

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** FM16US0173X
3. **Equipment:** Model MTL4500/5500 Series
(Type Reference and Name)
4. **Name of Listing Company:** Eaton Electric Limited
5. **Address of Listing Company:** Great Marlings, Butterfield
Luton, Bedfordshire, LUS 8DL
United Kingdom
6. The examination and test results are recorded in confidential report number:

3025815 dated 24th August 2007
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2011, FM Class 3610:2010, FM Class 3611:2004, FM Class 3810:2005,
ANSI/ISA 60079-0:2005, ANSI/ISA 60079-11:2011, ANSI/ISA 12.12.02:2003
8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

Certificate issued by:

J. E. Marquedant
Manager, Electrical Systems

2 December 2016

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmapprovals.com www.fmapprovals.com

SCHEDULE



US Certificate Of Conformity No: FM16US0173X

10. Equipment Ratings:

Non Sparking Modules:

Associated Appartus providing Intrinsically Safe Circuits for Class I, II, III, Division 1, Groups A, B, C, D, E, F, and G when installed per the control drawing show below; Non-incendive for Class I, Division 2, Groups A, B, C, and D, T4; Intrinsic Safety for AEx [ia] IIC when installed per the control drawing show below; Non Sparking for Class I, Zone 2, AEx nA IIC T4 Gc hazardous (classified) locations with an ambient temperature rating of -20°C to +60°C.

Cronrol Dawing	Models
SCI-1046	MTL4501-SR / MTL5501-SR
SCI-1025	MTL4510 / MTL5510, MTL4510B / MTL5510B, MTL4513 / MTL5513
SCI-1027	MTL4521 / MTL5521, MTL5522, MTL4523 / MTL5523, MTL4523L, MTL4523R, MTL4523V / MTL5523V, MTL4523VL / MTL5523VL, MTL4524 / MTL5524, MTL4524S, MTL4525 / MTL5525
SCI-1055	MTL4521L
SCI-1056	MTL4531 / MTL5531, MTL4533 / MTL5533
SCI-1028	MTL4541 / MTL5541, MTL4541B, MTL4541P, , MTL4544 / MTL5544, MTL4544B
SCI-1048	MTL4541A, MTL4541AS, MTL4544A, MTL4544AS
SCI-1049	MTL5541A, MTL5541AS, MTL5544A, MTL5544AS
SCI-1050	MTL4541S, MTL4544D, MTL4544S
SCI-1051	MTL5541S, MTL5544D, MTL5544S
SCI-1029	MTL4546 / MTL5546, MTL4546C, MTL4546Y / MTL5546Y
SCI-1030	MTL4549 / MTL5549, MTL4549C, MTL4549Y / MTL5549Y
SCI-1052	MTL4561 / MTL5561
SCI-1053	MTL4575B / MTL5575B, MTL4576 / MTL5576
SCI-1058	MTL4581 / MTL5581
SCI-1057	MTL5582

Enclosed Break Modules:

Associated Appartus providing Intrinsically Safe Circuits for Class I, II, III, Division 1, Groups A, B, C, D, E, F, and G when installed per control drawing show below; Non-incendive for Class I, Division 2, Groups A, B, C, and D, T4; Intrinsic Safety for [AEx ia] IIC when installed per the control drawing show below; Enclosed Break for Class I, Zone 2, AEx nC IIC T4 Gc hazardous (classified) locations with an ambient temperature rating of -20°C to +60°C.

Cronrol Dawing	Models
SCI-1026	MTL4504, MTL4511 / MTL5511, MTL4514 / MTL5514, MTL4514B, MTL4516, MTL4516C / MTL5516C, MTL4517 / MTL5517
SCI-1047	MTL4526 / MTL5526
SCI-1054	MTL4532 / MTL5532
SCI-1031	MTL4575 / MTL5575

11. The marking of the equipment shall include:

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmaprovals.com www.fmaprovals.com

SCHEDULE



US Certificate Of Conformity No: FM16US0173X

Non-Sparking Models:

Provides Intrinsically Safe Circuits for Class I II III, Division 1, Groups A, B, C, D, E, F, G

Class I, Division 2, Groups A, B, C, D; T4

Class I, Zone 0, [AEx ia] IIC

Class I, Zone 2, AEx nA IIC T4

Ta = -20°C to +60°C

Per control drawing (see section 10 for actual drawing number)

Enclosed Break Models:

Provides Intrinsically Safe Circuits for Class I II III, Division 1, Groups A, B, C, D, E, F, G

Class I, Division 2, Groups A, B, C, D; T4

Class I, Zone 0, [AEx ia] IIC

Class I, Zone 2, AEx nC IIC T4

Ta = -20°C to +60°C

Per control drawing (see section 10 for actual drawing number)

12. **Description of Equipment:**

General – The MTL4500 range consists of modules which are backplane-mounting intrinsically safe galvanic isolators which provide a range of functions including detector interfaces, solenoid alarm drivers, relay outputs, vibration transducers, pulse isolators, current repeaters, isolating drivers, temperature converters and resistance/thermocouple isolators. The MTL5500 range consists of DIN-rail mounting versions of the MTL4500 range modules.

Construction - The MTL4500 & 5500 series isolator's electronics are housed in a molded polymeric enclosure. The safe area terminals are on the bottom of the enclosure and connect using mechanical retention to a Base Plate. The intrinsically safe terminals are pluggin blue connectors on the top of the enclosure.

