

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



**Gauge, Absolute, Sealed Gauge,
Compound Gauge, Vacuum and
Barometric Models**
0-10 inH₂O 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.

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
- ✓ CE Certified
- ✓ 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 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): $\pm 0.08\%$ 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: $\pm 0.3\%$ span

Ranges ≤ 5 psi: $\pm 0.5\%$ span

Span Setting:

Ranges >5 psi: $\pm 0.3\%$ span

Ranges ≤ 5 psi: $\pm 0.5\%$ span

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

Pressure Cycles: 1 million minimum

Long Term Stability (1-yr): $\pm 0.1\%$ 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: 0.08% 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 psi: 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)

Sensor Wetted Parts:

316L stainless steel

Pressure Connection: 1/4-18 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)

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



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.

For calibration and to setup your DPG409 device please go to

<ftp://ftp.omega.com/public/DASGroup/products/dpg409/>

The DPG configuration wizard provides a convenient USB interface with your device. Please refer to the manual for details on setting up your device.



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

**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

* 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.

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.

To Order

RANGE (RESOLUTION)		PSI RANGES MODEL NO.
psi	Bar	
GAUGE PRESSURE		
0 to 10.00 inH ₂ O	0 to 25 mbar	DPG409-10WG
0 to 1.000	0 to 70 mbar	DPG409-001G
0 to 2.500	0 to 175 mbar	DPG409-2.5G
0 to 5.000	0 to 350 mbar	DPG409-005G
0 to 15.00	0 to 1	DPG409-015G
0 to 30.00	0 to 2	DPG409-030G
0 to 50.00	0 to 3.5	DPG409-050G
0 to 100.0	0 to 7	DPG409-100G
0 to 150.0	0 to 10	DPG409-150G
0 to 250.0	0 to 17	DPG409-250G
0 to 500.0	0 to 35	DPG409-500G
0 to 750.0	0 to 52	DPG409-750G
0 to 1000	0 to 70	DPG409-1KG
0 to 1500	0 to 100	DPG409-1.5KG
0 to 2500	0 to 170	DPG409-2.5KG
0 to 3500	0 to 240	DPG409-3.5KG
0 to 5000	0 to 345	DPG409-5.0KG
ABSOLUTE PRESSURE		
0 to 5.000	0 to 350 mbar	DPG409-005A
0 to 15.00	0 to 1	DPG409-015A
0 to 30.00	0 to 2	DPG409-030A
0 to 50.00	0 to 3.5	DPG409-050A
0 to 100.0	0 to 7	DPG409-100A
0 to 150.0	0 to 10	DPG409-150A
0 to 250.0	0 to 17	DPG409-250A
0 to 500.0	0 to 35	DPG409-500A
0 to 750.0	0 to 52	DPG409-750A
0 to 1000	0 to 70	DPG409-1KA
VACUUM (NEGATIVE GAUGE, (ZERO OUTPUT = AMBIENT))		
0 to 10.00 inH ₂ O	0 to 25 mbar	DPG409-10WV
0 to 1.000	0 to 70 mbar	DPG409-001V
0 to 2.500	0 to 175 mbar	DPG409-2.5V
0 to 5.000	0 to 350 mbar	DPG409-005V
0 to 15.00	0 to 1 bar	DPG409-015V
BAROMETRIC PRESSURE (ABSOLUTE PRESSURE)		
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 to 1100 hPa	DPG409-16HB
-	880 to 1100 hPa	DPG409-26HB
COMPOUND GAUGE PRESSURE		
± 10.00 inH ₂ O	± 25.00 mbar	DPG409-10WCG
± 1.000	± 69.00 mbar	DPG409-001CG
± 2.500	± 172.0 mbar	DPG409-2.5CG
± 5.000	± 345.0 mbar	DPG409-005CG
± 15.00	± 1 bar	DPG409-015CG