



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 16-1787	Issue	3
Issue Date	21 August 2025	Expiry Date	05 July 2027
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 (See "Annex A" below)			
Equipment	Non-metallic Industrial Junction Box series	Type	See Annex B below
MARKING: <i>Must be additionally applied to the equipment</i>	Applicant / Manufacturer Type Ex Marking IA Number Serial Number Rating	CCG Cable Terminations (Pty) Ltd See schedule below See Annex B below MASC 16-1787 See "Annex A" below As per description below	
WARNING(S)	As per conditions below		
Compliance: Samples of the non-metallic Industrial Junction Box Series as described above / below have been tested and assessed according to the relevant clauses of below standard(s) and therefore are deemed to be in compliance with the below standard(s). <ul style="list-style-type: none"> IEC 62208: 2011 (Ed. 2.0): Empty enclosures for low-voltage switchgear and controlgear assemblies - General requirements IEC 62262:2002 (Ed. 1.0): Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code) Conditions: <ul style="list-style-type: none"> ➤ This certificate covers only a national implementation of above standards for use in South African industry. ➤ It is up to the manufacturer to ensure that the product complies to all relevant standards for the application. ➤ This document will not be supported by MASC outside the borders of South Africa and may not be used for other/international certification purposes. ➤ This certificate may only be reproduced in full, is not transferable and remains the property of the issuing body. This certificate only covers the sample submitted and does not cover production units. ➤ 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 markscheme or batch testing by an accredited test laboratory). 			
Special conditions of safe use X: • See "ANNEX A" below		Conditions of manufacture: • See "ANNEX A" below	
Terine Orsmond TECHNICAL OFFICER		Regardt Zeelie TECHNICAL SPECIALIST	

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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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Mining And Surface Certification (Pty) Ltd
 Unit 5 Lelyta Park, 45 Jurg Avenue, Hennopspark, Ext 87
 Centurion 0157



IA CERTIFICATE: MASC 16-1787
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(Rev 3 – Expiry date 05 July 2027)

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ANNEX A

Description	<p>All Junction boxes:</p> <ul style="list-style-type: none"> Are manufactured from DMC (Dough Moulding Compound). Comprises pressed metallic inserts in the side of the enclosure with threaded entries for sufficiently IP rated glands or plugs. Have an o-ring(s) which is utilized between the housing and the cover of the enclosure to maintain the IP rating. Can be manufactured in various types and sizes. (See table below). Are intended to be used for terminal blocks located on the internal rail, fitted to the base of the junction box. <p>Refer to Annex B below.</p>
Revisions	<p>Rev 1: Additional terminal blocks and rectangular box configuration.</p> <p>Rev 2: Include Posi Fit enclosure range. The Posi Fit enclosures utilises the same DMC material as the other enclosures. The only variation is the flame retardant and anti-static properties introduced into the material.</p> <p>Rev 3: Include Utility Box enclosure range. The enclosures utilises the same DMC material as the other enclosures.</p>
Standard compliance	See "certificate" above
Warnings	See "certificate" above
<p>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.</p>	
Specific Conditions of safe use (X)	<ul style="list-style-type: none"> Terminal blocks and glands as prescribed by CCG must be used inside the junction boxes with a maximum voltage rating up to 690Vrms. The box with the clear lid option must be installed to prevent direct UV exposure to internal component(s). The end user must comply with installation rules / de-ratings of conductors / cables as applicable to general installations as per instructions.
Conditions of manufacture	<ul style="list-style-type: none"> The apparatus must be additionally marked in a clear, legible, visible and indelible manner with the marking details as described above. All production units must be conducted under a third-party quality system. This certificate relates only to the equipment specified herein as executed to the samples supplied for evaluation. In affixing the marking to the component, the manufacturer attests on its own responsibility that the equipment conforms to the documents listed herein. It is a condition of certification that a copy of the certificate and instructions must be made available for the equipment. The instructions must comply with the requirements of the standard.

This document is issued based on Mining And Surface Certification's Standard Contract terms and conditions available on request.

