Bourdon Tube Pressure Gauge
Stainless Steel Case
Type 212.54 - Dry Case
Type 213.54 - Liquid-filled Case

Applications
- Intended for adverse service conditions where pulsating or vibration exists
- Process industry
- Suitable for gaseous or liquid media that will not obstruct the pressure system

Product features
- Vibration and shock resistant (with liquid filling)
- Stainless steel case with removable bayonet ring
- Pressure ranges up to 15,000 psi (1000 bar)

Specifications

Design
ASME B40.100 & EN 837-1

Sizes
2½" & 4" (63 & 100 mm)

Accuracy class
2½": ± 2/1/2% of span (ASME B40.100 Grade A)
4": ± 1% of span (ASME B40.100 Grade 1A)

Ranges
Vacuum / Compound to 200 psi (16 bar)
Pressure from 15 psi (1 bar) to 15,000 psi (1000 bar)
or other equivalent units of pressure or vacuum

Working pressure
2½": Steady: 3/4 scale value
Fluctuating: 2/3 full scale value
Short time: full scale value

4": Steady: full scale value
Fluctuating: 0.9 x full scale value
Short time: 1.3 x full scale value

Operating temperature
Ambient: -40°F to +140°F (-40°C to +60°C) - dry
-4°F to +140°F (-20°C to +60°C) - glycerine filled
-40°F to +140°F (-40°C to +60°C) - silicone filled
Medium: +140°F (+60°C) maximum

Temperature error
Additional error when temperature changes from reference temperature of 68°F (20°C) ±0.4% of span for every 18°F (10°K) rising or falling.

Weather protection
Weather tight (NEMA 4X / IP 66)

Pressure connection
Material: copper alloy
Lower mount (LM) or center back mount (CBM) - 2½"
Lower mount (LM) or lower back mount (LBM) - 4"
1/4" NPT or 1/2" NPT limited to wrench flat area

Bourdon tube
2½" (63 mm) ≤ 870 psi (60 bar): C-shape copper alloy
2½" (63 mm) > 870 psi (60 bar): Helical copper alloy
2½" (63 mm) > 6000 psi (400 bar): Helical stainless steel
4" (100 mm) < 1500 psi (100 bar): C-shape copper alloy
4" (100 mm) ≥ 1500 psi (100 bar): Helical stainless steel

Movement
Copper alloy

Dial
White aluminum with black lettering; 2½" size with stop pin
**Dimensions**

<table>
<thead>
<tr>
<th>Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>M</th>
<th>N</th>
<th>P</th>
<th>R</th>
<th>S</th>
<th>T</th>
<th>W</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5&quot; mm</td>
<td>70</td>
<td>54</td>
<td>33.5</td>
<td>62</td>
<td>13</td>
<td>55.5</td>
<td>-</td>
<td>3.6</td>
<td>85</td>
<td>75</td>
<td>87</td>
<td>72</td>
<td>12</td>
<td>14</td>
<td>0.36 lb. dry</td>
<td></td>
</tr>
<tr>
<td>in</td>
<td>2.75</td>
<td>2.13</td>
<td>1.32</td>
<td>2.44</td>
<td>0.51</td>
<td>2.19</td>
<td>-</td>
<td>0.14</td>
<td>3.35</td>
<td>2.95</td>
<td>3.43</td>
<td>2.83</td>
<td>0.47</td>
<td>1/4&quot; 0.55</td>
<td>0.44 lb. filled</td>
<td></td>
</tr>
<tr>
<td>4&quot; mm</td>
<td>110</td>
<td>87</td>
<td>49.5</td>
<td>100</td>
<td>15.5</td>
<td>81</td>
<td>30</td>
<td>4.8</td>
<td>132</td>
<td>116</td>
<td>125</td>
<td>110</td>
<td>15</td>
<td>22</td>
<td>1.10 lb. dry</td>
<td></td>
</tr>
<tr>
<td>in</td>
<td>4.30</td>
<td>3.43</td>
<td>1.95</td>
<td>3.94</td>
<td>0.61</td>
<td>3.19</td>
<td>1.18</td>
<td>0.19</td>
<td>5.20</td>
<td>4.57</td>
<td>4.92</td>
<td>4.33</td>
<td>0.59</td>
<td>1/2&quot; 0.87</td>
<td>1.76 lb. filled</td>
<td></td>
</tr>
</tbody>
</table>

Note: For 1/4" NPT connections on 4" gauges, reduce B dimension by 5mm/0.2".

Recommended panel cut-out:

- 2" - U-clamp: 63mm
  - front flange: 65mm
- 4" - U-clamp: 101mm
  - front flange: 104mm
- 4½" - panel mount adapter 104mm minimum (not shown)

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**Ordering information**

Pressure gauge model / Nominal size / Scale range / Size of connection / Optional extras required

Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.