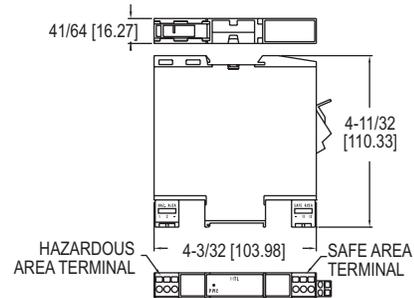




Series MTL5541 Galvanic Barrier

Specifications - Installation and Operating Instructions



The **Series MTL5541 Galvanic Barrier** provides a fully-floating dc supply for energizing a conventional 2 or 3-wire 4/20mA transmitter, which is located in a hazardous area, and repeats the current in another floating circuit to drive a safe-area load. For HART 2-wire transmitters, the unit allows bi-directional communication signals superimposed on the 4/20mA loop current. Separately powered current sources, such as 4-wire transmitters, can be connected but will not support HART communication.

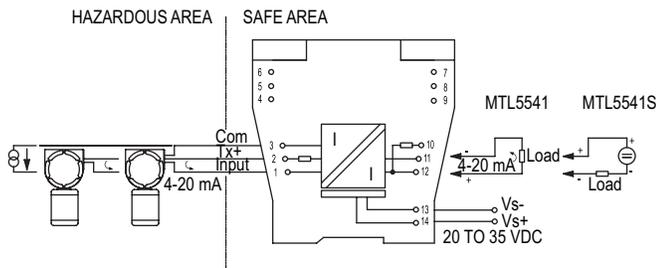
FEATURES/BENEFITS

- Designed to mount on most standard DIN rails
- Approved for use in hazardous areas

APPLICATIONS

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

Mounting and Wiring



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; Under/over-range: 0 to 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 to 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- 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 35mm DIN rail (7.5 or 15mm) to EN 50022.

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

Safety Description: Vo= 28 V, Io= 93 mA, Po= 651mW, Um= 253 RMS or DC.

Weight: 150 g.

Agency Approvals: FM, UL, ATEX, IECEx, CE.

TERMINAL	FUNCTION
1	Current Input.
2	Transmitter Supply +ve.
3	Common.
10	Output +ve via 220Ω for HART apps.
11	Output -ve (+ve current sink).
12	Output +ve (-ve current sink).
13	Supply -ve.
14	Supply +ve.

MAINTENANCE/REPAIR

Upon final installation of the Series MTL5541, no routine maintenance is required. The Series MTL5541 is not field serviceable and is not possible to repair the unit. Field repair should not be attempted and may void warranty.

WARRANTY/RETURN

Refer to "Terms and Conditions of Sale" in our catalog and on our website. Contact customer service to receive a Return Goods Authorization number before shipping the product back for repair. Be sure to include a brief description of the problem plus any additional application notes.