The Series DPG-200 Digital Pressure Gage has a precise ±0.25% full scale accuracy. The 4 digit digital display will reduce the potential for errors in readings by eliminating parallax error commonly produced with analog gages. The DPG-200 is packaged in a durable extruded aluminum case designed to meet NEMA 4X (IP66). The unit is powered by 12-24 VDC/VAC and contains two alarm set points along with a 4-20 mA process output. A four-button keypad allows easy access to features. These features include backlight, peak and valley, auto zero and conversion of the pressure units.

INSTALLATION
When installing gage always use 1” hex at the base of the housing to tighten the gage to a mating fitting. Do not apply wrench to housing.

WIRING

SPECIFICATIONS

DIGITAL GAGE SPECIFICATIONS
Service: Liquids and non-combustible compatible gases.
Wetted Materials: Type 316L SS.
Housing: Black polycarbonate front & back cover, anodized aluminum extruded housing with recessed grooves, polycarbonate overlay, Buna-N O-rings, 316L SS sensor construction.
Accuracy: 0.25% F.S. ±1 least significant digit.
(Includes linearity, hysteresis, repeatability).
Pressure Limit: 2x pressure range for models 1000 psi; 5000 psi for 3000 psi range; 7500 psi for 5000 psi range.
Temperature Limits: 0 to 158°F (0 to 70°C).
Process Connection: 1/4˝ male NPT.
Display: 4 digit (.425 H x .234 W digits).
Size: 3.00˝ OD x 1.90 deep (not including cables).
Weight: 8.84 oz (275 g).

SWITCH SPECIFICATIONS
Switch Type: 2 SPDT. Form C contacts.
Electrical Rating: 0.5A @ 125 VAC resistive, 1A @ 24 VDC.
Relay Differential: 1 least significant digit.
Electrical Connections: Two 3 ft (.91 m) cables.
Mounting Orientation: Mount in any position.
Set Point Adjustment: Via menu.

TRANSMITTER SPECIFICATIONS
Temperature Limits: 0 to 158°F (0 to 70°C).
Thermal Effect: Between 70 to 158°F = 0.016%/°F. Between 0 to 70°F = 0.026%/°F.
Power Requirements: 12-24 VAC +/- 20% 50-400 HZ, 12-24 VDC +/-20%.
Output Signal: 4-20 mA.
Loop Resistance: 600 ohms maximum.
Power Consumption: 0.8 W max.
Electrical Connections: 2 three foot cables.
Enclosure Rating: Designed to meet NEMA 4X (IP66).
Agency Approvals: CE.

WARNING: DO NOT pressurize DPG over maximum allowable pressure limits. Extreme damage can occur if limits are exceeded (see Pressure Limit under Specifications). An overflow “OFL” designator will flash to acknowledge that the gages pressure range has been exceeded.
POWER UP

- Top line shows units.
- Bottom line shows pressure.
- If pressure is 1% F.S. below range of instrument the pressure value will alternate UFL on a 1 second interval.
- If pressure is 1% F.S. above range of instrument the pressure value will alternate with OFL on a 1 second interval.
- Factory set to PSI.

BUTTON OPERATION

See menu page.

- Zeros display if within ±4% F.S. of zero.
- See units chart below.
- See peak/valley.

PEAK VALLEY

PEAK
- Highest pressure since peak and valley was reset.
- Zero button resets both peak and valley to the current pressure.

VALLEY
- Lowest pressure since peak and valley was reset.
- Zero button resets both peak and valley to the current pressure.

UNITS CHART

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Range psi</th>
<th>kg/cm²</th>
<th>bar</th>
<th>in Hg</th>
<th>ft wc</th>
<th>ft sw*</th>
<th>kPa</th>
<th>oz/in²</th>
<th>in wc</th>
<th>mbar</th>
<th>cm wc</th>
<th>mm Hg</th>
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<td>-1.013</td>
<td>-29.93</td>
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</table>

Compound Ranges Available: DPG-220 Range: 30” Hg-0-15 psi; DPG-221 Range: 30” Hg-0-30 psi; DPG-222* Range: 30” Hg-0-45 psi; DPG-223*: Range 30” Hg-0-60 psi; DPG-224: 30” Hg-0-100 psi.

*feet of seawater @ 4°C
**SECURITY**
- 1 = full access, password is 1110.
- 2 = protected, password is 1101.
- Factory set to full access.
- All menus except backlight are protected.

**ALARM #1 SETPOINT**
- Activates Alarm #1 relay on increase.
- AL1 indicator and alarm #1 relay turned on when pressure is greater than or equal to setpoint.

**ALARM #1 DIFFERENTIAL**
- AL1 indicator and alarm #1 relay turned off when pressure is less than the setpoint minus the differential.

**ALARM #2 SETPOINT**
- Activates Alarm #2 relay on decrease.
- AL2 indicator and alarm #2 relay turned on when pressure is less than or equal to setpoint.

**ALARM #2 DIFFERENTIAL**
- AL2 indicator and alarm #2 relay turned off when pressure is greater than the setpoint plus the differential.

**ALARM #2 INHIBIT**
- Prevents low alarm on power up.
- When set to “On” alarm #2 is disabled until the pressure is greater than the setpoint plus the differential.
- Factory set to ON.

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**MENU BUTTON OPERATION**

- **MENU**
  - Advances menu
  - Hold for 1 second to go back to home page.

- **INC**
  - Increases value – top line of display begins to blink.
  - Hold for 1 second to increase fast.

- **DEC**
  - Decreases value – top line of display begins to blink.
  - Hold for 1 second to decrease fast.

- **ENT**
  - Stores value – top line of display stops blinking.
  - If menu pressed before enter button pressed the value is lost.
MENU CONTINUED

BACKLIGHT
- Turns backlight on or off.
- Factory set to off.

PROCESS OUTPUT HIGH
- Pressure at which current output is set to 20 mA.
- Factory set to maximum scale.

PROCESS OUTPUT LOW
- Pressure at which current output is set to 4 mA.
- Factory set to minimum scale.

SPAN ADJUSTMENT
- Display shows pressure using existing span.
- Apply full scale pressure to instrument and hold enter for one second to acquire new span.

MENU BUTTON OPERATION

Alarm 1

\[ AL1S - AL1D \]

Alarm 2

\[ AL2S + AL2D \]

\( RL1S \) sets the relay on point, and \( RL1S - RL1D \) sets the relay off point. The relay's output functions in the direct acting mode, which means the relay activates with an increase in pressure. In the above graph, an instrument with a 50 psi range has the \( RL1S \) set at 40. The relay will turn on at 40 psi increase. The \( RL1D \) is set at 30. The relay will turn off at 10 psi decrease (40 - 30 = 10).

\( RL2S \) sets the relay on point, and \( RL2S + RL2D \) sets the relay off point. The relay's output functions in the reverse acting mode, which means the relay activates with a decrease in pressure. In the above graph, an instrument with a 50 psi range has the \( RL2S \) relay turn on at 10 psi decrease. The \( RL2D \) is set at 30. The relay will turn off at 40 psi increase (10 + 30 = 40).