

DIGITAL DIFFERENTIAL PRESSURE

GAUGES WITH METRIC FITTINGS AND RANGES

0.08% ACCURACY WITH 316L SS WETTED PARTS AND BODY

**Uni-Directional Differential
Pressure Ranges**

0-25 mb to 0-70 bar

(0-10 inH₂O to 0-1000 psi)

DPGM409 Differential Series



Standard

- ✓ Wet/Wet Differential Pressure Measurement
- ✓ 5-Point NIST Traceable Calibration
- ✓ 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
- ✓ Bar Graph on Display
- ✓ Wireless Transmitter Option Sends Reading to Remote Location and Includes Charting and Data Logging Software

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

- ✓ CE Certified
- ✓ Battery Powered with Long Battery Life
- ✓ NEMA 4X (IP65) Enclosure
- ✓ Metric Ranges and Pressure Connections

Magnetic
stylus
(included).

IP65 case.

DPGM409-17.5BDWU,
shown smaller than
actual size.

Standard integral
pressure sensor

Omega's DPGM409 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.

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

SPECIFICATIONS

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

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 25 mb to 70 mb: ±1% span
Ranges >70 mb: ±0.5% span

Span Setting:

Ranges 25 mb to 70 mb: ±1% span
Ranges >70 mb: ±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.):
±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 for all analog output types)

Notes: 1. Bidirectional ranges have a unidirectional analog output equal to their full span; i.e. -15 to +15 psi = 0 to 10 Vdc.

2. 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') with ferrite core (included)

Analog Output Accuracy:
0.08% typical (0.15% maximum in RF field @ 10V/m)

Line/Static Pressure:

500 psi maximum applied to both sides simultaneously

Proof Pressure (differential):

25 mb: = 10 times range

70 mb: = 6 times range

170 mb to 50 Bar: = 4 times range

70 Bar Range: = 3 times range

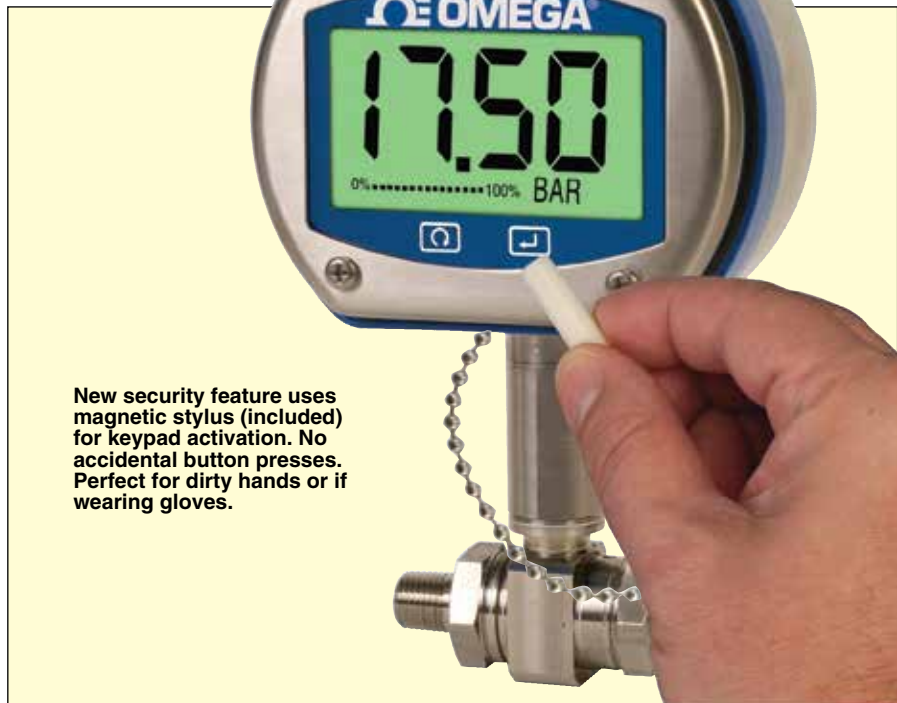
Hi-Side Containment Pressure (Differential):

25 to 350 mb: To 1000 psi

1 to 70 bar: To 3000 psi

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

Sample/Display Range: User selectable from 0.38 to 30 seconds (preset to 1/second)



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

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

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 4-years

Enclosure Material: 316 Stainless Steel and ABS center gasket

Enclosure Finish: Electropolished

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

Sensor Wetted Parts:

316L stainless steel

Pressure Connection: G ¼ male

Dimensions:

Display: 115 D x 89 W x 74 mm H
(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 min/max values

Zero/Clear: Zeros display or clears min/max

Software Settings (via USB)

(USB connection is for set-up only)

Units: psi, inHg, inH₂O, bar, mbar

Lock: Allows the lock-out of front panel functions

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

Backlight: On/Off, 10 seconds, 30 seconds, 1 minute, 5 minute

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: 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

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.

