DC VOLTAGE TEST STATION

Safely verify presence of voltage and perform absence of voltage testing



DC VOLTAGE TEST STATION FEATURES

- The DC Voltage Test Station is a Permanent Electrical Safety Device (PESD) that allows workers a safer way to verify presence of voltage and perform an Absence of Voltage Test from outside the electrical cabinet.
- The DC Voltage Test Station combines a DC voltage indicator and safe-test points conveniently placed in an environmentally rated housing. Hardwired directly to energy sources that provides visual verification and allows for measurement of DC voltages through a meter test.
- Provides a safer and more productive method of performing Lockout/Tagout (LOTO) in both safety and non-safety applications with two, and three-point, configurations.
- Environmentally rated, lockable housing options adds extra layer of protection that allows only authorized personnel to conveniently access the voltage test station.

FOR MORE INFORMATION VISIT PESD.COM OR CALL 1.800.280.9517



P-S14S26-M3RX

OPERATION

The DC Voltage Test Station is a Permanent Electrical Safety Device that contains voltage test points and a DC voltage indicator that are conveniently placed within an environmentally rated protective housing. The test points allow for measurement of up to 1000 VDC voltage when using a multimeter. The R-3W-DC voltage indicator has an operational range of 15-1000 VDC and features flashing LEDs that illuminate when voltage is present at the connected source. Following facility safety procedures, insert insulated meter probes with .080" tips into any two test point jacks to take a voltage measurement with properly rated test equipment *(see Equipment Requirements)*. This operation complies with NFPA 70E standards and the OSHA energy isolation principle.

TECHNICAL SPECIFICATIONS

		
Product Number	**P-S14S26-M3RX***	**P-S14S23-M3RX***
Voltage Indicator	R-3W-DC (Flashing LEDs)	
Housing Dimensions	M Housing *(see Housing Dimensions to the right)*	
Operating & Storage Temperature	Operate: -20ºC to +55ºC Storage: -45ºC to +85ºC	
Operational Voltage/ Frequency	**Indicator:** 15-600V (AC/DC) **Test Points:** 0-600V (AC/DC) 50/60/400Hz	
Internal Resistance of Test Points	102 kΩ 6 Watt, 5% Tolerance in series with each input (+ve, -ve, and GND) wire to respective output jack maximum momentary	
Correction Factor	1.02 x Test Point voltage reading with a10MΩ meter	
Wire Specifications	PVC insulated with nylon jacket, 8ft, 18AWG Wire, 90°C @ 1000V, UL 1452, pre-stripped and tinned	
Certifications	UL File (RU) #E207344, CE, RoHS	

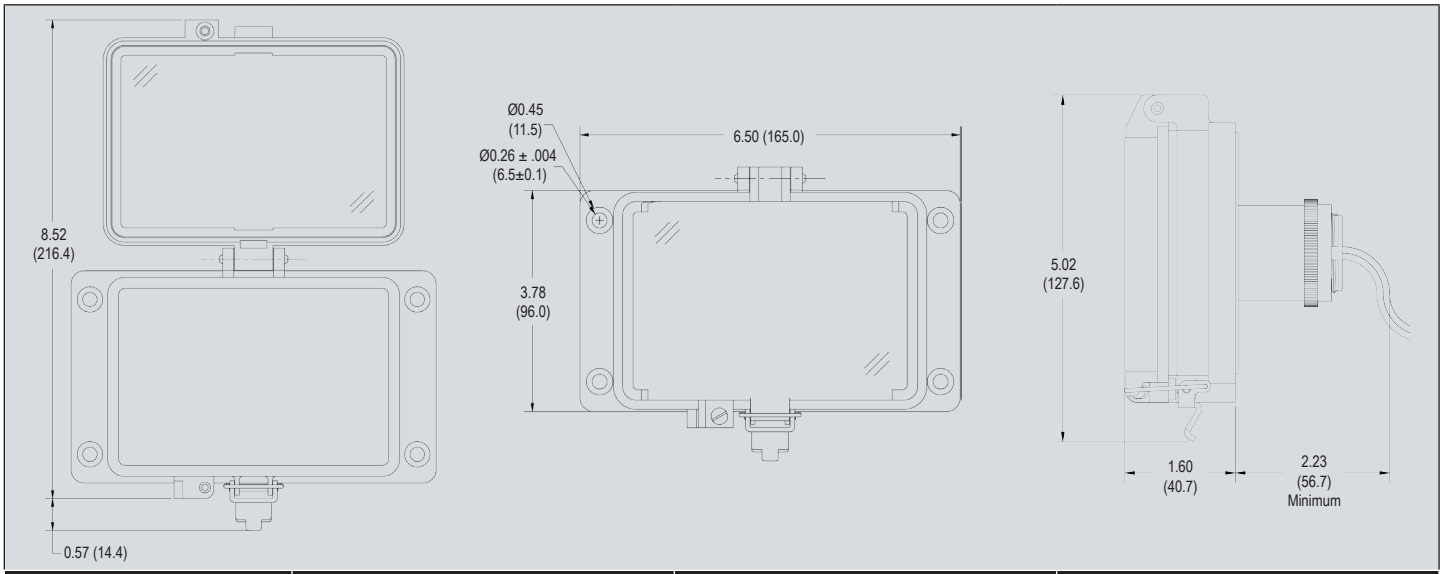
*UL Recognized with maximum voltage is limited to 600V AC/DC. Product can be used up to 1000V DC without UL Recognition.

