## Bourdon Tube Pressure Gauges

### Solid-Front Process Gauge

**Type 212.34 - Dry Case**

**Type 213.34 - 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
- Solid front thermoplastic case
- Positive pressure ranges to 1,000 PSI

### Standard Features

#### Design

ASME B40.100

#### Sizes

4½” (115 mm) dial size

#### Accuracy class

± 0.5% of span (ASME B40.100 Grade 2A)

#### Ranges

Vacuum / Compound to 200 psi
Pressure from 15 psi to 1,000 psi
or other equivalent units of pressure or vacuum

#### Working pressure

Steady: full scale value
Fluctuating: 0.9 x full scale value
Short time: 1.5 x full scale value

#### Operating temperature

Ambient: -40°F to +150°F (-40°C to +65°C) - dry
-4°F to +150°F (-20°C to +65°C) - glycerine filled
-40°F to +150°F (-40°C to +65°C) - silicone filled
Medium: +150°F (65°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 resistant (NEMA 3 / IP54) - dry case
Weather tight (NEMA 4X / IP65) - liquid-filled case

#### Pressure connection

Material: Copper alloy
Lower mount (LM) or lower back mount (LBM)
1/4” or 1/2” NPT with M4 internal tap

#### Bourdon tube

Material: Copper alloy
C-type

#### Movement

Copper alloy. Internal stop pin at 1.3 x full scale
Overload and underload stops - standard
Dampened movement - optional

#### Dial

White aluminum with black lettering, stop pin at 6 o’clock

#### Pointer

Black aluminum, adjustable

#### Case

Black glass-reinforced thermoplastic (PBTP)
Solid front, blowout back
Turret-style case with built in rear flange lugs
Window
Clear acrylic with Buna-N gasket

Case filling
Glycerine 99.7% - Type 213.34

Shock & vibration
Shock resistant up to 100g force

Cycle testing
400,000 - 2,000,000 cycles, depending upon pressure range * Liquid filled

Optional extras
- Threaded restrictor
- Silicone dampened movement
- Panel mounting adaptor kit (field assembled)
- Silicone for fluorolube case filling
- Cleaned for oxygen service
- Instrument glass or safety glass window
- Alarm contacts switches (magnetic or inductive)
- Special process connections
- Custom dial layout

Dimensions

<table>
<thead>
<tr>
<th>Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>R</th>
<th>S</th>
<th>T</th>
<th>W</th>
<th>Weight¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5&quot;</td>
<td>mm</td>
<td>128</td>
<td>103</td>
<td>84</td>
<td>120.3</td>
<td>6.3</td>
<td>40</td>
<td>28.5</td>
<td>148</td>
<td>136.5</td>
<td>25</td>
<td>12.5</td>
<td>22</td>
<td>2.0 lb. dry</td>
</tr>
<tr>
<td></td>
<td>in</td>
<td>5</td>
<td>4.06</td>
<td>3.31</td>
<td>4.74</td>
<td>0.248</td>
<td>1.57</td>
<td>1.12</td>
<td>5.83</td>
<td>0.99</td>
<td>0.49</td>
<td>1/2&quot;</td>
<td>0.87</td>
<td>3.0 lb. filled</td>
</tr>
</tbody>
</table>

¹ Weight without optional accessories