

Models P0876A and P0884A Hand-Held Electrostatic Voltmeters



Model P0876A
Measurement Range:
0 to ± 2 kV DC

Model P0884A
Measurement Range:
0 to ± 20 kV DC

1.8 meter (6 ft)
probe cable length

Accurately measure
surface voltage at a
wide range of spacings

No need to maintain a
fixed spacing

Inspect small spots for
charge accumulation

Measure charge
accumulation in
difficult-to-reach
locations

Chopper stabilized for
drift-free operation in
ionized environments

CE compliant

The Trek Models P0876A and P0884A Hand-Held Electrostatic Voltmeters provide accurate, noncontacting measurements of electrostatic surface voltage for ESD applications in either ionized or non-ionized environments. Industrial applications include measuring charge accumulation in the LCD manufacturing process or measuring static charge in semiconductor production. The Models P0876A and P0884A voltmeters utilize a new measurement technique that overcomes the disadvantage of the typical hand-held fieldmeter by providing surface voltage measurements which are essentially independent of the sensor probe to measured surface spacing.

Model P0876A (0 to ± 2 kV DC)

Over a spacing range of 5 mm to 25 mm, the P0876A voltmeter provides better than a 5% voltage measurement accuracy, while the typical fieldmeter provides a voltage measurement error in excess of 50%.

Model P0884A (0 to ± 20 kV DC)

Over a spacing range of 30 mm to 60 mm, the P0884A voltmeter provides greater than a 5% voltage measurement accuracy, while the typical fieldmeter provides a voltage measurement error in excess of 50%.

The Models P0876A and P0884A hand-held voltmeters employ an efficient and compact sensor probe design. The probe design allows for higher spatial resolution capability by allowing the measurement of small surface areas. The probe is attached to the meter with 6 feet of cable length. The length of cable provides the flexibility to make measurements in many locations that are impossible to reach using the large bulky sensing surfaces of the typical hand-held fieldmeter. A "hold" push button retains the displayed measured voltage value for recording purposes. The Models P0876A and P0884A provide a measurement system with calibration traceable to the National Institute of Standards and Technology.

CONTROL WITHOUT COMPROMISE



Models P0876A and P0884A General Specifications

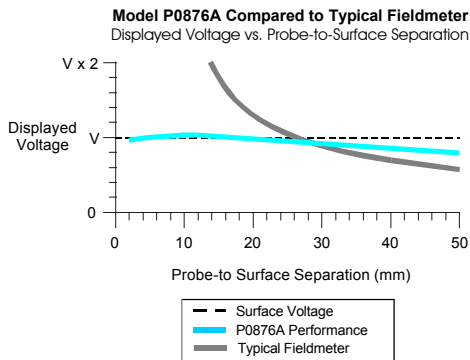
All Model P0876A specifications are with a probe-to-surface separation of 15 mm, ± 10 mm.

All Model P0884A specifications are with a probe-to-surface separation of 45 mm, ± 15 mm.

Model P0876A Performance

Measurement Range
0 to ± 2 kV DC.

Accuracy
Better than $\pm 5\%$ of full scale over the entire recommended probe-to-surface separation range of 5 mm to 25 mm.



Dimensions

31 mm H x 59 mm W x 127 mm D
(1.2" H x 2.3" W x 5" D).

Weight

200 g (7 oz), with battery.

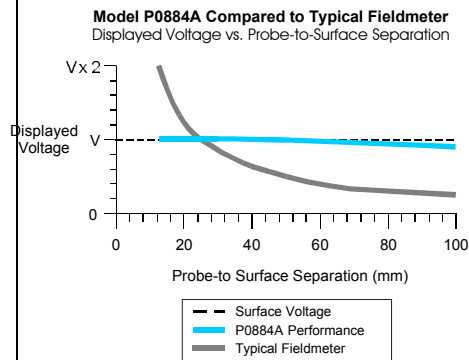
Trek designs and manufactures many instruments for Electrostatic Overstress/ Electrostatic Discharge (EOS/ESD) monitoring, detection, and measurement.

For more information about these or other products, contact TREK, INC.

Model P0884A Performance

Measurement Range
0 to ± 20 kV DC.

Accuracy
Better than $\pm 5\%$ of full scale over the entire recommended probe-to-surface separation range of 30 mm to 60 mm.



Dimensions

31 mm H x 59 mm W x 127 mm D
(1.2" H x 2.3" W x 5" D).

Weight

200 g (7 oz), with battery.

Common Features

Power On/Off
A push button.

Stability
Drift with Time
Less than 600 ppm/hour, noncumulative.
Drift with Temperature
Less than 600 ppm/ $^{\circ}$ C.

Common Features (cont.)

Operating Time
8 hours with a new battery.

Hold
A push button that, when pressed, commands the voltage display to hold the value displayed until the button is released.

Voltage Display
3 $\frac{1}{2}$ digit liquid crystal display.
Range (Model P0876A)
0 to ± 1999 V.
Range (Model P0884A)
0 to ± 19.99 kV.
Resolution (Model P0876A)
1 V.
Resolution (Model P0884A)
10 V.
Sampling Rate
2.5 readings per second.

Probe Cable Length
1.8 meter (6 ft.).

Zero Offset
Less than ± 4 counts.

Power Requirements
One (1) 9-volt NEDA 1604 battery, IEC 6R61 battery, or equivalent.

Ground Receptacle
Snap-on connector.

Operating Conditions
Temperature
15 $^{\circ}$ C to 35 $^{\circ}$ C.
Relative Humidity
To 85%, noncondensing.

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Ordering Information

Models P0876A and P0884A

Accessories Supplied

Item	Part No.
Hand-held Electrostatic Voltmeter (0 to ± 2 kV DC)	P0876A
Hand-held Electrostatic Voltmeter (0 to ± 20 kV DC)	P0884A

Item	Part No.
Operating Instructions (Model P0876A)	23100
Operating Instructions (Model P0884A)	23099
Ground Reference Cable Assembly	N9079
9-volt NEDA 1604 Battery, IEC 6R61 Battery, or equivalent	F1003



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