

Falcon DPG1000AD Digital Pressure Gauge

Low Voltage AC or DC Powered

- $\pm 0.25\%$ Test Gauge Accuracy
- 316 Stainless Steel Wetted Parts
- Powered by 8-24 VAC or 9-32 VDC
- Rugged Extruded Aluminum Case

ELECTRICAL SPECIFICATIONS

Standard ranges and resolution

-30.0 inHg vacuum to 100.0 psig Compound,
30.0 inHg vacuum,
 ± 15.00 psig
3.00, 5.00, 10.00, 15.00, 19.99 psig,
30.0, 50.0, 100.0, 199.9 psig,
300, 500, 1000, 3000, 5000 psig
Absolute reference: 15.00, 30.0, 100.0 psia

Optional units

Convert standard ranges for other engineering units such as kPa, atm, bar, mbar, inHg, mmHg, inH₂O, ftH₂O, torr, kg/cm², cmH₂O, oz/in²

Display (type, size, update rate)

3½ digit LCD, ½" digit height
4 digit LCD, 0.4" digit height for 2000 psi or higher
3 readings per second nominal display update rate
Red LED backlight, on at all times

Controls & location

Display zero/span; non-interactive, $\pm 15\%$ range
Top-accessible multiturn potentiometers

Accuracy (linearity, hysteresis, repeatability)

$\pm 0.25\%$ of full scale or better, ± 1 least significant digit

Temperature stability

$\pm 0.003\%$ of span per degree C (typical)
 $\pm 0.01\%$ of span per degree C (max) 0 to 70°C

Power

Any AC source of 8 to 24 VAC 50/60 Hz
or any DC source of 9 to 32 VDC
75 mA maximum
Order optional WMPK 12 VDC wall mount power supply kit to operate on 115 VAC.

ENVIRONMENTAL SPECIFICATIONS

Storage temperature

-55 to +95°C

Operating temperature

-20 to +85°C

Compensated temperature

0 to +70°C



DPG1000AD with
30.0 psig range

MECHANICAL SPECIFICATIONS

Size

3.38"W x 2.88"H x 1.65"D (not including pressure fitting or cable strain relief). Add approximately 0.75" to height for pressure fitting and 1" to depth for strain relief and wire clearance.

Weight (approximate)

Gauge: 9 ounces, Shipping weight: 1 pound

Material

Extruded aluminum case, epoxy powder coated
Polycarbonate cover, front and rear gaskets

Color

Light gray body, light gray/blue front

Pressure/vacuum connection and material

¼" NPT male, 316 stainless steel

Media compatibility

All wetted parts are 316 SS
Compatible with most liquids and gases

Electrical connection

3 foot long, 2-conductor 22AWG cable

Overpressure

5000 psig for 3000 psig range, 7500 psig for 5000 psig range
All others; 2x rated pressure minimum

Burst pressure

4x rated pressure minimum or 10,000 psi, whichever is less



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Description

The DPG1000 series is a versatile family of industrial pressure/vacuum gauges featuring a rugged, splashproof extruded aluminum case. A 1/4" NPT 316 stainless steel fitting is standard for the pressure connection. Media compatibility includes any liquids or gases compatible with 316 stainless steel.

The DPG1000 features a wide operating temperature range of -20 to +85°C. Many different standard pressure/vacuum ranges (in a choice of engineering units) with both gauge and absolute references are available.

DPG1000 models with ranges up to 1999 feature a 3 1/2 digit display with 1/2" high digits. Models with ranges 2000 or higher use a 4 digit display with 0.4" high digits.

The **DPG1000AD** is designed for applications where a continuous use display of pressure (or vacuum) is required. The **DPG1000AD** 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 need 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 low voltage AC or DC power sources in applications requiring a continuous pressure display.

For AC/DC powered applications that require dual setpoints (alarms), refer to model *DPG1000A*.

For applications that require a retransmitting output only, refer to models *DPG1000C* and *DPG1000V*. For applications that require dual setpoints and a retransmitting output, refer to models *DPG1000CA* and *DPG1000VA*.

Installation

When installing gauge, tighten using wrench on hex fitting only. Do not attempt to tighten by turning housing or any other part of the gauge.

Electrical Connection

Connection to the **DPG1000AD** is made with the 2-wire cable at the gauge rear. The cable has one RED and one BLACK lead. However, the **DPG1000AD** will operate on either AC or DC power, so there is no need to observe polarity; simply connect an AC supply of 8 to 24 VAC, 50/60 Hz, or a DC supply of 9 to 32 VDC to the two wires to activate the gauge.

Operation

The gauge is powered on whenever a supply voltage is applied. The type and magnitude of the supply voltage have negligible effects on the gauge calibration as long as it is within the voltage ranges stated above.

General

The only important consideration in successful application of the **DPG1000AD** is to ensure that the gauge supply voltage does not fall below 8 VAC RMS if AC power is used, or 9 VDC if DC power is used. Operation with less than these values may cause erratic or erroneous readings.

Calibration

Lift calibration label on the top of the unit to access individual controls to adjust the zero and span of the display.

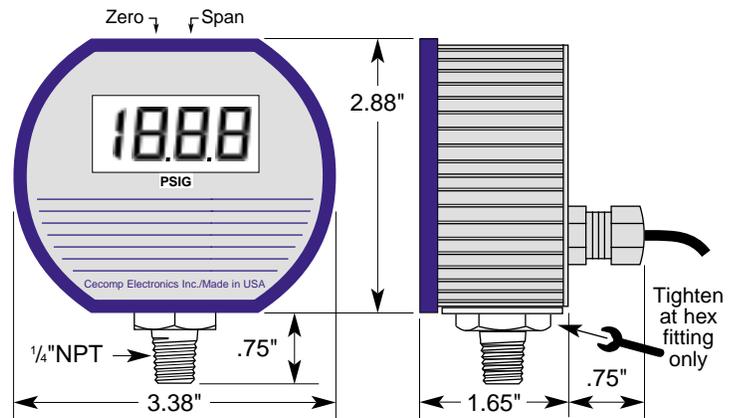
GAUGE reference units may be re-zeroed without affecting the span calibration. The gauge port must be open to the ambient with no pressure or vacuum applied. Adjust the Zero control until the gauge reads zero with the minus (-) sign occasionally flashing.

Span calibration should only be attempted if the user has access to a pressure reference of known accuracy. The quality of the calibration is only as good as the accuracy of the calibration equipment and ideally should be at least four times the gauge accuracy. Zero calibration must be done before span calibration.

Apply full-scale pressure (or vacuum) to the gauge port and adjust the Span control for the correct reading.

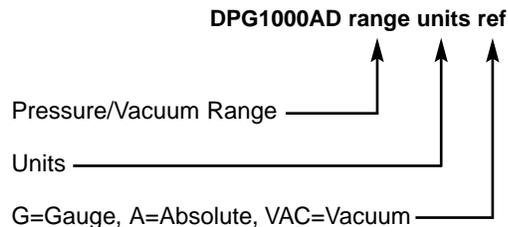
ABSOLUTE reference gauges require vacuum generation and atmospheric pressure measurement equipment for accurate calibration and thus are more difficult to calibrate in the field.

Gauges may be returned to Cecomp Electronics for factory certified recalibration. N.I.S.T. traceability is available.



Cecomp Electronics maintains a constant effort to upgrade and improve its products, therefore specifications are subject to change.

MODEL NUMBERING SYSTEM



Example: **DPG1000AD30INHGVAC** = DPG1000, AC/DC powered, 30.0 inches Hg vacuum