9QGPS3300
Insertable strain sensors
Measurement made easy
Insertable extensometers designed to measure the force in a structure.

- Designed to measure
  - Tension, compression shear and bending force
  - Torque, moment

- One unique model regardless the capacity range

- Material: stainless steel

- IP rating IP 65

- Easy to install (one hole to drill)

- Cable length: 0.25 m (9.84 in) or 5 m (196.8 in)

- Available options (non exhaustive list)
  - ATEX intrinsic safety
  - High service temperature 130 °C (266 °F)
Applications

The insertable strain sensors 9QGPS3300 are perfectly designed to the following applications:

- Silos, hoppers, tanks, reactors or container weighing
- Level measurement
- Stress measurement on machines
- Force distribution control
- Rail weighing
- Set point detection

Capacities

40 to 120 N/mm²

Explosion protection (Option)

ATEX intrinsic safety:

- Ex II 1GD Ex ia IIC T6 or T4 Ga Ex ia IIIC T80°C Da

Specification

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference temperature</td>
<td>23 °C (73.4 °F)</td>
</tr>
<tr>
<td>Temperature data</td>
<td></td>
</tr>
<tr>
<td>Compensated temperature range</td>
<td>-10 to 45 °C (14 to 113 °F)</td>
</tr>
<tr>
<td>Service temperature range</td>
<td>-30 to 70 °C (-22 to 158 °F)</td>
</tr>
<tr>
<td>Storage temperature range</td>
<td>-50 to 85 °C (-58 to 185 °F)</td>
</tr>
<tr>
<td>Electrical data</td>
<td></td>
</tr>
<tr>
<td>Input resistance</td>
<td>702 Ω ±2 Ω</td>
</tr>
<tr>
<td>Output resistance</td>
<td>702 Ω ±2 Ω</td>
</tr>
<tr>
<td>Insulation resistance (50 V)</td>
<td>&gt; 5000 MΩ</td>
</tr>
<tr>
<td>Reference excitation voltage</td>
<td>10 V DC</td>
</tr>
<tr>
<td>Nominal range of excitation voltage</td>
<td>3 to 12 V DC</td>
</tr>
<tr>
<td>Nominal sensitivity</td>
<td>±1 mV/V*</td>
</tr>
</tbody>
</table>

* for a stress of ±10 kg/mm²
Dimensions

Insertable strain sensors – 9QGPS3300

All dimensions in mm (in)

<table>
<thead>
<tr>
<th>Ref. Item</th>
<th>Capacities</th>
<th>Accessory</th>
</tr>
</thead>
<tbody>
<tr>
<td>9QGPS3300-A</td>
<td>40 to 120 N/mm²</td>
<td>One unique model regardless of the capacity range</td>
</tr>
</tbody>
</table>

Wiring code

Standard: Cable screen not connected to transducer

Load direction
Marking lines (2x at 180°)
Maximum sensitivity when force applied on lines

Figure 1: Dimensions

Figure 2: Other views

1. See mounting documentation and tools (on request)
2. Protection cover see C3300 (Option)
Protection cover C3300 for 9QGPS3300

All specified dimensions are in mm (in)

Figure 3: Dimensions C3300

<table>
<thead>
<tr>
<th>Ref. Item*</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3300-A</td>
<td>Material: stainless steel</td>
</tr>
</tbody>
</table>

Figure 4: Other views
Mounting kit K3300 for 9QGPS3300

Included:
- K330LUBRI (Lubricant)
- K330 PROTECT (Protection grease)
- K330 D6 & S10 [Drill Ø6.5 (0.25) & Ø10 (0.39)]

Figure 5: Dimensions K3300

<table>
<thead>
<tr>
<th>Ref. Item*</th>
</tr>
</thead>
<tbody>
<tr>
<td>K3300-A</td>
</tr>
</tbody>
</table>

* Material: stainless steel

Figure 6: Other view