



Member of the FM Global Group

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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

Model MTL791. Fieldbus Barrier.

AIS / I,II,III / 1 / ABCDEFG - SCI-609 / 1; Entity*
NI / 1 / 2 / ABCD

Max Entity Parameters: $V_i = 22$ V dc, $I_i = 233$ mA, $C_a = 0.24$ μ F, $L_a = 0.31$ mH, $L/R = 31$ μ H/ Ω , $P_o = 1.18$ W

Equipment Ratings:

Associated apparatus with Intrinsically safe outputs for connection to Class I, II, III, Division 1, Groups A, B, C, D, E, F and G; Non-incendive for use in Class I, Division 2, Groups A, B, C and D; Class I, hazardous (Classified) locations.

FM Approved for:

Measurement Technology Ltd
Great Marlings, Butterfield, Luton, United Kingdom



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This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	2011
Class 3610	2010
Class 3611	2004
Class 3810	2005

Original Project ID: 4X0A4.AX

Approval Granted: April 26, 1996

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3022862	April 4, 2005		
3045568	June 26, 2013		

FM Approvals LLC

J.E. Marquedant
Group Manager, Electrical

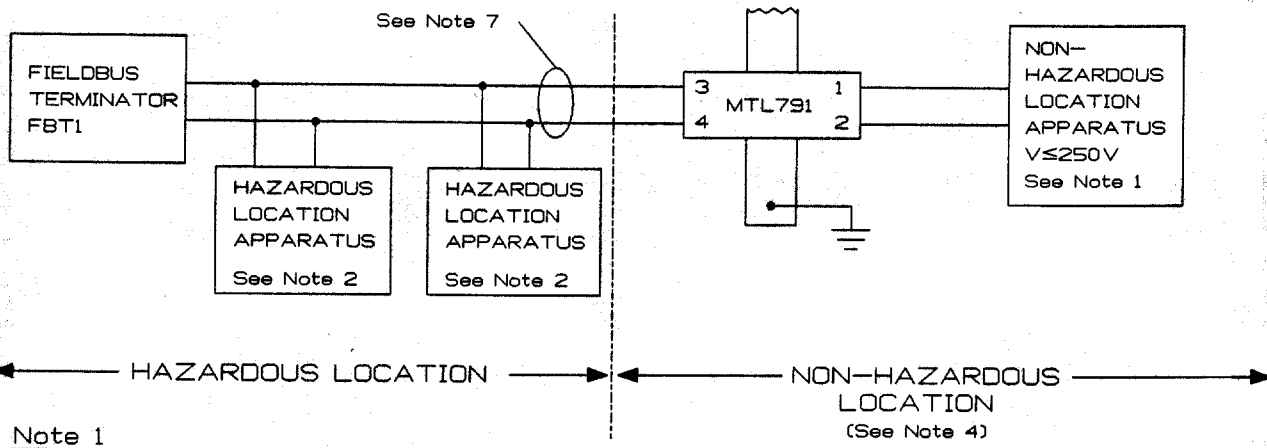
1 July 2013

Date

Dimensions in mm

Do Not Scale

Third Angle Projection



Note 1

The Non-Hazardous (Safe) Location equipment must not generate or use voltages in excess of 250V rms or d.c.

Note 2

The Hazardous Location equipment: any number of FMRC Approved devices which meet the power and Entity Parameter requirements below may be connected to the Fieldbus—

- a) All device's electronic circuitry which interface directly to the Fieldbus must be powered from Fieldbus power. Other power sources in the devices (if any), must be galvanically isolated from the Fieldbus power.
- b) V_{max} of all devices must be equal to or greater than 22V;
- c) I_{max} of all devices must be equal to or greater than 233mA;
- d) P_{max} of all devices must be equal to or greater than 1.18W;
- e) The sum of all device's unprotected input capacitance C_i , plus the cable capacitance must be equal to or less than C_a for the applicable Gas Group in note 7.
- f) The sum of all device's unprotected input inductance L_i , plus the cable inductance must be equal to or less than L_a for applicable Gas Group in note 7.

Note 3

For guidance on the installation see ANSI/ISA RP12.6 and the USA National Electrical Code.

Note 4

The MTL791 Shunt Diode safety barrier is Associated Apparatus, and when mounted in an appropriate enclosure may be installed in the following areas :

- i) Non-Hazardous (Safe) Location
- ii) Class I, Division 2, Groups A,B,C, and D Hazardous Locations
- iii) Class II, Division 2, Groups F and G Hazardous Locations
- iv) Class III, Division 2 Hazardous Locations

Note 5

The barrier must be installed in enclosures meeting the requirements of ANSI/ISA-S82 and the USA National Electrical Code.

Note 6

Use FMRC-Approved, or NRTL-Listed, dust-ignition proof enclosures appropriate for environmental protection in Class II, Division 2, Groups F and G, and Class III Hazardous Locations.

Note 7

The Entity Parameters for the MTL791 & FBT1 are .

$V_t=22V$
 $I_t=233mA$
 $P_o=1.18W$

Groups	C_a (μF)	L_a (mH)	L/R $\mu H/\Omega$
A,B	0.24	0.31	31
C,E	0.74	2.97	121
D,F,G	1.99	5.50	242

System Certificate No:		Scale . N/A
Certifying Authority: Factory Mutual		Sheet 1 of 1
Title Installation Drawing for the MTL791 and FBT1 Fieldbus Terminator		Drg. No. SCI-609

Modification
 Date Dwn
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 Luton, England
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