



## Factory Mutual Research

1151 Boston-Providence Turnpike  
P.O. Box 9102  
Norwood, Massachusetts 02062

# CERTIFICATE OF COMPLIANCE

## HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following company:

Measurement Technology Limited  
Power Court, Luton  
Bedfordshire, England LU1 3JJ

For:

**4-20mA REPEATER POWER SUPPLY. Model MTL4043**

AIS/I,II,III/1/ABCDEFGF - SCI-712/1; Entity  
NI/II/2/ABCD

Max. Entity Parameters:

Terminals 2, 5 and 6:  $V_t = 28 \text{ Vdc}$ ,  $I_t = 141 \text{ mA}$ ,  $C_a = 0.13 \mu\text{F}$ ,  $L_a = 1.94 \text{ mH}$   
Terminals 2, 4 and 5:  $V_t = 28 \text{ Vdc}$ ,  $I_t = 93 \text{ mA}$ ,  $C_a = 0.13 \mu\text{F}$ ,  $L_a = 4.2 \text{ mH}$

Equipment Ratings: Associated Intrinsically Safe apparatus for connection in Class I, II, III, Division 1, Group A, B, C, D, E, F and G in accordance with entity requirements and MTL Installation Drawing SCI-712; nonincendive for locating in Class I, Division 2, Group A, B, C and D hazardous indoor locations.

Manufactured By: Measurement Technology Limited  
Power Court, Luton  
Bedfordshire, England LU1 3JJ

**FACTORY MUTUAL RESEARCH CORPORATION**

This certifies that the equipment described has been found to comply with the following Factory Mutual Research Corporation Approval Standards:


Approval Standard Class 3600 - 1989  
Approval Standard Class 3610 - 1988  
Approval Standard Class 3611 - 1986  
Approval Standard Class 3810 - 1989

Approval Job Identification: 4D0A8.AX Issue Date: November 3, 1997

Related Approval Job Identification: 0W2A6.AX, 4X5A3.AX

Subsequent Revision Reports/Date Approval Amended: None

Factory Mutual Research Corporation

  
Frank J. McGowan, Manager  
Instrumentation Section  
Approval Division

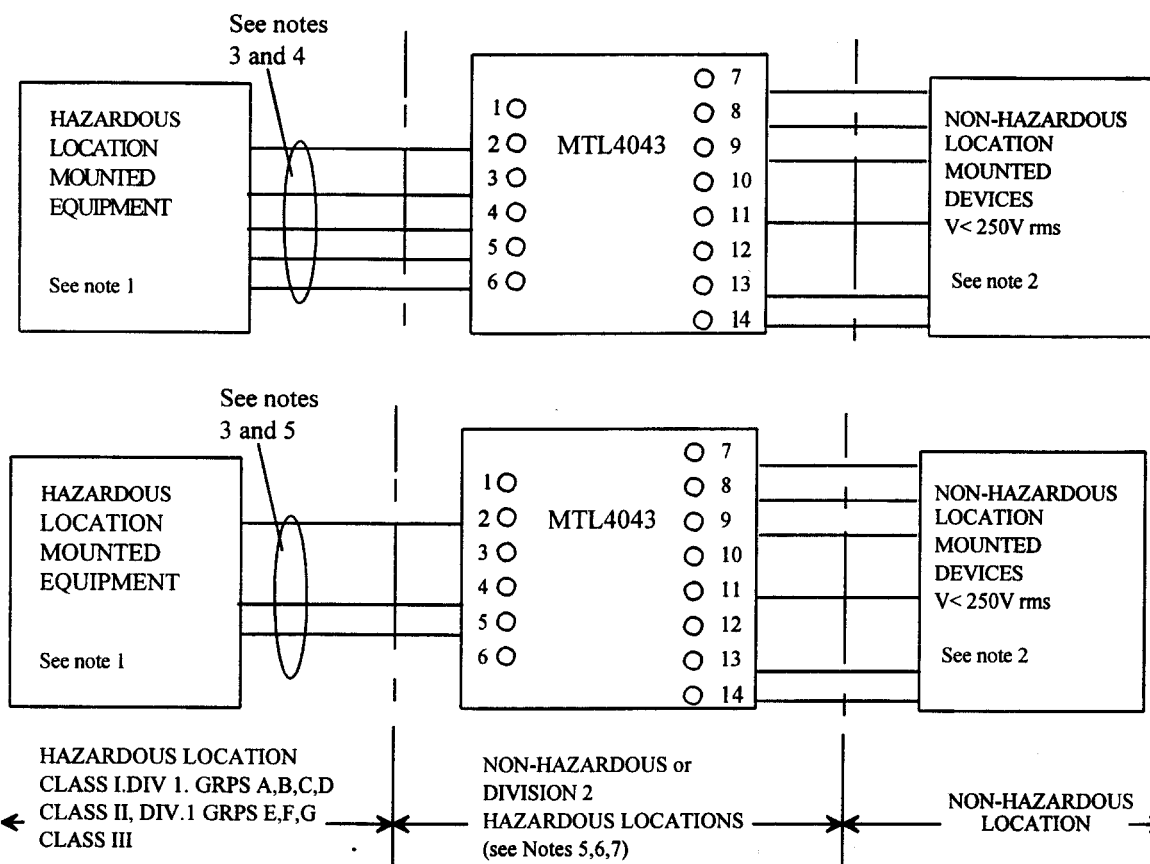
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Dimensions in mm

