Trek Models 876 and 884

Hand-Held Non-Contacting Electrostatic Voltmeters



The Trek Model 876 (±2kV) and Model 884 (±20kV) 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:
- Measurement Accuracy:

0 to ± 2 kV DC 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:
- Measurement Accuracy:

0 to ±20 kV DC

Better than ±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
- C∈ compliant



	6 and 884 Specifications	
Model 876 Performance		
Measurement Range	0 to ±2 kV DC	
Measurement Accuracy v Displayed Voltage	Model 876 Compared to Typical Fieldmeter Displayed Voltage vs. Probe-to-Surface Separation x 2	
	0 V	
15 mm, ±10 mm	ations are with a probe-to-surface separation of	
Model 876 Med	chanical	
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 Per	formance	
Measurement Range	0 to ±20 kV DC	
Measurement Accuracy	Model 884 Compared to Typical Fieldmeter Displayed Voltage vs. Probe-to-Surface Separation	
Measurement Accuracy ^{Display} ^{Voltag}	Model 884 Compared to Typical Fieldmeter Displayed Voltage vs. Probe-to-Surface Separation V × 2 ed v v v v v v v v v v v v v v v v v v	
Measurement Accuracy Display Voltag	Model 884 Compared to Typical Fieldmeter Displayed Voltage vs. Probe-to-Surface Separation	
Measurement Accuracy ^{Display} ^{Voltag} All Model 884 specific 45 mm, ±15 mm.	Model 884 Compared to Typical Fieldmeter Displayed Voltage vs. Probe-to-Surface Separation	

*Measured using the true rms feature of the Hewlett Packard Model 34401A digital multimeter



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Common Features			
Power On/Off	Push-button switch	1	
Stability			
Drift with Time	Less than 600 ppm	n/hour, noncumulative	
Drift with Temperature	Less than 600 ppm/°C		
Operating Time	Approximately 8 ho	ours 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 ½ digit liquid ci	rystal display	
Model 876	0 to ±1999 V		
Model 884	0 to 19.99 kV		
Resolution			
Model 876	1 V		
Model 884	10 V		
Zero Offset			
Model 876	Less than ±1 coun	t	
Model 884	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	r	
Operating Conditions			
Temperature	15°C to 35°C		
Relative Humidity	To 85%, noncondensing		
Supplied Accesso	ories		
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.		PN: N9079 PN: F1003R	
9-volt Battery			
Optional Accesso			
Carrying Case	PN: 43469		