



Mining And Surface Certification (Pty) Ltd

2015/021934/07

THIS CERTIFICATE IS ISSUED AS AN I.A. CERTIFICATE IN TERMS OF THE MINE HEALTH AND SAFETY ACT, ACT NO 29 OF 1996 (AND REGULATIONS), THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 OF 1993) AND REGULATION 17 OF THE ELECTRICAL MACHINERY REGULATIONS

IA CERTIFICATE	MASC S/20-9022	Issue	3
Issue Date	11 December 2023	Expiry Date	21 September 2030
Applicant	CCG Cable Terminations (Pty) Ltd 33-37 Forge Road, Spartan Industrial Area, Kempton Park, 1619, South Africa		
Manufacturer	CCG Cable Terminations (Pty) Ltd 33-37 Forge Road, Spartan Industrial Area, Kempton Park, 1619, South Africa		
Description	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.		
Equipment	Cable glands for use with unarmoured cables	Type	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).
MARKING: <i>Marking to be added to equipment as per schedule on the right.</i>	Applicant / Manufacturer Type Ex Marking IA Number Serial Number Rating	CCG Cable Terminations (Pty) Ltd See schedule below Ex db IIC Gb; Ex eb IIC Gb; Ex ta IIIC Da; Ex db I Mb; Ex eb I Mb; Ex nR IIC Gc MASC S/20-9022 N/A As per description below	
WARNING(S)	As per conditions below		
Compliance:	The equipment as described above and in IECEx CML 20.0011 (Issue 3) has been allocated the rating Explosion Protected as above utilizing the SANS/IEC Standards: <ul style="list-style-type: none"> SANS (IEC) 60079-0: 2019 (2017) Electrical equipment for explosive gas atmospheres Part 0: General Equipment SANS (IEC) 60079-1: 2015 (2014) Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures “d” SANS (IEC) 60079-7: 2019 (2017) Explosive atmospheres – Part 7: Equipment protection by increased safety “e” SANS (IEC) 60079-15: 2022 (2017) Explosive atmospheres – Part 15: Equipment protection by type of protection “n” SANS (IEC) 60079-31:2014 (2013) Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure “t” <i>Note: This certificate covers only the listed standards and does not imply compliance to any other standard, related or inferred. It is up to the manufacturer to ensure that the product complies to all relevant standards for the application.</i>		
Special conditions of safe use X:	<ul style="list-style-type: none"> None 		
Conditions of manufacture:	<ul style="list-style-type: none"> See “Annex A” below 		
Terine Orsmond PROJECT MANAGER		Regardt Zeelie TECHNICAL SPECIALIST	
<small>This certificate only covers the sample submitted and does not cover production units.</small>			
<small>According to the relevant requirements of the MHS Act and the OHS Act, production units of explosion protected equipment are required to comply with third party quality assurance (an approved mark scheme or batch testing by an accredited test laboratory).</small>			



Apparatus in hazardous locations is subject to the following provisions as applicable, which shall be adhered to:
 SANS 10086 requirements;
 Any conditions mentioned in the above certificate;
 Any relevant requirements of the MHS Act;
 Any restrictions and conditions enforced by the chief inspector of mines, principal inspector (Group I equipment) or chief inspector of factories (Group II equipment).



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IA CERTIFICATE: MASC S/20-9022
Equipment: Cable glands for use with unarmoured cables
(Rev 3 – Expiry date 21 September 2030)

ANNEX A

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 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)	✓	✓	✓	✓	✓	✓
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

- 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.
- Intermediate metric thread sizes are permitted.
- 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 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.
- '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.
- '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.
- 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
- 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.

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IA CERTIFICATE: MASC S/20-9022
Equipment: Cable glands for use with unarmoured cables
(Rev 3 – Expiry date 21 September 2030)

<u>Materials of Manufacture</u>	
<ul style="list-style-type: none"> • 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) 	
<u>Temperature Limitations, at the point of entry</u>	
<ul style="list-style-type: none"> • 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) 	
<u>Components covered by Ex Certificates issued to older editions of Standards</u>	
None	
Details of change	<p><u>Revision 1:</u> The A2F-HTF and A2F-HTF-FC glands are added to the range to accommodate flat cables. In addition, the A2F gland has an additional seal to accommodate a smaller cable as per the instructions of the glands.</p> <p><u>Revision 2:</u> Update to correspond to IECEx CML 20.0011 Issue 2.</p> <p><u>Revision 3:</u> Update to correspond to IECEx CML 20.0011 Issue 3.</p>
Standard compliance	See "certificate" above
Warnings	See "certificate" above
Conditions of Certification	
According to the relevant requirements of the MHS Act and the OHS Act, production units of explosion protected equipment are required to comply with third party quality assurance (an approved mark scheme or batch testing by an accredited test laboratory.) and be identifiable and traceable.	
Special Conditions of safe use (X)	<ul style="list-style-type: none"> • None
Conditions of manufacture	<p>The following conditions are required of the manufacturing process for compliance with the certification.</p> <ol style="list-style-type: none"> 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

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