

# 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



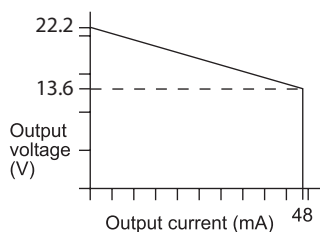
#### Number of channels

One

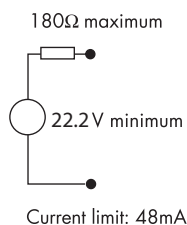
#### Location of load

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

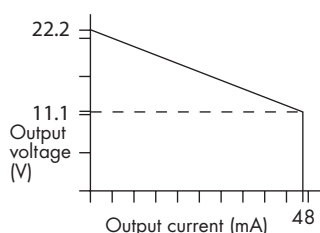
#### Minimum output voltage (MTLx521)



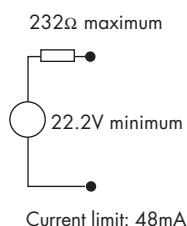
#### Equivalent output circuit



#### 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

#### Hazardous-area output (MTL4521L)

Minimum output voltage: 11.1V at 48mA  
Maximum output voltage: 24V from 232Ω  
Current limit: 48mA

#### Output ripple

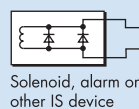
< 0.5% of maximum output, peak to peak

#### Response time

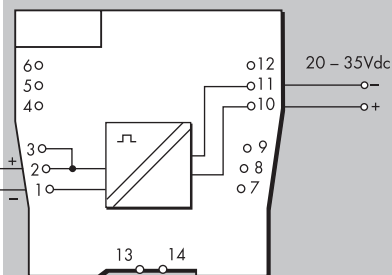
Output within 10% of final value within 100ms

### MTL4521 / MTL4521L

#### Hazardous area

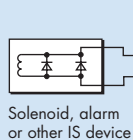


#### Safe area

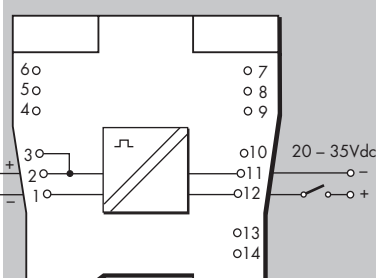


### MTL5521

#### Hazardous area



#### Safe area



#### 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.



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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.