



TYPE APPROVAL CERTIFICATE

Certificate No. : LDN03065-EL006 **Initial Approval** : 31st May, 2018
Product : Intrinsically Safe Isolators
Manufacturer : Measurement Technology Ltd.
Great Marlings, Butterfield, Luton, Bedfordshire, LU2 8DL, UK
Product Description : Type ; MTL 4500, 5500 series
" See Appendix 1 "

Approval Condition : " See Appendix 1 "

THIS IS TO CERTIFY that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".

Pt. 6, Ch. 1, Section. 9 of the Rules for Classification, Steel Ships.

This Certificate is valid until 30th May, 2023

Issued at Busan, Korea on 31st May, 2018



KOREAN REGISTER OF SHIPPING

Jung Eun. Kim

General Manager of
Marine & Ocean Equipment Team

- Note : 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.
2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.
3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.*

Appendix 1

Product Description and/or Approval Condition

Certificate No : LDN03065-EL006

Date of Issue :31 May, 2018

A. Product Description

1. Product Specification

1) MTL4500 series

Type	Model	Channel [Ch]	Description
Digital Output	MTL4524	1	Switch operated solenoid driver

2) MTL5500 series

Type	Model	Channel [Ch]	Description
Digital Input	MTL5511	1	Switch/prox input, c/o relay output
Analogue Input	MTL5541	1	2/3 wire transmitter repeater
Analogue Output	MTL5546	1	4-20mA smart isolating driver + LFD
Temperature Input	MTL5575	1	Temperature converter, THC or RTD

2. Approved Drawings and documents

1) Drawings

AD4500-175/2, AD4500-176/1, AD4511-3, AD4524-33, AD4546-3, AD4561-3, AD5541-3, AD5575-3, TC4500-175/1, TC4500-176/1, TC4516-1/7, TC4523-1/9, TC4544-1/12, TC4546-1/6, TC4561-1/2, TC4575-1/6

3. Test Reports, etc.

- | | |
|---|----------------|
| 1) BSI Test Report 288/716377 Issue 2 | (19. 01. 2010) |
| 2) BSI Test Report 8555240 | (13. 07. 2016) |
| 3) BSI Test Report 288/7443357 | (25. 09. 2009) |
| 4) Intertek EMC Test Report Number EM09041627 | (09. 2009) |
| 5) Intertek EMC Test Report Number 09043273 | (11. 11. 2009) |
| 6) BSI ISO 9001:2015 Certificate Number FM11567 | (02. 02. 2016) |

B. Approval Condition

1. Application & Limitation

- 1) This approval is granted on the basis of the test report and the approved documentation.
- 2) Explosion-proof certification by a notified/recognized Certification Body is not covered by this certificate. Ratings and Special Condition for Safe Use in hazardous areas are to be obtained from the relevant valid Ex-Certificate.

2. Individual Product Cert. and Drawing Approval Requirement

- 1) Individual Product Certification is not required.

3. Marking

- 1) The product or packing is to be marked with the manufacturer's name and type designation on a suitable position.

4. Others

N/A

< The End >

TYPE APPROVAL CERTIFICATE

Certificate No. : LDN03065-EL006 **Initial Approval :** 31st May, 2018
Product : Intrinsically Safe Isolators
Manufacturer : Eaton Electric Limited
Great Marlings, Butterfield, Luton, Bedfordshire, LU2 8DL, UK
Product Description : Type : MTL 4500, 5500 series
" See Appendix 1 "

Approval Condition : " See Appendix 1 "

THIS IS TO CERTIFY that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".

Pt. 6, Ch. 1, Section. 9 of the Rules for Classification, Steel Ships.

This Certificate is valid until 30th May, 2023

Issued at Busan, Korea on 31st May, 2018

KOREAN REGISTER OF SHIPPING

*General Manager of
Marine & Ocean Equipment Team*

*Note : 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.
2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.
3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.*