JG 205 Series Force Measuring Journal

**JG 205 Series**

JG 205 is ideally suited to work under the most stringent environmental requirements, where the exposure to aggressive chemical additives, high temperatures and humidity are factors. Thanks to its special compact and durable design these sensors are effectively used in textile applications such as Mercerizing Lines, Thermofixing, Coating and Laminating machines. The JG 205 Series can be combined with all FMS measuring amplifiers.

**Functional Description**

A foil type strain gauge mounted in a full Wheatstone Bridge configuration performs the actual tension measurement. The dual flexion beam design eliminates angular deflection under load and ensures tension measurement with the highest accuracy and reliability even with low material wrap angles. The JG 205 sensor owes its high protection class (IP 68) to a hermetically soldered stainless steel gaiter and glass sealed PG-glands.

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**Protection Class IP 68**

Engineered to work under extreme conditions

10 times overload protection

No recalibration required

**Compact and sturdy design**

Requires little installation space

**Nominal forces from 125 – 1500 N**

[28 – 337 lbf]

Sizes available for every application

**Stainless Steel Sensor**

Corrosion resistant, ultra durable
### JG 205 Series - Technical Data

<table>
<thead>
<tr>
<th>Specification</th>
<th>JG 205 Series</th>
<th>JG 205.125</th>
<th>JG 205.250</th>
<th>JG 205.500</th>
<th>JG 205.1000</th>
<th>JG 205.1500</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sensitivity</strong></td>
<td>1.8 mV/V</td>
<td>&gt; 0.5 %</td>
<td>&gt; 0.5 %</td>
<td>&gt; 0.5 %</td>
<td>&gt; 0.5 %</td>
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<tr>
<td><strong>Sensitivity tolerance</strong></td>
<td>&lt; ± 0.2 %</td>
<td>&lt; ± 0.2 %</td>
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<td>&lt; ± 0.2 %</td>
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<td>&lt; ± 0.2 %</td>
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<tr>
<td><strong>Accuracy class</strong></td>
<td>± 0.5 % (F_{nominal})</td>
<td>± 0.5 % (F_{nominal})</td>
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<td>± 0.5 % (F_{nominal})</td>
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<tr>
<td><strong>Temperature coefficient</strong></td>
<td>± 0.1 % / 10 K [±0.0055%/°F]</td>
<td>± 0.1 % / 10 K [±0.0055%/°F]</td>
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<tr>
<td><strong>Temperature range</strong></td>
<td>10...+ 60 °C</td>
<td>10...+ 60 °C</td>
<td>10...+ 60 °C</td>
<td>10...+ 60 °C</td>
<td>10...+ 60 °C</td>
<td>10...+ 60 °C</td>
</tr>
<tr>
<td></td>
<td>10...+ 150 °C</td>
<td>10...+ 150 °C</td>
<td>10...+ 150 °C</td>
<td>10...+ 150 °C</td>
<td>10...+ 150 °C</td>
<td>10...+ 150 °C</td>
</tr>
<tr>
<td><strong>Input resistance</strong></td>
<td>350 Ω</td>
<td>350 Ω</td>
<td>350 Ω</td>
<td>350 Ω</td>
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<td>350 Ω</td>
</tr>
<tr>
<td><strong>Supply voltage</strong></td>
<td>1...12 VDC</td>
<td>1...12 VDC</td>
<td>1...12 VDC</td>
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</tr>
<tr>
<td><strong>Maximum overload</strong></td>
<td>10 times rated nominal force</td>
<td>10 times rated nominal force</td>
<td>10 times rated nominal force</td>
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</tr>
<tr>
<td><strong>Sensor material</strong></td>
<td>Stainless steel</td>
<td>Stainless steel</td>
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<td>Stainless steel</td>
</tr>
<tr>
<td><strong>Protection class</strong></td>
<td>IP 68</td>
<td>IP 68</td>
<td>IP 68</td>
<td>IP 68</td>
<td>IP 68</td>
<td>IP 68</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>0.7 kg [1.54 lbs]</td>
<td>0.7 kg [1.54 lbs]</td>
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</tr>
</tbody>
</table>

**Options:**

- **H16** = Temperature range with PG-gland up to 150 °C [302 °F]

**Order code (example):**

JG205.1500.H16

- Sensor type
- Nominal force
- Option

**Scope of delivery:**

- Force measuring journal
- Operation manual
- 5 m cable for standard temperature range

**Not included:**

- Bearings
- Mounting screws

In H16-option the high temperature cable has to be ordered separately.

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