



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEX TSA 23.0026** Page 1 of 4 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2024-02-20

Applicant: **CCG Cable Terminations Pty Ltd**  
33-37 Forge Road  
Spartan Industrial Area  
Kempton Park 1619  
**South Africa**

Equipment: **Cable glands for use with unarmoured cables**

Optional accessory:

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

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:

**Debbie Wouters**

Position:

**Acting Quality & Certification Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

20 February 2024

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 [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**TestSafe Australia**  
919 Londonderry Road  
Londonderry NSW 2753  
**Australia**





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Manufacturer: **CCG Cable Terminations Pty Ltd**  
33-37 Forge Road  
Spartan Industrial 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/ExTR23.0228/00](#)

[GB/CML/ExTR20.0121/00](#)

[GB/CML/ExTR22.0085/00](#)

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, 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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**Additional information:**

**Conditions of Manufacture**

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

1. 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.
2. 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.
3. When manufactured from aluminium, the cable glands shall not be marked for Group I applications.
4. 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.

**Annex:**

[IECEX TSA 23.0026-0\\_Annexe\\_1.pdf](#)



# IECEX Certificate of Conformity Annexe

<b>Annexe for Certificate No.:</b>	IECEX TSA 23.0026	<b>Issue No.:</b>	0
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**Equipment 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 IIC Db	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)	✓	✓	✓	✓	✓	✓
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

1. 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 continuity 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)

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## 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)

## Drawing list pertaining to Issue 0 of this Certificate:

Document / Drawing Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
0410-I	1 of 1	*RADOFLEx INNER	1	2023-06-05
0410-II	1 of 1	*RADOFLEx INSERT INNER	1	2023-06-05
0410-IO	1 of 1	*RADOFLEx INSERT OUTER	1	2023-06-05
0411-ASSY-SL	1 of 1	*TYPICAL RADOFLEx BAR RESIN SLEEVE ASSY.	1	2023-06-06
0411-I	1 of 1	*RADOFLEx-BAR INNER	1	2023-06-05
0411-RS	1 of 1	*RADOFLEx BAR RESIN SEAL	1	2023-06-05
0411-S	1 of 1	*RADOFLEx-BAR RESIN SLEEVE	1	2023-06-06
0412-ASSY	1 of 1	*No. "X" A2F-VX GLAND ASSY	-	2023-06-09
0412-B	1 of 1	*A2F-VX BODY	-	2023-06-12
0412-I	1 of 1	*A2F-VX INNER	-	2023-06-12
0412-MARK AUS	1 of 1	*A2F-VX GLAND MARKING	-	2023-12-01
0441 ASSY	1 of 1	*No. "X" A2F-FHC GLAND ASSY.	1	2022-03-03
0441 MARKING - AUS	1 of 1	*A2F-FHC GLAND MARKING AUS	-	2023-12-01
0449-ASSY	1 of 1	*No. "X" A2F-H GLAND	1	2022-03-01
0450-ASSY	1 of 1	*No. "X" A2F-HTF GLAND ASSY	1	2023-06-08
0450-GS	1 of 1	*No. "X" A2F-HTF SEAL	-	2022-03-03
0450-MARKING - AUS	1 of 1	*A2F-HTF GLAND MARKING	-	2023-12-01
0451-ASSY	1 of 1	*No. "X" A2F-HTF-FC GLAND ASSY	1	2023-06-08
0451-O	1 of 1	*No. "X" A2F-HTF-FC OUTER	1	2023-06-08
0460 - ASSY	1 of 1	*No. "X" A2F-F-VX GLAND ASSY	-	2023-06-09
0460-B	1 of 1	*A2F-F-VX BODY	-	2023-06-12

