

# on-site micro-ohmmeter

## OM 15



The OM 15 micro-ohmmeter is used for four-wire resistance measurement from low values (with a resolution of  $0.1 \mu$ ) to 500 . It is ideal for testing metallic coating and earth bonding.

The OM 15 is made in a rugged and heavy duty housing, input protected up to 250 V, battery powered.

The instrument includes an automatic thermal emfs compensation and also temperature compensation and measurement.

- High resolution  $0.1 \mu$
- DC and pulsed current
- On-site measurement

### Application .....

- Metallic coating and earth bonding measurements (aircraft, naval ...)
- Test and measurement of electrical components

- Mechanical bond tests
- Cable resistance measurement
- Contact resistance measurement
- Motors and transformers resistance measurement.

### general specifications

#### Display .....

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

#### Four-wire measurement .....

Four-wire measurements with automatic compensation for thermal emfs and ambient temperature compensation.

#### Measurement current .....

User can choose two current waveforms:

- Pulsed from 1 mA to 10 A: direct current shut-off between measurements (advantage: low consumption and low heat-rise of resistance in test).
- Continuous (dc): from 1 mA to 1 A for inductive resistance measurements.

#### Measurement time .....

- Pulsed mode: trigger command initiates a single measurement which is displayed until the next trigger command.
- DC mode: 0.5 s.

#### Protection .....

- Electronic protection against accidental overload up to 250 V on input.
- Electronic protection against break-off currents when measuring an inductive resistance.

#### Safety .....

CEI 1010-1 CAT. III Pol. 2 60 V.

#### 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.

#### Calibration .....

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

#### Power supply .....

Two internal battery packs Ni-Cd (D size) with a switch allowing to select the pack supplying the OM 15 (battery life of each battery pack: 5,000 measurements). A charger is built in the instrument (92 - 256 V, 45 to 400 Hz).

#### Presentation .....

Rugged ABS case included in a hard carrying case made in terflan.  
Protection according to IP52.

Dimensions: 290 x 330 x 115 mm with carrying case.  
Weight: 3.7 kg with batteries and carrying case.

Connection .....  
Connection of measurement wires and external trigger by circular connector with bayonet locking.

## functions

### Resistance measurement

Resistance measurement from very low values (resolution 0.1  $\mu$ ) up to 500 with:

- Measurement and automatic compensation for thermal electromotive forces (emfs).

- Measurement and compensation (user choice) of ambient temperature. With temperature compensation, OM 15 displays the theoretical value at 20°C of a copper or aluminium resistance (other metals on request). Ambient temperature is measured with a sensor built in the instrument and displayed.

- Measurements triggered by keyboard or by remote contact.

Range	Resolution	Voltage drop	Accuracy (1)
5 m (2)	0.1 $\mu$	50 mV	0.05% + 1 $\mu$
50 m (2)	1 $\mu$	500 mV	0.05% + 5 $\mu$
500 m	10 $\mu$	500 mV	0.05% + 50 $\mu$
5	100 $\mu$	500 mV	0.05% + 0,5 m
50	1 m	500 mV	0.05% + 5 m
500	10 m	500 mV	0.05% + 50 m

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

(2) Only in pulse current mode

## accessories

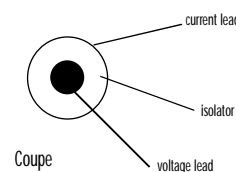
Kelvin clip (AMT006) .....  
One cable (length 5 m) terminated with a large clip.



Kelvin test probe (AMT005) .....  
One cable terminated with a dual probe concentric.  
Length of rod: 215 mm.  
Diameter of rod: 3 mm.  
Maximum current: 10 A.

Kelvin test probe with triggering button (AMT007) .....  
One double cable (5 m) terminated with a dual probe with a push button for triggering.  
Length of rod: 215 mm.  
Diameter of rod: 3 mm.  
Maximum current: 10 A.

AMT 005 and 007 probe body section



## ordering instructions

Micro-ohmmeter OM 15

### Accessories

Large Kelvin clip	AMT 006
Kelvin test probe	AMT 005
Kelvin test probe + trigger	AMT 007
Kelvin test probe	AMT 011
20 m cable	AMT 008
Kelvin clip	AMT 012



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