



Type Examination Certificate

CML 22ATEX4116

Issue 1

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 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 Ind 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 CML B.V., Chamber of Commerce No 67386717, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, 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 Annex II of Directive 2014/34/EU.
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 conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Annex VIII apply to the manufacture of the equipment or component and are separately certified.
- 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 IEC 60079-15:2019

- 10 The equipment shall be marked with the following:



II 3G

Ex nR IIC Gc

IP66/67/68 (2m), IP65 (as applicable)



CML 22ATEX4116
Issue 1

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 |
|----------------------|----------------------------|
| 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) |



CML 22ATEX4116
Issue 1

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)

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)



CML 22ATEX4116
Issue 1

Variation 1

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 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.

12 Certificate history and evaluation reports

| Issue | Date | Associated report | Notes |
|--------------|-------------|--------------------------|------------------------------|
| 0 | 20 May 2022 | R15092B/00 | Issue of prime certification |
| 1 | 13 Oct 2023 | R16749A/00 | Introduction of Variation 1 |

Note: Drawings that describe the equipment or component 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 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.

14 Specific Conditions of Use (Special Conditions)

None

Certificate Annex

Certificate Number CML 22ATEX4116

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 or component defined in this certificate:

Issue 0

| Drawing No. | Sheets | Rev | Approved Date | Title |
|-------------------------------|--------|-----|---------------|--|
| 0441 ASSY | 1 of 1 | 1 | 20 May 2022 | No. "X" A2F-FHC GLAND ASSY |
| 0441 MARKING - ATEX&IECEX | 1 of 1 | - | 20 May 2022 | A2F-FHC GLAND MARKING |
| 0449 ASSY | 1 of 1 | 1 | 20 May 2022 | No. "X" A2F-H GLAND |
| 0450-ASSY | 1 of 1 | - | 20 May 2022 | No. "X" A2F-HTF SEAL |
| 0450-GS | 1 of 1 | - | 20 May 2022 | No. "X" A2F-HTF SEAL |
| 0450-MARK ATEX&IECEX | 1 of 1 | - | 20 May 2022 | No. "X" A2F-HTF GLAND MARKING |
| 0451-ASSY | 1 of 1 | - | 20 May 2022 | No. "X" A2F-HTF-FHC GLAND ASSY |
| 0451-O | 1 of 1 | - | 20 May 2022 | No. "X" A2F-HTF-FHC OUTER |
| 0497-FC-ASSY | 1 of 1 | - | 20 May 2022 | No. "X" A2F-R-FC FLEX CONDUIT GLAND ASSY |
| 0497-FC-MARK ATEX, UKEX&IECEX | 1 of 1 | - | 20 May 2022 | No. "X" A2F-R-FC GLAND MARKING |
| 0497-FC-O | 1 of 1 | - | 20 May 2022 | No. "X" A2F-R-FC OUTER |
| 0497-H-R ASSY | 1 of 1 | 2 | 20 May 2022 | No. "X" A2F-H-R GLAND |
| 0536 - GS | 1 of 1 | 8 | 20 May 2022 | No. "X" A2 GRIPPER SEAL |
| 0536 - SR | 1 of 1 | 8 | 20 May 2022 | No. "X" A2 SKID RING |
| 0541 - MARK ATEX & IECEX | 1 of 1 | 5 | 20 May 2022 | No. "X" A2F GLAND MARKING |
| 0541 - ASSY | 1 of 1 | 8 | 20 May 2022 | No. "X" A2F ASSEMBLY |
| 0541-I | 1 of 1 | 4 | 20 May 2022 | No. "X" A2F INNER |
| 0541 - O | 1 of 1 | 4 | 20 May 2022 | No. "X" A2F OUTER |
| 0542-ASSY | 1 of 1 | 8 | 20 May 2022 | No. "X" A2FX GLAND |
| 0542-O | 1 of 1 | 4 | 20 May 2022 | No. "X" A2FX OUTER |
| 0549-ASSY | 1 of 1 | 6 | 20 May 2022 | No. "X" A2FX-H GLAND |
| 0549-HT | 1 of 1 | 3 | 20 May 2022 | No. "X" A2FH OUTER - HOSE TAIL |
| 0577-B | 1 of 1 | 4 | 20 May 2022 | No. "X" A2FX-R BODY |
| 0577-I-R | 1 of 1 | 5 | 20 May 2022 | No. "X" A2FX-R INNER |
| 0577-MARK ATEX&IECEX | 1 of 1 | 5 | 20 May 2022 | "X" A2FX-R MARKING |
| 0577-O-R | 1 of 1 | 4 | 20 May 2022 | No. "X" A2FX-R OUTER |
| 0577-R-ASSY | 1 of 1 | 8 | 20 May 2022 | No. "X" A2FX-R ASSY |
| 0590-R ASSY | 1 of 1 | 4 | 20 May 2022 | No. "X" A2F-R ASSY |
| 0596-H-R-ASSY | 1 of 1 | 2 | 20 May 2022 | No. "X" A2FX-H-R GLAND |

Certificate Annex

Certificate Number CML 22ATEX4116

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 |
|-------------|--------|-----|---------------|---------------------------------|
| 0596-HT-R | 1 of 1 | 1 | 20 May 2022 | No. "X" A2F-H-R OUTER HOSE TAIL |
| 8055-SG | 1 of 1 | 1 | 20 May 2022 | No. "X" CCG SEALING GASKET |

Issue 1

| Drawing No. | Sheets | Rev | Approved Date | Title |
|---------------------------|--------|-----|---------------|--------------------------------|
| 0410-I | 1 of 1 | 1 | 13 Oct 2023 | RADOFLEEx INNER |
| 0410-II | 1 of 1 | 1 | 13 Oct 2023 | RADOFLEEx INSERT INNER |
| 0410-IO | 1 of 1 | 1 | 13 Oct 2023 | RADOFLEEx INSERT OUTER |
| 0411-ASSY-SL | 1 of 1 | 1 | 13 Oct 2023 | TYPICAL RADOFLEEx-BAR RESIN |
| 0411-I | 1 of 1 | 1 | 13 Oct 2023 | RADOFLEEx-BAR INNER |
| 0411-RS | 1 of 1 | 1 | 13 Oct 2023 | RADOFLEEx-BAR RESIN SEAL |
| 0411-S | 1 of 1 | 1 | 13 Oct 2023 | RADOFLEEx-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 & IECEEx | 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 & IECEEx | 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 |
| 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 & IECEEx | 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 |

Certificate Annex

Certificate Number CML 22ATEX4116

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 |
|--------------------------|--------|-----|---------------|----------------------------------|
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |