MTL5045 ISOLATING DRIVER

4/20mA

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The MTL5045 isolates and passes on a 4/20mA signal from a controller located in the safe area to a load of up to 800Ω in the hazardous area. It has a high output capacity of 16V at 20mA combined with a low (4V) drop across its input terminals and excellent accuracy.

SPECIFICATION

See also common specification

Number of channels

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Location of load

Zone 0, IIC, T4-6 hazardous area if suitably certified Div. 1, Group A hazardous location

Safe-area input

Signal range: 4 to 20mA Under/over range: 0 to 24mA

Hazardous-area output

Maximum load resistance: 800Ω (16V at 20mA)

Output resistance

 $>2M\Omega$

Input voltage drop

<4V at 20mA

Input and output circuit ripple

<40µA peak-to-peak

Transfer accuracy at 20°C

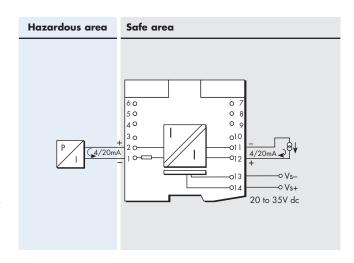
Better than 20µA

Temperature drift

 $<1\mu A/^{\circ}C$

Response time

Settles to within 10% of final value within 250µs



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

LED indicator

Green: power indication

Supply voltage

20 to 35V dc

Maximum current consumption

50mA at 24V 60mA at 20V

40mA at 35V

Maximum power dissipation within unit (with 20mA signal)

1.0W at 24V 1.1W at 35V

Safety description

28V, 300Ω , 93mA; $U_m = 250\text{V rms}$ or dc