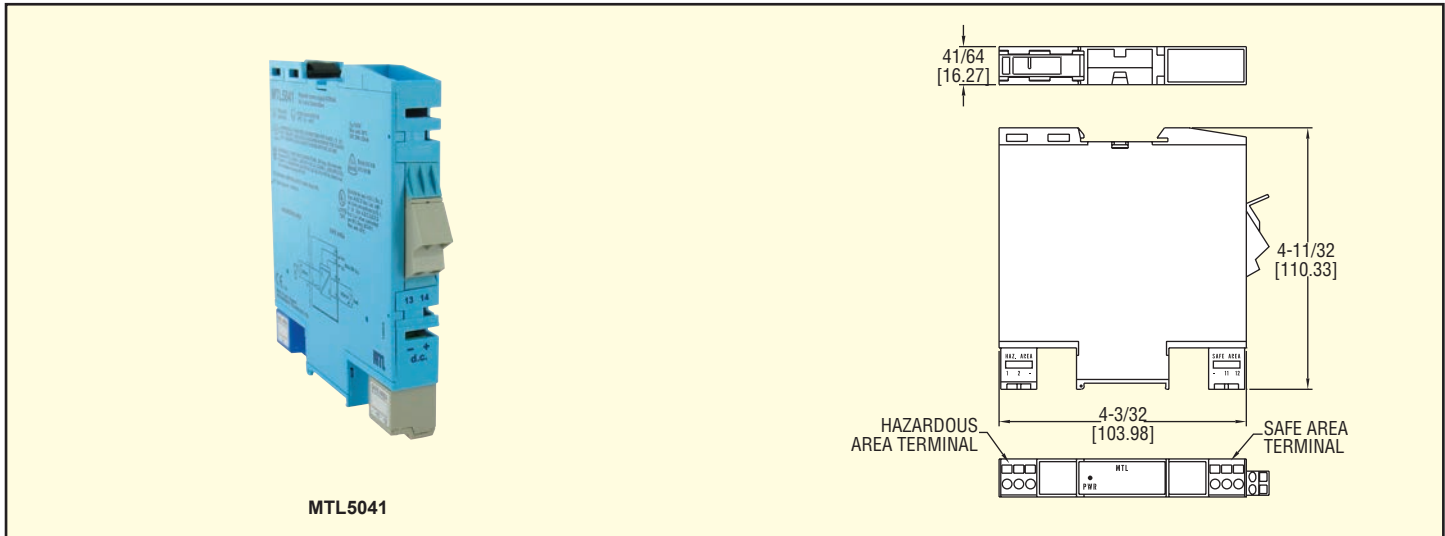




Series  
MTL5041/  
5045

# Galvanic Barrier

Intrinsically Safe Isolators for Hazardous Locations



MTL5041

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

Galvanic Barrier	Approval	Dwyer Series
<b>MTL5041</b>	FM for Class I, II, III; Div. 1 Groups C, D, F, G	638
<b>MTL5041</b>	UL for Class I; Div. 1 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class III Div 1	IS626, SBLTX, PBLTX
<b>MTL5041</b>	FM for Class I, II, III; Div. 1 Groups B, C, D, E, F, G	637
<b>MTL5041</b>	FM for Class I, II, III; Div. 1 Groups A, B, C, D, E, F, G	608
<b>MTL5045</b>	FM for Class I, II, III; Div. 1 Groups C, D, E, F, G	2900
<b>MTL5045</b>	FM for Class I, II, III; Div. 1 Groups C, D, E, F, G	2700/2800

MTL5041/5045	FM		
	Group	µF	mH
	A & B	0.13	4.2
	C	0.30	12.6
	D	1.04	33.6
BASEEFA (ATEX)			
Group	µF	mH	µH/Ω
IIC	0.083	3.05	55
IIB	0.85	9.15	210
IIA	2.15	244	444

Region (Authority)	Standard	Approved For	Certificate/ File no.
USA (FM) (UL)	3600, 3610 entity 3611, 3810 UL913 UL1604	AIS/I,II,III/1/Entity ABCDEFG-SCI-942; NI/I/@/ABCD/T4 [I/O] AEx[ia]IIC-SCI-942 Entity; NI/1/2/IIC/T4; Ta=140°F (60°C)	3010737
Canada (CSA)	CAN/CSA E60070, IEC60079, C22.2	Class I, Div.2, Gps A, B, C, D; Ex nA [ia] IIC T4 Class I, Xone 2, Aex nA IIC T4	1345550
UK (BASEEFA)	EN 50014, EN 50020	EEx ia IIC	BAS01ATEX7217
UK (BASEEFA) Systems	EN 50039	EEx ia IIC	Ex01E2219

### 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.

### ACCESSORY

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