

- ✂ Alarm status unaffected by power cycling or power outages
- ✂ DIN rail mounting – compact size
- ✂ Low current consumption
- ✂ Individual ‘set’ and ‘reset’ inputs
- ✂ Wide operating voltage range
- ✂ Power up timer eliminates logic race conditions
- ✂ 2 change over and one normally open output contact sets



DESCRIPTION

The Alarm Latch Relay type ALR2 is a compact DIN rail mounting bi-polar latching relay capable of maintaining its state through power outages. The ALR2 is particularly useful in gas monitoring systems where the gas alarm status must be maintained through a power outage for safety reasons. In this role the ALR2 prevents inadvertent dangerous gas alarm resets.

The Alarm Latch Relay has three sets of voltage free latching output contacts for use in alarm circuits. The relay state is controlled by two momentary inputs, one to set or latch the relay, the second to reset or unlatch the relay.

The ‘set’ input is typically connected to the gas alarm signal, while the ‘reset’ input is typically connected to a deputy key operated switch, allowing alarms to be acknowledged and reset under controlled conditions.

The ALR2 is fitted with front panel state indication LEDs, a green ‘armed’ LED which is illuminated when the ALR2 relay is in the reset state and a red ‘unacknowledged alarm’ LED which is illuminated when the ALR2 relay is in the latched state. Indication outputs are provided to drive external remote mounted LEDs.

The ALR2 is provided with a power up delay to ensure that the inputs are stable before power is applied to the latch relay, this prevents logic-race conditions from producing false alarms during gas monitoring system power up.

The ALR2 voltage free relay output contacts are Exi segregated from the power and input circuits to a value of 30 volts allowing easy integration of the ALR2 output contacts into alarm circuits that are separate intrinsically safe circuits.

The ALR2 is available in a monostable configuration where it operates as a conventional intrinsically safe relay with three sets of voltage free output contacts.

CERTIFICATION

The Alarm Latch Relay type ALR2 is IECEx certified for use in group I hazardous areas under certificate

IECEx TSA 07.0028X Ex ia I.

SPECIFICATION

GENERAL

Name	Alarm Latch Relay
Type	ALR2
Mounting	DIN rail TS35
Size	45mm (W) x 75mm (H) x 52.5mm (D) (1.77" (W) x 2.95" (H) x 2.07" (D))
Mass	110g (0.24lbs)
Electrical connections	Cage clamp terminals
Maximum conductor size	2.5mm ²
Ingress protection	IP20 (NEMA Type 1)
Operating Temperature range	20°C to 40°C (-4°F to 104°F)

POWER SUPPLY

Operating voltage range	10 - 16.5Vdc
Quiescent current	10mA
Input asserted	70mA @ 16.5Vdc
Input asserted	55mA @ 12.0Vdc
Ui	16.5Vdc
Ii	3A
Ci	0uF

ALARM INPUT

Input type	Active low
Uo	16.5Vdc
Io	1.737A
Ui	0V
Co	11uF
Lo	50uH
Lo/Ro	65uH/Ω
Ci	0.178uF
Li	0uH

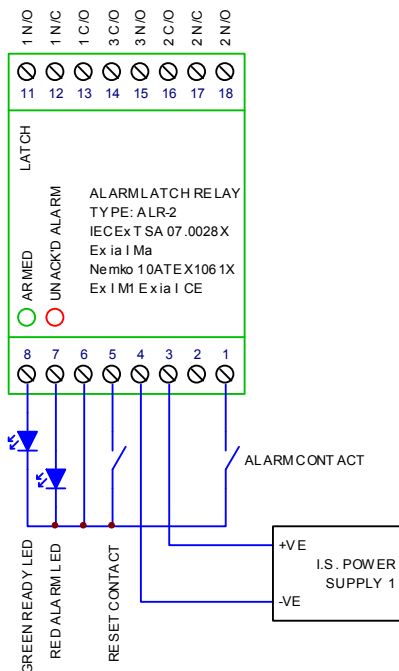
EXTERNAL LED OUTPUTS

Uo	16.5Vdc
Io	37mA
Co	11uF
Lo	50uH
Lo/Ro	60uH/Ω
Ui	0V

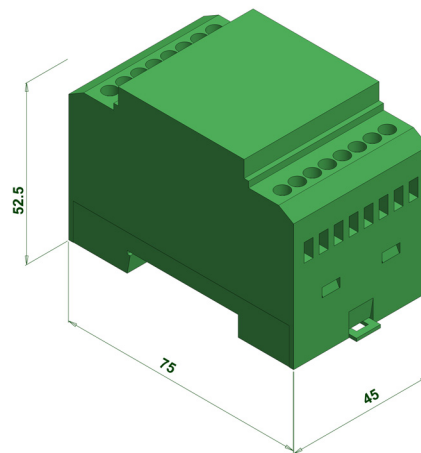
RELAY OUTPUT CONTACTS

Uo	0V
Ui	30Vdc
Ii	1.0A
Ci	0uF
Li	0uH

CONNECTION DIAGRAMS



DIMENSIONS



ORDERING DETAILS

DESCRIPTION	ORDER CODE
ALARM LATCH RELAY TYPE ALR2	RLY0058



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