

# PME-100

*Digital Micro Ohmmeter  
up to 100A*



# PME-100

## CHARACTERISTICS

- Accuracy:  $\pm 0.25\%$  of the scale  $\pm 1$  digit.
- Direct reading in ohms, miliohms or microohms depending on the scale selected.
- Voltage supplied by a rechargeable battery or conventional voltage supply.
- Case: ABS.
- Portable: 11.5 Kg.

## APPLICATIONS

- Measures the contact resistance of circuit breakers, motor and transformer windings.
- Measurement is by 4 wires to eliminate the resistance contact and measurement cables.



## DESCRIPTION

The microohmmeter PME-100 is used to measure accurately the contact resistances of switches, circuits breakers, motor and transformers windings and others. The measurement is performed through the current evaluation and the voltage drop on the unknown resistance, with 4 wires to prevent against the influence of contact and cable resistances. The result is internally converted by a highly accurate and stable electronic circuit and is sent to the 3 1/2 digit liquid crystal display, allowing a direct reading in Ohms, milliOhms or microOhms, according to the selected scale.

Easy to use, ideal for field, laboratory, and production line applications.

## FUNCTION

The PME 100 can be powered by the mains supply or by a rechargeable battery, which makes it very versatile. For measurements in the 20 $\Omega$ , 2 $\Omega$ , 200 m $\Omega$  and 2 m $\Omega$  scales, the measurement cable is directly connected to the PME 100 panel, which must be turned off, and the resistance to be measured must be disconnected from any external voltage source.

For measurements in the 2,000 and 200 microohms scale, the measurement cable must be directly connected to the PME 100 panel and the current capacity of the contact or resistance under test must be observed, as the scale supplies a 100A  $\pm 20\%$  testing current.

## ACCESSORIES

- Power supply cable 2 meters.
- 2 measurement cables 8 m. length.
- 2 Voltage cable, with testing probe in one extremity and "fork" type testing probe in the other-14m length.
- 2 Current cable, with "cramp" type testing probe in one extremity and connection terminal in the other - 14 m. length.
- 2 Fast operation testing probe.
- Spare fuses.
- Instruction manual.
- 1 transport case for cables and equipment.

## TECHNICAL SPECIFICATION

<b>Voltage Supply:</b>	127/220V, 50-60 Hz	<b>Reading sampling time:</b>	25 ms.
<b>DC Supply:</b>	Lead-lead dioxide battery, shielded, rechargeable, 2V, 40Ah.	<b>Temperature range:</b>	Accuracy range: 20 - 30° C Working range: 0 - 50° C
<b>Accuracy:</b>	$\pm 0.25\%$ of scale $\pm 1$ digit.	<b>Dimensions:</b>	Height: 175 mm / 7"    Width: 380 mm / 15"    Depth: 335 mm / 13"    Weight: 11.5 Kg / 25 lb
<b>Measurement response time:</b>	- 6 seconds with resistive circuits. - For highly inductive circuits it is necessary to wait for reading stabilization.		

## MEDIA

Scale	Measurement Range	Resolution	Rating Current ( $\pm 20\%$ )	Battery charge duration
20 $\Omega$	0 to 19.99 $\Omega$	10m $\Omega$	1 mA	130 hours
2 $\Omega$	0 to 1.99 $\Omega$	1m $\Omega$	10 mA	130 hours
200m $\Omega$	0 to 199.9m $\Omega$	100 $\mu\Omega$	100 mA	100 hours
20m $\Omega$	0 to 19.99m $\Omega$	10 $\mu\Omega$	1A	30 hours
2m $\Omega$	0 to 1.99m $\Omega$	1 $\mu\Omega$	10A	3 hours*
2,000 $\mu\Omega$	0 to 1.999.9 $\mu\Omega$	1n $\Omega$	100A	**
200 $\mu\Omega$	0 to 199.9 $\mu\Omega$	100n $\Omega$	100A	**

\* In this scale, when the PME 100 is connected to the mains power supply, the battery will have a 6 hour charge duration, as the measurement current is provided by the supply module and battery. The battery does not recharge in this scale, as occurs in the other scales.

\*\* In this scale, the PME 100 operates only with the mains power supply.

**EUROSMC, S.A.**

Polígono Industrial P-29, Calle Buril, 69. 28400 Collado-Villalba. Madrid (Spain).

Tels: 34 - 91 - 849 89 80\*. Fax: 34 - 91 - 851 25 53

www.eurosmc.com • e-mail: sales@eurosmc.com

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