MTL4525 – MTL5525
SOLENOID/ALARM DRIVER
switch operated with override, IIC, low power

The MTLx525 enables an on/off device in a hazardous area to be controlled by a volt-free contact or logic signal in the safe area. It can drive loads such as solenoids, alarms, LEDs and other low power devices that are certified as intrinsically safe or are classified as non-energy storing simple apparatus.

The MTL4525 allows a second safe-area switch or logic signal to be connected that enables the output to be disabled to permit, for example, a safety system to override a control signal.

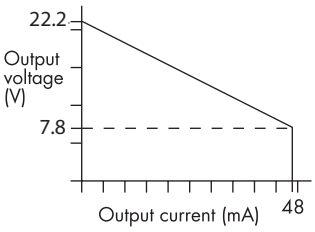
SPECIFICATION

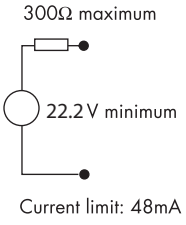
See also common specification

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**





Hazardous-area output

Minimum output voltage:	7.8V at 48mA
Maximum output voltage:	24V from 300Ω
Maximum off-state output voltage:	4V from 300Ω
Current limit:	48mA minimum

Output ripple
< 0.5% of maximum output, peak-to-peak

Control input on MTL4525
Suitable for switch contacts, an open collector transistor or logic drive
0 = input switch closed, transistor on or < 1.4V applied
1 = input switch open, transistor off or > 4.5V applied

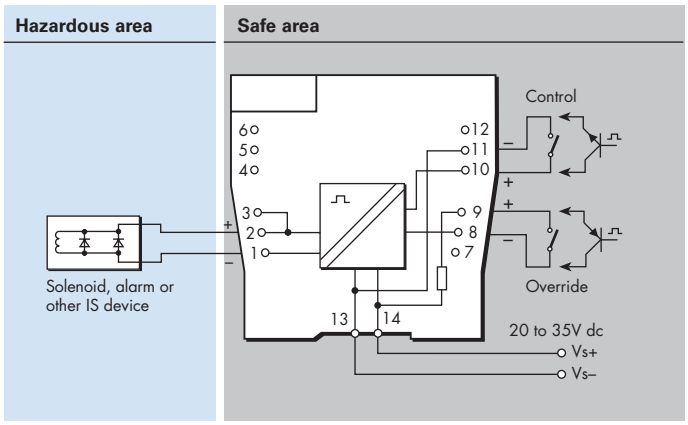
Override input on MTL4525
An open collector transistor or a switch connected across the terminals can be used to turn the output off whatever the state of the control input
0 = transistor on or switch closed
1 = transistor off or switch open

Control and override inputs on MTL4525

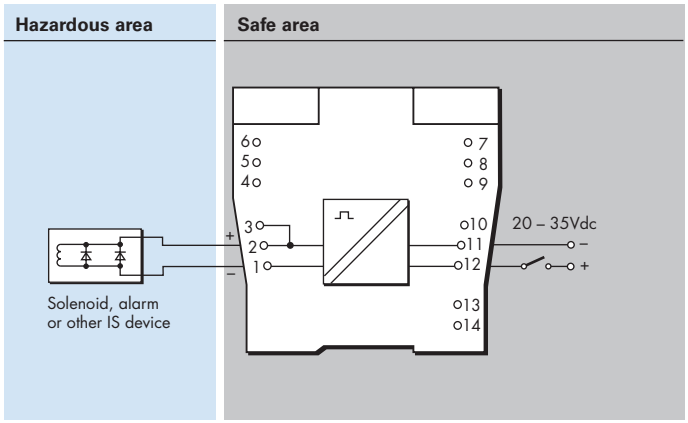
Control input	Override input	Output state
0	0	off
0	1	on
1	0	off
1	1	off

Response time
Output within 10% of final value within 100ms

MTL4525



MTL5525



LED indicators
Green: power indication
Yellow: output status, on when output active

Maximum current consumption
100mA at 24V dc

Power dissipation within unit
1.3W with typical solenoid valve, output on
1.9W worst case

Safety description
U_o=25V I_o=83.3mA P_o=0.52W U_m = 253V rms or dc

SIL capable
These models have been assessed for use in IEC 61508 functional safety applications.
SIL2 (SIL3 for MTL5525) capable for a single device (HFT=0)
SIL3 capable for multiple devices in safety redundant configurations (HFT=1)
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