Web Tension Bearing BZL-A

Scope of Supply
Pillow block with integrated web tension measuring function with 5 m cable
with connection variant T: cable gland, straight

Variant
S2: Plug connection, right-angled, M12, moulded

Additional Option
F: For use in explosive areas, incl. J-Box

Additional Accessories
Self-aligning ball bearing
Snap rings

Connections
Variant T
- ~40 V
- Variant S2
- V₁ Supply voltage
- V₄ Signal voltage

Special Features
- Compact and cost-effective design
- Easy to install
- Made of high-strength aluminum

For the web tension measurement in machines with limited installation space the force sensor BZL-A offers great constructive advantages due to its particularly slim, compact design. The pillow block web tension bearing BZL-A made of high-strength aluminum consist primarily of a pillow block with a measuring inner part with a precision bore for a self-aligning ball bearing. The inner part component contains a double beam technology system with the well-known advantages of a good linearity and a high stiffness. The strain gauges wired as full bridge deliver a signal proportional to the force.

HAEHNE offers for all its sensors a corresponding range of amplifiers to condition the measuring signal and deliver the bridge voltage supply.

Ordering Example
BZL-A

Technical Data

<table>
<thead>
<tr>
<th></th>
<th>Values (%) based on nominal force</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal force</td>
<td>125; 250; 500 N</td>
</tr>
<tr>
<td>Max. operating force</td>
<td>160 %</td>
</tr>
<tr>
<td>Absolut max. force</td>
<td>800 %</td>
</tr>
<tr>
<td>Nominal rating</td>
<td>0,5 mV / V</td>
</tr>
<tr>
<td>Combined error</td>
<td>&lt; 0,3%</td>
</tr>
<tr>
<td>Nominal ambient temp</td>
<td>+10 ... +60 °C (+50 ... +140 °F)</td>
</tr>
<tr>
<td>Operational temp</td>
<td>- 10 ... +70 °C (14 ... 158 °F)</td>
</tr>
<tr>
<td>Nom. resistance gauge</td>
<td>700 Ω</td>
</tr>
<tr>
<td>Max. bridge supply</td>
<td>10 VDC</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP52</td>
</tr>
<tr>
<td>Sensor cable (Std)</td>
<td>PVC, grey, 4 x 0,34 mm²</td>
</tr>
</tbody>
</table>

Mounting Instruction

The sensor can be fixed with 2 screws to the machine frame. Notice fixed and floating bearing! See: "Practical guide of web tension measurement and control"

Dimensions in mm (1 mm = 0.03937 inches)
For self-aligning ball bearings 1202TV and 2202TV for measuring roller with 15 mm shaft

Red dot in measuring direction +