

# VERY HIGH ACCURACY DIGITAL PRESSURE GAUGE STAINLESS STEEL WETTED PARTS AND BODY



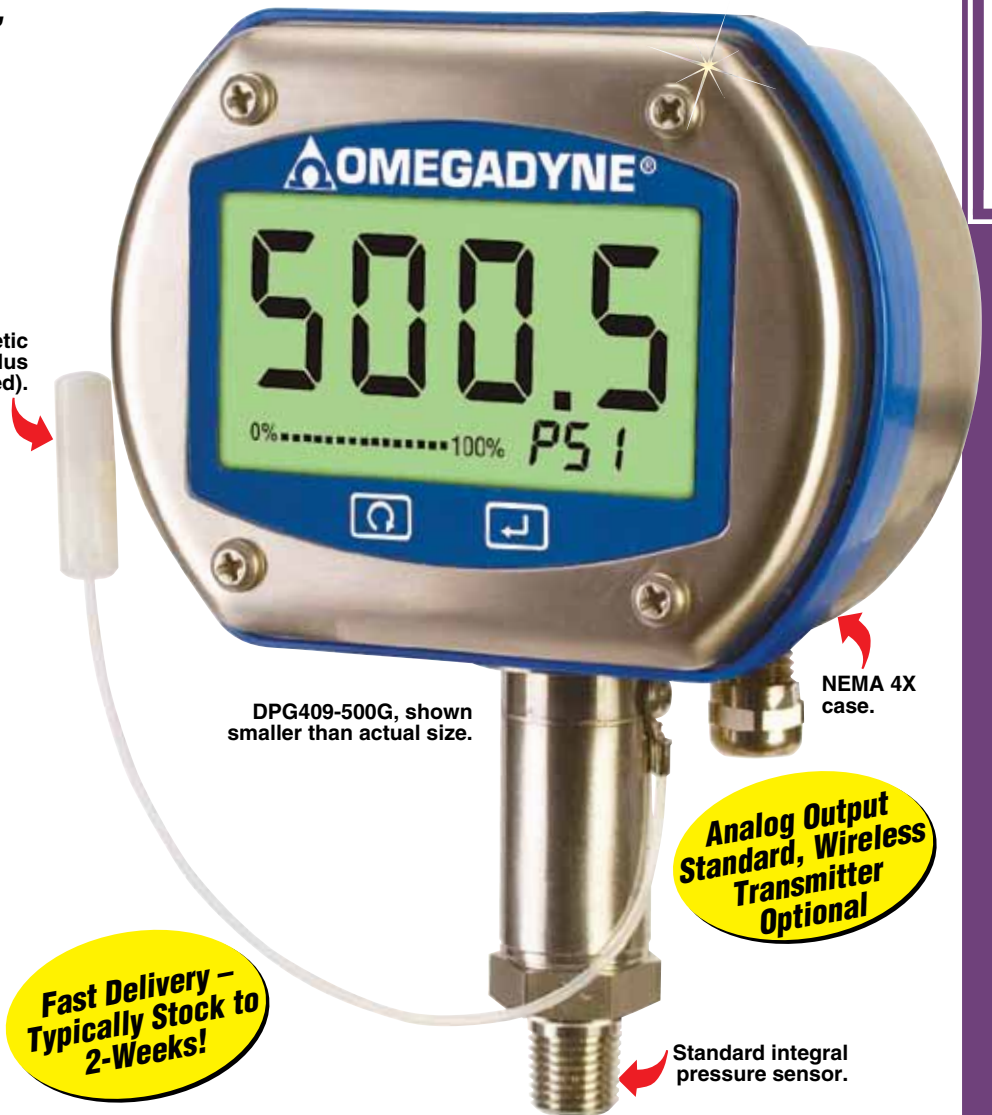
PRESSURE  
GAUGES  
G

**Gauge, Absolute, Sealed Gauge,  
Compound Gauge, Vacuum and  
Barometric Models**  
0-10 inH<sub>2</sub>O to 0-5000 psi  
(0-25 mb to 0-345 bar)

## DPG409 Series



Magnetic  
stylus  
(included).



DPG409-500G, shown  
smaller than actual size.

NEMA 4X  
case.

**Analog Output  
Standard, Wireless  
Transmitter  
Optional**

**Fast Delivery -  
Typically Stock to  
2-Weeks!**

Standard integral  
pressure sensor.

