

## Battery-, Loop-, and AC-Powered digital Pressure Gauges



Optional  
NIST Available On  
DPG1001 Models

See Page G-16  
for Ordering  
Information

- Three power options: Battery, Loop, or AC / DC
- Vacuum to 5000 psi ranges
- $\pm 0.25\%$  and  $\pm 0.10\%$  accuracy models
- 316 SS wetted parts
- Loop test function
- Easy-to-Read 3 1/2 digit LCD
- Pressure or vacuum applications
- Rugged aluminum or NEMA 4X (IP66) case

The DPG1000 Series is a versatile family of industrial pressure / vacuum gauges. All DPG1000 models feature a large 13 mm ( 1/2 ") high digital display in a rugged, splash-proof, extruded, aluminum case.

A 1/4 - 18 NPT 316 stainless steel fitting is standard for the pressure connection. Media compatibility includes all liquids and gases compatible with 316 SS.

The DPG1000B Series features a wide operating temperature range of - 20 to 85 °C (-4 to 185 °F). Many standard pressure / vacuum ranges (in a choice of engineering units) with both gauge and absolute references are available. The series also features  $\pm 2x$  overpressure, and 4x burst specifications, and are available with either 0.25 % or 0.10 % accuracy.

### DPG1000AD (AC / DC Powered)

The DPG1000AD is powered by either 8 to 24 V AC, or 9 to 32 V DC. No recalibration is needed, and no jumpers have to be moved to use either AC or DC power within the specified range.

No polarity needs to be observed when connecting a DC supply. Therefore, the DPG1000AD can be used with inexpensive, unregulated AC or DC power sources in applications requiring continuous pressure display.



DPG1000AD-30G  
shown smaller  
than actual size



DPG1000B-300G  
shown smaller  
than actual size

Backlit  
Display  
Optional

### DPG1000B (Battery Powered)

The DPG1000B is powered by standard AA batteries that can operate the gauge for approximately 2500 hours. All DPG1000B models include a standard 5 minute auto shut-off feature to conserve battery life. Low-battery indication is also standard. An optional rubber boot (DPG1000-RB) is available. Requiring no electrical connection, the DPG1000B works equally well in portable or fixed applications.

DPG1000L-300G  
shown smaller  
than actual size

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Snubbers



### DPG1000L (Loop Powered)

All operating power for the DPG1000L gauge is supplied by the 4 to 20 mA output loop. This "2-wire" connection lets the DPG1000L operate as a digital indicating transmitter in any 4 to 20 mA current loop application. Individual, non-interactive controls are available for the zero/span display and the output loop 4 to 20 mA settings. Connection to the DPG1000L is made via a 2-conductor cable at the back of the gauge.

A front-accessible TEST push button switches the display and output loop to a preset level determined by the setting of a "Test Calibration" potentiometer. This feature allows easy testing of the display and process loop with a preset input signal in place of the actual input. The DPG1000L also includes "low loop" warning circuitry. This circuitry indicates on the display when the loop supply voltage falls below a level that may not be sufficient to drive a full 20 mA into the loop load resistance. These 2 proprietary features make the

## Battery-, Loop-, and AC-Powered Digital Pressure Gauges



DPG1000L-300G  
shown smaller than  
actual size



DPG1100B-1KG  
with NEMA 4X case  
shown smaller than  
actual size

To order NEMA 4X  
case, specify model  
number DPG1100

### Specifications

**Power:** 2 "AA" batteries (included), provide

**B Models:** Up to 2500 hr life typically; auto shut-off: 5 min; LOBAT indication

**L Models:** 8 to 32 V DC at gauge; reverse polarity protected

**AD Models:** 8 to 24 V AC 50 to 60 Hz or 9 to 32 V DC; 5 mA max

**Pressure / Vacuum Reference:** Gage (psig) or absolute (psia)

**Optional Units:** Gauge can be factory scaled to any engineering unit such as: psi, kPa, bar, mbar, inHg, inH<sub>2</sub>O, mmHg, ftH<sub>2</sub>O, torr, kg/cm<sup>2</sup>

**Display Type/Size:** LCD, 13 mm (0.5 ") digit height, 3 readings per second

#### Controls and Location:

**B and AD models:** Display zero / span, non-interactive, ± 15 % range; top-accessible, multi-turn potentiometers

**L Models:** Display zero/span, non-interactive, ± 15 % range; test calibration level, 0 to 100 % range; top-accessible, multi-turn potentiometers; loop 4 mA and 20 mA internal potentiometers

#### Accuracy:

**DPG1000/1100:** ± 0.25 % FSO or better, ± 1 least significant digit (includes linearity, hysteresis, repeatability)

**DPG1001:** ± 0.10 % FSO or better, ± 1 least significant digit (includes linearity, hysteresis, repeatability)

#### Temperature Stability [25 °C (77 °F)]:

**DPG1000/1100:** ± 0.25 % FSO or better, ± 1 least significant digit (includes linearity, hysteresis, repeatability) ± 1 % FS for offset and span, 0 to 70 °C (32 to 158 °F) typical; ± 2 % FS for offset and span, 0 to 70 °C (32 to 158 °F) typical for 3 and 5 psi range

**DPG1001:** ± 0.003 % FSO or better, ± 1 least significant digit (includes linearity, hysteresis, repeatability); optional NIST traceable certificate included

**Operating Temperature:** -20 to 85°C (-4 to 185°F)

**Compensated Temperature:** 0 to 70°C (32 to 158°F) Storage

**Temperature:** -55 to 95°C (-67 to 203°F) Weight: Approx. 255 g (9 oz)

**Standard Case:** Extruded aluminum case, epoxy powder coated; poly-carbonate cover, front and rear gaskets

**NEMA 4X Case (DPG1100 models):** UV stabilized polycarbonate/ABS case, clear polycarbonate window, gasketed rear cover, captive SS screws

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**Pressure/Vacuum Connection:** 316 SS, 1/4 - 18 MNPT

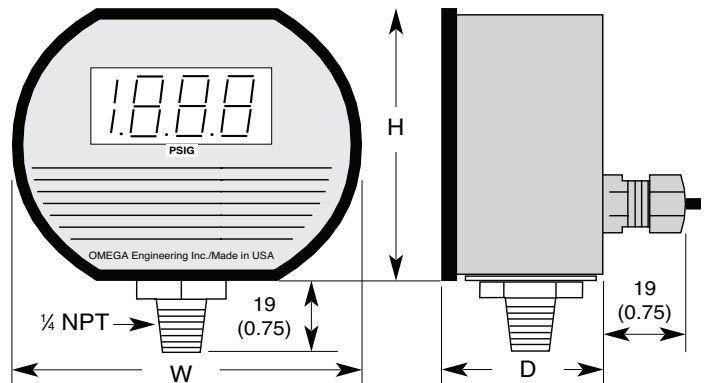
**Wetted Parts:** 316 SS

**Electrical Connection:** 0.9 m (3') 2-conductor 22 AWG cable (none required on DPG1000B)

**Overpressure:** 2x rated pressure min

**Burst Pressure:** 4x rated pressure min

#### Dimensions: mm (inch)



#### Dimensions: mm (inch)

	W	H	D
<b>Std Case</b>	86 (3.38)	73 (2.88)	42 (1.65)
<b>NEMA 4X</b>	89 (3.5)	76 (3.0)	51 (2.0)

#### Options

Order Suffix	Description
<b>-F10</b>	10 min auto shut-off for DPG1000B units
<b>-F30</b>	30 min auto shut-off for DPG1000B units
<b>-NS</b>	No auto shut-off for DPG1000B units
<b>BL</b>	Backlit display*

\*Not available with DPG1000L models, with compound range "30 V 100 G" models, or with DPGL1001 models.

#### Accessories

Model No.	Description
<b>DPG1000-PS</b>	Wall mount 115 V AC power supply for DPG1000AD units
<b>DPG1000-RB</b>	Rubber boot for DPG1000B units



To Order			
Range (PSI)	± 0.25 % Accuracy Standard Case	± 0.25 % Accuracy NEMA 4X Case	± 0.10 % Accuracy Standard Case
<b>Battery Powered</b>			
-30 inHg to 100.0	DPG1000B-30V100G	DPG1100B-30V100G	-
0 to 5.00	DPG1000B-05G	DPG1100B-05G	DPG1001B-05G
0 to 15.00	DPG1000B-15G	DPG1100B-15G	DPG1001B-15G
0 to 30.0	DPG1000B-30G	DPG1100B-30G	-
0 to 60.0	DPG1000B-60G	DPG1100B-60G	DPG1001B-60G
0 to 100.0	DPG1000B-100G	DPG1100B-100G	DPG1001B-100G
0 to 300	DPG1000B-300G	DPG1100B-300G	-
0 to 500	DPG1000B-500G	DPG1100B-500G	DPG1001B-500G
0 to 1000	DPG1000B-1KG	DPG1100B-1KG	DPG1001B-1KG
0 to 2000	DPG1000B-2KG	DPG1100B-2KG	-
0 to 3000	DPG1000B-3KG	-	-
0 to 5000	DPG1000B-5KG	-	-
<b>Loop Powered - Backlight Not Available</b>			
0 to 5.00	DPG1000L-05G	DPG1100L-05G	DPG1001L-05G
0 to 15.00	DPG1000L-15G	DPG1100L-15G	DPG1001L-15G
0 to 30.0	DPG1000L-30G	DPG1100L-30G	-
0 to 60.0	DPG1000L-60G	DPG1100L-60G	DPG1001L-60G
0 to 100.0	DPG1000L-100G	DPG1100L-100G	DPG1001L-100G
0 to 300	DPG1000L-300G	DPG1100L-300G	-
0 to 500	DPG1000L-500G	DPG1100L-500G	DPG1001L-500G
0 to 1000	DPG1000L-1KG	DPG1100L-1KG	DPG1001L-1KG
0 to 2000	DPG1000L-2KG	DPG1100L-2KG	-
0 to 3000	DPG1000L-3KG	-	-
0 to 5000	DPG1000L-5KG	-	-
<b>AC / DC Powered</b>			
-30 inHg to 100.0	DPG1000AD-30V100G	DPG1100AD-30V100G	-
0 to 5.00	DPG1000AD-05G	DPG1100AD-05G	DPG1001AD-05G
0 to 15.00	DPG1000AD-15G	DPG1100AD-15G	DPG1001AD-15G
0 to 30.0	DPG1000AD-30G	DPG1100AD-30G	-
0 to 60.0	DPG1000AD-60G	DPG1100AD-60G	DPG1001AD-60G
0 to 100.0	DPG1000AD-100G	DPG1100AD-100G	DPG1001AD-100G
0 to 300	DPG1000AD-300G	DPG1100AD-300G	-
0 to 500	DPG1000AD-500G	DPG1100AD-500G	DPG1001AD-500G
0 to 1000	DPG1000AD-1KG	DPG1100AD-1KG	DPG1001AD-1KG
0 to 2000	DPG1000AD-2KG	DPG1100AD-2KG	-
0 to 3000	DPG1000AD-3KG	-	-
0 to 5000	DPG1000AD-5KG	-	-

Comes complete with operator's manual. DPG1001 models also include NIST-traceable calibration certificate.

15, 30 and 100 psi models available with absolute pressure range on DPG1000B models. Change model number from "-15G" to "-15A", "-30G" to "-30A", or "-100G" to "-100A", and add additional cost to price.

**Ordering Examples:** DPG1000B-100G, ±0.25% battery-powered digital gauge, 0 to 100.0 psig range. DPG1000BBL-60G, battery-powered ± 0.25 % unit, 60 psi range.

DPG1001L-500G, ± 0.1 % loop-powered digital gauge, 0 to 500 psig range.



# DIGITAL DECADE PANELS

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## WITH ALARMS AND ANALOG OUTPUT FUNCTIONS

### DPG1000ADA

#### AC/DC Powered with Dual Alarms

##### SPECIFICATIONS

**Accuracy:**  $\pm 0.25\%$  FSO or better,  $\pm 1$  least-significant digit (includes linearity, hysteresis, repeatability)

**Controls and Location:** Display zero/span, non-interactive,  $\pm 15\%$  range; setpoint 1 and setpoint 2, 0 to 100% range; top-accessible, multiturn potentiometers

**Alarm Deadbands (Hysteresis):** 1% of FSO, standard

**Alarm Outputs:** Dual form "C" (SPDT) relay contacts; individual setpoint 1 and setpoint 2 settings via top-accessible multiturn potentiometers; high/low alarm configuration standard, others available; relay contacts rated 1 A/24 Vdc, 0.5 A/115 Vac, non-inductive

**Alarm Indicators:** Bicolor (red/green) LEDs on front panel

DPG1000ADA-300G-1N  
shown actual size.

**Test Function:** Front-panel TEST button, when depressed, toggles both SP1 and SP2 alarm status, independent of pressure input, to allow testing of system operation

**Alarm Response Time:** 100 ms typical

**Power:** Any AC source of 8 to 24 Vac, 50/60 Hz, or any DC source of 9 to 32 Vdc, 1.0 W maximum; optional wall-mount power supply available to operate on 115 Vac (DPG1000-PS)

**Electrical Connection:** 0.9 m (3') long, 2-conductor 22 AWG cable for power; 0.9 m (3'), 6-conductor 22 AWG cable for alarm contacts

**Sensor:** Precision oil-filled silicon



### DPG1000DAR DC Powered with Dual Alarms and 4 to 20 mA Output

##### SPECIFICATIONS

**Accuracy:**  $\pm 0.25\%$  FSO or better,  $\pm 1$  least-significant digit (includes linearity, hysteresis, repeatability)

**Controls and Location:** Display zero/span, non-interactive,  $\pm 15\%$  range; setpoint 1 and setpoint 2, 0 to 100% range; test calibration level, 0 to 100% range; top-accessible, multiturn potentiometers analog output zero/span; internal potentiometers

**Alarm Deadbands (Hysteresis):** 1% of FSO, standard

**Alarm Outputs:** Dual form "C" (SPDT) relay contacts; individual setpoint 1 and setpoint 2 settings via top-accessible multiturn potentiometers; high/low alarm configuration standard; relay contacts rated 1 A/24 Vdc, 0.5 A/115 Vac, non-inductive

**Alarm Indicators:** Bi-color (red/green) LEDs on front panel

**Alarm Response Time:** 100 ms typical

**Analog Output:** 4 to 20 mA DC; output drive

(compliance) determined by power source

**Analog Output Response Time:** 50 ms, typical

**Test Function:** Front-panel TEST button, when depressed, toggles both SP1 and SP2 alarm status and simultaneously sets display and analog output to "calibration" level, independent of pressure input, to allow testing system operation

**Power:** Any DC source of 9 to 32 Vdc, 1.0 W maximum

**Electrical Connection:** 0.9 m (3') long, 4-conductor 22 AWG shielded cable for power and retransmitted output; 0.9 m (3') long, 6-conductor 22 AWG cable for alarm contacts.

DPG1000DAR-300G-1N  
shown actual size.





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**WITH ALARMS AND ANALOG OUTPUT FUNCTIONS**

PRESSURE GAUGES **G**

**Using the DPG1000ADA and DPG1000DAR Alarm Outputs Normal (Fail-safe) vs. Reverse Action**—The convention for alarm action is that with the normal or fail-safe configuration, the alarm output relays will be CLOSED (relay energized) for a clear or non-alarm condition and OPEN (relay not energized) for an alarm condition. This is primarily for users who require an alarm condition if the gauge loses power or suffers a catastrophic failure. In the wiring diagrams, the normally closed and normally open designations refer to standard relay terminology (i.e., the relay contact status with the relay coil not energized).

Therefore, with the normal (fail-safe) configuration in a green or non-alarm condition, the relay will be energized so that continuity can be expected between the common and normally open leads. In a red or alarm condition, the relay will be open (not energized) so that continuity can be expected between the common and normally closed leads.

**Contact Rating and Protection**  
 The contacts of the alarm relays are rated at 1 A/24 Vdc or 0.5 A/115 Vac. Switching loads greater than the rating, or switching large inductive loads, will shorten the useful life of the contacts. In low-level switching or with dry contacts, the user should consider whether external contact protection, such as snubber networks or arc suppression networks, is required to protect the contacts.

In addition, no internal fusing is included in the DPG1000 contact circuits. The circuit external to the gauge alarm outputs should be fused by the user in applications in which good design dictates this practice.

**Using the DPG1000DAR Analog Output**

The analog output is easy to use if a few system considerations are observed. The DPG1000DAR is DC powered, with the gauge power supply (-) tied to the 4 to 20 mA (-). Therefore, the DC supply (-) lead should be considered common with

regard to the analog output (-) or ground connection in the user's system.

Be sure to observe the output compliance (voltage drive) capabilities of the gauge. The compliance, and therefore the maximum loop resistance the output can drive, is a function of the supply voltage to the gauge. Consult the manual for maximum loop resistance vs. supply voltage. Too large a loop resistance will cause the gauge output to "limit" or saturate before reaching its full 20 mA output.



DPG1000ADA-300G-1N shown smaller than actual size.

ALARM CONFIGURATIONS		
1		HI/LO (standard)
2		HI/HI
3		LO/LO
	N	Normal acting (standard)
	R	Reverse acting

**¼ NPT Pressure Snubbers**  
 PS-4G = Gas  
 PS-4E = Lt Oil  
 PS-4D = Dense Lq

To Order		
RANGE (psi)	MODEL NO.	COMPATIBLE METERS
<b>AC/DC POWERED/DUAL ALARMS</b>		
0 to 15.00	DPG1000ADA-15G-1N	N/A
0 to 30.00	DPG1000ADA-30G-1N	N/A
0 to 100.0	DPG1000ADA-100G-1N	N/A
0 to 300	DPG1000ADA-300G-1N	N/A
0 to 500	DPG1000ADA-500G-1N	N/A
0 to 1000	DPG1000ADA-1KG-1N	N/A
<b>DC POWERED/DUAL ALARMS/ANALOG OUTPUT</b>		
0 to 15.00	DPG1000DAR-15G-1N	DP41-E, DP25B-E, DP24-E
0 to 30.00	DPG1000DAR-30G-1N	DP41-E, DP25B-E, DP24-E
0 to 100.0	DPG1000DAR-100G-1N	DP41-E, DP25B-E, DP24-E
0 to 300	DPG1000DAR-300G-1N	DP41-E, DP25B-E, DP24-E
0 to 500	DPG1000DAR-500G-1N	DP41-E, DP25B-E, DP24-E
0 to 1000	DPG1000DAR-1KG-1N	DP41-E, DP25B-E, DP24-E

Comes complete with operator's manual.

**Note:** To order another alarm configuration, replace "-1N" with alarm configuration from table above.

**Ordering Examples:** DPG1000ADA-100G-1N, AC/DC-powered unit with range of 0 to 100.0 psig and standard-acting dual alarms in the HI/LO configuration.

DPG1000DAR-100G-1N, DC-powered unit with range of 0 to 100.0 psig, analog output and standard-acting dual alarms in the HI/LO configuration.

Units available with 15 and 100 psi absolute pressure range. Change "15G" in model number to "15A" or "100G" to "100A" and add additional cost to price.

**ACCESSORY**

MODEL NO.	DESCRIPTION
DPG1000-PS	Wall mount 115 Vac power supply for DPG1000ADA units

# PRESSURE GAUGES WITH NIST CERTIFICATION

**Three Power Options: Battery  
Powered, Loop Powered,  
AC/DC Powered**

## DPG1001 Series



- ✓ NIST Certification Included
- ✓ High-Accuracy  $\pm 0.10\%$  Test Gauge
- ✓ 316 SS Wetted Parts
- ✓ Easy-to-Read 3½ Digit LCD
- ✓ Rugged Aluminum Case

The DPG1001 Series is a versatile family of industrial pressure gauges. All DPG1001 models feature a large 13 mm H (½") digital display in a rugged, splashproof extruded aluminum case.

A ¼-18 NPT 316 stainless steel fitting is standard for the pressure connection. Media compatibility includes all liquids and gases compatible with 316 SS.

The DPG1001B features a wide operating temperature range of -20 to 85°C (-4 to 185°F). Many standard pressure ranges are available. The DPG1001 Series also features  $\pm 0.10\%$  accuracy, 2x overpressure, and 4x burst specifications.

### DPG1001AD (AC/DC Powered)

The DPG1001AD is powered by any AC source of 8 to 24 Vac 50/60 Hz or any DC source of 9 to 32 Vdc. No recalibration is needed, and no jumpers have to be moved to use either AC or DC power within the specified range. No polarity needs to be observed when connecting a DC supply. Therefore, the DPG1001AD can be used with inexpensive, unregulated AC or DC power sources in applications requiring continuous pressure display.



DPG1001AD-100G  
shown smaller than actual size.

DPG1001B-100G  
shown smaller  
than actual size.



### DPG1001B (Battery Powered)

The DPG1001B is powered by replaceable batteries that can operate the gauge for approximately 2500 hours. All DPG1001B models include standard auto shut-off circuitry to conserve battery life. A low-battery indication is also standard. An optional rubber boot (DPG1000-RB) is available as well.

Requiring no electrical connection, the DPG1001B is equally suited to portable or fixed applications.

DPG1001L-100G  
shown smaller  
than actual  
size.



### DPG1001L (Loop Powered)

All operating power for the DPG1001L gauge is supplied by the 4 to 20 mA output loop. This "2-wire" connection allows the DPG1001L to be used as a digital indicating transmitter in any 4 to 20 mA current loop application. Individual, non-interactive controls are available for the zero/span display and the output loop 4 to 20 mA settings. Connection to the DPG1001L is made via a 2-conductor cable at the back of the gauge.

A front-accessible TEST pushbutton switches the display and output loop to a preset level determined by the setting of a "Test Calibration" potentiometer. This feature allows easy testing of the display and process loop with a preset input signal in place of the actual input. The DPG1001L also includes "low loop" warning circuitry. This circuitry indicates on the display when the loop supply voltage falls below a level that may not be sufficient to drive a full 20 mA into the loop load resistance. These 2 proprietary features make the DPG1001L easier to set up and maintain.

# HIGH-ACCURACY DIGITAL PRESSURE GAUGES

## SPECIFICATIONS

### Power:

- DPG1001B:** 2 "AA" batteries (included) provide up to 2500 hr life typically; auto shut-off: 5 minutes; LOBAT indication
- DPG1001L:** 8 to 32 Vdc at gauge; reverse polarity protected
- DPG1001AD:** 8 to 24 Vac 50/60 Hz or 9 to 32 Vdc; 5 mA max

**Standard Ranges:** 0 to 5.00, 0 to 15.00, 0 to 100.0, 0 to 500, 0 to 1000 psi gauge

**Display Type/Size:** LCD, 13 mm (0.5") digit height, 3 readings per second

### Controls and Location:

- DPG1001B and DPG1001AD:** Display zero/span, non-interactive,  $\pm 15\%$  range; top-accessible, multiturn potentiometers
- DPG1001L:** Display zero/span, non-interactive,  $\pm 15\%$  range; test calibration level, 0 to 100% range; top-accessible, multiturn potentiometers; loop 4 mA and 20 mA internal potentiometers

**Accuracy:**  $\pm 0.10\%$  FSO or better,  $\pm 1$  least-significant digit (includes linearity, hysteresis, repeatability); NIST certificate included

### Temperature Stability:

$\pm 0.003\%$  of span per  $^{\circ}\text{C}$  (typical)  
 $\pm 0.01\%$  of span per  $^{\circ}\text{C}$  (max)  
 0 to  $70^{\circ}\text{C}$  ( $-18$  to  $158^{\circ}\text{F}$ )

**Storage Temperature:**  $-55$  to  $95^{\circ}\text{C}$  ( $-67$  to  $203^{\circ}\text{F}$ )

**Operating Temperature:**  $-20$  to  $85^{\circ}\text{C}$  ( $-4$  to  $185^{\circ}\text{F}$ )

### Compensated Temperature:

0 to  $70^{\circ}\text{C}$  ( $32$  to  $158^{\circ}\text{F}$ )

**Weight:** Approx. 255 g (9 oz)

**Standard Case:** Extruded aluminum case, epoxy powder coated; polycarbonate cover, front and rear gaskets

### Pressure Connection:

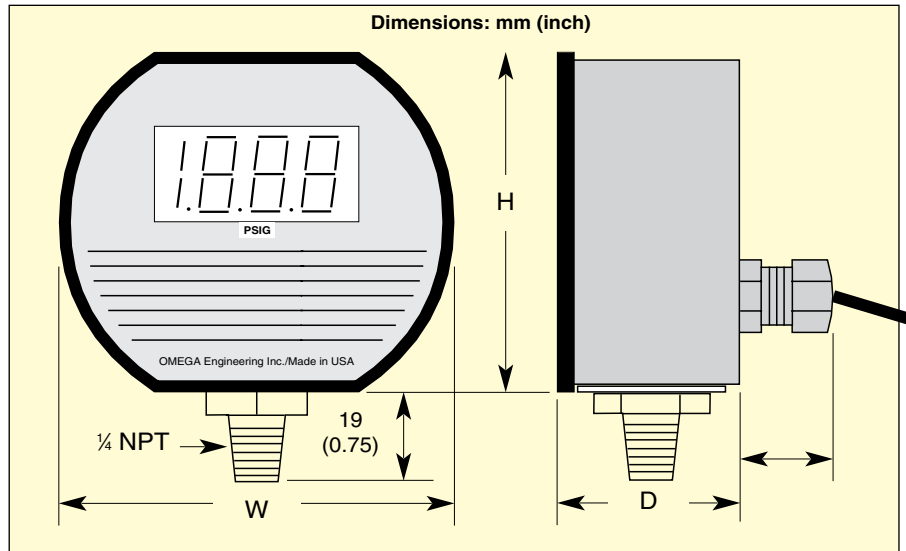
316 SS,  $\frac{1}{4}$ -18 MNPT

**Wetted Parts:** 316 SS

**Electrical Connection:** 0.9 m (3') 2-conductor 22 AWG cable (none required on DPG1001B)

**Overpressure:** 2x rated pressure min

**Burst Pressure:** 4x rated pressure min



Dimensions: mm (inch)

	W	H	D
Standard Case	86 (3.38)	73 (2.88)	42 (1.65)

## To Order Visit [omega.com/dpg1001](http://omega.com/dpg1001) for Pricing and Details

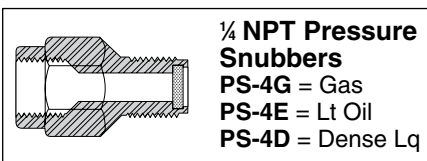
RANGE (psi)	MODEL NO.	COMPATIBLE METERS
<b>BATTERY POWERED - STANDARD CASE</b>		
0 to 5.00	<b>DPG1001B-05G</b>	N/A
0 to 15.00	<b>DPG1001B-15G</b>	N/A
0 to 100.0	<b>DPG1001B-100G</b>	N/A
0 to 500	<b>DPG1001B-500G</b>	N/A
0 to 1000	<b>DPG1001B-1KG</b>	N/A
<b>LOOP POWERED - STANDARD CASE</b>		
0 to 5.00	<b>DPG1001L-05G</b>	DP41-E, DP25B-E, DP24-E
0 to 15.00	<b>DPG1001L-15G</b>	DP41-E, DP25B-E, DP24-E
0 to 100.0	<b>DPG1001L-100G</b>	DP41-E, DP25B-E, DP24-E
0 to 500	<b>DPG1001L-500G</b>	DP41-E, DP25B-E, DP24-E
0 to 1000	<b>DPG1001L-1KG</b>	DP41-E, DP25B-E, DP24-E
<b>AC/DC POWERED - STANDARD CASE</b>		
0 to 5.00	<b>DPG1001AD-05G</b>	N/A
0 to 15.00	<b>DPG1001AD-15G</b>	N/A
0 to 100.0	<b>DPG1001AD-100G</b>	N/A
0 to 500	<b>DPG1001AD-500G</b>	N/A
0 to 1000	<b>DPG1001AD-1KG</b>	N/A

Comes complete with operator's manual.

To order wall-mount 115 Vac power supply, specify **DPG1000-PS**.

Custom ranges not available.

**Ordering Example:** **DPG1001B-100G**, high-accuracy battery-powered digital gauge with a range of 0 to 100.0 psig, NIST certificate included.



## ACCESSORY

MODEL NO.	DESCRIPTION
<b>DPG1000-PS</b>	Wall-mount 115 Vac power supply



# DIGITAL DECADE GAUGES

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## WITH SELECTABLE ENGINEERING UNITS AND MEASUREMENT MEMORY

**0-3 to 0-5000 psi Range**  
**Gauge, Compound Gauge,**  
**Absolute and Vacuum Models Available**

PRESSURE  
GAUGES

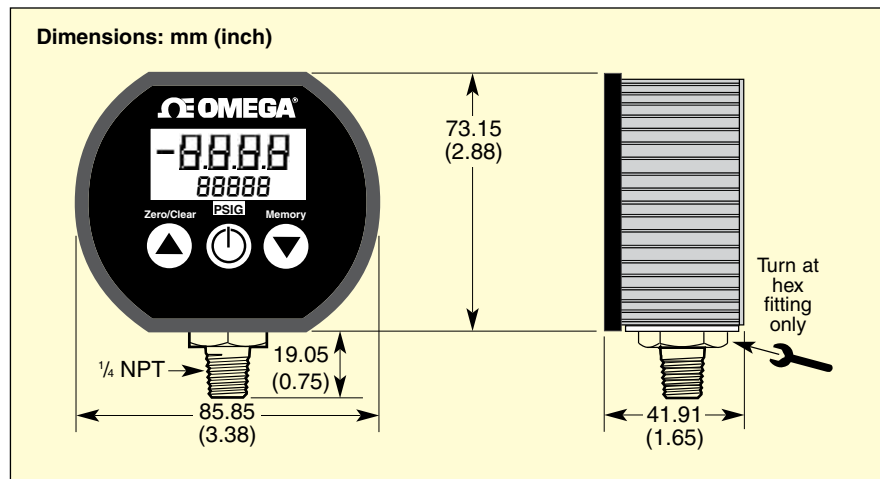
### DPG2001B Series



- ✓ ±0.25% Accuracy
- ✓ 316 SS Wetted Parts
- ✓ Selectable Engineering Units
- ✓ Selectable Auto Shutoff Times
- ✓ Front Zero Function
- ✓ Memory up to 6 Readings
- ✓ 4-Digit Display with 5 Character Alphanumerics
- ✓ Optional Backlit Display
- ✓ Optional NEMA 4X Case

DPG2001B-300G

OMEGA's DPG2001B Series digital pressure gauges are high accuracy battery powered gauges that include many premium functions at no extra cost. Options are available for a NEMA 4X case and backlighting. Each unit has a dual display (digital and alphanumeric), memory for 6 readings, front panel auto zero, auto shutoff from 1 minute to 8 hours, and up to 15 selectable engineering units depending upon the range.



### SPECIFICATIONS

**Power:** 2 AA batteries (included)

**Battery Life:** Approx. 2000 hrs or with backlighting (red): 150 to 1500 hours, depending upon use of backlighting

**Accuracy:** ±0.25% FS ±1 digit (includes linearity, hysteresis and repeatability)

**Display:** 4 digit, 0.5" H and 5 character 0.25" H alphanumeric

**Auto Shutoff:** 1 minute to 8 hours, or front button ON/OFF. Factory default is 5 minutes

**Overpressure:**

**5000 psi Range:** 7500 psi

**3000 psi Range:** 5000 psi

**All Other Ranges:** 2X pressure range

**Overpressure Display:** i---- or i-.-.-

**Burst Pressure:** 4X pressure range or 10,000 psi, whichever is less

**Storage Temperature:** -40 to 95°C (-40 to 203°F)

**Operating Temperature:** -20 to 85°C (-4 to 185°F)

**Compensated Temperature:** 0 to 70°C (32 to 158°F)

**Material:** Extruded aluminum case, epoxy powder coated, ABS/polycarbonate bezel, front and rear gaskets, polycarbonate label

**NEMA 4X:** ABS/Polycarbonate NEMA 4X case, rear gasket, polycarbonate label  
**Pressure Connection:** ¼ NPT male fitting, 316L SS

**Media Compatibility:** Liquids and gases compatible with 316L SS  
**Dimensions:** 86 L x 73 H x 42 mm D (3.38 x 2.88 x 1.65")  
**Weight:** 250 g (8.8 oz)

**OPTIONS**

**Backlighting:** Add suffix "-BL" to standard battery powered model, add additional cost to price  
**NEMA 4X Case:** Change model number to DPG2004, add additional cost to price

RANGE CODE	SELECTABLE ENGINEERING UNITS															
	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm
03	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm
05	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm
15	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm
30	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm
60	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm
100	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm
200	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm
300	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm
500	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm
1000	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm
2000	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm
3000	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm
5000	psi	inHg	inH <sub>2</sub> O	oz/in <sup>2</sup>	g/cm <sup>2</sup>	mmHg	torr	mbar	bar	mmH <sub>2</sub> O	cmH <sub>2</sub> O	ftH <sub>2</sub> O	kPa	MPa	kg/cm <sup>2</sup>	atm



DPG2001B-300G shown smaller than actual size with customer installed pipe fitting.

To Order	
RANGE	BATTERY POWERED MODEL NO.
<b>ABSOLUTE PRESSURE, VACUUM AND COMPOUND RANGES</b>	
15.00 to 0 psia	<b>DPG2001B-15A</b>
0 to 15.00 psiv	<b>DPG2001B-15VAC</b>
±15.00 psig	<b>DPG2001B-15V15G</b>
30.00 to 0 psia	<b>DPG2001B-30A</b>
100.0 to 0 psia	<b>DPG2001B-100A</b>
-15.0 to 100.0 psig	<b>DPG2001B-15V100G</b>
-15.0 to 200.0 psig	<b>DPG2001B-15V200G</b>
<b>GAUGE PRESSURE</b>	
0 to 3.000 psig	<b>DPG2001B-03G</b>
0 to 5.000 psig	<b>DPG2001B-05G</b>
0 to 15.00 psig	<b>DPG2001B-15G</b>
0 to 30.00 psig	<b>DPG2001B-30G</b>
0 to 60.00 psig	<b>DPG2001B-60G</b>
0 to 100.0 psig	<b>DPG2001B-100G</b>
0 to 200.0 psig	<b>DPG2001B-200G</b>
0 to 300.0 psig	<b>DPG2001B-300G</b>
0 to 500.0 psig	<b>DPG2001B-500G</b>
0 to 1000 psig	<b>DPG2001B-1000G</b>
0 to 2000 psig	<b>DPG2001B-2000G</b>
0 to 3000 psig	<b>DPG2001B-3000G</b>
0 to 5000 psig	<b>DPG2001B-5000G</b>
<b>OPTIONS*</b>	
<b>-BL</b>	Backlighting (red)
<b>DPG2004B-(range)</b>	NEMA 4X case
<b>-NIST</b>	5-point NIST calibration

Comes complete with operator's manual and 2 "AA" batteries.

\* To order with optional backlighting add suffix "-BL" to model number and additional cost to the price; To order with optional 5-point NIST calibration "-NIST" to model number and additional cost to price.

**Ordering Examples:** DPG2004B-15V15G, ±15 psig digital gauge in NEMA 4X case with selectable units and memory.

DPG2001B-100G, 100 psig digital gauge in standard case with selectable units and memory.

## Pressure Calibration Kit

- ✓ Full kit with pressure gauge and hand pump for easy field calibration
- ✓ High accuracy of 0.05% FS provides a reliable reference
- ✓ Displays ambient temperature and maximum and minimum values of the data
- ✓ 5-digit primary display and secondary display
- ✓ 10 pressure units available:  
MPa/KPa/psi/bar/pa/mBAR/mHg/mH20/Torr/kgf/cm<sup>2</sup>

### Overview

The DPG210-KIT pressure calibration kits combine the high accuracy of our DPG210 digital pressure gauges with a pneumatic or hydraulic hand pump, providing an excellent solution for field calibration needs. Kits include the DPG210 digital gauge in your selected pressure range, hand pump, rugged carrying case, and a selection of fittings and hose. Kits with ranges of 500 psi or below include a pneumatic hand pump capable of generating 0 to 500 psi pressure. For ranges of 1,000 psi or higher, a 0 to 10,000 psi hydraulic hand pump is included.

### Specifications

**Operating Temperature:** -10 to 50°C (14 to 120°F)

**Compensation Temperature:** 0 to 40°C (32 to 104°F)

**Storage Temperature:** -20 to 60°C (-4 to 140°F)



**Temperature Accuracy:**  $\pm 0.5^{\circ}\text{C}$

**Pressure Accuracy:**  $\pm 0.05\%$  FS

**Stability:**  $\pm 0.2\%$ FS/year

**Over Pressure Limits:** 3X Rated Pressure from 0 to 100 psi, 2X Rated Pressure from 200 to 5000 psi

**Burst Pressure:** 4X Rated Pressure from 0 to 100 psi, 3X Rated Pressure from 200 to 5000 psi

**Sampling Rate:** Adjustable : 1-10 times/second

**Battery Life:** up to 3,600 hours

**Environmental Rating:** IP65

**Compatible Process Media:** Non-corrosive gas, water, oil

**Process Connection/Material:** ¼" NPT (others consult Omega Sales), 304SS

**Pressure Gauge Case Material:** 304SS

**Display Type:** 5 digit LCD

**Weight:** 10.25 lb



## Digital Pressure Gauge

- **Log up to 10,000 data points**
- **USB output and software included for easy data retrieval**
- **Visual bar display of pressure usage of full scale**
- **Large display with bright backlight for high visibility**
- **Recommended alternative to DPG4000 Series**



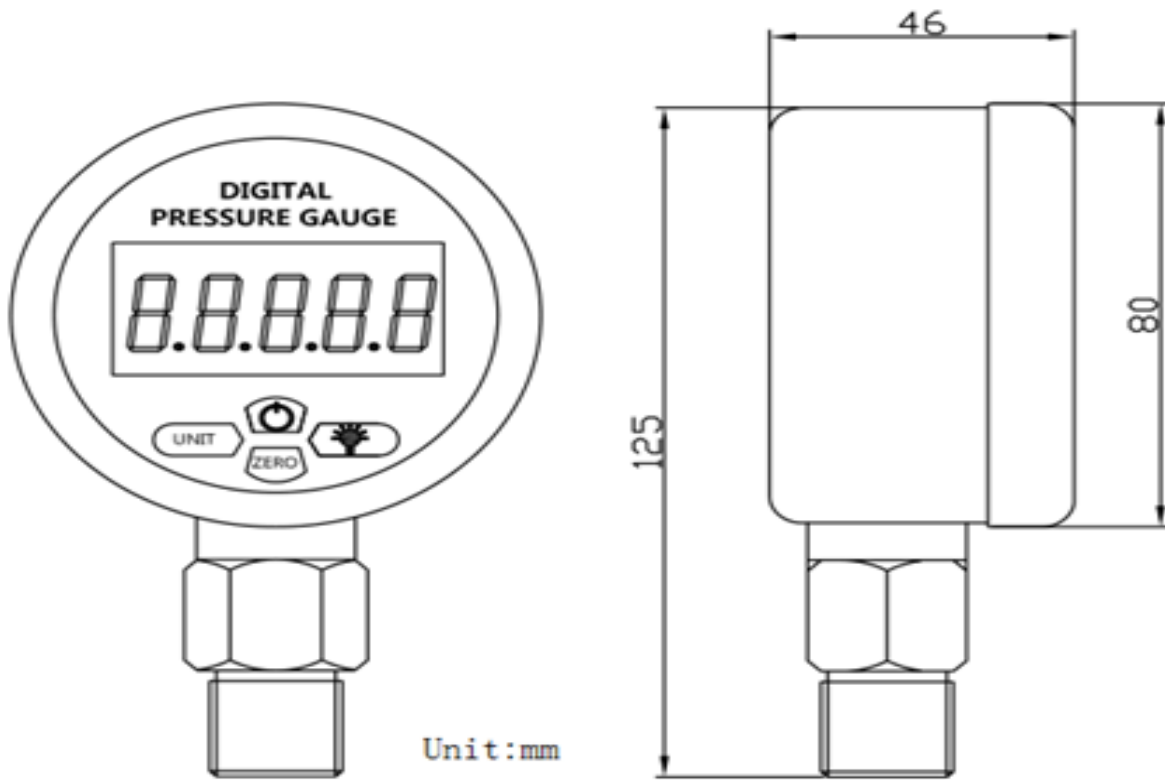
### Overview

The DPG280 series are robust, digital pressure gauges that feature data logging capabilities. Store up to 10,000 points; sample rate is adjustable and can be logged as fast as three times the measurement per second or as slow as three times the measurement every hour. Recorded data is accessible by utilizing a USB connection and easy-to-use software that make data analysis straightforward. There are several additional features that add to the usability of this series. There are five selectable engineering pressure units, a zero function, peak measurement display, and bright white backlight. Also displayed is a visual bar to quickly show percentage of rated pressure being utilized and the battery level of the unit to help prevent a unit unexpectedly losing power. These units can measure a wide variety of gasses and liquids that are non-corrosive and compatible with 304 stainless steel.

### Specifications

Pressure Range	Refer to selection-table
Pressure Type	Gauge pressure, Negative gauge pressure
Overload Capacity	Range*150% (<40Mpa)
	Range*120% (>40Mpa)
Acc.	±0.4%FS or ±0.2%FS
Long-term Stability	0.25 %Fs/year
Power	3V (2 AAA batteries)
Sampling Rate	Up to 10,000 points per 3 times/second
Screen Display	4-digit LCD screen
Compensation Temperature	0-60°C
Operation Temperature	-20°C-70°C
Process Connection	1/4-18NPT Male
Connection Material	304SS
Shell Material	304 Stainless Steel
Measure Medium	Gasses and liquids that are non-corrosive and compatible with 304 stainless steel
Electromagnetic Compatibility	Anti-EMI Design, EN61326
Date Retention	EEPROM
Other Functions:	Pressure units switchable
	Zero clearing
	On/off

## Dimensions



# MIN/MAX DIGITAL PRESSURE GAUGES

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## DPG5500 Series-Aluminum Case DPG5600 Series-Backlit DPG3500 Series-Nema 4X Case



- ✓ Capture Minimum and Maximum Readings
- ✓ Zero with One Touch
- ✓ 316 SS Wetted Parts
- ✓ ±0.25% Test Gauge Accuracy
- ✓ Optional Backlit Display or NEMA 4X (IP66) Enclosure Available

The DPG5500 and DPG3500 gauges are compact units with a full 4-digit display. Available with over 140 possible pressure units, these gauges are powered by 2 "AA" alkaline batteries. All models include a standard 5-minute auto shut-off circuitry to conserve battery life. Units are available in three configurations, with an extruded aluminum or NEMA 4X ABS/ polycarbonate case. Aluminum case models are also available with a backlit display

### SPECIFICATIONS

**Power:** 2 "AA" alkaline included, approximately 2000 hr (150 to 1500 hr for DPG5600 models; low battery indicator)

**Auto Shut-Off:** 5 min standard. Specify "-NS" option at time of order if on/off button is preferred. (No additional charge for "-NS" option.)

**Pressure/Vacuum Reference:** Gauge (psig) or absolute (psia)

**Optional Units:** Gauge is available from the factory scaled in other engineering units, for other ranges. Units include kPa, bar, mbar, inH<sub>2</sub>O, mmHg, ftH<sub>2</sub>O, torr, and kg/cm<sup>2</sup>. Please consult the OMEGA Pressure Engineering Department for available models.

**Display:** 4 digit, LCD, 10.16 mm (0.4") digit height, 3 readings per second, nominal update rate

**Accuracy:** ±0.25% FS ±1 least significant digit; linearity, hysteresis and repeatability combined

**Operating Temperature:** -20 to 85°C (-4 to 185°F)

**Compensated Temperature:** 0 to 70°C (32 to 158°F)

**Temperature Stability:** ±0.5% of span (typical), ±1% of span (maximum) 0 to 82°C (32 to 180°F)

**Storage Temperature:** -40 to 95°C (-40 to 203°F)

**Pressure/Vacuum Fitting:** ¼ MNPT

**Wetted Parts:** 316 SS

**Overpressure:** 2x sensor pressure range, 3000 psig range = 5000 psi max, 5000 psig range = 7500 psig max. At 110% to 125% out-of-range display 1---- or 1-.-.- depending on the model.

**Burst Pressure:** 4x sensor pressure rating or 10,000 psi, whichever is less

**Calibration:** Internal controls, non-interactive zero, span and linearity ±10% range

DPG3500B-60G, shown actual size.

DPG5500B-60G, shown actual size.



NEMA 4X Case



Aluminum Case

### Dimensions:

**DPG5500/5600:** 86 W x 73 H x 42 mm D (3.38 x 2.88 x 1.65") not including the pressure fitting.

**DPG3500:** 89 W x 76 H x 51 mm D (3.5 x 3.0 x 2.0") not including the pressure fitting. Add approximately 19 mm (0.75") to the height for the pressure fitting.

**Weight:** 255 g (9 oz); shipping weight: 454 g (1 lb)

### Material:

**DPG5500/5600:** Extruded aluminum case, light gray epoxy powder coated, black ABS/polycarbonate bezel, front and rear gaskets, black/gold label

**DPG3500:** ABS/polycarbonate NEMA 4X (IP66) case, rear gasket, polycarbonate label

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# MIN/MAX DIGITAL PRESSURE GAUGES

PRESSURE GAUGES

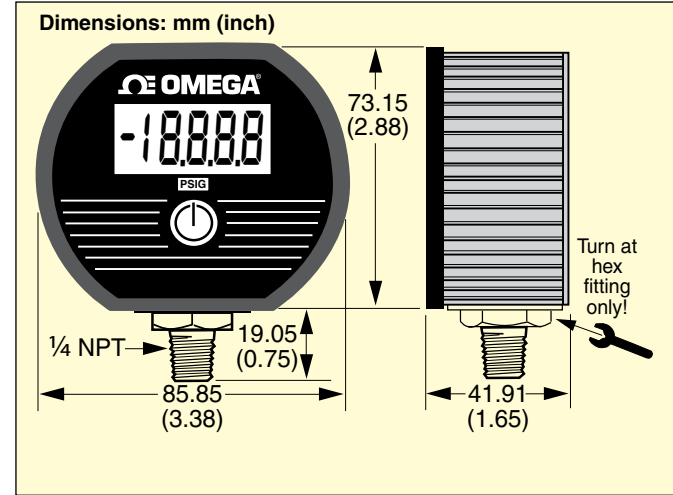


DPG5000 Dimensions

DPG5600B-60G, shown smaller than actual size.

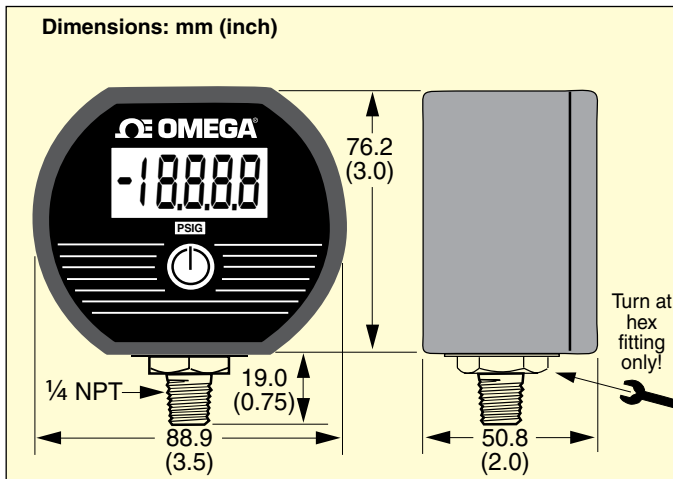
**ALL RANGES AND RESOLUTIONS SHOWN AVAILABLE!**

-30.00 inHg/15.00 psig	120.0 inHg	1600 mmHg	35.00 bar	1.000 kg/cm <sup>2</sup> abs
-30.0 inHg/100.0 psig	200.0 inHg abs	760.0 torr abs	70.00 bar	1.000 kg/cm <sup>2</sup> vac
-30.0 inHg/200.0 psig	200.0 inHg	1600 torr abs	140.0 bar	±1.000 kg/cm <sup>2</sup>
<b>3.000 psig</b>	50.00 oz/in <sup>2</sup>	2100 mmH <sub>2</sub> O	200.0 bar	1.000 kg/cm <sup>2</sup>
<b>5.000 psig</b>	80.0 oz/in <sup>2</sup>	3500 mmH <sub>2</sub> O	350.0 bar	2.000 kg/cm <sup>2</sup> abs
15.00 psi abs	240.0 oz/in <sup>2</sup> abs	200.0 cmH <sub>2</sub> O	20.00 kPa	2.000 kg/cm <sup>2</sup>
<b>15.00 psig vac</b>	240.0 oz/in <sup>2</sup> vac	350.0 cmH <sub>2</sub> O	35.00 kPa vac	4.000 kg/cm <sup>2</sup>
±15.00 psig	±240.0 oz/in <sup>2</sup>	1000 cmH <sub>2</sub> O	100.0 kPa abs	7.000 kg/cm <sup>2</sup> abs
<b>15.00 psig</b>	240.0 oz/in <sup>2</sup>	2100 cmH <sub>2</sub> O	100.0 kPa vac	7.000 kg/cm <sup>2</sup>
30.00 psi abs	85.0 inH <sub>2</sub> O	200.0 mbar	±100.0 kPa	14.00 kg/cm <sup>2</sup>
<b>30.00 psig</b>	140.0 inH <sub>2</sub> O	350.0 mbar	100.0 kPa	20.00 kg/cm <sup>2</sup>
<b>60.00 psig</b>	400.0 inH <sub>2</sub> O	1000 mbar abs	200.0 kPa abs	35.00 kg/cm <sup>2</sup>
100.0 psi abs	400.0 inH <sub>2</sub> O vac	1000 mbar vac	200.0 kPa	70.00 kg/cm <sup>2</sup>
<b>100.0 psig</b>	±400 inH <sub>2</sub> O	±1000 mbar	400.0 kPa	140.0 kg/cm <sup>2</sup>
<b>200.0 psig</b>	400.0 inH <sub>2</sub> O	1000 mbar	700.0 kPa abs	200.0 kg/cm <sup>2</sup>
<b>300.0 psig</b>	850 inH <sub>2</sub> O	2000 mbar abs	700.0 kPa	350.0 kg/cm <sup>2</sup>
<b>500.0 psig</b>	7.000 ftH <sub>2</sub> O	2000 mbar	1500 kPa	1.000 atm abs
<b>1000 psig</b>	12.00 ftH <sub>2</sub> O	4000 mbar	2000 kPa	±1.000 atm
<b>2000 psig</b>	35.00 ftH <sub>2</sub> O	1.000 bar abs	3500 kPa	1.000 atm
3000 psig	70.00 ftH <sub>2</sub> O	1.000 bar vac	5000 kPa	4.000 atm
5000 psig	140.0 ftH <sub>2</sub> O	±1.000 bar	3.500 MPa	7.000 atm
6.000 inHg	230.0 ftH <sub>2</sub> O	1.000 bar	7.000 MPa	14.00 atm
10.00 inHg	480.0 ftH <sub>2</sub> O	2.000 bar abs	14.00 MPa	20.00 atm
30.00 inHg abs	150.0 mmHg	2.000 bar	20.00 MPa	35.00 atm
<b>30.00 inHg vac</b>	260.0 mmHg	4.000 bar	35.00 MPa	70.00 atm
±30.00 inHg	760.0 mmHg abs	7.000 bar abs	1000 g/cm <sup>2</sup> abs	135.0 atm
30.00 inHg	760.0 mmHg vac	7.000 bar	1000 g/cm <sup>2</sup>	200.0 atm
60.00 inHg abs	760.0 mmHg	14.00 bar	2100 g/cm <sup>2</sup> abs	340.0 atm
60.00 inHg	1600 mmHg	20.00 bar	2100 g/cm <sup>2</sup>	



DPG3500 Dimensions

DPG3500B-60G, shown smaller than actual size.



Resolution is fixed as indicated in table. Ranges in **bold** are standard. Contact Omega Engineering for other ranges listed above.  
**abs:** Absolute reference (normally reads atmospheric pressure; reads zero at full vacuum).

DPG5500B-60G,  
shown smaller than  
actual size.



DPG3500B-60G,  
shown smaller than  
actual size.



## CONTROLS AND FUNCTIONS

(FRONT PUSHBUTTON TURNS THE GAUGE ON OR OFF AND CYCLES THROUGH OTHER FUNCTIONS)

FUNCTION	PUSHBUTTON	PROMPT (Release Button)	RESULT
On	Press 1 sec	Gauge range/display test	Actual pressure
On with Zero	Press/hold	0000	Actual pressure
Hi Reading	Press/hold	HI	Hi & max reading
Lo Reading	Press/hold	LO	Lo & min reading
Normal Read	Press/hold	AP	Actual pressure
Clear Hi/Lo	Press/hold	HI/LO/AP>clr	Actual pressure
Off	Press/hold	HI/LO/AP>clr>OFF	Gauge off

## To Order

RANGE/ RESOLUTION/ MODELS	MODEL NO. BASIC MODELS	MODEL NO. BACKLIT MODELS	MODEL NO. NEMA 4X (IP66)
0 to 3.000 psig	DPG5500B-03G	DPG5600B-03G	DPG3500B-03G
0 to 5.000 psig	DPG5500B-05G	DPG5600B-05G	DPG3500B-05G
0 to 15.00 psig Vac	DPG5500B-15VAC	DPG5600B-15VAC	DPG3500B-15VAC
0 to 15.00 psig	DPG5500B-15G	DPG5600B-15G	DPG3500B-15G
0 to 30.00 psig	DPG5500B-30G	DPG5600B-30G	DPG3500B-30G
0 to 60.00 psig	DPG5500B-60G	DPG5600B-60G	DPG3500B-60G
0 to 100.0 psig	DPG5500B-100G	DPG5600B-100G	DPG3500B-100G
0 to 200.0 psig	DPG5500B-200G	DPG5600B-200G	DPG3500B-200G
0 to 300.0 psig	DPG5500B-300G	DPG5600B-300G	DPG3500B-300G
0 to 500.0 psig	DPG5500B-500G	DPG5600B-500G	DPG3500B-500G
0 to 1000 psig	DPG5500B-1KG	DPG5600B-1KG	DPG3500B-1KG
0 to 2000 psig	DPG5500B-2KG	DPG5600B-2KG	DPG3500B-2KG
0 to 30.00 inHg Vac	DPG5500B-30INHG VAC	DPG5600B-30INHG VAC	DPG3500B-30INHG VAC
30.00 mmHg to 100.0 psig	DPG5500B-30V100G	DPG5600B-30V100G	DPG3500B-30V100G
0 to 15.00 psia	DPG5500B-15A	DPG5600B-15A	DPG3500B-15A
0 to 30.00 psia	DPG5500B-30A	DPG5600B-30A	DPG3500B-30A
0 to 760.0 torr abs	DPG5500B-760TORRA	DPG5600B-760TORRA	DPG3500B-760TORRA
0 to 85.0 inH <sub>2</sub> Og	DPG5500B-85INH2OG	DPG5600B-85INH2OG	DPG3500B-85INH2OG
0 to 140.0 inH <sub>2</sub> Og	DPG5500B-140INH2OG	DPG5600B-140INH2OG	DPG3500B-140INH2OG
0 to 1.000 barg	DPG5500B-1BARG	DPG5600B-1BARG	DPG3500B-1BARG
0 to 7.000 barg	DPG5500B-7BARG	DPG5600B-7BARG	DPG3500B-7BARG
0 to 14.00 barg	DPG5500B-14BARG	DPG5600B-14BARG	DPG3500B-14BARG

Comes complete with operator's manual.

**Ordering Examples:** DPG5500B-30G, 0 to 30.00 psig, 1/4 NPT lower fitting, battery powered, min/max/zero.

DPG5600B-30G, 0 to 30.00 psig with 1/4 NPT lower fitting, battery powered, with a backlit display, min/max/zero.

DPG3500B-30G, 0 to 30.00 psig, 1/4 NPT lower fitting, battery powered, min/max/zero, NEMA 4X (IP66) housing.

# VERY HIGH ACCURACY

# DIGITAL PRESSURE GAUGE

## STAINLESS STEEL WETTED PARTS AND BODY

**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
- ✓ 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  $\leq 5$  psi:**  $\pm 0.5\%$  span

**Span Setting:**

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

**Ranges  $\leq 5$  psi:**  $\pm 0.5\%$  span

**Minimum Resistance Between Transducer Body and Any Wire:** 100M $\Omega$  @ 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 for all analog output types)

**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 inH<sub>2</sub>O:** 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 psia:** 6 times span,

**15 to 1000 psia:** 4 times span

**1500 to 5000 psi range:** to 7250 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 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:** Two 1.5 V alkaline (C cell) included.

**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:** 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)**

**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)

**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.

<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, two 1.5 V alkaline C cell batteries, 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  $\geq 100$  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.

<b>To Order</b>		
RANGE (RESOLUTION)		PSI RANGES MODEL NO.
psi	Bar	
<b>GAUGE PRESSURE</b>		
0 to 10.00 inH <sub>2</sub> 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
<b>ABSOLUTE PRESSURE</b>		
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
<b>VACUUM (NEGATIVE GAUGE, (ZERO OUTPUT = AMBIENT))</b>		
0 to 10.00 inH <sub>2</sub> 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
<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 to 1100 hPa	DPG409-16HB
-	880 to 1100 hPa	DPG409-26HB
<b>COMPOUND GAUGE PRESSURE</b>		
$\pm 10.00$ inH <sub>2</sub> O	$\pm 25.00$ mbar	DPG409-10WCG
$\pm 1.000$	$\pm 69.00$ mbar	DPG409-001CG
$\pm 2.500$	$\pm 172.0$ mbar	DPG409-2.5CG
$\pm 5.000$	$\pm 345.0$ mbar	DPG409-005CG
$\pm 15.00$	$\pm 1$ bar	DPG409-015CG



# SANITARY/CIP-FAN-INDICATOR

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## DIGITAL PRESSURE GAUGE

### VERY HIGH ACCURACY

Gauge, Absolute, Compound Gauge,  
Vacuum and Barometric Models  
0-10 inH<sub>2</sub>O to 0-600 psi  
(0-25 mb to 0-41 bar)

Magnetic  
stylus  
(included).

### DPG409S Series



Standard

**Fast Delivery –  
Typically Stock to  
1-Week!**

- ✓ Easy to Read 25 mm (1") Backlit LCD Display
- ✓ High 0.08% Accuracy Typical
- ✓ 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
- ✓ Data Logging and Charting Software Included
- ✓ Wireless Transmitter Option Sends Reading to a Remote Location
- ✓ Tested to Industrial CE Standards
- ✓ Battery Powered with Long Battery Life
- ✓ Analog Output Standard
- ✓ Wireless Transmitter Optional

OMEGA's DPG409S Sanitary/CIP digital pressure gauges incorporate 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, 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.



NEMA 4X case.

DPG409S15-500G,  
shown smaller than  
actual size.

<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.

## SPECIFICATIONS

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

**Accuracy:**  $\pm 0.08\%$  Best Straight Line Typ. (Linearity, Hysteresis and Repeatability combined)

**Calibration:** 5-Pt NIST traceable Calibration with zero and span values, Calibrated in horizontal direction (Compound Gage models calibrated in positive direction only)

**Zero Balance:**  $\pm 0.5\%$  FS typical  $\pm 1\%$  maximum (For ranges  $\leq 2.5$  psi  $\pm 1\%$  Typical  $\pm 2\%$  maximum)

**Span Setting:**  $\pm 0.5\%$  FS typical  $\pm 1\%$  maximum (For ranges  $\leq 2.5$  psi  $\pm 1\%$  Typical  $\pm 2\%$  maximum)

**Storage/Operating Temperature Range:**

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

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

**Compensated Temperature Range:**

**Ranges  $\leq 5$  psi:** 4.4 to 60°C (40 to 140°F)

**Ranges  $> 5$  psi:** -4 to 85°C (25 to 150°F)

**Thermal Effect (Over Compensated Range):**

**Zero and Span shift over Compensated Range**

**Ranges  $\leq 2.5$  psi:** Zero: 1.00%

Span: 0.70%

**Range = 5 psi:** Zero: 0.80%

Span: 0.50%

**Ranges  $> 5$  psi:** Zero: 0.50%

Span: 0.50%

**26B & 26HB Barometric Range:**

Zero: 0.90% Span: 0.50%

**Minimum Isolation Between Case and Output Terminations:**

100M  $\Omega$  @ 50 Vdc

**Analog Output:** User selectable 0 to 5 Vdc, 0 to 10 Vdc of 4 to 20 mA (external 24 Vdc power required)

**Note:** Compound gage 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')

**Analog Output Accuracy:** 0.08% typical

**Pressure Cycles:** 250,000, minimum

**Long Term Stability (1-Year):**  $\pm 0.1\%$  FS Typ.

**Fill Fluid:** NEOBEE M5 Food Grade

**Approved to 3A Sanitary Specification**

**Environmental Protection:**

NEMA 4X (IP65) depending upon electrical termination

**Pressure Rating:** 1½ and 2" Tri-Grip™ Fitting (compatible with Tri-Clamp®): 600 psi using suitable clamp (600 psi on 1½" Tri-Clamp® only)

**Over Pressure:** 4 x rated pressure to maximum rated flange pressure

**Secondary Containment:** 6 x rated pressure to a maximum of 2000 psi (not in clamp)

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

**Computer Interface:** UBS connection for set-up, cable included

**Sample/Display Rate:** 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 included with Wireless Option)

**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)

**Connection Location:** Lower (head rotates to position display)

**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<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

**Internal Battery:** Two 3.6V lithium 8.4 Ah capacity (C-cell) included

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

**Dimensions:**

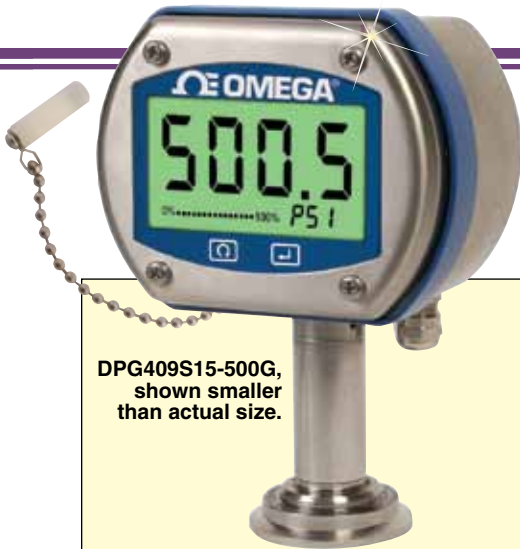
**Display:** 115 D x 89 W x 74 mm H (4.5 x 3.5 x 2.9")

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

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



DPG409S15-500G, shown smaller than actual size.



DPG409S15-500G, shown smaller than actual size.



Exploded view showing PX429S15-005GI. Standard Tri-Grip™ fitting works with commercially available sanitary pipes and fittings. Shown smaller than actual size.

To Order		
psi	bar	PSI RANGES MODEL NO.
<b>GAUGE</b>		
0 to 10 inH <sub>2</sub> O	0 to 25 mbar	DPG409S[*]-10WG
0 to 1	0 to 70 mbar	DPG409S[*]-001G
0 to 2.5	0 to 175 mbar	DPG409S[*]-2.5G
0 to 5	0 to 350 mbar	DPG409S[*]-005G
0 to 15	0 to 1	DPG409S[*]-015G
0 to 30	0 to 2	DPG409S[*]-030G
0 to 50	0 to 3.5	DPG409S[*]-050G
0 to 100	0 to 7	DPG409S[*]-100G
0 to 150	0 to 10	DPG409S[*]-150G
0 to 250	0 to 17.5	DPG409S[*]-250G
0 to 500	0 to 35	DPG409S[*]-500G
0 to 600†	0 to 41	DPG409S[*]-600G
<b>ABSOLUTE</b>		
0 to 5	0 to 350 mbar	DPG409S[*]-005A
0 to 15	0 to 1	DPG409S[*]-015A
0 to 30	0 to 2	DPG409S[*]-030A
0 to 50	0 to 3.5	DPG409S[*]-050A
0 to 100	0 to 7	DPG409S[*]-100A
0 to 150	0 to 10	DPG409S[*]-150A
0 to 250	0 to 17.5	DPG409S[*]-250A
0 to 500	0 to 35	DPG409S[*]-500A
0 to 600†	0 to 41	DPG409S[*]-600A
<b>VACUUM (NEGATIVE GAUGE)</b>		
0 to -10 inH <sub>2</sub> O	0 to -25 mbar	DPG409S[*]-10WV
0 to -1	0 to -70 mbar	DPG409S[*]-001V
0 to -2.5	0 to -175 mbar	DPG409S[*]-2.5V
0 to -5	0 to -350 mbar	DPG409S[*]-005V
0 to -15	0 to -1 bar	DPG409S[*]-015V
<b>COMPOUND GAUGE</b>		
± 10 inH <sub>2</sub> O	± 25 mbar	DPG409S[*]-10WCG
± 1	± 70 mbar	DPG409S[*]-001CG
± 2.5	± 175 mbar	DPG409S[*]-2.5CG
± 5	± 350 mbar	DPG409S[*]-005CG
± 15	± 1000 mbar	DPG409S[*]-015CG
<b>BAROMETRIC</b>		
0 to 32 inHg		DPG409S[*]-32B
16 to 32 inHg		DPG409S[*]-16B
26 to 32 inHg		DPG409S[*]-26B
	0 to 1100 hPa	DPG409S[*]-32HB
	550 to 1100 hPa	DPG409S[*]-16HB
	880 to 1100 hPa	DPG409S[*]-26HB

[\*] Insert "15" for 1.5" Tri-Grip™ or "20" for 2" Tri-Grip™ sanitary fitting, no extra charge.  
 † 1½ Tri-Grip™ only.

WIRELESS RECEIVERS (FOR WIRELESS OPTION "-W")	
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, set-up and configuration software, magnetic stylus, USB cable, 2.7 m (9') analog output cable, one 3.6V lithium C cell battery (two with wireless option) and 5-pt NIST traceable calibration. Wireless option also includes charting and databasing software.

(\*\*) 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.

For wireless option add "-W" suffix.

**Ordering Examples:** DPG409S15-100G, digital pressure gauge with 1.5" sanitary fitting, 100 psi gauge range.

DPG409S20-001CG, digital pressure gauge with 2" sanitary fitting, ±1 psi compound gauge range.

DPG409S15-015V-W, digital pressure gauge with wireless transmitter option, 1.5" sanitary fitting, 0 to -15 psi vacuum range.



# DIGITAL DIFFERENTIAL PRESSURE GAUGE VERY HIGH ACCURACY

## 316L SS WETTED PARTS AND BODY

**Uni-Directional Ranges**  
**0-10 inH<sub>2</sub>O 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 inH<sub>2</sub>O to 1 psi: ±1% span  
 Ranges >1 psi: ±0.5% span

**Span Setting:**

Ranges 10 inH<sub>2</sub>O 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 inH<sub>2</sub>O = 10 times range  
 1 psi = 6 times range  
 2.5 to 750 psi = 4 times range  
 1000 psi Range = 3 times range

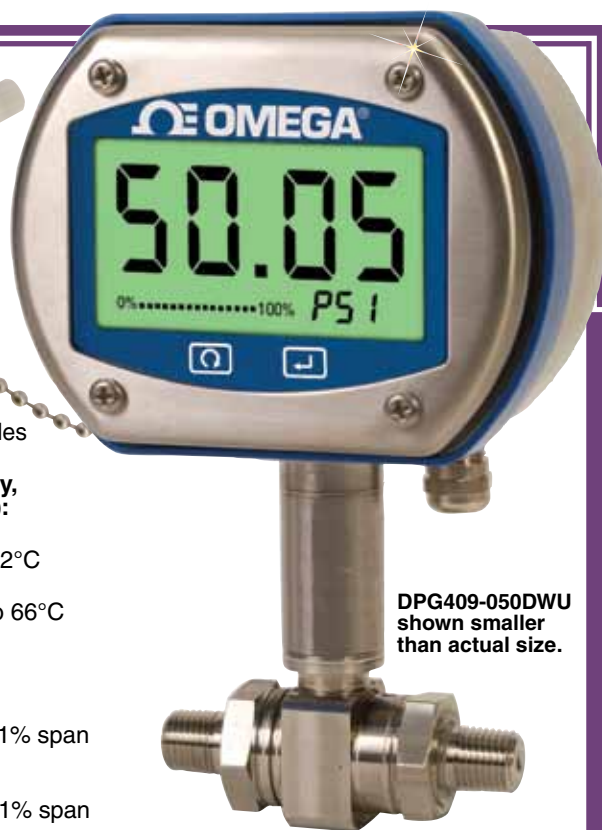
**Hi-Side Containment Pressure (Differential):**

10 inH<sub>2</sub>O 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:** 1/4-18 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.



<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, 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)

**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
<b>WET/WET UNI-DIRECTIONAL DIFFERENTIAL PRESSURE MODELS</b>		
0 to 10.00 inH <sub>2</sub> O	0 to 25 mbar	<b>DPG409-10WDWU</b>
0 to 1.000 psi	0 to 70 mbar	<b>DPG409-001DWU</b>
0 to 2.500	0 to 170 mbar	<b>DPG409-2.5DWU</b>
0 to 5.000	0 to 350 mbar	<b>DPG409-005DWU</b>
0 to 15.00	0 to 1	<b>DPG409-015DWU</b>
0 to 30.00	0 to 2	<b>DPG409-030DWU</b>
0 to 50.00	0 to 3.5	<b>DPG409-050DWU</b>
0 to 100.0	0 to 7	<b>DPG409-100DWU</b>
0 to 150.0	0 to 10	<b>DPG409-150DWU</b>
0 to 250.0	0 to 17.5	<b>DPG409-250DWU</b>
0 to 500.0	0 to 35	<b>DPG409-500DWU</b>
0 to 750.0	0 to 50	<b>DPG409-750DWU</b>
0 to 1000	0 to 70	<b>DPG409-1KDWU</b>

#### WET/WET UNI-DIRECTIONAL DIFFERENTIAL PRESSURE MODELS WITH WIRELESS TRANSMITTER

0 to 10.00 inH <sub>2</sub> O	0 to 25 mbar	<b>DPG409-10WDWU-W</b>
0 to 1.000 psi	0 to 70 mbar	<b>DPG409-001DWU-W</b>
0 to 2.500	0 to 170 mbar	<b>DPG409-2.5DWU-W</b>
0 to 5.000	0 to 350 mbar	<b>DPG409-005DWU-W</b>
0 to 15.00	0 to 1	<b>DPG409-015DWU-W</b>
0 to 30.00	0 to 2	<b>DPG409-030DWU-W</b>
0 to 50.00	0 to 3.5	<b>DPG409-050DWU-W</b>
0 to 100.0	0 to 7	<b>DPG409-100DWU-W</b>
0 to 150.0	0 to 10	<b>DPG409-150DWU-W</b>
0 to 250.0	0 to 17.5	<b>DPG409-250DWU-W</b>
0 to 500.0	0 to 35	<b>DPG409-500DWU-W</b>
0 to 750.0	0 to 50	<b>DPG409-750DWU-W</b>
0 to 1000	0 to 70	<b>DPG409-1KDWU-W</b>

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

MODEL NO.	DESCRIPTION
<b>UWTC-REC1</b>	48-channel wireless receiver, USB powered
<b>UWTC-REC2-(*)</b>	48-channel wireless receiver with analog output
<b>UWTC-REC2-D-(*)</b>	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.

## Advanced Digital Pressure Gauge

- **Configurable - 40,000+ Possibilities**
- **Large 1" digits for high visibility**
- **User friendly, 4-button interface**
- **Differential pressure available**
- **High accuracy (0.08%) options**
- **Data logging with SD card optional**



### Overview

We've created a new, user-friendly interface with four clearly labeled buttons and a large 4-digit, backlit display. Full-scale accuracy as high as 0.08% is perfect for applications where accuracy is critical, and 0.25% accuracy is also available for those times when a reliable, easy-to-use gauge is most important. Configure a basic gauge with long-lasting battery power or choose an externally powered option to support a robust unit with voltage and/or current outputs.

Another powerful feature is the data logging option. Log your important data as fast as four readings per second so that you don't miss a thing. Data analysis is straightforward with an included SD card that is easily accessible for data retrieval.

All options are built with an engineered thermoplastic housing with an IP65 rating for durability in harsh environments. A protective rubber boot is also an option for additional protection..

### Configurable Menu Features

Users have four different operation modes to select from. Normal mode displays the last pressure reading. Tare mode zeros the unit at an applied pressure. Minimum and maximum modes display the lowest and highest recorded pressure readings respectively. There are also additional settings that can be adjusted to best suit your process including the shut-off timer, sampling rate, range plotting, pressure units, and zero-point adjustment.

With the advanced menu, additional features include custom units, dampening mode, password protection, and backlight adjustment. If the 15 engineering unit options don't cover what you need, up to five custom pressure units can be programmed. Dampening mode filters the raw data into a smoother output.

Password protection allows only authorized users to change DPG settings to help avoid accidental button presses and setting changes. Backlight adjustment provides five options to adjust how long the backlight remains on, from 10 seconds to always on to balance both visibility and battery life.







## Advanced Digital Pressure Gauge

### Specifications

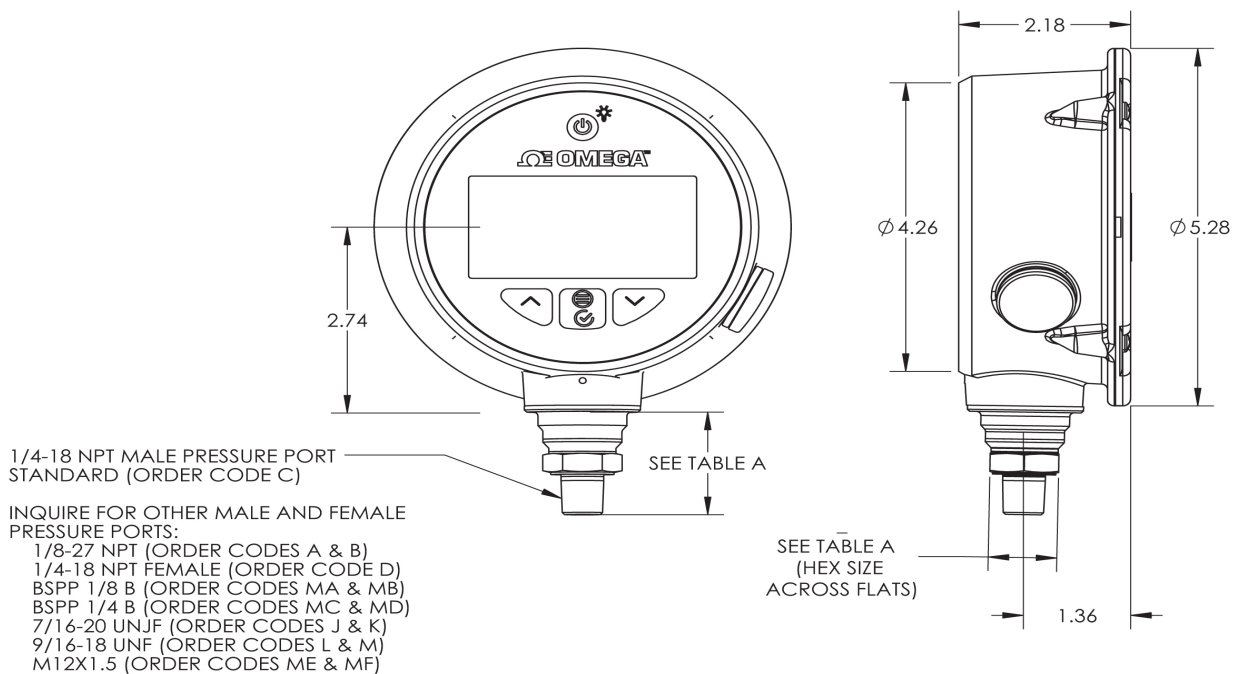
	Configuration Option	
Accuracy (Combined Linearity, Hysteresis and Repeatability)	25	±0.25% Full Scale Span
	08	±0.08% Full Scale Span
Power Supply	B	4 Alkaline AA Batteries are included with all configurations
	D	DC Power through M12 connection and 4 Alkaline AA Batteries 6' M12 connector cable included with all configurations that have DC power option
Output	N	None
	I	4 to 20 mA
	V	0 to 5 Vdc and 0 to 10 Vdc
	IV	4 to 20 mA, 0 to 5 Vdc, and 0 to 10 Vdc
Pressure Type	A	Absolute
	D	Differential
	G	Gauge
Engineering Units	B	psi, bar, mbar, inH2O, ftH2O, mmH2O, inHG, mmHG, cmHG, Pa, hPa, kPa, MPa, ATM, TORR
	A	Includes units listed above and programmable custom units
Protective Rubber Boot	B	Adds another layer of durability to the pressure gauge
Calibration	C	5-point NIST traceable calibration is a configurable option (it does not come standard)
Data Logging	D	8 Gb Micro SD card micro SD is included with configurations that have data logging option Can accept up to 32 Gb Micro SD
Pressure Connection Options	14 options available in configurator	1/4-18 NPT, 1/8-27 NPT, BSPP 1/8 B, BSPP 1/4 B, 7/16-20 UNF (MS33656-04), 9/16-18 UNF, M12x1.5 All connections available as male or female types.
Long Term Stability	Standard for all units	±0.3% Span/Year
Battery Life (Typical)		1,000 hours (no backlight usage)
Display		4-digit LCD with backlight and 25 mm (1") character height
User Interface		4 membrane key switches
Minimum Resistance Between Transducer Body and any Wire		100 MOhms @100 VDC
Operating Temperature		-17°C to 54°C (0°F to 130°F)
Storage Temperature (without batteries)		-40°C to 82°C (-40°F to 180°F)
Pressure Cycles		1 million
Over Pressure		1.5 x rated pressure
Materials		Enclosure: Engineered Thermoplastic Sensor Wetted Parts: 316L Stainless Steel, Viton Seal
Enclosure rotation after securing fluid connection		±150°
Weight		1.25 lbs
Environmental Rating		IP65
CE		EN61326-1: 2012
RoHS		2015/863
Vibration	ASME B40.7	

# Advanced Digital Pressure Gauge

## Keypad Table

	<b>Power / Backlight</b>	Turns the unit on and off / Turn backlight on
	<b>Max / Scroll Up</b>	Displays the maximum reading / Scroll up in menu navigation
	<b>Menu / Enter</b>	Enter / Access the menu / Exit the menu
	<b>Min / Scroll Down</b>	Displays the minimum reading / Scroll down in menu navigation

## DPG509 Dimensions & Pressure Ports



STANDARD (SINGLE-POINT) PRESSURE  
 0.3 TO 1000 PSI (LOW AND MID RANGE)  
 0.08% ACCURACY

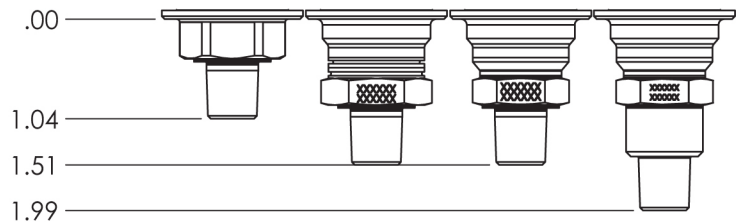
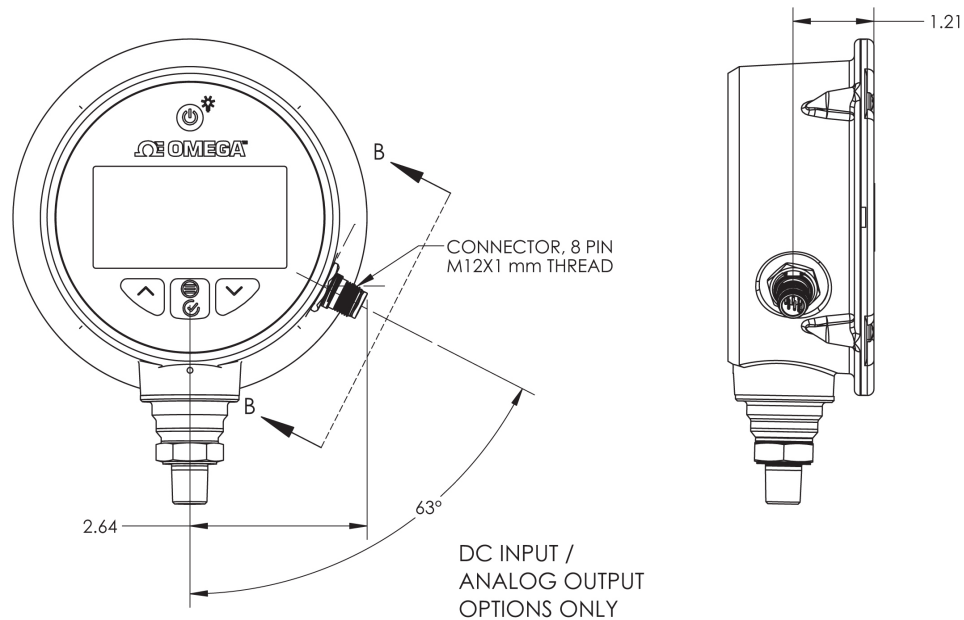


	TABLE A			
PRESSURE RANGES (PSI)	0 TO 500	0 TO 15	30 TO 1000	1500 TO 5000
ACCURACY	±.25 %	±.08 %		
HEX SIZE ACROSS FLATS	1.0		.87	

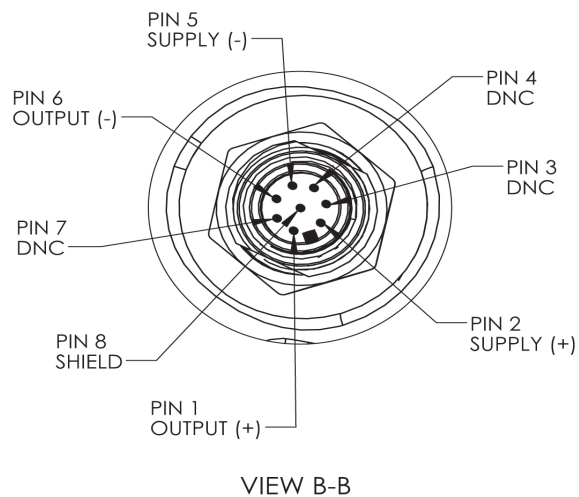


## Advanced Digital Pressure Gauge

### DPG509 Dimensions for Units with DC Power

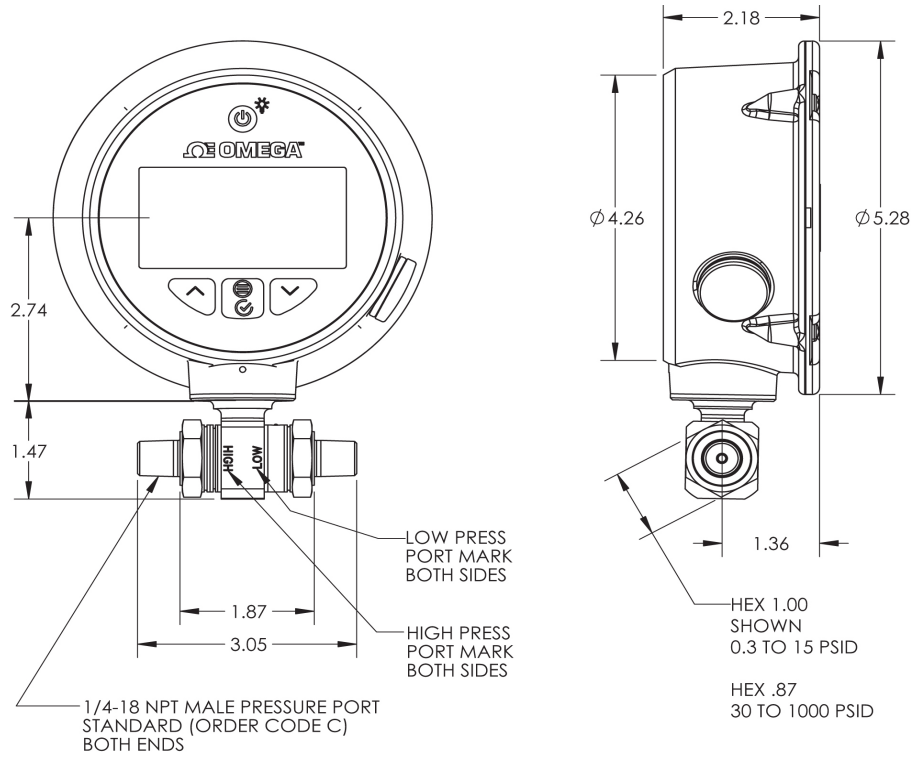


### M12 Pin-Out for DC Power and Analog Output

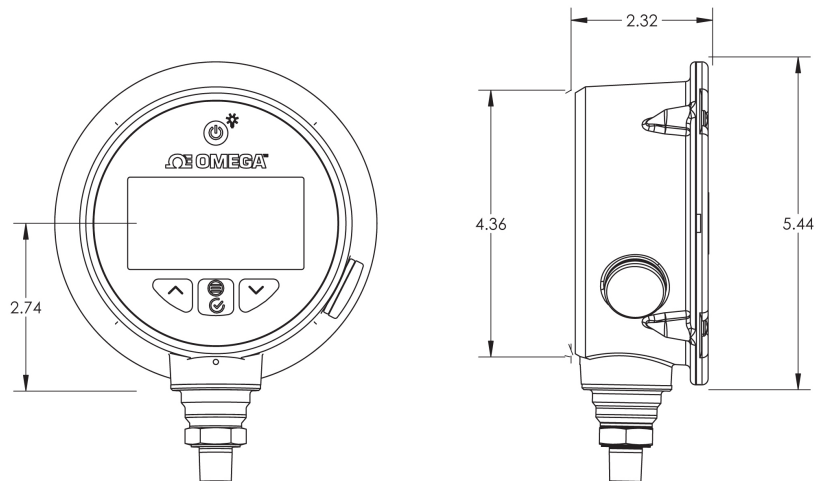


## Advanced Digital Pressure Gauge

### DPG509 Differential Unit Dimensions



### DPG509 Protective Boot Dimensions



PROTECTIVE BOOT OPTION - ENCLOSURE DIMENSIONS

Part number value	Description	Example:	DPG509	-	P	100	G	25	V	B	C	B	-	B
<b>Pressure Unit</b>														
	P	PSI												
<b>Pressure Range</b>														
	10IW	10 Inches of Water												
	001	1 PSI												
	2.5	2.5 PSI												
	005	5 PSI												
	015	15 PSI												
	030	30 PSI												
	050	50 PSI												
	100	100 PSI	100											
	150	150 PSI												
	200	200 PSI												
	250	250 PSI												
	300	300 PSI												
	500	500 PSI												
	750	750 PSI												
	1K	1000 PSI												
	1.5K	1500 PSI												
	2.5K	2500 PSI												
	3.5K	3500 PSI												
	5K	5000 PSI												
<b>Pressure Type</b>														
	A	Absolute *(unavailable in 10IW, 001, 2.5, 005, and 015 pressure ranges)												
	G	Gauge	G											
	D	Differential *(unavailable in ± 0.25% B.S.L. accuracy and pressure ranges greater than 1K psi)												
<b>Accuracy</b>														
	25	± 0.25% B.S.L.	25											
	08	± 0.08% B.S.L.												
<b>Electrical Output</b>														
	N	None												
	I	4 to 20 mA *(requires DC power source)												
	V	0 to 5 Vdc, and 0 to 10 Vdc *(requires DC power source)	V											
	IV	0 to 5 Vdc, 0 to 10 Vdc, and 4 to 20 mA *(requires DC power source)												
<b>Power Source</b>														
	B	Battery	B											
	D	Battery and DC Power through M12												
<b>Process Fitting</b>														
	A	1/8-27 NPT Male												
	B	1/8-27 NPT Female												
	C	1/4-18 NPT Male	C											
	D	1/4-18 NPT Female												
	J	7/16-20 UNF Male												
	K	7/16-20 UNF Female												
	L	9/16-18 UNF Male												
	M	9/16-18 UNF Female												
	MA	G 1/8 Male												
	MB	G 1/8 Female												
	MC	G 1/4 Male												
	MD	G 1/4 Female												
	ME	M12 X 1.5 Male												
	MF	M12 X 1.5 Female												
<b>Menu Complexity</b>														
	B	Basic Menu Options Only	B											
	A	Advanced + Basic Menu Options												
<b>Additional Options**</b>														
	B	Protective Rubber Boot	B											
	D	Data Logging												
	C	Calibration Service												

\*\* Multiple options can be selected and added to end to part number in alphabetical order (i.e. "-BD" to include both boot and data logging)

# MIN/MAX DIGITAL PRESSURE GAUGES

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## DPG5500 Series-Aluminum Case DPG5600 Series-Backlit DPG3500 Series-Nema 4X Case



- ✓ Capture Minimum and Maximum Readings
- ✓ Zero with One Touch
- ✓ 316 SS Wetted Parts
- ✓ ±0.25% Test Gauge Accuracy
- ✓ Optional Backlit Display or NEMA 4X (IP66) Enclosure Available

The DPG5500 and DPG3500 gauges are compact units with a full 4-digit display. Available with over 140 possible pressure units, these gauges are powered by 2 "AA" alkaline batteries. All models include a standard 5-minute auto shut-off circuitry to conserve battery life. Units are available in three configurations, with an extruded aluminum or NEMA 4X ABS/polycarbonate case. Aluminum case models are also available with a backlit display

### SPECIFICATIONS

**Power:** 2 "AA" alkaline included, approximately 2000 hr (150 to 1500 hr for DPG5600 models; low battery indicator)

**Auto Shut-Off:** 5 min standard. Specify "-NS" option at time of order if on/off button is preferred. (No additional charge for "-NS" option.)

**Pressure/Vacuum Reference:** Gauge (psig) or absolute (psia)

**Optional Units:** Gauge is available from the factory scaled in other engineering units, for other ranges. Units include kPa, bar, mbar, inH<sub>2</sub>O, mmHg, ftH<sub>2</sub>O, torr, and kg/cm<sup>2</sup>. Please consult the OMEGA Pressure Engineering Department for available models.

**Display:** 4 digit, LCD, 10.16 mm (0.4") digit height, 3 readings per second, nominal update rate

**Accuracy:** ±0.25% FS  
±1 least significant digit; linearity, hysteresis and repeatability combined

**Operating Temperature:** -20 to 85°C (-4 to 185°F)

**Compensated Temperature:** 0 to 70°C (32 to 158°F)

**Temperature Stability:** ±0.5% of span (typical), ±1% of span (maximum) 0 to 82°C (32 to 180°F)

**Storage Temperature:** -40 to 95°C (-40 to 203°F)

**Pressure/Vacuum Fitting:** ¼ MNPT

**Wetted Parts:** 316 SS

**Overpressure:** 2x sensor pressure range, 3000 psig range = 5000 psi max, 5000 psig range = 7500 psig max.

At 110% to 125% out-of-range display 1---- or 1-.-.- depending on the model.

**Burst Pressure:** 4x sensor pressure rating or 10,000 psi, whichever is less

**Calibration:** Internal controls, non-interactive zero, span and linearity ±10% range

### Dimensions:

**DPG5500/5600:** 86 W x 73 H x 42 mm D (3.38 x 2.88 x 1.65") not including the pressure fitting.

**DPG3500:** 89 W x 76 H x 51 mm D (3.5 x 3.0 x 2.0") not including the pressure fitting. Add approximately 19 mm (0.75") to the height for the pressure fitting.

**Weight:** 255 g (9 oz); shipping weight: 454 g (1 lb)

### Material:

**DPG5500/5600:** Extruded aluminum case, light gray epoxy powder coated, black ABS/polycarbonate bezel, front and rear gaskets, black/gold label  
**DPG3500:** ABS/polycarbonate NEMA 4X (IP66) case, rear gasket, polycarbonate label



DPG3500B-60G,  
shown  
actual size.

NEMA 4X Case



DPG5500B-60G  
shown  
actual size.

Aluminum Case



# MIN/MAX DIGITAL PRESSURE GAUGES

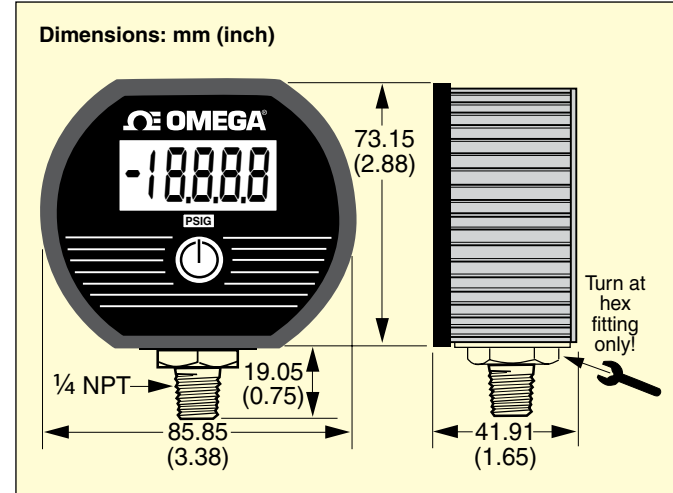


DPG5000 Dimensions

DPG5600B-60G shown smaller than actual size.

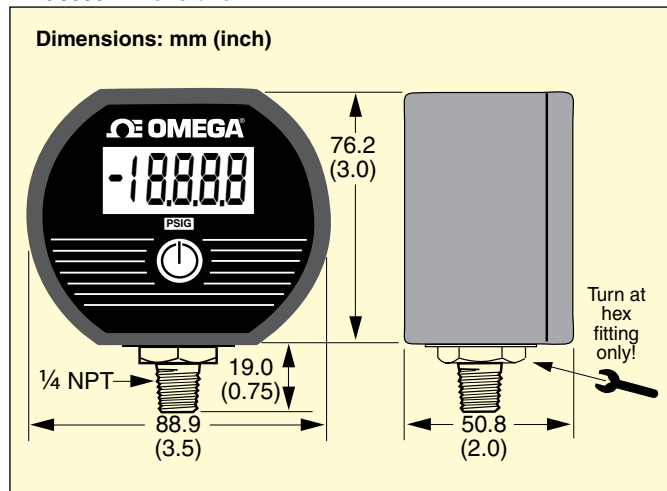
**ALL RANGES AND RESOLUTIONS SHOWN AVAILABLE!**

-30.00 inHg/15.00 psig	120.0 inHg	1600 mmHg	35.00 bar	1.000 kg/cm <sup>2</sup> abs
-30.0 inHg/100.0 psig	200.0 inHg abs	760.0 torr abs	70.00 bar	1.000 kg/cm <sup>2</sup> vac
-30.0 inHg/200.0 psig	200.0 inHg	1600 torr abs	140.0 bar	±1.000 kg/cm <sup>2</sup>
<b>3.000 psig</b>	50.00 oz/in <sup>2</sup>	2100 mmH <sub>2</sub> O	200.0 bar	1.000 kg/cm <sup>2</sup>
<b>5.000 psig</b>	80.0 oz/in <sup>2</sup>	3500 mmH <sub>2</sub> O	350.0 bar	2.000 kg/cm <sup>2</sup> abs
15.00 psi abs	240.0 oz/in <sup>2</sup> abs	200.0 cmH <sub>2</sub> O	20.00 kPa	2.000 kg/cm <sup>2</sup>
<b>15.00 psig vac</b>	240.0 oz/in <sup>2</sup> vac	350.0 cmH <sub>2</sub> O	35.00 kPa vac	4.000 kg/cm <sup>2</sup>
±15.00 psig	±240.0 oz/in <sup>2</sup>	1000 cmH <sub>2</sub> O	100.0 kPa abs	7.000 kg/cm <sup>2</sup> abs
<b>15.00 psig</b>	240.0 oz/in <sup>2</sup>	2100 cmH <sub>2</sub> O	100.0 kPa vac	7.000 kg/cm <sup>2</sup>
30.00 psi abs	85.0 inH <sub>2</sub> O	200.0 mbar	±100.0 kPa	14.00 kg/cm <sup>2</sup>
<b>30.00 psig</b>	140.0 inH <sub>2</sub> O	350.0 mbar	100.0 kPa	20.00 kg/cm <sup>2</sup>
<b>60.00 psig</b>	400.0 inH <sub>2</sub> O	1000 mbar abs	200.0 kPa abs	35.00 kg/cm <sup>2</sup>
100.0 psi abs	400.0 inH <sub>2</sub> O vac	1000 mbar vac	200.0 kPa	70.00 kg/cm <sup>2</sup>
<b>100.0 psig</b>	±400 inH <sub>2</sub> O	±1000 mbar	400.0 kPa	140.0 kg/cm <sup>2</sup>
<b>200.0 psig</b>	400.0 inH <sub>2</sub> O	1000 mbar	700.0 kPa abs	200.0 kg/cm <sup>2</sup>
<b>300.0 psig</b>	850 inH <sub>2</sub> O	2000 mbar abs	700.0 kPa	350.0 kg/cm <sup>2</sup>
<b>500.0 psig</b>	7.000 ftH <sub>2</sub> O	2000 mbar	1500 kPa	1.000 atm abs
<b>1000 psig</b>	12.00 ftH <sub>2</sub> O	4000 mbar	2000 kPa	±1.000 atm
<b>2000 psig</b>	35.00 ftH <sub>2</sub> O	1.000 bar abs	3500 kPa	1.000 atm
3000 psig	70.00 ftH <sub>2</sub> O	1.000 bar vac	5000 kPa	4.000 atm
5000 psig	140.0 ftH <sub>2</sub> O	±1.000 bar	3.500 MPa	7.000 atm
6.000 inHg	230.0 ftH <sub>2</sub> O	1.000 bar	7.000 MPa	14.00 atm
10.00 inHg	480.0 ftH <sub>2</sub> O	2.000 bar abs	14.00 MPa	20.00 atm
30.00 inHg abs	150.0 mmHg	2.000 bar	20.00 MPa	35.00 atm
<b>30.00 inHg vac</b>	260.0 mmHg	4.000 bar	35.00 MPa	70.00 atm
±30.00 inHg	760.0 mmHg abs	7.000 bar abs	1000 g/cm <sup>2</sup> abs	135.0 atm
30.00 inHg	760.0 mmHg vac	7.000 bar	1000 g/cm <sup>2</sup>	200.0 atm
60.00 inHg abs	760.0 mmHg	14.00 bar	2100 g/cm <sup>2</sup> abs	340.0 atm
60.00 inHg	1600 mmHg	20.00 bar	2100 g/cm <sup>2</sup>	



DPG3500 Dimensions

DPG3500B-60G shown smaller than actual size.



Resolution is fixed as indicated in table. Ranges in **bold** are standard. Contact Omega Engineering for other ranges listed above.  
**abs:** Absolute reference (normally reads atmospheric pressure; reads zero at full vacuum).  
**vac:** Vacuum gauge, minus sign not used unless specified.

DPG5500B-60G  
shown smaller than  
actual size.

Specify model  
DPG5600B for  
backlit display



Aluminum Case

DPG3500B-60G  
shown smaller than  
actual size.

Specify model  
DPG3600B for  
backlit display



NEMA 4X Case

## CONTROLS AND FUNCTIONS

(FRONT PUSHBUTTON TURNS THE GAUGE ON OR OFF AND CYCLES THROUGH OTHER FUNCTIONS)

FUNCTION	PUSHBUTTON	PROMPT (Release Button)	RESULT
On	Press 1 sec	Gauge range/display test	Actual pressure
On with Zero	Press/hold	0000	Actual pressure
Hi Reading	Press/hold	HI	Hi & max reading
Lo Reading	Press/hold	LO	Lo & min reading
Normal Read	Press/hold	AP	Actual pressure
Clear Hi/Lo	Press/hold	HI/LO/AP>clr	Actual pressure
Off	Press/hold	HI/LO/AP>clr>OFF	Gauge off

## To Order Visit [omega.com/dpg5500](http://omega.com/dpg5500) for Pricing and Details

RANGE/ RESOLUTION/ MODELS	MODEL NO. BASIC MODELS	MODEL NO. 1 NEMA 4X (IP66)
0 to 3.000 psig	DPG5500B-03G	DPG3500B-03G
0 to 5.000 psig	DPG5500B-05G	DPG3500B-05G
0 to 15.00 psig Vac	DPG5500B-15VAC	DPG3500B-15VAC
0 to 15.00 psig	DPG5500B-15G	DPG3500B-15G
0 to 30.00 psig	DPG5500B-30G	DPG3500B-30G
0 to 60.00 psig	DPG5500B-60G	DPG3500B-60G
0 to 100.0 psig	DPG5500B-100G	DPG3500B-100G
0 to 200.0 psig	DPG5500B-200G	DPG3500B-200G
0 to 300.0 psig	DPG5500B-300G	DPG3500B-300G
0 to 500.0 psig	DPG5500B-500G	DPG3500B-500G
0 to 1000 psig	DPG5500B-1KG	DPG3500B-1KG
0 to 2000 psig	DPG5500B-2KG	DPG3500B-2KG
0 to 30.00 inHg Vac	DPG5500B-30INHGVAC	DPG3500B-30INHGVAC
30.00 mmHg to 100.0 psig	DPG5500B-30V100G	DPG3500B-30V100G
0 to 15.00 psia	DPG5500B-15A	DPG3500B-15A
0 to 30.00 psia	DPG5500B-30A	DPG3500B-30A
0 to 760.0 torr abs	DPG5500B-760TORRA	DPG3500B-760TORRA
0 to 85.0 inH <sub>2</sub> Og	DPG5500B-85INH2OG	DPG3500B-85INH2OG
0 to 140.0 inH <sub>2</sub> Og	DPG5500B-140INH2OG	DPG3500B-140INH2OG
0 to 1.000 barg	DPG5500B-1BARG	DPG3500B-1BARG
0 to 7.000 barg	DPG5500B-7BARG	DPG3500B-7BARG
0 to 14.00 barg	DPG5500B-14BARG	DPG3500B-14BARG

Comes complete with operator's manual.

1. Backlit Display in DPG3500B: Specify model DPG3600B; Backlit display in DPG5500B: Specify model DPG5600B, for additional cost.

2. Panel Mount Option: add "-PM" to model number. Not available with NEMA 4X housing units. Must be ordered with unit (for additional cost) - cannot be field installed at a later date.

**Ordering Examples:** DPG5500B-30G, 0 to 30.00 psig, 1/4 NPT lower fitting, battery powered, min/max/zero.

DPG5600B-30G, 0 to 30.00 psig with 1/4 NPT lower fitting, battery powered, with a backlit display, min/max/zero.

DPG3500B-30G, 0 to 30.00 psia, 1/4 NPT lower fitting, battery powered, min/max/zero, NEMA 4X (IP66) housing.

# MIN/MAV DIGITAL PRESSURE GAUGES

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## DPG5500 Series-Aluminum Case OR Backlit

Starts at  
**\$289**



- ✓ Capture Minimum and Maximum Readings
- ✓ Zero with One Touch
- ✓ 316 SS Wetted Parts
- ✓ ±0.25% Test Gauge Accuracy
- ✓ Optional Backlit Display or NEMA 4X (IP66) Enclosure Available

The DPG5500 gauge is compact units with a full 4-digit display. Available with over 140 possible pressure units, these gauges are powered by 2 "AA" alkaline batteries. All models include a standard 5-minute auto shut-off circuitry to conserve battery life. Units are available in three configurations, with an extruded aluminum or NEMA 4X ABS/polycarbonate case. Aluminum case models are also available with a backlit display

### SPECIFICATIONS

**Power:** 2 "AA" alkaline included, approximately 2000 hr (150 to 1500 hr for DPG5600 models; low battery indicator

**Auto Shut-Off:** 5 min standard. Specify "-NS" option at time of order if on/off button is preferred. (No additional charge for "-NS" option.)

**Pressure/Vacuum Reference:** Gauge (psig) or absolute (psia)

**Optional Units:** Gauge is available from the factory scaled in other engineering units, for other ranges. Units include kPa, bar, mbar, inH<sub>2</sub>O, mmHg, ftH<sub>2</sub>O, torr, and kg/cm<sup>2</sup>.

Please consult the OMEGA Pressure Engineering Department for available models.

**Display:** 4 digit, LCD, 10.16 mm (0.4") digit height, 3 readings per second, nominal update rate

DPG5500B-60G,  
\$289, shown  
actual size.



Aluminum Case

**Accuracy:** ±0.25% FS  
±1 least significant digit; linearity, hysteresis and repeatability combined

**Operating Temperature:** -20 to 85°C (-4 to 185°F)

**Compensated Temperature:** 0 to 70°C (32 to 158°F)

**Temperature Stability:** ±0.5% of span (typical), ±1% of span (maximum) 0 to 82°C (32 to 180°F)

**Storage Temperature:** -40 to 95°C (-40 to 203°F)

**Pressure/Vacuum Fitting:** ¼ MNPT  
**Wetted Parts:** 316 SS

**Overpressure:** 2x sensor pressure range, 3000 psig range = 5000 psi max, 5000 psig range = 7500 psig max. At 110% to 125% out-of-range display 1---- or 1-.-.- depending on the model.

**Burst Pressure:** 4x sensor pressure rating or 10,000 psi, whichever is less

**Calibration:** Internal controls, non-interactive zero, span and linearity ±10% range

### Dimensions:

86 W x 73 H x 42 mm D (3.38 x 2.88 x 1.65") not including the pressure fitting.

**Weight:** 255 g (9 oz); shipping weight: 454 g (1 lb)

**Material:** Extruded aluminum case, light gray epoxy powder coated, black ABS/polycarbonate bezel, front and rear gaskets, black/gold label

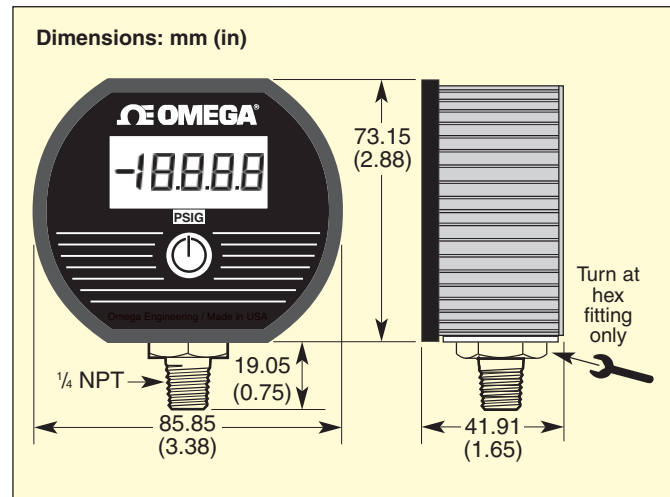
## MIN/MAX DIGITAL PRESSURE GAUGES

ALL RANGES AND RESOLUTIONS SHOWN AVAILABLE!				
-30.00 inHg/ 15.00 psig	120.0 inHg	1600 mmHg	35.00 bar	1.000 kg/ cm <sup>2</sup> abs
-30.0 inHg/ 100.0 psig	200.0 inHg abs	760.0 torr abs	70.00 bar	1.000 kg/ cm <sup>2</sup> vac
-30.0 inHg/ 200.0 psig	200.0 inHg	1600 torr abs	140.0 bar	±1.000 kg/cm <sup>2</sup>
<b>3.000 psig</b>	50.00 oz/in <sup>2</sup>	2100 mmH <sub>2</sub> O	200.0 bar	1.000 kg/cm <sup>2</sup>
<b>5.000 psig</b>	80.0 oz/in <sup>2</sup>	3500 mmH <sub>2</sub> O	350.0 bar	2.000 kg/ cm <sup>2</sup> abs
15.00 psi abs	240.0 oz/ in <sup>2</sup> abs	200.0 cmH <sub>2</sub> O	20.00 kPa	2.000 kg/cm <sup>2</sup>
<b>15.00 psig vac</b>	240.0 oz/ in <sup>2</sup> vac	350.0 cmH <sub>2</sub> O	35.00 kPa vac	4.000 kg/cm <sup>2</sup>
±15.00 psig	±240.0 oz/ in <sup>2</sup>	1000 cmH <sub>2</sub> O	100.0 kPa abs	7.000 kg/ cm <sup>2</sup> abs
<b>15.00 psig</b>	240.0 oz/in <sup>2</sup>	2100 cmH <sub>2</sub> O	100.0 kPa vac	7.000 kg/ cm <sup>2</sup>
30.00 psi abs	85.0 inH <sub>2</sub> O	200.0 mbar	±100.0 kPa	14.00 kg/cm <sup>2</sup>
<b>30.00 psig</b>	140.0 inH <sub>2</sub> O	350.0 mbar	100.0 kPa	20.00 kg/cm <sup>2</sup>
<b>60.00 psig</b>	400.0 inH <sub>2</sub> O	1000 mbar abs	200.0 kPa abs	35.00 kg/cm <sup>2</sup>
100.0 psi abs	400.0 inH <sub>2</sub> O vac	1000 mbar vac	200.0 kPa	70.00 kg/cm <sup>2</sup>
<b>100.0 psig</b>	±400 inH <sub>2</sub> O	±1000 mbar	400.0 kPa	140.0 kg/cm <sup>2</sup>
<b>200.0 psig</b>	400.0 inH <sub>2</sub> O	1000 mbar	700.0 kPa abs	200.0 kg/cm <sup>2</sup>
<b>300.0 psig</b>	850 inH <sub>2</sub> O	2000 mbar abs	700.0 kPa	350.0 kg/cm <sup>2</sup>
<b>500.0 psig</b>	7.000 ftH <sub>2</sub> O	2000 mbar	1500 kPa	1.000 atm abs
<b>1000 psig</b>	12.00 ftH <sub>2</sub> O	4000 mbar	2000 kPa	±1.000 atm
<b>2000 psig</b>	35.00 ftH <sub>2</sub> O	1.000 bar abs	3500 kPa	1.000 atm
3000 psig	70.00 ftH <sub>2</sub> O	1.000 bar vac	5000 kPa	4.000 atm
5000 psig	140.0 ftH <sub>2</sub> O	±1.000 bar	3.500 MPa	7.000 atm
6.000 inHg	230.0 ftH <sub>2</sub> O	1.000 bar	7.000 MPa	14.00 atm
10.00 inHg	480.0 ftH <sub>2</sub> O	2.000 bar abs	14.00 MPa	20.00 atm
30.00 inHg abs	150.0 mmHg	2.000 bar	20.00 MPa	35.00 atm
<b>30.00 inHg vac</b>	260.0 mmHg	4.000 bar	35.00 MPa	70.00 atm
±30.00 inHg	760.0 mmHg abs	7.000 bar abs	1000 g/ cm <sup>2</sup> abs	135.0 atm
30.00 inHg	760.0 mmHg vac	7.000 bar	1000 g/ cm <sup>2</sup>	200.0 atm
60.00 inHg abs	760.0 mmHg	14.00 bar	2100 g/ cm <sup>2</sup> abs	340.0 atm
60.00 inHg	1600 mmHg	20.00 bar	2100 g/ cm <sup>2</sup>	



DPG5000 Dimensions

DPG5600B-60G, \$319, shown smaller than actual size.



Resolution is fixed as indicated in table. Ranges in **bold** are standard. Contact Omega Engineering for other ranges listed above.

**abs:** Absolute reference (normally reads atmospheric pressure; reads zero at full vacuum).



DPG5500B-60G,  
\$289, shown smaller  
than actual size.



Aluminum Case

**CONTROLS AND FUNCTIONS**  
**(FRONT PUSHBUTTON TURNS THE GAUGE ON OR OFF AND CYCLES THROUGH OTHER FUNCTIONS)**

FUNCTION	PUSHBUTTON	PROMPT (Release Button)	RESULT
On	Press 1 sec	Gauge range/display test	Actual pressure
On with Zero	Press/hold	0000	Actual pressure
Hi Reading	Press/hold	HI	Hi & max reading
Lo Reading	Press/hold	LO	Lo & min reading
Normal Read	Press/hold	AP	Actual pressure
Clear Hi/Lo	Press/hold	HI/LO/AP>clr	Actual pressure
Off	Press/hold	HI/LO/AP>clr>OFF	Gauge off

**MOST POPULAR MODELS HIGHLIGHTED!**

<b>To Order (Specify Model Number)</b>				
RANGE/ RESOLUTION/ MODELS	MODEL NO. BASIC MODELS	PRICE	MODEL NO. BACKLIT MODELS	PRICE
0 to 3.000 psig	DPG5500B-03G	\$289	DPG5600B-03G	\$319
0 to 5.000 psig	DPG5500B-05G	289	DPG5600B-05G	319
0 to 15.00 psig Vac	DPG5500B-15VAC	289	DPG5600B-15VAC	319
0 to 15.00 psig	DPG5500B-15G	289	DPG5600B-15G	319
0 to 30.00 psig	DPG5500B-30G	289	DPG5600B-30G	319
0 to 60.00 psig	DPG5500B-60G	289	DPG5600B-60G	319
0 to 100.0 psig	DPG5500B-100G	289	DPG5600B-100G	319
0 to 200.0 psig	DPG5500B-200G	289	DPG5600B-200G	319
0 to 300.0 psig	DPG5500B-300G	289	DPG5600B-300G	319
0 to 500.0 psig	DPG5500B-500G	289	DPG5600B-500G	319
0 to 1000 psig	DPG5500B-1KG	289	DPG5600B-1KG	319
0 to 2000 psig	DPG5500B-2KG	289	DPG5600B-2KG	319
0 to 30.00 inHg Vac	DPG5500B-30INHGVAC	289	DPG5600B-30INHGVAC	319
30.00 mmHg to 100.0 psig	DPG5500B-30V100G	309	DPG5600B-30V100G	339
0 to 15.00 psia	DPG5500B-15A	309	DPG5600B-15A	339
0 to 30.00 psia	DPG5500B-30A	309	DPG5600B-30A	339
0 to 760.0 torr abs	DPG5500B-760TORRA	309	DPG5600B-760TORRA	339
0 to 85.0 inH <sub>2</sub> Og	DPG5500B-85INH2OG	309	DPG5600B-85INH2OG	339
0 to 140.0 inH <sub>2</sub> Og	DPG5500B-140INH2OG	309	DPG5600B-140INH2OG	339
0 to 1.000 barg	DPG5500B-1BARG	309	DPG5600B-1BARG	339
0 to 7.000 barg	DPG5500B-7BARG	309	DPG5600B-7BARG	339
0 to 14.00 barg	DPG5500B-14BARG	309	DPG5600B-14BARG	339

Comes complete with operator's manual.

**Ordering Examples:** DPG5500B-30G, 0 to 30.00 psig, ¼ NPT lower fitting, battery powered, min/max/zero, \$289.

DPG5600B-30G, 0 to 30.00 psig with ¼ NPT lower fitting, battery powered, with a backlit display, min/max/zero, \$319.



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## More than 100,000 Products Available!

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Calibrators, Connectors, General Test and Measurement Instruments, Glass Bulb Thermometers, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders Relative Humidity Measurement Instruments, RTD Probes, Elements and Assemblies, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples Thermowells and Head and Well Assemblies, Transmitters, Wire

### • Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

### • pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

### • Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

### • Heaters

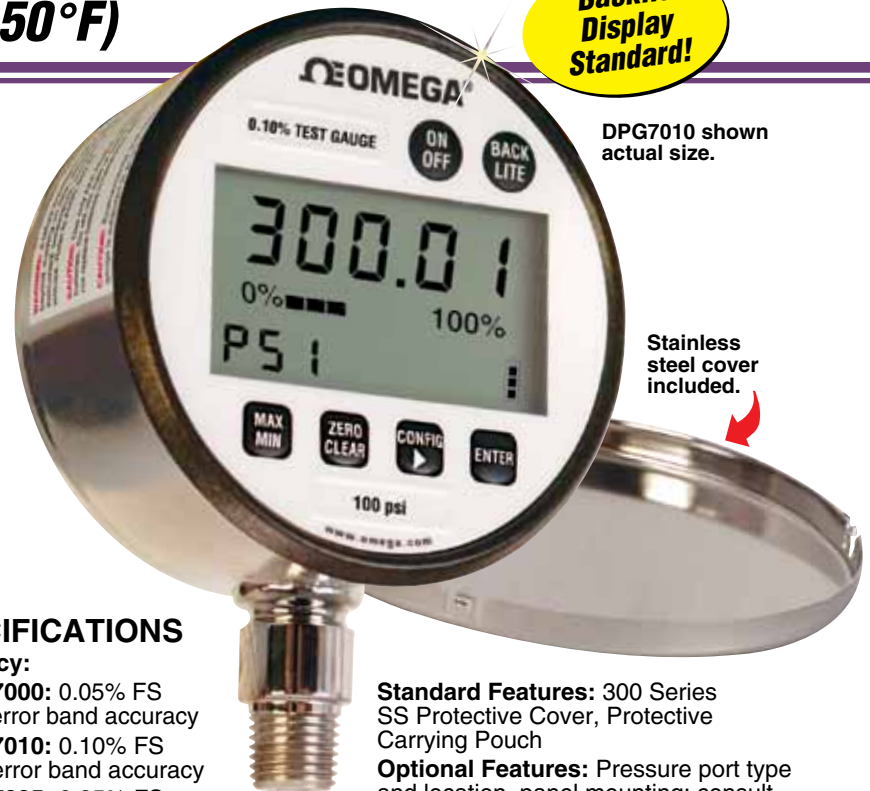
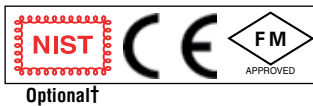
Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters

# TERMINAL POINT, TOTAL ERROR BAND ACCURACY FROM -18 to 66°C (0 to 150°F)

**Backlit  
 Display  
 Standard!**

**DPG7000** 0.05% Accuracy  
**DPG7010** 0.10% Accuracy  
**DPG7025** 0.25% Accuracy

## DPG7010 Series



DPG7010 shown actual size.

Stainless steel cover included.

- ✓ 0.05, 0.10 and 0.25% FS Accuracy Models
- ✓ 12 User-Selectable Units of Measure
- ✓ Large 17 mm (0.66") Display with % of Range Bar Graph
- ✓ All Stainless Steel Wetted Parts and Case
- ✓ NEMA 4 (IP65) Weatherproof Case
- ✓ Programmable for 7 Languages

The DPG7000 Series comprises high-accuracy digital test gauges designed for the most demanding applications. These gauges feature a 0.05% total error band, which includes linearity, hysteresis, repeatability, and temperature effects from -18 to 66°C (0 to 150°F). The all stainless steel wetted parts and case carry a NEMA 4 (IP65) rating.

A variety of user-configurable options—including languages, update rate, dampening, backlight, and auto-off—greatly increase the DPG7000's versatility. All units include a stainless steel protective cover and carrying case. A 10-point individual calibration chart is standard with 0.05% accuracy units.

