FEATURES & BENEFITS
- Capacities from 500 to 200K lbf (2.2 to 900 kN)
- Tension and compression in one unit
- 0.01% creep
- 0.0008%/°F temp. effect on output
- High output – to 4 mV/V
- Eccentric load compensated
- High precision base installed
- Factory installed calibration adapter
- 3 run NIST traceable ASTM E74 calibration
- 4% lower load limit per ASTM E74

STANDARD CONFIGURATION

DIMENSIONS

<table>
<thead>
<tr>
<th>See Drawing</th>
<th>1610</th>
<th>1620</th>
<th>1632</th>
<th>1640</th>
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</thead>
<tbody>
<tr>
<td>500, 1K, 2K, 5K, 10K</td>
<td>2.2, 4.5, 9, 22, 45</td>
<td>25K, 50K</td>
<td>110, 225</td>
<td>100K</td>
</tr>
<tr>
<td>(1)</td>
<td>4.13</td>
<td>104.7</td>
<td>6.06</td>
<td>153.9</td>
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<td>(2)</td>
<td>0.03</td>
<td>0.80</td>
<td>0.03</td>
<td>0.80</td>
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<tr>
<td>(3)</td>
<td>1.25</td>
<td>31.8</td>
<td>2.25</td>
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<tr>
<td>(4)</td>
<td>Ø 0.25</td>
<td>0.29</td>
<td>Ø 0.31</td>
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<tr>
<td>(5)</td>
<td>1¼-18 UNF-3B</td>
<td>22.1</td>
<td>1¼-12 UNF-3B</td>
<td>1.40</td>
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<tr>
<td>(6)</td>
<td>CA-101</td>
<td>CA-201</td>
<td>CA-102</td>
<td>CA-202</td>
</tr>
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<td>(7)</td>
<td>1¼-18 UNF-3A</td>
<td>M16x2-4G</td>
<td>1¼-12 UNF-3A</td>
<td>M3x2-4G</td>
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<td>(8)</td>
<td>0.75</td>
<td>19.0</td>
<td>1.50</td>
<td>38.1</td>
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<td>(9)</td>
<td>2.81</td>
<td>71.4</td>
<td>3.52</td>
<td>89.4</td>
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<tr>
<td>(10)</td>
<td>8 Places</td>
<td>12 Places</td>
<td>16 Places</td>
<td>16 Places</td>
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<tr>
<td>(11)</td>
<td>2.50</td>
<td>63.5</td>
<td>3.50</td>
<td>88.9</td>
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<td>(12)</td>
<td>4.38 ±0.12</td>
<td>111.3 ±3.1</td>
<td>6.50 ±0.12</td>
<td>165.1 ±3.1</td>
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<tr>
<td>(13)</td>
<td>6.00</td>
<td>152.4</td>
<td>6.00</td>
<td>152.4</td>
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# SPECIFICATIONS

## PARAMETERS

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<tr>
<th>MODEL</th>
<th>1610</th>
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<tbody>
<tr>
<td>CAPACITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. (lb)</td>
<td>500</td>
<td>1K, 2K</td>
<td>5K, 10K</td>
<td>25K, 50K</td>
<td>100K</td>
<td>200K</td>
</tr>
<tr>
<td>Metric (kN)</td>
<td>2.2</td>
<td>4.5, 9</td>
<td>22, 45</td>
<td>110, 225</td>
<td>450</td>
<td>900</td>
</tr>
</tbody>
</table>

### ACCURACY – (MAX ERROR)

- **Static Error Band – %FS**: ±0.02, ±0.02, ±0.025, ±0.025, ±0.05, ±0.05
- **Nonlinearity – %FS**: ±0.03, ±0.03, ±0.035, ±0.035, ±0.05, ±0.05
- **Hysteresis – %FS**: ±0.02, ±0.02, ±0.035, ±0.045, ±0.05, ±0.05
- **Nonrepeatability – %RO**: ±0.005, ±0.005, ±0.005, ±0.005, ±0.005, ±0.005
- **Creep, in 20 min – %**: ±0.01, ±0.01, ±0.01, ±0.01, ±0.01, ±0.01
- **Side Load Sensitivity – %**: ±1.0, ±1.0, ±1.0, ±1.0, ±1.0, ±1.0
- **Eccentric Load Sensitivity – % / in**: ±1.0, ±1.0, ±1.0, ±1.0, ±1.0, ±1.0
- **Lower Load Limit – % Cap. (ASTM E74 Class A)**: 4.0, 4.0, 4.0, 4.0, 4.0, 4.0

### TEMPERATURE

- **Compensated Range**
  - °F: +15 to +115, +15 to +115, +15 to +115, +15 to +115, +15 to +115, +15 to +115
  - °C: -10 to +45, -10 to +45, -10 to +45, -10 to +45, -10 to +45, -10 to +45
- **Operating Range**
  - °F: -65 to +200, -65 to +200, -65 to +200, -65 to +200, -65 to +200, -65 to +200
  - °C: -55 to +90, -55 to +90, -55 to +90, -55 to +90, -55 to +90, -55 to +90
- **Effect on Zero – %RO / °F MAX**: ±0.0004, ±0.0004, ±0.0004, ±0.0004, ±0.0004, ±0.0004
- **Effect on Output – %RO / °F MAX**: ±0.0008, ±0.0008, ±0.0008, ±0.0008, ±0.0008, ±0.0008

### ELECTRICAL

- **Rated Output – mV/V (Nominal)**: 2.0, 2.0, 4.0, 4.0, 4.0, 4.0
- **Excitation Voltage – VDC MAX**: 20, 20, 20, 20, 20, 20
- **Bridge Resistance – Ohm (Nominal)**: 350, 350, 350, 350, 350, 350
- **Zero Balance – %RO**: ±1.0, ±1.0, ±1.0, ±1.0, ±1.0, ±1.0
- **Insulation Resistance – Megohm**: 5000, 5000, 5000, 5000, 5000, 5000

### MECHANICAL

- **Safe Overload – %CAP**: ±150, ±150, ±150, ±150, ±150, ±150
- **Deflection @ RO**
  - in: 0.002, 0.002, 0.004, 0.004, 0.006, 0.010
  - mm: 0.05, 0.05, 0.10, 0.10, 0.15, 0.25
- **Weight**
  - lbs: 3.8, 3.8, 3.629, 10.659, 26.308, 77.564
  - kg: 1.724, 1.724, 1.724, 10.659, 26.308, 77.564
- **Calibration**
  - Tension & Compression
- **Material**
  - Alloy steel

## OPTIONS

- Connector protection
- Standardized output
- Transducer Electronic Data Sheet (TEDS)
- Custom calibration
- Multiple bridge
- Special threads
- Dual diaphragm
- Special temperature range

## CONNECTOR OPTIONS

- PTO2E-12-8P bayonet connector

## ACCESSORIES

- Mating connector
- Mating cable
- Instrumentation