Bourdon Tube Pressure Gauges
Stainless Steel Series
Type 232.53 - Dry Case
Type 233.53 - Liquid-filled Case

Applications
- With liquid filled case for applications with high dynamic pressure pulsations or vibration
- Suitable for corrosive environments and gaseous or liquid media that will not obstruct the pressure system
- Process industry: chemical/petrochemical, power stations, mining, on and offshore, environmental technology, mechanical engineering and plant construction

Special features
- Excellent load-cycle stability and shock resistance
- All stainless steel construction
- Positive pressure ranges to 15,000 psi

Standard Features

Design
ASME B40.100 & EN 837-1

Sizes
2", 2½" & 4" (50, 63 and 100 mm)

Accuracy class
2" & 2½": ± 2/1/2% of span (ASME B40.100 Grade A)
4": ± 1.0% 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
2" & 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: +212°F (+100°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 / IP65)

Pressure connection
Material: 316L stainless steel
Lower mount (LM) or center back mount (CBM)
Lower back mount (LBM) for 4" size
1/8" NPT, 1/4" NPT or 1/2" NPT limited to wrench flat area

Bourdon tube
Material: 316L stainless steel
2" & 2½": ≤ 1,000 PSI: C-type,
> 1,500 PSI: helical type
4": ≤ 1,500 PSI: C-type,
> 2,000 PSI: helical type

Movement
Stainless steel

Dial
White aluminum with black lettering, 2" and 2½" with stop pin
**Pointers**
- Black aluminum

**Case**
- 304 stainless steel with vent plug and SS crimp ring
- Welded case / socket connection

**Window**
- Polycarbonate

**Liquid filling**
- Glycerine 99.7% - Type 233.53

### Optional extras
- SS restrictor
- SS front flange
- SS rear flange (2½” and 4” only)
- Zinc-plated steel or SS u-clamp bracket (field installable - see note)
- Cleaned for oxygen service
- Red drag pointer or mark pointer (2½” and 4” only)
- External zero adjustment (4” size only)
- Other pressure connections
- Silicone or Fluorolube case filling
- Other pressure scales available: bar, kPa, MPa, kg/cm² and dual scales

Note: U-clamp bracket for 2” must be ordered with gauge

### Dimensions

<table>
<thead>
<tr>
<th>Size</th>
<th>A (mm)</th>
<th>B</th>
<th>C</th>
<th>D (mm)</th>
<th>E</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>M</th>
<th>N (mm)</th>
<th>S</th>
<th>T</th>
<th>W (mm)</th>
<th>Weight</th>
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<td>60</td>
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<td>1.18</td>
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<td>1/4&quot;</td>
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<td>lb. filled</td>
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<tr>
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<td>54</td>
<td>32</td>
<td>62</td>
<td>13</td>
<td>54</td>
<td>-</td>
<td>3.6</td>
<td>88.1</td>
<td>75</td>
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<td>3.47</td>
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Recommended panel cutout is dimension D + 1 mm