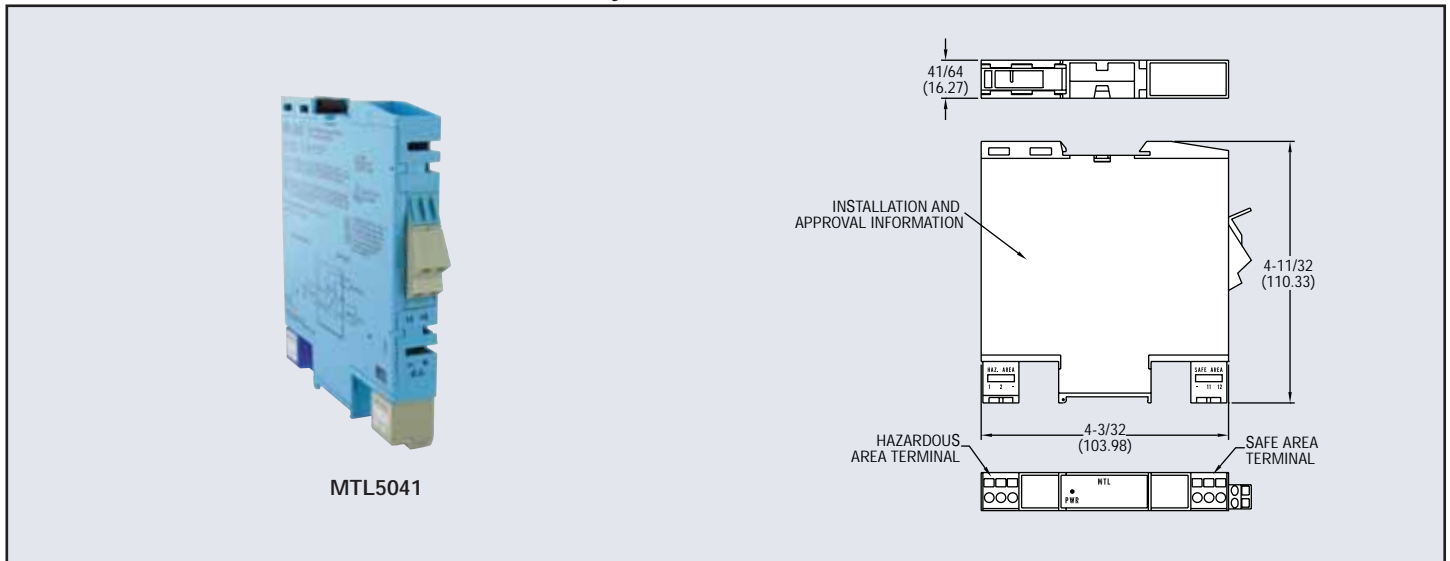




Series
MTL5041/
5045

Galvanic Isolator

Intrinsically Safe Isolators for Hazardous Locations



The MTL5041/5045 Galvanic Isolators provide total intrinsically safe isolation for communication with Dwyer® pressure transmitters approved for location in hazardous areas. Galvanic isolation 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.

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: >2MΩ.

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; U_m=250 rms or dc.

Weight: 3.9 oz (110 g).

Agency Approvals: See table below.

Compatible Models: 637, 638, 639, 608, 2200, 2900

Galvanic Isolator	Approval	Dwyer Series
MTL5041	FM for Class I, II, III; Div. 1 Groups C, D, E, F, G	638
MTL5041	UL for Class I, II, III; Div. 1 & 2 Groups C, D, E, F, G	639
MTL5041	FM for Class I, II, III; Div. 1 Groups B, C, D, E, F, G	637
MTL5041	FM for Class I, II, III; Div. 1 Groups A, B, C, D, E, F, G	608
MTL5045	FM for Class I, II, III; Div. 1 Groups A, B, C, D, E, F, G	2200
MTL5045	FM for Class I, II, III; Div. 1 Groups A, B, C, D, E, F, G	2900

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	24.4	444	

MODELS
MTL5041
MTL5045

Region (Authority)	Standard	Approved For	Certificate/file no.
USA (FM)	3600, 3610 entity 3611, 3810	AIS/I,II,III/1/Entity ABCDEFG-SCI-942, NI/II/@/ABCD/T4 II/O) AEx ia IIC -SCI-942 Entity: NI/1/2/IIC/T4; Ta=140°F (60°C)	3010737
Canada (CSA)	CAN/CSA E60070, UL698, UL913, UL1604, IEC60079, C22.2	Class I, Div.2, Gps A, B, C, D; Ex nA II A) 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

Test Equipment