MEMS Tilt Transmitter

The MEMS Tilt Transmitter is capable of measuring 359° of tilt. It is ideal for transmitting the angle changes of sewer flaps and crane booms and in other applications where similar measurements are required.

The sensor, which is based on a triaxial accelerometer, is housed in a NEMA Type 4X, IP68 enclosure. It also conforms to the Canadian Electrical Code criteria for installations in Class I, DIV I and Class II, III DIV I hazardous locations and is CSA /FM / ATEX / IECEX approved.

The alignment of the 4 mA point and the sensing polarity can be set either in the XZ or YZ plane at time of order.

> APPLICATIONS

- Sewer flap angle.
- Crane boom angle.
- All static/quasi-static 0-359° tilt and inclination measurements.
- Ideal for general, industrial and explosion proof applications.

> FEATURES

- Measurement in XZ or YZ plane.
- Enclosure NEMA 4X, IP66/68
- Rated for installations in
  - CLASS I, DIV I GROUPS B, C & D
  - CLASS II, III, DIV I GROUPS E, F & G
  - Hazardous locations
  - ATEX & IECEx : I M2, II 2GD T6 (85°C), Ex d I, Ex d IIC,
    - Ex ed A21.T85°C IP68,
  - Ta = - 40°C to +85°C
- CSA / FM / ATEX / IECEx certified
- Conduit entry : 1/2 inch NPT

> BENEFITS

- ✓ Increase Safety
- ✓ High Accuracy
- ✓ Increase Productivity
- ✓ High Reliability

SPECIFICATIONS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>SPECIFICATION</th>
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<tbody>
<tr>
<td>Range F.S.</td>
<td>0 - 359° maximum, customer specified sub-range</td>
</tr>
<tr>
<td>Output</td>
<td>4 - 20 mA - 2 wire loop powered</td>
</tr>
<tr>
<td>Minimum Terminal Voltage</td>
<td>8.5 VDC</td>
</tr>
<tr>
<td>Maximum Terminal Voltage</td>
<td>28 VDC</td>
</tr>
<tr>
<td>Accuracy</td>
<td>0.30°</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.15°</td>
</tr>
<tr>
<td>Temperature Drift</td>
<td>0.02” per °C typ</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>DC - 8 Hz</td>
</tr>
<tr>
<td>Enclosure</td>
<td>Stainless Steel NEMA Type 4X, IP68</td>
</tr>
<tr>
<td>Conduit Entries</td>
<td>0.5” NPT</td>
</tr>
<tr>
<td>Sensor</td>
<td>MEMS Triaxial Accelerometer</td>
</tr>
<tr>
<td>Operating Temp.</td>
<td>-40 to 85°C ( -104 to 185°F)</td>
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</table>

ORDERING

Please refer to the chart below to produce your part number which will reflect the specifications you choose:

EXAMPLE PART #:
(ICEX360A B YZ (-10) (+50))

SERIES:
- OUTPUT TYPES:  
  - 4 - 20 mA

PLANE:
- XZ
- YZ

RANGE (see figures at left):
- at 4 mA: -10°
- at 20 mA: +50°

RST Instruments Ltd. reserves the right to change specifications without notice. ICB0040J