

# Bourdon Tube Pressure Gauges

## Solid-Front Process Gauge

### Type 212.34 - Dry Case

### Type 213.34 - Liquid-filled Case

WIKA Datasheet 21X.34

#### 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
- Solid front thermoplastic case
- Positive pressure ranges to 1,000 PSI

#### Standard Features

##### Design

ASME B40.100

##### Sizes

4½" (115 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) - dry case  
Weather tight (NEMA 4X / IP65) - liquid-filled case

##### Pressure connection

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

##### 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 glass-reinforced thermoplastic (PBTP)  
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

### Shock & vibration

Shock resistant up to 100g force

### Cycle testing

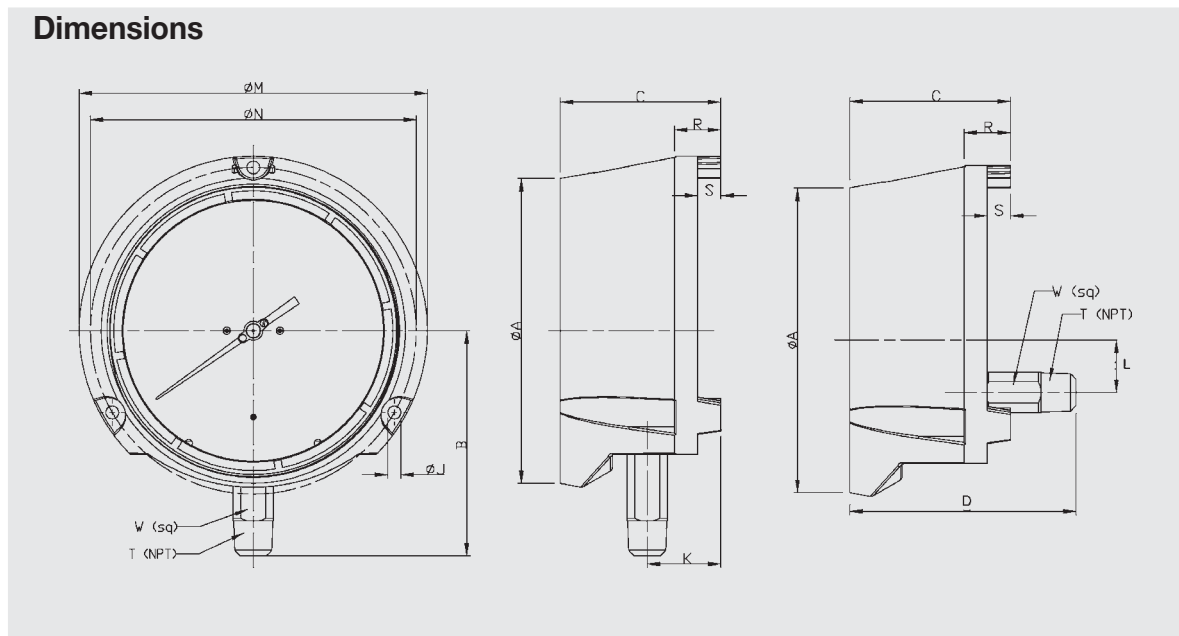
400,000 - 2,000,000\* cycles, depending upon pressure range

\* Liquid filled

### Optional extras

- Threaded restrictor
- Silicone dampened movement
- Panel mounting adaptor kit (field assembled)
- Silicone for fluorolube case filling
- Cleaned for oxygen service
- Instrument glass or safety glass window
- Alarm contacts switches (magnetic or inductive)
- Special process connections
- Custom dial layout

### 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	2.0 lb. dry
in	5	4.06	3.31	4.74	0.248	1.57	1.12	5.83	53.7	0.99	0.49	1/2"	0.87	3.0 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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