



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 15.0061X issue No.:1

Certificate history:

Issue No. 1 (2016-11-

16)

Issue No. 0 (2015-8-26)

Status: Current

Date of Issue: 2016-11-16

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

Equipment: **MTL4514N Switch / Proximity Detector Interface with Line Fault Detection Alarm**
Optional accessory:

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

Marking: **Ex nA nC 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:

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](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/ExTR15.0122/00

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 MTL4514N Switch / Proximity Detector Interface with Line Fault Detection Alarm is designed to restrict the transfer of energy from unspecified equipment located in either the non-hazardous area or zone 2 hazardous area to either a separate zone 2 or intrinsically safe hazardous area circuit by limitation of voltage and current. Relays and a transformer provide galvanic isolation between the hazardous and non-hazardous area circuitry.

The interface monitors either a detector or switch located in the hazardous area and control a non-hazardous area loads via relays. The interface is also fitted with independent phase reversal controls and Line Fault Detection (LFD) circuitry allowing an alarm condition to be signalled for either state, set by switches on the side of the interface. The interface has identification circuitry fitted on the non-hazardous area side of the circuit which allows it to be identified when fitted on specific backplanes.

The equipment comprises an isolating transformer, relays, zener diodes and current limiting resistors to provide voltage and current limitation. These, together with other electronic components are mounted on a single printed circuit board and housed in a plastic enclosure. Polarised plug and socket connections are provided for connection to the hazardous and non-hazardous area. LED indication is provided to indicate Power-on, state of the output and LFD status.

This certificate covers the installation of the MTL4514N Switch / Proximity Detector Interface with Line Fault Detection Alarm (IECEx BAS 14.0174) in a Zone 2 location. The equipment is designed to be installed on a separately certified backplane.

For electrical parameters see Page 4.

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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EQUIPMENT(continued):

MTL4514N Switch / Proximity Detector Interface with Line Fault Detection Alarm

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.

Relay & Line Fault Detection (LFD) Alarm Outputs – Terminals 8 & 9 and 10 & 11

Single pole relays with contacts can switch up to 35V, 2A and 100VA.

Detector / Switch Input – Terminal 1 w.r.t. 2 / 3

7 – 9V d.c.

or

The maximum values for the intrinsically safe circuits have to be taken from IECEx Certificate No. IECEx BAS 14.0174.



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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