UK Type Examination Certificate CML 21UKEX1013 Issue 3

United Kingdom Conformity Assessment

1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

2 Equipment **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)**

3 Manufacturer **CCG Cable Terminations PTY LTD**

4 Address **33-37 Forge Road,**
Spartan Industrial Area,
Kempton Park, 1619,
South Africa

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

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

8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.

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:

Ex II 2G 1D	Ex II 2 G D
Ex db IIC Gb	Ex db I Mb
Ex eb IIC Gb	Ex eb I Mb
Ex ta IIIC Da	IP66/68 (2m)
IP66/67/68 (2m), IP65 (as applicable)	

UKAS PRODUCT CERTIFICATION 8175

L A Brisk
Assistant Certification Manager

11 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)	✓	✓			✓

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 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)

Variation 1
This variation introduced the following modifications:

i. To update the certificate format, and where applicable, the description has been updated in accordance with the modifications.
ii. 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').
iii. To update the certification drawings with minor corrections.
iv. To update the wording of the grease used for the NPT threads.
v. Addition of the A2F-FHC gland.

vi. Addition of the A2F-HTF gland for use with heat trace cables.
vii. To update the coding from Ex tb IIIC Db to Ex ta IIIC Da.
viii. To introduce an additional size to the A2F gland range

Variation 2
This variation introduced the following modifications:

i. The introduction of a new cable gland range A2F-VX.
ii. The introduction of a new cable gland range A2F-F-VX.
iii. The introduction of new cable gland ranges VARITEx-D and VARITEx-D~QS(VX).
iv. The introduction of cable gland ranges A2EX, and PosiGrip.
v. The introduction of barrier cable gland ranges A2EX, A2F-FHC and PosiGrip.
vi. To update the number of cores allowed in barrier gland gland versions.
vii. To include a modified design for the A2F-HTF and A2F-HTF-FC cable glands
viii. To include a 'VS' variant to the PosiGrip gland range.
ix. To update the existing certification text, and where applicable, the certification drawings.

Variation 3

This variation introduced the following modification:

i. Update to the UKEX certificate to align with the latest corresponding ATEX Certificate.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	25 Jan 2021	R13654H/00	Issue of Prime Certificate
1	19 May 2022	R15093A/00	Introduction of Variation 1
2	13 Oct 2023	R16749A/00	Introduction of Variation 2
3	19 Jun 2026	R21579A/00	Introduction of Variation 3

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

13 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.

14 Specific Conditions of Use

None.

Certificate Annex

Certificate Number	**CML 21UKEX1013**
Equipment	**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).**
Manufacturer	**CCG Cable Terminations PTY LTD**

The following documents describe the equipment defined in this certificate:

Issue 0

For drawings describing the equipment, refer to attached certificate CML 20ATEX1026 Issue 1. In addition to the drawings associated with CML 20ATEX1026 Issue 1, the following drawings include the additional marking required for this UK Type Examination certification:

Drawing No	Sheets	Rev	Approved date	Title
0541- MARK ATEX&IECEx	1 of 1	4	25 Jan 2021	No. "X" A2F GLAND MARKING
0577-MARK ATEX&IECEx	1 of 1	4	25 Jan 2021	"X" A2FX-R MARKING

Issue 1

Drawing No	Sheets	Rev	Approved date	Title
0441 ASSY	1 of 1	1	19 May 2022	No. "X" A2F-FHC GLAND ASSY
0441 MARKING - ATEX&IECEx	1 of 1	-	19 May 2022	A2F-FHC GLAND MARKING
0449 ASSY	1 of 1	1	19 May 2022	No. "X" A2F-H GLAND
0450-ASSY	1 of 1	-	19 May 2022	No. "X" A2F-HTF SEAL
0450-GS	1 of 1	-	19 May 2022	No. "X" A2F-HTF SEAL
0450-MARK ATEX&IECEx	1 of 1	-	19 May 2022	No. "X" A2F-HTF GLAND MARKING
0451-ASSY	1 of 1	-	19 May 2022	No. "X" A2F-HTF-FHC GLAND ASSY
0451-O	1 of 1	-	19 May 2022	No. "X" A2F-HTF-FHC OUTER
0497-FC-ASSY	1 of 1	-	19 May 2022	No. "X" A2F-R-FC FLEX CONDUIT GLAND ASSY
0497-FC-MARK ATEX, UKEX&IECEx	1 of 1	-	19 May 2022	No. “X” A2F-R-FC GLAND MARKING
0497-FC-0	1 of 1	-	19 May 2022	No. “X” A2F-R-FC OUTER
0497-H-R ASSY	1 of 1	2	19 May 2022	No. “X” A2F-H-R GLAND
0536 – GS	1 of 1	8	19 May 2022	No. “X” A2 GRIPPER SEAL
0536 – SR	1 of 1	8	19 May 2022	No. “X” A2 SKID RING
0541 – MARK ATEX & IECEx	1 of 1	5	19 May 2022	No. “X” A2F GLAND MARKING
0541 – ASSY	1 of 1	8	19 May 2022	No. “X” A2F ASSEMBLY
0541-I	1 of 1	4	19 May 2022	No. “X” A2F INNER
0541 – O	1 of 1	4	19 May 2022	No. “X” A2F OUTER
0542-O	1 of 1	4	19 May 2022	No. "X" A2FX OUTER

