



# Bourdon Tube Pressure Gauges

All Stainless Steel Construction  
Panel Builder Gauges • Type 233.53

## Pressure Gauges

### Application

Suitable for corrosive environments compatible with 316 stainless steel wetted parts, dry and liquid fillable case, where vibration and/or pressure pulsation occur in liquid or gaseous media which will not obstruct the pressure system.

### Sizes (All sizes not stocked)

2½" and 4" (63 and 100 mm)

### Accuracy

2½" ± 1.5% of span

4" ± 1.0% of span (ASME B40.1 Grade 1A)

### Ranges (All ranges not stocked)

Vacuum / Compound to 30"HG / 0 / 200 PSI

Pressure from 15 PSI to 15,000 PSI

or other equivalent units of pressure or vacuum

### Working Range

2½" Steady: 3/4 of full scale value  
Fluctuating: 2/3 of full scale value  
Short time: Full scale value

4" Steady: Full scale value  
Fluctuating: 0.9 x full scale value  
Short time: 1.3 x full scale value

### Operating Temperature

Ambient: -4°F to 140°F (-20°C to 60°C) <sup>(Note 1)</sup>

Media: max. 212°F (+100°C)

### 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.

## Standard Features

### Connection

Material: 316 stainless steel

Center back mount (CBM)

Lower back mount (LBM) 4"

1/4" or 1/2" NPT limited to wrench flat area

### Bourdon Tube

Material: 316 stainless steel

30"Hg (Vac) to 1000 PSI C-type - 2½"

30"Hg (Vac) to 1500 PSI C-type - 4"

1500 PSI to 15,000 PSI helical type - 2½"

2000 PSI to 15,000 PSI helical type - 4"

### Movement

Stainless steel

### Dial

White aluminum with black lettering. 2½" with stop pin

### Pointer

Black aluminum

### Case

304 stainless steel with vent plug and SS crimping ring.

EPDM o-ring between case and connection (4")

Welded case/socket connection (2½")



### Front Flange

300-series stainless steel, polished

### Restrictor

316 stainless steel. 0.012" (0.3 mm) orifice, standard for ranges 1500 PSI and higher

### Weather Protection

Weather tight (NEMA 4X / IP 65)

### Standard Scale

PSI, PSI/BAR, PSI/KPA, PSI/KG/CM<sup>2</sup>

### Window Gasket

Buna-N

### Case Filling

Glycerine

### Window

Polycarbonate (2½")

Acrylic (4")

### ORDER OPTIONS (min. order may apply)

Custom dial layout

U-Clamp (field installable bracket)

Pressure compensating membrane window

316 SS threaded restrictor

Glycerine, silicone, or fluorocarbon fill <sup>(Note 1)</sup>

Special connections limited to wrench flat area

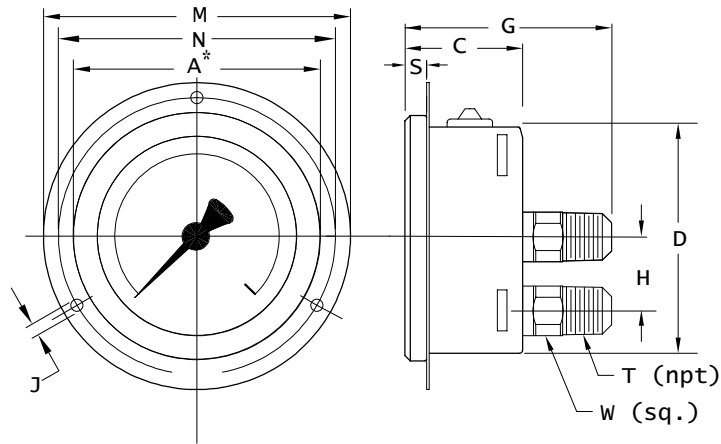
Other pressure scales available

Note 1 Temperature Ranges (Liquid filled gauges)

Glycerine: -4°F to 140°F (-20°C to 60°C)

Silicone: -40°F to 140°F (-40°C to 60°C)

## Dimensions



### 2XX.53 CBM/LBM/FF

A\* NOMINAL SIZE

TYPE/SIZE	WEIGHT	KEY	A*	C	D	G	H	J	M	N	S	T	W
2XX.53 2.5"	0.48 lbs.	mm	63	32	62	54	--	3.6	85	75	6.5	--	14
		in	2.5	1.26	2.44	2.13		0.14	3.35	2.95	0.26	1/4"	0.55
2XX.53 4"	1.90 lbs.	mm	100	48	100	79.5	30	4.8	132	116	8	--	22
		in	4	1.89	3.94	3.13	1.18	0.19	5.20	4.57	0.31	1/2"	0.87

NOTE: For 1/4" NPT connections on 4" gauges, reduce B\* dimension by 5 mm / 0.02 in.

Panel Cutouts (2½") - 2.56" / 65 mm  
(4") - 4.13" / 105 mm



#### Ordering Information:

State computer part number (if available) / type number / size / range / connection size and location / options required.

**WIKA reserves the right to make design changes without prior notice.**

06/00

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