

MTL5024 SOLENOID/ ALARM DRIVER

powered, logic drive with phase reversal



The MTL5024 allows an on/off device in a hazardous area to be controlled by a volt-free contact or logic signal in the safe area. The MTL5024 is suitable for driving loads such as solenoids, alarms, LEDs and other low-powered devices certified as intrinsically safe or classified as non-energy-storing simple apparatus. A phase reversal switch enables the user to select which phase of input signal will drive the output on.

SPECIFICATION

See also common specification

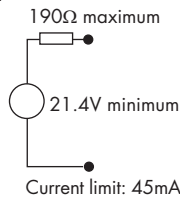
Number of channels

One

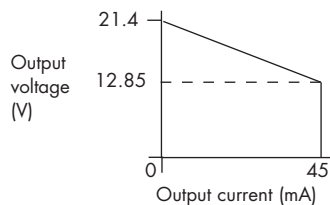
Location of load

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

Equivalent circuit



Minimum output voltage



Safe-area input

Suitable for switch contacts, an open-collector transistor or logic drive.

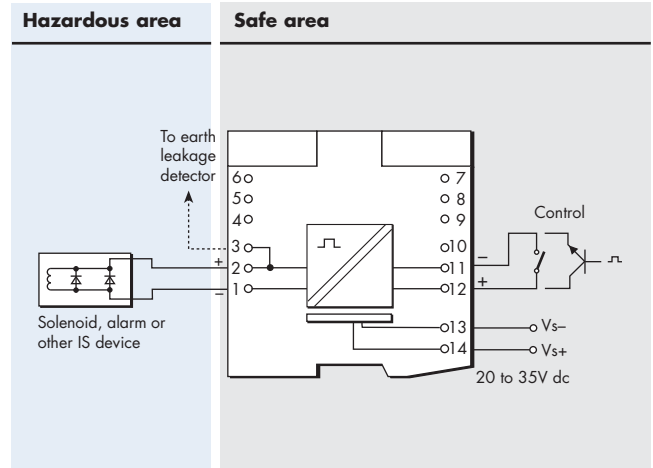
Normal (reverse) phase: output on (off) if switch closed, transistor on or <1.4V applied to input
output off (on) if switch open, transistor off or >4.5V applied to input

Hazardous-area output

Minimum output voltage: 12.85V at 45mA
Maximum output voltage: 25V
Current limit: 45mA

Phase reversal

Selected by a switch on the base of the module



Terminal	Function
1	Output -ve
2	Output +ve
3	Earth leakage detection
11	Control -ve
12	Control +ve
13	Supply -ve
14	Supply +ve

LED indicators

Green: power indication
Yellow: status

Supply voltage

20 to 35V dc

Maximum current consumption

100mA at 24V
120mA at 20V dc
75mA at 35V dc

Maximum power dissipation within unit

1.4W with typical solenoid valve, output on
2.0W worst case

Safety description

25V, 170Ω, 147mA, $U_m = 250V$ rms or dc

