

CLAMPING RESISTANCE ELECTRODES

Model 832
Model 846

Electrodes for measuring resistance and static dissipation of conductive and static dissipative material and product.

Features:

- Defined contact area
- Defined contact pressure
- Banana jack connectors
- Used to measure:
 - R_{Pt-Pt} RTG
 - R_{Volume}
 - Static dissipation
- Measure both surfaces of tubes & other surfaces
- Meets requirements of:
 - SAE J1645 Automotive Fuel Systems (Model 832)
 - Union Pacific 121505 Flangeway Filler (Model 846)



Applications:

Resistance measurement of thermoformed, molded, extruded, woven and other products, require electrodes that have defined surface area instead of point contact probes and alligator clips normally supplied with resistance meters. This type of electrode contact is also required when measuring static dissipation using a charged plate monitor.

The Models 832 and 846 Clamping Resistance Electrodes provide defined contact area and force to the sample surface to measure Point-to-Point Resistance, Resistance to Ground, Volume Resistance and Static Dissipation. The electrodes feature a unique dual-pad conductive elastomer that enables the measurement of both flat and tubular material. The Model 832 meets SAE J1645 (2006) requirements for automotive fuel systems. In addition, it can measure the resistance characteristics specified for ESD protective shipping tubes for IC devices. The Model 846 meets Union Pacific Flangeway Filler test requirements.



electro-tech systems, inc.

www.electrotechsystems.com

3101 Mt. Carmel Avenue, Glenside, PA 19038 • Tel: (215) 887-2196 • Fax: (215) 887-0131

Description:

Offered in pairs, the Model 832 and Model 846 Defined Surface Contact Area Electrodes in conjunction with the appropriate resistance meter enables point-to-point, resistance-to-ground and static dissipation of material and product to be measured. A single electrode is used to measure volume resistance. The Model 832 electrode assembly consists of 0.25" (6mm) square and 0.25 x 0.125" (6x3mm) rectangular conductive silicon rubber pads mounted to stainless steel electrodes that are attached to an insulated clamp exerting approximately 10 pounds (4.5kg) of contact pressure. The Model 846 has identical 0.375" (9.5mm) diameter electrodes installed onto a clamp with adjustable contact pressure that is set to 20 lbs (9kg).

To calculate volume resistivity the area of the smaller pad of the Model 832, 0.18cm², is divided by the thickness of the material in cm. For the Model 846 the 2.64cm² area of the electrode is used in the calculation.

The surface resistance of flat material and the outside surface of tubing are normally measured using the 0.25" x 0.25" (6x6mm) pad of the Model 832. To measure the inside surface resistance of tubing the 0.25" x 0.125" (6x3mm) pad is used.

Standard 0.162" (4mm) banana jacks are located at the end of each handle. The RED jack of the Model 832 connects to the 0.25" (6mm) sq. electrode and the BLACK jack connects to the 0.25" x 0.125" (6x3mm) rectangular electrode. Red and black cables, 24" (61cm) long, terminated with standard 0.162" (4mm) banana plugs, are supplied with each pair of Electrodes. These cables have high insulation resistance to reduce secondary leakage paths to each other or to ground during measurement.

ETS can configure kits to provide required instrumentation and electrodes to meet virtually any requirement. The ETS Model 2004 Resistance/Dissipation Test Kit consists of two Model 832 Electrodes, Model 880 Wide Range Resistance Indicator, Model 204 Charged Plate Analyzer plus a Model 5646 Humidity/Temperature Indicator housed in a rugged ABS carrying case. This provides the user with a cost effective, J1645 Resistance Measurement Kit.

Specifications:

	Model 832	Model 846
Contact Electrode:		
Material:	0.062" (1.6mm) Silicone rubber	
Conductive filler:	Nickel Carbon	
Resistivity:	0.01 Ohm-cm	
Area:		
Upper	0.062 in ² (0.36cm ²)	0.44" (2.64cm ²)
Reverse	0.031 in ² (0.18cm ²)	0.44" (2.64cm ²)
Clamping Force:	Fixed	Adjustable – 5-50lbs (2.2 - 22kg)
Setting:	10 lb (4.5kg)	20 lbs (9kg)
Connectors:		
0.161" (4mm) Banana jack	Large Electrode: Red Small Electrode: Black	Top - Red Reverse - Black
Insertion Length:	1.0" (2.54cm)	

Warranty: One (1) Year

Specifications subject to change without notice.