

# BATTERY-, LOOP-, AND AC-POWERED DIGITAL PRESSURE GAUGES

Three Power Options: Battery, Loop, or AC/DC

See Page G-16 for Ordering Information

Backlit Display Optional!

## DPG1000 Series



DPG1001 Models

- ✓ Vacuum to 5000 psi Ranges
- ✓  $\pm 0.25\%$  and  $\pm 0.10\%$  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  $\pm 2x$  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.



DPG1000AD-30G shown smaller than actual size.

DPG1000B-300G shown smaller than actual size.



### 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-300G shown smaller than actual size.



Visit [omega.com](http://omega.com) for Pressure Snubbers

### 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



DPG1000AD-30G shown smaller than actual size.



DPG1100B-1KG with NEMA 4X case shown smaller than actual size.

To order NEMA 4X case, specify model number DPG1100.

## 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, mbar, inHg, inH<sub>2</sub>O, mmHg, ftH<sub>2</sub>O, torr, kg/cm<sup>2</sup>

**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; poly-carbonate cover, front and rear gaskets

**NEMA 4X Case (DPG1100 models):** UV stabilized polycarbonate/ABS case, clear polycarbonate window, gasketed rear cover, captive SS screws

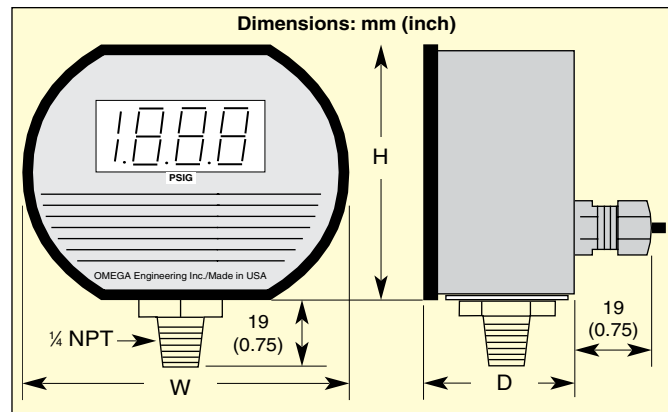
**Pressure/Vacuum Connection:** 316 SS, ¼-18 MNPT

**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



Dimensions: mm (inch)

	W	H	D
Std Case	86 (3.38)	73 (2.88)	42 (1.65)
NEMA 4X	89 (3.5)	76 (3.0)	51 (2.0)

## OPTIONS

ORDER SUFFIX	DESCRIPTION
-F10	10 min auto shut-off for DPG1000B units
-F30	30 min auto shut-off for DPG1000B unit
-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 DP1000B units



<b>To Order</b>			
<b>RANGE (PSI)</b>	<b>±0.25% ACCURACY STANDARD CASE</b>	<b>±0.25% ACCURACY NEMA 4X CASE</b>	<b>±0.10% ACCURACY STANDARD CASE</b>
<b>BATTERY POWERED</b>			
-30 inHg to 100.0	<b>DPG1000B-30V100G</b>	<b>DPG1100B-30V100G</b>	—
0 to 5.00	<b>DPG1000B-05G</b>	<b>DPG1100B-05G</b>	<b>DPG1001B-05G</b>
0 to 15.00	<b>DPG1000B-15G</b>	<b>DPG1100B-15G</b>	<b>DPG1001B-15G</b>
0 to 30.0	<b>DPG1000B-30G</b>	<b>DPG1100B-30G</b>	—
0 to 60.0	<b>DPG1000B-60G</b>	<b>DPG1100B-60G</b>	<b>DPG1001B-60G</b>
0 to 100.0	<b>DPG1000B-100G</b>	<b>DPG1100B-100G</b>	<b>DPG1001B-100G</b>
0 to 300	<b>DPG1000B-300G</b>	<b>DPG1100B-300G</b>	—
0 to 500	<b>DPG1000B-500G</b>	<b>DPG1100B-500G</b>	<b>DPG1001B-500G</b>
0 to 1000	<b>DPG1000B-1KG</b>	<b>DPG1100B-1KG</b>	<b>DPG1001B-1KG</b>
0 to 2000	<b>DPG1000B-2KG</b>	<b>DPG1100B-2KG</b>	—
0 to 3000	<b>DPG1000B-3KG</b>	—	—
0 to 5000	<b>DPG1000B-5KG</b>	—	—
<b>LOOP POWERED-BACKLIGHT NOT AVAILABLE</b>			
0 to 5.00	<b>DPG1000L-05G</b>	<b>DPG1100L-05G</b>	<b>DPG1001L-05G</b>
0 to 15.00	<b>DPG1000L-15G</b>	<b>DPG1100L-15G</b>	<b>DPG1001L-15G</b>
0 to 30.0	<b>DPG1000L-30G</b>	<b>DPG1100L-30G</b>	—
0 to 60.0	<b>DPG1000L-60G</b>	<b>DPG1100L-60G</b>	<b>DPG1001L-60G</b>
0 to 100.0	<b>DPG1000L-100G</b>	<b>DPG1100L-100G</b>	<b>DPG1001L-100G</b>
0 to 300	<b>DPG1000L-300G</b>	<b>DPG1100L-300G</b>	—
0 to 500	<b>DPG1000L-500G</b>	<b>DPG1100L-500G</b>	<b>DPG1001L-500G</b>
0 to 1000	<b>DPG1000L-1KG</b>	<b>DPG1100L-1KG</b>	<b>DPG1001L-1KG</b>
0 to 2000	<b>DPG1000L-2KG</b>	<b>DPG1100L-2KG</b>	—
0 to 3000	<b>DPG1000L-3KG</b>	—	—
0 to 5000	<b>DPG1000L-5KG</b>	—	—
<b>AC/DC POWERED</b>			
-30 inHg to 100.0	<b>DPG1000AD-30V100G</b>	<b>DPG1100AD-30V100G</b>	—
0 to 5.00	<b>DPG1000AD-05G</b>	<b>DPG1100AD-05G</b>	<b>DPG1001AD-05G</b>
0 to 15.00	<b>DPG1000AD-15G</b>	<b>DPG1100AD-15G</b>	<b>DPG1001AD-15G</b>
0 to 30.0	<b>DPG1000AD-30G</b>	<b>DPG1100AD-30G</b>	—
0 to 60.0	<b>DPG1000AD-60G</b>	<b>DPG1100AD-60G</b>	<b>DPG1001AD-60G</b>
0 to 100.0	<b>DPG1000AD-100G</b>	<b>DPG1100AD-100G</b>	<b>DPG1001AD-100G</b>
0 to 300	<b>DPG1000AD-300G</b>	<b>DPG1100AD-300G</b>	—
0 to 500	<b>DPG1000AD-500G</b>	<b>DPG1100AD-500G</b>	<b>DPG1001AD-500G</b>
0 to 1000	<b>DPG1000AD-1KG</b>	<b>DPG1100AD-1KG</b>	<b>DPG1001AD-1KG</b>
0 to 2000	<b>DPG1000AD-2KG</b>	<b>DPG1100AD-2KG</b>	—
0 to 3000	<b>DPG1000AD-3KG</b>	—	—
0 to 5000	<b>DPG1000AD-5KG</b>	—	—

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.