



# 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](http://www.iecex.com)

Certificate No.: **IECEX CML 15.0072X** Page 1 of 4 Certificate history:  
Status: **Current** Issue No: 3 [Issue 2 \(2017-08-29\)](#)  
Date of Issue: 2020-03-20 [Issue 1 \(2016-09-16\)](#)  
[Issue 0 \(2015-10-14\)](#)  
Applicant: **CCG Cable Terminations (Pty) Ltd**  
33-37 Forge Road  
Spartan Industrial Area  
Kempton Park, 1619  
**South Africa**  
Equipment: **Posi Fit 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:

**R C Marshall**

Position:

**Certification Officer**

Signature:  
(for printed version)

Date:

2020-03-20

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Certificate issued by:

**Eurofins E&E CML Limited**  
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United Kingdom





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Page 2 of 4

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Manufacturer: **CCG Cable Terminations (Pty) Ltd**  
33-37 Forge Road  
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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:

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

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

[GB/CML/ExTR17.0138/00](#)

Quality Assessment Report:

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



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Certificate No.: **IECEx CML 15.0072X**

Page 3 of 4

Date of issue: 2020-03-20

Issue No: 3

**EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

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

Refer to Annex for full description and conditions of manufacture.

**SPECIFIC CONDITIONS OF USE: YES as shown below:**

Refer to Annex for specific conditions of use.



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Page 4 of 4

Date of issue: 2020-03-20

Issue No: 3

## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

### **Issue 1**

This issue introduced the following change:

1. Addition of IP rating to certificate marking.

### **Issue 2**

This issue introduced the following changes:

1. To allow WDU and WPE feed through terminals to be fitted, covered under IECEx ULD 14.0005U.
2. To allow an alternative 4 screw lid arrangement.

### **Issue 3**

This issue introduced the following changes:

1. Addition of a new junction box model; Multi Box Posi Fit Assembly
2. Assessment of the Posi Fit Junction Boxes for increased safety Group I explosive atmospheres.
3. Inclusion of an additional O-ring material option
4. Update of standards to the latest edition

### **Annex:**

[IECEX CML 15.0072X Iss. 3 Certificate Annex\\_1.pdf](#)

**Annexe to:** IECEx CML 15.0072X Issue 3  
**Applicant:** CCG Cable Terminations (Pty) Ltd  
**Apparatus:** Posi Fit Junction Boxes



## Description

The Posi Fit Junction boxes comprise of a non-metallic Posi Fit enclosure component certified under IECEx CML 15.0072X that is fitted with terminals, as detailed in table 1 below:

Type and size	Dimensions (Dia. x height)	Gland entry sizes (1.5mm pitch)	Max. amount of terminals and size	Max. No. of cable gland entries and arrangement
Posi Fit / Tx box Size 0	100 x 78	M16-M20	9 x 4 mm <sup>2</sup> mini terminals, 12 x 2.5 mm <sup>2</sup> terminals or 12 x 2.5mm <sup>2</sup> mini terminals	CCG Posi Fit 4 Way box 4 entries positioned orthogonal around the side walls with multiple gland entry sizes
Posi Fit / Tx box Size 1	118 x 91	M16-M20	10 x 2.5 mm <sup>2</sup> , 8 x 4mm <sup>2</sup> , 6 x 6 mm <sup>2</sup> , 5 x 10 mm <sup>2</sup> , 4 x 16 mm <sup>2</sup> terminals or 8 x 4 mm <sup>2</sup> mini terminals	CCG Posi Fit 4 Way box 4 entries positioned orthogonal around the side walls with multiple gland entry sizes
Posi Fit / Tx box Size 2	140 x 114	M16-M25	12 x 2.5 mm <sup>2</sup> , 10 x 4mm <sup>2</sup> , 8 x 6 mm <sup>2</sup> , 7 x 10 mm <sup>2</sup> , 6 x 16 mm <sup>2</sup> , 3 x 35 mm <sup>2</sup> terminals or 10 x 4 mm <sup>2</sup> mini terminals	CCG Posi Fit 4 Way box 4 entries positioned orthogonal around the side walls with multiple gland entry sizes
Posi Fit / Tx box Size 3	203 x 142	M16-M32	20 x 2.5 mm <sup>2</sup> , 16 x 4mm <sup>2</sup> , 12 x 6 mm <sup>2</sup> , 12 x 10 mm <sup>2</sup> , 10 x 16 mm <sup>2</sup> , 6 x 35 mm <sup>2</sup> , 5 x 70 mm <sup>2</sup> terminals or 14 x 4 mm <sup>2</sup> mini terminals	CCG Posi Fit 4 Way box 4 entries positioned orthogonal around the side walls with multiple gland entry sizes
Posi Fit / Tx box Size 4	298 x 186	M16-M40	46 x 2.5 mm <sup>2</sup> , 32 x 4mm <sup>2</sup> , 28 x 6 mm <sup>2</sup> , 23 x 10 mm <sup>2</sup> , 18 x 16 mm <sup>2</sup> , 14 x 35 mm <sup>2</sup> , 10 x 70 mm <sup>2</sup> terminals or 35 x 4 mm <sup>2</sup> mini terminals	CCG Posi Fit 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 4 mm <sup>2</sup> 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

