The Remote Voltage Sensor (RVS) is a high-speed electrometer designed to measure changes in free space potential directly. 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 very small footprint for this sensor allows for it to be easily integrated into embedded applications. When linked with the full monitoring capability of the Novx 7000 and PEMS system, statistical process control can be extended to a variety of applications.

Remote Voltage Sensor
Process Electrostatic Monitor

features
• Small footprint
• Extreme sensitivity
• Latest generation components
• Programmable gain
• Ultra low noise
• Controlled DC drift
• Flat frequency response

benefits
• Tool/process embeddable
• Remote sensing
• Multi-sensor arrays
• High speed acquisition
• Flexible applications

Applications
• Semiconductor wafer processing
• Semiconductor mask operations
• Backend semiconductor
• FPD manufacturing
• Electronics
• Disk drive wafers/media
• Aerospace
• High speed industrial
• Medical device manufacturing
• Contamination control

monitor. analyze. control.
take control of your environment

other products

www.novxcorp.com/remote_voltage_sensor.html
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 this sensor allows it to monitor high speed processes, preventing under sampling.

Wide area monitoring applications can be implemented via the programmable gain feature.

Calibration

The RVS and Novx 7000 unit are shipped already calibrated and certified. Application specific calibration and configuration are performed locally via software interface. Annual performance verification is recommended.

Customer Support

1-year warranty. Technical support, optional extended service agreements and application assistance are available.

<table>
<thead>
<tr>
<th>General</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Sensor Dimensions</td>
<td>18mm diameter, 5mm height</td>
</tr>
<tr>
<td>Cable Length</td>
<td>3 meters (special cables available)</td>
</tr>
<tr>
<td>Bias Current</td>
<td>75uA</td>
</tr>
<tr>
<td>Transfer Function</td>
<td>0.04 at 1Hz and above</td>
</tr>
<tr>
<td>Corner Frequency</td>
<td>200mHz (milliHertz)</td>
</tr>
<tr>
<td>Noise (typical)</td>
<td>20uVrms/rtHz @ 1 Hz</td>
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<tr>
<td></td>
<td>4uVrms/rtHz @ 10Hz</td>
</tr>
<tr>
<td>DC Offset</td>
<td>&lt; 3mV</td>
</tr>
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