

Bourdon Tube Pressure Gauge - Model RPG



FEATURES

- Available in 63mm, 100mm and 150mm dial sizes
- Dry and liquid filled versions available
- Available with Stainless Steel and Monel (option) wetted parts
- Wide choice of mounting and process connection options

DESCRIPTION

A range of economically priced 63mm, 100mm and 150mm nominal size pressure gauges ideally suited to most industrial applications where accuracy and durability is required.

Gauges are available with either stainless steel or Monel (100mm and 150mm dial size only) internals.

A number of optional accessories are available either as factory fitted or retro fitted - these include diaphragm seal units, electrical contact head systems, syphons, overrange protectors, snubbers and additional pointers

TECHNICAL SPECIFICATION

Case: 304 stainless steel. 63mm, 100mm and 150 mm nominal sizes 316 stainless steel option available

Bezel: Bayonet type, stainless steel

Window: Standard instrument glass as standard, laminated safety glass or perspex if required. Glycerine filled (or fillable) gauges are fitted with plexi glass as standard

Ingress Protection: IP65 as per EN 60 529 / IEC 529

Pressure Element: Bourdon tube in AISI 316 stainless steel or Monel 400 to NACE specification MR-01-75*

Pressure Ranges: 30" Hg VAC to 10000 psi (-1 to 600 bar) Please refer to standard pressure ranges table

Process Connections: 1/4", 3/8" or 1/2" BSP male, 1/4" or 1/2" NPT male other connections available on request

Mounting: Direct, panel or surface mounting

Dial: Aluminium - white with black scale markings

Pointer: Aluminium, black finish (micrometer adjustable option)*

Movement: AISI 304 Stainless steel

Accuracy: 63 mm dial size Class 1.6 to EN837 ($\pm 1.6\%$ of full scale)

100 mm and 150 mm dial size Class 1 to EN837 ($\pm 1.0\%$ of full scale) (Class 0.5 option)

Over Pressure Limit: <100 bar 125% of maximum scale value >100 bar to <600 bar 115% of maximum scale value

Operating Temperature:

63 mm dial size

Ambient: -25 +65 °C (for non-glycerine filled gauges) +65 °C maximum (for gauges with glycerine filling)

Process: +180 °C maximum (for non-glycerine filled gauges) +65 °C maximum (for gauges with glycerine filling)

100 mm and 150 mm dial size Ambient: -40 +65 °C (for non-glycerine filled gauges) -20 +65 °C (for gauges with glycerine filling) Process: +300 °C maximum (for non-glycerine filled gauges) +65 °C maximum (for gauges with glycerine filling)

Liquid Filling (option): Glycerine 99.7%

Weights (approx.):

