



VIBRATION ANALYSIS HARDWARE

# IS122-1A (MTL5041) User Manual

## 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 $\Omega$   
Safe-area circuit output resistance: >2M $\Omega$

#### Safe-area circuit ripple

<125 $\mu$ 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 $\mu$ A (typically 5 $\mu$ A)

#### Temperature drift

<1 $\mu$ A/°C

#### Response time

Settles to within 10% of final value within 250 $\mu$ s

#### LED indicator

Green: power indication

#### Supply voltage

20 to 35V dc

#### Maximum current consumption (with 20mA signal)

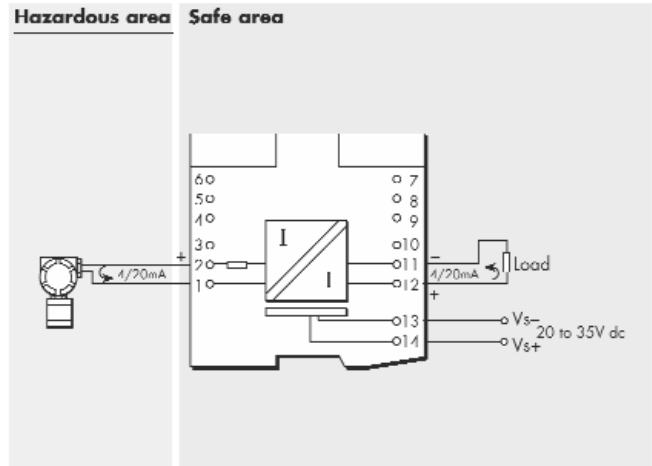
70mA at 24V  
85mA at 20V  
55mA at 35V

#### Maximum power dissipation within unit (with 20mA signal)

1.2W at 24V

#### Safety description

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



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