

# DPG1000 Series

## Battery-, Loop-, and AC-Powered digital Pressure Gauges



Optional  
NIST Available On  
DPG1001 Models

See Page G-16  
for Ordering  
Information

- Three power options: Battery, Loop, or AC / DC
- Vacuum to 5000 psi ranges
- $\pm 0.25\%$  and  $\pm 0.10\%$  accuracy models
- 316 SS wetted parts
- Loop test function
- Easy-to-Read 3 1/2 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 ( 1/2 ") high digital display in a rugged, splash-proof, extruded, aluminum case.

A 1/4 - 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 V AC, or 9 to 32 V DC. 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

Backlit  
Display  
Optional

### 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

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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 push button 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.

## Battery-, Loop-, and AC-Powered Digital Pressure Gauges



DPG1000L-300G  
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 V DC at gauge; reverse polarity protected

**AD Models:** 8 to 24 V AC 50 to 60 Hz or 9 to 32 V DC; 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,  $\pm 15\%$  range; top-accessible, multi-turn potentiometers

**L Models:** Display zero/span, non-interactive,  $\pm 15\%$  range; test calibration level, 0 to 100 % range; top-accessible, multi-turn potentiometers; loop 4 mA and 20 mA internal potentiometers

#### Accuracy:

**DPG1000/1100:**  $\pm 0.25\%$  FSO or better,  $\pm 1$  least significant digit (includes linearity, hysteresis, repeatability)

**DPG1001:**  $\pm 0.10\%$  FSO or better,  $\pm 1$  least significant digit (includes linearity, hysteresis, repeatability)

#### Temperature Stability [25 °C (77 °F)]:

**DPG1000/1100:**  $\pm 0.25\%$  FSO or better,  $\pm 1$  least significant digit (includes linearity, hysteresis, repeatability)  $\pm 1\%$  FS for offset and span, 0 to 70 °C (32 to 158 °F) typical;  $\pm 2\%$  FS for offset and span, 0 to 70 °C (32 to 158 °F) typical for 3 and 5 psi range

**DPG1001:**  $\pm 0.003\%$  FSO or better,  $\pm 1$  least significant digit (includes linearity, hysteresis, repeatability); optional 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, 1/4 - 18 MNPT

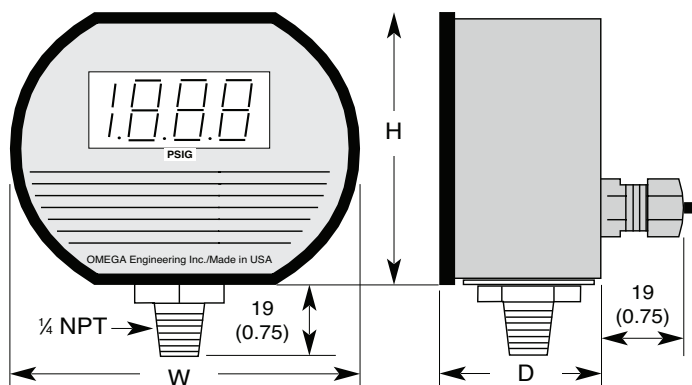
**Wetted Parts:** 316 SS

**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)



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

#### Options

Order Suffix	Description
<b>-F10</b>	10 min auto shut-off for DPG1000B units
<b>-F30</b>	30 min auto shut-off for DPG1000B units
<b>-NS</b>	No auto shut-off for DPG1000B units
<b>BL</b>	Backlit display*

\*Not available with DPG1000L models, with compound range "30 V 100 G" models, or with DPGL1001 models.

#### Accessories

Model No.	Description
<b>DPG1000-PS</b>	Wall mount 115 V AC power supply for DPG1000AD units
<b>DPG1000-RB</b>	Rubber boot for DPG1000B units

To Order			
Range (PSI)	± 0.25 % Accuracy Standard Case	± 0.25 % Accuracy NEMA 4X Case	± 0.10 % Accuracy Standard Case
<b>Battery Powered</b>			
-30 inHg to 100.0	DPG1000B-30V100G	DPG1100B-30V100G	-
0 to 5.00	DPG1000B-05G	DPG1100B-05G	DPG1001B-05G
0 to 15.00	DPG1000B-15G	DPG1100B-15G	DPG1001B-15G
0 to 30.0	DPG1000B-30G	DPG1100B-30G	-
0 to 60.0	DPG1000B-60G	DPG1100B-60G	DPG1001B-60G
0 to 100.0	DPG1000B-100G	DPG1100B-100G	DPG1001B-100G
0 to 300	DPG1000B-300G	DPG1100B-300G	-
0 to 500	DPG1000B-500G	DPG1100B-500G	DPG1001B-500G
0 to 1000	DPG1000B-1KG	DPG1100B-1KG	DPG1001B-1KG
0 to 2000	DPG1000B-2KG	DPG1100B-2KG	-
0 to 3000	DPG1000B-3KG	-	-
0 to 5000	DPG1000B-5KG	-	-
<b>Loop Powered - Backlight Not Available</b>			
0 to 5.00	DPG1000L-05G	DPG1100L-05G	DPG1001L-05G
0 to 15.00	DPG1000L-15G	DPG1100L-15G	DPG1001L-15G
0 to 30.0	DPG1000L-30G	DPG1100L-30G	-
0 to 60.0	DPG1000L-60G	DPG1100L-60G	DPG1001L-60G
0 to 100.0	DPG1000L-100G	DPG1100L-100G	DPG1001L-100G
0 to 300	DPG1000L-300G	DPG1100L-300G	-
0 to 500	DPG1000L-500G	DPG1100L-500G	DPG1001L-500G
0 to 1000	DPG1000L-1KG	DPG1100L-1KG	DPG1001L-1KG
0 to 2000	DPG1000L-2KG	DPG1100L-2KG	-
0 to 3000	DPG1000L-3KG	-	-
0 to 5000	DPG1000L-5KG	-	-
<b>AC / DC Powered</b>			
-30 inHg to 100.0	DPG1000AD-30V100G	DPG1100AD-30V100G	-
0 to 5.00	DPG1000AD-05G	DPG1100AD-05G	DPG1001AD-05G
0 to 15.00	DPG1000AD-15G	DPG1100AD-15G	DPG1001AD-15G
0 to 30.0	DPG1000AD-30G	DPG1100AD-30G	-
0 to 60.0	DPG1000AD-60G	DPG1100AD-60G	DPG1001AD-60G
0 to 100.0	DPG1000AD-100G	DPG1100AD-100G	DPG1001AD-100G
0 to 300	DPG1000AD-300G	DPG1100AD-300G	-
0 to 500	DPG1000AD-500G	DPG1100AD-500G	DPG1001AD-500G
0 to 1000	DPG1000AD-1KG	DPG1100AD-1KG	DPG1001AD-1KG
0 to 2000	DPG1000AD-2KG	DPG1100AD-2KG	-
0 to 3000	DPG1000AD-3KG	-	-
0 to 5000	DPG1000AD-5KG	-	-

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.

