

Bourdon Tube Pressure Gauges

Test Gauge with $\pm 0.25\%$ Accuracy

Type 312.20

WIKA Datasheet 312.20

Applications

- Calibration and testing laboratories
- Suitable for gaseous or liquid media that will not obstruct the pressure system

Special features

- High accuracy ($\pm 0.25\%$ of span)
- Mirrored band on dial
- Pressure ranges up to 10,000 psi

Standard Features

Design

ASME B40.100 & EN 837-1

Sizes

6" (160 mm)

Accuracy class

$\pm 0.25\%$ of span (ASME B40.100 Grade 3A)

Ranges

Vacuum / Compound to 200 psi
Pressure from 15 psi to 10,000 psi
or other equivalent units of pressure or vacuum

Calibration medium

≤ 400 psi: gas
> 400 psi: oil (some liquid may remain in pressure system)

Working pressure

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 $+140^{\circ}\text{F}$ (-40°C to $+60^{\circ}\text{C}$)
Medium: $+180^{\circ}\text{F}$ ($+80^{\circ}\text{C}$) 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 resistant (NEMA 3 / IP 54)

Pressure connection

Material: copper alloy
Lower mount (LM) or lower back mount (LBM)
 $1/4"$ NPT or $1/2"$ NPT limited to wrench flat area

Bourdon tube

$\leq 1,000$ PSI: copper alloy, C-type, soft soldered
 $\geq 1,500$ PSI: 316 stainless steel, helical type, brazed

Movement

Copper alloy with nickel-alloy wearable parts

Dial

White aluminum with black lettering and mirrored band

Pointer

Black aluminum with knife edge, friction adjustable

Case

304 stainless steel with Buna-N vent plug and polished stainless steel bayonet ring.

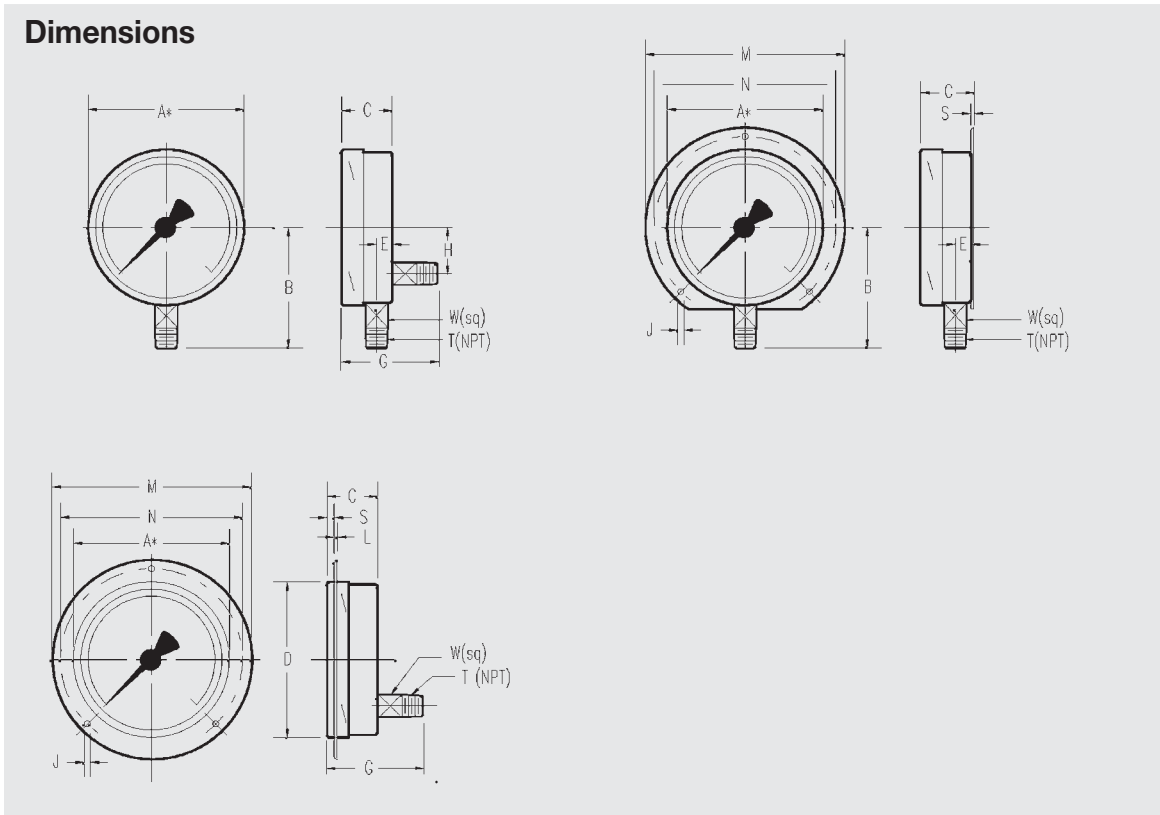
Window

Laminated safety glass with Buna-N gasket

Optional extras

- Brass restrictor
- Stainless steel front or rear flange
- NIST calibration certificate
- Solid front safety case (Type 312.30)
- Liquid-filled case (Type 313.20)
- Special connections limited to wrench flat area
- Custom dial layout
- Other pressure scales available
bar, kPa, MPa, kg/cm² and dual scales

Dimensions



Size		A	B	C ¹	D	E	G	H	J	L	M	N	T	W	Weight
6"	mm	160	116	49.5	161	15.5	81	50	5.8	3	196	178		22	
	in	6.0	4.57	1.95	6.34	0.61	3.19	1.97	0.23	0.12	7.72	7.0	1/2"	0.86	2.42 lb

¹ For ranges ≤ 60 psi and ≥ 1,500 psi, C dimension changes to 2.58" (65.5 mm)

Recommended panel cutout is dimension D + 1.5 mm

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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