- ✓ 5-PT NIST Traceable Calibration Included
- ✓ Easy to Read 25 mm (1") Backlit LCD Display
- ✓ High 0.08% Accuracy
- ✓ Hi and Lo Alarms Standard
- ✓ MIN/MAX/AVG Reading
- ✓ User Selectable Analog Output 0 to 5 Vdc, 0 to 10 Vdc or 4 to 20 mA
- ✓ Included Setup and Service Software Allows for Fast Maintenance and Calibration via USB Connection
- ✓ Wireless Transmitter Option Sends Reading to Remote Location and Includes Charting and Data Logging Software
- ✓ Tested to Industrial CE Standards
- ✓ Battery Powered with Long Battery Life

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 connect to a pc via a standard USB connection (cable included) and select a variety of user configurable features including update rate, units and backlight.



## SPECIFICATIONS

### RoHS Compliant

**CE Compliant:** Meets EN1326-1: 2006 for industrial locations with analog output cables 3 m (9.8') and supplied ferrite core

**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)

**Temperature Corrected:** Over operating temperature

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

**Pressure Cycles:** 1 million minimum

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

**Thermal Effects (Over Compensated 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

**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.

### Analog Output

**Cable:** 2.7 m (8.9') with ferrite core included

**Accuracy:** 0.08% typical (0.15% max in RF field @ 10V/m)

**Overpressure:** Gauge and sealed gauge

**10 inH<sub>2</sub>O:** 10 times span

**1 psi:** 6 times span

**2.5 to 3500 psi:** 4 times span

**5000 psi:** 15,000 psi max

### Absolute/Barometric Ranges

**5 psia:** 6 times span, ranges >5 psia 4 times span

**5000 psi range:** to 15,000 psia

**Containment Pressure:** Gauge pressure

**10 inH<sub>2</sub>O to 5 psi:** To 1000 psi

**15 to 1000 psi:** To 3000 psi

**1500 to 5000 psi:** To 15,000 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 0.25 to 10 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-3V)

