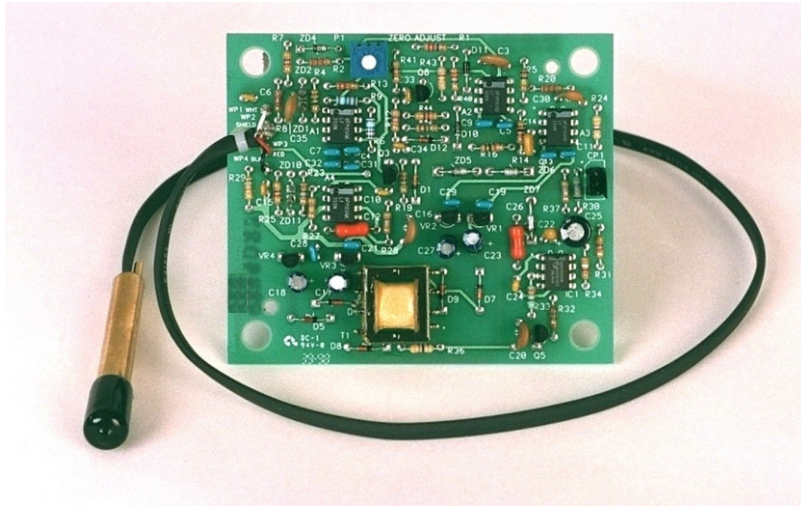


# EMBEDDED ELECTROSTATIC MONITORS

## High Speed, Low Cost Electrostatic Monitors for ESD Applications



TREK, INC. is a leading supplier of precision electrostatic measurement instruments for the ESD community. 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 charge in automated processes. A precision voltage divider output provides a low-voltage replica of the measured electrostatic potential 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, low noise measurements of charge or voltage.

Trek electrostatic monitors accomplish voltage measurements without physical contact. The field-nulling technique for noncontacting voltage measurement maintains DC stability and high accuracy in the presence of probe-to-surface variations. This technique assures no loading of the voltage and permits accurate measurements without the need to establish a fixed spacing.

The patented design of Trek electrostatic monitors guarantees a high gain and a high signal-to-noise ratio for an accurate, fast speed of response, with superior noise and drift performance. The Trek patented low-impedance technology assures stable operation over a wide range of temperature and humidity conditions. Trek electrostatic monitors can make noncontacting, surface-potential measurements in the range between 0 to  $\pm 1.2$  kV DC or peak AC and feature a durable, miniature probe.

The probe design provides low noise and drift performance even under conditions of varying humidity and temperature.

*TREK, INC., famous for its Electrostatic Voltmeters, is a world class manufacturer of custom electrostatic monitors.*

### OBC Features:

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

Custom designs for probe mounting fixtures

Spatial Resolutions less than 8 mm

Excellent stability

## CONTROL WITHOUT COMPROMISE



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