



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

Certificate No.: **IECEX MSC 20.0003X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-05-05

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

Equipment: **PosiFit Junction boxes**

Optional accessory:

Type of Protection: **Increased Safety "eb", "ec", Dust Ignition "tb", "tc"**

Marking: Ex eb I Mb
Ex eb IIC T6 Gb
Ex tb IIIC T70°C Db
Ex ec IIC T6 Gc
Ex tc IIIC T70°C Dc

Ta = -60°C to +40°C/55°C
IP66/IP67/IP68 (2m cont.)

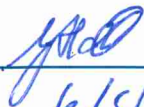
Approved for issue on behalf of the IECEx
Certification Body:

Geoff Slater

Position:

MSTC Manager

Signature:
(for printed version)



6/5/2020

Date:

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 or use of this QR Code.



Certificate issued by:

MSTC Mine Safety Technology Centre
8 Hartley Drive
Thornton NSW 2322
PO Box 343
Australia



**Planning,
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Certificate No.: **IECEX MSC 20.0003X**

Page 2 of 3

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Manufacturer: **CCG Cable Termination (Pty) Ltd**
33-37 Forge Road
Spartan Industrial Area
Kempton Park 1619
South Africa

Additional
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 60079-31:2013 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:

[AU/MS/ExTR20.0005/00](#)
[GB/CML/ExTR17.0138/00](#)

[GB/CML/ExTR15.0072/00](#)
[GB/CML/ExTR19.0225/00](#)

[GB/CML/ExTR16.0132/00](#)

Quality Assessment Report:

[ZA/ICS/QAR14.0001/05](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx MSC 20.0003X**

Page 3 of 3

Date of issue: 2020-05-05

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The PosiFit enclosures are non-metallic enclosures 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. There is an O ring between the enclosure base and its cover to assure the IP rating of the complete enclosure.

An optional arrangement is to have a polycarbonate / DMC cover secured using four countersunk M5 screws fastened into metal inserts in a body designed to accept this cover type.

A further optional arrangement is to have a polycarbonate / DMC cover secured using four countersunk M5 screws fastened into metal inserts in an adaptor which is then screwed to a standard body unit.

MultiBox enclosures are rectangular in shape and the enclosure lid is secured with screws. There is an O ring between the enclosure base and its cover to assure the IP rating of the complete enclosure.

The PosiFit junction boxes are fitted with IECEx components certified Weidmuller terminals.

The Description Table of the attached Annex contains the range of enclosures together with the permissible numbers and sizes of terminals and number of cable gland entries and their arrangements.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to the attached Annex for the conditions of manufacture and the specific conditions of safe use.

Annex:

[Annex of IECEx MSC20.0003X-00.pdf](#)



