

# Digital micro-ohmmeter

## MPK256



Remote control  
by App



Illustrative image

### Features

- Direct reading (up to 4½ digits)
- Resolution: 1  $\mu\Omega$
- Resistance reading: up to 2000  $\Omega$
- Up to 10 A test current
- Accuracy:  $\pm 0.2\% \pm 2$  digits
- Kelvin-type (4-Wires) measurement
- USB interface
- Built-in memory for up to 30,000 measured values
- Built-in printer
- Software for data management
- Remote control by an Android device
- Powered by rechargeable LFP battery or mains supply
- Auxiliary power input

### LFP Rechargeable battery

#### Expected lifetime

2000 charge / discharge cycles (average).

#### Low self-discharge

When the equipment is not in use, battery charge decreases with time at a much lower rate than other battery technologies.

#### Safety

In contrast to other lithium battery technologies commonly used, LFP batteries are thermally and chemically stable, significantly improving battery safety.

### Description

The **MPK256** digital very low resistance ohmmeter is a portable, microprocessor-controlled instrument used to accurately measure resistances of switches and circuit breaker contacts, transformer and motor windings, wire and cable samples, joints in busbars, etc., using test currents from 1 mA up to 10 A. It uses the Kelvin-type, four-terminals measurement principle, thus eliminating errors caused by lead and contact resistances. Measurements accuracy is guaranteed by the state-of-the-art system for signal-amplification, offset-free and with long-term stability.

The open circuit output voltage is of up to 10 V, depending on the selected test current, reducing the stabilization time for the test current when highly inductive elements (specially transformers windings) are measured. The measurement circuit has an effective protection against voltage peaks originated by those inductances.

The equipment is housed in a rugged plastic case. It is a portable, strong, impact resistant and lightweight equipment, suitable to be used in outdoors. It supplies very reliable and accurate measurements both in laboratory and out in the field.

### Remote control by Android™ App



**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	
<b>MPK256</b>	
Test current	1 mA - 10 mA - 100 mA - 1 A - 5 A - 10 A Each current may be continuously adjustable from 0 to 100 %
Test current accuracy	± 3 %
Resistance ranges	0-200 mΩ @ 10 A 0-1000 mΩ @ 5 A 0-200 mΩ @ 1 A 0-2000 mΩ @ 100 mA 0-20 Ω @ 10 mA 0-2000 Ω @ 1 mA
Resolution	1 μΩ @ 10 A
Output voltage	Up to 10 Vdc (open circuit) @ 1 A
Basic accuracy	± 0.2 % of reading ± 2 digits
FEATURES	
Measuring modes	Manual, production line and automatic
Measurement principle	Four-terminal, U/I
Advanced features	Digital direct reading of very low resistances in the alphanumerical display, with up to 4½ digits. Very fast and accurate measurements.
Filter function	Minimizes interferences in resistance measurements
Display	Alphanumerical LCD display, 4 lines / 20 characters (Big Number)
Printer	Built-in thermal printer
Built-in memory	Memory for up to 30,000 measured values
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	-5 °C to 50 °C
Storage temperature	-25 °C to 70 °C
Humidity	95 % RH (non condensing)
POWER SUPPLY	
Mains-powered or internal battery	Rechargeable LFP battery 12 V, 6000 mAh or 100 - 240 V~ mains supply
Battery charger	For 100 - 240 V~ mains supply or auxiliary 12 V supply input.
MECHANICAL (OF THE INSTRUMENT)	
Weight	Approx. 6.5 kg
Dimensions	378 x 308 x 175 mm

## Included accessories

- 2 Combined current and potential leads
- Ground cable
- Charger power cord
- 2 Auxiliary external power cord (12 V)
- USB cable
- User manual
- MegaLogg 3 software (download)
- BlueLogg app (download)
- Case for the accessories

## 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



### MEGABRAS IND. ELETRÔNICA LTDA.

Rua Gibraltar, 172 - Santo Amaro  
CEP 04755-070 - São Paulo - SP  
Brazil

### For more information

Phone : +55 (11) 3254-8111 / 5641-8111  
Fax : +55 (11) 5641-9755  
E-mail : [megabras@megabras.com](mailto:megabras@megabras.com)  
Site : [www.megabras.com](http://www.megabras.com)