**MEMS TILT SENSORS & INCLINOMETERS**

Our MEMS tilt sensors and inclinometers offer accurate measurement of inclination, angle and tilt in various applications.

**APPLICATIONS**

**Automatic Tip-over Protection**
- Prevent Accidents
  - Chassis, Booth, Bucket Angle
  - Mast Angle
  - Load & Unload
  - Tilt Monitoring
  - Road Grade Monitoring

**Autonomous Control/Comfort Features**
- Make Operator’s Life Easier
  - Bucket Angle
  - Cabin Leveling
  - Depth Control
  - Control at Ramp Condition

**DESIGN**

- **MEMS SENSORS**
  - Accelerometer
  - Microcontroller
  - Signal Conditioning

- **SIGNAL PROCESSING**
  - Microprocessor
  - Temperature Compensation
  - Calibration
  - Calculation of Angles
  - Customer Interface

- **HOUSING & CONNECTOR**
  - Cylindrical or SMD housing
  - Robustness
  - Reliability
  - Compression Limiters

**FEATURES**

- **Range typ. ±25°, ±45° or ±90° single axis (customized ranges in option)**
- **Accuracy, absolute incl. non-linearity, offsets and temperature**
  - Better than 0.15°, at 25 °C
  - Better than 0.5°, at -40 ~ 85 °C
- **Low noise level < 0.03°**
- **14 Bit resolution on digital output, 12 Bit on analog output**

**MODEL OPTIONS**

<table>
<thead>
<tr>
<th>G-N5S002-200</th>
<th>G-N5S002-207</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td></td>
</tr>
<tr>
<td>W-70.5 mm</td>
<td>W-70.5 mm</td>
</tr>
<tr>
<td>L-45 mm</td>
<td>L-45 mm</td>
</tr>
<tr>
<td>H-15 mm</td>
<td>H-15 mm</td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td></td>
</tr>
<tr>
<td>8V to 30V</td>
<td>8V to 30V</td>
</tr>
<tr>
<td><strong>Operating Range</strong></td>
<td>±90° Dual axis ±90° Dual axis</td>
</tr>
<tr>
<td><strong>Accuracy @ 25 °C</strong></td>
<td>±0.5° ±0.5°</td>
</tr>
<tr>
<td><strong>Accuracy -40 °C to 85 °C</strong></td>
<td>±0.5° ±0.5°</td>
</tr>
<tr>
<td><strong>Interface Source Address</strong></td>
<td>0x22 (Fixed) 0xCO (default) 0x80 to 0x7F (Set)</td>
</tr>
<tr>
<td><strong>CAN Speed</strong></td>
<td>250 kbps 250 kbps</td>
</tr>
</tbody>
</table>

Beside CAN, J939 other interfaces are available, e.g. voltage output.

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