IECEX Certificate of Conformity Annex

Annex for Certificate No.: IECEx MSC 20.0003X Issue No:00

Description Table

Type and size	Dimensions (Dia. X height)	Gland entry sizes (1.5mm pitch)	Max. number of terminals and sizes	Max. No. of cable gland entries and arrangement
PosiFit/Tx box Size 0	100 x 78	M16-M20	9 x 4mm ² mini terminals, 12 x 2.5mm ² terminals or 12 x 2.5mm ² mini terminals	CCG PosiFit 4 Way box 4 entries positioned orthogonal around the side walls with multiple gland entry sizes
PosiFit/Tx box Size 1	118 x 91	M16-M20	10 x 2.5mm ² , 8 x 4mm ² , 6 x 6mm ² , 5 x 10mm ² , 4 x 16mm ² terminals or 8 x 4mm ² mini terminals	CCG PosiFit 4 Way box 4 entries positioned orthogonal around the side walls with multiple gland entry sizes
PosiFit/Tx box Size 2	140 x 114	M16-M25	12 x 2.5mm ² , 10 x 4mm ² , 8 x 6mm ² , 7 x 10mm ² , 6 x 16mm ² , 3 x 35mm ² terminals or 10 x 4mm ² mini terminals	CCG PosiFit 4 Way box 4 entries positioned orthogonal around the side walls with multiple gland entry sizes
PosiFit/Tx box Size 3	203 x 142	M16-M32	20 x 2.5mm ² , 16 x 4mm ² , 12 x 6mm ² , 12 x 10mm ² , 10 x 16mm ² , 6 x 35mm ² , 5 x 70mm ² terminals or 14 x 4mm ² mini terminals	CCG PosiFit 4 Way box 4 entries positioned orthogonal around the side walls with multiple gland entry sizes
PosiFit/Tx box Size 4	298 x 186	M16-M40	46 x 2.5mm ² , 32 x 4mm ² , 28 x 6mm ² , 23 x 10mm ² , 18 x 16mm ² , 14 x 35mm ² , 10 x 70mm ² terminals or 35 x 4mm ² mini terminals	CCG PosiFit 4 Way box 4 entries positioned orthogonal around the side walls with multiple gland entry sizes
Bottom entry Angle box Size 1	118 x 98	M16-M20	8 x 4mm ² mini terminals	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
Bottom entry Angle box Size 2	140 x 105	M16-M25	12 x 2.5mm ² , 10 x 4mm ² , 8 x 6mm ² , 7 x 10mm ² terminals or 8 x 4mm ² mini terminals	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
Bottom entry Angle box Size 3	202 x 140	M16-M32	20 x 2.5 mm ² , 16 x 4mm ² , 12 x 6mm ² , 12 x 10mm ² , 10 x 16mm ² , 6 x 35mm ² terminals or 14 x 4mm ² mini terminals	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
3-way bottom entry box Size 1	128 x 112	M16-M20	8 x 4mm ² mini terminals	CCG Bottom entry box 3 entries positioned at the bottom of the box. One entry closest to the base of the box and two entries to the rim of the box
3-way bottom entry box Size 2	162 x 160	M16-M25	12 x 2.5 mm ² , 10 x 4mm ² , 8 x 6mm ² , 7 x 10mm ² , 6 x 16mm ² , 3 x 35mm ² terminals or 12 x 4mm ² mini terminals	CCG Bottom entry box 3 entries positioned at the bottom of the box. One entry closest to the base of the box and two entries to the rim of the box

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IECEX Certificate of Conformity Annex

