

1-CHANNEL INTRINSICALLY SAFE RELAYS

ISE SERIES



- ◆ Approved for use in Class I, Class II, and Class III Hazardous Locations (Zones 0 & 1 in Canada)
- ◆ 1-Channel
- ◆ 5A relay output
- ◆ Universal input voltage of 102-132V AC & 10-125V DC
- ◆ Compact 17.5mm wide enclosure for both DIN-rail or panel-mount
- ◆ LED status indicator



 UL913 8th Edition



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The ISE Series of Intrinsic Safe Relays provide a safe and reliable method to control a single load (motor starters, relays, etc.) with a single input device (switches, sensors, etc.) located in a hazardous area. These products are approved for use in Class I Groups A, B, C, D, Class II Groups E, F, G, and Class III Hazardous Locations (Zones 0 & 1 in Canada). The ISE Series relay must be mounted in a safe area, following Macromatic Control Drawing Number ISD2A01, as shown in Instruction Sheet 901-0000-329.

The ISE Series relays utilize a compact 17.5mm wide enclosure that can be both mounted on 35mm DIN rail or panel-mounted with two screws. Hazardous terminals are on the bottom of the unit for easy access in the enclosure to incoming wiring from the hazardous area and are clearly marked.

Standard Operation

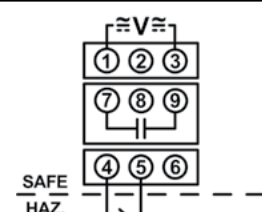
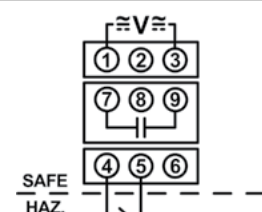
Each ISE Series relay consists of an intrinsically safe input and a corresponding electromechanical relay output. There is one bi-color LED for status indication. With input voltage applied, the LED will be ON (Green) to indicate power is applied.

When the input device from the hazardous area is *closed*, the output relay is energized and the LED is ON (Orange). When the input device *opens*, the output relay will de-energize and the LED will be ON (Green).

Inverted Operation (V-suffix)

Each ISE Series relay consists of an intrinsically safe input and a corresponding electromechanical relay output. There is one bi-color LED for status indication. With input voltage applied, the LED will be ON (GREEN) to indicate power is applied.

When the input device from the hazardous area is *open*, the output relay is energized and the LED is ON (ORANGE). When the input device *closes*, the output relay will be de-energized and the LED will be ON (GREEN).

INPUT VOLTAGE	NUMBER OF CHANNELS	CATALOG NUMBER	WIRING
102-132V AC (50/60Hz) & 10-125V DC	1	ISEUR1	 <p>DIAGRAM 811</p>
102-132V AC (50/60Hz) & 10-125V DC	1	ISEUR1V	 <p>DIAGRAM 811</p>

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APPLICATION DATA

Input Voltage: 102-132V AC (50/60Hz.) & 10-125V DC

Load (Burden): 2VA Maximum

Input Switch Open Circuit Voltage: 10V DC

Output Contacts:

SPST-NO (Form A) 3A Resistive @ 125V AC @ 60°C & 30V DC Resistive, Pilot Duty Rating D300

SPST-NO (Form A) 5A Resistive @ 125V AC @ 40°C & 30V DC Resistive, Pilot Duty Rating D300

Life: Electrical: 50,000 Closures @ Full Load AC
Mechanical: 5 Million Closures @ No Load

Response Times: < 50ms

Temperature:

Operating: -28° to + 60° C (-18° F to +140° F)
Storage: -55° to +85° C (-67° to 185° F)

LED Indication:

Standard Operation, ON (Green) - Input voltage; ON (Orange) - Input closed and relay energized;
Inverse Operation (V-suffix), ON (Green) - Input voltage; ON (Orange) - Input open and relay energized

Insulation Voltage:

1500 V AC between coil & contacts
750 V AC between open contacts
1500 V AC between hazardous and safe circuits

Wire Sizes:

One #14-24 AWG Conductor or
Two #16 or 18 AWG Conductors

Mounting: Mounts on 35mm DIN-rail or panel-mounted with two #8 screws when DIN-rail clips are fully extended from under the enclosure.

Control Drawing: See Instruction Sheet 901-0000-329, which includes Control Drawing ISD1A04.

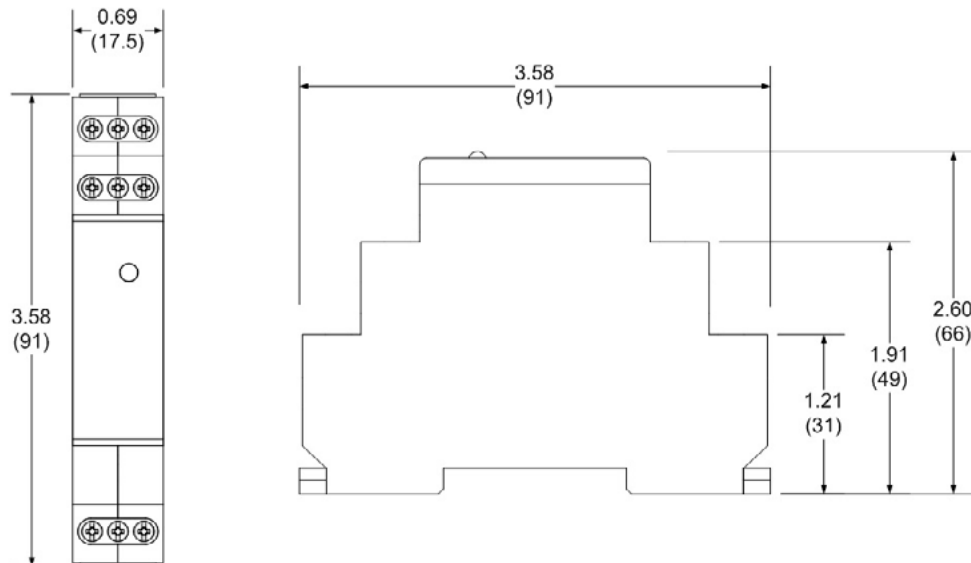
Approvals:



UL913 8th Edition
E318075



DIMENSIONS



All Dimensions in Inches (Millimeters)

INTRINSICALLY SAFE RELAYS | DIN-RAIL