PeakTech 205 Voltage Meter Instruction Manual

Contents

PeakTech®

PeakTech 205 Voltage Meter

Safety

This product complies with the requirements of the following directives of the European Union for CE conformity: 2014/30/EU (electromagnetic compatibility), 2014/35/EU (low voltage), 2011/65/EU (RoHS). To ensure safe operation of the equipment and eliminate the danger of serious injury due to short-circuits (arcing), the following safety precautions must be observed.
Damages resulting from failure to observe these safety precautions are exempt from any legal claims whatever.

- Do not use this instrument for high-energy industrial installation measurement.
- Do not place the equipment on damp or wet surfaces.
- Do not place water filled containers on the equipment (danger of short-circuit in case of knock over of the container).
- Do not exceed the maximum permissible inputratings (danger of serious injury and/or destruction of the equipment).
- The meter is designed to withstand the stated max voltages. If it is not possible to exclude without that impulses, transients, disturbance or for therreasons, theseoltages are exceeded a suitable presale (10:1) must be used.
- Replace a defective fuse only with a fuse of the original rating. Never short-circuit fuse or fuse holding.
- To avoid electric shock, do not operate this product in wet or damp conditions. Conduct measuring works only in dry clothing and rubber shoes, i. e. on Isolating mats.
- Never touch the tips of the test leads or probe. Comply with the warning labels and other info on the equipment.
- Always start with the highest measuring range when measuring unknown values.
- Do not subject the equipment to direct sunlight or extreme temperatures, humidity or dampness. Do not subject the equipment to shocks or strong vibrations.
- Do not operate the equipment near strong magnetic fields (motors, transformers etc.). Keep hot soldering irons or guns away from the equipment.
- Allow the equipment to stabilize at room temperature before taking up measurement (important for exact measurements).

- Do not input values over the maximum range of each measurement to avoid damages of the meter.
- Use caution when working with voltages above 35V DC or 25V AC. These Voltages pose shockhazard.
- The meter is suitable for indoor use only
- Do not operate the meter before the cabinet has been closed and screwed safely as terminal can carry voltage.
- Do not store the meter in a place of explosive, inflammable substances.
- Do not modify the equipment in any way
- Do not place the equipment facedown on any table or workbench to prevent damaging the controls at the front.
- Opening the equipment and service – and repair work must only be performed by qualified service personnel.

Cleaning the cabinet

Prior to cleaning the cabinet, withdraw the mains plug from the power outlet. Clean only with a damp, soft cloth and a commercially available mild household cleanser. Ensure that no water gets inside the equipment to prevent possible shorts and damage to the equipment.

1. **Application**
   ED-205 are mainly used as a teaching aid when school teachers provide a lesson of electricity. It may also be used as measuring and comparing of current and voltage of equipment and /or instrument in a factory. The designs are practical, convenient, safe and accurate.
2. **Employment in the lesson of Electricity in classroom**
    1. Understand the symbols of ACV, ACA, DCV and DCA
    2. Understand the Units of Electricity and their conversions
    3. Connection of power supply to ED-205
    4. The directions of DCV, DCA
    5. Acquaintance with readings on the scales
    6. Zeroing adjustment

Specifications

Accuracy:

- Moving Coil +/- 2,0% F.S.
- Moving Iron +/- 2,5% F.S.
- Rectifier +/- 2,5% F.S.
- Dimensions in mm (WxHxD) 91x103x100
- Scale Lenght Approx. 65 mm (deflection angle 90°)
- Terminal 4mm socket capacitive head, suitable for wire or pin-type test lead
- Material and Colour Acrylic resin meter cover, white scale plate, plastic stand in black

