

# Sentry 50 Isolation Relay



Sentry 50 unit without optional enclosure is furnished with a clear polycarbonate cover

The Sentry 50 Isolation Relay provides an electronically isolated interface between the output of the utility meter and the electronic measuring equipment such as Data Recorders, Totalizers and Demand Monitoring Equipment. It accepts either a 2-wire Form A or 3-wire Form C open collector or relay contact input and provides three Form A or Form C isolated outputs.

State-of-the-art logic allows the input to be configured for either monostable or bistable operation. Built-in signal conditioning circuit prevents propagation of any contact-bounce from the input relay to the outputs thus preventing erroneous pulse counts in metering applications. Visual verification of signal input is provided through the on-board indicator LED's.

Excellent isolation between the input and the output is achieved with the use of optocouplers. The input is protected against surges and transients, and the outputs are fused for protection against excessive current.

The output serve as excellent interface devices between hard bounce, dry contact and newer end devices that need clean bounce less input for proper operation.

## Technical Specifications

- **Operating Voltage:** 120/ 240/ 277 Vac, +/-10%, 50/60 Hz  
Switch-Selectable voltage range.  
AC input fuse (.25 Amp slow blow)
- **Burden:** 1.8 VA Maximum from 120 to 277 Vac
- **AC Input Surge Suppression:** 320 Vac/ 420 Vdc continuous 90 joules, 4500 Amps

## Signal Input

- **Number of Inputs:** One Form A (2-wire) or Form C (3-wire)  
Jumper-Selectable
- **Signal Conditioning Voltage:** 9 Vdc Open Circuit (supplied)
- **Input Current:** 10 mA short circuit (supplied)
- **Input Surge Suppression:** 14 Vac/ 18 Vdc continuous 0.9 joule, 250 Amps
- **Maximum Pulse Rate** 15 pulses per second maximum

## Signal Output

- **Number of Outputs:** Three Form C (3-wire) or Three Form A (2-wire)  
Monostable or Bistable (jumper-dependent)
- **Contact Type:** Solid-State PhotoMOS Relay
- **Output Voltage Ratings:** 200 Volts DC or peak AC
- **Output Current Ratings:** 500 milliAmps fused

*This fuse current rating may not be appropriate for the load current rating of your device. Austin international accepts no responsibility for equipment damage or improper system operation caused by inappropriate sized output fuse.*

## Other Specification

- **Life Expectancy:** Unlimited Operations
- **Operating Temperatures:** -40° to +85° Celsius
- **Operating Humidity:** 5 to 95% relative humidity, non-condensing
- **Approximate Dimensions:** Length= 6 inches (152 mm)  
Width= 4 inches (101 mm)  
Height: 2.25 inches (57 mm)

## Optional Enclosure

The Sentry 50 is available with an optional high impact, UV stable, polycarbonate enclosure. Measuring just 7" x 5" x 3" deep with knockouts on all sides. The box is completely sealable and features concealed mounting holes for added security.

## Installation

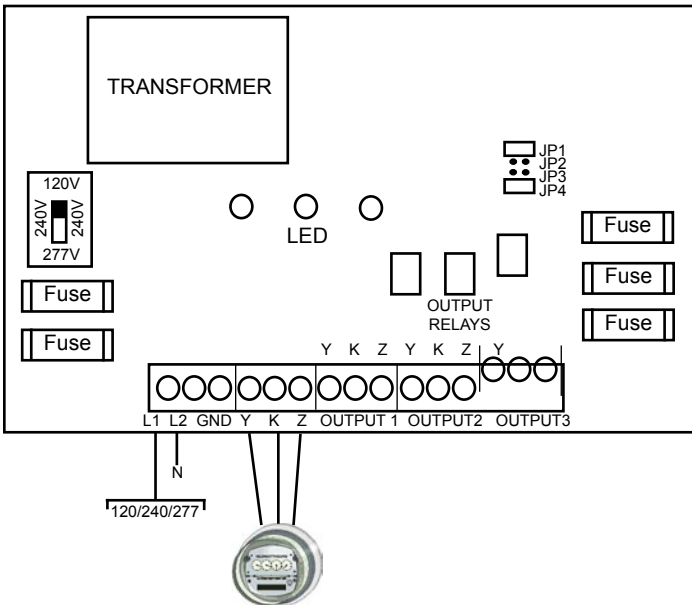
Since the Sentry 50 does not use an electromechanical or mercury-wetted relay, there are no constraints as to the mounting position or orientation.

Wiring connections to the Sentry 50 are made through an on-board, screw-type terminal block. LED D2 illuminates with an input K-Y closure and LED D4 illuminates with an input K-Z closure.

The Sentry 50 is equipped with 4 configuration jumpers. These jumpers are used to program the hardware for the desired type and mode of operation as follows:

- For outputs that duplicate FORM A inputs, install jumpers on JP1 and JP3.
- To get a monostable (pulse) output in response to a FORM A input closure, install jumpers on JP2 and JP3.
- For outputs that duplicate FORM C inputs, install a jumper on JP4. No other jumpers should be installed in this mode.

**Note: Can be mounted in any position.**



## Sentry 50 Isolation Relays

**Are sold with an optional enclosure or without**

*Shown below mounted in optional enclosure*



Exterior of optional Sentry 50 enclosure  
7" x 5" x 3" UV Stable Polycarbonate

**Austin International accepts no responsibility for equipment damage or improper system operation caused by the use of output or input fuses that are of inappropriate size**