

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" & 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

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

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 & 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: +212°F (+100°C) maximum



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 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, 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" & 6"), ranges ≤ 160 PSI with compensating valve to vent case.

Bezel ring

Stainless steel, bayonet-type

Window

Laminated safety glass

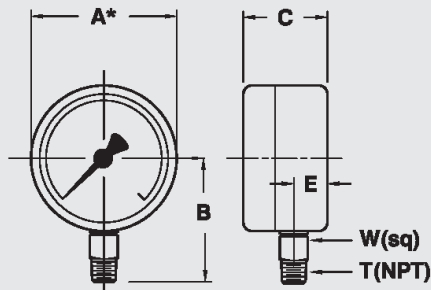
Case fill

Glycerine 99.7% - Type 233.50

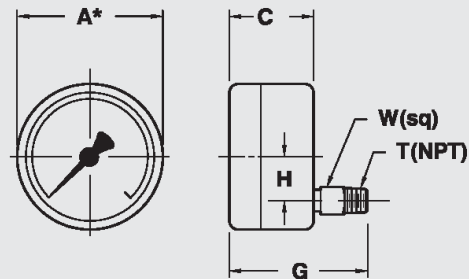
Optional extras

- Other pressure connections
- Monel wetted parts (**Type 26X.50**)
- SS front or rear flange
- U-clamp mounting, SS
- Silicone or fluorolube case filling
- 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

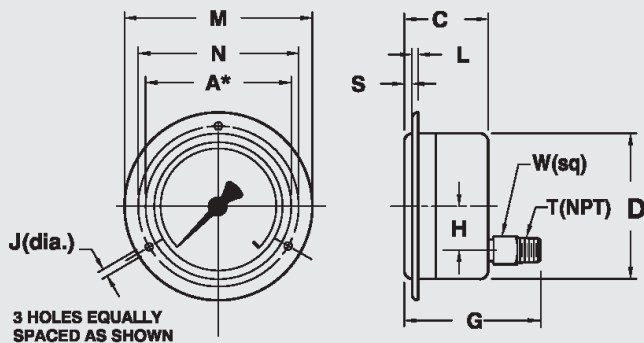
Dimensions



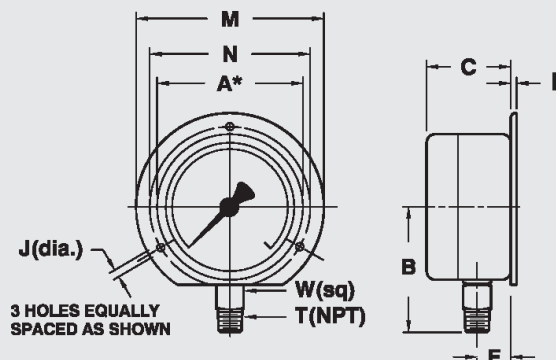
LOWER MOUNT



LOWER BACK MOUNT



LBM/FRONT FLANGE



LM/REAR FLANGE

Size

		A	B	C	E	G	H	J	L	M	N	S	T	W	Weight ³	
2.5"	mm	63	54	33	9.5	57	Note1	3.6	3	85	75	5		14	0.35 lb.	dry
	in	2.48	2.13	1.30	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	15.5	83	30	4.8	3	132	116	5		22	1.32 lb.	dry
	in	3.98	3.43	1.95	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	15.5	83	50	5.8	3	196	178	5		22	2.42 lb.	dry
	in	6.34	4.65	1.95 ²	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) accessories

² Plus 0.63" (16 mm) for pressure ranges ≥ 1,500 PSI

³ Weight without optional

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 Instrument Corporation