

OM 16: On-site microhmmeter

OM16 milliohmmeter / microhmmeter is firstly a designed for outdoor uses instrument but also in workshop , and maintenance departments.

Easy to use, it performs measurements on inductive and non-inductive resistances with a DC current.

Its large interactive display informs in real time the operator about the type of measurement, range, calculation conditions (resistance calculated according to a reference temperature), thresholds status and values.

Designed for hard conditions:.

- Hard case (Pélicase® type).
- Plastic washable keyboard.
- Key-locked measurement plugs.



Why choosing an OM 16

- 4 wires measurement to provide highest accuracy
- Automatic measurement in non inductive resistance mode. :automatic triggering when continuity is established between the two points :a single operator can perform measurements.
- EMF parasites are measured before each measurement
- Permanent measurement current for inductive loads (coils, transformers, motors windings).
- DC measurement current for non-inductive resistances (earth bonding, coating, contact resistances) with auto power off of the current.
- Display of temperature compensated resistance value:

Resistance is automatically calculated by the instrument taking into account: **measurement value, ambient temperature, metal temperature coefficient, reference temperature**

All parameters are programmable. (Ambient temperature can be programmed or measured thanks to the temperature sensor)

- 2 programmable thresholds with LED indication and display on the screen, light or loud beeper.
- Memory: 1 000 measurements identified by numbers. Memory reading on the display, or via software or printer.
- Powered by NiMh batteries, quick charge

TECHNICAL CHARACTERISTICS

Range	Resolution	Accuracy (1 year) 23°C ± 5°C	Measuring current	Voltage drop
5 mΩ	0,1 μΩ	0,05% + 0,5 μΩ	10 A	50 mV
25 mΩ	1 μΩ	0,05 % + 3 μΩ	10 A	250 mV
250 mΩ	10 μΩ	0,05 % + 30 μΩ	10 A	2,5 V
2500 mΩ	0,1 mΩ	0,05% + 0,3 mΩ	1A	2,5 V
25 Ω	1 mΩ	0,05 % + 3 mΩ	100 mA	2,5 V
250 Ω	10 mΩ	0,05% + 30 mΩ	10 mA	2,5 V
2 500 Ω	100 mΩ	0,05% + 300 mΩ	1 mA	2,5 V

Accuracy given in % of reading + fixed value at 23°C ± 5°C

OM 16: ON-SITE MICROHMMETER

Temperature compensation

Manually keyed or measured by Pt100.

Resolution: 0,1°C, accuracy $\pm 0,5^\circ\text{C}$.

Sensor connected on the keyboard or through a cable.

Climatic environment according to CEI359

- Reference domain: $23 \pm 5^\circ\text{C}$ (RH :45 to 75% w/o condensing).
- Temperature Coefficient from 0 to 18°C and from 28 to 50°C : <10% of accuracy/ $^\circ\text{C}$.
- Functioning reference domain: 0 to 50°C (RH: 20 to 75% w/o condensing).
- Limit functioning domain: -10°C to $+55^\circ\text{C}$ (RH: 10 to 80% w/o condensing).
- Storage temperature limits: -40°C to $+60^\circ\text{C}$.

Environment

- Dimensions: 270 x 250 x 180 mm.
- Weight: 4Kg.
- Chocks and vibrations: EN61010-1.
- IP53 according to EN60529.

Battery system

- Batteries: NI/MH 8,5 AH.
- Charging time: 5H.
- Power supply: from 92 to 256 V (45 to 400 Hz).
- 5000 measurements at 10A

Safety

- According to EN 61010-1. Category II, pollution 2.
- 60 V

EMC

Radiant Emission:

EN 55022, class B; EN 61000-3-2; EN 61000-3-3

Immunity:

- EN 61000-4-2
- EN 61000-4-3
- EN 61000-4-5
- EN 61000-4-6
- EN 61000-4-11
- EN 61000-4-4

Measurement plugs

2 circular locking connectors.

Protection up to 250V.

Fuse protection.

RS232 Interface for printer, computer, trigger

• ACCESSORIES

- Large Kelvin clip: **AMT 006**
Opening: 30 mm; cable of 5 m.



- Small Kelvin clip : **AMT012**
Opening: 12 mm; cable of 5 m.

- Compact test probe: **AMT011**
Length: 125 mm, cable of 5 m.
Diameter of rod: 4 mm.



- Test probe: **AMT005**
Length: 215 mm; cable of 5 m.
Diameter of rod: 3 mm.



- Trigger test probe: **AMT013**
Length: 215 mm; cable of 5 m.
Diameter of rod: 3 mm.

Clamps and test probes are sold by unit

- Temperature sensor: **AMT014**
Pt 100; Accuracy: $\pm 0,5^\circ\text{C}$.

- Cable for AMT 014: **AMT015**
Length 2m.

- Exploitation software: **LOG OM**

• PRINTERS

PX 58: Battery model
Paper larger 58mm

CX 85: DC power model
Paper larger 85mm
(Serial cable supplied
In standard with
printers).



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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