

# Thru-Door Voltage Indicator

## Flashing and Non-Flashing

### Product Data Sheet

## Catalog Numbers

# R-3W / R-3W-SR

SafeSide® thru-door voltage indicators provide electrical safety information while the panel doors are safely closed. This “one-size-fits-all” solution detects 3-phase AC or DC voltage from 40-750VAC/30-1000VDC. The encapsulated construction and redundant circuit design means rugged reliability. SafeSide® products are available with flashing LEDs (R-3W) and non-flashing LEDs (R-3W-SR).

### Safer Lock-Out Tag-Out (LOTO)

Keeping personnel away from live voltage is foundational to electrical safety. Electrical safety demands a precise answer to the question 'Is voltage present?'. Thru-door voltage indicators provide visibility of voltage from outside the enclosure without exposing personnel to voltage.

### More Productivity in Mechanical LOTO

Workers performing mechanical LOTO must isolate electrical energy. An externally-mounted voltage detector provides a means to check voltage inside an electrical panel. Without a voltage indicator, a mechanic performing mechanical LOTO would be required to work in tandem with an electrician using a voltmeter to physically verify voltage inside an electrical panel. In this case, the electrician is exposed to voltage. With thru-door voltage detectors, the mechanic can verify zero electrical energy without any exposure to voltage.

### Reduced Voltage Exposure and Arc Flash Risk

Voltage is the common denominator in an electrical accident or an arc flash; no voltage means no accident, no arc flash. While performing electrical LOTO with a thru-door voltage detector installed, the electrician can pre-check the internal voltage state without opening the enclosure. Next, the electrician should replicate a zero voltage reading with his voltmeter as per NFPA 70e 120.1(5). This low-cost, redundant voltage-verification task reduces arc flash risk and increases electrical safety for workers.

**Warning:** Verify an electrical conductor has been de-energized using an adequately rated voltage detector before working on it. Follow appropriate Energy Control (Lockout/Tagout) procedures as per OSHA Subpart S; the current edition of NFPA 70E; and the current edition of CSA Z462.

## Voltage Indicator

### with Solid-on LEDs or Flashing LEDs

#### FEATURES:

- Redundant Circuitry / Long Life LED's
- 40-750VAC / 30-1000VDC / 35-600VAC 1Ø
- Potted Construction with 6' Leads
- Phase Insensitive
- 30mm Pushbutton or Pilot Hole
- High Surge Immunity
- UL Listed, Type 4X, 12, 13

#### APPLICATIONS:

- Circuit Breaker Disconnects - No Visible Blades
- High Energy Panels (NFPA 70E Category 3 or 4)
- Frequently Accessed Panels
- Mechanical LOTO: Indicating Zero Energy
- Panels with Multiple Power Sources



Three Phase 40-750VAC/30-1000VDC UL-Listed Voltage Indicator for Type 4X/12/13 for 30mm Mounting

R-3W	Flashing
R-3W-KB <sup>1</sup>	Flush Mount Assembly with Bezel and R-3W (UL)
R-3W-L	Adhesive-Backed Warning Label (slips over installed R-3W)
R-3W-KB-L	Adhesive-Backed Warning Label (slips over installed R-3W-KB)

R-3W-SR <sup>2</sup>	Non-Flashing
R-3W-SR-KB <sup>1</sup>	Flush Mount Assembly with Bezel and R-3W-SR (UL)
R-3W-SR-L	Adhesive-Backed Warning Label (slips over installed R-3W-SR)
R-3W-SR-KB-L	Adhesive-Backed Warning Label (slips over installed R-3W-SR-KB)

