ZMGZ Series Force Measuring Journal

10 times overload protection
No recalibration required

20:1 force measuring range
Accuracy class 0.5%

Nominal forces from 22 lbs. - 674 lbs.
Sizes available for every application

Stainless steel sensor
Corrosion resistant, ultra durable

ZMGZ Series
The ZMGZ Series Force Measuring Journals are used to measure the tension in continuous material processing. Force Measuring Journals are utilized with rollers that have an internal bearing. A bearing mounts to the bearing seat of the load cell and fits inside the roller. Thus the ZMGZ Series load cells become the roller journal saving machine mounting space and providing a compact tension measuring roller assembly.

Functional Description
The ZMGZ Series Force Measuring Journals utilize the flexion beam principle. When the Journal is subjected to a force, bending stress is applied to the measuring web. Four foil-type strain gauges in a full Wheatstone Bridge configuration measure the bending and thus the material tension. The position of the red point depends on the application. If the force acts in the direction of the red point, positive values will result from the measuring amplifier output.

www.fms-technology.com
ZMGZ Series ● Technical Data

<table>
<thead>
<tr>
<th>Sensitivity</th>
<th>1.8 mV/V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tolerance of sensitivity</td>
<td>&lt; ± 0.2 %</td>
</tr>
<tr>
<td>Accuracy class</td>
<td>± 0.5 %</td>
</tr>
<tr>
<td>Temperature coefficient</td>
<td>± 0.1 % / 10 K ± 0.0055 % / °F</td>
</tr>
<tr>
<td>Temperature range</td>
<td>–10...+ 60 °C [14 °F...140 °F]</td>
</tr>
<tr>
<td>Input resistance</td>
<td>350Ω</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>1...12 VDC</td>
</tr>
<tr>
<td>Deflection</td>
<td>0.1mm</td>
</tr>
<tr>
<td>Overload protection</td>
<td>10 times rated nominal force</td>
</tr>
<tr>
<td>Sensor material</td>
<td>Stainless steel</td>
</tr>
</tbody>
</table>

Options:
- H14 = right angle plug
- H15 = connection plug opposite to the red point
- H16 = temperature range up to 150 °C [300 °F]
- H18 = straight waterproof plug
- H29 = modified wiring and sealing for use in aggressive media and high temperatures up to 150 °C [300 °F]
- H30 = modified wiring and sealing for oil based environments

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

FMS USA, Inc.
925 East Rand Road · Suite 207
Arlington Heights, IL 60004
Phone 847 392 7872
Fax 847 392 7873
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

www.fms-technology.com