

# MO-5890-200A

200 A Digital micro-ohmmeter

Has a cooling system that allows making a large number of consecutive tests without activation of thermal protection. Under normal ambient conditions (25 °C) it can perform up to 30 consecutive tests with duration of 1 minute and 1 minute interval.

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PRECISION INSTRUMENTS

## OVERVIEW

The MO-5890-200A high current micro-ohmmeter, is a portable, microprocessor-controlled 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., with test currents from 5 A up to 200 A. 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  $\Omega$ , and the best resolution is 0.1  $\mu\Omega$ .

It has an internal memory for storing 50 records with 80 readings each. The communication output (USB) may be connected to a computer to download the stored values.

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 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.



## KEY FEATURES

- ➔ Alphanumerical display
- ➔ Direct reading (Up to 4½ digits)
- ➔ Resolution: 0.1  $\mu\Omega$
- ➔ Resistance reading: up to 1  $\Omega$
- ➔ Kelvin-type (4-wires) measurement
- ➔ Overheating protection
- ➔ Memory to store 50 records with 80 measurements each

## CONTACT US

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### TEST CURRENTS

From 5 A up to 200 A (True DC).  
The test current can be adjusted in steps of 0.2 A from 5 A to 20 A and steps of 1 A from 20 A to 200 A.

### RESISTANCE RANGES

0.1  $\mu\Omega$  to 2 m $\Omega$ , with 0.1  $\mu\Omega$  resolution.  
2 m $\Omega$  to 200 m $\Omega$ , with 10  $\mu\Omega$  resolution.  
200 m $\Omega$  to 1  $\Omega$ , with 1 m $\Omega$  resolution.

### MEASUREMENT PRINCIPLE

Four-terminal, Kelvin-type.

### THERMAL PROTECTION

Protects all sensitive components, avoiding any damage due to overheating.

### PROGRAMMABLE TEST TIME

Allows to setup the test time from 5 seconds up to 120 seconds.

### BASIC ACCURACY

$\pm 1\%$  of measured value.

### ADVANCED FEATURES

Digital direct reading of very low resistances in the alphanumeric display, with up to 4½ digits.  
Very fast and accurate measurements.

### PROTECTIONS

Overcurrent, short-circuit and overheating.

### BUILT-IN MEMORY

Capacity to store 50 registers with 80 readings each.

### INTERFACE

USB.

### TINSLEY SOFTWARE

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

### ENVIRONMENTAL

IP54 with closed lid.

### SAFETY CLASS

Meets the requirements of IEC 61010-1.

### POWER SUPPLY

Mains supply: 100-240 V~.

### OPERATING TEMPERATURE RANGE

-5 °C to +50 °C.

### STORAGE TEMPERATURE RANGE

-10 °C to +70 °C.

### HUMIDITY RANGE

95% UR (non condensing).

### EQUIPMENT WEIGHT

Approx. 11 kg.

### DIMENSION

502 x 394 x 190 mm.

### AVAILABLE ACCESSORIES

- 2 Combined test leads (current and potential).
- 1 Power cord.
- 1 Ground cable.
- 1 Communication cable.
- 1 Carrying case the test leads.
- 1 License to use the software.
- 1 User guide.