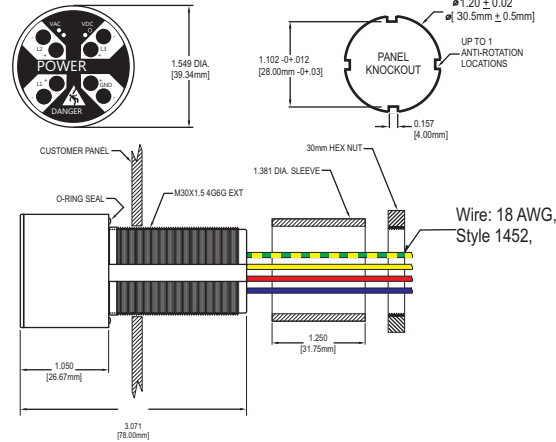
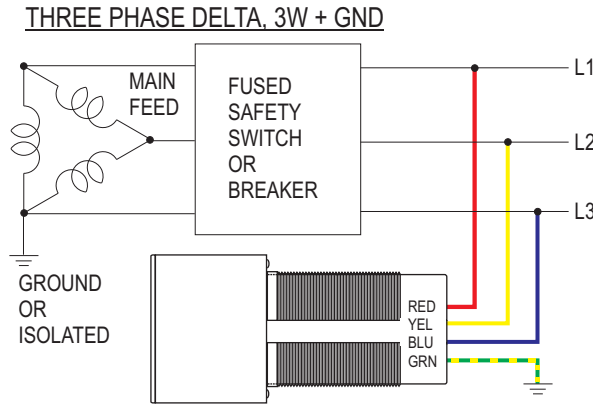
R-3W2 <sup>3</sup>	Hazardous Location Flashing Voltage Indicator (Suitable for use in Class 1, Division 2 (Zone 2), Groups A, B, C, D hazardous Location, or Non-Hazardous Locations Only)
R-3W2-KB <sup>1</sup>	Flush Mount Assembly with Bezel and R-3W2 (UL)
R-3W-L	Adhesive-Backed Warning Label (slips over installed R-3W2)
R-3W-KB-L	Adhesive-Backed Warning Label (slips over installed R-3W2-KB)

(1) Must be purchased as an assembly for UL Listing

(2) For the R-3W-SR, the LED appearance for differing voltages as follows: 32-159V(FLASH); 160-329V(SHIMMER); 330V+(SOLID)).

(3) See R-3W2 datasheet for specifications and UL information

## TYPICAL CONFIGURATION\*:



## Voltage Indicator



Permanent Electrical Safety Devices

- OPERATIONAL RANGE:** AC Single or 3-Phase: 40-750V 50/60Hz  
Operates up to 400 Hz
- DC OR STORED ENERGY:** 30 to 1000 VDC
- MAXIMUM VOLTAGE:** 750VAC/1000VDC - Surge 4300V for 5 seconds
- POWER CONSUMPTION:** 1.2 Watts @ 750 VAC (Approximately)
- TEMPERATURES:** Operate: -20°C to +55°C, Storage: -45°C to +85°C
- FAILURE CURRENT:** Maximum single component failure fault current is 3.7mA @ 750 3-Phase
- FUSING:** Not required if installed in an enclosure

### INDICATOR FLASH RATES for the R-3W only (L1,L2,L3,GND)

3-PHASE LINE-TO-LINE	<29	30	120	240	480	600	750
FLASHES/SEC (TYPICAL)	0	1.3	4.2	5.8	7.3	8	8.8
DC OR STORED ENERGY (VDC)	<27	30	48	110	300	600	1000
FLASHES/SEC (TYPICAL)	0	1.6	2.5	4.5	6.9	8.8	9.1

## Accessories:



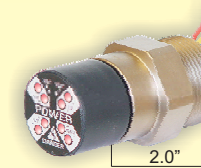
Dimensions of the Bezel - Diameter: 2.25"  
Outside cabinet depth: .20"  
Inside cabinet depth: 3.50"

### New! Bezel-mount Installation for Voltage Indicator!

Create a near-flush look by purchasing your Voltage Indicator with our new bezel.

Part Number	Description
R-3W-KB	Flashing Voltage Indicator with Bezel
R-3W-SR-KB	Non-Flashing Voltage Indicator with Bezel
R-3W2-KB	Class 1 Div 2 Voltage Indicator with Bezel

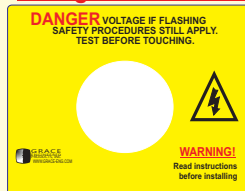
\*Corresponding label available for bezel-mount configurations.  
Note: When mounting the Bezel (part numbers with -KB), the diameter of the cut-out is as follows: 1.701 inches (43.21mm).



### Part #: R-3W-NPT125

A 30mm to 1" NPT conduit adapter. This assembly fits into a standard conduit LB for mounting on the outside of an enclosure.

### Voltage Indicator Alert Label



Label dimensions are 3"W x 2.3"H.

This adhesive-back label fits over an installed power warning alert. Warning language differs for flashing and non-flashing units.

Part Number	Description
R-3W-L	Label for Flashing and Class 1 Div 2 Voltage Indicator
R-3W-SR-L	Label for Non-Flashing Voltage Indicator
R-3W-KB-L	Label for all Bezel Units



### Part #: R-3W-DR-C6

Use this door mount accessory for additional voltage protection. Includes a 30mm adapter and 6' of NW10 flexible conduit. (Allow 4.5" depth into panel).