CERTIFICATE OF COMPLIANCE

Certificate Number: **SGSNA/22/CA/00019X**

Contract Number: 801113
Certificate Project Number: BAS-CERT221100007

Certified Product: Foundation Fieldbus Isolator / Power Supply
Trademarks: -
Model(s): MTL5553
Technical Data: MTL5553 Foundation Fieldbus Isolator / Power Supply – Intrinsically Safe

Class I, II, III Division 1 Groups A, B, C, D, E, F and G
Class I, II Division 2 Groups A, B, C, D, E, F and G
Class III Division 2
[AEx ia Ga] IIC,
[AEx ia Da] IIIC,
Class I, Division 2 Groups A, B, C, D T4
Class II, Division 2 Groups F and G
Class III, Division 2
Class I, Zone 2 AEx ec IIC T4 Gc
[Ex ia Ga] IIC,
[Ex ia Da] IIIC,
Ex ec IIC T4 Gc
-20 °C ≤ Ta ≤ +60 °C

MTL5553 Foundation Fieldbus Isolator / Power Supply – Increased Safety/Enclosed Break

Class I, Division 2 Groups A, B, C, D T4
Class II, Division 2 Groups F and G
Class III, Division 2
Class I, Zone 2 AEx ec IIC T4 Gc
Ex ec IIC T4 Gc
-20 °C ≤ Ta ≤ +60 °C

Certification Body

Consumer and Retail Services, a division of SGS North America Inc.
620 Old Peachtree Road, Ste. 100, Suwanee, GA 30024, USA
t +1 770 570 1800 f +1 770 277 1240 www.sgs.com

MTL5553 Foundation Fieldbus Isolator / Power Supply – Intrinsically Safe

U_m = 253V r.m.s.; U_o = 22 V; I_o = 216 mA; P_o = 1.2 W

MTL5553 Foundation Fieldbus Isolator / Power Supply – Increased Safety/Enclosed Break

20 – 35 Vdc; 2.6 W (max)

Certificate Holder: Eaton Electric Limited
Great Marlings, Butterfield, Luton, LU2 8DL, United Kingdom

This certificate supercedes previous certificates issued with the same certificate number. Certification is valid when products are indicated on the SGS directory of certified products at www.sgs.com or using the QR code below. The product is certified according to ISO/IEC Guide 17067, Conformity assessment - Fundamentals of product certification, System 3, and in accordance with:

UL 60079-0 Explosive Atmospheres – Part 0: Equipment – General Requirements – 7th Edition – Revision: March 26, 2019 (April 15, 2020).

UL 60079-7 Explosive Atmospheres – Part 7: Equipment Protection by Increased Safety “e” – 5th Edition – Revision: April 21, 2017.

UL 60079-11 Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety “i" – 6th Edition – Revision: February 15, 2013 (September 14, 2018).

CAN/CSA C22.2 No. 60079-0:19 Explosive Atmospheres – Part 0: Equipment – General Requirements (IEC 60079-11: 2017, MOD) – Revision: February 2019.

CAN/CSA C22.2 No. 60079-7:16 Explosive Atmospheres – Part 7: Equipment Protection by Increased Safety “e” – 5th Edition – Revision: October 2016.

CAN/CSA C22.2 No. 60079-11:14 Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety “i" (IEC 60079-11, MOD) – Revision: February 2014.

UL 913 Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II and III, Division 1, Hazardous (Classified) Locations – 8th Edition (December 10, 2018)

UL 121201: Nonincendive Electrical Equipment for use in Class I and II Division 2 and Class III Divisions 1 and 2 Hazardous (Classified) Locations – Ninth Edition, September 15, 2017, Revised: April 1, 2021 and CSA C22.2 No. 213-17: Nonincendive Electrical Equipment for use in Class I and II Division 2 and Class III Divisions 1 and 2 Hazardous (Classified) Locations – Third Edition, September 15, 2017 (Revised April 1, 2021)

Authorized by: Effective date: 30 November 2022

Ron Sinclair
Certifier

Certification Body

Consumer and Retail Services, a division of SGS North America Inc.
620 Old Peachtree Road, Ste. 100, Suwanee, GA 30024, USA
t +1 770 570 1800 f +1 770 277 1240 www.sgs.com

Product description

The MTL5553 Foundation Fieldbus Isolator / Power Supply is designed to restrict the transfer of energy from unspecified non-hazardous area equipment to Fieldbus equipment located in the hazardous area by limitation of voltage and current. Two transformers and an opto-isolator provide galvanic isolation between the hazardous and non-hazardous area circuitry.

The MTL5553 Foundation Fieldbus Isolator / Power Supply is designed for the connection to Fieldbus devices situated in the hazardous area. The equipment provides power and communication to the Fieldbus devices through the signal conductors for connection to a Fieldbus Network located in the non-hazardous area. Terminals are also provided on the hazardous area side of the equipment to permit the connection of a suitably certified Fieldbus Communicator to permit diagnostics of the Fieldbus network.

The equipment comprises two isolating transformers, an opto-isolator, duplicated zener diodes and current limiting resistors to provide voltage and current limitation. The above, together with other electronic components are mounted on a single printed circuit board (PCB) and housed in a moulded plastic enclosure. Polarised plugs and sockets are provided for hazardous and non-hazardous area connections. An LED is fitted to provide power on indication.

Conditions of Acceptability

MTL5553 Foundation Fieldbus Isolator / Power Supply – Intrinsically Safe

None

MTL5553 Foundation Fieldbus Isolator / Power Supply – Increased Safety/Enclosed Break

1. The equipment must be installed in an area of Pollution Degree 2 or better, as defined in IEC 60664-1, and in a tool secured enclosure that provides a degree of protection of at least IP54 and meets the relevant requirements of UL 60079-0 and UL 60079-7.
2. The ambient temperature stated on this certificate refers to the temperature within the enclosure into which it must be installed in accordance with condition number 1).
3. It is the responsibility of the installer to ensure that there is adequate isolation between the MTL 5553 Isolator and the frame of the supplementary enclosure. The equipment must be capable of withstanding the 500V dielectric strength test in accordance with clause 6.1 of UL 60079-7 between the equipment and the supplementary enclosure. This must be considered during installation.
4. All connections to, and between the modules forming the equipment the 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.
5. The maximum values for the intrinsically safe circuits have to be taken from the control drawing SCI-1086.

Certification Body

Consumer and Retail Services, a division of SGS North America Inc.
620 Old Peachtree Road, Ste. 100, Suwanee, GA 30024, USA
t +1 770 570 1800 f +1 770 277 1240 www.sgs.com