

MTL5521 SOLENOID/ ALARM DRIVER

loop-powered, IIC

The MTL5521 is a loop-powered module which enables a device located in the hazardous area to be controlled from the safe area. The MTL5521 can drive a certified intrinsically safe low-power load, as well as non-energy-storing simple apparatus such as an LED.

SPECIFICATION

See also common specification

Number of channels

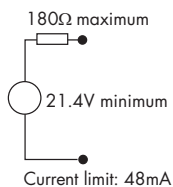
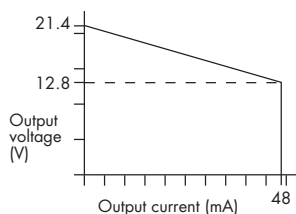
One

Location of load

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

Div. 1, Group A hazardous location

Minimum output voltage Equivalent output circuit



Input voltage

20 to 35V dc

Hazardous-area output

Minimum output voltage: 12.8V at 48mA

Maximum output voltage: 24V from 180Ω

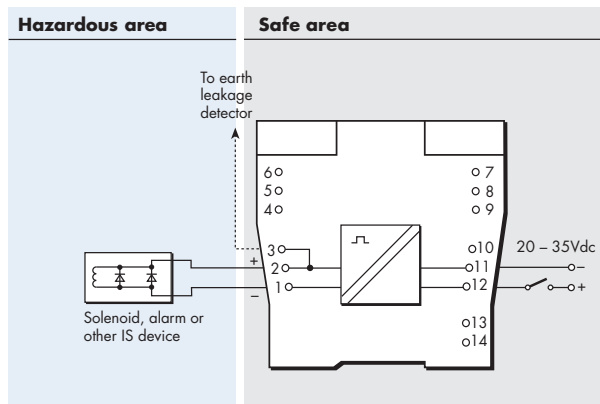
Current limit: 48mA

Output ripple

< 0.5% of maximum output, peak to peak

Response time

Output within 10% of final value within 100ms



| Terminal | Function |
|----------|----------------------------|
| 1 | Output -ve |
| 2 | Output +ve |
| 3 | To earth leakage detector* |
| 11 | Supply -ve |
| 12 | Supply +ve |

* Signal plug HAZ1-3 is required for access to this function

LED indicator

Yellow: output status, on when output circuit is active

Maximum current consumption

90mA at 24V

Power dissipation within unit

1.4W at 24V

Safety description

$V_o=25V$ $I_o=147mA$ $P_o=919mW$ $U_m = 253V$ rms or dc

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.



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MTL5500 SERIES COMMON SPECIFICATION

Please go to our website at www.mtl-inst.com for the latest information regarding safety approvals, certificates and entity parameters.

Connectors

Each MTL5500 unit is supplied with signal connectors, as applicable.

When using crimp ferrules for the hazardous and non-hazardous (safe) signal connectors the metal tube length should be 12mm and the wire trim length 14mm.

Isolation

250V rms, tested at 2200V rms minimum, between safe-area, hazardous-area and power supply terminals
50V ac or dc between safe-area circuits where applicable.

Supply voltage

20 – 35V dc

Location of units

Safe area

Terminals

Accepts conductors of up to 2.5mm² stranded or single-core

Mounting

MTL5500 series backplanes

Ambient temperature limits

-20 to +60°C (-6 to +140°F) operating
-40 to +80°C (-40 to +176°F) storage

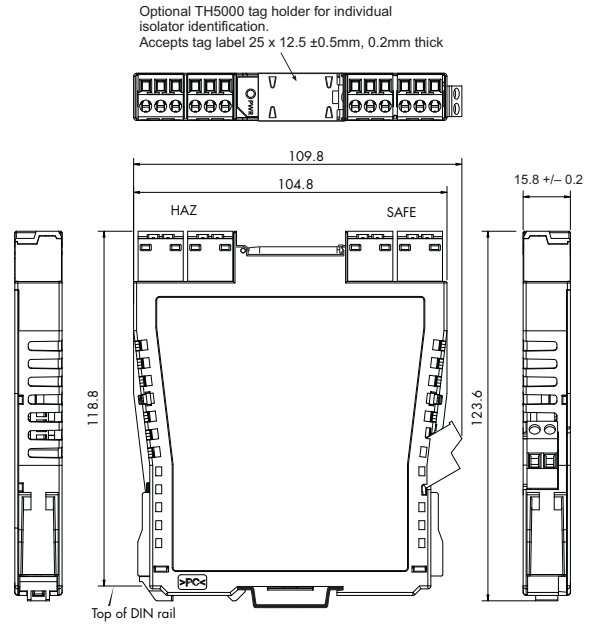
Humidity

5 to 95% relative humidity

Weight

110g approximately (except where indicated)

DIMENSIONS (mm)



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