



Voltage Presence Indicator

Maximize safety with visual live-voltage indication.

Nukleus Voltage Presence Indicator (VPI) is an electrical safety device that provides real-time visual verification of voltage presence through high-intensity LEDs. Used primarily in the industrial control panels, power distribution boards, to verify the de-energized state of the equipment and aids the task-qualified personnel in performing Mechanical Lockout/Tagout (LOTO) in accordance with established electrical safety practices as outlined in NFPA 70E Article 120.6 (3) & (4). Additionally, it detects phase imbalance early to avoid equipment shutdowns and maximize the efficiency.



System Functionality

- Quick voltage detection with self-powered operation for continuous monitoring.
- Supports mechanical LOTO and detects Voltage Imbalance >15%
- Alerts personnel of back feed voltage in neutral/ground lines preventing unintentional contact.

Wide Operating Compatibility

- Works seamlessly with 3-Phase (4-wire & 5-wire) AC/DC configurations.
- Operates from 20V-1500V (1000VAC / 1500VDC) range.
- Compatible across 50Hz, 60Hz, and 400Hz frequencies.

Certified Safety & Compliance

- Globally Certified — meets UL, CSA, IEC, and BIS safety standards.
- CAT III / CAT IV Rated — Ensures operation in transient surges up to 8kV.
- Closed-Door Verification — enables safe operation without exposure.

Simplified & Rugged Design

- High-Intensity and redundant LEDs — provide reliable visibility in bright daylight or low-light conditions.
- 30 mm knockout punch, epoxy-potted housing — easy retrofit installs and protection from moisture, and contaminants.
- 14 AWG Leads (8 ft long) — Supports wiring up to 100A busbars.



Certifications Pending

Technical specifications ⚡

Specification	Details
Voltage Range	Voltage Indicator: AC Single Phase or 3-Phase: 40 - 1000V, 50/60/400 Hz, DC Voltage: 20-1500V
Maximum Voltage	1000VAC or 1500VDC
Detection Thresholds	40V AC & 20V DC
Temperatures	Operate: -40°C to +55°C Storage: -45°C to +85°C
Altitude	Up to 2000 meters (6600 feet)
Pollution Degree	2
Terminations	5-Wire: 8 ft, 14 AWG, 90°C @ 1000V, UL-1032, PVC Insulated w/ Nylon Jacket
	4-Wire: 8 ft, 14 AWG, 90°C @ 1000V, UL-1032, PVC Insulated w/ Nylon Jacket
Indicators	4 Wire - 8 LEDs; 5 Wire - 10 LEDs
Housing	UL Approved material, totally encapsulated including LEDs for environmental protection
Dimensions	Indicator Module - 48.28mm x 110.71mm (HØ x D), 30mm Ø mounting hole