

MPK215R



- Micro-ohmmeter up to 200 A
- Perform up to 30 consecutive tests
- Direct reading with up to 4½ digits
- Minimum reading: 0.1 $\mu\Omega$
- Maximum reading: 1 Ω
- 4-wire measurement (Kelvin method)
- Thermal protection
- Bluetooth and USB communication interfaces
- Modbus open protocol: can be controlled remotely via an Android application or via USB via custom software, labview and PLC

Description

The MPK215R high-current micro-ohmmeter is a portable, digital instrument. It has optimized filters and protections for measurements in electrical substations. Can be used to accurately measure very low contact resistances of high voltage circuit-breakers and switches, busbars, etc., with test currents up to 200A. It employs the 4 terminals-method (U/I measuring principle) to avoid errors caused by test leads and their contact resistances.

Measurement accuracy is guaranteed by a state-of-the-arts signal amplification system, offset-free and of high long-term stability. Resistances readings are shown in the alphanumeric display with up to 4½ digits-resolution. It allows to measure resistances up to 1 Ω , and the best resolution is 0.1 $\mu\Omega$.

It has an internal memory for up to 4000 measurements divided into multiple records. The data output (USB) may be connected to a computer to download the stored values.

This equipment incorporates an open ModBus protocol and can be controlled remotely through an Android application or via USB by customized software, labview and PLC

The high-current generation system is based on modern technology that allows to significantly decrease both its weight (approx. 11kg) and size. The cabinet is made of plastic material highly resistant to impacts and to environmental challenges. Internal thermal sensors in all sensitive components avoid any damage caused to the instrument due to overheating.

This is strong but lightweight equipment, and may be easily carried by one person. It is water-resistant and can be used under severe weather conditions (IP54 with closed lid) offering an excellent performance working both in the laboratory and out in the field.



Remote Control App

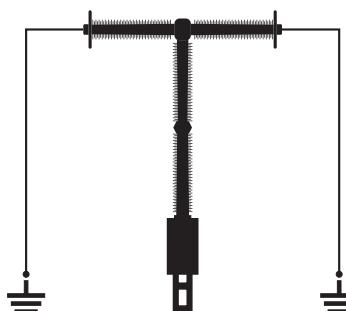
This instrument has Bluetooth® interface and can be controlled remotely via an Android™ smartphone / tablet running the Remote Control App.



• Android™ and Google Play™ Store are trademarks of Google, Inc.
• Bluetooth® is a registered trademark of the Bluetooth SIG, Inc. worldwide.

BSG mode

The BSG (Both Side Grounded) test mode provides to the user and to the equipment a safer way to test objects in a substation since the both sides of a switch, contact or circuit breaker is maintained connected to the ground during the whole test.



MPH215R

Technical specifications

TEST CURRENT

5 A up to 200 A (True DC).

The test current can be set in steps of 0.2 A between 5 A to 20 A and steps from 1 A between 20 A to 200 A.

RESISTANCE RANGES

0.1 $\mu\Omega$ up to 2 $m\Omega$ with 0.1 $\mu\Omega$ resolution.

2 $m\Omega$ up to 200 $m\Omega$ with 10 $\mu\Omega$ resolution.

200 $m\Omega$ up to 1 Ω with 1 $m\Omega$ resolution.

MEASUREMENT PRINCIPLE

Four-terminal, U/I.

PROTECTIONS

Overcurrent, short-circuit and overheating.

PROGRAMMABLE TEST TIME

Allows you to program automatic tests between 15 seconds and 120 seconds with test currents from 5 A to 200 A. It allows to carry out tests with unlimited duration with currents equal to or less than 100 A.

BASIC ACCURACY OF RESISTANCE

MEASUREMENT

$\pm 1\%$ of the measured value from 50 $\mu\Omega$ to 1 Ω .

AUXILIARY CLAMP ACCURACY

1% + 3 digits.

AUXILIARY CLAMP MEASURING RANGE

0.1 ADC to 60 ADC.

ADVANCED FEATURES

Digital direct reading of very low resistances in the alphanumerical display, with up to 4½ digits.

Very fast and accurate measurements.

BUILT-IN MEMORY

Stores up to 4000 measurements divided into multiple records.

COMMUNICATION PROTOCOL

ModBus.

INTERFACE

USB, for configuration, control and download of stored values.

BLUETOOTH

For configuration and control.

T-LOGGER SOFTWARE

Friendly, easy to use software. With automatic report generator, including the operator's commentaries.

ENVIRONMENTAL PROTECTION

IP54 with closed lid.

SAFETY CLASS

Meets the requirements of IEC 61010-1

POWER SUPPLY

100-240 V~ mains supply.

OPERATING TEMPERATURE RANGE

32°F to 122°F (0°C to 50°C)

STORAGE TEMPERATURE RANGE

14°F to 158°F (-10°C to 70°C)

HUMIDITY RANGE

95% RH (non condensing)

WEIGHT

Approx. 24.25 lb (11 kg)

DIMENSIONS

19.76" x 15.51" x 7.48" (502 x 394 x 190 mm)

INCLUDED ACCESSORIES

- 2 Combined current and potential leads
- 1 Ground cable
- 1 Auxiliary current clamp
- 1 USB cable
- 1 Power cord
- 1 T-Logger software license
- 1 User guide
- 1 Carrying bag
- 1 Android App