While every endeavour is made to ensure that a test / assessment / inspection is representative and accurately performed, and that a report / certificate is accurate in the quoted results and conclusions drawn from the test / assessment / inspection, MASC or its directors/employees shall in no way be liable for any error made in carrying out the test / assessment or for any erroneous statement, whether in fact or in opinion, contained in a report / certificate issued pursuant to a test / assessment / inspection.

MASC takes no responsibility for any non-conformances, exclusions or any results / assessments / inspections not in compliance with the standards. By marking the equipment in accordance with the documentation / standard, the manufacturer / applicant attests on his own responsibility that the equipment / installation has been designed and constructed in accordance with the applicable requirements of the relevant standards and documentation, that the routine verifications / routine tests have been correctly completed and the equipment / installation complies with the documentation and standard(s).

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Annex B

All Junction boxes:

- Are manufactured from DMC (Dough Moulding Compound).
- Comprises pressed metallic inserts in the side of the enclosure with threaded entries for sufficiently IP rated glands or plugs.
- Have an o-ring(s) which is utilized between the housing and the cover of the enclosure to maintain the IP rating.
- Can be manufactured in various types and sizes. (See table below).
- Are intended to be used for terminal blocks located on the internal rail, fitted to the base of the junction box.

Handifit and Utility boxes:

The Handifit/Utility enclosures have a cylindrical shaped body with a screw on cover, secured / opened with a special tool that engages into splines on the cover of the enclosure.

An optional polycarbonate / DMC cover (Adaptalid) may be screwed on with four M5 countersink screws into metallic inserts in a DMC adaptor, which is threaded to replace the normal threaded cover.

An o-ring is utilised between the polycarbonate section and adaptor to maintain the IP rating.

Handifit Screw Fit boxes:

The Screw Fit non-metallic junction box enclosure has a cylindrical shaped body with a cover, secured with four M5 stainless steel pan-pozi screws in metallic threaded inserts moulded in the base of the enclosure.

An o-ring is utilised with the cover to maintain the IP rating.

Multi Boxes:

The Multi non-metallic box enclosure has a rectangular shaped body with a cover, secured with four M6 stainless steel pan-pozi screws in metallic threaded inserts moulded in the base of the enclosure. Internal earth plates are used to secure the glands in threaded entries in the plates. All internal plates are electrically connected. The external earth stud is threaded into the internal earthing plate and fitted with an o-ring to maintain the IP rating.

An o-ring is utilised with the cover to maintain the IP rating.

Posi Fit Boxes:

The Posi Fit enclosures are non-metallic enclosures are manufactured from DMC (Dow Moulding Compound). The enclosures have a cylindrical shaped body with a screw-on cover, which is secured with a special tool that engages into the splines on the cover enclosure and have an O-ring between the housing and cover to maintain the IP rating.

An optional polycarbonate/DMC cover may be screwed with four countersunk M5 screws into metallic inserts in a DMC adaptor, which is threaded to replace normal threaded cover.

A special tool is supplied, which fits in the grooves on the round cover for opening and closing the enclosure.

The range of enclosures consists of the following:

Type	Box size	Dimensions (Dia. X height) (mm)	Gland entry sizes	Maximum Gland entry amount and arrangement
Handifit Junction box	0	100 x 78	M16 - M20	Four entries positioned orthogonal around the side walls with multiple gland entry sizes.
	1	118 x 91	M16 - M20	
	2	140 x 114	M16 - M25	
	3	203 x 142	M16 - M32	
	4	298 x 186	M16 - M40	
Utility Box	1	103 x 88	M20	Four entries positioned orthogonal around the side walls with gland entry sizes as specified.
	2	140 x 86	M25	
Handifit Bottom entry angle Box	1	118 x 98	M16 - M25	Three entries positioned at the bottom of the box: - one entry closest to the base of the box and two entries closest to the rim of the box.
	2	140 x 105	M16 - M32	
	3	202 x 140		
Handifit 3 Way Bottom entry box	1	128 x 112	M16 - M20	Three entries positioned at the bottom of the box: - one entry closest to the base of the box and two entries closest to the rim of the box.
	2	162 x 160	M16 - M25	
Handifit Y Box	0	102 x 81	M16 - M20	Two entries positioned on the side of the box and one entry positioned on the opposite side of the box.
	1	118 x 111	M16 - M20	
	2	138 x 123	M16 - M25	
	3	200 x 150	M16 - M32	
Handifit H Box	1	118 x 94	M16 - M20	Two entries positioned on the side of the box and two entries positioned on the opposite side of the box.
	2	138.5 x 100	M16 - M25	

