

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

WIKA Datasheet 23X.50

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 20,000 PSI

Standard Features

Design

ASME B40.100 & EN 837-1

Sizes

2½", 4", 4½" & 6" (63, 100, 115 and 160 mm)

Accuracy class

2½": ± 2/1/2% of span (ASME B40.100 Grade A)

4", 4½" & 6": ± 1.0% of span (ASME B40.100 Grade 1A)

Ranges

Vacuum / Compound to 200 psi

Pressure from 0/15 to 0/15,000 psi - 2½", 4", 4½"

Pressure from 0/10 to 0/20,000 psi - 6"

or other equivalent units of pressure or vacuum

Working pressure

2½": Steady: 3/4 scale value

Fluctuating: 2/3 full scale value

Short time: full scale value

4", 4½" & 6": 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: +392°F (+200°C) maximum - dry

+212°F (+100°C) maximum - liquid filled



Bourdon Tube Pressure Gauge Model 232.50

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 lower back mount (LBM)

Center back mount (CBM) for 2½" size

1/4" NPT or 1/2" NPT (other connections available)

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, 2½" with stop pin

Pointer

Black aluminum, adjustable

Case

Stainless steel, with pressure relief in top of case (2½") or in back of case (4", 4½" & 6"), ranges ≤ 160 PSI with compensating valve to vent case.

Bezel ring

Stainless steel, bayonet-type

Window

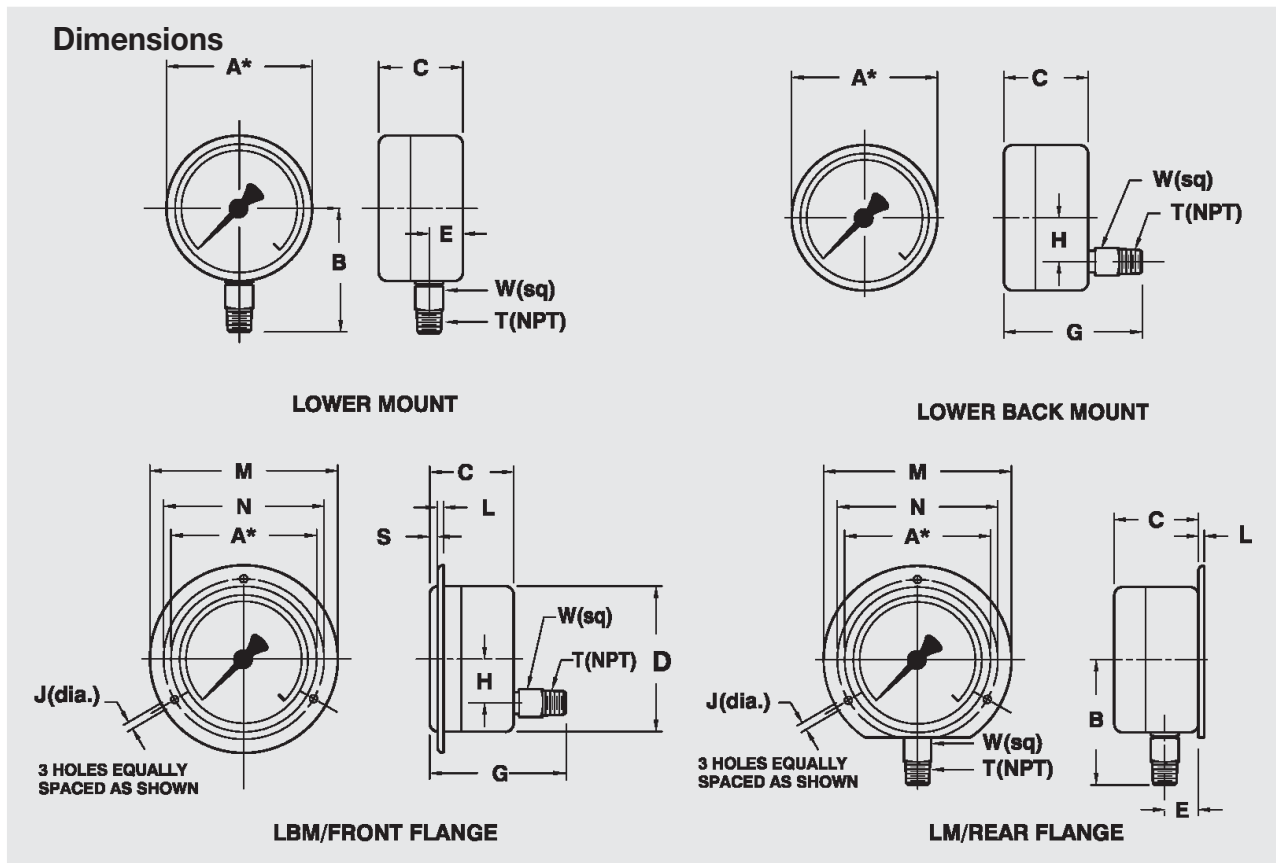
Laminated safety glass with Buna-N gasket

Case fill

Glycerine 99.7% - Type 233.50

Optional extras

- Other pressure connections
- Monel wetted parts (Type 26X.50)
- Front flange, SS (CBM and LBM only)
- Rear flange, SS
- U-clamp mounting, SS
- Silicone or fluorolube case filling
- Non-adjustable pointer
- Red drag pointer or mark pointer
- Special connections limited to wrench flat area
- Custom dial layout
- Other pressure scales available
 - bar, kPa, MPa, kg/cm² and dual scales
- Integral alarm contacts or transmitters



Size		A	B	C	D ¹	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	87	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
4½"	mm	121	97	49.5	119	15.5	83	30	5	3	148	137	5	22	1.76 lb.	dry	
	in	4.76	3.82	1.95	4.68	0.61	3.27	1.18	0.2	0.12	5.83	5.39	0.20	1/2"	0.87	3.08 lb.	filled
6"	mm	161	118	49.5 ²	163.71	15.5	83	50	5.8	3	196	178	5	22	2.42 lb.	dry	
	in	6.34	4.65	1.95 ²	6.45	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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