**Battery Life (Typical):** Up to 4-years

### Enclosure:

**Material:** 316 Stainless Steel and ABS center gasket

**Finish:** Electropolished

**Environmental Rating:** Weatherproof, NEMA 4X (IP65)

### Sensor Wetted Parts:

316L Stainless Steel

**Pressure Connection:** ¼-18 NPT male

**Connection Location:** Lower

### Dimensions:

**Display:** 115 H x 89 W x 74 mm D (4.5 x 3.5 x 2.9")

**Sensor:** 72 to 89 mm L (2.8 x 3.5") below display

**Weight:** 900 g (2 lb) Typical depending upon configuration

### Front Panel Functions

**Backlight:** Manually turns backlight on/off

**Min/Max:** Recalls min/max values

**Zero/Clear:** Zeros display or clears min/max

### Software Settings (via USB)

**Auto-Off:** 7 options, locked on, 1, 2, 5, 10, 15, 30, 60 minutes

**Update Rate:** 4 options, 10, 5, 2, 1 times per second

**Units:** psi, inHg, inH<sub>2</sub>O, 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)

**Analog Output:** User Selectable 0 to 5 Vdc, 0 to 10 Vdc, or 4 to 20 mA (requires external 24 Vdc power)

**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, Vista, or Windows® 7 (32 bit)

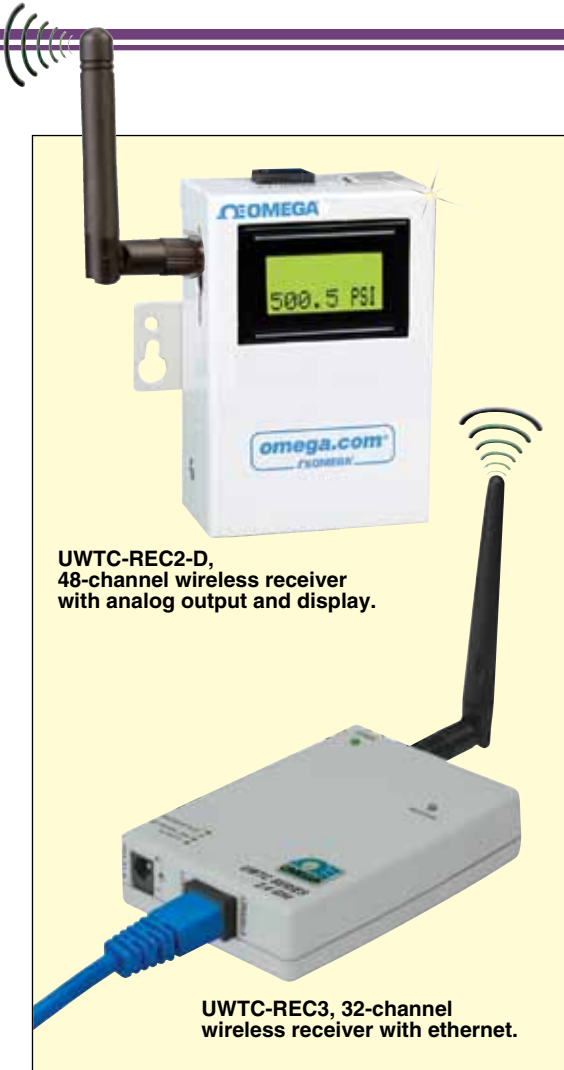
**Internal Battery:** Two 3.6V lithium 8.4 Ah capacity (C-cell) included, (replacement battery part no. BATT-C-3V)

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



Wireless model shown, DPG409-500G-W.

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



**UWTC-REC2-D, 48-channel wireless receiver with analog output and display.**

**UWTC-REC3, 32-channel wireless receiver with ethernet.**

**Wireless Receivers (For Use with Wireless Transmitter Option)**

MODEL NO.	DESCRIPTION
UWTC-REC1	48-channel wireless receiver, USB powered
UWTC-REC2-(*)	48-channel wireless receiver with analog output
UWTC-REC2-D-(*)	48-channel wireless receiver with analog output and digital display
UWTC-REC3	32-channel wireless ethernet web based receiver

\* 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.

**To Order Visit [omega.com/dpg409](http://omega.com/dpg409) for Pricing and Details**

RANGE (RESOLUTION)		PSI RANGES MODEL NO.
psi	Bar	
<b>GAUGE PRESSURE</b>		
10.00 inH <sub>2</sub> O	25.00	DPG409-10WG
1.000	70.00	DPG409-001G
2.500	175.0	DPG409-2.5G
5.000	350.0	DPG409-005G
15.00	1.000	DPG409-015G
30.00	2.100	DPG409-030G
50.00	3.400	DPG409-050G
100.0	6.900	DPG409-100G
150.0	10.30	DPG409-150G
250.0	17.20	DPG409-250G
500.0	34.50	DPG409-500G
750.0	51.70	DPG409-750G
1000	69.00	DPG409-1KG
1500	103.0	DPG409-1.5KG
2500	172.0	DPG409-2.5KG
3500	241.0	DPG409-3.5KG
5000	345.0	DPG409-5.0KG
<b>ABSOLUTE PRESSURE</b>		
5.000	350.0	DPG409-005A
15.00	1.000	DPG409-015A
30.00	2.100	DPG409-030A
50.00	3.400	DPG409-050A
100.0	6.900	DPG409-100A
150.0	10.30	DPG409-150A
250.0	17.20	DPG409-250A
500.0	34.50	DPG409-500A
750.0	51.70	DPG409-750A
1000	69.00	DPG409-1KA
<b>VACUUM (NEGATIVE GAUGE, 0 psi = AMBIENT)</b>		
10.00 inH <sub>2</sub> O	25.00	DPG409-10WV
1.000	70.00	DPG409-001V
2.500	175.0	DPG409-2.5V
5.000	350.0	DPG409-005V
15.00	1.000	DPG409-015V
<b>BAROMETRIC PRESSURE (ABSOLUTE PRESSURE)</b>		
0 to 32.00 inHg	-	DPG409-32B
16.00 to 32.00 inHg	-	DPG409-16B
26.00 to 32.00 inHg	-	DPG409-26B
-	0 to 1100 hPa	DPG409-32HB
-	550.0 to 1100 hPa	DPG409-16HB
-	880.0 to 1100 hPa	DPG409-26HB
<b>COMPOUND GAUGE PRESSURE</b>		
±10.00 inH <sub>2</sub> O	±25.00	DPG409-10WCG
±1.000	±69.00	DPG409-001CG
±2.500	±172.0	DPG409-2.5CG
±5.000	±345.0	DPG409-005CG
±15.00	±1034	DPG409-015CG

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 with ferrite core, 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, cost additional.

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.