

100 A digital micro-ohmmeter

MPK105R



Remote control
by App



Illustrative Image

Features

- Direct reading (up to 4½ digits)
- BSG mode (Both Side Grounded)
- Resolution: 0.1 $\mu\Omega$
- Resistance reading: up to 300 m Ω
- U/I (4-wires) measurement
- Overheating protection
- Built-in memory
- Built-in thermal printer
- Bluetooth and USB communication interfaces
- Open Modbus protocol: Can be remote controlled through an Android app or through USB by customized software, labview and PLC

Description

The **MPK105R** high-current micro-ohmmeter is a portable digital instrument. 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. It employs the 4 terminals-method (U/I measuring principle) to avoid errors caused by test leads and their contact resistances.

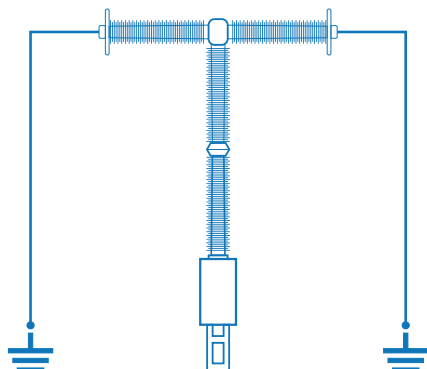
Measurement accuracy is guaranteed by a state-of-the-arts signal amplification system, offset-free and of high long-term stability. The high-current generation system is based on modern technology that allows to significantly decrease both its weight (approx. 11 kg) and size. The cabinet is made of plastic 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 a strong but lightweight equipment and may be easily carried by one person. It is water-resistant (IP65 with closed lid) offering an excellent performance working both in the laboratory and out in the field.

Remote control by Android™ App

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.



Increased safety and comfort: Set up, start and stop tests in an even safer and more comfortable way

Automatic reports: Generate test reports directly on the App

Smartphone / tablet features: Incorporate smartphone features into your reports (photo, GPS coordinates and test location map)

• Android, Google Play and the Google Play logo are trademarks of Google LLC

Modbus® Protocol

This equipment implements the Modbus® open protocol. All configuration, real-time control, monitoring of measurements, and retrieval of test information can be performed using commercial tools such as LabVIEW® and PLCs, or even through dedicated software and own development. In this way, the entire measurement and analysis process can be automated according to the application's needs. Complete documentation with accessible and controllable parameters is provided, as well as clarification of doubts about the use through technical support.

- Modbus is a registered trademark of Schneider Electric USA, Inc.
- LabVIEW is a registered trademark of National Instruments Corporation

Technical specifications

ELECTRICAL	MPK105R
Test current	From 5 A up to 100 A (True DC) The test current can be adjusted in: • Steps of 0.2 A from 5 A to 20 A • Steps of 1 A from 20 A to 100 A
Resistance ranges	0.1 μΩ up to 2 mΩ (0.1 μΩ resolution) 2 mΩ up to 300 mΩ (10 μΩ resolution)
Basic accuracy	± 1 % of reading from 50 μΩ to 300 mΩ
AUXILIARY CLAMP (BSG)	
Measurement range	0.1 Adc to 60 Adc
Accuracy	1 % + 3 digits
FEATURES	
Measuring modes	Manual and automatic
BSG function	Allows to test an object with both sides grounded, providing more safety when performing measurements at substations
Timer function	Allows to setup the test duration from 15 seconds up to 120 seconds for current test from 5 A up to 100 A
Measurement principle	Four-terminal, U/I
Protections	Against overheating, over-current and short-circuit
Display	Alphanumerical LCD display, 4 lines / 20 characters (Big Number)
Printer	Built-in thermal printer
Built-in memory	Memory for storing up to 4000 readings organized by records
STANDARDS	
Safety	IEC 61010-1
COMMUNICATION	
Protocol	Modbus
USB	For configuration, control and download the stored values
Bluetooth	For configuration, control and download the stored values

SOFTWARE	
Desktop (PC/Notebook)	MegaLogg 3 software: for remote control, allowing to configure, run tests and generate reports
Android (Smartphone/ Tablet)	BlueLogg app: for remote control, allowing to configure, run tests and generate reports
ENVIRONMENTAL	
IP rating	IP65 (with closed lid)
Operating temperature	0 °C to 50 °C
Storage temperature	-10 °C to 70 °C
Humidity	95 % RH (non condensing)
POWER SUPPLY	
Mains	100 - 240 V~
MECHANICAL (OF THE INSTRUMENT)	
Weight	Approx. 11 kg
Dimensions	502 x 394 x 190 mm