## SPECIFICATIONS

### Accuracy:

**DPG7000:** 0.05% FS total error band accuracy  
**DPG7010:** 0.10% FS total error band accuracy  
**DPG7025:** 0.25% FS total error band accuracy

**Terminal Point:** Total error band (TEB) including hysteresis, linearity, repeatability and temperature from -18 to 66°C (0 to 150°F)

**Calibrate:** Zero and Span (password protected)

### CASE

**Size:** 76 mm (3")  
**Material:** 300 Series Stainless Steel  
**Finish:** Electropolished  
**Rating:** Weatherproof, IP65, NEMA 4

**Wetted Parts:** 316 Stainless Steel

**Socket Size:** ¼ NPT Male

**Socket Location:** Lower (6 o'clock)

**Mounting:** Stem

**Operating Temperature:** -18 to 63°C (0 to 150°F)

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

**Temperature Correction:** -18 to 63°C (0 to 150°F); included in accuracy specification

**Power:** 3 "AAA" alkaline batteries, included

**Battery Life:** >1000 hr

**Auto Off:** Five Options: Never, 2 min., 5 min., 15 min., 30 min.

**Agency Approvals:** CE EN 50082-1 (1997), FM, CSA

**Note:** FM/CSA approval not available on vacuum range and vacuum/15# ranges

**Calibration Chart:** 10 point individual calibration chart, standard for DPG7000; optional for DPG7010 and DPG7025 models

**Standard Features:** 300 Series SS Protective Cover, Protective Carrying Pouch

**Optional Features:** Pressure port type and location, panel mounting; consult engineering for details

### DISPLAY

**Type:** LCD, with bar graph; backlight standard

**Display Digits:** 5, 99,999 counts

**Character Height:** 16.7 mm (0.66")

**Engineering Units:** psi, inHg, inH<sub>2</sub>O, ftSW, Bar, mBar, kPa, mPa, mmHg, cmH<sub>2</sub>O, mmH<sub>2</sub>O, kg/cm<sup>2</sup>

**Update Rate:** Four Options; 10x/sec, 5x/sec, 2x/sec, 1x/sec

**Dampening:** Five Options; None, average 2, 4, 6, 8 readings

**Language:** Seven Languages; English, Spanish, French, Italian, German, Portuguese, Dutch

**Backlight:** Five Options; On/off, 10 sec., 30 sec., 1 min., 5 min.

**Zero Disable:** Allows for disabling of Zero button

**Contrast:** Seven available options

**Disable:** Allows for "lock-out" of CONFIG options

### KEYPAD FUNCTIONS

**On/Off:** Manually turns unit on and off

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

**Minimum/Maximum:** Stores minimum and maximum values when displayed

**Zero/Clear:** Zeros display or clears minimum and maximum values when displayed

**Enter:** Selects items in configuration menu

**Config:** Configuration mode; allows scrolling through configuration menus to select available options

**AVAILABLE RANGES**

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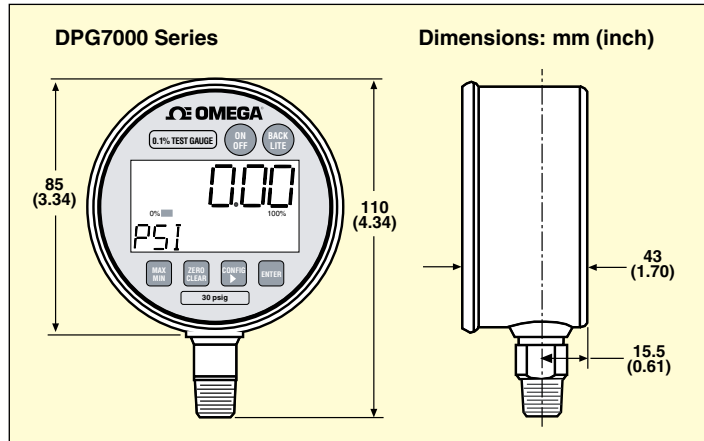
vac.	15 and vac.	-100/0	1	-1 to 0
5	30 and vac.	25	1.6	-1 to 1
10	60 and vac.	40	2.5	-1 to 2
15	100 and vac.	60	4	-1 to 3
30		100	6	-1 to 30
60		160	10	
100		250	16	
160		400	25	
200		600	40	
300		1000	60	
500			160	
600			250	
800			400	
1000			500	
2000				
2500				
3000				
5000				
7000				
<b>mmH<sub>2</sub>O</b>	<b>mPa</b>	<b>mbar/cmH<sub>2</sub>O</b>	<b>Absolute (psia)</b>	
3000	1	250	15	
5000	1.6	300	25	
10,000	2.5	400	50	
	6	500		
	40	600		
		1000		
		1600		
		2000		
		2500		
		4000		
		5000		
		6000		
		10,000		

*\* Order psi range closest to full scale range of the units desired. The units selection is programmable via the front-panel buttons.*

User-Selectable Ranges\*

# HIGH-ACCURACY GAUGES

PRESSURE GAUGES



## To Order

RANGE		MODEL NO.	MODEL NO.	MODEL NO.
psig	bar	0.25% ACCURACY	0.10% ACCURACY	0.05% ACCURACY
0 to -14.7	0 to -1	DPG7025-Vac	DPG7010-Vac	DPG7000-Vac
-14.7 to 15	-1 to 1	DPG7025-Vac/15	DPG7010-Vac/15	DPG7000-Vac/15
-14.7 to 30	-1 to 2	DPG7025-Vac/30	DPG7010-Vac/30	DPG7000-Vac/30
0 to 10	0 to 0.7	DPG7025-10	DPG7010-10	DPG7000-10
0 to 15	0 to 1	DPG7025-15	DPG7010-15	DPG7000-15
0 to 30	0 to 2	DPG7025-30	DPG7010-30	DPG7000-30
0 to 60	0 to 4	DPG7025-60	DPG7010-60	DPG7000-60
0 to 100	0 to 7	DPG7025-100	DPG7010-100	DPG7000-100
0 to 200	0 to 13	DPG7025-200	DPG7010-200	DPG7000-200
0 to 300	0 to 20	DPG7025-300	DPG7010-300	DPG7000-300
0 to 500	0 to 34	DPG7025-500	DPG7010-500	DPG7000-500
0 to 1000	0 to 69	DPG7025-1K	DPG7010-1K	DPG7000-1K
0 to 2000	0 to 138	DPG7025-2K	DPG7010-2K	DPG7000-2K
0 to 3000	0 to 207	DPG7025-3K	DPG7010-3K	DPG7000-3K
0 to 5000	0 to 345	DPG7025-5K	DPG7010-5K	DPG7000-5K
0 to 7000	0 to 483	DPG7025-7K	DPG7010-7K	DPG7000-7K

## ACCESSORY

MODEL NO.	DESCRIPTION
DPG7000-ABS-CASE	Weatherproof ABS gauge carrying case

Comes complete with stainless steel cover, padded carrying case and operator's manual. DPG7000 0.05% units also include NIST-traceable calibration certificate.

† To order DPG7025 or DPG7010 units with optional NIST traceable calibration certificate, add suffix "-NIST" to model number for additional cost.

**Note:** To order a range not shown in the "Most Popular Models" above, replace the range in the model number (the numbers and letters after the "-" with the range and units you need from the "Available Range" chart (i.e., DPG7010-25 psia is a 0 to 25 psi absolute gauge with 0.10% accuracy).

**Ordering Examples:** DPG7010-Vac/15, compound range, vacuum to 15 psi gauge digital pressure gauge, 0.10% accuracy.

DPG7025-100, 100 psi gauge pressure digital pressure gauge, 0.25% accuracy.

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# GENERAL PURPOSE DIGITAL PRESSURE GAUGE

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## WITH 0.25% TERMINAL POINT ACCURACY

Ranges from Vacuum to 25,000 psi  
(30 inHg to 1724 bar)

PRESSURE GAUGES



### DPG8001 Series



- ✓ 0.25% Full Scale Terminal Point Accuracy Typical
- ✓ Enhanced Value vs. Mechanical Gauge
- ✓ 5 Digit LCD Display with Large 12.2 mm (0.48") Digits
- ✓ 20 Segment Bar Graph Display
- ✓ User-Selectable Engineering Units
- ✓ MIN/MAX Readings
- ✓ Tare Function Standard
- ✓ Environmentally Protected to NEMA 4X (IP65)
- ✓ All Stainless Steel Wetted Parts



DPG8001

The DPG8001 Series digital pressure gauges offer 0.25% full scale terminal point accuracy in a rugged easy-to-use unit and is price comparable to that of mechanical test gauges. All Stainless Steel wetted parts make them suitable for a wide variety of industrial liquids and gaseous media. This series features user-selectable engineering units, allowing one gauge to be used for a variety of pressure scales.

The DPG8001 comes standard with many features that are either not available or extra cost options on many competitive digital gauges such as a tare, 20 segment bar graph MIN/MAX Memory, 9 engineering units and backlighting for easy reading.

### SPECIFICATIONS

**Accuracy:** 0.25% FS terminal point (0.5% full scale terminal point for ranges 15 psi, 30 Vac, 30V15 and 30V30)

**Ranges:** Vacuum through 25,000 psi gauge, vacuum and compound gauge

**Battery:** Two "AA" alkaline included

**Battery Life:** 2000 hr. minimum

**Battery Indicator:** 4 levels

**Media Temperature:** -20 to 80°C (-4 to 176°F)

**Operating Temperature:** -20 to 60°C (-4 to 140°F)

**Temperature Effects:** 0.04%/°F (-20 to 180°F) zero and span

**Update Rate:** 1 Hz

**Cycle Life:** 10 million

**Vibration:** MIL-STD-202G Method 201A

**Shock:** MIL-STD-202G Method 213 B

**Display:** 4 or 5-digit based upon resolution available

**Bar Graph:** 20 segment vertical bar graph

**Digit Height:** 12.2 mm (0.48") upper line; 6.1 mm (0.24") lower line

**Display Indicators:** 4-segment battery life indicator plus dedicated icons for gauge timer, backlight timer, tare, min and max

**View Angle:** 12 o'clock

**Backlight:** Standard, blue

**Enclosure Material (Case and Back):** Polycarbonate/ABS

**Window:** Polycarbonate

**Enclosure Rating:** NEMA 4X (IP67)

**Protective Boot:** Standard

**Serial Number:** Yes

**Proof Pressure**

Vac to <300 psi: 200% range  
 300 to <5000 psi: 150% range  
 5000 to 25,000 psi: 120% range

**Burst Pressure**

Vac to <300 psi: 800% range  
 300 to <5000 psi: 500% range  
 5000 to 25,000 psi: 300% range

**Keypad Functions**

**3 Key with Multi Press Functionality**

**On/Off:** Power symbol and enter  
**Zero:** Zero, tare, and scroll up arrow  
**Menu:** access, backlight, down arrow

**Engineering Units:** psi, bar, inHg, cmHg, mmHg, kPa, mPa, kg/cm<sup>2</sup>, ftH<sub>2</sub>O, custom units, except on compound gauge ranges

**Auto-Off:** Programmable for 1, 5 or 20 minutes or none for on/off

**Display Update:** Adjustable for 1 sec, 500 msec or 250 msec

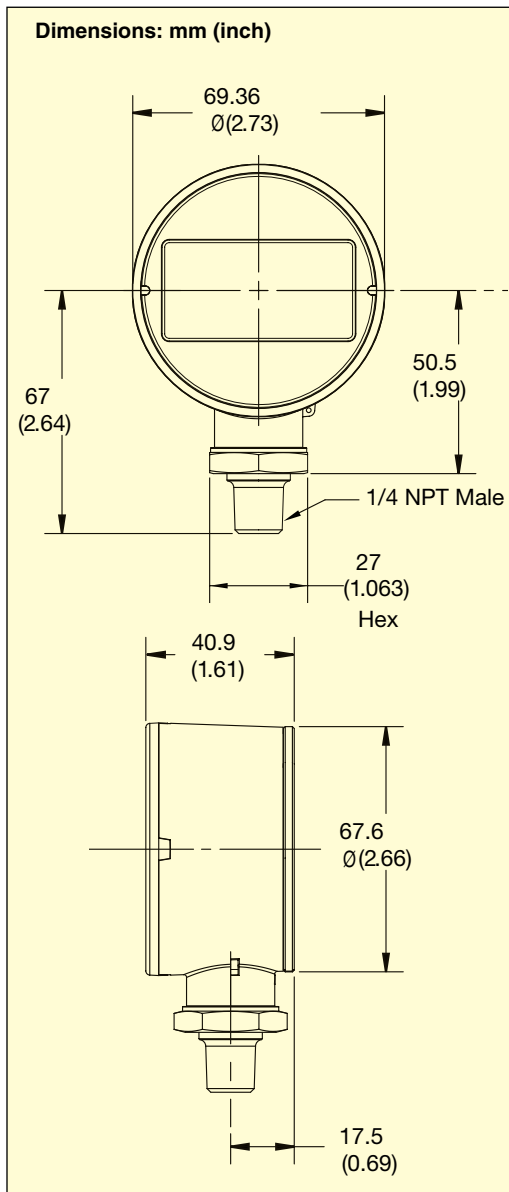
**Agency Approvals:** CE (heavy industrial), ASME B40.7, RoHs, UL 61010/cUL pending

**Connection:** ¼ NPT male, lower position up to 10,000 psi

**>10,000 psi:** ¼"-18 UNF Female AMINCO

**Dimensions:** 27 mm Hex (1 ¼")

**Wetted Parts:** 17-4 SS & 316L SS laser welded



To Order	
RANGE/RESOLUTION	MODEL NO.
<b>VACUUM AND COMPOUND GAUGE RANGES</b>	
30.00 inHg to 0	DPG8001-VAC
30.00 inHg to 15.00 psi	DPG8001-30V15
30.00 inHg to 30.00 psi	DPG8001-30V30
30.00 inHg to 60.00 psi	DPG8001-30V60
30.00 inHg to 100.0 psi	DPG8001-30V100
30.00 inHg to 150.0 psi	DPG8001-30V150
30.00 inHg to 300.0 psi	DPG8001-30V300
<b>GAUGE PRESSURE (PSI)</b>	
0 to 15.00	DPG8001-15
0 to 30.00	DPG8001-30
0 to 60.00	DPG8001-60
0 to 100.0	DPG8001-100
0 to 200.0	DPG8001-200
0 to 300.0	DPG8001-300
0 to 500.0	DPG8001-500
0 to 1000	DPG8001-1K
0 to 1500	DPG8001-1.5K
0 to 2000	DPG8001-2K
0 to 3000	DPG8001-3K
0 to 5000	DPG8001-5K
0 to 10,000	DPG8001-10K
0 to 15,000	DPG8001-15K†
0 to 20,000	DPG8001-20K†
0 to 25,000	DPG8001-25K†

Comes complete with protective rubber boot, 2 "AA" batteries, and operator's manual.  
 † 15,000, 20,000 and 25,000 psi models supplied with female AMINCO ¼"-18 UNF female AMINCO fitting.

**Ordering Examples:** DPG8001-15, digital pressure gauge with range of 0 to 15 psi with protective rubber boot and backlight.

DPG8001-30V30, digital pressure gauge with range of 30" Hg Vacuum to 30 psi compound gauge pressure with protective rubber boot and backlight.

# DIGITAL PRESSURE GAUGES WITH METRIC FITTINGS AND RANGES

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## 0.08% ACCURACY WITH STAINLESS STEEL WETTED PARTS AND BODY

PRESSURE  
GAUGES  
G

**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



Magnetic stylus (included).

DPGM409-070BG, shown smaller than actual size.

NEMA 4X case.

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

Standard integral pressure sensor

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  $\leq 350$  mb:**  $\pm 0.5\%$  span

#### Span Shift:

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

**Ranges  $\leq 350$  mb psi:**  $\pm 0.5\%$  span

### Minimum Resistance Between Transducer Body and Any Wire:

100M $\Omega$  @ 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:

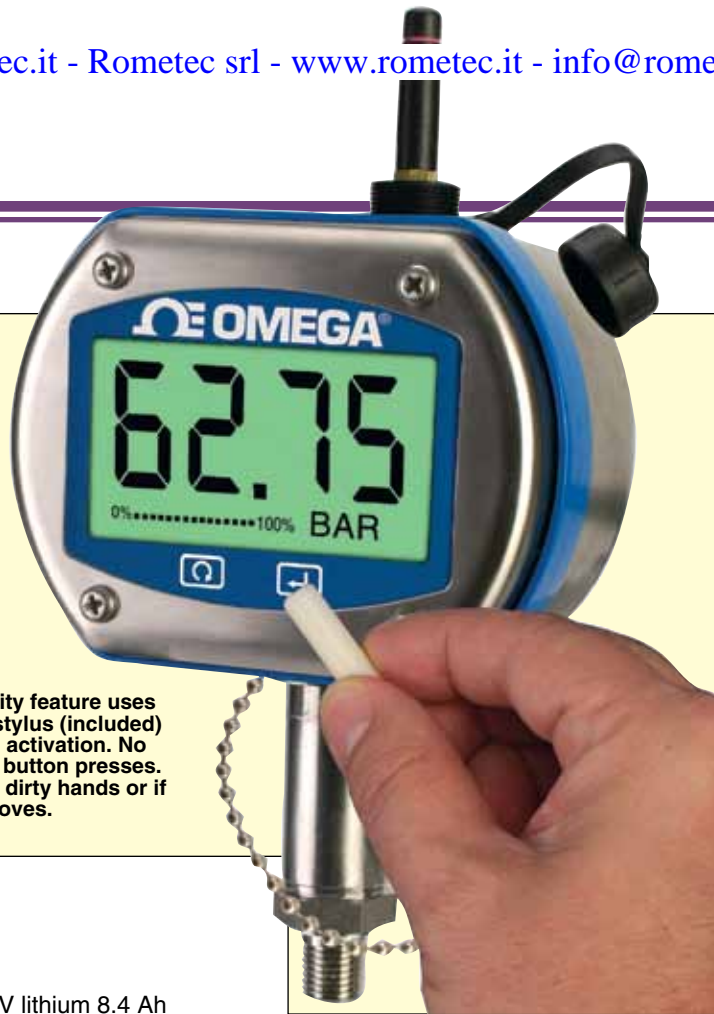
**350 mb to 70 bar:** to 400 bar

**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<sup>®</sup> 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



<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
<b>UWTC-REC1</b>	48-channel wireless receiver, USB powered
<b>UWTC-REC2-(*)</b>	48-channel wireless receiver with analog output
<b>UWTC-REC2-D-(*)</b>	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  $\geq 7$  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)	<b>DPGM409-025HG</b>
0 to 70.00 mbar (hPa)	<b>DPGM409-070HG</b>
0 to 170.0 mbar (hPa)	<b>DPGM409-170HG</b>
0 to 350.0 mbar (hPa)	<b>DPGM409-350HG</b>
0 to 1.000 bar	<b>DPGM409-001BG</b>
0 to 2.000 bar	<b>DPGM409-002BG</b>
0 to 3.500 bar	<b>DPGM409-3.5BG</b>
0 to 7.000 bar	<b>DPGM409-007BG</b>
0 to 10.00 bar	<b>DPGM409-010BG</b>
0 to 17.50 bar	<b>DPGM409-17.5BG</b>
0 to 35.00 bar	<b>DPGM409-035BG</b>
0 to 50.00 bar	<b>DPGM409-050BG</b>
0 to 70.00 bar	<b>DPGM409-070BG</b>
0 to 100.0 bar	<b>DPGM409-100BG</b>
0 to 175.0 bar	<b>DPGM409-175BG</b>
0 to 245.0 bar	<b>DPGM409-245BG</b>
0 to 350.0 bar	<b>DPGM409-350BG</b>
<b>ABSOLUTE PRESSURE</b>	
0 to 350.0 mbar (hPa)	<b>DPGM409-350HA</b>
0 to 1.000 bar	<b>DPGM409-001BA</b>
0 to 2.000 bar	<b>DPGM409-002BA</b>
0 to 3.500 bar	<b>DPGM409-3.5BA</b>
0 to 7.000 bar	<b>DPGM409-007BA</b>
0 to 10.00 bar	<b>DPGM409-010BA</b>
0 to 17.50 bar	<b>DPGM409-017BA</b>
0 to 35.00 bar	<b>DPGM409-035BA</b>
0 to 50.00 bar	<b>DPGM409-050BA</b>
0 to 70.00 bar	<b>DPGM409-070BA</b>
<b>VACUUM (NEGATIVE GAUGE) RANGES (ZERO OUTPUT = AMBIENT)</b>	
0 to -25.00 mbar (hPa)	<b>DPGM409-025HV</b>
0 to -70.00 mbar (hPa)	<b>DPGM409-070HV</b>
0 to -170.0 mbar (hPa)	<b>DPGM409-170HV</b>
0 to -350.0 mbar (hPa)	<b>DPGM409-350HV</b>
0 to -1.000 bar	<b>DPGM409-001BV</b>
<b>BAROMETRIC RANGES (ABSOLUTE PRESSURE)</b>	
0 to 1100 hPa	<b>DPGM409-1100HB</b>
550 to 1100 hPa	<b>DPGM409-550HB</b>
880 to 1100 hPa	<b>DPGM409-880HB</b>
<b>COMPOUND GAUGE RANGES</b>	
$\pm 25.00$ mbar (hPa)	<b>DPGM409-025HCG</b>
$\pm 70.00$ mbar (hPa)	<b>DPGM409-070HCG</b>
$\pm 170.0$ mbar (hPa)	<b>DPGM409-170HCG</b>
$\pm 350.0$ mbar (hPa)	<b>DPGM409-350HCG</b>
$\pm 1.000$ bar	<b>DPGM409-001BCG</b>

# DIGITAL DIFFERENTIAL PRESSURE GAUGES

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## WITH METRIC FITTINGS AND RANGES

### 0.08% ACCURACY WITH 316L SS WETTED PARTS AND BODY

PRESSURE  
GAUGES

**Uni-Directional Differential  
Pressure Ranges**  
0-25 mb to 0-70 bar  
(0-10 inH<sub>2</sub>O to 0-1000 psi)

Magnetic  
stylus  
(included).

### DPGM409 Differential Series



DPGM409-17.5BDWU,  
shown smaller than  
actual size.

IP65 case.

Standard integral  
pressure sensor

- ✓ 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

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)

**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

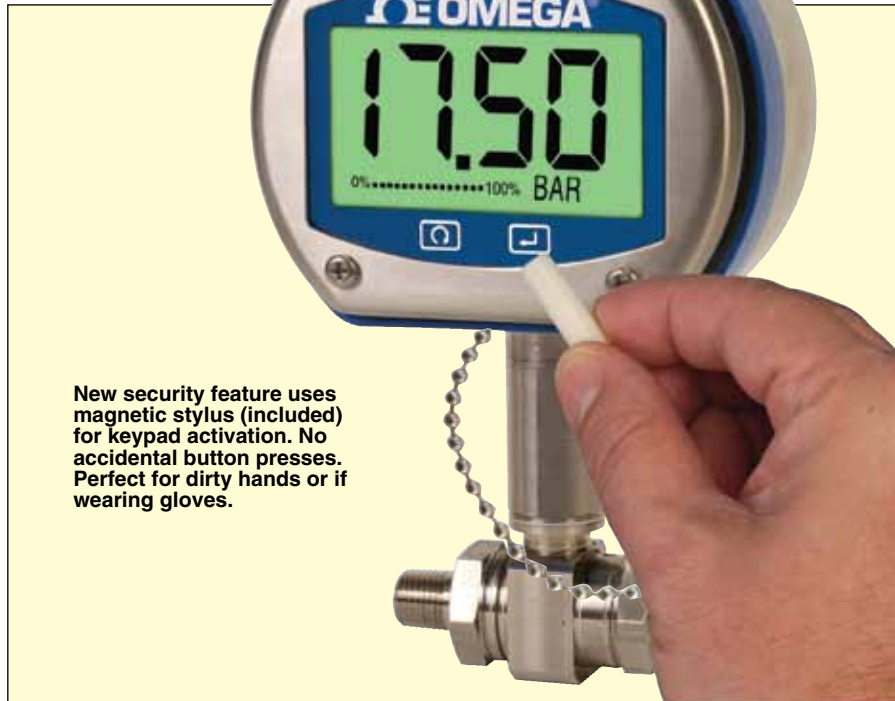
**Hi-Side Containment Pressure (Differential):**

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, inH<sub>2</sub>O, 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

<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 1/4 MALE TH'd	DESCRIPTION
<b>WET/WET UNI-DIRECTIONAL DIFFERENTIAL PRESSURE MODELS</b>		
0 to 25.00 mbar	<b>DPGM409-025HDWU</b>	25 mbar w/w uni-directional pressure
0 to 70.00 mbar	<b>DPGM409-070HDWU</b>	70 mbar w/w uni-directional pressure
0 to 170.0 mbar	<b>DPGM409-170HDWU</b>	170 mbar w/w uni-directional pressure
0 to 350.0 mbar	<b>DPGM409-350HDWU</b>	350 mbar w/w uni-directional pressure
0 to 1.000 bar	<b>DPGM409-001BDWU</b>	1 bar w/w uni-directional pressure
0 to 2.000	<b>DPGM409-002BDWU</b>	2 bar w/w uni-directional pressure
0 to 3.500	<b>DPGM409-3.5BDWU</b>	3.5 bar w/w uni-directional pressure
0 to 7.000	<b>DPGM409-007BDWU</b>	7 bar w/w uni-directional pressure
0 to 10.00	<b>DPGM409-010BDWU</b>	10 bar w/w uni-directional pressure
0 to 17.50	<b>DPGM409-17.5BDWU</b>	17.5 bar w/w uni-directional pressure
0 to 35.00	<b>DPGM409-035BDWU</b>	35 bar w/w uni-directional pressure
0 to 50.00	<b>DPGM409-050BDWU</b>	50 bar w/w uni-directional pressure
0 to 70.00	<b>DPGM409-070BDWU</b>	70 bar w/w uni-directional pressure
<b>WET/WET UNI-DIRECTIONAL DIFFERENTIAL PRESSURE MODELS - WITH WIRELESS TRANSMITTER OPTION</b>		
0 to 25.00 mbar	<b>DPGM409-025HDWU-W</b>	25 mbar w/w uni-directional wireless
0 to 70.00 mbar	<b>DPGM409-070HDWU-W</b>	70 mbar w/w uni-directional wireless
0 to 170.0 mbar	<b>DPGM409-170HDWU-W</b>	170 mbar w/w uni-directional wireless
0 to 350.0 mbar	<b>DPGM409-350HDWU-W</b>	350 mbar w/w uni-directional wireless
0 to 1.000 bar	<b>DPGM409-001BDWU-W</b>	1 bar w/w uni-directional wireless
0 to 2.000	<b>DPGM409-002BDWU-W</b>	2 bar w/w uni-directional wireless
0 to 3.500	<b>DPGM409-3.5BDWU-W</b>	3.5 bar w/w uni-directional wireless
0 to 7.000	<b>DPGM409-007BDWU-W</b>	7 bar w/w uni-directional wireless
0 to 10.00	<b>DPGM409-010BDWU-W</b>	10 bar w/w uni-directional wireless
0 to 17.50	<b>DPGM409-17.5BDWU-W</b>	17.5 bar w/w uni-directional wireless
0 to 35.00	<b>DPGM409-035BDWU-W</b>	35 bar w/w uni-directional wireless
0 to 50.00	<b>DPGM409-050BDWU-W</b>	50 bar w/w uni-directional wireless
0 to 70.00	<b>DPGM409-070BDWU-W</b>	70 bar w/w uni-directional wireless

WIRELESS RECEIVERS (FOR USE WITH WIRELESS OPTION)	
MODEL NO.	DESCRIPTION
<b>UWTC-REC1</b>	48-channel wireless receiver, USB powered
<b>UWTC-REC2-(*)</b>	48-channel wireless receiver with analog output
<b>UWTC-REC2-D-(*)</b>	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.

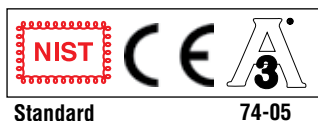


# **SANITARY/CLEAN-IN-PLACE APPLICATIONS**

## **HIGH 0.08% ACCURACY**

**Gauge, Absolute, Sealed Gauge  
Compound Gauge, Vacuum and  
Barometric Models**  
0-25 mb to 0-41 bar

### **DPGM409S Metric Sanitary Series**



- ✓ Easy to Read 25 mm (1") Backlit LCD Display
- ✓ High 0.08% Accuracy Typical
- ✓ 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
- ✓ Data Logging and Charting Software Included
- ✓ Wireless Transmitter Option Sends Reading to Remote Location
- ✓ Tested to Industrial CE Standards
- ✓ Battery Powered with Long Battery Life
- ✓ 5-Point NIST Traceable Calibration Certificate



**Fast Delivery –  
Typically Stock to  
1-Week!**

DPGM409S15-17.5BG  
shown smaller than  
actual size.

OMEGA's DPGM409S Sanitary/CIP digital pressure gauges with metric ranges incorporate 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 connect to a pc via a standard USB connection (cable included) and select a variety of user configurable features including update rate, dampening, units, backlight and auto off. The analog output can also be independently scaled from the display.

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

<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.

## SPECIFICATIONS

### RoHS Compliant

**CE Compliant:** Meets industrial emissions and immunity standard IEC61326 for industrial locations

**Accuracy:**  $\pm 0.08\%$  Best Straight Line Typ. (Linearity, Hysteresis and Repeatability combined)

**Calibration:** 5-Pt NIST traceable calibration with zero and span values, calibrated in horizontal direction (compound gauge models calibrated in positive direction only). calibrated in horizontal direction

**Zero Balance:**  $\pm 0.5\%$  FS typical  $\pm 1\%$  maximum (for ranges  $\leq 170$  mb  $\pm 1\%$  Typical  $\pm 2\%$  maximum)

**Span Setting:**  $\pm 0.5\%$  FS typical  $\pm 1\%$  maximum (for ranges  $\leq 170$  mb  $\pm 1\%$  Typical  $\pm 2\%$  maximum)

**Storage/Operating Temperature Range:**  $-15$  to  $115^{\circ}\text{C}$  ( $-5$  to  $240^{\circ}\text{F}$ )

### Compensated Temperature Range:

**Ranges  $\leq 350$  mb:**  $4.4$  to  $60^{\circ}\text{C}$  ( $40$  to  $140^{\circ}\text{F}$ )

**Ranges  $> 350$  mb:**  $-4$  to  $85^{\circ}\text{C}$  ( $25$  to  $150^{\circ}\text{F}$ )

### Zero and Span shift over

#### Compensated Range:

**Ranges  $\leq 170$  mb: Zero:** 1.00%

**Span:** 0.70%

**Range = 350 mb: Zero:** 0.80%

**Span:** 0.50%

**Ranges  $> 350$  mb: Zero:** 0.50%

**Span:** 0.50%

**550 & 880HB Barometric Range:**

**Zero:** 0.90% **Span:** 0.50%

### Minimum Isolation Between Case and Output Terminations:

100M  $\Omega$  @ 50 Vdc

**Analog Output:** User selectable 0 to 5 Vdc, 0 to 10 Vdc of 4 to 20 mA (external 24 Vdc power required)

**Note:** Compound gage ranges have a unidirectional analog output equal to their full span; i.e.  $-1$  to  $+1$  bar = 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') with ferrite core included

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

**Pressure Cycles:** 250,000, minimum  
**Long Term Stability (1-Year):**  $\pm 0.1\%$  FS Typical

**Fill Fluid:** NEOBEE M5 Food Grade

**Approved to 3A Sanitary Specification 74-05**

### Environmental Protection:

NEMA 4X (IP65) depending upon electrical termination

**Pressure Rating:** 1½" and 2" Tri-Grip™ fitting (compatible the Tri-Clamp®): 40 bar using suitable clamp

**Over Pressure:** 4 x rated pressure to maximum rated flange pressure

**Secondary Containment:** 6 x rated pressure to a maximum of 138 bar (not in clamp)

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

**Computer Interface:** UBS connection for set-up, cable included

**Sample/Display Range:** User selectable from 0.35 to 30 seconds (preset to 1/second)

**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)

**Connection Location:** Lower (head rotates to position display)

### 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<sub>2</sub>O, 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 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 minute to 1 sample/2 seconds

**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

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

### Dimensions:

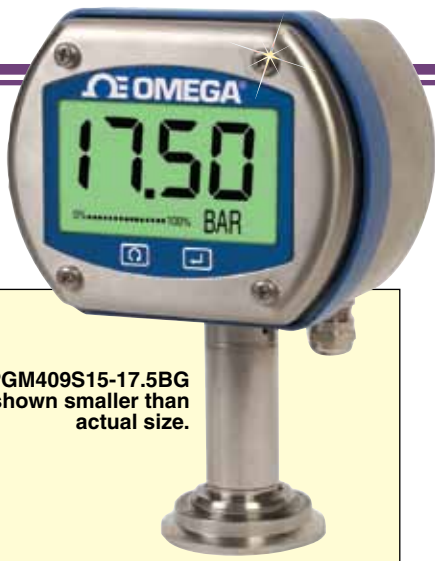
**Display:** 115 D x 89 W x 74 mm H (4.5 x 3.5 x 2.9")

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

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



DPGM409S15-17.5BG,  
shown smaller than actual size.



DPGM409S15-17.5BG shown smaller than actual size.



Exploded view showing DPGM409S15. Standard Tri-Grip™ fitting works with commercially available sanitary pipes and fittings. Shown smaller than actual size.

RANGE METRIC	PSI APPROXIMATE	MODEL NO.
<b>GAUGE</b>		
0 to 25 mbar	0 to 10 inH <sub>2</sub> O	DPGM409S[*]-025HG
0 to 70 mbar	0 to 1	DPGM409S[*]-070HG
0 to 170 mbar	0 to 2.5	DPGM409S[*]-170HG
0 to 350 mbar	0 to 5	DPGM409S[*]-350HG
0 to 1	0 to 15	DPGM409S[*]-001BG
0 to 2	0 to 30	DPGM409S[*]-002BG
0 to 3.5	0 to 50	DPGM409S[*]-3.5BG
0 to 7	0 to 100	DPGM409S[*]-007BG
0 to 10	0 to 150	DPGM409S[*]-010BG
0 to 17.5	0 to 250	DPGM409S[*]-017BG
0 to 35	0 to 500	DPGM409S[*]-035BG
0 to 40	0 to 600	DPGM409S[*]-040BG
<b>ABSOLUTE</b>		
0 to 350 mbar	0 to 5	DPGM409S[*]-350HA
0 to 1	0 to 15	DPGM409S[*]-001BA
0 to 2	0 to 30	DPGM409S[*]-002BA
0 to 3.5	0 to 50	DPGM409S[*]-3.5BA
0 to 7	0 to 100	DPGM409S[*]-007BA
0 to 10	0 to 150	DPGM409S[*]-010BA
0 to 17.5	0 to 250	DPGM409S[*]-017BA
0 to 35	0 to 500	DPGM409S[*]-035BA
0 to 40	0 to 600	DPGM409S[*]-040BA
<b>VACUUM (NEGATIVE GAUGE)</b>		
0 to -25 mbar	0 to -10 inH <sub>2</sub> O	DPGM409S[*]-025HV
0 to -70 mbar	0 to -1	DPGM409S[*]-070HV
0 to -170 mbar	0 to -2.5	DPGM409S[*]-170HV
0 to -350 mbar	0 to -5	DPGM409S[*]-350HV
0 to -1 bar	0 to -15	DPGM409S[*]-001BV
<b>COMPOUND GAUGE</b>		
± 25 mbar	± 10 inH <sub>2</sub> O	DPGM409S[*]-025HCG
± 70 mbar	± 1	DPGM409S[*]-070HCG
± 170 mbar	± 2.5	DPGM409S[*]-170HCG
± 350 mbar	± 5	DPGM409S[*]-350HCG
± 1 bar	± 15	DPGM409S[*]-001BCG
<b>BAROMETRIC</b>		
0 to 1100 hPa	0 to 32.00 inHg	DPGM409S[*]-1100HB
550 to 1100 hPa	16 to 32.00 inHg	DPGM409S[*]-550HB
880 to 1100 hPa	26 to 32.00 inHg	DPGM409S[*]-880HB

[\*] Insert "15" for 1.5" Tri-Grip™ or "20" for 2" Tri-Grip™ Sanitary Fitting, no extra charge.

WIRELESS RECEIVERS (FOR WIRELESS OPTION "-W")	
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, set-up and configuration software, magnetic stylus, USB cable, 2.7 m (9') analog output cable with ferrite core, one 3.6V lithium C cell battery (two with wireless option) and 5-pt NIST traceable calibration. Wireless option also includes charting and databasing software.

[\*\*] 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, no extra charge. For wireless option add "-W" suffix for additional cost (includes data logging and graphing software).

Ordering Examples: DPGM409S15-007BG, digital pressure gauge with 1.5" sanitary fitting, 7 bar gauge range. DPG409S20-070HCG, digital pressure gauge with 2" sanitary fitting, ± 70 mb compound gauge range.



# DIGITAL BAROMETER PRECISION ABSOLUTE MANOMETER

## HHP360



Standard



HHP360-B.

- ✓ NIST Traceable Calibration Certificate Included
- ✓ Very High 0.015% Accuracy
- ✓ Absolute Pressure
- ✓ Barometric Pressure (Corrected to Sea Level)
- ✓ Altitude in Meters or Feet (Corrected to Sea Level)
- ✓ Altitude Can be User Set Based Upon Map or Trig Marker or for Local Conditions
- ✓ 7 Pressure Units
- ✓ Easy to Read Backlight Display

Omega's HHP360 is a very high accuracy, handheld barometer/absolute pressure meter suitable for the most demanding field or laboratory conditions. It can measure absolute pressure, barometric pressure (corrected to sea level) or altitude based upon sea level or corrected for a map or trig marker. Pressure can be displayed in 1 of 7 different engineering units. Altitude can be displayed in either meters or feet. The HHP360 Series also has a leak test mode to determine the rate of leakage in a pneumatic system, and data logging, either automatic (taking readings every 5 seconds for 20 minutes) or manual for up to 240 readings.

### SPECIFICATIONS

#### Measuring Range (Absolute Pressure):

**HHP360-A:** 0 to 17.403 psia (0 to 900 mmHg, 0 to 35.433 inHg)

**HHP360-B:** 0 to 38.674 psia (0 to 2000 mmHg, 0 to 78.740 inHg)

**Accuracy:** (Includes thermal errors from -5 to 50°C (23 to 122°F)

**HHP360-A:** ±0.02%FS

**HHP360-B:** ±0.015% FS from 0 to 19.337 psia (0 to 1000 mmHgA) ±0.025% FS from 19.338 to 38.674 psia (1000 to 2000 mmHgA)

#### Operating Temperature:

-5 to 50°C (23 to 122°F)

#### Storage Temperature:

-40 to 60°C (-40 to 140°F)

**Safe Overpressure:** 77 psia (4000 mmHg)

**Display/Resolution:** 5 significant digits LCD (0.25" high) 2 line x 16 alphanumeric characters with adjustable contrast

**Operating Modes:** Local pressure, sea level pressure from user set height, altitude from user set datum

**Backlight:** Green, changes to red for overpressure

**Units of Measure:** mmHg, inHg, PSI, mbar, bar, kPa, Torr, feet, meters

**Process Features:** Tare, Min/Max capture, leak test, damping rates, auto shutoff

**Process Media:** Fluids and gases compatible with 316 SS

**Pressure Fitting:** 1/8 NPT female, 316 SS

**Power:** 4 "AA" batteries (included)

**Battery Life:** >100 hr continuous use

**Case:** Polycarbonate, sealed keypad

**Dimensions:** 165 H x 91 W x 57 mm D (6.5 x 3.6 x 2.25")

**Weight:** 400 g (14 oz)

### To Order

MODEL NO.	DESCRIPTION
<b>HHP360-A</b>	Precision absolute manometer, 0 to 900 mmHg (0 to 17 psia)
<b>HHP360-B</b>	Precision absolute manometer, 0 to 2000 mmHg (0 to 38 psia)

*Comes complete with operator's manual, NIST traceable calibration certificate, 4 "AA" batteries, and protective rubber boot.*

*Ordering Example: HHP360-B, precision handheld manometer, 0 to 2000 mmHg range.*



Omega Tethered  
Sensor (optional  
accessory)



The HHP400 is a portable pressure instrument that offers flexible features to help meet the demand of your everyday pressure measurement needs. This smart manometer can document up to 240 readings in over 30 engineering units. It also has several features including MIN/MAX capture, adjustable damping rates, and auto shut-off. The HHP400 features NIST traceable accuracy up to  $\pm 0.025\%$  of full-scale.

Expand the capabilities of the HHP400 by adding a tethered sensor to measure a second pressure. Our tethered sensors are interchangeable, giving extra flexibility to your measurement needs. Choose from any available pressure sensor type and range and connect your accessory tethered sensor via a locking tether cable.

Our HHP460 barometric units have altitude displayed in feet or meters, indicated air speed in MPH, KNOTS, and KM/H, and has corrections for altitude and sea level.

## Features on HHP452

- HPP400Suite application for configuration, calibration, and data logging
- Backlight with 4 levels: Off, Low, Medium, High
- Battery life display (0 % to 100%)
- USB communication
- Min/Max pressure capture
- Protective red boot
- Ships with calibration certificate traceable to NIST
- HHP452 can use a second sensor with the MTS Series of Tethered Modules (Pressure & Temperature)

## Additional Features for HHP460

- Altitude displayed in feet or meters
- Indicated Air Speed in MPH, KNOTS, KM/H
- Corrections for Altitude and Sea Level

## Applications

- Pressure Transmitter Calibration
- Leak testing for low pressure gas systems
- Pressure drop monitoring across filters
- Monitoring vacuum on condensers and pumps
- Pressure relief valve testing
- Hold function to snapshot pressure reading
- HHP460 units only: Testing and calibration of Altimeter and Air Speed Instruments

## Omega Tethered Sensors

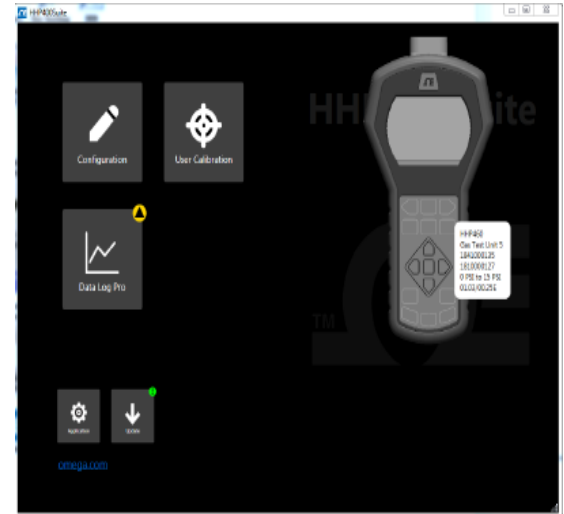
- Expand the capabilities of the HHP400 by adding an OTS to measure a second pressure.
- Choose any available pressure or temperature sensor type and range and connect your accessory OTS using the included 1 meter cable.
- This is an interchangeable sensor giving extra flexibility to your measurement needs.

## HHP400 Suite

Our HHP400 Suite application is included with the HHP400 so you can configure HHP400 and OTS to streamline your daily measurement tasks.

## Configure the Smart Manometer and sensors

Configure and download data logs, select measurement units and configure user defined units, turn on and off device functions, and calibrate your device using your local measurement standards.



	HHP452 Units	HHP460 Units
Pressure Accuracy	± 0.020% Full Scale + 0.005% of Reading	
Pressure Ranges for dry, non-corrosive gas media (Non-isolated)	<ul style="list-style-type: none"> <li>0 to 15, 30, 100 psi Absolute</li> <li>-1 to 1, -5 to 5, -14.5 to 15, 30, 50, 100 psi Differential</li> <li>-1 to 1, -5 to 5, -14.5 to 15, 30, 50, 100 psi Compound</li> <li>Additional ranges available with OTS</li> </ul>	<ul style="list-style-type: none"> <li>0 to 30 psi and 0 to 100 psi Absolute</li> <li>Additional ranges available with OTS</li> </ul>
Pressure Ranges for gasses and liquid media compatible with 316SS (Isolated)	<ul style="list-style-type: none"> <li>0 to 15, 30, 100, 1000 psi Absolute</li> <li>-1 to 1, -5 to 5, -14.5 to 15, 30, 50, 100, 300, 500 psi Differential</li> <li>-14.5 to 15, 30, 50, 100, 300, 500, 1000, 3000 psi Compound</li> <li>Additional ranges available with OTS</li> </ul>	<ul style="list-style-type: none"> <li>0 to 30, 100 psi Absolute</li> <li>Additional ranges available with OTS</li> </ul>
Measurement Units	Offering over 30 measurement units including psi, inH <sub>2</sub> O, mBar, Bar, kPa, mmHg, cmHg, inHg, kg/cm <sup>2</sup> , and user defined units - available with optional OTS	
Display Resolution	Up to 6 digits depending on pressure unit selected	
Dimensions with boot	<ul style="list-style-type: none"> <li>Length 9.8 in (248.9 mm) from manifold to end of boot</li> <li>Width 5.2 in (132.1 mm) at widest point with boot</li> <li>Thickness 2.3 in (58.4 mm)</li> </ul>	
Connections	<ul style="list-style-type: none"> <li>1/8" Female NPT 316SS USB</li> <li>Omega Tethered Sensor (OTS) Port</li> <li>USB</li> </ul>	
Power	4 AA batteries	
OTS RTD Specifications	<p>Temperature Probe Accuracy</p> <ul style="list-style-type: none"> <li>IEC 60751 PT100 class A</li> <li>Tolerance = ± (0.15 + 0.002  t ) °C</li> <li>Probe measurement range: -50 °C to 250 °C</li> </ul>	
Temperature Specifications	<ul style="list-style-type: none"> <li>Storage: -20 °C to 70 °C (-4 °F to 158 °F)</li> <li>Operating: -10 °C to 50 °C (14 °F to 122 °F)</li> </ul>	
Altitude		<ul style="list-style-type: none"> <li>-2000.0 ft to 36,000 ft</li> <li>-609.6 m to 10,972.80 m</li> </ul>
Indicated Air Speed		<ul style="list-style-type: none"> <li>0 knots to 660 knots</li> <li>0 to 760 mph</li> </ul>

**ECONOMICAL DIGITAL**  
 Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)  
**HANDHELD MANOMETER**  
**0 to 20 inH<sub>2</sub>O RANGE**

**HHP680**



- ✓ Max and Reading Hold
- ✓ Portable and Easy-to-Use
- ✓ Auto-Zero Power
- ✓ Switchable High Resolution: 0.01/0.1" Water Column
- ✓ Comes with Tubing [60 cm (24")] and 1/8" NPT Fitting
- ✓ 4 "AAA" Alkaline Batteries Included
- ✓ Soft Carrying Case

The HHP680 is a low-cost, versatile handheld manometer. It comes with tubing, fitting, soft carrying case, and batteries. Typical applications include commercial and automotive HVAC.

**SPECIFICATIONS**

**Display:** 3½ digit LCD with a maximum reading of 1999

**Range:** 0 to 20 inH<sub>2</sub>O

**Resolution:** 0.01/0.1"

**Low-Battery Indicator:** The "H" displays

**Storage Temperature:** -20 to 60°C (-4 to 140°F)

**Operating Temperature:** 0 to 40°C (32 to 104°F)

**Operating Relative Humidity:** 15 to 90% RH, non-condensing

**Accuracy:** ±2% at 23°C (73°F) [±5°C (9°F), <75% RH]

**Dimensions:** 190 H x 44 W x 40 mm D (7.5 x 1.7 x 1.6")

**Weight:** Approx. 150 g (5.3 oz) with batteries

**Batteries:** 4 "AAA" (included)

**Sensor:** Solid state

**Battery Life:** 150 hrs, typical usage; no measurable current when in off position

**Compatible Media:** Dry, non-corrosive gases



**VERSATILE!**

60 cm (24") of tubing and 1/8" NPT adaptor included.

HHP680, shown actual size.

A

PRESSURE INSTRUMENTS

**To Order Visit [omega.com/hhp680](http://omega.com/hhp680) for Pricing and Details**

MODEL NO.	DESCRIPTION
HHP680	Portable manometer with 0 to 20 inH <sub>2</sub> O range

*Comes complete with 60 cm (24") of tubing, fitting, 4 "AAA" alkaline batteries, soft carrying case and operator's manual.*

**Ordering Example:** HHP680, handheld manometer.

# DIGITAL MANOMETER FOR CLEAN DRY GASES

## HHP8200 Series



- ✓ Digital Display of Gauge or Differential Pressure
- ✓ User Selectable Engineering Units
- ✓ Min and Max Memory
- ✓ RS232 Output with Optional Software
- ✓ Auto Power Off and Low Battery Indication
- ✓ Bright Backlit Display
- ✓ Connection Hose Tubing Included

The HHP8200 Series are low-cost handheld manometers capable of measuring differential pressure and positive or negative gauge pressure. Five models are available covering ranges from 0-5 to 0-100 psi. All models feature user selectable engineering units, MIN/MAX memory, and a bright backlit display for easy viewing in low light conditions.

### SPECIFICATIONS

**Accuracy:** ±0.3% FS

**Resolution:** See "To Order" table

**Engineering Units (User Selectable):**

psi, mbar, bar, inH<sub>2</sub>O, cmH<sub>2</sub>O, mmHg, ozin<sup>2</sup>, kgcm<sup>2</sup>, kPa, ftH<sub>2</sub>O, inHg (except HHP4252: psi, mbar, bar, inH<sub>2</sub>O, mmH<sub>2</sub>O)

**Storage Temperature:** -20 to 60°C (-4 to 140°F)

**Operating Temperature:** 0 to 50°C (32 to 122°F)

**Temperature Effects:** ±0.2% FS typical (±1% max)

**Proof Pressure:** See "To Order" table

**Pressure Media:** Clean, dry, non-corrosive gases

**Response Time:** 0.5 sec

**Pressure Connections/ Tubing Size:**

Hose barb for 4 mm ID tubing

**Battery:** 9V battery (included)

**Battery Life:** 30 hours (without backlight)

**Dimensions:**

182 H x 72 W x 30 mm D (7.16 x 2.83 x 1.18")

HHP8215, shown smaller than actual size.



To Order			
MODEL NO.	RANGE (psi)	RESOLUTION (psi)	PROOF PRESSURE (psi)
HHP8205	0 to 5	0.003	20
HHP8215	0 to 15	0.01	30
HHP8230	0 to 30	0.02	60
HHP8200	0 to 100	0.1	150

### ACCESSORY

MODEL NO.	DESCRIPTION
HHF91-SW	Software and RS232 cable with 9 pin sub-D connector

*Comes complete with 9V battery, connection hose, hard carrying case and operator's manual.*

**Ordering Examples:** HHP4252, 0 to 2 psi manometer.

HHP4230, 0 to 30 psi manometer and HHF91-SW, optional software and RS232 cable.



# DIFFERENTIAL MANOMETER

## USB VERSION AVAILABLE

**Tubing Included!**

## HHP886 Series



- ✓ Dual Display and Dual Pressure Inputs
- ✓ Displays Input 1, Input 2 or Differential Pressure
- ✓ User Selectable Units, psi, mbar, inH<sub>2</sub>O and mmH<sub>2</sub>O
- ✓ Protective Rubber Boot Included
- ✓ USB Models with Data Logging Software

### SPECIFICATIONS

**Measurement Range and Resolution:**

- psi: ±2.0000
- mbar: ±150.00
- inH<sub>2</sub>O: ±60.00
- mmH<sub>2</sub>O: ±1500.0

**Accuracy:** ±1.5% FS @ 23 ±5°C, < 75% RH

**Operating Temperature:** 0 to 50°C (32 to 122°F)

**Compatible Media:** Clean, dry, non-corrosive gases

**Battery:** 4 "AAA" (included)

**Battery Life:** 200 hours (low battery indicator on display)

**Auto Power Off:** When enabled by user unit will power off after 15 minutes with no buttons pressed

**Transmit Distance:** 25 m (82') without magnetic interference

**Pressure Ports:** Hose barbs for 4 mm ID flexible tubing (included)

**Dimensions:**

177 H x 83 W x 40 mm D (7.0 x 3.3 x 1.6")

**Weight:** 230 g (8.1 oz) (including batteries)



HHP886, tubing included, shown smaller than actual size.

Omega's HHP886 Series manometers feature a dual pressure input (P1 and P2) and a dual display which can be set to simultaneously display P1 and P2 or P1 and the differential pressure (P1 - P2). Pressure is displayed in one of four user selectable units and a record function will store the MAX, MIN, MAX-MIN and AVG pressure for each channel for later viewing. Models are also available with a USB connection for real time data logging to a computer. Software allows the user to display the data in a graphical format or export the data to Excel or text files for further manipulation.

### To Order

MODEL NO.	DESCRIPTION
HHP886	Battery powered dual input manometer
HHP886U	Battery powered dual input manometer with USB output, includes USB cable and software

### ACCESSORIES

MODEL NO.	DESCRIPTION
HH800-ADAPTOR	DC adaptor for USB model only
SC-800	Soft case

Comes complete with two 1.5 m (5') lengths of tubing with 1/8" MNPT adaptors, 4 "AAA" batteries, protective rubber boot and operator's manual.

**Ordering Examples:** HHP886, handheld manometer with tubing and fittings.

# OMEGA HHP91 MANOMETER

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## SINGLE OR DIFFERENTIAL INPUT ±800 inH<sub>2</sub>O (±29 psi)

### HHP91

- ✓ 8 User-Selectable Units: psi, mbar, kg/cm<sup>2</sup>, mmHg, inHg, mH<sub>2</sub>O, inH<sub>2</sub>O, atm
- ✓ Measures Up to ±2000 mbar (±29 psi)
- ✓ Auto Shut-Off Function Prolongs Battery Life
- ✓ Built-In Tilt Stand
- ✓ Reading Hold
- ✓ Stores Minimum and Maximum Readings with Pushbutton Recall
- ✓ Compatible with Air or Non-Corrosive and Non-Ionized Gases and Liquids

HHP91 shown slightly smaller than actual size.

See Section Y for a Selection of Scientific, Technical, and Reference Books Available from [omega.com](http://omega.com)



Two quick-disconnect tube fittings included.

The HHP91 is a precision manometer for automotive, HVAC, laboratory, and general industrial applications. It has a built-in sensor with dual inputs for gage or differential pressure measurements and is compatible with air or non-corrosive and non-ionized gases and liquids. Eight user-selectable pressure units facilitate use of the HHP91 with all measuring systems. The display is easy-to-read, with 15 mm (0.6") high digits.

### SPECIFICATIONS

**Units:** psi, mbar, kg/cm<sup>2</sup>, mmHg, inHg, mH<sub>2</sub>O, inH<sub>2</sub>O, atm

**Functions:** Auto-off (after approx. 20 min), reading hold, min and max

**Accuracy:** ±2% FS @23 ±5°C, includes linearity, repeatability and hysteresis

**Operating Temperature:** 0 to 50°C (32 to 122°F)

**Operating Humidity:** <80% RH (non-condensing)

**Power:** 9V alkaline battery (included)

**Sampling Time:** Approx. 0.8 s

**Pressure Ports:** Quick-disconnect plug for 3 to 4 mm ID tubing

**Dimensions:** 185 H x 78 W x 38 mm D (7.2 x 3.0 x 1.4")

**Weight:** 345 g (0.8 lb)

UNIT	MAX RANGE	RESOLUTION	DISPLAY
mbar	±2000	1	m bar
psi	±29	0.02	Psi
kg/cm <sup>2</sup>	±2.040	0.001	Kg/cm <sup>2</sup>
mmHg	±1500	1	mm/Hg
inHg	±59.05	0.05	in/Hg
mH <sub>2</sub> O	±20.40	0.01	m H <sub>2</sub> O
inH <sub>2</sub> O	±802	0.5	inch H <sub>2</sub> O
atm	±1.974	0.001	ATP

**To Order Visit [omega.com/hhp91](http://omega.com/hhp91) for Pricing and Details**

MODEL NO.	DESCRIPTION
HHP91	Wet/dry manometer

Comes complete with 2 quick-disconnect tube fittings, 9V battery, hard carrying case and operator's manual.

**Ordering Example:** HHP91, manometer.

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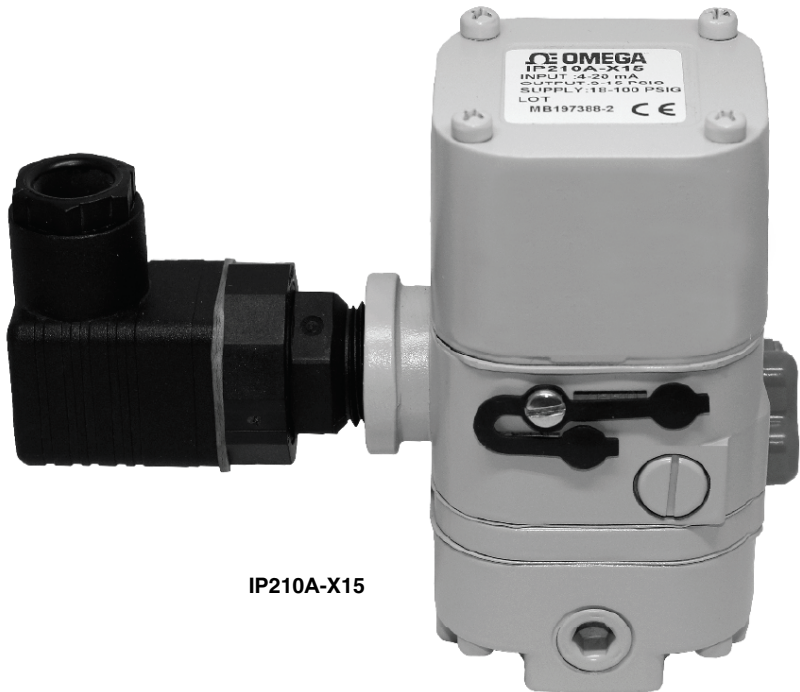
# ACCIDENT TO DECIDE

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## (I/P) CONVERTER

**Control Air**  
**3-15 to 3-120 psi**

### IP210A and IP210 Series



IP210A-X15

- ✓ Loop Powered
- ✓ Ideal for Pneumatic Control Systems
- ✓ IP65 Sealed Case / NEMA 4 Type Enclosure
- ✓ Zero and Span Adjustments for Field Calibration
- ✓ Rugged Zinc-Die Cast Housing

A “current to pressure” converter (I/P) converts an analog signal (4 to 20 mA) to a proportional linear pneumatic output (3 to 15 psig). Its purpose is to translate the analog output from a control system into a precise, repeatable pressure value to control pneumatic actuators/operators, pneumatic valves, dampers, vanes, etc. Both IP210 and IP210A are loop-powered instruments, which eliminates the need for an external power supply (except for IP210-X120).

#### Principle of Operation

OMEGA's IP210 and IP210A convert an analog signal (4 to 20 mA) to a proportional linear pneumatic output (3 to 15 psig). Its uncomplicated design and proven electromagnetic force balance deliver consistently high

Both Series provide a reliable, repeatable, accurate means of converting an electrical signal into pneumatic pressure. Its force balance principle is a coil suspended in a magnetic field on a flexible mount. At the lower end of the coil is a flapper valve that operates against a precision ground nozzle to create a backpressure on the servo diaphragm of a booster relay.

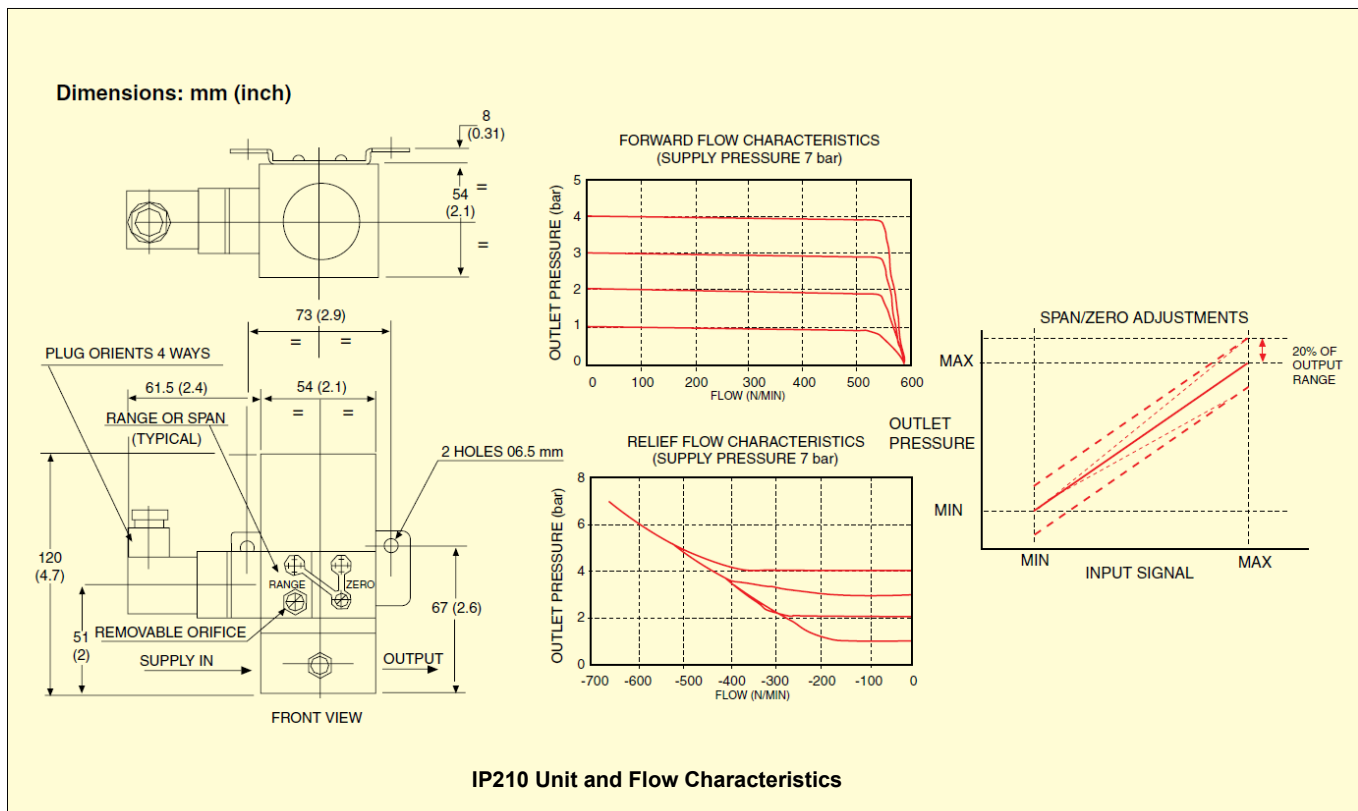
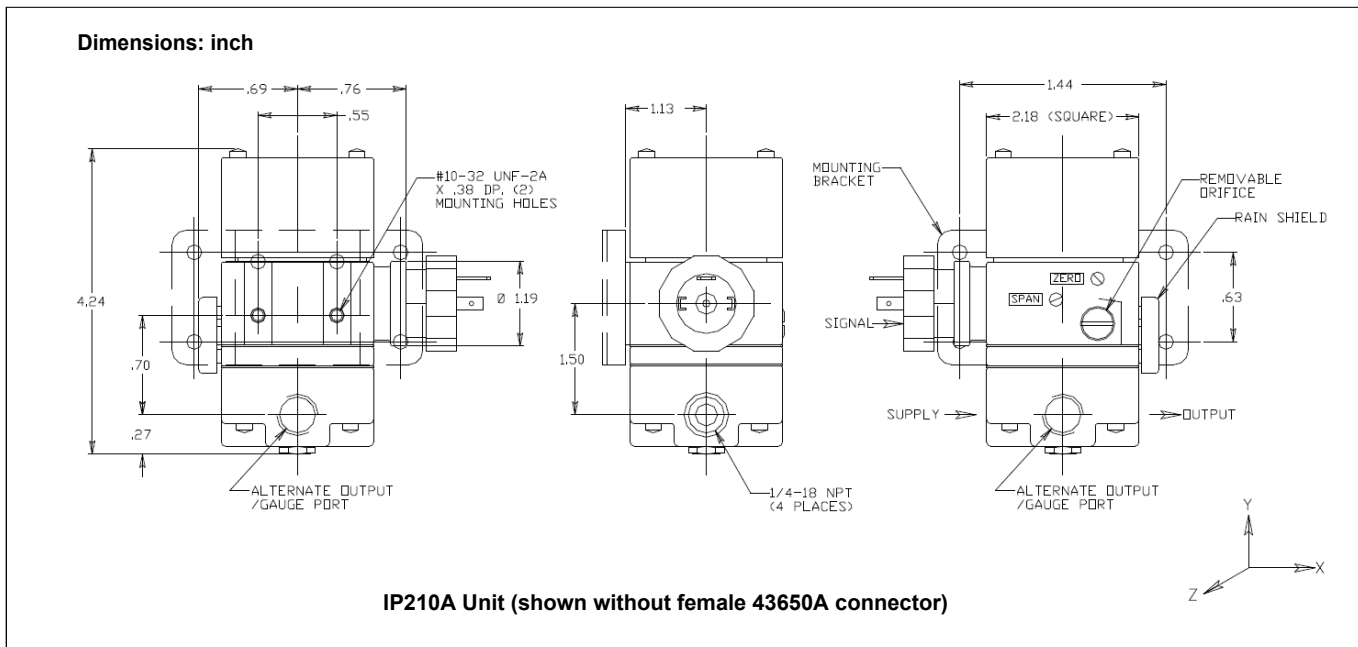
The input current flows in the coil and produces a force between the coil and the flapper valve, which controls the servo pressure and the output pressure.



IP210-X15

Zero adjustment of the unit is made by turning a screw that regulates the distance between the flapper valve and the air nozzle. Span adjustment is made by varying a potentiometer, which shunts input current past the coil. An integral volume flow booster provides adequate flow capacity, resulting in fast response time and accurate control.

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## IP210A and IP210 Series Specifications:

SERIES	IP210A Series		IP210 Series
MODEL NO.	IP210A-X15 IP210A-X30	IP210A-X60 IP210A-X120	IP210-X15, IP210-X30, IP210-X60, IP210-X120
<b>Accuracy</b>	±1.5% FS	±2.3% FS	±0.5% FS
<b>Linearity</b>	<1.0% of span	<2.0% of span	-
<b>Repeatability</b>	<0.5% of span	<0.5% of span	-
<b>Hysteresis</b>	<1.0% of span	<1.0% of span	-
<b>Supply Sensitivity</b>	±0.15% span per 1.5 psig	±0.004% span per 1.0 psig	0.025% span per % supply pressure change
<b>Max Supply Pressure</b>	100 psi	150 psi	80 psig (for IP210-X120: 135 psi)
<b>Min Supply Pressure</b>	3 psi above maximum output pressure	5 psi above maximum output pressure	10 psi above maximum output pressure
<b>Air Consumption</b>	0.1 SCFM	0.07 SCFM	0.03 SCFM
<b>Operating Temp</b>	-29 to 60 °C (-20 to 140 °F)		-20 to 70°C (5 to 160°F)
<b>Pressure Port</b>	1/4" FNPT		1/4" FNPT
<b>Electrical Connection</b>	DIN 43650 with screw terminals included		DIN 43650 with screw terminals included
<b>Flow Rate</b>	12 SCFM for 2-60 psi ; 24 SCFM > 60 psi		10 scfm ≤60 psi; 0.06 <60 psi
<b>Input Resistance</b>	<300 Ω		<300 Ω
<b>Media</b>	Oil-free, Clean, Dry Air Filtered to 25 μm		Oil-free, clean, Dry Air Filtered to 25 μm
<b>Housing</b>	NEMA 4 Type, Epoxy-painted Zinc Die Castings		IP65 rated, Epoxy-Painted Zinc Die Castings

### Construction:

Nitrile Diaphragms, nozzle and supply valve, integral surface mounting bracket included

### Failure Mode:

Upon electrical failure, the signal pressure falls to bleed pressure

## To Order

MODEL NO.	INPUT RANGE	OUTPUT RANGE
IP210-X15	4 to 20 mA	3 to 15 psig
IP210-X30	4 to 20 mA	3 to 30 psig
IP210-X60	4 to 20 mA	3 to 60 psig
IP210-X120	4 to 20 mA*	3 to 120 psig
IP210A-X15	4 to 20 mA	3 to 15 psig
IP210A-X30	4 to 20 mA	6 to 30 psig
IP210A-X60	4 to 20 mA	2 to 60 psig
IP210A-X120	4 to 20 mA	3 to 120 psig

\* 3-wire system. External 24 Vdc power supply required.

Comes complete with operator's manual.

**Ordering Examples:** IP210-X15, I/P converter, takes a 4 to 20 mA control signal and converts it into 3 to 15 psig control air.

IP210 A-X60, I/P converter, takes a 4 to 20 mA control signal and converts it into 2 to 60 psig control air.

## ELECTROPNEUMATIC TRANSDUCERS I/P AND E/P MODELS

**Current to Pressure (I/P)  
Voltage to Pressure (E/P)**

### IP211, EP211



Optional† Optional†

- ✓ Low Cost
- ✓ Built-In Volume Booster
- ✓ Small Size
- ✓ Field Reversible
- ✓ Low Air Consumption
- ✓ Mounts at Any Angle
- ✓ Convenient External Span and Zero Adjustment (Except for Explosion-Proof Models)
- ✓ Light Weight
- ✓ Wide Supply Pressure Range
- ✓ Low Supply Pressure Sensitivity

IP211-X15 shown  
actual size  
(mounting bracket  
included).



The IP211/EP211 Series transducers are electropneumatic devices that reduce a supply pressure to a regulated output pressure directly proportional to an electrical input signal. The 211 Series accepts a wide range of supply pressures, ranging from a minimum of 3 psig (0.2 bar) above the maximum output to 100 psig (6.9 bar). An integral pneumatic volume booster is included in the design to provide high flow capacity (up to 12 SCFM). Model selection includes general purpose, FM Intrinsically Safe, and CSA Intrinsically Safe.

for reverse-acting applications, the transducers provide a minimum of their full rated output pressure (i.e., 15, 27, or 30 psig) upon input signal failure.

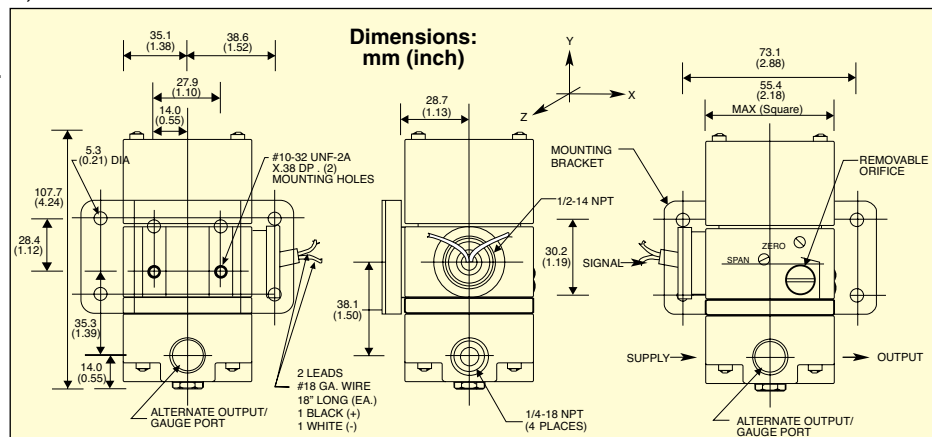
† Refer to the To Order Chart on page L-6 for specific FM or CSA approved models.

#### Mounting

These transducers can be pipe, panel, or bracket mounted in any position. Positions other than vertical will require recalibration of the zero adjustment. For maximum output stability, the transducers should be mounted in a vibration-free location or where vibration is isolated in the x and z axes.

#### Field Reversible

All transducers are calibrated at the factory for direct-acting operation but may be used in the reverse-acting mode by reversing the polarity of the signal leads and recalibrating. When recalibrated



# GENERAL PURPOSE ELECTROPNEUMATIC TRANSDUCERS

## SPECIFICATIONS

### Supply Pressure Range:

3 psig (0.2 bar) above maximum output to 120 psig  
 15 psig (1 bar) units: 18 to 100 psig (1.3 to 7 bar)  
 27 psig (1.9 bar) units: 30 to 100 psig (1.9 to 7 bar)  
 30 psig (2.1 bar) units: 33 to 100 psig (2.3 to 7 bar)  
 60 psig (4.1 bar) units: 65 to 100 psig (4.5 to 7 bar)  
 120 psig (8.3 bar) units: 125 to 150 psig (8.6 to 10.4 bar)

### Supply Pressure Sensitivity:

±0.15 of span 1.5 psig (0.1 bar)

### Linearity (Terminal Based):

<1.0% of span

### Repeatability:

<0.5% of span

### Hysteresis:

<1.0% of span

### Minimum Flow Rate @ 100 psig

(7 bar): 12 SCFM

**Exhaust Capacity @ 5 psig (0.4 bar) Above Setpoint:** 2 SCFM

**Air Consumption (Max) at Midrange:** 0.1 SCFM

**Port Size (Pneumatic/Electric):** ¼ NPT and ½ NPT

**Dimensions:** 54 x 54 x 101 mm (2½ x 2½ x 4")

**Maximum Flow:** 24 SCFM (677 SLPM)

**Agency Approvals:** Factory Mutual Research Approved as Intrinsically Safe for Class I, II, III, Division 1, Groups A, B, C, D, E, G when installed in accordance with interconnection diagram and with the proper energy limiting barriers. Canadian Standards Association certified as intrinsically safe when connected through certified diode safty barriers in accordance with installation instruction.

**Note:** Intrinsically safe and non-incendive ratings are not affected by recalibrating for split ranges or reverse-acting applications.



IP211-X15 shown smaller than actual size.

## To Order

MODEL NO.	INPUT RANGE	OUTPUT RANGE		IMPEDANCE (NOMINAL)
		psig	bar	
<b>GENERAL PURPOSE I/P</b>				
IP211-X15	4 to 20 mA	3 to 15	0.2 to 1.0	180 Ω
IP211-X27	4 to 20 mA	3 to 27	0.2 to 1.9	220 Ω
IP211-X30	4 to 20 mA	6 to 30	0.4 to 2.1	220 Ω
IP211-X60	4 to 20 mA	2 to 60	0.1 to 4.1	225 Ω
IP211-X120	4 to 20 mA	3 to 120	0.2 to 8.3	260 Ω
<b>FM APPROVED† INTRINSICALLY SAFE I/P</b>				
IP211-X15-ISF	4 to 20 mA	3 to 15	0.2 to 1.0	180 Ω
IP211-X27-ISF	4 to 20 mA	3 to 27	0.2 to 1.9	220 Ω
<b>CSA APPROVED† INTRINSICALLY SAFE I/P</b>				
IP211-X15-ISC	4 to 20 mA	3 to 15	0.2 to 1.0	180 Ω
IP211-X27-ISC	4 to 20 mA	3 to 27	0.2 to 1.9	220 Ω
<b>GENERAL PURPOSE E/P</b>				
EP211-X15	1 to 5 Vdc	3 to 15	0.2 to 1.0	615 Ω
EP211-X15-5V	0 to 5 Vdc	3 to 15	0.2 to 1.0	615 Ω
EP211-X15-10V	0 to 10 Vdc	3 to 15	0.2 to 1.0	985 Ω
EP211-X27	1 to 5 Vdc	3 to 27	0.2 to 1.9	530 Ω
EP211-X27-5V	0 to 5 Vdc	3 to 27	0.2 to 1.9	530 Ω
EP211-X27-10V	0 to 10 Vdc	3 to 27	0.2 to 1.9	840 Ω
EP211-X30	1 to 5 Vdc	6 to 30	0.4 to 2.1	530 Ω
EP211-X30-5V	0 to 5 Vdc	6 to 30	0.4 to 2.1	530 Ω
EP211-X60-5V	0 to 5 Vdc	2 to 60	0.1 to 4.1	500 Ω
EP211-X120-10V	0 to 10 Vdc	3 to 120	0.2 to 8.3	805 Ω
<b>ACCESSORY</b>				
TX4-100	30.48 m (100') of 4-conductor shielded wire			

Comes complete with operator's manual and mounting bracket.

Ordering Example: IP211-X30, electropneumatic converter with 6 to 30 psig output, TX4-100, 4-conductor shielded wire.

## ELECTROPNEUMATIC CONVERTERS

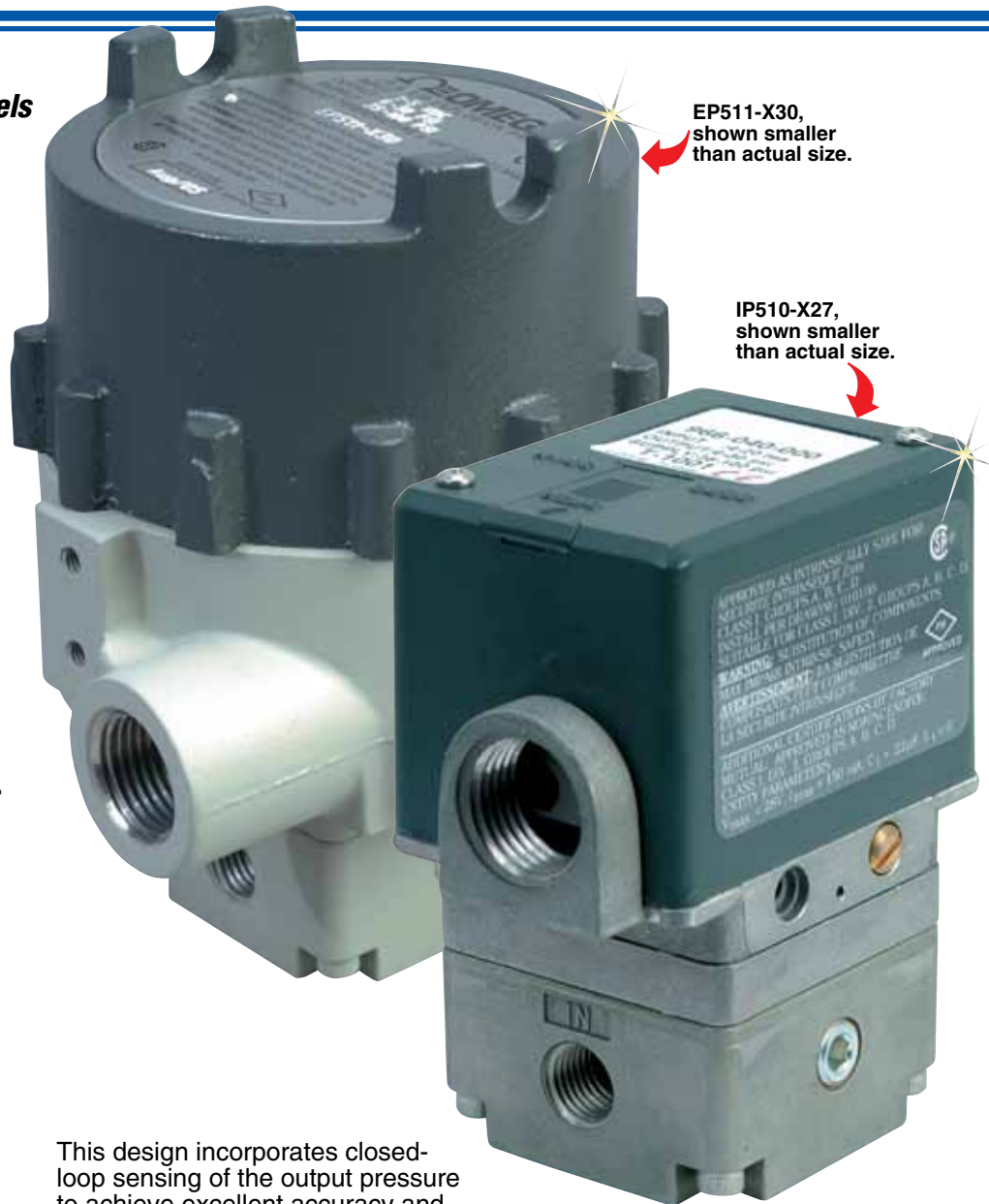
**Current to Pressure (I/P) and  
Voltage to Pressure (E/P) Models**

### IP510 Series



- ✓ Hazardous Location and Intrinsically Safe Ratings
- ✓ NEMA 4X (IP66)
- ✓ 0.1% Accuracy Typical
- ✓ Closed-Loop Pressure Feedback Control
- ✓ Built-In Volume Booster Provides Flow Up to 12 SCFM
- ✓ Easy Access to Zero and Span
- ✓ Damping Pot Prevents Overshoot and Hunting
- ✓ Low Air Consumption
- ✓ Mount at Any Angle
- ✓ Compact and Lightweight
- ✓ Virtually No Sensitivity to Supply Pressure Changes
- ✓ Removable Orifice for Easy Maintenance
- ✓ Buna-N Seals Standard
- ✓ Fluorocarbon Seals Optional

The IP510/EP510 Series is a patented family of electro-pneumatic instruments used to reduce a supply pressure to a regulated output pressure that is directly proportional to a 2-wire current or 3-wire voltage input.



EP511-X30,  
shown smaller  
than actual size.

IP510-X27,  
shown smaller  
than actual size.

This design incorporates closed-loop sensing of the output pressure to achieve excellent accuracy and vibration stability. It also features a unique damping circuit that can be adjusted to prevent overshoot and actuator "hunting." Model selection includes general purpose NEMA 1 (IP00) and watertight/corrosion-resistant NEMA 4X (IP66). All models carry hazardous location and intrinsically safe ratings.

### SPECIFICATIONS

**Accuracy:**  
Typical:  $\pm 0.1\%$  of output span  
Maximum:  $\pm 0.25\%$  of output span

**Hysteresis:**  
Typical:  $\pm 0.01\%$  of output span  
Maximum:  $\pm 0.10\%$  of output span

**Deadband:** No effect

### Repeatability:

Typical:  $\pm 0.01\%$  of output span  
Maximum:  $\pm 0.10\%$  of output span

### Ambient Temperature Effect:

Typical:  $\pm 0.004\%$  of nominal span per  $^{\circ}\text{F}$   
Maximum:  $\pm 0.022\%$  of nominal span per  $^{\circ}\text{F}$

### Span:

Typical: 0.013% of calibrated span per  $^{\circ}\text{F}$   
Maximum: 0.022% of calibrated span per  $^{\circ}\text{F}$

### Temperature Effect:

$\leq 0.02\%/^{\circ}\text{F}$ , zero and span effects combined



# HEAVY-DUTY ELECTROPNEUMATIC CONVERTERS

## Operating Temperature Range:

**Buna-N Elastomers:**  
-29 to 71°C (-20 to 160°F)

**Fluorocarbon Elastomers:**  
-18 to 71°C (0 to 160°F)

## Storage Temperature:

**Buna-N Elastomers:**  
-40 to 93°C (-40 to 200°F)

**Fluorocarbon Elastomers:**  
-26 to 93°C (-15 to 200°F)

**Vibration Effects:** Less than 0.5% of span per 1 g 5 to 2000 Hz, 3 g maximum, 3 axes

## Mounting Position Effect:

Not measurable

## Loop Load, I/P Transducer:

Less than 10 Vdc drop at 20 mA  
Less than 10 Vdc drop at 50 mA

## Supply Voltage, E/P Transducer:

**Intrinsically Safe/Non-Incendive:**  
9 to 28 Vdc, less than 20 mA

**General Purpose:** 9 to 40 Vdc, less than 20 mA

## Supply Voltage Effect:

No effect

## Signal Impedance E/P Transducer:

6000 Ω minimum

## RFI/EMI Effect NEMA 4X (IP66):

Less than 0.25% of span change in output 10 V/meter, 20 to 1000 MHz (Reference SAMA PML 33.1 to 1978, 2 to abc)

## Supply Pressure Sensitivity:

No effect

## Effective Air Consumption:

0.07 SCFM (2 LPM) maximum

## Supply Pressure:

100 psig (6.9 bar) maximum

## Port Sizes:

**Pneumatic:** ¼ FNPT

**Electrical:** ½ FNPT

## Agency Approvals—All 510 and 511 electropneumatic converters

are approved by FM and CSA as intrinsically safe Class I, Division 1, Groups A, B, C, D hazardous locations.

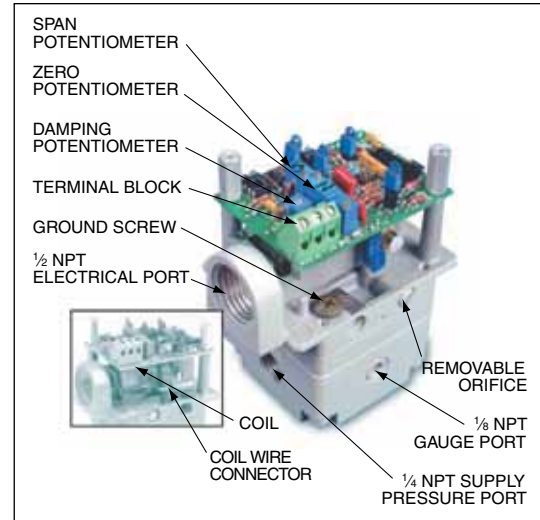
The 511 (NEMA 4X) models are also approved for FM and CSA explosion-proof service: Class I, Division 1 and 2, Groups B, C, D. Dust ignition-proof service: Class II, Division 1 and 2, Groups E, F, G.

NEMA 4X units are also suitable for Class III, Division 1 and 2.

**Warning:** These ratings are valid ONLY WHEN the cover is fully installed and the electrical connections conform to required standards.

## ENTITY PARAMETERS

$V_{max} = 30$  Vdc,  $I_{max} = 100$  mA,  $C_i = 0$  µF,  $L_i = 0$  mH T4 Max. Ambient 70°C.  $V_{oc}$  and  $I_{sc}$  of a barrier shall not exceed  $V_{max}$  and  $I_{max}$  of the transducer. ( $L_i$  + wiring) and ( $C_i$  +  $C_{wiring}$ ) shall not exceed  $L_a$  and  $C_a$  of a barrier. A barrier is not necessary when the transducer is in any of these locations.



To Order		
MODEL NO.	INPUT RANGE	OUTPUT RANGE
<b>NEMA 1 (IP00) ENCLOSURE</b>		
IP510-X15	4 to 20 mA	3 to 15 psig
IP510-X27	4 to 20 mA	3 to 27 psig
IP510-X30	4 to 20 mA	6 to 30 psig
IP510-060	4 to 20 mA	0 to 60 psig
IP510-0120	4 to 20 mA	0 to 120 psig
EP510-X15	1 to 5 Vdc	3 to 15 psig
EP510-X27	1 to 5 Vdc	3 to 27 psig
EP510-X30	1 to 5 Vdc	6 to 30 psig
EP510-060	1 to 5 Vdc	0 to 60 psig
EP510-0120	1 to 5 Vdc	0 to 120 psig
<b>NEMA 4X (IP66) ENCLOSURE</b>		
IP511-X15	4 to 20 mA	3 to 15 psig
IP511-X27	4 to 20 mA	3 to 27 psig
IP511-X30	4 to 20 mA	6 to 30 psig
IP511-060	4 to 20 mA	0 to 60 psig
IP511-0120	4 to 20 mA	0 to 120 psig
EP511-X15	1 to 5 Vdc	3 to 15 psig
EP511-X27	1 to 5 Vdc	3 to 27 psig
EP511-X30	1 to 5 Vdc	6 to 30 psig
EP511-060	1 to 5 Vdc	0 to 60 psig
EP511-0120	1 to 5 Vdc	0 to 120 psig

## ACCESSORY

MODEL NO.	DESCRIPTION
TX4-100	4-conductor shielded wire

Comes complete with operator's manual

**Note:** To order fluorocarbon seals, add suffix "-F" to model numbers and additional cost to price.

**Ordering Example:** IP511-X30, electropneumatic converter, 4 to 20 mA input/6 to 30 psi output with NEMA 4X (IP66) enclosure, TX4-100, 4-conductor shielded cable.

# MINIATURE I/D TRANSDUCERS

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## ELECTRONIC AIR PRESSURE CONTROL

**Up to 1% Accuracy**  
3-15 to 0-120 psi

**±0.1% Accuracy**  
3-15 to 0-100 psi

High  
Vibration  
Immunity

**IP610 Series**  
**IP710 Series**



- ✓ Compact Size for High-Density Mounting
- ✓ NEMA 4X (IP65) Enclosure
- ✓ 4 to 20 mA Loop Powered
- ✓ Conduit or DIN Connector Wiring
- ✓ Wall or Panel Mounting Standard
- ✓ Optional DIN Rail Mounting Kit
- ✓ Input/Output Ports on Front and Back
- ✓ External Zero and Span Adjustments



IP710-X100-D with DIN electrical termination shown actual size.



IP610-X60 with conduit electrical termination shown actual size.

The IP610 is an economical unit, with precision air pressure regulation for actuators, valves, positioners and other final control elements.

The IP710 utilizes closed-loop pressure feedback circuitry to provide precise, stable pressure outputs, with immunity to vibration effects or mounting position and low air consumption, for demanding applications.

### SPECIFICATIONS

**Agency Approvals:** FM and CSA Intrinsically Safe

**IP610/IP710:** Class I, II, III, Div. 1, Groups C, D, E, F and G

**IP610-D/IP710-D:** Class I, Div. 1, Groups C and D

**Input Signal:** 4 to 20 mA loop powered

**Accuracy:** Includes linearity, hysteresis and repeatability—see table

**Supply Pressure Sensitivity:** 0.1% of span per psi ( $\pm 0.02\%$  for zero-based units)

**RFI/EMI Effect:** 0.5% of span change in output pressure per En 61000-4-3:1998, Amendment 1, Performance Criterion A

### Supply Pressure Sensitivity:

0.1% of span per psi ( $\pm 0.02\%$  for zero-based units)

**Air Consumption:** 1.8 SCFH typical (6.0 SCFH for zero-based units)

### Temperature Limits:

**IP610:** -30 to 65°C (-20 to 150°F)

**IP710:** -40 to 70°C (-40 to 158°F)

**Media:** Clean, dry, oil-free, instrument air, filtered to 40 microns

**Pressure Ports:** ¼ FNPT

**Electrical Connections:** ½ FNPT conduit or DIN 43560 connector

**Mounting:** Direct wall, panel, or optional DIN rail

### Materials

**Housing:** Chromate-treated aluminum with epoxy paint, NEMA 4X (IP65) rated

**Elastomers:** Buna-N

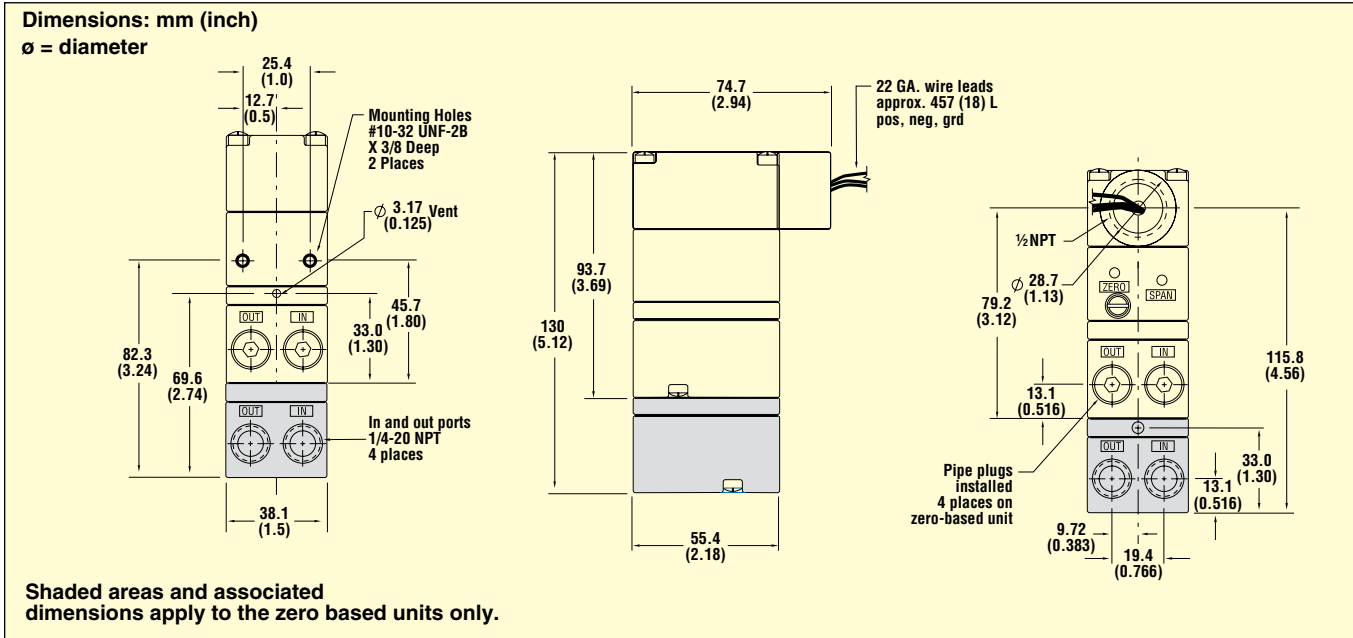
**Trim:** Stainless steel and zinc-plated brass

### Weight:

**IP610:** 590 g (1.3 lb) or 770 g (1.7 lb) for zero-based units

**IP710:** 370 g (0.8 lb)

The IP610 and IP710 are electronic pressure regulators, converting a 4 to 20 mA signal to a proportional pneumatic output. Both units feature a compact housing, accessible ports and easy adjustments, making them ideal for space-constrained applications. They also feature high tolerance for impure air and an integral volume booster, providing high flow capacity, increasing control speed in critical applications.



To Order						
MODEL NO.	RANGE	ACCURACY*	IMPEDANCE	AIR CONSUMPTION	SUPPLY PRESSURE (PSI)	FLOW CAPACITY
<b>GENERAL PURPOSE I/P CONVERTERS</b>						
IP610-X15	3 to 15 psi	±1.0% span	180 Ω	1.8 scfh @ mid-range	20 to 100	4.5 scfm @ 25 psig 12 scfm @ 100 psig
IP610-X27	3 to 27 psi		240 Ω		32 to 100	
IP610-X30	6 to 30 psi		240 Ω		35 to 100	
IP610-X60	2 to 60 psi	±2.5% span	245 Ω	6.0 scfh @ mid-range	65 to 150	12 scfm @ 100 psig
IP610-X120	3 to 120 psi		280 Ω		125 to 150	20 scfm @ 150 psig
IP610-30	0 to 30 psi		290 Ω		35 to 100	12 scfm @ 100 psig 20 scfm @ 150 psig
IP610-60	0 to 60 psi		300 Ω		65 to 150	
IP610-120	0 to 120 psi		315 Ω		125 to 150	
<b>HIGH ACCURACY I/P CONVERTERS</b>						
IP710-X15	3 to 15 psi	±0.10% span	10 kΩ	1.5 scfh @ mid-range	20 to 100	4.5 scfm @ 25 psig 12 scfm @ 100 psig
IP710-X17	1 to 17 psi				22 to 100	
IP710-X27	3 to 27 psi				32 to 100	
IP710-X30	6 to 30 psi			35 to 100		
IP710-X60	2 to 60 psi			4.5 scfh @ mid-range	65 to 130	20 scfm @ 130 psig
IP710-X100	2 to 100 psi	105 to 130				

\* Accuracy includes linearity, hysteresis and repeatability.

**ACCESSORY**

MODEL NO.	DESCRIPTION
IP610-DM	DIN rail mounting kit

Comes complete with mounting bracket and operator's manual.

To order with DIN connector, add suffix "-D" to model number, for an additional cost.

Ordering Examples: IP610-X15, loop powered I/P converter with 3 to 15 psi range and conduit connection.

IP710-X15-D, high accuracy loop powered I/P converter with 3 to 15 psi range and DIN connector.

# MINIATURE I/D TRANSDUCERS

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## ELECTRONIC AIR PRESSURE CONTROL

**Up to 1% Accuracy**  
3-15 to 0-120 psi

**±0.1% Accuracy**  
3-15 to 0-100 psi

### IP610 Series IP710 Series



- ✓ Compact Size for High-Density Mounting
- ✓ NEMA 4X (IP65) Enclosure
- ✓ 4 to 20 mA Loop Powered
- ✓ Conduit or DIN Connector Wiring
- ✓ Wall or Panel Mounting Standard
- ✓ Optional DIN Rail Mounting Kit
- ✓ Input/Output Ports on Front and Back
- ✓ External Zero and Span Adjustments

The IP610 and IP710 are electronic pressure regulators, converting a 4 to 20 mA signal to a proportional pneumatic output. Both units feature a compact housing, accessible ports and easy adjustments, making them ideal for space-constrained applications. They also feature high tolerance for impure air and an integral volume booster, providing high flow capacity, increasing control speed in critical applications.

**High  
Vibration  
Immunity**



IP710-X100-D with DIN electrical termination shown actual size.



IP610-X60 with conduit electrical termination shown actual size.

The IP610 is an economical unit, with precision air pressure regulation for actuators, valves, positioners and other final control elements.

The IP710 utilizes closed-loop pressure feedback circuitry to provide precise, stable pressure outputs, with immunity to vibration effects or mounting position and low air consumption, for demanding applications.

### SPECIFICATIONS

**Agency Approvals:** FM and CSA Intrinsically Safe

**IP610/IP710:** Class I, II, III, Div. 1, Groups C, D, E, F and G

**IP610-D/IP710-D:** Class I, Div. 1, Groups C and D

**Input Signal:** 4 to 20 mA loop powered

**Accuracy:** Includes linearity, hysteresis and repeatability—see table

**Supply Pressure Sensitivity:** 0.1% of span per psi (±0.02% for zero-based units)

**RFI/EMI Effect:** 0.5% of span change in output pressure per En 61000-4-3:1998, Amendment 1, Performance Criterion A

### Supply Pressure Sensitivity:

0.1% of span per psi (±0.02% for zero-based units)

**Air Consumption:** 1.8 SCFH typical (6.0 SCFH for zero-based units)

### Temperature Limits:

**IP610:** -30 to 65°C (-20 to 150°F)

**IP710:** -40 to 70°C (-40 to 158°F)

**Media:** Clean, dry, oil-free, instrument air, filtered to 40 microns

**Pressure Ports:** ¼ FNPT

**Electrical Connections:** ½ FNPT conduit or DIN 43560 connector

**Mounting:** Direct wall, panel, or optional DIN rail

### Materials

**Housing:** Chromate-treated aluminum with epoxy paint, NEMA 4X (IP65) rated

**Elastomers:** Buna-N

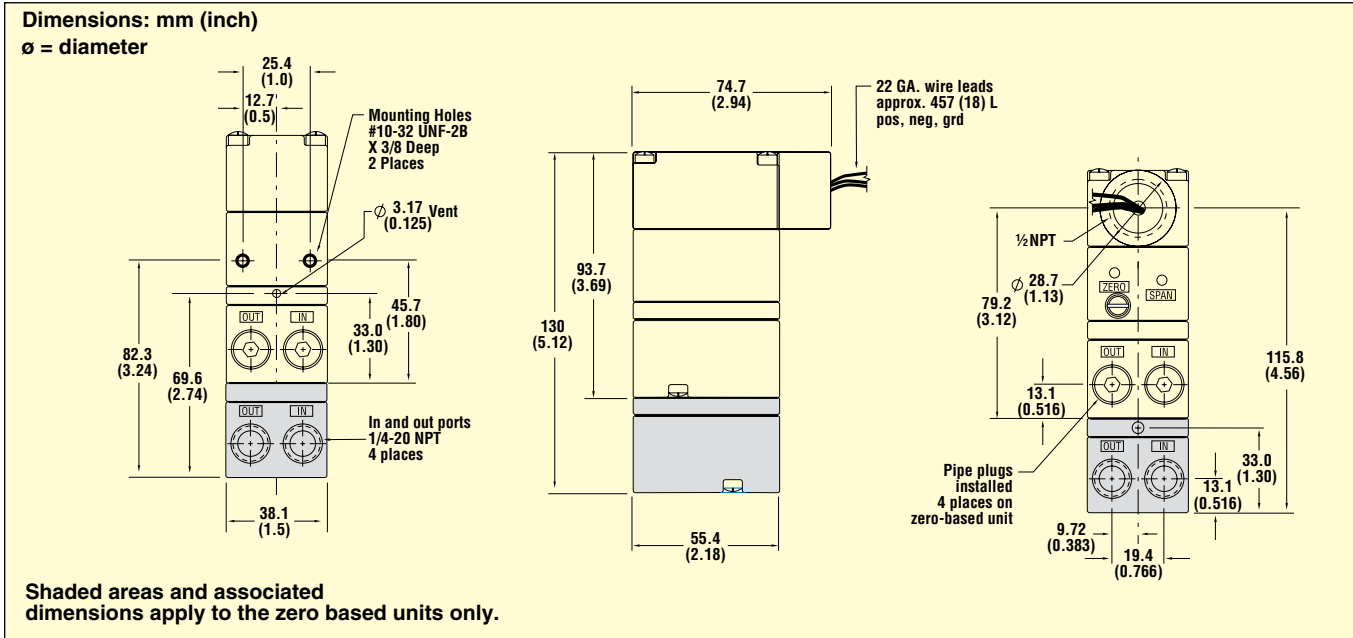
**Trim:** Stainless steel and zinc-plated brass

### Weight:

**IP610:** 590 g (1.3 lb) or 770 g (1.7 lb) for zero-based units

**IP710:** 370 g (0.8 lb)





To Order						
MODEL NO.	RANGE	ACCURACY*	IMPEDANCE	AIR CONSUMPTION	SUPPLY PRESSURE (PSI)	FLOW CAPACITY
<b>GENERAL PURPOSE I/P CONVERTERS</b>						
IP610-X15	3 to 15 psi	±1.0% span	180 Ω	1.8 scfh @ mid-range	20 to 100	4.5 scfm @ 25 psig 12 scfm @ 100 psig
IP610-X27	3 to 27 psi		240 Ω		32 to 100	
IP610-X30	6 to 30 psi		240 Ω		35 to 100	
IP610-X60	2 to 60 psi	±2.5% span	245 Ω	6.0 scfh @ mid-range	65 to 150	12 scfm @ 100 psig
IP610-X120	3 to 120 psi		280 Ω		125 to 150	20 scfm @ 150 psig
IP610-30	0 to 30 psi		290 Ω		35 to 100	12 scfm @ 100 psig 20 scfm @ 150 psig
IP610-60	0 to 60 psi		300 Ω		65 to 150	
IP610-120	0 to 120 psi		315 Ω		125 to 150	
<b>HIGH ACCURACY I/P CONVERTERS</b>						
IP710-X15	3 to 15 psi	±0.10% span	10 kΩ	1.5 scfh @ mid-range	20 to 100	4.5 scfm @ 25 psig 12 scfm @ 100 psig
IP710-X17	1 to 17 psi				22 to 100	
IP710-X27	3 to 27 psi				32 to 100	
IP710-X30	6 to 30 psi			35 to 100		
IP710-X60	2 to 60 psi			4.5 scfh @ mid-range	65 to 130	20 scfm @ 130 psig
IP710-X100	2 to 100 psi	105 to 130				

\* Accuracy includes linearity, hysteresis and repeatability.

**ACCESSORY**

MODEL NO.	DESCRIPTION
IP610-DM	DIN rail mounting kit

Comes complete with mounting bracket and operator's manual.

To order with DIN connector, add suffix "-D" to model number, for an additional cost.

Ordering Examples: IP610-X15, loop powered I/P converter with 3 to 15 psi range and conduit connection.

IP710-X15-D, high accuracy loop powered I/P converter with 3 to 15 psi range and DIN connector.

**MICROMACHINED SILICON**  **OMEGA™**  
 Romotec srl - [www.romotec.it](http://www.romotec.it) - [info@romotec.it](mailto:info@romotec.it) - Romotec srl - [www.romotec.it](http://www.romotec.it) - [info@romotec.it](mailto:info@romotec.it)  
**MODULAR PRESSURE SENSOR**

**Configurable—High Accuracy—High Temperature Performance  
 For Industrial, Test and Measurement, and Aerospace Applications**

Low Pressure from 10 in-H<sub>2</sub>O to 2.5 psi  
 and Standard Ranges from 5 to 5000 psi  
 Metric Ranges: 25 mbar to 350 bar

**Most Popular  
 Models in Stock!  
 Fast Delivery for  
 Thousands of  
 Configurations!**

**MM Series Pressure  
 Transducers**



MMG050VP5C0T3A3,  
 features 50 psig, mV  
 output, 0.40% accuracy,  
 cable termination.

- ✓ Customer Selectable Features
- ✓ Fast Delivery
- ✓ High Accuracy
- ✓ Up to ±0.03% Linearity

**Available Accuracies:**

- ±0.05% FS BSL Accuracy
- ±0.08% FS BSL Accuracy
- ±0.20% FS BSL Accuracy
- ±0.40% FS BSL Accuracy

- ✓ Premium Temperature Performance
- ✓ Broad Compensated Range
- ✓ Gage, Absolute, Barometric, Vacuum, Compound and Differential
- ✓ 5-Point NIST Traceable Calibration



MMG100C1P5C6T3A3,  
 features 100 psig,  
 4 to 20 mA output,  
 0.40% accuracy,  
 mini DIN termination.



MMDWU015VP5C1T3A3,  
 features 15 psid,  
 mV output, 0.40% accuracy,  
 twist-lock termination.

MMG10WVP3C1T2A2,  
 features 0 to 10 in-H<sub>2</sub>O,  
 mV output, 0.08% accuracy,  
 twist-lock termination.

**1 Week Delivery  
 on Custom  
 Configurations**

All models shown actual size.

*Note: BSL = Best Straight Line.*

# ONE SOURCE FOR ALL YOUR PRESSURE MEASUREMENT APPLICATIONS

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)



Gage Pressure  
Low Pressure  
Absolute Pressure  
Differential Pressure  
Vacuum Ranges  
Compound Ranges  
Barometric Pressure

Adjustable zero and span potentiometers

MMG1.0KC1P2J0T3A3P,  
4 to 20 mA output,  
1000 psig, 0.05% accuracy,  
2 m (6') cable, and  
optional potentiometers.

MMG100C1P5C6T3A3,  
features 100 psig  
4 to 20 mA output,  
0.40% accuracy,  
mini DIN termination.

All models shown  
actual size.

MMS20A015C1P31T6A3,  
15 psia 4 to 20 mA output,  
2" sanitary fitting,  
0.08% accuracy,  
twist-lock termination.

OMEGA has developed a rapid delivery system for its new Micro Machined Silicon product line.

You can have your pick of pressure ports, electrical connections, pressure range and units, thermal range and accuracy and accessories like trim pots. There are over 1-million possible combinations. OMEGA can deliver reasonable quantities of almost any combination within 5 working days. We have an easy-to-use configurator online at [omega.com](http://omega.com) where you can select the transducer with the exact specifications for your project.

**We also have the most popular configurations stocked for same day shipment!**

OMEGA's micro-machined piezoresistive pressure transducers have a proven record in high performance commercial, automotive, test and measurement and aerospace applications. The piezoresistive process uses strain gages molecularly embedded into a highly stable silicon wafer. The silicon wafer is diced into individual die which each contain a full strain gage bridge. The die is mounted in a sealed chamber protected from the environment by glass to metal seals and a pressure sensitive stainless steel diaphragm. A small volume of silicone oil transfers the pressure from the diaphragm to the strain bridge. The construction provides a very rugged transducer with exceptional accuracy, stability and thermal effects.

A unique design ruggedizes the transducers by providing secondary fluid containment in the event of a diaphragm rupture.

- ✓ Five Accuracies
- ✓ Ninety-Two Pressure Ranges
- ✓ Ten Electrical Outputs
- ✓ Four Thermal Ranges
- ✓ Fourteen Pressure Ports
- ✓ Five Electrical Terminations
- ✓ Over 1,000,000 Combinations!

MMG1.0KC1P4J0T3A3P,  
4 to 20 mA output, 1000  
psig, 0.20% accuracy with  
potentiometers.



MMG1.0KC1P2C2T3A3  
, features 100 psig,  
4 to 20 mA output,  
0.40% accuracy, mini  
DIN termination.



MMG100C1P5C6T3A3,  
features 1000 psig, 4 to 20  
mA output, 0.05% accuracy,  
cable termination with ½ NPT  
conduit fitting.



CABLE CONNECTION			
COLOR	mV	5/10V	mA
BLACK	- EXC	Common	- EXC
WHITE	+ SIG	+ Out	+ CAL
GREEN	- SIG	SHUNT	SHUNT
RED	+ EXC	+ EXC	+ EXC

M12, MINI DIN AND SOLDER PINS CONNECTION			
PIN	mV	5/10V	mA
1	+ EXC	+ EXC	+ Supply
2	- EXC	Common	- Supply
3	+ OUT	+ Output	NC
4	- OUT	NC	NC

TWIST-LOCK CONNECTION			
PIN	mV	5/10V	mA
A	+ EXC	+ EXC	+ EXC
B	- EXC	Common	- EXC
C	+ OUT	+ OUT	+ SHUNT
D	- OUT	+ SHUNT	+ SHUNT
E	NC	NC	NC
F	NC	NC	NC

## COMMON SPECIFICATIONS G/A/V/CG/BARO

Approvals: RoHS and CE

Calibration: 5-point NIST traceable

Bandwidth: DC to 1 kHz typical

Response Time: < 1 ms

CE Compliant: IEC61326

Emissions: IEC550022 Class B

Electrostatic Discharge Immunity: IEC1000-4-2

EM Field Immunity: IEC61000-4-3

EFT Immunity: IEC61000-4-4

Surge Immunity: IEC61000-4-5

Conducted RF: IEC61000-4-6

Rate Power Frequency Magnetic Field: IEC61000-4-8

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

Weight: 115 to 200 g (4 to 7 oz) (depending  
upon configuration)

### Environmental

Operating Temperature: -45 to 121°C (-49 to 250°F)

### Protection:

Cable: 2 m (6') IP67

mini DIN: IP65

Twist-Lock and M12: IP65

Conduit 2 m (6') Cable with ½ NPT Conduit Fitting: IP67

### Mechanical

Wetted Parts: 316L stainless steel

Media: Compatible with 316L SS

Pressure Cycles: 1 million minimum

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

Shock: 50 g, 11 mS half sine, vertical and horizontal axis

Vibration: 5-2000-5 Hz, 30 minute cycle, curve L, mil-spec  
810 figure 514-2-2, vertical and horizontal axis

### Overpressure Gage Pressure:

10-in H<sub>2</sub>O: 10 times span

1 psi: 6 times span

2.5 psi to 3500 psi: 4 times span

5000 psi: 15,000 psi max

### Overpressure Absolute Pressure:

5 psia: 6 times span

2.5 psia to 3500 psia: 4 times span

5000 psia: 15000 psi max

### Secondary Containment

#### Gage/Diff/Vac/Compound:

10 in-H<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:

5 to 1000 psi: To 6000 psia

1500 to 5000 psi: To 15,000 psia

### Excitation

3 mV/V: 10 Vdc (ratiometric 5 to 10 Vdc)

10 mV/V: 10 Vdc (ratiometric 5 to 10 Vdc)

0 to 5 Vdc: 10 to 30 Vdc @ 10 mA

0 to 10 Vdc: 15 to 30 Vdc @ 10 mA

4 to 20 mA: 9 to 30 Vdc (9 to 20 Vdc above 229°F)

Bipolar Amplifiers: Same as corresponding  
outputs from above—compound and some differential  
pressure models



## PROCESS SENSORS

**Using Micro-Machined Silicon Technology**  
**10 mV/V, 0 to 5 Vdc, 4 to 20 mA Outputs**

**Gage Pressure: 10 inH<sub>2</sub>O to 600 psi (25 mb to 41 bar)**  
**Absolute Pressure: 5 to 600 psi (345 mb to 41 bar)**  
**Compound Gage: ±10 inH<sub>2</sub>O to ±15 psi (±25 mb to ±1 bar)**  
**Vacuum (Negative Gage): 0 to -10 inH<sub>2</sub>O to 0 to -15 psi (25 mb to 1 bar)**  
**Barometric Ranges: 0 to 32 inHg to 26 to 32 inHg**

### Sanitary Pressure Transducers and Transmitters



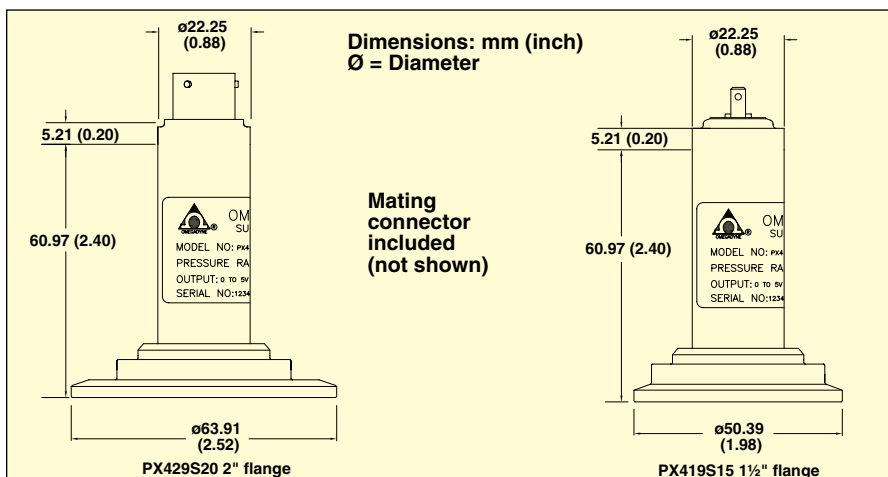
- ✓ High, 0.08% Accuracy
- ✓ Solid State Sensor for Durability
- ✓ Excellent Long Term Stability
- ✓ Welded Stainless Steel Construction
- ✓ 316L SS Wetted Parts
- ✓ Shock and Vibration Rated
- ✓ High Overpressure Rating
- ✓ Ruggedized with Secondary Containment System

The MM Series micro-machined silicon transducers with 1½ or 2" sanitary fittings are ideal for pressure or level CIP applications

in food processing, beverage or bio/pharmaceutical applications as well as industrial applications that require a rugged, high accuracy transducer. The micro-machined silicon sensor provides a transducer with excellent long term stability. The modular construction allows for fast delivery of most configurations and fittings.

#### COMMON SPECIFICATIONS SANITARY

**Accuracy:** 0.4% to 0.05% best straight line (linearity, hysteresis and repeatability combined)  
 Note: bidirectional differential models calibrated in positive direction only  
**Calibration:** 5-point NIST traceable calibration with zero and span values, calibrated in horizontal direction  
**Zero Balance:** ±0.5% FS typical ±1% max (for ranges ≤2.5 psi ±1% typ. ±2% max)



Twist-lock style.

mini DIN style.

1½ or 2" Tri-Grip™ Fitting

Fast Delivery! Stock to 1 Week on Most Models

PX429S15-015GV, shown smaller than actual size.

PX419S20-100AV, shown smaller than actual size.

**Span Setting:** ±0.5% FS typical ±1% max (for ranges ≤2.5 psi ±1% typ. ±2% max)

**Operating Temperature Range:** -15 to 115°C (-5 to 240°F)

**Compensated Temperature Range:**  
 Ranges ≤ 5 psi: 4.4 to 60°C (40 to 140°F)  
 Ranges > 5 psi: -4 to 85°C (25 to 185°F)

**Temperature Compensation:**  
 Zero and Span Shift Over Compensated Range

**Ranges ≤ 25 psi:**  
 Zero: 1.00%  
 Span: 0.70%

**Range = 5 psi:**  
 Zero: 0.80%  
 Span: 0.50%

**Ranges > 5psi:**  
 Zero: 0.50%  
 Span: 0.50%

**26B & 26HB Barometric Range:**  
 Zero: 0.90%  
 Span: 0.50%

**Minimum Isolation Between Case and Output Terminations:**  
 100M Ω @ 50 Vdc

**Pressure Cycles:** 1 million, min

**Long Term Stability (1-Year):** ±0.1% FS typ.

**Shock:** 50 g, 11 mS half sine shock, (under test)

**Vibration:** ±20 g (under test)

**Bandwidth:** DC to 1 kHz typical

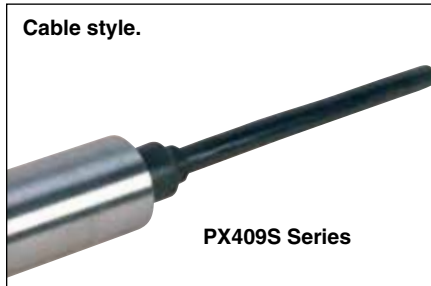
**Response Time:** <1 mS

**Fill Fluid:** NEOBEE M5 food grade

# PROCESS SENSORS

## High Accuracy Pressure Transducers Piezoresistive Design With High Temperature Performance

All images shown smaller than actual size.



PX409 Cable Connection			
Color	mV	5/10V	mA
Black	- EXC	Common	- Supply
White	+ SIG	+ Output	NC
Green	- SIG	NC	NC
Red	+ EXC	+ EXC	+ Supply

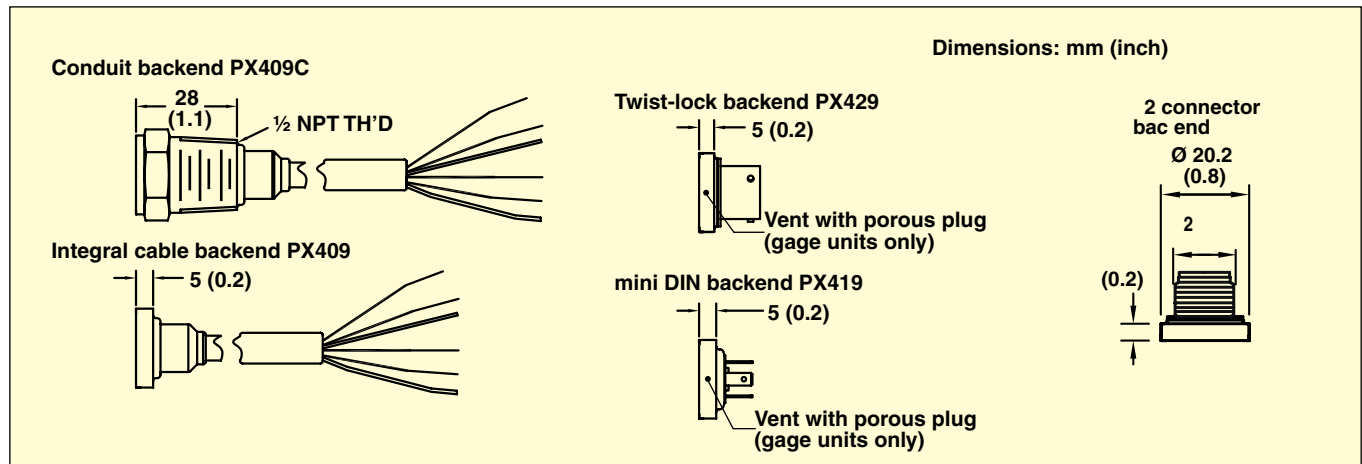


PX419/PX459 Pinout			
Pin	mV	5/10V	mA
1	+ EXC	+ EXC	+ Supply
2	- EXC	Common	- Supply
3	+ SIG	+ Output	NC
4	- SIG	NC	NC



PX429 Twist-Lock Pinout			
Pin	mV	5/10V	mA
A	+ EXC	+ EXC	+ Supply
B	- EXC	Common	- Supply
C	+ SIG	+ Output	NC
D	- SIG	NC	NC
E	NC	NC	NC
F	NC	NC	NC

NC = No Connection.