Certificate Annex

Certificate Number	**CML 21UKEX1013**
Equipment	**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).**
Manufacturer	**CCG Cable Terminations PTY LTD**

Drawing No	Sheets	Rev	Approved date	Title
0542-ASSY	1 of 1	8	19 May 2022	No. "X" A2FX GLAND
0549-ASSY	1 of 1	6	19 May 2022	No. "X" A2FX-H GLAND
0549-HT	1 of 1	3	19 May 2022	No. "X" A2FH OUTER - HOSE TAIL
0577-B	1 of 1	4	19 May 2022	No. "X" A2FX-R BODY
0577-I-R	1 of 1	5	19 May 2022	No."X" A2FX-R INNER
0577-MARK ATEX&IECEx	1 of 1	5	19 May 2022	"X" A2FX-R MARKING
0577-O-R	1 of 1	4	19 May 2022	No. "X" A2FX-R OUTER
0577-R-ASSY	1 of 1	8	19 May 2022	No. "X" A2FX-R ASSY
0590-R ASSY	1 of 1	4	19 May 2022	No. "X" A2F-R ASSY
0596-H-R-ASSY	1 of 1	2	19 May 2022	No. "X" A2FX-H-R GLAND
0596-HT-R	1 of 1	1	19 May 2022	No. "X" A2F-H-R OUTER HOSE TAIL
8055-SG	1 of 1	1	19 May 2022	No. "X" CCG SEALING GASKET

Issue 2

Drawing No.	Sheets	Rev	Approved Date	Title
0410-I	1 of 1	1	13 Oct 2023	RADOFLEx INNER
0410-II	1 of 1	1	13 Oct 2023	RADOFLEx INSERT INNER
0410-IO	1 of 1	1	13 Oct 2023	RADOFLEx INSERT OUTER
0411-ASSY-SL	1 of 1	1	13 Oct 2023	TYPICAL RADOFLEx-BAR RESIN
0411-I	1 of 1	1	13 Oct 2023	RADOFLEx-BAR INNER
0411-RS	1 of 1	1	13 Oct 2023	RADOFLEx-BAR RESIN SEAL
0411-S	1 of 1	1	13 Oct 2023	RADOFLEx-BAR RESIN SLEEVE
0412-ASSY	1 of 1	-	13 Oct 2023	No. "X" A2F-VX GLAND ASSY
0412-B	1 of 1	-	13 Oct 2023	A2F-VX BODY
0412-I	1 of 1	-	13 Oct 2023	A2F-VX INNER
0412-MARK ATEX & IECEx	1 of 1	-	13 Oct 2023	A2F-VX GLAND MARKING
0450-ASSY	1 of 1	1	13 Oct 2023	No. "X" A2F-HTF GLAND ASSY
0450-MARK ATEX & IECEx	1 of 1	1	13 Oct 2023	No. "X" A2F-HTF GLAND MARKING
0451-ASSY	1 of 1	1	13 Oct 2023	No. "X" A2F-HTF-FC GLAND ASSY
0451-O	1 of 1	1	13 Oct 2023	No. "X" A2F-HTF-FC OUTER
0460 - ASSY	1 of 1	-	13 Oct 2023	No. "X" A2F-F-VX GLAND ASSY

