

# HIGH-ACCURACY DIGITAL PRESSURE GAUGES WITH NIST CERTIFICATION

**Three Power Options: Battery Powered, Loop Powered, AC/DC Powered**

## DPG1001 Series



- ✓ NIST Certification Included
- ✓ High-Accuracy  $\pm 0.10\%$  Test Gauge
- ✓ 316 SS Wetted Parts
- ✓ Easy-to-Read  $3\frac{1}{2}$  Digit LCD
- ✓ Rugged Aluminum Case

The DPG1001 Series is a versatile family of industrial pressure gauges. All DPG1001 models feature a large 13 mm H ( $\frac{1}{2}$ " ) digital display in a rugged, splashproof extruded aluminum case.

A  $\frac{1}{4}$ -18 NPT 316 stainless steel fitting is standard for the pressure connection. Media compatibility includes all liquids and gases compatible with 316 SS.

The DPG1001B features a wide operating temperature range of  $-20$  to  $85^{\circ}\text{C}$  ( $-4$  to  $185^{\circ}\text{F}$ ). Many standard pressure ranges are available. The DPG1001 Series also features  $\pm 0.10\%$  accuracy, 2x overpressure, and 4x burst specifications.

### DPG1001AD (AC/DC Powered)

The DPG1001AD is powered by any AC source of 8 to 24 Vac 50/60 Hz or any DC source of 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 DPG1001AD can be used with inexpensive, unregulated AC or DC power sources in applications requiring continuous pressure display.



DPG1001AD-100G shown smaller than actual size.



DPG1001B-100G shown smaller than actual size.

### DPG1001B (Battery Powered)

The DPG1001B is powered by replaceable batteries that can operate the gauge for approximately 2500 hours. All DPG1001B models include standard auto shut-off circuitry to conserve battery life. A low-battery indication is also standard. An optional rubber boot (DPG1000-RB) is available as well.

Requiring no electrical connection, the DPG1001B is equally suited to portable or fixed applications.

DPG1001L-100G shown smaller than actual size.



### DPG1001L (Loop Powered)

All operating power for the DPG1001L gauge is supplied by the 4 to 20 mA output loop. This "2-wire" connection allows the DPG1001L to be used 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 DPG1001L 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 DPG1001L 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 DPG1001L easier to set up and maintain.

# HIGH-ACCURACY DIGITAL PRESSURE GAUGES

## SPECIFICATIONS

### Power:

- DPG1001B:** 2 "AA" batteries (included) provide up to 2500 hr life typically; auto shut-off: 5 minutes; LOBAT indication
- DPG1001L:** 8 to 32 Vdc at gauge; reverse polarity protected
- DPG1001AD:** 8 to 24 Vac 50/60 Hz or 9 to 32 Vdc; 5 mA max

**Standard Ranges:** 0 to 5.00, 0 to 15.00, 0 to 100.0, 0 to 500, 0 to 1000 psi gauge

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

### Controls and Location:

- DPG1001B and DPG1001AD:** Display zero/span, non-interactive,  $\pm 15\%$  range; top-accessible, multiturn potentiometers
- DPG1001L:** Display zero/span, non-interactive,  $\pm 15\%$  range; test calibration level, 0 to 100% range; top-accessible, multiturn potentiometers; loop 4 mA and 20 mA internal potentiometers

**Accuracy:**  $\pm 0.10\%$  FSO or better,  $\pm 1$  least-significant digit (includes linearity, hysteresis, repeatability); NIST certificate included

### Temperature Stability:

$\pm 0.003\%$  of span per  $^{\circ}\text{C}$  (typical)  
 $\pm 0.01\%$  of span per  $^{\circ}\text{C}$  (max)  
 0 to  $70^{\circ}\text{C}$  ( $-18$  to  $158^{\circ}\text{F}$ )

**Storage Temperature:**  $-55$  to  $95^{\circ}\text{C}$  ( $-67$  to  $203^{\circ}\text{F}$ )

**Operating Temperature:**  $-20$  to  $85^{\circ}\text{C}$  ( $-4$  to  $185^{\circ}\text{F}$ )

### Compensated Temperature:

0 to  $70^{\circ}\text{C}$  ( $32$  to  $158^{\circ}\text{F}$ )