Approved to 3A Sanitary Specification 74-03

CE Compliant: Meets industrial emissions and immunity standard IEC61326 for industrial locations

Environmental Protection: IP65 or IP67 depending upon electrical termination

Pressure Rating:

1/2 and 2" Tri-Grip™ (compatible with Tri-Clamp®)

Fitting: 600 psi using suitable clamp

Over Pressure: 4 x rated pressure to maximum rated flange pressure

Secondary Containment: 6 x rated pressure to a maximum of 2000 psi (not in clamp)

Wetted Parts: 316L SS

Weight: 285 g (10 oz)

### OUTPUT SPECIFICATIONS

Specifications (mV/V Output)

Output: 10 mV/V: ratiometric  
5 to 10 Vdc

Supply: 5 to 10 Vdc

Specifications (Amplified Voltage Output)

Output/Supply:  
0 to 5 Vdc: 10 to 30 Vdc  
0 to 10 Vdc: 15 to 30 Vdc

Specifications (4 to 20 mA Output)

Output/Supply:

Output: 4 to 20 mA dc

Supply: 9 to 30 Vdc

[9 to 20 Vdc above 105°C (229°F)]  
max loop res Ω = (Vs-9) x 50

# PROCESS SENSORS USB OUTPUT

## USB Output Sanitary Fitting Pressure Transducer

Connect Directly to Your PC or Laptop

Gage, Absolute, Compound Gage, Vacuum and Barometric Pressures  
10 inH<sub>2</sub>O to 600 psi (25 mb to 41 bar)

### MM Sanitary USB Series



#### USB SANITARY SPECIFICATIONS

**Accuracy:** 0.08% typical best straight line, 0.14% max (linearity, hysteresis and repeatability combined) compound gage models calibrated in positive direction only

**Calibration:** 5-point NIST traceable calibration with zero and span values calibrated in horizontal direction

**Zero Balance:** ±0.5% FS typical ±1% max (for ranges ≤2.5 psi ±1% typical ±2% max)

**Span Setting:** ±0.5% FS typical ±1% max (for ranges ≤2.5 psi ±1% typical ±2% max)

**Operating Temperature Range:** -15 to 95°C (-5 to 203°F)

**Compensated Temperature Range:**

Ranges ≤ 5 psi: 4.4 to 60°C (40 to 140°F)

Ranges > 5 psi: -4 to 85°C (25 to 185°F)

**Temperature Compensation**

**Zero and Span Shift Over**

**Compensated Range:**

Ranges ≤2.5 psi:

Zero: 1.00%

Span: 0.70%

Range = 5 psi:

Zero: 0.80%

Span: 0.50%

Ranges > 5psi:

Zero: 0.50%

Span: 0.50%

**26B/26HB Barometric Range:**

Zero: 0.90%

Span: 0.50%

**Minimum Isolation Between Case and**

**Output Terminations:**

100M Ω @ 50 Vdc

**Pressure Cycles:** 250,000, minimum

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

**Shock:** 50 g, 11 ms half sine shock, (under test)

**Vibration:** ±20 g (under test)

**Bandwidth:** DC to 3 Hz typical

**A to D Conversion:** 14 bit

**Response Time:** <1 ms

**Fill Fluid:** NEOBEE M5 food grade

**Approved to 3A Sanitary**

**Specification 74-03**

**CE Compliant:** Meets industrial emissions and immunity standard IEC61326

**Environmental Protection:** IP65

**Pressure Rating:**

½ and 2" Tri-Grip™

**Fitting:** 600 psi using suitable clamp

**Over Pressure:** 4 x rated pressure to maximum rated flange pressure

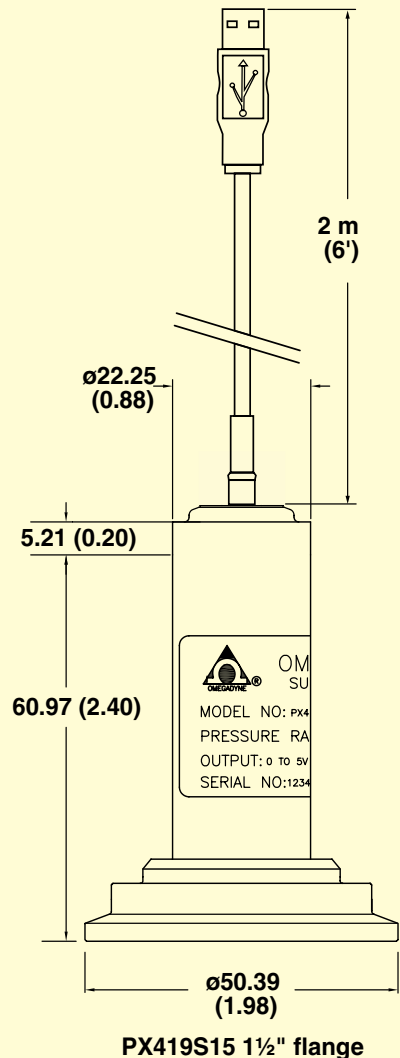
**Secondary Containment:** 6 x rated pressure to a maximum of 2000 psi (not in clamp)

**Wetted Parts:** 316L SS

**Weight:** 285 g (10 oz)

Dimensions: mm (inch)

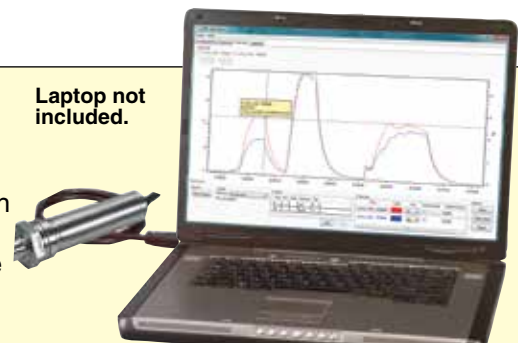
Ø = Diameter



#### FREE SOFTWARE INCLUDED!

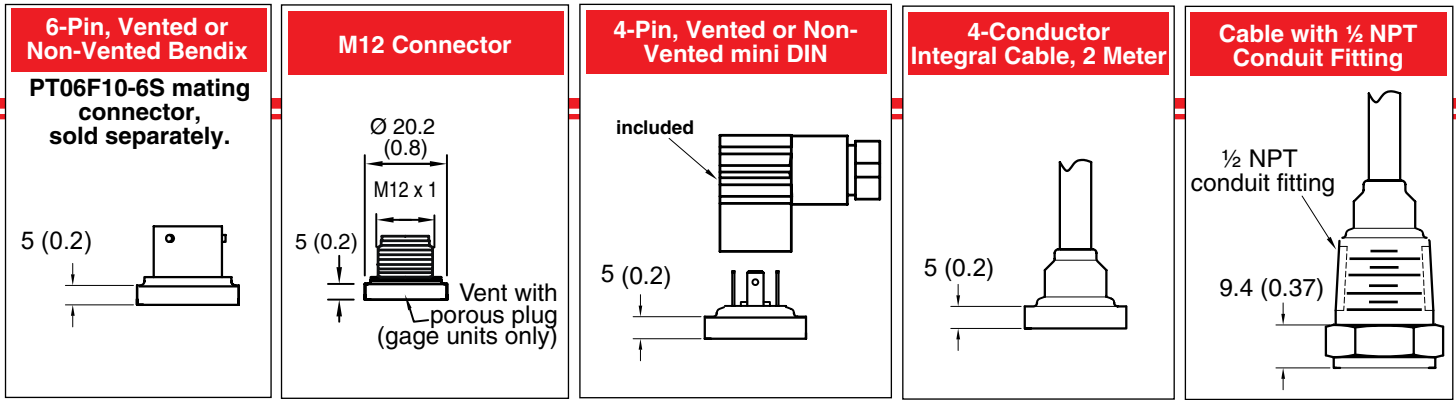
Each unit includes free software that converts your PC into a strip chart recorder or data logger so readings can be saved and later printed or exported to a spread sheet file. Also included are software drivers for some of the most popular Laboratory programs.

Laptop not included.

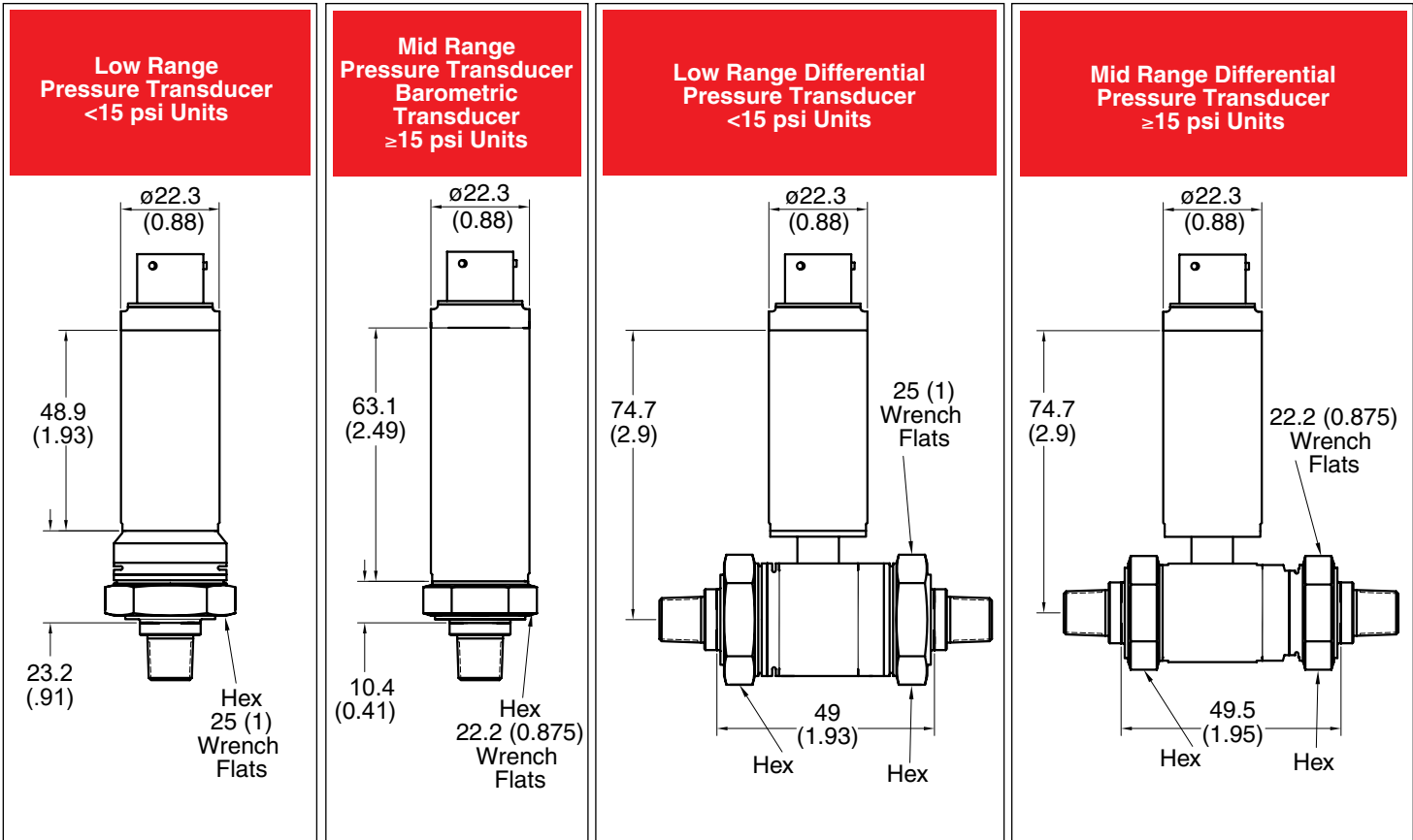






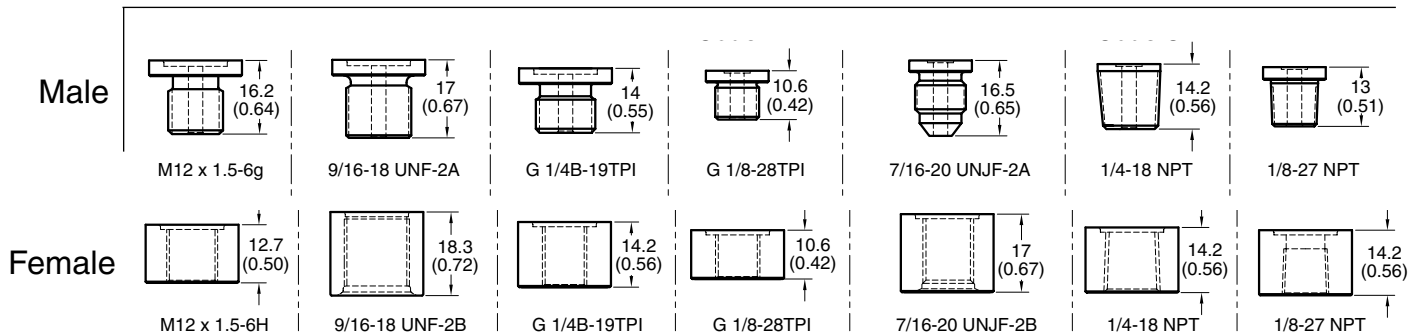


## DIMENSIONS



## PRESSURE PORTS\*

Ø = diameter  
Dimensions: mm (inch)



## Pressure Data Logger with LCD Display

### OM-CP-PR2000



Optional

- ✓ Large, Backlit LCD Display
- ✓ Front Keypad w/Lock Feature
- ✓ Standard 1/4" NPT Fitting
- ✓ High Speed Download
- ✓ Real-Time Operation
- ✓ User-Selectable Measurement Units
- ✓ NIST Traceable Calibration
- ✓ Min/Max and Average Statistics
- ✓ Programmable Start/Stop Time
- ✓ Convenient Status Indicators
- ✓ User Replaceable Battery and External Power

The OM-CP-PR2000 is a battery powered recorder with a LCD display. It is perfect for applications requiring display pressures readings and a logger.

The 8-button keypad and large LCD provide convenient access to current data and recorder setup. Additionally, memory and battery levels, external power status, and sampling and recording status are shown on the LCD.

Available on-screen data includes: statistics (min, max, average); recording status (start, stop and recording rate); display options (units, text size); and calibration information (date calibrated, date for recalibration). Statistics can be cleared at any time during logging.

With 262,143 readings, the OM-CP-PR2000 has one of the largest memory capacities of any similar data recorder on the market. The non-volatile memory will retain recorded data, even if AC and battery power are lost.

NIST traceable calibration is available for users needing to meet regulatory requirements. Creating permanent records, performing data calculations, and the graphing of data is quick and easy: Simply connect the interface cable to an available USB or serial port and, with a few clicks of the mouse, data is downloaded and ready for review or export to Excel.



OM-CP-PR2000-30-A, data logger shown larger than actual size

### Specifications

#### Pressure Sensor:

Semiconductor strain gage

#### Pressure Port:

1/4 NPT, AISI 303 stainless steel

#### Pressure Range:

0 to 30, 100, 300 and 500 psia/g;  
0 to 1000 and 5000 psia

**Pressure Resolution:** 0.002, 0.005, 0.02, 0.05 psia/g

#### Calibrated Accuracy:

2% FSR, 0.25% @ 25°C typical

#### Pressure Response Time:

0.1 ms (10 to 90% FSR)

#### DOT-MATRIX LCD

##### Dimensions:

63 x 35 mm (2.5 x 1.375")

**Text:** Configurable channel text size

**Indicators:** Power, status, memory

**Backlight:** Configurable w/auto shut-off and contrast adjustment

**Start/Stop Time:** Software programmable start time and date, up to six months in advance; programmable stop time

**Memory:** 262,143 total readings; software configurable memory wrap

**Reading Rate:** 1 reading every 2 seconds to 1 every 24 hours

**Calibration:** Digital calibration through software

**Calibration Date:** Automatically recorded within device

**Battery Type:** 6 alkaline "AA" batteries (included), user replaceable; optional ac adaptor

**Battery Life:** 1 year battery life at 1 min reading rate with display off. 30 days typical with continuous LCD and no backlight usage.

**Data Format:** PSIG, inHg, mmHg, bar, atm, Torr, Pa, kPa, MPa

**Time Accuracy:** ±1 minute/month (at 20° to 30°C)

**Computer Interface:** PC serial or USB (interface cable required); 115,200 baud

**Software:** XP SP3/Vista/7 and 8 (32-bit and 64-bit)

**Operating Environment:** -20 to 54°C, (-4 to 129°F)  
0 to 95% RH non-condensing

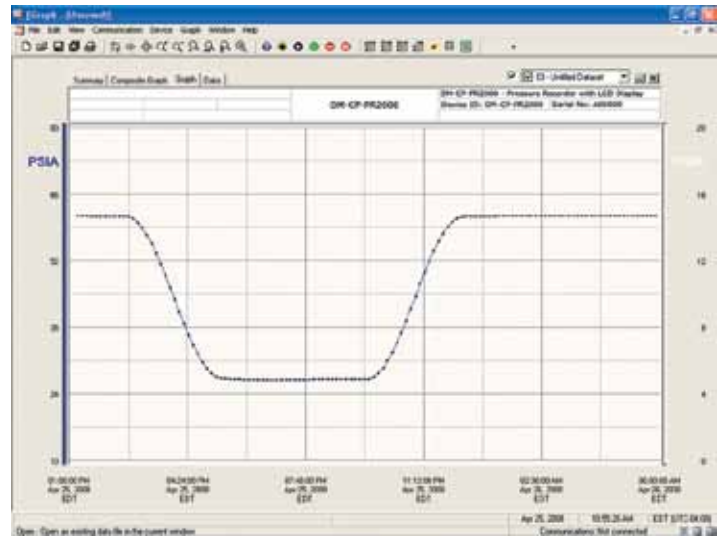
**Dimensions:** 122 L x 84 W x 32 mm Dia (5.1 x 4.8 x 1.78")

**Weight:** 1134 g (40 oz)

**Enclosure:** Black anodized aluminum case/NPT steel



OM-CP-PR2000-30-A,  
data logger shown  
larger than actual size



OM-CP-IFC200,  
Windows® software  
displays data in  
graphical or tabular  
format

## To Order

Model No.	Description
OM-CP-PR2000-30-A	0 to 30 psia pressure data logger with LCD display
OM-CP-PR2000-30-G	0 to 30 psig pressure data logger with LCD display
OM-CP-PR2000-100-A	0 to 100 psia pressure data logger with LCD display
OM-CP-PR2000-100-G	0 to 100 psig pressure data logger with LCD display
OM-CP-PR2000-300-A	0 to 300 psia pressure data logger with LCD display
OM-CP-PR2000-300-G	0 to 300 psig pressure data logger with LCD display
OM-CP-PR2000-500-A	0 to 500 psia pressure data logger with LCD display
OM-CP-PR2000-500-G	0 to 500 psig pressure data logger with LCD display
OM-CP-PR2000-1000-A	0 to 1000 psia pressure data logger with LCD display
OM-CP-PR2000-5000-A	0 to 5000 psia pressure data logger with LCD display
OM-CP-IFC200	Windows software and 1.8 m (6') USB interface cable
OM-CP-SVP-SYSTEM	FDA 21 CFR part 11 compliant IQ/OQ/PQ secure software validation workbook and software package (unlimited users, license per computer)
OM-CP-110-PWR-2000	110 Vac power adaptor
OM-CP-220-PWR-2000	220 Vac power adaptor

Comes complete with 6 "AA" batteries. Operator's manual and USB cable are included with the **OM-CP-IFC200** (software is required to operate the data logger and is sold separately).

To order data logger with NIST calibration certificate, add suffix "**-CERT**" to model number and add additional cost to price.

Ordering Example: **OM-CP-PR2000-30-A-CERT**, pressure data logger with NIST calibration certificate, **OM-CP-IFC200**, Windows software and USB interface cable with DB9F termination.

## Differential Pressure and Thermocouple Temperature Data Logger

### OM-CP-PRTC110



Optional

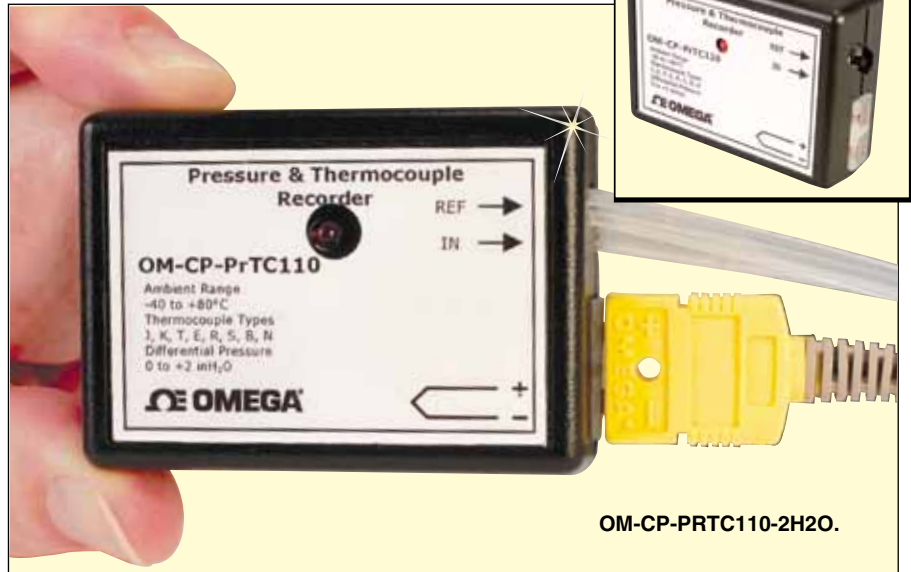
- ✓ Accepts Thermocouple Types J, K, T, E, R, S, B, and N
- ✓ High Speed Download
- ✓ Real-Time Operation
- ✓ Programmable Start Time
- ✓ Three Channels: Internal Ambient Temperature, Remote Temperature (Thermocouple), and Remote Pressure
- ✓ 2 Year Battery Life

The OM-CP-PRTC110 is a differential pressure and temperature data logger, ideal for use in factory and laboratory applications.

The OM-CP-PRTC110 features a real-time clock module that extends the battery life to >2 years and allows for high speed downloads.

This device will measure and record up to 10,922 measurements per channel. The storage medium is non-volatile solid state memory, providing maximum data security and stopped directly from your computer and its small size allows it to fit almost anywhere.

The OM-CP-PRTC110 makes data retrieval quick and easy. Simply plug it into an available com port and our user-friendly software does the rest. The software converts a PC into a real-time strip chart recorder. Data can be printed in graphical and tabular format or exported to a text or Microsoft Excel® file.



OM-CP-PRTC110-2H2O.

### Specifications

#### INTERNAL CHANNEL

**Temperature Range:**

-20 to 80°C (-4 to 176°F)

**Temperature Resolution:** 0.1°C

**Calibrated Accuracy:** ±0.5°C

#### REMOTE CHANNELS

**Thermocouple Types:**

J, K, T, E, R, S, B, and N

**Thermocouple Connection:**

Female subminiature thermocouple connector

**Cold Junction Compensation:**

Automatic, based on internal channel

**Maximum Thermocouple**

**Resistance:** 1000 Ω, <1000 Ω recommended

**Pressure Connections:**

REF and IN ports via 1/16" ID, 5/32" Max OD, polyurethane tubing

**Accuracy:** ±5% FSR max at 25°C over 1 year

### Start Modes:

Software programmable immediate start or delay start up six months in advance

**Real-Time Recording:**

May be used with PC to monitor and record data in real time

**Memory:** 10,922 readings per channel; software configurable memory wrap

**Reading Rate:** 2 sec to 24 hrs, software selectable

**Calibration:** Digital calibration through software

**Calibration Date:** Automatically recorded within device

**Battery Type:** 3.6V lithium battery (included), user replaceable

**Battery Life:** 5 years

(5 minute reading rate at 25°C)

**Data Format:** Date and time stamped °C, °F, K, R, inH<sub>2</sub>O, PSIG, inHg, mmHg bar, atm, Torr, Pa, kPa, and MPa

THERMOCOUPLE TYPE	RANGE	RESOLUTION	ACCURACY*
J	-210 to 760°C	0.1°C	±0.5°C
K	-260 to 1370°C	0.1°C	±0.5°C
T	-260 to 400°C	0.1°C	±0.5°C
E	-260 to 980°C	0.1°C	±0.5°C
R	-50 to 1760°C	0.5°C	±2.0°C
S	-50 to 1760°C	0.5°C	±2.0°C
B	50 to 1820°C	0.5°C	±2.0°C
N	-270 to 1300°C	0.1°C	±0.5°C
mV	-75 mV to 75 mV	5µV	±20µV

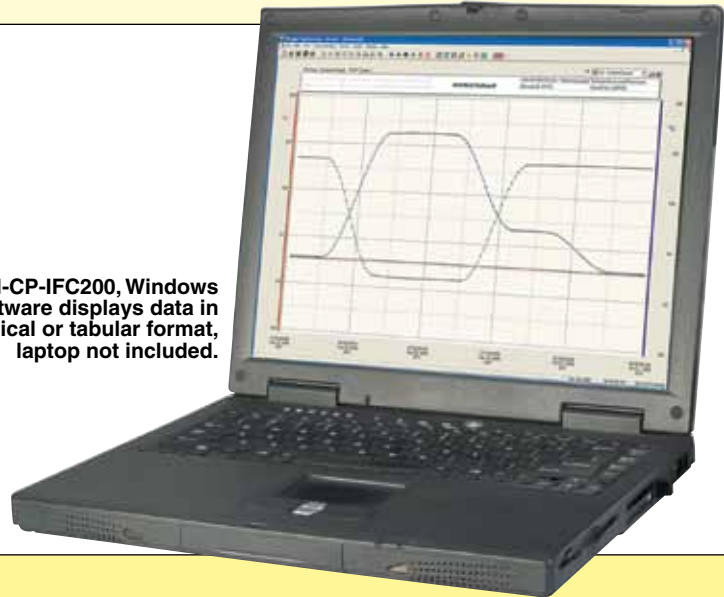
\* Accuracy specifications based on 3 m (9.8') 24 AWG thermocouple.





**Time Accuracy:** ±1 min/month (at 20 to 30°C)  
**Computer Interface:** PC serial or USB (interface cable required); 57,600 baud  
**Software:** XP SP3/Vista/7 and 8 (32-bit and 64-bit)  
**Operating Environment:** -20 to 80°C (-4 to 176°F), 0 to 95% RH, non-condensing  
**Dimensions:** 41 H x 68 W x 20 mm D (1.6 x 2.7 x 0.8") plus connective tube  
**Enclosure:** ABS plastic  
**Weight:** 250 g (8.8 oz)

OM-CP-IFC200, Windows software displays data in graphical or tabular format, laptop not included.



To Order				
MODEL NO.	PRESSURE RANGE	MAX PRESSURE	PRESSURE RESOLUTION	NIST CERTIFICATE
OM-CP-PRTC110-2H2O	0 to 2 inH <sub>2</sub> O	-2 to 4 inH <sub>2</sub> O	0.002 inH <sub>2</sub> O	-
OM-CP-PRTC110-2H2O-CERT	0 to 2 inH <sub>2</sub> O	-2 to 4 inH <sub>2</sub> O	0.002 inH <sub>2</sub> O	Y
OM-CP-PRTC110-5H2O	0 to 5 inH <sub>2</sub> O	-2 to 8 inH <sub>2</sub> O	0.005 inH <sub>2</sub> O	-
OM-CP-PRTC110-5H2O-CERT	0 to 5 inH <sub>2</sub> O	-2 to 8 inH <sub>2</sub> O	0.005 inH <sub>2</sub> O	Y

**ACCESSORIES**

MODEL NO.	DESCRIPTION
OM-CP-IFC200	Windows software and 1.8 m (6') USB interface cable
OM-CP-SVP-SYSTEM	FDA 21 CFR part 11 compliant IQ/OQ/PQ secure software validation workbook and software package (unlimited users, license per computer)
OM-CP-BAT105	Replacement 3.6V lithium battery

Comes complete with 3.6V lithium battery. Operator's manual and USB interface cable are included with the OM-CP-IFC200 Windows software (required to operate the data logger, sold separately).  
**Ordering Example:** OM-CP-PRTC110-2H2O-CERT, differential pressure and temperature data logger with NIST calibration certificate, and OM-CP-IFC200, Windows software with USB interface cable.

## CALIBRATOR WITH INTEGRAL ELECTRIC PRESSURE PUMP

### PCL819 Series



- ✓ Internal Electric Pressure Pump Generates Pressure from -0.8 to 20 bar (-12 to 300 psi)
- ✓ Accuracy to 0.025% FS
- ✓ Source and Measure 4 to 20 mA
- ✓ 24 Vdc Loop Power Supply to Power Device Under Test
- ✓ Rugged, Compact Design, Just 1.2 kg (2.5 lb)
- ✓ Operates on 8 Standard "AA" Alkaline Batteries
- ✓ Pt100 RTD Input for Temperature Measurement
- ✓ Accepts All PCL-PM Series External Pressure Modules (PCL-PMA Module Adaptor Required)
- ✓ Large Graphic Style LCD with Backlight Can be Configured to Display Up to 3 Inputs Simultaneously
- ✓ 15 User Selectable Pressure Units



PCL819

OMEGA's PCL819 combines a high performance handheld pressure calibrator with an integral electric pressure pump in a small, lightweight, handheld unit. Before this innovation, users had to manually generate pressure using cumbersome manual pumps or large, heavy boxes with limited portability and battery life. The PCL819 is only slightly larger than the PCL340 series and weighs in at a mere 1.2 kg (2.5 lb). The housing is easily contoured to fit a technicians hand with good balance top to bottom. The internal pump

can generate vacuum or pressure from -12 to 300 psig.

The PCL819 has an internal isolated pressure sensor with 0.025% of full scale accuracy and comes in three gauge and two absolute pressure ranges. It is also compatible with the PCL-PM series external pressure modules which come in ranges from 5 to 5000 psig and also differential, absolute and compound ranges. A PCL-PMA module adaptor is required to use external modules.

In addition to pressure the unit also has an input for Pt100 RTD sensors for temperature and can measure and simulate 4 to 20 mA current loops. The large LCD graphic display can be configured to display up to 3 variables at the same time by the user. It provides a number of convenience features such as switch testing, percent error, and a damping function. Up to 5 frequently used configuration can be stored and retrieved with one button recall.



## SPECIFICATIONS

### Accuracy:

**Pressure:**  $\pm 0.025\%$  FS from 15 to 35°C (59 to 95°F) (add 0.002%/°C outside of 15 to 35°C)

**mA:**  $\pm 0.015\%$  of reading  $\pm 2$  counts (simulation and measurement)

**Volts:**  $\pm 0.015\%$  of reading  $\pm 2$  counts (measurement only)

**Temperature:**  $\pm 0.1^\circ\text{C}$  ( $0.2^\circ\text{C}$ ) (measurement only)

### Operating Temperature:

-10 to 50°C (14 to 122°F)

### Storage Temperature:

-20 to 60°C (-4 to 160°F)

**Internal Pump:** Electrically operated pneumatic pump generates -0.8 to 20 bar (-12 to 300 psi)

**Batteries:** 8 "AA" Alkaline batteries (included)

**Battery Life:** 100 pump cycles to 300 psi or 1000 cycles to 30 psi minimum

**Pressure Connection:** 1/8" NPT female

**Electrical Connection:** Standard banana jacks

**RTD Connection:** 4 pin LEMO style

**External Module:** 6 pin LEMO style

**Dimensions:** 200 H x 100 W x 60 mm D (8 x 4 x 2 3/8")

**Weight:** 1.2 kg (2.5 lb)

PCL-PM1KG,  
pressure module,  
shown smaller  
than actual size.



PCL-PMA,  
pressure module  
adaptor, shown  
smaller than  
actual size.



PCL-PMA, pressure module adaptor, shown with PCL-PM1KG, 0 to 1000 psi external pressure module, sold separately. See OMEGA for more information and complete listing of available modules.

## To Order

MODEL NO.	RANGE	TYPE
PCL819-30	-0.8 to 2 bar (-12 to 30 psi)	Gage
PCL819-150	-0.8 to 10 bar (-12 to 150 psi)	Gage
PCL819-300	-0.8 to 20 bar (-12 to 300 psi)	Gage
PCL819-30A	0 to 2 bar (0 to 30 psi)	Absolute
PCL819-150A	0 to 10 bar (0 to 150 psi)	Absolute

Comes complete with operator's manual, 8 "AA" batteries, test leads, test hose, dirt trap, fittings, calibration certificate, and carrying case.

## ACCESSORIES

MODEL NO.	DESCRIPTION
PCL819-TRAP	Spare liquid and dirt trap
PCL819-BATT-KIT	Rechargeable battery kit
PCL-PMA	Pressure module adaptor (required to use PCL-PM series external pressure modules)

**Ordering Examples:** PCL819-150, -12 to 150 psig portable calibrator with built-in electric pump.

PCL819-30A, 0 to 30 psia portable calibrator with built-in electric pump, PCL-PMA, pressure module adaptor and PCL-PM100G, 0 to 100 psig external pressure module.



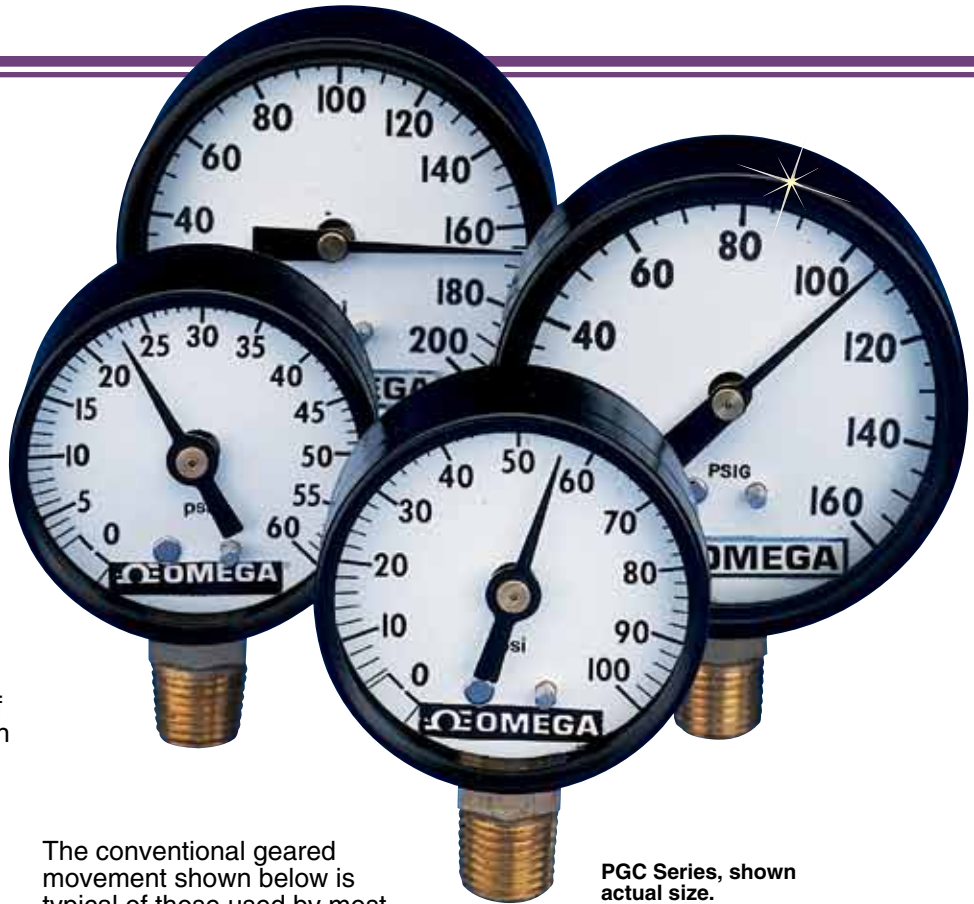
# TYPE C

## PGC Series



- ✓ Economically Priced
- ✓ Long-Lasting Movement
- ✓ Durable Construction
- ✓ Stocked Ranges for Fast Delivery

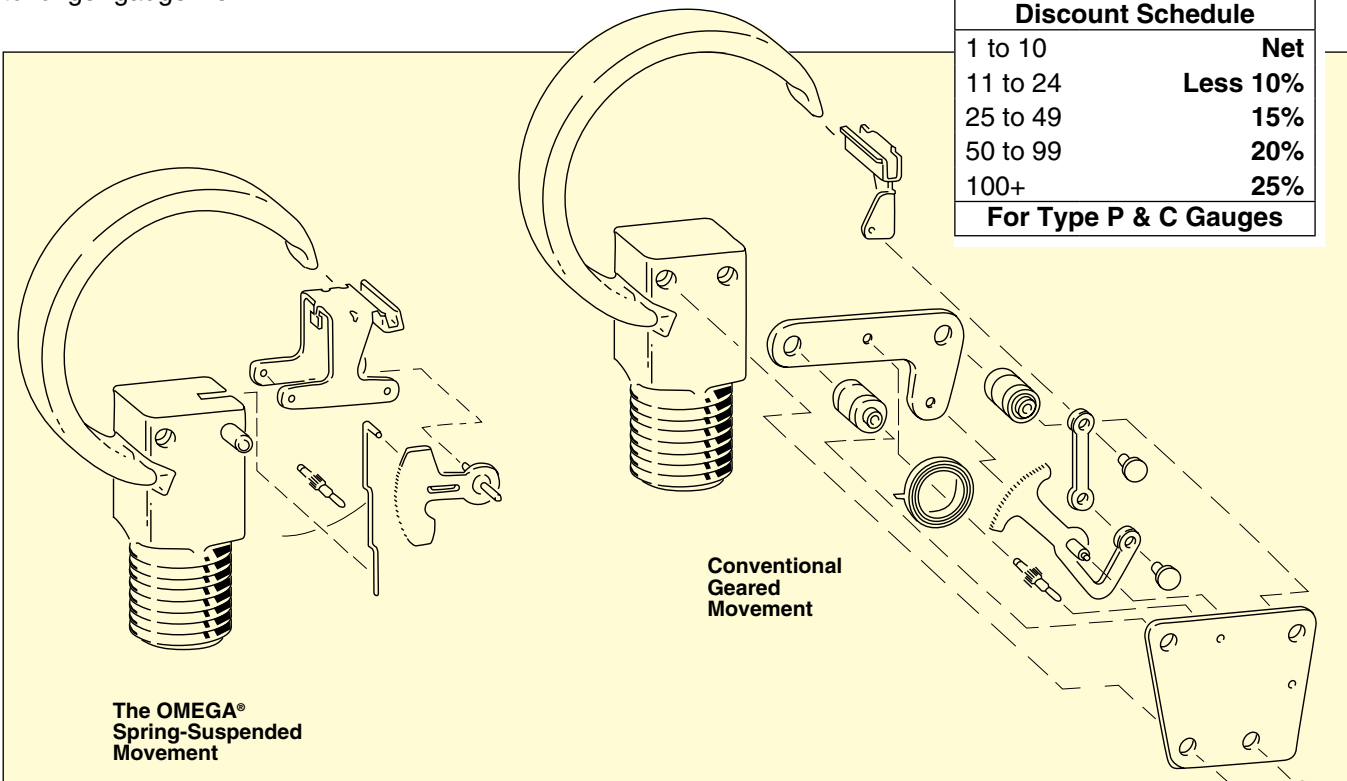
The OMEGA® spring-suspended movement represents the design of the future. Wearing parts have been reduced to a minimum. The entire movement is suspended between 2 springs, the Bourdon tube above and the link below. For the user, this means greater resistance to mechanical shock and vibration. This increased resistance to the effects of rough usage contributes to longer gauge life.



The conventional geared movement shown below is typical of those used by most manufacturers of commercial pressure gauges.

PGC Series, shown actual size.

Discount Schedule	
1 to 10	Net
11 to 24	Less 10%
25 to 49	15%
50 to 99	20%
100+	25%
For Type P & C Gauges	



The OMEGA® Spring-Suspended Movement

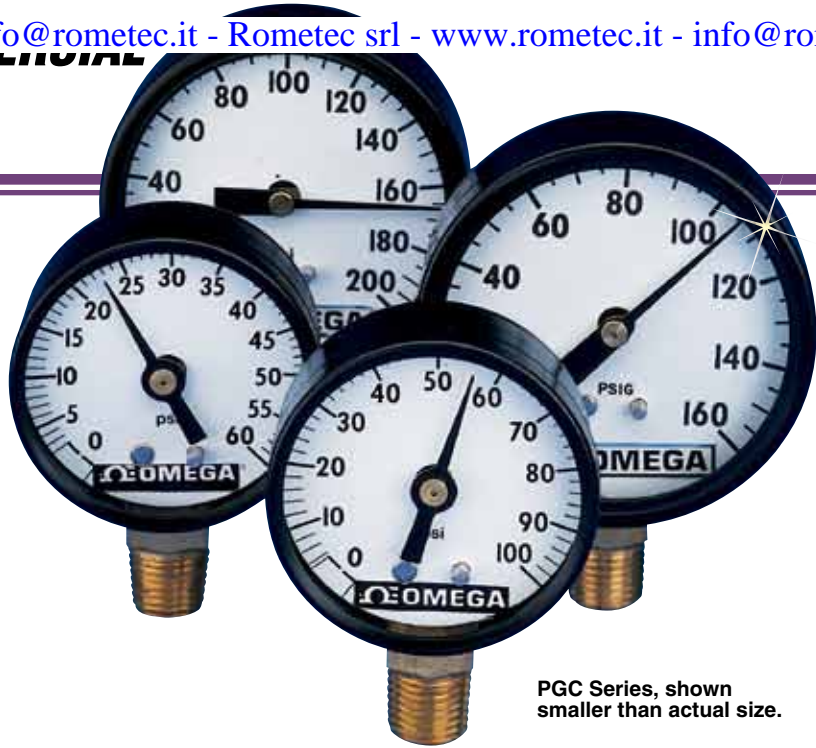
Conventional Geared Movement



# HOW TO ORDER COMMERCIAL GRADE GAUGES

## Standard Case

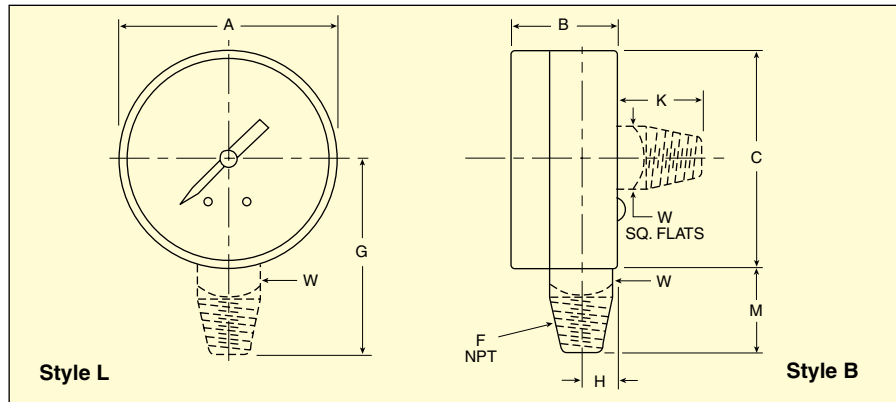
The high reliability of the OMEGA® commercial gauge line is chiefly attributable to the unique OMEGA® spring-suspended movement. The entire movement is suspended between 2 springs, the Bourdon tube above and the link below. Wearing parts have been reduced to a minimum. Movement parts are ultrasonically cleaned and lubricated with silicone oil to ensure long cycle life. The OMEGA® spring-suspended movement is largely resistant to shock, pulsation, and vibration. The result is longer gauge life. The numerous applications for OMEGA® commercial gauges include installation on pumps, portable compressors, industrial machinery, hydraulic and pneumatic systems, instrumentation, and pressurized vessels.



PGC Series, shown smaller than actual size.

## SPECIFICATIONS

- Temperature:** 66°C (150°F) maximum
- Case:** Painted steel
- Window:** Polycarbonate plastic
- Bourdon Tube:** Bronze
- Connection:** Brass ¼ NPT
- Ranges:** Vacuum to 600 psi
- Accuracy:** 3-2-3% (3% over first and last 10% of range, 2% over remainder)



## STANDARD RANGES

RANGE CODE	RANGE
30V	30/0 inHg vac
30V/15	30 inHg vac to 15 psi
30V/30	30 inHg vac to 30 psi
30V/100	30 inHg vac to 100 psi
15	0 to 15 psi
30	0 to 30 psi
60	0 to 60 psi
100	0 to 100 psi
160	0 to 160 psi
300	0 to 300 psi
400	0 to 400 psi
600	0 to 600 psi

## Dimensions: mm (inch)

DIAL SIZE	B				C	F NPT	G	H	K	M	W	WT (OZ)
	A	LOWER	BACK									
50.8 (2)	53 (2 <sup>7</sup> / <sub>64</sub> )	27 (1 <sup>3</sup> / <sub>64</sub> )	26 (1 <sup>1</sup> / <sub>32</sub> )	54 (2 <sup>7</sup> / <sub>64</sub> )	¼	47 (1 <sup>27</sup> / <sub>32</sub> )	10 ( <sup>3</sup> / <sub>8</sub> )	22 ( <sup>7</sup> / <sub>8</sub> )	20 ( <sup>25</sup> / <sub>32</sub> )	14 ( <sup>9</sup> / <sub>16</sub> )		4½
63.5 (2½)	69 (2 <sup>23</sup> / <sub>32</sub> )	29 (1 <sup>1</sup> / <sub>6</sub> )	29 (1 <sup>1</sup> / <sub>6</sub> )	68 (2 <sup>11</sup> / <sub>16</sub> )	¼	55 (2 <sup>3</sup> / <sub>32</sub> )	10 ( <sup>3</sup> / <sub>8</sub> )	22 ( <sup>7</sup> / <sub>8</sub> )	20 ( <sup>25</sup> / <sub>32</sub> )	14 ( <sup>9</sup> / <sub>16</sub> )		6

To Order Visit <a href="http://omega.com/pgc">omega.com/pgc</a> for Pricing and Details		
DIAL SIZE	MODEL NO.	CONNECTION
2"	PGC-20L-[*]	Lower
	PGC-20B-[*]	Back
2½"	PGC-25L-[*]	Lower
	PGC-25B-[*]	Back

[\*] Insert range code from Standard Ranges table. Other standard ranges available; visit [omega.com](http://omega.com)

**Ordering Example:** PGC-20B-30, commercial pressure gauge with 2" dial, back connection and 0/30 psi range.

# DIFFERENTIAL PRESSURE GAUGES

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## UNI-DIRECTIONAL OR BI-DIRECTIONAL

**20 to 500 psi**  
**Uni-directional or Bi-directional**

### PGD-45 Series



PGD-45B-30/30, shown smaller than actual size. See next page for dimensions.



PGD-45L-30, shown smaller than actual size. See next page for dimensions.

- ✓ **Heavy-Duty Construction**
- ✓ **Double-Strength, Shatter-Resistant Glass**
- ✓ **2-1-2% ANSI Grade A Accuracy**

OMEGA's PGD Series differential pressure gauges are rugged industrial gauges that indicate the difference between 2 input connections. Differential ranges provide the maximum resolution for applications in which one input is always at a higher pressure than the other. In cases in which one input can be higher or lower than the other, a bi-directional differential range should be used.

The PGD Series is constructed with 2 independent Bourdon tubes. The opposing Bourdon tubes are linked

to a single pinion gear that rotates a pointer for direct pressure readings. By using 2 independent Bourdon tubes, the gauge can handle liquids or gases on either or both ports.

The large 4½" dial makes reading pressure easy. Each gauge is equipped with a micrometer adjustment for rezeroing the gauge. Gauges are available with ports located in the lower (six o'clock) position or in the rear (for panel mounting).

PGD Series gauges are available with ports located in the back of the gauge (shown at left), or in the lower (six o'clock) position (shown at right).

### SPECIFICATIONS

**Accuracy:** 2-1-2%, ANSI Grade A  
 2% first 10%, 1% middle 80%,  
 2% top 10%

**Dial Size:** 4½"

**Dial Arc:** 210°

**Window:** Double-strength glass

**Connection:** ¼ MNPT

**Sensor Type:** Bourdon tube

**Wetted Parts:**

**Tube:** Bronze

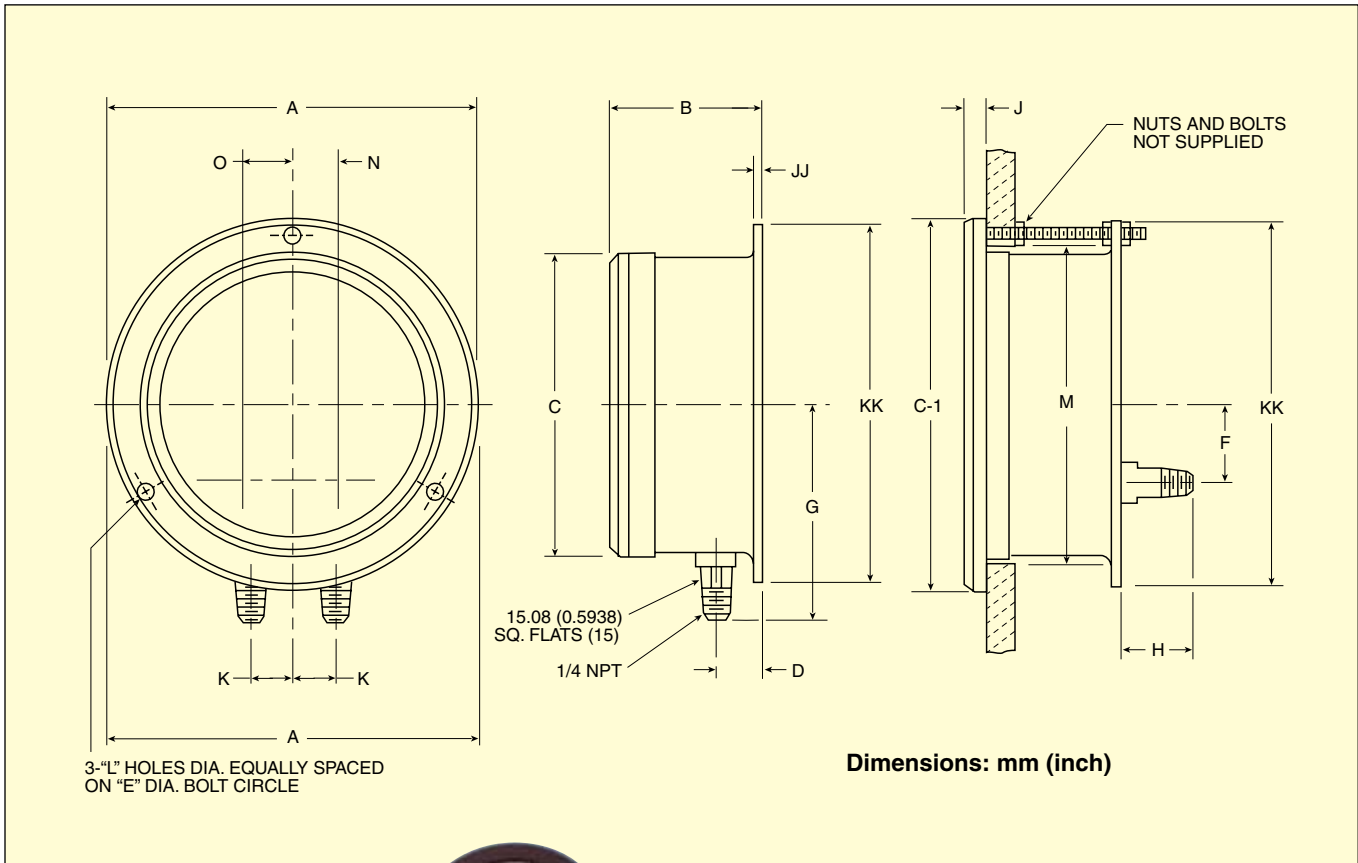
**Fittings:** Brass

**Case:** Black epoxy-coated aluminum

**Operating Temperature:** 65°C (150°F)

**Weight:** 1.4 kg (3 lb)

# DIFFERENTIAL OR BI-DIRECTIONAL RANGES



**PGD-45B-30/30**, shown smaller than actual size. See below for dimensions.



**PGD-45L-30**, shown smaller than actual size. See below for dimensions.

RANGE CODE	RANGE (psi)	FIGURE INTERVAL	MINOR GRADUATION	STATIC PRES. LIMIT (psi)*
20	0/20	5	0.2	30
30	0/30	5	0.5	60
60	0/60	10	1	120
100	0/100	10	1	200
200	0/200	20	2	300
600	0/600	100	10	900
1K	0/1000	100	10	1500
15/15	15/0/15	5	0.5	60
30/30	30/0/30	10	1	120
50/50	50/0/50	10	1	200
100/100	100/0/100	20	2	300
200/200	200/0/200	50	5	600
500/500	500/0/500	100	10	1500

To Order		
MODEL NO.	DIAL SIZE	CONNECTION
PGD-45B-(* )	4 1/2"	Back
PGD-45L-(* )	4 1/2"	Lower

\* Insert range code from table at right.

**Ordering Example:** PGD-45B-30, 114 mm (4 1/2") differential pressure gauge with back input connection and 0 to 30 psi uni-directional range.

\* Maximum pressure that can be applied to either port on the gauge. PGD-FMR, black flush mounting ring for panel mounting.

**Dimensions: mm (inch)**

GAUGE SIZE	A	B	C	C1	D	E	F	G	H	J	K	L	M	N	O	JJ	KK
4 1/2"	149 (5 7/8)	82 (3 1/32)	126 (4 15/16)	149 (5 7/8)	26 (1 1/16)	137 (5 3/8)	27 (1 1/16)	91 (3 3/16)	40 (1 9/16)	5 (3/16)	15 (1 9/32)	6 (7/32)	125 (4 15/16)	17 (2 1/32)	17 (2 1/32)	3 (1/8)	148 (5 13/16)



# VIBRATION RESISTANT LIQUID-FILLED GAUGES

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

30 inHg to 10,000 psi

Liquid-Filled  
for Vibration  
Resistance

## PGF Series



- ✓ Easy-to-Read 64 mm (2½") Dial
- ✓ Superior Performance in Vibration, Pulsation, Shock Environments
- ✓ Leakproof O-Ring Seal
- ✓ Lower and Back Mounts

### SPECIFICATIONS

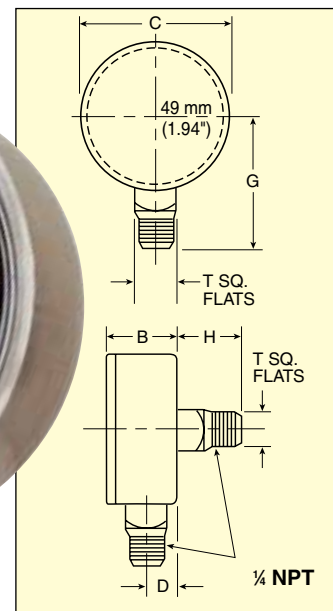
**Case:** Stainless steel  
**Wetted Parts:** Brass/bronze  
**Window:** Polycarbonate with O-ring seal  
**Fill Fluid:** Glycerine  
**Temperature:** 66°C (150°F) maximum  
**Fitting:** ¼ NPT brass  
**Accuracy:** ±3-2-3%



PGF-25L-400 lower fitting shown smaller than actual size.

PGF-25B-300 back fitting shown smaller than actual size.

PGF-25B-1000 back fitting shown smaller than actual size.



### RangeTable

CODE psi	FIGURE INTERVAL	MINOR TICKS
15	1	0.5
30	5	0.5
60	5	1
100	10	1
200	20	5
300	30	5
400	50	10
600	50	10
1000	200	20
3000	500	100
5000	1000	100
10,000	1000	200
VACUUM		
30V inHg	5 inHg inches	0.5 inHg inches

### Dimensions: mm (inch)

GAUGE	B	C	D	G	H	T	WEIGHT
Back	31 (1.21)	69 (2.71)	N/A	N/A	22 (0.88)	14 (0.56)	21 kg (0.47 lb)
Lower	31 (1.21)	69 (2.71)	12 (0.46)	56 (2.20)	N/A	14 (0.56)	21 kg (0.47 lb)

### To Order

DIAL DIAMETER.	MODEL NO.	CONNECTION
64 mm (2½")	PGF-25B-[*]	Back
64 mm (2½")	PGF-25L-[*]	Lower

[\*] Insert range from Range Table at left.

**Ordering Examples:** PGF-25B-100, back-mount gauge with a pressure range to 100 psi.  
 PGF-25L-3000, lower-mount gauge with pressure range of 0 to 3000 psi.



# INDUSTRIAL PRESSURE GAUGES

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## TYPES H AND J, 4½ AND 6" DIALS

PRESSURE GAUGES

### PGH Series PGJ Series

**Now  
Hermetically  
Sealed!**



- ✓ 0.5% FS Accuracy
- ✓ PGH Gauge Ranges from 15 to 20,000 psi
- ✓ Double-Strength Shatter-Resistant Glass
- ✓ Heavy-Duty 316 SS Wetted Parts
- ✓ Easily Adjustable, Self-Locking Micrometer Dial
- ✓ PTFE-Coated SS Movement for Long-Lasting Accuracy
- ✓ Solid Front with Blowout Back
- ✓ Fully Temperature Compensated



PGH-45L-100, shown smaller than actual size, see dimensions on next page.

PGJ-45B-100, shown smaller than actual size.

### SPECIFICATIONS

Dial Arc: 270°

Case: Lower connection, black phenol; back connection, aluminum

Window: Double-strength glass

Bourdon Tube: 316 SS

Connection: ½ MNPT 316 SS

Mounting: Stem, flush or surface

Operating Temperature: 121°C (250°F) maximum

### To Order

DIAL DIA. (inch)	MODEL NO.	CONNECTION
4½	PGH-45L-[*]	Lower
4½	PGH-45B-[*]	Back
FLUSH ALUMINUM CASE		
4½	PGJ-45B-[*]	Back
6	PGJ-60B-[*]	Back

\* Insert range code from table at right.

Ordering Example: PGJ-45B-100, 4½" 100 psi style PGJ gauge with a back connection.

For silicone fill option, add suffix "-F" to model number for additional cost (available on PGH models only). For oxygen-service cleaning option, add suffix "-X6B" to model number for additional cost. Quartz-crystal dial (F) also available on PGH models only.

STANDARD psi RANGES			
RANGE CODE	RANGE	FIGURE INTERVAL	MINOR GRAD.
15	0/15	1	0.1
30	0/30	5	0.2
60	0/60	5	0.5
100	0/100	10	1
160	0/160	20	1
200	0/200	20	2
300	0/300	50	2
400	0/400	50	5
600	0/600	50	5
800	0/800	100	10
1000	0/1000	100	10
1500	0/1500	200	10
2000	0/2000	200	20
3000	0/3000	500	20
5000	0/5000	500	50
10,000	0/10000	1000	100
20,000	0/20000	2000	200



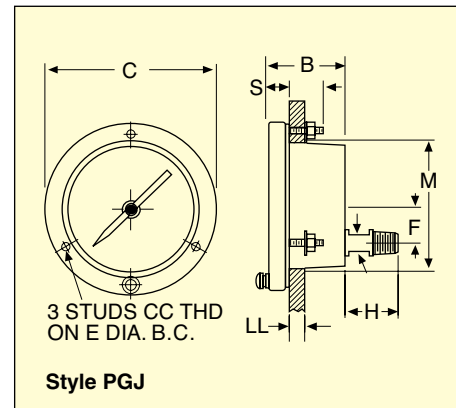
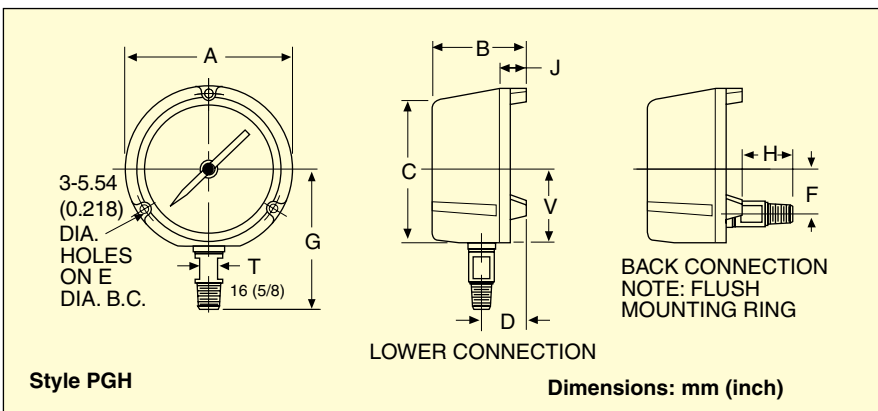
PGJ-45B-100, shown smaller than actual size.



PGH-45L-100, shown smaller than actual size, see dimensions below.

SPECIAL RANGES COMPOUND		FIGURE INTERVAL		MINOR GRADUATION	
RANGE CODE	RANGE	INCHES MERCURY	psi	INCHES MERCURY	psi
30V15	30 inHg/0/15 psi	5	3	0.5	0.2
30V30	30 inHg/0/30 psi	10	5	1	0.5
30V60	30 inHg/0/60 psi	10	10	1	1
30V100	30 inHg/0/100 psi	10	10	2	1
30V150	30 inHg/0/150 psi	10	20	5	2
30V300	30 inHg/0/300 psi	30	25	5	2

COMBINATION						
RANGE CODE	RANGE		FIGURE INTERVAL		MINOR GRADUATION	
	INNER SCALE psi	OUTER SCALE FT. WATER	psi	FEET WATER	psi	FEET WATER
15/34	0/15	0/34	3	5	0.5	0.5
30/70	0/30	0/70	5	10	0.5	1
60/140	0/60	0/140	5	20	0.5	5
100/230	0/100	0/230	10	20	1	2
160/370	0/160	0/370	20	50	2	5
200/480	0/200	0/480	20	50	5	5
300/690	0/300	0/690	25	100	5	10



Style PGH—Dimensions: mm (inch)

DIAL SIZE (inch)	A	B	C	D	E	F	G ½ NPT	H MAX	J	V	WT kg (lb)
4½	148 (5 <sup>13</sup> / <sub>16</sub> )	86 (3 <sup>3</sup> / <sub>8</sub> )	129 (5 <sup>1</sup> / <sub>16</sub> )	41 (1 <sup>5</sup> / <sub>8</sub> )	137 (5 <sup>3</sup> / <sub>8</sub> )	41 (1 <sup>5</sup> / <sub>8</sub> )	103 (4 <sup>7</sup> / <sub>16</sub> )	29 (1 <sup>1</sup> / <sub>8</sub> )	24 (1 <sup>5</sup> / <sub>16</sub> )	67 (2 <sup>5</sup> / <sub>8</sub> )	1.6 (3 <sup>1</sup> / <sub>2</sub> )

Style PGJ—Dimensions: mm (inch)

VACUUM RANGES				Style PGJ—Dimensions: mm (inch)										
RANGE CODE	RANGE	FIGURE INTERVAL	MINOR GRAD.	DIAL SIZE (inch)	B	C	E	F	H MAX	M	S	CC	LL	WT kg (lb)
30V	30/0 In. Merc.	5 inches	0.2 inch	4½	65 (2 <sup>9</sup> / <sub>16</sub> )	154 (6 <sup>1</sup> / <sub>16</sub> )	137 (5 <sup>3</sup> / <sub>8</sub> )	41 (1 <sup>5</sup> / <sub>8</sub> )	48 (1 <sup>7</sup> / <sub>8</sub> )	124 (4 <sup>7</sup> / <sub>8</sub> )	16 ( <sup>5</sup> / <sub>8</sub> )	#10-24	3-13 ( <sup>1</sup> / <sub>8</sub> - <sup>1</sup> / <sub>2</sub> )	1.2 (2 <sup>3</sup> / <sub>4</sub> )
34V	34/0 Ft. Water	5 feet	0.5 foot	6		192 (7 <sup>9</sup> / <sub>16</sub> )	178 (7)	54 (2 <sup>1</sup> / <sub>8</sub> )		165 (6 <sup>1</sup> / <sub>2</sub> )		165 (6 <sup>1</sup> / <sub>2</sub> )		¼-20

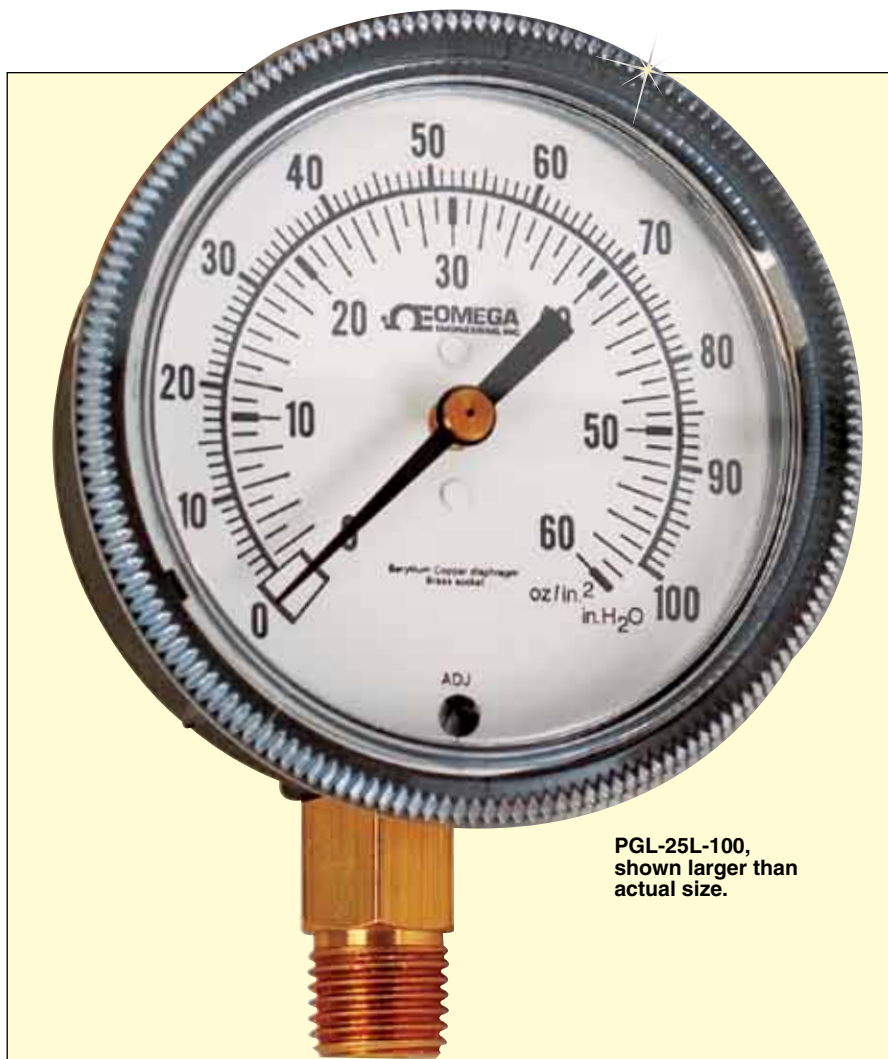
## PGL Series



- ✓ Corrosion-Resistant Bronze Diaphragm
- ✓ 150% Overpressure Protection
- ✓ Recalibration Screw on Dial
- ✓ 2-1-2 ANSI Grade A Accuracy\*

### SPECIFICATIONS

**Dial:** 64 mm (2.5") Dia.  
**Pointer:** Black aluminum  
**Movement:** Brass  
**Element:** Bronze diaphragm  
**Connection:** ¼ NPT  
**Window:** Polycarbonate  
**Media:** Clean, dry, non-corrosive gas only



PGL-25L-100, shown larger than actual size.

### To Order

MODEL NO.	RANGE/GRADUATIONS					
	OUTER SCALE	INNER SCALE	INNER SCALE		OUTER SCALE	
			FIG. INTERVALS	MINOR GRAD.	FIG INTERVALS	MINOR GRAD.
PGL-25L-10	0/10 inH <sub>2</sub> O	—	1	0.1	—	—
PGL-25L-15	0/15 inH <sub>2</sub> O	0/9 oz/in <sup>2</sup>	1	0.2	5	0.2
PGL-25L-35	0/35 inH <sub>2</sub> O	0/20 oz/in <sup>2</sup>	5	0.5	5	0.5
PGL-25L-60	0/60 inH <sub>2</sub> O	0/35 oz/in <sup>2</sup>	5	0.5	5	0.5
PGL-25L-100	0/100 inH <sub>2</sub> O	0/60 oz/in <sup>2</sup>	10	1	10	1
PGL-25L-160	0/160 inH <sub>2</sub> O	—	20	2	—	—
PGL-25L-200	0/200 inH <sub>2</sub> O	—	20	2	—	—
PGL-25L-300	0/300 inH <sub>2</sub> O	—	50	5	—	—

\* 2% first 10%, 1% middle 80%, 2% last 10%.

**Note:** Cannot be oxygen cleaned.

**Ordering Example:** PGL-25L-100, low-pressure gauge with 0 to 100 inH<sub>2</sub>O range.

# **PRESSURE GAUGES**

## **LIQUID-FILLABLE**

### **PGM Series**

- ✓ Dual Scales in psi and bar
- ✓ 63 mm (2½") and 100 mm (4") Diameters
- ✓ Back- or Lower-Mount Fittings
- ✓ All Stainless Steel Construction
- ✓ Liquid Fillable in the Field
- ✓ NEMA 4 (IP65) Protection
- ✓ Heavy-Duty
- ✓ High Performance



PGM-63B-1000PSI/70BAR,  
with Back (Rear)-mount  
fitting, shown actual size.



PGM-100L-100PSI/7BAR, with  
lower (Bottom)-mount fitting,  
shown actual size.



OMEGA's PGM Series gauges are suitable for corrosive processing environments in chemical, petrochemical refining, power, marine, food and pharmaceutical applications. The PGM Series comes in a 63 mm (2.5") or 100 mm (4") case, features all stainless steel construction, and is environmentally protected to NEMA 4 (IP65) standards.

The PGM Series can also be liquid-filled in the field. Liquid-filled pressure gauges provide users with a number of advantages in certain applications. They are ideal for equipment with excessive vibration and pulsation, such as pumps, compressors, and machine tools. The liquid fill minimizes the effects of these severe environments, protects the gauge internals, and provides continuous lubrication in the mechanism, adding up to extended service life. Liquid filling also provides greater protection of the gauge internals from corrosive atmospheres. Gauges can be filled with a variety of fluids, including glycerin, mineral oil, and silicone oil.



PGM-100L-100PSI/7BAR, shown smaller than actual size.

PGM-63B-1000PSI/70BAR, shown smaller than actual size.

## SPECIFICATIONS

**Accuracy:** 63 mm  $\pm 1.6\%$  of span, 100 mm  $\pm 1\%$  of span (per DIN 16 005)

**Working Pressure:** 75% of full scale

**Overrange Protection:** 130% of full scale

**Ambient Temp Range:** -40 to 60°C (-40 to 140°F)

**Process Temp Range:** -20 to 80°C (-4 to 176°F)

**Degree of Protection:** NEMA 4 (IP65)

**Element:** 316 SS

**Window:**

63 mm (2.5"): Polycarbonate

100 mm (4"): Laminated safety glass

**Dial:** White aluminum with black lettering

**Pointer:** Aluminum alloy, black painted

**Case and Bezel Ring:** 304 SS

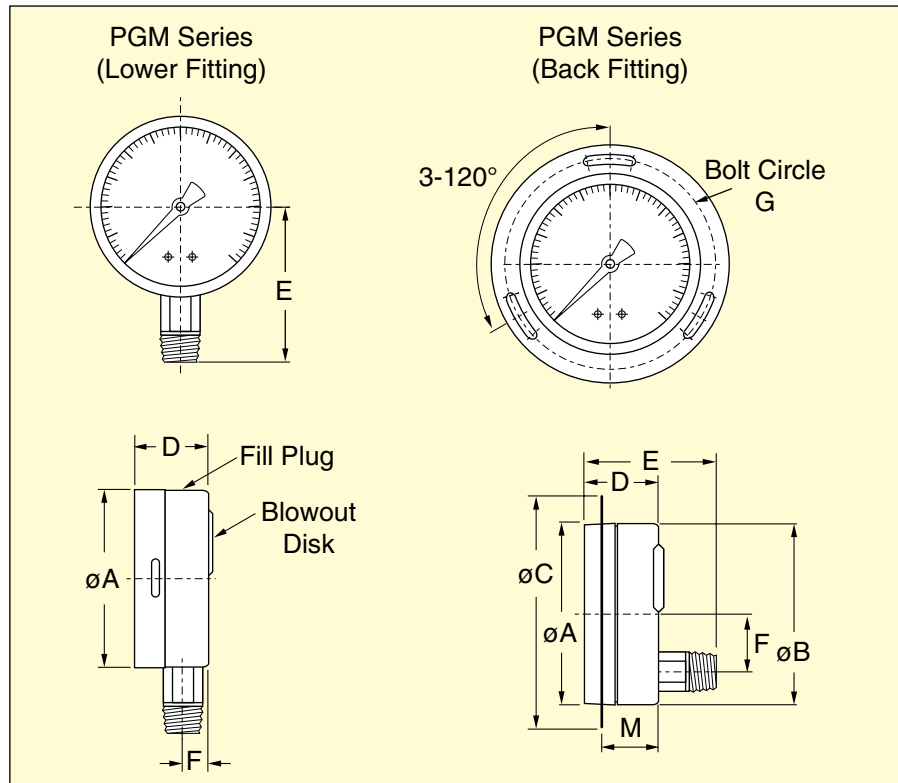
**Movement:** 304 SS

**Pressure Connection:** 316 SS, 1/4 MNPT on 63 mm (2.5"), 1/2 MNPT on 100 mm (4")

**Blowout Protection:**

63 mm (2.5"): Top-mounted rubber disc

100 mm (4"): Back-mounted rubber disc



STANDARD RANGES		
RANGE CODE	INNER SCALE (psi)	OUTER SCALE (bar)
30V/-1BAR	30 inHg vac to 0	-1 to 0
30V15/-1/1BAR	30 inHg vac to 15	-1 to 1
30V30/-1/2BAR	30 inHg vac to 30	-1 to 2
30V60/-1/4BAR	30 inHg vac to 60	-1 to 4
30V100/-1/7BAR	30 inHg vac to 100	-1 to 7
30V150/-1/10BAR	30 inHg vac to 150	-1 to 10
15PSI/1BAR	0 to 15	0 to 1
30PSI/2BAR	0 to 30	0 to 2
60PSI/4BAR	0 to 60	0 to 4
100PSI/7BAR	0 to 100	0 to 7
160PSI/11BAR	0 to 160	0 to 11
200PSI/14BAR	0 to 200	0 to 14
300PSI/20BAR	0 to 300	0 to 20
400PSI/28BAR	0 to 400	0 to 28
600PSI/40BAR	0 to 600	0 to 40
800PSI/55BAR	0 to 800	0 to 55
1000PSI/70BAR	0 to 1000	0 to 70
1500PSI/100BAR	0 to 1500	0 to 100
2000PSI/140BAR	0 to 2000	0 to 140
2300PSI/160BAR	0 to 2300	0 to 160
3000PSI/200BAR	0 to 3000	0 to 200
3500PSI/250BAR	0 to 3500	0 to 250
5000PSI/350BAR	0 to 5000	0 to 350
6000PSI/400BAR	0 to 6000	0 to 400
10000PSI/700BAR	0 to 10000	0 to 700
11600PSI/800BAR	0 to 11600	0 to 800



**PGM-100L-100PSI/7BAR,**  
with lower mount fitting,  
shown smaller than actual size.



**PGM-63B-1000PSI/70BAR,**  
with flange mount and  
back fitting, shown  
smaller than actual size.

**Dimensions: mm (inch)**

DIAL SIZE	FITTING	A	B	C	D	E	F	G	M
63 mm (2½")	Lower mount	63.7 (2.51)	—	—	33.0 (1.30)	55.7 (2.19)	11.0 (0.44)	—	—
63 mm (2½")	Flange mount	63.7 (2.51)	66.2 (2.61)	86.0 (3.39)	33.0 (1.30)	57.0 (2.24)	13.0 (0.51)	75.0 (2.95)	28.0 (1.10)
100 mm (4")	Lower mount	101.3 (3.99)	—	—	50.0 (1.97)	83.0 (3.27)	29.0 (0.63)	—	—
100 mm (4")	Flange mount	101.3 (3.99)	103.1 (4.06)	131.0 (5.16)	50.0 (1.97)	83.0 (3.27)	29.0 (1.14)	116.0 (4.57)	45.0 (1.77)

**To Order Visit [omega.com/pgm\\_series](http://omega.com/pgm_series) for Pricing and Details**

MODEL NO	DIAL SIZE mm (inch)	CONNECTION
<b>PGM-63L-[*]</b>	63 (2½)	¼ NPT lower
<b>PGM-63B-[*]</b>	63 (2½)	¼ NPT back
<b>PGM-100L-[*]</b>	100 (4)	½ NPT lower
<b>PGM-100B-[*]</b>	100 (4)	½ NPT back

[\*] Insert range code from Standard Ranges table.

Ordering Examples: **PGM-63B-15PSI/1BAR**, 63 mm (2.5") gauge with a back fitting and scaled 0 to 15 psi and 0 to 1 bar.

**PGM-100L-15PSI/1BAR**, 100 mm (4") gauge with a lower fitting and scaled 0 to 15 psi and 0 to 1 bar.

# TYPE P

## PGP Series

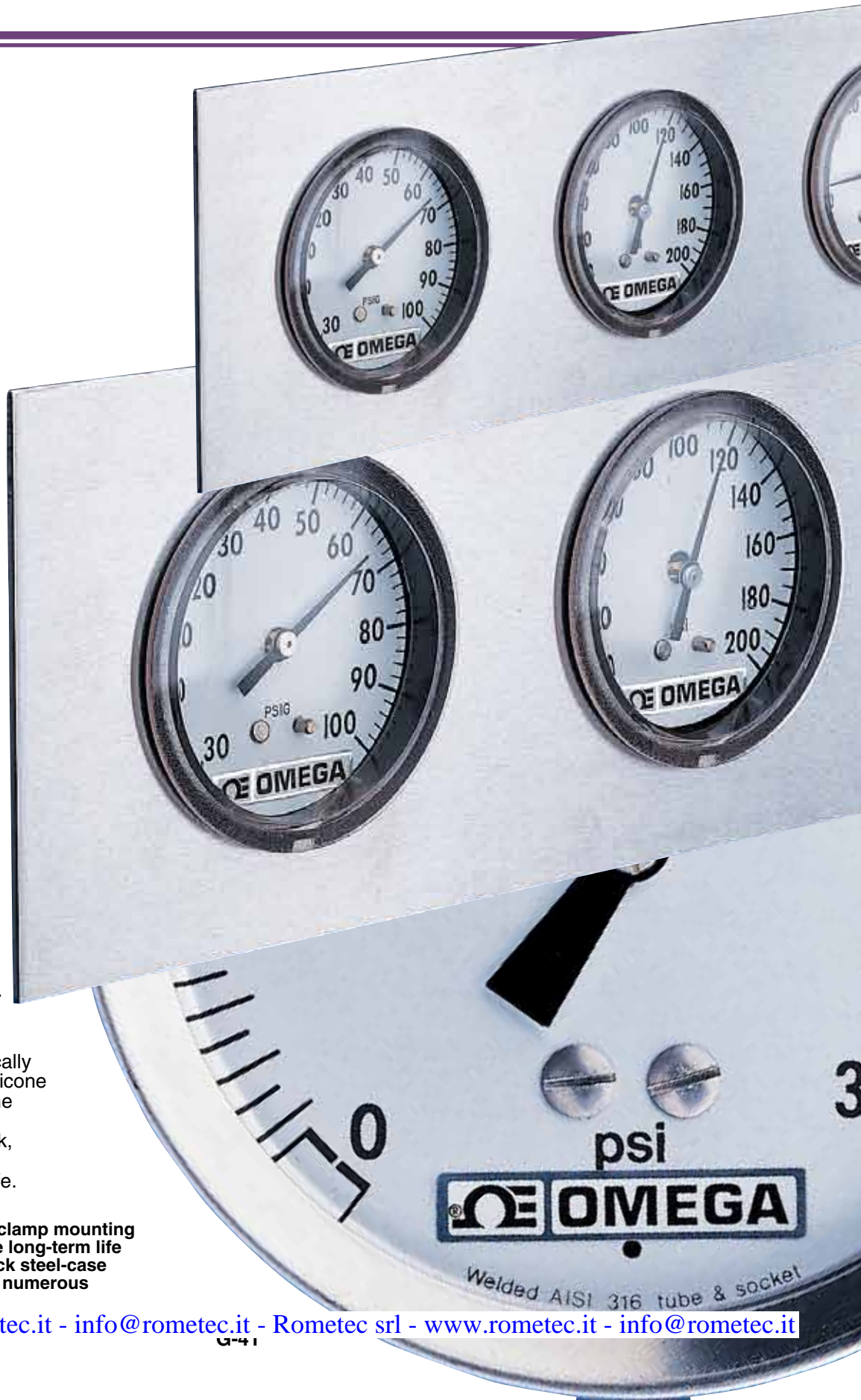


- ✓ Durable and Accurate Design
- ✓ U-Clamp Mount
- ✓ 2½" Dials
- ✓ For Use in a Wide Variety of Applications

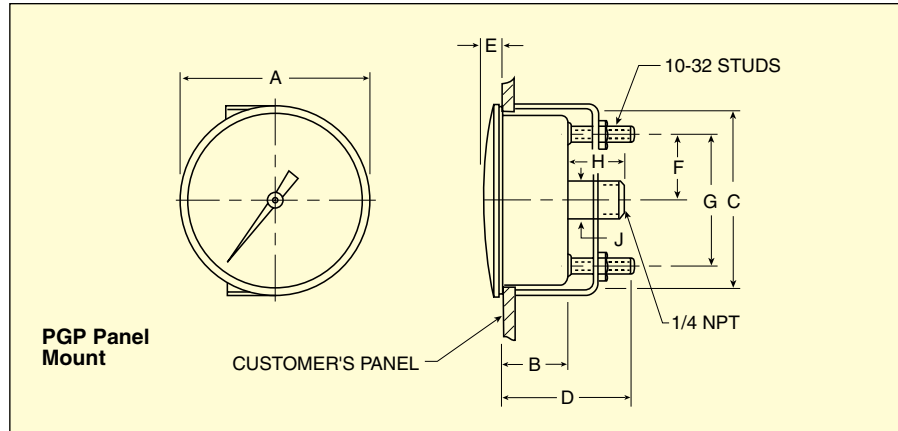
OMEGA® panel gauges use a U-clamp mounting system. The attractive black-painted, steel-case gauges are designed for use on instrument panels, air conditioning equipment, air and gas dryers, machine tools, air compressors, pressure test stands, and a wide variety of other panel gauge applications. The panel gauges use the unique OMEGA® spring-suspended movement. The entire movement is suspended between 2 springs, with the Bourdon tube above and the link below. Wearing parts have been reduced to a minimum.

Movement parts are ultrasonically cleaned and lubricated with silicone oil to ensure long cycle life. The OMEGA® spring-suspended movement is resistant to shock, pulsation, and vibration, thus contributing to longer gauge life.

OMEGA® panel gauges, with U-clamp mounting system, are durable and feature long-term life and stability. The attractive black steel-case gauges are designed for use in numerous panel gauge applications.







**Dimensions: mm (inch)**

DIAL SIZE	A	B	C	D	E	F	G	H	J
63.5 (2½)	73 (2¾)	25 (1)	68 (2⅙)	51 (2)	7 (⅞)	25 (1)	51 (2)	22 (⅞)	14 sq (⅞) sq

**SPECIFICATIONS**

**Case:** Painted steel  
**Window:** Polycarbonate plastic  
**Bourdon Tube:** Bronze  
**Connection:** Back  
**Fitting:** ¼ NPT brass  
**Dial Size:** 2½" Dia.  
**Mounting:** "U" bracket  
**Ranges:** Vacuum through 400 psi  
**Accuracy:** 3-2-3%  
 3% first 10%, 2% middle 80%, 3% last 10%  
**Temperature:** 66°C (150°F) maximum

**Warning:** To prevent misapplication, all gauge components should be chosen with an eye to the media and ambient operating conditions to which they will be subjected. Improper application can be detrimental to the gauge, causing failure and possible personal injury and property damage.

RANGE CODE	RANGE
30V	30/0 inHg vac
30V/15	30 inHg vac to 15 psi
30V/30	30 inHg vac to 30 psi
30V/60	30 inHg vac to 60 psi
30V/100	30 inHg vac to 100 psi
30V/300	30 inHg vac to 300 psi
15	0 to 15 psi
30	0 to 30 psi
60	0 to 60 psi
100	0 to 100 psi
160	0 to 160 psi
200	0 to 200 psi
300	0 to 300 psi
400	0 to 400 psi

DIAL SIZE	MODEL NO.	CONNECTION
2½"	PGP-25B-[*]	Back

\* Insert range code from table above.

**Ordering Example:** PGP-25B-100, pressure gauge, commercial panel type, U-clamp mount, 2½" dial, back connection, 0 to 100 psi range.



## WITH DIAPHRAGM SEAL

### PGR Series

- ✓ All-Welded Seal to Gauge Design and Seamless Bourdon Tube Provide Fewer Leak Paths than Competitive Models
- ✓ Liquid Fillable Gauge Case
- ✓ Tamper Resistant Design
- ✓ Compact Size to Fit Applications with Space Constraints

### Applications

- ✓ Chemical and Petrochemical Processing Plants
- ✓ Petrochemical Refineries
- ✓ General Processing such as Food and Pharmaceutical

For high temperature applications up to 204°C (400°F) use with PG-CT2.

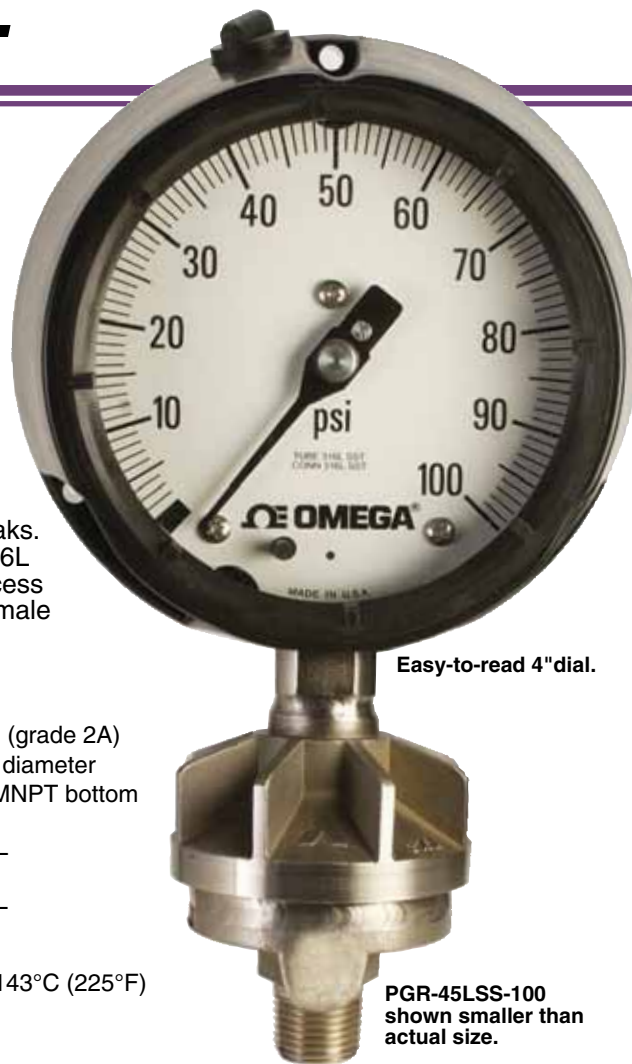


PGR-45LSS-100 shown with PG-CT2 cooling element (sold separately).

OMEGA's PGR Series All-welded gauge and seal offers customers a lower cost alternative to an individual gauge and diaphragm seal with the added advantage of a reduction in potential leaks. The wetted parts are 316L stainless steel. The process connection is a 1/2 NPT male bottom mount.

### SPECIFICATIONS

- Accuracy:** ± 0.5% of span (grade 2A)
- Case Size:** 114 mm (4.5") diameter
- Process Connection:** 1/2 MNPT bottom connection
- Seal Upper Material:** 316L stainless steel
- Diaphragm Material:** 316L stainless steel
- System Fill Type:** DC200
- Operating Temperature:** 143°C (225°F)



Easy-to-read 4" dial.

PGR-45LSS-100 shown smaller than actual size.

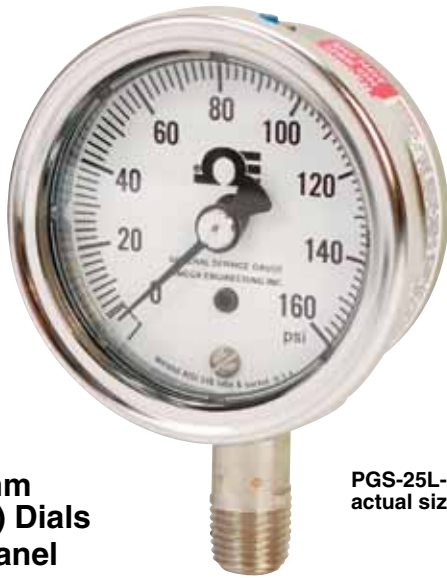
### To Order

PRESSURE RANGE	MODEL NO.
0 to 15 PSIG	PGR-45LSS-15
0 to 30 PSIG	PGR-45LSS-30
0 to 60 PSIG	PGR-45LSS-60
0 to 100 PSIG	PGR-45LSS-100
0 to 160 PSIG	PGR-45LSS-160
0 to 200 PSIG	PGR-45LSS-200
0 to 300 PSIG	PGR-45LSS-300
0 to 400 PSIG	PGR-45LSS-400
0 to 600 PSIG	PGR-45LSS-600
0 to 1000 PSIG	PGR-45LSS-1000
0 to 1500 PSIG	PGR-45LSS-1500
0 to 2000 PSIG	PGR-45LSS-2000
0 to 2300 PSIG	PGR-45LSS-2300
0 to 3000 PSIG	PGR-45LSS-3000

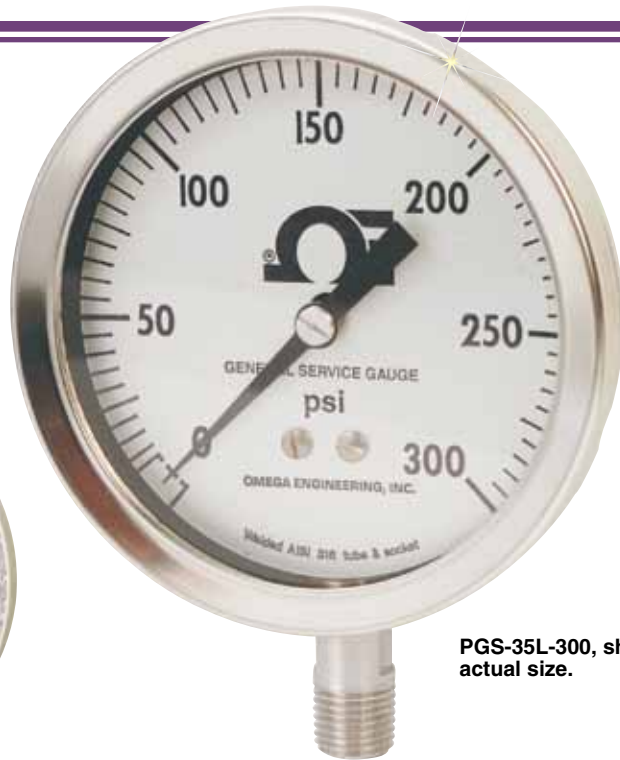
**Ordering Example:** PGR-45LSS-300, 114 mm (4.5") diameter pressure gauge with integral diaphragm seal, 1/2 NPT male bottom process connection, 316L stainless steel wetted parts, 0 to 300 psig pressure range.

# TYPE S

## PGS Series



PGS-25L-160, shown actual size.



PGS-35L-300, shown actual size.

- ✓ 63 and 89 mm (2½ and 3½") Dials
- ✓ Stem and Panel Mount Styles
- ✓ Weather-Resistant Stainless Steel Case
- ✓ 316 SS Wetted Parts
- ✓ 1% FS Accuracy

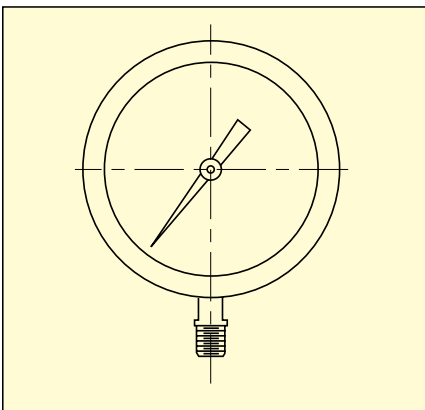
To combat hostile environments, this general service gauge is corrosion, weather, and dust resistant. Mounting versatility,

excellent readability, and sustained accuracy make this stainless steel design a gauge leader. It can be stem, surface, or flush mounted.

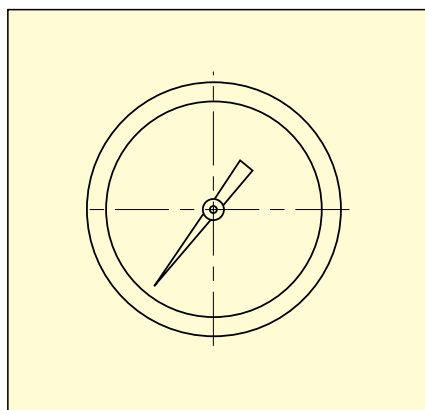
Sustained accuracy and excellent readability are especially important to users of the OMEGA® general service gauge line. Meeting the

requirements of many industrial applications, general service gauges can be used on steam boilers or other pressurized vessels; on pumps and compressors; on many types of industrial machinery; in the chemical, petrochemical, and allied process industries; in power plants; and in pulp and paper mills.

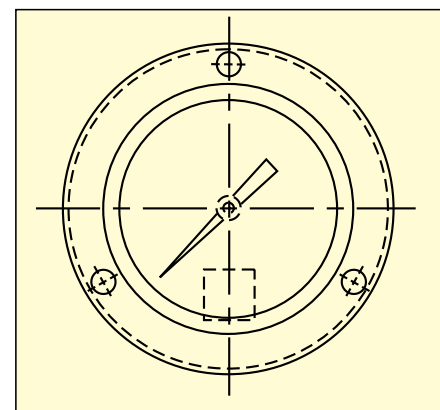
The pressure gauge actuation system in the OMEGA® general service gauge line is the standard 316 SS Bourdon tube system, which is engineered to precise tolerances for repeatability and consistent response to pressure fluctuations.



STYLE L

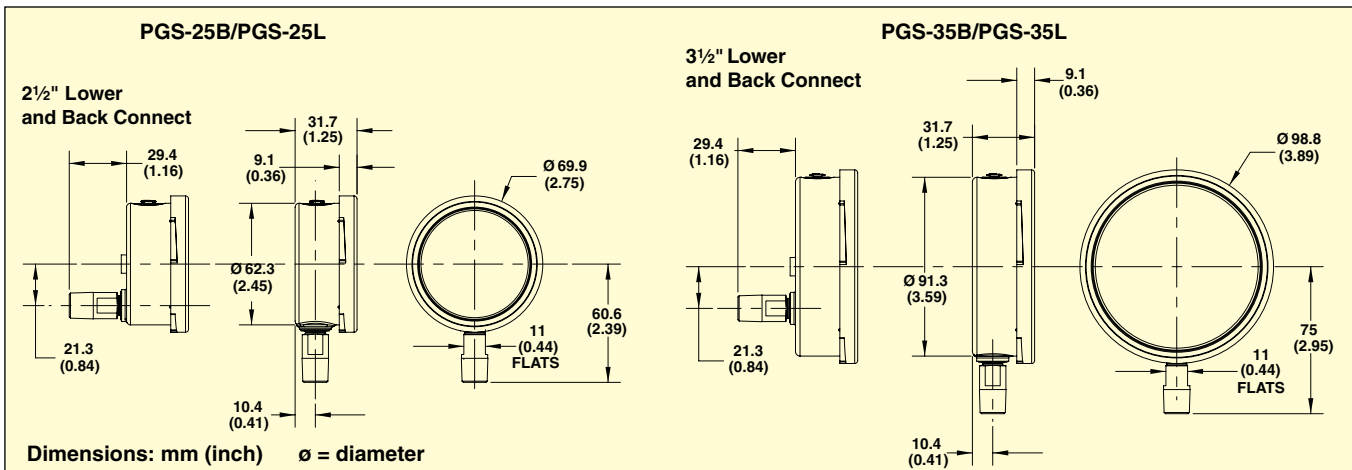


STYLE B



STYLE B  
With Flange Mounting Kit

# TYPE S GENERAL SERVICE GAUGES



## SPECIFICATIONS

**Max Operating Temp:** 66°C (150°F)

**Case:** Polished stainless steel

**Window:** Polycarbonate plastic with Neoprene sealing gasket

**Bourdon Tube:** 316 SS

**Connection:** Back or lower

**Fitting:** 316 SS, 1/4 NPT

**Dial Size:** 63 and 89 mm (2 1/2 and 3 1/2")

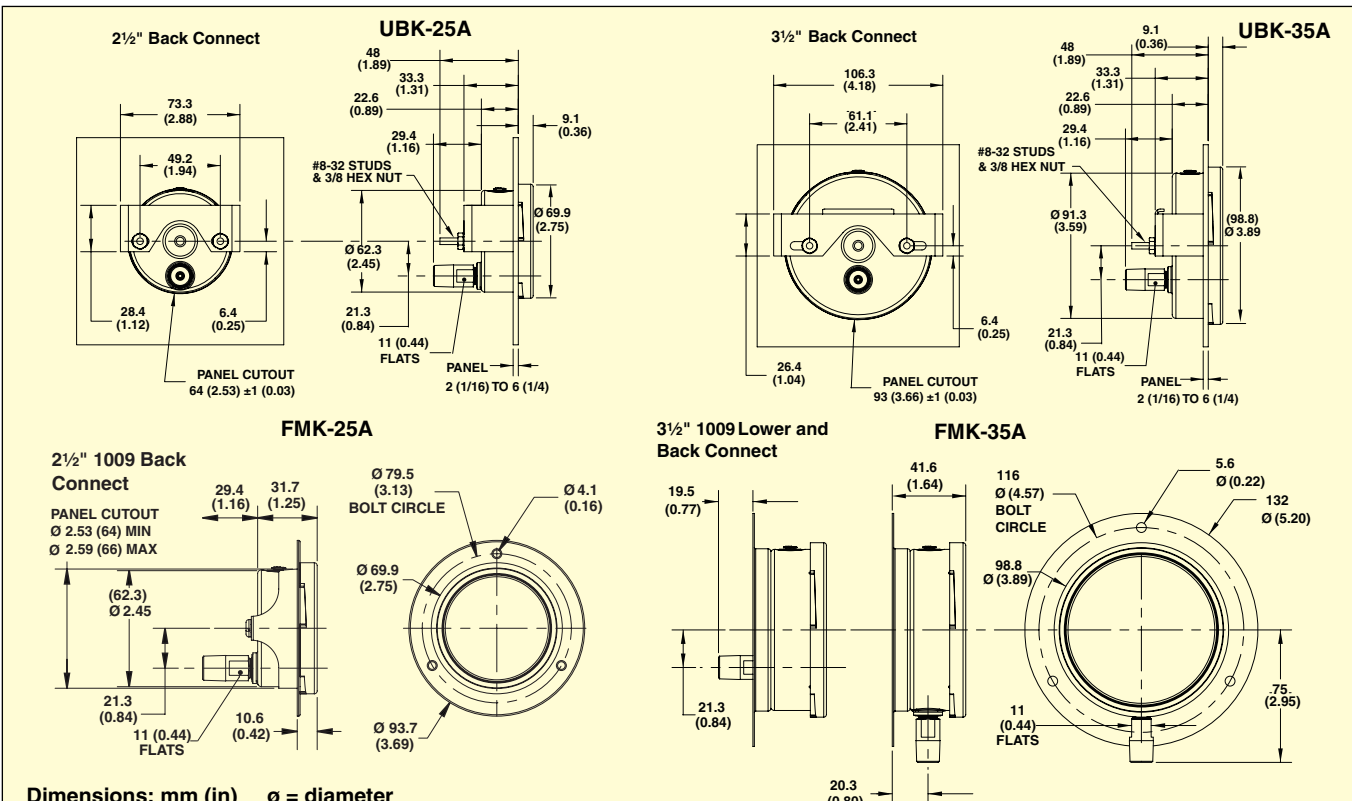
**Mounting:** Stem, flange or "U" bracket

**Accuracy:** 1% full scale

**Warning:** To prevent misapplication, all gauge components should be chosen with an eye to the media and ambient operating conditions to which they will be exposed. Improper application can be detrimental to the gauge, causing failure and possible personal injury and property damage.

## ACCESSORIES FOR TYPE S GAUGES

MODEL NO.	DESCRIPTION
UBK-25A	U-bracket kit for 2 1/2 gauge
UBK-35A	U-bracket kit for 3 1/2 gauge
FMK-25A	Flange mount kit for 2 1/2 gauge
FMK-35A	Flange mount kit for 3 1/2 gauge



# HOW TO ORDER THE GENERAL SERVICE GAUGES

## Standard Ranges—Type S Pressure (psi)



DIAL SIZE	MODEL NO.	CONNECTION
2½"	PGS-25L-[*] (to 600 psi)	Lower
	PGS-25L-[*] (over 600 psi)	Lower
	PGS-25B-[*] (to 600 psi)	Back
	PGS-25B-[*] (over 600 psi)	Back
3½"	PGS-35L-[*] (to 600 psi)	Lower
	PGS-35L-[*] (over 600 psi)	Lower
	PGS-35B-[*] (to 600 psi)	Back
	PGS-35B-[*] (over 600 psi)	Back

\* Insert range code from table below. Comes complete with operator's manual.

**Option:** "X6B", oxygen service cleaning.

**Ordering Example:** PGS-25B-160, pressure gauge, general service type, 2½" dial, back connection, 0/160 psi range.

**Pressure Range:** Select a gauge with a full scale pressure range of approximately twice the normal operating pressure. The maximum operating pressure should not exceed approximately 75% of the full scale range. Failure to select a gauge range within these criteria may ultimately result in fatigue failure of the Bourdon tube.

### Oil-Filled Gauges Also Available:

Type S gauges are available on special order filled with silicone oil. The silicone oil is used to dampen the internal movement of the gauge when it is installed on vibrating equipment. The oil has an operating range of -40 to 66°C (-40 to 150°F). The maximum storage temperature of the gauge is 82°C (180°F).

**To Order:** Add suffix "F" to model number for an additional **cost** for 63 mm (2½") gauges or an additional **cost** for 89 mm (3½") gauges.



PGS-25L-160, shown smaller than actual size.



PGS-25L-100, shown smaller than actual size.

RANGE CODE	RANGE	FIGURE INTERVAL		MINOR GRADUATION	
		INCHES MERCURY	psi	INCHES MERCURY	psi
30V/15	30 inHg vac/0/15 psi	5	3	1	0.5
30V/30	30 inHg vac/0/30 psi	10	5	1	1
30V/60	30 inHg vac/0/60 psi	10	10	2	1
30V/100	30 inHg vac/0/100 psi	10	10	2	1
30V/150	30 inHg vac/0/150 psi	10	20	5	2
30V/300	30 inHg vac/0/300 psi	30	25	5	5

**Note:** For Type S gauges with oxygen cleaning, gauge fill must be Halocarbon, for additional cost.

**Ordering Example:** PGS-25B-60-F, pressure gauge, general service type, 63 mm (2½") dial, 0/60 psi range, silicone oil filled.

RANGE CODE	RANGE	FIGURE INTERVAL	MINOR GRADUATION
15	0/15	1	0.2
30	0/30	5	0.5
60	0/60	5	1
100	0/100	10	1
160	0/160	20	2
200	0/200	20	2
300	0/300	30	5
400	0/400	50	6
600	0/600	50	10
800	0/800	100	10
1000	0/1000	100	10
1500	0/1500	200	20
2000	0/2000	200	20
3000	0/3000	300	50
5000	0/5000	500	50
6000	0/6000	1000	100
7500	0/7500	1000	100
10,000	0/10,000	1000	100
VACUUM			
30V	30 to 0 inHg	5 inHg	0.5 inHg



# POCKET TEST GAUGES

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## 76 mm (3") DIAL AND STAINLESS STEEL CASE

PRESSURE GAUGES

### PGT Series



- ✓ 0.5% FS Accuracy
- ✓ Ideal "Tool Box" Test Gauge
- ✓ All Stainless Steel Construction

#### SPECIFICATIONS

**Accuracy:** 0.5% FS  
**Case:** Polished stainless steel  
**Dial:** White background with mirrored band  
**Pointer:** Adjustable with knife-edge tip  
**Movement:** Stainless steel  
**Element:** 316 Stainless steel  
**Connection:** ¼ NPT



PGT-30L-300 cover included, shown actual size.

#### To Order

MODEL NO.	DIAL DIA. mm (inch)	RANGE	GRADUATIONS FIGURE	
			MAJOR	MINOR
PGT-30L-15	76 (3)	0 to 15	1	0.1
PGT-30L-30	76 (3)	0 to 30	2	0.2
PGT-30L-60	76 (3)	0 to 60	5	0.5
PGT-30L-100	76 (3)	0 to 100	10	1
PGT-30L-150	76 (3)	0 to 150	10	1
PGT-30L-200	76 (3)	0 to 200	20	2
PGT-30L-300	76 (3)	0 to 300	20	2
PGT-30L-400	76 (3)	0 to 400	50	2
PGT-30L-600	76 (3)	0 to 600	50	5
PGT-30L-1000	76 (3)	0 to 1000	100	10

Ordering Examples: PGT-30L-100, pocket test gauge with 0 to 100 psi range, and stainless steel cover.

PGT-30L-300, pocket test gauge with 0 to 300 psi range, and stainless steel cover.

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

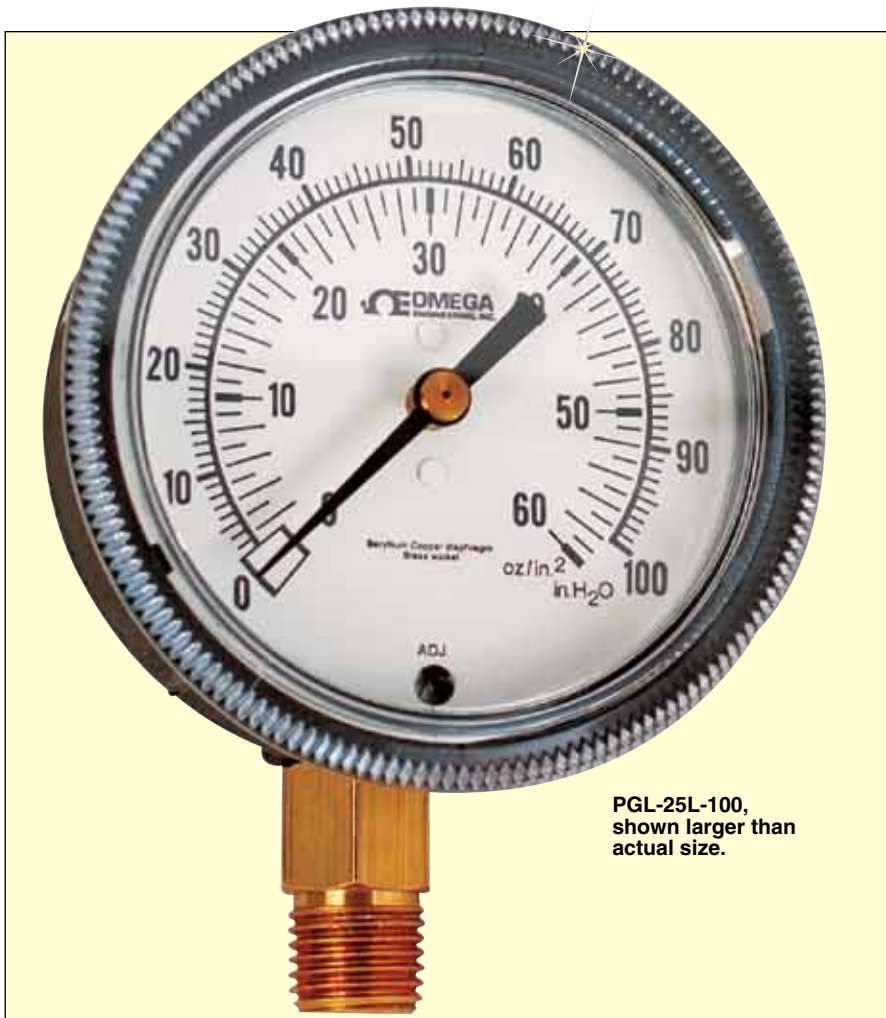
## PGL Series



- ✓ Corrosion-Resistant Bronze Diaphragm
- ✓ 150% Overpressure Protection
- ✓ Recalibration Screw on Dial
- ✓ 2-1-2 ANSI Grade A Accuracy\*

### SPECIFICATIONS

**Dial:** 64 mm (2.5") Dia.  
**Pointer:** Black aluminum  
**Movement:** Brass  
**Element:** Bronze diaphragm  
**Connection:** ¼ NPT  
**Window:** Polycarbonate  
**Media:** Clean, dry, non-corrosive gas only



PGL-25L-100, shown larger than actual size.

To Order						
MODEL NO.	RANGE/GRADUATIONS					
	OUTER SCALE	INNER SCALE	INNER SCALE		OUTER SCALE	
			FIG. INTERVALS	MINOR GRAD.	FIG INTERVALS	MINOR GRAD.
PGL-25L-10	0/10 inH <sub>2</sub> O	—	1	0.1	—	—
PGL-25L-15	0/15 inH <sub>2</sub> O	0/9 oz/in <sup>2</sup>	1	0.2	5	0.2
PGL-25L-35	0/35 inH <sub>2</sub> O	0/20 oz/in <sup>2</sup>	5	0.5	5	0.5
PGL-25L-60	0/60 inH <sub>2</sub> O	0/35 oz/in <sup>2</sup>	5	0.5	5	0.5
PGL-25L-100	0/100 inH <sub>2</sub> O	0/60 oz/in <sup>2</sup>	10	1	10	1
PGL-25L-160	0/160 inH <sub>2</sub> O	—	20	2	—	—
PGL-25L-200	0/200 inH <sub>2</sub> O	—	20	2	—	—
PGL-25L-300	0/300 inH <sub>2</sub> O	—	50	5	—	—

\* 2% first 10%, 1% middle 80%, 2% last 10%.

Note: Cannot be oxygen cleaned.

Ordering Example: PGL-25L-100, low-pressure gauge with 0 to 100 inH<sub>2</sub>O range.

**OMEGA® TEST GAUGES TYPE T**  
 Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)  
**HIGH ACCURACY AND MONEL® WETTED PARTS**  
**4½, 6, 8½" DIALS**

PRESSURE  
GAUGES  
G

**PGT Series**



Optional

**Monel Wetted Parts on All Ranges**

- ✓ High Accuracy: 0.25%
- ✓ Stem and Panel Mount
- ✓ Mirrored Scale
- ✓ Monel® Wetted Parts
- ✓ 4½, 6, or 8½" Dials

The OMEGA® test gauge line consists of highly accurate gauges designed for use in instrument shops, plants of all types, and laboratories throughout industry. Most models provide sustained accuracy to 0.25% full scale. Performance, reliability, and precision measurement are coupled with consistency in meeting the demanding service needs of numerous test gauge applications.

OMEGA® test gauges are used as master reference gauges, in test stand measurements, for production inspection, and for verifying the accuracy of general service gauges. The gauge dial has a stainless steel mirror ring for pointer reflection, which prevents parallax error. This mirror surface reflects the pointer in any position and allows the gauge to be read with great accuracy. The lightweight, friction-adjustable balanced pointer with knife-edge tip ensures reading to the smallest subdivision. The accented dial graduations have a true width equivalent to 0.25% tolerance for quick and accurate gauge checking.

PGT-85L-100, shown smaller than actual size. See next page for dimensions.



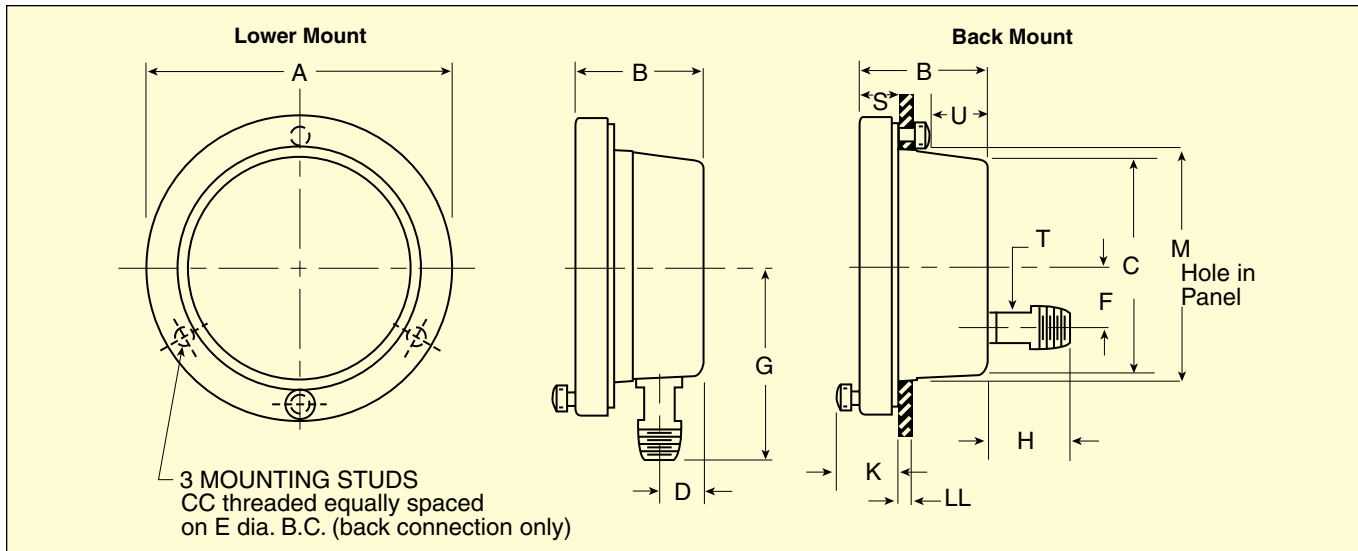
PGT-60B-100, back mount, shown smaller than actual size. See next page for dimensions.

**Warning:** To prevent misapplication, all gauge components should be chosen with an eye to the media and ambient operating conditions to which they will be exposed. Improper application can be detrimental to the gauge, causing failure and possible personal injury and property damage.



PGT-45L-100, stem or flush mount, shown smaller than actual size. See next page for dimensions.

# TEST GAUGES—HIGH ACCURACY WITH MONEL® WETTED PARTS



## Dimensions: mm (inch)

DIAL SIZE	A	B	C	D	E	F	G	H	K	M	S&T	U	CC	LL
4½"	155 (6 <sup>3</sup> / <sub>32</sub> )	73 (2 <sup>7</sup> / <sub>8</sub> )	121 (4 <sup>3</sup> / <sub>4</sub> )	30 (1 <sup>3</sup> / <sub>16</sub> )	137 (5 <sup>3</sup> / <sub>8</sub> )	41 (1 <sup>5</sup> / <sub>8</sub> )	100 (3 <sup>15</sup> / <sub>16</sub> )	35 (1 <sup>3</sup> / <sub>8</sub> )	34 (1 <sup>11</sup> / <sub>32</sub> )	124 (4 <sup>7</sup> / <sub>8</sub> )	16 (5 <sup>8</sup> / <sub>16</sub> )	19 (3 <sup>4</sup> / <sub>8</sub> )	10-24	3 to 13 (1 <sup>8</sup> / <sub>16</sub> to 1 <sup>2</sup> / <sub>16</sub> )
6"	192 (7 <sup>9</sup> / <sub>16</sub> )	73 (2 <sup>7</sup> / <sub>8</sub> )	121 (4 <sup>3</sup> / <sub>4</sub> )	30 (1 <sup>3</sup> / <sub>16</sub> )	178 (7)	41 (1 <sup>5</sup> / <sub>8</sub> )	114 (4 <sup>9</sup> / <sub>10</sub> )	35 (1 <sup>3</sup> / <sub>8</sub> )	34 (1 <sup>11</sup> / <sub>32</sub> )	165 (6 <sup>1</sup> / <sub>2</sub> )	16 (5 <sup>8</sup> / <sub>16</sub> )	19 (3 <sup>4</sup> / <sub>8</sub> )	¼-20	3 to 13 (1 <sup>8</sup> / <sub>16</sub> to 1 <sup>2</sup> / <sub>16</sub> )
8½"	257 (10 <sup>1</sup> / <sub>16</sub> )	73 (2 <sup>7</sup> / <sub>8</sub> )	121 (4 <sup>3</sup> / <sub>4</sub> )	30 (1 <sup>3</sup> / <sub>16</sub> )	244 (9 <sup>5</sup> / <sub>8</sub> )	41 (1 <sup>5</sup> / <sub>8</sub> )	152 (6)	35 (1 <sup>3</sup> / <sub>8</sub> )	34 (1 <sup>11</sup> / <sub>32</sub> )	229 (9)	16 (5 <sup>8</sup> / <sub>16</sub> )	19 (3 <sup>4</sup> / <sub>8</sub> )	¼-20	3 to 13 (1 <sup>8</sup> / <sub>16</sub> to 1 <sup>2</sup> / <sub>16</sub> )

## SPECIFICATIONS

**Case:** Solid aluminum with epoxy-coated black finish

**Window:** Glass

**Movement:** Stainless steel

**Bourdon Tube:** Monel

**Connection:** Monel

**Fitting:** ½ NPT

**Dial:** Externally adjustable, aluminum, white background, black graduations and polished mirror band

### Mounting:

**Stem:** Lower connection

**Panel or Stem:** Back connection

**Accuracy:** 0.25% full scale

### Ring:

**Lower Connection Model:**

Threaded aluminum

**Back Connection Model:** Mounting flange, hinged cover ring secured by knurled screw

**Safety Features:** Solid front with pressure relief back

**Media Temperature:** 66°C (150°F)

[models will withstand continuous temperature up to 177°C (350°F), but there will be discoloration of case and dial face]

**Temperature Compensation:**

0.005% FS/°F



PGT-45L-100, stem or flush mount, shown smaller than actual size. See dimensions above.

### Ordering Example:

1. Pressure Gauge:

Test Type

2. Dial Size: 4½"

3. Connection: Lower (L) or Back (B)

4. Range Code: See page G-62

PGT-45 □ - Range Code



# HOW TO ORDER TYPE T TEST GAUGES

DIAL DIA.	MODEL NO.	CONNECTION
4½	PGT-45L-[*]	Lower
	PGT-45B-[*]	Back
6	PGT-60L-[*]	Lower
	PGT-60B-[*]	Back
8½	PGT-85L-[*]	Lower
	PGT-85B-[*]	Back

[\*] Insert range code from table below. To order cleaned for oxygen service, add suffix "-X6B" to model number for additional cost **Note:** Precision test gauges cannot be oil filled.  
**Ordering Example:** PGT-45B-300, test gauge with 4½" dial, back connection, 0 to 300 psi range.

## Standard psi Ranges Type T

RANGE CODE	RANGE	FIGURE & TAB INTERVAL	4½" DIAL		6" DIAL		8½" DIAL	
			MINOR GRAD	MINOR GRAD	MINOR GRAD	MINOR GRAD		
15	0/15	1	0.05	0.05	0.05	0.05	0.02	0.02
30	0/30	2.5	0.1	0.1	0.1	0.1	0.05	0.05
60	0/60	5	0.2	0.1	0.1	0.1	0.1	0.1
100	0/100	5	0.5	0.2	0.2	0.2	0.2	0.2
150	0/150	10	0.5	0.5	0.5	0.5	0.2	0.2
200	0/200	10	0.5	0.5	0.5	0.5	0.5	0.5
300	0/300	25	1	1	1	1	0.5	0.5
400	0/400	25	1	1	1	1	1	1
600	0/600	50	2	2	2	2	1	1
800	0/800	50	2	2	2	2	2	2
1000	0/1000	50	5	2	2	2	2	2
1500	0/1500	100	5	5	5	5	2	2
2000	0/2000	100	10	5	5	5	5	5
3000	0/3000	250	10	10	10	10	5	5
5000	0/5000	500	20	10	10	10	10	10
10,000	0/10,000	500	50	20	20	20	20	20

## VACUUM

30V	30/0" Hg	2.5	0.1	0.1	0.05
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## COMPOUND

RANGE CODE	RANGE		FIGURE		4½" DIAL		6" DIAL		8½" DIAL	
	INCHES MERCURY	psi	inHg	psi	inHg	psi	inHg	psi	inHg	psi
30V/15	30 inHg Vac	0/15 psi	5	3	0.2	0.1	0.2	0.1	0.1	0.05
30V/30	30 inHg Vac	0/30 psi	5	5	0.5	0.2	0.2	0.1	0.2	0.1
30V/60	30 inHg Vac	0/60 psi	5	5	0.5	0.2	0.5	0.2	0.5	0.2
30V/100	30 inHg Vac	0/100 psi	10	5	1	0.5	0.5	0.5	0.5	0.2
30V/150	30 inHg Vac	0/150 psi	10	10	1	0.5	1	0.5	0.5	0.5
30V/200	30 inHg Vac	0/200 psi	30	20	2	1	1	0.5	1	0.5
30V/300	30 inHg Vac	0/300 psi	30	20	2	1	2	1	1	0.5
30V/400	30 inHg Vac	0/400 psi	30	20	5	2	2	1	2	1

See the following page for custom and metric ranges.

