



Ground Zero Electrostatics PRF-911 Concentric Ring Set

PRF-911 Concentric Ring Set

Measure surface resistance and volume resistivity of flat materials



Item Number
PRF-911

Designed originally for flat (planar) packaging materials, this unique portable test fixture will measure surface resistance and volume resistivity of virtually any flat material in accordance with current industry specifications.

The PRF-911 Concentric Ring is a low-profile test fixture conceived specifically for use with the PROSTAT PRS-801 Resistance System and PRS-812 Resistance Meter. It will measure surface resistance per ESD S11.11-1993, and volume resistance per ESD S11.12, and volume resistivity per ASTM D-257.

Its compact size allows the fixture to be inserted into small flexible containers, such as an ESD protective bag, without having to cut the package.

The PRF-911 incorporates a spring loaded, self aligning center electrode feature. This unusual feature aids in maintaining consistent contact of the fixture's highly conductive rubber electrode surfaces with materials under test. This reduces the need for frequent alignment of the fixture, or dressing the electrode test surfaces.

The PTB-920 Dual Test Bed consists of an insulated test surface for S11.11 surface measurements laminated to a steel test plate, which is employed for volume resistivity measurements. The four inch diameter steel test bed assembly includes a banana receptacle for instrument connections during volume measurements.

Contents

- ☀ PRF-911 Concentric Ring
- ☀ PTB-920 Dual Test Bed
- ☀ PRF-911 GGL 36" Green Silicone Test Lead
- ☀ PRF-911 BNC Adapter

Test According To

ESD S11.11 Surface Resistance
ESD S11.12 Volume Resistivity

Packaging

Weight: 3 lbs (1.3 kg)
Length: 8.25 Inches (21 cm)
Width: 7.5 Inches (19 cm)
Height: 3.5 Inches (8.5 cm)

Applications:

- ☀ Surface Resistance measurement of planar materials
- ☀ Volume Resistance measurement of planar material

Specifications

Concentric Ring Dimensions:

Inner electrode disc (D1) outside diameter: 1.2 inches (3.05cm) – Spring Loaded
counter pressure approximately 2 lb., ± 2 ounces (0.82 Kilograms, ± 0.06 kg)
Outer electrode ring (D2) inside diameter: 2.25 inches (5.72cm) Width 0.125 inches (0.32cm)

Alignment:

$5.0 \times 10^5 \pm 1\%$ Ohms @100 volts per S-11.11-1993 for Surface Measurements
 $5.0 \times 10^5 \pm 2\%$ 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 cm² Total D1 Contact Area. Allows for D1 mounting screw head.

Fixture Weight:

1.8 lb (0.82 kg) without BNC/Banana adapter or connections.

Connections:

Fixture installed BNC for Inner Disc (D1) connection, and fixture assembly ground; dual BNC/Banana plug adapter supplied.
Fixture installed standard banana receptacle for Outer Ring (D2) connection.

Dual Test Bed:

Diameter: 4.0 inches (10.16cm). Lamination of 1/8 inch acrylic plastic and 1/4 inch stainless steel, or aluminum plate.

Power:

Not Applicable. The fixture and test bed are used in conjunction with the PROSTAT PRS-801 Resistance System and test leads.

