



Absence of Voltage Tester

Simple Push Test for reliable electrical safety.

Nucleus Absence of Voltage Tester (AVT), powered by a long life 4.0 V battery, verifies both the presence and absence-of-voltage through a simple push-to-test button, eliminating manual tester dependency and reducing the level and category of personal protective equipment (PPE) required. AVT helps task-qualified and qualified electrical personnel to meet NFPA 70E Article 120.6 (3), (4), and (7) while performing mechanical and electrical LOTO procedures. Engineered for demanding environments, the AVT uses dual leads for source connections to enhance functional safety integrity. High-visibility LEDs provide clear status of voltage presence indication with large solid **RED** LEDs, absence of voltage indication with **GREEN** LED and unsafe, hardware-fault conditions with **AMBER** LED. Additionally, small **RED** LEDs indicate disconnected leads for faster troubleshooting.



Operational Efficiency

- Simple push-to-test button— Enables repeatable absence of voltage tests.
- 4.0 V battery system— Supports extended useable life (approx. ~ 750 tests).
- Eliminates manual tester dependency and lowers the required PPE category level.

Functional Reliability

- High-Voltage Compatibility — Reliable operation up to 1000 VAC, supporting single-phase and three-phase systems.
- Dual-source leads — Redundancy enhances functional safety.
- Disconnected lead detection — Ensures faster troubleshooting.

Compliance & Safety Assurance

- Globally certified — Meets UL, CSA, IEC, SIL, and BIS safety standards.
- CAT III/CAT IV rated — Ensures operation in transient surges up to 8 kV.
- Closed-door voltage verification — Enables safe testing without energy exposure.

Designed for Simplified Excellence

- 14 AWG leads (8 ft long) — Supports wiring up to 100 A busbars.
- High-Intensity LEDs — Provide reliable visibility in bright daylight and low-light environments.
- Standard 30 mm knockout punch, epoxy potted-housing — Easy retrofit installations and protection from moisture and contaminants.



Certifications Pending

www.nukleustek.com

Specification	Details
Electrical System	For use in single-phase and three-phase AC systems
Voltage Detection Range	Up to 1000 VAC (50/60/400 Hz)
Absence of Voltage Threshold	Less than 3 volts AC
Overvoltage Category	Category III (1000 V), Category IV (600 V)
Operating Temperature	-25 °C to 55 °C
Storage Temperature	-45 °C to 80 °C
Humidity	5 to 90% non-condensing; Rated 80% at 40°C (104°F), decreasing linearly to 50% at 60°C (140°F)
Altitude	Up to 2000 meters (6600 feet)
Pollution Degree	2
Terminations	8 wire leads - 2 per line: 8 ft, 14 AWG, 90 °C @ 1000 V, UL 1032, PVC-insulated with nylon jacket
Indicators	<ul style="list-style-type: none"> • 3 large RED LEDs for L1, L2, L3 to indicate presence of voltage. • 4 small RED LEDs for L1, L2, L3, and GND to indicate disconnected leads. • 1 AMBER LED for unsafe voltage and hardware faults. • 1 GREEN LED for safe voltage.
Degree of Protection	Indicator module: Designed to be mounted on a flat-surface or standard DIN rail in a Type (UL, NEMA, and CSA) 1, 12, 13, 4, 4X, IP66, IP67, or IP69 enclosure.
	Isolation module: IP20
Dimensions	Indicator module - 53.50 mm × 97.85 mm (HØ × D), standard 30 mm Ø mounting hole
	Isolation module - 127.33 mm × 107.38 mm × 38 mm (HØ × W × D)
Battery	Industrial 4.0 V Lithium-ion (approx. ~ 750 tests).