Ratings – The MTL4500 series isolators operate at 20-35 Vdc. The transmitters are rated for use in an ambient temperature range of -20°C to +60°C.

MTL4500 & MTL5500 Series Intrinsically Safe Isolators

MTL4501-SR / MTL5501-SR Failsafe/Proximity Detector Interface

MTL4504 Switch/Proximity Detector Interface with Line Fault Detection and Phase Reversal

MTL4510 / MTL5510 4 Ch switch/proximity detector interface

MTL4510B / MTL5510B 4 Ch switch/proximity detector interface

MTL4511 / MTL 5511 Switch/Proximity Detector Interface

MTL4513 / MTL5513 2 Ch switch/proximity detector interface

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmaprovals.com www.fmaprovals.com

SCHEDULE



Member of the FM Global Group

US Certificate Of Conformity No: FM16US0173X

MTL4514 / MTL5514 Switch/Proximity Detector Interface with Line Fault Detection Alarm
MTL4514B Switch/Proximity Detector Interface with Line Fault Detection Alarm
MTL 4516 Switch Proximity Detector Interface
MTL4516C / MTL5516C 2 Ch Switch/Proximity Detector Interface
MTL4517 / MTL5517 2 Ch Switch/Proximity Detector Interface with Line Fault Detection Alarm
MTL4521 / MTL5521 Loop Powered Solenoid Alarm Drivers
MTL5522 Loop Powered Solenoid Alarm Driver
MTL4523 / MTL5523 Solenoid Alarm Driver with Line Fault Detection Alarm
MTL4523L Loop-Powered Solenoid Alarm Driver with Line Fault Detection Alarm
MTL4523R Solenoid Alarm Driver with Line Fault Detection Alarm
MTL4523V / MTL5523V Solenoid Alarm Driver with Line Fault Detection
MTL4523VL / MTL5523VL Solenoid Alarm Driver with Line Fault Detection
MTL4524 / MTL5524 Solenoid Alarm Driver with Override
MTL4524S Solenoid Alarm Driver with Override
MTL4525 / MTL 5525 Solenoid Alarm Driver with Override
MTL4521L Solenoid/Alarm Driver
MTL4526 / MTL5526 Two Channel Switch-operated Relay Output
MTL4531 / MTL5531 Vibration Transducer Interface
MTL4533 / MTL5533 Vibration Transducer Interface
MTL4532 / MTL5532 Pulse Isolator
MTL4541 / MTL5541 Repeater Power Supply, 4/20mA, for 2 or 3 Wire Transmitters
MTL4541B Repeater Power Supply, 4/20mA, for 2 or 3 Wire Transmitters
MTL4541P Repeater Power Supply, 4/20mA, for 2 or 3 Wire Transmitters
MTL4544 / MTL5544 2 Ch Repeater Power Supply, 4/20mA, for 2 or 3 Wire Transmitters
MTL4544B 2 Ch Repeater Power Supply, 4/20mA, for 2 or 3 Wire Transmitters
MTL5541A Current Repeater
MTL5541AS Current Repeater
MTL5544A Current Repeater (2Ch)
MTL5544AS Current Repeater (2Ch)
MTL5541A Current Repeater
MTL5541AS Current Repeater
MTL5544A Current Repeater (2Ch)
MTL5544AS Current Repeater (2Ch)
MTL4541S Current Repeater Power Supply
MTL4544S Current Repeater Power Supply (2Ch)
MTL4544D Current Repeater Power Supply
MTL5541S Current Repeater Power Supply
MTL5544S Current Repeater Power Supply (2Ch)
MTL5544D Current Repeater Power Supply
MTL4546 / MTL5546 Isolating Driver, 4/20mA for smart I/P Converters
MTL4546C Isolating Driver, 4/20mA for smart I/P Converters
MTL4546Y / MTL5546Y Isolating Driver, 4/20mA for smart I/P Converters
MTL4549 / MTL5549 Isolating Driver, 4/20mA for smart I/P Converters
MTL4549C Isolating Driver, 4/20mA for smart I/P Converters
MTL4549Y / MTL5549Y Isolating Driver, 4/20mA for smart I/P Converters
MTL4561 / MTL5561 Two-Channel Fire/Smoke Detector Interface
MTL4575 / MTL5575 Temperature Converter 2 or 3 Wire Transmitters
MTL4575B / MTL5575B Single-Channel Temperature Converter
MTL4576 / MTL5576 Two-Channel Temperature Converter
MTL4581 & MTL5581. Millivolt/Thermocouple Isolator

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmaprovals.com www.fmaprovals.com

SCHEDULE

US Certificate Of Conformity No: FM16US0173X

MTL5582 Resistance Isolator

13. Specific Conditions of Use:

1. The apparatus shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application.
2. When installed in Class I, Zone 2 installations, the installer shall ensure protection of the supply terminals against transient overvoltage exceeding the rated supply voltage by greater than 40%.
3. For Class I, Zone 2 installation the apparatus must be in an enclosure that provides a minimum protection of IP54 according to ANSI/IEC 60529.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
24 th August 2007	Original Issue.
16 th August 2016	Supplement 17: Report Reference: – RR205613 dated 16 th August 2016. Description of the Change: Add Class I Zone 0 [AEx ia] ratings and update to the new certificate format.
2 nd December 2016	Supplement 18: Report Reference: – RR207043 dated 2 nd December 2016 Description of the Change: Label documentation and Certificate updates related to company name change from Measurement Technology Ltd.

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE