

# 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)

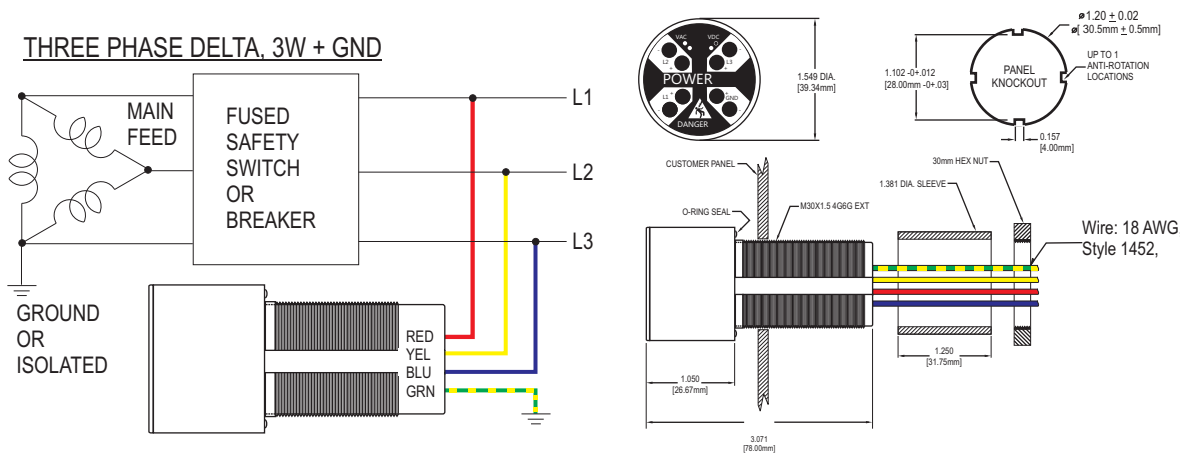
(1) Must be purchased as an assembly for UL Listing

(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

# Voltage Indicator

## TYPICAL CONFIGURATION\*:



**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:** Follow all Local, State, and national Electrical Codes when installing this equipment. Overcurrent protection of the supply leads may be necessary. The installation of overcurrent protection shall be in accordance with the requirements in the NEC (NFPA 70) or end product standard(s) when used in the final installation.

### 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:



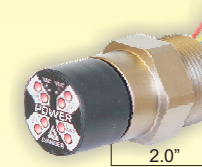
Dimensions of the Bezel - Diameter: 2.25"  
 Outside cabinet depth: .20"  
 Inside cabinet depth: 3.50"

### 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

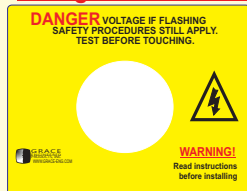
A 30mm to 1" NPT conduit adapter. This assembly fits into a standard conduit LB for mounting on the outside of an enclosure.



### 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).

### 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