Included accessories

- Auxiliary current clamp
- Ground cable
- Power cord
- USB cable
- User manual
- MegaLogg 3 software (download)
- BlueLogg app (download)
- Case for the accessories

Optional accessories

- 2 Combined current and potential leads - 19.68 ft (6 meters)
- 2 Combined current and potential leads - 26.24 ft (8 meters)
- 2 Combined current and potential leads - 32.80 ft (10 meters)
- 2 Combined current and potential leads - 39.37 ft (12 meters)
- 2 Combined current and potential leads - 49.21 ft (15 meters)

Smartphone App



BlueLogg

Remote control by App

MEGABRAS equipment that has Bluetooth® interface can be controlled remotely via an Android™ smartphone / tablet running the BlueLogg application. Set the parameters, start / stop a test, save the data and generate reports.



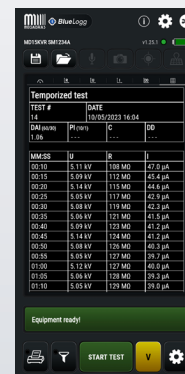
Real-time measurement



Test details



Test Start / Stop



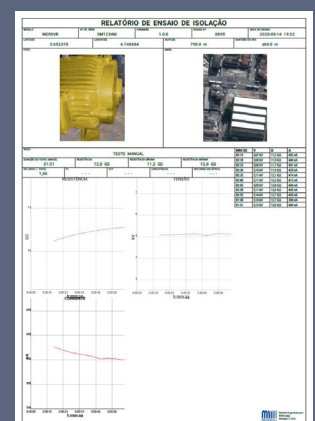
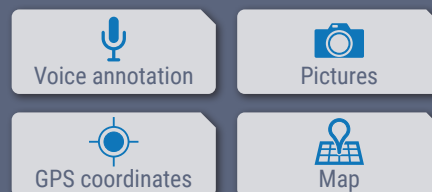
Increased safety

BlueLogg communicates with the equipment through a Bluetooth® connection, allowing remote control of the tests, further increasing user safety in tests with potential risks.



Smartphone features and automatic reporting

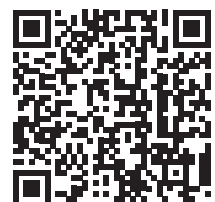
Record voice annotation for each measurement, generate automatic test reports directly on the App. Incorporate smartphone / tablet features into the report (photo, GPS coordinates and test location map).



Using the remote control does not require Internet connection (the Internet is only necessary if you want to see a map of the test site or send reports by email).



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- Bluetooth is a registered trademark of the Bluetooth SIG, Inc. Worldwide

