

# Bourdon Tube Pressure Gauges

## Stainless Steel Series

### Type 232.53 - Dry Case

### Type 233.53 - Liquid-filled Case



## 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 15,000 psi

## Standard Features

### Design

ASME B40.100 & EN 837-1

### Sizes

2", 2½" & 4" (50, 63 and 100 mm)

### Accuracy class

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

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

### Ranges

Vacuum / compound to 200 psi

Pressure from 15 psi to 15,000 psi

or other equivalent units of pressure or vacuum

### Working pressure

2" & 2½": Steady: 3/4 scale value  
 Fluctuating: 2/3 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: -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 232.53**

### 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 center back mount (CBM)

Lower back mount (LBM) for 4" size

1/8" NPT, 1/4" NPT or 1/2" NPT limited to wrench flat area

### Bourdon tube

Material: 316L stainless steel

2" & 2½": ≤ 1,000 PSI: C-type,  
 ≥ 1,500 PSI: helical type

4": ≤ 1,500 PSI: C-type,  
 ≥ 2,000 PSI: helical type

### Movement

Stainless steel

### Dial

White aluminum with black lettering, 2" and 2½" with stop pin

## Pointer

Black aluminum

## Case

304 stainless steel with vent plug and SS crimp ring  
Welded case / socket connection

## Window

Polycarbonate

## Liquid filling

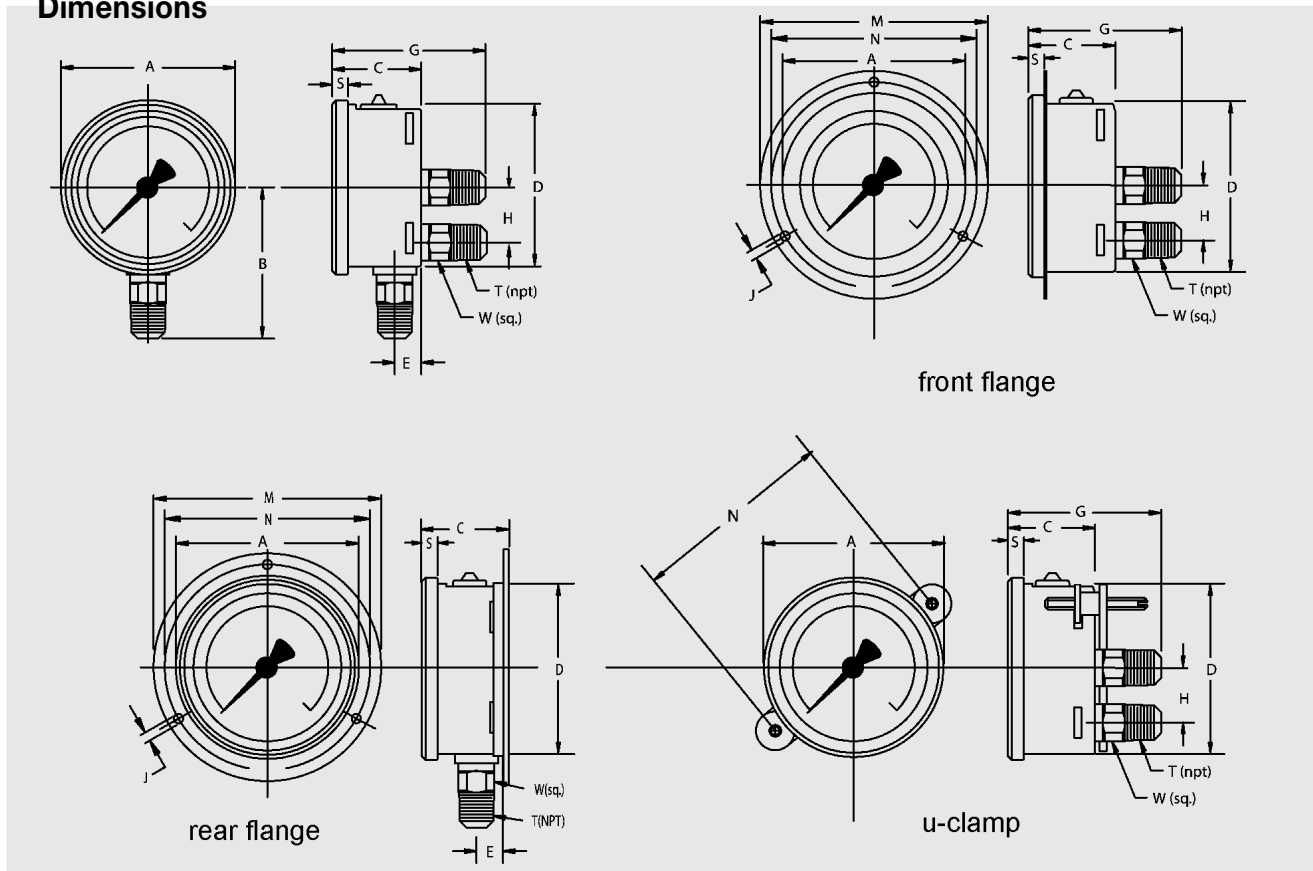
Glycerine 99.7% - Type 233.53

## Optional extras

- SS restrictor
- SS front flange
- SS rear flange (2½" and 4" only)
- Zinc-plated steel or SS u-clamp bracket (field installable - see note)
- Cleaned for oxygen service
- Red drag pointer or mark pointer (2½" and 4" only)
- External zero adjustment (4" size only)
- Other pressure connections
- Silicone or Fluorolube case filling
- Other pressure scales available: bar, kPa, MPa, kg/cm<sup>2</sup> and dual scales

Note: U-clamp bracket for 2" must be ordered with gauge

## Dimensions



Size		A	B	C	D	E	G	H	J	M	N	S	T	W	Weight
2"	mm	55	48	30	50	12	53	-	3.6	71	60	5.5		14	0.27 lb. dry
	in	2.17	1.89	1.18	1.97	0.47	2.09	-	0.14	2.80	2.36	0.22	1/4"	0.55	0.33 lb. filled
2.5"	mm	69	54	32	62	13	54	-	3.6	88.1	75	6.5		14	0.36 lb. dry
	in	2.69	2.13	1.26	2.45	0.51	2.13	-	0.14	3.47	2.95	0.26	1/4"	0.55	0.44 lb. filled
4"	mm	107	87	48	100	15.5	79.5	30	4.8	132	116	8		22	1.10 lb. dry
	in	4.21	3.43	1.89	3.91	0.61	3.13	1.18	0.19	5.20	4.57	0.31	1/2"	0.87	1.76 lb. filled

Recommended panel cutout is dimension D + 1 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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