

# MH-10

## Microhmmeter



### Description

The **MH-10** digital microhmmeter is a portable instrument controlled by a microprocessor and it is used as a high precision reading unit that can measure very low resistances of circuit breaker contacts, keys, conductive bars, transformer coils and motors, weld points, etc., with test currents ranging from 1 mA to 10 A.

The **MH-10** microhmmeter operates with the 4-arm method (Kelvin bridge), so that it avoids the effects of resistance on injection cables. The test current can be adjusted by the operator and the values are obtained by comparing them with highly stable internal patterns. The results will be displayed on an alphanumerical display that is very easy to read.

### Features

Power supply characteristics	
Sealed rechargeable battery	12 V - 7 A·h
Built-in charger	Yes
Mains power supply	Yes
Fuse protection	Schurter, type SPT 5 x 20 (Time-lag) 5 A / 250 Vac High circuit-breaking capacity
Measurement features	
Resistance measurement ranges	0-2 000 $\mu\Omega$ > 10 A 0-20 m $\Omega$ > 10 A 0-200 m $\Omega$ > 1 A 0-2 000 m $\Omega$ > 100 mA 0-20 $\Omega$ > 10 mA 0-200 $\Omega$ > 1 mA
Resolution	1 $\mu\Omega$ for 10 A
Test voltage	Up to 10 Cdc for 1 A open circuit
Basic accuracy	$\pm 0.2\%$ of the value measured $\pm 2$ digits
Display	Alphanumerical, with 4 ½ digits
Communications	
Serial data output	RS.232 at 4 800 bps
Build features	
Dimensions	378 x 308 x 175
Weight	8.8 kg (including accessories)
Degree of protection	IP 54 with the cover closed
Ambient conditions	
Operating temperature	-5 ... +50 °C
Storage temperature	-25 ... +65 °C
Relative humidity	95 % (non-condensing)
Maximum operation height	3 000 m above sea level
Standards	
IEC 61010-1/990, IEC 61010-1/992 amendment 2, IEC 61326-1, IEC 1000-4-2	

### References

Description	Type	Code
Microhmmeter (Thomson bridge)	<b>MH-10</b>	<b>P60711</b>

# MH-100e

Digital microhmmeter up to 100 A



## Description

The **MH-100e** digital microhmmeter is a portable instrument controlled by a microprocessor and it is used as a high precision reading unit that can measure very low resistances of circuit breaker contacts, keys, conductive bars, transformer coils and motors, weld points, etc., with test currents ranging from 1 mA to 100 A.

The **MH-100e** microhmmeter operates with the 4-arm method, so that it avoids the effects of resistance on injection cables. The test current can be adjusted by the operator and the values are obtained by comparing them with highly stable internal patterns. The results will be displayed on an alphanumeric display that is very easy to read.

## Features

Power supply characteristics	
Power Supply	Network 100 - 130 V o 220-240 V
Internal battery	Built-in. Rechargeable (for measurements with test current of up to 10 A)
Measurement features	
Test current	1 mA, 10 mA, 100 mA, 1 A, 10 A, 100 A. Each current can be adjusted between 0 and 100% of its nominal value
Resistance measurement ranges	0-2000 $\mu\Omega$ to 100 A 0-20 m $\Omega$ to 10 A 0-200 m $\Omega$ to 1 A 0-2000 m $\Omega$ to 100 mA 0-20 $\Omega$ to 10 mA 0-200 $\Omega$ to 1 mA
Resolution	0.1 $\mu\Omega$ to 100 A 1 $\mu\Omega$ to 10 A 10 $\mu\Omega$ to 1 A 100 $\mu\Omega$ to 100 mA 1 m $\Omega$ to 10 mA 10 m $\Omega$ to 1 mA
Test voltage	Up to 10 Vdc (open circuit) to 1A
Basic accuracy	R < 0.5 m : $\pm$ (0.5% of the mean value) R > 0.5 m : $\pm$ (0.20% of the mean value)
Printer	No
Communications	
Serial data output	RS-232 at 4800 bps
Build features	
Dimensions	502 x 394 x 190 mm
Weight	Approximately 14 kg
Protection degree	IP 54 with the cover closed
Ambient conditions	
Operating temperature	-5 ... +50 $^{\circ}\text{C}$
Storage temperature	-25 ... +65 $^{\circ}\text{C}$
Relative humidity	95 % (non-condensing)
Maximum operation height	3 000 m above sea level
Standards	
IEC 61010 : 1990, IEC 61010-1 : 1992	

## References

Description	Type	Code
Digital microhmmeter up to 100 A	MH-100e	P60713