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FM Approvals Control Drawing for the Nonincendive MTL646 and 647 Serial Text Displays SOLID EDGE

Title

SCI-1011

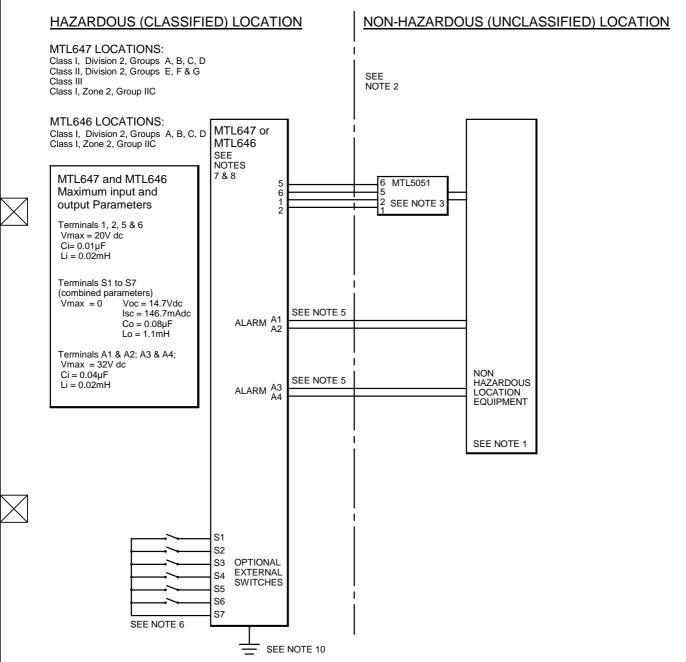
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## Four Wire System

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SOLID EDGE A4

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## Notes:

- The unclassified location equipment connected to the associated nonincendive field wiring apparatus must not use or generate more than 250V rms or 250V dc.
- 2. Nonincendive field wiring installations shall be in accordance with the National Electrical Code ANSI/NFPA 70. The Nonincendive Field Wiring concept allows interconnection of Nonincendive Field Wiring Apparatus with Associated Nonincendive Field Wiring Apparatus using any of the wiring methods permitted for unclassified locations.
- FM Approved MTL5051 Serial-Data Communications Isolator installed in the unclassified location.
- 4. FM Approved MTL5025 Solenoid / Alarm Driver installed in the unclassified location.
- 5. Apparatus connected to the alarm contacts shall be FM Approved as Associated Nonincendive Field Wiring Apparatus and shall comply with the following requirements:

Vocequal to or less thanVmaxLaequal to or greater thanLcable + LiCaequal to or greater thanCcable + Ci

- 6. Terminals S1 to S7 shall be connected to simple apparatus or volt free contacts of FM Approved Nonincendive Field Wiring Apparatus or FM Approved Associated Nonincendive Field Wiring Apparatus installed using Division 2 wiring methods.
- 7. To maintain IP66 protection between the MTL646 and the mounting panel:

Four panel mounting clips should be used

Minimum panel thickness should be 2mm (0.08inches) Steel 3mm (0.12inches) Aluminium

Outside panel finish should be smooth, free from particle inclusions, runs or build-up around cut-out.

Panel cut-out should be 66.2 x 136.0mm -0.0 +0.5 (2.60 x 5.35 inches -0.00 +0.02)

Edges of panel cut-out should be deburred and clean

Each panel mounting clip should be tightened to between: 20 and 22cNm (1.77 to 1.95 inLb)

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8. When installed in a hazardous (classified) location the MTL647 Serial Text Display shall be fitted with cable glands / conduit hubs selected from the following table.

Metallic glands and hubs must be grounded - see note 9.

Class	Permitted gland or conduit hub					
Class I	Any metallic or plastic cable gland or conduit hub that provides the required environmental protection.					
Class II and III	Crouse - Hinds Myler hubs SSTG-1 STG-1 STAG-1 MHUB-1					
	<b>O-Z / Gedrey hub</b> CHMG-50DT					
	<b>REMKE hub</b> WH-1-G					
	Killark Glands CMCXAA050 MCR050 MCX050					

- In addition to the supplied bonding plate, when 2 or 3 metallic glands or conduit hubs are fitted to a MTL647 Fieldbus Display, all metallic glands or conduit hubs must be connected together and grounded.
- 10. CAUTION: The MTL647 and MTL646 Serial Text Display enclosures are manufactured from conductive plastic per Article 250 of the National Electrical Code the enclosures shall be grounded using the 'E' terminal on the terminal block.
- 11. Up to two MTL647 and/or MTL646 Serial Text Displays may be connected to one system.
- 12. Up to four MTL647 and/or MTL646 Serial Text Displays may be connected to one system.

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