

## Digital Micro-Ohmmeter Model 5600



### Description

The Digital Micro-Ohmmeter Model 5600 performs accurate, reliable low resistance measurements with test currents to 10A and resolution to one micro-ohm.

The front end of the Model 5600 employs a 4-wire Kelvin configuration, eliminating test lead resistance for a measurement accuracy of 0.25%. A reverse polarity switch compensates for the effect of DC voltage interference on the accuracy and permits reading averaging. And a built-in circuit filters against AC signals.

The large, easy-to-read LCD is 71" (18mm) high, and directly displays resistance measurements in ohms with an automatic decimal point. The LCD also displays a "1" to indicate range overload, and "-" to show a reversed connection of the measurement leads.

Power is supplied by a long-life NiCad battery with a built-in recharger (110/220V).

The Model 5600 features automatic shut-off after four minutes of non-use.

Four LEDs on the front panel indicate measurement faults (open circuit, blown fuse, etc.), thermal protection, low battery and battery recharging.

For user safety and instrument protection, the Model 5600 is fuse protected at the inputs. Two fuses, accessible on the front panel, protect against stored energy in inductive loads.

Enhanced internal circuitry gives protection against possible inductive kickback when the current is shut off. A built-in thermal switch prevents the micro-ohmmeter from overheating on the 10A range when in continuous use.

The Model 5600 is housed in a sealed, safety yellow field case with carrying handle and a lid that may be removed during testing if desired.

### Features

- ◆ Four-terminal Kelvin resistance measurement
- ◆ 10A test current
- ◆ 0.25% basic accuracy
- ◆ 1m resolution
- ◆ Direct reading, easy to operate
- ◆ Six selectable ranges
- ◆ Reverse polarity switch
- ◆ Overload and input fuse protection
- ◆ Automatic decimal point and zero
- ◆ Rechargeable NiCad battery with integral charger (110/220V)
- ◆ Rugged field case for industrial applications

### Applications

Micro-Ohmmeter Model 5600 performs accurately and reliably in a variety of low resistance situations.

Typical applications include:

- ◆ Contact resistance of breakers and switches
- ◆ Wire to terminal connections
- ◆ Winding resistance of motors and transformers
- ◆ Resistance on electric motors
- ◆ Aircraft and rail bonds
- ◆ Grounding connections
- ◆ Battery strap measurements

# Specifications

## ELECTRICAL

Ranges	2000μ	20m	200m	2000m	20	200
Display	1999	19.99	199.9	1999	19.99	199.9
Resolution	1μ	10μ	100μ	1m	10m	100m
Test Current	10A	1A	1A	100mA	10mA	10mA

### Accuracy:

2000μ range:

0.25% typical, 0.5% max ± 2 digits

20–200–2000m, 20–200 ranges:

0.25% typical, 0.5% max ± 1 digit

### Power Supply:

Rechargeable 6V, 7Ah NiCad battery;  
built-in 110V/220V (47–450Hz) charger;  
auto shutoff after 4 minutes non-use

### Battery Life (Typical):

200μ range:

200 to 300 8-second measurements

20–200m ranges:

900 30-second measurements (approx.)

2000m, 20–200 ranges:

5000 30-second measurements (approx.)

### Operating Voltage: 4.5 – 7VDC

### Recharge Time:

14 hours from full discharge (approx.)

## MECHANICAL

**Connections:** Terminals accept 4mm banana plugs or 6 mm (min) spade lugs

**Display:** 2000 count, 7-segment LCD

### Operating Temperature:

14° to 131°F (-10° to 55°C)

### Storage Temperature:

-4° to 131°F (-20° to 55°C)

### Dimensions:

15.35 x 10.24 x 9.84"

(390 x 260 x 250mm)

**Weight:** 17 lbs 10 oz (8 kg approx)

**Case:** Fiberglass-charged polycarbonate, with handle and removable lid, watertight to IP534 (lid closed), IP520 (lid open)

### Colors:

Case: safety yellow; Front panel: gray

## SAFETY

### CE Mark

**Electrical:** IEC 348 Class II; IEC 38, Supply voltage

### Electromagnetic:

IEC 801-2, Electrostatic discharge  
IEC 801-3, Electromagnetic Fields  
IEC 801-5, Electrical shocks

### Mechanical/environmental:

IEC 529, Protection Index (IP)  
IEC 68.2.6, Vibrations  
IEC 68.22.27, Shocks  
IEC 68.2.29, Shake  
IEC 68.2.31, Knock over  
IEC 68.2.32, Drop test

### Case Material:

UL 94, Case material

### Dielectric Test:

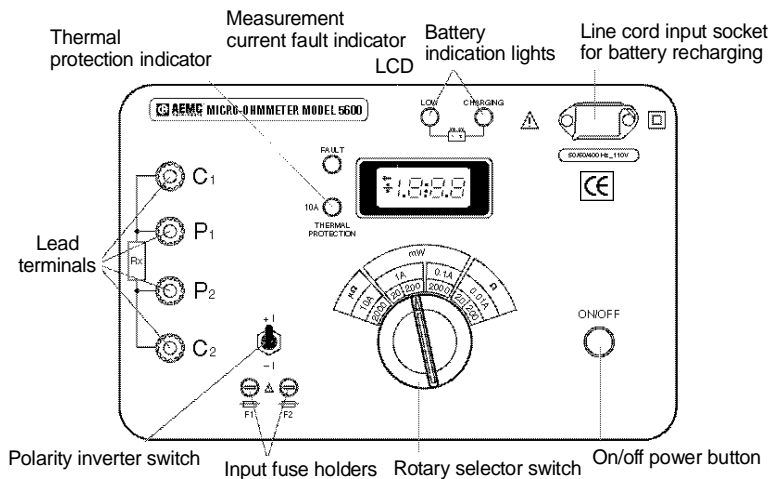
IEC 348, 1500V 60Hz (input terminals);  
3000V 60Hz (power supply)

### Overload Input Protection:

380Vrms

### Fuses:

Two high-interrupting capacity 8A



## ORDERING INFORMATION

## CATALOG NO.

Micro-Ohmmeter Model 5600 ..... Cat.#1431.01  
includes 110V battery, AC supply cord and user manual

### Accessories and Replacements

Kelvin probes, set of two, on 10-ft color-coded leads with banana plug terminations. .... Cat. #1017.82  
Kelvin clips, 1A, set of two, on 10-ft color-coded leads with spade lug terminations ..... Cat. #1017.83  
Kelvin clips, 10A, set of two, on 10-ft color-coded leads with spade lug terminations ..... Cat. #1017.84  
Kelvin probes, 10A, 20-ft spring loaded ..... Cat. #2118.52



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