Series RSL0960
High Capacity/High Accuracy
Tension and Compression Canister Load Cell

Description
The Series RSL0960 tension / compression canister style load cells are designed specifically for high capacity and high accuracy test and measurement applications requiring long fatigue life combined with high resistance to the effects of extraneous bending and off-axis loading. The uniquely engineered RSL0960 Series load cells have a minimum deflection resulting in fast frequency response. Constructed of electroless nickel plated carbon steel, all RSL0960 load cells are manufactured to be shock and vibration resistant. Each unit is shipped with an 11 point calibration record traceable to NIST as standard. (See data sheet for Series RSL960XX for high level output version)

Standard Features
• Load Ranges to 2 Million Pounds
• High Static Accuracy
• High Fatigue Life
• High Immunity to Off-Axis Loading
• Center Thread Mount or Circular Bolt Mount

Optional Features
• Dual Bridge Configurations
• Customer Specified Electrical Termination
• Special Calibrations
• Metric Threads
• Expanded Temperature Compensation Ranges

Performance
Standard Ranges

Static Accuracy
Linearity: ± 0.2% FSO.
Hysteresis: ± 0.2% FSO.
Repeatability: ± 0.05% FSO.

Temperature Effect on Zero
±0.005% FSO/ºC.

Temperature Effect on Span
± 0.005% Reading/ºC.

Zero Balance
± 1% FSO at 21ºC.

Electrical Outputs
2 mV/V.

Environmental Characteristics
Operating Temperature Range
-54ºC to + 121ºC.
Compensated Temperature Range
21ºC to 77ºC.
Optional expanded ranges available
**Series RSL0960**

**Specifications**

**Dimensions (mm)**

<table>
<thead>
<tr>
<th>Capacity (lbs.)</th>
<th>Type</th>
<th>OOD</th>
<th>Base OD</th>
<th>Axial Thread</th>
<th>Height</th>
<th>X</th>
<th>Mounting Holes</th>
<th>N (Each End)</th>
<th>Spanner Wrench Holes</th>
<th>L</th>
<th>Lifting Holes</th>
</tr>
</thead>
<tbody>
<tr>
<td>25K, 50K, 100K, 150K</td>
<td>A</td>
<td>152.4</td>
<td>139.7</td>
<td>2-12 UN-2B, 50.8 deep</td>
<td>177.8</td>
<td>6</td>
<td>3/4-10 UNC-2B, 31.7 deep, Ø88.9 B.C. Dia.</td>
<td>3</td>
<td>Ø9.6, 7.9 deep</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>150K, 200K, 300K</td>
<td>B</td>
<td>190.5</td>
<td>177.8</td>
<td>3-12 UN-2B, 76.2 deep</td>
<td>254.0</td>
<td>8</td>
<td>1-8 UNC-2B, 38.1 deep, Ø127.0 B.C. Dia.</td>
<td>6</td>
<td>Ø10.4, 9.6 deep</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>500K, 800K, 1000K</td>
<td>C</td>
<td>325.1</td>
<td>312.4</td>
<td>5-8 UN-2B, 88.9 deep</td>
<td>317.5</td>
<td>8</td>
<td>1 3/4-12 UN-2B, 50.8 deep, Ø241.3 B.C. Dia.</td>
<td>4</td>
<td>Ø10.4, 9.6 deep</td>
<td>2</td>
<td>3/8-16, UNC-2B, 16.5 deep</td>
</tr>
<tr>
<td>500K, 800K, 1000K</td>
<td>D</td>
<td>325.1</td>
<td>312.4</td>
<td>5-8 UN-2B, 134.6 deep</td>
<td>406.4</td>
<td>8</td>
<td>1 3/4-12 UN-2B, 50.8 deep, Ø241.3 B.C. Dia.</td>
<td>4</td>
<td>Ø10.4, 9.6 deep</td>
<td>2</td>
<td>3/8-16, UNC-2B, 16.5 deep</td>
</tr>
<tr>
<td>2000K</td>
<td>E</td>
<td>447.0</td>
<td>431.8</td>
<td>6-8 UN-2B, 209.55 deep</td>
<td>571.5</td>
<td>12</td>
<td>1 3/4-12 UN-2B, 88.9 deep, Ø304.8 B.C. Dia.</td>
<td>6</td>
<td>Ø10.4, 9.6 deep</td>
<td>2</td>
<td>3/4-10, UNC-2B, 38.1 deep</td>
</tr>
</tbody>
</table>

**Mechanical Characteristics**

- **Static Overload Without Damage**: 150% of nominal capacity.
- **Calibration**: Standard calibration is 5 pts (0, 50%, 100%, 50%, 0) in both tension and compression.
- **Important Note**: Factory calibration based on customer’s use. Specify if load cell will be mounted using mounting bolt holes or axial threaded hole.
- **Material**: Electroless nickel-plated carbon steel with painted carbon steel cover.
- **Fatigue Life**: Greater than 100 million fully reversed cycles at FSO.

**Electrical Characteristics**

- **Bridge Resistance**: 350 ohms (Types A, B), 700 ohms (Types C, D, E).
- **Excitation**: 10 Vdc or 10 Vac.
- **Maximum Excitation**: > 100 megohms at 50 Vdc at 21°C.
- **Insulation Resistance**: Greater than 5000 megohms at 50 Vdc @ 21°C.
- **Electrical Termination**: MS-3102-14S-6P stainless steel electrical receptacle or equivalent. Optional electrical terminations, including integral cable, are available (consult factory).

**Modifications and Warranty**

**Modifications**: We realize load cell applications vary greatly and as such our designs are flexible. Choice of electrical termination, material compatibility and performance characteristics are a few of the many options available. Specifications on this datasheet represent the standard configuration only. Product and company names listed are trademarks of their respective companies. Specifications subject to change without notice.

**Warranty**: RDP warrants that its product shall be free from defective workmanship and/or material for a twelve month period from the date of shipment, provided that RDP’s obligation hereunder shall be limited to correcting any defective material FOB our factory. No allowance will be made for any expenses incurred for correcting any defective workmanship and/or material without written consent by RDP. This warranty is in lieu of all other warranties expressed or implied. Due to the nature of technology, changes are inevitable. For latest technical specifications, see our website.

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Datasheet P/N: 237720A