

## Surface and Volume Resistance Probe Model 803B



**Evaluate your material's surface and volume resistance and resistivity characteristics.** Electro-Tech Systems' 803 delivers critical insight on these metrics for planar surfaces. The electrodes are made from a conductive silicone for excellent probe-to-test-surface contact which allows measurements of 100 Ohms and greater to be made. The 803B comes complete with metal and acrylic test beds and is compatible the recommended Model 871 Wide Range Resistance Meter.

### Standards Satisfied

ANSI/ESD STM11.11, STM11.12; ASTM D257, IEC 93, IEC 60093, NFPA 99, MIL-PRF-81705D

### Applications

- Measure surface and volume resistance of static dissipative planar materials and textiles
- Testing of DC Resistance of insulating materials
- Static hazard control in health care facilities
- Ensure compliance with military performance requirements

### Key Features


- Quickly and accurately measure Surface & Volume resistance
- Concentric ring design allows for an easy X10 conversion to calculate resistivity
- Precision 5lb weight meets industry specifications
- Ground & Insulated test beds included
- Compatible with resistance meters featuring standard 4mm banana jacks
- Use optional verification fixtures to confirm the measurement accuracy

**For accuracy and specification compliance, resistance should be measured inside a humidity controlled environment.  
Please contact ETS for more information**


D00659 Rev C

Questions? Here's how to contact our experts

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## Surface and Volume Resistance Probe Model 803B

### Specifications

#### ELECTRICAL

**Surface and Volume Resistance Measurement Range:**  $10^2\Omega$  to  $10^{14}\Omega$

**Contact electrodes:** Conductive silicone

**Insulation:** Teflon

**Connectors:** STD. Banana Jack 0.162" (4mm): Red (Source), Black (Sense), Green (Ground)

**Cables (Banana-Banana):** 3 foot (92cm) Red (Teflon®), Black, Green

#### MECHANICAL

**Electrode Dimensions:**

**Outer:** 2.5" dia. x 0.125 x 0.125" (8 x 3 x 3mm)

**Inner:** 1.2" dia. x 0.125" (30.5 x 3mm)

**Shore-A Hardness:** 65±10 Durometer

**Probe dimensions:** 3.25" dia. x 4.0" H (83 x 102mm)

**Weight:** 5.0 lb ± 2oz (2.2±0.05 kg)

#### CALIBRATION FIXTURES

##### **Model 809B Resistance Calibration Fixture (STM 11.11)**

*Checks the calibration of the Model 803B Probe by verifying the alignment of the concentric rings and the low measurement range using an array of 20, 10 megohm, 1% resistors. The reverse side 5%,  $1 \times 10^{12} \Omega$  resistor checks both the high range measurement accuracy and verifies the electrification time.*

##### **Model 819 Volume Resistance Calibration Fixture**

*The Model 819 verifies the surface contact of the Model 809B center electrode using a similar parallel array of 20, 1%, 10 megohm resistors spaced around the surface area of the center electrode.*

**Warranty:** One (1) Year – Parts & Labor



Specifications subject to change without notice

