

# MO-5893-10AT

10 A Digital Micro-ohmmeter

**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.**

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PRECISION INSTRUMENTS

## OVERVIEW

The MO-5893-10AT digital very low resistance ohmmeter uses the Kelvin-type, four-terminals measurement principle, thus eliminating errors caused by lead and contact resistances.

Resistance readings are shown in the alphanumeric display with up to a 4½ digit-resolution. It allows to measure resistances of up to 2,000 Ω, with a resolution down to 0.1 μΩ.

Measurements accuracy is guaranteed by the state-of-the-art system for signal amplification, offset-free and with long-term stability. The equipment has a USB interface that allows to download the measured values to a computer for their later analysis.

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 are measured.

The measurement circuit has an effective protection against voltage peaks originated by those inductances.

Operation is very simple: Just connect the leads, switch-on the equipment, select the test current and press the start button. After a few seconds (depending on inductance of the element), direct reading appears on the display with the measure unit indication (Ω, mΩ or μΩ). If it is necessary, the display will show messages to help the operator (Low battery, Over range, etc).

The equipment is housed in a rugged plastic case with a hinged lid and carrying handle. It is a portable, strong, impact resistant and lightweight equipment, suitable to be used in field, under severe weather conditions. It supplies very reliable and accurate measurements both in laboratory and out in the field.



## KEY FEATURES

- Microprocessor controlled
- Temperature compensation
- Resolution: 0.1 μΩ
- Resistance reading: up to 2,000 Ω
- Direct reading (Up to 4½ digits)
- Up to 10 A current
- Powered by rechargeable battery
- Kelvin-type (4-wires) measurement
- Built-in printer
- Remote control through an Android app

## CONTACT US

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### TEST CURRENTS

1 mA - 10 mA - 100 mA - 1 A - 5 A - 10 A.  
Each current may be continuously adjustable from 0 to 100%.

### RESISTANCE RANGES

0-200 m $\Omega$  @ 10 A.  
0-1,000 m $\Omega$  @ 5 A.  
0-200 m $\Omega$  @ 1 A.  
0-2,000 m $\Omega$  @ 100 mA.  
0-20  $\Omega$  @ 10 mA.  
0-2,000  $\Omega$  @ 1 mA.

### ACCURACY OF TEST CURRENT

$\pm$  3%.

### RESOLUTION

0.1  $\mu\Omega$  @ 10 A.

### OUTPUT VOLTAGE

Up to 10 Vdc (open circuit) @ 1 A.

### MEASUREMENT PRINCIPLE

Four-terminal, Kelvin-type.

### BASIC ACCURACY OF RESISTANCE MEASUREMENT

$\pm$ (0.10% of reading + 3 ULSD\*).  
\*Units of the Least Significant Digit.

### VOLTAGE MEASUREMENT

0 V - 5 V.

### ACCURACY OF VOLTAGE MEASUREMENT

$\pm$  5%.

### 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 printer.

### BUILT-IN MEMORY

For up to 30,000 measured values.

### SERIAL DATA OUTPUT

USB.

### ENVIRONMENTAL

IP54 with closed lid.

### SAFETY CLASS

Meets the requirements of IEC 61010-1.

### POWER SUPPLY

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.

### OPERATING TEMPERATURE RANGE

-5 °C to +50 °C.

### STORAGE TEMPERATURE RANGE

-25 °C to +70 °C.

### HUMIDITY RANGE

95% UR (non condensing).

### EQUIPMENT WEIGHT

Approx. 6.5 kg.

### DIMENSION

378 x 308 x 175 mm.

### AVAILABLE ACCESSORIES

- 2 Combined current and potential leads.
- 1 Ground cable.
- 1 Power cord.
- 1 USB cable.
- 1 Auxiliary external power cord (12 V – charge).
- 1 Auxiliary external power cord (12 V – charge or measure).
- 1 Temperature sensor.
- 1 User guide.
- 1 License to use the software.
- 1 Case for the accessories.