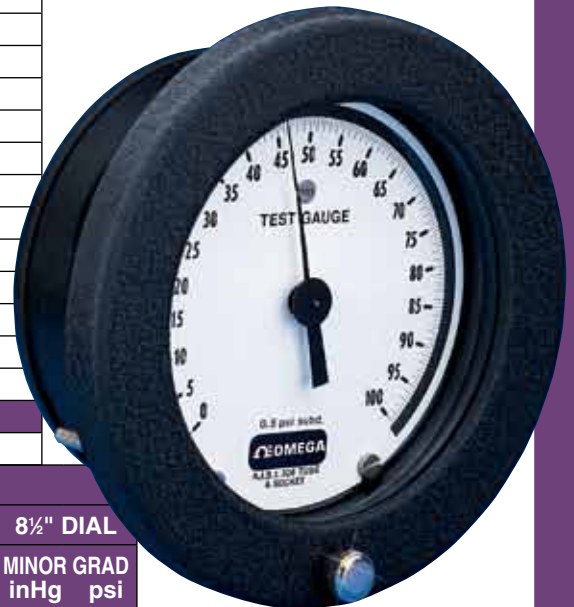
## ACCESSORIES

MODEL NO.	DESCRIPTION
EI-CAL-3-PRESSURE	NIST-traceable calibration
PGT-CC	Universal carrying case for all size test gauges



PRESSURE GAUGES G

PGT-45L-100, stem or flush mount, shown smaller than actual size. See dimensions on page G-61.

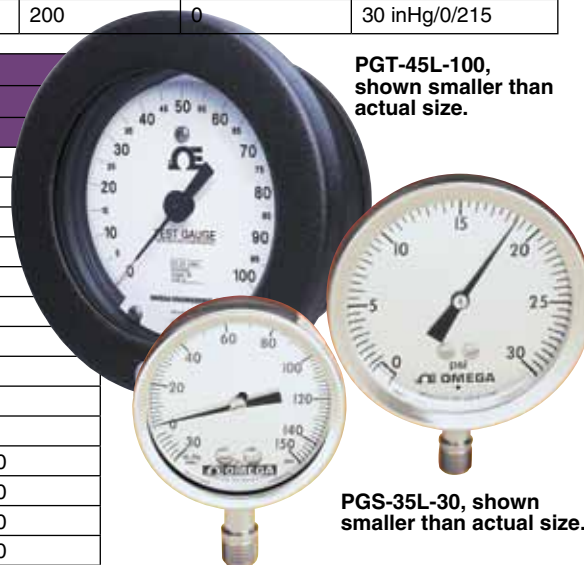


PGT-45B-100, back mount, shown smaller than actual size. See dimensions on page G-61.

# SPECIAL METRIC RANGES FOR TYPE S AND TYPE T GAUGES AVAILABLE ONLINE

TYPE S RANGE		DIAL GRADUATIONS		RANGE	DIAL GRADUATIONS		OUTER SCALE WHEN DUAL RANGE SPECIFIED (psi)
kg/cm <sup>2</sup>	bar	FIGURE INTERVAL	MINOR GRADUATION	kPa	FIGURE INTERVAL	MINOR GRADUATION	
<b>PRESSURE</b>							
0/1	0/1	0.1	0.01	0/100	10	1	0/14
0/1.6	0/1.6	0.2	0.02	0/160	20	2	0/22
0/2.5	0/2.5	0.5	0.05	0/250	50	5	0/35
0/4	0/4	0.5	0.05	0/400	50	5	0/55
0/6	0/6	0.5	0.1	0/600	50	10	0/85
0/10	0/10	1	0.1	0/1000	100	10	0/140
0/16	0/16	2	0.2	0/1600	200	20	0/220
0/25	0/25	5	0.5	0/2500	500	50	0/350
0/40	0/40	5	0.5	0/4000	500	50	0/550
0/60	0/60	5	1	0/6000	500	100	0/850
0/100	0/100	10	1	0/10,000	1000	100	0/1400
0/160	0/160	20	2	0/16,000	2000	200	0/2200
0/250	0/250	50	5	0/25,000	5000	200	0/3500
0/400	0/400	50	5	0/40,000	5000	500	0/5500
0/600	0/600	50	10	0/60,000	5000	500	0/8500
0/1000	0/1000	100	10	0/100,000	10,000	1000	0/14,000
<b>VACUUM</b>							
-1/0	-1/0	0.1	0.01	- 100/0 kPa	10	1	30/0 inHg
<b>COMPOUND</b>							
-1/0/1.5	-1/0/1.5	0.5	0.05	- 100/0/150 kPa	50	5	30 inHg/0/20
-1/0/3	-1/0/3	0.5	0.05	- 100/0/300 kPa	50	5	30 inHg/0/40
-1/0/5	-1/0/5	0.5	0.1	- 100/0/500 kPa	50	10	30 inHg/0/70
-1/0/9	-1/0/9	1	0.1	- 100/0/900 kPa	100	10	30 inHg/0/125
				- 100/0/1500 kPa	200	0	30 inHg/0/215

TYPE T RANGE		
kg/cm <sup>2</sup>	bar	kPa
<b>PRESSURE</b>		
0/1	0/1	0/100
0/1.6	0/1.6	0/160
0/2.5	0/2.5	0/250
0/4	0/4	0/400
0/6	0/6	0/600
0/10	0/10	0/1000
0/16	0/16	0/1600
0/25	0/25	0/2500
0/40	0/40	0/4000
0/60	0/60	0/6000
0/100	0/100	0/10,000
0/160	0/160	0/16,000
0/250	0/250	0/25,000
0/400	0/400	0/40,000
0/600	0/600	0/60,000
<b>VACUUM</b>		
-1/0	-1/0	-100/0
<b>COMPOUND</b>		
-1/0/1.5	-1/0/1.5	-100/0/150
-1/0/3	-1/0/3	-100/0/300
-1/0/5	-1/0/5	-100/0/500
-1/0/9	-1/0/9	-100/0/900



PGT-45L-100, shown smaller than actual size.

PGS-35L-30, shown smaller than actual size.

PGS-25L-150, shown smaller than actual size.

**Ordering Special Ranges:**  
Type S and Type T custom dials are available to fulfill the varying needs of our customers. There is an **additional setup fee and a 5-piece minimum order per customized dial**

**WITH OPTIONAL LOOP POWERED PRESSURE MONITOR**

**PX4200 Series**

- ✓ Silicon on Sapphire Construction
- ✓ High Operating Temperature
- ✓ Titanium Wetted Parts
- ✓ 0.25% Accuracy
- ✓ Optional Plug-On Display with Available Set-point
- ✓ IP65 Enclosure

OMEGA's PX4200 Series Transmitters bring state-of-the-art Silicon-on-Sapphire (SOS) sensor technology to the industrial arena. SOS construction uses very stable solid state silicon strain gages on a Sapphire carrier which is glass bonded to a titanium diaphragm. This combination provides a very durable transducer which has excellent stability and corrosion resistance over a wide temperature range. A loop powered 3½ digit (-1999 to 1999) plug-on display adds versatility to the PX4200 by providing local display plus an available open collector set-point with 60 mA capability.

**SPECIFICATIONS**

**Excitation:** 13 to 36 Vdc with PM1000  
 18 to 36 Vdc reverse polarity protected  
**Load Driving Capacity:** 1150Ω @ 36 Vdc, R maximum = (Vs-13)/20 with PM1000 R maximum = (Vs-18)/20  
**Output:** 4 to 20 mA (2-Wire) with zero and span adjustments  
**Accuracy:** ±0.25% full scale includes linearity, and hysteresis  
**Repeatability:** ±0.1% full scale  
**Long Term Stability (1yr):** ±0.2% full scale  
**Media Temperature:** -50 to 120°C (-58 to 248°F)  
**Ambient Temperature:** -40 to 80°C (-40 to 175°F)  
**Thermal Zero Effect:** <±0.016% full scale/°F  
**Thermal Span Effect:** <±0.016% full scale/°F  
**Humidity:** 95% RH non-condensing  
**Maximum Overpressure:** 200% full scale  
**Sensor:** Silicon on Sapphire  
**Wetted Parts:** Titanium  
**Case Material:** Stainless Steel, IP65  
**Pressure Port:** ¼ NPT male  
**Electrical Connection:** DIN 43650 plug mating connector supplied  
**Response Time:** 10 ms  
**Weight:** 90 g (3.2 oz)

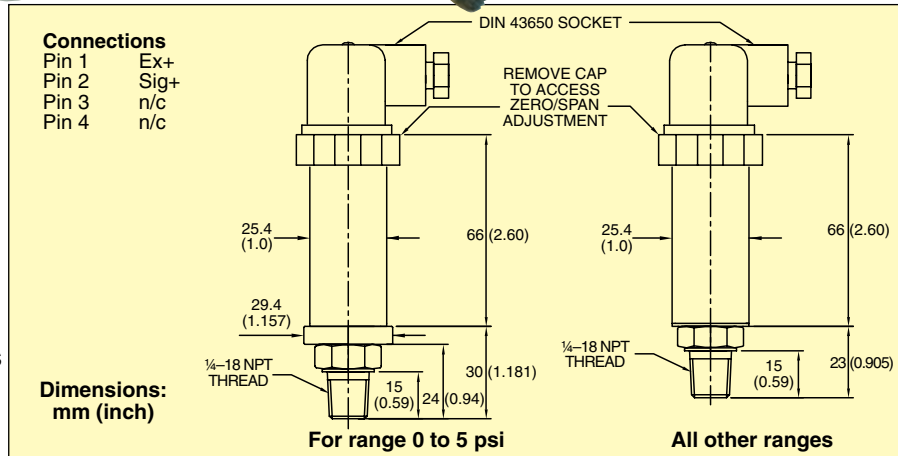
**Vacuum to 6000 psi  
 4 to 20 mA Output**



PX4200-100GI, connector (not shown) is included.



PX4200-150GI, shown smaller than actual size with Plug-on Loop Powered Pressure Monitor PM1001, attached (shipped as 2 pieces).



To Order		
RANGE (psig)	MODEL NO.	COMPATIBLE METERS*
30 inHg to 0	PX4200-30VACI	DP41-E, DP25B-E, PM1000
0 inHg to 30	PX4200-30VACRI	DP41-E, DP25B-E, PM1000
0 to 5	PX4200-005GI	DP41-E, DP25B-E, PM1000
0 to 10	PX4200-010GI	DP41-E, DP25B-E, PM1000
0 to 15	PX4200-015GI	DP41-E, DP25B-E, PM1000
0 to 30	PX4200-030GI	DP41-E, DP25B-E, PM1000
0 to 60	PX4200-060GI	DP41-E, DP25B-E, PM1000
0 to 100	PX4200-100GI	DP41-E, DP25B-E, PM1000
0 to 150	PX4200-150GI	DP41-E, DP25B-E, PM1000
0 to 200	PX4200-200GI	DP41-E, DP25B-E, PM1000
0 to 300	PX4200-300GI	DP41-E, DP25B-E, PM1000
0 to 600	PX4200-600GI	DP41-E, DP25B-E, PM1000
0 to 1K	PX4200-1KGI	DP41-E, DP25B-E, PM1000
0 to 1.5K	PX4200-1.5KGI	DP41-E, DP25B-E, PM1000
0 to 3K	PX4200-3KGI	DP41-E, DP25B-E, DP24-E
0 to 6K	PX4200-6KGI	DP41-E, DP25B-E, DP24-E
PRESSURE MONITOR		
	PM1000	Plug-on display
	PM1001	Plug-on display with single set-point

\* Visit us online for compatible meters.  
 Comes complete with operator's manual.  
**Ordering Example:** PX4200-100GI, 0 to 100 psig range with a 4 to 20 mA current output, and PM1001 display with set-point.

SPECIALTY PRESSURE TRANSDUCERS **B**



# OMEGA DIIBBACE DDECCIDE SMITPUEC

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## IN NEMA 4X (IP66) ENCLOSURES

**Vacuum to 3000 psi**

### PSW-100 Series



- ✓ Ranges from 0.5 inH<sub>2</sub>O to 3000 psi
- ✓ SPDT or DPDT Switches
- ✓ Adjustment Lock
- ✓ Safe, Easy Wiring Access

OMEGA's affordable, general purpose pressure switches offer distinct advantages over most similar-style switches, including DPDT or adjustable deadband switches, as well as a wide selection of adjustable ranges from 0.5 inH<sub>2</sub>O to 3000 psi.

### SPECIFICATIONS

**Approval:** UL listed

**Storage Temperature:** -55 to 70°C (-67 to 158°F)

**Process Temperature:**

**Stainless Steel:**

-55 to 205°C (-67 to 401°F)

**Phosphor Bronze:**

-40 to 150°C (-40 to 302°F)

**Buna-N:** -25 to 95°C (-13 to 203°F)

**Ambient Temperature:** -40 to 70°C (-40 to 158°F), except models PSW-107 to PSW-117 and PSW-134 to PSW-139: -20 to 70°C (-4 to 158°F); setpoint typically shifts less than 1% of range for a 30°C (54°F) ambient temperature change

**Shock:** Setpoint repeats after 15 g, 10 ms duration

**Vibration:** Setpoint repeats after 2.5 g, 5 to 500 Hz

**Setpoint Repeatability:** All models ±1% of adjustable range, except models PSW-118 to PSW-125 and PSW-132 to PSW-133, which are ±1.5%

**Switch Output:** One SPDT or DPDT switch can be wired "normally open" or "normally closed"

**Electrical Rating:** Standard 15 A 125/250/480 Vac resistive

**External Manual Reset:** 15 A 125/250 Vac resistive

**Double Pole Double Throw:** 10 A 125/250 Vac resistive

**Enclosure:** Die-cast aluminum (max 0.6% copper); epoxy-coated blue enclosure, gasketed, complies with NEMA 4X (IP66)

**Weight:** Approximately 0.9 kg (2 lb)

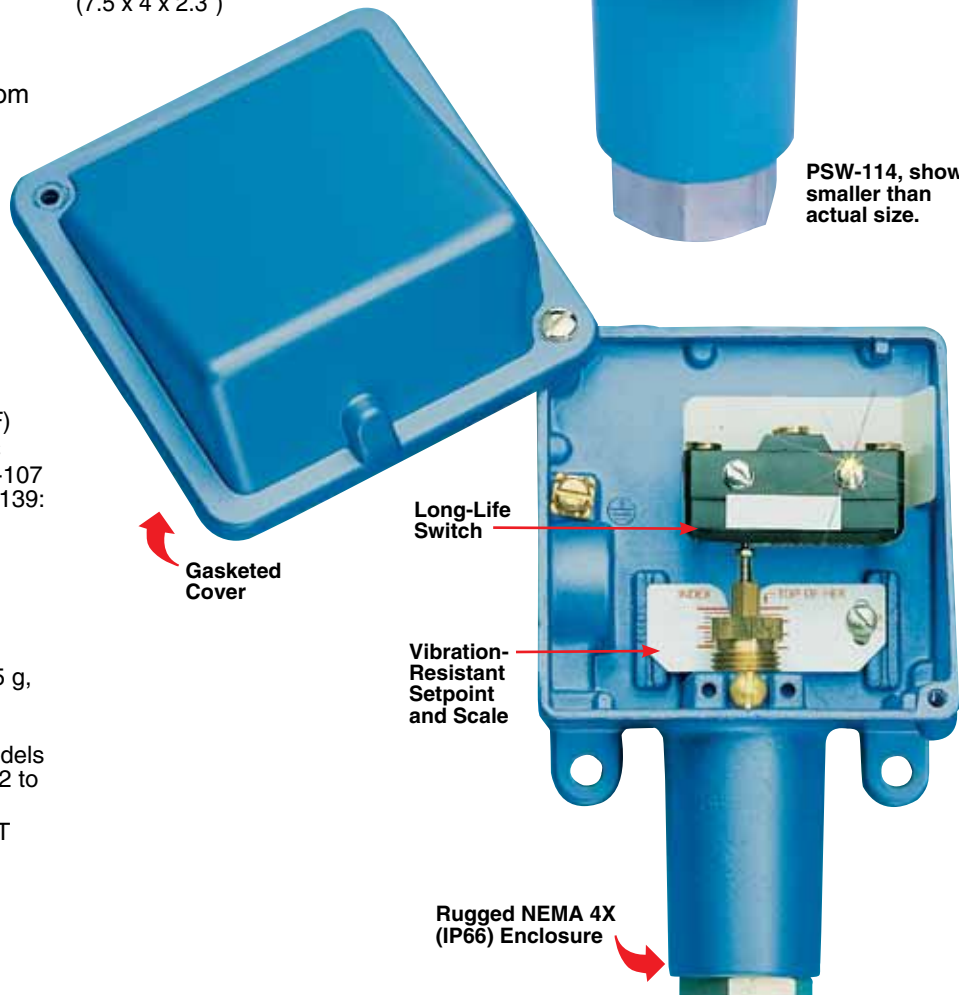
**Electrical Connection:** ½ NPT and two 7/8" diameter knockouts

**Pressure Connection:** See "To Order" on next page

**Dimensions:** 191 max H x 101 W x 60 mm D (7.5 x 4 x 2.3")



PSW-114, shown smaller than actual size.



Gasketed Cover

Long-Life Switch

Vibration-Resistant Setpoint and Scale

Rugged NEMA 4X (IP66) Enclosure



## GENERAL PURPOSE PRESSURE SWITCHES

### To Order

MODEL NO.	ADJUSTABLE RANGE		DEADBAND STANDARD UNITS	PROOF PRESSURE	SWITCH	ADDED FEATURE
	STANDARD	METRIC				
<b>BUNA-N DIAPHRAGM, O-RING AND ¼ FNPT NICKEL-PLATED BRASS PRESSURE CONNECTION</b>						
PSW-107	1.5 to 30 psi	0.1 to 2 bar	1 to 2 psi	600 psi	15 A SPDT	—
PSW-108	3 to 100 psi	0.2 to 6.9 bar	1 to 4 psi	600 psi	15 A SPDT	—
PSW-109	3 to 100 psi	0.2 to 6.9 bar	—	600 psi	15 A SPDT	External Manual Reset
PSW-110	3 to 100 psi	0.2 to 6.9 bar	11.3 Typ.	600 psi	10 A DPDT	DPDT Switch
PSW-111	3 to 100 psi	0.2 to 6.9 bar	3 to 7 psi	600 psi	15 A SPDT	Adjustable Deadband
PSW-112	9 to 300 psi	0.7 to 20.7 bar	1 to 5 psi	600 psi	15 A SPDT	—
PSW-113	9 to 300 psi	0.7 to 20.7 bar	4 to 11 psi	600 psi	15 A SPDT	Adjustable Deadband
PSW-114	15 to 500 psi	1 to 34.5 bar	2 to 8 psi	2500 psi	15 A SPDT	—
PSW-115	15 to 500 psi	1 to 34.5 bar	5 to 12 psi	2500 psi	15 A SPDT	Adjustable Deadband
PSW-116	15 to 500 psi	1 to 34.5 bar	—	2500 psi	15 A SPDT	External Manual Reset
PSW-117	30 to 1000 psi	2 to 69 bar	3 to 20 psi	2500 psi	15 A SPDT	—
<b>BUNA-N DIAPHRAGM, O-RING AND ½ FNPT ALUMINUM PRESSURE CONNECTION</b>						
PSW-134	300 inWC vac to 0 inWC	747.24 to 0 mbar	0.2 to 8 inWC	100 psi	15 A SPDT	—
PSW-135	10 inWC vac to 10 inWC	-24.91 to 24.91 mbar	0.1 to 0.6 inWC	100 psi	15 A SPDT	—
PSW-136	50 inWC vac to 50 inWC	-124.54 to 124.54 mbar	0.1 to 3.0 inWC	100 psi	15 A SPDT	—
PSW-137	0.5 to 5 inWC	1.25 to 12.45 mbar	0.1 to 0.3 inWC	100 psi	15 A SPDT	—
PSW-138	2.5 to 50 inWC	6.23 to 124.54 mbar	0.1 to 0.8 inWC	100 psi	15 A SPDT	—
PSW-139	10 to 250 inWC	24.91 to 622.70 mbar	0.1 to 6.0 inWC	100 psi	15 A SPDT	—
<b>316 SS DIAPHRAGM AND ½ FNPT PRESSURE CONNECTION</b>						
PSW-104	1 to 20 psi	70 mbar to 1.4 bar	0.1 to 1 psi	500 psi	15 A SPDT	—
PSW-105	2 to 50 psi	140 mbar to 3.4 bar	0.1 to 1.5 psi	500 psi	15 A SPDT	—
PSW-118	5 to 30 psi	0.4 to 2 bar	1 to 3 psi	2500 psi	15 A SPDT	—
PSW-120	10 to 100 psi	0.7 to 6.9 bar	1 to 8 psi	2500 psi	15 A SPDT	—
PSW-121	15 to 300 psi	1 to 20.7 bar	3 to 18. psi	2500 psi	15 A SPDT	—
PSW-123	15 to 300 psi	1 to 20.7 bar	3 to 18 psi	2500 psi	15 A SPDT	Adjustable Deadband
PSW-124	20 to 500 psi	1.4 to 34.5 bar	4 to 30 psi	2500 psi	15 A SPDT	—
PSW-125	80 to 1700 psi	5.5 to 117 bar	5 to 120 psi	2500 psi	15 A SPDT	—
<b>PHOSPHOR BRONZE BELLOWS AND ¼ FNPT BRASS PRESSURE CONNECTION</b>						
PSW-127	30 inHg vac to 0	-1 to 0 bar	1 to 2 inHg	0 psi	15 A SPDT	—
PSW-128	30 inHg vac to 0	-1 to 0 bar	3 to 6.5 inHg	0 psi	10 A DPDT	DPDT Switch
PSW-129	4 to 200 psi	0.3 to 13.7 bar	1 to 4 psi	250 psi	15 A SPDT	—
<b>316 SS BELLOWS AND ¼ FNPT PRESSURE CONNECTION</b>						
PSW-130	15 to 200 psi	1 to 13.7 bar	1 to 3 psi	250 psi	15 A SPDT	—
PSW-131	25 to 500 psi	1.8 to 34.5 bar	1.5 to 5 psi	575 psi	15 A SPDT	—
PSW-132	100 to 1700 psi	6.9 to 11.7 bar	9 to 40 psi	2500 psi	15 A SPDT	—
<b>303 SS PISTON, BUNA N O-RING AND ¼ FNPT SS PRESSURE CONNECTION</b>						
PSW-133	125 to 3000 psi	8.6 to 206 bar	40 to 250 psi	10000 psi	15 A SPDT	—

\* **Note:** The use of metallic diaphragms where higher pressures, shock or heavy cycling is expected should be avoided. When choosing a pressure range, it is recommended that the switch operate in the middle 80% of its adjustable range. Switching may not be accurate in the lower and upper 10% of the range.

Switches come complete with operator's manual.

**Ordering Example:** PSW-115, Buna-N diaphragm, ¼ brass FNPT thread, range of 50 to 500 psi and adjustable deadband.

## Digital, Miniature Pressure Switch with Display

- **Compact, 1" cube that fits practically anywhere**
- **8 selectable pressure units**
- **Two fully-programmable PNP digital outputs**
- **Bright, multi-colored, 4-digit display and LED indicators for high readability**
- **Two pressure port locations - one horizontal and one vertical - for easy installation**



### Overview

These miniature pressure switches provide PNP output switch control for non-corrosive gasses. The PSW-1110 features a bright 4-digit, 7-segment, programmable display that makes it easy to see the current pressure.

The ultra-compact size and multiple pressure port orientations make this unit easy to install practically anywhere. There are both a horizontally and vertically oriented pressure ports.

The PNP outputs are fully programmable, and the user can also select one of eight pressure units: psi, bar, kg/cm<sup>2</sup>, KPa, MPa, inHg, cmHg, and Atm. There are four options for output modes. The main options are hysteresis and window modes, and each of those have high and low methods of actuation.

The PSW-1110 is also available with the following options: additional pressure ranges, NPN outputs, alternate pressure port thread types, and with liquid media compatibility. Contact us if you would like to learn more about these options.

### Specifications

<b>Accuracy</b>	± 1% FS
<b>Repeatability</b>	± 1% FS
<b>Response Time</b>	135 ms
<b>Burst Pressure</b>	300 psi
<b>Compatible Media</b>	Non-Corrosive Gasses
<b>Supply Voltage</b>	10-30 Vdc
<b>Electrical Connection</b>	20" Cable with Flying Leads
<b>Current Consumption</b>	≤80 mA
<b>Output</b>	PNP
<b>Media Temperature Range</b>	0 to 100°C (32 to 212°F)
<b>Temperature Accuracy</b>	± 2°C (± 4°F)
<b>Operating Temperature</b>	-10 to 60°C (14 to 140°F)
<b>Storage Temperature</b>	-20 to 70°C (-4 to 158°F)
<b>Operating &amp; Storage Humidity</b>	35 to 85% RH
<b>Process Connection Material</b>	Zinc Alloy
<b>Enclosure Materials</b>	ABS
<b>Weight</b>	80g
<b>Shock</b>	100g (980 m/s <sup>2</sup> )
<b>Acceleration</b>	10g (98 m/s <sup>2</sup> )
<b>Vibration</b>	10 to 500 Hz freq., 0.06" (1.5 mm) amplitude

## Digital, Miniature Pressure Switch with Display

### Operation Modes

There are two main types of output modes for the digital output - hysteresis mode and windowed mode.

**Hysteresis mode** has two types of actuations, active low and active high, as shown on the left side of the Output Modes figure below.

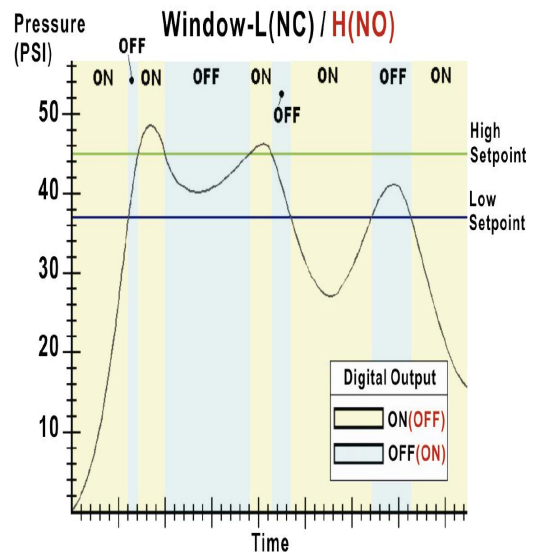
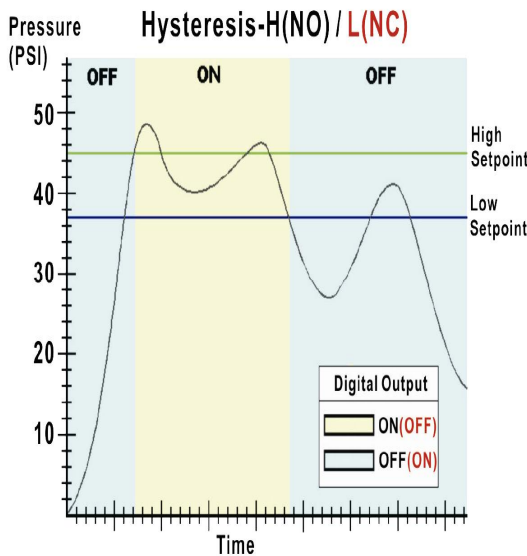
**Active Low:** Turns the output off when the pressure has reached the high setpoint (green line). The output remains off until the pressure has dropped below the low setpoint (blue line).

**Active High:** Turns the output on when the pressure has reached the high setpoint. The output remains on until the pressure has dropped below the low setpoint.

**Windowed mode** also has two types of actuations, active low and active high, as shown on the right side of the Output Modes figure below.

**Active Low:** Turns the output off when the pressure is between the high setpoint (green line) and the pressure low setpoint (blue line).

**Active High:** Turns the output on when the pressure is between the high setpoint (green line) and the pressure low setpoint (blue line).



## Digital, Miniature Pressure Switch with Display

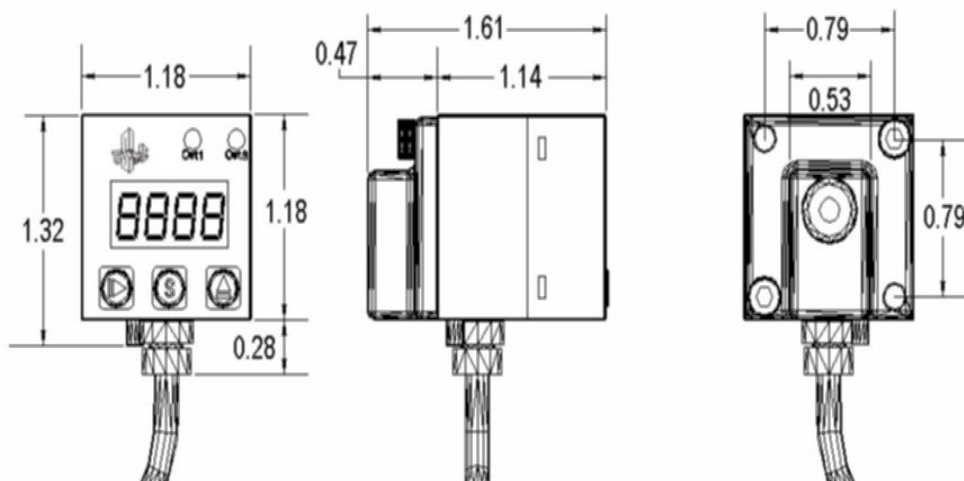
### Accessories

Our product accessories section contains a selection of mounting accessories. Vertical or horizontal brackets are available, made for easy mounting to another surface; the sensor has two threaded mounting holes on the back side that either bracket screws into. Panel mounts are also offered and suitable for a wide range for the panel cutout due to spring loaded clips molded into the housing.

### Additional Options

The PSW-1110 is also available with the following options: additional pressure ranges, NPN outputs, alternate pressure port thread types, and with liquid media compatibility. If you would like to learn more about these options or require further customization of this design, contact us using the chat function or by emailing us at [pressure@omega.com](mailto:pressure@omega.com).

### Dimensional Drawing





# COMPACT VIBRATION-RESISTANT SWITCHES

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## FOR CLASS 1 HAZARDOUS LOCATIONS

8 to 6000 psi

### PSW12 Series



- ✓ Compact Stainless Steel Construction
- ✓ Belleville Technology for Long Life, Vibration Resistance, and Stability
- ✓ Easy Field Setting and Adjustment
- ✓ SPDT Sealed Switches
- ✓ Strain Relief
- ✓ 1.8 m (72") Lead Wires
- ✓ Mounting Bracket for Retrofit Applications

OMEGA'S PSW12 offers reliability, repeatability, and durability in a compact design. This switch is rack mountable and has an accessible adjustment when installed. Snap-action Belleville spring design contributes to a long, stable life and to vibration resistance. An optional mounting bracket provides easy retrofit, and an optional cover lock adds security. Ranges are from 8 to 6000 psi (0.6 to 414 bar).

### SPECIFICATIONS

**Approval:** UL listed, cUL certified; Class I, Groups A, B, C, and D; Class II, Groups E, F, and G; Class III

**Storage Temperature:** -50 to 80°C (-58 to 176°F)

**Process Temperature:**

**Stainless Steel Diaphragm:** -17 to 160°C (0 to 320°F)

**Polyimide Diaphragm:** -28 to 93°C (-20 to 200°F)

**Ambient Temperature:** -50 to 80°C (-58 to 176°F); setpoint typically shifts less than 1% of range for a 28°C (50°F) ambient temperature change.

**Shock:** Setpoint repeats after 75 g, 10 ms duration

**Vibration:** Setpoint repeats after 15 g, 10 to 2000 Hz

**Setpoint Repeatability:** ±1% of adjustable range

**Switch Output:** 1 or 2 SPDT, factory-sealed lead wires; mechanical contact life: 10 million cycles

**Electrical Ratings:** 5 A @ 250 Vac, 5 A resistive and 3 A inductive @ 28 Vdc; silver contacts

**Enclosure:** 300 stainless steel; NEMA 4X, 7, 9 and IP66

**Weight:** Approximately 0.34 kg (12 oz)

**Electrical Connection:** ½ MNPT with 1.8 m (72") lead wires

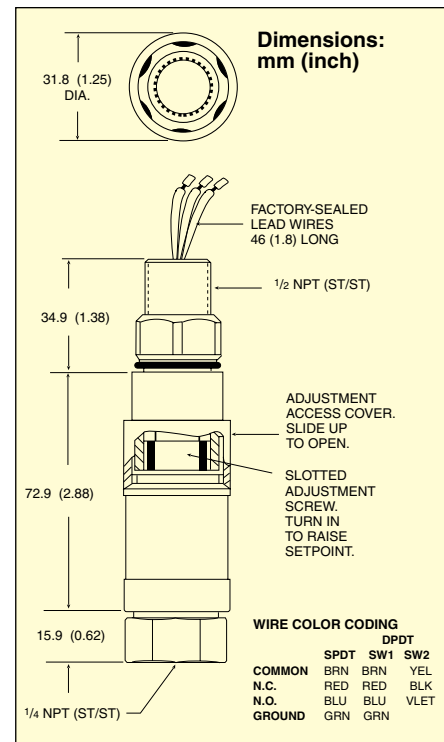
**Pressure Connection:** ¼ FNPT

**Rugged Design**

Setpoint adjustment with cover open (up)

Belleville assembly (inside)

PSW12T-BS, shown actual size.



# COMPACT SWITCHES

shown smaller than actual size.



See switch accessories, visit us online for audible alarms and relay modules.

PRESSURE SWITCHES H

## To Order

MODEL NO.	ADJUSTABLE RANGE				DEADBAND				MAXIMUM WORKING PRESSURE		PROOF PRESSURE		SWITCH
	FALL/LOW		RISE/HIGH		LOW		HIGH		psi	bar	psi	bar	
	psi	bar	psi	bar	psi	bar	psi	bar					
<b>¼ FNPT 316 SS PRESSURE CONNECTION, PFA-COATED POLYIMIDE DIAPHRAGM, BUNA N O-RING, 1/8" ORIFICE, SINGLE 5 A SPDT SWITCH</b>													
PSW12T-AS	8	0.6	30	2.1	2	0.1	6	0.4	600	41	1000	69	Single
PSW12T-BS	15	1.0	55	3.8	3	0.2	8	0.6	600	41	1000	69	Single
PSW12T-CS	30	2.1	170	11.7	5	0.3	15	1.0	600	41	1000	69	Single
PSW12T-DS	100	6.9	370	25.5	15	1.0	50	3.4	600	41	1000	69	Single
PSW12T-ES	200	13.8	700	48.3	40	2.8	90	6.2	1500	103	3000	206	Single
PSW12T-FS	400	27.6	1500	103.0	100	6.9	250	17.2	3000	206	4500	309	Single
PSW12T-GS	1000	68.9	3200	220.6	100	6.9	500	34.5	6000	414	10,000	689	Single
PSW12T-HS	2000	137.9	6000	414.0	400	27.6	800	55.2	8000	551	10,000	689	Single
<b>¼ FNPT 316 SS PRESSURE CONNECTION AND DIAPHRAGM, FKM O-RING, 1/8" ORIFICE, SINGLE 5 A SPDT SWITCH</b>													
PSW12V-AS	9	0.6	35	2.4	2	0.1	7	0.5	600	41	1000	69	Single
PSW12V-BS	25	1.7	65	4.5	3	0.2	10	0.7	600	41	1000	69	Single
PSW12V-CS	50	3.5	150	10.3	5	0.3	15	1.0	600	41	1000	69	Single
PSW12V-DS	100	6.9	350	24.1	15	1.0	50	3.4	600	41	1000	69	Single
PSW12V-ES	250	17.2	700	48.3	40	2.8	95	6.6	1500	103	3000	206	Single
PSW12V-FS	400	27.6	1500	103.0	100	6.9	300	20.7	3000	206	4500	309	Single
PSW12V-GS	1000	68.9	3200	220.6	100	6.9	500	34.5	6000	414	10,000	689	Single
PSW12V-HS	2000	137.9	6000	414.0	400	27.6	1000	69	8000	551	10,000	689	Single
<b>¼ FNPT 316 SS PRESSURE CONNECTION, PFA-COATED POLYIMIDE DIAPHRAGM, BUNA-N O-RING, 1/8" ORIFICE, DUAL 5 A SPDT SWITCH</b>													
PSW12T-AD	8	0.6	30	2.1	2	0.1	6	0.4	600	41	1000	69	Dual
PSW12T-BD	15	1.0	55	3.8	3	0.2	8	0.6	600	41	1000	69	Dual
PSW12T-CD	30	2.1	170	11.7	5	0.3	15	1.0	600	41	1000	69	Dual
PSW12T-DD	100	6.9	370	25.5	15	1.0	50	3.4	600	41	1000	69	Dual
PSW12T-ED	200	13.8	700	48.3	40	2.8	90	6.2	1500	103	3000	206	Dual
PSW12T-FD	400	27.6	1500	103.0	100	6.9	250	17.2	3000	206	4500	309	Dual
PSW12T-GD	1000	68.9	3200	220.6	100	6.9	500	34.5	6000	414	10,000	689	Dual
PSW12T-HD	2000	137.9	6000	414.0	400	27.6	800	55.2	8000	551	10,000	689	Dual
<b>¼ FNPT 316 SS PRESSURE CONNECTION AND DIAPHRAGM, FKM O-RING, 1/8" ORIFICE, DUAL 5 A SPDT SWITCH</b>													
PSW12V-AD	9	0.6	35	2.4	2	0.1	7	0.5	600	41	1000	69	Dual
PSW12V-BD	25	1.7	65	4.5	3	0.2	10	0.7	600	41	1000	69	Dual
PSW12V-CD	50	3.5	150	10.3	5	0.3	15	1.0	600	41	1000	69	Dual
PSW12V-DD	100	6.9	350	24.1	15	1.0	50	3.4	600	41	1000	69	Dual
PSW12V-ED	250	17.2	700	48.3	40	2.8	95	6.6	1500	103	3000	206	Dual
PSW12V-FD	400	27.6	1500	103.0	100	6.9	300	20.7	3000	206	4500	309	Dual
PSW12V-GD	1000	68.9	3200	220.6	100	6.9	500	34.5	6000	414	10,000	689	Dual
PSW12V-HD	2000	137.9	6000	414.0	400	27.6	1000	69	8000	551	10,000	689	Dual

Comes complete with operator's manual.

Ordering Examples: **PSW12T-DS-GND**, single 5 A SPDT switch with PFA-coated diaphragm and external grounding screw.

**PSW12V-ED**, dual 5 A SPDT switch with 316 SS diaphragm and FKM O-ring.

## ACCESSORIES

MODEL NO.	DESCRIPTION
PSW12-CL	Cover lock
PSW12-MB	Mounting

# PRESSURE SWITCHES

6 to 90 psid Ranges

## PSW-150 Series



See switch accessories online for audible alarms and relay modules.

- ✓ 15 A SPDT
- ✓ Easy Adjustments
- ✓ Vibration-Resistant Setpoints

PSW-150 Series differential switches are ideally suited for laboratory and industrial applications in which a rugged, repeatable, and dependable switch is required. For ease of installation, ports are tagged high and low, and the setpoint adjusts over the entire range.

**Enclosure:** Cast aluminum, gray enamel finish  
**Electrical:** 22 mm (7/8") Dia. conduit port, screw terminals  
**Pressure Port:** 1/4 FNPT  
**Weight:** 0.9 kg (2 lb)

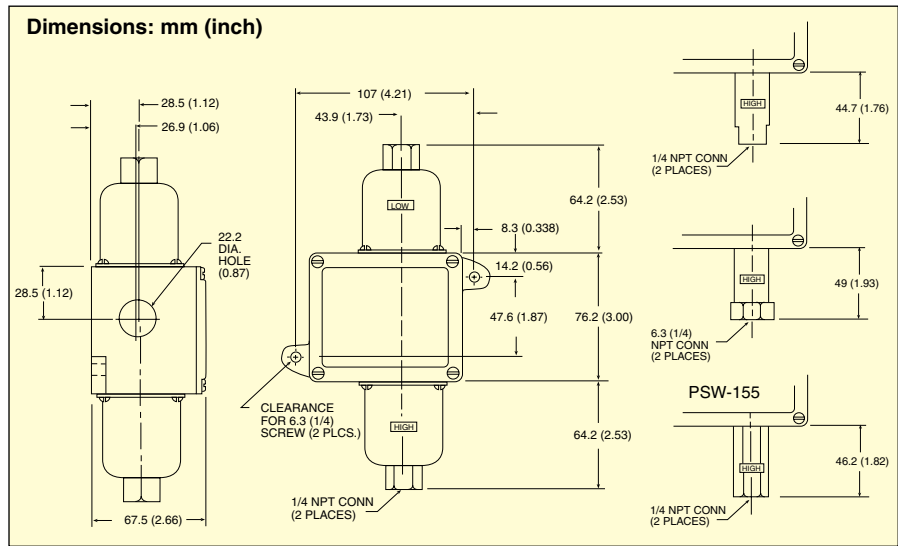


PSW-154, shown smaller than actual size.

PRESSURE SWITCHES **H**

## SPECIFICATIONS

- Approval:** UL listed  
**Repeatability:** ±1% range  
**Ambient Switch Shift:** 0.04% range/°C  
**Storage Temperature:** -55 to 75°C (-67 to 167°F)  
**Ambient Switch Temp:** -40 to 70°C (-40 to 158°F)  
**Process Temp:**  
 Brass and Phosphor Bronze: 120°C (248°F)  
 316 SS: 260°C (500°F)  
**Shock:** Setpoint repeats after 15 g at 10 ms duration  
**Vibration:** Setpoint repeats after 2.5 g at 5 to 500 Hz  
**Output:** 1 SPDT, 15 A, 125/250/480 Vac



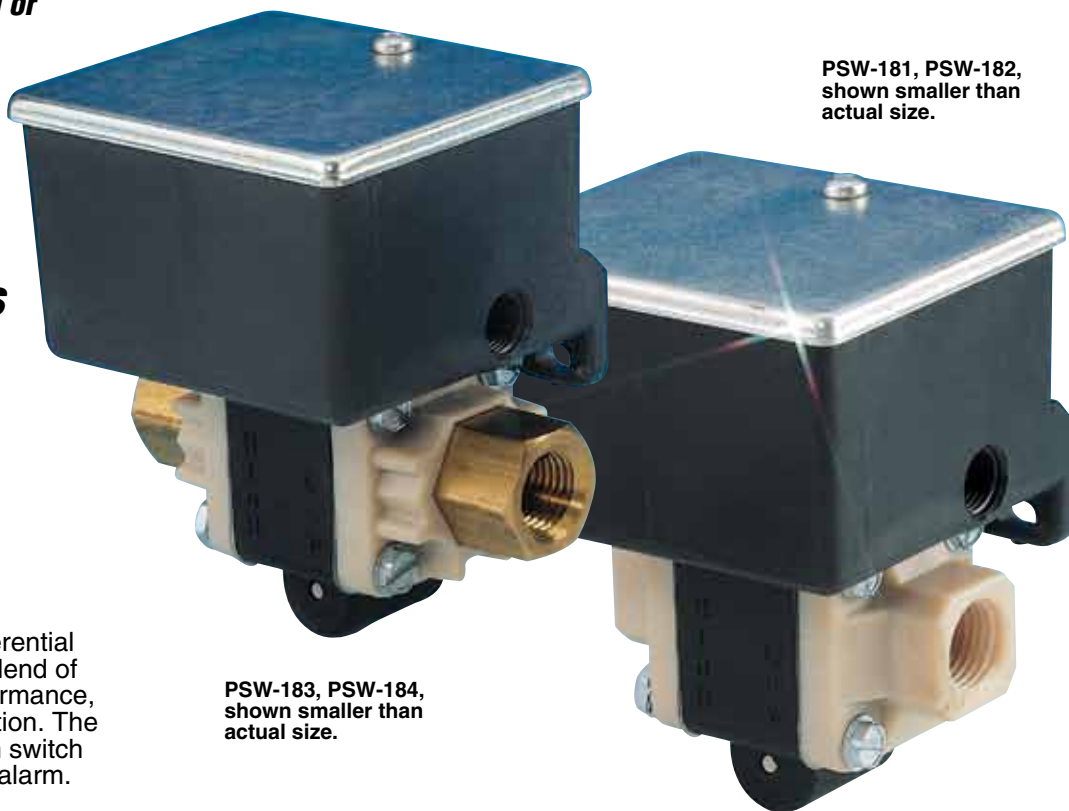
To Order					
MODEL NO.	PRESSURE RANGE	DEADBAND	PROOF PRESSURE	STATIC PRESSURE	BELLOWS MATERIAL
PSW-151	0 to 6 psid	0.1 to 0.4	6 psi	30 inHg vac to 30 psi	Brass
PSW-152	0 to 25 psid	0.6 to 1.0	25 psi	30 inHg vac to 110 psi	Phosphor bronze
PSW-153	0 to 40 psid	0.3 to 0.7	40 psi	30 inHg vac to 180 psi	Brass
PSW-154	0 to 70 psid	2.0 to 4.0	70 psi	30 inHg vac to 350 psi	316 SS
PSW-155	10 to 90 psid	2.0 to 4.0	90 psi	30 inHg vac to 200 psi	Phosphor bronze

Comes complete with operator's manual.  
 Ordering Example: PSW-155, phosphor bronze bellows with range of 10 to 90 psid.

# PRESSURE SWITCHES/ALARMS

**1 to 45 psi**  
**Models with 5 A Switch or**  
**85 dB Audible Alarm**

## PSW-180 Series



PSW-181, PSW-182,  
shown smaller than  
actual size.

PSW-183, PSW-184,  
shown smaller than  
actual size.

The PSW-180 Series differential pressure switch offers a blend of small size, excellent performance, and environmental protection. The PSW-180 is available with switch contacts or as an audible alarm.

### SPECIFICATIONS

**Switch:** SPDT rated at 5 A at 250/125 Vac, 5 A at 30 Vdc, gold-clad contacts

**Audible Alarm:** Internal 9 Vdc battery powered, continuous tone 85 dB (battery included)

**Repeatability:** 1% of span

**Ambient Temperature:**

**Storage:** -30 to 80°C (-22 to 176°F)

**Operating:** 0 to 70°C (32 to 158°F)

**Max Media Temp:**

95°C (203°F) @ 100 psi

**Vibration:** MIL STD 810C, 2.5 g  
5 to 500 cps

**Shock:** 15 g, 10 ms duration

**Working Pressure:**

0 to 150 psid at up to 70°C (158°F)  
air temperature

**Differential Proof Press.:** 150 psid at  
up to 70°C (158°F) air temperature

**Enclosure:**

NEMA 4 (IP65), reinforced polyester  
body, zinc-plated steel cover with  
neoprene gasket, terminal block wiring

Not suitable for vacuum  
on low side (piston not  
attached to diaphragm).

**Adjustment:** Multiturn screw,  
accessible from outside enclosure

**Pressure Port:**

¼ FNPT brass, ¼ NPSF polysulfone

**Dimensions:**

**Polysulfone:** 70 W x 60 D x 89 mm H  
(2.75 x 2.38 x 3.5")

**Brass:** 80 W x 60 D x 89 mm H  
(3.13 x 2.38 x 3.5")

**Weight:** Approx. 165 g (5.8 oz)

### To Order

¼ NPSF POLYSULFONE	¼ FNPT BRASS	ADJUSTABLE RANGE (psid)				SWITCH	TYPICAL DEADBAND
		ON FALL		ON RISE			
		MIN	MAX	MIN	MAX		
<b>MODELS WITH 5 AMP SWITCH</b>							
PSW-181	PSW-183	1.0	9.0	2.0	10.0	5 A SPDT	0.75
PSW-182	PSW-184	4.0	43.5	5.5	45.0	5 A SPDT	1.0
<b>MODELS WITH 85 dB AUDIBLE ALARM</b>							
PSW-186	PSW-188	4.0	43.5	5.5	45.0	N/A	1.0

Comes complete with operator's manual.

**Ordering Example:** PSW-186, differential pressure switch with polysulfone process connection and internal audible alarm.



# ECONOMICAL BRASS PRESSURE SWITCHES

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

10 to 3000 psi

See switch accessories online for audible alarms and relay modules.



PSW-196, shown actual size.

PRESSURE SWITCHES  
H

## PSW-190 Series



The PSW-190 Series cylindrical pressure switch has an epoxy-sealed electrical termination. This rugged design enables the switch to withstand harsh environments.

### SPECIFICATIONS

**Switch:** SPDT, 5 A at 250 Vac or 30 Vdc gold-clad silver contacts for loads down to 5 mA at 6 Vdc, 2 mA at 12 Vdc and 1 mA at 24 Vdc

**Operating Ambient Range:** -20 to 75°C (-4 to 167°F) with Buna-N construction; -20 to 80°C (-4 to 176°F) with FKM or EPDM construction

**Media Temp:** 70°C (158°F) with Buna-N sensor; 120°C (248°F) with FKM sensor

**Wetted Parts:** Brass, O-ring and diaphragm

#### Repeatability:

PSW-191, 192, 195 and 196: ±1%  
PSW-193, 194, 197 and 198: ±1.5%

**Shock:** Setpoint repeats after 50 g 10 ms duration

**Vibration:** Setpoint repeats after 10 g, 5 to 500 cps

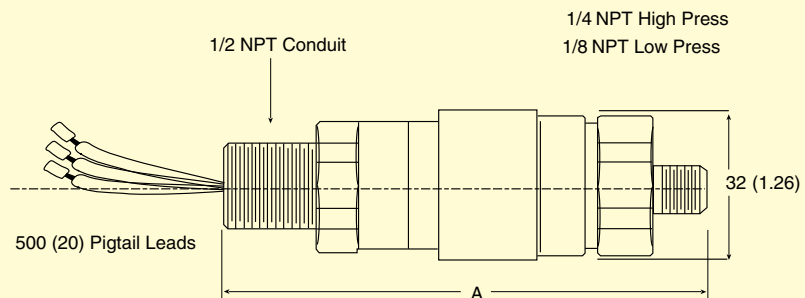
**Enclosure and Cover:** Aluminum with irridite finish rated for 100 hr salt spray; potted and gasketed for outdoor use

#### Pressure Connection:

PSW-191, 192, 195 and 196: ½ NPT  
PSW-193, 194, 197 and 198: ¼ NPT

**Weight:** 128 g (4.5 oz)

Dimensions: mm (inch)



#### WIRE CODE

BLUE = N.O.  
BLACK = N.C.  
VIOLET = COM.

#### DIM. A

PSW-191, 192, 195, 196 = 103 (4.06)  
PSW-193, 194, 197, 198 = 111 (4.37)

### To Order

MODEL NO.	ADJUSTABLE RANGE	TYPICAL DEADBAND	MAX SYS PRESSURE	PROOF PRESSURE
<b>Models with Buna-N O-Ring and Diaphragm</b>				
PSW-191	10 to 150 psi	2 to 10	1500	3000
PSW-192	30 to 600 psi	8 to 60	2500	3000
PSW-193	100 to 1500 psi	20 to 220	8000	10,000
PSW-194	180 to 3000 psi	50 to 400	8000	10,000
<b>Models with FKM O-Ring and Diaphragm</b>				
PSW-195	11 to 150 psi	2.5 to 11.5	1500	3000
PSW-196	33 to 600 psi	9.5 to 69	2500	3000
PSW-197	110 to 1500 psi	23 to 253	8000	10,000
PSW-198	198 to 3000 psi	57.5 to 460	8000	10,000

Comes complete with operator's manual.

**Ordering Example:** PSW-192, cylindrical pressure switch with a Buna-N O-ring and diaphragm and an adjustable range of 30 to 600 psi.

# ECONOMICAL BRASS PRESSURE SWITCHES

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

10 to 3000 psi

See switch accessories online for audible alarms and relay modules.



PSW-196, shown actual size.

PRESSURE SWITCHES  
H

## PSW-190 Series



The PSW-190 Series cylindrical pressure switch has an epoxy-sealed electrical termination. This rugged design enables the switch to withstand harsh environments.

### SPECIFICATIONS

**Switch:** SPDT, 5 A at 250 Vac or 30 Vdc gold-clad silver contacts for loads down to 5 mA at 6 Vdc, 2 mA at 12 Vdc and 1 mA at 24 Vdc

**Operating Ambient Range:** -20 to 75°C (-4 to 167°F) with Buna-N construction; -20 to 80°C (-4 to 176°F) with FKM or EPDM construction

**Media Temp:** 70°C (158°F) with Buna-N sensor; 120°C (248°F) with FKM sensor

**Wetted Parts:** Brass, O-ring and diaphragm

**Repeatability:**

PSW-191, 192, 195 and 196: ±1%  
PSW-193, 194, 197 and 198: ±1.5%

**Shock:** Setpoint repeats after 50 g 10 ms duration

**Vibration:** Setpoint repeats after 10 g, 5 to 500 cps

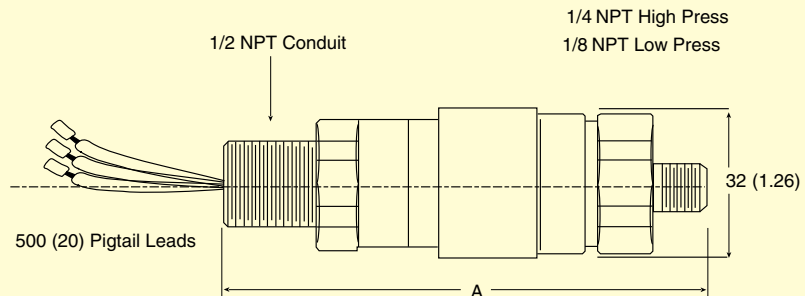
**Enclosure and Cover:** Aluminum with irridite finish rated for 100 hr salt spray; potted and gasketed for outdoor use

**Pressure Connection:**

PSW-191, 192, 195 and 196: ½ NPT  
PSW-193, 194, 197 and 198: ¼ NPT

**Weight:** 128 g (4.5 oz)

Dimensions: mm (inch)



**WIRE CODE**

BLUE = N.O.  
BLACK = N.C.  
VIOLET = COM.

**DIM. A**

PSW-191, 192, 195, 196 = 103 (4.06)  
PSW-193, 194, 197, 198 = 111 (4.37)

### To Order

MODEL NO.	ADJUSTABLE RANGE	TYPICAL DEADBAND	MAX SYS PRESSURE	PROOF PRESSURE
<b>Models with Buna-N O-Ring and Diaphragm</b>				
PSW-191	10 to 150 psi	2 to 10	1500	3000
PSW-192	30 to 600 psi	8 to 60	2500	3000
PSW-193	100 to 1500 psi	20 to 220	8000	10,000
PSW-194	180 to 3000 psi	50 to 400	8000	10,000
<b>Models with FKM O-Ring and Diaphragm</b>				
PSW-195	11 to 150 psi	2.5 to 11.5	1500	3000
PSW-196	33 to 600 psi	9.5 to 69	2500	3000
PSW-197	110 to 1500 psi	23 to 253	8000	10,000
PSW-198	198 to 3000 psi	57.5 to 460	8000	10,000

Comes complete with operator's manual.

**Ordering Example:** PSW-192, cylindrical pressure switch with a Buna-N O-ring and diaphragm and an adjustable range of 30 to 600 psi.

# PRESSURE SWITCHES FOR HARSH ENVIRONMENTS

Vacuum to 1700 psi

## PSW-200 Series

- ✓ Rugged, One-Piece, Epoxy-Coated Aluminum Body
- ✓ Meets NEMA 4X (IP66) Classification
- ✓ UL Listed
- ✓ Stainless Steel Nameplate
- ✓ Internal Reference Scale with Adjustment Lock
- ✓ Hermetically Sealed SPDT or DPDT Switch

### SPECIFICATIONS

**Approvals:** UL listed  
**Storage Temperature:** -54 to 71°C (-65 to 160°F)  
**Ambient Temperature Limits:** -40 to 71°C (-40 to 160°F), except models PSW-234 to PSW-240 and PSW-221 to PSW-226: -18 to 71°C (0 to 160°F); setpoint typically shifts less than 1% of range for a 28°C (50°F) ambient temperature change  
**Process Temperature:**  
**Stainless Steel:** -57 to 204°C (-70 to 400°F)  
**Phosphor Bronze:** -40 to 149°C (-40 to 300°F)  
**Buna-N:** -23 to 93°C (-10 to 200°F)  
**Shock:** Setpoint repeats after 15 g, 10 ms duration  
**Vibration:** Setpoint repeats after 2.5 g, 5 to 500 Hz  
**Enclosure Classification:** Complies with NEMA 4X (IP66)  
**Setpoint Repeatability:** 1% of adjustable range, except models PSW-241 to PSW-245D: 1.5%  
**Switch Output:** Hermetically sealed SPDT or DPDT switch can be wired "normally open" or "normally closed"  
**Electrical Output:** 11 A, 125/250 Vac resistive  
**Enclosure:** Die-cast aluminum, epoxy coated, gasketed  
**Weight:** 0.7 to 2.7 kg (1.5 to 6 lb) (varies by model)  
**Electrical Connection:** ½ NPT and (2) 22 mm (¾") diameter knockouts



PSW-236, shown smaller than actual size.

**Pressure Connection:** ½ FNPT, or ¼ FNPT as noted in "To Order" chart

**Dimensions:**  
**psi Ranges:** 214 max H x 101 W x 60 mm D (8.4 max x 4 x 2.3")  
**inH<sub>2</sub>O Ranges:** W and D = 152 mm (6")

To Order						
MODEL NO.	ADJUSTABLE RANGE		DEADBAND FIXED 0 TO 100 % RANGE	PROOF PRESSURE	SWITCH	ADDED FEATURE
	STANDARD	METRIC				
<b>BUNA-N DIAPHRAGM, O-RING, ¼ FNPT 304 SS PRESSURE CONNECTION</b>						
PSW-234	3 to 20 psi	0.21 to 1.38 bar	1 to 4 psi	1000 psi	11 A SPDT	–
PSW-234D	3 to 20 psi	0.21 to 1.38 bar	3.8 psi typ.	1000 psi	11 A DPDT	DPDT SWITCH
PSW-236	3 to 100 psi	0.21 to 6.90 bar	2 to 12 psi	1000 psi	11 A SPDT	–
PSW-236D	3 to 100 psi	0.21 to 6.90 bar	11.3 psi typ.	1000 psi	11 A DPDT	DPDT SWITCH
PSW-238	15 to 500 psi	1.03 to 34.48 bar	15 to 60 psi	2500 psi	11 A SPDT	–
PSW-238D	15 to 500 psi	1.03 to 34.48 bar	26.3 psi typ.	2500 psi	11 A DPDT	DPDT SWITCH
PSW-240	100 to 1700 psi	6.90 to 117 bar	20 to 110 psi	2500 psi	11 A SPDT	–
PSW-240D	100 to 1700 psi	6.90 to 117 bar	93.8 psi typ.	2500 psi	11 A DPDT	DPDT SWITCH
<b>PHOSPHOR-BRONZE BELLOWS, ¼ FNPT NICKEL-PLATED BRASS PRESSURE CONNECTION</b>						
PSW-246D	30 inHg vac to 0	-1 to 0 bar	11.3 inHg vac typ.	30 psi	11 A DPDT	DPDT SWITCH

# PRESSURE SWITCHES

PSW-241, psi range, shown smaller than actual size.

See switch accessories online for audible alarms and relay modules.



PRESSURE SWITCHES

To Order							
MODEL NO.	ADJUSTABLE RANGE		DEADBAND		PROOF PRESSURE	SWITCH	ADDED FEATURE
	STANDARD	METRIC	0 TO 75% RANGE	100% RANGE			
<b>BUNA-N DIAPHRAGM, O-RING, ¼ FNPT 304 SS PRESSURE CONNECTION</b>							
PSW-231	1 to 20 psi	0.07 to 1.38 bar	0.1 to 3 psi	–	500 psi	11 A SPDT	–
PSW-231D	1 to 20 psi	0.07 to 1.38 bar	3.8 psi typ.	–	500 psi	11 A DPDT	DPDT SWITCH
PSW-232	2 to 50 psi	0.14 to 3.45 bar	0.1 to 5 psi	–	500 psi	11 A SPDT	–
PSW-232D	2 to 50 psi	0.14 to 3.45 bar	5.3 psi typ.	–	500 psi	11 A DPDT	DPDT SWITCH
PSW-241	5 to 30 psi	0.34 to 2.07 bar	3 to 8 psi	10 psi	2500 psi	11 A SPDT	–
PSW-241D	5 to 30 psi	0.34 to 2.07 bar	9.8 psi typ.	–	2500 psi	11 A DPDT	DPDT SWITCH
PSW-242	10 to 100 psi	0.69 to 6.90 bar	3 to 30 psi	45 psi	2500 psi	11 A SPDT	–
PSW-242D	10 to 100 psi	0.69 to 6.90 bar	41.3 psi typ.	–	2500 psi	11 A DPDT	DPDT SWITCH
PSW-243	15 to 300 psi	1.03 to 20.69 bar	10 to 40 psi	60 psi	2500 psi	11 A SPDT	–
PSW-243D	15 to 300 psi	1.03 to 20.69 bar	52.5 psi typ.	–	2500 psi	11 A DPDT	DPDT SWITCH
PSW-244	20 to 500 psi	1.38 to 34.98 bar	15 to 45 psi	75 psi	2500 psi	11 A SPDT	–
PSW-244D	20 to 500 psi	1.38 to 34.98 bar	67.5 psi typ.	–	2500 psi	11 A DPDT	DPDT SWITCH
PSW-245D	80 to 1700 psi	5.50 to 117 bar	168.8 psi typ.	–	2500 psi	11 A DPDT	DPDT SWITCH
<b>BUNA-N DIAPHRAGM, O-RING WITH ½ FNPT ALUMINUM PRESSURE CONNECTION</b>							
PSW-221	300 vac to 0 inH <sub>2</sub> O	-747.24 to 0 mbar	0.8 to 32 inH <sub>2</sub> O	–	100 psi	11 A SPDT	–
PSW-221D	300 vac to 0 inH <sub>2</sub> O	-747.24 to 0 mbar	36 inH <sub>2</sub> O typ.	–	100 psi	11 A DPDT	DPDT SWITCH
PSW-222	10 vac to 10 inH <sub>2</sub> O	-24.94 to 24.94 mbar	0.4 to 2.4 inH <sub>2</sub> O	–	100 psi	11 A SPDT	–
PSW-222D	10 vac to 10 inH <sub>2</sub> O	-24.94 to 24.94 mbar	2.7 inH <sub>2</sub> O typ.	–	100 psi	11 A DPDT	DPDT SWITCH
PSW-223	50 vac to 50 inH <sub>2</sub> O	-124.54 to 124.54 mbar	0.4 to 12 inH <sub>2</sub> O	–	100 psi	11 A SPDT	–
PSW-223D	50 vac to 50 inH <sub>2</sub> O	-124.54 to 124.54 mbar	13.5 inH <sub>2</sub> O typ.	–	100 psi	11 A DPDT	DPDT SWITCH
PSW-224	0.5 to 5 inH <sub>2</sub> O	1.25 to 12.45 mbar	0.4 to 1.2 inH <sub>2</sub> O	–	100 psi	11 A SPDT	–
PSW-225	2.5 to 50 inH <sub>2</sub> O	6.23 to 124.154 mbar	0.4 to 3.2 inH <sub>2</sub> O	–	100 psi	11 A SPDT	–
PSW-225D	2.5 to 50 inH <sub>2</sub> O	6.23 to 124.154 mbar	3.6 inH <sub>2</sub> O typ.	–	100 psi	11 A DPDT	DPDT SWITCH
PSW-226	10 to 250 inH <sub>2</sub> O	24.91 to 622.70 mbar	0.4 to 24 inH <sub>2</sub> O	–	100 psi	11 A SPDT	–
PSW-226D	10 to 250 inH <sub>2</sub> O	24.91 to 622.70 mbar	27 inH <sub>2</sub> O typ.	–	100 psi	11 A DPDT	DPDT

Comes complete with operator's manual.

**Important Note Regarding DPDT Switches:** DPDT switches are manufactured so that contact transfer of both switches occurs at the same time for rising pressure setpoints. For falling pressure setpoints, a small amount of non-simultaneity in the switch outputs may be observed.

**Note:** Deadbands are fixed and non-adjustable and tend to increase linearly with increased setpoint.

**Ordering Example:** PSW-241, pressure switch 5 to 30 psi stainless steel diaphragm, 3 to 8 psi deadband



# SWITCHES

**PSW-300 Series:**  
 Vacuum to 3000 psi  
**PSW-350 Series:**  
 5 inH2O to 400 psid



PSW-355, shown smaller than actual size.

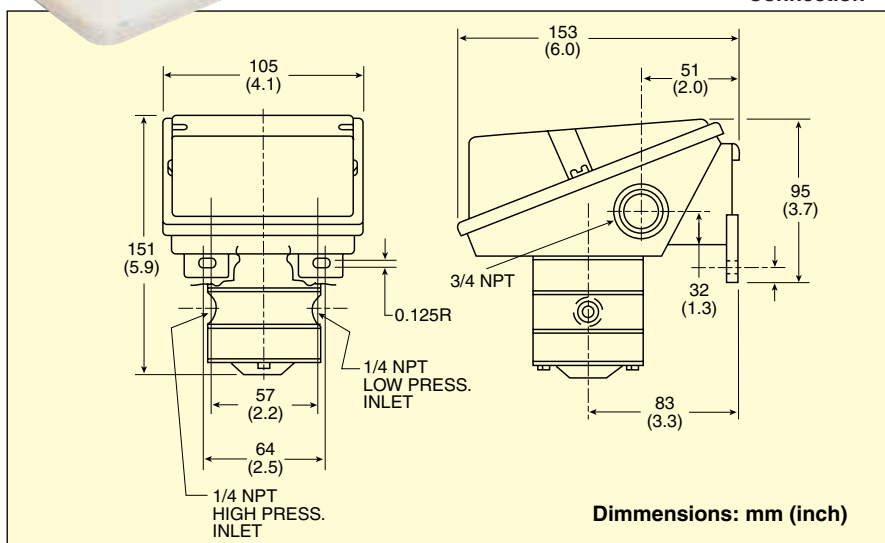
3/4 NPT Conduct Connection

PRESSURE SWITCHES **H**

## PSW-300 Series



- ✓ ±1% Setpoint Repeatability
- ✓ Rugged Epoxy-Coated NEMA 4X (IP66) Watertight Enclosure
- ✓ Dependable Switch Actuation Between the 2 Input Pressures
- ✓ High Static Pressure



## SPECIFICATIONS

**Approvals:** UL listed, CSA certified  
**Storage Temp:** -29 to 66°C (-20 to 150°F)

**Ambient Temp Limits:** -29 to 66°C (-20 to 150°F); setpoint typically shifts

+1% of range per 28°C (50°F) of temperature change.

**Enclosure:** NEMA 4X (IP66) and corrosion resistant

**Setpoint Repeatability:** ±1% of range

**Switch Output:** 1 or 2 SPDT switches

can be wired “normally open” or “normally closed”

**Electrical Rating:**

**10 A:** 125/250 Vac

**0.5 A:** 125 Vdc

**0.25 A:** 250 Vdc

**Enclosure:** Epoxy-coated aluminum, gasketed

**Weight:** 0.9 kg (2 lb)

**Electrical Connection:**

3/4 FNPT

**Pressure Connection:**

1/4 FNPT; brass-plated carbon steel for psid ranges; carbon steel for H<sub>2</sub>O ranges; 1/2 NPT male for vacuum to 600 psi;

1/4 FNPT for 1000 and 3000 psi

**Connection Material:**

Vac through inH<sub>2</sub>O

**ranges:** carbon steel;

all psi ranges: 316 SS

**Dimensions:**

153 H x 105 W mm

(6 x 4.125"); 95 mm D (3.75")

for psi units; 114 mm D (4.5")

for inH<sub>2</sub>O units

## OPTIONS

ORDERING SUFFIX	DESCRIPTION
-V	FKM diaphragm and O-ring
-T	PTFE diaphragm and O-ring
-SS	SS diaphragm (psi units to 60 psid only)
-M	Monel® (psi ranges only)

## To Order

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

MODEL NO.	ADJUSTABLE RANGE		DEADBAND	PROOF PRESSURE	SWITCH
	STANDARD	METRIC			
<b>FNPT SINGLE SETPOINT, ADJUSTABLE DEADBAND, BUNA-N DIAPHRAGM, O-RING, ¼ FNPT CONNECTION</b>					
PSW-301	-6 to -30 inHg vac	-20 to -100 kPa	6 to 24	250 psi	10 A SPDT
PSW-302	6 to 30 inH <sub>2</sub> O	1.5 to 7.5 kPa	4 to 27	20 psi	10 A SPDT
PSW-303	12 to 60 inH <sub>2</sub> O	3 to 15 kPa	5 to 54	20 psi	10 A SPDT
PSW-304	30 to 150 inH <sub>2</sub> O	7.4 to 37 kPa	18 to 135	20 psi	10 A SPDT
PSW-305	3 to 15 psi	20 to 100 kPa	2.5 to 13	500 psi	10 A SPDT
PSW-306	6 to 30 psi	40 to 200 kPa	3 to 18	500 psi	10 A SPDT
PSW-307	20 to 100 psi	140 to 700 kPa	10 to 90	1000 psi	10 A SPDT
PSW-308	40 to 200 psi	280 to 1400 kPa	18 to 180	1000 psi	10 A SPDT
PSW-309	80 to 400 psi	0.56 to 2.8 MPa	45 to 360	2400 psi	10 A SPDT
PSW-310	200 to 1000 psi	1.4 to 7 MPa	160 to 900	12,000 psi	10 A SPDT
PSW-311	600 to 3000 psi	4.2 to 21 MPa	400 to 2600	12,000 psi	10 A SPDT
<b>FNPT DUAL SETPOINT, FIXED DEADBAND, BUNA-N DIAPHRAGM, O-RING, ¼ FNPT CONNECTION</b>					
PSW-321	-6 to -30 inHg vac	- 20 to -100 kPa	0.7 to 1.4	250 psi	Two 15 A SPDT
PSW-322	6 to 30 inH <sub>2</sub> O	1.5 to 7.5 kPa	0.7 to 1.4	20 psi	Two 15 A SPDT
PSW-323	12 to 60 inH <sub>2</sub> O	3 to 15 kPa	0.7 to 1.8	20 psi	Two 15 A SPDT
PSW-324	30 to 150 inH <sub>2</sub> O	7.4 to 37 kPa	2.1 to 4.2	20 psi	Two 15 A SPDT
PSW-325	3 to 15 psi	20 to 100 kPa	0.7 to 1.4	500 psi	Two 15 A SPDT
PSW-326	6 to 30 psi	40 to 200 kPa	0.7 to 2.1	500 psi	Two 15 A SPDT
PSW-327	20 to 100 psi	140 to 700 kPa	1.4 to 3.5	1000 psi	Two 15 A SPDT
PSW-328	40 to 200 psi	280 to 1400 kPa	1.4 to 5.6	1000 psi	Two 15 A SPDT
PSW-329	80 to 400 psi	0.56 to 2.8 MPa	6 to 11	2400 psi	Two 15 A SPDT
PSW-330	200 to 1000 psi	1.4 to 7 MPa	10 to 42	12,000 psi	Two 15 A SPDT
PSW-331	600 to 3000 psi	4.2 to 21 MPa	42 to 98	12,000 psi	Two 15 A SPDT
<b>FNPT DUAL SETPOINT, FIXED DEADBAND, 316 SS DIAPHRAGM, ¼ FNPT CONNECTION</b>					
PSW-345	3 to 15 psi	20 to 100 kPa	0.7 to 1.4	500 psi	Two 15 A SPDT
PSW-346	6 to 30 psi	40 to 200 kPa	1.7 to 2.8	500 psi	Two 15 A SPDT
PSW-347	20 to 100 psi	140 to 700 kPa	2.8 to 5.6	1000 psi	Two 15 A SPDT
PSW-348	40 to 200 psi	280 to 1400 kPa	4.2 to 11.2	1000 psi	Two 15 A SPDT

## To Order

MODEL NO.	ADJUSTABLE RANGE UNITS	DEADBAND STANDARD PRESSURE	STATIC WORKING PRESSURE	PROOF PRESSURE	SWITCH
<b>Single Setpoint, Adjustable Deadband, Buna-N Diaphragm, O-Ring, ¼ NPTF</b>					
PSW-351	5 to 30 inH <sub>2</sub> O	4 to 27	5.4 psi	21.6 psi	10 A SPDT
PSW-352	9 to 60 inH <sub>2</sub> O	5 to 54	5.4 psi	21.6 psi	10 A SPDT
PSW-353	15 to 100 inH <sub>2</sub> O	8.5 to 90	5.4 psi	21.6 psi	10 A SPDT
PSW-354	23 to 150 inH <sub>2</sub> O	18 to 135	5.4 psi	21.6 psi	10 A SPDT
PSW-355	5 to 30 psid	3 to 27	500 psi	2000 psi	10 A SPDT
PSW-356	9 to 60 psid	5 to 54	500 psi	2000 psi	10 A SPDT
PSW-357	30 to 200 psid	18 to 180	1000 psi	4000 psi	10 A SPDT
PSW-358	60 to 400 psid	45 to 360	1000 psi	8000 psi	10 A SPDT
<b>Dual Setpoint, Fixed Deadband, Buna-N Diaphragm, O-Ring, ¼ NPTF</b>					
PSW-361	5 to 30 inH <sub>2</sub> O	0.7 to 1.4	5.4 psi	21.6 psi	Dual 15 A*
PSW-362	9 to 60 inH <sub>2</sub> O	0.7 to 2.0	5.4 psi	21.6 psi	Dual 15 A*
PSW-363	15 to 100 inH <sub>2</sub> O	1.4 to 2.8	5.4 psi	21.6 psi	Dual 15 A*
PSW-364	23 to 150 inH <sub>2</sub> O	2.4 to 4.2	5.4 psi	21.6 psi	Dual 15 A*
PSW-365	5 to 30 psid	1.0 to 2.1	500 psi	2000 psi	Dual 15 A*
PSW-366	9 to 60 psid	1.4 to 2.8	500 psi	2000 psi	Dual 15 A*
PSW-367	30 to 200 psid	1.4 to 5.6	1000 psi	4000 psi	Dual 15 A*
PSW-368	60 to 400 psid	5.6 to 11	1000 psi	8000 psi	Dual 15 A*

**"Pressure Switch Options (Add Suffix to Model Number for additional cost):**

Hermetically sealed 5 A 125/250 Vac switch for extra protection in severe environments **"-P"**, single setpoint. **"-PP"**, dual setpoint.

**Ordering Example: PSW-345-PP**, dual hermetically sealed switches, range of 3 to 15 psi.

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

# INDUSTRIAL PRESSURE SWITCHES

See switch accessories, visit us online for audible alarms and relay modules.

Vacuum to 3000 psi

## PSW-400 Series



- ✓ Dual-Chamber Design Isolates Electronics from Pressure Media
- ✓ Heavy-Duty Cast Aluminum with Corrosion-Resistant Epoxy Coating
- ✓ Meets NEMA 7 and 9 Classifications
- ✓ Gasketed Covers
- ✓ Tamper/Vibration-Resistant Setpoint Adjustment
- ✓ Surface and Mounting Bracket Standard

Designed for applications in hazardous atmospheres, PSW-400 Series pressure switches offer complete reliability thanks to a rugged, die-cast aluminum enclosure with waterproof gaskets and 2 separate chambers for electronics and actuator. Single or dual setpoints are available, with all critical parts made of stainless steel. In addition, the PSW-400 Series employs vibration-resistant setpoints and a calibrated scale.

### Definition of Division 1:

Locations where hazardous material concentrations exist continuously, intermittently, or periodically under normal operating conditions.

### SPECIFICATIONS

**Approval:** UL listed; Class I, Divisions 1 and 2, Groups B, C, D; Class II, Divisions 1 and 2, Groups E, F, G; CSA certified

**Storage Temp:** -29 to 65°C (-20 to 150°F)

**Ambient Temp Limits:** -29 to 65°C (-20 to 150°F)

**Process Temp Limits:**  
**Stainless Steel:** 149°C (300°F)  
**Buna-N:** 65°C (150°F)



PSW-405, 3 to 15 psi range, shown smaller than actual size.

Mounting bracket included

### Enclosure Classification:

NEMA 7 and 9 hazardous location, explosion proof, dust-ignition proof

**Setpoint Repeatability:** ±1% of range

**Switch Output:** 1 or 2 SPDT switches can be wired "normally open" or "normally closed"

### Electrical Rating:

**10 A:** 125/250 Vac

**0.5 A:** 125 Vdc

**0.25 A:** 250 Vdc

**15 A:** 125/250 Vac

**Optional Hermetically Sealed 5 A:** 125/250 Vac

**Enclosure:** Dual-chamber, epoxy-coated cast aluminum, gasketed

**Electrical Connection:** 2 ea. ¼ NPT electrical conduit hubs

**Pressure Connection:** ¼ FNPT, vacuum to 600 psi; ½ MNPT; ¼ FNPT, 1000 to 3000 psi

### Connection Material:

**Vacuum Through inH<sub>2</sub>O Ranges:**

Carbon steel

**All psi Ranges:** 316 SS

### Dimensions:

**psi Ranges:**

206 (max) H x 140 W x 70 mm D (from center line) (7.1 H x 5.5 W x 2.8" D from center line)

**inH<sub>2</sub>O Ranges:** W and D = 140 mm (5.5")



Setpoint chamber with 2 adjustable scales.

**Weight:** 2.7 kg (6 lb)

### OPTIONAL CONFIGURATIONS:

**Oxygen Service:** Specify option "-X6B" for oxygen cleaning, and extra cost (316 SS only)

### Pressure Switch Options:

(add suffix to part number and extra cost) Hermetically sealed 5 A 125/250 Vac switch for extra protection in severe environments:

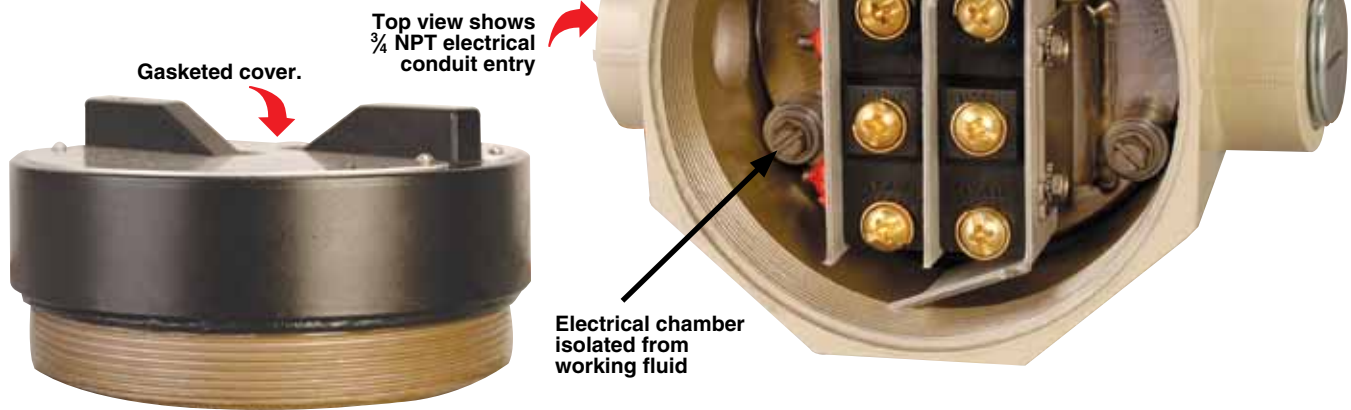
**"-P"** Single Setpoint.

**"-PP"** Dual Setpoint.

316 SS Welded Pressure Activator:

**"-S"** 15 to 600 psi ranges only.

# INDUSTRIAL PRESSURE SWITCH WITH DUAL-CHAMBER DESIGN



PRESSURE SWITCHES **H**

## To Order

MODEL NO.	ADJUSTABLE RANGE		DEADBAND STANDARD UNITS	PROOF PRESSURE	SWITCH
	STANDARD	METRIC			
<b>SINGLE SETPOINT, ADJUSTABLE DEADBAND, BUNA-N DIAPHRAGM, O-RING, 1/4 FNPT CONNECTION</b>					
PSW-401	-6 to -30 inHg vac	-20 to -100 kPa	3 to 27 inHg	250 psi	10 A SPDT
PSW-402	6 to 30 inH <sub>2</sub> O	1.5 to 7.5 kPa	3 to 27 inH <sub>2</sub> O	20 psi	10 A SPDT
PSW-403	12 to 60 inH <sub>2</sub> O	3 to 15 kPa	3 to 54 inH <sub>2</sub> O	20 psi	10 A SPDT
PSW-404	30 to 150 inH <sub>2</sub> O	7.4 to 37 kPa	15 to 135 inH <sub>2</sub> O	20 psi	10 A SPDT
PSW-405	3 to 15 psi	20 to 100 kPa	2 to 13 psi	500 psi	10 A SPDT
PSW-406	6 to 30 psi	40 to 200 kPa	2 to 27	500 psi	10 A SPDT
PSW-407	20 to 100 psi	140 to 700 kPa	5 to 90	1000 psi	10 A SPDT
PSW-408	40 to 200 psi	280 to 1400 kPa	13 to 180	1000 psi	10 A SPDT
PSW-409	80 to 400 psi	0.56 to 2.8 MPa	20 to 360	2400 psi	10 A SPDT
PSW-410	200 to 1000 psi	1.4 to 7 MPa	100 to 900	12,000 psi	10 A SPDT
PSW-411	600 to 3000 psi	4.2 to 21 MPa	200 to 2800	12,000 psi	10 A SPDT
<b>DUAL SETPOINT, FIXED DEADBAND, BUNA-N DIAPHRAGM, 1/4 FNPT CONNECTION</b>					
PSW-421	-6 to -30 inHg vac	-20 to -100 kPa	0.5 to 1 inHg	250 psi	Two 15 A SPDT
PSW-422	6 to 30 inH <sub>2</sub> O	1.5 to 7.5 kPa	0.5 to 1 inH <sub>2</sub> O	20 psi	Two 15 A SPDT
PSW-423	12 to 60 inH <sub>2</sub> O	3 to 15 kPa	0.5 to 1.3 inH <sub>2</sub> O	20 psi	Two 15 A SPDT
PSW-424	30 to 150 inH <sub>2</sub> O	7.4 to 37 kPa	1.5 to 3 inH <sub>2</sub> O	20 psi	Two 15 A SPDT
PSW-425	3 to 15 psi	20 to 100 kPa	0.5 to 1 psi	500 psi	Two 15 A SPDT
PSW-426	6 to 30 psi	40 to 200 kPa	0.5 to 1.5 psi	500 psi	Two 15 A SPDT
PSW-427	20 to 100 psi	140 to 700 kPa	1 to 2.5 psi	1000 psi	Two 15 A SPDT
PSW-428	40 to 200 psi	280 to 1400 kPa	1 to 4 psi	1000 psi	Two 15 A SPDT
PSW-429	80 to 400 psi	0.56 to 2.8 MPa	4 to 8 psi	2400 psi	Two 15 A SPDT
PSW-430	200 to 1000 psi	1.4 to 7 MPa	7 to 30 psi	12000 psi	Two 15 A SPDT
PSW-431	600 to 3000 psi	4.2 to 21 MPa	30 to 70 psi	12000 psi	Two 15 A SPDT
<b>DUAL SETPOINT, FIXED DEADBAND, 316 SS DIAPHRAGM, 1/4 FNPT CONNECTION</b>					
PSW-445	3 to 15 psi	20 to 100 kPa	0.5 to 1 psi	500 psi	Two 15 A SPDT
PSW-446	6 to 30 psi	40 to 200 kPa	1 to 2 psi	500 psi	Two 15 A SPDT
PSW-447	20 to 100 psi	140 to 700 kPa	2 to 4 psi	1000 psi	Two 15 A SPDT
PSW-448	40 to 200 psi	280 to 1400 kPa	3 to 8 psi	1000 psi	Two 15 A SPDT

Comes complete with mounting bracket, and operator's manual.

Ordering Example: PSW-425, dual-setpoint switch, range 3 to 15 psi, with fixed deadband and Buna-N diaphragm.



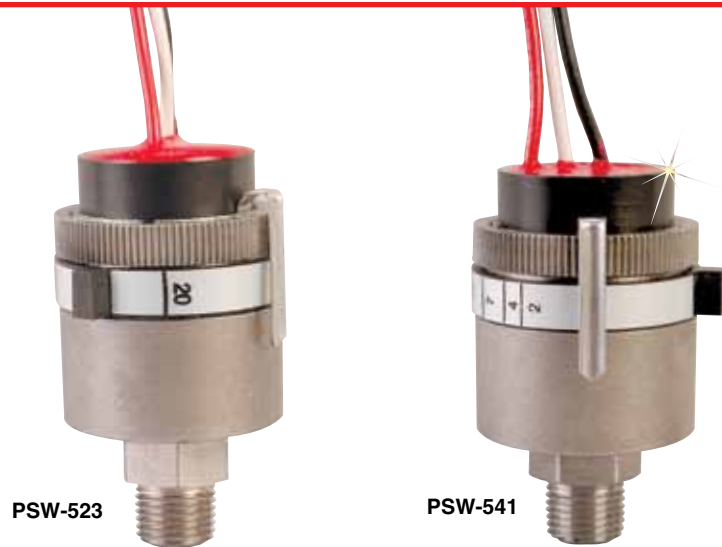
# MINIATURE DECADE AND Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) VACUUM SWITCHES

Vacuum to 800 psi

## PSW-500 Series



- ✓ External Pressure Scale and Pointer for Easy Setpoint Adjustments
- ✓ 5 A Model Switches with High Proof Pressures
- ✓ 1 A Gold-Plated Switches for TTL and Dry-Contact Closures
- ✓ Stainless Steel, Sealing Compound and/or O-Ring Wetted Parts



PSW-523

PSW-541

Both shown actual size.

See Switch Accessories at [omega.com](http://omega.com) for Audible Alarms and Relay Modules.

### To Order

PRESSURE MODELS	ADJUSTABLE RANGE (psig)		DEADBAND (psig)	REPEATABILITY (psi)	MAX SYSTEM PRESSURE (psi)*	SWITCH
	DECREASING	INCREASING				
PSW-521	0.8 to 28.5	1.6 to 30	0.8 to 1.3	±0.6	30	1 A
PSW-522	2.0 to 38.3	3.0 to 40	1.0 to 1.7	±1.0	50	1 A
PSW-523	3.0 to 96.5	4.5 to 100	1.5 to 3.5	±2.0	100	1 A
PSW-524	7.5 to 242.5	9.7 to 250	2.2 to 9.0	±5.0	250	1 A
PSW-525	15 to 485	20 to 500	5.0 to 21	±10	500	1 A
PSW-531	0.8 to 16.3	1.2 to 20	0.6 to 3.7	±0.8	3000	5 A
PSW-532	2.0 to 42.5	2.0 to 50	0.8 to 7.5	±2.0	3000	5 A
PSW-533	4.0 to 91	4.0 to 100	1.1 to 9.0	±4.0	5000	5 A
PSW-534	10 to 222	10 to 250	2.2 to 28	±10	5000	5 A
PSW-535	20 to 432	20 to 500	3.5 to 68	±20	5000	5 A
PSW-536	50 to 700	100 to 800	20 to 100	±40	5000	5 A
VACUUM MODELS	ADJUSTABLE RANGE (inHg)		DEADBAND (inHg)	REPEATABILITY (inHg)	MAX SYSTEM PRESSURE (inHg vac/psig)*	SWITCH
	DECREASING	INCREASING				
PSW-541	1.6 to 27.0	2.7 to 28.2	1.3 to 2.7	±1.2	29.9/0	1 A
PSW-542	4.0 to 24.8	5.1 to 28.2	1.5 to 3.2	±2.0	29.9/0	1 A
PSW-543	6.0 to 21.5	8.4 to 28.2	2.0 to 7.3	±4.0	29.9/0	1 A
PSW-551	1.2 to 22.5	1.6 to 28.2	1.1 to 5.7	±1.6	29.9/3000	5 A
PSW-552	1.2 to 21.8	8.0 to 28.2	8.0 to 6.4	±8.0	29.9/5000	5 A

\* Exceeding these values may cause a shift in the setpoint.

Comes complete with operator's manual.

Ordering Example: PSW-525, aaqe model switch for maximum system pressure of 500 psi.

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# MINIATURE HIGH-PRESSURE SWITCHES

- ✓ 500 to 6000 psi
- ✓ 1 A and 5 A Switch Models
- ✓ Heavy-Duty Overpressure Protection

## PSW-560 (1 A) AND PSW-570 (5 A) SERIES PERFORMANCE TABLE

MODEL	NOMINAL SETPOINT (psi)	DEADBAND 1 A/5 A	REPEATABILITY (±psi)
PSW-561 PSW-571	500	70/120	25
	1000	80/130	50
	1500	90/145	75
	2000	100/160	100
	2500	110/180	125
PSW-562 PSW-572	600	113/186	45
	1000	145/220	60
	1500	190/262	85
	2000	235/305	100
	2500	280/345	125
	3000	325/385	150
	3500	364/430	175
PSW-563 PSW-573	700	177/455	65
	1000	210/620	75
	1500	247/730	85
	2000	300/820	100
	3000	315/980	150
	4000	340/1000	200
	5000	355/1110	250
	6000	375/1280	300

## SPECIFICATIONS

**Approvals:** UL (1 A switches PSW-520 and PSW-540 Series only)

**Process Temp:** -55 to 105°C (-65 to 221°F) [2% setpoint shift can occur below -25°C (-13°F) or above 50°C (122°F)]

**Cycling:** Not to exceed 20 cycles/min

**Warranty:** 3 year/1 million cycles

**Sensor:** Piston (PSW-520 and PSW-540: diaphragm)

**Proof Pressure:** 150% max system pressure (PSW-530 and PSW-550: proof pressure is the max system pressure)

### Wetted Parts:

**PSW-520 and 540 Series:**

17-7 PH SS, 303 SS and loctite #271

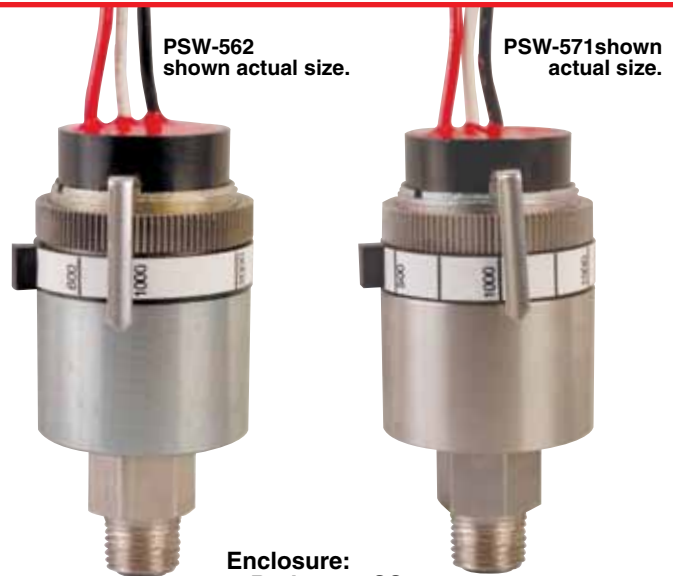
**PSW-530 and 550 Series:** 303 SS,

316 SS, Buna-N O-ring, loctite #271

**PSW-560 and 570 Series:** 17-7 PH

SS, 303 SS, Buna-N O-ring and

loctite #271



### Enclosure:

**Body:** 303 SS

**Internal Switch Housing and**

**Lock Ring:** Zinc alloy, chromate finish

**Cap:** Black Valox®

### Dimensions:

**PSW-520 and PSW-540:**

65 L x 28.6 mm Dia. (2.56 x 1.13")

**PSW-560 and PSW-570:**

71 L x 27.8 mm Dia. (1.75 x 1.09")

**Pressure Port:** 1/8-27 NPT

**Electrical Connection:** 20 AWG, 3 polyvinyl-insulated, unjacketed, 300 mm (12") pigtail leads

### Wiring Code (Pressure):

Red = N/C

White = N/O

Black = Common

### Wiring Code (Vacuum):

Red = N/O

White = N/C

Black = Common

**Weight:** 113 g (4 oz); PSW-520 and PSW-540 Series: 85 g (3 oz)

PRESSURE SWITCHES H

## To Order

1 A MODEL	5 A MODEL	ADJUSTABLE RANGE (psig)		MAX SYSTEM PRESSURE (psig)	PROOF PRESSURE (psig)
		DECREASING	INCREASING		
PSW-561	PSW-571	500 to 2390	500 to 2500	3000	4500
PSW-562	PSW-572	600 to 4500	600 to 5000	5000	7500
PSW-563	PSW-573	700 to 5500	700 to 6000	6000	9000

\* Exceeding these values may cause a shift in the setpoint.

## SWITCH RATING

MAX RATING	AC/DC	VOLTS RESISTIVE		AMPS
		AMPS	INDUCTIVE CONTACTS	
1 A SPDT	115/28	1/1	1/0.5	Gold**
5 A SPDT	250/28	5/5	5/3	Silver

\*\* Use gold contacts for dry and TTL circuitry (e.g., 5 Vdc @ 50 mA or less).

**Caution:** Pressure switches are manufactured to the highest-quality specifications. However, because of their economical construction, they should be used only for applications in which, in the event of product failure, the risk of damage to equipment or personnel is minimal.

# OMEGA IN STATE SWITCHES

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## FOR HIGH-CYCLE APPLICATIONS

**30 to 20,000 psi**  
**Watertight Enclosure NEMA 4 (IP65)**

### PSW601 Series

- ✓ **Watertight, Corrosion-Resistant Case**
- ✓ **Thin-Film Sensor for Long, Stable Life—Minimum 1 Million Cycles at Rated Load**
- ✓ **Reliable in Industrial Environments**
- ✓ **Field Adjustable**

OMEGA's PSW601 Series switches are designed to provide long, stable life. They use a thin-film sensor with a minimum life of 1 million cycles. Solid state circuitry analyzes the signal from the sensor to activate the switch at the setpoint. Deadbands are adjustable from 0.1 to 95% of range, and status lights give a visual indication of switch status.

See switch accessories on [omega.com](http://omega.com) for audible alarms and relay modules.



PSW601B-5K, shown smaller than actual size.

### SPECIFICATIONS

**Switch:** UL SPDT switch  
**Electrical:** 10 A, 125/250 Vac resistive and inductive; 10 A, 30 Vdc resistive  
**Temperature Limits:** -29 to 71°C (-20 to 160°F)  
**Temperature Effects:** 2% FS/25°C  
**Repeatability:** ±0.5% full range  
**Proof Pressure:** See "To Order" chart  
**Deadband:** Adjustable 0.1 to 95% of range  
**Power Requirements:**  
**Standard:** 24 Vdc, 12 mA unactivated; 43 mA activated  
**Optional:** 110 to 120 Vac 50/60 Hz or 250 Vac 50/60 Hz  
**Enclosure:** Anodized aluminum body; watertight, NEMA 4 (IP65)  
**Process Connection:**  
 ≤7500 psi: ¼ FNPT  
 >7500 psi: ¼ Aminco-F  
**Electrical Connections:** ½ NPT conduit fitting with #18 AWG 450 mm (18") insulated wire leads  
**Wetted Parts:** 316 SS fitting and 17-4 PH SS diaphragm  
**Dimensions:** 144 H x 102 W x 59 mm D (5.7 x 4 x 2.3")

### To Order

SETPOINT LIMITS (psi)	MODEL NUMBER	PROOF (psi)	BURST (psi)
<b>STANDARD MODELS: 24 Vdc, SINGLE 10 A Switch</b>			
3 to 30	PSW601B-30	120	480
3 to 60	PSW601B-60	120	480
5 to 100	PSW601B-100	200	800
10 to 200	PSW601B-200	400	1600
15 to 300	PSW601B-300	600	2400
25 to 500	PSW601B-500	1000	4000
35 to 750	PSW601B-750	1500	6000
50 to 1000	PSW601B-1K	2000	8000
100 to 2000	PSW601B-2K	4000	16,000
150 to 3000	PSW601B-3K	4500	9000
250 to 5000	PSW601B-5K	7500	15,000
375 to 7500	PSW601B-7.5K	9000	11,250
500 to 10,000	PSW601A-10K*	12,000	15,000
750 to 15,000	PSW601A-15K*	18,000	22,000
1000 to 20,000	PSW601A-20K*	24,000	30,000

\* Process connection is a ¼" Aminco-F fitting. Comes complete with operator's manual.  
 For 110 Vac powered models, add suffix "-110VAC" to model number; no extra charge.  
 For 250 Vac powered models, add suffix "-250VAC" to model number; add cost to price.  
**Ordering Example:** PSW601B-100, 24 Vdc power, range of 5 to 100 psi and single 10 A switch.

# HIGH PURITY, ALL STAINLESS STEEL PRESSURE AND VACUUM SWITCHES

Vacuum to 500 psi

## PSW-690 Series



- ✓ All Stainless Steel Wetted Parts
- ✓ Sensing Element Capsule, Electron Beam Welded
- ✓ Helium Leak Tested  $4 \times 10^{-9}$  STD CC/sec
- ✓ External Pressure Scale and Pointer For Easy Set Point Adjustment
- ✓ Available with  $\frac{1}{4}$  VCR Male or  $\frac{1}{8}$ -27 NPT Male Fittings
- ✓ NEMA 4 Enclosure
- ✓ Available with 1 or 5 A Switch

### SPECIFICATIONS

**Process Temp:** -54 to 107°C (-65 to 225°F); setpoint change of up to 2% of sensor capacity may be anticipated when switch is used either below -23°C or above 51°C

**Cycling:** Not to exceed 20 cycles/min, 1 million cycles

**Proof Pressure:** 150% max pressure

**Wetted Parts:** 17-7 pH electron beam welded, 303 SS fitting

**Enclosure:** 303 Stainless Steel body, zinc alloy with chromate finish locking ring and switch housing, valox cap

**Dimensions:** 51 L x 29 mm Dia (2 x 1.125") with NPT fitting; 60 L x 29 mm Dia (2.375 x 1.125") with VCR fitting

**Weight:** Approx. 85g (3 oz)

**Pressure Port:**  $\frac{1}{8}$ -27 MNPT or  $\frac{1}{4}$  VCR

**Electrical:** 300 mm (12") pigtail leads, 20 AWG, polyvinyl insulated

PSW-696-V5, shown actual size.



#### Wiring Code:

**Pressure Switch:** Black = Common, Red = N/C, White = N/O

**Vacuum Switch:** Black = Common, Red = N/O, White = N/C

PRESSURE SWITCHES H

### To Order

MODEL NO.	ADJUSTABLE RANGE		SETPOINT REPEATABILITY	MAX PRESSURE
	DECREASING	INCREASING		
<b>GAGE PRESSURE SWITCHES <math>\frac{1}{8}</math> NPT FITTING (psig)</b>				
PSW-691-N[*]	0.8 to 28.5	1.6 to 30.0	$\pm 0.6$	30
PSW-692-N[*]	2.0 to 48.0	3.0 to 50.0	$\pm 1.0$	50
PSW-693-N[*]	3.0 to 96.5	4.5 to 100.0	$\pm 2.0$	100
PSW-694-N[*]	7.5 to 242.5	9.7 to 250	$\pm 5.0$	250
PSW-695-N[*]	15.0 to 485.0	20.0 to 500.0	$\pm 10.0$	500
<b>GAGE PRESSURE SWITCHES <math>\frac{1}{4}</math> VCR FITTING (psig)</b>				
PSW-691-V[*]	0.8 to 28.5	1.6 to 30.0	$\pm 0.6$	30
PSW-692-V[*]	2.0 to 48.0	3.0 to 50.0	$\pm 1.0$	50
PSW-693-V[*]	3.0 to 96.5	4.5 to 100.0	$\pm 2.0$	100
PSW-694-V[*]	7.5 to 242.5	9.7 to 250	$\pm 5.0$	250
PSW-695-V[*]	15.0 to 485.0	20.0 to 500.0	$\pm 10.0$	500
<b>VACUUM SWITCHES <math>\frac{1}{8}</math> NPT FITTING (inHg)</b>				
PSW-696-N[*]	1.6 to 27.0	2.7 to 28.2	$\pm 1.2$	29.9
<b>VACUUM SWITCHES <math>\frac{1}{4}</math> VCR FITTING (inHg)</b>				
PSW-696-V[*]	1.6 to 27.0	2.7 to 28.2	$\pm 1.2$	29.9

Comes complete with operator's manual.

[\*] Specify "-1" for 1 A or "-5" for 5 A switch.

**Ordering Examples:** PSW-692-N1, switch for maximum system pressure of 30 psig with  $\frac{1}{8}$  NPT fitting and 1A switch.

PSW-696-N5, switch with  $\frac{1}{8}$  NPT fitting and 5A switch.



**SINGLE OR DUAL SETPOINT,  
 INTERNAL OR EXTERNAL ADJUSTMENT**

**30 inHg Vacuum to 3000 psi**

**See switch accessories online for audible alarms and relay modules.**

**PSW-700 Series**



- ✓ Division 1 Rating
- ✓ Single or Dual Setpoints, Tamper Resistant
- ✓ Heavy-Duty Enclosure
- ✓ Rated NEMA 4X, 7, 9 (IP66)
- ✓ Terminal Block Wiring
- ✓ High-Temperature Operation to 200°C (392°F) Process Temperature (Stainless Steel Model Only)

PSW-700 Series pressure switches are built for the rugged industrial setting. The internal setpoints allow adjustments while keeping the electrical component isolated from the environment. Both the internal and external setpoints have a range scale, allowing fast, easy setup.

**SPECIFICATIONS**

**Approvals:** UL listed; Class I, Division 1 and 2, Groups B, C and D; Class II, Groups E, F and G; Class III

**Repeatability:** ±1% range

**Process Temperature:**  
**Stainless Steel:** -57 to 204°C (-70 to 400°F)

**Brass:** -40 to 149°C (-40 to 300°F)

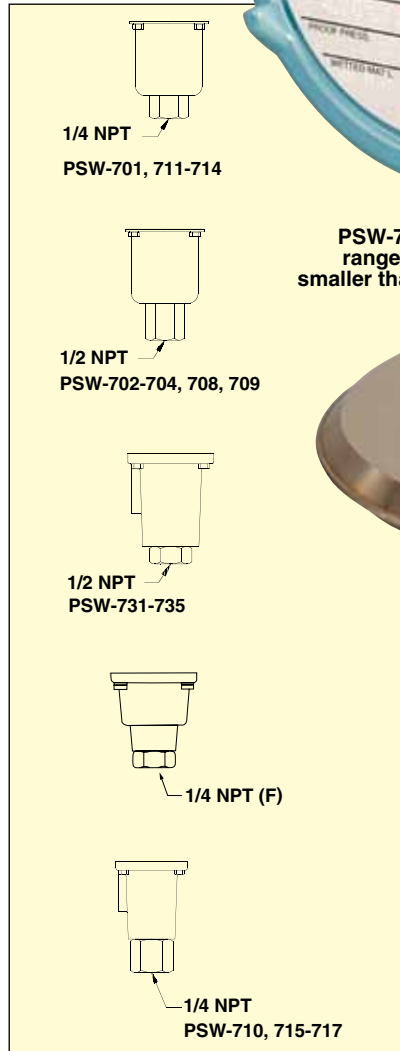
**Buna-N:** -23 to 93°C (-10 to 200°F)

**Ambient Temperature:** -50 to 71°C (-58 to 160°F), except for models 703 to 705, which are -18 to 71°C (0 to 160°F). Setpoint typically shifts less than 1% of range for a 28°C (50°F) ambient temperature change.

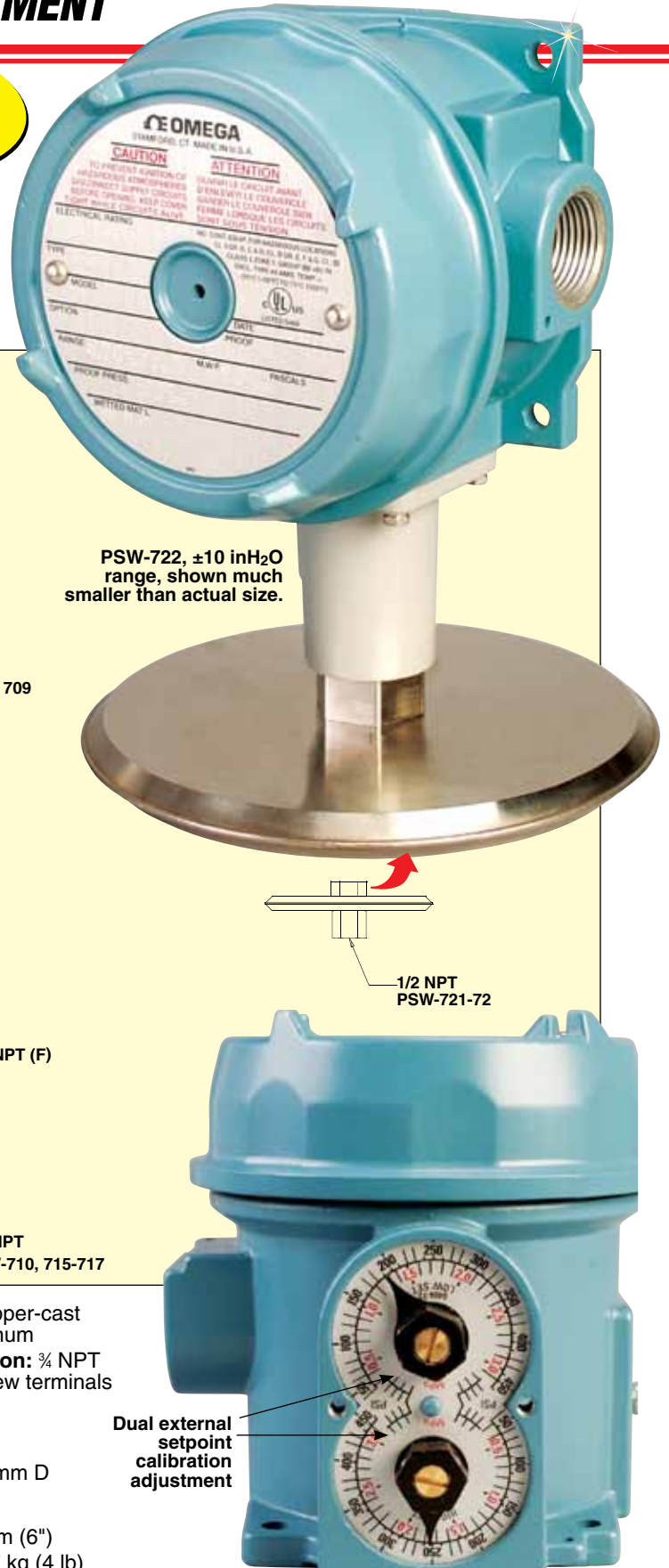
**Shock:** Setpoint repeats after 15 g, 10 ms duration

**Vibration:** Setpoint repeats after 2.5 g at 5 to 500 Hz

**Output:** 1 SPDT or 2 SPDT  
 15 A 125/250/480 Vac



PSW-722, ±10 inH<sub>2</sub>O range, shown much smaller than actual size.



Dual external setpoint calibration adjustment

**Enclosure:** Low copper-cast epoxy-coated aluminum

**Electrical Connection:** 3/4 NPT conduit; internal screw terminals

**Dimensions:**  
**psi Ranges:**  
 230 (max)  
 H x 125 W x 108 mm D (9 x 4.9 x 4.3")  
**H<sub>2</sub>O Ranges:**  
 W and D = 153 mm (6")

**Weight:** Approx. 1.7 kg (4 lb)

# INDUSTRIAL SWITCHES



PSW-707, 0 to 500 psi range, shown smaller than actual size

PRESSURE SWITCHES **H**

## To Order

MODEL NO.	RANGE		DEADBAND STANDARD UNITS	PROOF PRESSURE	SWITCH	DIAL GRADUATION
	STANDARD	METRIC				
<b>SINGLE SETPOINT, FIXED DEADBAND, WELDED 316L SS DIAPHRAGM, 1/2 FNPT PRESSURE CONNECTION</b>						
PSW-721	-300 to 0 inH <sub>2</sub> O	-747 to 0 mbar	0.2 to 15 inH <sub>2</sub> O	100 psi	15 A SPDT	Blind adj
PSW-722	-10 to 10 inH <sub>2</sub> O	-25 to 25 mbar	0.1 to 0.6 inH <sub>2</sub> O	100 psi	15 A SPDT	Blind adj
PSW-723	-50 to 50 inH <sub>2</sub> O	-125 to 125 mbar	0.1 to 3 inH <sub>2</sub> O	100 psi	15 A SPDT	Blind adj
PSW-724	0.5 to 5 inH <sub>2</sub> O	1.25 to 12.5 mbar	0.1 to 0.3 inH <sub>2</sub> O	100 psi	15 A SPDT	Blind adj
PSW-725	2.5 to 50 inH <sub>2</sub> O	6 to 125 mbar	0.1 to 0.8 inH <sub>2</sub> O	100 psi	15 A SPDT	Blind adj
PSW-726	10 to 250 inH <sub>2</sub> O	25 to 622 mbar	0.1 to 10 inH <sub>2</sub> O	100 psi	15 A SPDT	Blind adj
PSW-731	5 to 30 psi	0.3 to 2.1 bar	1 to 6 psi	2500 psi	15 A SPDT	Blind adj
PSW-732	10 to 100 psi	0.7 to 7 bar	1 to 15 psi	2500 psi	15 A SPDT	Blind adj
PSW-733	15 to 300 psi	1 to 21 bar	3 to 25 psi	2500 psi	15 A SPDT	Blind adj
PSW-734	20 to 500 psi	1.4 to 34.5 bar	4 to 45 psi	2500 psi	15 A SPDT	Blind adj
PSW-735	80 to 1700 psi	5.5 to 117 bar	5 to 150 psi	2500 psi	15 A SPDT	Blind adj
<b>DUAL SETPOINT, EXTERNAL CALIBRATED ADJUSTMENT, SEALED BRASS BELLOWS, 1/4 FNPT NICKEL-PLATED BRASS PRESSURE CONNECTION</b>						
PSW-701	30 inHg vac to 0 psi	1.02 to 0 bar	0.2 to 0.9 inHg	30 inHg	(2)15 A SPDT	0.5 inHg
PSW-711	30 inHg vac to 20 psi	-1 to 1.4 bar	0.2 to 1.2 inHg	25 psi	(2)15 A SPDT	1 inHg & 0.5 psi
PSW-712	0 to 30 psi	0 to 2 bar	0.1 to 0.6 psi	40 psi	(2)15 A SPDT	0.5 psi
PSW-713	0 to 100 psi	0 to 6.9 bar	0.2 to 0.8 psi	125 psi	(2)15 A SPDT	2 psi
PSW-714	0 to 200 psi	0 to 13.8 bar	0.3 to 2 psi	200 psi	(2)15 A SPDT	5 psi
<b>DUAL SETPOINT, EXTERNAL CALIBRATED ADJUSTMENT, WELDED 316 SS BELLOWS, 1/2 FNPT PRESSURE CONNECTION</b>						
PSW-702	0 to 20 psi	0 to 1.4 bar	0.1 to 0.5	25 psi	(2)15 A SPDT	0.5 inHg
PSW-703	0 to 30 psi	0 to 2 bar	0.1 to 0.6	40 psi	(2)15 A SPDT	0.5 psi
PSW-704	0 to 100 psi	0 to 6.9 bar	0.2 to 0.8	125 psi	(2)15 A SPDT	2 psi
PSW-708	30 inHg vac to 20 psi	-1 to 1.4 bar	0.2 to 1.2 inHg	25 psi	(2)15 A SPDT	1 inHg & 0.5 psi
PSW-709	0 to 200 psi	0 to 13.8 bar	0.3 to 2 psi	200 psi	(2)15 A SPDT	5 psi
<b>DUAL SETPOINT, EXTERNAL CALIBRATED ADJUSTMENT, WELDED 316 SS BELLOWS, 1/4 FNPT PRESSURE CONNECTION</b>						
PSW-705	0 to 200 psi	0 to 13.8 bar	1.5 to 8	250 psi	(2)15 A SPDT	5 psi
PSW-706	0 to 300 psi	0 to 20.7 bar	2 to 9	350 psi	(2)15 A SPDT	10 psi
PSW-707	0 to 500 psi	0 to 34.5 bar	3 to 12	575 psi	(2)15 A SPDT	10 psi
<b>DUAL SETPOINT, EXTERNAL CALIBRATED ADJUSTMENT, FIXED DEADBAND, BUNA-N O-RING, SS PISTON, 1/4 FNPT 303 SS PRESSURE CONNECTION</b>						
PSW-710	125 to 3000 psi	8.6 to 207 bar	40 to 250 psi	10,000 psi	(2)15 A SPDT	50 psi
<b>DUAL SETPOINT, EXTERNAL CALIBRATED ADJUSTMENT, FIXED DEADBAND, BUNA-N DIAPHRAGM AND O-RING, 1/4 FNPT NICKEL-PLATED PRESSURE CONNECTION</b>						
PSW-715	30 to 300 psi	2 to 21 bar	2 to 7 psi	1000 psi	(2)15 A SPDT	10 psi
PSW-716	50 to 500 psi	3.5 to 34.5 bar	3 to 12 psi	2500 psi	(2)15 A SPDT	10 psi
PSW-717	200 to 1000 psi	13.8 to 69 bar	5 to 25 psi	2500 psi	(2)15 A SPDT	25 psi

Comes complete with operator's manual.

Ordering Example: PSW-703-X6B, dual-setpoint 30 psi switch with welded SS diaphragm, specially cleaned for oxygen service.

# ECONOMICAL INDUSTRIAL PRESSURE SWITCHES

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Vacuum to 7500 psi

## PSW-800 Series



- ✓ Easy Adjustment with Locking Set Screw
- ✓ Rugged Industrial Design
- ✓ Standard 1/2" Female Conduit Fitting for Electrical Termination

The PSW-800 Series comprises economical pressure switches that feature an easy-to-adjust setpoint with locking set screw. They have a sealed-piston or diaphragm-piston design, ideal for harsh environments. All models come with 300 mm (12") (12") color-coded leads and a 1/2" female conduit fitting for electrical connections.

### SPECIFICATIONS

**Setpoint Repeatability:**  
**Diaphragm Models (PSW-801 to PSW-807):** ±1% of span  
**Piston Models (PSW-808 to PSW-811):** ±1.5% of span

#### Hysteresis/Deadband:

See "To Order" table at right

**Contact Rating:** 5 A maximum @ 125/250 Vac, silver serrated contacts 3 A max @ 28 Vdc

**Temp Range:** -20 to 75°C (-4 to 167°F) (vacuum range); -30 to 75°C (-22 to 167°F) (500 psi and below); -40 to 75°C (-40 to 167°F) (600 psi and above)

**Thermal Effects:** <1% for 25°C (45°F) change

**Proof Pressure:** See "To Order" table

**Burst Pressure:** 2x proof pressure

#### Sensor Type:

**PSW-801 to PSW-807:**

Diaphragm piston

**PSW-808 to PSW-811:** Sealed piston

#### Wetted Parts:

**500 psi and Below:** Brass, Buna-N

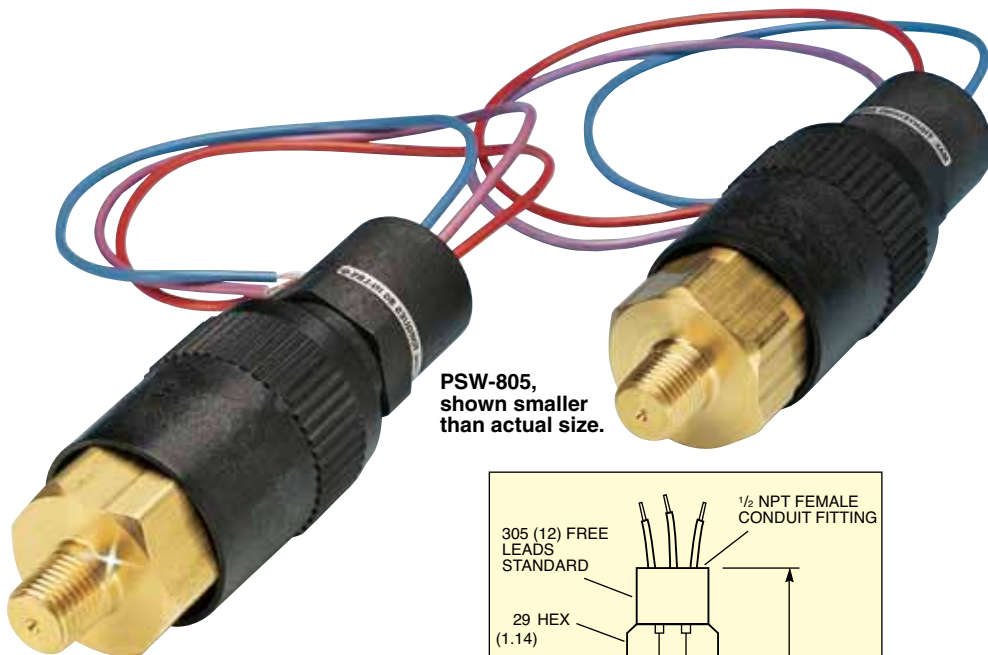
**600 psi and Above:** Brass, Buna-N and stainless steel

**Pressure Port:** 1/4 MNPT

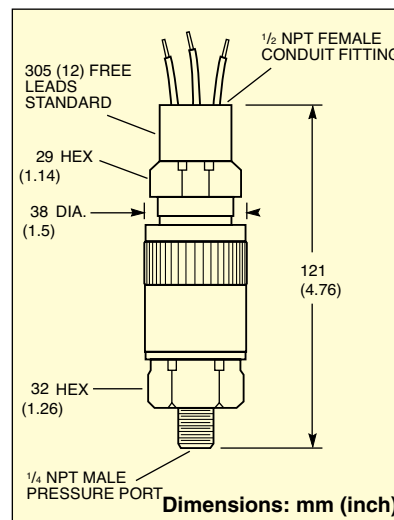
**Electrical Connection:** 300 mm (12") free leads with 1/2" female conduit fitting

**Housing:** Open-type plastic housing

**Weight:** 0.4 kg (0.95 lb)



PSW-805, shown smaller than actual size.



WIRE CODE	PRESSURE	VACUUM
Lead	Color	Color
Normally closed	Blue	Red
Common	Purple	Purple
Normally open	Red	Blue

To Order						
MODEL NUMBER	PRESSURE SETTING RANGE				DEADBAND RANGE	PROOF PRESSURE
	DECREASING		INCREASING			
	MIN	MAX	MIN	MAX		
<b>VACUUM MODEL (inHg)</b>						
PSW-801	1	28	4	30	1 to 4	30 psi
<b>GAGE PRESSURE MODELS (psig)</b>						
PSW-802	2.5	12.8	3	15	0.5 to 2.2	1000 psi
PSW-803	5	31	6	35	1.0 to 4.0	1000 psi
PSW-804	8.5	44	10	50	1.5 to 6.0	1000 psi
PSW-805	22.5	112	25	125	2.5 to 13	1000 psi
PSW-806	70.0	220	50	250	10 to 30	1000 psi
PSW-807	110	440	130	500	20 to 60	1000 psi
PSW-808	190	450	250	600	60 to 150	7000 psi
PSW-809	360	1450	430	1700	70 to 250	7000 psi
PSW-810	1450	3900	1650	4400	200 to 500	7000 psi
PSW-811	3650	6700	4000	7500	350 to 800	12,000 psi

Comes complete with operator's manual.

**Ordering Example:** PSW-804, 10 to 50 psi pressure switch with 1.5 to 6.0 psi deadband range and 1000 psi proof pressure.

