

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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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, 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, multi-turn potentiometers

L Models: Display zero/span, non-interactive, ± 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: ± 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); 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

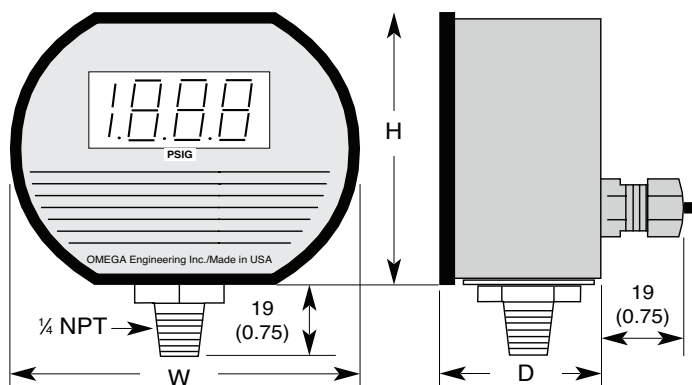
Wetted Parts: 316 SS

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)



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 units
-NS	No auto shut-off for DPG1000B units
BL	Backlit display*

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

Accessories

Model No.	Description
DPG1000-PS	Wall mount 115 V AC power supply for DPG1000AD units
DPG1000-RB	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
Battery Powered			
-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	-	-
Loop Powered - Backlight Not Available			
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	-	-
AC / DC Powered			
-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.