

Pressure Gauges

General Purpose Gauge with ECE R110 Approval

PGN Series

- ECE R110 approval for use on compressed natural gas vehicles
- 50 and 63 mm (2 and 2 1/2 in.) dial sizes
- Orifice: 0.023 in. (0.58 mm)
- Polycarbonate lens for additional protection
- Transducer output available on 50 mm gauge with brass end connections



Technical Data

Dial Ranges

Positive-Pressure Gauges

- 0 to 40 MPa (400 bar, 6000 psi)

Accuracy

Stainless Steel End Connections

- 1.6 % of span (ASME B40.1, Grade B, EN 837-1 Class 1.6, JIS B7505 Class 1.6)

Brass End Connections

(50 mm dial size only)

- 2.5 % of span (ASME B40.1, Grade B, EN 837-1 Class 2.5, JIS B7505 Class 2.5)

Configurations

Center-back and lower mount

Dial Range Selection

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 sales and service representative if the system working pressure will exceed 75 % of the dial range.

End Connections

50 mm (2 in.) Dial Size

Stainless Steel End Connections

- 1/4 in. and 6 mm Swagelok® tube adapter
- 1/4 in. male NPT
- G1/4B (EN)

Brass End Connections

- 1/4 in. male NPT
- G1/4B (EN)

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

- 1/4 in. and 6 mm Swagelok tube adapter
- 1/4 in. male NPT
- G1/4B (EN)

Operating Temperature

Ambient

- Stainless steel end connections: -40 to 248°F (-40 to 120°C)
- Brass end connections: -40 to 248°F (-40 to 120°C); at ambient temperatures greater than 212°F (100°C), the maximum working pressure is limited to 3480 psig (240 bar) for a maximum of 8 h continuous operation

Media

- 392°F (200°C) maximum

Temperature Error

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

Electrical Data For Transducer Output

Available on 50 mm Dial Size with Brass End Connections

- Power supply:
 - 5 V(dc)/10 to 16 V (dc)
- Output signal:
 - 0.5 to 4.5 V (dc) for 3-pin female connector with AMP Superseal® or flying leads

Materials of Construction

Component	Material
<i>End connection</i>	316 SS ^①
<i>Bourdon tube</i>	
Case	304 SS
Movement	Stainless steel
Lens	Polycarbonate
Lens gasket	Buna N
Dial	Aluminum
Pointer	

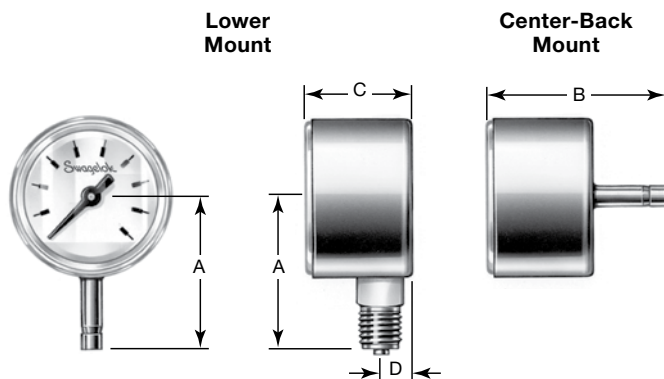
Wetted components listed in *italics*.

① Brass available on 50 mm dial size; see **Ordering Information**, next page.

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Dimensions

Dimensions are for reference only and are subject to change.



Dial Size mm (in.)	End Connection		Dimensions, in. (mm)			
	Size	Type	A	B	C	D
63 (2 1/2)	1/4 in. 6 mm	Swagelok tube adapter	2.25 (57.0)	2.32 (59.0)	1.26 (32.0)	0.47 (12.0)
		Male NPT	2.13 (54.0)	2.21 (56.0)		
	1/4 in.	G1/4B (EN)				
50 (2)	1/4 in. 6 mm	Swagelok tube adapter	1.97 (50.0)	2.29 (58.0)	1.10 (28.0)	0.43 (10.8)
		Male NPT	1.85 (47.0)	2.17 (55.0)		
	1/4 in.	G1/4B (EN)				

Ordering Information

Build a PGN series gauge ordering number by combining the designators as shown below. List option designators alphabetically.

1
2
3
4
5
6
PGN - 63 - CNG400 - L AQ - BE

1 Product Function and Type

Pressure gauge, ECE R110 approval

2 Dial Size and Model

50 = 50 mm (2 in.) dial
63 = 63 mm (2 1/2 in.) dial

3 Dial Range

CNG400 = 0 to 40 MPa (400 bar)
(MPa primary, bar secondary)

CNG6000 = 0 to 40 MPa (6000 psi)
(MPa primary, psi secondary)

4 Process Connection Location

L = Lower mount
C = Center-back mount

5 Fitting Size and Type

AQ = 1/4 in. Swagelok tube adapter^①
AS = 6 mm Swagelok tube adapter^①
AO = 1/4 in. male NPT
AV = G1/4B (EN)

^① Not available for gauges with brass end connection and Bourdon tube (option **R**).

6 Options

B = Certificate of calibration
E = Material certification (not available for gauges with brass end connection and Bourdon tube [option **R**])
R = Brass end connection and Bourdon tube (50 mm [2 in.] gauge [model **50**] only)

Transducer Output

Only available with brass end connection and Bourdon tube (option **R**)

T = Rear-mounted wire, 3-pin female connector with AMP Superseal
V = Rear-mounted wire, 3-wire flying leads

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.

Caution: Do not mix or interchange parts 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.

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