Portable Surface Resistivity Resistance Meter

model 272A

Features:

- **Ideal for testing static-control products**
- **Meets ESD Association ANSI/ESD STM 11.11 and ANSI/ESD STM 11.12 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 (Ω/■), 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 flows 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 or a second electrode through the resistive material to the measurement electrode.

All test parameters can be preset, so operation is push-button simple. The instrument can be programmed to automatically time 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® 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.

MONROE ELECTRONICS

Portable Surface Resistivity / Resistance Meter model 272A

Specifications:

Resistivity range: 8×10^4 to 2.0×10^{14} Ω/■
Resistance range: 8×10^3 to 2.0×10^{13} Ω
Accuracy: ±0.1 decade thru 10E12, ±0.15 decade above 10E12 (typical); ±0.1 decade thru 10E9, ±0.15 decade thru 10E11; ±0.2 decade above 10E12 (max)

Resistivity measuring voltage
8.0×10^4 Ω/■ to 2.0×10^{13} Ω/■: 10 volts
1.1×10^6 Ω/■ to 2.0×10^{14} Ω/■: 100 volts

Resistance measuring voltage
8.0×10^3 Ω to 2.0×10^{12} Ω: 10 volts
1.1×10^5 Ω to 2.0×10^{13} Ω: 100 volts

Display type: 16-char. alphanumeric LCD

Information shown: Operating mode, measured Ω or Ω/■ 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: Monroe Model 96101A-1 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: 2.5 x 6.0 x 6.0 inches (6.4 x 1 5.2 x 1 5.2 cm)

Accessories Included: Manual on CD, Surface test electrode, surface to ground adapter, speciman plate, power supply, carrying case, connecting cable

Optional Probes: Model SE0032 Mini Guard Ring Probe
Model 96163 Point-to-Point Probe

Calibration:

Monroe Electronics instruments are factory-calibrated prior to shipment. Recalibration should be performed annually, or more frequently if specified by contract or company policy. Your instrument should also be recalibrated any time it has been repaired or tampered with. We are happy to recalibrate your instrument for you at a reasonable cost, or provide information and procedures on calibration upon request.

Warranty:

Monroe Electronics, Inc., warrants that each instrument and sub-assembly manufactured by them shall be free from defects in material and workmanship for a period of two years after shipment from the factory. This warranty is applicable to the original purchaser only.

The finest Electrostatic instrumentation and support:

For more than 40 years - ever since we invented the feedback--nulled electrostatic voltmeter, Monroe has been the technology and quality leader in electrostatic detection and measurement instrumentation. Today we offer the world's most complete array of fieldmeters, voltmeters, and resistivity meters. Our customers include the leading makers of photocopiers and laser printers, converters and microelectronics worldwide.

We know you need quality support as well as quality products. We pride ourselves on providing our customers with the most knowledgeable applications and installation support — as well as superior customer service.

How can we help?

Contact your Monroe Electronics representative for price and delivery information on this and other ME products, 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 directly at the address and 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.