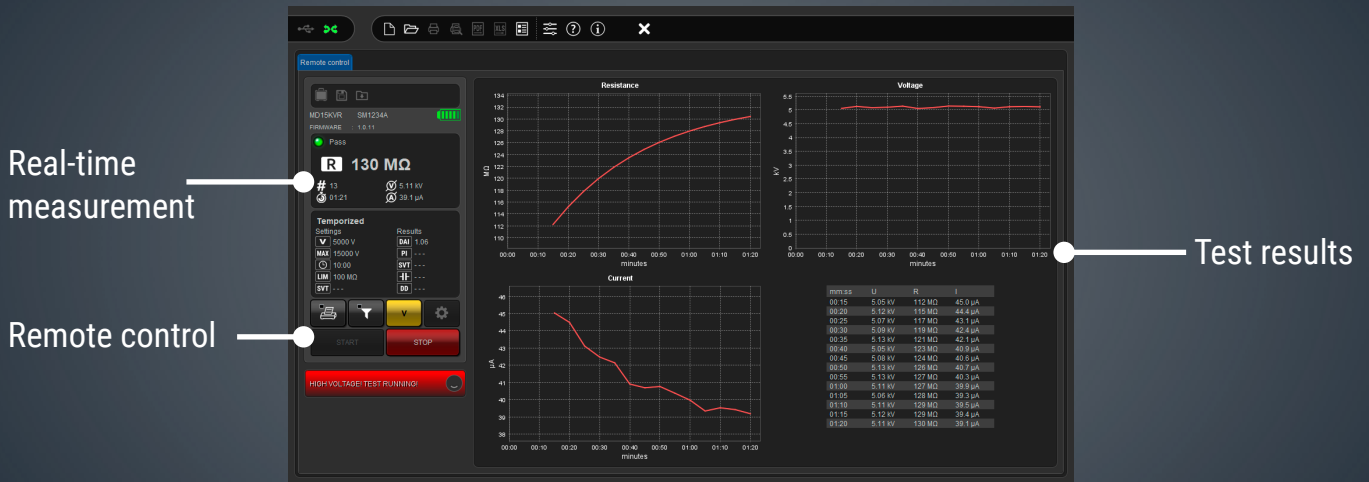


Desktop software

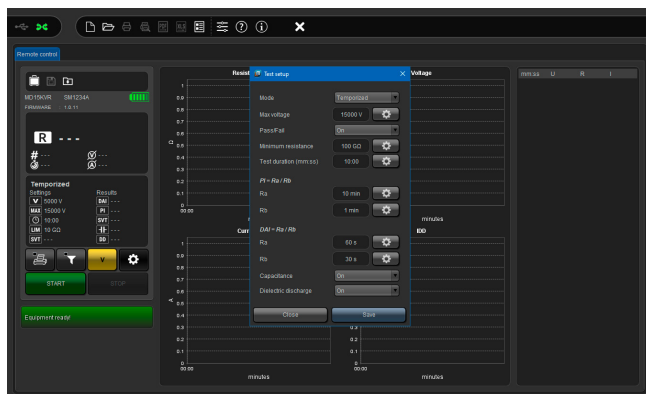
MegaLogg 3

Software for remote control and reporting

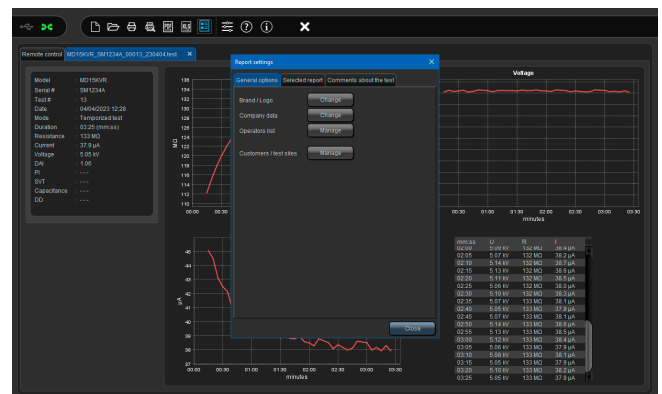
MegaLogg 3 communicates with the equipment through a USB connection. Set the parameters, start / stop a test, save the data and generate reports.



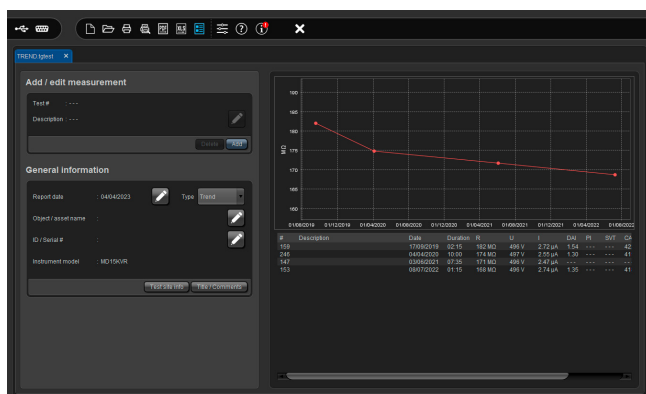
Available for download at: www.megabras.com/megalogg



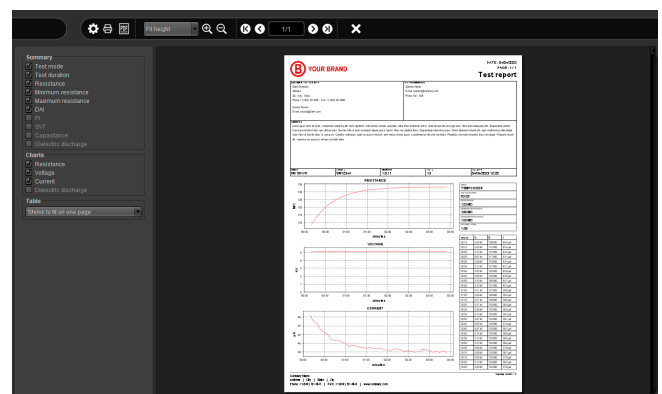
Test settings



Report settings



Trend analysis (insulation testers and micro-ohmmeters)



Report generation

Global Presence

MEGABRAS equipment are used in more than 40 countries around the world



Test & Measurement equipment

- Digital transformer ratiometer
- Earth ground testers
- Hipots
- Insulating glove tester
- Insulation testers
- Kilovoltmeters
- Micro-ohmmeters
- Power quality analyzers
- Vibration meter



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