

# 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

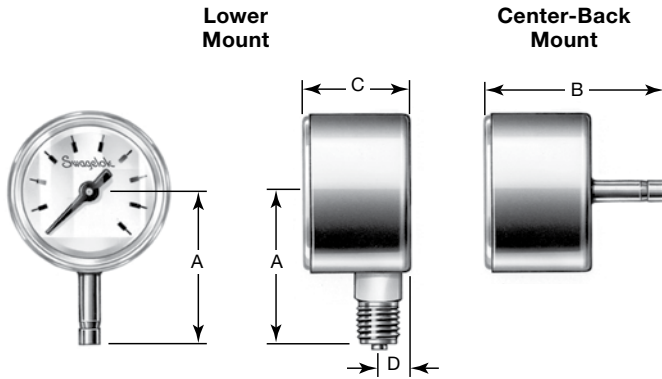
Component	Material
<i>End connection</i>	316 SS <sup>①</sup>
<i>Bourdon tube</i>	
Case	304 SS
Movement	Stainless steel
Lens	Polycarbonate
Lens gasket	Buna N
Dial	Aluminum
Pointer	

Wetted components listed in *italics*.

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

## 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 G1/4B (EN)	2.13 (54.0)	2.21 (56.0)		
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 G1/4B (EN)	1.85 (47.0)	2.17 (55.0)		

## 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<sup>①</sup>  
AS = 6 mm Swagelok tube adapter<sup>①</sup>  
AO = 1/4 in. male NPT  
AV = G1/4B (EN)

<sup>①</sup> 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](http://swagelok.com) or contact your authorized Swagelok representative.