



# 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 14.0084X** issue No.:2

Status: **Current**

Date of Issue: **2016-11-16** Page 1 of 4

Certificate history:  
Issue No. 2 (2016-11-16)  
Issue No. 1 (2014-11-13)  
Issue No. 0 (2014-7-18)

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

Equipment: **MTL5573 Temperature Converter**  
*Optional accessory:*

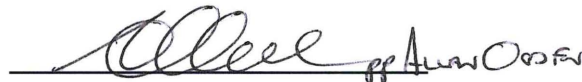
Type of Protection: **Type of Protection 'n'**

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)

  
17 NOVEMBER 2016

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

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/ExTR14.0165/00

GB/BAS/ExTR14.0323/00

GB/BAS/ExTR16.0242/00

#### 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 MTL5573 Temperature Converter is designed to restrict the transfer of energy from unspecified non-hazardous area or Zone 2 mounted equipment to either thermocouples or resistance temperature detectors (RTD's) located in the hazardous area (Zones 0, 1 or 2) by limitation of voltage and current. A transformer and opto-isolator provide galvanic isolation between the hazardous and non-hazardous area circuitry.

The MTL5573 Temperature Converter is designed for connection to thermocouples or two, three or four wire RTD's situated in the hazardous area. The apparatus converts the low level d.c. signal from the sensor mounted in the hazardous area into a 4/20mA current for driving a load in either the non-hazardous area or Zone 2 hazardous area. An optional cold junction compensation (CJC) plug can be fitted to the hazardous area connection which alter the internal connections and affects the output parameters.

The equipment comprises an isolating transformer, an opto-isolator, duplicated zener diode chains and current limiting resistors to provide voltage and current limitation. The above, together with other electronic components are mounted on a 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 the connection of a suitably certified data terminal for programming the equipment during installation and maintenance.

This certificate covers the installation of the MTL5573 (IECEx BAS 14.0082) in a Zone 2 location.

See Certificate Annex for electrical parameters.

### SPECIFIC CONDITIONS OF USE: 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.



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

### Variation 2.1

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/ExTR16.0242/00

File Reference: 16/0371



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



ANNEX to IECEx BAS 14.0084X

Issue No. 0

Date: 2014/07/18

**MTL5573 Temperature Converter**

**Input / Output Parameters**

**Supply Circuit – Terminals 13 & 14**

Supply Voltage Range = 20 – 35V d.c.

**Thermocouple and 2-, 3- & 4-Wire RTD's Inputs**

Terminals 1 to 6 (forming part of the same circuit)

Maximum output voltage = 6.6V

Terminals 1 & 3 (Without the Cold Junction Compensation (CJC) Plug fitted)

Maximum output voltage = 1.1V

Terminals 1, 2 & 3 (with or without CJC plug fitted)

Maximum Output Voltage = 6.6V

Or

The maximum values for the intrinsically safe circuits have to be taken from IECEx Certificate No. IECEx BAS 14.0082.

**Signal Outputs – Terminals 11 & 12**

Nominal Output of 4-20mA into a maximum load of 600Ω.