

# Digital Pressure Gauge with 0.25% Accuracy

## Series: PG7



The PG7 digital pressure gauge is built for accurate pressure measurements in indoor/outdoor environments. With its ease of operation, high accuracy, and many standard features, the PG7 is perfect for a variety of applications.

### Features

- Large, full 5-digit display with 0.4 in. characters
- Available ranges from vacuum up to 30,000 psi
- Environmentally sealed housing
- Tare, Peak Hold, and Max/Min functions standard
- $\pm 0.25\%$  accuracy of full scale
- User selectable units of measure (psi, kPa, mmHg, cmHg, mbar, bar, inH<sub>2</sub>O, ftH<sub>2</sub>O, kg/cm<sup>2</sup>)
- Available RS-485/Modbus RTU output



# PG7 Specifications



## Performance

- Accuracy (linearity & hysteresis):  
 $\pm 0.25\%$  of full scale (BFSL)  
 $\pm 0.1\%$  accuracy in selected ranges
- Stability – One Year Zero Drift:  $< \pm 1\%$  FS
- Thermal Zero Shift:  $\pm 0.04\%$  FS/ °F
- Thermal Sensitivity Shift:  $\pm 0.04\%$  FS/ °F
- Life: 10 million cycles minimum
- Adjustments: Auto zero, Tare
- Overpressure:  
 Proof: 1.5x full scale  
 Burst: 3x full scale

## Connectivity

- Output Options:  
 4-20 mA, 0-2 VDC, 0-5 VDC, Solid State Relay, RS-485

## Environmental

- Compensated Temp: 20° - 130°F (-7° - 54°C)
- Storage Temp: -40° - 160°F (-40° - 71°C)
- Operating Temp: 0° - 160°F (-18° - 71°C)

## Certification

- NIST certification on select ranges

## Electrical

- Battery Option:  
 (2) AA alkaline (typical life 2,000 hrs)  
 Auto-off: 15 second - 32 minutes  
 Low battery detection with 25% increments
- External Power Option: 9-28 VDC
- 6-Pin Connector: R04-R6M

## Physical

- Size: 3.25" x 1.6" (82.6 x 40.6 mm)  
 Connection: 1.47" (37.3 mm)
- Weight: 0.36 lb (163 grams)
- Injected molded case (EMI-X® PDX-W-88341)
- Wetted materials:  
 316L SS: up to 5,000 psi  
 15-5 SS: 5,000 psi to 10,000 psi  
 Incoloy: 10,000 psi and above
- Display: 5 digit LCD, 0.4 in. digits

## Programming

- Programmable Features:  
 User selectable units of measure, Max/Min Reset & Reading, Peak-Hold, Tare, Sample Rate, Range Adjustment, Quick Calibration, Adjustable Resolution, Auto-Off

# Common Model Configurations

2 AA Batteries / No Output, 1/4" NPTM Bottom Port

Model Number	Model Description
PG7-15.00-PSIA-F0-L0-E0-C0-P0-N0	<b>0-15 PSI, Absolute</b> Pressure Reference
PG7-15.00-PSIG-F0-L0-E0-C0-P0-N0	<b>0-15 PSI, Gauge</b> Pressure Reference
PG7-30.00-PSIG-F0-L0-E0-C0-P0-N0	<b>0-30 PSI, Gauge</b> Pressure Reference
PG7-50.00-PSIG-F0-L0-E0-C0-P0-N0	<b>0-50 PSI, Gauge</b> Pressure Reference
PG7-100.00-PSIG-F0-L0-E0-C0-P0-N0	<b>0-100 PSI, Gauge</b> Pressure Reference
PG7-200.0-PSIG-F0-L0-E0-C0-P0-N0	<b>0-200 PSI, Gauge</b> Pressure Reference
PG7-300.0-PSIG-F0-L0-E0-C0-P0-N0	<b>0-300 PSI, Gauge</b> Pressure Reference
PG7-500.0-PSIG-F0-L0-E0-C0-P0-N0	<b>0-500 PSI, Gauge</b> Pressure Reference
PG7-1000-PSIS-F0-L0-E0-C0-P0-N0	<b>0-1,000 PSI, Sealed Gauge</b> Pressure Reference
PG7-5000-PSIS-F0-L0-E0-C0-P0-N0	<b>0-5,000 PSI, Sealed Gauge</b> Pressure Reference
PG7-10000-PSIS-F0-L0-E0-C0-P0-N0	<b>0-10,000 PSI, Sealed Gauge</b> Pressure Reference

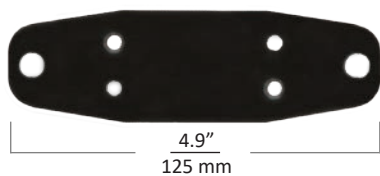
## PG7 Accessories

Please order separately, by part number.