To Order

RANGE/RESOLUTION (bar)	MODEL No. G ¼ MALE TH'd	DESCRIPTION
WET/WET UNI-DIRECTIONAL DIFFERENTIAL PRESSURE MODELS		
0 to 25.00 mbar	DPGM409-025HDWU	25 mbar w/w uni-directional pressure
0 to 70.00 mbar	DPGM409-070HDWU	70 mbar w/w uni-directional pressure
0 to 170.0 mbar	DPGM409-170HDWU	170 mbar w/w uni-directional pressure
0 to 350.0 mbar	DPGM409-350HDWU	350 mbar w/w uni-directional pressure
0 to 1.000 bar	DPGM409-001BDWU	1 bar w/w uni-directional pressure
0 to 2.000	DPGM409-002BDWU	2 bar w/w uni-directional pressure
0 to 3.500	DPGM409-3.5BDWU	3.5 bar w/w uni-directional pressure
0 to 7.000	DPGM409-007BDWU	7 bar w/w uni-directional pressure
0 to 10.00	DPGM409-010BDWU	10 bar w/w uni-directional pressure
0 to 17.50	DPGM409-17.5BDWU	17.5 bar w/w uni-directional pressure
0 to 35.00	DPGM409-035BDWU	35 bar w/w uni-directional pressure
0 to 50.00	DPGM409-050BDWU	50 bar w/w uni-directional pressure
0 to 70.00	DPGM409-070BDWU	70 bar w/w uni-directional pressure
WET/WET UNI-DIRECTIONAL DIFFERENTIAL PRESSURE MODELS - WITH WIRELESS TRANSMITTER OPTION		
0 to 25.00 mbar	DPGM409-025HDWU-W	25 mbar w/w uni-directional wireless
0 to 70.00 mbar	DPGM409-070HDWU-W	70 mbar w/w uni-directional wireless
0 to 170.0 mbar	DPGM409-170HDWU-W	170 mbar w/w uni-directional wireless
0 to 350.0 mbar	DPGM409-350HDWU-W	350 mbar w/w uni-directional wireless
0 to 1.000 bar	DPGM409-001BDWU-W	1 bar w/w uni-directional wireless
0 to 2.000	DPGM409-002BDWU-W	2 bar w/w uni-directional wireless
0 to 3.500	DPGM409-3.5BDWU-W	3.5 bar w/w uni-directional wireless
0 to 7.000	DPGM409-007BDWU-W	7 bar w/w uni-directional wireless
0 to 10.00	DPGM409-010BDWU-W	10 bar w/w uni-directional wireless
0 to 17.50	DPGM409-17.5BDWU-W	17.5 bar w/w uni-directional wireless
0 to 35.00	DPGM409-035BDWU-W	35 bar w/w uni-directional wireless
0 to 50.00	DPGM409-050BDWU-W	50 bar w/w uni-directional wireless
0 to 70.00	DPGM409-070BDWU-W	70 bar w/w uni-directional wireless

WIRELESS RECEIVERS (FOR USE WITH WIRELESS 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 display

Comes complete with operator's manual, battery (2 with wireless option), set-up and configuration software, USB cable (with wireless option) charting and databasing software with common drivers, USB cable, 2.7 m (8.9') analog output cable with ferrite core and 5-point NIST traceable calibration certificate.

* Specify analog output signal "V1" for 0 to 5 Vdc; "V2" for 0 to 10 Vdc; "TC" for Type K thermocouple; "MA" for 4 to 20 mA.

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

Ordering Examples: **DPGM409-170HDWU**, 0 to 170 mbar uni-directional differential pressure gauge with analog output.

DPGM409-007BDWU-W, 0 to 7 bar uni-directional differential pressure gauge with analog output and wireless transmitter.