

# MTL5044 REPEATER POWER SUPPLY

two-channel, 4/20mA, for 2-wire  
transmitters



The MTL5044 provides a fully-floating dc supply for energising two conventional 2-wire 4/20mA transmitters which are located in a hazardous area, and repeats the current in two floating circuits to drive two safe-area loads.

## SPECIFICATION

See also common specification

### Number of channels

Two

### Location of transmitters

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 550Ω  
Safe-area circuit output resistance: >2MΩ

### Safe-area circuit ripple

<125μA 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

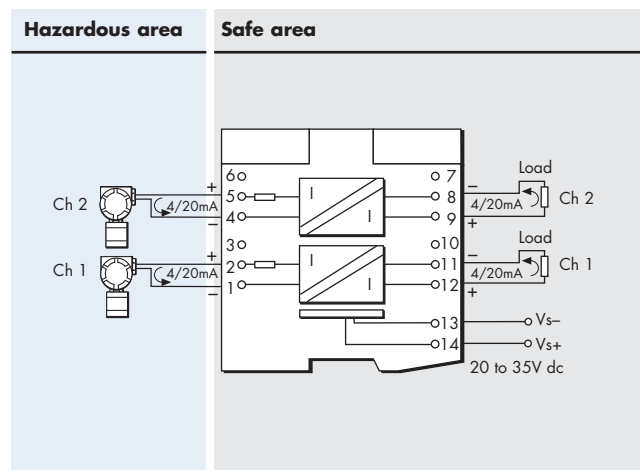
Better than 20μA (typically 5μA)

### Temperature drift

<1μA/°C

### Response time

Settles to within 10% of final value within 250μs



Terminal	Function
1	Input -ve (channel 1)
2	Input +ve (channel 1)
4	Input -ve (channel 2)
5	Input +ve (channel 2)
8	Output -ve (channel 2)
9	Output +ve channel 2)
11	Output -ve (channel 1)
12	Output +ve (channel 1)
13	Supply -ve
14	Supply +ve

### LED indicator

Green: power indication

### Supply voltage

20 to 35V dc

### Maximum current consumption (with two 20mA signals)

110mA at 24V  
130mA at 20V  
80mA at 35V

### Maximum power dissipation within unit (with two 20mA signals)

1.5W at 24V

### Safety description

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



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