

MTL5032 PULSE ISOLATOR



The MTL5032 isolates pulses from a switch, proximity detector, current pulse transmitter or voltage pulse transmitter located in a hazardous area.

SPECIFICATION

See also common specification

Number of channels

One

Location of switch

Zone 0, IIC, T6 hazardous area

Div. 1, Group A hazardous location

Location of proximity detector or transmitter

Zone 0, IIC, T4–6 hazardous area if suitably certified

Div. 1, Group A hazardous location

Safe-area output

Maximum off-state values: $V = 35V$, $I = 10\mu A$

Maximum on-state current: 50mA

Voltage drop: $[1 + (0.1 \times \text{current in mA})] V$

Output off if supply fails

Hazardous-area input

Switch: output-on (off) if switch closed (open)

Proximity detector: meets NAMUR and DIN 19234 standards

Pulse (I): Supply 16.5V dc at 20mA,

Short-circuit current 24mA

Output on (off) >8.9mA (<6.8mA)

Switching hysteresis: 0.5mA typical

Pulse (V): Input impedance >10k Ω

Switching point voltage (V_{sp}): 3, 6 or 12V (selectable)

Output on (off) if input >1.2 x V_{sp} (<0.8 x V_{sp})

Switching hysteresis: 0.11 x V_{sp} typical

Pulse width

High: 10 μs minimum

Low: 10 μs minimum

Frequency range

0 to 50kHz

LED indicators

Green: power indication

Yellow: status

Supply voltage

20 to 35V dc

Maximum current consumption

65mA at 24V dc

70mA at 20V dc

55mA at 35V dc

Maximum power dissipation within unit

1.35W at 24V

1.75W at 35V

Safety description

Terminals 2 to 1

10.5V, 800 Ω , 14mA

Terminals 5 to 4 and 1

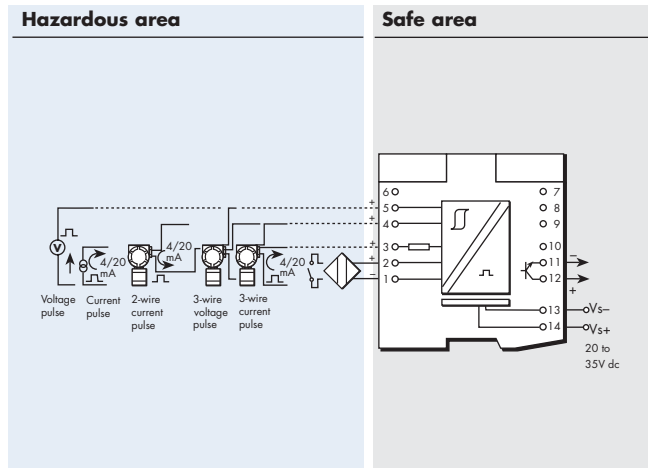
28V, 94mA, 0.65W

Terminals 4 to 3 and 1

28V, 300 Ω , 93mA

Terminal 3 to 1

Non-energy-storing apparatus $\leq 1.2V$, $\leq 0.1A$, $\leq 20\mu J$ and $\leq 25mW$; can be connected without further certification into any IS loop with an open-circuit voltage <28V



Terminal	Function
1	Common -ve
2	Proximity detector +ve
3	Current +ve
4	Transmitter +ve
5	Voltage +ve
11	Output -ve
12	Output +ve
13	Supply -ve
14	Supply +ve



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