# CHOICE OF DUAL OR TRIPLE SWITCHES

**30 inHg Vacuum to 3000 psi**

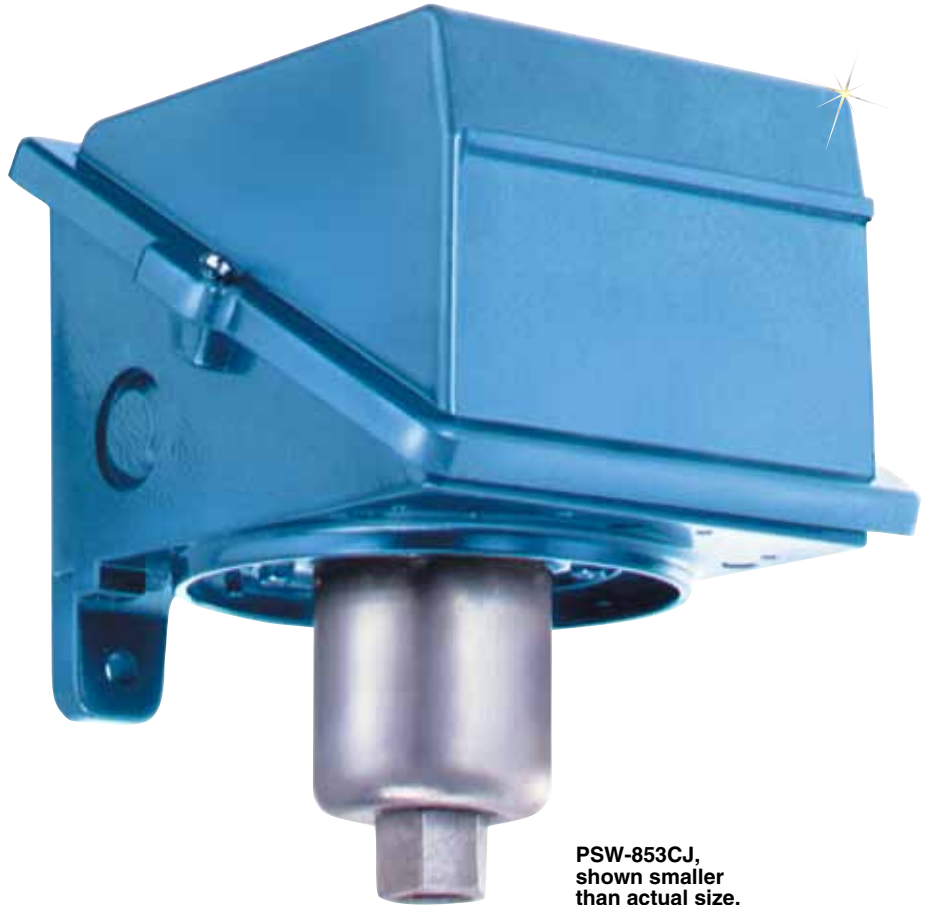
## PSW-850 Series



- ✓ **2- or 3-Switch Outputs—  
Can be Separated Up to  
100% of Range**
- ✓ **Adjustable Pressure  
Ranges**
- ✓ **NEMA 1 Enclosure**

The PSW-850 is a simple, economical control for processes that require multiple switching capabilities. Dual or triple switch controls provide multi-outputs in applications such as alarm and shutdown, pre-alarm and alarm, high/low limit, and level staging functions.

Triple-switch models have been used for liquid level control. In this application, 3 pressure settings correspond to “pumping out” elevations in a sump pump.



PSW-853CJ,  
shown smaller  
than actual size.

### SPECIFICATIONS

**Approvals:** UL, CE compliant

**Storage Temperature:** -54 to 71°C  
(-67 to 158°F)

**Ambient Temperature:** -40 to 70°C  
(-40 to 160°F), except model  
PSW-852A: -40 to 70°C (0 to 160°F);  
setpoint typically shifts less than 1%  
of range for a 30°C (54°F) ambient  
temperature change

**Setpoint Repeatability:** ±2% of  
adjustable range, except model  
PSW-852E: ±3% of adjustable range

**Shock:** Setpoint repeats after 15 g,  
10 ms duration

**Vibration:** Setpoint repeats after  
2.5 g, 5 to 500 Hz

**Enclosure:** Die-cast aluminum, epoxy  
powder coated, gasketed, captive  
cover screws

**See switch  
accessories online  
for audible alarms  
and relay modules.**

**Enclosure Dimensions:**  
102 H x 125 W x 140 mm D  
(4 x 4.9 x 5.5"); 210 mm (8.25")  
maximum height with pressure port

**Enclosure Classification:** Complies  
with NEMA 1 requirements

**Switch Output:** 2 or 3 SPDT;  
switches can be separated up to  
100%, except models PSW-852A  
and PSW-852B: 30%; switches  
can be wired “normally open” or  
“normally closed”

**Electrical Rating:** 15 A  
125/250/480 Vac resistive

**Weight:** Approx. 1.4 to 3.4 kg  
(3 to 7.5 lb) (varies with model)

**Electrical Connection:** Three 22 mm  
(7/8") diameter knockouts

**Pressure Connection:** ¼ FNPT  
except model PSW-852A: ½ FNPT



## GENERAL PURPOSE CONTROLS WITH CHOICE OF DUAL OR TRIPLE SWITCHES

To Order					
MODEL NO.	RANGE		DEADBAND STANDARD UNITS	PROOF PRESSURE	SWITCH
	STANDARD	METRIC			
<b>DUAL SETPOINTS, FIXED DEADBAND, BUNA-N DIAPHRAGM, O-RING, 1/4 FNPT ALUMINUM PRESSURE CONNECTION</b>					
PSW-852AA	-300 to 0 inH <sub>2</sub> O	-747 to 0 mbar	0.2 to 8 inH <sub>2</sub> O	100 psi	(2)15 A SPDT
PSW-852AB	-10 to 10 inH <sub>2</sub> O	-25 to 25 mbar	0.1 to 0.6 inH <sub>2</sub> O	100 psi	(2)15 A SPDT
PSW-852AC	-50 to 50 inH <sub>2</sub> O	-125 to 125 mbar	0.1 to 3 inH <sub>2</sub> O	100 psi	(2)15 A SPDT
PSW-852AD	0.5 to 5 inH <sub>2</sub> O	1.25 to 12.5 mbar	0.1 to 0.3 inH <sub>2</sub> O	100 psi	(2)15 A SPDT
PSW-852AE	2.5 to 50 inH <sub>2</sub> O	6 to 125 mbar	0.1 to 0.8 inH <sub>2</sub> O	100 psi	(2)15 A SPDT
PSW-852AF	10 to 250 inH <sub>2</sub> O	25 to 622 mbar	0.1 to 8 inH <sub>2</sub> O	100 psi	(2)15 A SPDT
<b>DUAL SETPOINTS, FIXED DEADBAND, 316 SS DIAPHRAGM, FKM O-RING, 1/4 FNPT 316L SS PRESSURE CONNECTION</b>					
PSW-852BI	0 to 20 psi	0 to 1.4 bar	0.2 to 4 psi	225 psi	(2)15 A SPDT
PSW-852BK	0 to 50 psi	0 to 3.4 bar	0.7 to 6 psi	225 psi	(2)15 A SPDT
PSW-852BL	0 to 100 psi	0 to 6.9 bar	1 to 7 psi	225 psi	(2)15 A SPDT
<b>DUAL SETPOINTS, FIXED DEADBAND, SEALED BRASS BELLOWS, 1/4 FNPT NICKEL-PLATED BRASS PRESSURE CONNECTION</b>					
PSW-852CH	30 inHg vac to 20 psi	-1 to 1.4 bar	0.4 to 2.4 inHg	25 psi	(2)15 A SPDT
PSW-852CG	0 to 80 inH <sub>2</sub> O	0 to 200 mbar	4 to 12 inH <sub>2</sub> O	5 psi	(2)15 A SPDT
PSW-852CJ	0 to 30 psi	0 to 2 bar	0.2 to 1.2 psi	40 psi	(2)15 A SPDT
PSW-852CL	0 to 100 psi	0 to 6.9 bar	0.4 to 1.6 psi	125 psi	(2)15 A SPDT
PSW-852CM	0 to 200 psi	0 to 13.7 bar	0.6 to 4 psi	200 psi	(2)15 A SPDT
<b>DUAL SETPOINTS, FIXED DEADBAND, WELDED 316L SS BELLOWS, 1/4 FNPT PRESSURE CONNECTION</b>					
PSW-852DN	0 to 500 psi	0 to 34.5 bar	6 to 18 psi	575 psi	(2)15 A SPDT
<b>DUAL SETPOINTS, FIXED DEADBAND, 303 SS PISTON, BUNA-N O-RING, 1/4 FNPT 303 SS PRESSURE CONNECTION</b>					
PSW-852EO	100 to 1000 psi	7 to 69 bar	60 to 300 psi	10,000 psi	(2)15 A SPDT
PSW-852EP	200 to 3000 psi	13.8 to 206 bar	80 to 500 psi	10,000 psi	(2)15 A SPDT
<b>DUAL SETPOINTS, REFERENCE ADJUSTMENT, FIXED DEADBAND, SEALED BRASS BELLOWS, 1/4 FNPT NICKEL-PLATED BRASS PRESSURE CONNECTION</b>					
PSW-855CH	30 inHg vac. to 20 psi	-1 to 1.4 bar	0.4 to 2.4 inHg	25 psi	(2)15 A SPDT
PSW-855CJ	0 to 30 psi	0 to 2 bar	0.2 to 1.2 psi	40 psi	(2)15 A SPDT
PSW-855CL	0 to 100 psi	0 to 6.9 bar	0.4 to 1.6 psi	125 psi	(2)15 A SPDT
PSW-855CM	0 to 200 psi	0 to 13.7 bar	0.6 to 4 psi	200 psi	(2)15 A SPDT
<b>DUAL SETPOINTS, REFERENCE ADJUSTMENT, FIXED DEADBAND, WELDED 316L SS BELLOWS, 1/4 FNPT 316L SS PRESSURE CONNECTION</b>					
PSW-855DN	0 to 500 psi	0 to 34 bar	6 to 18 psi	575 psi	(2)15 A SPDT
<b>THREE SETPOINTS, FIXED DEADBAND, SEALED BRASS BELLOWS, 1/4 FNPT NICKEL-PLATED BRASS PRESSURE CONNECTION</b>					
PSW-853CH	30 inHg vac. to 20 psi	-1 to 1.4 bar	0.4 to 2.4 inHg	25 psi	(3)15 A SPDT
PSW-853CJ	0 to 30 psi	0 to 2 bar	0.2 to 1.2 psi	40 psi	(3)15 A SPDT
PSW-853CL	0 to 100 psi	0 to 6.9 bar	0.4 to 1.6 psi	125 psi	(3)15 A SPDT
PSW-853CM	0 to 200 psi	0 to 13.7 bar	0.6 to 4 psi	200 psi	(3)15 A SPDT
<b>THREE SETPOINTS, FIXED DEADBAND, WELDED 316L SS BELLOWS, 1/4 FNPT 316L SS PRESSURE CONNECTION</b>					
PSW-853DN	0 to 500 psi	0 to 34.5 bar	6 to 8 psi	575 psi	(3)15 A SPDT
<b>THREE SETPOINTS, REFERENCE ADJUSTMENT, FIXED DEADBAND, SEALED BRASS BELLOWS, 1/4 FNPT NICKEL-PLATED BRASS PRESSURE CONNECTION</b>					
PSW-856CH	30 inHg vac to 20 psi	-1 to 1.4 bar	0.4 to 2.4 inHg	25 psi	(3)15 A SPDT
PSW-856CJ	0 to 30 psi	0 to 2 bar	0.2 to 1.2 psi	40 psi	(3)15 A SPDT
PSW-856CL	0 to 100 psi	0 to 6.9 bar	0.4 to 1.6 psi	125 psi	(3)15 A SPDT
PSW-856CM	0 to 200 psi	0 to 13.7 bar	0.6 to 4 psi	200 psi	(3)15 A SPDT
<b>THREE SETPOINTS, FIXED DEADBAND, WELDED 316L SS BELLOWS, 1/4 FNPT 316L SS PRESSURE CONNECTION</b>					
PSW-856DN	0 to 500 psi	0 to 34.5 bar	6 to 8 psi	575 psi	(3)15 A SPDT

Comes complete with operator's manual.

Ordering Example: PSW-856CJ, control switch with 3 setpoints, reference dial, sealed brass bellows, 1/4 FNPT fitting and range of 0 to 30 psi.

**ECONOMICAL DIFFERENTIAL**  
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**PRESSURE SWITCH**

**7 to 250 psi**  
**0.25 A SPDT Switch**

**PSW845 Series**



PSW845-1 shown actual size.

The PSW845 is a rugged differential pressure switch, with excellent bypass characteristics. It is able to handle a variety of media to 6000 psig. The PSW845 can be mounted in any orientation, and is capable of withstanding light to moderate mechanical shock and vibratory loads.

**SPECIFICATIONS**

**Switch:** SPDT, rated 0.25 A @ 120 Vac/175 Vdc

**Pressure Ratings:**

- Vacuum:** to 6000 psig
- Differential Pressure:** to 2000 psid
- Proof:** 9000 psig

**Wetted Parts:** Steel spring, anodized aluminum piston, body and fitting, Buna seal, Loctite #271 sealing compound

**Fitting:** 1/4-18 NPT female

**Electrical Connection:** 300 mm (12") pigtail leads, 24 AWG

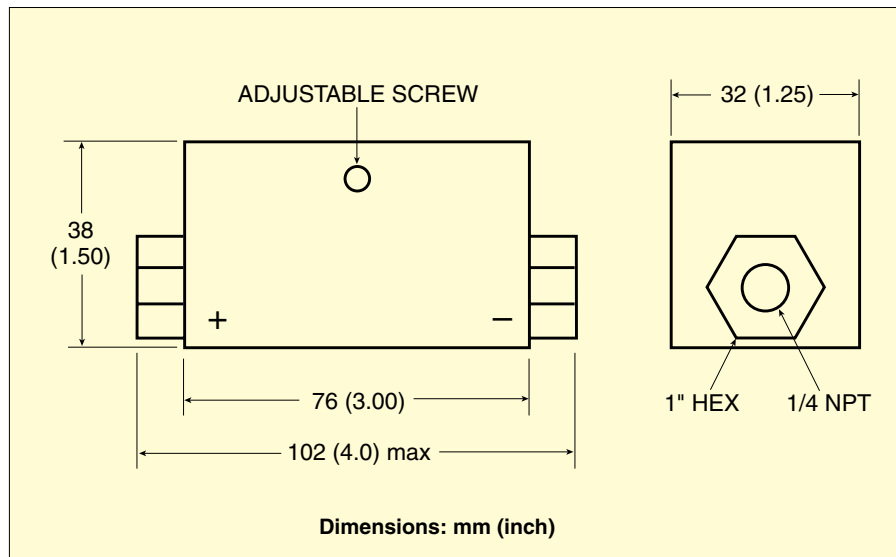
**Ambient Temperature:** -54 to 107°C (-65 to 225°F); setpoint change of up to 2% of sensor capacity may be anticipated when switch is used below -23°C or above 52°C

**Cycling:** Not to exceed 20 cycles/min

**Dimensions:**

102 L x 38.1 H x 31.8 mm D (4 x 1.5 x 1.25")

**Weight:** Approx 241 g (8.5 oz)



**To Order**

MODEL NO.	ADJUSTABLE RANGE (psid)		REPEATABILITY
	DECREASING	INCREASING	
PSW845-1	2 to 7	7 to 13	±2 psi
PSW845-2	5 to 16	13 to 25	±4 psi
PSW845-3	10 to 21	25 to 45	±8 psi
PSW845-4	20 to 80	35 to 160	±16 psi
PSW845-5	35 to 120	120 to 250	±32 psi

Comes complete with operator's manual.

**Ordering Example:** PSW845-3, differential pressure switch with 25 to 45 psi range.

# DDECCIDE CMIIDEDC

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## NPT, BSPT, AND METRIC THREADS—PROTECT YOUR PRESSURE GAGE/ TRANSUDCER FROM PRESSURE SPIKES AND WATERHAMMERS!

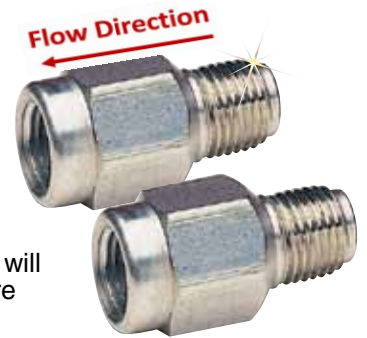
### PS-8 Series

- ✓ Dampens Pressure Spikes in the Process Fluid Before They Reach the Sensor
- ✓ Made of High-Grade Stainless Steel
- ✓ Maximum Pressure Rating Up to 10,000 psi (690 bar) for Liquids

If your system has pressure spikes, waterhammers, pressure pulsations from a pump, or rapid pressure changes, using a pressure snubber can significantly prolong the life of your sensors. A pressure snubber dampens the spikes and surges that, over time, will

cause a pressure gage or transducer to fail. The pressure snubber has a porous metal disk that protects your gage/transducer.

Easy to install, the snubber goes between the gage/transducer and the process. A pressure snubber should be used whenever there is a question about what type of pressure fluctuations a gage/transducer might experience. PS Series pressure snubbers will fit almost all industrial pressure gages and transducers.



#### Dimensions

SIZE	HEX FLATS		HEX LENGTH (APPROX)		THREAD LENGTH		OVERALL LENGTH	
	NPT	BSPT AND METRIC	NPT	BSPT AND METRIC	NPT	BSPT AND METRIC	NPT	BSPT AND METRIC
PS-8	5/8"	17 mm	2 1/32"	17 mm	1 7/32"	13 mm	1 13/16"	30 mm
PS-4	3/4"	19 mm	3 1/32"	25 mm	1/2"	13 mm	1 15/32"	37 mm
PS-2	1 1/4"	32 mm	1 1/4"	32 mm	2 9/32"	23 mm	2 5/32"	55 mm

#### To Order

THREAD MODEL NO.	(M&F)	PORE OPENING mm (inch)		CAP. CFH AT 1-psi-DIFF. PRESS	FOR USE WITH
		MEAN	MAXIMUM		
<b>NPT MODELS</b>					
PS-8D	1/8 NPT	0.064 (0.0025)	0.127 (0.005)	6.5	Oil 225 to 500 SSU (10 to 50 SAE)
PS-8E	1/8 NPT	0.033 (0.0013)	0.064 (0.0025)	3.0	Water and light oil 30 to 225 SSU
PS-8G	1/8 NPT	0.010 (0.0004)	0.0025 (0.0009)	1.1	Air, steam and gases
PS-4D	1/4 NPT	0.064 (0.0025)	0.127 (0.005)	6.5	Oil 225 to 500 SSU (10 to 50 SAE)
PS-4E	1/4 NPT	0.033 (0.0013)	0.064 (0.0025)	3.0	Water and light oil 30 to 225 SSU
PS-4G	1/4 NPT	0.010 (0.0004)	0.0025 (0.0009)	1.1	Air, steam and gases
PS-2D	1/2 NPT	0.064 (0.0025)	0.127 (0.005)	6.5	Oil 225 to 500 SSU (10 to 50 SAE)
PS-2E	1/2 NPT	0.033 (0.0013)	0.064 (0.0025)	3.0	Water and light oil 30 to 225 SSU
PS-2G	1/2 NPT	0.010 (0.0004)	0.0025 (0.0009)	1.1	Air, steam and gases
<b>BSPT MODELS</b>					
PS-8D-M	1/8-28 BSPT	0.064 (0.0025)	0.127 (0.005)	6.5	Oil 225 to 500 SSU (10 to 50 SAE)
PS-8E-M	1/8-28 BSPT	0.033 (0.0013)	0.064 (0.0025)	3.0	Water and light oil 30 to 225 SSU
PS-8G-M	1/8-28 BSPT	0.010 (0.0004)	0.0025 (0.0009)	1.1	Air, steam and gases
PS-4D-M	1/4-19 BSPT	0.064 (0.0025)	0.127 (0.005)	6.5	Oil 225 to 500 SSU (10 to 50 SAE)
PS-4E-M	1/4-19 BSPT	0.033 (0.0013)	0.064 (0.0025)	3.0	Water and light oil 30 to 225 SSU
PS-4G-M	1/4-19 BSPT	0.010 (0.0004)	0.0025 (0.0009)	1.1	Air, steam and gases
PS-2D-M	1/2-14 BSPT	0.064 (0.0025)	0.127 (0.005)	6.5	Oil 225 to 500 SSU (10 to 50 SAE)
PS-2E-M	1/2-14 BSPT	0.033 (0.0013)	0.064 (0.0025)	3.0	Water and light oil 30 to 225 SSU
PS-2G-M	1/2-14 BSPT	0.010 (0.0004)	0.0025 (0.0009)	1.1	Air, steam and gases
<b>PARALLEL METRIC MODELS</b>					
PS-8D-MG	1/8-28 G	0.064 (0.0025)	0.127 (0.005)	6.5	Oil 225 to 500 SSU (10 to 50 SAE)
PS-8E-MG	1/8-28 G	0.033 (0.0013)	0.064 (0.0025)	3.0	Water and light oil 30 to 225 SSU
PS-8G-MG	1/8-28 G	0.010 (0.0004)	0.0025 (0.0009)	1.1	Air, steam and gases
PS-4D-MG	1/4-19 G	0.064 (0.0025)	0.127 (0.005)	6.5	Oil 225 to 500 SSU (10 to 50 SAE)
PS-4E-MG	1/4-19 G	0.033 (0.0013)	0.064 (0.0025)	3.0	Water and light oil 30 to 225 SSU
PS-4G-MG	1/4-19 G	0.010 (0.0004)	0.0025 (0.0009)	1.1	Air, steam and gases
PS-2D-MG	1/2-14 G	0.064 (0.0025)	0.127 (0.005)	6.5	Oil 225 to 500 SSU (10 to 50 SAE)
PS-2E-MG	1/2-14 G	0.033 (0.0013)	0.064 (0.0025)	3.0	Water and light oil 30 to 225 SSU
PS-2G-MG	1/2-14 G	0.010 (0.0004)	0.0025 (0.0009)	1.1	Air, steam and gases

Ordering Example: PS-8D-M 1/8 x 1/8 BSPT snubber for oil

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# VERY-HIGH-ACCURACY- PRESSURE TRANSDUCER

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## STANDARD AND METRIC MODELS

- 0 to 5 Vdc Output**
- 4 to 20 mA Output**
- mV/V Output**
- 0-10 to 0-30,000 Psi-Standard Models**
- 0-700 mbar to 0-400 bar-Metric Models**

### PX01/PXM01 Series

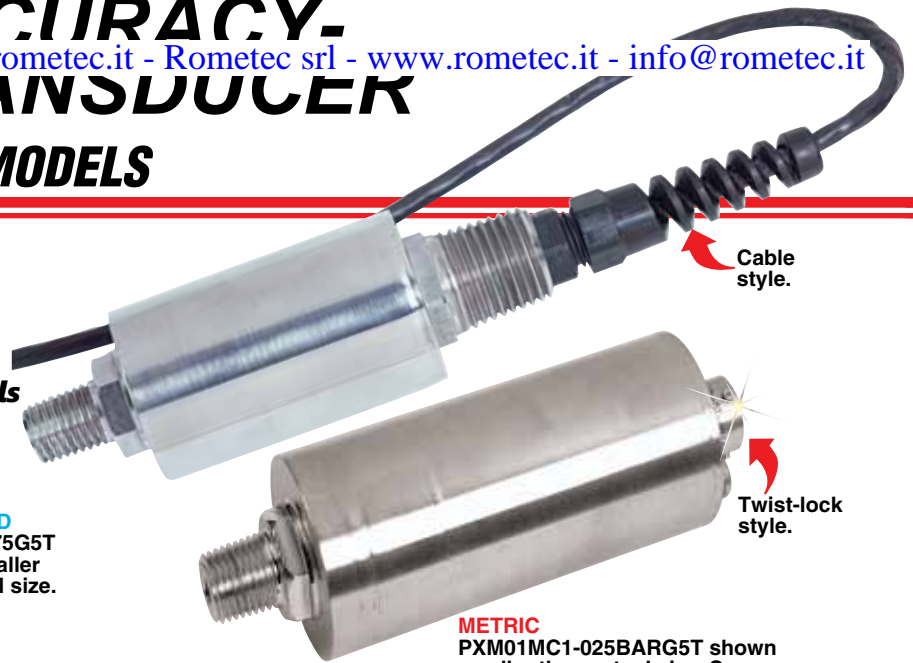


Standard On Request

- ✓ **0.05% Linearity**
- ✓ **5-Point NIST-Traceable Calibration Provided**
- ✓ **Internal Shunt Resistor for Easy System Checks**
- ✓ **Shunt Calibration for Fast System Setup**
- ✓ **All Stainless Steel Construction**
- ✓ **Hermetically Sealed Design for Harsh Environments (Not Gage Units)**
- ✓ **Available in Gage, Absolute, Sealed Gage, psi, and Metric Ranges Cable or Connector Models**
- ✓ **Optional Pressure Ports to Fit Most Industrial Applications**

**STANDARD**  
PX01C0-075G5T  
shown smaller  
than actual size.

**METRIC**  
PXM01MC1-025BARG5T shown  
smaller than actual size. See  
custom configurations chart on  
next page for ordering details.



OMEGA's PX01/PXM01 Series pressure transducers are very high-accuracy industrial pressure transmitters. Their all stainless steel construction and hermetically sealed case make them suitable for harsh environments. They are true high-accuracy devices, with a "double diaphragm" design for high reliability in industrial areas. A high operating range, a broad compensated range, and excellent temperature compensation that gives stable readings in applications with fluctuating temperatures and harsh applications. NPT and 7/16-20 O-ring seal fittings are available for industrial and hydraulic applications.

### SPECIFICATIONS

#### Excitation:

**0 to 5 Vdc Output:** 24 to 32 Vdc  
**4 to 20 mA Output:** 10 to 40 Vdc  
**4 to 20 mA (Lightning protection only):**  
 12 to 40 Vdc

#### Linearity:

**mV/V:** 0.10% FSO <500 psi  
 0.05% FSO  $\geq$ 500 psi

All other models: 0.05% FSO

#### Hysteresis:

0.05% FSO

#### Repeatability:

$\pm$ 0.05% FSO

#### Shunt Calibration Value:

Value specified on calibration sheet

#### Sensing Element:

4-active-arm bridge, using thick-film strain gages in a hermetically sealed chamber (except gage units)

#### Operating Temp Range:

-46 to 121°C (-50 to 250°F)

#### mV/V Output:

-73 to 163°C (-100 to 325°F)

#### Compensated Temp Range:

16 to 71°C (60 to 160°F)

#### Proof Pressure:

150% of rated pressure

#### Burst Pressure:

300% of rated pressure

#### Wetted Parts:

17-4 PH stainless steel

#### Pressure Port:

See custom

#### Output:

**0 to 5 Vdc Output:**  $\pm$ 10% ADJ.  
**4 to 20 mA Output:** 4 to 20 mA  $\pm$ 10%ADJ.  
**mV/V Output:** 3 mV/V  $\pm$ 0.25% <500 psi  
 2.75 mV/V  $\pm$ 0.25%  $\geq$ 500 psi

#### Zero Balance:

**0 to 5 Vdc Output:** 0 V  $\pm$ 10% ADJ.  
**4 to 20 mA:** +4 mA  $\pm$ 10% -2% ADJ.

#### mV/V Output:

1.0% FS

#### Thermal Effects:

#### Span:

**mA Output:**  $\pm$ 0.003% FSO/°F

**5V:**  $\pm$ 0.002% FSO/°F

**mV/V:**  $\pm$ 0.0015% FSO/°F

#### Zero:

**mA Output:**  $\pm$ 0.003% FSO/°F

**5V:**  $\pm$ 0.001% FSO/°F

**mV/V:**  $\pm$ 0.0015% FSO/°F

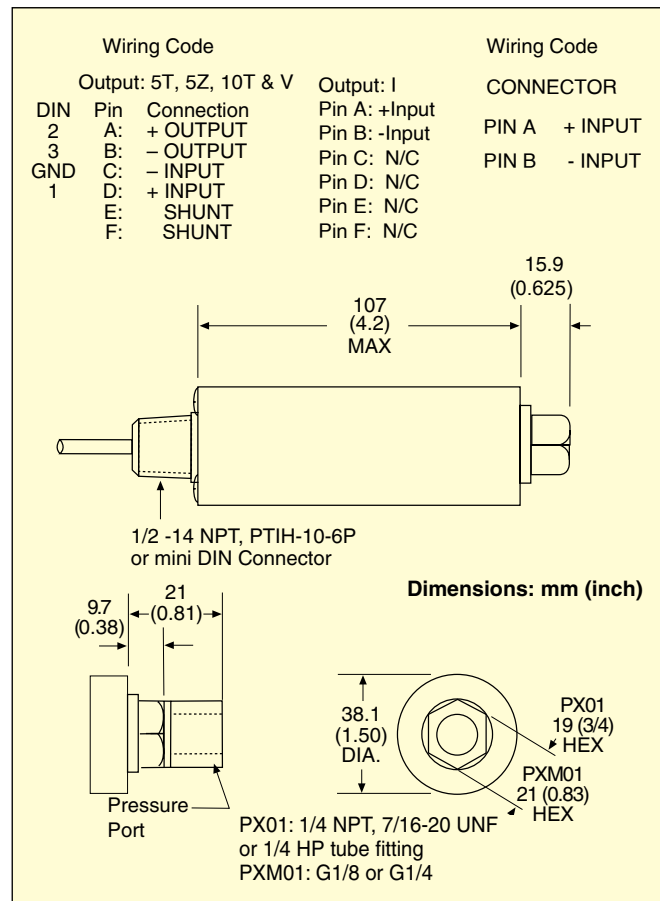
**Weight:** 388 g (13.7 oz)

**mV/V Output:** 255 g (9 oz)

**Input Resistance (mV/V Output):** 350  $\pm$ 10  $\Omega$

**Output Resistance (mV/V**

**Output):** 350  $\pm$ 10  $\Omega$



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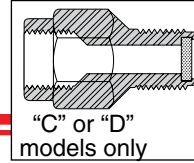
Electrical Connection: See custom configurations

Mating Connector: PT06F10-6S (sold separately)



# VERY-HIGH-ACCURACY PRESSURE TRANSDUCER

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**1/4 NPT Pressure Snubbers:**  
**PS-4G** = Gas  
**PS-4E** = Lt Oil  
**PS-4D** = Dense Lq

"C" or "D" models only

## STANDARD CUSTOM CONFIGURATIONS

PX01 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
	Models <10,000 psi		002	S,G,A	<b>5T</b> = 0 to 5 Vdc	<b>OL</b> = Overload stops + <b>additional cost</b>
<b>C</b>	1/4-18 NPT-M		005	S,G,A	<b>5Z</b> = Isolated 0 to 5Vdc	<b>OX</b> = Cleaned for oxygen use + <b>additional cost</b> plus 2 weeks
<b>D</b>	1/4-18 NPT-F		010	S,G,A	<b>10T</b> = 0 to 10 Vdc	<b>( )ft</b> = Optional cable length in feet + <b>additional cost/ft</b> over 10 feet
<b>J</b>	7/16-20 UNF-M		015	S,G,A	<b>I</b> = 4 to 20 mA	
<b>K</b>	7/16-20 UNF-F		020	S,G,A	<b>V</b> = mV/V output	
	Models ≥10,000 psi		025	S,G,A		
<b>S</b>	1/4 HP tube fitting		050	S,G,A		
	<b>0</b> = 3 m (10') cable (std)		075	S,G,A		
	+ <b>add cost/ft</b> over 3 m (10')		100	S,G,A		
	<b>1</b> = PTIH-10-6P connector (or equal)		150	S,G,A		
	Mating connector (sold separately), order <b>PT06F10-6S</b>		200	S,G,A		
	<b>6</b> = mini DIN connector		250	S,G,A		
	*no shunt cal		300	S,G,A		
	<b>5</b> = Lightning-protected amplifier box (4 to 20 mA models only)		500	S,G,A		
			750	S,G,A		
			1K	S,G,A		
			1.5K	S,G,A		
			2K	S,G,A		
			3K	S,G,A		
			3.5K	S,G,A		
			5K	S,G,A		
			7.5K	S,G,A		
			10K†	S,G,A		
			20K†	S,G,A		
			30K†	S,G,A		

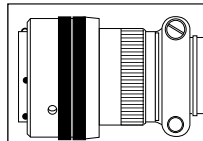
**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units
5. Select output
6. Select options

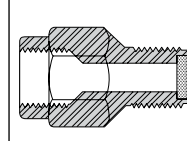
† Supplied with 1/4 HP tube fitting.  
 2 and 5 psi ranges available only on amplified output

For additional options including extended compensated temperatures, visit us online

**Ordering Examples:** **PX01C1-100GV**, 100 psi gage pressure transducer with 1/4-18 NPT male fitting, PTIH-10-6P, connector and mV/V output. **PX01J1-015AI**, 15 psi absolute pressure transducer with 7/16-20 UNF male fitting, **PTIH-10-6P**, connector and a 4 to 20 mA Vdc output. **PX01C1-100G5T**, 100 psi gage pressure transducer with 1/4-18 NPT male fitting, PTIH-10-6P, connector and 0 to 5 Vdc output. **PX01K0-1KSZ**, 1000 psi sealed gage pressure transducer with 7/16-20 UNF female fitting, 3m(10') cable, isolated 0 to 5 Vdc output. **PX01J1-015A5T**, 15 psi absolute pressure transducer with 7/16-20 UNF male fitting, PTIH-10-6P, connector, 0 to 5 Vdc output. **PT06F10-6S**, mating connector (sold separately).



**Mating Connector PT06F10-6S**



**G 1/8 Pressure Snubbers:**  
**PS-4G-MG** = Gas  
**PS-4E-MG** = Lt Oil  
**PS-4D-MG** = Dense Liquid

## METRIC CUSTOM CONFIGURATIONS

PXM01 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>MA</b>	G 1/8 Male		0.16	S,G,A	<b>5T</b> = 0 to 5 Vdc	<b>OX</b> = Cleaned for oxygen service
<b>MB</b>	G 1/8 Female		0.4	S,G,A	<b>5Z</b> = Isolated 0 to 5Vdc	<b>OL</b> = Overload stops
<b>MC</b>	G 1/8 Male		1.0	S,G,A	<b>10T</b> = 0 to 10 Vdc	<b>( )m</b> = Optional cable length in meters + <b>additional cost/m</b> over 3 m
<b>MD</b>	G 1/8 Female		1.6	S,G,A	<b>I</b> = 4 to 20 mA	
			2.5	S,G,A	<b>V</b> = mV/V output	
			4.0	S,G,A		
			6.0	S,G,A		
	<b>0</b> = 3 m (10') cable (std)		10	S,G,A		
	+ <b>add cost/m</b> over 3 m (10')		16	S,G,A		
	<b>1</b> = PTIH-10-6P connector (or equal)		25	S,G,A		
	Mating connector (sold separately), order <b>PT06F10-6S</b>		40	S,G,A		
	<b>6</b> = mini DIN connector*		60	S,G,A		
	*no shunt cal		100	S,G,A		
			160	S,G,A		
			250	S,G,A		
			400	S,G,A		

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units
5. Select output
6. Select options

For additional options including extended compensated temperatures, visit us online

**Ordering Examples:** **PXM01MB0-010BARSI**, 10 bar sealed gage pressure transducer with G 1/8 female connection, 3 m (10') cable termination, and 4 to 20 mA output.

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 m(10') cable termination. **PT06F10-6S**, mating connector (sold separately).

PRESSURE TRANSDUCERS

B

# VERY-HIGH-ACCURACY-

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# PRESSURE TRANSDUCER

## STANDARD MODELS



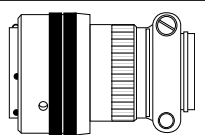
Twist-lock style.

STANDARD PX01C1-100G5T shown smaller than actual size.



mini DIN style.

METRIC PXM01MC6-010BARG5T shown smaller than actual size.



Mating Connector PT06F10-6S

### ACCESSORY

MODEL NO.	DESCRIPTION
PT06F10-6S	Mating connector for PX01/PXM01 transducers with twist-lock connector

### To Order

RANGE		3/16"-20 UNF MODEL NO.	1/4" NPT MODEL NO.	COMPATIBLE METERS*
psi	bar			
<b>Connector Style – Absolute Pressure (All Ranges Available in Absolute Pressure)</b>				
0 to 10	0 to 0.69	PX01K1-010A5T	PX01C1-010A5T	DP41-E, DP25B-E
0 to 15	0 to 1.0	PX01K1-015A5T	PX01C1-015A5T	DP41-E, DP25B-E
0 to 20	0 to 1.4	PX01K1-020A5T	PX01C1-020A5T	DP41-E, DP25B-E
0 to 25	0 to 1.7	PX01K1-025A5T	PX01C1-025A5T	DP41-E, DP25B-E
0 to 50	0 to 3.4	PX01K1-050A5T	PX01C1-050A5T	DP41-E, DP25B-E
<b>Connector Style – Gage Pressure (All Ranges Also Available in Sealed Gage Pressure)</b>				
0 to 2	0 to 0.14	PX01K1-002G5T	PX01C1-002G5T	DP41-E, DP25B-E
0 to 5	0 to 0.34	PX01K1-005G5T	PX01C1-005G5T	DP41-E, DP25B-E
0 to 10	0 to 0.69	PX01K1-010G5T	PX01C1-010G5T	DP41-E, DP25B-E
0 to 15	0 to 1.0	PX01K1-015G5T	PX01C1-015G5T	DP41-E, DP25B-E
0 to 50	0 to 3.4	PX01K1-050G5T	PX01C1-050G5T	DP41-E, DP25B-E
0 to 75	0 to 5.2	PX01K1-075G5T	PX01C1-075G5T	DP41-E, DP25B-E
0 to 100	0 to 6.9	PX01K1-100G5T	PX01C1-100G5T	DP41-E, DP25B-E
0 to 200	0 to 13.8	PX01K1-200G5T	PX01C1-200G5T	DP41-E, DP25B-E
0 to 300	0 to 20.7	PX01K1-300G5T	PX01C1-300G5T	DP41-E, DP25B-E
0 to 500	0 to 34.5	PX01K1-500G5T	PX01C1-500G5T	DP41-E, DP25B-E
0 to 1000	0 to 68.9	PX01K1-1KG5T	PX01C1-1KG5T	DP41-E, DP25B-E
0 to 1500	0 to 103	PX01K1-1.5KG5T	PX01C1-1.5KG5T	DP41-E, DP25B-E
0 to 2000	0 to 138	PX01K1-2KG5T	PX01C1-2KG5T	DP41-E, DP25B-E
0 to 3500	0 to 241	PX01K1-3.5KG5T	PX01C1-3.5KG5T	DP41-E, DP25B-E
0 to 5000	0 to 345	PX01K1-5KG5T	PX01C1-5KG5T	DP41-E, DP25B-E
0 to 7500	0 to 517	PX01K1-7.5KG5T	PX01C1-7.5KG5T	DP41-E, DP25B-E
0 to 10,000**	0 to 689	PX01S1-10KG5T†	PX01S1-10KG5T†	DP41-E, DP25B-E**
0 to 20,000**	0 to 1379	PX01S1-20KG5T†	PX01S1-20KG5T†	DP41-E, DP25B-E**
0 to 30,000**	0 to 2068	PX01S1-30KG5T†	PX01S1-30KG5T†	DP41-E, DP25B-E**

Comes complete with 5-point NIST-traceable calibration. \* Visit us online for compatible meters.

\*\* 4-digit meter, counts in increments of 10. † 1/4" HP tube fitting

To order absolute pressure, replace "G" in model number with "A" and add cost to price.

To order sealed gage units, replace "G" in model number with "S" (no extra charge).

**Ordering Examples:** PX01K1-1KG5T, 1000 psi gage transducer with 0 to 5V output, twist-lock connector and 3/16"-20 UNF female pressure connection. PT06F10-6S, mating connector (sold separately). PX01C0-010G5T, 10 psi gage transducer with 0 to 5V output, 3 m (10') cable and 1/4" NPT male pressure connection.

## METRIC MODELS

RANGE		G 1/4 FEMALE MODEL NO.	COMPATIBLE METERS*
Connector Style			
0 to 0.16 bar	0 to 2.32 psi	PXM01MD0-160mBARG5T	DP41-E, DP25B-E
0 to 0.4 bar	0 to 5.8 psi	PXM01MD0-400mBARG5T	DP41-E, DP25B-E
0 to 1 bar	0 to 15 psi	PXM01MD0-001BARG5T	DP41-E, DP25B-E
0 to 1.60 bar	0 to 23 psi	PXM01MD0-1.60BARG5T	DP41-E, DP25B-E
0 to 2.50 bar	0 to 36 psi	PXM01MD0-2.50BARG5T	DP41-E, DP25B-E
0 to 4 bar	0 to 58 psi	PXM01MD0-004BARG5T	DP41-E, DP25B-E
0 to 6 bar	0 to 87 psi	PXM01MD0-006BARG5T	DP41-E, DP25B-E
0 to 10 bar	0 to 145 psi	PXM01MD0-010BARG5T	DP41-E, DP25B-E
0 to 16 bar	0 to 232 psi	PXM01MD0-016BARG5T	DP41-E, DP25B-E
0 to 25 bar	0 to 363 psi	PXM01MD0-025BARG5T	DP41-E, DP25B-E
0 to 40 bar	0 to 580 psi	PXM01MD0-040BARG5T	DP41-E, DP25B-E
0 to 60 bar	0 to 870 psi	PXM01MD0-060BARG5T	DP41-E, DP25B-E
0 to 100 bar	0 to 1450 psi	PXM01MD0-100BARG5T	DP41-E, DP25B-E
0 to 160 bar	0 to 2321 psi	PXM01MD0-160BARG5T	DP41-E, DP25B-E
0 to 250 bar	0 to 3626 psi	PXM01MD0-250BARG5T	DP41-E, DP25B-E
0 to 400 bar	0 to 5802 psi	PXM01MD0-400BARG5T	DP41-E, DP25B-E

Comes complete with 5-point NIST traceable calibration. \* Visit us online for compatible meters.

To order absolute pressure models, replace "G" in model number with "A" and add cost to price.

To order sealed gage models, replace "G" in model number to "S" (no extra charge).

To order male thread, see Custom Configurations on next page.

**Ordering Examples:** PXM01MD6-004BARG5T, 4 bar gage transducer with 0 to 5 V output, mini DIN connector and G1/4 female pressure connection. Mating connector included. PXM01MD0-1.60BARA5T, 1.6 bar absolute transducer with 0 to 5 V output, 3 m (10') cable with 1/2" NPT conduit fitting and G1/4 female pressure connection.

# HIGH ACCURACY PRESSURE TRANSMITTERS WITH LIGHTNING-PROTECTED AMPLIFIER HOUSING

**4 to 20 mA Output**  
**0-2 to 0-30,000 psi**  
**0-150 mbar to 0-2000 bar**

1 bar = 14.5 psi  
1 kg/cm<sup>2</sup> = 14.22 psi  
1 atmosphere = 14.7 psi = 29.93 inHg = 760.2 mmHg = 1.014 bar

## PX02 SERIES



- ✓ High-Accuracy, NIST-Traceable Calibration
- ✓ FM Intrinsically Safe, Standard
- ✓ All Stainless Steel Construction
- ✓ Hermetically Sealed Design for Harsh Environments
- ✓ Available in Gage, Absolute, Sealed Gage, psi, and Metric Ranges
- ✓ Optional Pressure Ports to Fit Most Industrial Applications

OMEGA's PX02 Series comprises high-accuracy industrial pressure transmitters. All stainless steel construction and a sealed case make the PX02 suitable for harsh environments. FM Intrinsically Safe approvals are standard. A broad temperature-compensated range of 16 to 71°C (60 to 160°F) and a high operating range to 121°C (250°F) provide stability in applications with fluctuating temperatures.

The PX02 is available in gage, absolute, or sealed models, as well as in psi or metric ranges.



PX02K5-050GI, shown smaller than actual size.



CURRENT OUTPUT  
PRESSURE TRANSDUCERS

**B**

<b>To Order</b>			
<b>Models with 1/16"-20 UNF Connection/Amplifier Housing</b>			
	<b>RANGE</b>	<b>MODEL NO.</b>	<b>COMPATIBLE METERS†</b>
<b>ABSOLUTE PRESSURE (All Ranges Available in Absolute Pressure)</b>			
	0 to 10 psi	0 to 0.69 bar	<b>PX02K5-010AI</b> DP41-E, DP25B-E, DP24-E
	0 to 15 psi	0 to 1.0 bar	<b>PX02K5-015AI</b> DP41-E, DP25B-E, DP24-E
	0 to 20 psi	0 to 1.4 bar	<b>PX02K5-020AI</b> DP41-E, DP25B-E, DP24-E
	0 to 25 psi	0 to 1.7 bar	<b>PX02K5-025AI</b> DP41-E, DP25B-E, DP24-E
	0 to 50 psi	0 to 3.4 bar	<b>PX02K5-050AI</b> DP41-E, DP25B-E, DP24-E
<b>GAGE PRESSURE (All Ranges Also Available in Sealed Gage Pressure)</b>			
	0 to 2 psi	0 to 0.14 bar	<b>PX02K5-002GI</b> DP41-E, DP25B-E, DP24-E
	0 to 5 psi	0 to 0.34 bar	<b>PX02K5-005GI</b> DP41-E, DP25B-E, DP24-E
	0 to 10 psi	0 to 0.69 bar	<b>PX02K5-010GI</b> DP41-E, DP25B-E, DP24-E
	0 to 15 psi	0 to 1.0 bar	<b>PX02K5-015GI</b> DP41-E, DP25B-E, DP24-E
	0 to 50 psi	0 to 3.4 bar	<b>PX02K5-050GI</b> DP41-E, DP25B-E, DP24-E
	0 to 75 psi	0 to 5.2 bar	<b>PX02K5-075GI</b> DP41-E, DP25B-E, DP24-E
	0 to 100 psi	0 to 6.9 bar	<b>PX02K5-100GI</b> DP41-E, DP25B-E, DP24-E
	0 to 200 psi	0 to 13.8 bar	<b>PX02K5-200GI</b> DP41-E, DP25B-E, DP24-E
	0 to 300 psi	0 to 20.7 bar	<b>PX02K5-300GI</b> DP41-E, DP25B-E, DP24-E
	0 to 500 psi	0 to 34.5 bar	<b>PX02K5-500GI</b> DP41-E, DP25B-E, DP24-E
	0 to 1000 psi	0 to 68.9 bar	<b>PX02K5-1KGI</b> DP41-E, DP25B-E, DP24-E
	0 to 1500 psi	0 to 103 bar	<b>PX02K5-1.5KGI</b> DP41-E, DP25B-E, DP24-E
	0 to 2000 psi	0 to 138 bar	<b>PX02K5-2KGI</b> DP41-E, DP25B-E, DP24-E
	0 to 3500 psi	0 to 241 bar	<b>PX02K5-3.5KGI</b> DP41-E, DP25B-E, DP24-E
	0 to 5000 psi	0 to 345 bar	<b>PX02K5-5KGI</b> DP41-E, DP25B-E, DP24-E
	0 to 7500 psi	0 to 517 bar	<b>PX02K5-7.5KGI</b> DP41-E, DP25B-E, DP24-E
	0 to 10,000** psi	0 to 689 bar	<b>PX02S5-10KGI</b> DP41-E, DP25B-E, DP24-E
	0 to 20,000** psi	0 to 1379 bar	<b>PX02S5-20KGI</b> DP41-E, DP25B-E*, DP24-E*
	0 to 30,000** psi	0 to 2068 bar	<b>PX02S5-30KGI</b> DP41-E, DP25B-E*, DP24-E*

Comes complete with 5-point NIST traceable calibration.

Metric ranges available – consult Engineering.

\* 4-digit meter, counts in increments of 10. \*\* 1/4 HP tube fitting. † Visit us online for compatible meters.

For absolute pressure, replace "G" in model number with "A", add cost ≤100 psi. For sealed gage pressure, replace "G" in model number with "S" (no charge unless indicated).

Ordering Examples: **PX02K5-1KGI**, 1000 psi gage transducer with 4 to 20 mA output, amplifier housing connections and 1/16"-20 UNF female pressure connection.

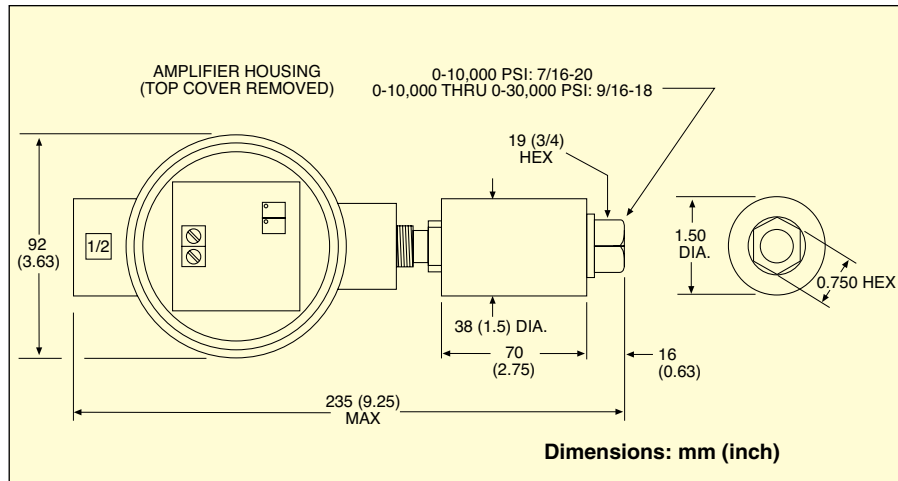
**PX02K5-015AI**, 15 psi absolute transducer with 4 to 20 mA output, amplifier housing connections and 1/16"-20 UNF female pressure connection.



# LIGHTNING-PROTECTED AMPLIFIER HOUSING

## SPECIFICATIONS

**Excitation:** 12 to 40 Vdc  
**Output:** 4 to 20 mA ±10% adj  
**Zero Balance:** 4 mA +10% -2% adj  
**Agency Approvals:** FM Intrinsically Safe IS/I.II.III/1/CDEFG standard  
**Linearity:** ±0.15% FS  
**Hysteresis:** ±0.1% FS  
**Repeatability:** ±0.05% FS  
**Sensing Element:** 4-active-arm bridge, using thick-film strain gages in a hermetically sealed chamber  
**Operating Temp Range:** -46 to 121°C (-50 to 250°F)  
**Compensated Temp Range:** 16 to 71°C (60 to 160°F)  
**Thermal Effects:**  
**Span:** 0.005% of rdg/°F  
**Zero:** 0.005% of FS/°F  
**Proof Pressure:** 150% of rated pressure  
**Burst Pressure:** 300% of rated pressure  
**Wetted Parts:** 17-4 PH SS



**Pressure Port:** Ranges <10000 psi:  
 7/16-20 UNF female, 1/4-18 NPT M/F or  
 7/16-20 UNF-2A male. ≥10K psi: 9/16-18,  
 1/4" HP tube.  
**Electrical Connection:** Lightning-protected, explosion-proof amplifier box

## CUSTOM CONFIGURATIONS

PX02 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
	Models <10,000 psi		002*	S,G,A	<b>PX02</b> 50 to 7500 psi less than 50 psi over 7500 psi Add additional <b>cost</b> for absolute pressure ranges <b>I</b> = 4 to 20 mA output	<b>OL</b> = Overload stops + <b>cost</b> <b>OX</b> = Cleaned for oxygen use + <b>cost</b> plus 2 weeks
<b>C</b>	1/4-18 NPT-M + <b>cost</b>		005*	S,G,A		
<b>D</b>	1/4-18 NPT-F, no charge		010	S,G,A		
<b>J</b>	7/16-20 UNF-M + <b>cost</b>		015	S,G,A		
<b>K</b>	7/16-20 UNF-F, no charge		020	S,G,A		
	Models ≥10,000 psi		025	S,G,A		
<b>S</b>	1/4 HP tube fitting no charge		050	S,G,A		
			075	S,G,A		
			100	S,G,A		
	<b>0</b> = 3 m (10') cable (std) + <b>cost</b> /3 m (ft) over		150	S,G,A		
			200	S,G,A		
	<b>1</b> = PTIH-10-6P connector (or equal, no charge). Mating connector (sold separately), order		250	S,G,A		
			300	S,G,A		
			500	S,G,A		
			750	S,G,A		
			1K	S,G,A		
	<b>5</b> = Lightning-protected amplifier box (no charge) (4 to 20 mA models only)		1.5K	S,G,A		
			2K	S,G,A		
			3K	S,G,A		
			3.5K	S,G,A		
			5K	S,G,A		
			7.5K	S,G,A		
			10K†	S,G,A		
			20K†	S,G,A		
			30K†	S,G,A		

*\* 2 and 5 psi ranges available only on amplified output.  
 † Supplied with 1/4 HP tube fitting.*

**Metric ranges available—PXM02 Series**

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units
5. Select output
6. Select options and agency approvals

Visit us online for additional options, including extended temperature ranges.

**Ordering Examples:** PX02C5-100GI, 100 psi gage pressure transducer with 1/4-18 NPT male fitting, lightning protected amplifier box and 4 to 20 mA output.

PX02K5-1KSI, 1000 psi sealed gage pressure transducer, with 7/16-20 UNF female fitting, lightning protected amplifier box and 4 to 20 mA output.

PX02J5-015AI, 15 psi absolute pressure transducer with, 7/16-20 UNF male fitting, lightning protected amplifier box and 4 to 20 mA output.

PX02K5-025GI, 25 psi gage pressure transducer with 7/16-20 UNF female fitting, lightning protected amplifier box, 4 to 20 mA output.



# OUTPUT PRESSURE TRANSDUCER

## STANDARD AND METRIC MODELS

**0 to 5 Vdc Output**  
**0-2 to 0-30,000 psi-Standard Models**  
**0-150 mbar to 0-400 bar-Metric Models**

### PX02/PXM02 Series



PX02K1-100G5T  
 shown smaller than  
 actual size.

Twist-lock  
 style.



PX02C0-100G5T  
 shown smaller than  
 actual size.

Cable  
 style.

VOLTAGE OUTPUT  
 PRESSURE TRANSDUCERS  
**B**

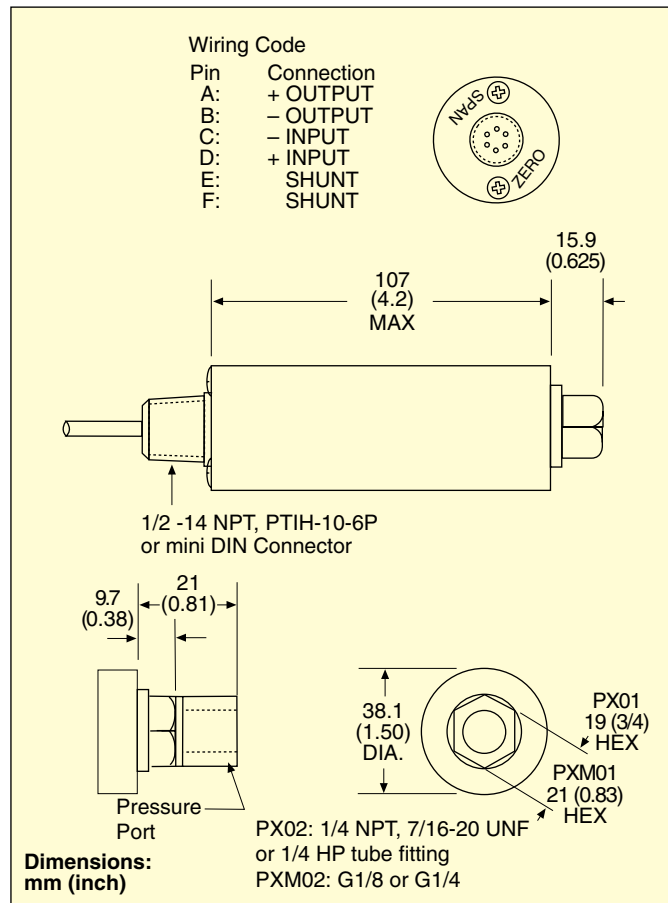
- ✓ Internal Shunt Resistor for Easy System Checks
- ✓ All Stainless Steel Construction
- ✓ Available in Gage, Absolute, Sealed Gage, psi, and Metric Ranges
- ✓ Cable, Connector Models or Mini DIN
- ✓ Optional Pressure Ports to Fit Most Industrial Applications

**Proof Pressure:** 150% of rated pressure  
**Burst Pressure:** 300% of rated pressure  
**Wetted Parts:** 17-4 PH stainless steel  
**Pressure Port:** See custom configurations  
**Electrical Connection:** See custom configurations  
**Mating Connector:** (Style 1) PT06F10-6S (sold separately)  
**Weight:** 388 g (13.7 oz)

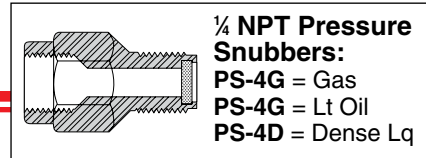
OMEGA's PX02/PXM02 are high-accuracy, amplified voltage output, industrial pressure transducers. All stainless steel construction and a hermetically sealed case make the PX02/PXM02 suitable for harsh industrial environments. They are a true high-accuracy industrial device.

### SPECIFICATIONS

**Excitation:** 24 to 32 Vdc  
**Output:** 0 to 5 Vdc  $\pm 10\%$  adjustable  
**Linearity:**  $\pm 0.15\%$  FSO  
**Hysteresis:**  $\pm 0.1\%$  FSO  
**Repeatability:**  $\pm 0.05\%$  FSO  
**Zero Balance:** 0 V  $\pm 10\%$  adj  
**Sensing Element:** 4-active-arm bridge, using thick-film strain gages in a hermetically sealed chamber (except gage units)  
**Shunt Calibration Value:** Specified on calibration sheet  
**Operating Temp Range:** -46 to 121°C (-50 to 250°F)  
**Compensated Temp Range:** 16 to 71°C (60 to 160°F)  
**Thermal Effects:**  
**Span:** 0.003% of rdg/°F  
**Zero:** 0.003% of FSO/°F

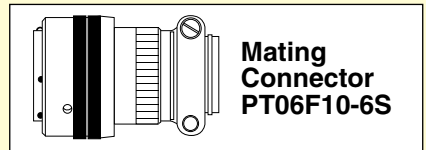


# ΠΙΣΤΟΛΟΜΕΤΡΟΙ ALL STAINLESS STEEL TRANSDUCER



## STANDARD CUSTOM CONFIGURATIONS

PX02 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
Models <10,000 psi <b>C</b> = 1/4-18 NPT-M <b>D</b> = 1/4-18 NPT-F <b>J</b> = 7/16-20 UNF-M <b>K</b> = 7/16-20 UNF-F Models ≥10,000 psi <b>S</b> = 1/4 HP tube fitting			002 005 010 015 020 025 050 075 100 150 200 250 300 500 750 1K 1.5K 2K 3K 3.5K 5K 7.5K 10K† 20K† 30K†	S,G,A S,G,A	<b>5T</b> = 0 to 5 Vdc output <b>5Z</b> = Isolated 0 to 5 Vdc <b>10T</b> = 0 to 10 Vdc output	<b>OL</b> = Overload stops + <b>additional cost</b> (when available) <b>OX</b> = Cleaned for oxygen use + <b>additional cost</b> plus 2 weeks <b>( )ft</b> = Optional cable length in feet + <b>add cost/ft</b> over 10 feet
	<b>0</b> = 3 m (10') cable (std) + <b>add cost/ft</b> over 3 m (10')					
	<b>1</b> = PTIH-10-6P connector (or equal) Mating connector (sold separately), order <b>PT06F10-6S</b>					
	<b>6</b> = mini DIN connector* * no shunt cal					
<b>For additional options including extended compensated temperatures, visit us online.</b>						

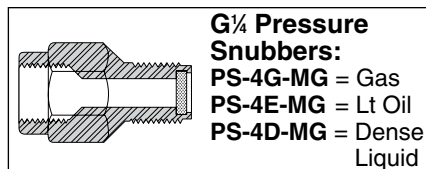


† Supplied with 1/4 HP tube fitting.

**Ordering Examples:** **PX02C1-100G5T**, 100 psi gage pressure transducer with 1/4-18 NPT male fitting, PTIH-10-6P, connector, and 0 to 5V output. **PT06F10-6S**, mating connector (sold separately). **PX02K0-1KS5Z**, 1000 psi sealed gage pressure transducer with 7/16-20 UNF female fitting, 3 m (10') cable and isolated 0 to 5 Vdc output. **PX02J1-015A5T**, 15 psi absolute pressure transducer with 7/16-20 UNF male fitting, PTIH-10-6P, connector and 0 to 5 Vdc output. **PT06F10-6S** mating connector (sold separately).

### To order a custom configuration:

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units
5. Select output
6. Select options



## METRIC CUSTOM CONFIGURATIONS

PXM02 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>MA</b> = G1/8 Male <b>MB</b> = G1/8 Female <b>MC</b> = G1/4 Male <b>MD</b> = G1/4 Female			0.16 0.4 1.0 1.6 2.5 4.0 6.0 10 16 25 40 60 100 160 250 400	S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A	<b>5T</b> = 0 to 5 Vdc <b>5Z</b> = Isolated 0 to 5 Vdc <b>10T</b> = 0 to 10 Vdc output	<b>OX</b> = Cleaned for oxygen service <b>OL</b> = Overload stops <b>( )m</b> = Optional cable length in meters + <b>add cost/m</b> over 3 m
	<b>0</b> = 3 m (10') cable (std) + <b>add cost/m</b> over 3 m (10')					
	<b>1</b> = PTIH-10-6P connector (or equal) Mating connector (sold separately), order <b>PT06F10-6S</b>					
	<b>6</b> = mini DIN connector* *no shunt cal					
<b>For additional options including extended compensated temperatures, visit us online.</b>						

**Ordering Examples:** **PXM02MB0-010BARS5T**, 10 bar sealed gage pressure transducer with G1/8 female connection and 3 m (10') cable termination.

**PXM02MD1-010BARAV**, 10 bar absolute pressure transducer with G1/8 female connection and twist-lock 6 pin connector. **PT06F10-6S**, mating connector (sold separately).

## To Order

RANGE	1/16" -20 UNF MODEL NO.	1/4" NPT MODEL NO.	COMPATIBLE METERS†	
<b>ABSOLUTE PRESSURE (All Ranges Available in Absolute Pressure)</b>				
0 to 10 psi	0 to 0.69 bar	PX02K1-010A5T	PX02C1-010A5T	DP41-E, DP25B-E
0 to 15 psi	0 to 1.0 bar	PX02K1-015A5T	PX02C1-015A5T	DP41-E, DP25B-E
0 to 20 psi	0 to 1.4 bar	PX02K1-020A5T	PX02C1-020A5T	DP41-E, DP25B-E
0 to 25 psi	0 to 1.72 bar	PX02K1-025A5T	PX02C1-025A5T	DP41-E, DP25B-E
0 to 50 psi	0 to 3.4 bar	PX02K1-050A5T	PX02C1-050A5T	DP41-E, DP25B-E
<b>GAGE PRESSURE (All Ranges Also Available in Sealed Gage Pressure)</b>				
0 to 2 psi	0 to 0.14 bar	PX02K1-002G5T	PX02C1-002G5T	DP41-E, DP25B-E
0 to 5 psi	0 to 0.34 bar	PX02K1-005G5T	PX02C1-005G5T	DP41-E, DP25B-E
0 to 10 psi	0 to 0.69 bar	PX02K1-010G5T	PX02C1-010G5T	DP41-E, DP25B-E
0 to 15 psi	0 to 1.0 bar	PX02K1-015G5T	PX02C1-015G5T	DP41-E, DP25B-E
0 to 50 psi	0 to 3.4 bar	PX02K1-050G5T	PX02C1-050G5T	DP41-E, DP25B-E
0 to 75 psi	0 to 5.2 bar	PX02K1-075G5T	PX02C1-075G5T	DP41-E, DP25B-E
0 to 100 psi	0 to 6.9 bar	PX02K1-100G5T	PX02C1-100G5T	DP41-E, DP25B-E
0 to 200 psi	0 to 13.8 bar	PX02K1-200G5T	PX02C1-200G5T	DP41-E, DP25B-E
0 to 300 psi	0 to 20.7 bar	PX02K1-300G5T	PX02C1-300G5T	DP41-E, DP25B-E
0 to 500 psi	0 to 34.5 bar	PX02K1-500G5T	PX02C1-500G5T	DP41-E, DP25B-E
0 to 1000 psi	0 to 68.9 bar	PX02K1-1KG5T	PX02C1-1KG5T	DP41-E, DP25B-E
0 to 1500 psi	0 to 103 bar	PX02K1-1.5KG5T	PX02C1-1.5KG5T	DP41-E, DP25B-E
0 to 2000 psi	0 to 138 bar	PX02K1-2KG5T	PX02C1-2KG5T	DP41-E, DP25B-E
0 to 3500 psi	0 to 241 bar	PX02K1-3.5KG5T	PX02C1-3.5KG5T	DP41-E, DP25B-E
0 to 5000 psi	0 to 345 bar	PX02K1-5KG5T	PX02C1-5KG5T	DP41-E, DP25B-E
0 to 7500 psi	0 to 517 bar	PX02K1-7.5KG5T	PX02C1-7.5KG5T	DP41-E, DP25B-E
0 to 10,000 psi**	0 to 689 bar	PX02S1-10KG5T**	PX02S1-10KG5T**	DP41-E, DP25B-E*
0 to 20,000 psi**	0 to 1379 bar	PX02S1-20KG5T**	PX02S1-20KG5T**	DP41-E, DP25B-E*
0 to 30,000 psi**	0 to 2068 bar	PX02S1-30KG5T**	PX02S1-30KG5T**	DP41-E, DP25B-E*

Comes complete with 5-point NIST-traceable calibration.

† Visit us online for compatible meters.

\* 4-digit meter, counts in increments of 10. \*\* 1/4 HP tube fitting pressure port.

To order absolute pressure, replace "G" in model number with "A" and add **cost** to price.

To order sealed gage units, replace "G" in model number with "S" (no extra charge).

**Ordering Examples:** PX02K1-1KG5T, 1000 psi gage transducer with 0 to 5 V output, twist-lock 6 pin connector and 1/16"-20 UNF female pressure connection. PT06F10-6S, mating connector (sold separately).

PX02C0-010G5T, 10 psi gage transducer with 0 to 5 V output, 3 m (10') cable and 1/4" NPT male pressure connection.

## METRIC MODELS

Models with G 1/4 Female Pressure Connection, Cable or Connector and 5 V Output			
RANGE		MODEL NO.	COMPATIBLE METERS†
<b>GAGE PRESSURE</b>			
0 to 0.16 bar	0 to 2.3 psi	PXM02MD0-160BARG5T	DP41-S, DP25B-S
0 to 0.4 bar	0 to 5.8 psi	PXM02MD0-400BARG5T	DP41-S, DP25B-S
0 to 1 bar	0 to 15 psi	PXM02MD0-001BARG5T	DP41-S, DP25B-S
0 to 1.60 bar	0 to 23 psi	PXM02MD0-1.60BARG5T	DP41-S, DP25B-S
0 to 2.50 bar	0 to 58 psi	PXM02MD0-2.50BARG5T	DP41-S, DP25B-S
0 to 4 bar	0 to 87 psi	PXM02MD0-004BARG5T	DP41-S, DP25B-S
0 to 6 bar	0 to 145 psi	PXM02MD0-006BARG5T	DP41-S, DP25B-S
0 to 10 bar	0 to 232 psi	PXM02MD0-010BARG5T	DP41-S, DP25B-S
0 to 16 bar	0 to 363 psi	PXM02MD0-016BARG5T	DP41-S, DP25B-S
0 to 25 bar	0 to 580 psi	PXM02MD0-025BARG5T	DP41-S, DP25B-S
0 to 40 bar	0 to 870 psi	PXM02MD0-040BARG5T	DP41-S, DP25B-S
0 to 60 bar	0 to 1450 psi	PXM02MD0-060BARG5T	DP41-S, DP25B-S
0 to 100 bar	0 to 2321 psi	PXM02MD0-100BARG5T	DP41-S, DP25B-S
0 to 160 bar	0 to 3626 psi	PXM02MD0-160BARG5T	DP41-S, DP25B-S
0 to 250 bar	0 to 5802 psi	PXM02MD0-250BARG5T	DP41-S, DP25B-S
0 to 400 bar	0 to 8702 psi	PXM02MD0-400BARG5T	DP41-S, DP25B-S

Comes complete with 5-point NIST-traceable calibration. † Visit us online for compatible meters.

To order absolute pressure models, replace "G" in model number with "A" and add **cost** to price.

To order sealed gage models, replace "G" in model number with "S" (no extra charge).

To order female thread, see custom configurations below.

**Ordering Examples:** PXM02MD6-004BARG5T, 4 bar gage transducer with 0 to 5 V output, mini DIN connector and G1/4 female pressure connection. Mating connector included.

PXM02MD0-001BARA5T, 1 bar absolute transducer with 0 to 5 V output, 3 m (10') cable and G1/4 female pressure connection.



**METRIC**  
PXM02MC6-010BARG5T  
shown actual size.

VOLTAGE OUTPUT  
PRESSURE TRANSDUCERS  
**B**

# ELECTRONIC BAROMETER

## STANDARD AND METRIC MODELS

**0 to 5 Vdc or 4 to 20 mA Output**  
**3 Ranges Available**  
**16 to 32 inHg – 542 to 1084 hPa**  
**26 to 32 inHg – 880 to 1084 hPa**  
**28 to 32 inHg – 948 to 1084 hPa**

### PX02/PXM02 Series



- ✓ High Accuracy
- ✓ Broad Compensated Temperature Range -18 to 66°C (0 to 150°F)
- ✓ All Stainless Steel Construction
- ✓ Hermetically Sealed for Harsh Environments
- ✓ Cable or Connector Models
- ✓ Mounting Bracket Option
- ✓ Optional Pressure Ports to Fit Most Industrial Applications

OMEGA's PX02 electronic barometer is a high-accuracy electronic barometer available in three ranges: 16 to 32 inHg, 26 to 32 inHg, or 28 to 32 inHg (absolute pressure) for laboratory or industrial test applications.

### SPECIFICATIONS

**0 to 5 V Model**  
**Input, Recommended:** 24 to 32 Vdc  
**Input, Maximum:** 32 Vdc  
**Output, FS:** 0 to 5 Vdc  
**Linearity:** ±0.15% FS  
**Hysteresis:** ±0.1% FS  
**Repeatability:** ±0.05% FS  
**Zero Balance:** 0 ±10% FS, adjustable  
**Thermal Effects:**  
**Span:** 0.005% rdg/°F (0.009%/°C)  
**Zero:** 0.005% FS/°F (0.009%/°C)

**4 to 20 mA Model**  
**Input, Recommended:** 10 to 40 Vdc

**STANDARD**  
 PX02K1-26A5T  
 shown smaller than actual size.



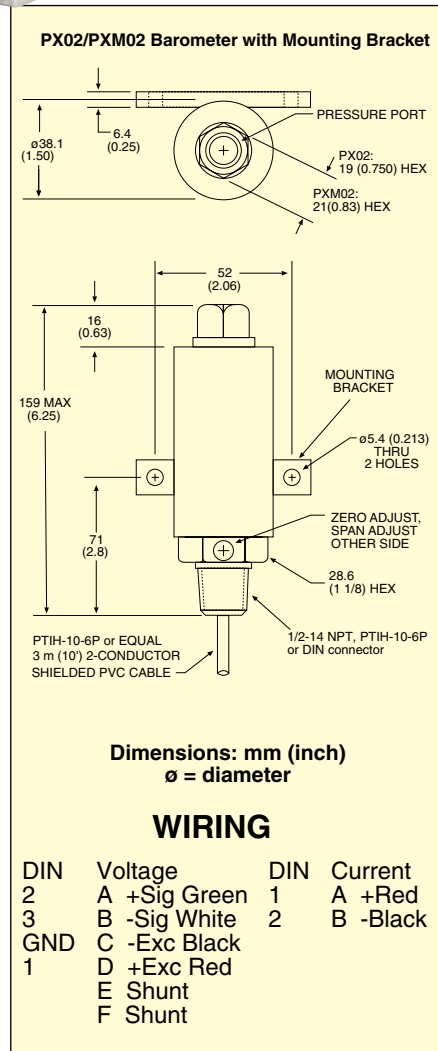
**METRIC**  
 PXM02MD0-541mBARA5T-MB  
 with optional mounting bracket, shown smaller than actual size.

Available with Optional Mounting Bracket

**Input, Maximum:** 40 Vdc  
**Output, FS:** 4 to 20 mA  
**Accuracy:** 0.25% FS, linearity, hysteresis and repeatability combined  
**Zero Balance:** 4 mA +10% -2% FS adj  
**Thermal Effects:**  
**Span:** 0.005% rdg/°F (0.009%/°C)  
**Zero:** 0.005% FS/°F (0.009%/°C)

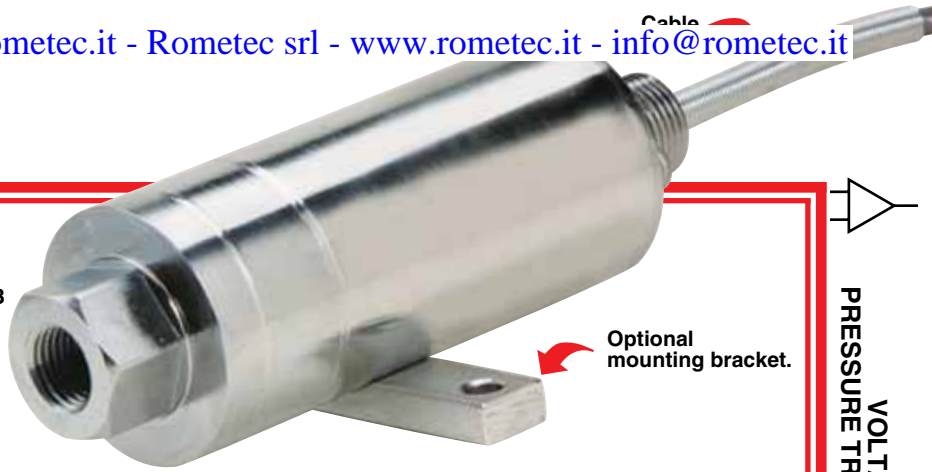
### COMMON SPECIFICATIONS

**Operating Temp Range:** -47 to 121°C (-50 to 250°F)  
**Compensated Temp Range:** -18 to 66°C (0 to 150°F)  
**Proof Pressure:** 150% of rated pressure  
**Burst Pressure:** 300% of rated pressure  
**Wetted Parts:** 17-4 PH stainless steel  
**Pressure Port:** See Custom Configurations  
**Electrical Connection:** PTIH-10-6P or equal; 3 m (10') cable: DIN connector  
**Mating Connector (Style 1):** PT06F10-6S (sold separately)  
**Weight:** 425 g (15 oz)





# ELECTRONIC BAROMETER



PXM02MD0-541mBARA5T-MB cable style, with optional mounting bracket, shown actual size.

Optional mounting bracket.

VOLTAGE OUTPUT  
PRESSURE TRANSDUCERS  
**B**

## STANDARD CUSTOM CONFIGURATIONS

SERIES PX02 Barometer	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (inHg) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
C = 1/4-18 NPT-M D = 1/4-18 NPT-F J = 7/16-20 UNF-M K = 7/16-20 UNF-F			16 to 32 inHg 26 to 32 inHg 28 to 32 inHg	A A A	5T = 0 to 5 Vdc output I = 4 to 20 mA output	OX = Cleaned for oxygen service OL = Overload stops (JM) = Optional cable length in meters -MB = Mounting bracket + additional cost
<p>0 = 3 m (10') cable (std) + add cost/ft over 3 m (10')</p> <p>1 = PTIH-10-6P connector (or equal) Mating connector (sold separately), order <b>PT06F10-6S</b>.</p> <p>5 = Lightning-protected amplifier box (4 to 20 mA models only)</p> <p>6 = mini DIN connector</p>						
<p><b>To order a custom configuration:</b></p> <ol style="list-style-type: none"> <li>1. Select a pressure port</li> <li>2. Select electrical connection</li> <li>3. Select a pressure range</li> <li>4. Select pressure units</li> <li>5. Select output</li> <li>6. Select options</li> </ol>						

**Ordering Examples:** PX02K1-26AI-MB, 26 to 32 inHg calibrated electronic barometer with 7/16-20 UNF internal connection, 4 to 20 mA output, twist connector and optional mounting bracket. PT06F10-6S, mating connector (sold separately).

PX02 K1-28A5T-MB, 28 to 32 inHg calibrated electronic barometer with 7/16-20 UNF internal connection, 0 to 5 Vdc output and twist connector. PT06F10-6S, mating connector (sold separately).

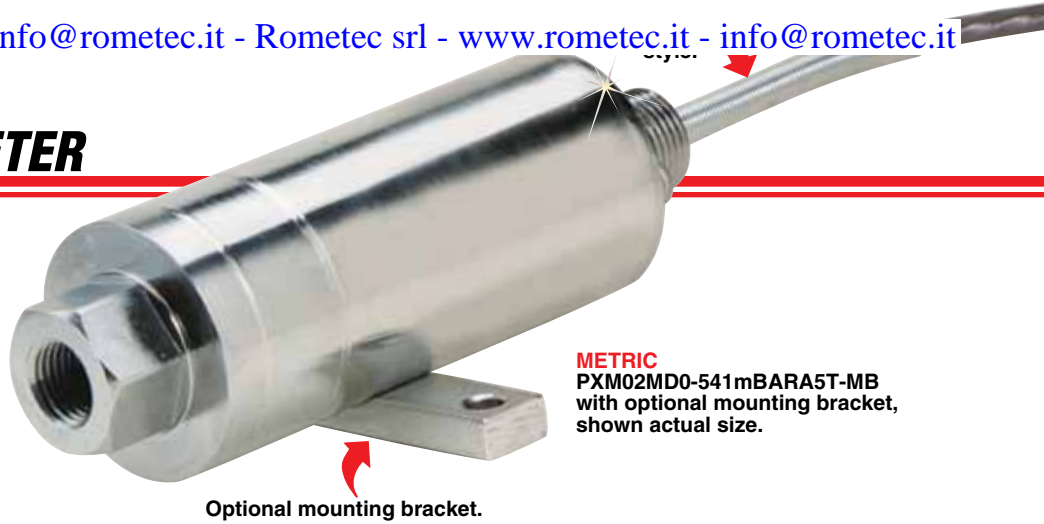
## METRIC CUSTOM CONFIGURATIONS

SERIES PXM02 Barometer	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (hPa) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
MA = G1/8 Male MB = G1/8 Female MC = G1/4 Male MD = G1/4 Female			542 to 1084 hPa 880 to 1084 hPa 948 to 1084 hPa	A A A	5T = 0 to 5 Vdc output I = 4 to 20 mA output	OX = Cleaned for oxygen service OL = Overload stops (m) = optional cable length in meters -MB = Mounting bracket + additional cost
<p>0 = 3 m (10') cable (std) + add cost/m over 3 m (10')</p> <p>1 = PTIH-10-6P connector (or equal) Mating connector (sold separately), order <b>PT06F10-6S</b></p> <p>5 = Lightning-protected amplifier box (4 to 20 mA models only)</p> <p>6 = mini DIN connector</p>						
<p><b>To order a custom configuration:</b></p> <ol style="list-style-type: none"> <li>1. Select a pressure port</li> <li>2. Select electrical connection</li> <li>3. Select a pressure range</li> <li>4. Select pressure units</li> <li>5. Select output</li> <li>6. Select options</li> </ol>						

**Ordering Examples:** PXM02MD1-880MBARAI-MB, 880 to 1084 hPa calibrated electronic barometer with G1/4 female pressure port, 4 to 20 mA output, twist-lock connector and optional mounting bracket. PT06F10-6S, mating connector (sold separately).

PXM02MCO-948A5T-MB, 948 to 1084 hPa calibrated electronic barometer with G1/4 male pressure port, 0 to 5 Vdc output and 3 m (10') cable.

# ELECTRONIC BAROMETER



## STANDARD MODELS

To Order				
MODELS WITH 1/16-20 UNF INTERNAL CONNECTION AND TWIST-LOCK CONNECTOR				
RANGE			BAROMETER MODEL NO.	COMPATIBLE METERS*
inHg	hPa	mmHg		
<b>0 TO 5 V OUTPUT</b>				
16 to 32	542 to 1084	406 to 813	PX02K1-16A5T	DP41-E, DP25B-E, DP24-E
26 to 32	880 to 1084	660 to 813	PX02K1-26A5T	DP41-E, DP25B-E, DP24-E
28 to 32	948 to 1084	711 to 813	PX02K1-28A5T	DP41-E, DP25B-E, DP24-E
<b>4 TO 20 mA OUTPUT</b>				
16 to 32	542 to 1084	406 to 813	PX02K1-16AI	DP41-E, DP25B-E, DP24-E
26 to 32	880 to 1084	660 to 813	PX02K1-26AI	DP41-E, DP25B-E, DP24-E
28 to 32	948 to 1084	711 to 813	PX02K1-28AI	DP41-E, DP25B-E, DP24-E

Comes complete with 5-point NIST-traceable calibration.

\* Visit [omega.com](http://omega.com) for compatible meters.

**Ordering Examples:** PX02K1-26AI, 26 to 32 inHg calibrated electronic barometer with 1/16-20 UNF internal connection, 4 to 20 mA output, PTIH-10-6P connector. PT06F10-6S, mating connector (sold separately).

PX02K1-28A5T-MB, 28 to 32 inHg calibrated electronic barometer with 1/16-20 UNF internal connection, 0 to 5 Vdc output, PTIH-10-6P connector and optional mounting bracket. PT06F10-6S, mating connector (sold separately).

## METRIC MODELS

MODELS WITH G 1/4 INTERNAL CONNECTION WITH CABLE OR CONNECTOR AND 5 V OUTPUT				
RANGE			BAROMETER MODEL NO.	COMPATIBLE METERS*
hPa	mmHg			
<b>0 TO 5 V OUTPUT</b>				
541-1084	406-813		PXM02MD0-541mBARA5T	DP41-E, DP25B-E, DP24-E
880-1084	660-813		PXM02MD0-880mBARA5T	DP41-E, DP25B-E, DP24-E
948-1084	711-813		PXM02MD0-948mBARA5T	DP41-E, DP25B-E, DP24-E
<b>4 TO 20 mA OUTPUT</b>				
541-1084	406-813		PXM02MD0-541mBARAI	DP41-E, DP25B-E, DP24-E
880-1084	660-813		PXM02MD0-880mBARAI	DP41-E, DP25B-E, DP24-E
948-1084	711-813		PXM02MD0-948mBARAI	DP41-E, DP25B-E, DP24-E

Comes complete with 5-point NIST-traceable calibration.

\* Visit [omega.com](http://omega.com) for compatible meters.

To order different process connections, see custom configurations below.

**Ordering Examples:** PXM02MD0-541mBARAI-MB, 541 to 1084 hPa calibrated electronic barometer with G1/4 internal thread, 4 to 20 mA output, 3 m (10') cable and the optional mounting bracket.

PXM02MD6-880mBARA5T-MB, 880 to 1084 hPa calibrated electronic barometer with G1/4 internal connection, 0 to 5 Vdc output, mini-DIN connector and the optional mounting bracket. PT06F10-6S, mating connector (sold separately).

## OPTION

ORDER SUFFIX	DESCRIPTION
-MB	Mounting Bracket

# CURRENT OUTPUT TRANSDUCER

## STANDARD AND METRIC MODELS

**1/8"-20 or 1/4" NPT Connections**  
**4 to 20 mA Output**  
**0-2 to 0-30,000 psi-Standard Models**  
**0-150 mbar to 0-400 bar-Metric Models**

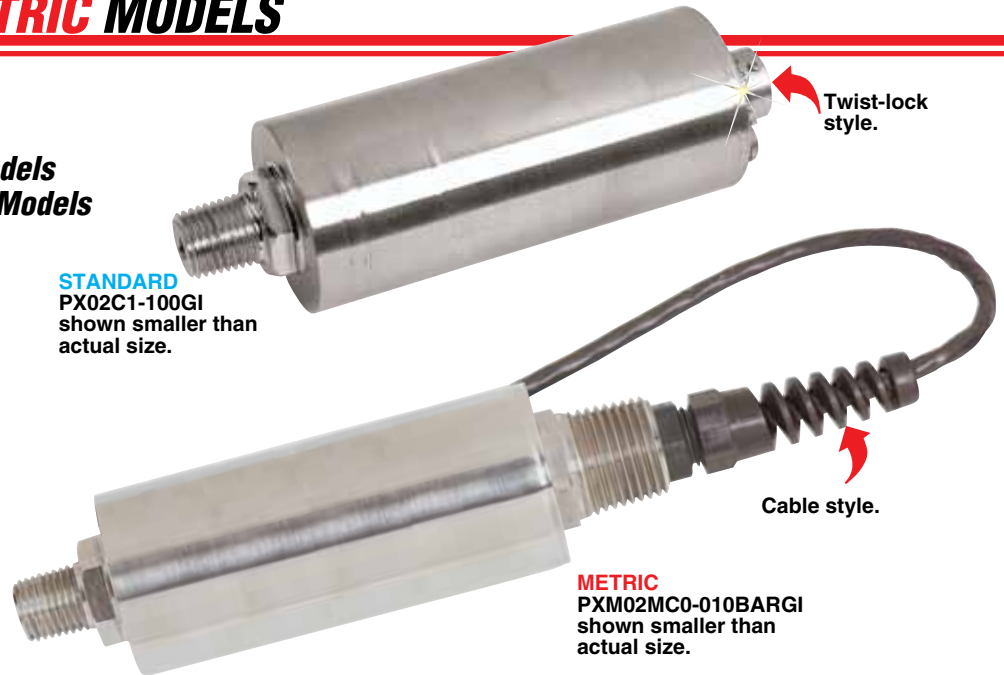
### PX02/PXM02 Series



- ✓ High Accuracy
- ✓ 5-Point Calibration Provided
- ✓ All Stainless Steel Construction
- ✓ Hermetically Sealed Design for Harsh Environments
- ✓ Available in Gage, Absolute, Sealed Gage, psi, and Metric Ranges
- ✓ Cable or Connector Models
- ✓ Optional Pressure Ports to Fit Most Industrial Applications

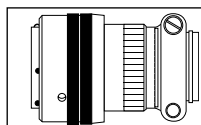
OMEGA's PX02/PXM02 are high-accuracy industrial pressure transmitters. All stainless steel construction and a sealed case make the PX02/PXM02 suitable for harsh industrial environments. It is a true high-accuracy industrial device. A broad temperature-compensated range of 16 to 71°C (60 to 160°F) and a high operating range to 121°C (250°F) make these transducers very stable for applications with fluctuating temperatures.

The PX02 is available in gage, absolute, or sealed models, as well as in psi or metric ranges. NPT and 1/8"-20 O-ring seal fittings are available for industrial and hydraulic applications.

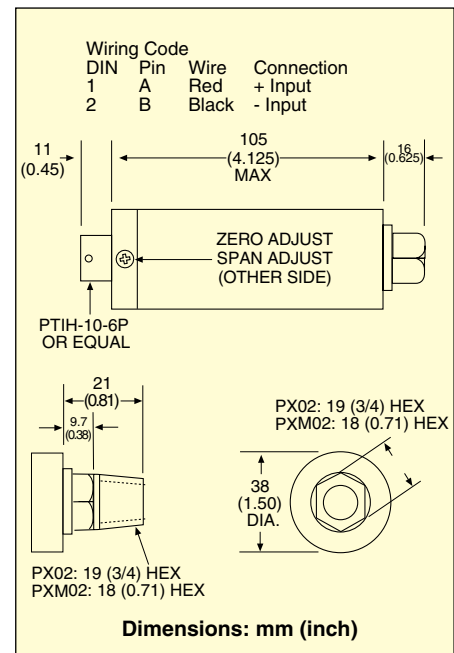


### SPECIFICATIONS

**4 to 20 mA Output**  
**Excitation:** 10 to 40 Vdc  
**Output:** 4 to 20 mA ±10% adj  
**Zero Balance:** 4 mA +10% -2% adj  
**Linearity:** ±0.15% FSO  
**Hysteresis:** ±0.1% FSO  
**Repeatability:** ±0.05% FSO  
**Sensing Element:** 4-active-arm bridge, using thick-film strain gages in a hermetically sealed chamber (except gage units)  
**Operating Temp Range:** -46 to 121°C (-50 to 250°F)  
**Compensated Temp Range:** 16 to 71°C (60 to 160°F)  
**Thermal Effects:**  
**Span:** 0.009% FSO/°C  
**Zero:** 0.009% FSO/°C  
**Proof Pressure:** 150% of rated pressure  
**Burst Pressure:** 300% of rated pressure  
**Wetted Parts:** 17-4 PH stainless steel  
**Pressure Port:** See custom configurations table on next page  
**Electrical Connection:** See custom configurations table on next page  
**Mating Connector:** PT06F10-6S (sold separately)  
**Weight:** 388 g (13.7 oz)



**Mating Connector**  
PT06F10-6S



**1/4" NPT Pressure Snubbers:**  
**PS-4G** = Gas  
**PS-4E** = Lt Oil  
**PS-4D** = Dense Lq

**3/4" Pressure Snubbers:**  
**PS-4G-MG** = Gas  
**PS-4E-MG** = Lt Oil  
**PS-4D-MG** = Dense Liquid

# HIGH-ACCURACY ALL STAINLESS STEEL TRANSDUCER



CURRENT OUTPUT  
PRESSURE TRANSDUCERS  
**B**

## STANDARD CUSTOM CONFIGURATIONS

PX02 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
Models < 10,000 psi			002*	A, G, S	I = 4 to 20 mA output	<b>OL</b> = Overload stops + <b>additional cost</b> when available <b>OX</b> = Cleaned for oxygen service + <b>additional cost</b> plus 2 weeks <b>( )ft</b> = Optional cable length in feet
<b>C</b> = 1/4-18 NPT-M			005*	A, G, S		
<b>D</b> = 1/4-18 NPT-F			010	A, G, S		
<b>J</b> = 7/16-20 UNF-M			015	A, G, S		
<b>K</b> = 7/16-20 UNF-F			020	A, G, S		
Models ≥ 10,000 psi			025	A, G, S		
<b>S</b> = 1/4 HP tube fitting			050	A, G, S		
			075	A, G, S		
			100	A, G, S		
			150	A, G, S		
<b>0</b> = 3 m (10') cable (std)			200	A, G, S		
			250	A, G, S		
			300	A, G, S		
<b>1</b> = PTIH-10-6P connector (or equal)			500	A, G, S		
			750	A, G, S		
			1K	A, G, S		
			1.5K	A, G, S		
<b>5</b> = Lightning-protected amplifier box (4 to 20 mA models only)			2K	A, G, S		
			3K	A, G, S		
			3.5K	A, G, S		
<b>6</b> = mini DIN connector (no shunt cal)			5K	A, G, S		
			7.5K	A, G, S		
			10K†	A, G, S		
			20K†	A, G, S		
			30K†	A, G, S		

**For additional options, including extended temperature ranges, see omega.com**

*\* 2 and 5 psi ranges available only on amplified output.  
† Supplied with 1/4 HP tube fitting.*

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units
5. Select output
6. Select options

**Ordering Example:** PX02C1-100GI, 100 psi gage pressure transducer with 1/4-18 NPT male fitting, PTIH-10-6P, connector, and 4 to 20 mA output, PT06F10-6S, mating connector (sold separately).

## METRIC CUSTOM CONFIGURATIONS

PXM02 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>MA</b> = G3/8 Male			0.16	A, G, S	I = 4 to 20 mA	<b>OX</b> = Cleaned for oxygen service <b>OL</b> = Overload stops <b>( )m</b> = Optional cable length in meters
<b>MB</b> = G3/8 Female			0.4	A, G, S		
<b>MC</b> = G1/2 Male			1.0	A, G, S		
<b>MD</b> = G1/2 Female			1.6	A, G, S		
			2.5	A, G, S		
			4.0	A, G, S		
			6.0	A, G, S		
<b>0</b> = 3 m (10') cable (std)			10	A, G, S		
			16	A, G, S		
			25	A, G, S		
<b>1</b> = PTIH-10-6P connector (or equal)			40	A, G, S		
			60	A, G, S		
<b>6</b> = mini DIN connector (no shunt cal)			100	A, G, S		
			160	A, G, S		
			250	A, G, S		
			400	A, G, S		

**For additional options, including extended compensated temperatures, see omega.com**

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units – absolute, gage or sealed gage
5. Select output
6. Select options

**Ordering Examples:** PXM02MB0-010BARS, 10 bar sealed gage pressure transducer with G3/8 female connection and 3 m (10') cable termination.

PXM02MD1-010BARAI, 10 bar absolute pressure transducer with G3/8 female connection and twist-lock connector. PT06F10-6S, mating connector (sold separately).



**STANDARD MODELS**

<b>To Order</b>				
<b>RANGE</b>	<b>3/16"-20 UNF MODEL NO.</b>	<b>1/4" NPT MODEL NO.</b>	<b>COMPATIBLE METERS†</b>	
<b>ABSOLUTE PRESSURE (All Ranges Available in Absolute Pressure)</b>				
0 to 10 psi	0 to 0.69 bar	PX02K[*]-010AI	PX02C[*]-010AI	DP41-E, DP25B-E
0 to 15 psi	0 to 1.0 bar	PX02K[*]-015AI	PX02C[*]-015AI	DP41-E, DP25B-E
0 to 20 psi	0 to 1.4 bar	PX02K[*]-020AI	PX02C[*]-020AI	DP41-E, DP25B-E
0 to 25 psi	0 to 1.7 bar	PX02K[*]-025AI	PX02C[*]-025AI	DP41-E, DP25B-E
0 to 50 psi	0 to 3.4 bar	PX02K[*]-050AI	PX02C[*]-050AI	DP41-E, DP25B-E
<b>GAGE PRESSURE (All Ranges Also Available in Sealed Gage Pressure)</b>				
0 to 2 psi	0 to 0.14 bar	PX02K[*]-002GI	PX02C[*]-002GI	DP41-E, DP25B-E
0 to 5 psi	0 to 0.34 bar	PX02K[*]-005GI	PX02C[*]-005GI	DP41-E, DP25B-E
0 to 10 psi	0 to 0.69 bar	PX02K[*]-010GI	PX02C[*]-010GI	DP41-E, DP25B-E
0 to 15 psi	0 to 1.0 bar	PX02K[*]-015GI	PX02C[*]-015GI	DP41-E, DP25B-E
0 to 50 psi	0 to 3.4 bar	PX02K[*]-050GI	PX02C[*]-050GI	DP41-E, DP25B-E
0 to 75 psi	0 to 5.2 bar	PX02K[*]-075GI	PX02C[*]-075GI	DP41-E, DP25B-E
0 to 100 psi	0 to 6.9 bar	PX02K[*]-100GI	PX02C[*]-100GI	DP41-E, DP25B-E
0 to 200 psi	0 to 13.8 bar	PX02K[*]-200GI	PX02C[*]-200GI	DP41-E, DP25B-E
0 to 300 psi	0 to 20.7 bar	PX02K[*]-300GI	PX02C[*]-300GI	DP41-E, DP25B-E
0 to 500 psi	0 to 34.5 bar	PX02K[*]-500GI	PX02C[*]-500GI	DP41-E, DP25B-E
0 to 1000 psi	0 to 68.9 bar	PX02K[*]-1KGI	PX02C[*]-1KGI	DP41-E, DP25B-E
0 to 1500 psi	0 to 103 bar	PX02K[*]-1.5KGI	PX02C[*]-1.5KGI	DP41-E, DP25B-E
0 to 2000 psi	0 to 138 bar	PX02K[*]-2KGI	PX02C[*]-2KGI	DP41-E, DP25B-E
0 to 3500 psi	0 to 241 bar	PX02K[*]-3.5KGI	PX02C[*]-3.5KGI	DP41-E, DP25B-E
0 to 5000 psi	0 to 345 bar	PX02K[*]-5KGI	PX02C[*]-5KGI	DP41-E, DP25B-E
0 to 7500 psi	0 to 517 bar	PX02K[*]-7.5KGI	PX02C[*]-7.5KGI	DP41-E, DP25B-E
0 to 10,000 psi**	0 to 689 bar	PX02S[*]-10KGI	PX02S[*]-10KGI	DP41-E, DP25B-E*
0 to 20,000 psi**	0 to 1379 bar	PX02S[*]-20KGI	PX02S[*]-20KGI	DP41-E, DP25B-E*
0 to 30,000 psi**	0 to 2068 bar	PX02S[*]-30KGI	PX02S[*]-30KGI	DP41-E, DP25B-E*

[\*] = Insert "0" for 3 m (10') cable, "1" for twist-lock connector, or "6" for mini DIN connector.

**Ordering Examples:** PX02K1-1KGI, 1000 psi gage transducer with 4 to 20 mA output, twist lock connector and 3/16"-20 female pressure connection. PT06F10-6S, mating connector (sold separately), PX02C0-010GI, 10 psi gage transducer with 4 to 20 mA output, 3 m (10') cable and 1/4" NPT male pressure connection.

**ACCESSORY**

<b>MODEL NO.</b>	<b>DESCRIPTION</b>
PT06F10-6S	Mating connector for PX02/PXM02 transducers with PTIH-10-6P electrical connection

Comes complete with 5-point calibration.  
 \* 4-digit meter, counts in increments of 10.  
 \*\* 1/4 HP tube fitting.

† See [omega.com](http://omega.com) for compatible meters.

[\*] = Insert "0" for 3 m (10') cable, "1" for twist-lock connector, or "6" for mini DIN connector.

To order absolute pressure models, replace "G" in model number with "A" and add **cost**  
 To order sealed gage models, replace "G" in model number with "S" (no extra charge).

**Ordering Examples:** PXM02MD6-4BARGI, 4 bar gage transmitter with 4 to 20 mA output, mini-DIN connector and G 1/4 female pressure connection. Mating connector included. PXM02MC0-010BARAI, 10 bar absolute transmitter with 4 to 20 mA output, 3 m (10') cable with 1/2" NPT conduit fitting and and G 1/4 male pressure connection.

**METRIC MODELS**

<b>Models with G 1/4 Female Pressure Connection, Cable or Connector and 4 to 20 mA Output</b>				
<b>RANGE</b>	<b>MODEL NO.</b>		<b>COMPATIBLE METERS†</b>	
<b>GAGE PRESSURE</b>				
0 to 0.16 bar	0 to 2.32 psi	PXM02MD[*]-160mBARGI	DP41-E, DP25B-E	
0 to 0.4 bar	0 to 5.8 psi	PXM02MD[*]-400mBARGI	DP41-E, DP25B-E	
0 to 1 bar	0 to 15 psi	PXM02MD[*]-001BARGI	DP41-E, DP25B-E	
0 to 1.60 bar	0 to 23 psi	PXM02MD[*]-1.60BARGI	DP41-E, DP25B-E	
0 to 2.50 bar	0 to 36 psi	PXM02MD[*]-2.50BARGI	DP41-E, DP25B-E	
0 to 4 bar	0 to 58 psi	PXM02MD[*]-004BARGI	DP41-E, DP25B-E	
0 to 6 bar	0 to 87 psi	PXM02MD[*]-006BARGI	DP41-E, DP25B-E	
0 to 10 bar	0 to 145 psi	PXM02MD[*]-010BARGI	DP41-E, DP25B-E	
0 to 16 bar	0 to 232 psi	PXM02MD[*]-016BARGI	DP41-E, DP25B-E	
0 to 25 bar	0 to 363 psi	PXM02MD[*]-025BARGI	DP41-E, DP25B-E	
0 to 40 bar	0 to 580 psi	PXM02MD[*]-040BARGI	DP41-E, DP25B-E	
0 to 60 bar	0 to 870 psi	PXM02MD[*]-060BARGI	DP41-E, DP25B-E	
0 to 100 bar	0 to 1450 psi	PXM02MD[*]-100BARGI	DP41-E, DP25B-E	
0 to 160 bar	0 to 2321 psi	PXM02MD[*]-160BARGI	DP41-E, DP25B-E	
0 to 250 bar	0 to 3626 psi	PXM02MD[*]-250BARGI	DP41-E, DP25B-E	
0 to 400 bar	0 to 5802 psi	PXM02MD[*]-400BARGI	DP41-E, DP25B-E	

## PRESSURE TRANSDUCERS

### mV/V Output

0-15 to 0-10,000 psi

0-1 to 0-700 bar

1 bar = 14.5 psi

1 kg/cm<sup>2</sup> = 14.22 psi

1 atmosphere = 14.7 psi = 29.93

inHg = 760.2 mmHg = 1.014 bar

### PX1004/PX1009 Series



- ✓ Two Versions That Operate from -54 to 232°C (-65 to 450°F) (PX1004) or -54 to 343°C (-65 to 650°F) (PX1009)

- ✓ High Performance
- ✓ Proven High Reliability
- ✓ Exceptional Calibration Stability

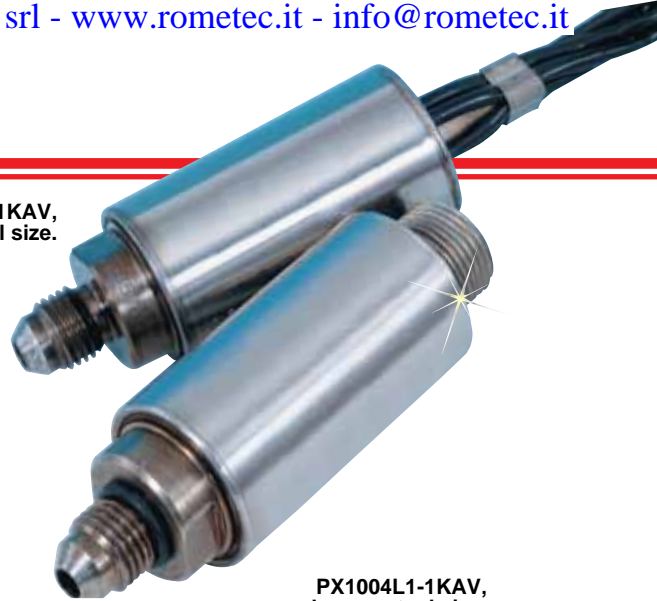
### Applications

- ✓ Engine and Test Stands
- ✓ High-Temperature Testing
- ✓ Process Monitoring
- ✓ Ground Support Equipment
- ✓ High-Temperature Geothermal Generators

OMEGA's PX1004 and PX1009 sputtered thin-film pressure transducers are designed for high-temperature service. These instruments can operate in temperatures from -54 to 232°C or 343°C (-65 to 450°F or 650°F).

Yet even in these extreme temperatures, they provide outstanding accuracy, long-term calibration stability, and reliability. Static accuracy is ±0.25%, and thermal zero and sensitivity shifts over their compensated ranges are less than ±0.01%/°F.

PX1009L0-1KAV, shown actual size.



PX1004L1-1KAV, shown actual size.

OMEGA's thin-film technology makes this premium performance possible. The strain gages are sputter-deposited, forming a molecular bond with the substrate. There is virtually no shift, drift, or creep to cause the transducer's calibration to change. The all-welded stainless steel pressure cavity and double-isolated case ensure pressure integrity and reliability in adverse environments.

These high-temperature transducers are available in many standard ranges from 15 psi to 10,000 psi. A NIST-traceable calibration record is available for these units.

### SPECIFICATIONS

Excitation: 10 Vdc

Full Range Output:

30 mV nominal, 26 mV minimum

Residual Unbalance:

0 mV ±5% FSO at zero pressure

Input Resistance: 400 Ω nominal

Output Resistance: 400 Ω nominal

### Insulation Resistance:

PX1004: 100MΩ or greater at 50Vdc

PX1009: 50MΩ or greater at 50Vdc

### Electrical Connections:

PX1004: PCIH-10-6P or equivalent

PX1009: Color-coded pigtail leads, 0.8 m (30") long, minimum

### Sensing Element:

4-active-arm bridge using sputter-deposited thin-film elements.

**Accuracy:** Combined linearity, hysteresis and repeatability: ±0.25% FSO, BSL (over the compensated temperature range)

**Note:** Performance is determined at 25°C ±1°C (77°F ±2°F), open circuit, rated excitation, unless otherwise specified

### Operating Temp Range:

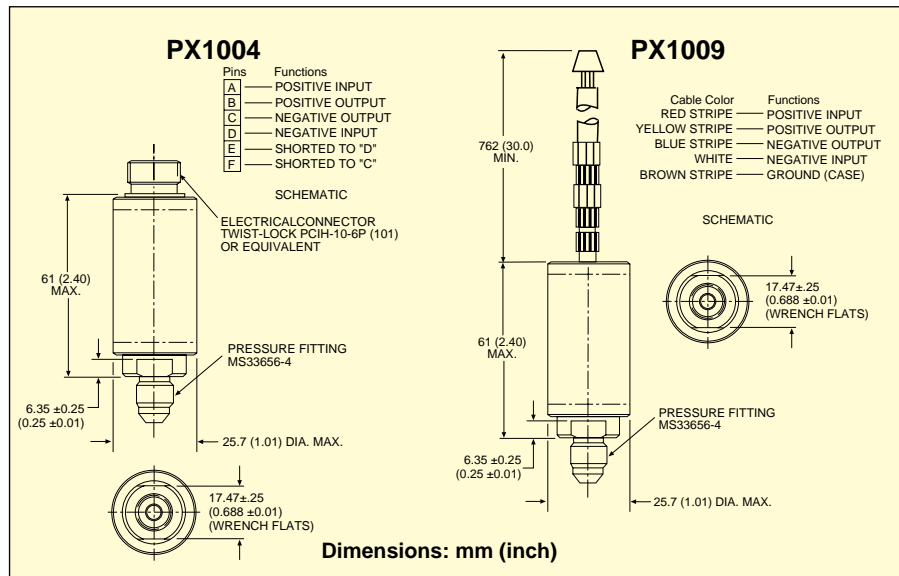
PX1004: -54 to 232°C (-65 to 450°F)

PX1009: -54 to 343°C (-65 to 650°F)

### Compensated Temp Range:

PX1004: 24 to 204°C (75 to 400°F)

PX1009: 24 to 316°C (75 to 600°F)





# ELIUM MOUNT ADAPTORS

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## FOR SERIES 102 AND 103 TRANSDUCERS

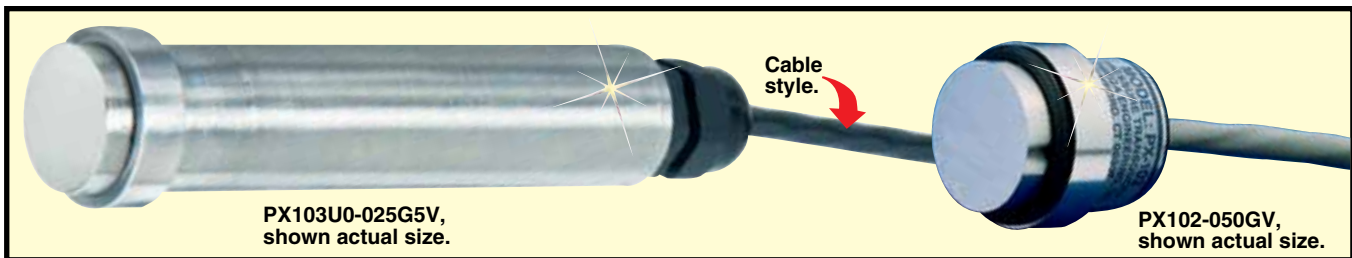
### O-RING INCLUDED WITH EACH ADAPTOR



AD-3SS with 1 NPT fitting, shown actual size.



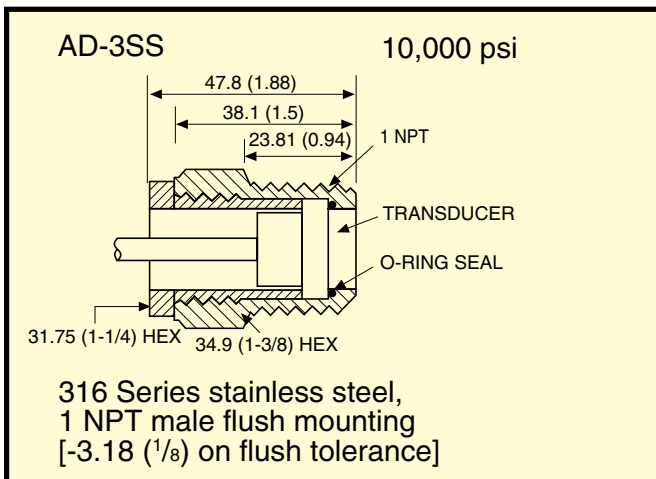
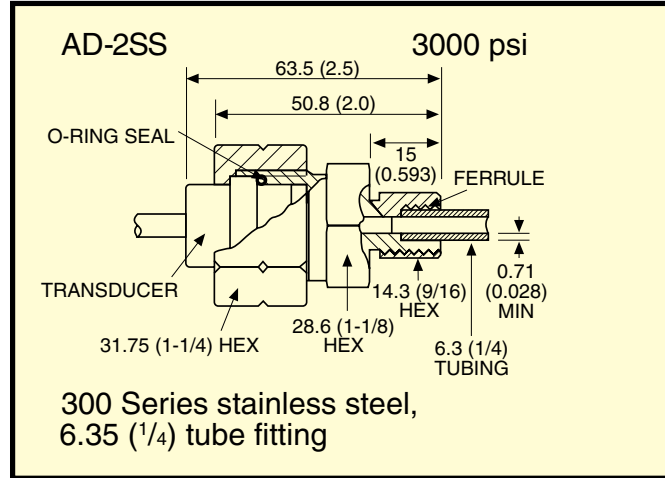
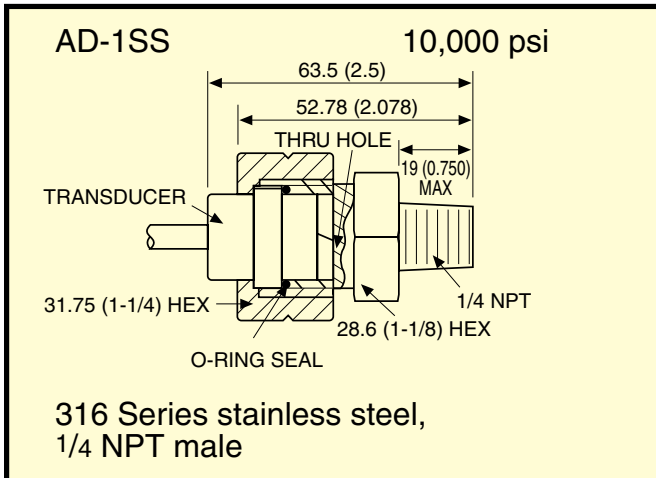
AD-1SS with 1/4 NPT fitting, shown actual size.



PX103U0-025G5V, shown actual size.

PX102-050GV, shown actual size.

Dimensions: mm (inch)



### O-RINGS

**Use for pressures under 10,000 psi:**

#2-018-V  
FKM ..... Pk of 10

#2-013-V  
FKM ..... Pk of 10

**Use for pressures of 10,000 psi and higher:**

#2-018-P  
POLYURETHANE ..... Pk of 10

#2-013-P  
POLYURETHANE ..... Pk of 10



MILLIVOLT OUTPUT  
PRESSURE TRANSDUCERS  
**B**





# FLUSH DIAPHRAGM TRANSMITTER

## SPECIFICATIONS

### 5.5 Vdc OUTPUT

**Excitation:** 10 to 30 Vdc

**Output:** 0.5 to 5.5 Vdc  
(0.5 to 10.5 Vdc optional)

**Zero Balance:** 0.5V ±0.1V

### Accuracy:

<100 psi: ±1% FSO linearity, hysteresis and repeatability combined  
 ≥100 psi: ±0.5% FSO linearity, hysteresis and repeatability combined

### Operating Temp Range:

<100 psi: -45 to 93°C (-50 to 200°F)  
 ≥100 psi: -45 to 121°C (-50 to 250°F)

### Compensated Temp Range:

<100 psi: -1 to 54°C (30 to 130°F)  
 ≥100 psi: -18 to 66°C (0 to 150°F)

### THERMAL EFFECTS

#### <100 psi:

**Span:** <±2% within compensated range  
**Zero:** <±1% within compensated range

#### ≥100 psi:

**Span:** ±0.003% rdg/°F  
**Zero:** ±0.0045% FSO/°F

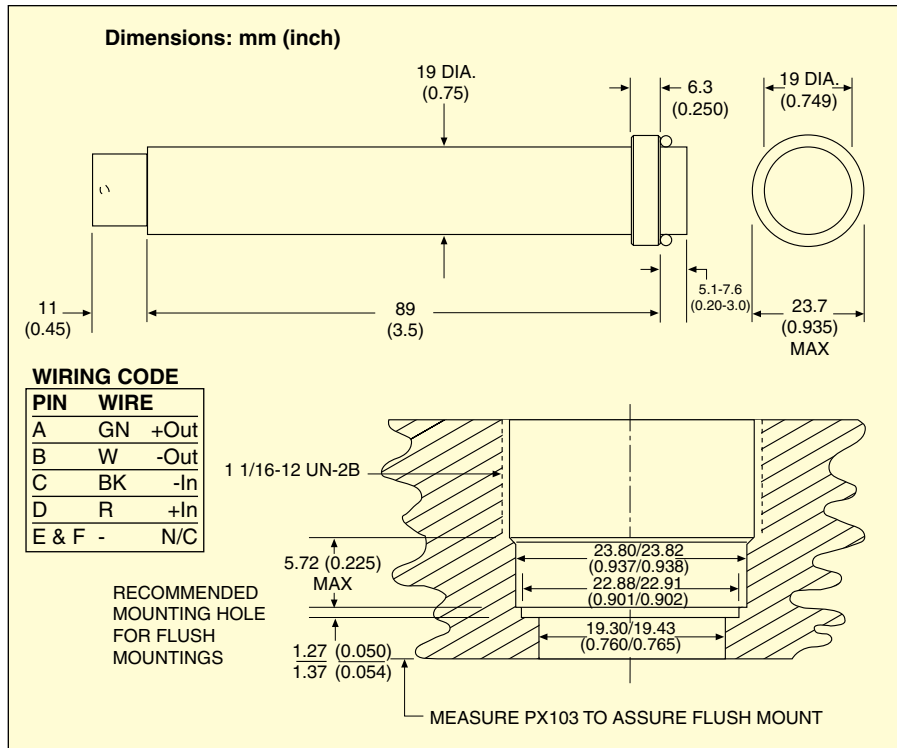
**Ranges (psi):** 5, 15, 25, 50, 100, 200, 500, 1K, 5K, 10K, 20K; gage, sealed gage or absolute; metric ranges also available

### Proof Pressure:

<100 psi: 200% of rated pressure  
 ≥100 psi: 150% rated pressure  
 30,000 psi: maximum

### Burst Pressure:

<100 psi: 500% of rated pressure  
 ≥100 psi: 300% of rated pressure  
 50,000 psi: maximum



### Wetted Parts:

Ranges <100 psi: 316 stainless steel  
 Ranges ≥100 psi: 17-4 PH stainless steel

### Pressure Port:

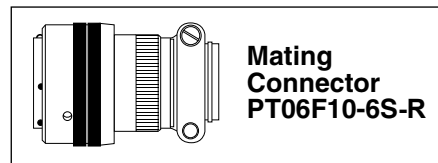
Flush diaphragm

O-Ring: #2-018, sold separately

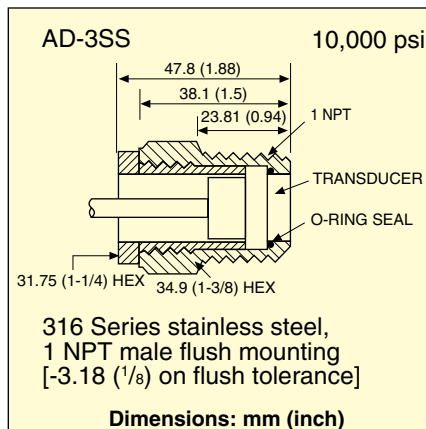
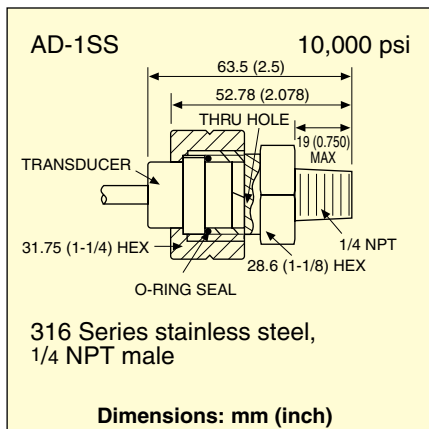
Electrical Connection: 3 m (10')  
 4-conductor shielded PVC cable or  
 PTIH-10-6P or equal

### Mating Connector:

PT06F10-6S-R (sold separately)



## Flush Mount Adaptors for Series PX103 Transducers



## "O" RINGS

FKM or Polyurethane

Use for pressures under  
 10,000 psi:

#2-018-V

FKM . . . . . Pack of 10

Use for pressures of  
 10,000 psi and higher:

#2-018-P

POLYURETHANE . . . . . Pack of 15

O-Ring Provided with Each Adaptor

# TRANSMITTER

## STAINLESS STEEL WETTED PARTS

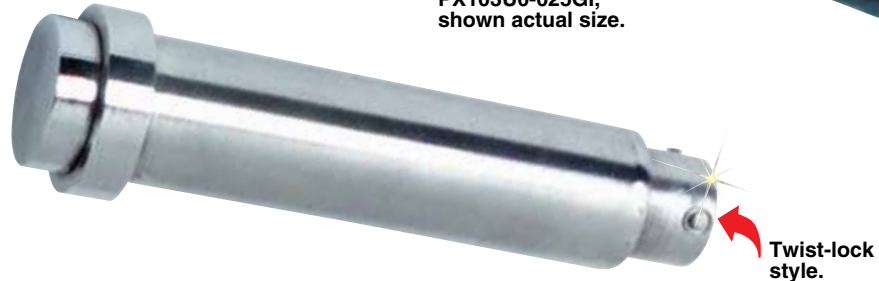
### MOUNTING FITTINGS AVAILABLE

**4 to 20 mA Output**  
**0-15 to 0-20,000 psi**  
**0-1 to 0-1300 bar**

1 bar = 14.5 psi  
 1 kg/cm<sup>2</sup> = 14.22 psi  
 1 atmosphere = 14.7 psi = 29.93 inHg = 760.2 mmHg = 1.014 bar



PX103U0-025GI, shown actual size.



PX103U1-025GI, shown actual size.

### PX103-i Series



- ✓ All Stainless Steel
- ✓ Low-Noise 4 to 20 mA Output
- ✓ Flush Diaphragm for Hard-to-Measure Fluids
- ✓ Ideal for Tank and Level Applications

Omega's PX103 Series transmitters feature a rugged all stainless steel case and a high-reliability, low-noise 4 to 20 mA output. They are designed for use in critical applications in wastewater management, chemical manufacturing, water processing, tank and level operations, and other industrial applications in which a non-plugging flush diaphragm is needed.

