

Falcon DPG1000B Digital Pressure Gauge

Battery Powered Portable

- **±0.25% Test Gauge Accuracy**
- **316 Stainless Steel Wetted Parts**
- **Battery Life up to 1000 Hours**
- **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, for ranges up to 1999
4 digit LCD, 0.4" digit height for ranges 2000 or higher
3 readings per second nominal display update rate

Controls & location

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

Accuracy (linearity, hysteresis, repeatability)

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

Temperature stability

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

Battery

3V lithium coin cell Panasonic type CR2354 or equivalent
Two AAA alkaline for ranges 2000 and higher

Auto shutoff

5 minutes standard
Factory settable to 1, 5, or 10 minutes

Battery life

1000 hours typical for ranges up to 1999
500 hours typical for ranges 2000 and higher

Low battery indication

Ranges up to 1999;
"LOBAT" on display when battery must be replaced
Ranges 2000 and higher;
"LOW BATTERY" on display when battery is more than 60% depleted. Decimal points flash when battery must be replaced.

ENVIRONMENTAL SPECIFICATIONS

Storage temperature

-55 to +95°C

Operating temperature

-20 to +85°C

Compensated temperature

0 to +70°C



DPG1000B with
199.9 psig range

MECHANICAL SPECIFICATIONS

Size

3.38"W x 2.88"H x 1.65"D (not including pressure fitting)
Add approximately 0.75" to height for pressure fitting.

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

None required

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) are available. The DPG1000 series also features ±0.25% accuracy with optional ±0.1% accuracy available in most ranges.

DPG1000 models with ranges up to 1999 feature a 3½ digit display with 1/2" high digits. Models with ranges 2000 or higher use a 4 digit display with 0.4" high digits.

DPG1000B models with ranges up to 1999 are powered by a replaceable lithium battery that can operate the gauge for approximately 1000 hours. **DPG1000B** models with ranges 2000 and higher are powered by two AAA alkaline batteries that can operate the gauge for approximately 500 hours. All **DPG1000B** models include auto-shutoff circuitry as standard to conserve battery life. A low-battery indication is standard also.

The **DPG1000B** is ideally suited to portable applications or fixed applications with occasional display-activation requirements.

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.

Operation

Press the ON button on the face to activate the display. The gauge will stay on for a period of time determined by the auto-shutoff time selected when the gauge was ordered. After this time the gauge will automatically shut off to conserve battery life. Pressing the ON button while the gauge is on does not affect the auto shutoff time.

Models with ranges up to 1999 (3½ digit display) indicate "LOBAT" in the upper left-hand corner of the display when the battery voltage falls sufficiently. The battery should be replaced soon after the LOBAT indicator comes on or unreliable readings may result.

Models with ranges 2000 and higher (4 digit display) indicate "LOW BATTERY" in the upper left-hand corner of the display when the battery voltage falls to about 40% of capacity. All decimal points will flash when the batteries are nearly depleted. The batteries should be replaced soon after the decimal points flash or unreliable readings may result.

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.

Battery Replacement (Ranges up to 1999)

Models with ranges up to 1999 (3½ digit display) use a lithium coin cell. Battery life is about 1000 hours. When the "LOBAT" indicator appears the battery must be replaced.

Remove the 6 Phillips head screws on the back of the unit.

Carefully remove the lithium battery from the holder, taking care not to bend or distort the battery retention clip.

DO NOT discard the old battery into fire, any other sources of extreme heat, or in any other hazardous manner. Please consult local authorities if there is any question about proper disposal.

Replace the battery with a 3 volt lithium coin cell, Panasonic CR2354 or equivalent observing the polarity of the cell. The positive (+) side should be facing you.

Replace the back cover, including the rubber sealing gasket.

Battery Replacement (Ranges 2000 and Higher)

Models with ranges 2000 and higher (4 digit display) use two AAA batteries. Battery life is about 500 hours. "LOW BATTERY" in the upper left-hand corner of the display turns on when the battery voltage falls to about 40% of capacity. All decimal points will flash when the battery is nearly depleted.

Remove the 6 Phillips head screws on the back of the unit.

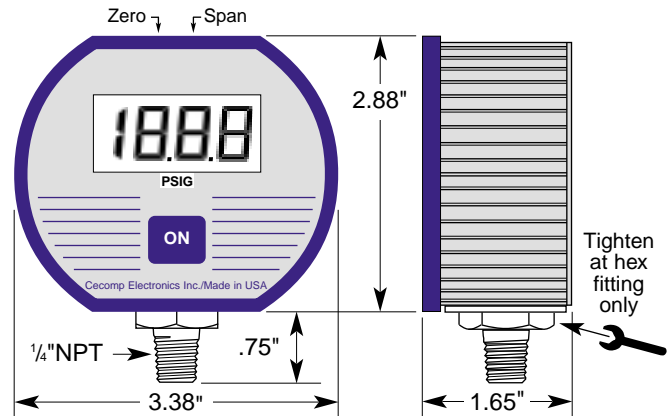
Carefully remove both AAA batteries from the holders by lifting up the positive end of the battery (opposite the spring). Take care not to bend or distort the battery retention springs.

DO NOT discard the old battery into fire, any other sources of extreme heat, or in any other hazardous manner. Please consult local authorities if there is any question about proper disposal.

Replace the batteries only with high quality AAA alkaline batteries. It is acceptable to use AAA lithium batteries.

Observe the polarity of the batteries when replacing them. The negative (flat) end of each battery should be inserted first and should face the spring in the battery holder.

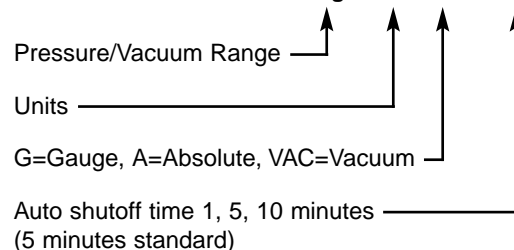
Replace the back cover, including the rubber sealing gasket.



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

MODEL NUMBERING SYSTEM

DPG1000B range units ref - minutes



Example: DPG1000B100PSIG-5 = DPG1000, Battery powered, 100.0 psig, 5 minute shutoff