**Weight:** Approx. 255 g (9 oz)

**Standard Case:** Extruded aluminum case, epoxy powder coated; polycarbonate cover, front and rear gaskets

### Pressure Connection:

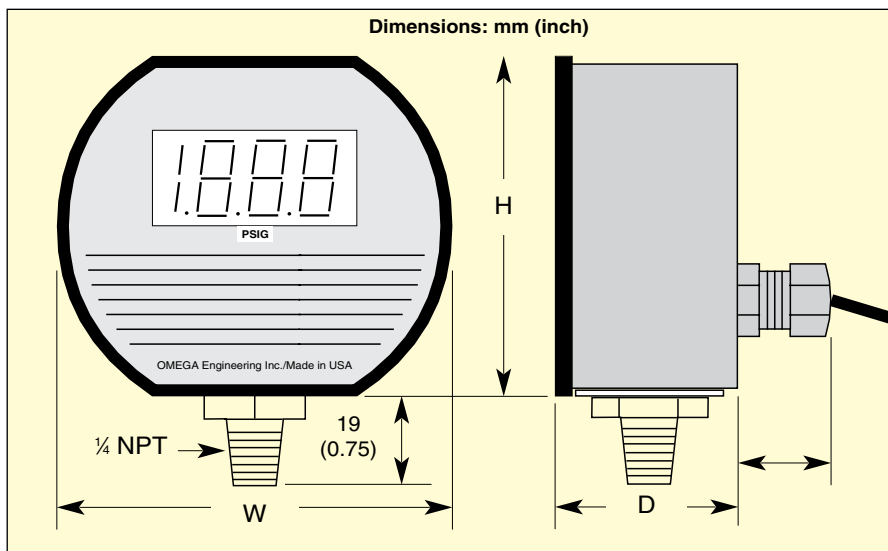
316 SS,  $\frac{1}{4}$ -18 MNPT

**Wetted Parts:** 316 SS

**Electrical Connection:** 0.9 m (3') 2-conductor 22 AWG cable (none required on DPG1001B)

**Overpressure:** 2x rated pressure min

**Burst Pressure:** 4x rated pressure min



Dimensions: mm (inch)

	W	H	D
Standard Case	86 (3.38)	73 (2.88)	42 (1.65)

## To Order Visit [omega.com/dpg1001](http://omega.com/dpg1001) for Pricing and Details

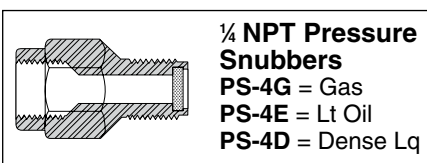
RANGE (psi)	MODEL NO.	COMPATIBLE METERS
<b>BATTERY POWERED - STANDARD CASE</b>		
0 to 5.00	<b>DPG1001B-05G</b>	N/A
0 to 15.00	<b>DPG1001B-15G</b>	N/A
0 to 100.0	<b>DPG1001B-100G</b>	N/A
0 to 500	<b>DPG1001B-500G</b>	N/A
0 to 1000	<b>DPG1001B-1KG</b>	N/A
<b>LOOP POWERED - STANDARD CASE</b>		
0 to 5.00	<b>DPG1001L-05G</b>	DP41-E, DP25B-E, DP24-E
0 to 15.00	<b>DPG1001L-15G</b>	DP41-E, DP25B-E, DP24-E
0 to 100.0	<b>DPG1001L-100G</b>	DP41-E, DP25B-E, DP24-E
0 to 500	<b>DPG1001L-500G</b>	DP41-E, DP25B-E, DP24-E
0 to 1000	<b>DPG1001L-1KG</b>	DP41-E, DP25B-E, DP24-E
<b>AC/DC POWERED - STANDARD CASE</b>		
0 to 5.00	<b>DPG1001AD-05G</b>	N/A
0 to 15.00	<b>DPG1001AD-15G</b>	N/A
0 to 100.0	<b>DPG1001AD-100G</b>	N/A
0 to 500	<b>DPG1001AD-500G</b>	N/A
0 to 1000	<b>DPG1001AD-1KG</b>	N/A

Comes complete with operator's manual.

To order wall-mount 115 Vac power supply, specify **DPG1000-PS**.

Custom ranges not available.

**Ordering Example:** **DPG1001B-100G**, high-accuracy battery-powered digital gauge with a range of 0 to 100.0 psig, NIST certificate included.



## ACCESSORY

MODEL NO.	DESCRIPTION
<b>DPG1000-PS</b>	Wall-mount 115 Vac power supply