

# 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 or corrode copper alloy wetted parts

## Product features

- High accuracy ( $\pm 0.25\%$  of span)
- Mirrored band on dial
- Knife edge adjustable pointer
- Pressure ranges up to 10,000 psi (700 bar)

## Specifications

### Design

ASME B40.100 & EN 837-1

### Sizes

6" (160 mm)

### Accuracy class

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

### Ranges (all ranges not stocked)

Vacuum / Compound to 200 psi (16 bar)

Pressure from 10 psi (0.6 bar) to 10,000 psi (700 bar)

or other equivalent units of pressure or vacuum

### Calibration medium

$\leq 360$  psi (25 bar): Gas

$> 360$  psi (25 bar): Liquid

### Working pressure

Steady: full scale value

Fluctuating: 0.9 x full scale value

Short time: 1.3 x full scale value

### Operating temperature

Ambient:  $-40^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ )

Medium:  $+140^{\circ}\text{F}$  ( $+60^{\circ}\text{C}$ ) maximum

### Temperature error

Additional error when temperature changes from reference temperature of  $68^{\circ}\text{F}$  ( $20^{\circ}\text{C}$ )  $\pm 0.4\%$  of span for every  $18^{\circ}\text{F}$  ( $10^{\circ}\text{K}$ ) rising or falling.

### Weather protection

Weather resistant (NEMA 3 / IP 54)



Bourdon Tube Pressure Gauge Model 312.20

### 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 (70 bar): C-shape, copper alloy

$> 1,000$  psi (70 bar): Helical, 316L stainless steel

### Movement

Copper alloy with nickel-alloy wearable parts

### Dial

White aluminum with black lettering and mirrored band

### Pointer

Black aluminum with knife edge, adjustable

### Case

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

### Window

Laminated safety glass

### Window gasket

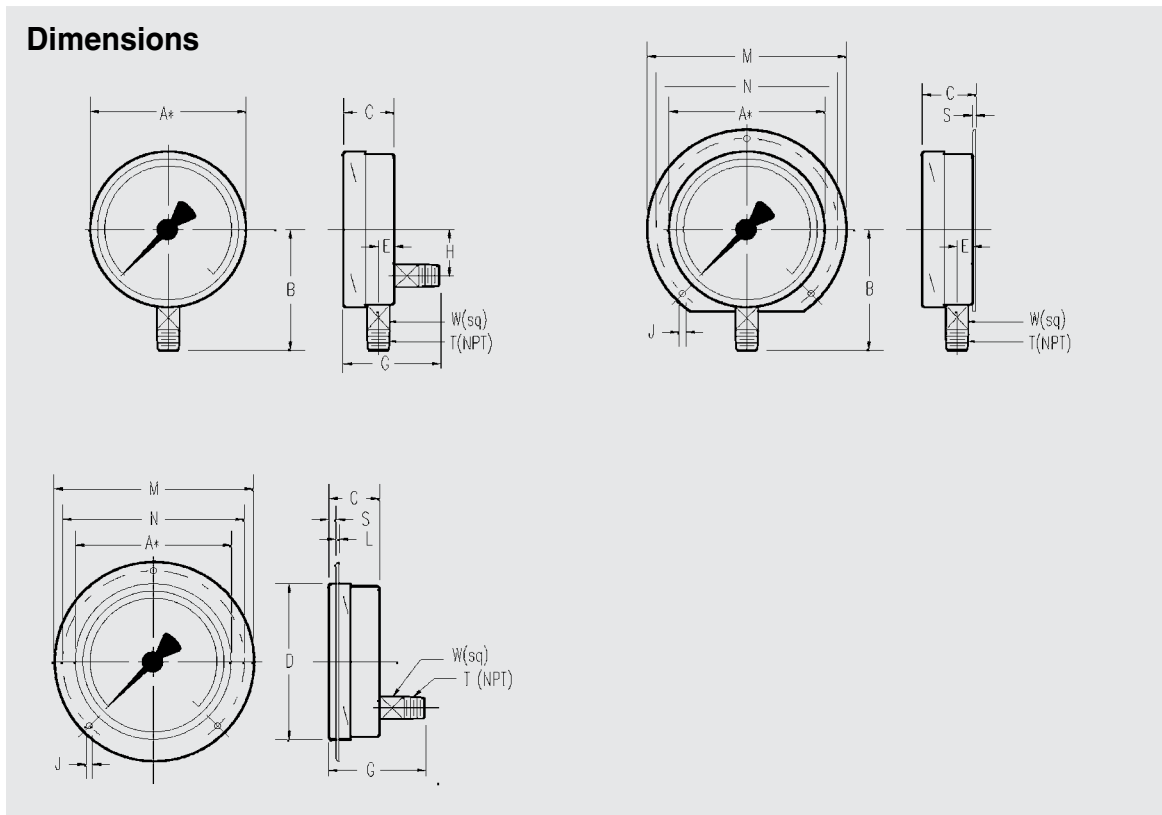
Buna-N

### Standard scale

psi

### Optional extras

- Brass restrictor
- Stainless steel front or rear flange
- NIST calibration certificate
- Other thread connections available
- Custom dial layout
- Other pressure scales available  
bar, kPa, MPa, kg/cm<sup>2</sup> and dual scales
- Alarm contact switches magnetic and inductive



Size		A	B	C <sup>1</sup>	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

<sup>1</sup> 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.



#### WIKA Instrument Corporation

1000 Wiegand Boulevard  
 Lawrenceville, GA 30043  
 Tel (770) 513-8200 Toll-free 1-888-WIKA-USA  
 Fax (770) 338-5118  
 E-Mail info@wika.com  
 www.wika.com