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Handifit ST Box strut box	1	158 x 104	M16 - M20	Four entries positioned on opposite sides with multiple gland entry sizes.
Handifit Angle Box	2	121 x 100	M20 - M25	Two entries on flat section and two on cylindrical side.
Handifit Screw Fit Box	All	Similar to above	As above	Same options as for above types.
Multi Box	B	196 x 132 x 109	Various Sizes up to M40	Entries positioned in the side walls of the base.
Multi Box	C	278 x 200 x 117	Various Sizes up to M40	Entries positioned in the side walls of the base.
Posi Fit / Tx box	0	100 x 78	M16 - M20	CCG Posi Fit 4 Way box 4 entries positioned orthogonal around the side walls with multiple gland entry sizes.
	1	118 x 91	M16 - M20	
	2	140 x 114	M16 - M25	
	3	203 x 142	M16 - M32	
	4	298 x 186	M16 - M40	
Posi Fit Bottom entry angle box	1	118 x 98	M16 - M20	CCG Bottom entry angle box 3 entries positioned at the bottom of the box. One entry closest to the rim of the box and two entries to the base of the box
	2	140 x 105	M16 - M25	
		202 x 140	M16 - M32	
Posi Fit 3 way bottom entry box	1	128 x 112	M16 - M20	CCG Bottom entry angle box 3 entries positioned at the bottom of the box. One entry closest to the rim of the box and two entries to the base of the box
	2	162 x 160	M16 - M25	
Posi Fit Y box	0	102 x 81	M16 - M20	CCG Posi Fit Y box – 2 entries positioned on the side of the box and 1 entry positioned on the opposite side of the box.
	1	118 x 111	M16 - M20	
	2	138 x 123	M16 - M25	
	3	200 x 150	M16 - M32	
Posi Fit H box	1	118 x 94	M16 - M20	CCG Posi Fit H box – 2 entries positioned on the side of the box and 2 entries positioned on the opposite side of the box.
	2	138.5 x 100	M16 - M25	
Posi Fit ST Box Strut box	1	100 x 96	M16 - M20	CCG Posi ST Box strut box – 2 entries positioned on opposite sides with multiple gland entry sizes.
Posi Fit Angle Box	2	121 x 100	M20 - M25	CCG Angle Box 3 entries positioned at the bottom of the box.
Multi Box PosiFit	Assembly B	(Rectangular) 196 x 132 x 109	See entry amount and arrangement	The entries could vary, with the A/C of the gland being the min distance between the entries.
Multi Box PosiFit	Assembly C	(Rectangular) 278 x 200 x 117	See entry amount and arrangement	The entries could vary, with the A/C of the gland being the min distance between the entries.

The earthing construction of the junction boxes were tested:

- Max continuous current (Catapult test report OR/15/11677_1, dated March 2016, according to IEC 60947-7-2)

Item	Plate thickness	Rated Current (Amps)
Box size No. 0	0.3mm brass	32.8
Box size No. 1	0.3mm brass	76.1
Box size No. 2	0.3mm brass	127.0
Box size No. 3	N/A	192.8
Box size No. 4	N/A	192.8

- Short circuit current (Catapult test report OR/15/11677_2, dated March 2016, according to IEC 62444 and IEC 60947-7-2)

Box size	Plate thickness	Continuous current	IEC 62444 Short circuit (1 sec)	IEC 60947 Short Circuit (1 sec)
No. 0	0.5mm brass	32A	500A	480A
No. 1	0.5mm brass	76A	500A	1920A
No. 2	0.5mm brass	125A	500A	1920A
No. 3	N/A	192A	500A	1920A
No. 4	N/A	192A	500A	1920A

The internal configurations are directly correlated to volume when comparing the “B” size Multi box with the original number 3 box and then the “C” size multi box is comparable with the original number 4 box.

