

REPEATER POWER SUPPLY

MTL5541

- POWERS A 2/3 WIRE (4 TO20) mA TRANSMITTER IN A HAZARDOUS AREA
- REPEATS THE TRANSMITTER SIGNAL INTO THE SAFE AREA
- ALSO SUITABLE FOR HART TRANSMITTERS
- 20 TO 35V DC POWER SUPPLY



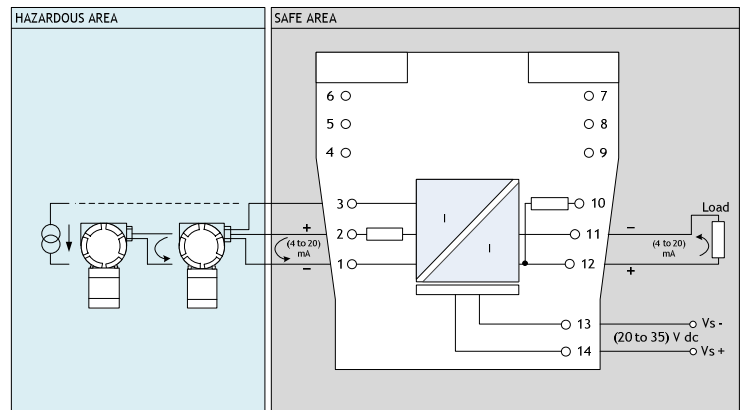
INTRODUCTION

The MTL 5541 provides a fully floating dc supply for energising a conventional 2 or 3 wire (4 to 20) mA transmitter which is located in a hazardous area, and repeats the current in another floating circuit to drive a safe area load. For smart 2 wire transmitters, the unit allows bi-directional communications signals superimposed on the (4 to 20) mA signal.

SPECIFICATION

See also product handbook @ www.status.co.uk/downloads

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	
Signal Range	(4 to 20) mA
Under / Over Range	(0 to 24) mA
Safe Area load resistance	(0 to 360) Ω @ 24 mA (0 to 450) Ω @ 20 mA
Safe Area circuit output resistance	>1 MΩ
Safe Area circuit ripple	< 50 μA peak to peak
Hazardous Area input	
Signal Range	(0 to 24) mA (including over range)
Transmitter voltage	16.5 V @ 20 mA
Transfer Accuracy @ 20°C	Better than 15 μA
Temperature Drift	< 0.8 μA / °C
Response Time	Settles to within 10 % of final value within 50 μs
Communications supported	HART® (terminals 1 & 2 only)
LED Indicator	Green (Power Indication)
Maximum Current Consumption (with 20 mA signal)	51 mA @ 24 V
Power dissipation within unit (with 20 mA signal)	0.7 W @ 24 V
Safety Description	
Terminals 2 to 1 and 3	$V_o = 28 \text{ V}$, $I_o = 93 \text{ mA}$, $P_o = 651 \text{ mW}$, $U_m = 253 \text{ V rms or dc}$
Terminals 1 to 3	Simple apparatus $\leq 1.5 \text{ V}$, $\leq 0.1 \text{ A}$ and $\leq 25 \text{ mW}$; can be connected without further certification into any IS loop with an open circuit voltage < 28 V



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

Please refer to the following link for Instruction Manual and Installation requirements (INA5500)
http://www.mtl-inst.com/product/mtl5500_series_isolators/

ORDER CODE : MTL5541