Do Not Scale

Third Angle Projection



**Note 1** The Hazardous Location equipment may be switches or thermocouples. Other apparatus such as RTD's, LED's and non-inductive resistors may also be used if the autoignition temperatures of the hazardous location is greater than T4 (275°F or 135°C). Certified devices with the correct Entity Concept Parameters may also be used.

**Note 2** The Non-Hazardous Location (or Control Room) equipment must not generate or use more than 250 volts r.m.s.

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

**Note 4** Entity Parameters for the MTL4043 at terminals 2 and 5 to terminal 6 are as follows:

$$V_t \leq 28V \quad I_t \leq 141mA$$

Groups A and B	$Ca \leq 0.13\mu F$	$La \leq 1.94mH$
Groups C and E	$Ca \leq 0.39\mu F$	$La \leq 7.83mH$
Groups D,F and G	$Ca \leq 1.04\mu F$	$La \leq 14.9mH$

System Certificate No.:		Scale:
Certifying Authority: Factory Mutual		Sheet: 1 of 2
Title: Installation Drawing for the MTL4043 4-20mA Repeater Power Supply		Drg. No.: SCI-712

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Drm	DRG				
Date	8.97				
Iss	1				

Dimensions in mm

Do Not Scale

Third Angle Projection

Note 5 Entity Parameters for the MTL4043 at terminal 2 to terminals 4 and 5 are as follows:

$$V_t \leq 28V \quad I_t \leq 93mA$$

Groups A and B	$Ca \leq 0.13\mu F$	$La \leq 4.2mH$
Groups C and E	$Ca \leq 0.39\mu F$	$La \leq 12.6mH$
Groups D, F and G	$Ca \leq 1.04\mu F$	$La \leq 33.6mH$

Note 6 The MTL4043 is Associated Apparatus and when mounted in the appropriate enclosure (see notes 7,8 and 9) is suitable for installation in the following areas:-

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 7 The MTL4043 is Associated Apparatus and when mounted in the appropriate enclosure (see notes 6 and 7) is suitable for installation in the following areas:-

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

Note 9 Use FMRC Approved or NRTL Listed dust-ignition proof enclosure(s) appropriate for environmental protection in Class II, Division 2, Groups F and G, Class III Division 2 Hazardous Locations.

Note 10 For use in Division 2 Hazardous Locations, the MTL4043 must be installed on Factory Mutual Research Corporation Approved Backplanes.

When the MTL4043 is installed in Division 2 Hazardous Locations a warning label must be prominently affixed near the unit(s) which warns that the MTL4043 must not be removed or inserted unless the area is known to be non-hazardous.

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Certifying Authority: Factory Mutual		Sheet: 2 of 2
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