Bourdon Tube Pressure Gauges Stainless Steel, Solid Front Case Type 232.30 - Dry Case Type 233.30 - Liquid-filled Case

WIKA Datasheet 23X.30

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

- Solid-front stainless steel case
- Excellent load-cycle stability and shock resistance
- All stainless steel construction
- Positive pressure ranges to 20,000 PSI

Standard Features

Design

ASME B40.100 & EN 837-1

Sizes 21/2", 4" & 6" (63, 100 and 160 mm)

Accuracy class

 $2\frac{1}{2}$ ": $\pm 2\frac{1}{2}$ % of span (ASME B40.100 Grade A) 4" & 6": $\pm 1.0\%$ of span (ASME B40.100 Grade 1A)

Ranges

Vacuum / Compound to 200 psi Pressure from 0/15 to 0/15,000 psi - 21/2" & 4" Pressure from 0/10 to 0/20,000 psi - 6" or other equivalent units of pressure or vacuum

Working pressure

- 2½": Steady: full scale value Fluctuating: 0.9 x full scale value Short time: 1.1 x full scale value
- 4 & 6": Steady: full scale value Fluctuating: 1.1 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

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Temperature error

Additional error when temperature changes from reference temperature of 68°F (20°C) $\pm 0.4\%$ 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) Lower back mount (LBM) - 2½" & 4" only 1/4" NPT or 1/2" NPT limited to wrench flat area

Bourdon tube

Material: 316L stainless steel ≤ 1,000 PSI: C-type ≥ 1,500 PSI: helical type

Movement Stainless steel

Dial

White aluminum with black lettering, 21/2" with stop pin

Pointer

Black aluminum

Case

304 stainless steel, case with solid baffle wall and blowout back (safety case)

Window

Laminated safety glass with Buna-N gasket

Bezel ring

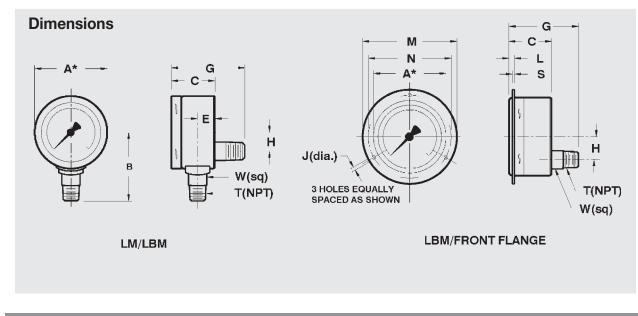
Stainless steel, bayonet-type

Case fill:

Glycerine 99.7% - Type 233.30

Optional extras

- Monel wetted parts (Type 26X.30)
- Front flange, SS
- Mounting lugs for wall mounting
- Silicone or fluorolube case filling
- Red drag pointer or mark pointer
- Special connections limited to wrench flat area
- Custom dial layout
- Integral alarm contacts or transmitters
- Other pressure scales available bar, kPa, MPa, kg/cm² and dual scales



| Size | | | | | | | | | | | | | | | | |
|------|----|------|-------|----------------|------|------|------|------|------|------|------|------|------|------|---------------------|--------|
| | | Α | В | C ¹ | E | G | н | J | L | Μ | Ν | S | Т | W | Weight ² | |
| 2.5" | mm | 63 | 48 | 42 | 17.5 | 63 | 18.5 | 4 | 3 | 85 | 75 | 2 | | 14 | 0.44 lb. | dry |
| | in | 2.48 | 1.89 | 1.65 | 0.69 | 2.48 | 0.73 | 0.16 | 0.12 | 3.35 | 2.95 | 0.08 | 1/4" | 0.55 | 0.57 lb. | filled |
| 4" | mm | 101 | 85 | 57.5 | 24 | 93 | 30 | 4.8 | 3 | 132 | 116 | 2 | | 22 | 1.43 lb. | dry |
| | in | 3.98 | 33.35 | 2.26 | 0.94 | 3.66 | 1.18 | 0.19 | 0.12 | 5.20 | 4.57 | 0.08 | 1/2" | 0.87 | 2.38 lb. | filled |
| 6" | mm | 161 | 116 | 58 | 24 | - | - | 5.8 | 3 | 196 | 178 | 2 | | 22 | 2.86 lb. | dry |
| | in | 6.34 | 4.57 | 2.28 | 0.94 | - | - | 0.23 | 0.12 | 7.72 | 7.01 | 0.08 | 1/2" | 0.87 | 5.15 lb. | filled |

¹ For 6" LM range 20,000 psi, C dimension changes to 75.5 mm / 2.97 in.

² Weight without optional accessories

Note: For 21/2" size, front flange is a 2-piece design. Hole panel cutout dimension for this option is 66.5 mm

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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. WIKA Datasheet 23X.30 · 03/2005

