OMEGA’s DPG409 digital pressure gauge incorporates a rugged 316 SS enclosure designed for washdown and marine applications with a precision 0.08% accuracy pressure transducer with 316L SS wetted parts and body. The result is an extremely durable digital pressure gauge designed to survive harsh industrial environments. The large 25 mm (1") display is easy to read at a distance up to 11 m (35’). Models are available in Gauge, Sealed Gauge, Compound Gauge, Absolute, Vacuum and Barometric pressure ranges. Standard features include a highly stable silicon sensor, selectable MIN/MAX and AVG readings, Hi and LO alarms and an externally powered user selectable analog output. An optional wireless transmitter feature with software allows the signal to be transmitted to a remote location such as a PC for charting and data logging. Power is from an internal long life battery (included) or an externally supplied dc voltage source. Each unit is supplied with configuration software that allows the user to connect to a PC via a standard USB connection (cable included) and select a variety of user configurable features including sample interval, units and backlight.

Note: Because of transmission frequency regulations, wireless models may only be used in the US, Canada and Europe.
SPECIFICATIONS

CE Compliant: Meets EN61326-1: 2006 for industrial locations with analog output cables less than 30 m (98')

Accuracy (Combined Linearity, Hysteresis and Repeatability): ±0.08% BSL (compound gauge calibrated in positive direction only)

Temperature:
Storage: -40 to 82°C (-40 to 180°F)
Operating: -18 to 66°C (0 to 150°F)

Thermal Effects (Over Operating Range):
Zero Balance:
Ranges >5 psi: ±0.3% span
Ranges ≤5 psi: ±0.5% span

Span Setting:
Ranges >5 psi: ±0.3% span
Ranges ≤5 psi: ±0.5% span

Minimum Resistance Between Transducer Body and Any Wire:
100 MΩ @ 50 Vdc

Pressure Cycles: 1 million minimum

Long Term Stability (1-yr): ±0.1% FS typical

Analog Output: User selectable
0 to 5 Vdc, 0 to 10 Vdc or 4 to 20 mA (external 24 Vdc power supply required)

Note: Compound gauge ranges have a unidirectional analog output equal to their full span; i.e. -15 to +15 psi = 0 to 10 Vdc.

Set jumper to select current or voltage
Software selection of 0 to 5 Vdc, 0 to 10 Vdc, or 4 to 20 mA

Analog Output
Cable: 2.7 m (8.9')
Accuracy: 0.06% typical

Overpressure: Gauge and sealed gauge
10 inH2O: 10 times span
1 psi: 6 times span
2.5 to 1000 psi:
4 times span
1500 to 5000 psi:
7250 psi max

Absolute/Barometric Ranges
5 psia: 6 times span,
15 to 1000 psia: 4 times span
1500 to 5000 psi range: to 7250 psia

Containment Pressure: Gauge pressure
10 inH2O to 5 psi: To 1000 psi
15 to 1000 psi: To 3000 psi
1500 to 5000 psi: To 10,000 psi

Absolute/Barometric Pressure:
5 to 1000 psi: to 6000 psia
Display: 4-digit LCD with user selectable backlighting, (9999 count)
25 mm (1") character height

Computer Interface: USB connection for set-up, cable included

Sample/Display Range: User selectable from 0.38 to 30 sec. (preset to 1/sec)

Power: One 3.6V lithium 8.4 Ah capacity (C cell) Included (two with wireless option), (replacement battery part no. BATT-C-3.6V)

Battery Life (Typical): Up to 9 months

Enclosure:
Material: 316 stainless steel and ABS center gasket
Finish: Brushed 316 stainless steel

Environmental Rating:
Weatherproof, NEMA 4X (IP65)

Display:
4-digit LCD with user selectable backlighting, (9999 count)
25 mm (1") character height

Computer Interface: USB connection

Sample/Display Range: User selectable from 0.38 to 30 sec. (preset to 1/sec)

Power: One 3.6V lithium 8.4 Ah capacity (C cell) Included (two with wireless option), (replacement battery part no. BATT-C-3.6V)

Battery Life (Typical): Up to 9 months

Enclosure:
Material: 316 stainless steel and ABS center gasket
Finish: Brushed 316 stainless steel

Environmental Rating:
Weatherproof, NEMA 4X (IP65)

Software Settings (via USB)
Update Rate: 4 options, 10, 5, 2, 1 times per second
Units: psi, inHg, inH2O, bar, mbar, hPa units; must be specified at time of order

Lock: Allows the lock-out of front panel functions

Alarms: User selectable “High” and “Low” alarm limits (open collector)

Backlight: On/off, 10 sec, 30 sec, 1 min, 5 min

Wireless Transmitter (Optional):
Channel number, transmission rate, alarms, sensor offset, chart recording, data logging

Calibrate: Zero and Span

Overrange Indication: “_ _ _ _”

Wireless Option Specifications
Transmit Sample Rate: User programmable from 1 sample/2 min to 1 sample/2 sec

Radio Frequency (RF) Transceiver
Carrier: ISM 2.4 GHz
RF Output: 10 dBm (10 mW)

Range of RF Link:
Outdoors (Line of Sight):
Up to 120 m (400')
Indoors/Urban: Up to 40 m (130')

Included Software: Requires Windows® 7 (32 bit); XP or Vista

Data Transmission to Host: Pressure reading, ambient temperature reading, RF transmit strength and battery level

New security feature uses magnetic stylus (included) for keypad activation. No accidental button presses. Perfect for dirty hands or if wearing gloves.

Wireless model shown, DPG409-500G-W.
Comes complete with operator’s manual, set-up and configuration software, (charting and databasing software with common drivers), USB cable, 2.7 m (8.9’) analog output cable, one 3.6V lithium C cell battery (two with wireless option), and 5-point NIST traceable calibration.

To order wireless option add suffix “-W” to model number, for additional cost.

To order sealed gauge models change suffix “G” to “SG”, available on gauge ranges ≥ 100 psi, no extra charge.

Ordering Examples: DPG409-100G-W, digital pressure gauge with 100 psig range and wireless transmitter option, and UWTC-REC1, wireless USB receiver.

DPG409-015V, digital pressure gauge with 15 psi vacuum range.

DPG409-100SG, digital pressure gauge with 100 psi sealed gauge range.

Wireless Receivers (For Use with Wireless Transmitter Option)

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>UWTC-REC1</td>
<td>48-channel wireless receiver, USB powered</td>
</tr>
<tr>
<td>UWTC-REC2(*)</td>
<td>48-channel wireless receiver with analog output</td>
</tr>
<tr>
<td>UWTC-REC2-D(*)</td>
<td>48-channel wireless receiver with analog output and digital display</td>
</tr>
</tbody>
</table>

* Specify analog output signal: “V1” for 0 to 5 Vdc; “V2” for 0 to 10 Vdc, “TC” for Type K thermocouple, or “MA” for 4 to 20 mA.

The DPG configuration wizard provides a convenient USB interface with your device.

Please refer to the manual for details on setting up your device.