

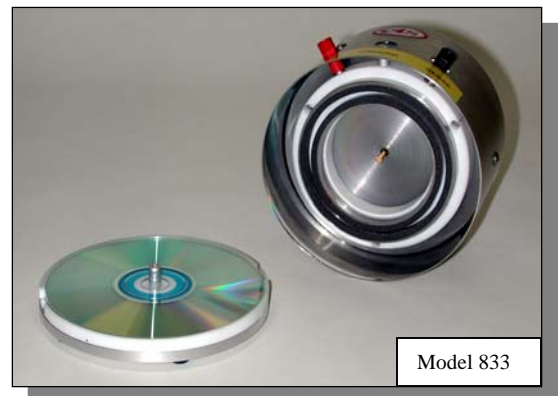
CUSTOM RESISTANCE/ RESISTIVITY PROBES

Series 800

Custom-built Resistance/Resistivity probes and test fixtures for specific user applications.

Features:

- Electrodes:**
 - Conductive rubber
 - Spring-loaded
 - Stainless steel
- Constant force
- Designs to meet specifications
- Resistivity conversions from x1 - x1000
- Planar and non-planar samples
- Measure multilayer layer material
- Optional Press to control applied force



Applications:

The measurement of surface and/or volume resistance is a key parameter in describing the electrical properties of material. In electrostatic applications the resistance is specified to predict the static dissipation characteristics of material or product. Standard ESDA, ASTM, IEC, etc probes or test fixtures may not be suitable for performing these measurements.

ETS Custom Resistance/Resistivity Probes enable special resistance measurements to be made on such products as gloves and finger cots, CD discs, concave/convex objects, multi-layer and non-planar materials. Probes can be either modifications of existing units such as the Model 823 (adapted from the Model 803B to measure non-planar surfaces), least conductive buried layer of multilayer material or new special designs such as the Model 835 ESDA STM15.1 Constant Area Force Electrode for measuring in-use resistance of gloves and finger cots. A press is available to control the force applied to the test sample.



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Description:

Custom Resistance/Resistivity Probes and test fixtures are generally designed for specific applications such as the measurement of gloves and finger cots or the measurement of concave and convex surfaces found in optical lenses where scratches cannot be tolerated. To adapt to these special applications electrodes can be designed to conform to non-planar surfaces incorporating spring-loaded pins such as the Model 823, or independently adjusting inner and outer electrodes utilizing conductive rubber as used with the Model 834.

The optional Model 847 press interfaces with virtually any probe to control the applied force. The Model 823-847 Resistance Measurement System with pointed electrodes can measure the resistance of the outer layer and with additional force measure the least conductive layer of multilayer material.



Model 834



Model 823-847

The Model 833 Test Fixture shown on the front page is specifically designed to measure the surface resistance of compact discs that incorporate a center hole. It automatically aligns the electrodes and connects the test bed to ground for making surface resistivity measurements in accordance with ASTM D 257. The electrode dimensions are chosen to provide a fixed multiplier to the measured resistance in order to obtain surface resistivity when applicable. The multiplication factor for the Model 833 is x100. However, depending on the material to be measured and physical constraints, multiplication factors of x1, x10, x100 or x1000 can be incorporated.

Custom probes or test fixtures are designed to or as close as possible to the applicable specifications. For example, the Model 835 CAFE Fixture is designed per the applicable ESDA STM 15.1 specification. On the other hand, the Model 823 Probe with 52 spring-loaded electrodes conforms closely to the requirements of ESDA STM 11.11 and ASTM D 257.

Specifications:

	Model 823	Model 833	Model 834	Model 835
Applications:	Non-planar surfaces Multi-layer laminates Buried least cond. layer	Compact discs	Concave/convex surfaces	Gloves Finger cots
Electrodes:				
Type:	Spring-loaded pins 52 x 0.156" (4mm)	Silicon rubber Nickel Carbon	Silicon rubber Nickel Carbon	Stainless steel 0.1 in ² (64mm ²)
Multi-layer measure	52 x pointed pins			
Contact Resistance	<10 Ohms	<10 Ohms	<10 Ohms	<1 Ohm
Contact force:	5 lb (2.2kg)	5 lb (2.2kg)	5 lb (2.2kg)	1 lb (460gm)
Insulation material:	Teflon [®]	Teflon [®]	Teflon [®]	Teflon [®]
Warranty:	One (1) Year	One (1) Year	One (1) Year	One (1) Year

Specifications subject to change without notice.

2/08