Description	Part Number
6-pin circular mating connector (E1)	509110
6-pin circular mating connector (E1) with cable	509110-00BB (B=cable length)
Flush Panelmount bracket	512591
Flat mount bracket	110542-0002
Standoff Panelmount bracket	512599
Power supply w/8 pin terminal block (cable & mating connector not included)	511643
Rubber Boot	512626

## Mounting Bracket Options

Flat Mount Bracket (Black Acrylic 3/16")



Standoff Panelmount Bracket



Rubber Boot



Flush Panel-mount Bracket



# Model Configuration Options



Model Number: PG7 -      -      -      -      -      -      -      -     

A      B      C      D      E      F      G      H

## A. Common Pressure Ranges\*

- 5.000     50.00     200.0     1000     5000
- 15.00     60.00     300.0     2000     10000
- 30.00     100.00     500.0     3000     30000

\*Other ranges available

## B. Pressure Type

- PSIG**<sup>▲</sup>    Gauge (≤ 500 psi)
- PSICG**    Compound gauge (≤ 500 psi)
- PSIV**    Vacuum
- PSIA**    Absolute (≤ 500 psi)
- PSIS**    Sealed gauge (> 500 psi)

## C. Port

- F0**<sup>▲</sup>    Bottom
- F1**    Rear
- F2**    Bottom with O<sub>2</sub> clean
- F3**    Rear with O<sub>2</sub> clean
- F5-XX** \*    Remote transducer with mV sensor-bottom
- F6**    Rear port with panel bracket installed
- F7**    Bottom port with rubber boot installed
- F10-XX**\*    Remote transducer with mV sensor-rear

\*XX for feet of cable, 30 ft max.

## D. Operation (see Operation Table)

- L0-E0**<sup>▲</sup>    (2) AA batteries; no output
- L1-E1**\*†    4-20 mA (loop powered) output
- L2-E1**†    (2) AA batteries; 0-2 VDC output
- L3-E1**\*†    External power; 0-5 VDC output
- L4-E1**\*†    External Power; no output
- L5-E1**†    RS-485: External Power, Logging Software

- L8-E0**    (1) AA-size lithium battery; no output
- \*Auto-off options are not available with L1, L3, or L4  
†M12 connector available upon request.

## E. Relays

- C0**<sup>▲</sup>    No Solid-State Relays
- C2**††    (2) Solid-State Relays with Visual Indication  
- 120 mA max, 240 AC/DC max, @ 25°C (77°F)  
- 80 mA max, 240 AC/DC max, @ 60°C (140°F)

††Relays available with L3, L4, and L5 only.

## F. Process Connection\*

- P0**<sup>▲</sup>    1/4 - 18 NPTM
  - P7**    7/16 - 20 SAE Male
  - P14**    1/8 - 27 NPTM
  - P16**    PT 1/4 (BSPM 1/4)
  - P56**    F250C High Pressure (10,000 psi - 30,000 psi)
  - P57**    F560C40 High Pressure (10,000 psi - 30,000 psi)
- \*Other options available

## G. Accuracy

### 1-10,000 PSI

- N0**<sup>▲</sup>    ±0.25% (1% for pressure ≤ 1 psi)
- N1**\*    ±0.25% with NIST certification
- N2**\*    ±0.1% with NIST certification (select ranges)

\*Available only up to 5,000 psi for L2 and L3

### Up to 30,000 PSI

- N12**    ±0.5%
- N13**    ±0.5% with NIST certification

## H. Backlight

- H0**<sup>▲</sup>    None
  - H1**\*    Backlight
- \*Backlight available with L3, L4, or L5 only

## Operation Table

	L1: 4-20 mA	L2: 0-2 VDC	L3: 0-5 VDC	L5: RS-485
<b>Input Voltage (Excitation)</b>	9 VDC min - 28 VDC max	Battery Powered	9-28 VDC	12-28 VDC
<b>Input Current</b>	3-30 mA max		6 mA max	6 mA max
<b>Output</b>	4-20 mA ±0.16 mA at set points	Zero set point ±0.15 C with a 2 VDC span V0.02 VDC	0-5 VDC / ±0.05 VDC at set points	RS-485 Modbus RTU
<b>Wiring</b>	2 wire loop powered	2 wire	3 wire Non-isolated	4 wire
<b>Resolution</b>	14 bit	14 bit	14 bit	
<b>Protection</b>	Reversed Polarity		Reversed Polarity	Reversed Polarity
<b>Backlight</b>	No	No	Yes	Yes

Note: <sup>▲</sup>Indicates this option is standard.