

REPEATER POWER SUPPLY

MTL5544

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



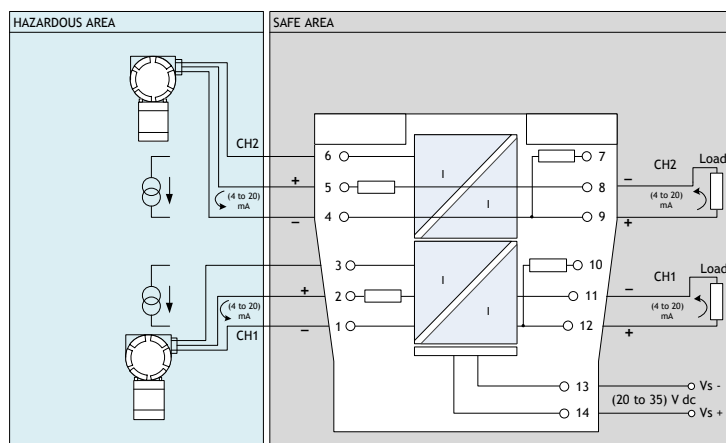
INTRODUCTION

The MTL 5544 provides fully floating dc supplies for energising two conventional 2 or 3 wire (4 to 20) mA or 'smart' transmitter located in a hazardous area, and repeats the current in other circuits to drive two safe area loads. For smart 2 wire transmitters, the unit allows bi-directional transmission of digital communications signals superimposed on the (4 to 20) mA signal so that the transmitter can be interrogated either from the operator station or by a hand held communicator.

SPECIFICATION

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

Number of Channels	Two
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 M Ω
Safe Area circuit ripple	< 50 μ A 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 μ A
Temperature Drift	< 0.8 μ A / °C
Response Time	Settles to within 10 % of final value within 50 μ s
Communications supported	HART® (terminals 1 & 2 and 4 & 5only)
LED Indicator	Green (Power Indication)
Maximum Current Consumption (with 20 mA signal)	96 mA @ 24 V
Power dissipation within unit (with 20 mA signal)	1.4 W @ 24 V
Safety Description	
Terminals 2 to 1 and 3 and 5 to 4 and 6	$V_o = 28$ V, $I_o = 93$ mA, $P_o = 651$ mW, $U_m = 253$ V rms or dc
Terminals 1 to 3 and 4 to 6	Simple apparatus ≤ 1.5 V, ≤ 0.1 A and ≤ 25 mW; can be connected without further certification into any IS loop with an open circuit voltage < 28 V



Terminal	Function
1	Ch1 Current Input
2	Ch1 Transmitter supply +ve
3	Ch1 Common
4	Ch2 Current Input
5	Ch2 Transmitter supply +ve
6	Ch2 Common
7	Ch2 Output +ve via 220 Ω for HART apps.
8	Ch2 Output -ve
9	Ch2 Output +ve
10	Ch1 Output +ve via 220 Ω for HART apps.
11	Output -ve
12	Output +ve
13	Ch1 Supply -ve
14	Ch1 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 : MTL5544

Status Instruments Ltd
Status Business Park
Gannaway Lane, Tewkesbury
Gloucestershire, UK
GL20 8FD

Tel: +44 (0)1684 296818
Fax: +44 (0)1684 293746
Email: sales@status.co.uk
Website: www.status.co.uk
D2541-01-02 CN5219 MTL5544 Data Sheet

