

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):
±0.25% of full scale (BFSL)
±0.1% accuracy in selected ranges
- Stability – One Year Zero Drift: <±1% FS
- Thermal Zero Shift: ±0.04% FS/ °F
- Thermal Sensitivity Shift: ±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 O ₂ clean |
| ☐ F3 | Rear with O ₂ 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 *▲ | $\pm 0.25\%$ (1% for pressure ≤ 1 psi) |
| ☐ N1 * | $\pm 0.25\%$ with NIST certification |
| ☐ N2 * | $\pm 0.1\%$ with NIST certification (select ranges) |

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

Up to 30,000 PSI

- | | |
|-------------------------------------|-------------------------------------|
| ☐ N12 | $\pm 0.5\%$ |
| ☐ N13 | $\pm 0.5\%$ 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 C with a 2 VDC span ± 0.02 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.