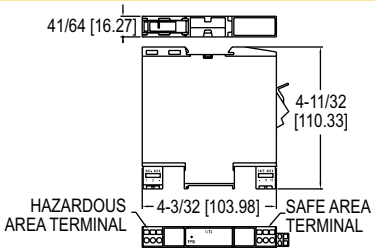
Dwyer

SERIES MTL5541

GALVANIC BARRIER

Intrinsically Safe Isolators for Hazardous Locations



The **Series MTL5541 Galvanic Barrier** provides intrinsically safe isolation for communication with Dwyer® transmitters approved for use in hazardous areas. This galvanic barrier eliminates the need for a high integrity earth ground required when using shunt type diode type safety barriers. DIN rail mounting and plug-in signal and power connectors simplify installation and maintenance.

BENEFITS/FEATURES
- Easy snap-in installation for most DIN rails
- Safe to use in hazardous locations

APPLICATIONS
- Electrically isolates pressure and level transmitters from unregulated circuits for intrinsically safe applications

MODEL CHART	
Model	**Description**
MTL5541	Galvanic barrier

ACCESSORIES	
Model	**Description**
A-360	Aluminum DIN rail 1 m

COMPATIBLE MODELS: 608, SBLTX, PBLTX, IS626		
Model	**Approval**	**Dwyer Series**
MTL5541	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
MTL5541	FM for class I, II, III; div. 1 groups A, B, C, D, E, F, G	608

SPECIFICATIONS

Hazardous Area Input: Signal range: 0-24 mA (including over-range); Transmitter voltage: 16.5 V at 20 mA.
Safe Area Output: Signal range: 4-20 mA; Under/over-range: 0-24 mA; Load resistance: 0 to 360Ω @ 24 mA, or 0 to 450Ω @ 20 mA; Current sink: 600Ω max.; Maximum voltage source: 24 VDC; Output resistance: > 1 MΩ.
Power Requirement: 20-35 VDC
Response Time: Settles to within 10% of final value within 50 µs.
Current Consumption (20 mA signal): 51 mA @ 24V.
Maximum Power Dissipation (20 mA signal): 0.7 W @ 24 VDC, 1.0 W @ 24 VDC.
Isolation: 250 V RMS, tested at 1500 V RMS minimum, between safe-area and hazardous-area terminals; 50 V between safe-area circuits and power supply.
Transfer Accuracy at 68°F (20°C): Better than 15 µA.
LED Indicator: Green: Power indication.
Temperature Limits: Operating: -6 to 140°F (-20 to 60°C); Storage: -40 to 176°F (-40 to 80°C).
Temperature Drift: < 0.8µA/°C.
Humidity: 5 to 95% RH.
Mounting: T-section 35 mm DIN rail (7.5 or 15 mm) to EN 50022.
Terminals: Accommodate up to 2.5 mm^2 stranded or single-core.
Safety Description: Vo= 28 V, Io= 93 mA, Po= 651mW, Um= 253 RMS or DC.
Weight: 5.3 oz (150 g).
Compliance: See table.

Certifying Authority	Standard	Approved For	Certificate/File no.
FM (USA)	FM3600, FM3610, FM3810	Associated Apparatus providing intrinsically safe circuits for Class I, II, III, Division 1, Groups A, B, C, D, E, F, and G when installed per the control drawing SCI-1028; Non-incendive for Class I, Division 2, Groups A, B, C, and D T4; Intrinsic safety for AEx [ia] IIC when installed per the control drawing SCI-1028; Non sparking for Class I, Zone 2, AExnA IIC T4 Gc hazardous (classified) locations with an ambient temperature rating of -20OC to +60OC	3025815
Canada (CSA)	CSA-C22.2 No. 157-M1992, CSA-C22.2 No. 213-M1987		
UL	UL61010-1 Edition 3 UL913 Edition 8 UL60079-0 Edition 6 UL60079-11 Edition 6	Associated Apparatus for use in Unclassified Locations or Class I, Division 2, Groups A, B, C, D	E120058
CSA	C22.2 No. 142-M1987 C22.2 No. 157-M1992 C22.2 No. 213-M1987 CAN/CSA E60079-0:07 CAN/CSA E60079-11:02 CAN/CSA E60079-15:02	Class I, Division 2, Groups A, B, C, D; Class I, Zone 2, Group IIC; Ex nA [ia] IIC; Ex nC [ia] IIC	LR 36637
ATEX	EN 60079-0:2012 EN 60079-15:2010	Ex nA IIC T4 Gc	Baseefa07ATEX0213 MTL08ATEX5541X BAS01ATEX7217
IECEx (Type 'n')	IEC 60079-0:2011 Edition 6 IEC 60079-15:2010 Edition 4	EX nA IIC T4 Gc	IECEx BAS 15.0119X
IECEx (Intrinsic Safety)	IEC 60079-0:2011 Edition 4 IEC 600709-11:2011 Edition 6	[Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I	IECEx BAS 07.0069
IECEx ([Ex ia] I/IIB/IIC)	IEC 60079-0:2004 Edition 4 IEC 60079-11:2006 Edition 1 IEC 60079-0:2004 Edition 1 IEC 60079-11:2005 Edition 1	[Ex ia] I/IIB/IIC, IECEx ITA 08.0009X	IECEx ITA 08.0009X