

DIGITAL PRESSURE GAUGES WITH METRIC FITTINGS AND RANGES

0.08% ACCURACY WITH STAINLESS STEEL WETTED PARTS AND BODY

**Gauge Pressure: 0-25 mb
to 0-345 bar**

Sealed Gauge: 0-7 bar to 0-345 bar

**Absolute Pressure: 0-350 mb
to 0-345 bar**

**Compound Gauge: ± 25 mb to
 ± 1 bar**

**Vacuum (Negative Gauge):
0 to -25 mb to 0 to -1 bar**

**Barometric: 0-1100 hPa to
880-1100 hPa**

DPGM409 Series



Standard

- ✓ 5-PT NIST Traceable Calibration Included
- ✓ High 0.08% Accuracy
- ✓ Easy to Read 25 mm (1") Backlit LCD Display
- ✓ 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 Optional
- ✓ Wireless Models Include Data Logging Software for Remote Recording and Charting
- ✓ CE Certified
- ✓ Battery Powered with Long Battery Life
- ✓ Analog Output Standard



OMEGA's DPGM409 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 (36'). 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 (0.15% max in 10V/m RF field) (compound gauge calibrated in positive direction only)

Temperature:

Storage: -40 to 82°C (-40 to 180°F)

Compensated: -18 to 66°C (0 to 150°F)

Thermal Effects

(Over Compensated Range):

Zero Shift:

Ranges >350 mb: $\pm 0.3\%$ span

Ranges ≤ 350 mb: $\pm 0.5\%$ span

Span Shift:

Ranges >350 mb: $\pm 0.3\%$ span

Ranges ≤ 350 mb 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. -350 to 350 mb = 0 to 10 Vdc.

Analog Output:

Cable: 2.7 m (8.9')

Accuracy: 0.08% typical

Overpressure: Gauge/sealed gauge

25 mb: 10 times span

70 mb: 6 times span

170 mb to 100 bar: 4 times span

175 to 350 bar: 500 bar max

Absolute/Barometric Ranges:

350 mb to 100 bar: 4 times span

175 to 350 bar: To 500 bar abs

Containment Pressure: Gauge and Sealed Gauge pressure

25 to 350 mbar: To 70 bar

1 to 70 bar: To 200 bar

100 to 350 bar: To 700 bar

Absolute/Barometric Pressure:

350 mb to 70 bar: to 400 bar

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

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

Update Rate: User selectable from 0.25 to 10 sec. (preset to 1/sec)



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

Power: One 3.6V lithium 8.4 Ah capacity (C cell) Included (two with wireless option) (replacement battery 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: G $\frac{1}{4}$ male

Dimensions:

Display: 115 L 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 (32 oz) 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, inH $_2$ 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

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

Internal Battery: Two 3.6V lithium 8.4 Ah capacity (C-cell) included, (replacement battery BATT-C-3.6V)

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

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 ≥ 7 bar, no extra charge.

Ordering Examples: **DPGM409-070G-W**, digital pressure gauge with 70 bar range, G $\frac{1}{4}$ male fitting and wireless transmitter option, and **UWTC-REC1**, wireless USB receiver.

DPGM409-025HV digital pressure gauge with 25 mb (hPa) vacuum range, G $\frac{1}{4}$ male fitting.

DPGM409-007SG digital pressure gauge with 7 bar, sealed gauge range, G $\frac{1}{4}$ male fitting.

To Order

RANGE (RESOLUTION) GAUGE PRESSURE	MODEL NO. G 1/4 Male Thread
0 to 25.00 mbar (hPa)	DPGM409-025HG
0 to 70.00 mbar (hPa)	DPGM409-070HG
0 to 170.0 mbar (hPa)	DPGM409-170HG
0 to 350.0 mbar (hPa)	DPGM409-350HG
0 to 1.000 bar	DPGM409-001BG
0 to 2.000 bar	DPGM409-002BG
0 to 3.500 bar	DPGM409-3.5BG
0 to 7.000 bar	DPGM409-007BG
0 to 10.00 bar	DPGM409-010BG
0 to 17.50 bar	DPGM409-17.5BG
0 to 35.00 bar	DPGM409-035BG
0 to 50.00 bar	DPGM409-050BG
0 to 70.00 bar	DPGM409-070BG
0 to 100.0 bar	DPGM409-100BG
0 to 175.0 bar	DPGM409-175BG
0 to 245.0 bar	DPGM409-245BG
0 to 350.0 bar	DPGM409-350BG
ABSOLUTE PRESSURE	
0 to 350.0 mbar (hPa)	DPGM409-350HA
0 to 1.000 bar	DPGM409-001BA
0 to 2.000 bar	DPGM409-002BA
0 to 3.500 bar	DPGM409-3.5BA
0 to 7.000 bar	DPGM409-007BA
0 to 10.00 bar	DPGM409-010BA
0 to 17.50 bar	DPGM409-017BA
0 to 35.00 bar	DPGM409-035BA
0 to 50.00 bar	DPGM409-050BA
0 to 70.00 bar	DPGM409-070BA
VACUUM (NEGATIVE GAUGE) RANGES (ZERO OUTPUT = AMBIENT)	
0 to -25.00 mbar (hPa)	DPGM409-025HV
0 to -70.00 mbar (hPa)	DPGM409-070HV
0 to -170.0 mbar (hPa)	DPGM409-170HV
0 to -350.0 mbar (hPa)	DPGM409-350HV
0 to -1.000 bar	DPGM409-001BV
BAROMETRIC RANGES (ABSOLUTE PRESSURE)	
0 to 1100 hPa	DPGM409-1100HB
550 to 1100 hPa	DPGM409-550HB
880 to 1100 hPa	DPGM409-880HB
COMPOUND GAUGE RANGES	
± 25.00 mbar (hPa)	DPGM409-025HCG
± 70.00 mbar (hPa)	DPGM409-070HCG
± 170.0 mbar (hPa)	DPGM409-170HCG
± 350.0 mbar (hPa)	DPGM409-350HCG
± 1.000 bar	DPGM409-001BCG