

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

| Octilicate No. 1530c No. 5 Octilicate histor | Certificate No.: | IECEx KEM 08.0008X | Issue No: 3 | Certificate histo |
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Issue No. 3 (2017-03-30)

Status: Page 1 of 5 Issue No. 2 (2013-05-27)

Issue No. 1 (2011-08-11)
Date of Issue:

2017-03-30
Issue No. 0 (2008-07-10)

Applicant: Eaton Electric Limited

Great Marlings Butterfield, Luton Bedfordshire, LU2 8DL **United Kingdom**

Equipment: Model MTL661, Model MTL662, Model MTL664 and Model

MTL665

Optional accessory:

Type of Protection: Ex ia, Ex nA, Ex tc

Marking: Ex ia IIC T4 Ga

Ex ia III C T100 °C Da Ex nA IIC T4 Gc Ex tc III C T70 °C Dc

Approved for issue on behalf of the IECEx

Certification Body:

R. Schu**ll**er

Certification Manager

Position:

Signature:

(for printed version)

Date: 2017-03-30

- 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:

DEKRA Certification B.V. Meander 1051 6825 MJ Arnhem The Netherlands





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Manufacturer: Measurement Technology Limited

Great Marlings Butterfield, Luton Bedfordshire, LU2 8DL **United Kingdom**

Additional Manufacturing location(s):

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 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition:6.0

IEC 60079-15 : 2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"

Edition:4

IEC 60079-31: 2008 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"

Edition:1

This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

NL/KEM/ExTR08.0008/00 NL/KEM/ExTR08.0008/01 NL/KEM/ExTR08.0008/02

NL/KEM/ExTR08.0008/03

Quality Assessment Report:

GB/BAS/QAR07.0017/06



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The 4 ... 20 mA Loop Powered Indicator Model MTL661, Model MTL662, Model MTL663, Model MTL664 and Model MTL665 for panel mounting or field mounting, is connected in series in an intrinsically safe circuit. The input circuit of the indicator is designed such, that is does not influence the intrinsically safe circuit to which it is connected. Indicators of Model Series MTL661/662, Types –NA, are for use in type of protection non sparking "nA" and protection by enclosure "tc".

The indicator may optionally be provided with a backlight (Model MTL66xB).

The enclosure of the indicator provides a degree of protection of at least IP65 in accordance with IEC 60529. Ambient temperature range -25 °C to +70 °C for Ex ia, -25 °C to +60 °C for Ex nA, Ex tc.

For Ex to IIIC: The maximum temperature of the enclosure T70 °C is referred to an ambient temperature of 60 °C and is applicable to a maximum dust layer thickness of 5 mm.

<u>For Ex ia IIIC:</u> The maximum temperature of the enclosure T100 $^{\circ}$ C is referred to an ambient temperature of 70 $^{\circ}$ C and is applicable to a maximum dust layer thickness of 5 mm.

SPECIFIC CONDITIONS OF USE: YES as shown below:

When the enclosure of the Indicator is made of aluminium alloy, when used in a potentially explosive atmosphere requiring apparatus of equipment protection level Ga, the Indicator shall be installed so, that even in the event of rare incidents, an ignition source due to impact or friction sparks between the enclosure and iron/steel is excluded.

The Loop Powered Indicators MTL661(B)-NA and MTL662(B)-NA, shall be installed in such a way that the risk of mechanical danger is low.



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EQUIPMENT (continued):

Electrical data

Input circuit (terminals 4 and 5):

in type of protection intrinsic safety Ex ia IIC/IIIC, only for connection to an intrinsically safe circuit, with the following maximum values: Ui = 30 V; Ii = 200 mA; Pi = 1,2 W; Ci = 0 nF; Li = 0 mH.

Backlight circuit (terminals 9 and 10):

in type of protection intrinsic safety Ex ia IIC/IIIC, only for connection to an intrinsically safe circuit, with the following maximum values: Ui = 28 V; Ii = 200 mA (resistively limited); Pi = 0.96 W; Ci = 0 nF; Li = 0 mH

The backlight circuit is separated from the input circuit.

Input circuit (terminals 4 and 5): I = 4 ... 24 mA Backlight circuit (terminals 9 and 10): U = 28 V

Installation instructions

To maintain the degree of protection of at least IP65 in accordance with IEC 60529, certified cable entries in accordance with IEC 60079-0 must be used and correctly installed. Unused openings must be closed with suitable blanking elements.

To avoid voltage and current addition the intrinsically safe circuits shall be wired according to IEC 60079-14.



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

Name change

Removal of IEC 60079-26; because of scope change, this standard is no longer applicable.