Street
St Peters
Newcastle upon Tyne
NE6 1BS
United Kingdom

Additional Manufacturing location (s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:
The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-15 : 2010 Edition: 4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
GB/SIR/ExTR13.0066/00

Quality Assessment Report:

GB/SIR/QAR07.0009/04

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

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.
For additional information and Conditions of Manufacture refer to the Annexe

CONDITIONS OF CERTIFICATION: YES as shown below:

1. 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. 32**B******, they shall not be used with any adaptor device.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1 – this Issue introduced the following change:	
1.	Issued to correct a typographical error

Annexe: IECEx SIR 13.0023X Annexe Issue 1.pdf

Type designation A2E Range

The A2E range of cable glands are identical to the A2F range but with entry thread engagement lengths minimised

Type designation 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.

Type designation A2F-FC Range

The A2F-FC range of cable glands is 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.

Type designation A2F-HC Range

The A2F-HC range of cable glands is 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.

Type designation 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 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.

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Web: www.siracertification.com

Type designation A2E-FF Range

The A2E-FF range of cable glands is identical to the A2F-FF range but with entry thread engagement lengths minimised

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:
  Brass to EN12168:1998 Grade CuZn39Pb (CW614N)
  Mild steel to BS EN 10088-3:2005 Grade 220M07Pb
  Stainless steel to BS EN 10088-3:2005 Grade 316S11, 316S13, 316S31 or 316S33
  Aluminium alloy not inferior to grade 6082 to EN755,1-3:1996 or LM25 to BS EN 1676:2010 (Not Group I)

- Alternative entry component thread forms:

Metric	ISO 965-1, ISO965-3 medium fit (6g) for external threads
ET(Conduit)	BS 31:1940 (1979), Table A
PG	DIN 40430:1971
BSPP	BS 2779:1973 class A full form for external threads
BSPT	BS 21:1985 standard threads only as clause 5.4, gauging to clause 5.2 system A
ISO	ISO 7/1:1982, gauging to ISO 7/2 clause 6.3 for external threads
NPT	ANSI/ASME B1.20.1-1983 gauging to clause 8.1 for external threads
NPSM	ANSI/ASME B1.20.1-1983 gauging to clause 9 for external threads

- The option to manufacture glands with entry threads that are one size up from the nominal quoted gland size.

- 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 'Exe only' to indicate that the gland is not suitable for use in Ex d applications when it is fitted.

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

Gland Size	Entry Thread	Entry thread 'B' version	Cable Sheath Ø (mm)	
			Min.	Max.
16	M16 x 1.5	-	3.2	8.7
20s/16	M20 x 1.5	M25 x 1.5	3.2	8.7
20s	M20 x 1.5	M25 x 1.5	6.1	11.7
20	M20 x 1.5	M25 x 1.5	6.5	14.0
25	M25 x 1.5	M32 x 1.5	11.1	20.0
32	M32 x 1.5	M40 x 1.5	17.0	26.3
40	M40 x 1.5	M50 x 1.5	23.5	32.2
50s	M50 x 1.5	M63 x 1.5	31.0	38.2
50	M50 x 1.5	M63 x 1.5	35.6	44.1
63s	M63 x 1.5	M75 x 1.5	41.5	50.0
63	M63 x 1.5	M75 x 1.5	47.2	56.0
75s	M75 x 1.5	M90 x 2.0	54.0	62.0
75	M75 x 1.5	M90 x 2.0	61.1	68.0
90	M90 x 2.0	M100 x 2.0	66.6	80.0
100	M100 x 2.0	M115 x 2.0	76.0	91.0
115	M115 x 2.0	M130 x 2.0	86.0	98.0
130	M130 x 2.0	Not available	97.0	115.0

A2F-FF and A2E-FF in these sizes only.

Gland Size	Entry Thread	Entry thread 'B' version	Cable Outer Sheath (mm)	
			Min.	Max.
20s	M20 x 1.5	M25 x 1.5	4.0 x 6.2	6.8 x 11.7
20	M20 x 1.5	M25 x 1.5	5.7 x 8.0	8.7 x 13.5

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