### SPECIFICATIONS

**Excitation:** 10 to 30 Vdc

**Output:** 4 to 20 mA

**Zero Balance:** 4 mA ±0.2 mA

**Accuracy:**

<100 psi: ±1% linearity, hysteresis and repeatability combined

≥100 psi: ±0.5% linearity, hysteresis and repeatability combined

**Operating Temp Range:**

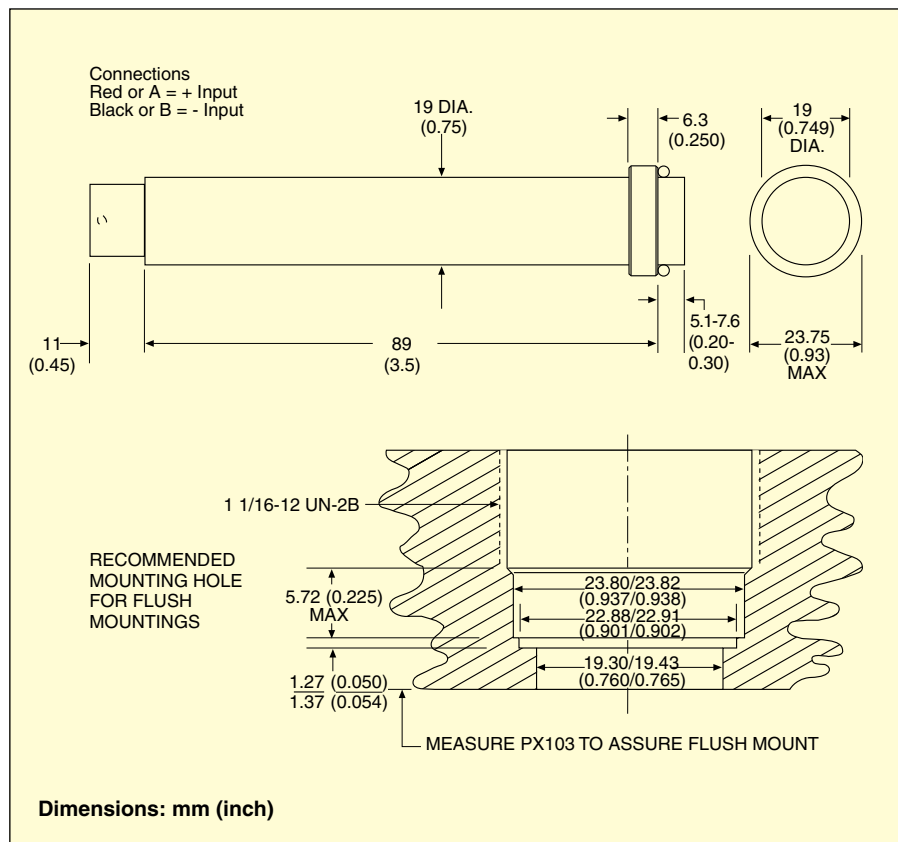
<100 psi: -40 to 82°C (-40 to 180°F)

≥100 psi: -46 to 121°C (-50 to 250°F)

**Compensated Temp Range:**

<100 psi: -1 to 54°C (30 to 130°F)

≥100 psi: -18 to 66°C (0 to 150°F)



# FLUSH DIAPHRAGM TRANSMITTER

## Thermal Effects:

<100 psi:

Span:  $\pm 2\%$  within compensated range

Zero:  $\pm 1\%$  within compensated range

$\geq 100$  psi:

Span: 0.003% rdg/°F

Zero: 0.0045% FS/°F

## Proof Pressure:

<100 psi: 200% of rated pressure

$\geq 100$  psi: 150% of rated pressure, 30,000 psi maximum

## Burst Pressure:

<100 psi: 500% of rated pressure

$\geq 100$  psi: 300% of rated pressure, 50,000 psi maximum

## Wetted Parts:

Ranges <100 psi: 316 SS

Ranges  $\geq 100$  psi: 17-4 PH SS

## O-Ring: Not included #2-018

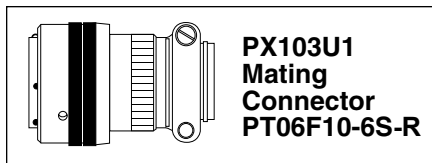
## Electrical Connection:

PTIH-10-6P or equal or 3 m (10')

2-conductor shielded PVC cable

## Mating Connector:

PT06F10-6S-R (sold separately)



## ACCESSORY

MODEL NO.	DESCRIPTION
PT06F10-6S-R	Mating connector for PX103U1 Series

To Order			
RANGE		MODEL NO.	COMPATIBLE METERS**
<b>ABSOLUTE PRESSURE (All Ranges Available in Absolute Pressure)</b>			
0 to 15 psi	0 to 1 bar	PX103U[*]-015AI	DP41-E, DP25B-E, DP24-E
0 to 25 psi	0 to 1.7 bar	PX103U[*]-025AI	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX103U[*]-050AI	DP41-E, DP25B-E, DP24-E
<b>GAGE PRESSURE (All Ranges Also Available in Sealed Gage Pressure)</b>			
0 to 15 psi	0 to 1 bar	PX103U[*]-015GI	DP41-E, DP25B-E, DP24-E
0 to 25 psi	0 to 1.7 bar	PX103U[*]-025GI	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX103U[*]-050GI	DP41-E, DP25B-E, DP24-E
0 to 100 psi	0 to 6.9 bar	PX103U[*]-100GI	DP41-E, DP25B-E, DP24-E
0 to 200 psi	0 to 13.8 bar	PX103U[*]-200GI	DP41-E, DP25B-E, DP24-E
0 to 500 psi	0 to 34.5 bar	PX103U[*]-500GI	DP41-E, DP25B-E, DP24-E
0 to 1000 psi	0 to 68.9 bar	PX103U[*]-1KGI	DP41-E, DP25B-E, DP24-E
0 to 2000 psi	0 to 138 bar	PX103U[*]-2KGI	DP41-E, DP25B-E, DP24-E
0 to 3000 psi	0 to 207 bar	PX103U[*]-3KGI	DP41-E, DP25B-E, DP24-E
0 to 5000 psi	0 to 345 bar	PX103U[*]-5KGI	DP41-E, DP25B-E, DP24-E
0 to 10,000 psi	0 to 689 bar	PX103U[*]-10KGI	DP41-E, DP25B-E, DP24-E
0 to 15,000 psi	0 to 1034 bar	PX103U[*]-15KGI	DP41-E, DP25B-E*, DP24-E
0 to 20,000 psi	0 to 1379 bar	PX103U[*]-20KGI	DP41-E, DP25B-E*, DP24-E

Comes complete with 5-point NIST traceable calibration.

Metric ranges available – consult Engineering.

\* 4-digit meter, counts in increments of 10.

\*\* Visit us online for compatible meters.

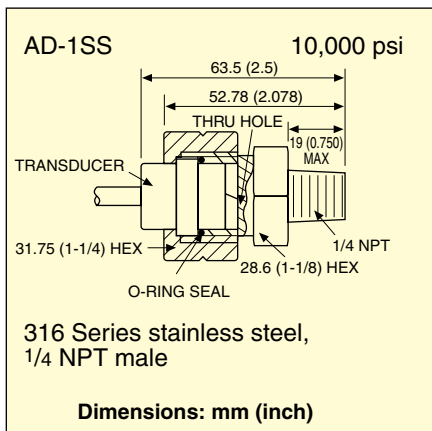
[\*] To order cable style insert "0" into model number; to order connector style insert "1".

To order absolute pressure ranges, replace "G" in model number with "A" and add **additional cost**.

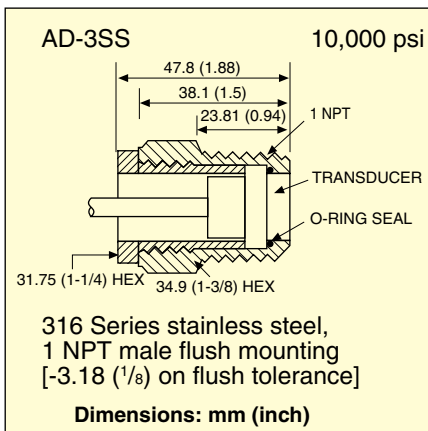
To order sealed gage pressure models, replace "G" in model number with "S" (no extra charge). To order extra lead length [3 m (10') standard], add suffix "**-(Length of cable in feet)**" and **additional cost** for each foot beyond 10'.

**Ordering Example: PX103U1-100GI**, 100 psi gage pressure, connector style transducer **PT06F10-6S-R**, mating connector (sold separately).

## Flush Mount Adaptors for PX103 Series Transducers



O-Ring Provided with Each Adaptor



## "O" RINGS FKM or Polyurethane

Use for pressures under 10,000 psi:  
**#2-018-V**

FKM . . . . . Pack of 10

Use for pressures of 10,000 psi and higher:  
**#2-018-P**

POLYURETHANE . . . . . Pack of 15



# Compact Rugged Pressure Transmitters



Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

15 to 5000 psi, 1 to 345 bar

PX119 Series



- ✓ Low Cost
- ✓ Compact Size
- ✓ 0.50% BFSL Accuracy
- ✓ All Stainless Steel Body

The PX119 pressure transmitter series is ideally suited for material handling, industrial and mobile equipment applications where space constraints require a small body size. The body is machined from a single piece of stainless steel to provide added protection for the internal electronics. A piezoresistive ceramic sensor along with ASIC signal conditioning provide an excellent thermally compensated output.

## Specifications

**Accuracy:** 0.50% BFSL Accuracy

**Pressure Range:** 15 to 5000 psi (345 bar)

**Output:** 4 to 20 mA, 0 to 5 Vdc

**Supply Voltage:** 8 to 30 Vdc

**Output Connections:** Cable, M12, DIN 43650C (mini DIN)

**Output Wiring:** Pin 1: Supply +, Pin 2: Supply -

**Long Term Drift:** <0.3% FS @ 25°C (77°F)

**Thermal Error:**

**7.5 psi ≥ 100 psi:** 0.01% FS/°F (0.018% FS/°C)

**100 psi > 400 psi:** 0.009% FS/°F (0.016% FS/°C)

**400 psi ≥ 1000 psi:** 0.011% FS/°F (0.019% FS/°C)

**1000 psi > 3000 psi:** 0.012% FS/°F (0.021% FS/°C)

**3000 psi ≥ 5000 psi:** 0.018% FS/°F (0.028% FS/°C)

**Compensated Temperature:**

0 to 85°C (32 to 185°F)

**Operating Temperatures:**

-40 to 135°C (-40 to 257°F)

**Process Connection:** 1/4 NPT Male, 1/8 NPT Male

**Construction:** 304 SS

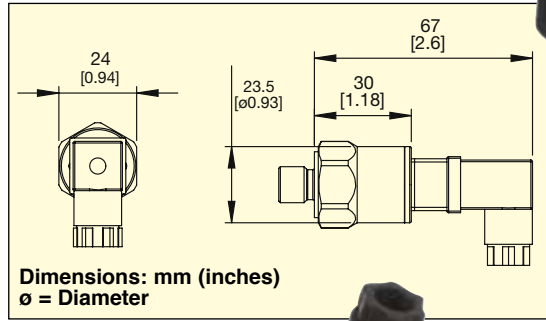
**Wetted Materials:** 304 SS and Ceramic Al<sub>2</sub>O<sub>3</sub>, NBR Standard

**Vibration:** 10 g (20 to 2000 Hz) for <58 psi (4 bar); 20 g (20 to 500 Hz) for ranges >58 psi (4 bar)

**Protection:** Overvoltage, short circuit, reverse polarity

**Ingress Protection:** IP65

**Weight:** 70 g (0.15 lb)



PX119, both models shown smaller than actual size.



mini DIN style (connector included).

Part Number	Value	Description	Example:	PX1	19	A	-	100	G	5V
<b>Electrical Connection</b>										
	09	Cable								
	19	Mini DIN 43650 C			19					
	59	M12								
<b>Process Connection</b>										
	(default)	1/4-18 NPT Male								
	A	1/8-27 NPT Male								
<b>Pressure Range</b>										
	015	0 to 15	PSI							
		0 to 1	Bar							
	030	0 to 30	PSI							
		0 to 2.1	Bar							
	060	0 to 60	PSI							
		0 to 4.2	Bar							
	100	0 to 100	PSI					100		
		0 to 6.9	Bar							
	150	0 to 150	PSI							
		0 to 10.3	Bar							
	200	0 to 200	PSI							
		0 to 13.8	Bar							
	300	0 to 300	PSI							
		0 to 21	Bar							
	500	0 to 500	PSI							
		0 to 345	Bar							
	600	0 to 600	PSI							
		0 to 42	Bar							
	1K	0 to 1000	PSI							
		0 to 69	Bar							
	1.5K	0 to 1500	PSI							
		0 to 103	Bar							
	2K	0 to 2000	PSI							
		0 to 138	Bar							
	3K	0 to 3000	PSI							
		0 to 207	Bar							
	5K	0 to 5000	PSI							
		0 to 345	Bar							
<b>Pressure Type</b>										
	A	Absolute								
	G	Gauge							G	
<b>Electrical Output</b>										
	I	4 to 20 mA								
	5V	0 to 5 Vdc								5V

## Accessories

Model No.	Description
CA-319-4PC24-XXX-WP	Vented cable used for PX119 ≤100 psig, terminated in a clean dry area that is open to atmosphere for correct operation*
CA-319-4PC24-XXX	Standard cable for PX119 >100 psig and all absolute ranges, terminated in a dry location or sealed to prevent water from getting into the cable/sensor*
DP8PT	PLATINUM™ Series 1/8" DIN 4-digit single display panel meter

\*All PX119 are vented through a hole in the connector and through the mating connector. OMEGA recommends purchase and use of ready-made Cable Assemblies using part # structure "CA-319-4PC24-XXX-WP" (and non-WP version) as shown above, where "XXX" is the length in feet of the desired cable (e.g. "030" stands for 30 ft).

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# ABSOLUTE/DIFFERENTIAL/MEASUREMENTS FOR MEASUREMENT OF CLEAN GASES

±1.0 to 0-30 psi  
 ±0.07 to 0-2 bar

## PX140 Series



PX142-015D5V,  
 shown actual size.

- ✓ Silicon Diaphragm
- ✓ High-Level Output:  
 1 to 6 Vdc @ 8 Vdc  
 Excitation
- ✓ Pressure, Vacuum,  
 Differential, and  
 Absolute Types
- ✓ Printed Circuit Board  
 Terminals Exit on  
 Opposite Side from  
 the Ports
- ✓ High-Impact Plastic Case
- ✓ Accurate
- ✓ All Models Temperature  
 Compensated

### SPECIFICATIONS

**Excitation:** 8 Vdc regulated  
 (7 to 16 limits) @ 8 mA  
**Output:** 1 to 6 Vdc (±2.5 Vdc PX143)  
**Linearity:** ±0.75% FS BFSL  
 (±1.5% FS PX143)  
**Hysteresis:** 0.15% FS  
 (0.30% FS ≤5 psi range)  
**Zero Balance:** 1.0 Vdc ±0.05  
 (3.50 Vdc ±0.05 PX143)

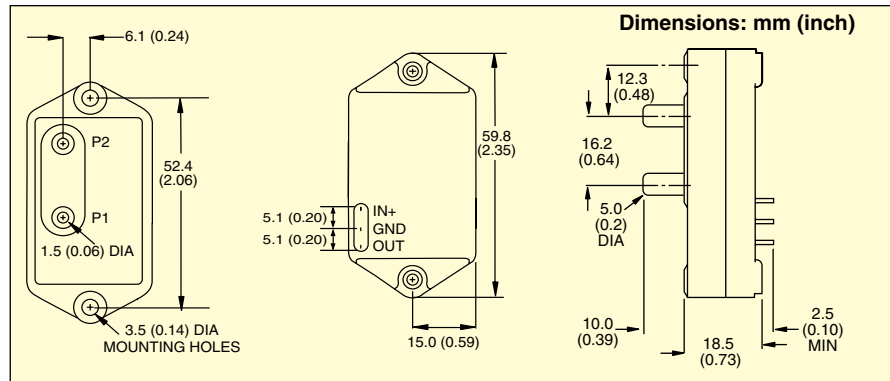
**Operable Overpressure:** 3x range  
 except (60 psi for 30 psi range,  
 20 psi for 5 psi)

**Response Time:** 1 ms

### MEDIA COMPATIBILITY

**Absolute and P1:** Dry gases only  
**P2:** Limited only to those media that will  
 not attack polyester, silicon, borosilicate  
 glass or epoxy adhesive

**Compensated Temperature Range:**  
 -18 to 63°C (0 to 145°F)



Visit OMEGA for connector CX136-3

### To Order

RANGE		TYPE	MODEL NO.	COMPATIBLE METERS*
-1 to 0 psiv	-0.07 to 0 bar	Vacuum	PX141-001D5V	DP41-E, DP25B-E, DP24-E
-5 to 0 psiv	-0.03 to 0 bar	Vacuum	PX141-005V5V	DP41-E, DP25B-E, DP24-E
-15 to 0 psiv	-1 to 0 bar	Vacuum	PX141-015V5V	DP41-E, DP25B-E, DP24-E
0 to 15 psia	0 to 1.0 bar	Absolute	PX142-015A5V	DP41-E, DP25B-E, DP24-E
0 to 30 psia	0 to 2.1 bar	Absolute	PX142-030A5V	DP41-E, DP25B-E, DP24-E
0 to 1 psid	0 to 0.069 bar	Differential	PX142-001D5V	DP41-E, DP25B-E, DP24-E
0 to 2 psid	0 to 0.14 bar	Differential	PX142-002D5V	DP41-E, DP25B-E, DP24-E
0 to 5 psid	0 to 0.34 bar	Differential	PX142-005D5V	DP41-E, DP25B-E, DP24-E
0 to 15 psid	1.0 bar	Differential	PX142-015D5V	DP41-E, DP25B-E, DP24-E
0 to 30 psid	0 to 2.1 bar	Differential	PX142-030D5V	DP41-E, DP25B-E, DP24-E
±1 psid	±0.069 bar	Differential	PX143-01BD5V	DP41-E, DP25B-E, DP24-E
±2.5 psid	±0.17 bar	Differential	PX143-2.5BD5V	DP41-E, DP25B-E, DP24-E
±5 psid	±0.34 bar	Differential	PX143-05BD5V	DP41-E, DP25B-E, DP24-E
±15 psid	±1.0 bar	Differential	PX143-15BD5V	DP41-E, DP25B-E, DP24-E

Comes complete with operator's manual.

\* Visit us online for compatible meters.

Ordering Examples: PX142-015D5V, 0 to 15 psi differential pressure.

PX141-005V5V, -5 psi to 0 vacuum range.

### ACCESSORY

MODEL NO.	DESCRIPTION
CX136-3	Mating connector for PX140 series transducers

# FOR DIFFERENTIAL/GAGE FOR MEASUREMENT OF CLEAN GASES

$\pm 2.5$  inH<sub>2</sub>O to 0-27.68 inH<sub>2</sub>O  
 $\pm 0.02$  to 0-6.9 kPa

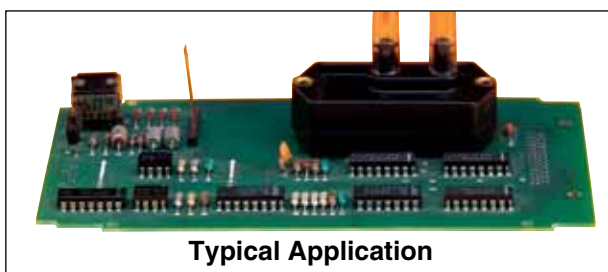


PX163-005BD5V,  
 shown actual size.



## PX160 Series

- ✓ Silicon Diaphragm
- ✓ 1 to 6V Output Span
- ✓ Gage, Vacuum, Differential Pressures
- ✓ 8 Vdc Excitation
- ✓ High-Impact Plastic Case
- ✓ Accurate
- ✓ Temperature Compensated



Typical Application

### SPECIFICATIONS

**Excitation:** 8 Vdc regulated  
 (6 to 12 Vdc at 20 mA)  
 (PX163-120D5V uses 10 Vdc)  
**Output:** 1 to 6 Vdc  
**Linearity:**  $\pm 1.0\%$  FS BFLS  
 at specified voltage;  $\pm 1.5\%$  maximum  
 for PX163-120BD5V  
**Hysteresis and Repeatability:**  
 $\pm 0.25\%$  FS  
**Zero Balance:** 1 Vdc  $\pm 0.05$   
 (3.5  $\pm 0.05$  Vdc PX163 Series)  
**Operable Temperature Range:**  
 -40 to 85°C (-40 to 185°F)  
**Compensated Temperature Range:**  
 -18 to 63°C (0 to 145°F)  
**PX163 and 164:**  
 5 to 45°C (41 to 113°F)

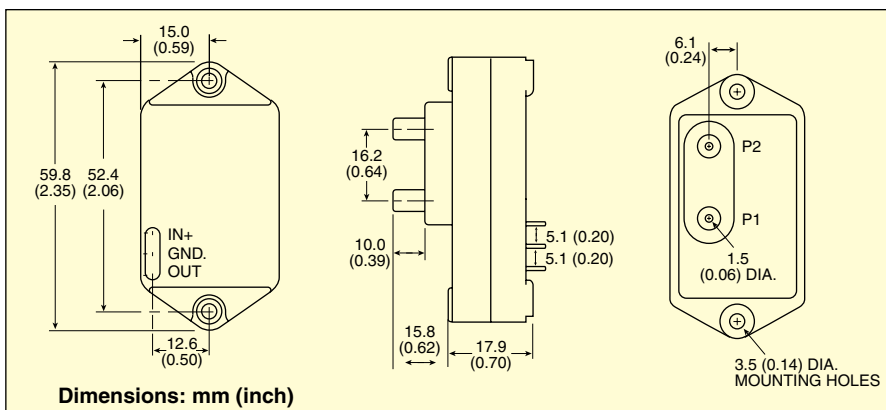
**Operable Overpressure:** 5 psi  
**Media Compatibility:**

**P1:** Dry gases only  
**P2: Gage:** Limited to media that will  
 not attack polyester, silicon,  
 borosilicate glass or epoxy

**Response Time:** 1 ms  
**Mating Connector:** CX136-3,  
 (sold separately)

### ACCESSORIES

MODEL NO.	DESCRIPTION
CX136-3	Mating connector
PST-8	8V power supply
PST-10	10V power supply



Dimensions: mm (inch)

### To Order

RANGE		TYPE	MODEL NO.	COMPATIBLE METERS†
inH <sub>2</sub> O	kPa			
0 to 27.68	0 to 6.9	Gage	PX162-027G5V	DP41-E, DP25B-E
0 to 27.68	0 to 6.9	Differential	PX162-027D5V	DP41-E, DP25B-E
$\pm 2.5$	0.623	Differential	PX163-2.5BD5V	DP41-E, DP25B-E
$\pm 5.0$	1.25	Differential	PX163-005BD5V	DP41-E, DP25B-E
0 to 5	0 to 1.25	Differential	PX164-005D5V	DP41-E, DP25B-E
0 to 10	0 to 2.49	Differential	PX164-010D5V	DP41-E, DP25B-E
<b>RANGE cmH<sub>2</sub>O (-7.9 to 47.2 inH<sub>2</sub>O/-0.3 to 1.7 psi)</b>				
-20 to 120	-2 to 11.8	Differential	PX163-120BD5V	DP41-E, DP25B-E

Comes complete with operator's manual.

\* Use PST-8 for 8 Vdc excitation, PST-10 for 10 Vdc excitation, see [omega.com](http://omega.com)

† Visit [omega.com/meters](http://omega.com/meters) for compatible meters.

Ordering Example: PX164-005BD5V, bi-directional  $\pm 5$  psi range transducer.



PRESSURE TRANSDUCERS

**B**

**0 to -14.7 to 0-500 psi**  
**0 to -1.0 to 0-34.5 bar**

## PX180B Series

- ✓ Excellent Total Accuracy and Interchangeability
- ✓ Gage Pressure, Vacuum, and Compound Ranges Available
- ✓ Rugged, Compact Design
- ✓ RFI/EMI Protection
- ✓ Reverse Polarity Protection

OMEGA's PX180B Series transducers, designed for general industrial and commercial requirements, offer excellent performance in a wide range of applications. They are based on proven micro-machined silicon technology, providing high reliability, long-term stability, and low cost. They are extremely accurate, with less than 0.3% reference accuracy.

### SPECIFICATIONS

**Excitation:** 10 Vdc (regulated)

**Output:** 0 to 50 mV for 0 to 1 psi model, 0 to 100 mVdc for all other ranges

**Load Resistance:** 50,000 Ω minimum

**Accuracy:** 0.3% BFSL maximum (includes linearity, hysteresis and repeatability)

**Operating Temperature:** -40 to 80°C (-40 to 176°F)

**Compensated Temperature:** -25 to 75°C (-13 to 167°F)

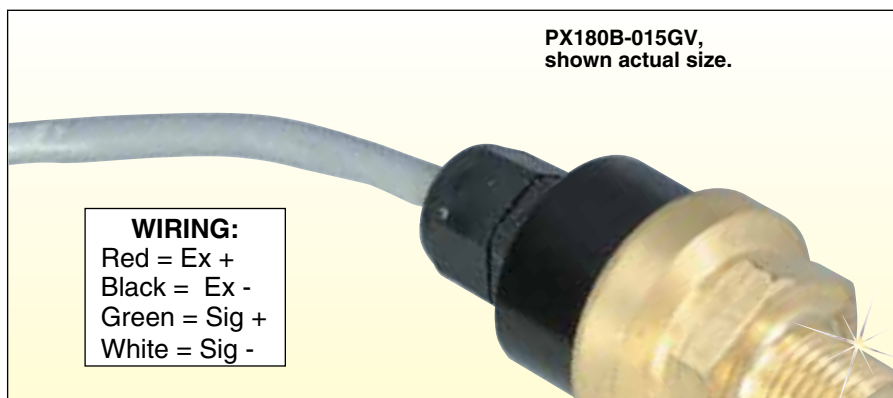
**Process Temperature:** -40 to 100°C (-40 to 212°F)

**Thermal Zero Effect:** 2% FS maximum over compensated temperature range

**Thermal Span Effect:** 2% FS maximum over compensated temperature range

**1-Year Stability:** <0.25% FS

**Proof Pressure:** 2x FS (750 psig for 500 psig range)



**Burst Pressure:** 3x FS or 750 psig, whichever is less

**Wetted Parts:** Brass, borosilicate, silicon, RTV and epoxy

**Vibration:** 10 g, 55 to 2000 Hz

**Shock:** 30 g

**Process Connection:** 1/8 NPT male

**Electrical Connection:** 0.4 m (18") 24-gage shielded cable

**Weight:** 142 g (5 oz)

**Dimensions:** 1 1/8 hex; 72 H x 29.7 mm Dia. (2.84 x 1.17")

Metric thread  
adaptors available  
online

### To Order

#### GAGE PRESSURE RANGES

psi	bar	MODEL NO.	COMPATIBLE METERS*
0 to -14.7	0 to -1.0	PX180B-015VACV	DP25B-S, DP41-S, DPiS Series
0 to 1	0 to 68.9 mbar	PX180B-001GV	DP25B-S, DP41-S, DPiS Series
0 to 6	0 to 414 mbar	PX180B-006GV	DP25B-S, DP41-S, DPiS Series
0 to 15	0 to 1.0	PX180B-015GV	DP25B-S, DP41-S, DPiS Series
0 to 30	0 to 2.1	PX180B-030GV	DP25B-S, DP41-S, DPiS Series
0 to 60	0 to 4.1	PX180B-060GV	DP25B-S, DP41-S, DPiS Series
0 to 100	0 to 6.9	PX180B-100GV	DP25B-S, DP41-S, DPiS Series
0 to 200	0 to 13.8	PX180B-200GV	DP25B-S, DP41-S, DPiS Series
0 to 300	0 to 20.7	PX180B-300GV	DP25B-S, DP41-S, DPiS Series
0 to 500	0 to 34.5	PX180B-500GV	DP25B-S, DP41-S, DPiS Series

#### COMPOUND PRESSURE RANGES

-14.7 to 15	-1.0 to 1.0	PX180B-015CV	DP25B-S, DP41-S, DPiS Series
-14.7 to 30	-1.0 to 2.1	PX180B-030CV	DP25B-S, DP41-S, DPiS Series
-14.7 to 60	-1.0 to 4.1	PX180B-060CV	DP25B-S, DP41-S, DPiS Series

### ACCESSORIES

MODEL NO.	DESCRIPTION
PS-8E	Pressure snubber for water or light oils
PS-8D	Pressure snubber for dense liquids or oils
PS-8G	Pressure snubber for gases and steam

Comes complete with operator's manual.

\* Visit us online for compatible meters.

**Ordering Example:** PX180B-100GV, 0 to 100 psig transducer with 0 to 100 millivolt output.



# PRESSURE TRANSDUCER

## UNI-DIRECTIONAL AND BI-DIRECTIONAL RANGES

**0-1 to 0-100 psid Uni-Directional**  
**±0.5 to ±50 psid Bi-Directional**

### PX2300 Series



- **0.25% Accuracy**
- **NEMA 4 (IP65) Rating**
- **Wet/Wet Corrosive Environments**
- **Ideal for Measuring Pressure Drop Across Filters**

OMEGA's PX2300 Series high-output, low differential pressure transducers are compatible with most media, from dry air to corrosive liquids. All wetted parts are stainless steel with elastomer seals. The electronics are housed in a NEMA 4 (IP65) enclosure. A high working pressure and high overpressure ratings ensure dependability in harsh industrial environments. These transducers are ideal for measuring pressure drop across filters and other process devices.

### SPECIFICATIONS

**Excitation:** 24 Vdc nominal

**Max:** 30 + 0.004 x (loop resistance Ω) Vdc

**Min:** 11 + 0.02 x (loop resistance Ω) Vdc

**Loop Resistance:** 0 to 1000 Ω

**Output:** 4 to 20 mA

**Accuracy:** ±0.25% RSS FS at constant temperature (includes linearity, repeatability and hysteresis)

**Linearity:** ±0.20% FS

**Hysteresis:** 0.10% FS

**Repeatability:** ±0.05% FS

**Operating Temperature Range:**

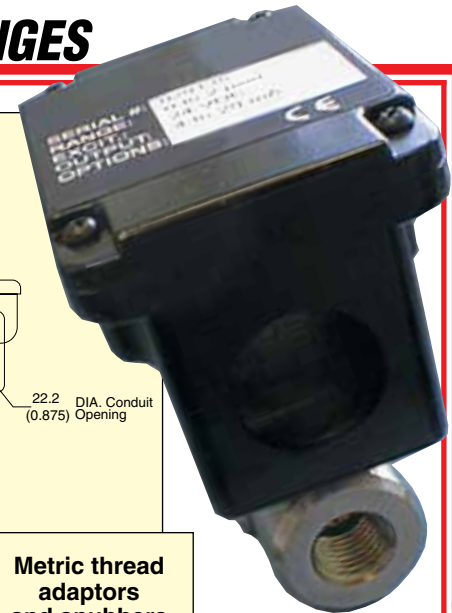
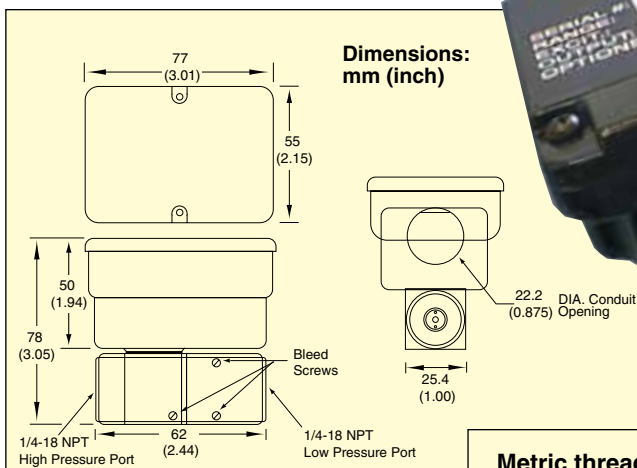
-18 to 80°C (0 to 176°F)

**Compensated Temperature Range:**

-1 to 65°C (30 to 149°F)

**Thermal Zero Effect:** <±0.02% FS/°F

**Thermal Span Effect:** <±0.02% FS/°F



PX2300-1DI, shown smaller than actual size.

**Metric thread adaptors and snubbers available, visit us online.**

**Sensor:** Capacitive

**Maximum Line Pressure:** 250 psig

**Maximum Overpressure:**

**High Side:** 1 to 5 psi = 20 x FS,  
 10 to 25 psi = 10 x FS, 50 psi = 5 x FS,  
 100 psi = 2.5 x FS

**Low Side:** 2.5 x FS (shift recoverable)

The zero will shift slightly when high differential pressure is applied. The shift may be as much as ±10% FS with overpressure applied to the low port. (Other parameters will not shift.) The shift may be recovered by a positive overpressure or if the overpressure is always in one direction, the user may apply this pressure to pre-set the sensor. Subsequent overloads of less pressure will not cause any further shift.

**Wetted Parts:** Air and fluids compatible with 17-4 and 300 stainless steel, FKM, and silicone O-rings

**Cavity Volume:** 0.27/0.08" pos./neg. port

**Case:** NEMA 4 (IP65)

**Pressure Port:** ¼ NPT internal

**Electrical Connection:** Internal barrier strip with 22.2 mm (0.875") conduit opening

**Response Time:** 50 ms (water)

**Weight:** 410 g (14.4 oz)

### To Order

RANGE (psid)	MODEL NO.	COMPATIBLE METERS
0 to 1	PX2300-1DI	DP41-E, DP25B-E, DP-7700
0 to 2	PX2300-2DI	DP41-E, DP25B-E, DP-7700
0 to 5	PX2300-5DI	DP41-E, DP25B-E, DP-7700
0 to 10	PX2300-10DI	DP41-E, DP25B-E, DP-7700
0 to 25	PX2300-25DI	DP41-E, DP25B-E, DP-7700
0 to 50	PX2300-50DI	DP41-E, DP25B-E, DP-7700
0 to 100	PX2300-100DI	DP41-E, DP25B-E, DP-7700
<b>BI-DIRECTIONAL RANGE</b>		
±0.5	PX2300-0.5BDI	DP41-E, DP25B-E, DP-7700
±1	PX2300-1BDI	DP41-E, DP25B-E, DP-7700
±2.5	PX2300-2.5BDI	DP41-E, DP25B-E, DP-7700
±5	PX2300-5BDI	DP41-E, DP25B-E, DP-7700
±10	PX2300-10BDI	DP41-E, DP25B-E, DP-7700
±25	PX2300-25BDI	DP41-E, DP25B-E, DP-7700
±50	PX2300-50BDI	DP41-E, DP25B-E, DP-7700

Comes complete with operator's manual.

**Ordering Examples:** PX2300-5BDI, bi-directional range -5 to 5 psid transducer with current output.

PX2300-1DI, 0 to 1 psid range transducer with current output.



**10:1 Turndown in 4 steps**  
**Maximum Ranges 50 to 250 psi**  
**(3.4 to 17 bar)**  
**0 to 5 Vdc, 1 to 5 Vdc,**  
**0 to 10 Vdc, 4 to 20 mA (2-Wire)**

## PX2310 Series



- ✓ Each Model has  
4 Unidirectional and  
4 Bi-Directional Ranges
- ✓ 4 Selectable Outputs,  
0 to 5 Vdc, 1 to 5 Vdc,  
0 to 10 Vdc, 4 to 20 mA  
(2-Wire)
- ✓ Jumper Selectable  
Hi/Lo Ports
- ✓ 4-Digit LCD can Show  
Either Line or  
Differential Pressure
- ✓ Pushbutton or  
Remote Zero
- ✓ Rugged NEMA 4 Cast  
Aluminum Housing

## Applications

- ✓ Energy Management  
Systems
- ✓ Process Control Systems
- ✓ Flow Measurement
- ✓ Liquid Level
- ✓ Pressure Drops  
Across Filters

The PX2310 offers the user unprecedented flexibility allowing field selection of range, type of output and field zeroing. The user can also select which port is hi and lo via jumpers. The 4-digit display can also be set to read either line pressure or differential pressure. The entire package is rugged cast aluminum with a NEMA 4 rating and the solid state sensor offers excellent accuracy, stability, and long term drift.



PX2310, shown smaller than actual size.

## SPECIFICATIONS

**Accuracy RSS Ranges A, B & C:** ±1.0%  
**Full Scale; Range D:**  
 ±2.0% RSS full scale

**Storage Temperature:** -20 to 85°C  
 (-4 to 185°F)

**Operating Temperature:** -20 to 85°C  
 (-4 to 185°F) (Limits of Electronics only)

**Compensated Range:** 0 to 54°C  
 (32 to 130°F)

**Zero Shift (Over Compensated Range):** 2.0% full scale

**Span Shift (Over Compensated Range):** 2.0% full scale

**Response Time:** 1 to 5 seconds, selectable

**Proof Pressure:** 2.2 x full scale

**Burst Pressure:** 40 x full scale

**Vibration:** 10 g from 50 to 2000 Hz

**Shock:** 200 g

**Excitation:** 12 to 30 Vdc @ 5 mA  
 (typical)/18 to 28 Vac 40 mA (typical)  
 (reverse polarity protected)

### Output User Selectable:

**Voltage:** 0 to 5 Vdc, 0 to 10 Vdc,  
 1 to 5 Vdc 3-wire system

**Current:** 4 to 20 mA 2-wire system  
 (0 to 1000 Ω load)

### Minimum Supply Voltage:

Vdc = 12 + 0.2 x loop resistance

### Maximum Supply Voltage:

Vdc = 30 + 0.004 x loop resistance

**Electrical Connection:** ½ in conduit

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

**Sensor Cavity Volume:** 0.2 cc

**Case:** Die cast aluminum,  
 powder coated

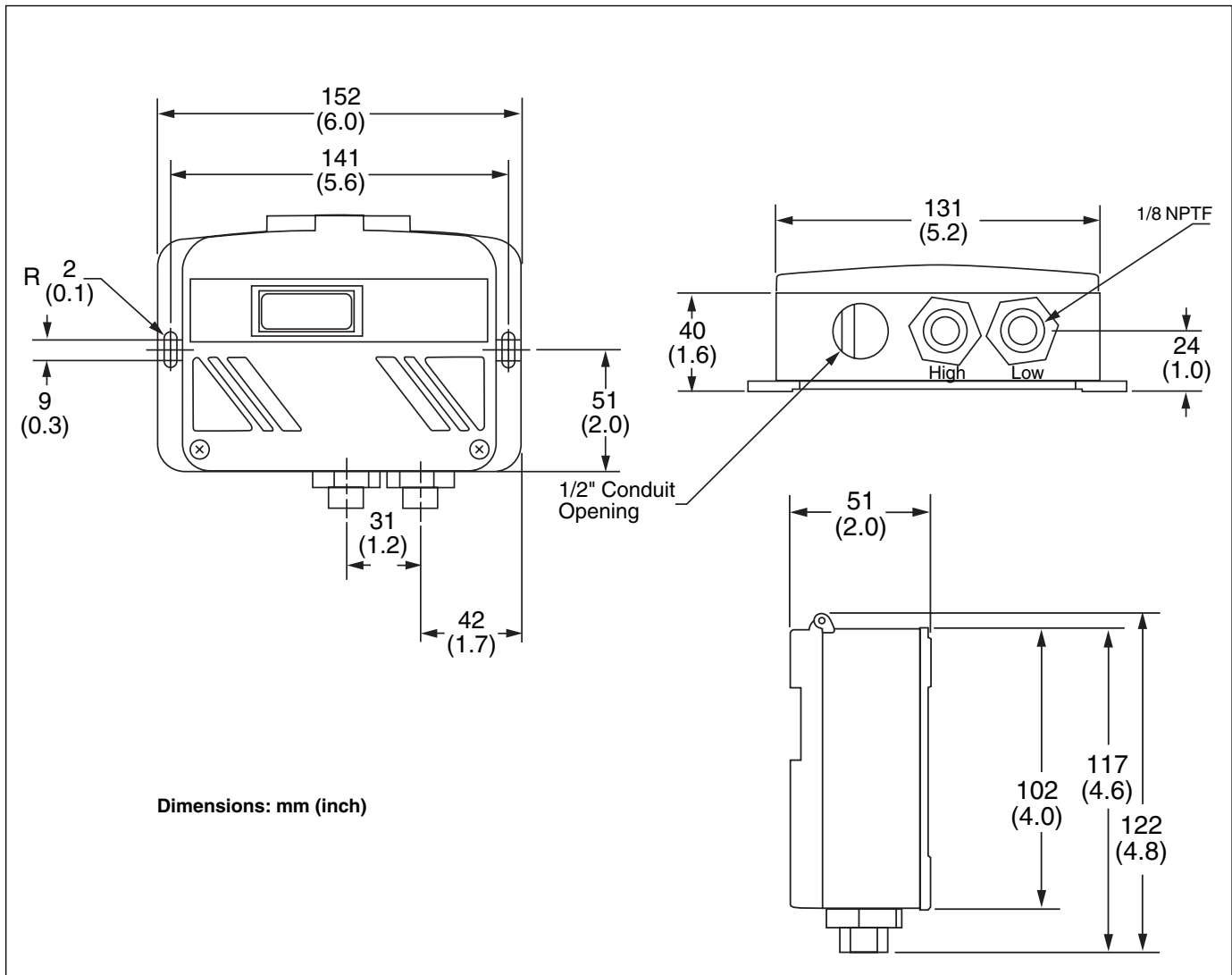
**Environmental Protection:** NEMA 4

**Wetted Parts:** 17-4 PH stainless steel  
 (not recommended for hydrogen)

### Dimensions:

102 L x 152 W x 51 mm diameter  
 (4.0 x 6 x 2")

**Weight:** 0.7 kg (25 oz)



DP25B-E shown smaller than actual size. For details visit [omega.com/dp25b](http://omega.com/dp25b)

### To Order

MODEL NUMBER	USER SELECTABLE RANGES psi				MAXIMUM LINE PRESSURE psi
	A	B	C	D	
PX2310-050DX	0 to 50 (±50)	0 to 20 (±20)	0 to 10 (±10)	0 to 5 (±5)	50
PX2310-100DX	0 to 100 (±100)	0 to 50 (±50)	0 to 20 (±20)	0 to 10 (±10)	100
PX2310-250DX	0 to 250 (±250)	0 to 125 (±125)	0 to 50 (±50)	0 to 25 (±25)	250

Comes complete with operator's manual.

**Ordering Examples:** **PX2310-050DX**, rangeable differential pressure transmitter with selectable voltage or current output, maximum range 50 psi, minimum range 5 psi.

**PX2310-250DX**, rangeable differential pressure transmitter with selectable voltage or current output, maximum range 250 psi, minimum range 25 psi.

# LOW COST WET/WET GAGE OR DIFFERENTIAL PRESSURE SENSOR

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0-1 to 0-250 psi (0-0.07 to 17.2 bar)  
Gage and Differential

## PX26 Series

- ✓ Water and Many Other Liquids Can be Applied to Both Sides
- ✓ Gage and Differential Models Available
- ✓ Miniature PC Board Mount Design



PX26-005DV, shown larger than actual size.

CX136-4 connector, sold separately.

Tubing sold separately.

DP25B-S meter, sold separately, shown smaller than actual size. Visit [omega.com/dp25b](http://omega.com/dp25b) for details.

OMEGA's PX26 Series pressure sensors feature state-of-the-art silicon technology that permits both sides of the diaphragm to handle liquids. A unique conductive seal between the silicon diaphragm and the plastic housing allows for wet/wet applications and lower production costs than typical gold wire silicon sensors. This new construction has a larger diaphragm than traditional silicon sensors, resulting in increased long-term stability.

### SPECIFICATIONS

**Excitation:** 10 Vdc, 16 Vdc max @ 2 mA

**Output (@ 10 Vdc):** 1 psi = 16.7 mV;  
5 psi = 50 mV; >5 psi = 100 mV;  
250 psi = 150 mV

**Linearity:** ±0.25% FS BFSL typical  
(±1% maximum) P2 > P1

**Hysteresis and Repeatability:** 0.2% FS

**Zero Balance:** ±1.5 mV

**Span Tolerance:** ±3.0 mV

**1-Year Stability:** 0.5% FS

**Operating Temperature:** -40 to 85°C  
(-40 to 185°F)

**Compensated Temperature:** 0 to 50°C  
(32 to 122°F)

**Thermal Effects:**

**Zero:** 1 mV

**Span:** 1% rdg

**Proof Pressure:** 20 psi for ≤5 psi range;  
45 psi for 15 psi; 60 psi for 30 psi;  
200 psi for 100 psi

**Input Resistance:** 7.5 kΩ

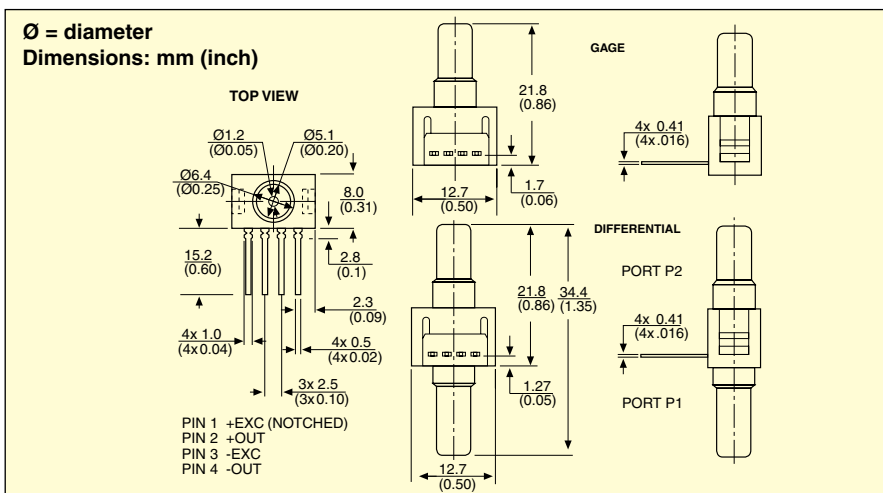
**Output Resistance:** 2.5 kΩ

**Response Time:** 1 ms

**Gage Type:** Silicon sensor

**Wetted Parts:** Polyethimide, silicon,  
fluorosilicone

**Weight:** 2 g (0.07 oz)



### To Order Visit [omega.com/px26](http://omega.com/px26) for Pricing and Details

RANGE		MODEL NO.	COMPATIBLE METERS
psig	bar		
0 to 1	0 to 0.07	PX26-001GV	DP25B-S, DP460-S, DP41-S
0 to 5	0 to 0.34	PX26-005GV	DP25B-S, DP460-S, DP41-S
0 to 15	0 to 1.0	PX26-015GV	DP25B-S, DP460-S, DP41-S
0 to 30	0 to 2.1	PX26-030GV	DP25B-S, DP460-S, DP41-S
0 to 100	0 to 6.9	PX26-100GV	DP25B-S, DP460-S, DP41-S
0 to 250	0 to 17.2	PX26-250GV	DP25B-S, DP460-S, DP41-S
±1 psid	±0.07	PX26-001DV	DP25B-S, DP460-S, DP41-S
±5 psid	±0.34	PX26-005DV	DP25B-S, DP460-S, DP41-S
±15 psid	±1.0	PX26-015DV	DP25B-S, DP460-S, DP41-S
±30 psid	±2.1	PX26-030DV	DP25B-S, DP460-S, DP41-S
±100 psid	±6.9	PX26-100DV	DP25B-S, DP460-S, DP41-S
±250 psid	±17.2	PX26-250DV	DP25B-S, DP460-S, DP41-S

### ACCESSORIES

MODEL NO.	DESCRIPTION
CX136-4	4-pin mating connector
TX4-100	4-conductor copper wire, 30.5 m (100')
TY316-100	Flexible plastic tubing, 30.5 m (100')

Comes complete with operator's manual.

**Ordering Example:** PX26-030DV, bi-directional range of ±30 psid.



# ECONOMICAL MEDV LOW NO TRANSDUCED WITH BIDIRECTIONAL RANGES

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## PX2650 Series



- ✓ For Dry Gases
- ✓ Ranges from 0.25 inH<sub>2</sub>O to 100 inH<sub>2</sub>O
- ✓ For Use in Building Management, HVAC Ducts, or Clean Rooms
- ✓ Works with Unregulated Voltage Source
- ✓ Fully Protected Against Incorrect Wiring



PX2650-1BD5V, shown smaller than actual size.

### SPECIFICATIONS

**Excitation:** 9 to 30 Vdc unregulated  
**Output Impedance:** <100 Ω  
**Output Span:** Set to 5 Vdc ±50 mV  
**Zero Offset:** Set to ±50 mV  
**Accuracy:** ±1% BFSL at constant temperature (includes linearity, repeatability and hysteresis)  
**Linearity:** ±0.98% full scale (typical)  
**Hysteresis:** 0.1% full scale (typical)  
**Repeatability:** ±0.05% full scale  
**Compensated Temperature Range:** -18 to 65°C (0 to 149°F)  
**Thermal Effects:** ±0.06%/°C (±0.033%/°F)  
**Proof Pressure:** ±10 psi, all ranges  
**Position Effect:** Factory calibration with diaphragm vertical

Range	Zero Offset (%FS/G)
0 to 0.5 inH <sub>2</sub> O	0.6
0 to 1 inH <sub>2</sub> O	2.2
0 to 5 inH <sub>2</sub> O	1.4

**Sensor:** Capacitive

**Media:**

Air or similar non-conducting gases

**Pressure Port:**

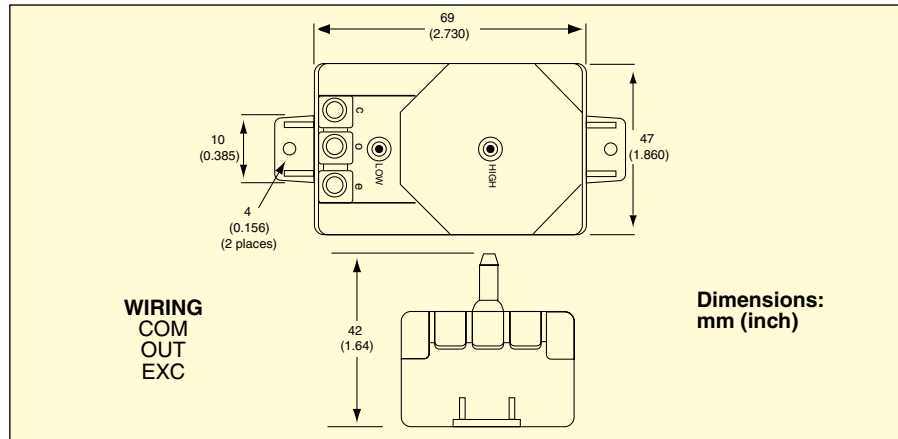
3/8" OD pressure fitting for 1/4" tube

**Case:** Fire-retardant glass-filled polyester

**Mounting:** 2 tabs with #8 holes

**Electrical Connection:** Screw terminals

**Weight:** 85 g (3 oz)



### To Order

CABLE MODEL NO.	RANGE (inH <sub>2</sub> O)	COMPATIBLE METERS
PX2650-0.5D5V	0 to 0.5	DP41-E, DP25B-E, DP-7700
PX2650-2D5V	0 to 2	DP41-E, DP25B-E, DP-7700
PX2650-10D5V	0 to 10	DP41-E, DP25B-E, DP-7700
PX2650-25D5V	0 to 25	DP41-E, DP25B-E, DP-7700
PX2650-50D5V	0 to 50	DP41-E, DP25B-E, DP-7700
PX2650-100D5V	0 to 100	DP41-E, DP25B-E, DP-7700
PX2650-0.25BD5V	±0.25	DP41-E, DP25B-E, DP-7700
PX2650-1BD5V	±1	DP41-E, DP25B-E, DP-7700
PX2650-2BD5V	±2	DP41-E, DP25B-E, DP-7700
PX2650-5BD5V	±5	DP41-E, DP25B-E, DP-7700
PX2650-10BD5V	±10	DP41-E, DP25B-E, DP-7700
PX2650-25BD5V	±25	DP41-E, DP25B-E, DP-7700
PX2650-50BD5V	±50	DP41-E, DP25B-E, DP-7700

Comes complete with operator's manual.

**Ordering Examples:** PX2650-0.5D5V, differential pressure transducer with range of 0 to 0.5 inH<sub>2</sub>O and 0 to 5V output.

PX2650-2D5V, differential pressure transducer with range of 0 to 2 inH<sub>2</sub>O and 0 to 5V output.

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DIFFERENTIAL PRESSURE TRANSDUCERS B

# DIFFERENTIAL PRESSURE TRANSMITTER WITH FIELD-SELECTABLE RANGES

## Current or Voltage Output

### PX274/277 Series

- ✓ Up to 6 Field-Selectable Ranges in a Single Unit
- ✓ Rugged NEMA 4 (IP65) Enclosure with External Mounting Bracket
- ✓ Up to 10 psid Overpressure Without Zero Shift
- ✓ Short Circuit and Reverse Polarity Protected

The PX274 is a rugged differential pressure transmitter that offers up to 6 field-selectable ranges in one unit. It incorporates a rugged NEMA 4 (IP65) dust-proof and splashproof enclosure with an external mounting bracket.

### SPECIFICATIONS

#### Excitation:

PX274: 12 to 40 Vdc

PX277: 12 to 35 Vdc

#### Output:

PX274: 4 to 20 mA (2 wire)

PX277: 0 to 5 or 0 to 10 Vdc

**Accuracy:** ±1.0% FS

**Operating Temp:**

-18 to 80°C (0 to 175°F)



PX277-05D5V, shown smaller than actual size.

#### Compensated Temp:

-4 to 65°C (25 to 150°F)

#### Thermal Effects:

0.02% FS/°C (±0.0125%/°F)

**Proof Pressure:** 10 psi

#### Media Compatibility:

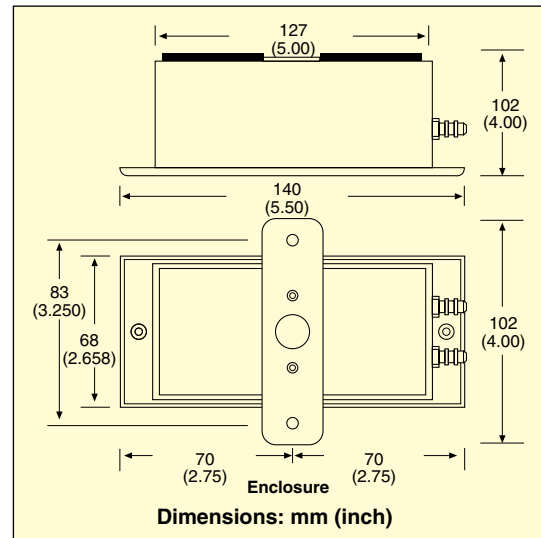
Clean, dry air or inert gas

**Pressure Fittings:** 0.2" hose barbs (use 3/16" flexible tubing)

**Termination:** Screw terminal

**Enclosure:** Enamel coated, 18 GA steel, NEMA 4 (IP65) rated

**Weight:** 454 g (1.0 lb)



### To Order

CURRENT MODEL NO.	VOLTAGE MODEL NO.	SELECTABLE RANGES (inH <sub>2</sub> O)	COMPATIBLE METERS
PX274-0.1DI	PX277-0.1D5V	0 to 0.1, -0.05 to +0.05	DP24-E, DP25B-E, DP41-E
PX274-01DI	PX277-01D5V	0 to 1.0, 0 to 0.5, 0 to 0.25 -0.5 to 0.5, -0.25 to 0.25, -0.125 to 0.125	DP24-E, DP25B-E, DP41-E
PX274-05DI	PX277-05D5V	0 to 5.0, 0 to 2.5, 0 to 1.25 -2.5 to 2.5, -1.25 to 1.25, -0.625 to 0.625	DP24-E, DP25B-E, DP41-E
PX274-30DI	PX277-30D5V	0 to 30, 0 to 15, 0 to 7.5, -15 to 15, -7.5 to 7.5, -3.75 to 3.75	DP24-E, DP25B-E, DP41-E

### ACCESSORY

MODEL NO.	DESCRIPTION
PX270-PROBE	Static pressure probe 101.6 mm (4") length

Comes complete with operator's manual.

**Ordering Examples:** PX274-0.1DI, current output pressure transmitter with user-selectable ranges of 0 to 0.1 and -0.05 to 0.05 inH<sub>2</sub>O.

PX277-05D5V, voltage output pressure transmitter with user-selectable ranges between ±0.625 inH<sub>2</sub>O and 0 to 5 inH<sub>2</sub>O.

# ECONOMICAL BAROMETRIC PRESSURE TRANSDUCER

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## Barometric Pressure

### PX2760 Series



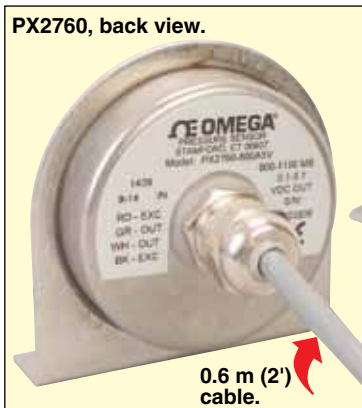
- ✓ Rugged Capacitive Design
- ✓ Excellent Long-Term Stability
- ✓ Fast Response Time
- ✓ Small Size
- ✓ Integral Mounting Bracket
- ✓ Instant Warm-Up

OMEGA's PX2760 Series barometric pressure transducers use a capacitive sensor that has excellent thermal stability and low hysteresis. The signal is processed through a custom ASIC, ensuring long-term reliability and accuracy. The amplified 0.1 to 5.1 Vdc output makes these transducers compatible with most process controllers and computer interface equipment and is virtually immune to EMI and RFI.

### SPECIFICATIONS

- Excitation:** 12 Vdc (9 to 14.5 Vdc max)
- Power Consumption:** <0.2 W
- Output Impedance:** <5 Ω
- Output:** 0.1 to 5.1 Vdc, 3-wire
- Accuracy:** ±0.25% span RSS at constant temperature (includes linearity, repeatability and hysteresis)
- Resolution:** Infinite, limited only by noise level (0.005% FS)
- Response Time:** <10 ms to reach 90%
- Long-Term Stability:** ±0.25% FS over 6 months @ 70°F
- Operating Temperature Range:** -20 to 80°C (-4 to 176°F)
- Compensated Temperature Range:** 0 to 55°C (32 to 131°F)
- Storage Temperature:** -55 to 120°C (-67 to 248°F)
- Thermal Zero Effect:** ±0.01%/°F span
- Thermal Span Effect:** ±0.01%/°F span

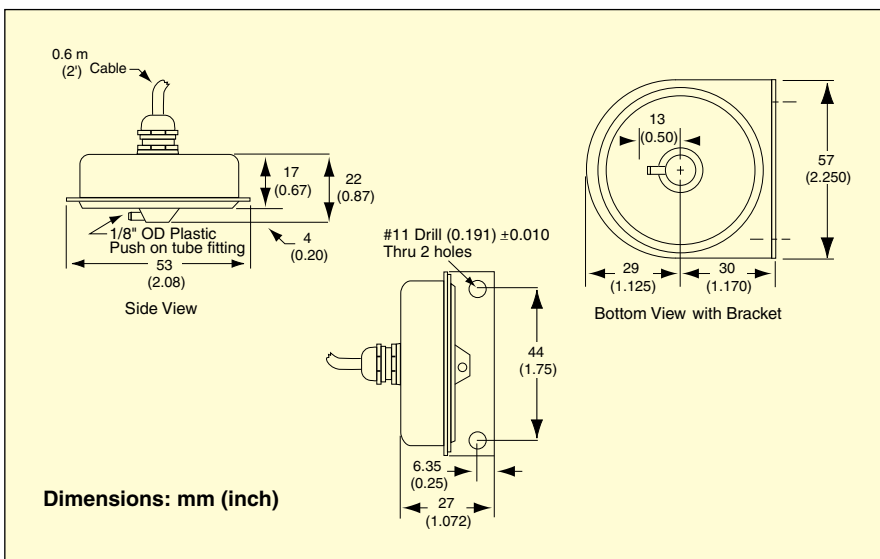
PX2760-600A5V, shown actual size.



#### Pressure Ratings:

Range	Max Pressure
600 to 1100 mbar (450 to 825 mmHg)	20 psia
800 to 1100 mbar (600 to 825 mmHg)	20 psia
0 to 20 psia (0 to 1034 mmHg)	30 psia

- Sensor:** Capacitive
- Shock:** 50 g operating, ½ sine 10 ms
- Vibration:** 2 g from 5 to 500 Hz
- Acceleration:** 10 g maximum
- Media:** Dry or non-condensing gases compatible with wetted parts
- Wetted Parts:** Stainless steel, alumina, gold and elastomer
- Pressure Port:** 1/8" tube fitting
- Electrical Connection:** 0.6 m (2') cable



### To Order

RANGE (Absolute Pres)	MODEL NO.	COMPATIBLE METERS
600 to 1100 mbar	PX2760-600A5V	DP41-E, DP25B-E, DP-3002E
800 to 1100 mbar	PX2760-800A5V	DP41-E, DP25B-E, DP-3002E
0 to 20 psia	PX2760-20A5V	DP41-E, DP25B-E, DP-3002E

Comes complete with operator's manual.

**Ordering Example:** PX2760-600A5V, barometric range pressure transducer, 600 to 1100 mbar absolute, with voltage output.

VOLTAGE OUTPUT PRESSURE TRANSDUCERS B

# DIFFERENTIAL PRESSURE TRANSMITTER WITH FIELD-SELECTABLE RANGES

## Current or Voltage Output

### PX274 Series

- ✓ Up to 6 Field-Selectable Ranges in a Single Unit
- ✓ Rugged NEMA 4 (IP65) Enclosure with External Mounting Bracket
- ✓ Up to 10 psid Overpressure Without Zero Shift
- ✓ Short Circuit and Reverse Polarity Protected

The PX274 is a rugged differential pressure transmitter that offers up to 6 field-selectable ranges in one unit. It incorporates a rugged NEMA 4 (IP65) dust-proof and splashproof enclosure with an external mounting bracket.

### SPECIFICATIONS

#### Excitation:

PX274: 12 to 40 Vdc

PX277: 12 to 35 Vdc

#### Output:

PX274: 4 to 20 mA (2 wire)

PX277: 0 to 5 or 0 to 10 Vdc

**Accuracy:** ±1.0% FS

**Operating Temp:**

-18 to 80°C (0 to 175°F)



PX277-05D5V, shown smaller than actual size.

#### Compensated Temp:

-4 to 65°C (25 to 150°F)

#### Thermal Effects:

0.02% FS/°C (±0.0125%/°F)

**Proof Pressure:** 10 psi

#### Media Compatibility:

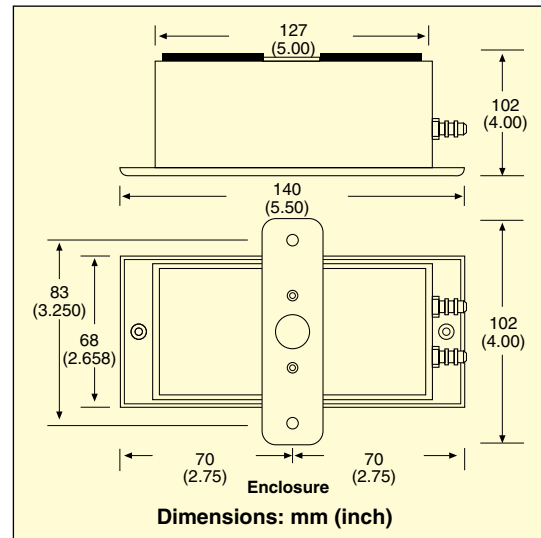
Clean, dry air or inert gas

**Pressure Fittings:** 0.2" hose barbs (use 3/16" flexible tubing)

**Termination:** Screw terminal

**Enclosure:** Enamel coated, 18 GA steel, NEMA 4 (IP65) rated

**Weight:** 454 g (1.0 lb)



### To Order

CURRENT MODEL NO.	VOLTAGE MODEL NO.	SELECTABLE RANGES (inH <sub>2</sub> O)	COMPATIBLE METERS
PX274-0.1DI	PX277-0.1D5V	0 to 0.1, -0.05 to +0.05	DP24-E, DP25B-E, DP41-E
PX274-01DI	PX277-01D5V	0 to 1.0, 0 to 0.5, 0 to 0.25 -0.5 to 0.5, -0.25 to 0.25, -0.125 to 0.125	DP24-E, DP25B-E, DP41-E
PX274-05DI	PX277-05D5V	0 to 5.0, 0 to 2.5, 0 to 1.25 -2.5 to 2.5, -1.25 to 1.25, -0.625 to 0.625	DP24-E, DP25B-E, DP41-E
PX274-30DI	PX277-30D5V	0 to 30, 0 to 15, 0 to 7.5, -15 to 15, -7.5 to 7.5, -3.75 to 3.75	DP24-E, DP25B-E, DP41-E

### ACCESSORY

MODEL NO.	DESCRIPTION
PX270-PROBE	Static pressure probe 101.6 mm (4") length

Comes complete with operator's manual.

**Ordering Examples:** PX274-0.1DI, current output pressure transmitter with user-selectable ranges of 0 to 0.1 and -0.05 to 0.05 inH<sub>2</sub>O.

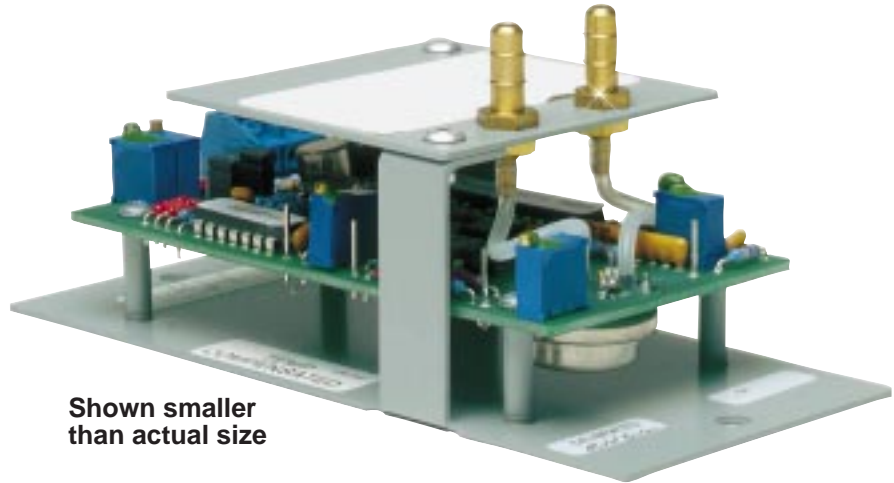
PX277-05D5V, voltage output pressure transmitter with user-selectable ranges between ±0.625 inH<sub>2</sub>O and 0 to 5 inH<sub>2</sub>O.



**PRESSURE TRANSDUCER  
WITH FIELD SELECTABLE RANGES**



PX278  
**\$175**  
Model Shown



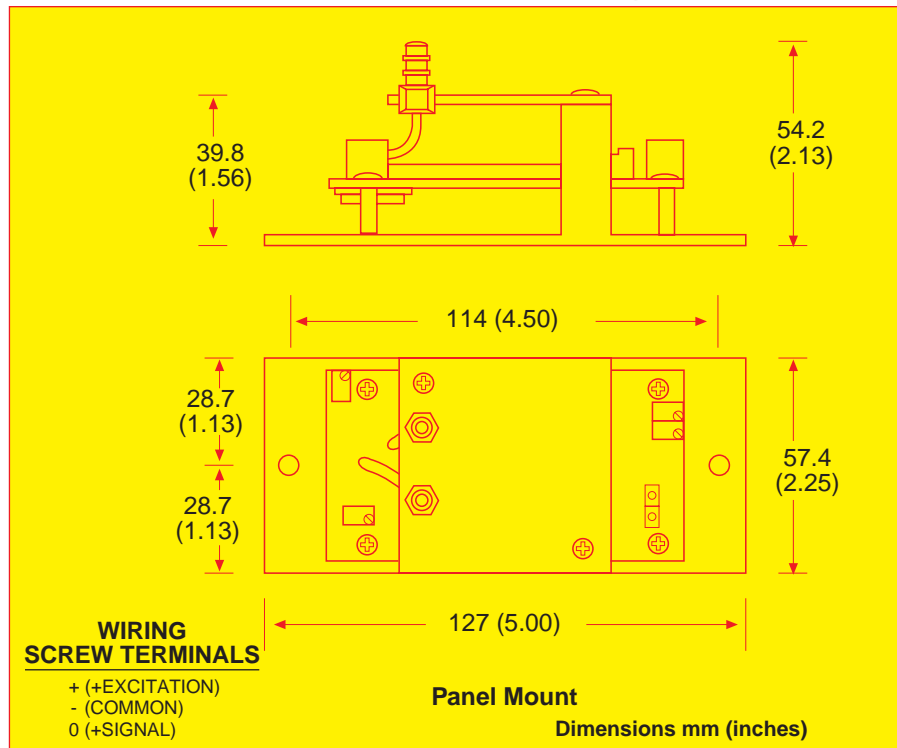
Shown smaller than actual size

- Up to 6 Field Selectable Ranges in a Single Unit
- Rugged Panel Mount Chassis
- NIST Traceable Calibration
- Up to 10 psi Differential Overpressure without Zero Shift

The PX278 is a rugged, differential pressure transducer which offers up to six field selectable ranges in one unit. The PX278 incorporates a rugged, steel panel mount chassis and is ideal for OEM applications.

**SPECIFICATIONS**

**Excitation:** 12 to 35 Vdc  
**Output:** 0 to 5 or 0 to 10 Vdc  
**Accuracy:** ±1.0% FS  
**Operating Temp.:** -18 to 80°C (0 to 175°F)  
**Compensated Temp.:** -4 to 65°C (25 to 150°F)  
**Thermal Effects:** 0.02% FS/°C (±0.0125% FS/°F)  
**Static Pressure:** 10 psi  
**Media Compatibility:** Clean dry air or inert gas  
**Pressure Fittings:** 0.2" hose barbs (use 3/8" Tygon tubing)  
**Termination:** Screw terminal block  
**Enclosure:** Enamel coated, 18 GA steel, panel mount chassis  
**Weight:** 454 g (1 lb)



**To Order (Specify Model Number)**

MODEL NO.	Selectable Ranges (inH <sub>2</sub> O)	PRICE	COMPATIBLE METERS
PX278-0.1D5V	0 to 0.1, -0.05 to 0.05	\$175	DP24-E, DP25-E, DP41-E
PX278-01D5V	0 to 1.0, 0 to 0.5, 0 to 0.25 -0.5 to 0.5, -0.25 to 0.25, -0.125 to 0.125	175	DP24-E, DP25-E, DP41-E
PX278-05D5V	0 to 5.0, 0 to 2.5, 0 to 1.25, -2.5 to 2.5, -1.25 to 1.25, -0.625 to 0.625	175	DP24-E, DP25-E, DP41-E
PX278-30D5V	0 to 30, 0 to 15, 0 to 7.5, -15 to 15, -7.5 to 7.5, -3.75 to 3.75	175	DP24-E, DP25-E, DP41-E

Ordering Example: PX278-0.1D5V, pressure transducer with user selectable ranges of 0 to 0.1, and -0.05 to 0.05 inches of water, \$175



**UNITED STATES**

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1-800-TC-OMEGA  
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Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

### • Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters



# PRESSURE TRANSMITTER

## FAST RESPONSE AND LONG TERM RELIABILITY

**Barometric (Absolute)  
Pressure Ranges**

**500-1100 hPa (mb) to  
800-1100 hPa (mb)**

### PX2780 Series



### Applications

- ✓ Environmental Monitoring Systems
- ✓ Weather Measurement Systems
- ✓ Environmental Data Logging
- ✓ Laboratory and Test Station Monitoring

The PX2780 high accuracy barometric pressure transducers are designed for applications in industry and science where accuracy, fast dynamic response and long term stability are important. The sensor and electronics are packaged in a rugged stainless steel and polyester case. A removable 5-pin terminal strip makes fast and secure connections. A high accuracy ceramic sensor is coupled with a digital compensation circuit using a custom ASIC to assure consistent accuracy and reliability over a broad range of environmental conditions. There is also a sleep mode where the unit only draws 1 micro amp that allows almost instant turn on/reading for remote applications.



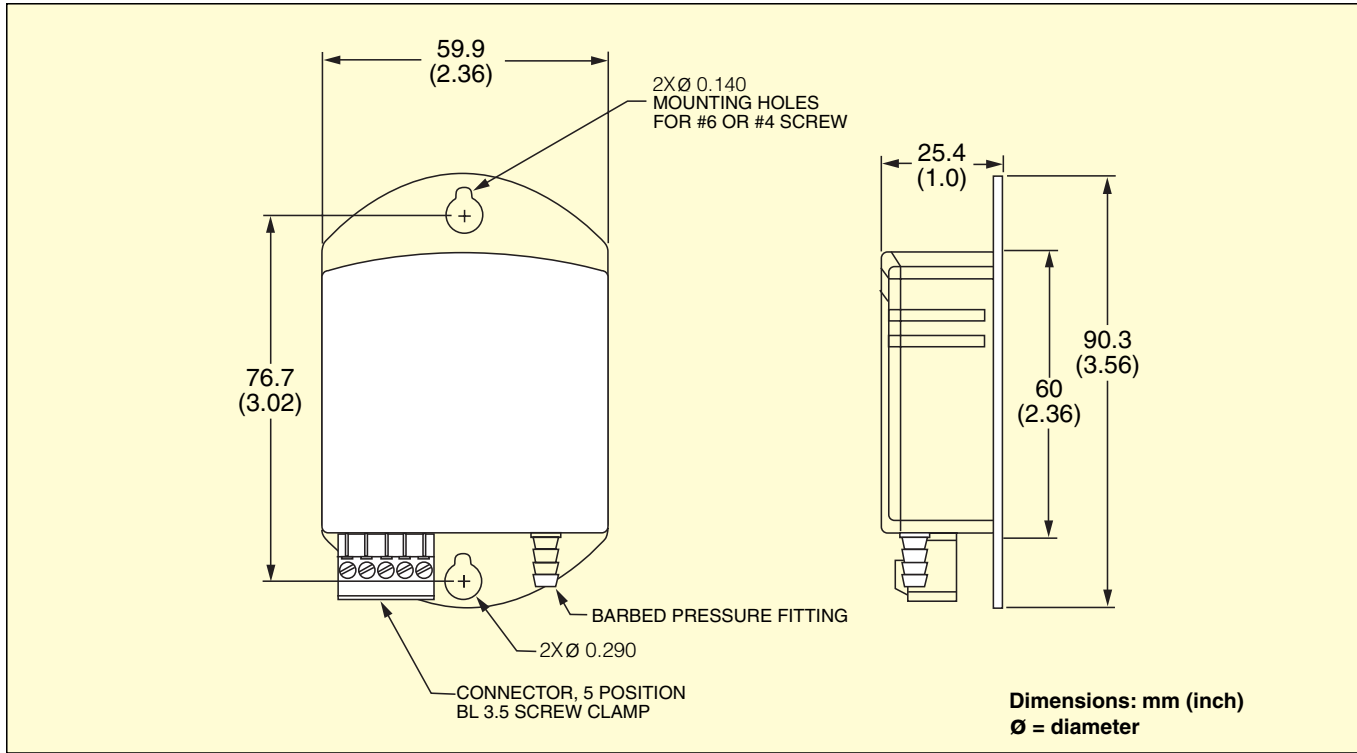
PX2780-600B5V shown larger than actual size.

### SPECIFICATIONS

**Accuracy:** See table on next page  
**Resolution:** 0.1 hPa (mb)  
**Long Term Stability:**  $\leq \pm 0.1$  hPa (mb)/year  
**Warm-Up Time:**  $< 1$  second  
**Warm-Up Shift:**  $< 0.1$  hPa (mb) maximum  
**Response Time:**  $< 100$  ms  
**Proof Pressure:** 1500 hPa (mb)

**Burst Pressure:** 2000 hPa (mb)  
**Storage Temperature:** -60 to 120°C (-76 to 248°F)  
**Operating Temperature:** -40 to 60°C (-40 to 140°F)  
**Compensated Range:** -40 to 60°C (-40 to 140°F)  
**Zero Shift:**  
**Barometric:**  $\leq \pm 0.18\%$  full scale/50°C ( $\leq \pm 0.2\%$  full scale/100°F)  
**Sensitivity Effects:**  $\leq \pm 0.09\%$  full scale/50°C ( $\leq \pm 0.1\%$  full scale/100°F)

**Excitation:** 9.5 to 28 Vdc (3 mA operate mode, 1  $\mu$ A sleep mode) 3- or 4-wire circuit  
**Output:** 0 to 5 Vdc  
**Full Scale Span Setting:**  $\pm 5$  mV  
**Zero Setting:**  $\pm 5$  mV  
**Output Impedance:**  $< 10 \Omega$   
**Electrical Connection:** Removable 5-pin terminal strip  
**Pressure Connection:**  $\frac{1}{8}$ " barbed fitting  
**Pressure Media:** Non-condensing air or gas  
**Weight:** 137 g (4.8 oz)  
**Mounting:** Mounting plate



DP25B-E shown smaller than actual size. For details visit [omega.com/dp25b](http://omega.com/dp25b)

ACCURACY [hPa (mbar)] RSS*			
TEMPERATURE	RANGE (hPa)		
	500	600	800
20°C (68°F)	±0.6	±0.5	±0.3
0 to 40°C (32 to 104°F)	±1.2	±1.0	±0.6
-20 to 50°C (-4 to 122°F)	±2.0	±1.5	±1
-40 to 60°C (-40 to 140°F)	±2.5	±2.0	±1.5
Non-linearity	±0.5	±0.4	±0.25
Hysteresis	±0.06	±0.05	±0.03
Non-repeatability	±0.04	±0.03	±0.02

\* RSS of end point non-linearity, hysteresis, non-repeatability and calibration uncertainty

To Order	
MODEL NUMBER	BAROMETRIC RANGES (ABSOLUTE PRESSURE)
PX2780-500B5V	500 to 1100 hPa (mb)
PX2780-600B5V	600 to 1100 hPa (mb)
PX2780-600NB5V	600 to 1060 hPa (mb)
PX2780-800B5V	800 to 1100 hPa (mb)
PX2780-800NB5V	800 to 1060 hPa (mb)

Comes complete with NIST traceable calibration certificate and operator's manual.

**Ordering Examples:** PX2780-800B5V, high accuracy barometric transmitter with 0 to 5 Vdc output, range 500 to 1100 hPa (mb).

PX2780-600NB5V, high accuracy barometric transmitter with 0 to 5 Vdc output, range 600 to 1060 hPa (mb).



## Pressure Transmitter with Display, Rangeable Wet/Wet Differential

### Product Details

The Omega differential PX3005-DIFF is a compact, rangeable, pressure transmitter ideal for monitoring pressures in process automation, hydraulic systems, compressors, pumps, and in tank level applications where consistent, reliable pressure measurement is essential. The PX3005-DIFF utilizes a unique encapsulation construction of a MEMs piezoresistive pressure sensor coupled to an advanced microprocessing to provide superior accuracy and performance.

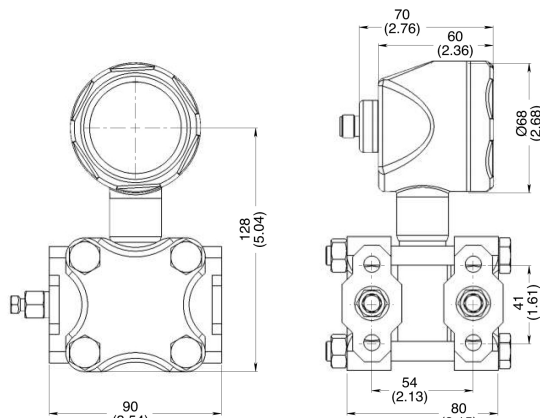
The unique construction enables high line pressure operations and superior protection from pressure overloads. The rugged 316 stainless-steel enclosure is IP67 rated making it suitable for wash down environments. A 5-digit backlit LCD allows for a full precision representation of process variable. Available in ranges from 1 to 1,500 psi, the intelligent transmitter module allows for configuration of the 4 to 20 mA signal, display of input or output, and choice of 19 measurement units. The output signal can be adjusted to re-arrange the transmitter or "tare" unwanted fluid head preloads. Rangeability is capable of adjusting zero and span are from -100 to 100% FS URL (Upper Range Limit) with a minimum span of 30% URL. This means a 15 psi transducer can have the zero set between -15 to FS 15 psi. For example, zero could be set for -15 psi and maximum 15 psi so the output would be 4 mA at -15 psi, midpoint 12 mA would be 0 psi and 20 mA would be 15 psi.

### Features

- **0.075% Accuracy**
- **Linear or Square Root Output**
- **Adjustable Pulsation Dampening**
- **LCD Displays Either Process Variable, mA, or %**
- **Nineteen User Selectable Engineering Units**
- **IP67 316 SS Enclosure**



Product Number	Pressure Range	Pressure Type
<b>PX3005-25WDWBI</b>	-25 to 25 inH2O	Differential
<b>PX3005-160WDWBI</b>	-160 to 160 inH2O	Differential
<b>PX3005-1KWDWBI</b>	-1,000 to 1,000 inH2O	Differential
<b>PX3005-150DWBI</b>	-70 to 150 psi	Differential
<b>PX3005-400DWBI</b>	-70 to 400 psi	Differential
<b>PX3005-1.5KDWBI</b>	-70 to 1,500 psi	Differential



## Specifications

Turndown = nominal range of the device / set span of device

EXAMPLE: a PX3005-1KWDDWBI with set span of 500"H<sub>2</sub>O TD = 1000"H<sub>2</sub>O/500"H<sub>2</sub>O = 2

### Accuracy (NLHR, 20°C ±5°C):

±0.075TD% SPAN  
(Square root output accuracy is 1.5 times linear output accuracy)

### Long Term Stability:

±0.2% URL/60 months

### Ambient Temperature Effects -20 to 80°C (-4 to 176°F):

±(0.1 +0.1TD)% SPAN

### Static Pressure Effects:

Effect on zero ±0.15TD % SPAN/10MPa (1450 psi); Effect

### Power Supply Effects:

± 0.005TD% SPAN/V (Zero and Span)

### Mounting Position Effects:

Install error less than 400Pa (1.60" H<sub>2</sub>O) can be corrected by PV = 0 reset

### Vibration Effects:

GB/T 1827.3/IEC61298-3 tests, 20g (5 to 2000 HZ, max <±3 mm), <0.1% URL

### Supply Voltage:

10.5 to 55VDC

### Output Signal:

4 to 20mA Two wire, linear or square root output selectable

### Sensor Response Time:

200 mS

### Damping Time:

Selectable, 0 to 100 S

### Load Resistance Ω:

<(U-10.5)/0.021

### Transmission Distance:

< 1000m

### Power Consumption:

500mW(20.8mA output @ 24VDC)

### Operating Temperature:

-20 to 70°C (-4 to 160°F)

### Storage Temperature:

-40 to 85°C (-40 to 185°F)

### Media Temperature:

-40 to 120°C (-40 to 250°F)

### Environmental Rating:

IP67

### Media:

Fluids and gasses compatible with 316 SS

### Process Connection/Material:

¼" -18NPT F/316 SS

### Electrical Connection:

4 pin male M12

### Isolating Diaphragm:

316L SS

### Sensor Fill Fluid:

Silicone Oil

### Sensor Seal:

O-ring, FKM

### Housing Material:

316 SS

### Weight:

**Net Weight:** about 3kg (without mounting bracket and process connection adaptor)

## Range Limit Table

Nominal Value		Minimum Span		UPPER (URL)		LOWER (LRL)		Static Pressure Limit		Hi Side Over Range Limit		Lo Side Over Range Limit	
Mbar	"H <sub>2</sub> O	Mbar	"H <sub>2</sub> O	Mbar	"H <sub>2</sub> O	Mbar	"H <sub>2</sub> O	Bar	Psi	Bar	Psi	Bar	Psi
60	25	0.02	0.8	60	25	-60	-25	250	3600	250	3600	160	2300
400	160	0.04	1.6	400	160	-400	-160	400	5750	250	3600	160	2300
2500	1000	0.25	10	2500	1000	-2500	-1000	400	5750	250	3600	160	2300
Bar	Psi	Bar	Psi	Bar	Psi	Bar	Psi	Bar	Psi	Bar	Psi	Bar	Psi
10	150	0.1	1.5	10	150	-5	-70	400	5750	250	3600	160	2300
30	400	0.3	4	30	400	-5	-70	400	5750	250	3600	160	2300
100	1500	1	15	100	1500	-5	-70	400	5750	250	3600	160	2300

## Pressure Transmitter with Display, Industrial, Rangeable

### Product Details

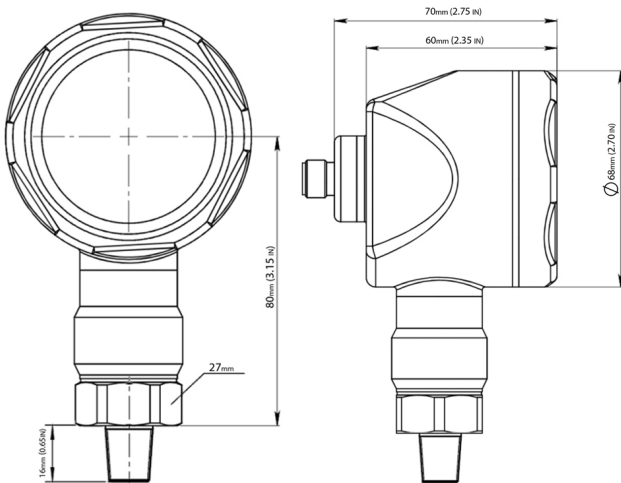
The OMEGA PX3005 is a compact, rangeable, pressure transmitter ideal for monitoring pressures in process automation, hydraulic systems, compressors, pumps and in tank level applications where consistent, reliable pressure measurement is essential. The PX3005 utilizes proven MEMs piezoresistive pressure sensors coupled to advanced microprocessing to provide superior accuracy and performance. The rugged 316 stainless-steel enclosure is IP67 rated making it suitable for washdown environments. A 5 digit backlit LCD allows for full precision representation of process variable. Available in ranges from 1 psi to 15,000 psi, the clever transmitter module allows for configuration of the 4-20 mA signal, display of input or output, and choice of 19 measurement units. The output signal can be adjusted to re-range the transmitter or "tare" unwanted fluid head preloads. Rangeability is capable of adjusting zero and span are from -100% to 100% FS URL (Upper Range Limit) with a minimum span of 30% URL. This means a 15 psi transducer can have the zero set between -15 psi to FS 15 psi. For example, zero could be set for -15 psi and maximum 15 psi so the output would be 4 mA at -15 psi, midpoint 12 mA would be 0 psi and 20 mA would be 15 psi.

### Features

- Compact Size
- IP67 Environmental Rating
- 316SS Wetted Parts
- Scale to Display 1 of 19 Engineering Units
- Accuracy +/- 0.2% URL
- Choose Display Mode of Process Variable, mA, or %
- Calibration Report Included (Standard)



Product Number	Pressure Range	Pressure Type
PX3005-005AI	0 to 5 psi	Absolute
PX3005-015AI	0 to 15 psi	Absolute
PX3005-030AI	0 to 30 psi	Absolute
PX3005-100AI	0 to 100 psi	Absolute
PX3005-250AI	0 to 250 psi	Absolute
PX3005-500AI	0 to 500 psi	Absolute
PX3005-001GI	-1 to 1 psi	Compound Gauge
PX3005-003GI	-3 to 3 psi	Compound Gauge
PX3005-005GI	-5 to 5 psi	Compound Gauge
PX3005-015GI	-15 to 15 psi	Compound Gauge
PX3005-030GI	-15 to 30 psi	Compound Gauge
PX3005-100GI	-15 to 100 psi	Compound Gauge
PX3005-150AI	-15 to 150 psi	Compound Gauge
PX3005-250GI	-15 to 250 psi	Compound Gauge
PX3005-500GI	-15 to 500 psi	Compound Gauge
PX3005-1.0KGI	-15 to 1,000 psi	Compound Gauge
PX3005-1.5KGI	-15 to 1,500 psi	Compound Gauge
PX3005-3.0KGI	-15 to 3,000 psi	Compound Gauge
PX3005-5.0KGI	-15 to 5,000 psi	Compound Gauge
PX3005-7.5KGI	-15 to 7,500 psi	Compound Gauge
PX3005-10KGI	-15 to 10,000 psi	Compound Gauge
PX3005-15KGI	-15 to 15,000 psi	Compound Gauge



## Specifications

Turndown = nominal range of the device / set span of device

EXAMPLE: a PX3005-100GI with set span of 50psi, TD = 100psi/50psi = 2

### Accuracy (NLHR, 20°C ±5°C):

±0.2TD% SPAN

### Long Term Stability:

+/- 0.1% URL / year

### Ambient Temperature Effects (-20°C to 70°C):

±(0.1+0.1TD) % SPAN

### Power Supply Effects:

± 0.005TD% SPAN/V (Zero and Span)

### Mounting Position Effects:

Apply to any position. Install error less than 400Pa can be corrected by PV=0 reset.

### Vibration Effects:

GB/T 1827.3/IEC61298-3 tests, 20g (5-2000HZ, max<±3mm)

<0.1% URL

### Supply Voltage:

10.5 to 55VDC

### Output Signal:

4-20mA Two wire

### Sensor Response Time:

200 mS

### Damping Time:

Selectable, 0 to 100 S

### Load Resistance Ω:

<(U-10.5)/0.021

### Transmission Distance:

< 1000m

### Power Consumption:

500mW(20.8mA output @ 24VDC)

### Operating Temperature:

-20 to 70°C (-4 to 160°F)

### Storage Temperature:

-40 to 85°C (-40 to 185°F)

### Media Temperature:

-40 to 120°C (-40 to 250°F)

### Environmental Rating:

IP67

### Media:

Fluids and gasses compatible with 316 SS and FKM

### Process Connection/Material:

1/4"-18NPT (M) / 316 SS

### Electrical Connection:

4 pin male M12

### Isolating Diaphragm:

4 pin male M12

### Sensor Fill Fluid:

Silicone Oil

### Sensor Seal:

O-ring, FKM

### Housing Material:

316 SS

### Weight:

0.52kg

### Range Limit Table:

table

## Absolute Pressure Ranges

Nominal Value		Minimum Span		Upper (URL)		Lower (URL)		Over Range Limit	
kPa	PSIA	kPa	PSIA	kPa	PSIA	kPa	PSIA	kPa	PSIA
35	5	10	1.5	35	5	0	0	50	7.5
100	15	35	5	100	15	0	0	150	22
200	30	100	15	200	30	0	0	300	45
700	100	350	50	700	100	0	0	1050	150
MPa	PSIA	MPa	PSIA	MPa	PSIA	MPa	PSIA	MPa	PSIA
1	150	0.5	75	1	150	0	0	1.5	220
1.7	250	1	150	1.7	250	0	0	2.55	370
3.5	500	1.7	250	3.5	500	0	0	5.25	750



### Gage Pressure Ranges

Nominal Value		Minimum Span		Upper (URL)		Lower (URL)		Over Range Limit	
kPa	PSI	kPa	PSI	kPa	PSI	kPa	PSI	kPa	PSI
7	1	5	0.75	7	1	-7	-1	10.5	1.5
20	3	10	1.5	20	3	-20	-3	30	4.5
35	5	20	3	35	5	-35	-5	52.5	7.5
100	15	35	5	100	15	VAC	VAC	150	22
200	30	100	15	200	30	VAC	VAC	300	45
700	100	350	30	700	100	VAC	VAC	1050	150
MPa	PSI	MPa	PSI	MPa	PSI	MPa	PSI	MPa	PSI
1	150	0.5	75	1	150	VAC	VAC	1.5	220
1.7	250	1	150	1.7	250	VAC	VAC	2.55	370
3.5	500	1.7	250	3.5	500	VAC	VAC	5.25	750
7	1000	3.5	500	7	1000	VAC	VAC	10.5	1500
17	1500	7	1000	17	1500	VAC	VAC	25.5	3700
35	3000	17	2500	35	3000	VAC	VAC	52.5	7500
40	5000	20	3000	40	5000	VAC	VAC	60	8700
60	7500	30	4500	60	7500	VAC	VAC	90	13000
70	10000	35	5000	70	10000	VAC	VAC	105	15000
100	15000	50	7250	100	15000	VAC	VAC	150	21750

## Sanitary, Rangeable, Pressure Transmitters with Display



### Product Details

Omega's PX3005K is a compact, rangeable, digital sanitary pressure transmitter that is ideal for monitoring pressures in food and pharmaceutical industries where a flush diaphragm design is required. The rugged 316 stainless-steel enclosure is IP67 rated making it suitable for washdown environments. A 5-digit backlit LCD allows for full precision representation of process variable. This hygienic design, the OMEGA PX3005K has been issued 3-A symbol authorization and meets the requirements of the 3-A Sanitary Standards. The best choice for process automation and tank level applications where consistent reliable pressure management are essential.



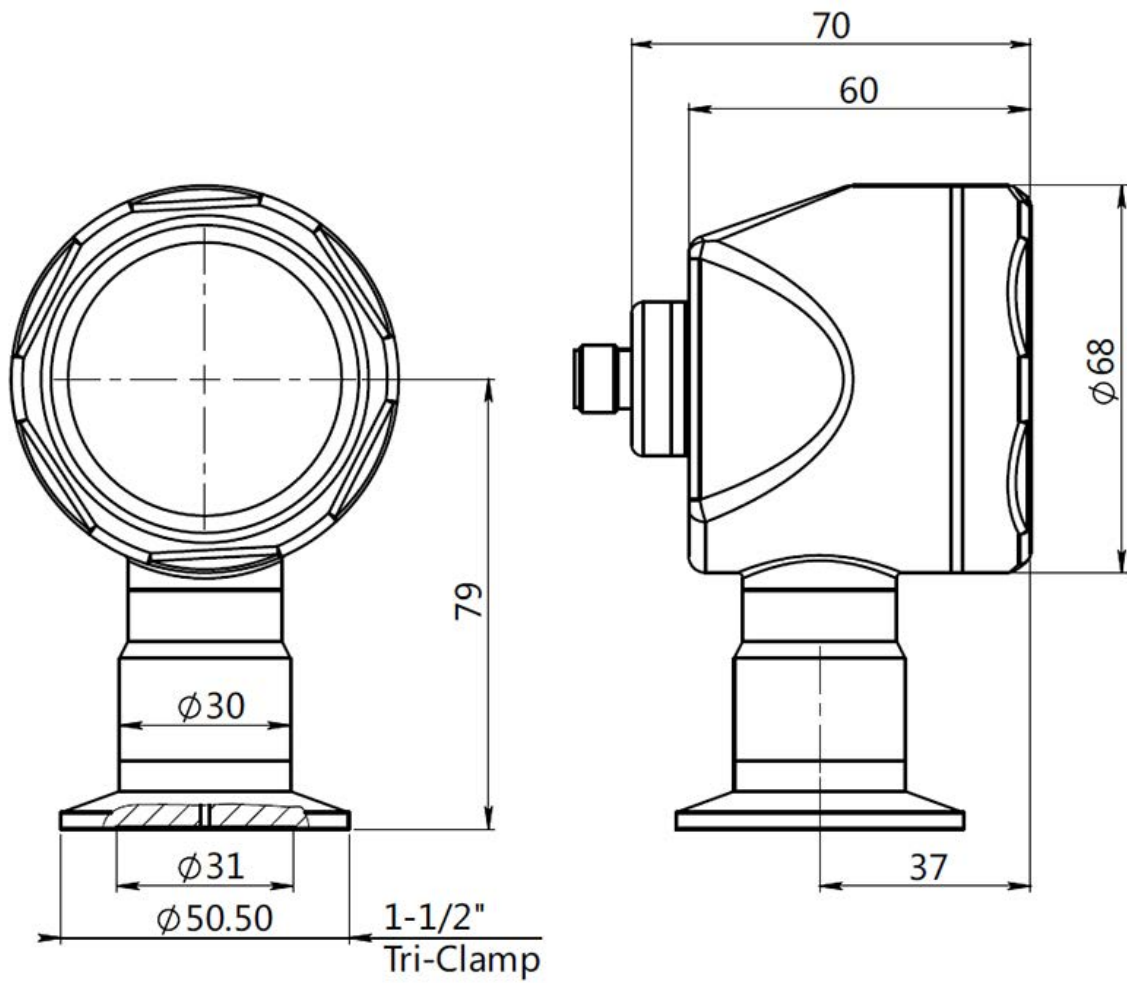
### Features

- For Sanitary or CIP (Clean-in-Place) Applications
- The OMEGA PX3005K has been issued 3-A symbol authorization and meets the requirements of the 3-A Sanitary Standards for food, beverage, dairy, and pharmaceutical applications
- IP67 316 SS enclosure protects against harsh environments
- 5 digit display for easy monitoring
- ± 0.2% URL accuracy for precise pressure measurements

### Specifications

**Accuracy:** ±0.2TD% SPAN  
**Supply Voltage:** 10.5 to 55VDC  
**Output Signal:** 4-20mA Two wire  
**Sensor Response Time:** 200 mS  
**Operating Temperature:** -20 to 70°C (-4 to 160°F)  
**Storage Temperature:** -40 to 85°C (-40 to 185°F)  
**Media Temperature:** -40 to 120°C (-40 to 250°F)  
**Environmental Rating:** IP67  
**Media:** Fluids and gasses compatible with 316 SS and FKM  
**Process Connection/Material:** Tri-Clamp  
**Electrical Connection:** 4 pin male M12  
**Isolating Diaphragm:** 316L SS  
**Sensor Fill Fluid:** Silicone Oil  
**Sensor Seal:** O-ring, FKM  
**Housing Material :** >316 SS  
**Long Term Stability:** ± 0.1% URL / year  
**Damping Time:** Selectable, 0 to 100 S  
**Load Resistance:** <(U-10.5)/0.021  
**Transmission Distance:** < 1000m  
**Power Consumption:** 500mW(20.8mA output @ 24VDC)  
**Ambient Temperature Effects (-20°C to 70°C):** ±(0.1+0.1TD) % SPAN  
**Power Supply Effects:** ± 0.005TD% SPAN/V (Zero and Span)  
**Mounting Position Effects:** Apply to any position. Install error less than 0.06 psi can be corrected by PV=0 reset.  
**Vibration Effects:** GB/T 1827.3/IEC61298-3 tests,20g (5-2000HZ, max <±3mm) <0.1% URL  
**Weight:** 1.14 lbs

Product Number	Pressure Range	Pressure Type
<b>1.5" port size</b>		
PX3005K01-005GI	-5 to 5 psi	Compound gauge
PX3005K01-003GI	-3 to 3 psi	Compound gauge
PX3005K01-015GI	-15 to 15 psi	Compound gauge
PX3005K01-030GI	-15 to 30 psi	Compound gauge
PX3005K01-100GI	-15 to100 psi	Compound gauge
PX3005K01-150GI	-15 to150 psi	Compound gauge
PX3005K01-250GI	-15 to 250 psi	Compound gauge
PX3005K01-300GI	-15 to 300 psi	Compound gauge
<b>2" port size</b>		
PX3005K02-003GI	-3 to 3 psi	Compound gauge
PX3005K02-005GI	-5 to 5 psi	Compound gauge
PX3005K02-015GI	-15 to 15 psi	Compound gauge
PX3005K02-030GI	-15 to 30 psi	Compound gauge
PX3005K02-100GI	-15 to100 psi	Compound gauge
PX3005K02-150GI	-15 to150 psi	Compound gauge
PX3005K02-250GI	-15 to 250 psi	Compound gauge
PX3005K02-300GI	-15 to 300 psi	Compound gauge



# All Stainless Steel Transducer/Transmitter Multimedia Compatibility High-Performance Silicon Technology Imperial Model

**0-1 to 0-10,000 psi**  
**0-0.07 to 0-690 bar**  
**100 mV, 0 to 5 V, 0 to 10 V,**  
**and 4 to 20 mA Outputs**

## PX309 Series



- ✓ 1, 2 & 5 psi Low Pressure Ranges!
- ✓ All Stainless Steel Construction
- ✓ Gage, Absolute, Compound Gage or Vacuum Pressure
- ✓ Rugged Solid State Design
- ✓ High Stability, Low Drift
- ✓ 0.25% Static Accuracy
- ✓ IP65 Protection Class
- ✓ Stocked for Fast Delivery

We provide a complete range of services—from product inception, through design and prototypes, to manufacturing and testing. Our application engineers work closely with our customers to **customize, design** or create entirely **new products**. Call us—whether you're an OEM, manufacturer, or end user.



**New!**  
**Vacuum and**  
**Compound Range**  
**Models**

PX319-100GV

mini DIN style.

Cable style.

PX309-100GV.

Twist-lock style.

PX329-100GV

PX359-100GV

M12 connector style

All models shown smaller than actual size.



# Dugged General

## Purpose Transducer

### Common Specifications for 100 mV, 0 to 5 Vdc, and 0 to 10 Vdc, 4 to 20 mA Outputs

- ✓ 1, 2 & 5 psi Low Pressure Ranges!
- ✓ All Stainless Steel Construction
- ✓ Gage or Absolute Pressure
- ✓ Rugged Solid State Design
- ✓ High Stability, Low Drift
- ✓ 0.25% Static Accuracy
- ✓ IP 65 Protection Class

Omega's PX309 Series models below 100 psi use a high-accuracy silicon sensor protected by an oil-filled stainless steel diaphragm. Units 100 psi and above use silicon strain gages molecularly bonded to the stainless steel diaphragm.

#### Common Specifications

**Ranges:** -15 to 50 psig, 0 to 1000 psia, 100 to 10,000 psig

**Accuracy (Combined Linearity, Hysteresis and Repeatability):** ±0.25% BSL, max

**Minimum Resistance Between Transducer Body and Any Wire:** 1M Ω @ 25 Vdc

**Calibration:** In vertical direction with fitting down, Compound range units are calibrated from Vac to FSO

**Pressure Cycles:** 10 million, minimum

**Pressure Overload:** -15 to 50 psig and 0 to 1000 psia: 3 times rated pressure or 20 psi whichever is greater, 100 to 10,000 psig: 2 times rated pressure

**Burst Pressure:** -15 to 50 psig and 0 to 1000 psia: 4 times rated pressure or 25 psi whichever is greater, 100 to 10,000 psig: 5 times rated pressure

**Long Term Stability (1 Year):** ±0.25% of FS, typical

**Operating Temperature:** -40 to 85°C (-40 to 185°F)

**Pressure Port:** ¼-18 MNPT

**Pressure Port Material:** -15 to 50 psig and 0 to 1000 psia: 316 SS, 100 to 10,000 psig: SS 316 or 17-4

(0 to 500 PSI may contain HNBR O-ring in wetted pressure port assembly)

**Bandwidth:** DC to 1 kHz (typical)

**CE Compliant**

**Shock:** 50 g, 11 ms half-sine

**Vibration:** ±20 g

**Response Time:** <1 millisecond

**Weight:** PX309/PX319/PX329/PX359: <90 grams

**IP Rating:** IP65

**RoHS:** Compliant

Order a snubber to protect your pressure transducer!



PS-4G, shown actual size. Snubbers protect sensors from fluid hammers/spikes.

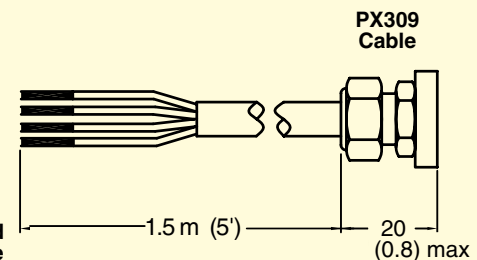
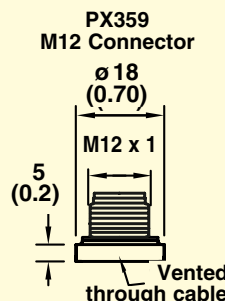
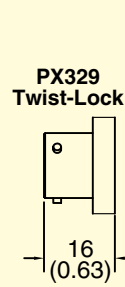
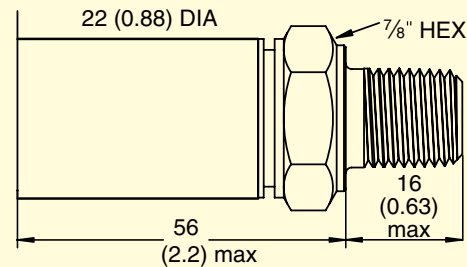
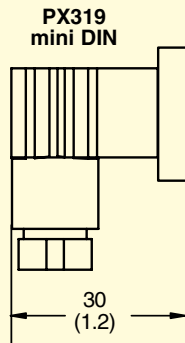
mV Output Wiring			
Wiring	Cable	M12 and mini DIN	Twist-Lock
Excitation (+)	Red	Pin 1	Pin A
Output (+)	White	Pin 3	Pin C
Output (-)	Green	Pin 4	Pin D
Excitation (-)	Black	Pin 2	Pin B
Spare	—	—	Pin E
Vent	—	—	Pin F

5 and 10 Vdc Output Wiring			
Wiring	Cable	M12 and mini DIN	Twist-Lock
Excitation (+)	Red	Pin 1	Pin A
Excitation (-)	Black	Pin 2	Pin B
Output (+)	White	Pin 3	Pin C
N/C†	—	Pin 4	Pin D
Spare	—	—	Pin E
Vent	—	—	Pin F

mA Output Wiring			
Wiring	Cable	M12 and mini DIN	Twist-Lock
Supply (+)	Red	Pin 1	Pin A
Supply (-)	Black	Pin 2	Pin B
N/C†	—	Pin 3	Pin C
N/C†	—	Pin 4	Pin D
Spare	—	—	Pin E
Vent	—	—	Pin F

† N/C: Do not connect any wires to this pin.

Dimensions: mm (inch)  
ø = diameter



# How to Order

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)



# PX309 Series with 100 mV Outputs

**100 mV Output**  
**0-1 to 0-10,000 psi**  
**0-70 mbar to 0-690 bar**

## PX309 Series



Standard

## 100 mV Output Specifications

(In Addition to Common Specifications on page 2)

**Setting Accuracy Zero and Span:**  
±2% FS (±4% FS for 1 and 2 psi)

### Supply Voltage:

-15 to 50 psig and 0 to 1000 psia: 10 Vdc, 100 to 10,000 psig: 5 Vdc typical

100 mV Outputs		
Range	Output	Excitation*
200psia	66.7 mV	10 Vdc
1 psig	20 mV	10 Vdc
2 psig	40 mV	10 Vdc
5 to 50 psig	100 mV	10 Vdc
100 to 10,000 psig	100 mV	5 Vdc
0 to -15 psig	0 to 100 mV	10 Vdc
-15 to 0 to +15 psig	-100 to 0 to +100 mV	10 Vdc
-15 to 30/50 psig	0 to 100 mV	10 Vdc
-15 to 100/150 psig	0 to 100 mV	5 Vdc

\* Ratiometric Excitation Range: 2 to 10 or 1 to 5 Vdc

Input Impedance: 3k Ohms Min  
Output Impedance: 3k Ohms Min

### Zero Shift:

-15 to 50 psig and 0 to 1000 psia: ±0.03%/°C (0 to 5 psig/psia is ±0.06%/°C, 0 to 2 psig is ±0.08%/°C, 0 to 1 psig is ±0.1%/°C). 100 to 10,000 psig: ±2% over compensated range ref 25°C

### Span Shift:

-15 to 50 psig and 0 to 1000 psia: ±0.03%/°C (0 to 5 psig/psia is ±0.04%/°C, 0 to 2 psig is ±0.05%/°C, 0 to 1 psig is ±0.06%/°C). 100 to 10,000 psig: ±2% over compensated range ref 25°C

### Compensated Temperature:

-15 to 50 psig and 0 to 1000 psia: 0 to 50°C, 100 to 10,000 psig: 0 to 55°C

**Metric Versions of PX309 also available from Omega. Please see PXM309 series.**

PX319-050GV, mini DIN connector included, shown smaller than actual size.



mini DIN style.

## To Order

Range		1.5 m Cable Connection	mini DIN Connection	Twist-Lock Connection	M12 Connection
psi	bar				
<b>Absolute Pressure</b>					
0 to 5	0 to 0.34	PX309-005AV	PX319-005AV	PX329-005AV	PX359-005AV
0 to 15	0 to 1	PX309-015AV	PX319-015AV	PX329-015AV	PX359-015AV
0 to 30	0 to 2.1	PX309-030AV	PX319-030AV	PX329-030AV	PX359-030AV
0 to 50	0 to 3.4	PX309-050AV	PX319-050AV	PX329-050AV	PX359-050AV
0 to 100	0 to 6.9	PX309-100AV	PX319-100AV	PX329-100AV	PX359-100AV
0 to 200	0 to 14	PX309-200AV	PX319-200AV	PX329-200AV	PX359-200AV
0 to 300	0 to 21	PX309-300AV	PX319-300AV	PX329-300AV	PX359-300AV
0 to 500	0 to 34	PX309-500AV	PX319-500AV	PX329-500AV	PX359-500AV
0 to 1000	0 to 69	PX309-1KAV	PX319-1KAV	PX329-1KAV	PX359-1KAV
<b>Gage Pressure</b>					
0 to 1	0 to 0.07	PX309-001GV	PX319-001GV	PX329-001GV	PX359-001GV
0 to 2	0 to 0.14	PX309-002GV	PX319-002GV	PX329-002GV	PX359-002GV
0 to 5	0 to 0.34	PX309-005GV	PX319-005GV	PX329-005GV	PX359-005GV
0 to 15	0 to 1	PX309-015GV	PX319-015GV	PX329-015GV	PX359-015GV
0 to 30	0 to 2.1	PX309-030GV	PX319-030GV	PX329-030GV	PX359-030GV
0 to 50	0 to 3.4	PX309-050GV	PX319-050GV	PX329-050GV	PX359-050GV
0 to 100	0 to 6.9	PX309-100GV	PX319-100GV	PX329-100GV	PX359-100GV
0 to 150	0 to 10	PX309-150GV	PX319-150GV	PX329-150GV	PX359-150GV
0 to 200	0 to 14	PX309-200GV	PX319-200GV	PX329-200GV	PX359-200GV
0 to 300	0 to 21	PX309-300GV	PX319-300GV	PX329-300GV	PX359-300GV
0 to 500	0 to 34	PX309-500GV	PX319-500GV	PX329-500GV	PX359-500GV
0 to 1000	0 to 69	PX309-1KGV	PX319-1KGV	PX329-1KGV	PX359-1KGV
0 to 2000	0 to 138	PX309-2KGV	PX319-2KGV	PX329-2KGV	PX359-2KGV
0 to 3000	0 to 207	PX309-3KGV	PX319-3KGV	PX329-3KGV	PX359-3KGV
0 to 5000	0 to 345	PX309-5KGV	PX319-5KGV	PX329-5KGV	PX359-5KGV
0 to 7500	0 to 517	PX309-7.5KGV	PX319-7.5KGV	PX329-7.5KGV	PX359-7.5KGV
0 to 10,000	0 to 690	PX309-10KGV	PX319-10KGV	PX329-10KGV	PX359-10KGV
<b>Vacuum and Compound Gage Pressure</b>					
-0 to -15	—	PX309-015VV	PX319-015VV	PX329-015VV	PX359-015VV
-15 to 0 to +15	—	PX309-015CGV	PX319-015CGV	PX329-015CGV	PX359-015CGV
-15 to 30	-1.03 to 2.1	PX309-V030GV	PX319-V030GV	PX329-V030GV	PX359-V030GV
-15 to 50	-1.03 to 3.4	PX309-V050GV	PX319-V050GV	PX329-V050GV	PX359-V050GV
-15 to 100	-1.03 to 6.9	PX309-V100GV	PX319-V100GV	PX329-V100GV	PX359-V100GV
-15 to 150	-1.03 to 10.3	PX309-V150GV	PX319-V150GV	PX329-V150GV	PX359-V150GV

Comes complete with 5-point NIST-traceable calibration.

**Notes:** 1. Units 100 psig and above may be subjected to vacuum on the pressure port without damage. 2. For alternative performance specifications to suit your application, contact Engineering.

**Ordering Examples:** PX309-100GV, 100 psi gage pressure transducer with 100 mV output at 5 Vdc excitation and 1.5 m cable termination. PX319-015AV, 15 psi absolute pressure transducer with 100 mV output @ 10 Vdc excitation and mini DIN termination.

PX329-3KGV, 3000 psi gage pressure transducer with 100 mV output @ 5 Vdc excitation and twist-lock 6 pin connector termination. Mating connector sold separately, order PT06V-10-6S-R, Consult Sales for OEM pricing.

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

# PX309 Series

## with 0 to 5 Vdc Output

0 to 5 Vdc Output

0-1 to 0-10,000 psig

0-70 mbar to 0-690 bar

PX329-015G5V  
shown smaller than  
actual size.



Twist-lock  
style.

### PX309 Series



Standard

### 5V Output Specifications

(In Addition to Common Specifications on page 2)

**Total Error Band (Includes Linearity, Hysteresis, Repeatability, Thermal Hysteresis and Thermal Errors, Not Including Zero and Span Setting Accuracy):** ±1.0%

(5 psig/psia is ±1.5%, 2 psig is 3.0% and 1 psig is 4.5%)

**Supply Voltage:** 9 to 30 Vdc,  
**Supply Current** < 10 mA

0 to 5 Vdc Outputs		
Range	Output	Excitation*
5 to 1000 psia	0 to 5 Vdc	9 to 30 Vdc
1 to 10,000 psig	0 to 5 Vdc	9 to 30 Vdc
-15 to 30/50/100/150 psig	0 to 5 Vdc	9 to 30 Vdc
0 to -15 psig	0 to 5 Vdc	9 to 30 Vdc
-15 to 0 to +15 psig	-5 to 0 to +5 Vdc	9 to 30 Vdc

\* Supply Current < 10 mA

### Compensated Temperature:

-20 to 85°C (≤ 5 psig/psia  
is 0 to 50°C)

### To Order

Range		1.5 m Cable Connection	mini DIN Connection	Twist-Lock Connection	M12 Connection
psi	bar				
<b>Absolute Pressure</b>					
0 to 5	0 to 0.34	PX309-005A5V	PX319-005A5V	PX329-005A5V	PX359-005A5V
0 to 15	0 to 1	PX309-015A5V	PX319-015A5V	PX329-015A5V	PX359-015A5V
0 to 30	0 to 2.1	PX309-030A5V	PX319-030A5V	PX329-030A5V	PX359-030A5V
0 to 50	0 to 3.4	PX309-050A5V	PX319-050A5V	PX329-050A5V	PX359-050A5V
0 to 100	0 to 6.9	PX309-100A5V	PX319-100A5V	PX329-100A5V	PX359-100A5V
0 to 200	0 to 14	PX309-200A5V	PX319-200A5V	PX329-200A5V	PX359-200A5V
0 to 300	0 to 21	PX309-300A5V	PX319-300A5V	PX329-300A5V	PX359-300A5V
0 to 500	0 to 34	PX309-500A5V	PX319-500A5V	PX329-500A5V	PX359-500A5V
0 to 1000	0 to 69	PX309-1KA5V	PX319-1KA5V	PX329-1KA5V	PX359-1KA5V
<b>Gage Pressure</b>					
0 to 1	0 to 0.07	PX309-001G5V	PX319-001G5V	PX329-001G5V	PX359-001G5V
0 to 2	0 to 0.14	PX309-002G5V	PX319-002G5V	PX329-002G5V	PX359-002G5V
0 to 5	0 to 0.34	PX309-005G5V	PX319-005G5V	PX329-005G5V	PX359-005G5V
0 to 15	0 to 1	PX309-015G5V	PX319-015G5V	PX329-015G5V	PX359-015G5V
0 to 30	0 to 2.1	PX309-030G5V	PX319-030G5V	PX329-030G5V	PX359-030G5V
0 to 50	0 to 3.4	PX309-050G5V	PX319-050G5V	PX329-050G5V	PX359-050G5V
0 to 100	0 to 6.9	PX309-100G5V	PX319-100G5V	PX329-100G5V	PX359-100G5V
0 to 150	0 to 10	PX309-150G5V	PX319-150G5V	PX329-150G5V	PX359-150G5V
0 to 200	0 to 14	PX309-200G5V	PX319-200G5V	PX329-200G5V	PX359-200G5V
0 to 300	0 to 21	PX309-300G5V	PX319-300G5V	PX329-300G5V	PX359-300G5V
0 to 500	0 to 34	PX309-500G5V	PX319-500G5V	PX329-500G5V	PX359-500G5V
0 to 1000	0 to 69	PX309-1KG5V	PX319-1KG5V	PX329-1KG5V	PX359-1KG5V
0 to 2000	0 to 138	PX309-2KG5V	PX319-2KG5V	PX329-2KG5V	PX359-2KG5V
0 to 3000	0 to 207	PX309-3KG5V	PX319-3KG5V	PX329-3KG5V	PX359-3KG5V
0 to 5000	0 to 345	PX309-5KG5V	PX319-5KG5V	PX329-5KG5V	PX359-5KG5V
0 to 7500	0 to 517	PX309-7.5KG5V	PX319-7.5KG5V	PX329-7.5KG5V	PX359-7.5KG5V
0 to 10,000	0 to 690	PX309-10KG5V	PX319-10KG5V	PX329-10KG5V	PX359-10KG5V
<b>Vacuum and Compound Gage Pressure</b>					
0 to -15	—	PX309-015V5V	PX319-015V5V	PX329-015V5V	PX359-015V5V
-15 to 0 to +15	—	PX309-015CG5V	PX319-015CG5V	PX329-015CG5V	PX359-015CG5V
-15 to 30	-1.03 to 2.1	PX309-V030G5V	PX319-V030G5V	PX329-V030G5V	PX359-V030G5V
-15 to 50	-1.03 to 3.4	PX309-V050G5V	PX319-V050G5V	PX329-V050G5V	PX359-V050G5V
-15 to 100	-1.03 to 6.9	PX309-V100G5V	PX319-V100G5V	PX329-V100G5V	PX359-V100G5V
-15 to 150	-1.03 to 10.3	PX309-V150G5V	PX319-V150G5V	PX329-V150G5V	PX359-V150G5V

Comes complete with 5-point NIST-traceable calibration.

\*Notes: 1. Units 100 psig and above may be subjected to vacuum on the pressure port without damage.  
2. For alternative performance specifications to suit your application, contact Engineering.

**Ordering Examples:** PX309-100G5V, 100 psi gage pressure transducer with 0 to 5 Vdc output and 1.5 m cable termination.

PX319-015A5V, 15 psi absolute pressure transducer with 0 to 5 Vdc output and mini DIN termination.

PX329-3KG5V, 3000 psi gage pressure transducer with 0 to 5 Vdc output and twist-lock 6 pin connector termination. Mating connector sold separately; order PT06V-10-6S-R. Consult Sales for OEM pricing.

Metric Versions of PX309  
also available from Omega.  
Please see PXM309 series.



# PX309 Series

## with 0 to 10 Vdc Output

**0 to 10 Vdc Output**  
**0-1 to 0-10,000 psig**  
**0-70 mbar to 0-690 bar**

PX329-015G10V  
 shown smaller than  
 actual size.



### PX309 Series



Standard

### 10V Output Specifications

(In Addition to Common Specifications on page 2)

**Total Error Band (Includes Linearity, Hysteresis, Repeatability, Thermal Hysteresis and Thermal Errors, Not Including Zero and Span Setting Accuracy):** ±1.0%  
 (5 psig/psia is ±1.5%, 2 psig is 3.0% and 1 psig is 4.5%)

**Supply Voltage:** 9 to 30 Vdc,  
**Supply Current** < 10 mA

0 to 10 Vdc Outputs		
Range	Output	Excitation*
5 to 1000 psia	0 to 10 Vdc	9 to 30 Vdc
1 to 10,000 psig	0 to 10 Vdc	9 to 30 Vdc
-15 to 30/50/100/150 psig	0 to 10 Vdc	9 to 30 Vdc
0 to -15 psig	0 to 10 Vdc	9 to 30 Vdc
-15 to 0 to +15 psig	0 to 5 to +10 Vdc	9 to 30 Vdc

\* Supply Current < 10 mA

### Compensated Temperature:

-20 to 85°C (≤ 5 psig/psia is 0 to 50°C)

### To Order

Range		1.5 m Cable Connection	mini DIN Connection	Twist-Lock Connection	M12 Connection
psi	bar				
<b>Absolute Pressure</b>					
0 to 5	0 to 0.34	PX309-005A10V	PX319-005A10V	PX329-005A10V	PX359-005A10V
0 to 15	0 to 1	PX309-015A10V	PX319-015A10V	PX329-015A10V	PX359-015A10V
0 to 30	0 to 2.1	PX309-030A10V	PX319-030A10V	PX329-030A10V	PX359-030A10V
0 to 50	0 to 3.4	PX309-050A10V	PX319-050A10V	PX329-050A10V	PX359-050A10V
0 to 100	0 to 6.9	PX309-100A10V	PX319-100A10V	PX329-100A10V	PX359-100A10V
0 to 200	0 to 14	PX309-200A10V	PX319-200A10V	PX329-200A10V	PX359-200A10V
0 to 300	0 to 21	PX309-300A10V	PX319-300A10V	PX329-300A10V	PX359-300A10V
0 to 500	0 to 34	PX309-500A10V	PX319-500A10V	PX329-500A10V	PX359-500A10V
0 to 1000	0 to 69	PX309-1KA10V	PX319-1KA10V	PX329-1KA10V	PX359-1KA10V
<b>Gage Pressure</b>					
0 to 1	0 to 0.07	PX309-001G10V	PX319-001G10V	PX329-001G10V	PX359-001G10V
0 to 2	0 to 0.14	PX309-002G10V	PX319-002G10V	PX329-002G10V	PX359-002G10V
0 to 5	0 to 0.34	PX309-005G10V	PX319-005G10V	PX329-005G10V	PX359-005G10V
0 to 15	0 to 1	PX309-015G10V	PX319-015G10V	PX329-015G10V	PX359-015G10V
0 to 30	0 to 2.1	PX309-030G10V	PX319-030G10V	PX329-030G10V	PX359-030G10V
0 to 50	0 to 3.4	PX309-050G10V	PX319-050G10V	PX329-050G10V	PX359-050G10V
0 to 100	0 to 6.9	PX309-100G10V	PX319-100G10V	PX329-100G10V	PX359-100G10V
0 to 150	0 to 10	PX309-150G10V	PX319-150G10V	PX329-150G10V	PX359-150G10V
0 to 200	0 to 14	PX309-200G10V	PX319-200G10V	PX329-200G10V	PX359-200G10V
0 to 300	0 to 21	PX309-300G10V	PX319-300G10V	PX329-300G10V	PX359-300G10V
0 to 500	0 to 34	PX309-500G10V	PX319-500G10V	PX329-500G10V	PX359-500G10V
0 to 1000	0 to 69	PX309-1KG10V	PX319-1KG10V	PX329-1KG10V	PX359-1KG10V
0 to 2000	0 to 138	PX309-2KG10V	PX319-2KG10V	PX329-2KG10V	PX359-2KG10V
0 to 3000	0 to 207	PX309-3KG10V	PX319-3KG10V	PX329-3KG10V	PX359-3KG10V
0 to 5000	0 to 345	PX309-5KG10V	PX319-5KG10V	PX329-5KG10V	PX359-5KG10V
0 to 7500	0 to 517	PX309-7.5KG10V	PX319-7.5KG10V	PX329-7.5KG10V	PX359-7.5KG10V
0 to 10,000	0 to 690	PX309-10KG10V	PX319-10KG10V	PX329-10KG10V	PX359-10KG10V
<b>Vacuum and Compound Gage Pressure</b>					
0 to -15	—	PX309-015V10V	PX319-015V10V	PX329-015V10V	PX359-015V10V
-15 to 0 to +15	—	PX309-015CG10V	PX319-015CG10V	PX329-015CG10V	PX359-015CG10V
-15 to 30	-1.03 to 2.1	PX309-V030G10V	PX319-V030G10V	PX329-V030G10V	PX359-V030G10V
-15 to 50	-1.03 to 3.4	PX309-V050G10V	PX319-V050G10V	PX329-V050G10V	PX359-V050G10V
-15 to 100	-1.03 to 6.9	PX309-V100G10V	PX319-V100G10V	PX329-V100G10V	PX359-V100G10V
-15 to 150	-1.03 to 10.3	PX309-V150G10V	PX319-V150G10V	PX329-V150G10V	PX359-V150G10V

Comes complete with 5-point NIST-traceable calibration.

