

DIGITAL DIFFERENTIAL PRESSURE GAUGE VERY HIGH ACCURACY

316L SS WETTED PARTS AND BODY

Uni-Directional Ranges
0-10 inH₂O to 0-1000 psi
(0-25 mb to 0-70 bar)

DPG409 Differential Pressure Series



- Wet/Wet Differential Pressure Measurement
- 5-Point 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
- Wireless Transmitter Option Sends Reading to Remote Location and Includes Charting and Data Logging Software
- CE Certified
- Battery Powered with Long Battery Life
- NEMA 4X (IP65) Enclosure

OMEGA's DPG409 digital differential pressure gauge incorporates a rugged 316 SS enclosure designed for washdown and marine applications with a precision 0.08% accuracy pressure transducer and 316L SS wetted parts and body. The result is an extremely durable digital pressure gauge. You get all the durability and stability of the micromachined silicon sensor in a rugged NEMA 4X (IP65) package.

Magnetic stylus included.

Fast Delivery – Typically Stock to 2 Weeks!

SPECIFICATIONS

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

Accuracy (Combined Linearity, Hysteresis and Repeatability): ±0.08% BSL

Storage Temperature: -40 to 82°C (-40 to 180°F)

Operating Temperature: -18 to 66°C (0 to 150°F)

Thermal Effects (Over Operating Range):

Zero Balance:

Ranges 10 inH₂O to 1 psi: ±1% span
 Ranges >1 psi: ±0.5% span

Span Setting:

Ranges 10 inH₂O to 1 psi: ±1% span
 Ranges >1 psi: ±0.5% span

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

Pressure Cycles: 1 million min

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: Analog output is independently scalable

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 (9')

Analog Output Accuracy: 0.08% typical

Line/Static Pressure: 500 psi maximum applied to both sides simultaneously

Proof Pressure (Differential):

10 inH₂O = 10 times range
 1 psi = 6 times range
 2.5 to 750 psi = 4 times range
 1000 psi Range = 3 times range

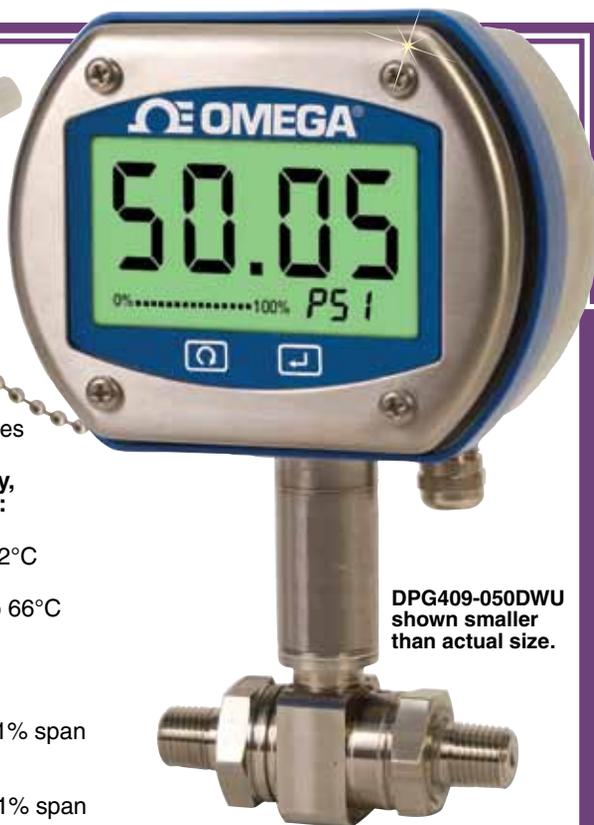
Hi-Side Containment Pressure (Differential):

10 inH₂O to 5 psi: To 1000 psi
 15 to 1000 psi: To 3000 psi

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

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

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



DPG409-050DWU shown smaller than actual size.

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

Battery Life (Typical): Up to 9 months

Enclosure Material: 316 Stainless Steel and ABS center gasket

Enclosure Finish: Brushed 316 stainless steel

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

Sensor Wetted Parts: 316L stainless steel

Pressure Connection: ¼-18 NPT male

Dimensions:

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

Sensor: 72 to 89 mm L (2.8 to 3.5") below display, 80 mm (3.1") wide

Weight: 1 kg (2.2 lb) Typical depending upon configuration

Front Panel Functions

Backlight: Manually turns backlight on/off

Min/Max: Recalls minimum/maximum values

Zero/Clear: Zeros display or clears minimum/maximum

Software Settings (via USB)