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Warning: Verify an electrical conductor has been de-energized using an adequately rated test instrument before working on it. Follow appropriate Energy Control (Lockout/Tagout) procedures as per OSHA Subpart S.

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HOUSING OPTIONS

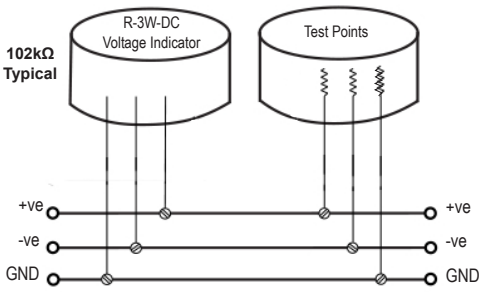


HOUSING CODE	M2	M3	M4
UL TYPE	4X	4	12
IP Rating	IP65		N/A
DIMENSIONS L x W x D IN/MM (OVERALL)	L: 6.50 (165.0) X W: 3.78 (96.0) X D: 2.50 (64.0)		

EQUIPMENT REQUIREMENTS

- Voltage test instrument with 1000VDC rated input minimum, a typical 10MΩ input impedance and CAT III & IV.
- A pair of insulated test probes with .080” DIA. points with minimum probe insertion length of .480”.

TYPICAL WIRING CONFIGURATION

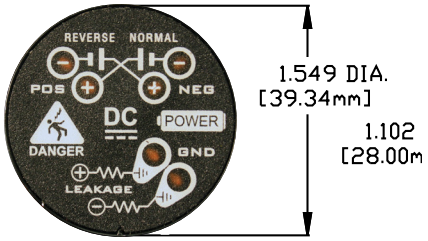


Note:
The Voltage Test Station can be installed on either the load or line side based on your application.

TEST POINT DETAILS

- 1 Red +ve Insulated Jack and 1 Yellow -ve Insulated Jack *(applies to P-S14S26-M3RX-T272 only)*
- 1 Red +ve and 1 Red -ve Insulated Jack and 1 Green GND Insulated Jack *(applies to P-S14S23-M3RX only)*
- .080” DIA Pin Sockets
- Minimum Insertion length: .480”

VOLTAGE INDICATOR DETAILS



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FREQUENTLY ASKED QUESTIONS

Q: Is the DC Voltage Test Station UL Listed?

A: The DC Voltage Test Station is UL Recognized; it is encased in an IP65 rated UL Type 4, 4X, or 12 protective housing. The DC voltage indicator (R-3W-DC) and test points are CAT III & IV Rated.

Q: What are the added benefits of the voltage indicator?

A: The DC voltage indicator (R-3W-DC) provides a redundant verification and visual representation of voltage presence from outside the door. In addition, the voltage indicator provides the indication of a blown fuse or phase loss in the circuit and release of stored electrical energy.

Q: What are the recommended connection accessories for the DC Voltage Test Station?

A: Always ensure any accessory is compatible with your specific application and voltage. We suggest the following connectors (based on typical applications): T&B Sta-Kon Series, 3M Scotchlok, Wago 773 Series, or Wago 222 Series

Q: Where do I install the DC Voltage Test Station on my equipment?

A: The DC Voltage Test Station can be directly hardwired to either the load side or line side of the LOTO voltage source point. It can also be directly wired onto the bus below the fuses to verify a blown fuse or a tripped circuit breaker.

Q: Do I need Personal Protective Equipment (PPE)?

A: Always use the recommended PPE based on your facility's electrical safety program and adhere to the PPE guidelines in Table 130.5(G) or Table 130.7(C)(15)(c) of the NFPA 70E (2021 Edition).

Q: Do I need to follow any other safety procedures?

A: Always follow the safety procedure established by your facility and/or employer; in addition, we suggest following a sample procedure outlined on the assembly instructions provided with the DC Voltage Test Station.

Q: What is the shock hazard when using this device at 1000 Volts?

A: This high impedance device limits the max. available fault current to 4.94mA at 1000 Volts when any two test point jacks are shorted together. According to OSHA document 3075 (2002) page 7, "any shock hazard under 6mA is considered a slight shock; uncomfortable, but not painful."

Q: What would a typical Lockout/Tagout (LOTO) procedure include with this device?

A: Follow NFPA 70E, Article 120.5, Process for establishing and verifying an electrically safe work condition. The DC Voltage Test Station allows voltage measurements between +ve, -ve and GND terminals to check for presence and verify absence of voltage safely from outside the enclosure.

Q: How do I perform a "live-dead-live" test with this device?

A: Always follow LOTO procedures as per Article 120.4 and the "live-dead-live" test procedure as per Article 120.5(7), NFPA 70E (2021 Edition) -- with a properly rated test instrument, verify the test instrument to a known source, then insert the test probes into the DC test point assembly to verify the presence or absence of voltage. Next, open the isolator and proceed to verify the absence of voltage. Once you have verified voltage absence, re-verify the test instrument to a known source.

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