Bourdon Tube Pressure Gauge
Model 21X.54 Stainless Steel Construction

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

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

Standard Features

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
Pressure from 15 psi to 15,000 psi
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% for every 18°F (10°C) rising or falling. Percentage of span.

Weather protection
Weather tight (NEMA 4X / IP 65)

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” Size- Material: Copper alloy
30” Hg (VAC) to 800 PSI- C-type (soldered)
1000PSI to 15,000PSI- helical type (soldered)
Changes to stainless steel at 7,500 PSI brazed
4”Size- Material: Copper alloy ≤ 1,000 PSI
316 stainless steel ≥1,500 PSI
30” Hg (Vac) to 1,000 PSI- C-type (soldered)
1,500 PSI to 15,000 PSI- helical type (brazed)
Changes to stainless steel at 1,500 PSI

Movement
Copper alloy

Dial
White aluminum with black lettering; 2½” size with stop pin
**Pointer**
Black aluminum, adjustable

**Case**
304 stainless steel with vent plug and stainless steel crimp ring. Suitable for liquid filling. Case connection sealed with EPDM o-ring (glycerine) or Viton o-ring (dry, silicone).

**Window**
Laminated safety glass with Buna-N gasket

**Case fill**
Glycerine 99.7% - Type 213.54

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**Optional extras**
- Brass restrictor
- Stainless steel front or rear flange
- Zinc-plated steel or SS u-clamp bracket (field installable)
- Red drag pointer or mark pointer
- Silicone or fluorolube case filling
- Special connections limited to wrench flat area
- Custom dial layout
- Other pressure scales available
  - bar, kPa, MPa, kg/cm² and dual scales

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**Dimensions**

**Pointer**
- Black aluminum, adjustable

**Case**
- 304 stainless steel with vent plug and stainless steel crimp ring. Suitable for liquid filling. Case connection sealed with EPDM o-ring (glycerine) or Viton o-ring (dry, silicone).

**Window**
- Laminated safety glass with Buna-N gasket

**Case fill**
- Glycerine 99.7% - Type 213.54

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**Dimensions**

<table>
<thead>
<tr>
<th>Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</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>
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<tr>
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<td>70</td>
<td>54</td>
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<td>13</td>
<td>55.5</td>
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<td>85</td>
<td>75</td>
<td>87</td>
<td>72</td>
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<td>14</td>
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<tr>
<td></td>
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<td>2.13</td>
<td>1.32</td>
<td>2.44</td>
<td>0.51</td>
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<td>-</td>
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<td>3.35</td>
<td>2.95</td>
<td>3.43</td>
<td>2.83</td>
<td>0.47</td>
<td>1/4&quot;</td>
<td>0.55</td>
<td>0.44 lb. filled</td>
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<tr>
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<td>mm</td>
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<td>49.5</td>
<td>100</td>
<td>15.5</td>
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<tr>
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<td>4.92</td>
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<td>0.59</td>
<td>1/2&quot;</td>
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<td>1.76 lb. filled</td>
</tr>
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</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: 63mm
- 4" U-clamp: 101mm front flange:101mm
- 4½" - panel mount adapter 104mm minimum (not shown)