



# Mining And Surface Certification Pty (Ltd)

2015/021934/07



**Certificate No:** MASC MS/15-1153X  
**Issue:** 16 September 2015  
**Expire:** 16 September 2025  
**Page:** 1 of 3

## APPROVAL CERTIFICATE

IN TERMS OF REGULATION 21.17.2 OF THE MINERALS ACT (INCORPORATION THE MINE HEALTH AND SAFETY ACT) AND REGULATION 9 (1) OF THE ELECTRICAL MACHINERY REGULATIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT

Ex – Type Examination

Certificate number: MASC MS/15-1153X  
Equipment: Insulated adaptors  
Serial No: (See “Conditions of Certification”)  
Applicant: CCG Cable Terminations  
Address: 33-37 Forge Road,  
Spartan Industrial Area,  
Kempton Park,  
1619, South Africa

Manufacturer: CCG Cable Terminations  
Address: 33-37 Forge Road,  
Spartan Industrial Area,  
Kempton Park,  
1619, South Africa

### DESCRIPTION:

The range of insulated adaptors are manufactured from a hollow cylindrical non-metallic insulated body with two metallic parts on opposite ends for male and female metric thread engagement with typically an enclosure and gland.

The insulated adaptors provides electrical insulation form one end to the other. The adaptor thread sizes are similar on both ends e.g. M16 x 1.5 to M16 x 1.5. the following sizes exist:  
M16 / M20 / M25 / M32 / M40 / M50 / M63 / M75 / M80 / M90 / M100 (All 1.5 or 2.0 pitch, 6H / 6g tolerance)

A sealing gasket is utilized on the male threaded part to maintain the IP rating.

### MARKING:

The following marking has been added to the equipment:

CCG AM016M016E- INS  
IECEX ICS 15.0012X  
~ MASC MS/15-1153X  
Ex d IIC Gb  
Ex e IIC Gb  
Ex tb IIIC Db  
Ex nR IIC Gc  
IP 65/66/68 (2m)

LEGEND FOR PRODUCT CODE :- AM016M016E - INS  
A - ADAPTOR  
M - METRIC  
016 - M16 MALE THREAD  
M - METRIC  
016 - M16 FEMALE THREAD  
E - Ex COMPONENT

This document may only be reproduced in full.  
This certificate is not transferable and remains the property of the issuing body.  
This document will not be supported by MASC for certification purposes outside the borders of South Africa.

# IA CERTIFICATE NUMBER: MASC MS/15-1153X

## Insulated Adaptors

Page 2 of 3

### COMPLIANCE:

The equipment as described above and in IECEx Test report ZA/ICS/ExTR15.0006/00 is hereby certified "Explosion Protected" Ex d IIC Gb, Ex e IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db, IP65/66/67/68 (2m cont.) and is suitable for use in hazardous locations as stated below and as tested, assessed and inspected in accordance with the relevant requirements of SANS / IEC Standards:

The evaluation was conducted according to the requirements of:

- i) IEC 60079-0:2011 (6th ed) Electrical equipment for explosive gas atmospheres Part 0: General requirements
- ii) IEC 60079-1:2014 (7th ed) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
- iii) IEC 60079-7:2006 (4th ed) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
- iv) IEC 60079-15:2010 (4th ed) Explosive atmospheres - Part 15: Equipment protection by type of protection 'n'
- v) IEC 60079-31:2013 (ed 2.0) Explosive atmospheres – Part 31 : Equipment dust ignition protection by enclosure "t"
- vi) IEC 60529: 2013 (ed 2.2) Degrees of protection provided by enclosures IP Code

Location	Zone 1 & 2 Zone 21 & 22	Gas / Vapour Surface / Mining and Coal dust Mining Dust Surface
Hazard Frequency	---	Intermittent as could occur under normal operating conditions in hazardous area
Environment	Group IIC Group IIIC	Propane to Hydrogen / Acetylene Dust (Metallic & non-metallic)
Service Temperature	-20°C to 95°C	

***The use of apparatus in hazardous locations is subject to the following provisions as applicable, which shall be adhered to:***

- i) SANS 10086 requirements;
- ii) Any conditions mentioned in the above report;
- iii) Codes of Practice enforced in terms of Regulations 21.17.2 of Minerals Act, by Chief Inspector of Mines;
- iv) Any restrictions and conditions enforced by Chief Inspectors of Mines, Principal Inspector (Group I equipment) of Chief Inspector of Factories (Group II equipment);
- v) Any relevant requirements of the MHS Act or the OHS Act.

### CONDITIONS OF MANUFACTURE

- None

### CONDITIONS OF CERTIFICATION:

- The adaptors shall not be used in conjunction with a blanking device. In addition, only one adaptor shall be installed in any one cable entry.
- The insulated adaptors shall not be used in enclosures where the temperature, at the point of mounting, is outside the range of -20°C to +95°C.

This document may only be reproduced in full.  
This certificate is not transferable and remains the property of the issuing body.  
This document will not be supported by MASC for certification purposes outside the borders of South Africa.

**IA CERTIFICATE NUMBER: MASC MS/15-1153X**  
**Insulated Adaptors**

Page 3 of 3

- The sealing arrangement of the gland into the adaptor must conform to the gland certification requirements / IP rating / restricted breathing requirements (as applicable).
- The tightening torque for the glands installed in the insulated adaptors may not exceed:

Thread Size (mm)	Tightening torque (Nm)
16	40
20	40
25	55
32	65
40	80
50	100
63	115
75	140
80	160
90	180
100	200

**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.) Alternative annual review of QAR by MASC required.



**R Viljoen**  
**TECHNICAL SPECIALIST**

**Mining And Surface Certification**

*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 is representative and accurately performed, and that a report is accurate in the quoted results and conclusions drawn from the test / assessment, MASC or its members/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 issued pursuant to a test / assessment.*

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

*This document is only for use and application in South Africa. It is issued based on National interpretations and accepted practises.*

This document may only be reproduced in full.  
This certificate is not transferable and remains the property of the issuing body.  
This document will not be supported by MASC for certification purposes outside the borders of South Africa.