

# 17.5 MM INTRINSICALLY SAFE BARRIER RELAYS

## ISE SERIES



- ◆ Approved for use in these Hazardous Locations:  
Class I, Div 1 (Zones 0 and 1 Canada), Groups A, B, C, D  
Class II, Div 1 (Zones 20 and 21 Canada), Group E, F, G  
Class III, Div 1
- ◆ 1-Channel
- ◆ Terminals support 2-wire inputs
- ◆ Isolated 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
- ◆ Standard and Inverse Logic
- ◆ LED status indicator

 **UL** US  
UL913 8th Edition



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The ISE Series of Intrinsically Safe Barrier 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.

The compact 17.5mm wide enclosure can be both mounted on 35mm DIN rail or panel-mounted with two screws. Terminals for the input devices from the Hazardous area are on the bottom for easy access in the enclosure to incoming field wiring from the hazardous area.

### Operation

Each ISE Series relay consists of an intrinsically safe input, a corresponding normally-open relay output, and a bi-color LED for status indication. With input voltage applied, the LED will be ON (GREEN) to indicate power is applied. When the output contact is closed, the LED is ON (ORANGE). The ISE series comes in Standard and Inverted configurations.

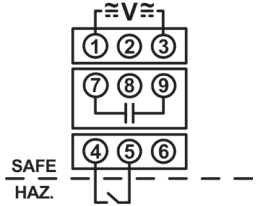
### Configurations

Standard Logic (ISEUR1):

When the input device is closed, the corresponding output contact is closed. When the input device is open, the corresponding output contact is open.

Inverse Logic (ISEUR1V):

When the input device is open, the corresponding output contact is closed. When the input device is closed, the corresponding output contact is open.

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

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## ISE SERIES

### 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 Logic, ON (Green) - Input voltage; ON (Orange) - Input closed and output contact closed;

Inverse Logic (V-suffix), ON (Green) - Input voltage; ON (Orange) - Input open and output contact closed

**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:**

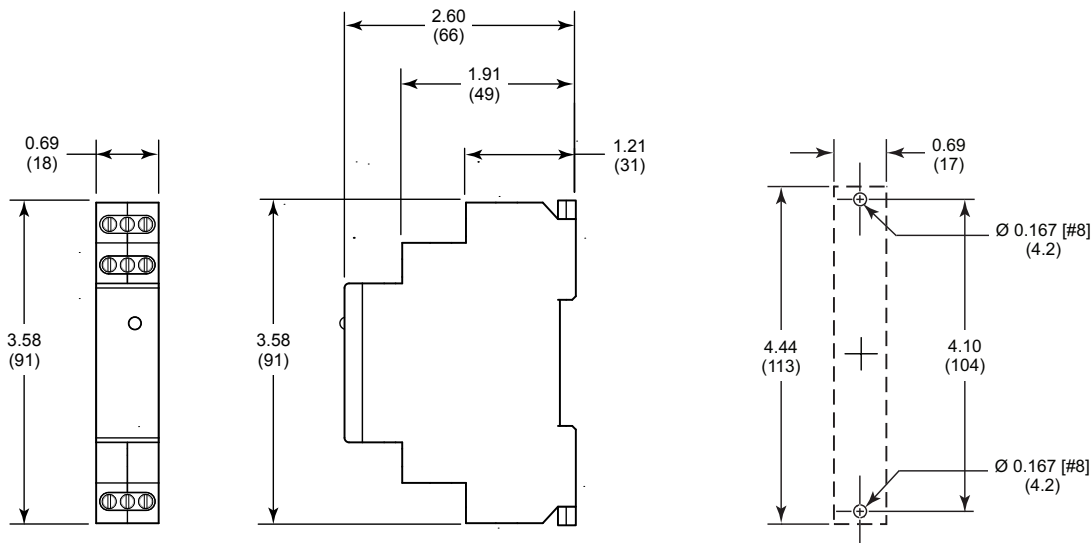
See Instruction Sheet 901-0000-329, which includes Control Drawing ISD2A01.

**Approvals:**



E318075

### DIMENSIONS



All Dimensions in Inches (Millimeters)

Panel Mount Template