

MTL5041 REPEATER POWER SUPPLY

4/20mA, for 2-wire transmitters



The MTL5041 provides a fully-floating dc supply for energising a conventional 2-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.

SPECIFICATION

See also common 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

Signal range: 4 to 20mA
Over/under-range: 0 to 24mA
Safe-area load resistance: 0 to 1k Ω
Safe-area circuit output resistance: >2M Ω

Safe-area circuit ripple

<125 μ A 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

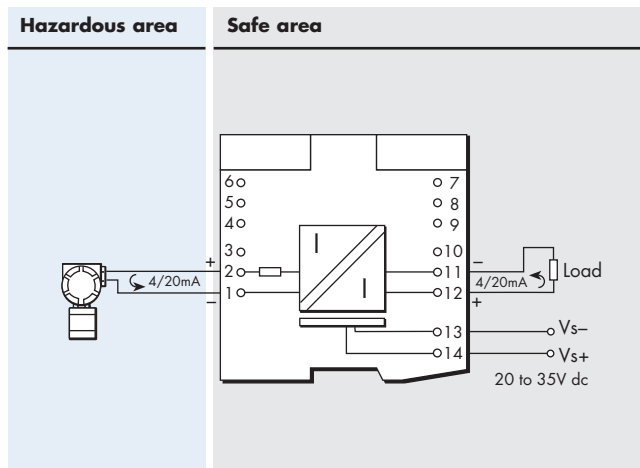
Better than 20 μ A (typically 5 μ A)

Temperature drift

<1 μ A/°C

Response time

Settles to within 10% of final value within 250 μ s



Terminal	Function
1	Input -ve
2	Input +ve
11	Output -ve
12	Output +ve
13	Supply -ve
14	Supply +ve

LED indicator

Green: power indication

Supply voltage

20 to 35V dc

Maximum current consumption (with 20mA signal)

70mA at 24V
85mA at 20V
55mA at 35V

Maximum power dissipation within unit (with 20mA signal)

1.2W at 24V

Safety description

28V, 300 Ω , 93mA; $U_m = 250V$ rms or dc



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