

# Portable surface resistivity/resistance meter Model 272A

- Ideal for testing static-control products
- Meets ESD Association Standard 11.11 plus ASTM D-257 and EIA-541
- Measures both resistivity and resistance to ground
- Rugged and reliable for routine factory use
- Fast and simple to use
- 8-hour rechargeable battery
- Selectable scientific notation or 3-place log readouts
- No adjustments required



## The final answer for QA/QC inspection of static-control products

For manufacturers and users of products such as electrostatic shielding bags and static dissipative work surfaces, the Model 272A offers rapid, accurate, dependable measurements of resistivity and resistance to ground.

Simply place the resistive material under the instrument's electrode assembly. One glance at the large digital display will tell you whether the test material meets your specifications.

To measure resistivity ( $\Omega/\square$ ), a sample is placed under the electrode assembly and a voltage is applied to the outer of two concentric electrodes resting on the sample. The geometry of the electrode assembly's surface is such that current flow from the outer ring, via the sample, to the inner electrode is a direct indication of the sample's resistivity, which is read on the digital display.

In the resistance-measuring mode, current flows from ground through the resistive material to the measurement electrode.

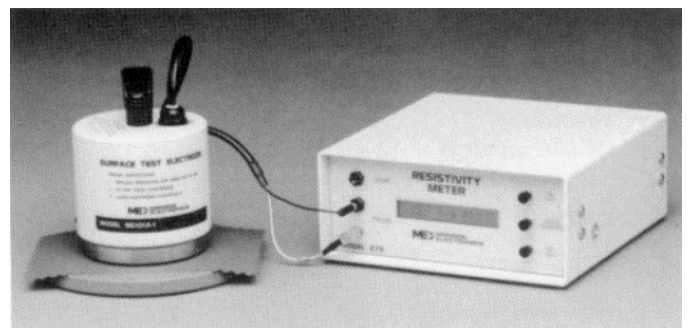
All test parameters can be preset, so operation is push-button simple. Even test duration can be preset so the instrument automatically times out to save battery life.

## Easy to use

Test parameters (resistivity/resistance, test voltage, display mode) only need to be set once before testing multiple samples.

To perform either resistivity or resistance to ground measurements:

1. Place the test material on the supplied Teflon<sup>®</sup>-coated specimen support plate and connect a single test lead to the plate.
2. Set the electrode assembly on the test material.
3. Press POWER ON and read test results on the display.



**ME MONROE ELECTRONICS**

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Specifications subject to change without notice

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## Specifications

**Resistivity range:**  $8 \times 10^4$  to  $2.0 \times 10^{14}$   $\Omega/\square$

**Resistance range:**  $8 \times 10^3$  to  $2.0 \times 10^{13}$   $\Omega$

**Accuracy:**  $\pm 0.1$  decade, typical

### Resistivity measuring voltage

$8.0 \times 10^4$   $\Omega/\square$  to

$2.0 \times 10^{13}$   $\Omega/\square$ : 10 volts

$1.1 \times 10^6$   $\Omega/\square$  to

$2.0 \times 10^{14}$   $\Omega/\square$ : 100 volts

### Resistance measuring voltage

$8.0 \times 10^3$   $\Omega$  to

$2.0 \times 10^{12}$   $\Omega$ : 10 volts

$1.1 \times 10^5$   $\Omega$  to

$2.0 \times 10^{13}$   $\Omega$ : 100 volts

**Display type:** 16-char. alphanumeric LCD

**Information shown:** Operating mode, measured  $\Omega$  or  $\Omega/\square$  in log or scientific notation, applied voltage, low battery indication

**Power:** Rechargeable battery with 100, 120, or 230 VAC adapter/charger supplied

**Battery life:** Up to 8 hours continuous operation per charge

### Electrode

Type: Guarded-ring-type designed to ASTM D-257

Weight: 5 lbs. (2.3 kg)

Outer electrode ring dimensions:

2.25 inches (5.7 cm) ID,  
0.125 inches (0.32 cm) thick

Inner electrode disc diameter:

1.2 inches (3.0 cm)

Electrode/meter cable length:

3 feet (0.9 m)

### Meter dimensions

(H x W x D): 2.5 x 6.0 x 6.0 inches  
(6.4 x 15.2 x 15.2 cm)

### Carrying case dimensions

(H x W x D): 7.8 x 7.3 x 7.5 inches  
(19.8 x 18.5 x 7.5 cm)

**Total weight:** 12 lbs, 13 oz (5.9 kg)

## The best warranty in the business

Since Monroe Electronics offers the finest, most complete line of ESD instrumentation, it's appropriate that we back our products with an equally superior warranty: 2 years on all parts and labor.

## The finest ESD instrumentation and support

For more than 30 years we have been the technology and quality leader in electrostatic detection and measurement instrumentation - ever since we invented the feedback nulled electrostatic voltmeter. Today we offer the world's only complete array of fieldmeters, voltmeters, resistivity meters and power supplies. Our customers range from NASA and the leading makers of photocopiers and laser printers to converters and microelectronics manufacturers worldwide.

But we know you need quality support as well as quality products. That's why we drive ourselves to provide the most knowledgeable applications and installation support - as well as superior customer service.

It's no accident that our distributors are among the finest in the industry. It's a natural match.

## How can we help?

Contact your Monroe Electronics dealer for price and delivery information on this and other ME products, or to schedule a no-obligation demonstration at your convenience. For the name of your nearest dealer, or for technical or applications assistance, contact Monroe Electronics at the address and phone numbers below.

## Special use applications

- **A Surface-to-Ground Measuring Adapter** - Model 96121-1 is included with each instrument allowing measurement of flooring and work surface material in compliance with ASTM F-150, ESD 4.1 and ESD 7.1
- **Volume Resistivity** - meets ASTM D-257, IEC 93 and ESD DS11.12 guidelines for measurement of volume resistivity. Please see Application Note APNE-0002 on our website.
- **Measure Narrow Tape Samples** - Please see Application Note APNE-0004 on our website.

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