

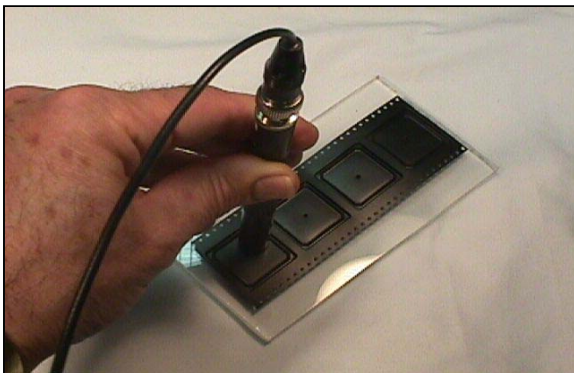
## PROSTAT<sup>®</sup> Micro Probes

### *Miniature Probes Designed to Measure Resistance of Small Areas*

The **PRF-912B** Miniature Concentric Ring Fixture (E12 Micro Probe) accurately measures surface resistance of small areas. The 912B is capable of obtaining measurements up to  $1.0 \times 10^{12}$  Ohms. The set consists of a PRF-912B Concentric Resistance Fixture, shielded cable equipped with BNC connectors, and a BNC to male banana instrument adapter.

The **PRF-914B** Miniature Concentric Ring Fixture (E14 Micro Probe) accurately measures surface resistance of small areas. The 914B is capable of obtaining measurements up to  $1.0 \times 10^{14}$  Ohms. The set consists of a PRF-914B Concentric Resistance Fixture, dual shielded cables equipped with SMA connectors, Ground Cord and a BNC to male banana instrument adapter.

Both the PRF-912B and the PRF-914B are designed to work with a precision wide range resistance instrument, such as the PROSTAT<sup>®</sup> PRS-801 Resistance System, and an insulated test bed. They provide surface resistance measurements in ohms per ESD S11.11 Surface Resistance standard. To estimate ASTM D-257 Surface Resistivity in ohms/square, multiply the fixture measurement by 10, i.e., add one decade. Replaceable conductive electrode Ring and cap sets are available separately to enhance contact resistance on irregular surfaces and composition materials.



The **PRF-922B** Miniature Two-Point Probe accurately measures point-to-point surface resistance of small areas and assemblies. The set consists of a PRF-922B Two-point Fixture, shielded cable equipped with BNC connectors, and a BNC to male banana instrument adapter. This assembly is supplied with replaceable conductive electrode caps to enhance contact resistance on irregular surfaces and composition materials. The 922B is designed for use with a precision wide range resistance instrument, such as the PROSTAT<sup>®</sup> PRS-801 Resistance System, and an insulated test bed. It provides point-to-point resistance measurements in ohms. The PRF-922B is capable of measurements up to  $1.0 \times 10^{12}$  Ohms. Built-in distance stops provide consistent electrode to sample pressure for developing repeatable measurements.

#### **PRV-913B Dual Verification Fixture**

- Verify the proper functioning of the PRF-912B, PRF-914B and PRF-922B Probe Sets

#### **PRF-922A-B Miniature Two-Point Probe Adapter**

- Adapter converts the PRF-912B or PRF-914B Probes to a precision Two-Point Probe

#### **PRF-900 Stop**

- Miniature Probe Stopper for use with the PRF-912B or PRF-914B Micro Probes

#### **PRF-MR**

- Adapters reduce contact resistance between metal electrodes and specialty materials under test



**Surface Resistance**  
*at it's best!*

**Optional Accessories**

### PRF-912B Specifications

**Range**

0.9 – 1.0x10<sup>12</sup> Ohms (1.0E+12)

**Dimensions**

Length: 5.9 inches (150mm) without cover. 6.5 inches (165mm) with cover. Probe diameter 0.5 inches (12.7mm). Probe cover outer diameter 0.63 inches (16mm)

**Probe Weight**

1.5 ounces (43 grams)

**Finish**

Black anodized

**Dielectric Material**

Teflon

**Contact Size**

Inner (Center) Contact Probe: 0.1 inches (2.54mm). Outer Contact Probes: Ten each 0.06 inches (1.59mm) diameter at 0.258 inches (6.56mm) bolt circle

**Min. Sample**

0.32 inches (8.2mm) diameter

**Probe Spring**

Force/Test 3.5 pounds (1.6 kg)

**Probe Travel**

0.3 inches (7.8mm)

**Connection**

BNC with outer source and inner sense connections

**Cable**

RG-174 coaxial cable equipped with insulated BNC couplers, and BNC/Banana adapter for connection to Prostat PRS-801 Resistance System

**Power**

Not applicable. Fixture powered by resistance instrument

### PRF-914B Specifications

**Range**

0.9 - greater than 1.0x10<sup>14</sup> Ohms (1.0E+14)

**Dimensions**

Length: 6.3 inches (160mm). Diameter 0.5 inches (12.7mm). High resistance cable connection end: 0.88" (22.5 mm) x 0.68" (17.3 mm)

**Probe Weight**

2.0 ounces (57 grams)

**Finish**

Black anodized

**Dielectric Material**

Teflon

**Contact Size**

Inner (Center) Contact Probe: 0.1 inches (2.54mm). Outer Contact Probes: Ten each 0.06 inches (1.59mm) diameter at 0.258 inches (6.56mm) bolt circle

**Min. Sample**

0.32 inches (8.2mm) diameter

**Probe Spring**

Force/Test 3.5 pounds (1.6 kg)

**Probe Travel**

0.3 inches (7.8mm)

**Connection**

Dual SMA with Source on the right and Sense of the left with ground

**Cable**

Dual RG-174 coaxial cables equipped with SMA connectors. Instrument Adapter for connection to Prostat PRS-801 Resistance System equipped with BNC male terminals to fit cable BNC female fittings

**Power**

Not applicable. Fixture powered by resistance instrument

### PRF-922B Specifications

**Range**

0.9 – 1.0x10<sup>12</sup> Ohms (1.0E+12)

**Dimensions**

Length: 7.0 inches (178 mm) without cover. 7.70 inches (195mm) with cover. Probe diameter 0.5 inches (12.7mm). Probe cover outer diameter 0.63 inches (16mm)

**Probe Weight**

2.0 ounces (57 grams)

**Finish**

Black anodized

**Dielectric Material**

Black Delran

**Contact Size**

Electronic quality gold plated contact probes: 0.1-inch (2.54mm) diameter. Conductive synthetic rubber contact boots: 0.125-inch (3.18mm) diameter. Probes center-to-center spacing: 0.250 inch (6.35mm)

**Min. Sample**

0.32 inches (8.2mm) diameter

**Probe Spring**

Force/Test 1.5 pounds (0.68 kg)

**Probe Travel**

0.25 inches (6.4mm) Self-Limited

**Connection**

BNC with outer source and inner sense connections

**Cable**

RG-174 coaxial cable equipped with insulated BNC couplers, and BNC/Banana adapter for connection to Prostat PRS-801 Resistance System

**Power**

Not applicable. Fixture powered by resistance instrument