Annex for Certificate No.: IECEx MSC 20.0003X Issue No:00

Type and size	Dimensions (Dia. X height)	Gland entry sizes (1.5mm pitch)	Max. number of terminals and sizes	Max. No. of cable gland entries and arrangement
Y box Size 0	102 x 81	M16-M20	6 x 4mm ² mini terminals	CCG PosiFit Y box – 2 entries positioned on the side of the box and 1 entry positioned on the opposite side of the box
Y box Size 1	118 x 111	M16-M20	10 x 2.5mm ² , 8 x 4mm ² , 6 x 6mm ² , 5 x 10mm ² or 8 x 4mm ² mini terminals	CCG PosiFit Y box – 2 entries positioned on the side of the box and 1 entry positioned on the opposite side of the box
Y box Size 2	138 x 123	M16-M25	12 x 2.5mm ² , 10 x 4mm ² , 8 x 6mm ² , 7 x 10mm ² , 6 x 16mm ² , 3 x 35mm ² terminals or 10 x 4mm ² mini terminals	CCG PosiFit Y box – 2 entries positioned on the side of the box and 1 entry positioned on the opposite side of the box
Y box Size 3	200 x 150	M16-M32	20 x 2.5mm ² , 16 x 4mm ² , 12 x 6mm ² , 12 x 10mm ² , 10 x 16mm ² , 6 x 35mm ² , 5 x 70mm ² terminals or 14 x 4mm ² mini terminals	CCG PosiFit Y box – 2 entries positioned on the side of the box and 1 entry positioned on the opposite side of the box
H box Size 1	118 x 94	M16-M20	10 x 2.5mm ² , 8 x 4mm ² , 6 x 6mm ² , 5 x 10mm ² , 4 x 16mm ² terminals or 8 x 4mm ² mini terminals	CCG PosiFit H box – 2 entries positioned on the side of the box and 2 entries positioned on the opposite side of the box
H box Size 2	138.5 x 100	M16-M25	12 x 2.5mm ² , 10 x 4mm ² , 8 x 6mm ² , 7 x 10mm ² , 6 x 16mm ² , 3 x 35mm ² terminals or 10 x 4mm ² mini terminals	CCG PosiFit H box – 2 entries positioned on the side of the box and 2 entries positioned on the opposite side of the box
ST Box Strut box Size 1	100 x 96	M16-M20	4 x 2.5mm ² or 6 x 4mm ² mini terminals	CCG Posi ST Box strut box – 2 entries positioned on opposite sides with multiple gland entry sizes.
Angle Box Size 2	121 x 100	M20-M25	12 x 2.5mm ² , 10 x 4mm ² , 8 x 6mm ² , 7 x 10mm ² , 6 x 16mm ² , 3 x 35mm ² terminals or 10 x 4mm ² mini terminals	CCG Angle Box - 3 entries positioned at the bottom of the box.
Multi Box PosiFit Assembly B	(Rectangular) 196x132x109	See entry amount and arrangement	20 x 25mm ² , 16 x 4mm ² , 12 x 6mm ² , 12 x 10mm ² , 10 x 16mm ² , 6 x 35mm ² , 6 x 50mm ² , 5 x 70mm ² terminals or 14 x 4mm ² mini terminals.	The entries could vary, with the A/C of the gland being the min distance between the entries.
Multi Box PosiFit Assembly C	(Rectangular) 278x200x117	See entry amount and arrangement	46 x 2.5mm ² , 32 x 4mm ² , 28 x 6mm ² , 23 x 10mm ² , 14 x 16mm ² , 6 x 35mm ² , 12 x 50mm ² , 10 x 70mm ² , 8 x 95 mm ² /120 mm ² terminals or 35 x 4mm ² mini terminals.	The entries could vary, with the A/C of the gland being the min distance between the entries.

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Conditions of Manufacture

A copy of the certificate and instructions shall be supplied / made available to the end user.

Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment:

- i. For enclosures that do not utilise locking screws on the cover / lid, only the CCG tool supplied shall be used for opening and closing.
- ii. Under certain extreme circumstances, the polycarbonate (clear) cover incorporated in the enclosure may generate an ignition-capable level of electrostatic charge. Therefore, the enclosure shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.
- iii. When fitted with the polycarbonate (clear) cover, the enclosure shall be installed to prevent direct UV exposure of internal components.
- iv. Suitably certified cable glands and/or plugs shall be used in the enclosures threaded entries.
- v. The PosiFit Junction boxes shall only be used with the following terminals. Specific installation conditions as set by the terminal manufacturer / terminal certification, shall be considered. This includes considering the use of the applicable partitions and end plates for the terminal blocks, conductor installation, tightening down of terminal block screws etc.

Manufacturer	Certificate No.	Ex coding	Type	Size mm ²
Weidmuller	IECEX TUR 18.0024U	Ex e II	AKZ4 and AKE4	4
Weidmuller	IECEX TUR 18.0024U	Ex e II	AKZ 2.5	2.5
Weidmuller	IECEX ULD 14.0005U	Ex eb IIC Gb	WDU & WPE 2.5, 4, 6, 10, 16, 35 and 70N	2.5, 4, 6, 10, 35 and 70