Standard-measuring ranges

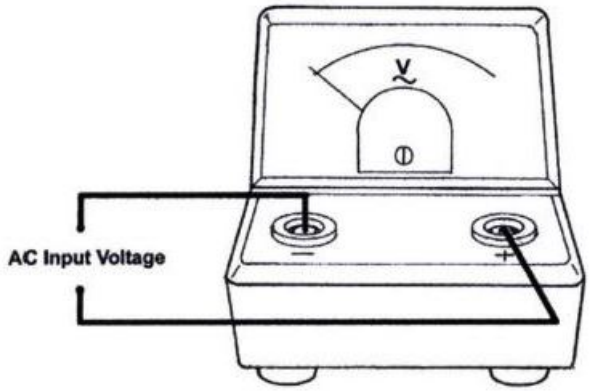
Range	Internal resistance	Voltage drop

0–50uA DC	2000W	100mV
0–100uA DC	1000W	100mV
0–1mA DC	50W	50mV
0–50mA/ 500mA/5A DC	7,2W (movement sensitivity: 30mV) series connection: 3,5W 50mA-range: 821mW 500mA-range: 83,6mW 5A-range: 10,7mW	50mA-range: 37mV 500mA-range: 41mV 5A-range: 52mV
0–3V / 15V DC	50W 3V: 3 kW 15V: 15 kW	1mA or 50mV 1mA
0–3V / 15V / 300V DC	50W 3V: 3 kW 15V: 15 kW 300V: 300 kW	1mA or 50mV 1mA
-35–0–35uA DC	1000W	+/-35mV
0–1 / 5A	Rectifier 2000W	50µA
0–5 / 10A	Rectifier 2000W	50µA
0–15 / 150V AC	Rectifier 50W	1mA

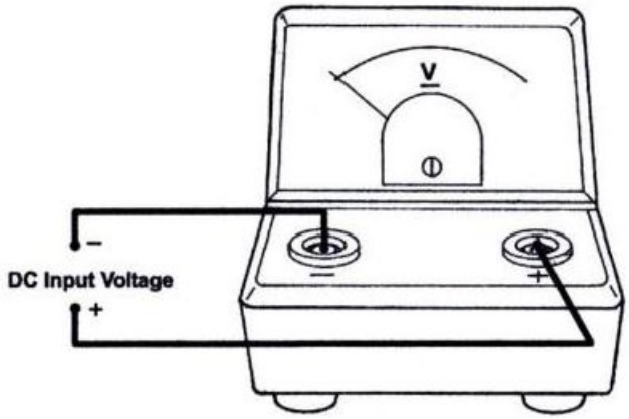
0–30V / 60V AC	Rectifier 50W	1mA

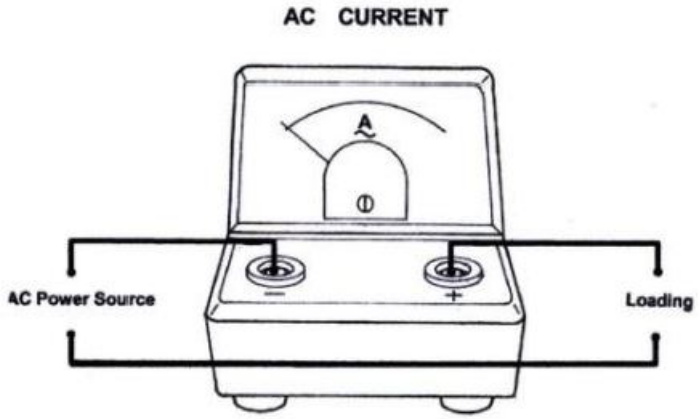
Test Leads Connections

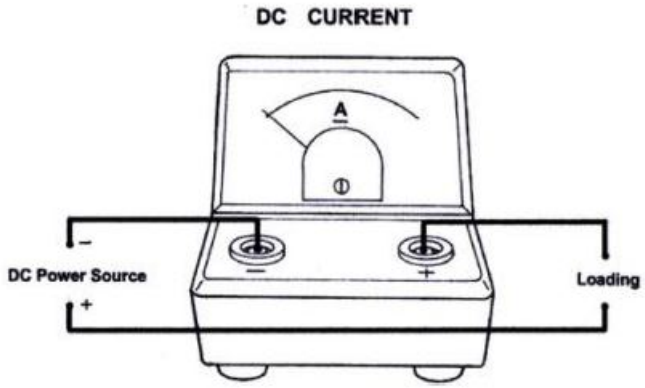
AC VOLTAGE



DC VOLTAGE







Measuring Procedure

For safety considerations, before the measurement, should disconnect (power off) the power supply of the measurement circuit.

1. Determine before the measurement of the prospective voltage/current
2. Connect the test leads with the appropriate input sockets of the measuring range of the ED-205.

   Note: The measuring range is characterized on the input sockets by the appropriate value.
3. Connect the test leads with the measuring circle you want to test and switch on the power supply.

This manual considers the latest technical knowledge. Technical changings which are in the interest of progress are reserved.
We herewith confirm that the units are calibrated by the factory according to the specifications as per the technical specifications. We recommend calibrating the unit again, after 1 year.

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Documents / Resources

	PeakTech 205 Voltage Meter [pdf] Instruction Manual 205, Voltage Meter, 205 Voltage Meter, Meter

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