63 mm Dry 215g Filled 265 g

100 mm Dry 720g Filled 1.02 kg

150 mm Dry 1.15kg Filled 1.9 kg

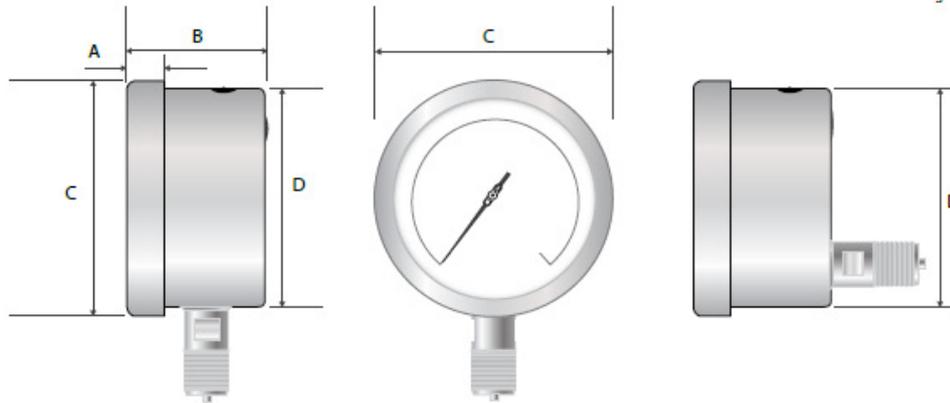
**available on 100 and 150mm dial size*



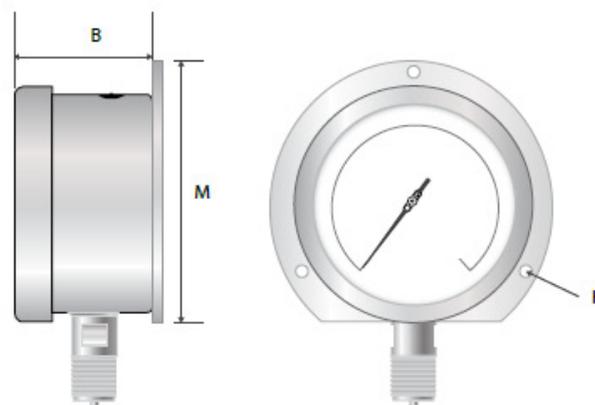
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DIMENSIONS IN MM

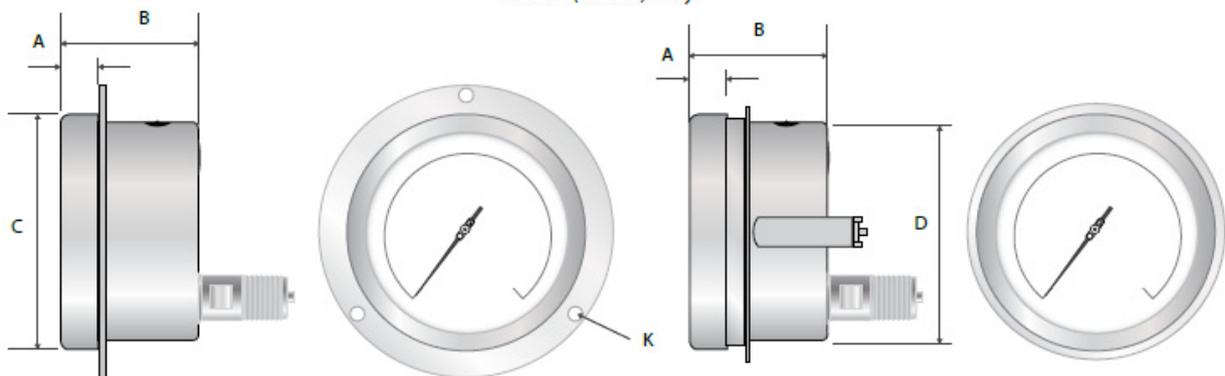
Drawings are for illustration purposes on and are not to scale



Direct Mounted
Bottom (Vertical) & Back (Rear) Entry



Surface Mounted (3 hole back flange)
Bottom (Vertical) Entry



Panel Mounted (3 Hole Front Flange)
Bottom Back (Rear) Entry

Panel Mounted (Clamp Fixing)
Bottom Back (Rear) Entry

NS	Dimensions In mm					
	A	B	C	D	K	M
63	10	32	69.5	62.5	3.6	80
100	12.5	48	111	100	6	128
150	15	49	161	149	6	174.5

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STANDARD PRESSURE RANGES

Below is a list of standard pressure ranges that are available. Gauges may be ordered with dual scales. Other units and non-standard ranges are available on request.

Bar	
-1 to +1.5 bar	0 to 40 bar
-1 to +3 bar	0 to 60 bar
-1 to +5 bar	0 to 70 bar
-1 to +9 bar	0 to 100 bar
0 to 1 bar	0 to 160 bar
0 to 1.6 bar	0 to 250 bar
0 to 2.5 bar	0 to 300 bar
0 to 4 bar	0 to 400 bar
0 to 6 bar	0 to 600 bar
0 to 7 bar	0 to 1,000 bar
0 to 10 bar	
0 to 16 bar	
0 to 20 bar	
0 to 25 bar	

kg/cm ²	
-1 to +1.5 kg/cm ²	0 to 40 kg/cm ²
-1 to +3 kg/cm ²	0 to 60 kg/cm ²
-1 to +5 kg/cm ²	0 to 70 kg/cm ²
-1 to +9 kg/cm ²	0 to 100 kg/cm ²
0 to 1 kg/cm ²	0 to 160 kg/cm ²
0 to 1.6 kg/cm ²	0 to 250 kg/cm ²
0 to 2.5 kg/cm ²	0 to 300 kg/cm ²
0 to 4 kg/cm ²	0 to 400 kg/cm ²
0 to 6 kg/cm ²	0 to 600 kg/cm ²
0 to 7 kg/cm ²	0 to 1,000 kg/cm ²
0 to 10 kg/cm ²	
0 to 16 kg/cm ²	
0 to 20 kg/cm ²	
0 to 25 kg/cm ²	

