

## PRODUCT BULLETIN

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Test Up to 3kV With Your Standard Voltmeter

Testing voltage for DC systems up to 3kV shouldn't be a gamble with safety. If you're working in utility-scale solar power, electric vehicles, electric rail systems, or EV charging stations, you are aware of the danger. Traditional methods for testing voltages above 1000 VDC demand specialized equipment, expose your team to increased electrical hazards and prolong Lockout/tagout (LOTO) procedures.



R-3MT-VI-3K/10LL-KIT Includes cap

## Why GracePESDs®?

Permanent Electrical Safety Devices (PESDs) are designed to mitigate risks of arc flash and electric shock by enabling qualified workers to perform the absence of voltage tests without opening the enclosure. They limit exposure to live components and significantly reduce LOTO procedure times by up to 45 minutes. Our **3kV** ChekVolt and Safe-Test Point PESDs are designed to enhance safety and efficiency in DC input voltages between 1kV and 3kV.

#### ChekVolt® & Safe-Test Point™ 3kV PESDs®

- **Voltage Divider Circuit:** Built-in 10:1 voltage divider circuit\* limits the voltage at the test points (ex. 3kV to 300V), enabling the use of a standard voltmeter.
- **Absence of Voltage Testing:** Enables safe absence of voltage testing for 3kV equipment at the point of work, in compliance with NFPA 70E standards.
- **High-Impedance Protected Test Points:** Touch-safe, high-impedance resistors that reduce the current to a few mA.
- **Voltage Presence Indication:** The 3kV ChekVolt has redundant LED indicators that provide immediate visual confirmation of voltage presence.
- Robust Design: Built with potted construction, enabling extended temperature ranges and shock and vibration resistance.
- Ideal Applications: DC Applications between 1kV and 3kV
- Tailored Solutions for Diverse Applications:
  - DC2: Ideal for two-wire DC power systems and applications
  - DC3: Ideal for three-wire DC power systems and applications
  - Line-Load: Ideal for 4-wire DC applications to test line and load side in one device
  - \* If you don't want to use the voltage divider circuit, we offer a 2kV device that can be used with a voltmeter rated up to 2000 VDC.











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### **Industrial Applications**

- Utility-Scale Solar Power: Safely test up to 1500 VDC in combiner boxes and inverters during maintenance to reduce arc flash and electric shock risks.
- Mining Electric Vehicles: Enable safe voltage testing on battery-powered mining vehicles operating over 1000 VDC, enhancing maintenance safety and minimizing downtime.
- Electric Rail Systems: Provide safe testing solutions for DC rail systems, ensuring the safety and efficiency of rail operations.
- EV Charging Stations & Battery Assembly Testing: Support maintenance of fast-charging stations to safely test EV battery assemblies during production and servicing.

PRODUCT DETAILS	SPECIFICATIONS
LOTO Safety & Risk Mitigation	- ChekVolt® LED voltage presence indication provides visual reference for mechanical LOTO until stored electrical energy is released per NFPA 70E 120.6(4)
	- High impedance-protected test points prevent direct exposure to arc flash and shock hazards when testing for absence of voltage using a voltmeter per NFPA 70E 120.6(7)
Increased Productivity	- Proven to save 30-45 minutes per LOTO procedure
	- ChekVolt® provides visual indication of voltage presence
	- Allows a voltage reading to be taken from outside of an enclosure
	- Works directly with a qualified electrician's voltmeter
Installation Efficiency	- Requires one 30mm knockout punch
	- 2-4 potted lead wire connections (depending on model)
Enhanced Compliance	- Enhances safety and works directly with the steps outlined in NFPA 70E 120.6: Process for Establishing and Verifying an Electrically Safe Work Condition
Temperature Range	- Operate: -40°C to +75°C Storage: -45°C to +85°C
Standards & Certifications	- Tested to UL Type 4, 4X, 12, 13 & IP2X*, IP66*, IP69*, IP69K*
	- UL/IEC 61010, CE, & CSA C22.2 No. 94.2/UL 50E
	- Rated to CAT III (to 1000 VAC) & CAT IV (to 600 VAC)
	- UL File #E311256 RoHS

<sup>\*</sup>Applies to "H" Kits only that use that use R-PESD-CAP.