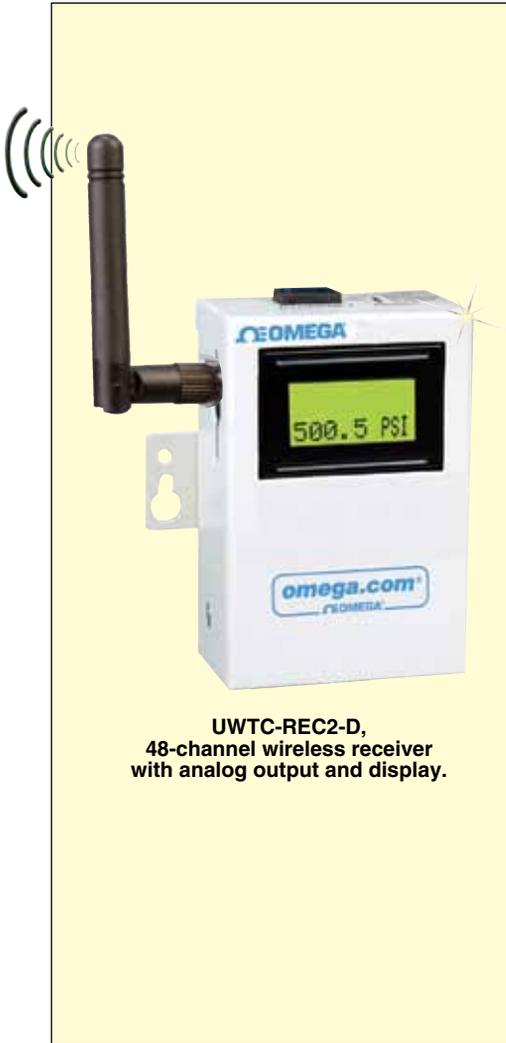
(USB connection is for set-up only)

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

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.

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

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: Up to 120 m (400') outdoors (line of sight); Up to 40 m (130') indoors/urban

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

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

To Order

RANGE/ RESOLUTION psi	BAR	MODEL NO. ¼ NPT MALE THREAD
WET/WET UNI-DIRECTIONAL DIFFERENTIAL PRESSURE MODELS		
0 to 10.00 inH ₂ O	0 to 25 mbar	DPG409-10WDWU
0 to 1.000 psi	0 to 70 mbar	DPG409-001DWU
0 to 2.500	0 to 170 mbar	DPG409-2.5DWU
0 to 5.000	0 to 350 mbar	DPG409-005DWU
0 to 15.00	0 to 1	DPG409-015DWU
0 to 30.00	0 to 2	DPG409-030DWU
0 to 50.00	0 to 3.5	DPG409-050DWU
0 to 100.0	0 to 7	DPG409-100DWU
0 to 150.0	0 to 10	DPG409-150DWU
0 to 250.0	0 to 17.5	DPG409-250DWU
0 to 500.0	0 to 35	DPG409-500DWU
0 to 750.0	0 to 50	DPG409-750DWU
0 to 1000	0 to 70	DPG409-1KDWU
WET/WET UNI-DIRECTIONAL DIFFERENTIAL PRESSURE MODELS WITH WIRELESS TRANSMITTER		
0 to 10.00 inH ₂ O	0 to 25 mbar	DPG409-10WDWU-W
0 to 1.000 psi	0 to 70 mbar	DPG409-001DWU-W
0 to 2.500	0 to 170 mbar	DPG409-2.5DWU-W
0 to 5.000	0 to 350 mbar	DPG409-005DWU-W
0 to 15.00	0 to 1	DPG409-015DWU-W
0 to 30.00	0 to 2	DPG409-030DWU-W
0 to 50.00	0 to 3.5	DPG409-050DWU-W
0 to 100.0	0 to 7	DPG409-100DWU-W
0 to 150.0	0 to 10	DPG409-150DWU-W
0 to 250.0	0 to 17.5	DPG409-250DWU-W
0 to 500.0	0 to 35	DPG409-500DWU-W
0 to 750.0	0 to 50	DPG409-750DWU-W
0 to 1000	0 to 70	DPG409-1KDWU-W

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, one 3.6V lithium C cell battery (two with wireless option), set-up and configuration software (charting and databasing software with common drivers) USB cable, 2.7 m (9’) analog output cable and 5-point NIST traceable calibration certificate.

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

Ordering Examples: DPG409-015DWU, 0 to 15 psi uni-directional differential pressure gauge with analog output.

DPG409-100DWU-W, 0 to 100 psi uni-directional differential pressure gauge with analog output and wireless transmitter.