\*Notes: 1. Units 100 psig and above may be subjected to vacuum on the pressure port without damage.  
 2. For alternative performance specifications to suit your application, contact Engineering.

**Ordering Examples:** PX309-100G10V, 100 psi gage pressure transducer with 0 to 10 Vdc output and 1.5 m cable termination.

PX319-015A10V, 15 psi absolute pressure transducer with 0 to 10 Vdc output and mini DIN termination.

PX329-3KG10V, 3000 psi gage pressure transducer with 0 to 10 Vdc output and twist-lock 6 pin connector termination. Mating connector sold separately; order PT06V-10-6S-R. Consult Sales for OEM pricing.

**Metric Versions of PX309 also available from Omega. Please see PXM309 series.**



# PX309 Series

## with 4 to 20 mA Output

**4 to 20 mA Output**  
**0-1 to 0-10,000 psi**  
**0-70 mbar to 0-690 bar**

PX309-030GI  
 shown smaller than  
 actual size.



### PX309 Series



Standard

### 4 to 20 mA Output Specifications

(In Addition to Common Specifications on page 2)  
**Total Error Band (Includes Linearity, Hysteresis, Repeatability, Thermal Hysteresis and Thermal Errors, Not Including Zero and Span Setting Accuracy):**  
 ±1.0% (5 psig/psia is ±1.5%, 2 psig is 3.0% and 1 psig is 4.5%)  
**Supply Voltage:** 9 to 30 Vdc

4 to 20 mA Outputs		
Range	Output	Excitation
All models (psia, psig)	4 to 20 mA	9 to 30 Vdc
-15 to 0 to +15 psig	4 to 12 to 20 mA	9 to 30 Vdc

**Compensated Temperature:**  
 -20 to 85°C (≤ 5 psig/psia is 0 to 50°C)  
**Reverse Polarity Protected**  
**Over Voltage Protection**

To Order					
Range		1.5 m Cable Connection	mini DIN Connection	Twist-Lock Connection	M12 Connection
psi	bar				
<b>Absolute Pressure</b>					
0 to 5	0 to 0.34	PX309-005AI	PX319-005AI	PX329-005AI	PX359-005AI
0 to 15	0 to 1	PX309-015AI	PX319-015AI	PX329-015AI	PX359-015AI
0 to 30	0 to 2.1	PX309-030AI	PX319-030AI	PX329-030AI	PX359-030AI
0 to 50	0 to 3.4	PX309-050AI	PX319-050AI	PX329-050AI	PX359-050AI
0 to 100	0 to 6.9	PX309-100AI	PX319-100AI	PX329-100AI	PX359-100AI
0 to 200	0 to 14	PX309-200AI	PX319-200AI	PX329-200AI	PX359-200AI
0 to 300	0 to 21	PX309-300AI	PX319-300AI	PX329-300AI	PX359-300AI
0 to 500	0 to 34	PX309-500AI	PX319-500AI	PX329-500AI	PX359-500AI
0 to 1000	0 to 69	PX309-1KAI	PX319-1KAI	PX329-1KAI	PX359-1KAI
<b>Gage Pressure</b>					
0 to 1	0 to 0.07	PX309-001GI	PX319-001GI	PX329-001GI	PX359-001GI
0 to 2	0 to 0.14	PX309-002GI	PX319-002GI	PX329-002GI	PX359-002GI
0 to 5	0 to 0.34	PX309-005GI	PX319-005GI	PX329-005GI	PX359-005GI
0 to 15	0 to 1	PX309-015GI	PX319-015GI	PX329-015GI	PX359-015GI
0 to 30	0 to 2.1	PX309-030GI	PX319-030GI	PX329-030GI	PX359-030GI
0 to 50	0 to 3.4	PX309-050GI	PX319-050GI	PX329-050GI	PX359-050GI
0 to 100	0 to 6.9	PX309-100GI	PX319-100GI	PX329-100GI	PX359-100GI
0 to 150	0 to 10	PX309-150GI	PX319-150GI	PX329-150GI	PX359-150GI
0 to 200	0 to 14	PX309-200GI	PX319-200GI	PX329-200GI	PX359-200GI
0 to 300	0 to 21	PX309-300GI	PX319-300GI	PX329-300GI	PX359-300GI
0 to 500	0 to 34	PX309-500GI	PX319-500GI	PX329-500GI	PX359-500GI
0 to 1000	0 to 69	PX309-1KGI	PX319-1KGI	PX329-1KGI	PX359-1KGI
0 to 2000	0 to 138	PX309-2KGI	PX319-2KGI	PX329-2KGI	PX359-2KGI
0 to 3000	0 to 207	PX309-3KGI	PX319-3KGI	PX329-3KGI	PX359-3KGI
0 to 5000	0 to 345	PX309-5KGI	PX319-5KGI	PX329-5KGI	PX359-5KGI
0 to 7500	0 to 517	PX309-7.5KGI	PX319-7.5KGI	PX329-7.5KGI	PX359-7.5KGI
0 to 10,000	0 to 690	PX309-10KGI	PX319-10KGI	PX329-10KGI	PX359-10KGI
<b>Vacuum and Compound Gage Pressure</b>					
0 to -15	—	PX309-015VI	PX319-015VI	PX329-015VI	PX359-015VI
-15 to 0 to +15	—	PX309-015CGI	PX319-015CGI	PX329-015CGI	PX359-015CGI
-15 to 30	-1.03 to 2.1	PX309-V030GI	PX319-V030GI	PX329-V030GI	PX359-V030GI
-15 to 50	-1.03 to 3.4	PX309-V050GI	PX319-V050GI	PX329-V050GI	PX359-V050GI
-15 to 100	-1.03 to 6.9	PX309-V100GI	PX319-V100GI	PX329-V100GI	PX359-V100GI
-15 to 150	-1.03 to 10.3	PX309-V150GI	PX319-V150GI	PX329-V150GI	PX359-V150GI

Comes complete with 5-point NIST-traceable calibration.

**Notes:** 1. Units 100 psig and above may be subjected to vacuum on the pressure port without damage. 2. For alternative performance specifications to suit your application, contact Engineering.

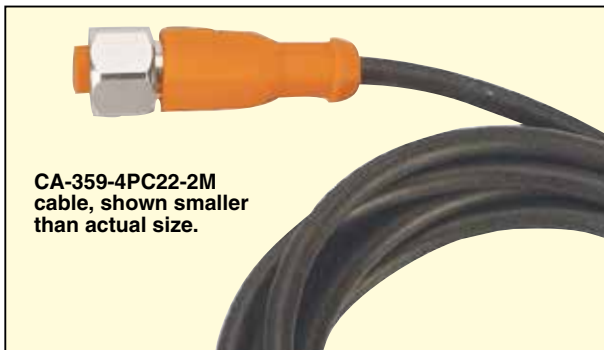
**Ordering Examples:** **PX309-100GI**, 100 psi gage pressure transducer with 4 to 20 mA output and 1.5 m cable termination. **PX319-015AI**, 15 psi absolute pressure transducer with 4 to 20 mA output and mini DIN termination. **PX329-3KGI**, 3000 psi gage pressure transducer with 4 to 20 mA output and twist-lock 6 pin connector termination. Mating connector sold separately; order **PT06V-10-6S-R**. Consult Sales for OEM pricing.

**Metric Versions of PX309 also available from Omega. Please see PXM309 series.**

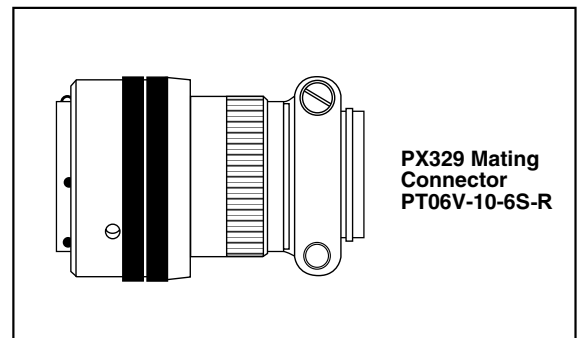
# Accessories



DP8PT, shown smaller than actual size.



CA-359-4PC22-2M cable, shown smaller than actual size.



PX329 Mating Connector PT06V-10-6S-R

## Accessories

Model No.	Description
CAL-3	Recalibration with 5 point NIST traceable documentation
PT06V-10-6S-R*	Vented mate connector for PX329
PT06F10-6S-R*	Sealed mate for PX329
CA-329-4PC24-005	4-conductor mating twist-lock 6 pin connector with 1.5 m (5') cable for PX329
CX5302	Extra mini DIN connector for PX319
CA-359-4PC22-2M	2 m (6') vented cable with M12 connector for PX359 for gage ranges $\leq 500$ psi
CA-359-4PC22-5M	5 m (16') vented cable with M12 connector for PX359 for gage ranges $\leq 500$ psi
M12C-PVC-4-S-F-5	5 m (16') PVC cable, straight 4-pin M12 female connector one end, flying leads one end, for all PX359 absolute ranges and gage ranges $> 500$ psi
DP8PT*	4-digit meter for both mV/V and amplified PX3*9 models
DP25B-S*	4-digit strain meter for mV/V PX3*9 models
DP25B-E*	4-digit process meter for amplified PX3*9 models

\* See the Installation Notes for cable assemblies.

**Note:** Complete meter specifications can be found at Omega.



**On the PX3\*9 Series 0 to 5 Vdc output, do not short the Output(+) to Excitation(+) as permanent damage to the electronics will occur.**

PX319-100GV



PX309-100GV.



All models shown smaller than actual size.

PX329-100GV



PX359-100GV



## Installation Notes

### PX309 Series

All PX309 (gage and absolute) use a vented cable. Gage PX309 sensors up to 500 PSIG must be terminated in a clean dry area that is open to atmosphere for correct operation. All other sensors (> 500 psig and all psia ranges) must be terminated in a dry area but do not need to be vented to atmosphere. These cables should be sealed (e.g. RTV) to protect the sensor from moisture getting in to the sensor through the cable.

### PX319 Series

All PX319 are vented through a hole in the connector and through the mating connector. A vented cable must be used for low pressure gage sensors up to 500 PSIG and must be terminated in a clean dry area that is open to atmosphere for correct operation. The gasket for the DIN mating connector has a special stiffener (included) between the mating surfaces and is used to maintain the IP65 rating (Spare Gaskets are Part number P002612). Search cable assembly CA-319 with a "WP" on the end for gage pressure under 500 psi. All other PX319 sensors can use standard cable without the "WP" but must be terminated in a dry location or sealed to prevent water from getting into the cable/sensor.

### PX329 Series

All PX329 are vented through Pin F of the twist-lock connector. Gage PX329 up to 500 PSIG must be vented for correct operation and must use the connector PT06V-10-6S-R which has no socket on pin F. Cables for these sensors must use a vented cable, be sealed at the back of the mating connector and be terminated in a dry clean area open to the atmosphere. Search cable assembly CA-329 with "WP" for gage pressure under 500 psi. All other PX329 can use the standard PT06F10-6S-R connector or cables (See cable assembly CA-329 without "WP" ending).

### PX359 Series

All PX359 are vented through a hole in the connector. Gage PX359 up to 500 psig suggested vented for correct operation and must use either the CA-359-4PC22-2M or CA-359-4PC22-5M or similar cable. They also must be terminated in a clean dry area open to the atmosphere. All other PX359 can use a standard M12 mating cable like the M12C-PVC-4-S-F-5.

# HIGH TEMPERATURE COMPENSATED PRESSURE TRANSDUCER 168°C (335°F) FOR HYDRAULIC APPLICATIONS

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

**mV/V Output**  
**0-20 to 2500 psi**  
**0-1.4 to 0-170 bar**

1 bar = 14.5 psi  
1 kg/cm<sup>2</sup> = 14.22 psi  
1 atmosphere = 14.7 psi = 29.93 inHg = 760.2 mmHg = 1.014 bar

## PX32 Series



Standard

- ✓ High Compensated Temperature Range -40 to 168°C (-40 to 335°F)
- ✓ All Stainless Steel Construction
- ✓ Available in Vented Gage, Sealed Gage, and Absolute Pressure Models

OMEGA's PX32 is a rugged, high-temperature transducer. Its all stainless steel construction and high-temperature operating range make it ideal for measuring hydraulic pressure on industrial and off-road equipment or in industrial applications in which high temperatures are encountered. The PX32 is available in gage, absolute, or sealed models. An environmentally sealed, twist-lock connector is standard.

## SPECIFICATIONS

**Excitation:** 10V AC/DC (15V maximum)  
**Output:** 3 mV/V ±2%  
**Input Resistance:** 360 Ω minimum  
**Output Resistance:** 350 ±5 Ω  
**Zero Balance:** ±2% FSO  
**Accuracy:** 0.25% linearity, hysteresis and repeatability combined  
**Operating Temp Range:** -54 to 168°C (-65 to 335°F)  
**Compensated Temp Range:** -40 to 168°C (-40 to 335°F)  
**Dimensions:** 73.1 L x 32 mm Dia (2.9 x 1.25") overall

**Thermal Effects:**  
**Span:** 0.008% rdg/°F  
**Zero:** 0.008% FSO/°F  
**Proof Pressure:** 200% of rated pressure  
**Burst Pressure:** 300% of rated pressure  
**Wetted Parts:** 17-4 PH stainless steel  
**Pressure Port:** 1/8-27 NPT internal  
**Electrical Connection:** PT1H-10-6P (or equal)  
**Mating Connector:** PT06F10-6S (sold separately)

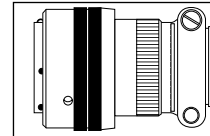
PX32B1-100GV shown actual size.



Metric thread adaptors available, visit us online.

### WIRING

A = +EXC  
B = +OUT  
C = -OUT  
D = -EXC



Mating Connector  
PT06F10-6S

## To Order

RANGE		MODEL NO.	COMPATIBLE METERS*
<b>ABSOLUTE PRESSURE (All Ranges Available in Absolute Pressure)</b>			
0 to 25 psi	0 to 1.7 bar	PX32B1-025AV	DP41-S, DP25B-S
0 to 30 psi	0 to 2.1 bar	PX32B1-030AV	DP41-S, DP25B-S
0 to 50 psi	0 to 3.4 bar	PX32B1-050AV	DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	PX32B1-100AV	DP41-S, DP25B-S
<b>GAGE PRESSURE (All Ranges Also Available in Sealed Gage Pressure)</b>			
0 to 20 psi	0 to 1.4 bar	PX32B1-020GV	DP41-S, DP25B-S
0 to 30 psi	0 to 2.1 bar	PX32B1-030GV	DP41-S, DP25B-S
0 to 50 psi	0 to 3.4 bar	PX32B1-050GV	DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	PX32B1-100GV	DP41-S, DP25B-S
0 to 250 psi	0 to 17.2 bar	PX32B1-250GV	DP41-S, DP25B-S
0 to 300 psi	0 to 20.7 bar	PX32B1-300GV	DP41-S, DP25B-S
0 to 500 psi	0 to 34.5 bar	PX32B1-500GV	DP41-S, DP25B-S
0 to 1000 psi	0 to 68.9 bar	PX32B1-1KGV	DP41-S, DP25B-S
0 to 1200 psi	0 to 82.7 bar	PX32B1-1.2KGV	DP41-S, DP25B-S
0 to 2500 psi	0 to 172 bar	PX32B1-2.5KGV	DP41-S, DP25B-S

## ACCESSORY

MODEL NO.	DESCRIPTION
PT06F10-6S	Mating connector for PX32 series transducers
CA-6TE24-5-015	Cable assembly with twist-lock connector

Comes complete with 5-point calibration.

\* Visit us online for compatible meters. Metric ranges available – Consult Engineering.

To order absolute pressure models, replace "G" in model number with "A" and add cost. To order sealed gage models, replace "G" in model number with "S", no extra charge.

**Ordering Examples:** PX32B1-300GV, 300 psi gage transducer.  
PX32B1-1.2KGV, 1200 psi gage pressure transducer.  
PX32B1-025AV, 25 psi absolute pressure transducer.



MILLIVOLT OUTPUT  
PRESSURE TRANSDUCERS

B

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# PRESSURE TRANSDUCER

## STANDARD AND METRIC MODELS

### mV/V Output

**0-15 to 0-30,000 psi-Standard Units**

**0-1 to 0-400 bar-Metric Models**

1 bar = 14.5 psi

1 kg/cm<sup>2</sup> = 14.22 psi

1 atmosphere = 14.7 psi

= 29.93 inHg = 760.2 mmHg

= 1.014 bar

**STANDARD**  
 PX35D0-1KGV shown  
 actual size.

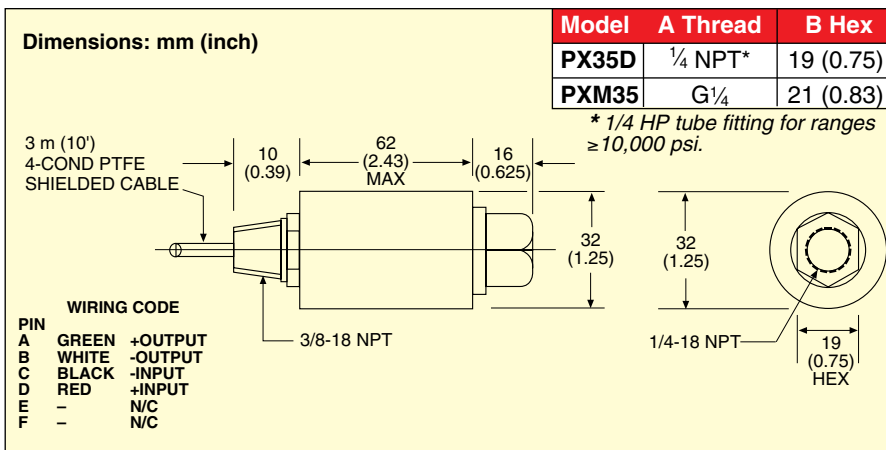


## PX35/PXM35 Series



Standard

- ✓ All Stainless Steel Construction
- ✓ 5-Point Calibration Standard
- ✓ Available in Gage, Sealed Gage, and Absolute Pressure Models



The OMEGA PX35/PXM35 are high-accuracy, millivolt output, industrial pressure transducers. They can be ordered with a hermetically sealed gage, making them suitable for the harshest environments. Both units are available in gage, sealed gage, and absolute models. Three meters (10') of 4-conductor shielded cable is standard. A twist-lock 6 pin connector electrical termination is also available.

### SPECIFICATIONS

**Excitation:** 10 Vdc (15 V maximum)

**Output:** 3 mV/V nominal

**Accuracy:** 0.25% linearity, hysteresis and repeatability combined

**Zero Balance:**  $\pm 2.0\%$  FSO

**Input Resistance:** 350  $\Omega$  minimum

**Output Resistance:** 315 to 530  $\Omega$

**Operating Temp Range:**  
 -73 to 149°C (-100 to 300°F)

**Compensated Temp Range:**  
 16 to 71°C (60 to 160°F)

### Thermal Effects:

**Span:** 0.0054% rdg/°C

**Zero:** 0.008% FSO/°C

### Proof Pressure:

150% of rated pressure

### Burst Pressure:

300% of rated pressure

**Wetted Parts:** 17-4 PH stainless steel

**Pressure Port:** See dimensional drawing above

### Electrical Connection:

3 m (10') 4-conductor cable standard, or PTIH-10-6P

# TEMPERATURE COMPENSATION PRESSURE TRANSDUCER



MILLIVOLT OUTPUT PRESSURE TRANSDUCERS **B**

## STANDARD CUSTOM CONFIGURATIONS

PX35 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (PSI) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>C</b> = 1/4-18 NPT-M	<b>cost</b> no charge <b>cost</b> no charge as shown (ranges ≥ 10,000 psi)		10	A, G, S	<b>V</b> = mV/V Base price PX35D ≤1000 psi >1000 psi	<b>OX</b> = Cleaned for oxygen service + <b>cost</b> plus 2 weeks
<b>D</b> = 1/4-18 NPT-F			15	A, G, S		
<b>J</b> = 7/16-20 UNF-M			20	A, G, S		
<b>K</b> = 7/16-20 UNF-F			25	A, G, S		
<b>S</b> = 1/4 HP tube fitting			30	A, G, S		
			50	A, G, S		
			75	A, G, S		
			100	A, G, S		
			150	A, G, S		
			200	A, G, S		
			250	A, G, S		
			300	A, G, S		
<b>0</b> = 3 m (10') cable (std)			500	A, G, S		
<b>add cost per (ft)</b>	750	A, G, S				
<b>1</b> = PT1H-10-6P connector (or equal, no charge).	1K	A, G, S				
Mating connector (sold separately), order <b>PT06F10-6S</b>	1K	A, G, S				
	2K	A, G, S				
	2.5K	A, G, S				
	3K	A, G, S				
	3.5K	A, G, S				
	5K	A, G, S				
	7.5K	A, G, S				
	10K*	A, G, S				
	15K*	A, G, S				
	20K*	A, G, S				
	30K*	A, G, S				

**Visit us online for additional options including extended compensated temperatures.**

\* 7/16-18, 1/4" HP tube connection

**To order a custom configuration:**

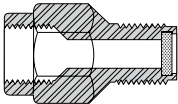
1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units – absolute gage or sealed gage
5. Select output
6. Select options

**Ordering Examples:** **PX35K1-300GV**, 300 psi gage pressure transducer with 7/16-20 UNF female connection and PT1H-10-6P connector, **PT06F10-6S**, mating connector (sold separately).

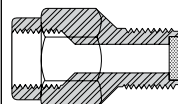
**PX35S1-15KGV**, 15,000 psi gage pressure transducer with 7/16-18, 1/4" HP tube connection and PT1H-10-6P connector.

**PT06F10-6S**, mating connector (sold separately)

**CA-4TE24-2-015**, cable assembly with twist-lock 6 pin connector (sold separately).



**G 1/4 Pressure Snubbers:**  
**PS-4G-MG** = Gas  
**PS-4E-MG** = Lt Oil  
**PS-4D-MG** = Dense Liquid



**1/4 NPT Pressure Snubbers:**  
**PS-4G** = Gas  
**PS-4E** = Lt Oil  
**PS-4D** = Dense Lq

## METRIC CUSTOM CONFIGURATIONS

PXM35 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>MB</b> = G 1/8 B Female	no charge no charge add cost per/m over 3 m (10') 1 = PT1H-10-6P connector (or equal, no charge). Mating connector (sold separately), order <b>PT06F10-6S</b>		1.0	A, G, S	<b>V</b> = mV/V Base price PXM35 <100 bar ≥100 bar	<b>OX</b> = Cleaned for oxygen service + <b>cost</b> plus 2 weeks
<b>MD</b> = G 1/8 B Female			1.6	A, G, S		
			2.5	A, G, S		
			4.0	A, G, S		
			6.0	A, G, S		
			10	A, G, S		
			16	A, G, S		
			25	A, G, S		
			40	A, G, S		
			60	A, G, S		
			100	A, G, S		
			160	A, G, S		
			250	A, G, S		
	400	A, G, S				

**Visit us online for additional options including extended compensated temperatures.**

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units – absolute, gage or sealed gage
5. Select output
6. Select options

**Ordering Examples:** **PXM35MB0-010BARSV**, 10 bar sealed gage pressure transducer with G 1/8 B female connection and 3 m (10') cable termination.

**PXM35MD1-010BARAV**, 10 bar absolute pressure transducer with G 1/4 B female connection and twist-lock 6 pin connector. **PT06F10-6S**, mating connector (sold separately).

# PREMIUM TEMPERATURE COMPENSATED PRESSURE TRANSDUCER



**STANDARD**  
PX35D0-1KGV shown  
actual size.

## STANDARD MODELS

To Order			
RANGE		MODEL NO.	COMPATIBLE METERS*
<b>ABSOLUTE PRESSURE (All Ranges Available in Absolute Pressure)</b>			
0 to 30 psia	0 to 2.1 bar	PX35D0-030AV	DP41-S, DP25B-S
0 to 50 psia	0 to 3.4 bar	PX35D0-050AV	DP41-S, DP25B-S
0 to 100 psia	0 to 6.9 bar	PX35D0-100AV	DP41-S, DP25B-S
0 to 150 psia	0 to 10.3 bar	PX35D0-150AV	DP41-S, DP25B-S
<b>GAGE PRESSURE (All Ranges Also Available in Sealed Gage Pressure)</b>			
0 to 20 psi	0 to 1.4 bar	PX35D0-020GV	DP41-S, DP25B-S
0 to 30 psi	0 to 2.1 bar	PX35D0-030GV	DP41-S, DP25B-S
0 to 50 psi	0 to 3.4 bar	PX35D0-050GV	DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	PX35D0-100GV	DP41-S, DP25B-S
0 to 200 psi	0 to 13.8 bar	PX35D0-200GV	DP41-S, DP25B-S
0 to 300 psi	0 to 20.7 bar	PX35D0-300GV	DP41-S, DP25B-S
0 to 500 psi	0 to 34.5 bar	PX35D0-500GV	DP41-S, DP25B-S
0 to 1000 psi	0 to 68.9 bar	PX35D0-1KGV	DP41-S, DP25B-S
0 to 2000 psi	0 to 138 bar	PX35D0-2KGV	DP41-S, DP25B-S
0 to 3000 psi	0 to 207 bar	PX35D0-3KGV	DP41-S, DP25B-S
0 to 5000 psi	0 to 345 bar	PX35D0-5KGV	DP41-S, DP25B-S
0 to 10,000** psi	0 to 689 bar	PX35S0-10KGV	DP41-S, DP25B-S
0 to 15,000** psi	0 to 1034 bar	PX35S0-15KGV	DP41-S, DP25B-S***
0 to 20,000** psi	0 to 1379 bar	PX35S0-20KGV	DP41-S, DP25B-S***
0 to 30,000** psi	0 to 2069 bar	PX35S0-30KGV	DP41-S, DP25B-S*

Comes complete with 5-point calibration.

\* Visit us online for compatible meters. \*\*  $\frac{9}{16}$ "-18,  $\frac{1}{4}$ " HP tube fitting.

\*\*\* 4-digit meter; counts in increments of 10.

To order sealed gage pressure models, replace "G" in model number with "S" (no extra charge).  
To order absolute pressure models, replace "G" in model number with "A" (no extra charge).

**Ordering Example:** PX35D0-3KSV, 3000 psi sealed gage pressure transducer.

## METRIC MODELS

To Order			
Models with G 1/4 Female Pressure Connection, Integral Connector & mV/V Output			
RANGE		MODEL NO.	COMPATIBLE METERS*
0 to 1 bar	0 to 15 psi	PXM35MD1-001BARGV	DP41-S, DP25B-S
0 to 1.60 bar	0 to 23 psi	PXM35MD1-1.60BARGV	DP41-S, DP25B-S
0 to 2.50 bar	0 to 36 psi	PXM35MD1-2.50BARGV	DP41-S, DP25B-S
0 to 4 bar	0 to 58 psi	PXM35MD1-004BARGV	DP41-S, DP25B-S
0 to 6 bar	0 to 87 psi	PXM35MD1-006BARGV	DP41-S, DP25B-S
0 to 10 bar	0 to 145 psi	PXM35MD1-010BARGV	DP41-S, DP25B-S
0 to 16 bar	0 to 232 psi	PXM35MD1-016BARGV	DP41-S, DP25B-S
0 to 25 bar	0 to 363 psi	PXM35MD1-025BARGV	DP41-S, DP25B-S
0 to 40 bar	0 to 580 psi	PXM35MD1-040BARGV	DP41-S, DP25B-S
0 to 60 bar	0 to 870 psi	PXM35MD1-060BARGV	DP41-S, DP25B-S
0 to 100 bar	0 to 1450 psi	PXM35MD1-100BARGV	DP41-S, DP25B-S
0 to 160 bar	0 to 2321 psi	PXM35MD1-160BARGV	DP41-S, DP25B-S
0 to 250 bar	0 to 3626 psi	PXM35MD1-250BARGV	DP41-S, DP25B-S
0 to 400 bar	0 to 5802 psi	PXM35MD1-400BARGV	DP41-S, DP25B-S

Comes complete with 5-point calibration. \* Visit us online for compatible meters.

To order sealed gage pressure models, replace "G" in model number with "S" (no extra charge).  
To order absolute pressure models replace "G" in model number with "A" (no extra charge).

**Ordering Examples:** PXM35MD1-010BARSV, 10 bar sealed gage pressure transducer.

PXM35MD1-001BARAV, 1 bar absolute (relative) pressure transducer



**METRIC**  
PXM35D0-200AV  
shown actual size.



# **PRESSURE TRANSDUCERS**

## **PX409/PXM409 Series**

*Imperial and Metric*

PX409-100GV,  
shown actual size.

- ✓ 0.08% BSL Includes Linearity Hysteresis and Repeatability
- ✓ Broad Temperature Compensation Range -29 to 85°C (-20 to 185°F)
- ✓ 5-Point NIST Traceable Calibration Included
- ✓ Outputs:
  - mV/V
  - 0 to 5 V or 0 to 10 V
  - 4 to 20 mA
- ✓ Gauge, Absolute, Compound, Barometric, Vacuum Pressures

**Metric Ranges Available**



PX419-015GV,  
shown actual size.

PX429-030GV,  
shown actual size.

**Most Popular  
Models in Stock for  
Fast Delivery**



**SOLID STATE PIEZORESISTIVE DESIGN**  
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**WITH HIGH TEMP. PERFORMANCE FOR INDUSTRY, AUTOMOTIVE, TEST, AND AEROSPACE APPLICATIONS**

**mV/V, 0 to 5 Vdc, 0 to 10 Vdc, 4 to 20 mA Outputs**  
**Low Pressure: 10 inH<sub>2</sub>O and**  
**Standard Ranges: 5 to 5000 psi**  
**Metric Ranges: 25 mbar to 345 bars**  
**Gage, Absolute, Compound, Barometric,**  
**Vacuum Pressure**

**PX409 Series**



- ✓ High Accuracy ±0.08% BSL Includes Linearity, Hysteresis, and Repeatability
- ✓ Broad Temperature Compensated Range -29 to 85°C (-20 to 185°F)
- ✓ Premium Temperature Performance Span: ±0.5% Over Compensated Range
- ✓ 5-Point NIST Traceable Calibration Included
- ✓ Digital Dynamic Thermal Compensation Across Temperature and Pressure Range
- ✓ Low Pressure Ranges from 10 inH<sub>2</sub>O
- ✓ All Stainless Steel Wetted Parts
- ✓ Fast Response Time
- ✓ Solid State Reliability and Stability
- ✓ Gage, Absolute, Compound, Barometric, Vacuum Pressures
- ✓ 300% Proof Pressure Minimum

OMEGA piezoresistive pressure transducers have a proven record in high performance commercial and aerospace applications for over 25 years. The piezoresistive process uses strain gages molecularly embedded into a highly stable silicon wafer. The silicon wafer is diced into individual die which each contain a full strain gage bridge. The die is mounted in a sealed chamber protected from the environment by glass to metal seals and a stainless steel diaphragm.

A small volume of silicone oil transfers the pressure from the diaphragm to the strain bridge. The construction provides a very rugged transducer with exceptional accuracy, stability and thermal effects. A unique design ruggedizes the transducers by providing secondary fluid containment in the event of a diaphragm rupture.

At our state-of-the-art facilities, automated test equipment performs pressure and temperature cycling on 100% of the PX409 transducers. The transducers are then calibrated using extremely high accuracy equipment and a 5-point NIST traceable calibration certificate that is included with each transducer. To obtain their high accuracy and stability, the PX409 Series use state-of-the-art digital mapping of the temperature, pressure and output performance of the silicon sensor in conjunction with a custom ASIC to provide dynamic thermal compensation across the

All models shown actual size.

PX409-050GV, features cable termination.

**0.08% Accuracy**

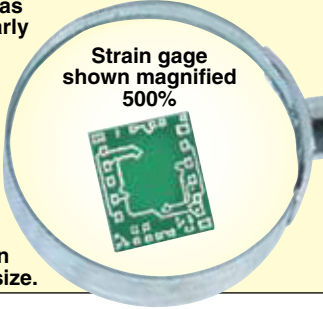
PX419-100GI, features mini-DIN termination.

PX429-015GI, features twist-lock termination.

**Stock Delivery for most Ranges!**

**PX409 SERIES SILICON WAFER TECHNOLOGY**

PX409 Series uses a highly stable silicon wafer which is micro-machined to precision tolerances and then has strain gages molecularly embedded into it.



Strain gages shown larger than actual size.

Strain gage shown magnified 500%

temperature and pressure parameters. The inherent stability of the piezoresistive core provides excellent long term stability, repeatability and very low thermal effects at the price of much lower performance transducers. Standard features of the PX409 Series also include protective features built into the electronics and the pressure element. Reverse polarity, EMC, and power supply fluctuation protection are standard on all models. Intrinsically Safe and CSA ratings are optional.

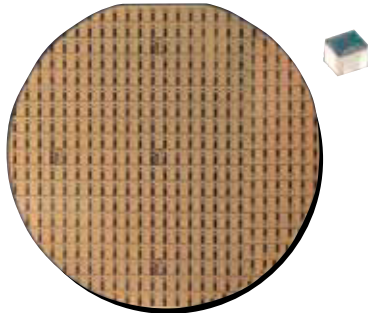
The most popular ranges and configurations are stocked for immediate delivery. All others typically have a very short lead-time.

# PRESSURE TRANSDUCERS

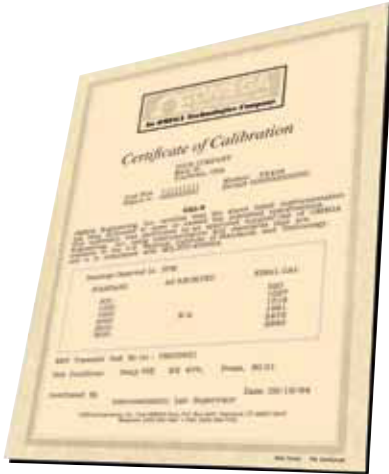
## PIEZORESISTIVE DESIGN WITH HIGH TEMPERATURE PERFORMANCE

**EXCEPTIONAL PERFORMANCE**  
**0.08% STATIC ACCURACY**

**Micro-Machined Silicon**



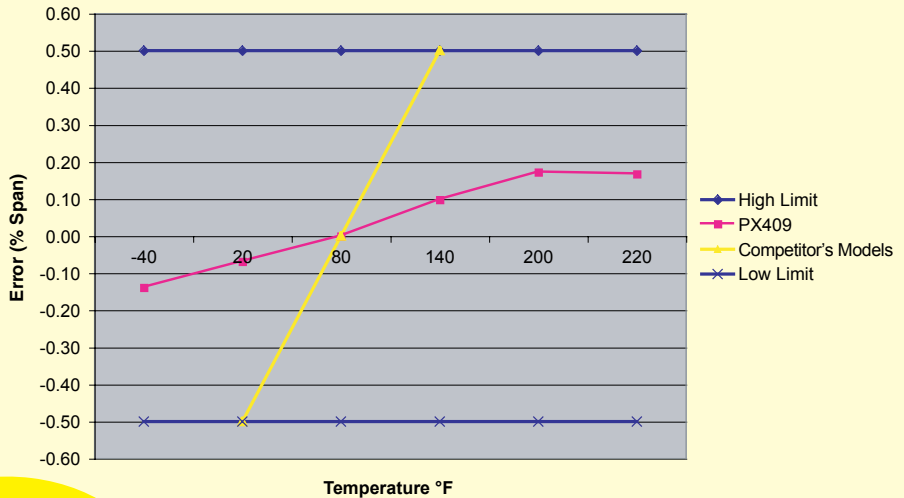
**5-Point NIST Traceable Calibration Certificate**



**RUGGEDIZED DESIGN**  
 For Aerospace,  
 Automotive, Test and  
 Industrial Applications

**Thermal Effects -29 to 85°C (-20 to 185°F)**

Span Error: 100 psig



**CUSTOM CONFIGURATIONS AVAILABLE!**



Designed to be quickly customized to meet your exacting specifications, often with fast delivery. Custom variables are available including custom fittings, accuracies, ranges, calibrations, pressure units, thermal specifications, vibration, operating temperature and compensated range. Contact OMEGA Pressure Engineering for more details.

### Common Specifications

- Approvals:** RoHS compliant
- Minimum Isolation Between Case and Output Terminations:** 100M Ω @ 50 Vdc
- Pressure Cycles:** 1 million, minimum
- Long Term Stability (1-Year):** ±0.1% FS typical
- Shock:** 50 g, 11 mS half sine, vertical and horizontal axis
- Vibration:** 5-2000-5 Hz, 30 minute cycle, Curve L, Mil-Spec 810 figure 514-2-2, vertical and horizontal axis
- Bandwidth:** DC to 1 kHz typical
- Response Time:** <1 mS
- CE Compliant:**
- Emissions:** IEC550022 Class B
- Electrostatic Discharge Immunity:** IEC61000-4-2

- EM Field Immunity:** IEC61000-4-3
- EFT Immunity:** IEC61000-4-4
- Surge Immunity:** IEC61000-4-5
- Conducted RF:** IEC61000-4-6
- Rate Power Frequency Magnetic Field:** IEC61000-4-8
- Electrical Termination:**
  - PX409:** Integral 2 m (6') cable
  - PX409C:** Integral 2 m (6') cable with ½ NPT conduit fitting
  - PX419:** mini-DIN
  - PX429:** Twist lock
  - PX459:** M12 Connector
- Environmental Protection:**
  - PX409:** IP67
  - PX409C:** IP67
  - PX419:** IP65
  - PX429:** IP65
  - PX459:** IP65
- Mating Connectors:**
  - PX419:** CX5302
  - PX429:** PT06F10-6S

### OUTPUT SPECIFICATIONS

- mV/V**
- Output:** 10 mV/V (100 mV @ 10 Vdc) (Ratiometric 5 to 10 Vdc)
- Supply Voltage:** 10 Vdc (5 mA @ 10 Vdc)
- Input/Output Resistance:** 5000 Ω ±20% typical
- Amplified Voltage Output**
- 0 to 5 Vdc Supply Voltage:** 10 to 30 Vdc @ 10 mA
- 0 to 10 Vdc Supply Voltage:** 15 to 30 Vdc @ 10 mA
- 4 to 20 mA**
- Output:** 4 to 20 mA
- Supply Voltage:** 9 to 30 Vdc maximum loop res Ω = (Vs-9)x50 [9 to 20 Vdc above 105°C (229°F)]
- Secondary Containment**
- Gage/Diff/Vac/Compound:**
  - 10 inH<sub>2</sub>O to 5 psi:** To 1000 psi
  - 15 to 1000 psi:** To 3000 psi
  - 1500 to 5000 psi:** To 10,000 psi
- Absolute/Barometric:**
  - 5 to 1000 psi:** To 6000 psia
  - 1500 to 5000 psi:** To 10,000 psia
- Wetted Parts:** 316 SS
- Pressure Port:** ¼-18 NPT male
- Weight:** 115 to 200 gm (4 to 7 oz) depending upon configuration

## **HIGH PERFORMANCE PRESSURE TRANSDUCERS PIEZORESISTIVE DESIGN WITH HIGH TEMPERATURE PERFORMANCE**

### **Accuracy (Combined Linearity, Hysteresis and Repeatability):**

±0.08% BSL maximum

**Zero Balance:** ±0.5% FS typical  
1% max (1% typical, 2% maximum  
for 2.5 psi and below)

**Span Setting:** ±0.5% FS typical 1%  
maximum (1% typical, 2% maximum for  
2.5 psi and below) Calibrated in vertical  
direction with fitting down

### **Thermal Effects Zero (Over Compensated Range):**

**Ranges >5 psi:** ±0.5% span

**Ranges ≤5 psi:** ±1.0% span

### **Thermal Effects Span (Over Compensated Range):**

**Ranges >5 psi:** ±0.5% span

**Ranges ≤5 psi:** ±1.0% span

### **Power Requirements:**

**Millivolt:** 5 to 10 Vdc (2 mA @ 10 Vdc)

**Amplified Voltage:** 5 to 10 Vdc  
(2 mA @ 10 Vdc)

**Current Loop:** 9 to 30 Vdc  
[max loop res = [(Vs-9) x 50]  
9 to 20 Vdc above 105°C (229°F)]

**CE Compliant:** Meets industrial  
emission and immunity standard  
EN61326

### **FOR GAGE , ABSOLUTE AND COMPOUND PRESSURE:**

**Gauge and Absolute Range:**

**Low Pressure:** 10 inH2O

**Standard Ranges:** 5 to 5000 psi

**Metric Ranges:** 25 mbar to 345 bars

### **Compound Range:**

±10 inH2O to ±15 psi (±25 to ±1034  
mbar)

### **Overpressure Gage Pressure:**

**10 inH2O:** 10 times span

**1 psi:** 6 times span

**2.5 to 1000 psi:** 4 times span

**1500 to 5000 psi:** 7250 psi maximum

### **Overpressure Absolute Pressure:**

**5 psia:** 6 times span

**2.5 psia to 1000 psia:** 4 times span

**1500 to 5000 psia:** 10,000 psi  
maximum

### **Operating Temperature Range:**

-45 to 121°C (-49 to 250°F)

### **Compensated Temperature:**

**Ranges >5 psi:** -29 to 85°C (-20  
to 185°F)

**Ranges ≤5 psi:** -17 to 85°C (0 to  
185°F)

### **Burst Pressure:**

10 inH2O to 15 psi: 1000 psi

**FOR BAROMETRIC PRESSURE:**

Omega's PX409 series electronic barometers features all Stainless steel construction, which makes them ideal for harsh industrial environments. Their high operating temperature, broad compensated range, and excellent temperature compensation allow stable readings in applications with fluctuating temperatures commonly found where barometric pressure must be monitored.

**Ranges:**

0 to 32, 16 to 32 or 26 to 32 inHg  
0 to 1100, 550 to 1100, 880 to 1100 hPa

**Output:**

**Millivolt:** 10 mV/V (100 mV @ 10 Vdc)  
**Amplified Voltage:** 0 to 5 Vdc or 0 to 10 Vdc @ 10 Vdc)  
**Current Loop:** 4 to 20 mA

**Operating Temperature Range:**

-45 to 121°C (-49 to 250°F) [-45 to 115°C (-49 to 240°F) for voltage or current outputs]

**Compensated Temperature:**

**Ranges:** 0 to 32 inHg  
-29 to 85°C (-20 to 185°F)

**Ranges:** 16 to 32, 26 to 32 inHg  
-18 to 85°C (0 to 185°F)

**Proof Pressure:** 400% of spanInHg

**Burst Pressure:** 1000 psia

**FOR VACUUM PRESSURE:**

OMEGA's PX490 Series high accuracy uni-directional Vacuum range (negative gage pressure) models have all stainless steel wetted parts and welded construction and premium temperature compensation which makes them suitable for use in tough industrial environments. Vacuum models measure negative gage pressure with increasing output for increasing negative pressure.

**Ranges:**

-10 inH2O to -15 psi  
0 to -70 mbar, 0 to 1 bar, 0 to 350 bar

**Operating Temperature Range:**

-45 to 121°C (-49 to 250°F) [-45 to 115°C (-49 to 240°F) for voltage or current outputs]

**Compensated Temperature:**

**Ranges > 5 psi:** -29 to 85°C (-20 to 185°F)

**Ranges ≤ 5 psi:** -17 to 85°C (0 to 185°F)

**Proof Pressure (positive direction):**

**10 inH2O:** 10 times full scale

**1 psi:** 6 times full scale

**2.5 psi and Higher :** 4 times full scale (Negative direction 4 times or 1 atmosphere whichever is greater)scale

**Burst Pressure:**

10 inH2O to 15 psi: 1000 psi

**OPTION DESCRIPTIONS**

<b>Electrical Termination</b>	<b>PX409</b> for 3 m Cable
	<b>PX419</b> for mini-DIN
	<b>PX429</b> for Twist-lock (mating connector sold separately)
	<b>PX459</b> for M12 Connector (mating connector sold separately)
<b>Range</b> <i>(Examples of range per unit per type. Please View All Models for all available ranges per pressure type. Explore Configurator for Custom Ranges)</i>	<b>10W</b> for Imperial Pressure 0 to 10 in H2O
	<b>001</b> for Imperial Pressure 0 to 1 psi
	<b>030</b> for Imperial Pressure 0 to 30 psi
	<b>750</b> for Imperial Pressure 0 to 750 psi
	<b>1.0K</b> for Imperial Pressure 0 to 1000 psi
	<b>32B</b> for Imperial Barometric (Absolute Pressure) 0 to 32 inHg
	<b>025H</b> for Metric Pressure 0 to 25 mbar
	<b>001B</b> for Metric Pressure 0 to 1 bar
	<b>350B</b> for Metric Pressure 0 to 350 bar
	<b>16H</b> for Metric Barometric (Absolute Pressure) 550 to 1100 mBar
<b>1,100H</b> for Metric Barometric (Absolute Pressure) 0 to 1100 hPa	
<b>Pressure Type</b>	<b>G</b> for Gage
	<b>A</b> for Absolute
	<b>B</b> for Barometric
	<b>V</b> for Vacuume
	<b>CG</b> for Compound
<b>Output Signal</b>	<b>V</b> for 10mV/V
	<b>5V</b> for 0 to 5 V Output
	<b>10V</b> for 0 to 10 V Output



# TRANSducers

PIEZORESISTIVE DESIGN  
 WITH HIGH TEMPERATURE PERFORMANCE



PX429-015GI,  
 shown smaller than  
 actual size.

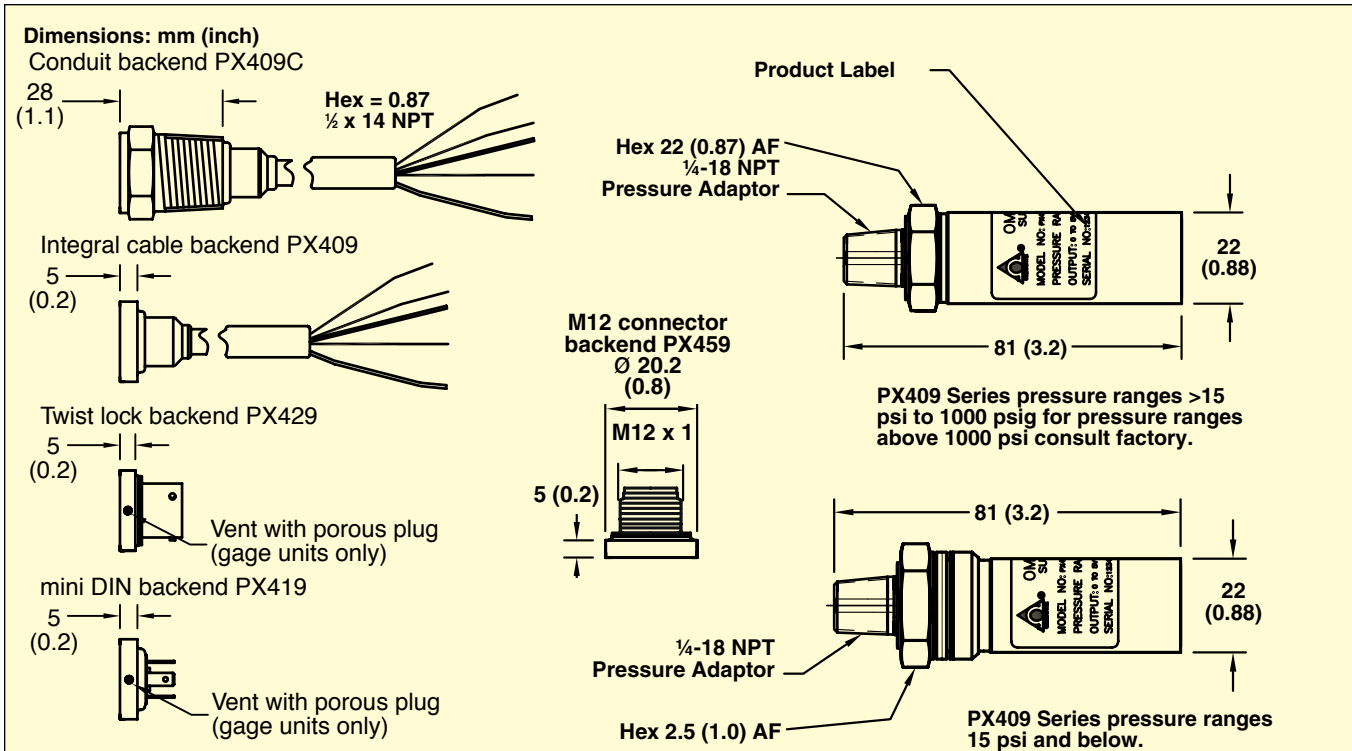
PX409-100GI,  
 shown smaller  
 than actual size.

PX419-100GI, shown  
 smaller than actual size.

PX409 and PX409C CABLE CONNECTION			
COLOR	mV	5/10V	mA
Black	- EXC	Common	- Supply
White	+ SIG	+ Output	NC
Green	- SIG	NC	NC
Red	+ EXC	+ EXC	+ Supply

PX419 and PX459 PIN OUT			
PIN	mV	5/10V	mA
1	+ EXC	+ EXC	+ Supply
2	- EXC	Common	- Supply
3	+ SIG	+ Output	NC
4	- SIG	NC	NC

PX429 TWIST LOCK PINOUT			
PIN	mV	5/10V	mA
A	+ EXC	+ EXC	+ Supply
B	- EXC	Common	- Supply
C	+ SIG	+ Output	NC
D	- SIG	NC	NC
E	NC	NC	NC
F	NC	NC	NC



B

METERS	
MODEL NO.	DESCRIPTION
DP41-S	6-digit high accuracy (0.005%) strain meter for use with mV/V output models
DP41-E	6-digit high accuracy (0.005%) process meter for use with voltage and current output models
DP41-B	6-digit high accuracy (0.005%) universal meter for use with voltage and current output models also accepts thermocouple and RTD inputs
DP25B-S	4-digit precision strain meter for use with mV/V output models
DP25B-E	4-digit precision process meter for use with voltage and current output models
ACCESSORIES	
CX5302	Extra mini-DIN connector for PX419 Series
MIL-26482-I 10-6P	Mating twist lock connector for PX429 Series
PS-4G	Pressure snubber for air/gaseous media
PS-4E	Pressure snubber for water or light oils
PS-4D	Pressure snubber for dense liquids (motor oil)
M12C-PVC-4-S-F-5	PVC cable, straight 4-pin M12 female connector one end, flying leads one end, 5m (16.4') long, fits, PX459
M12C-PVC-4-R-F-5	PVC cable, right angled 4-pin M12 female connector one end, flying leads one end, 5m (16.4') long, fits PX459
-MB	Mounting bracket, factory installed

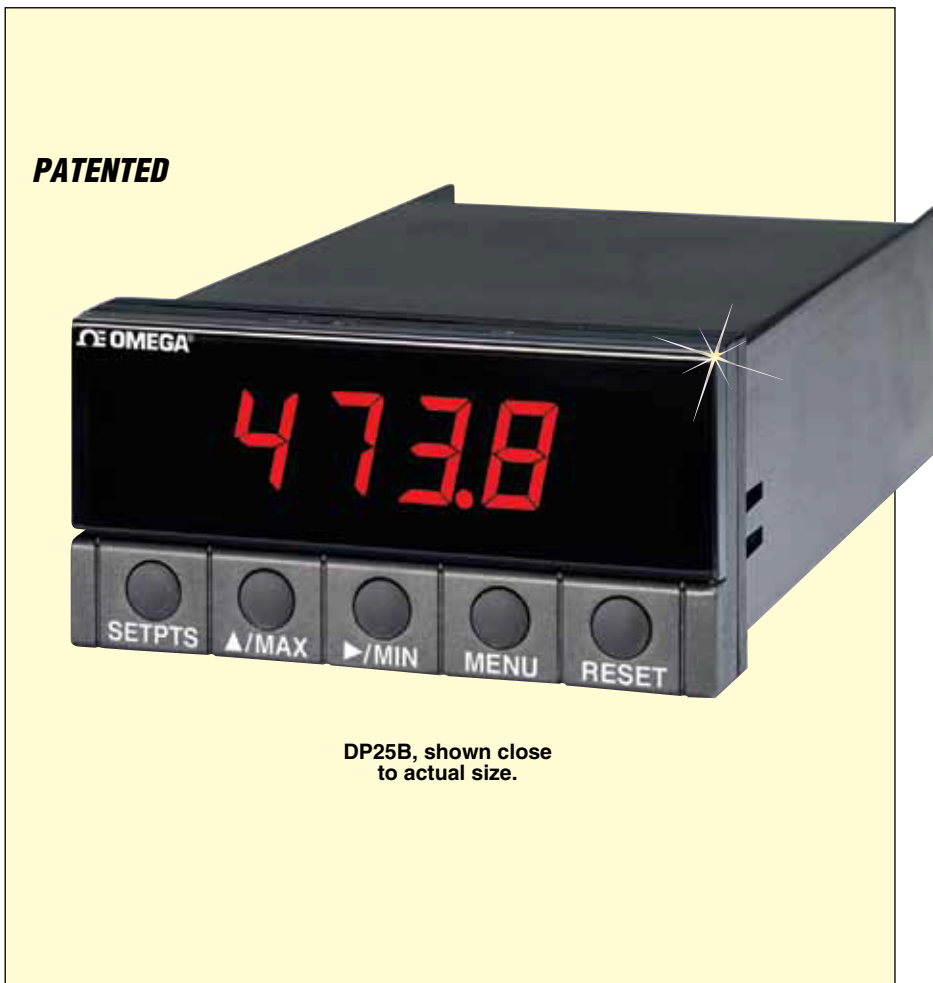
## 4-Digit Precision Meter

### DP25B



- ✓ mV, V, mA, Strain Gage Inputs
- ✓ Full Process Unit Scaling
- ✓ Built-In Transducer Power

**PATENTED**



DP25B, shown close to actual size.

### Process and Strain Models

Because they accept a wide range of DC voltage and current inputs, the DP25-B-E strain meters can handle most process and strain applications. Features include easy front-panel scaling to virtually any engineering units, a remote tare function for weighing applications, and a hardware lockout to prevent unauthorized changes in setup. In addition, the DP25B-E meters feature built-in excitation in 4 user-selectable voltages, which makes them compatible with most transducers and transmitters.

### To Order

MODEL NO	DESCRIPTION
DP25B-E	Voltage/current input with excitation
DP25B-S	mV input in excitation

*Comes complete with operator's manual.*

**Ordering Examples:** DP25B-E, voltage/current input meter for use with 0 to 5 V, 0 to 10 V, 4 to 20 mA output PX409 Series transducers. DP25B-S, mV input meter for use with mV/V output PX409 Series transducers.

# HERMETICALLY SEALED GAGE

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## TRANSDUCERS

### DESIGNED FOR THE HARSHTEST ENVIRONMENTS

100 mV 0 to 5 Vdc,  
0 to 10 Vdc, 4 to 20 mA Output  
0-100 to 0-5000 psi Sealed Gage  
6.9 to 345 bar

### PX409 Series Sealed Gage



Standard

The hermetically sealed gage version of the PX409 Series features all welded Stainless Steel construction, 316L wetted parts and glass to metal seals (GMS) at the electrical outlets with either twist lock connector (PX429) or solder pins (PX449) terminations. This ensures that the unit is hermetically sealed from external environments and the media. Designed for use on automotive and aircraft test platforms and anywhere environmental concerns demand the most durable characteristics. The sealed gage models have the PX409 Series micro machined silicon core that provides high accuracy, low drift and excellent long term stability in the harshest environments.



PX429-3.5KSGV

PX429 TWIST LOCK PINOUT			
PIN	mV	5/10V	mA
A	+ EXC	+ EXC	+ Supply
B	- EXC	Common	- Supply
C	+ SIG	+ Output	NC
D	- SIG	NC	NC
E	NC	NC	NC
F	NC	NC	NC



PX449-250SGV

PX449 GLASS-METAL SEAL PINOUT			
PIN*	mV	5/10V	mA
1	+ EXC	+ EXC	+ Supply
2	- EXC	- EXC	- Supply
3	+ SIG	+ Output	NC
4	- SIG	NC	NC
5	NC	NC	NC
6	NC	NC	NC

\* Pin # reference starts with 1st of 4 longer height pins in clockwise direction.

Stock Delivery for Most Ranges! Visit us online.

Glass-to-metal seal solder pins.

PX449-250SGV shown actual size.

### mV/V Output/Supply Specifications

Output: mV/V, 100 mV @ 10 Vdc (ratiometric 5 to 10 Vdc)

Supply Voltage: 10 Vdc

### General Specifications:

#### Amplified Output /Supply Specifications

0 to 5 Vdc: 10 to 30 Vdc @ 10 mA

0 to 10 Vdc: 15 to 30 Vdc @ 10 mA

#### 4 to 20 mA Output/Supply Specifications

Output: 4 to 20 mA

Supply Voltage: 9 to 30 Vdc

max loop res  $\Omega = (Vs-9) \times 50$

[9 to 20 Vdc above 105°C (229°F)]

Input/Output Resistance: 5000  $\Omega$   $\pm 20\%$  typical

Accuracy (Combined Linearity, Hysteresis and Repeatability):  $\pm 0.08\%$  BSL max

Zero Balance:  $\pm 0.5\%$  FS typical  
1% max (1% typical, 2% max for 1 psi and below)

Span Setting:  $\pm 0.5\%$  FS typical 1% max (1% typical, 2% max for 1 psi and below); calibrated in vertical direction with fitting down

Shock: 50 g, 11 mS half sine, vertical and horizontal axis

Vibration: 5-2000-5 Hz, 30 minute cycle, Curve L, Mil-Spec 810 figure 514-2-2, vertical and horizontal axis

### Operating Temperature Range For mV/V Output:

-45 to 121°C (-49 to 250°F)

### Operating Temperature Range For Amplified and 4 to 20 mA Output:

-45 to 115°C (-49 to 240°F)

### Compensated Temperature:

Ranges > 5 psi: -29 to 85°C

(-20 to 185°F)

Ranges  $\leq 5$  psi: -17 to 85°C

(0 to 185°F)

### Thermal Effects Zero (Over Compensated Range):

Ranges > 5 psi:  $\pm 0.5\%$  span

Ranges  $\leq 5$  psi:  $\pm 1.0\%$  span

### Thermal Effects Span (Over Compensated Range):

Ranges > 5 psi:  $\pm 0.5\%$  span

Ranges  $\leq 5$  psi:  $\pm 1.0\%$  span

### Ordering Options Description

Electrical Termination	PX429 for Twist-Lock Termination (MIL-26482-I 10-6P) PX449 for Hermetic Pin Termination
Range	100 for 0 to 100 psi 500 for 0 to 500 psi 750 for Imperial Pressure 0 to 750 psi 1.0K for 0 to 1,000 psi 3.5K for 0 to 3,500 psi 5.0K for 0 to 5,000 psi
Pressure Type	SG for Sealed Gage Pressure Ranges 0 to 5,000 psi
Output Signal	-I for 4 to 20 mA Output V for Ratiometric 10 mV/V Output -5V for Amplified 0 to 5 Vdc Output -10V for Amplified 0 to 10 Vdc Output

Comes complete with 5-point NIST traceable calibration. Visit us online for compatible meters.

Ordering Examples: PX449-250SGV, 10 mV/V output, 250 psi sealed gage pressure range, glass to metal sealed pin termination.

PX449-250SG5V, 0 to 5 Vdc output, 250 psi sealed gage pressure range, glass to metal sealed pin termination.

PX449-250SGI, 4 to 20 mA output, 250 psi sealed gage pressure range, glass to metal sealed pin termination.



Twist-lock

Metric thread adaptors available.

PX429-3.5KSGV shown actual size.



# PRESSURE TRANSDUCER

## CONNECT DIRECTLY TO YOUR COMPUTER

High Speed  
 1000 Updates/Per  
 Second

**Gage and Absolute Pressures**  
 10 inH<sub>2</sub>O to 5000 psi (25 mb to 345 bar)  
**Vacuum and Compound Ranges**  
 10 inH<sub>2</sub>O to 15 psi (25 mb to 1 bar)  
**Barometric and Differential Pressure Ranges**

Fast  
 Delivery!

PX409-015GUSBH  
 shown actual size.

### PX409-USBH, PXM409-USBH Series

Imperial and Metric



Standard



2 m (6') integral  
 USB cable connects  
 directly to your PC.

USB OUTPUT  
 PRESSURE TRANSDUCERS

B

- ✓ 1000 Readings/Second
- ✓ Micro-Machined Silicon Sensor
- ✓ 316L SS Wetted Parts
- ✓ High ±0.08% BSL Accuracy
- ✓ Excellent Long Term Stability
- ✓ USB 2.0 and Below Compatible
- ✓ Standard USB Connector Termination
- ✓ Shock and Vibration Rated
- ✓ Ruggedized with Secondary Containment

The PX409 and PXM409 High Speed USBH Series connects directly to your computer. Free PC software enables you to chart, log, display, and output data for analysis. Also included are .NET APIs, and a command set for command-line access. The micro-machined silicon design is ideal for pressure or level applications in laboratory, test platforms, or bio/pharmaceutical applications as well as industrial applications that require a rugged, high accuracy transducer. The micro-machined silicon sensor provides a very stable transducer with exceptional high accuracy of ±0.08% and a broad compensated range of -29 to 85°C (-20 to 185°F). The modular construction allows for fast delivery of most configurations and fittings. Delivery is typically stock to 1 week!

#### SPECIFICATIONS

**Accuracy:** 0.08% BSL (linearity, hysteresis and repeatability combined)

**Resolution:** Up to 5.5 significant figures

**Temperature Compensation (Over Compensated Range):**

**Span:** Range > 5 psi: ±0.5%

Range ≤ 5 psi: ±1.0%

**Zero:** Range > 5 psi: ±0.5%

Range ≤ 5 psi: ±1.0%

**Minimum Isolation:**

100 MΩ @ 50 Vdc case to sensor

2 MΩ @ 50 Vdc case to output terminations

**Pressure Cycles:** 1 million, minimum

**Long Term Stability (1-Year):** ±0.1% full scale typical

**A to D Conversion:** 24-bit

**Shock:** 50 g, 11 ms half sine, vertical and horizontal axis

**Vibration:** 5-2000-5 Hz, 30 minute cycle, Curve L, Mil-Spec 810 figure 514-2-2, vertical and horizontal axis

**Bandwidth:** DC to 1000 updates per second typical (±3%)

#### FREE OMEGA® USBH Downloadable Software!

OMEGA is excited to announce the release of a major software update for USB Transducers! The fresh look and added features add even more value and flexibility to your transducer's performance.

Free OMEGA PC software takes the data from the transducer directly to the digital domain, turning your laptop or Windows® tablet (with USB connection) into a virtual meter, chart recorder, or data logger.

Also included are .NET APIs and a set for command-line access. Visit

<https://www.omega.com/en-us/sensors-and-sensing-equipment/pressure-and-strain/pressure-transducers/p/PX409-Series> to download your free copy.\*

\*Includes software to run TRH Central compatible devices.

**Power Consumption:** 0.35 W typical

**CE Compliant:** Meets industrial emissions and immunity EN61326

**Environmental Protection:** IP65

**Secondary Containment**

**Gage/Vacuum/Compound 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 10,000 psi

25 to 350 mb: to 70 bar

1 to 70 bar: to 200 bar

100 to 350 bar: to 700 bar

**Absolute/Barometric Pressure:**

5 to 1000 psia: to 6000 psia

1500 to 5000 psia: to 10,000 psia

350 mb to 70 bar: to 400 bar

100 to 350 bar: to 700 bar

**Zero Balance:**

Ranges > 170 mB: ±0.5% typ. (1% max)

Ranges ≤ 170 mB: ±1% typ. (2% max)

**Span Setting:**

Ranges > 170 mB: ±0.5% typ. (1% max)

Ranges ≤ 170 mB: ±1% typ. (2% max)

**Overpressure**

**Gage/Vacuum/Compound Pressure:**

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

1 psi: 6 times span

2.5 psi to 1000 psi: 4 times span

1500 psi to 5000 psi: 7250 psi maximum

**Absolute/Barometric Pressure:**

5 psia: 6 times span

15 psia to 1000 psia: 4 times span

1500 to 5000 psia: 7250 psia maximum

350 mb to 100 bar absolute: 4 times span

175 to 350 bar absolute: 500 bar maximum

**Wetted Parts:** 316L stainless steel

**Weight:** 200 g (7 oz)

**Operating Temperature Range:** -40 to 85°C (-40 to 185°F)

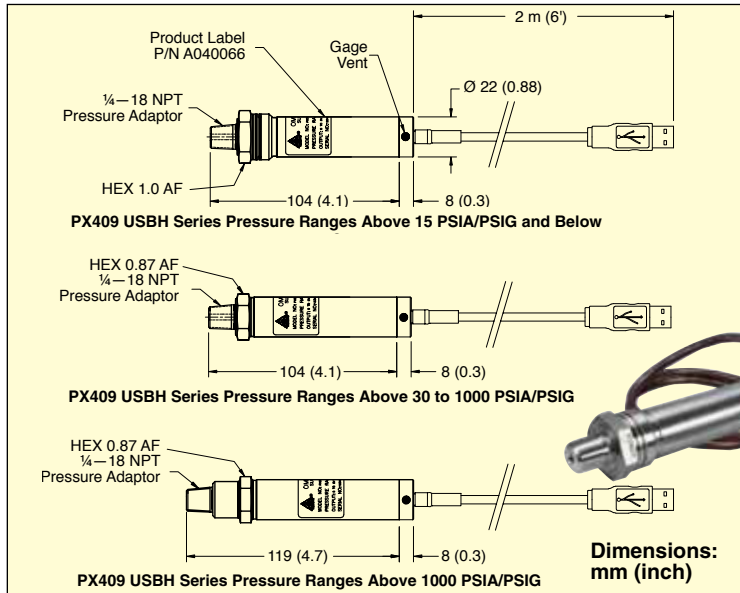
**Compensated Temperature:**

Ranges > 5 psi (350 mb): -29 to 85°C (-20 to 185°F)

Ranges ≤ 5 psi (350 mb): -17 to 85°C (0 to 185°F)

Metric threads and  
 ranges available.





Laptop not included.



# PRESSURE TRANSDUCERS

## SPECIFICATIONS DIFFERENTIAL MODELS

**Ranges:** Unidirectional 10 in H<sub>2</sub>O to 1000 psi

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

**High Side Containment Pressure (Differential)**

**Wet/Dry and Wet/Wet:**

10 inH<sub>2</sub>O to 5 psi: to 1000 psi  
 15 to 1000 psi: to 3000 psi

**Overpressure (Differential)**

**Wet/Dry and Wet/Wet:**

10 inH<sub>2</sub>O: 3.6 psi  
 1 psi: to 6 psi  
 2.5 psi to 750 psi: 4 times span  
 1000 psi: to 3000 psi

**Weight:** 227 g (8 oz)

**Line Pressure:** 500 psi maximum

**Fitting:** 1/4-18 NPT male

## OPTION DESCRIPTIONS

<b>Unit</b>	PX459 for Imperial PXM459 for Metric
<b>Range</b> <i>(Examples of range per unit per type. Please View All Models for all available ranges per pressure type. Explore Configurator for Custom Ranges)</i>	10W for Imperial Pressure 0 to 10 in H2O 001 for Imperial Pressure 0 to 1 psi 030 for Imperial Pressure 0 to 30 psi 750 for Imperial Pressure 0 to 750 psi 1.0K for Imperial Pressure 0 to 1000 psi 16B for Imperial Barometric 16 to 32 inHg 32B for Metric Pressure 0 to 32 inHg 001B for Metric Pressure 0 to 1 bar 350B for Metric Pressure 0 to 350 bar 350H for Metric Compound Guage -350 to 350 mbar 880H for Metric Barometric 880 to 1,100 mbar
<b>Pressure Type</b>	G for Gage A for Absolute (15 to 5000 psia) B for Barometric Pressure V for Vacuum (Negatice Guage) CG for Compound Guage (10W to 15 psi only) DWU for Wet/Wet Unidirectional Differential WDU for Wet/Dry Unidirectional Differential
<b>Output Signal</b>	USBH for High Speed USB

Comes complete with 5-point NIST traceable calibration certificate, cable with USB connector, and free downloadable PC software.

**Ordering Examples:** PX409-100DDUUSBH, Wet/Dry 0 to 100 psi differential high speed USB output transducer.

PX409-2.5DWUUSBH, Wet/Wet 0 to 2.5 psi differential high speed USB output transducer.

PX409-100GUSBH, 2 m (6') cable with USB termination, 100 psig range, USB output.

PX409-16BUSBH, 2 m (6') cable with USB termination, 16 to 32 inHg absolute barometric range, USB output.



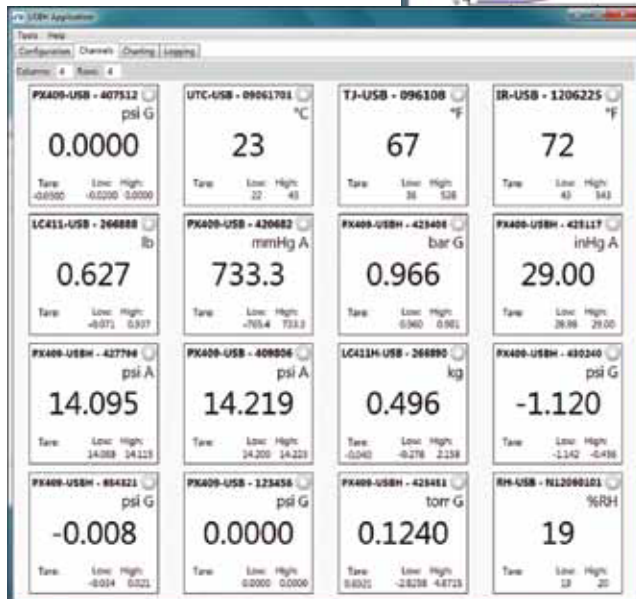
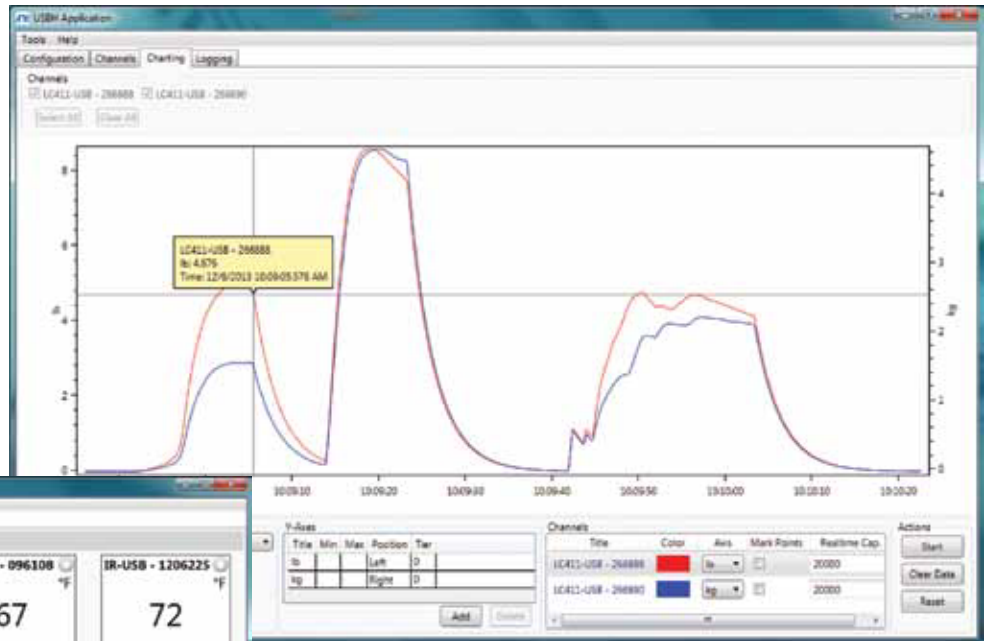
# OMEGA USBH MAJOR SOFTWARE UPDATE

OMEGA is excited to announce the release of a major software update for USB Transducers! The fresh look and added features add even more value and flexibility to your transducer's performance. Free OMEGA PC software takes the data from the transducer directly to the digital domain, turning your laptop or Windows® tablet (with USB connection) into a virtual meter, chart recorder, or data logger. Also included are .NET APIs and a set for command-line access.

Visit <https://www.omega.com/en-us/sensors-and-sensing-equipment/pressure-and-strain/pressure-transducers/p/PX409-Series> to download your free copy.\*

\* Includes software to run TRH Central compatible devices.

**Charting Window** – The addition of a charting window allows you to see your data graphed in real time. The Y axis is configurable to allow simultaneous graphing of multiple engineering units. You can output the image of your data to a png file.



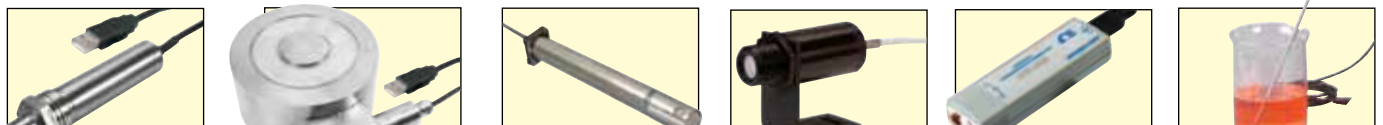
**Channels Window** – Display data from all of your sensors simultaneously. Each channel has configurable user alarms, three data filters, tare, resettable low/high indication, and sample rates ranging from 30 minutes to 1000 Hz.

**Logging Window** – A new xls filetype output option presents preformatted data for readability. In addition, Live Statistics are displayed, including the sensor information, the start/stop time, the number of samples taken, the current reading, and the High/Low readings. With the logging window, you can capture your data for later analysis.

## Support for Omega Pressure, Force, Temperature, and Humidity USB Transducers

One software package supports:

PX409-\*-USB, PX409-\*-USBH, LC411-\*-USBH, TJ-USB, IR-USB, RH-USB and UTC-USB transducers.



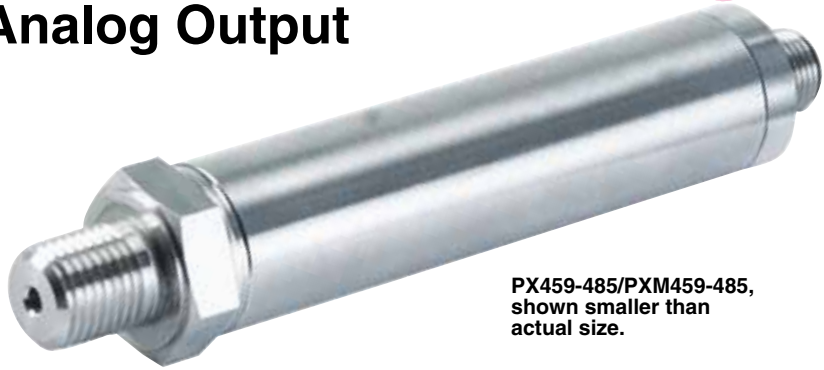


# Pressure Transmitter

## Digital RS485 with Analog Output

### Imperial and Metric

**Gage and Absolute Pressures**  
 10 inH<sub>2</sub>O to 5000 psi (25 mb to 345 bar)  
**Vacuum and Compound Ranges**  
 10 inH<sub>2</sub>O to 15 psi (25 mb to 1 bar)  
**Barometric Pressure Ranges**  
 0 to 32, 16 to 32, and 26 to 32 inHg  
 (0 to 1100 hPa, 550 to 1100 hPa,  
 and 880 to 1100 hPa)



PX459-485/PXM459-485,  
 shown smaller than  
 actual size.

PX409-485/PXM409-485  
 Series



- ✓ Up to 640 Readings/Second
- ✓ Micro-Machined Silicon Sensor
- ✓ 316L SS Wetted Parts
- ✓ High ±0.08% BSL Accuracy
- ✓ RS485 and Analog Outputs
- ✓ Excellent Long Term Stability
- ✓ M12 Connection
- ✓ Ruggedized with Secondary Containment

The PX409 RS485 Series is an industrial RS485 silicon pressure sensor. Use as a stand-alone for up to 640 Hz sampling rate, or connect up to 16 units in an independent multidrop RS485 network at 1 Hz overall bus sampling rate. Interface to the sensor using command line access, or use the free PC software from OMEGA to chart, log, display, and output data for analysis. An additional analog output (0 to 5V, or 4 to 20 mA) provides even more flexibility. The micro-machined silicon design is ideal for pressure or level applications in laboratory, test platforms, or bio/pharmaceutical applications as well as industrial applications that require a rugged, high accuracy transmitter that can transmit over long distances. The micro-machined silicon sensor provides a very stable transmitter with exceptional high accuracy of ±0.08% and a broad compensated range of -29 to 85°C (-20 to 185°F). The modular construction allows for fast delivery of most configurations and fittings.

### FREE OMEGA® Downloadable Software!

Free OMEGA PC software takes the data from the transmitter directly to the digital domain, turning your laptop or Windows® tablet into a virtual meter, chart recorder, or data logger. Also included are .NET APIs and a command set for command-line access. Visit <https://www.omega.com/en-us/sensors-and-sensing-equipment/pressure-and-strain/pressure-transducers/p/PX409-Series> to download your free copy.

*Note: RS485 to PC interface is required, sold separately*

### Specifications

**Supply:** 12 to 36 Vdc (when using mA output, derate using formula in operating temperature section)

**Maximum Loop Ω:** (Supply-9) x 50

**Accuracy:** 0.08% BSL (linearity, hysteresis and repeatability combined)

**Resolution:** Up to 5.5 significant figures

**Zero Balance:** ±0.5% FS typical 1% maximum (1% typical, 2% maximum for 2.5 psi and below)

**Span Setting:** ±0.5% FS typical 1% maximum (1% typical, 2% maximum for 2.5 psi and below). Calibrated in vertical direction with fitting down

**Temperature Compensation (Over Compensated Range):**

**Span:** Range > 5 psi: ±0.5%; Range ≤ 5 psi: ±1.0%

**Zero:** Range > 5 psi: ±0.5%; Range ≤ 5 psi: ±1.0%

**Minimum Isolation:** 100 MΩ @ 50 Vdc case to output terminations @ 50 Vdc case to output terminations

**Pressure Cycles:** 1 million, minimum

**Long Term Stability (1-Year):** ±0.1% full scale typical

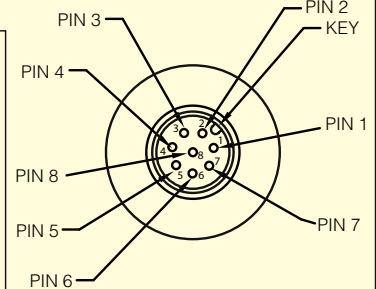
**Power Consumption:**

**-5V:** 0.65 W typical

**-I:** 1.25 W maximum

### ELECTRICAL PINOUT

Pin 1: Vout (+) ANALOG  
 Pin 2: SUPPLY (+)  
 Pin 3: B (RS485)  
 Pin 4: A (RS485)  
 Pin 5: SUPPLY (-)  
 Pin 6: Vout (-) ANALOG  
 Pin 7: DO NOT CONNECT  
 Pin 8: SHIELD







**Secondary Containment**

**Gage/Vacuum/Compound 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 10,000 psi

**Absolute/Barometric Pressure:**

- 5 to 1000 psia: to 6000 psia
- 1500 to 5000 psia: to 10,000 psia

**Overpressure**

**Gage/Vacuum/Compound Pressure:**

- 10 inH<sub>2</sub>O: 10 times span
- 1 psi: 6 times span
- 2.5 psi to 1000 psi: 4 times span
- 1500 psi to 5000 psi: 7250 psi maximum

**Absolute/Barometric Pressure:**

- 5 psia: 6 times span
- 15 psia to 1000 psia: 4 times span
- 1500 to 5000 psia: 7250 psia maximum

**Secondary Containment**

**Gage/Vacuum/Compound Pressure:**

- 25 to 350 mb: 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
- 100 to 350 bar: to 700 bar

**Overpressure**

**Gage/Vacuum/Compound Pressure:**

- 25 mb: 10 times span
- 70 mb: 6 times span
- 170 mb to 100 bar: 4 times span
- 175 to 350 bar: 500 bar maximum

**Absolute/Barometric Pressure:**

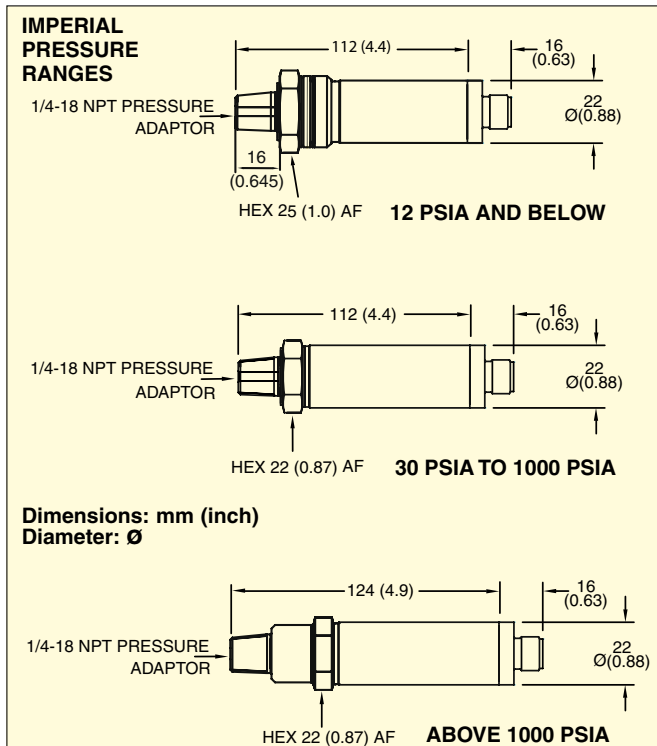
- 350 mb to 100 bar Absolute: 4 times span
- 175 to 350 bar Absolute: 500 bar maximum

**Wetted Parts:** 316L stainless steel

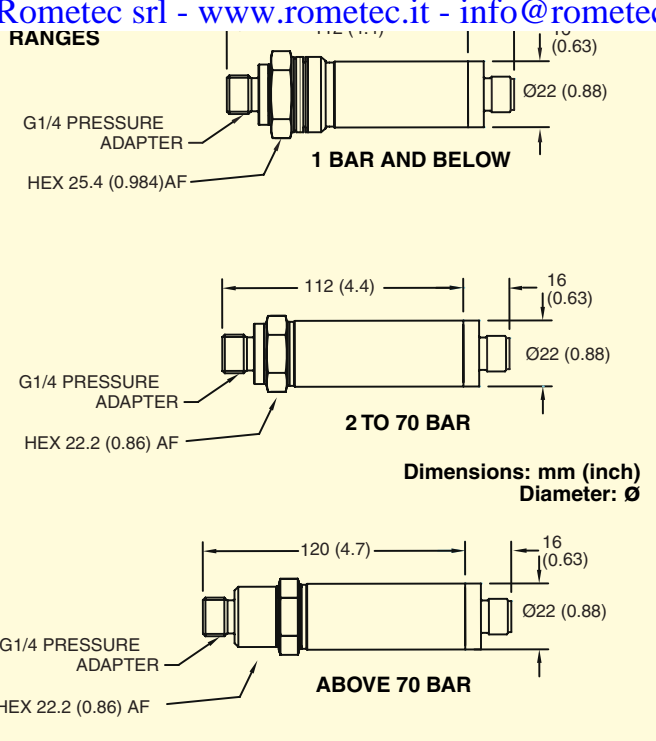
**Weight:** 200 g (7 oz)

**Operating Temperature Range:** -40 to 85°C (-40 to 185°F);

when using mA output; maximum ambient temperature = 106 + (0.038) R - (2.1) V where R = Loop Ω and V = V<sub>supply</sub>



**MFTRIC RANGES**



**Compensated Temperature**

**Imperial:**

- Ranges >5 psi: -29 to 85°C (-20 to 185°F)
- Ranges ≤5 psi: -17 to 85°C (0 to 185°F)

**Metric:**

- Ranges > 350 mb: -29 to 85°C (-20 to 185°F)
- Ranges ≤ 350 mb: -17 to 85°C (0 to 185°F)

**Pressure Port:**

- Imperial:** 1/4-18 NPT male
- Metric:** G-1/4 male

**A to D Conversion:** 24-bit

**Output:** RS485 digital with discrete analog (choose 0 to 5 Vdc or 4 to 20 mA)

**DAC Conversion:** 320 Hz at 16 bit

**Bandwidth:**

- Multidrop Mode:** Overall Bus rate: DC to 1 update per second typical
- Standalone Mode:** DC to 640 updates per second

**Electrical Termination:** 8-pin M12 type A male with shield pin connection (IEC61076-2-101); female M12 connector M12.8-S-F-FM with screw terminals sold separately

**CE Compliant:** Meets industrial EN61326

**Emissions, Burst and Surge**

- Susceptibility (10 V/m):** ±0.25% max, all outputs, Tested using 6.1 m (20') shielded 6 conductor cable
- ESD Protection:** Tested to 4 kV to case and shielded wire
- Digital Outputs:** Protection device rated to ±13 kV
- Analog Output:** Protection device rated to:  
**Contact:** ±8 kV min, ±30 kV max  
**Air:** ±15 kV min, ±30 kV max

**For Stated EMC Performance:** Use recommended cable, tie drain wire to shield connection on PX409-485 side, and to earth ground on supply side. Ground PX409-485 case



**Environmental Protection:** IP65

**RS485 (Non-Isolated):**

- Protocol:** OMEGA command structure (provided)
- Unit Load:** 1/6
- Standalone and Addressed Multidrop Modes**
- Recommended Cable:** Belden 9843 or equivalent
- Maximum Number of Units on One RS485 Bus:** 16 units (multidrop mode), 1 unit (standalone mode)
- Software-enabled 120Ω termination resistor**



OPTION DESCRIPTIONS	
<b>Electrical Termination</b>	PX459 for Imperial for M12 Connector
	PXM459 for Metric for M12 Connector
<b>Range</b> <i>(Examples of range per unit per type. Please View All Models for all available ranges per pressure type. Explore Configurator for Custom Ranges)</i>	10W for Imperial Pressure 0 to 10 in H2O
	001 for Imperial Pressure 0 to 1 psi
	030 for Imperial Pressure 0 to 30 psi
	750 for Imperial Pressure 0 to 750 psi
	1.0K for Imperial Pressure 0 to 1000 psi
	32B for Imperial Barometric (Absolute Pressure) 0 to 32 inHg
	025H for Metric Pressure 0 to 25 mbar
	001B for Metric Pressure 0 to 1 bar
	350B for Metric Pressure 0 to 350 bar
	16H for Metric Barometric (Absolute Pressure) 550 to 1100 mBar
1,100H for Metric Barometric (Absolute Pressure) 0 to 1100 hPa	
<b>Pressure Type</b>	G for Gage Pressure Ranges 10W to 5.0K or 025H to 350B
	A for Absolute Pressure Ranges 005 to 5.0K or 350H to 350B
	B for Barometric Pressure Ranges 32B/16B26B or 32H/16H26H
	V for Vacuum Pressure Ranges 015 to 10W or 001B to 025H
	CG for Compound Gauge Pressure Ranges 015 to 10W or 001B to 025H
	SG for Sealed Gage Pressure Ranges 100 to 5.0K or 007 to 350B
<b>Output Signal</b>	485-5V for RS485 with 0 to 5 Vdc Output
	485-I for RS485 with 4 to 20 mA Output

Accessories	
Model No.	Description
M12.8-S-F-FM	The M12 connectors can be attached to existing sensor or extension cables with a 6 to 8 mm cable diameter in the field by means of screw type connections 
CN7-485-USB-1	Mini-node communication signal converter converts RS485 to USB 

Comes complete with 5-point NIST-traceable calibration and free downloadable software.

**Ordering Examples:** PXM459-010BG485-5V, 10 bar gage transducer with RS485 and 0 to 5 Vdc outputs, M12 electrical connection, and G-¼ male pressure port.

Mating connector M12.8-S-F-FM (sold separately).

PXM459-350HA485-I, 350 mbar absolute pressure transducer with RS485 and 4 to 20 mA outputs, M12 electrical connection, and G-¼ male pressure port.

Comes complete with 5-point NIST-traceable calibration and free downloadable software.

**Ordering Examples:** PX459-100G485-5V, 100 psi gage transducer with RS485 and 0 to 5 Vdc outputs, M12 electrical connection, and ¼-18 NPT male pressure port.

Mating connector M12.8-S-F-FM (sold separately).

PX459-5.0KA485-I, 5000 psi absolute pressure transducer with RS485 and 4 to 20 mA outputs, M12 electrical connection, and ¼-18 NPT male pressure port.

# PRESSURE TRANSDUCER

## CONNECT DIRECTLY TO YOUR COMPUTER

High Speed  
1000 Updates/per  
Second

**Gage and Absolute Pressures**  
**10 inH<sub>2</sub>O to 5000 psi (25 mb to 345 bar)**  
**Vacuum and Compound Ranges**  
**10 inH<sub>2</sub>O to 15 psi**  
**Barometric and Differential Pressure Ranges**

Fast  
Delivery!

PX409-015GUSBH  
shown actual size.

### PX409-USBH Series



Standard

- ✓ 1000 Readings/Second
- ✓ Micro-Machined Silicon Sensor
- ✓ 316L SS Wetted Parts
- ✓ High  $\pm 0.08\%$  BSL Accuracy
- ✓ Excellent Long Term Stability
- ✓ USB 2.0 and Below Compatible
- ✓ Standard USB Connector Termination
- ✓ Shock and Vibration Rated
- ✓ Ruggedized with Secondary Containment

The PX409 High Speed USBH Series connects directly to your computer. Free PC software enables you to chart, log, display, and output data for analysis. Also included are .NET APIs, and a command set for command-line access. The micro-machined silicon design is ideal for pressure or level applications in laboratory, test platforms, or bio/pharmaceutical applications as well as industrial applications that require a rugged, high accuracy transducer. The micro-machined silicon sensor provides a very stable transducer with exceptional high accuracy of  $\pm 0.08\%$  and a broad compensated range of  $-29$  to  $85^\circ\text{C}$  ( $-20$  to  $185^\circ\text{F}$ ). The modular construction allows for fast delivery of most configurations and fittings. Delivery is typically stock to 1 week!

### SPECIFICATIONS

**Accuracy:** 0.08% BSL (linearity, hysteresis and repeatability combined)

**Resolution:** Up to 5.5 significant figures

**Temperature Compensation (Over Compensated Range):**

Span: Range > 5 psi:  $\pm 0.5\%$

Range  $\leq 5$  psi:  $\pm 1.0\%$

Zero: Range > 5 psi:  $\pm 0.5\%$

Range  $\leq 5$  psi:  $\pm 1.0\%$

**Minimum Isolation:**

100 M $\Omega$  @ 50 Vdc case to sensor

2 M $\Omega$  @ 50 Vdc case to output terminations

**Pressure Cycles:** 1 million, minimum

**Long Term Stability (1-Year):**  $\pm 0.1\%$  full scale typical

**A to D Conversion:** 24-bit

**Shock:** 50 g, 11 mS half sine, vertical and horizontal axis

**Vibration:** 5-2000-5 Hz, 30 minute cycle,  
Curve L, Mil-Spec 810 figure 514-2-2,  
vertical and horizontal axis

**Bandwidth:** DC to 1000 updates per second typical ( $\pm 3\%$ )



2 m (6') integral  
USB cable connects  
directly to your PC.

### FREE OMEGA® USBH Downloadable Software!

OMEGA is excited to announce the release of a major software update for USB Transducers! The fresh look and added features add even more value and flexibility to your transducer's performance.

Free OMEGA PC software takes the data from the transducer directly to the digital domain, turning your laptop or Windows® tablet (with USB connection) into a virtual meter, chart recorder, or data logger.

Also included are .NET APIs and a set for command-line access. Visit <ftp://ftp.omega.com/public/DASGroup/products/USBH/> to download your free copy.\*

\*Includes software to run TRH Central compatible devices.

**Power Consumption:** 0.35 W typical

**CE Compliant:** Meets industrial emissions and immunity EN61326

**Environmental Protection:** IP65

**Secondary Containment**

**Gage/Vacuum/Compound 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 10,000 psi

**Absolute/Barometric Pressure:**

5 to 1000 psia: to 6000 psia

1500 to 5000 psia: to 10,000 psia

**Overpressure**

**Gage/Vacuum/Compound Pressure:**

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

1 psi: 6 times span

2.5 psi to 1000 psi: 4 times span

1500 psi to 5000 psi: 7250 psi maximum

**Absolute/Barometric Pressure:**

5 psia: 6 times span

15 psia to 1000 psia: 4 times span

1500 to 5000 psia: 7250 psia maximum

**Wetted Parts:** 316L stainless steel

**Weight:** 200 g (7 oz)

**Operating Temperature Range:**  $-40$  to  $85^\circ\text{C}$  ( $-40$  to  $185^\circ\text{F}$ )

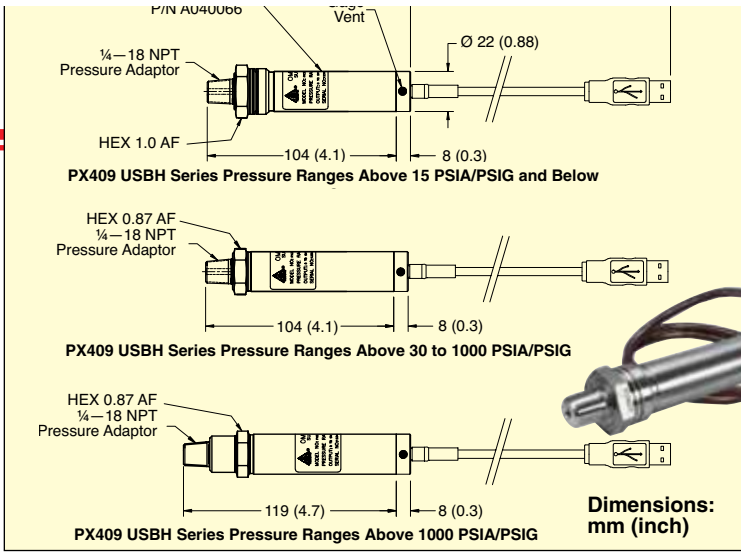
**Compensated Temperature:**

Ranges >5 psi:  $-29$  to  $85^\circ\text{C}$  ( $-20$  to  $185^\circ\text{F}$ )

Metric threads and  
ranges available.

USB OUTPUT  
PRESSURE TRANSDUCERS  
B

Free  
PC software



Laptop not included.

To Order		GAGE PRESSURE MODEL NO.	ABSOLUTE PRESSURE MODEL NO.
psi	bar		
<b>GAGE AND ABSOLUTE PRESSURE</b>			
0 to 10 inH <sub>2</sub> O	0 to 25 mb	PX409-10WGUSBH	—
0 to 1	0 to 69 mb	PX409-001GUSBH	—
0 to 2.5	0 to 172 mb	PX409-2.5GUSBH	—
0 to 5	0 to 345 mb	PX409-005GUSBH	PX409-005AUSBH
0 to 15	0 to 1	PX409-015GUSBH	PX409-015AUSBH
0 to 30	0 to 2.1	PX409-030GUSBH	PX409-030AUSBH
0 to 50	0 to 3.4	PX409-050GUSBH	PX409-050AUSBH
0 to 100	0 to 6.9	PX409-100GUSBH	PX409-100AUSBH
0 to 150	0 to 10.3	PX409-150GUSBH	PX409-150AUSBH
0 to 250	0 to 17.2	PX409-250GUSBH	PX409-250AUSBH
0 to 500	0 to 34.5	PX409-500GUSBH	PX409-500AUSBH
0 to 750	0 to 51.7	PX409-750GUSBH	PX409-750AUSBH
0 to 1000	0 to 69	PX409-1.0KGUSBH	PX409-1.0KAUSBH
0 to 1500	0 to 103	PX409-1.5KGUSBH	PX409-1.5KAUSBH
0 to 2500	0 to 172	PX409-2.5KGUSBH	PX409-2.5KAUSBH
0 to 3500	0 to 241	PX409-3.5KGUSBH	PX409-3.5KAUSBH
0 to 5000	0 to 345	PX409-5.0KGUSBH	PX409-5.0KAUSBH
<b>VACUUM RANGES (NEGATIVE GAGE PRESSURE)</b>			
0 to -10 inH <sub>2</sub> O	0 to -25 mb	PX409-10WVUSBH	—
0 to -1 psi	0 to -69 mb	PX409-001VUSBH	—
0 to -2.5 psi	0 to -172 mb	PX409-2.5VUSBH	—
0 to -5 psi	0 to -345 mb	PX409-005VUSBH	—
0 to -15 psi	0 to -1	PX409-015VUSBH	—
<b>COMPOUND GAGE RANGES</b>			
± 10 inH <sub>2</sub> O	± 25 mb	PX409-10WCGUSBH	—
± 1 psi	± 69 mb	PX409-001CGUSBH	—
± 2.5 psi	± 172 mb	PX409-2.5CGUSBH	—
± 5 psi	± 345 mb	PX409-005CGUSBH	—
± 15 psi	± 1	PX409-015CGUSBH	—
<b>BAROMETRIC RANGES (ABSOLUTE PRESSURE)</b>			
0 to 32 inHg	0 to 1100 mb	—	PX409-32BUSBH
16 to 32 inHg	550 to 1100 mb	—	PX409-16BUSBH
26 to 32 inHg	880 to 1100 mb	—	PX409-26BUSBH

Comes complete with 5-point NIST traceable calibration certificate, cable with USB connector, and free downloadable PC software.

Ordering Examples: PX409-100GUSBH, 2 m (6') cable with USB termination, 100 psig range, USB output.

PX409-16BUSBH, 2 m (6') cable with USB termination, 16 to 32 inHg absolute barometric range, USB output.



# LINEAR HIGH DIFFERENTIAL PRESSURE TRANSDUCERS

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## SPECIFICATIONS DIFFERENTIAL MODELS

**Ranges:** Unidirectional 10 inH<sub>2</sub>O to 1000 psi

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

**High Side Containment Pressure (Differential)**

**Wet/Dry and Wet/Wet:**

10 inH<sub>2</sub>O to 5 psi: to 1000 psi  
15 to 1000 psi: to 3000 psi

**Overpressure (Differential)**

**Wet/Dry and Wet/Wet:**

10 inH<sub>2</sub>O: 3.6 psi  
1 psi: to 6 psi  
2.5 psi to 750 psi: 4 times span  
1000 psi: to 3000 psi

**Weight:** 227 g (8 oz)

**Line Pressure:** 500 psi maximum

**Fitting:** ¼-18 NPT male

## To Order

RANGE		MODEL NO.
psi	bar	
<b>WET/DRY DIFFERENTIAL PRESSURE MODELS</b>		
0 to 10 inH <sub>2</sub> O	0 to 25.00 mb	PX409-10WDDUUSBH
0 to 1	0 to 69.00 mb	PX409-001DDUUSBH
0 to 2.5	0 to 172.0 mb	PX409-2.5DDUUSBH
0 to 5	0 to 345.0 mb	PX409-005DDUUSBH
0 to 15	0 to 1.000	PX409-015DDUUSBH
0 to 30	0 to 2.100	PX409-030DDUUSBH
0 to 50	0 to 3.400	PX409-050DDUUSBH
0 to 100	0 to 6.900	PX409-100DDUUSBH
0 to 150	0 to 10.30	PX409-150DDUUSBH
0 to 250	0 to 17.20	PX409-250DDUUSBH
0 to 500	0 to 34.50	PX409-500DDUUSBH
0 to 750	0 to 51.70	PX409-750DDUUSBH
0 to 1000	0 to 69.00	PX409-1.0KDDUUSBH
<b>WET/WET DIFFERENTIAL PRESSURE MODELS</b>		
0 to 10 inH <sub>2</sub> O	0 to 25.00 mb	PX409-10WDWUUSBH
0 to 1	0 to 69.00 mb	PX409-001DWUUSBH
0 to 2.5	0 to 172.0 mb	PX409-2.5DWUUSBH
0 to 5	0 to 345.0 mb	PX409-005DWUUSBH
0 to 15	0 to 1.000	PX409-015DWUUSBH
0 to 30	0 to 2.100	PX409-030DWUUSBH
0 to 50	0 to 3.400	PX409-050DWUUSBH
0 to 100	0 to 6.900	PX409-100DWUUSBH
0 to 150	0 to 10.30	PX409-150DWUUSBH
0 to 250	0 to 17.20	PX409-250DWUUSBH
0 to 500	0 to 34.50	PX409-500DWUUSBH
0 to 750	0 to 51.70	PX409-750DWUUSBH
0 to 1000	0 to 69.00	PX409-1.0KDWUUSBH



Comes complete with 5-point NIST traceable calibration certificate, cable with USB connector, and free downloadable PC software.

**Ordering Examples:** PX409-100DDUUSBH, Wet/Dry 0 to 100 psi differential high speed USB output transducer.

PX409-2.5DWUUSBH, Wet/Wet 0 to 2.5 psi differential high speed USB output transducer.

# OMEGA USBH MAJOR SOFTWARE UPDATE

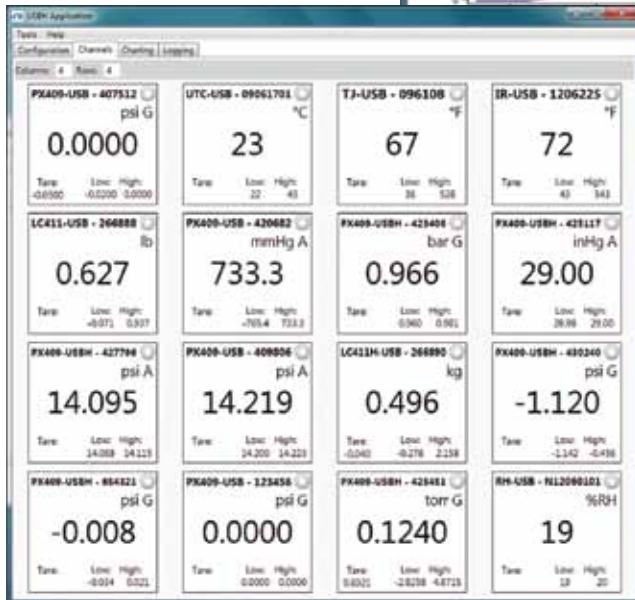
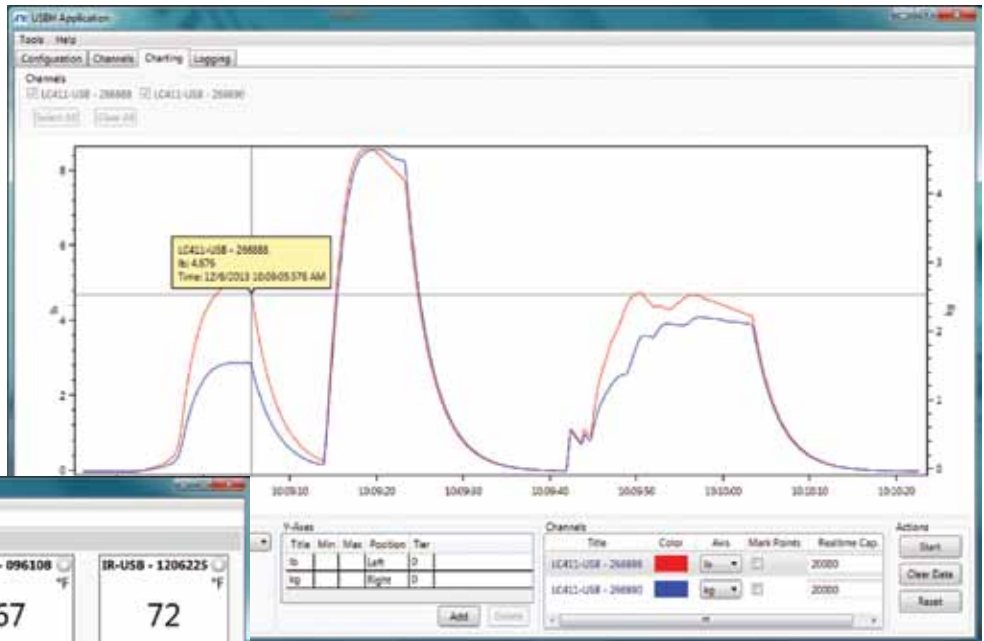
OMEGA is excited to announce the release of a major software update for USB Transducers! The fresh look and added features add even more value and flexibility to your transducer's performance. Free OMEGA PC software takes the data from the transducer directly to the digital domain, turning your laptop or Windows® tablet (with USB connection) into a virtual meter, chart recorder, or data logger. Also included are .NET APIs and a set for command-line access.

Visit [ftp://ftp.omega.com/public/DASGroup/products/USBH/](http://ftp.omega.com/public/DASGroup/products/USBH/) to download your free copy.\*

\* Includes software to run TRH Central compatible devices.

PRESSURE TRANSDUCERS  
USB OUTPUT  
B

**Charting Window** – The addition of a charting window allows you to see your data graphed in real time. The Y axis is configurable to allow simultaneous graphing of multiple engineering units. You can output the image of your data to a png file.



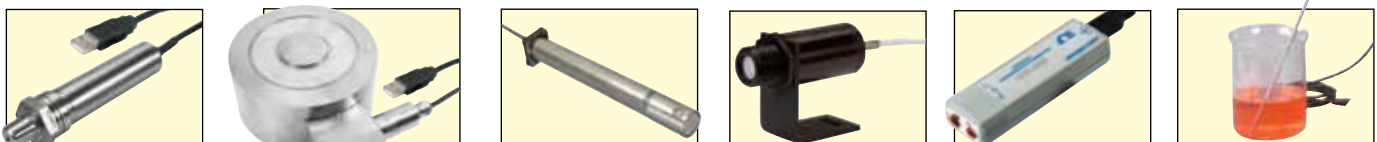
**Channels Window** – Display data from all of your sensors simultaneously. Each channel has configurable user alarms, three data filters, tare, resettable low/high indication, and sample rates ranging from 30 minutes to 1000 Hz.

**Logging Window** – A new xls filetype output option presents preformatted data for readability. In addition, Live Statistics are displayed, including the sensor information, the start/stop time, the number of samples taken, the current reading, and the High/Low readings. With the logging window, you can capture your data for later analysis.

## Support for Omega Pressure, Force, Temperature, and Humidity USB Transducers

One software package supports:

PXA09-\*-USB, PXA09-\*-USBH, LC411-\*-USBH, TJ-USB, IR-USB, RH-USB and UTC-USB transducers.



PX409-USBH-425117	
Units	psi
Count	10
Last	14.2349
Low	14.2349
High	14.2353

# SILICON TRANSDUCERS

## WET/WET DIFFERENTIAL PRESSURE MODELS

**mV/V, 0 to 5 or 0 to 10 Vdc, or 4 to 20 mA Outputs**  
**Uni-Directional Ranges**  
**0-10 inH<sub>2</sub>O to 0-1000 psid**

### PX409 Series



**Fast Delivery!**  
**Stock to 2 Weeks**  
**On Most Models**

**High 0.08% Accuracy**

- Precision Micro-Machined Silicon Core
- 5-Point NIST Traceable Calibration
- High Stability, Low Drift
- Welded Stainless Steel Construction
- 316L SS Wetted Parts
- Digital Dynamic Thermal Compensation Across Temperature and Pressure Range
- Premium Temperature Performance
- Broad Compensated Temperature Range
- Durable, 1 Million Cycle Life
- Ruggedized with Secondary Containment
- Customized Specifications Available

Get all the great performance characteristics of the Micro-Machined Silicon Transducers in these wet/wet differential pressure models. These rugged stainless steel transducers are ideal for tough industrial automotive, or aerospace applications requiring a wet/wet transducer. They can be used in test benches, filter monitoring, hydraulic, flow, or water/wastewater applications, as well as factory or pneumatic air, pitot tubes, air speed and other industrial or aerospace applications. The solid state silicon core and all stainless steel wetted parts will provide long, reliable service life with excellent long term stability. To obtain their high accuracy and stability, the PX409 Series use state of the art digital mapping of the temperature, pressure and output performance of the silicon sensor in conjunction with a custom ASIC to provide dynamic thermal compensation across the temperature and pressure parameters.

### COMMON SPECIFICATIONS

**Accuracy:** 0.08% BSL linearity, hysteresis and repeatability combined

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

**Operating Temperature:**

**mV/V and 5 to 10 Vdc Output:** -45 to 121°C (-49 to 250°F)  
**mA Output:** -45 to 115°C (-49 to 239°F)

**Compensated Temperature Range:**

**10 inH<sub>2</sub>O to 5 psi:** -17 to 85°C (1 to 185°F)  
**15 to 1000 psi:** -29 to 85°C (-20 to 185°F)

**Thermal Accuracy:**      **Zero**      **Span**  
 % Shift over compensated temperature range  
**10 inH<sub>2</sub>O to 5 psi:**    ±1.00%    ±1.00%  
**15 to 1000 psi:**        ±0.50%    ±0.50%



PX409-015DWUV, 15 psid range, 10 mV/V output, shown smaller than actual size.

Metric threads available, visit us online



PX459, M12 connector.

### Five Electrical Termination Styles



PX409, 2 m (6') cable.



PX419, mini DIN.



PX409C, conduit cable.



PX429, twist-lock.

# MICRO-MACHINED

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# SILICON TRANSDUCERS

## WET/WET DIFFERENTIAL PRESSURE MODELS

**Pressure Cycles:** 1 million minimum

**Long Term Stability (1-Year):**

±0.1% FS typical

**Bandwidth:** DC to 1 kHz typical

**Response Time:** <1 ms

**CE Compliant:** Meets EN61326-1: 2006 for industrial locations

**Shock:** 50 g, 11 mS half sine, vertical and horizontal axis

**Vibration:** 5-2000-5 Hz, 30 minute cycle, Curve L, Mil-Spec 810 figure 514-2-2, vertical and horizontal axis

**Wetted Parts:** 316L stainless steel

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

**Proof Pressure (Differential):**

10 inH<sub>2</sub>O range = 10 times range

1 psi range = 6 times range

2.5 to 750 psi ranges = 4 times range

1000 psi range = 3 times range

**Hi Side Containment Pressure (Differential):**

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

Ranges 15 to 1000 psi: to 3000 psi

**Pressure Ports:** ¼ NPT male

**Electrical Terminations:**

PX409: 2 m (6') cable

PX409C: 2 m (6') cable with ½ NPT conduit thread

PX419: mini DIN

(mating connector included)

PX429: Twist-lock,

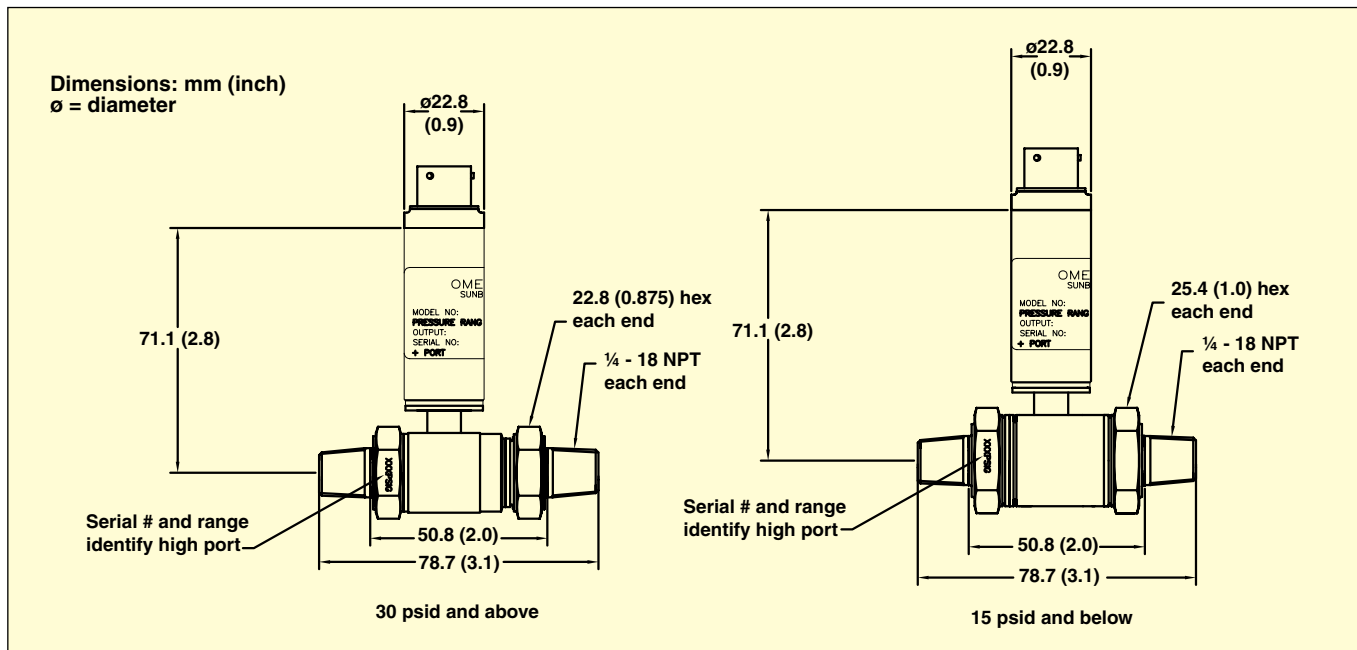
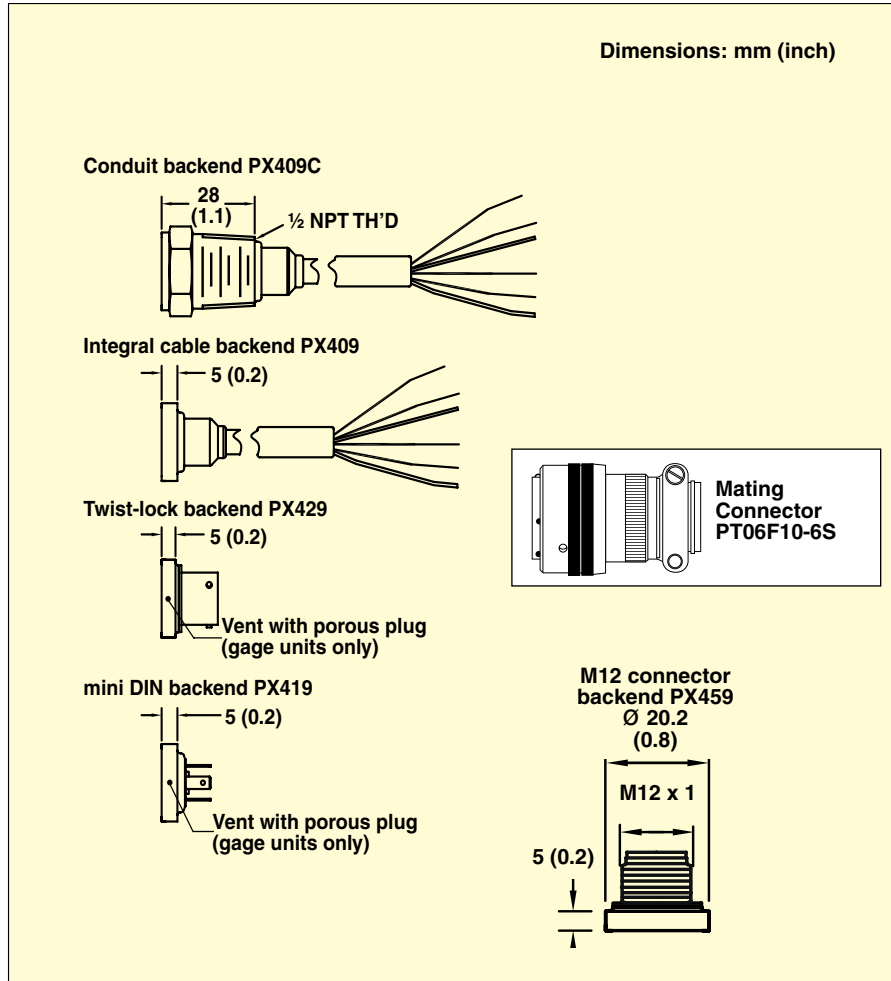
(mating connector sold separately)

PX459: M12 connector

**PX429 Mating Connector:**

PT06F10-6S

**Weight:** 200 g (7 oz) maximum



DIFFERENTIAL PRESSURE TRANSDUCERS

**B**

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# WET/WET DIFFERENTIAL

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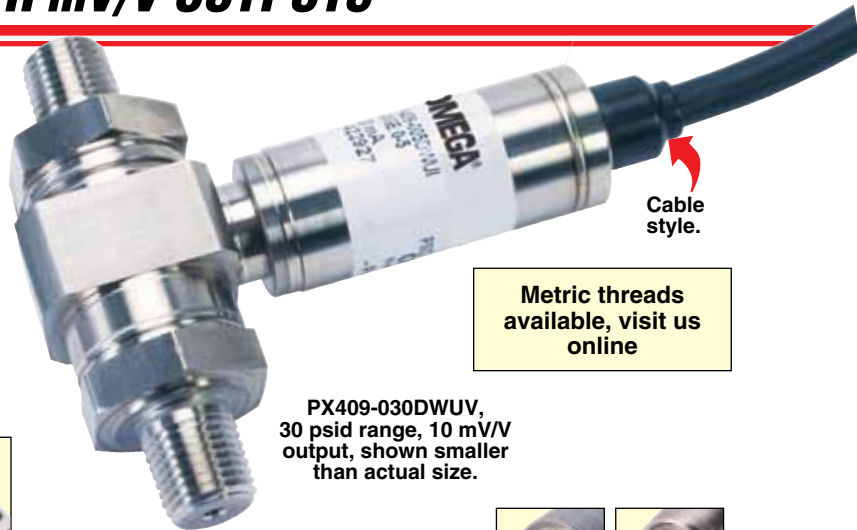
## PRESSURE MODELS

### UNI-DIRECTIONAL RANGES WITH mV/V OUTPUTS

#### UNI-DIRECTIONAL mV/V SPECIFICATIONS

- Output: 10 mV/V ratiometric  
 Supply Voltage: 5 to 10 Vdc  
 Current Draw: 5 mA @ 10 Vdc  
 Input Impedance: 1000 to 5000 Ω  
 Output Impedance: 5000 Ω ±10% typical  
 Zero Balance:  
 Ranges ≤ 2.5psi: ±1% typical (2% maximum)  
 Ranges > 2.5psi: ±0.5% typical (1% maximum)  
 Span Setting:  
 Ranges ≤ 2.5psi: ±1% typical (2% maximum)  
 Ranges > 2.5psi: ±0.5% typical (1% maximum)

**Fast Delivery!**  
**Stock to 2 Weeks**  
**On Most Models**



**Metric threads available, visit us online**

PX409-030DWUV,  
 30 psid range, 10 mV/V  
 output, shown smaller  
 than actual size.

