The **SPECTROTILT™ 4-20mA Electronic Inclinometer** is a fully signal conditioned, single axis tilt sensor. By combining a proprietary glass/ceramic hybrid electrolytic tilt sensor, with custom electronics, the SPECTROTILT™ rivals both the performance of higher priced sensors, and the cost of less capable solutions. Features include a +/-60 degree linear sensing range, ESD and EMI protection, aluminum housing, all in a hermetically sealed package.

Designed to operate in the most physically demanding environments, this robust inclinometer is also ideal for numerous other applications. Options include vertical or horizontal mounting. The viscosity of the fluid inside the sensing element can be altered, to decrease susceptibility in high vibration environments. Custom sensing ranges, cable length/type and connectors are also available.

### Applications

- **Construction Equipment**
- **Process Monitoring**
  - **Weir Gates**
  - **Leveling Systems**
  - **Drilling Rigs**

### General Specifications

- **Input Voltage**: +14 to +25Vdc (unregulated)
- **Input Current**: 26mA (max.)
- **Output**: 0.133mA / degree
- **Load (preferred)**: 475 – 510 ohms
- **Null Output**: 12mA
- **Repeatability**: 0.02 degrees
- **Resolution**: 0.001 degrees
- **Linear Range**: +/-60 degrees
- **Linearity**:
  - 0 to 10 deg.: 0.1 degrees
  - 10 to 60 deg.: 1% of reading
- **Temperature Range**:
  - **operating**: –40° to +70°C
  - **storage**: –55° to +80°C
- **Temp. Coefficient of Null**: 0.008 deg./°C
- **Temp. Coefficient of Scale**: 0.1% / °C
- **Start-up Time**: <1 second
- **Weight**: 80 grams

### Physical Dimensions (inches)

![Physical Dimensions Diagram]

- **0.050**
- **2.274**
- **1.85**
- **2.63**
- **1.00**

- **0.196 dia. typical (2 places)**
- **2.00 dia. 20 deg**

### Electrical Connections

- **Black** = Ground
- **Red** = +14 to +25Vdc (unregulated)
- **Yellow** = Output signal

### Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSY0185-HIS</td>
<td>Horizontal mount</td>
</tr>
<tr>
<td>SSY0185-VIS</td>
<td>Vertical mount</td>
</tr>
</tbody>
</table>

**Specifications are subject to change without notice!**