MTL4521/L – MTL5521 SOLENOID/ ALARM DRIVER

loop-powered, IIC

The MTLx521 and the MTL4521L are loop-powered modules which enable a device located in the hazardous area to be controlled from the safe area. They can all 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 (MTLx521)





Equivalent output circuit

24V from 180Ω



Input voltage

20 to 35V dc

Hazardous-area output (MTLx521) Minimum output voltage: 13.6V at 48mA

Maximum output voltage:

Current limit: 48mA minimum

Hazardous-area output (MTL4521L) Minimum output voltage: 11.1V at 48mA

Maximum output voltage: 24V from 232Ω Current limit: 48mA minimum

Output ripple

< 0.5% of maximum output, peak to peak **Response time**

Output within 10% of final value within 100ms

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LED indicator

Yellow: output status, on when output active **Maximum current consumption** 90mA at 24V **Power dissipation within unit** 1.4W at 24V **Safety description (MTLx521)**

 $U_o=25V$ $I_o=147mA$ $P_o=0.92W$ $U_m = 253V$ rms or dc Safety description (MTL4521L)

 $U_0 = 25V I_0 = 108mA P_0 = 0.68W U_m = 253V rms or dc$

SIL capable



These models have been assessed for use in IEC 61508 functional safety applications. SIL3 capable for a single device (HFT=0) when the required function is to de-energise the output.

SIL1 capable for a single device (HFT=0) when the required function is to energise the output. See data on MTL web site and refer to the safety manual.



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