PSI	
30" Hg vacuum to 15 psi	0 to 600 psi
30" Hg vacuum to 30 psi	0 to 800 psi
30" Hg vacuum to 60 psi	0 to 1,000 psi
30" Hg vacuum to 100 psi	0 to 1,600 psi
0 to 10 psi	0 to 2,000 psi
0 to 15 psi	0 to 3,000 psi
0 to 25 psi	0 to 4,000 psi
0 to 30 psi	0 to 6,000 psi
0 to 60 psi	0 to 10,000 psi
0 to 100 psi	0 to 15,000 psi
0 to 120 psi	
0 to 200 psi	
0 to 300 psi	
0 to 400 psi	

kPa	
-1 to +1.5 kPa	0 to 4,000 kPa
-1 to +3 kPa	0 to 6,000 kPa
-1 to +5 kPa	0 to 7,000 kPa
-1 to +9 kPa	0 to 10,000 kPa
0 to 100 kPa	0 to 16,000 kPa
0 to 160 kPa	0 to 25,000 kPa
0 to 200 kPa	0 to 30,000 kPa
0 to 400 kPa	0 to 40,000 kPa
0 to 600 kPa	0 to 60,000 kPa
0 to 700 kPa	0 to 100,000 kPa
0 to 1,000 kPa	
0 to 1,600 kPa	
0 to 2,000 kPa	
0 to 2,500 kPa	

DIAPHRAGM SEAL UNITS

Model RPG can be fitted with a diaphragm seal unit if required.

The fitting of a diaphragm seal unit to a pressure gauge is recommended where the medium to be measured is highly viscous or contains suspended solids or is potentially corrosive to the Bourdon Tube.

Seal units are normally connected directly to the gauge, but connection may be made by flexible capillary, which makes them ideal for remote pressure indication. Flexible capillary can be used to facilitate the fitting

of a gauge in a surface or panel mounting location. Maximum capillary length is 5 metres.

Pressure is transmitted from the diaphragm seal unit to the bourdon tube by a suitable filling medium, the selection of which will ensure compatibility with the process and process temperature. Where it is known that the instrument will be used on processes subject to extremes of temperature, the temperature at the tapping point should be advised at the time of ordering.

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ORDERING INFORMATION

Model / Nominal Dial Size

RPG63 / 63 mm	RPG63
RPG100 / 100 mm	RP100
RPG150 / 150 mm	RPG150

Mounting

Direct, bottom entry	A
Surface mounted (3 hole rear flange), bottom entry	B
Direct, back entry	D
Panel mounted (3 hole front flange), back entry	F
Panel mounted (fixing clamp), back entry	V

Pressure Element (wetted parts)

316 stainless steel block & bourdon tube	SS
Monel block & bourdon tube to NACE specification MR-01-75*	MM

Process Connection

1/4" BSP male	12
1/4" NPT male	02
3/8" BSP male*	13
1/2" BSP male*	14
1/2" NPT male*	04

Case Material

304 stainless steel	S
316 stainless steel (option)	S1

Pressure Range

Select pressure range from standard pressure range table or insert non standard pressure range	XXX
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Option(s)

Select option(s) required

▪ Electrical Contact Heads (state contact type)*	E
▪ Glycerine Filling	G
▪ Glycerine fillable, supplied dry	GF
▪ Perspex Window	P
▪ Safety Glass Window	SG
▪ Accuracy Class 0.5 (0.5%)*	H
▪ Red Setting Pointer	J
▪ Oxygen Cleaned*	O
▪ Internal Restrictor Screw Fitted	R
▪ Internal Stops	S
▪ Wetted parts to NACE MR-01-75 (Monel pressure element must be selected)*	Z

*100 and 150mm dial size only

