

# RESISTANCE/RESISTIVITY PROBES

Series 840

Probes to measure surface and volume resistance/resistivity of planar, uneven and curved surfaces plus small cavities.

## Features:

- Probes to meet ESDA, ASTM and other requirements
- Direct x10 surface resistivity conversion
- Spring-loaded electrode configurations
- Universal handle
- Conductive rubber electrode configurations available
- Configurations:
  - Individual Probes
  - Kit with Resistance Meter & Humidity/Temp indicator



## Applications:

The Series 840 Resistance/Resistivity Probes are the latest addition to the ETS line of resistance measuring instrumentation. The Models 841, 842 and 844 Probes consist of an array of spring-loaded electrodes that enable the user to measure the surface resistance of flat, uneven or curved objects as small as 0.75x0.188" and 0.438" deep (19 x 5 and 11 mm). The Model 845 is a lightweight version of the ESDA STM4.1 and NFPA 5 lb Probes (ETS Model 850) that weighs a user-friendly 1-lb (0.45kg) making it an alternative for field and high volume measurement applications.

The Model 840 Resistance Test Kit includes a carrying case and can be configured with any combination of Probes, insulated and conductive test beds, Resistance Meter, Temperature/Humidity/Dew Point Indicator and Wiring Verifier with ground jack.



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## Description:

With the exception of the Model 845, the Series 840 Resistance/Resistivity Probes, all utilize gold-plated, spring-loaded, flat tip pins as the contact electrode. Each pin requires 5-oz (688 gm.) of force for total compression. The electrodes are socket-mounted allowing for easy replacement by the user. The SOURCE/SENSE electrodes are separated by a Teflon<sup>®</sup> core for high insulation resistance and when compressed, extend 0.5" (13 mm) beyond the core. Other electrode configurations such as small diameter, conical, waffle, pointed and conductive rubber contact surfaces (shown) are available as options.



All Probes have standard BNC output jacks. They can be connected directly to any 2-wire resistance meter using the appropriate cable (3-ft BNC to separate banana plug cable standard for stand-alone Probe test heads). The Model 848 Handle Assembly has a fixed, 3' (92cm) 3-wire, Teflon shielded cable with standard banana plug terminations for Source, Sense and Ground. It fits all Series 840 Probes, and provides both user convenience and reduced cost associated with having a single cable assembly.

**Model 841:** A 0.875" (22mm) diameter concentric ring Probe with a single 0.156" (4mm) diameter center electrode and seven, 0.093" (2.4mm) diameter outer electrodes on 0.438" (11mm) centers. Minimum measurement size is a 0.5" (13mm) diameter surface and a 0.438" (11mm) deep cavity.



**Model 842:** A 1.5" (38mm) diameter concentric ring Probe with an inner ring of five 0.062" (1.5mm) electrodes and an outer ring of seventeen 0.156" (4mm) diameter electrodes on 0.875" (22mm) centers. Minimum measurement size is 1.25" (32mm) and a 0.25" (64mm) deep cavity.



**Model 844:** A 2-Point Probe with two 0.125" (3mm) diameter conductive rubber electrodes spaced 0.25" (6mm) between centers. Minimum measurement size is 0.75" x 0.188" (19 x 5mm) with a 0.438" (11mm) cavity.



**Model 845:** A 1 lb (0.45kg) version of the ESDA STM4.1, ASTM F150 and NFPA 99 5 lb (2.2kg) Probe with a 2.5" (64mm) diameter conductive rubber electrode. Metal plate contact resistance is less than 100 Ohms when measured at 10V.



**Model 840 Kit:** Includes a carrying case with die cut foam insert for accepting all of the above Probes plus the ETS Model 880 Wide Range Resistance Indicator, Model 846 Temp/Humidity/ Dew Point Indicator and Model 256 Wiring Verifier with GND jack (North American Std only) plus conductive and insulated test beds. Kits can be customized to meet individual user requirements.



*Specifications subject to change without notice.*  
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