The force measuring journals of the CZ 205 Series undertake the tension measurement in all kinds of continuous material processing applications. They are utilized with rollers that have an internal bearing with a bearing seat of 25 mm. The bearing mounts to the bearing seat of the load cell and fits inside the roller. This results in a compact tension measuring roller saving a lot machine mounting space. The red point at the connector indicates the positive measuring direction.

**Functional Description**

Foil type strain gauges mounted in a full Wheatstone Bridge configuration in each sensor perform the actual tension measurement. The dual flexion beam design eliminates angular deflection under load and ensures tension measurement with the highest accuracy and reliability under the most stringent requirements. A built in mechanical hard-stop provides high overload protection and ensures that frequent calibration is not required.

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<table>
<thead>
<tr>
<th><strong>CZ 205 Series</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10 times overload protection</strong></td>
</tr>
<tr>
<td><strong>No recalibration required</strong></td>
</tr>
<tr>
<td><strong>20:1 force measuring range</strong></td>
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<tr>
<td><strong>Wide measuring range at high resolution</strong></td>
</tr>
<tr>
<td><strong>Nominal forces 50, 125, 250, 500, 1000, 1500 N</strong></td>
</tr>
<tr>
<td><strong>Covers a wide application range</strong></td>
</tr>
<tr>
<td><strong>Stainless steel sensor, aluminium cover</strong></td>
</tr>
<tr>
<td><strong>Corrosion resistant, ultra durable</strong></td>
</tr>
</tbody>
</table>
CZ 205 Series • Dimensions in mm

CZ 205 Series • Journal Specifications

<table>
<thead>
<tr>
<th>Sensor Type</th>
<th>Nominal force N</th>
<th>Weight kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>CZ 205.50</td>
<td>50</td>
<td>1.080</td>
</tr>
<tr>
<td>CZ 205.125</td>
<td>125</td>
<td>1.080</td>
</tr>
<tr>
<td>CZ 205.250</td>
<td>250</td>
<td>1.080</td>
</tr>
<tr>
<td>CZ 205.500</td>
<td>500</td>
<td>1.080</td>
</tr>
<tr>
<td>CZ 205.1000</td>
<td>1000</td>
<td>1.080</td>
</tr>
<tr>
<td>CZ 205.1500</td>
<td>1500</td>
<td>1.080</td>
</tr>
</tbody>
</table>

CZ 205 Series • Technical Data

- Sensitivity: 1.8 mV/V ± 2%
- Accuracy class: ± 0.5% (Fnorm)
- Temperature coefficient: ± 0.1% / 10 K
- Temperature range: –10°...+60°C
- Input resistance: 350 Ω
- Supply voltage: 1...12 VDC
- Maximum overload: 10 times rated nominal force
- Sensor material: Stainless steel sensor, aluminium cover

Options:
- FL = Flat mounting option
- H14 = Right angle connector
- H16 = Temperature range of sensor with PG-gland up to 150°C. Connectors up to 120°C.

Order code (example):
CZ205.500.FL.H14

Scope of delivery:
Force measuring journal, screw and washer for central mounting, straight electrical connector.

World Headquarters:
FMS Force Measuring Systems AG
Asperstrasse 6
8154 Oberglatt (Switzerland)
Phone + 41 44 852 80 80
Fax +41 44 850 60 06
info@fms-technology.com

FMS USA, Inc.
2155 Stonington Avenue
Suite 119
Hoffman Estates, IL 60169
Phone +1 847 519 4400
Fax +1 847 519 4401
fmsusa@fms-technology.com

FMS UK
Highfield, Atch Lench Road
Church Lench
Evesham WR11 4UG
Phone +44 1386 871023
Fax +44 1386 871021
fmsuk@fms-technology.com

FMS Italy
Via Baranzate 67
20026 Novate Milanese
Phone +39 02 39487035
Fax +39 02 39487035
fmsit@fms-technology.com

www.fms-technology.com