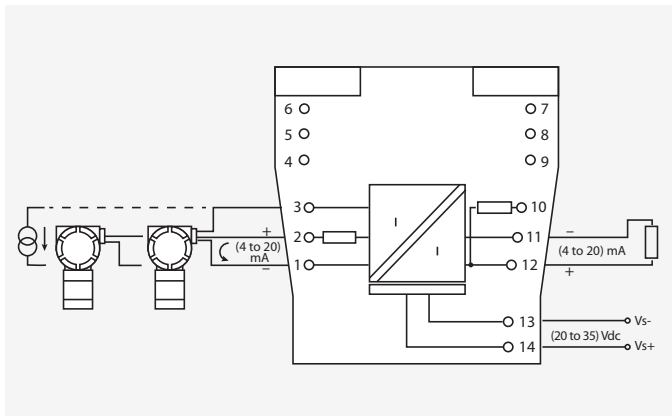


5541 Repeater Power Supply

1 Channel Isolation Barrier with Repeater Power Supply, 28 V max, 93mA max

Isolators



Terminal	Function
1	Current Input
2	Transmitter Supply +ve
3	Common
10	Output +ve via 220Ω for HART Apps.
11	Output -ve
12	Output +ve
13	Supply -ve
14	Supply +ve

The MTL 5541 repeater power supply is suitable for 2 and 3 wire temperature transmitters located in hazardous areas. The MTL 5541 is also HART® transparent which allows 2-way HART communication for 2-wire transmitters installed in the hazardous area.

Specification

Number of Channels	One
Location of Transmitter	Zone 0, IIC, T4–6 hazardous area if suitably certified Div. 1, Group A hazardous location
Safe-Area Output Under/Over-Range:	Signal range: 4 to 20mA 0 to 24mA
Safe-Area Load Resistance	@ 24mA: 0 to 360Ω @ 20mA: 0 to 450Ω
Current Sink:	600Ω max.
Maximum Voltage Source:	24V dc
Safe-Area Circuit Output Resistance:	> 1 MΩ
Safe-Area Circuit Ripple	< 50µA peak-to-peak
Hazardous-Area Input	Signal range: 0 to 24mA (including over-range)
Transmitter Voltage:	16.5V at 20mA
Transfer Accuracy at 20°C	Better than 15µA
Temperature Drift	< 0.8µA/°C
Response Time	Settles to within 10% of final value within 50µs
Communications Supported	HART (terminals 1 & 2 only)
LED Indicator	Green: power indication
Maximum Current Consumption	51mA at 24V (with 20mA signal)
Power Dissipation Within Unit	0.7W @ 24V dc (with 20mA signal)

Safety Description

Terminals 2 to 1 and 3:	$U_0=28V$ $I_0=93mA$ $P_0=651mW$ $U_m = 253V$ rms or dc
Terminals 1 to 3:	Simple apparatus $\leq 1.5V$, $\leq 0.1A$ and $\leq 25mW$; can be connected without further certification into any IS loop with an open-circuit voltage $< 28V$