

# Falcon II DPG500AD

- **±1% Accuracy**
- **Easy to Read 3½ Digit LCD**
- **Pressure or Vacuum Applications**
- **Compound Ranges Available**
- **Rugged Extruded Aluminum Case**
- **Powered by 8-24 VAC or 9-32 VDC**

## ELECTRICAL SPECIFICATIONS

### Standard ranges

-30 inHg to 100 psi Compound,  
±15 psi,  
0-10 inH<sub>2</sub>O,  
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, inH<sub>2</sub>O, ftH<sub>2</sub>O, torr, kg/cm<sup>2</sup>, cmH<sub>2</sub>O, oz/in<sup>2</sup>

### 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

### Power

Any AC source of 8 to 24 VAC 50/60 Hz  
or any DC source of 9 to 32 VDC  
5 mA maximum  
Optional wall mount power supplies are available to operate on  
115VAC/230VAC

## ENVIRONMENTAL SPECIFICATIONS

### Storage temperature

-45 to +75°C

### Operating temperature

-10 to +70°C

### Compensated temperature

0 to +60°C

## Digital Pressure Gauge AC or DC Powered



## 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

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

3 foot long, 2-conductor 22AWG cable

### Overpressure

3x rated or 200 psi, whichever is less

**CECOMP**  
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Digital Pressure Gauges & Instrumentation

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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 **DPG500AD** 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 **DPG500AD** can be used with inexpensive unregulated AC or DC sources in applications requiring continuous pressure display.

For AC/DC powered applications that require dual setpoints (alarms), refer to model *DPG500ADA*.

## Electrical Connection

Connection to the **DPG500AD** is made with the 2-wire cable at the gauge rear. The cable has one red and one black lead. However, the **DPG500AD** will operate on either AC or DC power, so that there is no polarity to be observed; 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

Mount the **DPG500AD** on the pressure or vacuum system, and apply power to the supply leads to activate the display. The gauge is powered on whenever a supply voltage is applied. The type and magnitude of the supply voltage have negligible effect on the gauge calibration.

## General

The only important consideration in successful application of the **DPG500AD** 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 to access individual controls on the top of the unit to adjust the zero and span of the display.

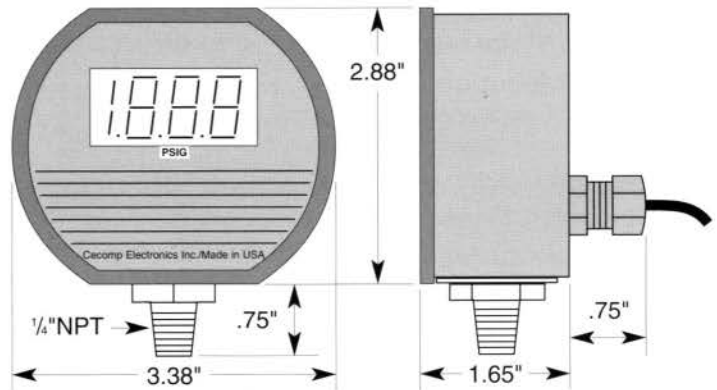
For GAUGE reference units the setting of the "Zero" control is correct when the gauge reads zero, with the "-" sign occasionally flashing, when the pressure port is open to the ambient.

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 **DPG500AD**.

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.

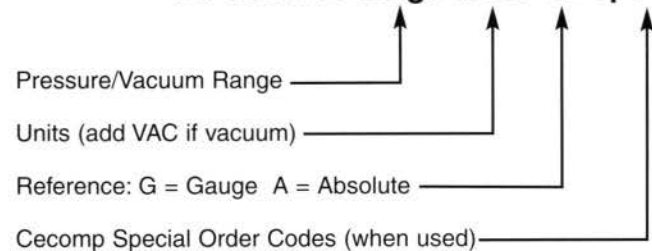
Users who do not have the required calibration equipment should return the gauge to Cecom Electronics for certified recalibration. N.I.S.T. traceability is available.



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

## MODEL NUMBERING SYSTEM

### DPG500AD range units ref-special



**Example:** DPG500AD100PSIG = DPG500, AC/DC powered, 0-100psig