



Voltage Presence Indicator + Test Port

Dual-function design for safer operation and faster testing.

Nukleus Voltage Presence Indicator with Test Ports (VPI+TP) is a self-powered electrical safety device that provides real-time visual verification of voltage presence through high-intensity LEDs, while its integrated touch-safe, high-impedance test ports enable voltage measurements with portable test instrument, without exposing personnel to live circuit parts.

Designed to support task-qualified and qualified electrical personnel in performing electrical and mechanical LOTO in accordance with NFPA 70E Article 120.6 (3), (4), & (7)—including compliant “Live-Dead-Live” verification.

VPI+TP also helps detect conditions such as backfeed voltage and voltage imbalance early, supporting safer and reliable operation.



Operational Safety

- Self-Powered Operation supporting both Electrical & Mechanical LOTO procedures.
- High impedance test points—Reduces risk of shock or arc flash by limiting test current to (<3.5mA)
- Backfeed Voltage & Voltage Imbalance indication.

Wide Operating Compatibility

- Works seamlessly with 3-Phase (4-wire & 5-wire) AC/DC configurations.
- Operates across a 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.

Rugged Industrial Design

- Dust Cap — shields ports with LED visibility.
- High Intensity 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

www.nukleustek.com

Technical specifications ⚡

Specification	Details
Voltage Range	Test Point: AC Single Phase or 3-Phase: 0 - 1000VAC @ 50/60/400Hz, DC 0-1500VDC 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
Output Accuracy	7% of applied voltage with 10MΩ input impedance voltmeter connected to any (2) test points
Internal Resistance	Test Point: (5) 100Kx2, 1W 1% Tolerance resistors in series encapsulated between each input wire and respective test point
Single fault failure current	Maximum single component failure fault current at 1000VAC or 1500VDC is <3.5mA with a momentary short between any (2) test points
Temperatures	Operate: -40°C to +55°C Storage: -45°C to +85°C
Altitude	Up to 2000 meters (6600 feet)
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
Voltage Category Ratings	CAT III @1000VAC Max, Pollution Degree 2, CAT IV @ 600VAC Max
Housing	UL Approved material, totally encapsulated including LEDs for environmental protection
Dimensions	Indicator Module - 70.00mm x 107.46mm (HØ x D), 30mm Ø mounting hole

DISCLAIMER: Specifications and data are subject to change with or without notice.