



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx BAS 15.0140X Issue No: 1 Certificate history:  
Status: **Current** Page 1 of 5 [Issue No. 1 \(2016-11-16\)](#)  
Date of Issue: **2016-11-16** [Issue No. 0 \(2016-04-12\)](#)

Applicant: **Eaton Electric Limited**  
Great Marlings  
Butterfield  
Luton  
Bedfordshire  
LU2 8DL  
**United Kingdom**

Equipment: **MTL4582B Resistance Isolator**  
*Optional accessory:*

Type of Protection: **Type of Protection 'n'**

Marking: **Ex nA IIC T4 Gc (-20°C ≤ Ta ≤ +60°C)**

Approved for issue on behalf of the IECEx  
Certification Body:

R.S. Sinclair

Position:

Technical Manager

Signature:  
(for printed version)

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 the [Official IECEx Website](#).

Certificate issued by:

**SGS Baseefa Limited**  
Rockhead Business Park  
Staden Lane  
Buxton, Derbyshire, SK17 9RZ  
United Kingdom





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Manufacturer: **Eaton Electric Limited**  
Great Marlings  
Butterfield  
Luton  
Bedfordshire  
LU2 8DL  
**United Kingdom**

Additional Manufacturing location(s):

**MTL Instruments Pvt Limited**  
No 3 Old Mahabalipuram Road  
Sholinganallur  
Chennai 600119  
India

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 electrical 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 60079-15 : 2010** Explosive atmospheres - Part 15: Equipment protection by type of protection "n"  
Edition:4

*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:

[GB/BAS/ExTR15.0301/00](#) [GB/BAS/ExTR16.0241/00](#)

Quality Assessment Report:

[GB/BAS/QAR06.0022/06](#) [GB/BAS/QAR07.0017/06](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The MTL4582B Resistance Isolator is designed to restrict the transfer of energy from unspecified equipment located in either the non-hazardous area or zone 2 hazardous area to a Resistance Temperature Device (RTD) or other resistance located in the hazardous area by limitation of voltage and current. A transformer and opto-isolator provide galvanic isolation between the hazardous and non-hazardous area circuitry.

The MTL4582B Resistance Isolator is designed for the connection to a 2-wire, 3-wire or 4-wire RTD or other resistance situated in the hazardous area. The equipment repeats the resistance on the non-hazardous area output terminals for connection to a monitoring system located in either zone 2 hazardous or non-hazardous areas.

The equipment comprises an isolating transformer, opto-isolator, duplicated zener diodes and current limiting resistors to provide voltage and current limitation. The above, together with other electronic components are mounted on a single printed circuit board (PCB) and housed in a moulded plastic enclosure. Polarised plugs and sockets are provided for hazardous and non-hazardous area connections. A jack socket is provided for connection of a suitably certified data terminal for programming the equipment. An LED is fitted to provide power on indication.

This certificate covers the installation of the MTL4582B (IECEx BAS 15.0138) in a Zone 2 location.

See additional sheet for electrical parameters.

### CONDITIONS OF CERTIFICATION: YES as shown below:

- 1) The equipment must be installed in an area of not more than Pollution Degree 2 as defined in IEC 60664-1, and in an enclosure that provides a degree of protection of at least IP54 and meets the relevant requirements of IEC 60079-0 and IEC 60079-15.
- 2) All connections to the equipment must not be inserted or removed unless either the area in which the equipment is installed is known to be non-hazardous, or the circuit to which it is connected has been de-energised.
- 3) Any backplane used does not form part of this certificate and shall be separately certified for use in Zone 2.
- 4) The external backplane must be fitted with two retention clips type MTL 012-533 that allow the equipment to be 'clipped' to the backplane. The retention clips shall always be in place when the equipment is energised.



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## EQUIPMENT (continued):

### MTL4582B Input / Output Parameters

#### Power Supply Input - Terminals 13 & 14

Supply Voltage Range = 20 – 35V d.c.

#### RTD / Resistance Output – Terminals 8 & 11 and 9 & 12

Maximum 5mA excitation current into 10Ω to 400Ω resistance (nominal)

#### RTD / Resistance Inputs

Terminals 1, 3, 4 & 5

Maximum output voltage = 6.51V d.c.

Terminals 1, 3 & 4

Maximum output voltage = 6.51Vd.c.

Terminals 1 & 3

Maximum output voltage = 1.2V d.c.

Maximum input voltage = 5V d.c.

Or

The maximum values for the intrinsically safe circuits have to be taken from IECEx Certificate No. IECEx BAS 15.0138.



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

### Variation 1.1

To permit the manufacturer's name to be changed on the certificate and equipment marking. No other changes are made to the equipment design.

ExTR: GB/BAS/ExTR16.0241/00

File Reference: 16/0371