



444 Low Voltage Micro-Ohmmeter



Measures from 1 Micro-Ohm to 20 Ohms

Simpson's high precision Model 444 Micro-Ohmmeter measures resistance from 1 micro-ohm to 20 ohms. It measures using an extremely small test voltage (100 microvolt maximum) and a four wire measurement technique. The resistance reading is indicated on a 4- 1/2 digit LCD display using one of two measuring modes: An automatic AC measurement mode or a manual DC measurement mode. By limiting the test voltage of the Model 444 to only 100 micro volts the instrument will not "punch through" contamination or corrosion. An audible tone can be used to indicate resistance values below any selected reading. The Model 444 is powered by either a 120 or 240 AC source or, from self-contained rechargeable Ni-Cad batteries for field use.

- 20,000 Count 4 1/2-Digit LCD
- 2 Measurement Methods: AC Pulse and DC Polarity Switching
- 8"Punch-Through" Prevention by 100 μ V Max. Test Voltage
- User-Adjustable, Low-Resistance Alarm
- AC Test Mode Cancels Offset Voltages and Thermocouple Effects
- Includes Ni-Cad Battery for Field Use and Test Leads

Specifications

Range	Resolution	Maximum Test Current
20m Ω	1 $\mu\Omega$	5mA
200m Ω	10 $\mu\Omega$	500 μ A
2 Ω	100 $\mu\Omega$	50 μ A
20 Ω	1m Ω	5 μ A

Accuracy: \pm (0.05% of input \pm 600 counts) DC mode

\pm (0.05% of input \pm 15 counts) AC mode

Alarm: Resistance below set point activates audible beeper and display annunciator.

Resistance above set point activates display annunciator.

Set point Adjustment: Front Panel Knob

Accuracy: \pm (2% of input +150 counts)

Maximum Test Voltage: 100 μ V peak

Measurement Techniques: (AC) Pulse of 40 Hertz Square Wave and DC Switchable Polarity

Display: 19,999 count LCD with 0.5" digits and "AC," "DC" and " \blacklozenge " annunciators

Conversion rate: reading 2 per second

Test Leads: BNC to dual Kelvin clip (2 leads) RG-58

Operating Voltage: 120VAC \pm 10%, 240VAC optional, 3VA typical

Operating Temperature Range: 0° to 50°C

Storage Temperature Range: -40° to +60°C

Ordering Information

MICRO-OHMMETER	Catalog No.	ACCESSORIES	Catalog No.	ACCESSORIES	Catalog No.
444 Micro-Ohmmeter, 120V	12681	Standard Test Lead Set	00827	Case, Molded Plastic	45029
444 Micro-Ohmmeter, 240V	12682	Kelvin Test Probe Set	02151		



Specifications (Continued)

Relative Humidity: 90% maximum up to 35°C,

70% maximum up to +50°C (non-condensing)

Temperature Coefficient: 0.1 times the applicable accuracy specification per °C (0° to 18°C and 28° to 50°C)

Battery Voltage Effect: Plus or Minus (0.15% of input); Fully charged to "B" annunciator displayed

Battery Life: 8 hours typical

Rated Circuit-To-Ground Voltage: 30V (RMS)

Dimensions: 2.7" x 8.4" x 9.0" (68 x 213 x 228 mm) nominal

Weight: Approximately 3 lbs.