



AEMC INSTRUMENTS 5000.43 Magnetized Voltage Probes User Manual

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AEMC INSTRUMENTS 5000.43 Magnetized Voltage Probes



Product Specifications

- Operating Voltage and Category: 1500 V CAT III, 1000 V CAT IV
- Maximum Current: 4 A
- Electromagnetic Compatibility: European / international standard EN / IEC 61010-031, Low Voltage European Directive 2014/35/EU

Product Usage Instructions

Safety Guidelines

- Always adhere to the specified operating voltage and category markings on the instrument, lead, or accessory.
- Maximum current should not exceed 4 A for safe operation.
- Properly maintain and clean the probes with a soft cotton cloth and mild detergent solution.
- Check insulation integrity before each use; do not use if damaged.
- Avoid using the probes in wet locations or explosive atmospheres.
- Do not exceed specified usage limitations to prevent safety hazards.

Product Usage

- 1. Connect the Magnetized Voltage Probes to electrical equipment for measurements, control, and laboratory use.
- 2. Ensure the probes are securely attached to the equipment for accurate readings.
- 3. Perform electrical measurements as required, following standard safety practices.
- 4. After usage, clean the probes with a damp cloth and dry them thoroughly before storage.

FAQ

- Q: What should I do if the insulation of the probes is damaged?
- **A:** If the insulation is damaged or partially damaged, the probes must no longer be used to prevent safety risks. Replace them with new probes.
- Q: Can I immerse the probes in liquid for cleaning?
- A: No, do not immerse the probes in liquid. Clean them with a soft cotton cloth lightly moistened with a mild detergent solution and ensure thorough drying before use.
- Q: Where can I use the Magnetized Voltage Probes?
- A: These probes are designed for use in clean and dry areas. Avoid wet locations or explosive atmospheres for safe operation.

DESCRIPTION

- These instructions are for the Magnetized Voltage Probes consisting of a magnetic adapter with a female 4 mm banana terminal.
- See the part number of these probes on the packaging.
- The Normal Use of these probes is for electrical measurements and tests by connecting to electrical equipment for measurement, control, and laboratory use.

SAFETY & PRODUCT SPECIFICATIONS

- Operating Voltage and Category: 1500 V CAT III, 1000 V CAT IV. See the markings on the instrument, lead or accessory with which the probes are going to be used. The Category of the assembly (instrument + lead + accessory) is downgraded to the lowest Category or Operating Voltage.
- Maximum current: 4 A. See the markings on the instrument, lead or accessory with which the probes are going
 to be used. The maximum current of the assembly is downgraded to the lowest maximum current.
- Double insulation
- Pollution Degree 2.
- Temperature: (32 to 104) °F (0 to +40) °C, ≤80 % RH for ≤88 °F (31 °C), decreasing linearly to 50 % RH at 104 °F (40 °C).
- Outdoor use in the absence of precipitation, and indoor use.
- Maximum altitude: 6561.68 ft (2000 m).

ELECTROMAGNETIC COMPATIBILITY

- European / international standard EN / IEC 61010-031.
- Low Voltage European Directive 2014/35/EU.

WARNINGS

- Safety is impaired if instructions are not respected.
- The Responsible Body shall check that the Operator uses these probes in Normal Conditions and Normal Use.

 The safety of any system which may include these probes is the responsibility of the assembler of the system.

If the probes safety is CAT II only (not CAT III not CAT IV) then you should use it downstream from a single-phase power outlet. If the probes safety is CAT III or CAT IV then you can use it downstream from an electricity meter.

- Clean regularly all the parts with a soft cotton cloth lightly moistened with a mild solution of detergent and water after having fully disconnected the fuse holder. Dry thoroughly the parts before any energizing. Do not immerse the probes in liquid.
- Each time before use, check always that the insulation of the probes is in good condition. If the insulation is damaged or partially damaged, the probes must no longer be used.
- Do not use the probes in Wet Locations or Explosive Atmospheres. For use in clean and dry areas.
- Do not use the probes beyond the specifications.

DEFINITIONS (EN/IEC 61010-031)

- NORMAL USE: Operation, including stand-by, according to the instructions for use or for the obvious intended purpose.
- NORMAL CONDITIONS: Conditions in which all means for protection against Hazards are intact.
- · HAZARD: Potential source of harm.
- OPERATOR: The person operating the probe assembly for its intended purpose.
- RESPONSIBLE BODY: Individual or group responsible for the safe use and maintenance of probe assemblies.
- OPERATING VOLTAGE: Highest RMS value of the AC or DC voltage across any particular insulation which can continuously appear during Normal Use.
- POLLUTION: Addition of foreign matter, solid, liquid, or gaseous (ionized gases), that may produce a reduction of dielectric strength or surface resistivity.
- POLLUTION DEGREE 2: Only non-conductive Pollution occurs except that occasionally a temporary conductivity caused by condensation is expected.
- WET LOCATION: Location where water or another conductive liquid may be present and is likely to cause reduced human body impedance due to wetting of the contact between the human body and the probes or wetting of the contact between the human body and the environment.

DEFINITION OF MEASUREMENT CATEGORIES (CAT)

- CAT IV: Corresponds to measurements performed at primary electrical supply (< 1000 V). Examples: primary overcurrent protection devices, ripple control units, and meters.
- **CAT III:** Corresponds to measurements performed in the building installation at the distribution level. Example: hardwired equipment in fixed installation and circuit breakers.
- CAT II: Corresponds to measurements performed on circuits directly connected to the electrical distribution system.

Example: measurements on household appliances and portable tools.

CAUTION, possibility of electric shock. Consult the instructions of the product.

CONTACT

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Documents / Resources



<u>AEMC INSTRUMENTS 5000.43 Magnetized Voltage Probes</u> [pdf] User Manual 5000.43 Magnetized Voltage Probes, 5000.43, Magnetized Voltage Probes, Probes

References

- Get Electrical Testers Power Analyzers | AEMC Instruments
- User Manual

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