

# **IECEx Certificate** of Conformity

**Ben Trafford** 

# INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

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

Certificate No.: **IECEx CML 20.0011** Page 1 of 4

Issue No: 3 Status: Current

Date of Issue: 2023-10-13

Applicant: **CCG Cable Terminations PTY LTD** 

33-37 Forge Road Spartan Ind Area Kempton Park 1619 **South Africa** 

Equipment: Cable glands for use with unarmoured cables

Optional accessory:

Flameproof "db", Increased Safety "eb", Restricted Breathing "nR", Dust Ignition "ta" Type of Protection:

Marking: Ex db IIC Gb Ex eb IIC Gb

Ex ta IIIC Da Ex db I Mb Ex eb I Mb Ex nR IIC Gc

Approved for issue on behalf of the IECEx

Certification Body:

Position: **Certification Officer** 

Signature:

(for printed version)

(for printed version) 2023-10-13

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This certificate is not transferable and remains the property of the issuing body.
The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate history: Issue 2 (2022-05-19)

Issue 1 (2020-05-15) Issue 0 (2020-03-26)

Certificate issued by:

**Eurofins E&E CML Limited Unit 1, Newport Business Park New Port Road** Ellesmere Port, CH65 4LZ **United Kingdom** 







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**CCG Cable Terminations PTY LTD** Manufacturer:

> 33-37 Forge Road Spartan Ind Area Kempton Park 1619 South Africa

Manufacturing locations:

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-1:2014 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:7.0

IEC 60079-15:2017 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"

Edition:5.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

IEC 60079-7:2017

Explosive atmospheres - Part 7: Equipment protection by increased safety "e" Edition:5.1

> This Certificate does not indicate compliance with 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 Reports:

GB/CML/ExTR20.0022/00 GB/CML/ExTR20.0121/00 GB/CML/ExTR22.0085/00 GB/CML/ExTR23.0228/00

**Quality Assessment Report:** 

ZA/ICS/QAR14.0001/08



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#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

A2F, A2F-R, A2F-H, A2F-H-R, A2FX-R, A2FX-H, A2FX-H-R, A2F-HTF, A2F-FHC, A2F FHC~QS(VX), A2F-VX, A2F-F-VX, VARITEx-D, VARITEx-D-VX, Posi Grip (VS), Posi Grip~QS(VX)(VS), A2EX (VS)(QS)(VX), A2EX-FHC (VS)(QS)(VX).

Refer to Annex for full description and conditions of manufacture.

SPECIFIC CONDITIONS OF USE: NO



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#### **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

- 1. The introduction of a new cable gland range A2F-VX.
- The introduction of a new cable gland range A2F-F-VX.
- 3. The introduction of new cable gland ranges VARITEx-D and VARITEx-D~QS(VX).
- 4. The introduction of cable gland ranges A2EX, and PosiGrip.
- 5. The introduction of barrier cable gland ranges A2EX, A2F-FHC and PosiGrip.
- 6. To update the number of cores allowed in barrier gland gland versions.
- 7. To include a modified design for the A2F-HTF and A2F-HTF-FC cable glands
- 8. To include a 'VS' variant to the PosiGrip gland range.
- 9. To update the existing certification text, and where applicable, the certification drawings.

#### Annex:

Certificate Annex - IECEx CML 20.0011.pdf

Annexe to: IECEx CML 20.0011 Issue 3

**Apparatus:** A2F, A2F-R, A2F-H, A2F-H-R, A2FX, A2FX-R, A2FX-H, A2FX-H-R,

A2F-FHC, A2F FHC~QS(VX), A2F-HTF, A2F-VX, A2F-F-VX,

VARITEx-D, VARITEx-D-VX, Posi Grip (VS), Posi Grip~QS(VX)(VS),

A2EX (VS)(QS)(VX), A2EX-FHC (VS)(QS)(VX).

Applicant: CCG Cable Terminations PTY LTD



Cable glands for use with unarmoured cables, Types; A2F, A2F-R, A2F-H, A2F-H-R, A2FX, A2FX-R, A2FX-H, A2FX-H-R, A2F-HTF, A2F-FHC, A2F FHC~QS(VX), A2F-VX, A2F-F-VX, VARITEX-D, VARITEX-D-VX, Posi Grip (VS), Posi Grip~QS(VX)(VS), A2EX (VS)(QS)(VX), A2EX-FHC (VS)(QS)(VX).

