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

Certificate No.:	IECEx BAS 15.0058X issue No.:1	Certificate history: Issue No. 1 (2016-11-16) Issue No. 0 (2015-6-18)
Status:	**Current**	
Date of Issue:	**2016-11-16**	Page 1 of 4

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

Equipment: **MTL4545Y Isolating Driver, 4/20mA for Smart I/P Converters**
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)

pp Alan Ocpen

Date: 17 November 2016

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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Certificate No.: IECEx BAS 15.0058X

Date of Issue: **2016-11-16**

Issue No.: **1**

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 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-15 : 2010 Edition: 4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"

*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/ExTR15.0119/00
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 MTL4545Y Isolating Driver, 4/20mA for Smart I/P Converters accepts a 4/20mA signal from a controller located in either the non-hazardous area or zone 2 to drive a load of up to 800Ω in the hazardous area. It permits bi-directional transmission of a digital signal to and from an operator station or hand-held communicator. The equipment restricts the transfer of energy from unspecified non-hazardous area or zone 2 mounted equipment to a 4/20mA current/pressure converter located in the hazardous area by limitation of voltage and current. Three transformers provide galvanic isolation between the hazardous and non-hazardous area circuitry.

The equipment comprises a power transformer, two signal transformers, zener diodes and current limiting resistors to provide voltage and current limitation. The above, together with electronic components are mounted on a single printed circuit board and housed in a moulded plastic enclosure. Polarised plug and sockets are provided for hazardous and non-hazardous area connections. A LED is fitted to provide power on indication.

This certificate covers the installation of the MTL4545Y Isolating Driver, 4/20mA for Smart I/P Converters (IECEx BAS 15.0015) in a Zone 2 location. The equipment is designed to be installed on a separately certified backplane.

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.

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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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**

Annex: IECEx BAS 15.0058X Annex Issue 0.pdf

MTL4545Y Isolating Driver, 4/20mA for Smart I/P Converters

Input / Output Parameters

Power Supply Input - Terminals 13 & 14
Supply Voltage Range = 20 – 35V d.c.

Isolator ID Input – Terminals 12 & 13
Maximum Input Voltage = 3V d.c.

4/20mA Signal Input – Terminals 8 & 9
Maximum Input Voltage = 26.4V d.c
Maximum Input Current = 24mA

4/20mA Output – Terminals 1& 2

Maximum Output Voltage = 28V d.c
Maximum Output Current = 24mA

Or

The maximum values for the intrinsically safe circuits have to be taken from IECEx Certificate No. IECEx BAS 15.0015.