- vi. Terminal blocks shall only be utilised on the applicable rail and shall allow enough space to make connections and to close the cover / lid.
- vii. The creepage and clearance between terminal blocks and from the terminal block to any earthed / bonded metallic part shall comply with the IEC 60079-7 / IEC 60079-15 requirements for the applicable voltage of the terminal blocks.
- viii. The current per circuit in the junction box is limited by the size of the conductor and shall not exceed the following:

Max. current		Conductor / terminal block size
<55°C ambient	<40°C ambient	
8.34 A	11.90 A	2.5 mm ²
11.12 A	15.86 A	4 mm ²
14.25 A	20.33 A	6 mm ²
19.81 A	28.26 A	10 mm ²
26.42 A	37.68 A	16 mm ²
43.46 A	61.98 A	35 mm ²
52.50 A	74.88 A	50 mm ²
66.75 A	95.21 A	70 mm ²
82.75 A	----	95 mm ²
94.57 A	----	120 mm ²

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- ix. The equipment/components have been subjected to impact tests equating to low risk of mechanical danger for Group I equipment in accordance with IEC 60079-0 clause 26.4.2. When the equipment/components are used in Group I explosive atmospheres, the user shall ensure that they are additionally protected or installed in an area where they are at low risk of mechanical impact.
- x. The equipment/components have not been subjected to the tests for resistance to chemical agents for Group I equipment in accordance with IEC 60079-0 clause 26.11. The user shall ensure that the equipment is not exposed to oils, greases, hydraulic fluids or any other chemical agents that may damage the equipment or invalidate the type of protection.

Drawing list pertaining to this Certificate:

Manufacturer's Documents				
Drawing/Document Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
10050B-10050C-AU	1	"X" Multi Box Posifit Assembly	---	2020-04-06
10050-M-X-AU	1	"X" Posi Multi Box X-Marking	---	2020-04-06
100300-M-X-AU	1	"X" Posi Box X-Marking	---	2020-04-06
100301-SF-100304-SF-AU	1	"X" ALL Type CCG Screw Fit Box Assembly	---	2020-04-06
065001-S M	1	Strut Box Material	1	2019-11-07
100201 – 100202-M	1	3 Way Bottom Entry Box- Material	1	2019-11-07
1003-0 – 100304	1	PosiFit / TX Box Ex	1	2019-11-07
1003_0 _ 100304 M	1	PosiFit / TX Box Ex - Material	1	2019-11-07
100701-ALID	1	Adapta Lid Cover Assembly	1	2019-11-07
1009-0 - 100903	1	Posifit Y Box Ex	1	2019-11-07
100921 – M – 100923 – M	1	Bottom Entry Angle Box Ex- Material	1	2019-11-07
100922 – M	1	Angle Box Ex – Material	1	2019-11-07

Reference Documents				
Drawing/Document Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
-----	4	Posi Fit JUNCTION BOX - Ex eb I, Ex eb IIC, Ex ec IIC, Ex tc IIIC, IP66/68 for Hazardous Area Installations	----	-----
-----	2	Angle Box Ex eb I, Ex eb IIC, Ex ec IIC, Ex t IIIC, IP66/68 for Hazardous Area installations	----	-----
-----	2	Screw Fit 4-WAYJUNCTION BOX - Ex eb I, Ex eb IIC, Ex ec IIC, Ex tc IIIC, IP66/68 for Hazardous Area installations	----	-----

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Reference Documents				
Drawing/Document Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
-----	2	3-Way Bottom Entry JUNCTION BOX Ex eb I, Ex eb IIC, Ex ec IIC, Ex tc IIIC for Hazardous Area installations	----	-----
-----	2	Bottom Entry Angle Box Ex eb I, Ex eb IIC, Ex ec IIC, Ex tc IIIC, IP66/68 for Hazardous Area installations	----	-----
-----	2	Multi Box Ex eb I, Ex eb IIC, Ex ec IIC, Ex tc IIIC, IP66/68 for Hazardous Area installations	----	-----

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 NSW GOVERNMENT	Planning, Industry & Environment	Mine Safety Technology Centre
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