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INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification Scheme for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx ICS 15.0005X Issue No: 1 Certificate history:

Issue No. 1 (2018-05-30) Status: Current

Roelof Viljoen

2018-05-30

Issue No. 0 (2015-05-22)

Date of Issue: 2018-05-30

CCG Cable Terminations Applicant:

> 33 - 37 Forge road, Spartan Industrial Area, Kempton Park, 1619

South Africa

Equipment: Flameproof Enclosure: No 1 CCG Ex d Box and No 1 CCG-SPG Ex d Box

Optional accessory:

Type of Protection: Ex d, Ex tb

Marking:

Ex db I Mb Ex db IIC T6 Gb Ex tb IIIC T85°C Db

IP 66/68

-20°C ≤ Tamb ≤ 55°C

and

Ex db I Mb Ex db IIA T6 Gb Ex db IIB T6 Gb Ex db IIC T6 Gb Ex tb IIIC T85°C Db

IP 66/68

-20°C ≤ Tamb ≤ 55°C

Approved for issue on behalf of the IECEx

Certification Body:

Position: Certification Authority

Signature:

Date:

(for printed version)

- 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 the Official IECEx Website.

Certificate issued by:



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South Africa Mining and Surface Certification (MASC)
45 Jurg Street
Lelyta Park Unit 5,
Hennopspark Ext 87, Centurion, 0157, Gauteng
South Africa





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Manufacturer: CCG Cable Terminations

33 - 37 Forge road,Spartan Industrial Area,

Kempton Park,

1619 South Africa

Additional Manufacturing location(s):

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 apparatus 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 : 2011 Explosive atmospheres - Part 0: General requirements

Edition:6.0

IEC 60079-1: 2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:7.0

IEC 60079-31 : 2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

This Certificate **does not** indicate compliance with electrical 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 Report:

ZA/ICS/ExTR15.0005/00 ZA/ICS/ExTR18.0004/00

Quality Assessment Report:

ZA/ICS/QAR14.0001/00 ZA/ICS/QAR14.0001/03



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

No 1 CCG Ex d Box:

The cast iron cylindrical junction box enclosure (approximately 154mm diameter and a height of 81 mm) consists of two parts, a base and a cover with a flanged joint. Four M6 x 20 LG Hex Socket Head cap screws (Stainless Steel, A2-70) are used to fasten the cover to the base.

The No 1-SPG Ex d box:

The cast iron cylindrical junction box enclosure consists of two parts, a base and a cover with a spigot joint. Four M6 x 20 LG Hex Socket Head cap screws (Stainless Steel, A2-70) are used to fasten the cover to the base.

Refer to the Annex of the Certificate for a full description.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to the Annex of the Certificate for Specific Conditions of use.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

- The No 1 CCG Ex d box has been updated as follows:
 - Updated marking
 - Some minor changes / updates on drawings.
 - o Minor updates on conditions of certification as for the No 1 CCG-SPG Ex d box.
 - Update to latest standard for IEC 60079-1: 2014.
- Additional No 1-SPG Ex d Box added.

Annex:

Annex to Certificate 15.0005X Issue 1.pdf



IECEx Certificate of Conformity – Annex



Certificate No.: IECEx ICS 15.0005X Issue: 1 Date: 2018-05-30

Electrical Apparatus: Flameproof enclosure:

No 1 CCG Ex d Box and No 1 CCG-SPG Ex d Box

1. EQUIPMENT

No 1 CCG Ex d Box:

The cast iron cylindrical junction box enclosure (approximately 154mm diameter and a height of 81 mm) consists of two parts, a base and a cover with a flanged joint. Four M6 x 20 LG Hex Socket Head cap screws (Stainless Steel, A2-70) are used to fasten the cover to the base.

The enclosure with internal volume 450ml has optionally four M20 / M25 x 1.5 (6H) gland entries equally spaced around the circumference of the base.

The junction box enclosures may be fitted with terminal blocks on a single rail or conductors may be internally connected by means of end connectors / insulated terminations.

The No 1 CCG-SPG Ex d box:

The cast iron cylindrical junction box enclosure consists of two parts, a base and a cover with a spigot joint. Four M6 x 20 LG Hex Socket Head cap screws (Stainless Steel, A2-70) are used to fasten the cover to the base.

The enclosure with internal volume of approximately 500ml has optionally four M20 / M25 x 1.5 (6H) gland entries equally spaced around the circumference of the base.

The junction box enclosures may be fitted with terminal blocks on a single rail or conductors may be internally connected by means of end connectors / insulated terminations.

2. CONDITIONS OF CERTIFICATION

Conditions of Certification / Manufacture:

- A copy of the certificate must be made available to the end user.
- The equipment passed a four times hydraulic overpressure test. Therefore, no routine pressure testing is required.

Special conditions of use:

- The cover may only be secured with fasteners as in the description.
- Some flamepaths are more restrictive than the minimum requirements in the standard. Information w.r.t. the flamepaths must be obtained from the manufacturer for consideration of maintenance / repair.
- Suitably certified glands / adaptors / plugs shall be used to maintain the flameproof / Ex tb (including the IP rating) characteristics as applicable.
- The nominal current (max continuous circuit current) per circuit in the junction box is limited by the size of the conductor and terminal block / connector ratings. The lower of the values in the table below and the maximum rated current of the terminal block / connector shall be used.

Conductor size	Current limitation
1.5 mm ²	15 A
2.5 mm ²	17 A
4 mm ²	20 A
6 mm ²	25 A