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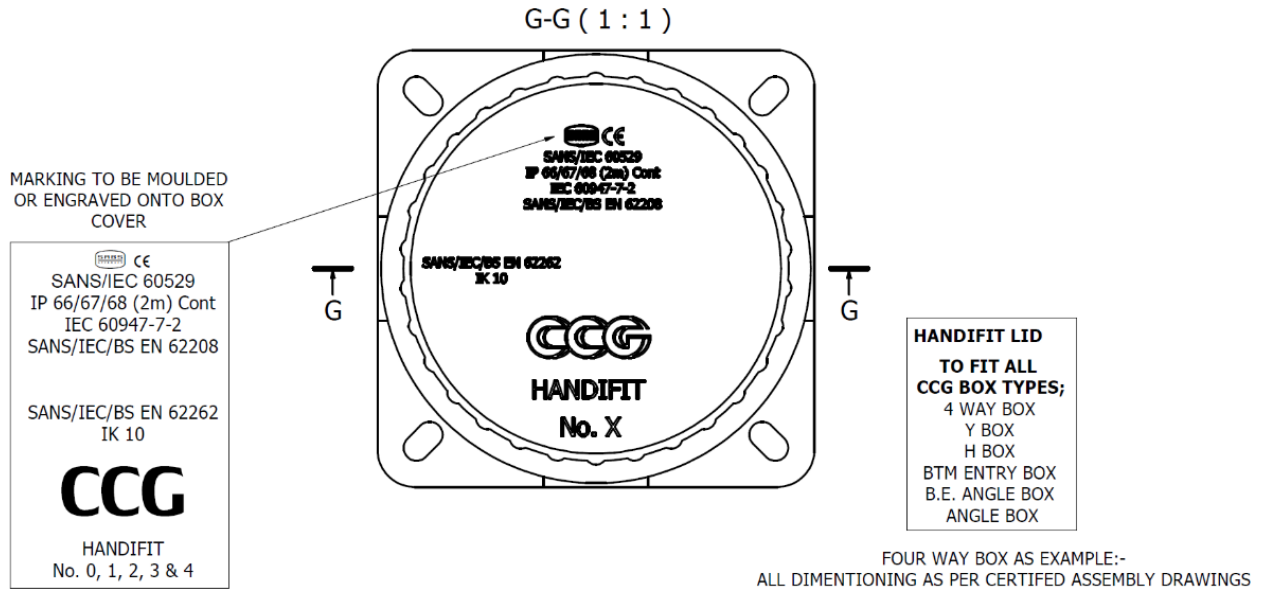
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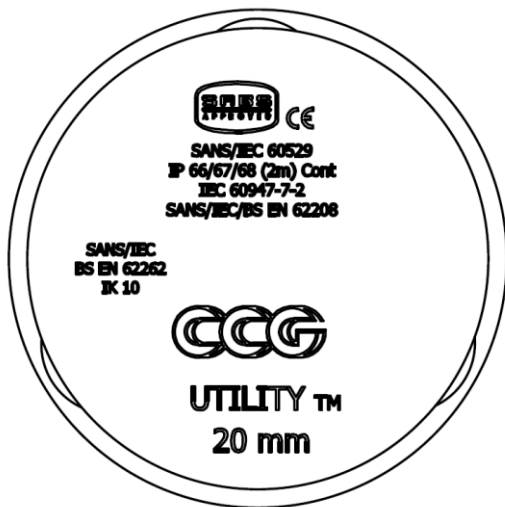
MARKING:

Note: The marking of the IEC 60947 does not form part of this approval

General boxes:



Utility boxes:



