

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, inH₂O, ftH₂O, kg/cm²)
- 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	0-15 PSI, Absolute Pressure Reference
PG7-15.00-PSIG-F0-L0-E0-C0-P0-N0	0-15 PSI, Gauge Pressure Reference
PG7-30.00-PSIG-F0-L0-E0-C0-P0-N0	0-30 PSI, Gauge Pressure Reference
PG7-50.00-PSIG-F0-L0-E0-C0-P0-N0	0-50 PSI, Gauge Pressure Reference
PG7-100.00-PSIG-F0-L0-E0-C0-P0-N0	0-100 PSI, Gauge Pressure Reference
PG7-200.0-PSIG-F0-L0-E0-C0-P0-N0	0-200 PSI, Gauge Pressure Reference
PG7-300.0-PSIG-F0-L0-E0-C0-P0-N0	0-300 PSI, Gauge Pressure Reference
PG7-500.0-PSIG-F0-L0-E0-C0-P0-N0	0-500 PSI, Gauge Pressure Reference
PG7-1000-PSIS-F0-L0-E0-C0-P0-N0	0-1,000 PSI, Sealed Gauge Pressure Reference
PG7-5000-PSIS-F0-L0-E0-C0-P0-N0	0-5,000 PSI, Sealed Gauge Pressure Reference
PG7-10000-PSIS-F0-L0-E0-C0-P0-N0	0-10,000 PSI, Sealed Gauge 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**▲ Gauge (≤ 500 psi)
- PSICG** Compound gauge (≤ 500 psi)
- PSIV** Vacuum
- PSIA** Absolute (≤ 500 psi)
- PSIS** Sealed gauge (> 500 psi)

C. Port

- F0**▲ Bottom
- F1** Rear
- F2** Bottom with O₂ clean
- F3** Rear with O₂ 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**▲ (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**▲ 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**▲ 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***▲ ±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**▲ 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
Input Voltage (Excitation)	9 VDC min - 28 VDC max	Battery Powered	9-28 VDC	12-28 VDC
Input Current	3-30 mA max		6 mA max	6 mA max
Output	4-20 mA ±0.16 mA at set points	Zero set point ±0.15 VDC with a 2 VDC span V0.02 VDC	0-5 VDC / ±0.05 VDC at set points	RS-485 Modbus RTU
Wiring	2 wire loop powered	2 wire	3 wire Non-isolated	4 wire
Resolution	14 bit	14 bit	14 bit	
Protection	Reversed Polarity		Reversed Polarity	Reversed Polarity
Backlight	No	No	Yes	Yes

Note: ▲ Indicates this option is standard.