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Type and size	Dimensions (Dia. x height)	Gland entry sizes (1.5mm pitch)	Max. amount of terminals and size	Max. No. of cable gland entries and arrangement
Bottom entry angle box Size 2	140 x 105	M16-M25	12 x 2.5 mm <sup>2</sup> , 10 x 4mm <sup>2</sup> , 8 x 6 mm <sup>2</sup> , 7 x 10 mm <sup>2</sup> terminals or 8 x 4 mm <sup>2</sup> 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 <sup>2</sup> , 16 x 4mm <sup>2</sup> , 12 x 6 mm <sup>2</sup> , 12 x 10 mm <sup>2</sup> , 10 x 16 mm <sup>2</sup> , 6 x 35 mm <sup>2</sup> terminals or 14 x 4 mm <sup>2</sup> 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 4 mm <sup>2</sup> 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 <sup>2</sup> , 10 x 4mm <sup>2</sup> , 8 x 6 mm <sup>2</sup> , 7 x 10 mm <sup>2</sup> , 6 x 16 mm <sup>2</sup> , 3 x 35 mm <sup>2</sup> terminals or 12 x 4 mm <sup>2</sup> 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
Y box Size 0	102 x 81	M16-M20	6 x 4 mm <sup>2</sup> mini terminals	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
Y box Size 1	118 x 111	M16-M20	10 x 2.5 mm <sup>2</sup> , 8 x 4mm <sup>2</sup> , 6 x 6 mm <sup>2</sup> , 5 x 10 mm <sup>2</sup> or 8 x 4 mm <sup>2</sup> mini terminals	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