Product	Sizes	Ex db IIC Gb	Ex eb IIC Gb	Ex db I Mb	Ex eb I Mb	Ex ta IIIC Da	Ex nR IIC Gc
A2F	00-13 (Metric) 00-11 (NPT)	✓	✓	✓	✓	✓	✓
A2F-R	00-13 (Metric) 00-11 (NPT)	✓	✓	✓	✓	✓	✓
A2F-H	00-13 (Metric) 00-11 (NPT)	<b>✓</b>	✓	✓	✓	✓	✓
A2F-H-R	00-13 (Metric) 00-11 (NPT)	✓	✓	✓	✓	✓	✓
A2FX	00-13 (Metric) 00-11 (NPT)	✓	✓	✓	✓	✓	✓
A2FX-R	00-13 (Metric) 00-11 (NPT)	✓	✓	✓	✓	✓	✓
A2FX-H	00-13 (Metric) 00-11 (NPT)	✓	✓	✓	✓	✓	✓
A2FX-H-R	00-13 (Metric) 00-11 (NPT)	✓	✓	✓	✓	✓	✓
A2F-HTF	0-2 (Metric & NPT)	✓	✓	✓	✓	✓	✓
A2F-FHC	00-13 (Metric) 00-11 (NPT)	✓	✓	<b>✓</b>	✓	✓	✓
A2F-FHC~QS(VX)	00-10 (Metric & NPT)	✓	✓			✓	✓
A2F-VX	00-10 (Metric & NPT)	✓	✓	<b>✓</b>	✓	✓	✓
A2F-F-VX	00-10 (Metric & NPT)	✓	✓	<b>✓</b>	✓	✓	✓
VARITEx-D	00-8 (Metric & NPT)	✓	✓			✓	✓
VARITEx-D-VX	00-8 (Metric & NPT)	✓	✓			✓	✓
Posi Grip (VS)	00-13 (Metric) 00-11 (NPT)	✓	✓			✓	✓
Posi Grip~QS(VX)(VS)	00-10 (Metric & NPT)	✓	✓			✓	✓
A2EX (VS)	00-13 (Metric) 00-11 (NPT)	✓	✓			✓	✓
A2EX~QS(VX)(VS)	00-10 (Metric & NPT)	✓	✓			✓	✓
A2EX-FHC (VS)	00-13 (Metric) 00-11 (NPT)	✓	✓			✓	✓
A2EX-FHC~QS(VX)(VS)	00-10 (Metric & NPT)	✓	✓			✓	✓







#### **Notes**

- Cable glands with parallel entry threads are IP66/68 when fitted with the supplied sealing gasket. NPT threads are at least IP65 as standard, but IP68 (2m) can be achieved if one of the following grease types is applied to the NPT thread before fitting:- Renolit Lubrene CA 700, Renolit LC-WP2, Renolit Lubrene LX 220 EP2, Renolit Moly LX 2 or Dow Corning 4 Electrical Compound.
- 2. Intermediate metric thread sizes are permitted.
- 3. Cable glands with parallel entry threads (e.g. Metric and BSP parallel) are supplied with fitted sealing gaskets as standard. The sealing gasket is optional for Ex d applications without IP rating. (RE-FLEx cord may be used as an alternative to a standard sealing gasket.)
- 'VS' in the name of a cable gland variant indicates that a thin copper/brass disc is fitted between the inner seal and the cone for earth continuality to a metallic cable screen (e.g. variable speed drive cable or a lead sheathed cable). The sealing arrangement between the inner seal and the potted sleeve is not affected. Note that a standard cable gland type can be converted to a (VS) variant by retrofitting the thin copper / brass disc. The product marking does not need to be changed when the copper / brass disc is retrofitted.
- 5. 'QS' in the name of a cable gland variant, indicates that it is the Quickstop resin barrier version of the cable gland. This utilises a clear potting compound to achieve a hard setting seal inside the gland. The sealing compound is transparent and accommodates inspection.
- 6. 'VX' in the name of a cable gland variant, refers to the Vortex resin barrier version of the cable gland. This utilises a coloured potting compound to achieve a hard setting seal inside the gland. There is a transparent elastomeric seal at the end of the compound enclosure to accommodate inspection.
- 7. Cable glands that are available as both barrier (QS or VX) and non-barrier versions may be supplied as non-barrier versions together with the additional components needed to convert them to barrier versions if required. When the conversion is carried out the product marking does not need to be changed
- 8. The outer seal nut of any of the glands in this certificate (other than those with '-H' or '-FHC' in their name) can optionally have an additional female thread to allow the connection of a flexible conduit. '-FC' is added to the cable gland name to indicate this variant.
- 9. RE-FLEx sealing cord can be used as an alternative to a standard sealing gasket to achieve IP66/68. It is intended as a retro-fit solution and must be installed according to the fitting instructions supplied with it.

### Materials of Manufacture

- Brass (CZ121), Bronze (PB2), Stainless Steel (316), Aluminium (6063), Mild steel (EN8)
- HDPE (D7255/HL), PTFE (CCG PTFE-001), Nylon (6)
- EPDM (64 Shore), Silicone (CCG G/65-1C or CCG G/65-1R)

#### Temperature Limitations, at the point of entry

- EPDM seals & HDPE gaskets/skid rings: (-60°C and +95°C)
- EPDM seals & Nylon gaskets/skid rings: (-60°C and +100°C)
- Silicone seals & PTFE gaskets/skid rings: (-60°C and +160°C)
- Posi Grip: 30% glass filled polyester (-20°C and +95°C)
- Posi Grip: Nylon (-60°C and +100°C)
- Quickstop or Vortex resin type S50 / EPA, when used with any gaskets/skid rings: (-50°C and +95°C)
- Quickstop or Vortex resin type FR/846, when used with EPDM seals & Nylon gaskets/skid rings or Silicone seals & PTFE gaskets / skid rings: (-60°C and +100°C)





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### **Conditions of Manufacture**

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components, the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- ii. Cable glands with intermediate metric entry thread sizes shall be constructed by enlarging the entry thread size of the standard size product immediately below the intermediate thread size. The minimum entry wall thickness, allowable number of cores, cable size range and constructional parts utilised (other than the entry thread component) shall not differ from that of the standard size used.
- iii. When manufactured from aluminium, the cable glands shall not be marked for Group I applications.
- iv. The products must be marked with their temperature range, the upper and lower ranges limited by the most onerous of the relevant non-metallic parts and, where applicable, the flameproof testing.

## **Specific Conditions of Use**

None

Components used which are covered by Ex Certificates issued to older editions of Standards

None