Certificate Annex

Certificate Number **CML 21UKEX1013**

Equipment **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).**

Manufacturer **CCG Cable Terminations PTY LTD**

Drawing No.	Sheets	Rev	Approved Date	Title
0460-B	1 of 1	-	13 Oct 2023	A2F-F-VX BODY
0460-I	1 of 1	-	13 Oct 2023	A2F-F-VX INNER
0460 – MARK ATEX & IECEx	1 of 1	-	13 Oct 2023	A2F-F-VX GLAND MARKING
0468 ASSY	1 of 1	1	13 Oct 2023	No. “X” A2F-FHC~QS GLAND ASSY.
0468 MARK	1 of 1	3	13 Oct 2023	A2F-FHC(QS) GLAND MARKING
0468-I METRIC	1 of 1	-	13 Oct 2023	A2F-FHC-QS INNER - METRIC
0468-I NPT	1 of 1	-	13 Oct 2023	A2F-FHC-QS INNER
0468-O	1 of 1	-	13 Oct 2023	A2F-FHC-QS OUTER
0468-S	1 of 1	-	13 Oct 2023	A2F-FHC-QS RESIN SLEEVE
0468-SP	1 of 1	-	13 Oct 2023	A2F-FHC-QS SPACER
0470 – MARK ATEX & IECEx	1 of 1	-	13 Oct 2023	VARITEx-D GLAND MARKING
0470 – ASSY	1 of 1	-	13 Oct 2023	No. “X” VARITEx-D GLAND ASSY.
0471 - ASSY	1 of 1	-	13 Oct 2023	No. “X” VARITEx-D-VX GLAND ASSY.
0523 – ASSY-SL	1 of 1	5	13 Oct 2023	TYPICAL QUICK STOP AND VORTEX
0523-I	1 of 1	4	13 Oct 2023	No. “X” A2EX, A2EX-FHC, D1EX &
0523-NPT-I	1 of 1	2	13 Oct 2023	No. “X” A2EX, A2EX-FHC, D1EX &
0536 - C	1 of 1	4	13 Oct 2023	No. “X” A2EX & POSI GRIP CONE
0536 – MARK ATEX & IECEx	1 of 1	-	13 Oct 2023	A2EX GLAND MARKING
0536 - O	1 of 1	7	13 Oct 2023	No. “X” A2EX OUTER
0536-ASSY	1 of 1	10	13 Oct 2023	No. “X” A2EX ASSEMBLY
0537 - ASSY	1 of 1	7	13 Oct 2023	No. “X” A2EX FHC GLAND ASSEMBLY
0537 - CO	1 of 1	-	13 Oct 2023	No. “X” A2EX FHC COUPLING
0537 - GS	1 of 1	6	13 Oct 2023	No. “X” A2 GRIPPER SEAL
0537 - C	1 of 1	3	13 Oct 2023	No. “X” A2EX & POSI GRIP CONE
0545 - ASSY	1 of 1	5	13 Oct 2023	No. “X” POSI GRIP ASSEMBLY
0545-I-ASSY	1 of 1	-	13 Oct 2023	No. “X” POSI GRIP INNER ASSEMBLY
0545 - I	1 of 1	1	13 Oct 2023	“X” POSI GRIP INNER
0545- MARK ATEX & IECEx	1 of 1	3	13 Oct 2023	No. “X” POSI GRIP MARKING
0545-OA	1 of 1	1	13 Oct 2023	“X” POSI GRIP OUTER ASSY

Certificate Annex

Certificate Number **CML 21UKEX1013**

Equipment **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).**

Manufacturer **CCG Cable Terminations PTY LTD**

Drawing No.	Sheets	Rev	Approved Date	Title
0560-IS	1 of 1	1	13 Oct 2023	No. "X" E1EX~QS INNER SEAL
0560-VX-IS	1 of 1	-	13 Oct 2023	No. "X" E1EX~VX INNER SEAL
0569 MARK ATEX & IECEx	1 of 1	-	13 Oct 2023	No. "X" POSI GRIP-VX MARKING
0569 – I - ASSY	1 of 1	-	13 Oct 2023	No. "X" POSI GRIP-VX INNER ASSY
0569-O-ASSY	1 of 1	-	13 Oct 2023	No. "X" POSI GRIP-VX OUTER ASSY
0569-VX-ASSY	1 of 1	-	13 Oct 2023	No. "X" POSI GRIP-VX ASSEMBLY

Issue 3

The drawings approved for ATEX are relied upon; for all drawings, refer to attached certificate CML 20ATEX1026 Issue 4 and associated reports.