DPG1000 Series

- Vacuum to 5000 psi Ranges
- ±0.25% and ±0.10% Accuracy Models
- 316 SS Wetted Parts
- Loop Test Function
- Easy-to-Read 3½ Digit LCD
- Pressure or Vacuum Applications
- Rugged Aluminum or NEMA 4X (IP66) Case

The DPG1000 Series is a versatile family of industrial pressure/vacuum gauges. All DPG1000 models feature a large 13 mm (½”) high digital display in a rugged, splashproof extruded aluminum case.

A ¼-18 NPT 316 stainless steel fitting is standard for the pressure connection. Media compatibility includes all liquids and gases compatible with 316 SS.

The DPG1000B Series features a wide operating temperature range of -20 to 85°C (-4 to 185°F). Many standard pressure/vacuum ranges (in a choice of engineering units) with both gauge and absolute references are available. The series also features ± 2x overpressure, and 4x burst specifications, and are available with either 0.25% or 0.10% accuracy.

DPG1000AD (AC/DC Powered)
The DPG1000AD is powered by either 8 to 24 Vac, or 9 to 32 Vdc. No recalibration is needed, and no jumpers have to be moved to use either AC or DC power within the specified range.

No polarity needs to be observed when connecting a DC supply. Therefore, the DPG1000AD can be used with inexpensive, unregulated AC or DC power sources in applications requiring continuous pressure display.

- Battery-, Loop-, and AC-Powered Digital Pressure Gauges
- Backlit Display Optional!
- Visit omega.com for Pressure Snubbers

DPG1000B (Battery Powered)
The DPG1000B is powered by standard AA batteries that can operate the gauge for approximately 2500 hours. All DPG1000B models include a standard 5 minute auto shut-off feature to conserve battery life. Low-battery indication is also standard. An optional rubber boot (DPG1000-RB) is available. Requiring no electrical connection, the DPG1000B works equally well in portable or fixed applications.

DPG1000L (Loop Powered)
All operating power for the DPG1000L gauge is supplied by the 4 to 20 mA output loop. This “2-wire” connection lets the DPG1000L operate as a digital indicating transmitter in any 4 to 20 mA current loop application. Individual, non-interactive controls are available for the zero/span display and the output loop 4 to 20 mA settings.

Connection to the DPG1000L is made via a 2-conductor cable at the back of the gauge.

A front-accessible TEST pushbutton switches the display and output loop to a preset level determined by the setting of a “Test Calibration” potentiometer. This feature allows easy testing of the display and process loop with a preset input signal in place of the actual input. The DPG1000L also includes “low loop” warning circuitry. This circuitry indicates on the display when the loop supply voltage falls below a level that may not be sufficient to drive a full 20 mA into the loop load resistance. These 2 proprietary features make the DPG1000L easier to set up and maintain.
DIGITAL PRESSURE GAUGES ±0.10 AND 0.25% ACCURACY MODELS

SPECIFICATIONS

Power: 2 “AA” batteries (included), provide
B Models: Up to 2500 hr life typically; auto shut-off: 5 min; LOBAT indication
L Models: 8 to 32 Vdc at gauge; reverse polarity protected
AD Models: 8 to 24 Vac 50 to 60 Hz or 9 to 32 Vdc; 5 mA max

Pressure/Vacuum Reference:
Gage (psig) or absolute (psia)

Optional Units:
Gauge can be factory scaled to any engineering unit such as psi, kPa, bar, inHg, inH₂O, mmHg, ftH₂O, torr, kg/cm²

Display Type/Size:
LCD, 13 mm (0.5”) digit height, 3 readings per second

Controls and Location:
B and AD models: Display zero/span, non-interactive, ±15% range; top-accessible, multiturn potentiometers
L Models: Display zero/span, non-interactive, ±15% range; test calibration level, 0 to 100% range; top-accessible, multiturn potentiometers; loop 4 mA and 20 mA internal potentiometers

Accuracy:
DPG1000/1100: ±0.25% FSO or better, ±1 least significant digit (includes linearity, hysteresis, repeatability)
DPG1001: ±0.10% FSO or better, ±1 least significant digit (includes linearity, hysteresis, repeatability)

Temperature Stability [25°C (77°F)]:
DPG1000/1100: ±0.25% FSO or better, ±1 least significant digit (includes linearity, hysteresis, repeatability) ±1% FS for offset and span, 0 to 70°C (32 to 158°F) typical; ±2% FS for offset and span, 0 to 70°C (32 to 158°F) typical for 3 and 5 psi range

DPG1001: ±0.003% FSO or better, ±1 least significant digit (includes linearity, hysteresis, repeatability); NIST traceable certificate included

Operating Temperature: -20 to 85°C (-4 to 185°F)
Compensated Temperature: 0 to 70°C (32 to 158°F)
Storage Temperature: -55 to 95°C (-67 to 203°F)
Weight: Approx. 255 g (9 oz)

Standard Case: Extruded aluminum case, epoxy powder coated; polycarbonate cover, front and rear gaskets
NEMA 4X Case (DPG1100 models): UV stabilized polycarbonate/ABS case, clear polycarbonate window, gasketed rear cover, captive SS screws

Pressure/Vacuum Connection: 316 SS, ¼-18 MNPT
Wetted Parts: 316 SS

Electrical Connection:
0.9 m (3’) 2-conductor 22 AWG cable (none required on DPG1000B)

Overpressure: 2x rated pressure min

Burst Pressure: 4x rated pressure min

OPTIONS

ORDER SUFFIX DESCRIPTION
-F10 10 min auto shut-off for DPG1000B units
-F30 30 min auto shut-off for DPG1000B units
-NS No auto shut-off for DPG1000B units
BL Backlit display*

* Not available with DPG1000L models, with compound range “30V100G” models, or with DPG1001 models.

ACCESSORIES

MODEL NO. DESCRIPTION
DPG1000-PS Wall mount 115 Vac power supply for DPG1000AD units
DPG1000-RB Rubber boot for DPG1000B units

Dimensions: mm (inch)

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<tr>
<td>Std Case</td>
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<td>NEMA 4X</td>
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G-15
Comes complete with operator's manual. DPG1001 models also include NIST-traceable calibration certificate.

15, 30 and 100 psi models available with absolute pressure range on DPG1000B models. Change model number from "-15G" to "-15A", "-30G" to "-30A", or "-100G" to "-100A", and add additional cost to price.

**Ordering Examples:**
- DPG1000B-100G, ±0.25% battery-powered digital gauge, 0 to 100.0 psig range.
- DPG1000BBL-60G, battery-powered ±0.25% unit, 60 psi range.
- DPG1001L-500G, ±0.1% loop-powered digital gauge, 0 to 500 psig range.

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<th>RANGE (PSI)</th>
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