

MTL4083 VOLTAGE ISOLATOR



The MTL4083 takes a dc signal from a voltage source in a hazardous area, isolates it, and passes it to a receiving instrument located in the safe area. It is intended for use with strain-gauge bridges, slide-wire transducers and various voltage sources.

SPECIFICATION

See also common specification, cable parameters and approvals

Number of channels

One

Location of source

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

Input and output signal range

0 to 12V, over range to +12.5V

Signal input resistance

>10M Ω

Output resistance

<50 Ω (recommended load resistance \geq 10k Ω)

Transfer accuracy

Linearity and repeatability <0.05% of reading (input \geq 1V)

Temperature drift

<600 μ V/ $^{\circ}$ C

Response time

Settles to within 10% of final value typically within 200 μ s

Frequency response

DC to 4kHz nominal

LED indicator

Green: one provided for power indication

Power requirement, V_s

31mA max, 20 to 35V dc

Power dissipation within unit

0.7W typical at 24V
1.1W at 35V

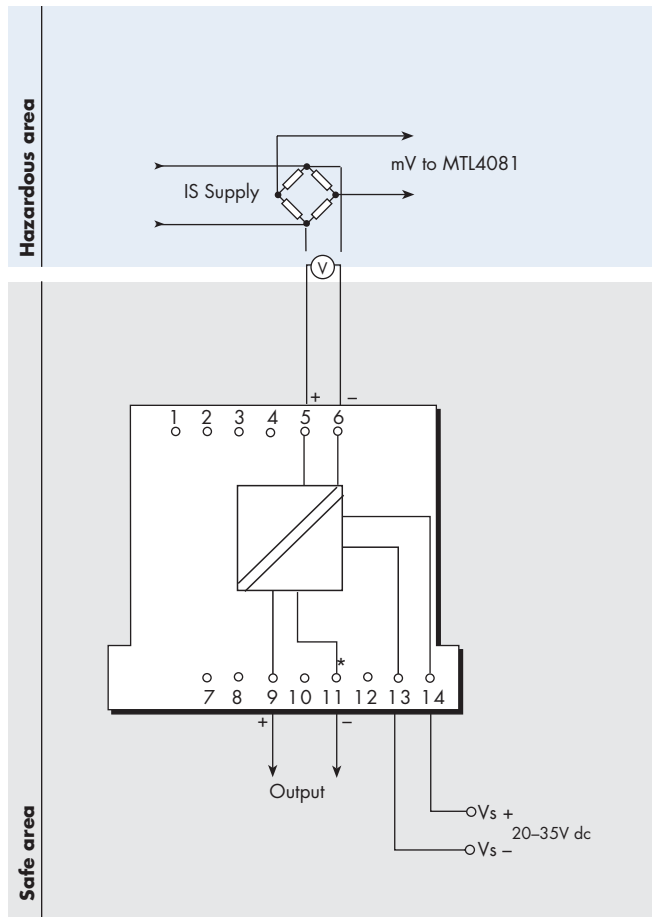
Isolation

250V ac between safe- and hazardous-area circuits

Safety description

16V, 950 Ω , 17mA

*Note: output negative (terminal 11) is clamped to supply negative (terminal 13) through two series diodes



Terminal	Function
5	Voltage input +ve
6	Voltage input -ve
9	Voltage output +ve
11	Voltage output -ve
13	Supply -ve
14	Supply +ve



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