

Positionable Pressure Gauges

PPG Series, Models B, P, and S

- Eliminate alignment problems.
- Available with 63, 100, and 115 mm (2 1/2, 4, and 4 1/2 in.) dial sizes.
- Monitor vacuum and positive system pressures up to 10 000 psi, 600 bar, or 60 MPa.
- Available with a variety of end connections.

Gauge Model Description

B model: General Purpose, Stainless Steel Gauge with Adjustable Pointer

S model: Solid-Front, Stainless Steel Safety Gauge

P model: Reinforced Thermoplastic, Industrial Process Gauge

Technical Data

Dial Ranges

Compound Gauges

B and S models

- Vacuum to 0 psi through vacuum to 200 psi
- Vacuum to 0 bar through vacuum to 9 bar
- Vacuum to 0 MPa through vacuum to 1.5 MPa

P model

- Vacuum to 0 psi through vacuum to 200 psi

Positive-Pressure Gauges

B and S models

- 0 to 15 psi through 0 to 10 000 psi
- 0 to 1 bar through 0 to 600 bar
- 0 to 0.1 MPa through 0 to 60 MPa

P model

- 0 to 15 psi through 0 to 10 000 psi

Accuracy

B and S models

- 63 mm (2 1/2 in.) : ± 1.5 % of span (ASME B40.1 Grade B, EN 837-1 Class 1.6, JIS B7505 Class 1.6)
- 100 mm (4 in.) : ± 1.0 % of span (ASME B40.1 Grade 1A, EN 837-1 Class 1.0, JIS B7505 Class 1.0)

P model

- 115 mm (4 1/2 in.) : ± 0.5 % of span (ASME B40.1 Grade 2A)

End Connections

- 1/4 and 1/2 in. male NPT
- R1/4 and R1/2
- G1/4 and G1/2

Operating Temperature

Ambient

- Unfilled: -40 to 140°F (-40 to 60°C)
- Glycerin-filled: -4 to 140°F (-20 to 60°C)
- Low-temperature glycerin-filled: -29 to 140°F (-34 to 60°C)
- Silicone-filled: -40 to 140°F (-40 to 60°C)

Media

B and S models

- 392°F (200°C) maximum

P model

- 212°F (100°C) maximum

Temperature Error

± 0.4 % for every 18°F (10°C) temperature change from 68°F (20°C)



Materials of Construction

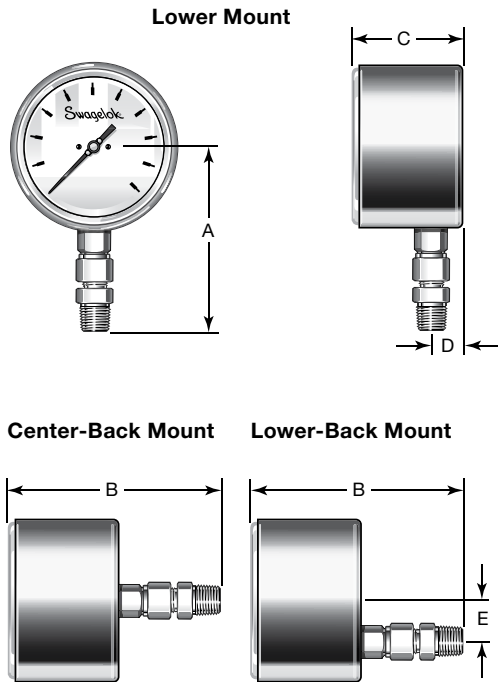
The positionable pressure gauge is composed of a stainless steel Swagelok® PGI series pressure gauge and stainless steel end connection. For complete materials of construction, see the Swagelok *Industrial and Process Pressure Gauges* catalog, [MS-02-170](#), and Swagelok *Gaugeable Tube Fittings and Adapter Fittings* catalog, [MS-01-140](#).

Testing and Calibration

Every Swagelok PPG series pressure gauge is factory calibrated and pressure tested.

Dimensions

Dimensions are for reference only and are subject to change.



Gauge Model	Dial Size mm (in.)	End Connection		Dimensions, in. (mm)				
		Size in.	Type	A	B	C	D	E
B	63 (2 1/2)	1/4	Male NPT	3.15 (80.0)	3.28 (83.3)	1.30 (33.0)	0.39 (10.0)	—
			G1/4B (EN)	3.25 (82.6)	3.38 (85.9)			
			R1/4 (PT)	3.15 (80.0)	3.28 (83.3)			
	100 (4)	1/2	Male NPT	3.42 (86.9)	3.55 (90.2)	1.97 (50.0)	0.63 (16.0)	1.18 (30.0)
			G1/2B (EN)	4.12 (105)	4.24 (108)			
			R1/2 (PT)	4.18 (106)	4.30 (109)			
P	115 (4 1/2)	1/2	Male NPT	5.08 (129)	5.76 (146)	3.31 (84.0)	1.57 (40.0)	1.12 (28.5)
			G1/2B (EN)	5.24 (133)	5.92 (150)			
			R1/2 (PT)	5.30 (135)	5.98 (152)			
S	63 (2 1/2)	1/4	Male NPT	3.15 (80.0)	3.48 (88.4)	1.65 (42.0)	0.71 (18.0)	0.71 (18.0)
			G1/4B (EN)	3.25 (82.6)	3.58 (90.9)			
			R1/4 (PT)	3.15 (80.0)	3.48 (88.4)			
	100 (4)	1/2	Male NPT	3.42 (86.9)	3.75 (95.3)	2.28 (58.0)	0.94 (24.0)	1.18 (30.0)
			G1/2B (EN)	4.12 (105)	4.36 (111)			
			R1/2 (PT)	4.18 (106)	4.42 (112)			

