

# Embedded Electrostatic Voltage Monitors

## High Speed and Low Cost for ESD Applications



Trek Model 856 Series shown as an example

TREK, INC. is a leading manufacturer and supplier of precision electrostatic measurement instruments for ESD applications. Accurate measurements are important for identifying sources of charge generation, and for verifying the effectiveness of ESD countermeasures that are employed in ESD control programs.

Since 1983, TREK, INC. has shipped more than half-a-million sets of embedded electrostatic monitors to manufacturing companies around the world. The low-profile, PC board design makes them ideal for continuous monitoring of electrostatic voltage in automated processes. A precision voltage divider output provides a low-voltage replica of the measured electrostatic voltage for interface to a facilities monitoring system.

Trek's reputation for quality and reliability has been highly respected for more than 25 years. Trek noncontacting electrostatic monitors are designed to provide accurate, drift-free, high-speed and low noise measurements.

Trek electrostatic monitors accomplish voltage measurements without physical contact to the measure surface by making use of a chopper stabilized, field-nulling technique which maintains DC stability and high accuracy over wide probe-to-surface variations. This technique assures no loading of the voltage and permits accurate measurements without the need to establish a fixed probe spacing.

- TREK, INC., famous for its Electrostatic Voltmeters, is a world class manufacturer of custom electrostatic monitors.
- Measurement ranges to  $\pm 1.2$  kV DC or peak AC
- Speed of response to less than 5 ms for a 1 kV step change
- DC accuracies to better than  $\pm 1\%$  of full scale
- Customer specified voltage monitor output ratios
- Customer specified probe-to-surface separations
- Customer specified PC board size/configuration
- Customized probe mounting fixtures
- Spatial resolutions to less than 8 mm
- Excellent stability

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