9QGPS2000S
Hermetically sealed bending beam load cell
measurement made easy
High-end load cell combining high accuracy with high resistance in harsh environment.

—
Stainless steel

—
IP rating IP 67 (welded sealing)

—
Complies with OIML / R60 up to 3000d for scales in class III

—
Standardized dimensions

—
Cable length: 3 m (9.8 ft)

—
Whole range of mounting kits available

—
Available options (non exhaustive list)
  • ATEX intrinsic safety
  • High service temperature 150 °C (302 °F)
  • IP rating IP 68
  • Amplified output (V or mA) and digital output signal (RS-232C, RS-485)
Applications

The load cell 9QGPS2000S is perfectly designed to the following applications:

- OIML certified and industrial scales
- Packaging, batching and filling machines
- Reactors, tanks, vessel or hoppers weighing

Capacities

10 - (15) - 20 - (30) - 50 - (75) - 100 - (150) - 200 - 300 kg

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></th>
<th>A3</th>
<th>0.03 %</th>
<th>C 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy class</td>
<td>3000 d*</td>
<td>0.03 % F.S.</td>
<td>3000 d OIML</td>
</tr>
<tr>
<td>Repeatability error</td>
<td>&lt; ±0.015 % F.S.</td>
<td>&lt; ±0.015 % F.S.</td>
<td>&lt; ±0.01 % F.S.</td>
</tr>
<tr>
<td>Creep error over 30 min.</td>
<td>&lt; ±0.03 % F.S.</td>
<td>&lt; ±0.025 % F.S.</td>
<td>&lt; ±0.02 % F.S.</td>
</tr>
<tr>
<td>Sensitivity tolerance</td>
<td>&lt; ±0.2 %</td>
<td>&lt; ±0.2 %</td>
<td>&lt; ±0.1 %</td>
</tr>
<tr>
<td>Temperature coefficient of the sensitivity</td>
<td>&lt; ±0.1 % F.S./10 °C</td>
<td>&lt; ±0.015 % F.S./10 °C</td>
<td>&lt; ±0.009 % F.S./10 °C</td>
</tr>
<tr>
<td>Temperature coefficient of zero signal</td>
<td>&lt; ±0.005 % F.S./10 °C</td>
<td>&lt; ±0.023 % F.S./10 °C</td>
<td>&lt; ±0.013 % F.S./10 °C</td>
</tr>
<tr>
<td>Reference temperature</td>
<td>23 °C</td>
<td>23 °C</td>
<td>23 °C</td>
</tr>
</tbody>
</table>

Temperature data

Nominal temperature range -10 to 45 °C -10 to 45 °C -10 to 45 °C
Service temperature range -25 to 70 °C -25 to 70 °C -25 to 70 °C
Storage temperature range -50 to 85 °C -50 to 85 °C -50 to 85 °C

Electrical Data

<table>
<thead>
<tr>
<th></th>
<th>Input resistance</th>
<th>Output resistance</th>
<th>Insulation resistance (50 V)</th>
<th>Reference excitation voltage</th>
<th>Nominal range of excitation voltage</th>
<th>Zero balance</th>
<th>Nominal sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>352 Ω ±2 Ω</td>
<td>352 Ω ±2 Ω</td>
<td>&gt; 5000 MΩ</td>
<td>10 V DC</td>
<td>3 to 12 V DC</td>
<td>±0.02 mV/V</td>
<td>2 mV/V</td>
</tr>
</tbody>
</table>

Load limits

<table>
<thead>
<tr>
<th></th>
<th>Safe load limit</th>
<th>Breaking load</th>
<th>Static lateral force limit</th>
<th>Permissible dynamic loading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>150 % F.S.</td>
<td>&gt; 300 % F.S.</td>
<td>100 % F.S.</td>
<td>60 % F.S.</td>
</tr>
</tbody>
</table>

Table 1: F.S.: Full scale
* Except thermal drifts
Dimensions

Load cell model 9QGPS2000S

All specified dimensions are in mm (in.)

![Figure 1: Dimensions](image1.png)

<table>
<thead>
<tr>
<th>Ref. Item</th>
<th>Capacities kg (lb)</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>L</th>
<th>Ø A</th>
<th>Ø B</th>
<th>H1</th>
<th>H2</th>
<th>Ø M</th>
<th>Max deflection</th>
<th>Weight kg (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000S-A</td>
<td>10 to 300 (22 to 661)</td>
<td>10</td>
<td>23</td>
<td>18</td>
<td>20</td>
<td>120</td>
<td>26.7</td>
<td>42</td>
<td>78</td>
<td>56</td>
<td>8</td>
<td>0.2 to 0.3</td>
<td>0.48</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Other capacities and dimensions on request

Accessories

![Figure 2: Accessories](image2.png)

Wiring code

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ext.</td>
<td>Yellow (Jaune)</td>
<td>+ Sig.</td>
<td>Green (Vert)</td>
<td>+ Sig.</td>
<td>White (Blanc)</td>
<td>+ Ext.</td>
<td>Brown (Brun)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Standard: Cable screen not connected to transducer

Faradisation non connectée au capteur
Mounting accessories model F2000S (stainless steel)

For load cells 9QGPS2000S

All specified dimensions are in mm (in).

Figure 3: F2000S

Table 3: Other capacities and dimensions on request

<table>
<thead>
<tr>
<th>Ref. Item</th>
<th>Capacities kg (lb)</th>
<th>A</th>
<th>C</th>
<th>M</th>
<th>H-</th>
<th>H+</th>
<th>H1</th>
</tr>
</thead>
<tbody>
<tr>
<td>F2000-5-A</td>
<td>10 to 300 (22 to 661)</td>
<td>20.5 (0.81)</td>
<td>4 (0.16)</td>
<td>8 (0.32)</td>
<td>36 (1.42)</td>
<td>45 (1.77)</td>
<td>76.5 (3.01)</td>
</tr>
</tbody>
</table>

1 Rubber

Figure 4: Other views
...Dimensions

Easy mount model I2000S (stainless steel) and I2005S (alloy steel)

For load cells 9QGPS2000S
All specified dimensions are in mm (in.)

![Easy mount model I2000S and I2005S](image)

Figure 5: Easy mount

<table>
<thead>
<tr>
<th>Ref. Item</th>
<th>Capacities kg (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I200xS-A</td>
<td>10 to 300 (22 to 661)</td>
</tr>
</tbody>
</table>

Table 4: Other capacities and dimensions on request

![Other views](image)

Figure 6: Other views
Compression ball joint model R2000S (stainless steel)

For load cells 9QGPS2000S

All specified dimensions are in mm (in.)

Figure 7: Compression ball joint

Table 5: Other capacities and dimensions on request

<table>
<thead>
<tr>
<th>Ref. Item</th>
<th>Capacities kg (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R2000S-A</td>
<td>10 to 300 (22 to 661)</td>
</tr>
</tbody>
</table>

Figure 8: Other views
...Dimensions

**Tension accessories model T2000S (stainless steel) and T2005S (alloy steel)**

For load cells 9QGPS2000S
All specified dimensions are in mm (in.)

<table>
<thead>
<tr>
<th>Ref. Item</th>
<th>Capacities kg (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T200x5-A</td>
<td>10 to 300 (22 to 661)</td>
</tr>
</tbody>
</table>

Table 6: Other capacities and dimensions on request
Notes
Notes
Measurement made easy

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