



# Concentric Ring PRF-911

## Data Sheet

**Measure Surface & Volume Resistance of flat materials per ANSI/ESD STM11.11 and ANSI/ESD STM11.12.**

Designed originally for flat (planar) packaging materials, this unique portable test fixture will measure Surface and Volume Resistance of virtually any flat material in accordance with current industry standards.

These include Surface Resistance per ANSI/ESD STM11.11, and Volume Resistance per ANSI/ESD STM11.12, and will approximate surface and volume resistivity measurements per ASTM D-257.

The PRF-911 Concentric Ring is a low-profile test fixture conceived specifically for use with the Prostat Resistance instruments such as the PRS-801 Resistance System, PRS-812 Resistance Meter and the PAS-853B Resistance Auditing System.

The Concentric Ring is an important tool to calculate surface resistivity and volume resistivity. For example, multiply the surface resistance measurement in ohms by 10 to obtain surface resistivity in ohms/square..





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### Specifications for the PRF-911 Concentric Ring Fixture

Concentric Ring Loaded Dimensions	Inner electrode disc ( $D_1$ ) outside diameter: 1.2" (3.05 cm) Spring counter pressure approximately 2 lbs., $\pm 2$ oz (0.82 kg, $\pm 0.06$ kg) Outer electrode ring ( $D_2$ ) inside diameter: 2.25" (5.72 cm) Width 0.125" (0.32 cm)
Alignment	$5.0 \times 10^5 \pm 1\%$ Ohms @100 volts for Surface Measurements per ANSI/ESD STM11.11 $5.0 \times 10^5 \pm 2\%$ Ohms @10 volts $5.0 \times 10^5 \pm 1\%$ Ohms @100 volts for Volume Resistivity Measurement $5.0 \times 10^5 \pm 2\%$ Ohms @100 volts
Volume Resistivity Correction	6.9 cm <sup>2</sup> Total $D_1$ Contact Area. Allows for $D_1$ mounting screw head
Weight	1.8 lb (0.82 kg) without BNC/Banana adapter or connections
Connections	Fixture installed BNC for Inner Disc ( $D_1$ ) connection, and fixture assembly ground; dual BNC/Banana plug adapter supplied. Fixture installed standard banana receptacle for Outer Ring ( $D_2$ ) connection
Power	Not Applicable. The fixture and test bed are used in conjunction with the Resistance Meters and test leads

### Specifications for the PTB-920 Dual Test Bed

Finish	Lamination of 1/8 inch acrylic plastic and 3/8 inch stainless steel, or plated aluminum.
Diameter	4.0" (10.16 cm)
Weight	1 lb 7.2 oz (660g)

### Specifications for the PRF-911BNC BNC Adapter

Colors	Green and Black
Finish	<b>Plugs:</b> Nickel Plate <b>BNC Shell:</b> Nickel Plate
Contact Resistance	<20Meg Ohms
Insulation Resistance	>10Meg Ohms
Withstand Voltage	DC150V
Current Rating	1A/DC100V
Operating Temperature	-22°F to 140°F (-30°C to +60°C)

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