Type and size	Dimensions (Dia. x height)	Gland entry sizes (1.5mm pitch)	Max. amount of terminals and size	Max. No. of cable gland entries and arrangement
Y box Size 2	138 x 123	M16-M25	12 x 2.5 mm <sup>2</sup> , 10 x 4mm <sup>2</sup> , 8 x 6 mm <sup>2</sup> , 7 x 10 mm <sup>2</sup> , 6 x 16 mm <sup>2</sup> , 3 x 35 mm <sup>2</sup> terminals or 10 x 4 mm <sup>2</sup> mini terminals	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
Y box Size 3	200 x 150	M16-M32	20 x 2.5 mm <sup>2</sup> , 16 x 4mm <sup>2</sup> , 12 x 6 mm <sup>2</sup> , 12 x 10 mm <sup>2</sup> , 10 x 16 mm <sup>2</sup> , 6 x 35 mm <sup>2</sup> , 5 x 70 mm <sup>2</sup> terminals or 14 x 4 mm <sup>2</sup> mini terminals	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
H box Size 1	118 x 94	M16-M20	10 x 2.5 mm <sup>2</sup> , 8 x 4mm <sup>2</sup> , 6 x 6 mm <sup>2</sup> , 5 x 10 mm <sup>2</sup> , 4 x 16 mm <sup>2</sup> terminals or 8 x 4 mm <sup>2</sup> mini terminals	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
H box Size 2	138.5 x 100	M16-M25	12 x 2.5 mm <sup>2</sup> , 10 x 4mm <sup>2</sup> , 8 x 6 mm <sup>2</sup> , 7 x 10 mm <sup>2</sup> , 6 x 16 mm <sup>2</sup> , 3 x 35 mm <sup>2</sup> terminals or 10 x 4 mm <sup>2</sup> mini terminals	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
ST Box Strut box Size 1	100 x 96	M16-M20	4 x 2.5 mm <sup>2</sup> or 6 x 4 mm <sup>2</sup> 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 2.5 mm <sup>2</sup> , 10 x 4mm <sup>2</sup> , 8 x 6 mm <sup>2</sup> , 7 x 10 mm <sup>2</sup> , 6 x 16 mm <sup>2</sup> , 3 x 35 mm <sup>2</sup> terminals or 10 x 4 mm <sup>2</sup> mini terminals	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	20 x 2.5mm <sup>2</sup> , 16 x 4mm <sup>2</sup> , 12 x 6mm <sup>2</sup> , 12 x 10mm <sup>2</sup> , 10 x 16 mm <sup>2</sup> , 6 x 35mm <sup>2</sup> , 6 x 50mm <sup>2</sup> , 5 x 70mm <sup>2</sup> terminals or 14 x 4mm <sup>2</sup> mini terminals.	The entries could vary, with the A/C of the gland being the min distance between the entries.

Type and size	Dimensions (Dia. x height)	Gland entry sizes (1.5mm pitch)	Max. amount of terminals and size	Max. No. of cable gland entries and arrangement
Multi Box PosiFit Assembly C	(Rectangular) 278 x 200 x 117	See entry amount and arrangement	46 x 2.5mm <sup>2</sup> , 32 x 4mm <sup>2</sup> , 28 x 6mm <sup>2</sup> , 23 x 10mm <sup>2</sup> , 14 x 16 mm <sup>2</sup> , 6 x 35mm <sup>2</sup> , 12 x 50mm <sup>2</sup> , 10 x 70mm <sup>2</sup> , 8 x 95/120mm <sup>2</sup> terminals or 35 x 4mm <sup>2</sup> mini terminals.	The entries could vary, with the A/C of the gland being the min distance between the entries.





## Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. The Junction boxes covered by this certificate incorporate previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices. The manufacturer shall inform CML of any modifications of the devices that impinge upon the explosion safety design of their products.
- ii. 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 Posi Fit 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
Weidmuller	IECEX TUR 18.0024U	Ex e II	AKZ4 and AKE4	4 mm <sup>2</sup>
Weidmuller	IECEX TUR 18.0024U	Ex e II	AKZ 2.5	2.5 mm <sup>2</sup>
Weidmuller	IECEX ULD 14.0005U	Ex eb IIC Gb	WDU & WPE 2.5, 4, 6, 10, 16, 35 and 70N	2.5 mm <sup>2</sup> , 4 mm <sup>2</sup> , 6 mm <sup>2</sup> , 10 mm <sup>2</sup> , 35 mm <sup>2</sup> and 70 mm <sup>2</sup>

- vi. Terminal blocks shall only be utilised on the applicable rail and shall allow sufficient 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 <sup>2</sup>
11.12 A	15.86 A	4 mm <sup>2</sup>
14.25 A	20.33 A	6 mm <sup>2</sup>
19.81 A	28.26 A	10 mm <sup>2</sup>
26.42 A	37.68 A	16 mm <sup>2</sup>
43.46 A	61.98 A	35 mm <sup>2</sup>
52.50 A	74.88 A	50 mm <sup>2</sup>
66.75 A	95.21 A	70 mm <sup>2</sup>
82.75 A	-	95 mm <sup>2</sup>
94.57 A	-	120 mm <sup>2</sup>

- 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.