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Document / Drawing Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
0460-I	1 of 1	*A2F-F-VX INNER	-	2023-06-12
0460-MARK - AUS	1 of 1	*A2F-F-VX GLAND MARKING	-	2023-12-01
0468 ASSY	1 of 1	*No. "X" A2F-FHC-QS GLAND ASSY.	1	2022-04-08
0468-I METRIC	1 of 1	*A2F-FHC-QS INNER - METRIC	-	2020-03-31
0468-I NPT	1 of 1	*A2F-FHC-QS INNER	-	2020-03-31
0468 MARK AUS	1 of 1	*A2F-FHC-QS(VX) GLAND MARKING	1	2023-12-01
0468-O	1 of 1	*A2F-FHC-QS OUTER	-	2020-04-02
0468-S	1 of 1	*A2F-FHC-QS RESIN SLEEVE	-	2020-04-01
0468-SP	1 of 1	*A2F-FHC-QS SPACER	-	2020-04-02
0470-ASSY	1 of 1	*No. "X" VARITEx-D GLAND ASSY.	-	2023-06-06
0470 MARK - AUS	1 of 1	*VARITEx-D GLAND MARKING	-	2023-06-09
0471-ASSY	1 of 1	*No. "X" VARITEx-D-VX GLAND ASSY.	-	2023-06-06
0497-FC-ASSY	1 of 1	*No. "X" A2F-R-FC FLEX *CONDUIT GLAND ASSY	-	2022-01-31
0497-FC-O	1 of 1	*No. "X" A2F-R-FC OUTER	-	2022-01-31
0497-H-R ASSY	1 of 1	*No. "X" A2F-H-R GLAND	2	2022-03-01
0523 - ASSY-SL	1 of 1	*TYPICAL QUICK STOP AND VORTEX *SLEEVE ASSEMBLY	5	2023-05-29
0523 - I	1 of 1	*No. "X" A2EX, A2EX FHC, D1EX & *EXCG INNER	4	2020-01-30
0523-NPT-I	1 of 1	*No. "X" A2EX, D1EX, A2EX FHC & *EXCG INNER	2	2020-04-21
0536 - C	1 of 1	*No. "X" A2EX & POSI GRIP CONE	4	2016-05-20
0536 - GS	1 of 1	*No. "X" A2 GRIPPER SEAL	8	2022-01-31
0536 - O	1 of 1	*No. "X" A2EX OUTER	7	2016-05-20
0536 - SR	1 of 1	*No. "X" A2 SKID RING	8	2022-01-31
0536-ASSY	1 of 1	*No " X" A2EX ASSEMBLY	10	2023-07-03
0536 - MARK - AUS	1 of 1	*A2EX GLAND MARKING	-	2023-12-01
0537 - ASSY	1 of 1	*No. " X" A2EX FHC GLAND ASSEMBLY	7	2023-07-03
0537 - CO	1 of 1	*No. "X" A2EX FHC COUPLING	-	2013-05-15
0537-C	1 of 1	*No. "X" A2EX & POSI GRIP CONE	3	2015-09-10
0537 - MARK AUS	1 of 1	*A2EX-FHC GLAND MARKING	1	2023-12-01
0541-ASSY	1 of 1	*No. "X" A2F ASSEMBLY	8	2022-01-31
0541-I	1 of 1	*No. "X" A2F INNER	4	2022-01-31

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Document / Drawing Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
0541-O	1 of 1	*No."X" A2F OUTER	4	2022-01-31
0541 – MARK AU	1 of 1	*No. "X" A2F GLAND MARKING	2	2023-12-01
0542 - ASSY	1 of 1	*No. " X" A2FX GLAND	8	2022-03-01
0542-O	1 of 1	*No."X" A2FX OUTER	4	2022-03-01
0545-ASSY	1 of 1	"X" POSI GRIP ASSEMBLY	5	2023-06-05
0545-I- ASSY	1 of 1	No."X" POSI GRIP INNER ASSY	-	2013-10-10
0545-I	1 of 1	"X" POSI GRIP INNER	1	2023-06-05
0545- MARK AUS	1 of 1	No."X" POSI GRIP MARKING	1	2023-12-01
0545-OA	1 of 1	"X" POSI GRIP OUTER ASSY	1	2023-06-05
0549 - ASSY	1 of 1	*No. "X" A2FX-H GLAND	6	2022-03-01
0549 - HT	1 of 1	*No. "X" A2FH OUTER - HOSE TAIL	3	2022-03-01
0560-IS	1 of 1	*No."X" E1EX~QS INNER SEAL	1	2023-07-04
0560-VX-IS	1 of 1	*No. "X" E1EX~VX INNER SEAL	-	2023-07-03
0569-I-ASSY	1 of 1	*No."X" POSI GRIP-VX INNER ASSY	-	2023-06-19
0569 MARK - AUS	1 of 1	*No. "X" POSI GRIP-VX MARKING	-	2023-12-01
0569-O-ASSY	1 of 1	*No. "X" POSI GRIP-VX OUTER ASSEMBLY	-	2023-06-19
0569-VX-ASSY	1 of 1	*No. "X" POSI GRIP-VX ASSEMBLY	-	2023-06-19
0577-B	1 of 1	*No."X" A2FX- R BODY	5	2023-11-24
0577-I-R	1 of 1	*No."X" A2FX-R INNER	6	2023-11-24
0577-MARK AU	1 of 1	* "X" A2FX-R MARKING	2	2023-12-01
0577-O-R	1 of 1	*No."X" A2FX-R OUTER	4	2022-03-01
0577-R-ASSY	1 of 1	*No. "X" A2FX-R ASSY	8	2022-03-01
0590-R-ASSY	1 of 1	*No. "X" A2F-R ASSY	4	2022-03-01
0596 -H-R ASSY	1 of 1	*No. "X"A2FX-H-R GLAND	2	2022-03-01
0596-HT-R	1 of 1	*No. "X" A2FX-H-R OUTER - HOSE TAIL	1	2022-03-01
8055 - SG	1 of 1	*No."X" CCG SEALING GASKET	1	2013-05-21

Note: An "\*" is added before the title of documents that are new or revised.

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