

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



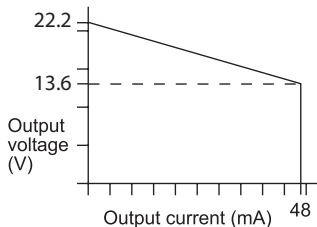
Number of channels

One

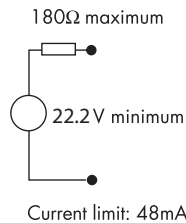
Location of load

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

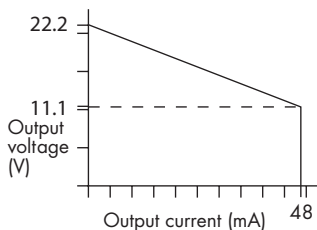
Minimum output voltage (MTLx521)



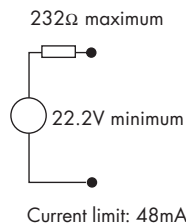
Equivalent output circuit



Minimum output voltage (MTL4521L)



Equivalent output circuit



Input voltage

20 to 35V dc

Hazardous-area output (MTLx521)

Minimum output voltage: 13.6V at 48mA
Maximum output voltage: 24V from 180Ω
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

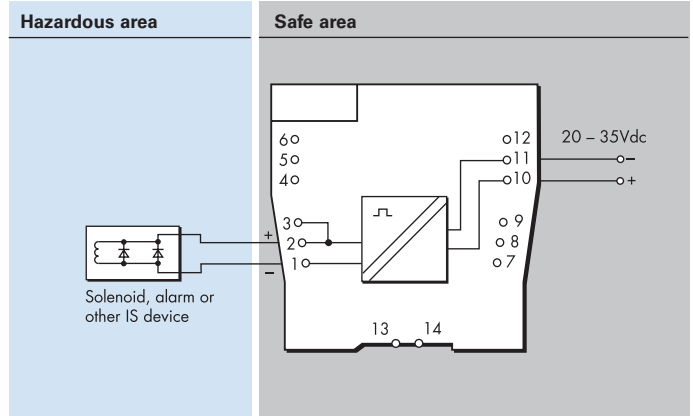
Output ripple

< 0.5% of maximum output, peak to peak

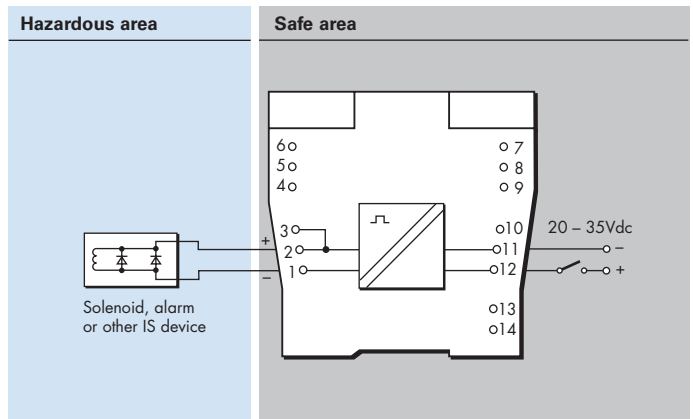
Response time

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)

$U_o=25V$ $I_o=108mA$ $P_o=0.68W$ $U_m=253V$ 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.



Powering Business Worldwide

Eaton Electric Limited,

Great Marlings, Butterfield, Luton
Beds, LU2 8DL, UK.
Tel: +44 (0)1582 723633 Fax: +44 (0)1582 422283
E-mail: mtlenquiry@eaton.com
www.mtl-inst.com

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EUROPE (EMEA):

+44 (0)1582 723633 mtlenquiry@eaton.com

THE AMERICAS:

+1 800 835 7075 mtl-us-info@eaton.com

ASIA-PACIFIC:

+65 6 645 9888 sales.mtlsing@eaton.com

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.