

Trek Models 876 and 884

Hand-Held Non-Contacting Electrostatic Voltmeters



The Trek Model 876 ($\pm 2\text{kV}$) and Model 884 ($\pm 20\text{kV}$) Hand-Held Electrostatic Voltmeters provide accurate, noncontacting measurements of electrostatic surface voltage for ESD applications in either ionized or non-ionized environments.

These two voltmeters utilize a measurement technique that overcomes the disadvantage of the typical hand-held field-meter by providing surface voltage measurements which are essentially independent of the sensor probe-to-measured surface spacing.

Model 876 Key Specifications

- Measurement Range: 0 to $\pm 2\text{ kV DC}$
- Measurement Accuracy: Better than $\pm 5\%$ of full scale over the entire recommended probe-to-surface separation range of 5 mm to 25 mm

Model 884 Key Specifications

- Measurement Range: 0 to $\pm 20\text{ kV DC}$
- Measurement Accuracy: Better than $\pm 5\%$ of full scale over the entire recommended probe-to-surface separation range of 30 mm to 60 mm

Typical Applications Include

- Measurement of electrostatic surface charge build up
- Manufacturing processes
- Electronic assembly testing
- Semiconductor material testing
- Dissipative material testing
- Automotive electronics testing
- ESD Auditing and troubleshooting

Features and Benefits

- Accurately measures surface voltage at a wide range of spacings
- No need to maintain a fixed spacing
- Chopper stabilized for drift-free operation in ionized environments
- NIST-traceable Certificate of Calibration provided with each unit



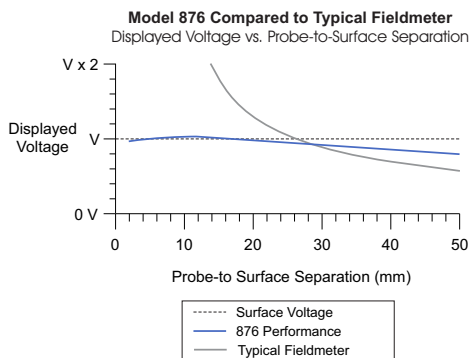
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Model 876 and 884 Specifications

Model 876 Performance

Measurement Range 0 to ± 2 kV DC

Measurement Accuracy



All Model 876 specifications are with a probe-to-surface separation of 15 mm, ± 10 mm

Model 876 Mechanical

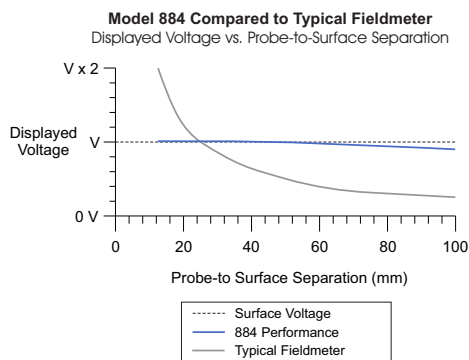
Dimensions 31 mm H x 59 mm W x 173 mm D
(1.2" H x 2.4" W x 6.8" D)

Weight 200 g with battery
(7 oz.) with battery

Model 884 Performance

Measurement Range 0 to ± 20 kV DC

Measurement Accuracy



All Model 884 specifications are with a probe-to-surface separation of 45 mm, ± 15 mm.

Model 884 Mechanical

Dimensions 31 mm H x 59 mm W x 183 mm D
(1.2" H x 2.4" W x 7.3" D)

Weight 200 g with battery
(7 oz.) with battery

Common Features

Power On/Off	Push-button switch
Stability	
<i>Drift with Time</i>	Less than 600 ppm/hour, noncumulative
<i>Drift with Temperature</i>	Less than 600 ppm/ $^{\circ}$ C
Operating Time	Approximately 8 hours with a full battery
Hold	A momentum push-button will command the voltage display to hold the value displayed until the switch is released
Voltage Display Range	A 3 $\frac{1}{2}$ digit liquid crystal display
<i>Model 876</i>	0 to ± 1999 V
<i>Model 884</i>	0 to 19.99 kV
Resolution	
<i>Model 876</i>	1 V
<i>Model 884</i>	10 V
Zero Offset	
<i>Model 876</i>	Less than ± 1 count
<i>Model 884</i>	Less than ± 4 counts
Sampling Rate	2.5 readings per second
Power Requirements	One (1) 9-volt NEDA 1604 battery, IEC 6R61 battery or equivalent
Ground Receptacle	Snap-on connector
Operating Conditions	
<i>Temperature</i>	15 $^{\circ}$ C to 35 $^{\circ}$ C
<i>Relative Humidity</i>	To 85%, noncondensing

Supplied Accessories

Model 876 Operating Instructions	PN: 23206
Model 884 Operating Instructions	PN: 23207
Ground Reference Cable Assembly	PN: N9079
*Always use the original grounding cord without any safety resistor. Failure to do so will lead to measurement errors.	
9-volt Battery	PN: F1003R

Optional Accessories

Carrying Case	PN: 43469
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*Measured using the true rms feature of the Hewlett Packard Model 34401A digital multimeter

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