

Falcon II DPG500B

- **±1% Accuracy**
- **Easy to Read 3½ Digit LCD**
- **Pressure or Vacuum Applications**
- **Compound Ranges Available**
- **Rugged Extruded Aluminum Case**
- **Replaceable 500 Hour Battery**

ELECTRICAL SPECIFICATIONS

Standard ranges

-30 inHg to 100 psi Compound,
±15 psi,
0-10 inH₂O,
0-1, 0-5, 0-15, 0-30, 0-50, 0-100 psi

Pressure/vacuum reference

Gauge (psig) or absolute (psia)

Optional units

Any 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, 3 readings per second nominal

Controls & location

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

Accuracy (linearity, hysteresis, repeatability)

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

Temperature stability

±0.01% of span per degree C (typical)
±0.04% of span per degree C (max) 0-50°C

Battery

3V lithium coin cell Panasonic type CR2354 or equivalent

Auto Shutoff

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

Battery life

500 hours typical

Low Battery indication

Standard; "LOBAT" on display

ENVIRONMENTAL SPECIFICATIONS

Storage temperature

-45 to +75°C

Operating temperature

-10 to +70°C

Compensated temperature

0 to +60°C

Digital Pressure Gauge Battery Powered



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

9 oz. (approx.)

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

Brass, ¼" NPT male

Media compatibility

Compatible with air, dry gases, and most non-corrosive media
Consult factory for special media compatibility requirements

Electrical connection

None required

Overpressure

3x rated or 200 psi, whichever is less

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Description

The DPG500 series is a versatile family of industrial pressure/vacuum gauges. All DPG500 models feature a large ($\frac{1}{2}$ "H) $3\frac{1}{2}$ digit display in a rugged, splashproof extruded aluminum case. A $\frac{1}{4}$ " NPT fitting is standard for the pressure connection. Media compatibility includes air, dry gases, and most non-corrosive media. The DPG500 series features a wide operating temperature range of -10 to $+70^{\circ}\text{C}$. Many different standard pressure/vacuum ranges (in a choice of engineering units) with both gauge and absolute references are available. The DPG500 series also features $\pm 1\%$ accuracy, 3X rated (or 200 psi, whichever is less) overpressure specifications.

The **DPG500B** is powered by a replaceable lithium battery that can operate the gauge for approximately 500 hours of use. All **DPG500B** models include auto-shutoff circuitry as standard to conserve battery life. A low-battery indication is standard also.

Requiring no electrical connection, the **DPG500B** is ideally suited to portable applications, or fixed applications with occasional display-activation requirements.

Electrical Connection

The **DPG500B** is powered by its internal lithium battery. No external electrical connection is required.

Operation

Once the **DPG500B** is mounted on the pressure or vacuum system, 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.

When the lithium battery voltage falls sufficiently, "LOBAT" will appear in upper left-hand corner of the display. The battery should be replaced soon after the LOBAT indicator comes on or unreliable readings may result.

Calibration

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

For GAUGE reference units the setting of the "Zero" control is correct when the gauge reads zero, with the "-" sign occasionally flashing, when the pressure port is open to the ambient.

Accurate calibration of the "Span" control requires an accurate pressure reference and 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 better than $\pm 0.3\%$ for full accuracy of the **DPG500B**.

If "Span" calibration is attempted, the "Zero" calibration should be done first. Then, apply full-scale pressure to the pressure port and adjust the "Span" control for the correct reading.

Calibration of ABSOLUTE reference units is more difficult and is not recommended in the field, unless the user has access to the special equipment required to calibrate absolute-reference units, especially vacuum generation or atmospheric pressure measurement equipment.

Users who do not have the required calibration equipment should return the gauge to Cecomp Electronics for certified recalibration. N.I.S.T. traceability is available.

Battery Replacement

Battery life of the lithium cell in the **DPG500B** is about 500 hours. When the "LOBAT" indicator appears on the display, the battery must be replaced.

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

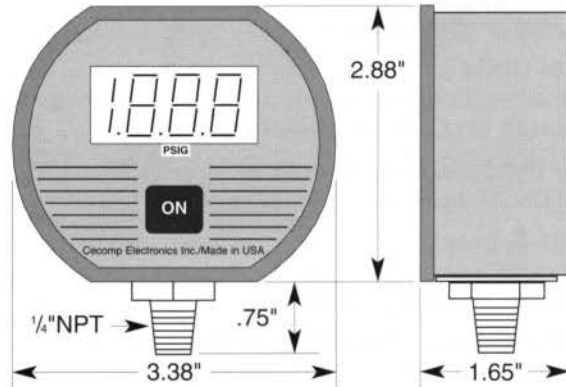
Carefully remove the lithium battery from the holder, taking care not to bend or distort the battery retention clip.

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 of proper disposal procedures.

Replace the battery with a 3 volt lithium coin cell, Panasonic CR2354 or equivalent.

Observe the polarity of the cell when replacing. The positive (+) side should be facing you.

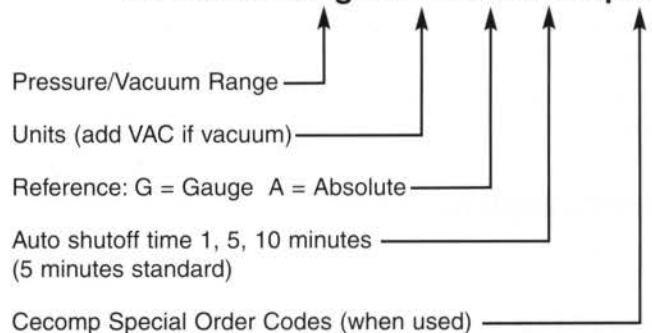
Replace the back cover, being sure to include the rubber sealing gasket.



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

MODEL NUMBERING SYSTEM

DPG500B range units ref-min-special



Example: DPG500B±15PSIG-1 = DPG500, Battery powered, ±15psig, 1 minute shutoff