Iss	Date	Drn	Modification	Ckd
1	3.98	PS		

MEASUREMENT TECHNOLOGY LTD
Luton, England

Iss	Date	Drn	Modification	Ckd

IBMCAD

Title: MTL5053 31.25Kbit/s FIELDBUS ISOLATOR Installation Diagram

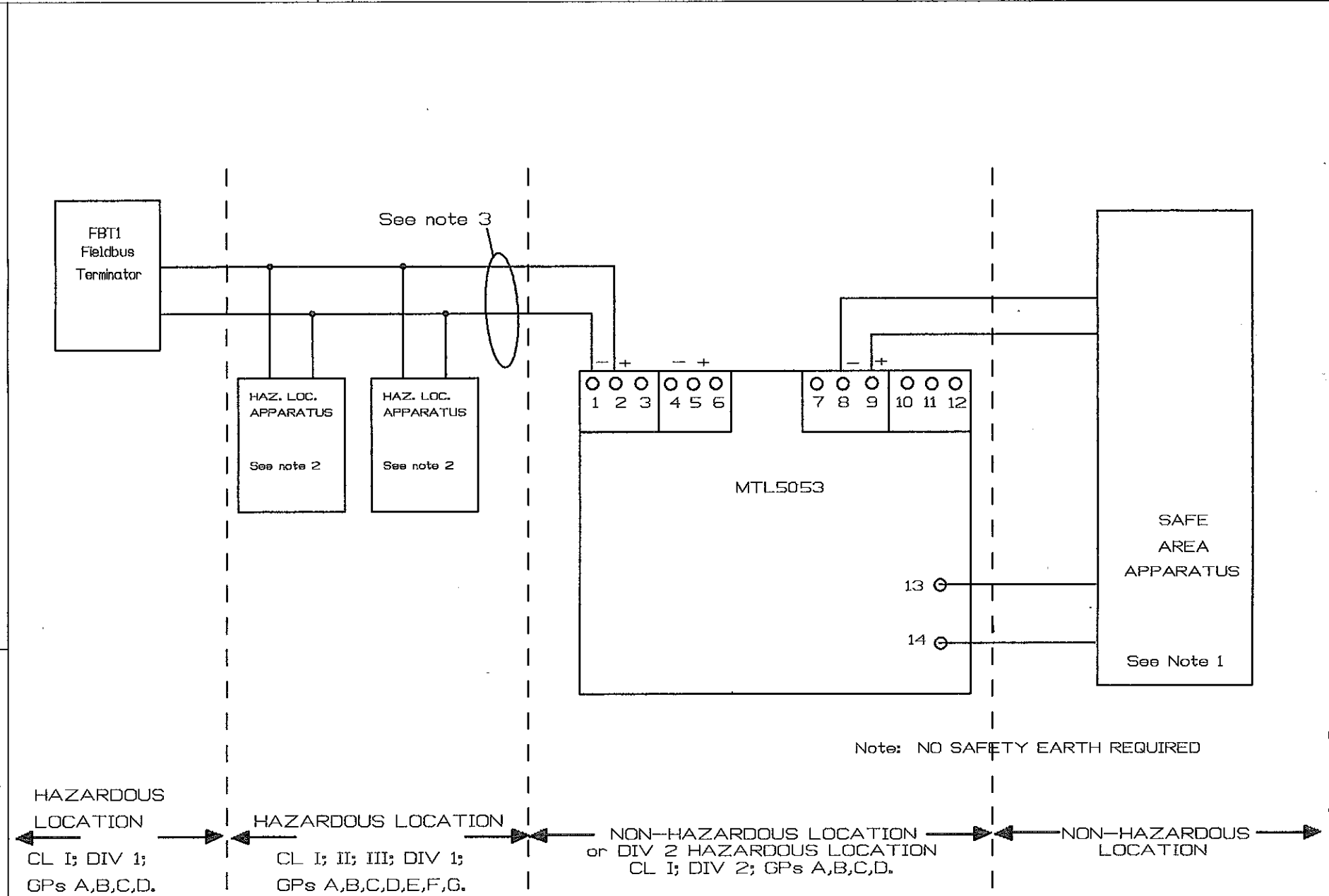
Certifying Authority: Factory Mutual

System Certificate No:

Dimensions in mm

Do Not Scale

Third Angle Projection



Drg. No. SCI-753

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Scale N/A

A4

Note 1

The Non-Hazardous Location (for Control Room) equipment must not generate or use more than 250 volts r.m.s

Note 2

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

a) All device's electronic circuitry which interface directly to the Fieldbus must be powered from the fieldbus power. Other power sources in the devices (if any), must be galvanically isollated from the fieldbus power.

b) Vmax of all device's must be equal to or greater than 22V.

c) Imax of all device's must be equal to or greater than 216mA

d) Pmax of all device's must be equal to or greater than 1.2W.

e) The sum of all device's unprotected input capacitance Ci, plus the cable capacitance must be equal to or less than Ca for applicable Gas Group in note 7.

f) The sum of all device's unprotected input inductance Li, plus the cable inductance must be equal to or less than La for the applicable Gas Group in note 7.

Note 3 For guidance on the installation see ANSI/ISA RP12.6

Note 4

The MTL5053 is Associated Apparatus and when mounted in the appropriate enclosure (See notes 6 and 7) is suitable for installation in the following area:-

Non-Hazardous Locations
Class I, Division 2, Groups A,B,C and D, Hazardous Locations
Class II, Division 2, Groups F and G Hazardous Locations
Class III, Division 2, Hazardous Locations

Note 5

Associated Apparatus must be installed in accordance with the National Electrical Code in an enclosure meeting the requirements of ANSI/ISA-S82.

Note 6

Use FRMC Approved or NRTL Listed dust-ignition proof enclosure(s) Appropriate for the environmental protection in class II, Division 2, Groups F and G; Class III, Division 2 Hazardous Locations.

Note 7

Entity Concept Parameters for each channel of the MTL5053 ie channel 1 (Terminals 1 & 2), channel 2 (Terminals 4 & 5) are as follows:-

Terminal 2/5 Wrt 1/4 Voc ≤ 22V Isc ≤ 216mA

Groups A and B	Ca ≤ 0.26μF	La ≤ 0.84mH
Groups C and E	Ca ≤ 0.78μF	La ≤ 0.48mH
Groups D,F and G	Ca ≤ 2.09μF	La ≤ 6.40mH

Note 8

When the MTL5053 is installed in Division 2 Hazardous locations, a warning label must be prominently affixed near the unit(s) which warns that the MTL5053 must not be removed or inserted unless the area is known to be non-hazardous.

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System Certificate No:	Scale N/A
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