



**Process**

**Environment  
Monitoring**

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# Embeddable Tool and Process Remote Sensing

## NOVX REMOTE VOLTAGE SENSOR (RVS)

The Novx Remote Voltage Sensor (RVS) is a high-speed electrometer designed to directly measure changes in free space potential. Applications for this range from measuring surface potential on products at widely varying distances and very fast process speeds, to wide-area and general process monitoring for electrostatic fields. The sensor's very small footprint allows for easy integration into embedded applications. When linked with the full monitoring capability of the Novx Series 7000 and PEMS systems, statistical process control can be extended to a variety of applications.

### Features and Benefits

- Small Footprint
- Extreme Sensitivity
- Latest Generation Components
- Programmable Gain
- Ultra Low Noise
- Controlled DC Drift
- Flat Frequency Response
- Powered by Novx Series 7000
- Tool and Process Embeddable
- Remote Sensing
- Multi-sensor Arrays
- High Speed Acquisition
- Flexible Applications



# Specifications

## Special Features

This sensor uses novel stabilization and feedback circuitry to remove DC drift issues caused by input bias current. Due to the ultra low noise of the circuit, the sensor is on the order of 1000 times more sensitive than the traditional electric field mill. In addition, the extremely fast response time of the sensor allows it to monitor high speed processes, preventing under sampling. Wide-area monitoring applications can be implemented via the programmable gain feature.

## Target Applications

- Front-end semiconductor wafer handling
- Reticle and flat-panel processing
- Wafer charge monitoring in process tools
- Semiconductor device charge measurement
- Disk drive voltage detection

## Calibration

Instruments are shipped already calibrated and certified. Calibration must be validated annually to meet ISO certification compliance requirements.

## Customer Support

Technical telephone support, custom training and optional extended Service Agreements are all available. Contact your sales representative for details. Specifications are subject to frequent changes.

General	
Sensor Dimensions	18 mm dia x 5 mm H
Cable Length (special cables available)	3 meters
Bias Current	75 uA
Transfer Function	0.04 at 1 Hz and above
Corner Frequency	200 mHz
Noise (typ)	20 uVrms/rtHz @ 1 Hz
	4 uVrms/rtHz @ 10 Hz
DC Off-set	<3 mV



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