Bourdon Tube Pressure Gauges
Paper Machine Gauge
Type 212.40PM - Dry Case
Type 213.40PM - Liquid-filled Case

Applications
- With liquid filled case for applications with high dynamic pressure pulsations or vibration
- Paper machines and hydraulic presses
- Suitable for gaseous or liquid media that will not obstruct the pressure system

Product Features
- Excellent load-cycle stability and shock resistance
- Front flange for panel mounting
- Solid forged-brass case and connection

Specifications

Design
ASME B40.100 & EN 837-1

Nominal size
3½” (80 mm)

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

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
Steady: ¾ full-scale value
Fluctuating: ½ full-scale value
Short time: 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
Medium: max. +140°F (+60°C) < 1,000 psi

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 resistant (NEMA 4 / IP 66)

Pressure connection
Material: copper alloy
¼” NPT lower back mount (LBM)

Bourdon tube
Material: copper alloy
≤ 1,000 psi (70 bar): C-shape copper alloy
≥ 1,000 psi (70 bar): helical stainless steel

Movement
Copper alloy

Dial
White aluminum with black lettering

Pointer
Black aluminum
Case
Forged brass with integral connection and blowout plug with polished stainless steel front flange. Suitable for liquid filling

Window
Acrylic with Buna-N gasket

Case fill
Glycerine 99.7% - Type 213.40PM

Optional extras
- Brass restrictor
- Flat glass or safety glass window
- Silicone or Halocarbon oil case filling
- Special connections limited to wrench flat area
- Custom dial layout
- Other pressure scales available
  - bar, kPa, MPa, kg/cm² and dual scales

<table>
<thead>
<tr>
<th>Size</th>
<th>A</th>
<th>C</th>
<th>D</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>S</th>
<th>T</th>
<th>W</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5&quot;</td>
<td>80</td>
<td>40</td>
<td>80</td>
<td>65</td>
<td>23</td>
<td>4.8</td>
<td>2</td>
<td>127</td>
<td>112</td>
<td>2.5</td>
<td>22</td>
<td>1.47 lb. dry</td>
<td></td>
</tr>
<tr>
<td>in</td>
<td>3.14</td>
<td>1.57</td>
<td>3.15</td>
<td>2.56</td>
<td>0.91</td>
<td>0.19</td>
<td>0.08</td>
<td>5.0</td>
<td>4.41</td>
<td>0.10</td>
<td>¼&quot;</td>
<td>0.87</td>
<td>2.25 lb. filled</td>
</tr>
</tbody>
</table>

Recommended panel cutout is dimension D + 1 mm