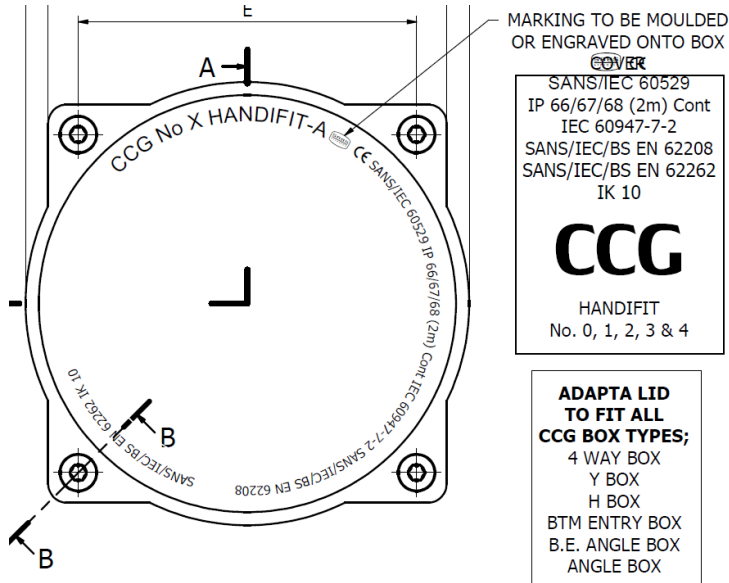
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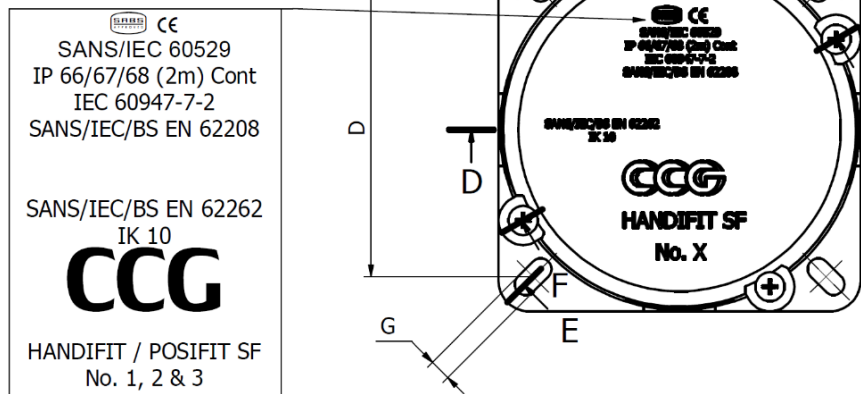
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Adaptalid:



Screw fit Boxes:

MARKING TO BE MOULDED
OR ENGRAVED ONTO BOX
COVER



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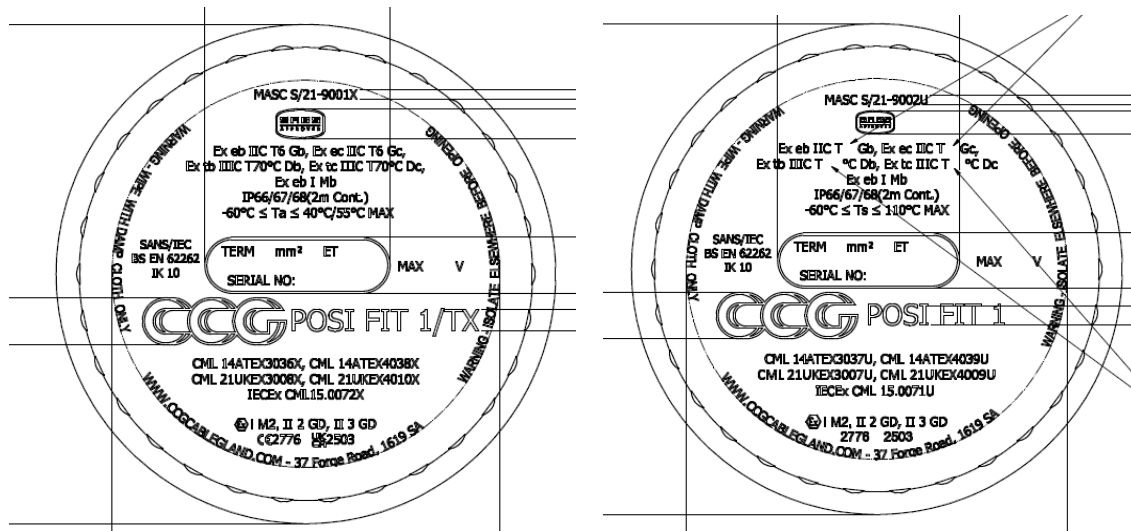
Multi boxes:



MARKING TO BE MOULDED OR
ENGRAVED ONTO BOX COVER

C (1 : 1.25)

Posi Fit boxes:



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