Bourdon Tube Pressure Gauges
Stainless Steel Series
Type 232.50 - Dry Case
Type 233.50 - Liquid-filled Case

Applications

- With liquid-filled case for applications with high dynamic pressure pulsations (add restrictor) 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

Product Features

- Excellent load-cycle stability and shock resistance
- All stainless steel construction
- Positive pressure ranges to 20,000 psi (1600 bar)



Bourdon Tube Pressure Gauge Model 232.50, 6”

Specifications

Design
ASME B40.100 & EN 837-1

Sizes
2½”, 4” & 6” (63, 100 and 160 mm)

Accuracy class
2½”: ± 2/1/2% of span (ASME B40.100 Grade A)
4” & 6”: ± 1.0% of span (ASME B40.100 Grade 1A)

Ranges
Vacuum / Compound to 200 psi (16 bar)
Pressure from 0/15 psi (1 bar) to 0/15,000 psi (1,000 bar) - 2½”, 4”
Pressure from 0/10 (0.6 bar) to 0/20,000 psi (1,600 bar) - 6” or other equivalent units of pressure or vacuum

Working pressure

2½”:	Steady: ¾ scale value
	Fluctuating: ⅔ full-scale value
	Short time: full-scale value
4” & 6”:	Steady: full-scale value
	Fluctuating: 0.9x full-scale value
	Short time: 1.3x 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:	+392°F (+200°C) maximum - dry
	+212°F (+100°C) maximum - liquid-filled

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.

Ingress protection
IP 65 per EN 60529 / IEC 60259

Pressure connection
Material: 316L stainless steel
Lower mount (LM) or lower back mount (LBM)
Center back mount (CBM) for 2½” size
¼” NPT or ½” NPT (other connections available)

Bourdon tube
Material: 316 stainless steel
> 1,000 psi (100 bar): C-shape
≤ 1,500 psi (100 bar): helical

Movement
Stainless steel

Dial
White aluminum with black lettering; 2½” with stop pin

Pointer
Black aluminum, adjustable

Case
- 304 Stainless steel
  2½"- with pressure relief/fill plug on top of case
  4" and 6"- with blow out plug on back of case and fill plug on top of case
- For pressure ranges ≤ 300 psi, case has compensating valve/fill plug to vent case pressure

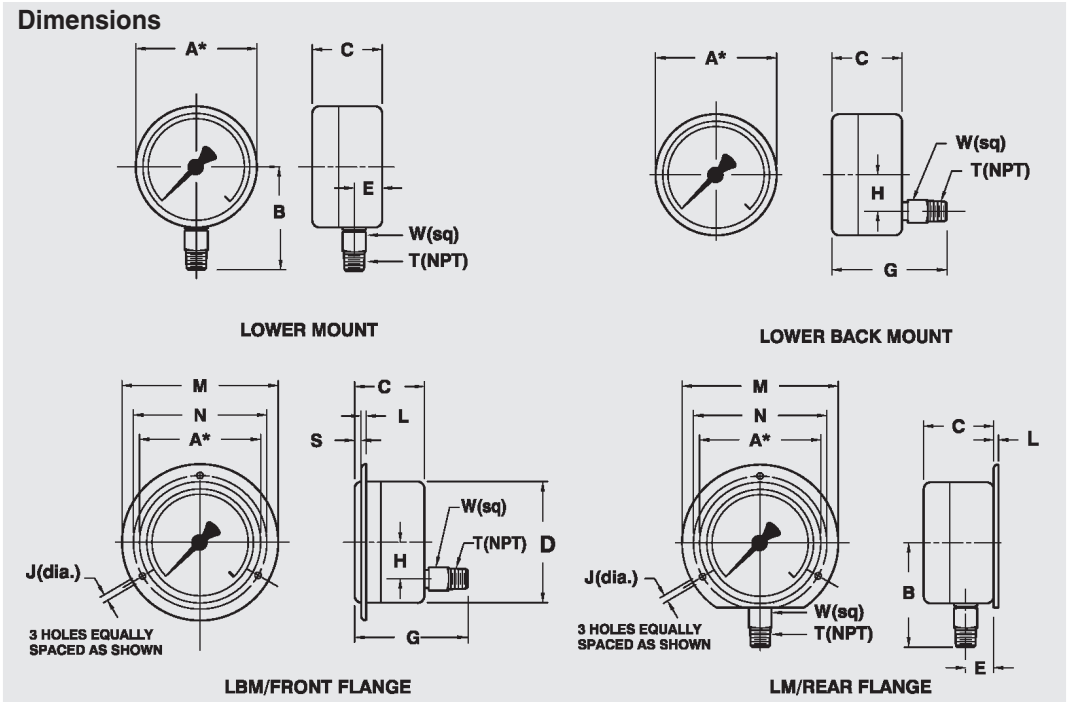
Bezel ring
Stainless steel, bayonet-type

Window
Polycarbonate (2½") and Safety Glass (4" & 6") with Buna-N gasket

Case fill
Glycerine
Glycerine/Water - Type 233.50

Optional extras
- Other pressure connections
- Restrictors for applications with high dynamic pressure pulsations
- Monel wetted parts (Type 26X.50), not available in 6" LBM
- Front flange, SS (CBM and LBM only)
- Rear flange, SS
- 316 SS case material
- U-clamp mounting, SS (not available on 4½")
- Silicone or Halocarbon case filling
- Non-adjustable pointer
- Red drag pointer or mark pointer
- Safety glass window
- Custom dial layout
- Other pressure scales available: bar, kPa, MPa, kg/cm² and dual scales
- Integral alarm contacts or transmitters
- For size 4 ½" please see date sheet 23X.40 4.5
- InSight™ reflective dial options available in white, fluorescent yellow, fluorescent orange or glow-in-the-dark

Dimensions



Size		A	B	C	D[4]	E	G	H	J	L	M	N	S	T	W	Weight[3]	
2½"	mm	63	54	33	62	9.5	57	Note1	3.6	3	85	75	5		14	0.35 lb.	dry
	in	2.48	2.13	1.30	2.44	0.37	2.24		0.14	0.12	3.35	2.95	0.20	1/4"	0.55	0.44 lb.	filled
4"	mm	101	86	49.5	99	15.5	83	30	4.8	3	132	116	5		22	1.32 lb.	dry
	in	3.98	3.43	1.95	3.90	0.61	3.27	1.18	0.19	0.12	5.20	4.57	0.20	1/2"	0.87	1.98 lb.	filled
6"	mm	161	118	49.5[2]	159	15.5	83	50	5.8	3	196	178	5		22	2.42 lb.	dry
	in	6.34	4.65	1.95[2]	6.26	0.61	3.27	1.97	0.23	0.12	7.72	7.01	0.20	1/2"	0.87	4.40 lb.	filled

[1] Center back mount (CBM)
[2] Plus 0.63" (16 mm) for pressure ranges ≥ 1,500 psi
[3] Weight without optional accessories
[4] D (+) 1mm for panel cutout

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.

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