

# Bourdon Tube Pressure Gauges

## Solid-Front Process Gauge

### Type 212.34 - Dry Case

### Type 213.34 - Liquid-filled Case

WIKA Datasheet 21X.34

#### Applications

- For applications with high dynamic pressure pulsations or vibration a liquid filled case and socket restrictor are available
- 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
- Solid front thermoplastic case
- Positive pressure ranges to 1,000 psi
- All lower mount connection gauges are factory prepared for liquid filling

(LBM: must install membrane prior to field filling)

#### Standard Features

##### Design

ASME B40.100

##### Sizes

4½" & 6" (115 & 160 mm) dial size

##### Accuracy class

± 0.5% of span (ASME B40.100 Grade 2A)

##### Ranges

Vacuum / Compound to 200 psi  
Pressure from 15 psi to 1,000 psi  
or other equivalent units of pressure or vacuum

##### Working pressure

Steady: full scale value  
Fluctuating: 0.9 x full scale value  
Short time: 1.5 x full scale value

##### Operating temperature

Ambient: -40°F to +150°F (-40°C to +65°C) - dry  
-4°F to +150°F (-20°C to +65°C) - glycerine filled  
-40°F to +150°F (-40°C to +65°C) - silicone filled  
Medium: +150°F (+65°C) maximum

##### 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.



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##### Weather protection

Weather resistant (NEMA 3 / IP54) - without membrane  
Weather tight (NEMA 4X / IP65) - dry case or filled case with membrane installed

##### Pressure connection

Material: Copper alloy  
Lower mount (LM) or lower back mount (LBM)  
1/4" or 1/2" NPT with M4 internal tap

##### Restrictor

Material: Copper alloy (0.6 mm)

##### Bourdon tube

Material: Copper alloy  
C-type

##### Movement

Copper alloy. Internal stop pin at 1.3 x full scale  
Overload and underload stops - standard  
Dampened movement - optional

##### Dial

White aluminum with black lettering, stop pin at 6 o'clock

##### Pointer

Black aluminum, adjustable

##### Case

Black fiberglass-reinforced thermoplastic (POCAN)  
Solid front, blowout back  
Turret-style case with built in rear flange lugs

## Window

Clear acrylic with Buna-N gasket

## Case filling

Glycerine 99.7% - Type 213.34

## Cycle testing

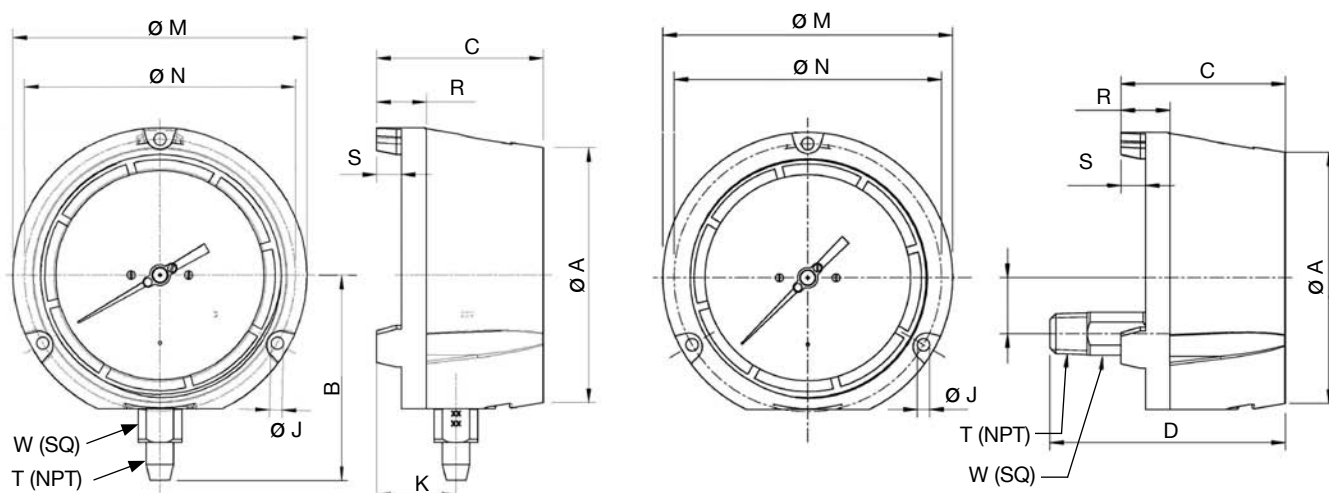
400,000 - 2,000,000\* cycles, depending upon pressure range

\* Liquid filled

## Optional extras

- Silicone dampened movement
- Panel mounting adaptor kit (field assembled)
- Silicone case filling
- Halocarbon case filling
- Cleaned for oxygen service
- Instrument glass or safety glass window
- Drag pointer (maximum reading indicator)
- Alarm contacts switches (magnetic or inductive)
- Special process connections
- Custom dial layout
- External zero adjustment

## Dimensions



Size		A	B	C	D	J	K	L	M	N	R	S	T	W	Weight <sup>1</sup>
4.5"	mm	128	103	84	120.3	6.3	40	28.5	148	136.5	25	12.5		22	2 lb. dry
	in	5	4.06	3.31	4.74	0.248	1.57	1.12	5.83	5.37	0.99	0.49	1/2"	0.87	3 lb. filled
6"	mm	164	122.5	88	123.4	7.1	40.2	28.5	190	177.8	25.4	12.7		22	3 lb. dry
	in	6.46	4.82	3.46	4.86	0.28	1.58	1.12	7.5	7	1	0.5	1/2"	0.87	4 lb. filled

<sup>1</sup> Weight without optional accessories

### 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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