

IECEx Certificate of Conformity

Stelios Roumbedakis

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: 4 Status: Current

Date of Issue: 2024-09-13

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 Manager**

Signature:

& Roumbedakis (for printed version)

2024-09-13 (for printed version)

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Certificate history: Issue 3 (2023-10-13)

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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Manufacturer: CCG Cable Terminations PTY LTD

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

Manufacturing CCG Cable Terminations PTY LTD

locations: 33-37 Forge Road

Spartan Ind Area Kempton Park 1619 South Africa

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 GB/CML/ExTR24.0198/00

Quality Assessment Report:

ZA/ICS/QAR14.0001/09



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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

Refer to Certificate Annex for full Product Description and Conditions of Manufacture.

SPECIFIC CONDITIONS OF USE: NO



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

This issue introduced the following changes:

- 1. Correction of typographical errors in the product name.
- 2. Change of name for the A2F-H and A2F-H-R double seal glands to A2FX-H and A2FX-H-R respectively.
- 3. Introduction of new A2F-H and A2F-H-R single seal gland models
- 4. Removal of the barrier gland versions using the Quickstop (QS) and Vortex (VX) resins from the certification
- 5. Addition of aluminium as a material option for the skid rings.
- 6. Addition of HDPE as a material option for the sealing gasket

Issue 2

This issue introduced the following changes:

- 1. To update the certificate format, and where applicable, the description has been updated in accordance with the modifications.
- 2. To update the certification to add the option for any cable gland to have an outer seal nut with an additional female thread to allow flexible conduits to be attached to the cable gland (designated '-FC').
- 3. To update the certification drawings with minor corrections.
- To update the wording of the grease used for the NPT threads.
- 5. Addition of the A2F-FHC gland.
- 6. Addition of the A2F-HTF gland for use with heat trace cables.
- 7. To update the coding from Ex tb IIIC Db to Ex ta IIIC Da.
- To update IEC 60079-15 to the latest edition.
- 9. To introduce an additional size to the A2F gland range.

Issue 3

This issue introduced the following changes:

- 1. The introduction of a new cable gland range A2F-VX.
- 2. 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.
- To update the existing certification text, and where applicable, the certification drawings.

ssue 4

This issue introduced the following changes:

- 1. To allow an M16 option thread option on named VARITEx-D and VARITEx-D VX -cable glands; as a result changes to technical drawings were permitted.
- 2. To recognise and permit the addition of new drawings.

Annex:

IECEx CML 20.0011 Iss 4 Certificate Annex_1.pdf

Annexe to: IECEx CML 20.0011 Issue 4

Apparatus: 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).

Applicant: CCG Cable Termination PTY LTD



Description

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
A2F	00-13 (Metric) 00-11 (NPT)	✓	✓	✓	✓	✓
A2F-R	00-13 (Metric) 00-11 (NPT)	✓	✓	✓	✓	✓
A2F-H	00-13 (Metric) 00-11 (NPT)	✓	✓	✓	✓	✓
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)	✓	✓	✓	✓	✓
A2F-FHC~QS(VX)	00-10 (Metric & NPT)	✓	✓			✓
A2F-VX	00-10 (Metric & NPT)	✓	✓	✓	✓	✓
A2F-F-VX	00-10 (Metric & NPT)	✓	✓	✓	✓	✓
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)	✓	✓			✓





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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.)
- 4. '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.
- 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 of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.
- 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.