Ordering Information

Build a PPG series gauge ordering number by combining the designators as shown below.

1
2
3
4
5
6
PPG - 100S - PG100 - L AO X

1 Series

PPG = Positionable pressure gauge

2 Dial Size and Model

- 63B** = 63 mm (2 1/2 in.) dial, B model
- 63S** = 63 mm (2 1/2 in.) dial, S model
- 100B** = 100 mm (4 in.) dial, B model
- 100S** = 100 mm (4 in.) dial, S model
- 115P** = 115 mm (4 1/2 in.) dial, P model

3 Dial Range

See page 3.

4 Process Connection Location

- L** = Lower mount (all dial sizes and models)
- B** = Lower-back mount (not available on B model with 63 mm dial)
- C** = Center-back mount (B model with 63 mm dial only)

5 Fitting Size and Type

63 mm (2 1/2 in.) Dial Size

- AO** = 1/4 in. male NPT
- AP** = 1/2 in. male NPT
- AV** = G1/4B (EN)
- BD** = R1/4 (PT)

100 mm (4 in.) Dial Size

- AO** = 1/4 in. male NPT
- AP** = 1/2 in. male NPT
- AW** = G1/2B (EN)
- BE** = R1/2 (PT)

115 mm (4 1/2 in.) Dial Size

- AO** = 1/4 in. male NPT
- AP** = 1/2 in. male NPT
- AW** = G1/2B (EN)
- BE** = R1/2 (PT)

3 Liquid Fill Fluid

(Not available on lower-back S model)

- X** = Unfilled
- 1** = Glycerin
- 2** = Low-temperature glycerin
- 3** = Silicone

⚠ Glycerin- and silicone-filled gauges cannot be used where strong oxidizing agents are present.

Dial Range Designators

The selected dial range should be approximately two times the system working pressure, and the system working pressure should be in the middle half (25 to 75 %) of the dial range. Contact your authorized Swagelok representative if the system working pressure will exceed 75 % of the dial range.

Maximum pressure may be limited by the end connection.

Not all dial ranges and end connections are available on all models.

All Models

Dial Range, psi (primary scale: psi; secondary scale: bar)		
Minimum	Maximum	Designator
Vacuum -30 in. Hg	0	PC0
	15	PC15
	30	PC30
	60	PC60
	100	PC100
	160	PC160
	200	PC200
0	15	PG15
	30	PG30
	60	PG60
	100	PG100
	160	PG160
	200	PG200
	300	PG300
	400	PG400
	600	PG600
	800	PG800
	1 000	PG1000
	1 500	PG1500
	2 000	PG2000
	3 000	PG3000 ^①
5 000	PG5000 ^①	
6 000	PG6000 ^①	
10 000	PG10K ^①	

^① Pressure range may be limited by materials of construction of the wetted components.

B and S Models

Dial Range, MPa (primary scale: MPa; no secondary scale)		
Minimum	Maximum	Designator
Vacuum -0.1 MPa	0	MC0
	0.06	MC.06
	0.15	MC.15
	0.30	MC.3
	0.50	MC.5
	0.90	MC.9
	1.5	MC1.5
0	0.1	MG.1
	0.16	MG.16
	0.25	MG.25
	0.40	MG.4
	0.60	MG.6
	1	MG1
	1.6	MG1.6
	2.5	MG2.5
	4	MG4
	6	MG6
	10	MG10
	16	MG16
	25	MG25
	40	MG40
60	MG60	

B and S Models

Dial Range, bar (primary scale: bar; secondary scale: psi)		
Minimum	Maximum	Designator
Vacuum -1 bar	0	BC0
	0.6	BC.6
	1.5	BC1.5
	3	BC3
	9	BC9
0	1	BG1
	1.6	BG1.6
	2.5	BG2.5
	4	BG4
	6	BG6
	10	BG10
	16	BG16
	25	BG25
	40	BG40
	60	BG60
	100	BG100
	160	BG160
	250	BG250
	400	BG400
600	BG600	

Safe Product Selection

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

WARNING

Do not mix/interchange Swagelok products or components not governed by industrial design standards, including Swagelok tube fitting end connections, with those of other manufacturers.

Warranty Information

Swagelok products are backed by The Swagelok Limited Lifetime Warranty. For a copy, visit swagelok.com or contact your authorized Swagelok representative.