Galvanic Barrier
Intrinsically Safe Isolators for Hazardous Locations

The MTL5041/5045 Galvanic Barrier provide total intrinsically safe isolation for communication with Dwyer® pressure transmitters approved for location in hazardous areas. Galvanic barrier eliminates the need for a high integrity earth ground required when using shunt diode type safety barriers. DIN rail mounting and plug-in signal and power connectors simplify installation and maintenance.

Compatible Models: 637, 638, 608, 2700, 2800, 2900, SBLTX, PBLTX, IS626

### SPECIFICATIONS

**Hazardous Area Input:**
- Signal range: 0 to 24 mA (including over-range);
- Transmitter voltage: 16.5 V at 20 mA.

**Safe Area Output:**
- Signal range: 4 to 20 mA;
- Safe-area load resistance: 0 to 1kΩ;
- Safe-area output resistance: > 2 MΩ.

**Power Requirement:**
- 20 to 35 VDC.

**Response Time:**
- Settles to within 10% of final value within 250 µs.

**Current Consumption (20 mA signal):**
- 70 mA at 24 VDC;
- 85 mA at 20 VDC;
- 55 mA at 35 VDC.

**Maximum Power Dissipation (20 mA signal):**
- 1.2 W at 24 VDC.

**Isolation:**
- 250 V rms between input, output and power supply terminals.

**Transfer Accuracy at 68°F (20°C):**
- Better than 20 µA (typically 5 µA).

**LED Indicator:**
- Green: Power indication.

**Temperature Limits:**
- Operating: -4 to 140°F (-20 to 60°C);
- Storage: -40 to 176°F (-40 to 80°C).

**Temperature Drift:**
- <1 µA/°C.

**Humidity:**
- 5 to 95% RH.

**Mounting:**
- 1.4” (35 mm) top hat rail to:
  - EN 50022-35 x 7.5;
  - BS 5584;
  - 35 x 27 x 7.3 DIN 46277.

**Terminals:**
- Accommodate up to 2.5 mm² stranded or single-core.

**Safety Description:**
- 28 V, 300Ω, 93 mA; Um=250 rms or dc.

**Weight:**
- 3.9 oz (110 g).

**Agency Approvals:**
- See table below.

### Approved Models

**Model MTL5041**
- $726.00

**Model MTL5045**
- $726.00

@ Items are subject to Schedule B discounts.

### ACCESSORY

**A-360, Aluminum DIN Rail 1 m**
- $8.00

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<tr>
<th>Galvanic Barrier</th>
<th>Approval</th>
<th>Dwyer Series</th>
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<tr>
<td>MTL5041</td>
<td>FM for Class I, II, Div. 1 Groups C, D, F, G</td>
<td>638</td>
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<tr>
<td>MTL5041</td>
<td>UL for Class I, Div. 1 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class III Div 1</td>
<td>IS626, SBLTX, PBLTX</td>
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<tr>
<th>Group</th>
<th>FM</th>
<th>µF</th>
<th>mH</th>
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<tbody>
<tr>
<td>A &amp; B</td>
<td>0.13</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>0.30</td>
<td>12.6</td>
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<tr>
<td>D</td>
<td>1.04</td>
<td>33.6</td>
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<tr>
<td>IIC</td>
<td>0.083</td>
<td>0.85</td>
<td>2.15</td>
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<th>Certificate/file no.</th>
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<tbody>
<tr>
<td>USA (FM) (UL)</td>
<td>3600, 3610 entity 3611, 3810 UL913 UL1604</td>
<td>AEx/I,II,III/1/Entity ABCDEFG-SCI-942; NI/I@/ABCD/T4 (I/I0) AXEx[a</td>
<td>a]IIC-SCI-942 Entity; NI/I2/IIC/T4; Ta=140°F (60°C)</td>
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<td>CAN/CSA E60070, IEC60079, C22.2</td>
<td>Class I, Div.2, Gps A, B, C, D; Ex na [A] IIC T4 Class I, Xone 2, Aex na IIC T4</td>
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