

on site micro-ohmmeter OM 10



The OM 10 micro-ohmmeter is used for four-wire resistance measurement from low values (resolution 10μ) up to $50 k$, with an excellent accuracy. It includes thermal emfs compensation and temperature compensation. It can also measure DC and AC voltages and ambient temperature.

- Easy to use
- High resolution: 10μ
- Resistance and voltage measurements
- Temperature compensation and measurement

Applications.....

On site, in workshop or laboratory the main applications are listed below:

- Cable resistance and resistivity measurements
- Inductive resistance measurements

(motors, transformers, etc...)

- Contact resistance measurements (connectors, switches, relays, quality of joints ...)
- Metallisation and earth bonding measurements

- Test and measurement of electrical components: resistors, fuses, thermistors, heating elements, PCB trade etc...
- Surface state, resistance of mechanical bonds and materials test.

general specifications

Display of measurement value with unit and of ambient temperature.
Indication of measurement range, type of current, possible temperature compensation.
50,000 counts (4 1/2 digits) LCD 13 mm high (0.5").

Range, current waveform, temperature compensation and trigger selected by keyboard.

Four-wire measurements with automatic compensation for thermal electromotive forces (emfs) and automatic ambient temperature compensation.

Measurement current.....

User can choose two waveforms of current:

- continuous (dc) for inductive resistance measurements (permanent current)
- pulsed in the other cases: current shutoff between measurements (advantage: low heatrise of resistance in test and low consumption).

Measurement time.....

in DC: 0.5 s,
in pulsed: 1 s.

Protection.....

- Electronic protection up to 250 V on input (430 V in voltage measurement)

- Electronic protection against break-off currents when measuring an inductive resistance.

Calibration.....

No need to open the instrument for recalibration; just connect a standard resistance and enter its value through the keypad.

Operating conditions.....

Nominal operating temperature and humidity: 0 to + 50°C, 20 to 75% RH.
Maximum operating temperature and humidity: - 10 to + 55°C, 10 to 80% RH.
Maximum storage and transport temperature: - 30 to + 60°C.

MESURES ÉLECTRIQUES

Protection according to IP41.

Power supply
Internal battery pack Ni-Cd: 1.7 AH.
Battery life (typical use) > 10 h. An external mains charger is delivered as standard.

ard with the instrument. It allows either battery charging or permanent mains use.

Presentation.....
Rugged ABS case for site or bench usage.
Dimensions: 120 x 65 x 245 mm.

Weight: 1.1 kg.
Delivered in carrying case with mains adaptor.

functions

Resistance measurement
From very low values (resolution 10 μ) up to 50 k with:
- Measurement and automatic compensation for thermal electromotive forces (emfs)

- Measurement and compensation (user choice) of ambient temperature.
With temperature compensation, OM 10 displays the theoretical value at 20°C of a copper or aluminium resistance (other metals on request).

als on request). Ambient temperature is measured with a sensor built in the instrument and displayed.

DC + AC voltage measurement

Range	Resolution	Measurement current	Voltage drop	Accuracy (1)
500 m	10 μ	100 mA	50 mV	0.05% + 50 μ
5	0.1 m	10 mA	50 mV	0.05% + 0.5 m
50	1 m	10 mA	500 mV	0.05% + 5 m
500	10 m	1 mA	500 mV	0.05% + 50 m
5 k	0.1	0.1 mA	500 mV	0.05% + 0.5
50 k	1	0.01 mA	500 mV	0.05% + 5
400 V	1 V			1% + 1 V
- 10 to 60°C	0.1°C			1.5°C

(1) The accuracy is given as \pm (% of reading + n) over 1 year at 23 \pm 5°C.

accessories

(For detailed information, please refer to special datasheet).

Are included as standard: Mains charger for charging batteries and use on mains and carrying case.

Optional extras:
- Kelvin lead set AN 5806
A pair of measurement leads each with a Kelvin clip (maximum opening 1.2 cm)
- Kelvin test probes AMT 003
A pair of measurement leads each with a dual probe - concentric - (diameter of

body 6 mm)
- Hard carrying case.

The ACL 310 is a heavy duty hard case made of terflan. This case has a storage compartment for test leads.

ordering instructions

Micro-ohmmeter OM 10

Accessories.....
Kelvin lead set AN 5806
Kelvin test probes AMT 003
Hard carrying case ACL 310



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The above mentioned characteristics are subject to change without prior notice

SOFIMAE laboratory on our premises of Ris-Orangis
*Ranges available on www.cofrac.fr