#### CABLE TERMINATION\*

##### To Order

##### 10 mV/V OUTPUT, 1/4 NPT MALE FITTINGS

RANGE	METRIC	MODEL NO.
0 to 10 inH <sub>2</sub> O	25 mbar	PX409-10WDWUV
0 to 1 psi	70 mbar	PX409-001DWUV
0 to 2.5 psi	170 mbar	PX409-2.5DWUV
0 to 5 psi	350 mbar	PX409-005DWUV
0 to 15 psi	1 bar	PX409-015DWUV
0 to 30 psi	2 bar	PX409-030DWUV
0 to 50 psi	3.5 bar	PX409-050DWUV
0 to 100 psi	7 bar	PX409-100DWUV
0 to 150 psi	10 bar	PX409-150DWUV
0 to 250 psi	17.5 bar	PX409-250DWUV
0 to 500 psi	35 bar	PX409-500DWUV
0 to 750 psi	50 bar	PX409-750DWUV
0 to 1000 psi	70 bar	PX409-1.0KDWUV

\* To order conduit fitting backend change model number from "PX409" to "PX409C", no additional cost.

#### MINI DIN TERMINATION

##### 10 mV/V OUTPUT, 1/4 NPT MALE FITTINGS

RANGE	METRIC	MODEL NO.
0 to 10 inH <sub>2</sub> O	25 mbar	PX419-10WDWUV
0 to 1 psi	70 mbar	PX419-001DWUV
0 to 2.5 psi	170 mbar	PX419-2.5DWUV
0 to 5 psi	350 mbar	PX419-005DWUV
0 to 15 psi	1 bar	PX419-015DWUV
0 to 30 psi	2 bar	PX419-030DWUV
0 to 50 psi	3.5 bar	PX419-050DWUV
0 to 100 psi	7 bar	PX419-100DWUV
0 to 150 psi	10 bar	PX419-150DWUV
0 to 250 psi	17.5 bar	PX419-250DWUV
0 to 500 psi	35 bar	PX419-500DWUV
0 to 750 psi	50 bar	PX419-750DWUV
0 to 1000 psi	70 bar	PX419-1.0KDWUV

#### M12 or TWIST-LOCK TERMINATION

##### 10 mV/V OUTPUT, 1/4 NPT MALE FITTINGS

RANGE	METRIC	MODEL NO.
0 to 10 inH <sub>2</sub> O	25 mbar	PX4[*]9-10WDWUV
0 to 1 psi	70 mbar	PX4[*]9-001DWUV
0 to 2.5 psi	170 mbar	PX4[*]9-2.5DWUV
0 to 5 psi	350 mbar	PX4[*]9-005DWUV
0 to 15 psi	1 bar	PX4[*]9-015DWUV
0 to 30 psi	2 bar	PX4[*]9-030DWUV
0 to 50 psi	3.5 bar	PX4[*]9-050DWUV
0 to 100 psi	7 bar	PX4[*]9-100DWUV
0 to 150 psi	10 bar	PX4[*]9-150DWUV
0 to 250 psi	17.5 bar	PX4[*]9-250DWUV
0 to 500 psi	35 bar	PX4[*]9-500DWUV
0 to 750 psi	50 bar	PX4[*]9-750DWUV
0 to 1000 psi	70 bar	PX4[*]9-1.0KDWUV

Comes complete with 5-point NIST traceable calibration certificate.

[\*] Enter "5" for PX459 M12 connector or "2" for PX429 twist lock connector (mating PX429 connector sold separately).

Ordering Examples: PX409-100DWUV, 0 to 100 psi uni-directional wet/wet differential pressure range, 10 mV/V output, 0.08% accuracy, 1/4 NPT fittings, 2 m (6") cable.

PX419-015DWUV, 0 to 15 psi uni-directional wet/wet differential pressure range, 10 mV/V output, 0.08% accuracy, 1/4 NPT fittings, mini DIN connector.

PX429-10WDWUV, 0 to 10 inH<sub>2</sub>O uni-directional wet/wet differential pressure range, 10 mV/V output, 0.08% accuracy, 1/4 NPT fittings, twist-lock connector plus PT06F10-6S, mating connector.

#### CONNECTIONS—mV/V OUTPUT

PX429 TWIST-LOCK	PX419/PX459	PX409 CABLE	
Pin A	+EXC	Pin 1 +EXC	Red +EXC
Pin B	-EXC	Pin 2 -EXC	Black -EXC
Pin C	+SIG	Pin 3 +SIG	White +SIG
Pin D	-SIG	Pin 4 -SIG	Green -SIG
Pin E	No Connection		
Pin F	No Connection		

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## PRESSURE MODELS

### UNI-DIRECTIONAL RANGES WITH 0 to 5 Vdc OUTPUTS

#### UNI-DIRECTIONAL VOLTAGE OUTPUT SPECIFICATIONS

**Output Voltage/Supply Voltage:** 0 to 5 Vdc/ 10 to 30 Vdc; 0 to 10 Vdc/15 to 30 Vdc (change "5V" to "10V" in model number)

**Current Draw:** 10 mA maximum

**Maximum Current Output:** 2 mA (= 2500 Ω minimum load resistance)

**Output Impedance:** 100 Ω

**Zero Balance:**

Ranges > 2.5psi: ±0.5% typical (1% maximum)

Ranges ≤ 2.5psi: ±1% typical (2% maximum)

**Span Setting:**

Ranges > 2.5psi: ±0.5% typical (1% maximum)

Ranges ≤ 2.5psi: ±1% typical (2% maximum)

#### CABLE TERMINATION\*

##### To Order

##### 0 to 5 Vdc OUTPUT, ¼ NPT MALE FITTINGS

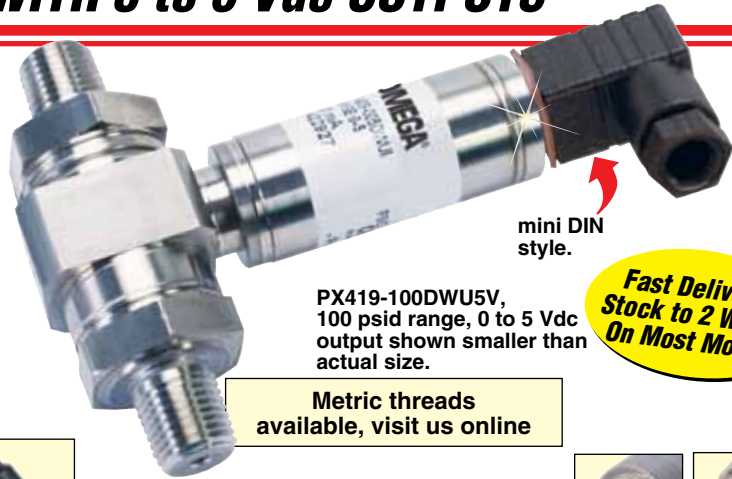
RANGE	METRIC	MODEL NO.
0 to 10 inH <sub>2</sub> O	25 mbar	PX409-10WDWU5V
0 to 1 psi	70 mbar	PX409-001DWU5V
0 to 2.5 psi	170 mbar	PX409-2.5DWU5V
0 to 5 psi	350 mbar	PX409-005DWU5V
0 to 15 psi	1 bar	PX409-015DWU5V
0 to 30 psi	2 bar	PX409-030DWU5V
0 to 50 psi	3.5 bar	PX409-050DWU5V
0 to 100 psi	7 bar	PX409-100DWU5V
0 to 150 psi	10 bar	PX409-150DWU5V
0 to 250 psi	17.5 bar	PX409-250DWU5V
0 to 500 psi	35 bar	PX409-500DWU5V
0 to 750 psi	50 bar	PX409-750DWU5V
0 to 1000 psi	70 bar	PX409-1.0KDWU5V

\* To order conduit fitting backend change model number from "PX409" to "PX409C", no additional cost.

#### MINI-DIN TERMINATION

##### 0 to 5 Vdc OUTPUT, ¼ NPT MALE FITTINGS

RANGE	METRIC	MODEL NO.
0 to 10 inH <sub>2</sub> O	25 mbar	PX419-10WDWU5V
0 to 1 psi	70 mbar	PX419-001DWU5V
0 to 2.5 psi	170 mbar	PX419-2.5DWU5V
0 to 5 psi	350 mbar	PX419-005DWU5V
0 to 15 psi	1 bar	PX419-015DWU5V
0 to 30 psi	2 bar	PX419-030DWU5V
0 to 50 psi	3.5 bar	PX419-050DWU5V
0 to 100 psi	7 bar	PX419-100DWU5V
0 to 150 psi	10 bar	PX419-150DWU5V
0 to 250 psi	17.5 bar	PX419-250DWU5V
0 to 500 psi	35 bar	PX419-500DWU5V
0 to 750 psi	50 bar	PX419-750DWU5V
0 to 1000 psi	70 bar	PX419-1.0KDWU5V



PX419-100DWU5V, 100 psid range, 0 to 5 Vdc output shown smaller than actual size.

mini DIN style.

**Fast Delivery!**  
Stock to 2 Weeks  
On Most Models

Metric threads available, visit us online

#### M12 or TWIST-LOCK TERMINATION

##### 0 to 5 Vdc OUTPUT, ¼ NPT MALE FITTINGS

RANGE	METRIC	MODEL NO.
0 to 10 inH <sub>2</sub> O	25 mbar	PX4[*]9-10WDWU5V
0 to 1 psi	70 mbar	PX4[*]9-001DWU5V
0 to 2.5 psi	170 mbar	PX4[*]9-2.5DWU5V
0 to 5 psi	350 mbar	PX4[*]9-005DWU5V
0 to 15 psi	1 bar	PX4[*]9-015DWU5V
0 to 30 psi	2 bar	PX4[*]9-030DWU5V
0 to 50 psi	3.5 bar	PX4[*]9-050DWU5V
0 to 100 psi	7 bar	PX4[*]9-100DWU5V
0 to 150 psi	10 bar	PX4[*]9-150DWU5V
0 to 250 psi	17.5 bar	PX4[*]9-250DWU5V
0 to 500 psi	35 bar	PX4[*]9-500DWU5V
0 to 750 psi	50 bar	PX4[*]9-750DWU5V
0 to 1000 psi	70 bar	PX4[*]9-1.0KDWU5V

Comes complete with 5-point NIST traceable calibration certificate.

[\*] Enter "5" for PX459 M12 connector or "2" for PX429 twist lock connector (mating PX429 connector sold separately).

**Note:** To order 0 to 10 Vdc output, change "5V" to "10V" in model number, no additional cost.

**Ordering Examples:** PX409-100DWU5V, 0 to 100 psi uni-directional wet/wet differential pressure range, 0 to 5 Vdc output, 0.08% accuracy, ¼ NPT fittings, 2 m (6') cable.

PX419-015DWU5V, 0 to 15 psi uni-directional wet/wet differential pressure range, 0 to 5 Vdc output, 0.08% accuracy, ¼ NPT fittings, mini DIN connector.

PX429-10WDWU5V, 0 to 10 inH<sub>2</sub>O uni-directional wet/wet differential pressure range, 0 to 5 Vdc output, 0.08% accuracy, ¼ NPT fittings, twist-lock connector plus PT06F10-6S, mating connector.

#### CONNECTIONS—VOLTAGE OUTPUT

PX429 TWIST-LOCK		PX419/PX459		PX409 CABLE	
Pin A	+EXC	Pin 1	+EXC	Red	+EXC
Pin B	-COM	Pin 2	-COM	Black	-EXC
Pin C	+SIG	Pin 3	+SIG	White	+SIG
Pin D	No Conn	Pin 4	No Conn	Green	No Conn
Pin E	No Connection				
Pin F	No Connection				

DIFFERENTIAL PRESSURE TRANSDUCERS **B**

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## PRESSURE MODELS UNI-DIRECTIONAL

### RANGES WITH 4 to 20 mA OUTPUTS

#### UNI-DIRECTIONAL mA SPECIFICATIONS

Output: 4 to 20 mA

Supply Voltage: 9 to 30 Vdc;  
[9 to 20 Vdc above 105°C (229°F)]

Max Loop Resistance: (Vs-9) x 50 Ω

Zero Balance:

Ranges > 2.5psi: ±0.5% typical (1% maximum)

Ranges ≤ 2.5psi: ±1% typical (2% maximum)

Span Setting:

Ranges > 2.5psi: ±0.5% typical (1% maximum)

Ranges ≤ 2.5psi: ±1% typical (2% maximum)

**Fast Delivery!**  
**Stock to 2 Weeks**  
**On Most Models**



Twist-lock style.

PX429-005DWUI, 5 psid range, 4 to 20 mA output, shown smaller than actual size.

Metric threads available, visit us online

#### CABLE TERMINATION\*

##### To Order

##### 4 to 20 mA OUTPUT, 1/4 NPT MALE FITTINGS

RANGE	METRIC	MODEL NO.
0 to 10 inH <sub>2</sub> O	25 mbar	PX409-10WDWUI
0 to 1 psi	70 mbar	PX409-001DWUI
0 to 2.5 psi	170 mbar	PX409-2.5DWUI
0 to 5 psi	350 mbar	PX409-005DWUI
0 to 15 psi	1 bar	PX409-015DWUI
0 to 30 psi	2 bar	PX409-030DWUI
0 to 50 psi	3.5 bar	PX409-050DWUI
0 to 100 psi	7 bar	PX409-100DWUI
0 to 150 psi	10 bar	PX409-150DWUI
0 to 250 psi	17.5 bar	PX409-250DWUI
0 to 500 psi	35 bar	PX409-500DWUI
0 to 750 psi	50 bar	PX409-750DWUI
0 to 1000 psi	70 bar	PX409-1.0KDWUI

\* To order conduit fitting backend change model number from "PX409" to "PX409C", no additional cost.

#### MINI DIN TERMINATION

##### 4 to 20 mA OUTPUT, 1/4 NPT MALE FITTINGS

RANGE	METRIC	MODEL NO.
0 to 10 inH <sub>2</sub> O	25 mbar	PX419-10WDWUI
0 to 1 psi	70 mbar	PX419-001DWUI
0 to 2.5 psi	170 mbar	PX419-2.5DWUI
0 to 5 psi	350 mbar	PX419-005DWUI
0 to 15 psi	1 bar	PX419-015DWUI
0 to 30 psi	2 bar	PX419-030DWUI
0 to 50 psi	3.5 bar	PX419-050DWUI
0 to 100 psi	7 bar	PX419-100DWUI
0 to 150 psi	10 bar	PX419-150DWUI
0 to 250 psi	17.5 bar	PX419-250DWUI
0 to 500 psi	35 bar	PX419-500DWUI
0 to 750 psi	50 bar	PX419-750DWUI
0 to 1000 psi	70 bar	PX419-1.0KDWUI

#### M12 or TWIST-LOCK TERMINATION

##### 4 to 20 mA OUTPUT, 1/4 NPT MALE FITTINGS

RANGE	METRIC	MODEL NO.
0 to 10 inH <sub>2</sub> O	25 mbar	PX4[*]9-10WDWUI
0 to 1 psi	70 mbar	PX4[*]9-001DWUI
0 to 2.5 psi	170 mbar	PX4[*]9-2.5DWUI
0 to 5 psi	350 mbar	PX4[*]9-005DWUI
0 to 15 psi	1 bar	PX4[*]9-015DWUI
0 to 30 psi	2 bar	PX4[*]9-030DWUI
0 to 50 psi	3.5 bar	PX4[*]9-050DWUI
0 to 100 psi	7 bar	PX4[*]9-100DWUI
0 to 150 psi	10 bar	PX4[*]9-150DWUI
0 to 250 psi	17.5 bar	PX4[*]9-250DWUI
0 to 500 psi	35 bar	PX4[*]9-500DWUI
0 to 750 psi	50 bar	PX4[*]9-750DWUI
0 to 1000 psi	70 bar	PX4[*]9-1.0KDWUI

Comes complete with 5-point NIST traceable calibration certificate.

[\*] Enter "5" for PX459 M12 connector or "2" for PX429 twist lock connector (mating PX429 connector sold separately).

Ordering Examples: PX409-100DWUI, 0 to 100 psi uni-directional wet/wet differential pressure range, 4 to 20 mA output, 0.08% accuracy, 1/4 NPT fittings, 2 m (6') cable.

PX419-015DWUI, 0 to 15 psi uni-directional wet/wet differential pressure range, 4 to 20 mA output, 0.08% accuracy, 1/4 NPT fittings, mini DIN connector.

PX429-10WDWUI, 0 to 10 inH<sub>2</sub>O uni-directional wet/wet differential pressure range, 4 to 20 mA output, 0.08% accuracy, 1/4 NPT fittings, twist-lock connector plus PT06F10-6S, mating connector.

#### CONNECTIONS—CURRENT OUTPUT

PX429 TWIST-LOCK		PX419/PX459		PX409 CABLE	
Pin A	+SUP	Pin 1	+SUP	Red	+SUP
Pin B	-SUP	Pin 2	-SUP	Black	-SUP
Pin C	No Conn	Pin 3	No Conn	White	No Conn
Pin D	No Conn	Pin 4	No Conn	Green	No Conn
Pin E	No Connection				
Pin F	No Connection				



# Sanitary Pressure Transducers and Transmitters

## Using Micro-Machined Silicon Technology

### 10 mV/V, 0 to 5 Vdc, 4 to 20 mA Outputs

**Gage Pressure:** 10 inH<sub>2</sub>O to 600 psi (25 mb to 41 bar)  
**Absolute Pressure:** 5 to 600 psi (345 mb to 41 bar)  
**Compound Gage:** ±10 inH<sub>2</sub>O to ±15 psi (±25 mb to ±1 bar)  
**Vacuum (Negative Gage):** 0 to -10 inH<sub>2</sub>O to 0 to -15 psi (25 mb to 1 bar)  
**Barometric Ranges:** 0 to 32 inHg to 26 to 32 inHg

Twist-lock style.

mini DIN style.

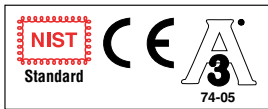
1½" or 2" Tri-Grip™ Fitting



PX429S15-015GV, shown smaller than actual size.

PX419S20-100AV, shown smaller than actual size.

## PX409S Tri-Grip™ Sanitary Series



- High, 0.08% Accuracy
- Solid State Sensor for Durability
- Excellent Long Term Stability
- Welded Stainless Steel Construction
- 316L SS Wetted Parts
- Shock and Vibration Rated
- High Overpressure Rating
- Ruggedized with Secondary Containment System

The PX409S Series micro-machined silicon transducers with 1½" or 2" sanitary fittings are ideal for pressure or level CIP applications in food processing, beverage or bio/pharmaceutical applications as well as industrial applications that require a rugged, high accuracy transducer.

The micro-machined silicon sensor provides a very stable transducer with exceptional high accuracy of 0.08% and a broad compensated range of -4 to 85°C (25 to 185°F). The modular construction allows for fast delivery of most configurations and fittings.

### Common Specifications

**Accuracy:** ±0.08% best straight line (linearity, hysteresis and repeatability combined) compound gage models calibrated in positive direction only

**Calibration:** 5-point NIST traceable calibration with zero and span values, calibrated in horizontal direction

**Zero Balance:** ±0.5% FS typical ±1% max (for ranges ≤ 5 psi ±1% typ. ±2% max)

**Span Setting:** ±0.5% FS typical ±1% max (for ranges ≤ 5 psi ±1% typ. ±2% max)

**Operating Temperature Range:** -15 to 115°C (-5 to 240°F)

### Compensated Temperature Range:

Ranges ≤ 5 psi: 4.4 to 60°C (40 to 140°F)

Ranges > 5 psi: -4 to 85°C (25 to 185°F)

### Temperature Compensation: Zero and Span Shift Over Compensated Range

Ranges ≤ 5 psi:

Zero: 1.00%

Span: 0.5%

Ranges > 5psi:

Zero: 0.50%

Span: 0.50%

### 26B & 26HB Barometric Range:

Zero: 1.00%

Span: 0.50%

### Minimum Isolation Between Case and Output Terminations:

100M Ω @ 50 Vdc

### Pressure Cycles: 1 million cycles

### Long Term Stability (1-Year):

±0.1% FS typical

**Shock:** 50 g, 11 mS half sine shock, (under test)

**Vibration:** ±20 g (under test)

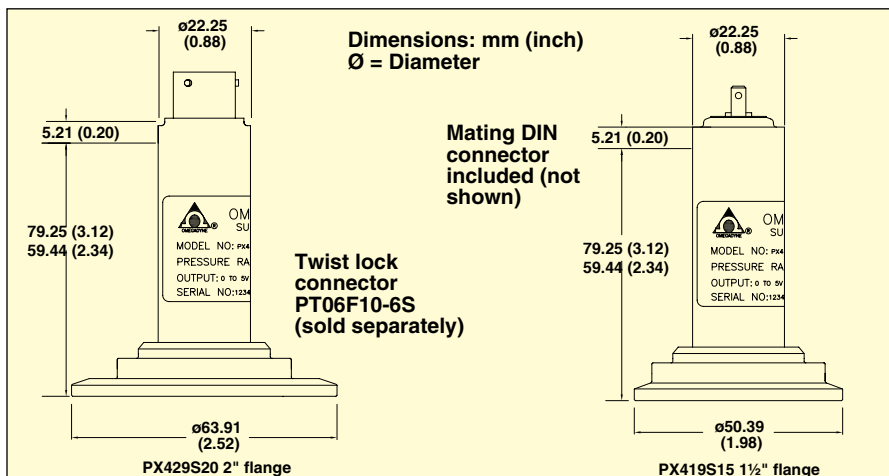
**Bandwidth:** DC to 1 kHz typical

**Response Time:** <1 mS

**Fill Fluid:** NEOBEE M5 food grade

### Approved to 3A Sanitary Specification 74-05

**CE Compliant:** Meets industrial emissions and immunity standard IEC61326 for industrial locations





**Environmental Protection:**

IP65 or IP67 depending upon electrical termination  
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**Pressure Rating:**

1½" and 2" Tri-Grip™ (compatible with Tri-Clamp®)

**Fitting:** 600 psi using suitable clamp

to maximum rated range pressure

**Secondary Containment:** 6 x rated pressure to a maximum of 2000 psi (not in clamp)

**Wetted Parts:**

316L SS  
 Weight: 205 g (10 oz)

## Sanitary Pressure Transducers Gage and Absolute Range

**Electrical Terminations****10 mV/V Output**

- ✓ 1½" or 2" Tri-Grip™ Fittings Available
- ✓ All Stainless Steel Construction
- ✓ High Reliability Silicon Sensor
- ✓ 3A Approved

**10 mV/V Output**

To Order			
Range		1½" Tri-Grip™ Fitting	2" Tri-Grip™ Fitting
psi	bar		
<b>Gage Pressure Models, 10 mV/V Output</b>			
0 to 10 inH <sub>2</sub> O	0 to 25 mb	PX4[*]9S15-10WGV	PX4[*]9S20-10WGV
0 to 1	0 to 69 mb	PX4[*]9S15-001GV	PX4[*]9S20-001GV
0 to 2.5	0 to 172 mb	PX4[*]9S15-2.5GV	PX4[*]9S20-2.5GV
0 to 5	0 to 345 mb	PX4[*]9S15-005GV	PX4[*]9S20-005GV
0 to 15	0 to 1	PX4[*]9S15-015GV	PX4[*]9S20-015GV
0 to 30	0 to 2.1	PX4[*]9S15-030GV	PX4[*]9S20-030GV
0 to 50	0 to 3.4	PX4[*]9S15-050GV	PX4[*]9S20-050GV
0 to 100	0 to 6.9	PX4[*]9S15-100GV	PX4[*]9S20-100GV
0 to 150	0 to 10.3	PX4[*]9S15-150GV	PX4[*]9S20-150GV
0 to 250	0 to 17.2	PX4[*]9S15-250GV	PX4[*]9S20-250GV
0 to 500	0 to 34.5	PX4[*]9S15-500GV	PX4[*]9S20-500GV
0 to 600	0 to 41.4	PX4[*]9S15-600GV	
<b>Absolute Pressure Models, 10 mV/V Output</b>			
0 to 5	0 to 345 mb	PX4[*]9S15-005AV	PX4[*]9S20-005AV
0 to 15	0 to 1	PX4[*]9S15-015AV	PX4[*]9S20-015AV
0 to 30	0 to 2.1	PX4[*]9S15-030AV	PX4[*]9S20-030AV
0 to 50	0 to 3.4	PX4[*]9S15-050AV	PX4[*]9S20-050AV
0 to 100	0 to 6.9	PX4[*]9S15-100AV	PX4[*]9S20-100AV
0 to 150	0 to 10.3	PX4[*]9S15-150AV	PX4[*]9S20-150AV
0 to 250	0 to 17.2	PX4[*]9S15-250AV	PX4[*]9S20-250AV
0 to 500	0 to 34.5	PX4[*]9S15-500AV	PX4[*]9S20-500AV
0 to 600	0 to 41.4	PX4[*]9S15-600AV	

**[\*] Select Electrical Termination Below (no extra charge)**

0 (PX409S) = 2 m (6') cable\*\*

1 (PX419S) = mini DIN connector (mating connector supplied)

2 (PX429S) = twist lock connector (mating connector PT06F10-6S sold separately)

5 (PX459S) = M12 connector (M12 cables sold separately, see accessories on next page)

\*\* To order with a ½ NPT conduit fitting, specify model **PX409CS**.

**Ordering Examples:** PX409S15-005GV, 2 m (6') cable termination, 1.5" Tri-Grip fitting, 5 psig range, 10 mV/V output.

PX419S20-10WGV, mini DIN connector, 2" Tri-Grip fitting, 10 inH<sub>2</sub>O range, 10 mV/V output.

PX429S15-050GV, twist lock connector, 1.5" Tri-Grip fitting, 50 psig range, 10 mV/V output. mating connector sold separately, PT06F10-6S.

PX459S15-100GV, M12 connector, 1.5" Tri-Grip fitting, 100 psig range, 10 mV/V output.

# Sanitary Pressure Transducers

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**Сanitary, vacuum and barometric ranges**

## Specifications (mV/V Output)

**Output:** 10 mV/V: ratiometric  
5 to 10 Vdc

**Supply:** 5 to 10 Vdc

**Accuracy:** ±0.08% BSL (linearity, hysteresis repeatability combined)  
compound gage models calibrated in positive direction only

### Electrical Terminations



## To Order

Range		1½ Tri-Grip™ Fitting	2" Tri-Grip™ Fitting
psi	mbar		
<b>Compound Gage Ranges</b>			
±10 inH <sub>2</sub> O	±25	PX4[*]9S15-10WCGV	PX4[*]9S20-10WCGV
±1	±69	PX4[*]9S15-001CGV	PX4[*]9S20-001CGV
±2.5	±172	PX4[*]9S15-2.5CGV	PX4[*]9S20-2.5CGV
±5	±345	PX4[*]9S15-005CGV	PX4[*]9S20-005CGV
±15	±1034	PX4[*]9S15-015CGV	PX4[*]9S20-015CGV
<b>Vacuum Ranges (Negative Gage, 0 = Ambient)</b>			
0 to -10 inH <sub>2</sub> O	0 to -25	PX4[*]9S15-10WVV	PX4[*]9S20-10WVV
0 to -1	0 to -69	PX4[*]9S15-001VV	PX4[*]9S20-001VV
0 to -2.5	0 to -172	PX4[*]9S15-2.5VV	PX4[*]9S20-2.5VV
0 to -5	0 to -345	PX4[*]9S15-005VV	PX4[*]9S20-005VV
0 to -15	0 to -1034	PX4[*]9S15-015VV	PX4[*]9S20-015VV
<b>Barometric Ranges (Absolute Pressure)</b>			
0 to 32 inHg	—	PX4[*]9S15-32BV	PX4[*]9S20-32BV
16 to 32 inHg	—	PX4[*]9S15-16BV	PX4[*]9S20-16BV
26 to 32 inHg	—	PX4[*]9S15-26BV	PX4[*]9S20-26BV
—	0 to 1100 hPa	PX4[*]9S15-32HBV	PX4[*]9S20-32HBV
—	550 to 1100 hPa	PX4[*]9S15-16HBV	PX4[*]9S20-16HBV
—	880 to 1100 hPa	PX4[*]9S15-26HBV	PX4[*]9S20-26HBV

## Accessories

Model No.	Description
M12C-PVC-4-S-F-5	PVC cable, straight 4-pin M12 female connector one end, flying leads one end, 5 m (16.4') long, for PX459
M12C-PVC-4-R-F-5	PVC cable, right angled 4-pin M12 female connector one end, flying leads one end 5 m (16.4') long, for PX459
PT06F10-65	Twist lock connector for PX429

[\*] Select Electrical Termination Below (no extra charge)

0 (PX409S) = 2 m (6') with flying leads\*\*

1 (PX419S) = mini DIN connector (mating connector supplied)

2 (PX429S) = twist lock connector (mating connector PT06F-10S sold separately)

5 (PX459S) = M12 connector (M12 cables sold separately see chart above)

\*\* To order with a ½ NPT conduit fitting, specify model PX409CS.

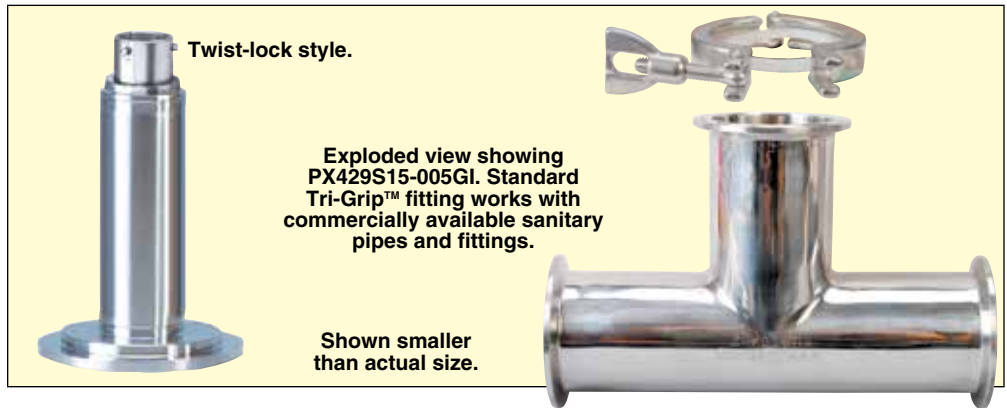
Custom configurations also available, see [omega.com/pxconfig](http://omega.com/pxconfig)

**Ordering Examples:** PX409S15-015CGV, cable termination, 1.5" Tri-grip fitting, ±15 psig range, 10 mV/V output.

PX459S20-001VV, M12 termination, 2" Tri-grip fitting, 0 to -1 psi (vacuum) range, 10 mV/V output.

PX419S15-16HBV, mini DIN termination, 1.5" Tri-grip fitting, 550 to 1100 hPa calibrated range, 10 mV/V output.

**0 to 5 Vdc or  
0 to 10 Vdc  
Output**



**0 to 5 or 0 to 10 Vdc Output**

- ✓ 1½" or 2" Tri-Grip™ Fittings Available
- ✓ All Stainless Steel Construction
- ✓ High Reliability Silicon Sensor
- ✓ 3A Approved



DP41-E, shown smaller than actual size.

<b>To Order</b>			
Range		1½" Tri-Grip™ Fitting	2" Tri-Grip™ Fitting
psi	bar		
<b>Gage Pressure Models, 0 to 5 Vdc Output</b>			
0 to 10 inH <sub>2</sub> O	0 to 25 mb	PX4[*]9S15-10WG5V	PX4[*]9S20-10WG5V
0 to 1	0 to 69 mb	PX4[*]9S15-001G5V	PX4[*]9S20-001G5V
0 to 2.5	0 to 172 mb	PX4[*]9S15-2.5G5V	PX4[*]9S20-2.5G5V
0 to 5	0 to 345 mb	PX4[*]9S15-005G5V	PX4[*]9S20-005G5V
0 to 15	0 to 1	PX4[*]9S15-015G5V	PX4[*]9S0-015G5V
0 to 30	0 to 2.1	PX4[*]9S15-030G5V	PX4[*]9S20-030G5V
0 to 50	0 to 3.4	PX4[*]9S15-050G5V	PX4[*]9S20-050G5V
0 to 100	0 to 6.9	PX4[*]9S15-100G5V	PX4[*]9S20-100G5V
0 to 150	0 to 10.3	PX4[*]9S15-150G5V	PX4[*]9S20-150G5V
0 to 250	0 to 17.2	PX4[*]9S15-250G5V	PX4[*]9S20-250G5V
0 to 500	0 to 34.5	PX4[*]9S15-500G5V	PX4[*]9S20-500G5V
0 to 600	0 to 41.4	PX4[*]9S15-600G5V	
<b>Absolute Pressure Models, 0 to 5 Vdc Output</b>			
0 to 5	0 to 345 mb	PX4[*]9S15-005A5V	PX4[*]9S20-005A5V
0 to 15	0 to 1	PX4[*]9S15-015A5V	PX4[*]9S0-015A5V
0 to 30	0 to 2.1	PX4[*]9S15-030A5V	PX4[*]9S20-030A5V
0 to 50	0 to 3.4	PX4[*]9S15-050A5V	PX4[*]9S20-050A5V
0 to 100	0 to 6.9	PX4[*]9S15-100A5V	PX4[*]9S20-100A5V
0 to 150	0 to 10.3	PX4[*]9S15-150A5V	PX4[*]9S20-150A5V
0 to 250	0 to 17.2	PX4[*]9S15-250A5V	PX4[*]9S20-250A5V
0 to 500	0 to 34.5	PX4[*]9S15-500A5V	PX4[*]9S20-500A5V
0 to 600	0 to 41.4	PX4[*]9S15-600A5V	

[\*] Select Electrical Termination Below (no extra charge)

0 (PX409S) = 2 m (6') cable\*\*

1 (PX419S) = mini DIN connector (mating connector supplied)

2 (PX429S) = twist Lock connector (mating connector PT06F10-6S not included)

5 (PX459S) = M12 connector (M12 cables sold separately, see accessories on next page)

\*\* To order with a ½ NPT conduit fitting, specify model **PX409CS**.

To order 0 to 10 Vdc output, change "5V" to "10V", no extra charge.

**Ordering Examples:** PX409S15-005G5V, 2 m (6') cable termination, 1.5" Tri-Grip fitting, 5 psig range, 0 to 5 Vdc output.

PX419S20-10WG5V, mini DIN connector, 2" Tri-Grip fitting, 10 inH<sub>2</sub>O range, 0 to 5 Vdc output.

PX429S15-050G10V, twist-lock connector, 1.5" Tri-Grip fitting, 50 psig range, 0 to 10 Vdc output, mating connector sold separately, PT06F10-6S.

PX459S15-100G5V, M12 connector, 1.5" Tri-Grip fitting, 100 psig range, 0 to 5 Vdc output.

# Sanitary Pressure Transmitters

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**Сanitary Pressure Transmitters**

## Electrical Terminations



## Specifications (Amplified Voltage Output)

Output/Supply:  
 0 to 5 Vdc: 10 to 30 Vdc  
 0 to 10 Vdc: 15 to 30 Vdc

Accuracy:  $\pm 0.08\%$  BSL (linearity, hysteresis repeatability combined)  
 compound gage models calibrated in positive direction only

## To Order

Range		1½ Tri-Grip™ Fitting	2 Tri-Grip™ Fitting
psi	mbar		
<b>Compound Gage Ranges</b>			
±10 inH <sub>2</sub> O	±25	PX4[*]9S15-10WCG5V	PX4[*]9S20-10WCG5V
±1	±69	PX4[*]9S15-001CG5V	PX4[*]9S20-001CG5V
±2.5	±172	PX4[*]9S15-2.5CG5V	PX4[*]9S20-2.5CG5V
±5	±345	PX4[*]9S15-005CG5V	PX4[*]9S20-005CG5V
±15	±1034	PX4[*]9S15-015CG5V	PX4[*]9S20-015CG5V
<b>Vacuum Ranges (Negative Gage, 0 = Ambient)</b>			
0 to -10 inH <sub>2</sub> O	0 to -25	PX4[*]9S15-10WV5V	PX4[*]9S20-10WV5V
0 to -1	0 to -69	PX4[*]9S15-001V5V	PX4[*]9S20-001V5V
0 to -2.5	0 to -172	PX4[*]9S15-2.5V5V	PX4[*]9S20-2.5V5V
0 to -5	0 to -345	PX4[*]9S15-005V5V	PX4[*]9S20-005V5V
0 to -15	0 to -1034	PX4[*]9S15-015V5V	PX4[*]9S20-015V5V
<b>Barometric Ranges (Absolute Pressure)</b>			
0 to 32 inHg	—	PX4[*]9S15-32B5V	PX4[*]9S20-32B5V
16 to 32 inHg	—	PX4[*]9S15-16B5V	PX4[*]9S20-16B5V
26 to 32 inHg	—	PX4[*]9S15-26B5V	PX4[*]9S20-26B5V
—	0 to 1100 hPa	PX4[*]9S15-32HB5V	PX4[*]9S20-32HB5V
—	550 to 1100 hPa	PX4[*]9S15-16HB5V	PX4[*]9S20-16HB5V
—	880 to 1100 hPa	PX4[*]9S15-26HB5V	PX4[*]9S20-26HB5V

## Accessories

Model No.	Description
M12C-PVC-4-S-F-5	PVC cable, straight 4-pin M12 female connector one end, flying leads one end, 5 m (16.4') long, for PX459
M12C-PVC-4-R-F-5	PVC cable, right angled 4-pin M12 female connector one end, flying leads one end 5 m (16.4') long, for PX459
PT06F10-65	Twist lock connector for PX429

### [\*] Select Electrical Termination Below (no extra charge)

- 0 (PX409S) = 2 m (6') with flying leads\*\*
- 1 (PX419S) = mini DIN connector (mating connector supplied)
- 2 (PX429S) = twist lock connector (mating connector PT06F-10S sold separately)
- 5 (PX459S) = M12 connector (M12 cables sold separately see chart above)

\*\* To order with a ½ NPT conduit fitting, specify model **PX409CS**.

To order 0 to 10 Vdc output, change "5V" to "10V", no extra charge.

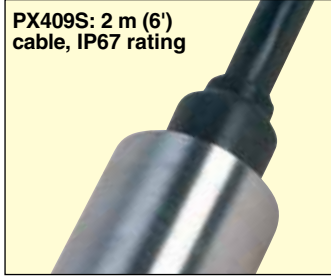
Ordering Examples: **PX409S15-015CG5V**, cable termination, 1.5" Tri-grip fitting, ±15 psig range, 0 to 5 Vdc output.

**PX459S20-001V5V**, M12 termination, 2" Tri-grip fitting, 0 to -1 psi (vacuum) range, 0 to 5 Vdc output.

**PX419S15-16HB10V**, mini DIN termination, 1.5" Tri-grip fitting, 550 to 1100 hPa calibrated range, 0 to 10 Vdc output.



**Electrical Terminations**



**4 to 20 mA**

- ✓ 1½" or 2" Tri-Grip™ Fittings Available
- ✓ All Stainless Steel Construction
- ✓ High Reliability Silicon Sensor
- ✓ 3A Approved

**4 to 20 mA Output**

<b>To Order</b>			
Range		1½" Tri-Grip™ Fitting	2" Tri-Grip™ Fitting
psi	bar		
<b>Gage Pressure Models, 4 to 20 mA Output</b>			
0 to 10 inH <sub>2</sub> O	0 to 25 mb	PX4[*]9S15-10WGI	PX4[*]9S20-10WGI
0 to 1	0 to 69 mb	PX4[*]9S15-001GI	PX4[*]9S20-001GI
0 to 2.5	0 to 172 mb	PX4[*]9S15-2.5GI	PX4[*]9S20-2.5GI
0 to 5	0 to 345 mb	PX4[*]9S15-005GI	PX4[*]9S20-005GI
0 to 15	0 to 1	PX4[*]9S15-015GI	PX4[*]9S20-015GI
0 to 30	0 to 2.1	PX4[*]9S15-030GI	PX4[*]9S20-030GI
0 to 50	0 to 3.4	PX4[*]9S15-050GI	PX4[*]9S20-050GI
0 to 100	0 to 6.9	PX4[*]9S15-100GI	PX4[*]9S20-100GI
0 to 150	0 to 10.3	PX4[*]9S15-150GI	PX4[*]9S20-150GI
0 to 250	0 to 17.2	PX4[*]9S15-250GI	PX4[*]9S20-250GI
0 to 500	0 to 34.5	PX4[*]9S15-500GI	PX4[*]9S20-500GI
0 to 600	0 to 41.4	PX4[*]9S15-600GI	
<b>Absolute Pressure Models, 4 to 20 mA Output</b>			
0 to 5	0 to 345 mb	PX4[*]9S15-005AI	PX4[*]9S20-005AI
0 to 15	0 to 1	PX4[*]9S15-015AI	PX4[*]9S20-015AI
0 to 30	0 to 2.1	PX4[*]9S15-030AI	PX4[*]9S20-030AI
0 to 50	0 to 3.4	PX4[*]9S15-050AI	PX4[*]9S20-050A
0 to 100	0 to 6.9	PX4[*]9S15-100AI	PX4[*]9S20-100AI
0 to 150	0 to 10.3	PX4[*]9S15-150AI	PX4[*]9S20-150AI
0 to 250	0 to 17.2	PX4[*]9S15-250AI	PX4[*]9S20-250AI
0 to 500	0 to 34.5	PX4[*]9S15-500AI	PX4[*]9S20-500AI
0 to 600	0 to 41.4	PX4[*]9S15-600AI	

[\*] Select Electrical Termination Below (no extra charge)

0 (PX409S) = 2 m (6') cable\*\*

1 (PX419S) = mini DIN connector (mating connector supplied)

2 (PX429S) = Twist Lock connector (mating connector PT06F10-6S sold separately)

5 (PX459S) = M12 connector (M12 cables sold separately, see accessories on next page)

\*\* To order with a ½ NPT conduit fitting, specify model **PX409CS**.

**Ordering Examples:** **PX409S15-005GI**, 2 m (6') cable termination, 1.5" Tri-Grip fitting, 5 psig range, 4 to 20 mA output.

**PX419S20-10WGI**, mini DIN connector, 2" Tri-Grip fitting, 10 inH<sub>2</sub>O range, 4 to 20 mA output.

**PX429S15-050GI**, twist-lock connector, 1.5" Tri-Grip fitting, 50 psig range, 4 to 20 mA output, mating connector sold separately, **PT06F10-6S**.

**PX459S15-100GI**, M12 connector, 1.5" Tri-Grip fitting, 100 psig range, 4 to 20 mA output.

# Sanitary Pressure Transmitters

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**Сanitary Pressure Transmitters, Vacuum and Barometric Range**

## Specifications)

### Output/Supply:

**Output:** 4 to 20 mAdc

**Supply:** 9 to 30 Vdc

[9 to 20 Vdc above 105°C (229°F)]

max loop res  $\Omega = (Vs-9) \times 50$

**Accuracy:**  $\pm 0.08\%$  BSL (linearity, hysteresis repeatability combined) compound gage models calibrated in positive direction only

**4 to 20 mA  
Output**

### Electrical Terminations



To Order			
Range		1½ Tri-Grip™ Fitting	2" Tri-Grip™ Fitting
psi	mbar		
<b>Compound Gage Ranges</b>			
±10 inH <sub>2</sub> O	±25	PX4[*]9S15-10WCGI	PX4[*]9S20-10WCGI
±1	±69	PX4[*]9S15-001CGI	PX4[*]9S20-001CGI
±2.5	±172	PX4[*]9S15-2.5CGI	PX4[*]9S20-2.5CGI
±5	±345	PX4[*]9S15-005CGI	PX4[*]9S20-005CGI
±15	±1034	PX4[*]9S15-015CGI	PX4[*]9S20-015CGI
<b>Vacuum Ranges (Negative Gage, 0 = Ambient)</b>			
0 to -10 inH <sub>2</sub> O	0 to -25	PX4[*]9S15-10WVI	PX4[*]9S20-10WVI
0 to -1	0 to -69	PX4[*]9S15-001VI	PX4[*]9S20-001VI
0 to -2.5	0 to -172	PX4[*]9S15-2.5VI	PX4[*]9S20-2.5VI
0 to -5	0 to -345	PX4[*]9S15-005VI	PX4[*]9S20-005VI
0 to -15	0 to -1034	PX4[*]9S15-015VI	PX4[*]9S20-015VI
<b>Barometric Ranges (Absolute Pressure)</b>			
0 to 32 inHg	—	PX4[*]9S15-32BI	PX4[*]9S20-32BI
16 to 32 inHg	—	PX4[*]9S15-16BI	PX4[*]9S20-16BI
26 to 32 inHg	—	PX4[*]9S15-26BI	PX4[*]9S20-26BI
—	0 to 1100 hPa	PX4[*]9S15-32HBI	PX4[*]9S20-32HBI
—	550 to 1100 hPa	PX4[*]9S15-16HBI	PX4[*]9S20-16HBI
—	880 to 1100 hPa	PX4[*]9S15-26HBI	PX4[*]9S20-26HBI

### Accessories

Model No.	Description
M12C-PVC-4-S-F-5	PVC cable, straight 4-pin M12 female connector one end, flying leads one end, 5 m (16.4') long, for PX459
M12C-PVC-4-R-F-5	PVC cable, right angled 4-pin M12 female connector one end, flying leads one end 5 m (16.4') long, for PX459
PT06F10-65	Twist lock connector for PX429

[\*] Select Electrical Termination Below (no extra charge)

0 (PX409S) = 2 m (6') cable with flying leads\*\*

1 (PX419S) = mini DIN cable (mating connector included)

2 (PX429S) = twist-lock connector (mating connector PT06F-10S sold separately)

5 (PX459S) = M12 connector, (M12 cables sold separately see chart above)

\*\* For ½ NPT conduit connector order model PX409CS

Custom configurations also available, see [omega.com/pxconfig](http://omega.com/pxconfig)


**Ordering Examples:** PX409S15-015CGI, cable termination, 1.5" Tri-grip fitting, ±15 psig range, 4 to 20 mA output.

PX459S20-001VI, M12 termination, 2" Tri-grip fitting, 0 to -1 psi (vacuum) range, 4 to 20 mA output.

PX419S15-16HBI, mini DIN termination, 1.5" Tri-grip fitting, 550 to 1100 hPa calibrated range, 4 to 20 mA output.

All images shown smaller than actual size.

Cable style.



PX409S Series

PX409 Cable Connection			
Color	mV	5/10V	mA
Black	- EXC	Common	- Supply
White	+ SIG	+ Output	NC
Green	- SIG	NC	NC
Red	+ EXC	+ EXC	+ Supply


mini DIN and M12 style.



PX419S Series  
PX459S M12 connector.

PX419/PX459 Pinout			
Pin	mV	5/10V	mA
1	+ EXC	+ EXC	+ Supply
2	- EXC	Common	- Supply
3	+ SIG	+ Output	NC
4	- SIG	NC	NC

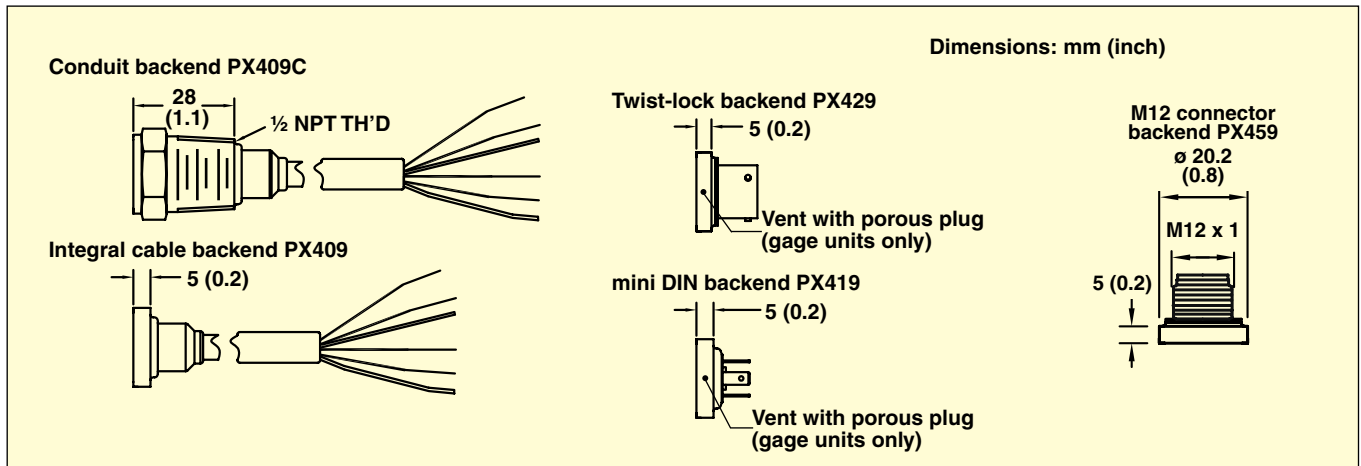
Twist-lock style.



PX429S Series

PX429 Twist-Lock Pinout			
Pin	mV	5/10V	mA
A	+ EXC	+ EXC	+ Supply
B	- EXC	Common	- Supply
C	+ SIG	+ Output	NC
D	- SIG	NC	NC
E	NC	NC	NC
F	NC	NC	NC

NC = No Connection.



**Compatible Meters and Accessories**

Meters	
Model No.	Description
DP41-S	6-digit high accuracy (0.005%) process meter for use with milli voltage and strain gage bridge output models
DP41-E	6-digit high accuracy (0.005%) meter for use with voltage and current output models
DP25B-E	4-digit precision process meter for use with voltage and current output models
Accessories	
CX5302	Extra mini DIN connector for PX419 Series
PT06F10-6S	Mating twist lock connector for PX429 Series
M12C-PVC-4-S-F-5	PVC cable, straight 4-pin M12 female connector one end, flying leads one end, 5 m (16.4') long, for PX459
M12C-PVC-4-R-F-5	PVC cable, right angled 4-pin M12 female connector one end, flying leads one end 5 m (16.4') long, for PX459

**Using Micro-Machined Silicon Technology**  
**10 mV/V, 0 to 5 Vdc, 4 to 20 mA Outputs**

**Gage or Absolute Pressures**  
**10 inH<sub>2</sub>O to 600 psi**  
**(25 mbar to 41 bar)**  
**Gage 5 psi to 500 psi**  
**(344 mb to 34.5 bar) Absolute**  
**1½" or 2" Tri-Grip Fitting**

**PX409S Tri-Grip™**  
**Sanitary Series**



- ✓ High, 0.08%, Accuracy
- ✓ Solid State Sensor for Durability
- ✓ Excellent Long Term Stability
- ✓ Welded Stainless Steel Construction
- ✓ 316L SS Wetted Parts
- ✓ Shock and Vibration Rated
- ✓ High Overpressure Rating
- ✓ Ruggedized with Secondary Containment

The PX409S Series micro-machined silicon transducers with 1½ or 2" sanitary fittings are ideal for pressure or level CIP applications in food processing, beverage or bio/pharmaceutical applications as well as industrial applications that require a rugged, high accuracy transducer. The micro-machined silicon sensor provides a very stable transducer with exceptional high accuracy of 0.08% and a broad compensated range of -6.7 to 85°C (20 to 185°F). The modular construction allows for fast delivery of most configurations and fittings.

**Specifications**

**Accuracy:** 0.08% Best Straight Line (Linearity, Hysteresis and Repeatability combined)

**Operating Temperature Range:** -15 to 115°C (-5 to 240°F)

**Compensated Temperature Range:** -6.7 to 85°C (20 to 185°F)

**Temperature Compensation:**  
 4.4°C to 60°C (40°F to 140°F) for ranges ≤5 PSI  
 -4.4°C to 85°C (25°F to 185°F) for ranges >5 PSI



Twist-lock style.

PX429S15-015GV, shown smaller than actual size.

1½ or 2" Tri-Grip™ Fitting



mini DIN style.

PX419S20-100AV, shown smaller than actual size.

**Temperature Compensation:**

Zero and span combined  
 > 5 psi: 1% over 55.6°C (100°F) range  
 ≤ 5 psi: 2% over 55.6°C (100°F) range

**Min Isolation Between Case and Output Terminations:**  
 100 MΩ @ 50 Vdc

**Pressure Cycles:** 1 million, minimum

**Long Term Stability (1-Year):** ±0.1% FS typ.

**Shock:** 50 g, 11 ms half sine shock, (under test)

**Vibration:** ±20 g (under test)

**Bandwidth:** DC to 1 kHz typical

**Response Time:** <1 ms

**Fill Fluid:** NEOBEE M5 Food grade

**Designed to Meet or Exceed 3A Sanitary Specification 74-05**

**CE Compliant:** Meets industrial emissions and immunity standard IEC61326

**Environmental Protection:** IP65 or IP67 depending upon electrical termination

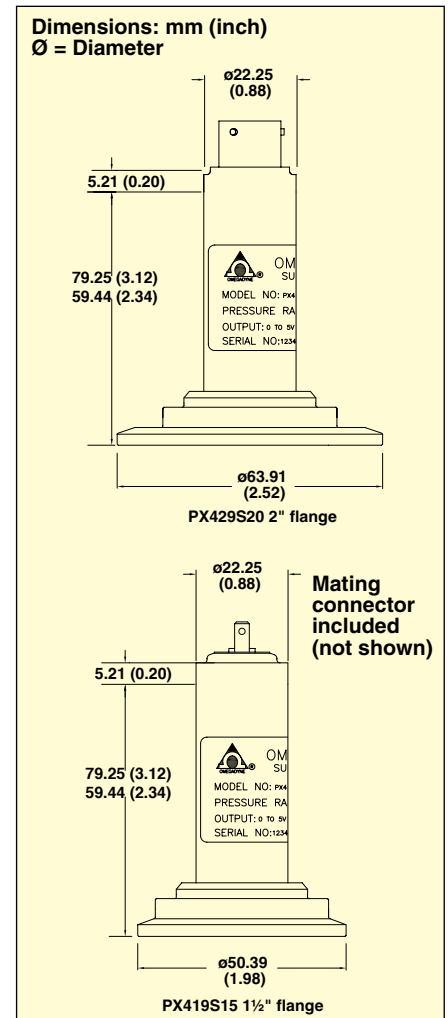
**Pressure Rating:** 1½" and 2" Tri-Grip™ (Tri-Clamp® compatible) fitting: 600 psi using suitable clamp

**Over Pressure:** 4 x rated pressure to maximum rated flange pressure

**Secondary Containment:** 6 x rated pressure to a maximum of 2000 psi (not in clamp)

**Wetted Parts:** 316L SS

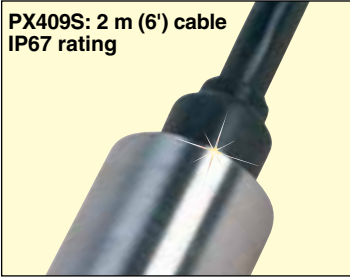
**Weight:** 285 gm (10 oz)





**10 mV/V  
Output**

**Electrical Terminations**



**Specifications (10 mV/V  
Output)**

**Output/ Supply:** 10 mV/V;  
Ratiometric 5 to 10 Vdc  
**Accuracy:** ±0.08% BSL  
(linearity, hysteresis repeatability  
combined)

**Zero Balance:** ±0.5% FS typical  
1% max (For ranges ≤ 5 psi  
±1% typ ±2% max)  
**Span Setting:** ±0.5% FS typical 1%  
max (For ranges ≤ 5 psi ±1% typ  
±2% max) Calibrated in horizontal  
position

<b>To Order</b>			
Range		1½" Tri-Grip™ Fitting	2" Tri-Grip™ Fitting
psi	bar		
<b>Gage Pressure Models, 10 mV/V Output</b>			
0 to 10 inH <sub>2</sub> O	0 to 25 mb	PX4[*]9S15-10WGV	PX4[*]9S20-10WGV
0 to 1	0 to 69 mb	PX4[*]9S15-001GV	PX4[*]9S20-001GV
0 to 2.5	0 to 172 mb	PX4[*]9S15-2.5GV	PX4[*]9S20-2.5GV
0 to 5	0 to 345 mb	PX4[*]9S15-005GV	PX4[*]9S20-005GV
0 to 15	0 to 1	PX4[*]9S15-015GV	PX4[*]9S20-015GV
0 to 30	0 to 2.1	PX4[*]9S15-030GV	PX4[*]9S20-030GV
0 to 50	0 to 3.4	PX4[*]9S15-050GV	PX4[*]9S20-050GV
0 to 100	0 to 6.9	PX4[*]9S15-100GV	PX4[*]9S20-100GV
0 to 150	0 to 10.3	PX4[*]9S15-150GV	PX4[*]9S20-150GV
0 to 250	0 to 17.2	PX4[*]9S15-250GV	PX4[*]9S20-250GV
0 to 500	0 to 34.5	PX4[*]9S15-500GV	PX4[*]9S20-500GV
0 to 600	0 to 41.4	PX4[*]9S15-600GV	
<b>Absolute Pressure Models, 10 mV/V Output</b>			
0 to 5	0 to 345 mb	PX4[*]9S15-005AV	PX4[*]9S20-005AV
0 to 15	0 to 1	PX4[*]9S15-015AV	PX4[*]9S20-015AV
0 to 30	0 to 2.1	PX4[*]9S15-030AV	PX4[*]9S20-030AV
0 to 50	0 to 3.4	PX4[*]9S15-050AV	PX4[*]9S20-050A
0 to 100	0 to 6.9	PX4[*]9S15-100AV	PX4[*]9S20-100AV
0 to 150	0 to 10.3	PX4[*]9S15-150AV	PX4[*]9S20-150AV
0 to 250	0 to 17.2	PX4[*]9S15-250AV	PX4[*]9S20-250AV
0 to 500	0 to 34.5	PX4[*]9S15-500AV	PX4[*]9S20-500AV
0 to 600	0 to 41.4	PX4[*]9S15-600AV	

**[\*] Select Electrical Termination Below**

- 0 (PX409S) = 2 m (6') cable\*\*
- 1 (PX419S) = mini DIN connector (mating connector supplied)
- 2 (PX429S) = Twist Lock connector (mating connector PT06F10-6S not included)
- 5 (PX459S) = M12 connector (mating connector not included)

\*\* To order with a ½ NPT conduit fitting, specify model **PX409CS**.

**Ordering Examples:** **PX409S15-005GV**, 2 m (6') cable termination, 1.5" Tri-Grip fitting, 5 psig range, 10 mV/V output.

**PX419S20-10WGV**, mini DIN connector, 2" Tri-Grip fitting, 10 inH<sub>2</sub>O range, 10 mV/V output.

**PX429S15-050GV**, twist-lock connector, 1.5" Tri-Grip fitting, 50 psig range, 10 mV/V output, mating connector sold separately, **PT06F10-6S**.

**PX459S15-100GV**, M12 connector, 1.5" Tri-Grip fitting, 100 psig range, 10 mV/V output.

0 to 5/  
0 to 10 Vdc  
Output

### Specifications (Amplified Voltage Output)

#### Output/ Supply:

0 to 5 Vdc: 10 to 30 Vdc @ 10 mA

0 to 10 Vdc: 15 to 30 Vdc @  
10 mA

**Accuracy:** ±0.08% BSL (linearity,  
hysteresis repeatability  
combined)

**Zero Balance:** ±0.5% FS typical  
±1% max (For ranges ≤ 5 psi  
±1% typ ±2% max)

**Span Setting:** ±0.5% FS typical  
1% max (For ranges ≤ 5 psi  
±1% typ ±2% max) calibrated in  
horizontal position



### To Order

Range		1½" Tri-Grip™ Fitting	2" Tri-Grip™ Fitting
psi	bar		
<b>Gage Pressure Models, 0 to 5 Vdc Output</b>			
0 to 10 inH <sub>2</sub> O	0 to 25 mb	PX4[*]9S15-10WG5V	PX4[*]9S20-10WG5V
0 to 1	0 to 69 mb	PX4[*]9S15-001G5V	PX4[*]9S20-001G5V
0 to 2.5	0 to 172 mb	PX4[*]9S15-2.5G5V	PX4[*]9S20-2.5G5V
0 to 5	0 to 345 mb	PX4[*]9S15-005G5V	PX4[*]9S20-005G5V
0 to 15	0 to 1	PX4[*]9S15-015G5V	PX4[*]9S20-015G5V
0 to 30	0 to 2.1	PX4[*]9S15-030G5V	PX4[*]9S20-030G5V
0 to 50	0 to 3.4	PX4[*]9S15-050G5V	PX4[*]9S20-050G5V
0 to 100	0 to 6.9	PX4[*]9S15-100G5V	PX4[*]9S20-100G5V
0 to 150	0 to 10.3	PX4[*]9S15-150G5V	PX4[*]9S20-150G5V
0 to 250	0 to 17.2	PX4[*]9S15-250G5V	PX4[*]9S20-250G5V
0 to 500	0 to 34.5	PX4[*]9S15-500G5V	PX4[*]9S20-500G5V
0 to 600	0 to 41.4	PX4[*]9S15-600G5V	
<b>Absolute Pressure Models, 0 to 5 Vdc Output</b>			
0 to 5	0 to 345 mb	PX4[*]9S15-005A5V	PX4[*]9S20-005A5V
0 to 15	0 to 1	PX4[*]9S15-015A5V	PX4[*]9S20-015A5V
0 to 30	0 to 2.1	PX4[*]9S15-030A5V	PX4[*]9S20-030A5V
0 to 50	0 to 3.4	PX4[*]9S15-050A5V	PX4[*]9S20-050A
0 to 100	0 to 6.9	PX4[*]9S15-100A5V	PX4[*]9S20-100A5V
0 to 150	0 to 10.3	PX4[*]9S15-150A5V	PX4[*]9S20-150A5V
0 to 250	0 to 17.2	PX4[*]9S15-250A5V	PX4[*]9S20-250A5V
0 to 500	0 to 34.5	PX4[*]9S15-500A5V	PX4[*]9S20-500A5V
0 to 600	0 to 41.4	PX4[*]9S15-600A5V	

#### [\*] Select Electrical Termination

0 (PX409S) = 2 m (6') cable\*\*

1 (PX419S) = mini DIN connector (mating connector supplied)

2 (PX429S) = Twist Lock connector (mating connector PT06F10-6S not included)

5 (PX459S) = M12 connector (mating connector not included)

\*\* To order with a ½ NPT conduit fitting, specify model **PX409CS**.

To order 0 to 10 Vdc output, change "5V" to "10V", no extra charge.

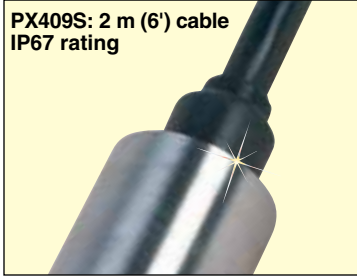
**Ordering Examples:** PX409S15-005G5V, 2 m (6') cable termination, 1.5" Tri-Grip fitting, 5 psig range, 0 to 5 Vdc output.

PX419S20-10WG5V, mini DIN connector, 2" Tri-Grip fitting, 10 inH<sub>2</sub>O range, 0 to 5 Vdc output.

PX429S15-050G10V, Twist-lock connector, 1.5" Tri-Grip fitting, 50 psig range, 0 to 10 Vdc output, mating connector sold separately, PT06F10-6S.

PX459S15-100G5V, M12 connector, 1.5" Tri-Grip fitting, 100 psig range, 0 to 5 Vdc output.

**Electrical Terminations**



**Specifications  
(4 to 20 mA Output)**

**Output:** 4 to 20 mA  
**Supply Voltage:** 9 to 30 Vdc  
[9 to 20 Vdc above 105°C (229°F)]  
max loop res  $\Omega = (V_s - 90) \times 50$   
**Accuracy:**  $\pm 0.08\%$  BSL (linearity,  
hysteresis repeatability combined)

**Zero Balance:**  $\pm 0.5\%$  FS typical 1%  
max (For ranges  $\leq 5$  psi  $\pm 1\%$   
typ  $\pm 2\%$  max)  
**Span Setting:**  $\pm 0.5\%$  FS typical 1%  
max (For ranges  $\leq 5$  psi  $\pm 1\%$  typ  
2% max) Calibrated in horizontal  
position

**4 to 20 mA  
Output**

<b>To Order</b>			
Range		1½" Tri-Grip™ Fitting	2" Tri-Grip™ Fitting
psi	bar		
<b>Gage Pressure Models, 4 to 20 mA Output</b>			
0 to 10 inH <sub>2</sub> O	0 to 25 mb	PX4[*]9S15-10WGI	PX4[*]9S20-10WGI
0 to 1	0 to 69 mb	PX4[*]9S15-001GI	PX4[*]9S20-001GI
0 to 2.5	0 to 172 mb	PX4[*]9S15-2.5GI	PX4[*]9S20-2.5GI
0 to 5	0 to 345 mb	PX4[*]9S15-005GI	PX4[*]9S20-005GI
0 to 15	0 to 1	PX4[*]9S15-015GI	PX4[*]9S0-015GI
0 to 30	0 to 2.1	PX4[*]9S15-030GI	PX4[*]9S20-030GI
0 to 50	0 to 3.4	PX4[*]9S15-050GI	PX4[*]9S20-050GI
0 to 100	0 to 6.9	PX4[*]9S15-100GI	PX4[*]9S20-100GI
0 to 150	0 to 10.3	PX4[*]9S15-150GI	PX4[*]9S20-150GI
0 to 250	0 to 17.2	PX4[*]9S15-250GI	PX4[*]9S20-250GI
0 to 500	0 to 34.5	PX4[*]9S15-500GI	PX4[*]9S20-500GI
0 to 600	0 to 41.4	PX4[*]9S15-600GI	
<b>Absolute Pressure Models, 4 to 20 mA Output</b>			
0 to 5	0 to 345 mb	PX4[*]9S15-005AI	PX4[*]9S20-005AI
0 to 15	0 to 1	PX4[*]9S15-015AI	PX4[*]9S0-015AI
0 to 30	0 to 2.1	PX4[*]9S15-030AI	PX4[*]9S20-030AI
0 to 50	0 to 3.4	PX4[*]9S15-050AI	PX4[*]9S20-050A
0 to 100	0 to 6.9	PX4[*]9S15-100AI	PX4[*]9S20-100AI
0 to 150	0 to 10.3	PX4[*]9S15-150AI	PX4[*]9S20-150AI
0 to 250	0 to 17.2	PX4[*]9S15-250AI	PX4[*]9S20-250AI
0 to 500	0 to 34.5	PX4[*]9S15-500AI	PX4[*]9S20-500AI
0 to 600	0 to 41.4	PX4[*]9S15-600AI	

**[\*] Select Electrical Termination**

- 0 (PX409S) = 2 m (6') cable\*\*
- 1 (PX419S) = mini DIN connector (mating connector supplied)
- 2 (PX429S) = Twist Lock connector (mating connector PT06F10-6S not included)
- 5 (PX459S) = M12 connector (mating connector not included)

\*\* To order with a ½ NPT conduit fitting, specify model **PX409CS**.

**Ordering Examples:** **PX409S15-005GI**, 2 m (6') cable termination, 1.5" Tri-Grip fitting, 5 psig range, 4 to 20 mA output.

**PX419S20-10WGI**, mini DIN connector, 2" Tri-Grip fitting, 10 inH<sub>2</sub>O range, 4 to 20 mA output.

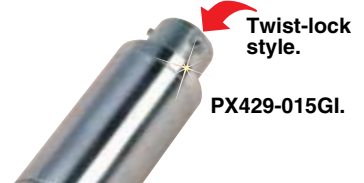
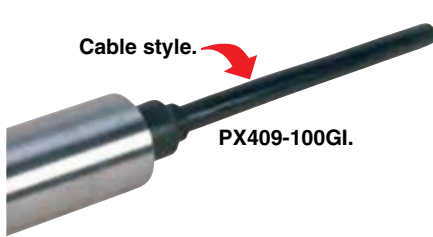
**PX429S15-050GI**, Twist-lock connector, 1.5" Tri-Grip fitting, 50 psig range, 4 to 20 mA output, mating connector sold separately, **PT06F10-6S**.

**PX459S15-100GI**, M12 connector, 1.5" Tri-Grip fitting, 100 psig range, 4 to 20 mA output.

# High Accuracy Pressure Transducers

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

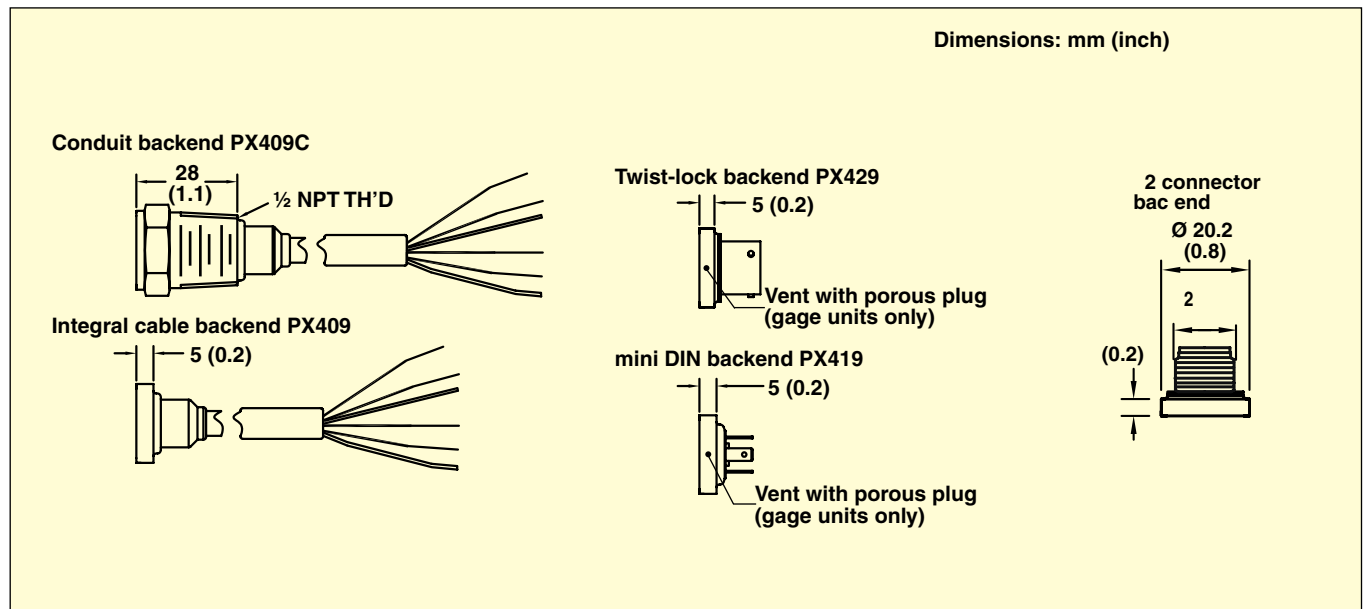
All images shown smaller than actual size.



PX409 Cable Connection			
Color	mV	5/10V	mA
Black	- EXC	Common	- Supply
White	+ SIG	+ Output	NC
Green	- SIG	NC	NC
Red	+ EXC	+ EXC	+ Supply

PX419/PX459 Pinout			
Pin	mV	5/10V	mA
1	+ EXC	+ EXC	+ Supply
2	- EXC	Common	- Supply
3	+ SIG	+ Output	NC
4	- SIG	NC	NC

PX429 Twist-Lock Pinout			
Pin	mV	5/10V	mA
A	+ EXC	+ EXC	+ Supply
B	- EXC	Common	- Supply
C	+ SIG	+ Output	NC
D	- SIG	NC	NC
E	NC	NC	NC
F	NC	NC	NC



## Compatible Meters and Accessories

Meters	
Model No.	Description
DP41-S	6-digit high accuracy (0.005%) process meter for use with millivolt and strain gage bridge output models
DP41-B	6-digit high accuracy (0.005%) universal meter for use with voltage and current output models also accepts thermocouple and RTD inputs
DP25B-E	4-digit precision process meter for use with voltage and current output models
Accessories	
CX5302	Extra mini DIN connector for PX419 Series
PT06F10-6S	Mating twist lock connector for PX429 Series

M12 Cables	Description
M12C-PVC-4-S-F-5	PVC cable, straight 4-pin M12 female connector one end, flying leads one end, 5 m (16.4') long
M12C-PVC-4-R-F-5	PVC cable, right angled 4-pin M12 female connector one end, flying leads one end 5 m (16.4') long

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)



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# Sanitary Pressure Transducers with Metric Ranges High 0.08% Accuracy



**Gage Pressure: 25 mb to 40 bar**  
**Absolute Pressure: 350 mb to 40 bar**  
**Compound Gage: ±25 mbar to ±1 bar**  
**Vacuum (Negative Gage): 0 to -25 mbar to 0 to -1 bar**  
**Barometric Ranges: 0,550 or 880 hPa to 1100 hPa**

mini DIN  
style.

1½ or 2"  
Tri-Grip™ Fitting

## PXM409S Tri-Grip™ Sanitary Series



- ✓ High 0.08% Accuracy
- ✓ Solid State Sensor for Long Term Stability
- ✓ Welded Stainless Steel Construction
- ✓ 316L SS Wetted Parts
- ✓ Shock and Vibration Rated
- ✓ High Overpressure Rating
- ✓ Ruggedized with Secondary Containment System
- ✓ Industrial CE Rating

PXM419S20-001BAV, shown smaller than actual size.



The PXM409S Sanitary Metric range Series micromachined silicon transducers with 1½ or 2" sanitary fittings are ideal for pressure or level CIP applications in food processing, beverage, dairy, or bio/ pharmaceutical applications. They are also rugged enough for most industrial applications requiring a high accuracy CIP transducer. The micromachined silicon sensor provides a very stable reading with exceptional high accuracy of 0.08% and a broad compensated temperature range of -4 to 85°C on most ranges. The modular construction allows for fast delivery of most configurations and fittings. Plus, customized models also can be delivered quickly to suit your exact needs.

**Operating Temperature Range:**  
-15 to 115°C (-5 to 240°F)

**Compensated Temperature Range:**

≤350 mb: 4.4 to 60°C (40 to 140°F)

>350 mb: -4 to 85°C (25 to 185°F)

**Temperature Compensation**

**Zero and Span Shift Over Compensated Range:**

170 mb: **Zero:** 1.00%

**Span:** 1.00%

> 350 mb: **Zero:** 0.50%

**Span:** 0.50%

**550H and 880H Barometric Range:**

**Zero:** 1.00%

**Span:** 0.50%

**Minimum Isolation Between Case and Output Terminations:**

100 M Ω @ 50 Vdc

**Pressure Cycles:** 1 million, minimum

**Long Term Stability (1-Year):**

±0.1% full scale typical

**Shock:** 50 g, 11 mS half sine shock, (under test)

**Vibration:** ±20 g (under test)

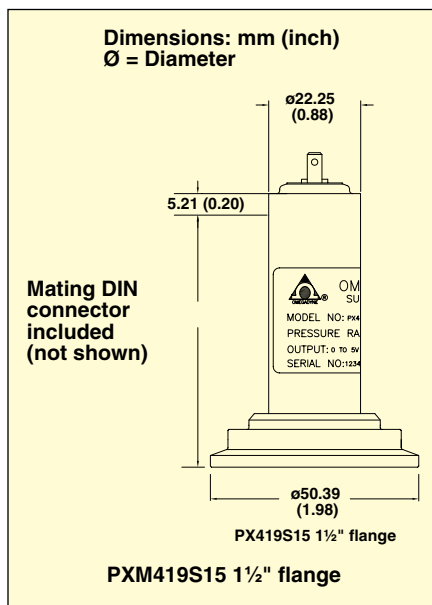
## COMMON SPECIFICATIONS

**Accuracy:** ±0.08% Best Straight Line (Linearity, Hysteresis and Repeatability combined) Compound Gage models calibrated in positive direction only

**Calibration:** 5-point NIST traceable calibration with zero and span values, calibrated in horizontal direction

**Zero Balance:** ±0.5% full scale typical ±1% maximum (for ranges ≤350 mb ±1% typical ±2% maximum)

**Span Setting:** ±0.5% full scale typical ±1% maximum (for ranges ≤350 mb ±1% typical ±2% maximum)



**Bandwidth:** DC to 1 kHz typical

**Response Time:** <1 mS

**Fill Fluid:** NEOBEE M5 Food Grade

**Approved to 3A Sanitary Specification 74-05**

**CE Compliant:** Meets industrial emissions and immunity standard IEC61326

**Environmental Protection:**

IP65 or IP67 depending upon electrical termination

**Pressure Rating:** 1½" and 2" Tri-Grip™ (compatible the Tri-Clamp®)

**Fitting:** 40 bar using suitable clamp

**Over Pressure:** 4 x rated pressure to maximum rated flange pressure

**Secondary Containment:** 6 x rated pressure to a maximum of 138 bar (not in clamp)

**Wetted Parts:** 316L SS

**Weight:** 285 g (10 oz)

## Sanitary Pressure Transducers Gage and Absolute Pressure Ranges

### 10 mV/V Output

- ✓ 1½ or 2" Tri-Grip™ Fittings Available
- ✓ All Stainless Steel Construction
- ✓ High Reliability Silicon Sensor
- ✓ 3A Approved



DP25B-S shown smaller than actual size. Visit [omega.com/dp25b\\_s](http://omega.com/dp25b_s)

To Order		
bar	1½" Tri-Grip™ Fitting	2" Tri-Grip™ Fitting
<b>Gage Pressure Models, 10 mV/V Output</b>		
0 to 25 mb	PXM4[*]9S15-025HGV	PXM4[*]9S20-025HGV
0 to 70 mb	PXM4[*]9S15-070HGV	PXM4[*]9S20-070HGV
0 to 170 mb	PXM4[*]9S15-170HGV	PXM4[*]9S20-170HGV
0 to 350 mb	PXM4[*]9S15-350HGV	PXM4[*]9S20-350HGV
0-1 bar	PXM4[*]9S15-001BGV	PXM4[*]9S20-001BGV
0 to 2	PXM4[*]9S15-002BGV	PXM4[*]9S20-002BGV
0 to 3.5	PXM4[*]9S15-3.5BGV	PXM4[*]9S20-3.5BGV
0 to 7	PXM4[*]9S15-007BGV	PXM4[*]9S20-007BGV
0 to 10	PXM4[*]9S15-010BGV	PXM4[*]9S20-010BGV
0 to 17.5	PXM4[*]9S15-17.5BGV	PXM4[*]9S20-17.5BGV
0 to 35	PXM4[*]9S15-035BGV	PXM4[*]9S20-035BGV
0 to 40	PXM4[*]9S15-040BGV	N/A
<b>Absolute Pressure Models, 10 mV/V Output</b>		
0 to 350 mb	PXM4[*]9S15-350HAV	PXM4[*]9S20-350HAV
0 to 1 bar	PXM4[*]9S15-001BAV	PXM4[*]9S20-001BAV
0 to 2	PXM4[*]9S15-002BAV	PXM4[*]9S20-002BAV
0 to 3.5	PXM4[*]9S15-3.5BAV	PXM4[*]9S20-3.5BAV
0 to 7	PXM4[*]9S15-007BAV	PXM4[*]9S20-007BAV
0 to 10	PXM4[*]9S15-010BAV	PXM4[*]9S20-010BAV
0 to 17.5	PXM4[*]9S15-17.5BAV	PXM4[*]9S20-17.5BAV
0 to 35	PXM4[*]9S15-035BAV	PXM4[*]9S20-035BAV
0 to 40	PXM4[*]9S15-040BAV	N/A

Comes complete with 5-point NIST traceable calibration.

[\*] Select electrical termination, no extra charge.

Insert "0" for 2 m (9') cable with flying leads.

For cable with ½ NPT conduit connector order model PXM409CS, no extra charge.

Insert "1" for mini DIN cable (mating connector included).

Insert "5" for M12 connector, M12 cables sold separately (see below).

Custom configurations also available, see [omega.com/pxconfig](http://omega.com/pxconfig)

**Ordering Examples:** PXM409S15-350HGV, 2 m (9') cable termination, 1.5" Tri-Grip fitting, 350 mb range, 10 mV/V output.

PXM419S20-001BAV, mini-DIN connector, 2" Tri-Grip fitting, 0 to 1 bar absolute range, 10 mV/V output.

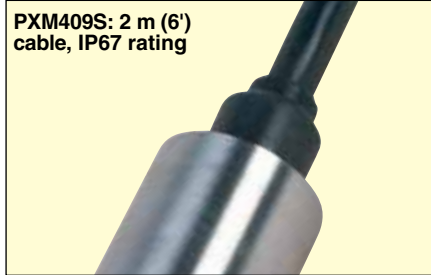
PXM459S15-007BGI, M12 connector, 1.5" Tri-Grip fitting, 7 bar range, 10 mV/V output.

**Specifications  
 (mV/V Output)**

**Output:** 10 mV/V: Ratiometric  
 5 to 10 Vdc  
**Supply:** 5 to 10 Vdc

**Accuracy:** ±0.08% BSL (linearity, hysteresis repeatability combined)  
 compound gage models calibrated in positive direction only

**Electrical Terminations**



To Order		
Range	1½" Tri-Grip™ Fitting	2" Tri-Grip™ Fitting
mbar		
<b>Compound Gage Ranges</b>		
± 25 mbar	PXM4[*]9S15-025HCGV	PXM4[*]9S20-025HCGV
± 70 mbar	PXM4[*]9S15-070HCGV	PXM4[*]9S20-070HCGV
± 170 mbar	PXM4[*]9S15-170HCGV	PXM4[*]9S20-170HCGV
± 350 mbar	PXM4[*]9S15-350HCGV	PXM4[*]9S20-350HCGV
± 1 bar	PXM4[*]9S15-001BCGV	PXM4[*]9S20-001BCGV
<b>Vacuum Ranges (Negative Gage, 0 = Ambient)</b>		
0 to -25 mbar	PXM4[*]9S15-025HVV	PXM4[*]9S20-025HVV
0 to -70 mbar	PXM4[*]9S15-070HVV	PXM4[*]9S20-070HVV
0 to -170 mbar	PXM4[*]9S15-170HVV	PXM4[*]9S20-170HVV
0 to -350 mbar	PXM4[*]9S15-350HVV	PXM4[*]9S20-350HVV
0 to -1 bar	PXM4[*]9S15-001BVV	PXM4[*]9S20-001BVV
<b>Barometric Ranges (Absolute Pressure)</b>		
0 to 1100 hPa	PXM4[*]9S15-1100HBV	PXM4[*]9S20-1100HBV
550 to 1100 hPa	PXM4[*]9S15-550HBV	PXM4[*]9S20-550HBV
880 to 1100 hPa	PXM4[*]9S15-880HBV	PXM4[*]9S20-880HBV

**Accessories**

Model No.	Description
<b>M12C-PVC-4-S-F-5</b>	PVC cable, straight 4-pin M12 female connector one end, flying leads one end, 5 m (16.4') long, for PXM459
<b>M12C-PVC-4-R-F-5</b>	PVC cable, right angled 4-pin M12 female connector one end, flying leads one end, 5 m (16.4') long, for PXM459

Comes complete with 5-point NIST traceable calibration.  
 [\*] Select electrical termination, no extra charge.  
 Insert "0" for 2 m (9') cable with flying leads.  
 For ½ NPT conduit connector order model PXM409CS, no extra charge.  
 Insert "1" for mini DIN cable (mating connector included).  
 Insert "5" for M12 connector, M12 cables sold separately (see below).  
 Custom configurations also available, see [omega.com/pxconfig](http://omega.com/pxconfig)  
**Ordering Examples:** PXM409S15-170HCGV, cable termination, 1.5" Tri-grip fitting, ± 170 mbar range, 10 mV/V output.  
 PXM459S20-001BVV, M12 termination, 2" Tri-grip fitting, 0 to -1 bar (vacuum) range, 10 mV/V output.  
 PXM419S15-550HBV, mini-DIN termination, 1.5" Tri-grip fitting, 550 to 1100 hPa calibrated barometric range, 10 mV/V output.

**0 to 10 Vdc Output**

**0 to 10 Vdc Output**

- ✓ 1½ or 2" Tri-Grip™ Fittings Available
- ✓ All Stainless Steel Construction
- ✓ High Reliability Silicon Sensor
- ✓ 3A Approved



DP25B-E shown smaller than actual size. Visit [omega.com/dp25b](http://omega.com/dp25b)



DP41-E shown smaller than actual size. Visit [omega.com/dp41](http://omega.com/dp41)

To Order		
bar	1½" Tri-Grip™ Fitting	2" Tri-Grip™ Fitting
<b>Gage Pressure Models, 0 to 10 Vdc Output</b>		
0 to 25 mb	PXM4[*]9S15-025HG10V	PXM4[*]9S20-025HG10V
0 to 70 mb	PXM4[*]9S15-070HG10V	PXM4[*]9S20-070HG10V
0 to 170 mb	PXM4[*]9S15-170HG10V	PXM4[*]9S20-170HG10V
0 to 350 mb	PXM4[*]9S15-350HG10V	PXM4[*]9S20-350HG10V
0 to 1 bar	PXM4[*]9S15-001BG10V	PXM4[*]9S20-001BG10V
0 to 2	PXM4[*]9S15-002BG10V	PXM4[*]9S20-002BG10V
0 to 3.5	PXM4[*]9S15-3.5BG10V	PXM4[*]9S20-3.5BG10V
0 to 7	PXM4[*]9S15-007BG10V	PXM4[*]9S20-007BG10V
0 to 10	PXM4[*]9S15-010BG10V	PXM4[*]9S20-010BG10V
0 to 17.5	PXM4[*]9S15-17.5BG10V	PXM4[*]9S20-17.5BG10V
0 to 35	PXM4[*]9S15-035BG10V	PXM4[*]9S20-035BG10V
0 to 40	PXM4[*]9S15-040BG10V	N/A
<b>Absolute Pressure Models, 0 to 10 Vdc Output</b>		
0 to 350 mb	PXM4[*]9S15-350HA10V	PXM4[*]9S20-350HA10V
0 to 1 bar	PXM4[*]9S15-001BA10V	PXM4[*]9S20-001BA10V
0 to 2	PXM4[*]9S15-002BA10V	PXM4[*]9S20-002BA10V
0 to 3.5	PXM4[*]9S15-3.5BA10V	PXM4[*]9S20-3.5BA10V
0 to 7	PXM4[*]9S15-007BA10V	PXM4[*]9S20-007BA10V
0 to 10	PXM4[*]9S15-010BA10V	PXM4[*]9S20-010BA10V
0 to 17.5	PXM4[*]9S15-17.5BA10V	PXM4[*]9S20-17.5BA10V
0 to 35	PXM4[*]9S15-035BA10V	PXM4[*]9S20-035BA10V
0 to 40	PXM4[*]9S15-040BA10V	N/A

Comes complete with 5-point NIST traceable calibration.

[\*] Select electrical termination, no extra charge.

Insert "0" for 2 m (9') cable with flying leads.

For cable with ½ NPT conduit connector order model PXM409CS, no extra charge.

Insert "1" for mini DIN cable (mating connector included).

Insert "5" for M12 connector, M12 cables sold separately (see below).

Custom configurations also available, see [omega.com/pxconfig](http://omega.com/pxconfig)

**Ordering Examples:** PXM409S15-350HG10V, 2 m (9') cable termination, 1.5" Tri-Grip fitting, 350 mb range, 0 to 10 Vdc.

PXM419S20-001BA10V, mini-DIN connector, 2" Tri-Grip fitting, 0 to 1 bar absolute range, 0 to 10 Vdc.

PXM459S15-007BG10V, M12 connector, 1.5" Tri-Grip fitting, 7 bar range, 0 to 10 Vdc.



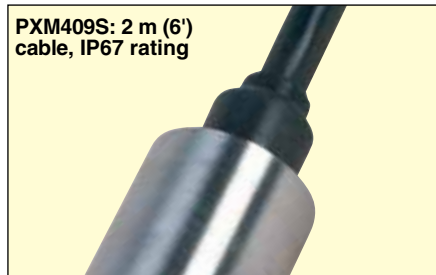
# Sanitary Pressure Transmitters

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)  
**Сanitary, vacuum and barometric ranges**

**Specifications  
(Amplified Voltage Output)  
Output/Supply (0 to 10 Vdc):**  
15 to 30 Vdc

**Accuracy:** ±0.08% BSL (linearity, hysteresis repeatability combined)  
compound gage models calibrated in positive direction only

## Electrical Terminations



To Order		
Range	1½" Tri-Grip™ Fitting	2" Tri-Grip™ Fitting
<b>Compound Gage Ranges</b>		
± 25 mbar	PXM4[*]9S15-025HCG10V	PXM4[*]9S20-025HCG10V
± 70 mbar	PXM4[*]9S15-070HCG10V	PXM4[*]9S20-070HCG10V
± 170 mbar	PXM4[*]9S15-170HCG10V	PXM4[*]9S20-170HCG10V
± 350 mbar	PXM4[*]9S15-350HCG10V	PXM4[*]9S20-350HCG10V
± 1 bar	PXM4[*]9S15-001BCG10V	PXM4[*]9S20-001BCG10V
<b>Vacuum Ranges (Negative Gage, 0 = Ambient)</b>		
0 to -25 mbar	PXM4[*]9S15-025HV10V	PXM4[*]9S20-025HV10V
0 to -70 mbar	PXM4[*]9S15-070HV10V	PXM4[*]9S20-070HV10V
0 to -170 mbar	PXM4[*]9S15-170HV10V	PXM4[*]9S20-170HV10V
0 to -350 mbar	PXM4[*]9S15-350HV10V	PXM4[*]9S20-350HV10V
0 to -1 bar	PXM4[*]9S15-001BV10V	PXM4[*]9S20-001BV10V
<b>Barometric Ranges (Absolute Pressure)</b>		
0 to 1100 hPa	PXM4[*]9S15-1100HB10V	PXM4[*]9S20-1100HB10V
550 to 1100 hPa	PXM4[*]9S15-550HB10V	PXM4[*]9S20-550HB10V
880 to 1100 hPa	PXM4[*]9S15-880HB10V	PXM4[*]9S20-880HB10V

## Accessories

Model No.	Description
M12C-PVC-4-S-F-5	PVC cable, straight 4-pin M12 female connector one end, flying leads one end, 5 m (16.4') long, for PXM459
M12C-PVC-4-R-F-5	PVC cable, right angled 4-pin M12 female connector one end, flying leads one end, 5 m (16.4') long, for PXM459

Comes complete with 5-point NIST traceable calibration.

[\*] Select electrical termination, no extra charge.

Insert "0" for 2 m (9') cable with flying leads

For cable with ½ NPT conduit connector order model PXM409CS, no extra charge.

Insert "1" for mini DIN cable (mating connector included).

Insert "5" for M12 connector, M12 cables sold separately (see below).

Custom configurations also available, see [omega.com/pxconfig](http://omega.com/pxconfig)

**Ordering Examples:** PXM409S15-170HCG10V, cable termination, 1.5" Tri-grip fitting, ± 170 mbar range, 0 to 10 Vdc output.

PXM459S20-001BV10V, M12 termination, 2" Tri-grip fitting, 0 to -1 bar (vacuum) range, 0 to 10 Vdc output.

PXM419S15-550HB10V, mini DIN termination, 1.5" Tri-grip fitting, 550 to 1100 hPa calibrated barometric range, 0 to 10 Vdc output.

**4 to 20 mA  
Output**

**4 to 20 mA**

- ✓ 1½ or 2" Tri-Grip™ Fittings Available
- ✓ All Stainless Steel Construction
- ✓ High Reliability Silicon Sensor
- ✓ 3A Approved



DP25B-E shown smaller than actual size. Visit [omega.com/dp25b](http://omega.com/dp25b)



DP41-E shown smaller than actual size. Visit [omega.com/dp41](http://omega.com/dp41)

To Order		
bar	1½" Tri-Grip™ Fitting	2" Tri-Grip™ Fitting
<b>Gage Pressure Models, 4 to 20 mA Output</b>		
0 to 25 mb	PXM4[*]9S15-025HGI	PXM4[*]9S20-025HGI
0 to 70 mb	PXM4[*]9S15-070HGI	PXM4[*]9S20-070HGI
0 to 170 mb	PXM4[*]9S15-170HGI	PXM4[*]9S20-170HGI
0 to 350 mb	PXM4[*]9S15-350HGI	PXM4[*]9S20-350HGI
0-1 bar	PXM4[*]9S15-001BGI	PXM4[*]9S20-001BGI
0 to 2	PXM4[*]9S15-002BGI	PXM4[*]9S20-002BGI
0 to 3.5	PXM4[*]9S15-3.5BGI	PXM4[*]9S20-3.5BGI
0 to 7	PXM4[*]9S15-007BGI	PXM4[*]9S20-007BGI
0 to 10	PXM4[*]9S15-010BGI	PXM4[*]9S20-010BGI
0 to 17.5	PXM4[*]9S15-17.5BGI	PXM4[*]9S20-17.5BGI
0 to 35	PXM4[*]9S15-035BGI	PXM4[*]9S20-035BGI
0 to 40	PXM4[*]9S15-040BGI	N/A
<b>Absolute Pressure Models, 4 to 20 mA Output</b>		
0 to 350 mb	PXM4[*]9S15-350HAI	PXM4[*]9S20-350HAI
0-1 bar	PXM4[*]9S15-001BAI	PXM4[*]9S20-001BAI
0 to 2	PXM4[*]9S15-002BAI	PXM4[*]9S20-002BAI
0 to 3.5	PXM4[*]9S15-3.5BAI	PXM4[*]9S20-3.5BAI
0 to 7	PXM4[*]9S15-007BAI	PXM4[*]9S20-007BAI
0 to 10	PXM4[*]9S15-010BAI	PXM4[*]9S20-010BAI
0 to 17.5	PXM4[*]9S15-17.5BAI	PXM4[*]9S20-17.5BAI
0 to 35	PXM4[*]9S15-035BAI	PXM4[*]9S20-035BAI
0 to 40	PXM4[*]9S15-040BAI	N/A

Comes complete with 5-point NIST traceable calibration.

[\*] Select electrical termination, no extra charge.

Insert "0" for 2 m (9') cable with flying leads.

For cable with ½ NPT conduit connector order model PXM409CS, no extra charge

Insert "1" for mini DIN cable (mating connector included)

Insert "5" for M12 connector, M12 cables sold separately (see below)

Custom configurations also available, see [omega.com/pxconfig](http://omega.com/pxconfig)

**Ordering Examples:** PXM409S15-350HGI, 2 m (9') cable termination, 1.5" Tri-Grip fitting, 350 mbar range, 4 to 20 mA output.


PXM419S20-001BAI, mini-DIN connector, 2" Tri-Grip fitting, 0 to 1 bar absolute range, 4 to 20 mA output

PXM459S15-007BGI, M12 connector, 1.5." Tri-Grip fitting, 7 bar range, 4 to 20 mA output.



All images shown smaller than actual size.

Cable style.



PXM409S Series

PXM409S Cable Connection			
Color	mV	5/10V	mA
Black	- EXC	Common	- Supply
White	+ SIG	+ Output	NC
Green	- SIG	NC	NC
Red	+ EXC	+ EXC	+ Supply

mini DIN and M12 style.



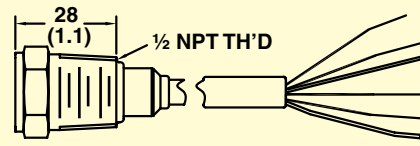
PXM419S Series

PXM459S M12 connector.

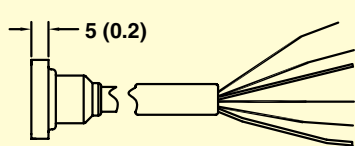
PXM419S/PXM459S Pinout			
Pin	mV	5/10V	mA
1	+ EXC	+ EXC	+ Supply
2	- EXC	Common	- Supply
3	+ SIG	+ Output	NC
4	- SIG	NC	NC

NC = No Connection.

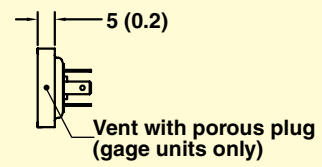
Conduit backend PXM409C



Integral cable backend PXM409S

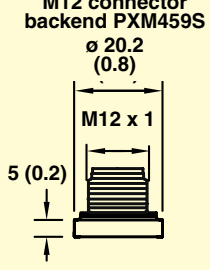


mini DIN backend PXM419S



Dimensions: mm (inch)

M12 connector backend PXM459S



### Compatible Meters and Accessories

Meters	
Model No.	Description
DP41-S	6-digit high accuracy (0.005%) process meter for use with milli voltage and strain gage bridge output models
DP41-E	6-digit high accuracy (0.005%) meter for use with voltage and current output models
DP25B-E	4-digit precision process meter for use with voltage and current output models
Accessories	
CX5302	Extra mini DIN connector for PXM419S Series
M12C-PVC-4-S-F-5	PVC cable, straight 4-pin M12 female connector one end, flying leads one end, 5 m (16.4') long, for PXM459S
M12C-PVC-4-R-F-5	PVC cable, right angled 4-pin M12 female connector one end, flying leads one end 5 m (16.4') long, for PXM459S



**Pressure Transducer**  
**Connect Directly to Your PC or Laptop**

**Gage, Absolute, Compound Gage,  
 Vacuum and Barometric Pressures**  
 10 inH<sub>2</sub>O to 600 psi (25 mb to 41 bar)

**PX409S Sanitary  
 USBH Series**



- ✓ High Speed 1000 Updates/Second
- ✓ Micromachined Silicon Sensor
- ✓ 316L SS Wetted Parts
- ✓ High 0.08% Accuracy
- ✓ Excellent Long Term Stability
- ✓ USB 2.0 and Below Compatible
- ✓ Standard USB Cable Termination
- ✓ Ruggedized with Secondary Containment System

The PX409S Sanitary USBH Series connects directly to your computer. The Sanitary Series is 3A approved and available with 1½" or 2" Tri-Grip™ (Tri-Clamp® compatible) fittings to work with most common applications. Free software makes data logging and charting your readings a simple task. The micromachined silicon design is ideal for pressure or level applications in laboratory, test platforms, or bio/pharmaceutical applications as well as industrial applications that require a rugged, high accuracy transducer. The micromachined silicon sensor provides a very stable transducer with exceptional high accuracy of 0.08% typical and a broad compensated range (see specs for details). The modular construction allows for fast delivery of most configurations and fittings.

**Specifications**

**Accuracy:** 0.08% typical best straight line, 0.14% maximum (linearity, hysteresis and repeatability combined) compound gage models calibrated in positive direction only  
**Calibration:** 5-point NIST traceable calibration with zero and span values calibrated in horizontal direction  
**Zero Balance:** ±0.5% full scale typical ±1% maximum (±1% typical, ±2% maximum for 5 psi and below)

PX409S15-015CGUSBH,  
 1.5" flange, ±15 psi,  
 USB output.



2 m (6') integral USB cable connects directly to your PC.



PX409S20-015GUSBH,  
 2" flange, 0 to 15 psi,  
 USB output.

**FREE Omega™ USBH Downloadable Software!**

Omega is excited to announce the release of a major software update for USB Transducers! The fresh look and added features add even more value and flexibility to your transducer's performance. Free Omega PC software takes the data from the transducer directly to the digital domain, turning your laptop or Windows® tablet (with USB connection) into a virtual meter, chart recorder, or data logger. Also included are .NET APIs and a set for command-line access. Visit [ftp://ftp.omega.com/public/DASGroup/products/USBH/](http://ftp://ftp.omega.com/public/DASGroup/products/USBH/) to download your free copy.\*

\*Includes software to run TRH Central compatible devices.

Metric threads and ranges available.

**Span Setting:** ±0.5% full scale typical ±1% maximum (±1% typical, ±2% maximum for 5 psi and below). Calibrated in vertical direction with fitting down

**Operating Temperature Range:** -15 to 95°C (-5 to 203°F)

**Compensated Temperature Range:**  
**Ranges ≤5 psi:** 4.4 to 60°C (40 to 140°F)  
**Ranges >5 psi:** -4 to 85°C (25 to 185°F)

**Temperature Compensation Zero and Span Shift Over Compensated Range:**  
**Ranges ≤ 5 psi:**  
**Zero:** 1.00%  
**Span:** 1.00%

**Ranges >5 psi:**  
**Zero:** 0.50%  
**Span:** 0.50%  
**26B/26HB Barometric Range:**  
**Zero:** 1.00%  
**Span:** 0.50%

**Minimum Isolation:**  
 100 MΩ @ 50 Vdc case to sensor  
 2 MΩ @ 50 Vdc case to output terminations

**Pressure Cycles:** >1million minimum  
**Long Term Stability (1 Year):** ±0.1% full scale typical  
**Shock:** 50 g, 11 mS half sine shock,

(under test)

**Vibration:** ±20 g (under test)

**Bandwidth:** DC to 1000 updates per second typical (±3%)

**A to D Conversion:** 24 bit

**Fill Fluid:** NEOBEE

M5 food grade

**Approved to 3A Sanitary Specification 74-05**

**CE Compliant:** Meets industrial emissions and immunity standard IEC61326

**Environmental Protection:** IP65

**Pressure Rating:**

1½" and 2" Tri-Grip™

**Fitting:** 600 psi using suitable clamp

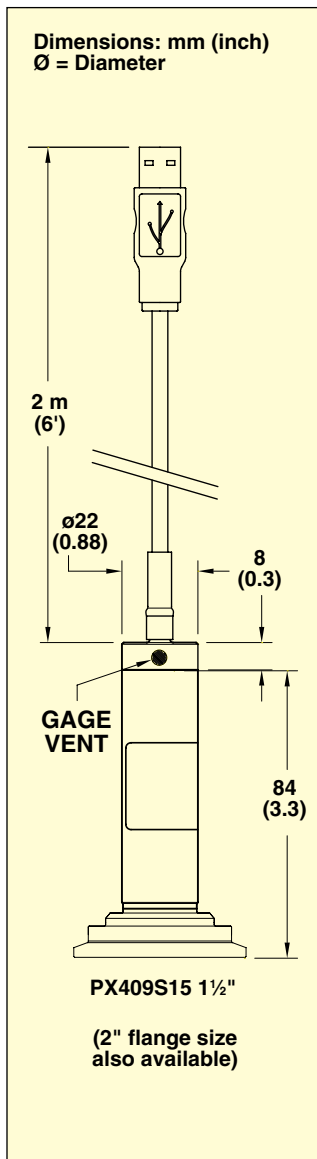
**Over Pressure:** 4 x rated pressure to maximum rated flange pressure

**Secondary Containment:** 6 x rated

pressure to a maximum of 2000 psi (not in clamp)

**Wetted Parts:** 316L stainless steel

**Weight:** 285 g (10 oz)



To Order			
Range psi	Range bar	1.5" Tri-Grip Models	2.0" Tri-Grip Models
<b>Gage Pressure</b>			
0 to 10 inH <sub>2</sub> O	0 to 25 mb	PX409S15-10WGUSBH	PX409S20-10WGUSBH
0 to 1	0 to 69 mb	PX409S15-001GUSBH	PX409S20-001GUSBH
0 to 2.5	0 to 172 mb	PX409S15-2.5GUSBH	PX409S20-2.5GUSBH
0 to 5	0 to 345 mb	PX409S15-005GUSBH	PX409S20-005GUSBH
0 to 15	0 to 1	PX409S15-015GUSBH	PX409S20-015GUSBH
0 to 30	0 to 2.1	PX409S15-030GUSBH	PX409S20-030GUSBH
0 to 50	0 to 3.4	PX409S15-050GUSBH	PX409S20-050GUSBH
0 to 100	0 to 6.9	PX409S15-100GUSBH	PX409S20-100GUSBH
0 to 150	0 to 10.3	PX409S15-150GUSBH	PX409S20-150GUSBH
0 to 250	0 to 17.2	PX409S15-250GUSBH	PX409S20-250GUSBH
0 to 500	0 to 34.5	PX409S15-500GUSBH	PX409S20-500GUSBH
0 to 600	0 to 41.4	PX409S15-600GUSBH	—
<b>Absolute Pressure</b>			
0 to 5	0 to 345 mb	PX409S15-005AUSBH	PX409S20-005AUSBH
0 to 15	0 to 1	PX409S15-015AUSBH	PX409S20-015AUSBH
0 to 30	0 to 2.1	PX409S15-030AUSBH	PX409S20-030AUSBH
0 to 50	0 to 3.4	PX409S15-050AUSBH	PX409S20-050AUSBH
0 to 100	0 to 6.9	PX409S15-100AUSBH	PX409S20-100AUSBH
0 to 150	0 to 10.3	PX409S15-150AUSBH	PX409S20-150AUSBH
0 to 250	0 to 17.2	PX409S15-250AUSBH	PX409S20-250AUSBH
0 to 500	0 to 34.5	PX409S15-500AUSBH	PX409S20-500AUSBH
0 to 600	0 to 41.4	PX409S15-600AUSBH	—
<b>Vacuum Ranges (Negative Gage Pressure)</b>			
0 to -10 inH <sub>2</sub> O	0 to -25 mb	PX409S15-10WVUSBH	PX409S20-10WVUSBH
0 to -1 psi	0 to -69 mb	PX409S15-001VUSBH	PX409S20-001VUSBH
0 to -2.5 psi	0 to -172 mb	PX409S15-2.5VUSBH	PX409S20-2.5VUSBH
0 to -5 psi	0 to -345 mb	PX409S15-005VUSBH	PX409S20-005VUSBH
0 to -15 psi	0 to -1	PX409S15-015VUSBH	PX409S20-015VUSBH
<b>Compound Gage Ranges</b>			
±10 inH <sub>2</sub> O	±25 mb	PX409S15-10WCGUSBH	PX409S20-10WCGUSBH
±1 psi	±69 mb	PX409S15-001CGUSBH	PX409S20-001CGUSBH
±2.5 psi	±172 mb	PX409S15-2.5CGUSBH	PX409S20-2.5CGUSBH
±5 psi	±345 mb	PX409S15-005CGUSBH	PX409S20-005CGUSBH
±15 psi	±1	PX409S15-015CGUSBH	PX409S20-015CGUSBH
<b>Barometric Ranges (Absolute Pressure)</b>			
0 to 32 inHg	—	PX409S15-32BUSBH	PX409S20-32BUSBH
16 to 32 inHg	—	PX409S15-16BUSBH	PX409S20-16BUSBH
26 to 32 inHg	—	PX409S15-26BUSBH	PX409S20-26BUSBH
—	0 to 1100 hPa	PX409S15-32HBUSBH	PX409S20-32HBUSBH
—	550 to 1100 hPa	PX409S15-16HBUSBH	PX409S20-16HBUSBH
—	880 to 1100 hPa	PX409S15-26HBUSBH	PX409S20-26HBUSBH

Comes complete with 5-point NIST traceable calibration certificate, cable with USB connector, and free downloadable PC software.

**Ordering Examples:** PX409S15-015GUSBH, 1.5" Tri-Grip fitting, 2 m (6') cable termination with USB termination, 15 psi gage range, USB Output.

PX409S20-16BUSBH, 2" Tri-Grip fitting, 2 m (6') cable termination with USB termination, 16 to 32 inHg barometric range, USB Output.

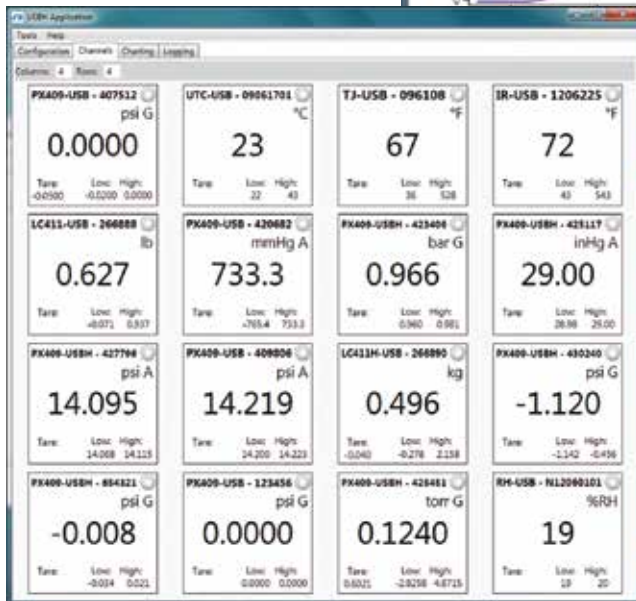
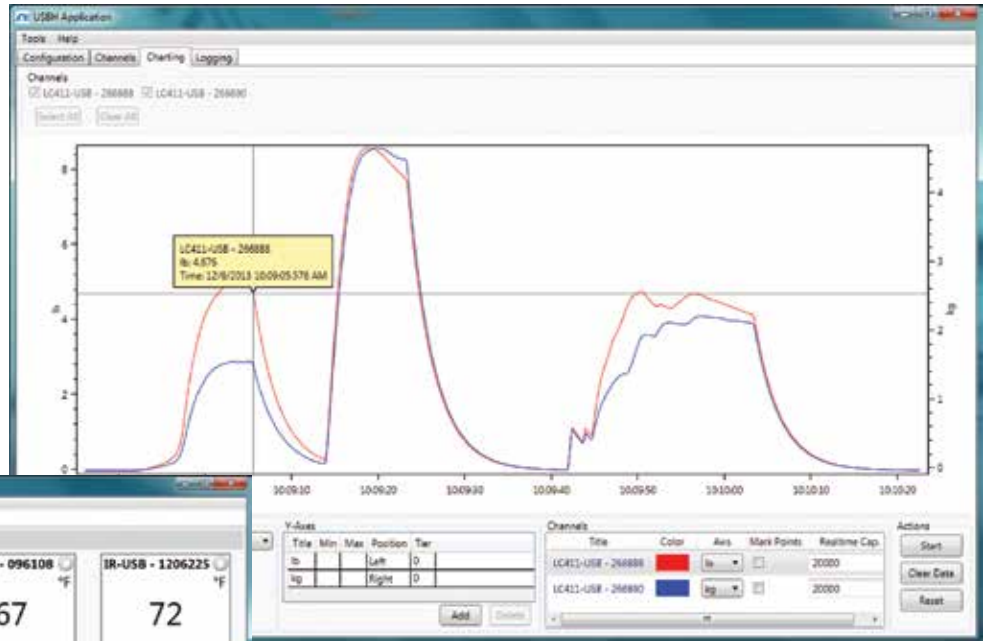
# Omega USBH Major Software Update

Omega is excited to announce the release of a major software update for USB Transducers! The fresh look and added features add even more value and flexibility to your transducer's performance. Free Omega PC software takes the data from the transducer directly to the digital domain, turning your laptop or Windows® tablet (with USB connection) into a virtual meter, chart recorder, or data logger. Also included are .NET APIs and a set for command-line access.

Visit [ftp://ftp.omega.com/public/DASGroup/products/USBH/](http://ftp.omega.com/public/DASGroup/products/USBH/) to download your free copy.\*

\* Includes software to run TRH Central compatible devices.

**Charting Window** – The addition of a charting window allows you to see your data graphed in real time. The Y axis is configurable to allow simultaneous graphing of multiple engineering units. You can output the image of your data to a png file.



**Channels Window** – Display data from all of your sensors simultaneously. Each channel has configurable user alarms, three data filters, tare, resettable low/high indication, and sample rates ranging from 30 minutes to 1000 Hz.

**Logging Window** – A new xls filetype output option presents preformatted data for readability. In addition, Live Statistics are displayed, including the sensor information, the start/stop time, the number of samples taken, the current reading, and the High/Low readings. With the logging window, you can capture your data for later analysis.

PX409-USBH-425117	
Units	psi
Count	10
Last	14.2349
Low	14.2349
High	14.2353

## Support for Omega Pressure, Force, Temperature, and Humidity USB Transducers

One software package supports:

PX409-\*-USB, PX409-\*-USBH, LC411-\*-USBH, TJ-USB, IR-USB, RH-USB and UTC-USB transducers.





# PRESSURE TRANSDUCERS

## PX409 Series

PX409-100GV,  
shown actual size.

- ✓ 0.08% BSL Includes Linearity Hysteresis and Repeatability
- ✓ Broad Temperature Compensation Range -29 to 85°C (-20 to 185°F)
- ✓ 5-Point NIST Traceable Calibration Included
- ✓ Outputs:
  - mV/V
  - 0 to 5 V or 0 to 10 V
  - 4 to 20 mA
- ✓ 10 in-H<sub>2</sub>O to 5000 psi Ranges

**RUGGEDIZED DESIGN**  
For Aerospace,  
Automotive, Test and  
Industrial Applications

PX419-015GV,  
shown actual size.



PX429-030GV,  
shown actual size.



**Differential  
Pressure Models**

**Most Popular  
Models in Stock for  
Fast Delivery**



**SOLID STATE PIEZORESISTIVE DESIGN**  
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**WITH HIGH TEMP. PERFORMANCE FOR INDUSTRY, AUTOMOTIVE,  
 TEST, AND AEROSPACE APPLICATIONS**

**mV/V, 0 to 5 Vdc, 0 to 10 Vdc, 4 to 20 mA Outputs**  
**Low Pressure: 10 inH<sub>2</sub>O and**  
**Standard Ranges: 5 to 5000 psi**  
**Metric Ranges: 25 mbar to 345 bars**  
**Gage or Absolute Pressure**

**PX409 Series**



- ✓ High Accuracy ±0.08% BSL Includes Linearity, Hysteresis, and Repeatability
- ✓ Broad Temperature Compensated Range -29 to 85°C (-20 to 185°F)
- ✓ Premium Temperature Performance Span: ±0.5% Over Compensated Range
- ✓ 5-Point NIST Traceable Calibration Included
- ✓ Digital Dynamic Thermal Compensation Across Temperature and Pressure Range
- ✓ Low Pressure Ranges from 10 inH<sub>2</sub>O
- ✓ All Stainless Steel Wetted Parts
- ✓ Fast Response Time
- ✓ Solid State Reliability and Stability
- ✓ Gage and Absolute Pressures
- ✓ 300% Proof Pressure Minimum

OMEGA piezoresistive pressure transducers have a proven record in high performance commercial and aerospace applications for over 25 years. The piezoresistive process uses strain gages molecularly embedded into a highly stable silicon wafer. The silicon wafer is diced into individual die which each contain a full strain gage bridge. The die is mounted in a sealed chamber protected from the environment by glass to metal seals and a stainless steel diaphragm.

A small volume of silicone oil transfers the pressure from the diaphragm to the strain bridge. The construction provides a very rugged transducer with exceptional accuracy, stability and thermal effects. A unique design ruggedizes the transducers by providing secondary fluid containment in the event of a diaphragm rupture.

At our state-of-the-art facilities, automated test equipment performs pressure and temperature cycling on 100% of the PX409 transducers. The transducers are then calibrated using extremely high accuracy equipment and a 5-point NIST traceable calibration certificate that is included with each transducer. To obtain their high accuracy and stability, the PX409 Series use state-of-the-art digital mapping of the temperature, pressure and output performance of the silicon sensor in conjunction with a custom ASIC to provide dynamic thermal compensation across the

All models shown actual size.

PX409-050GV, features cable termination.

**0.08% Accuracy**

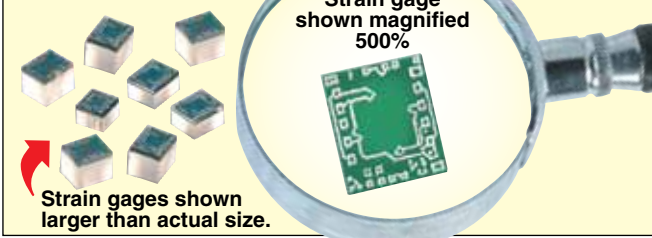
PX419-100GI, features mini-DIN termination.

PX429-015GI, features twist-lock termination.

**Stock Delivery for most Ranges!**

**PX409 SERIES SILICON WAFER TECHNOLOGY**

PX409 Series uses a highly stable silicon wafer which is micro-machined to precision tolerances and then has strain gages molecularly embedded into it.



temperature and pressure parameters. The inherent stability of the piezoresistive core provides excellent long term stability, repeatability and very low thermal effects at the price of much lower performance transducers. Standard features of the PX409 Series also include protective features built into the electronics and the pressure element. Reverse polarity, EMC, and power supply fluctuation protection are standard on all models. Intrinsically Safe and CSA ratings are optional.

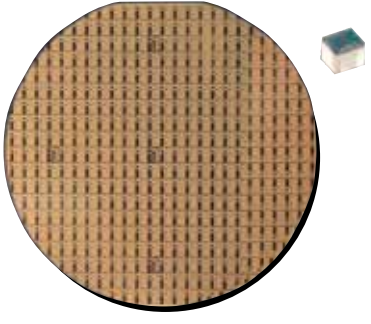
The most popular ranges and configurations are stocked for immediate delivery. All others typically have a very short lead-time.

# PRESSURE TRANSDUCERS

## PIEZORESISTIVE DESIGN WITH HIGH TEMPERATURE PERFORMANCE

**EXCEPTIONAL PERFORMANCE**  
**0.08% STATIC ACCURACY**

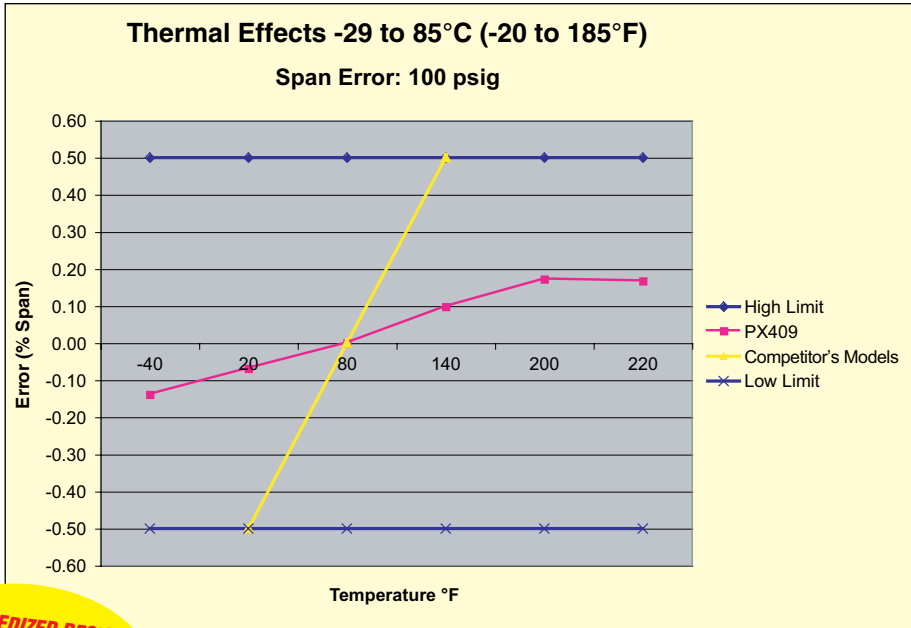
**Micro-Machined Silicon**



**5-Point NIST Traceable Calibration Certificate**



**RUGGEDIZED DESIGN**  
 For Aerospace,  
 Automotive, Test and  
 Industrial Applications



**CUSTOM CONFIGURATIONS AVAILABLE!**

Designed to be quickly customized to meet your exacting specifications, often with fast delivery. Custom variables are available including custom fittings, accuracies, ranges, calibrations, pressure units, thermal specifications, vibration, operating temperature and compensated range. Contact OMEGA Pressure Engineering for more details.

### Common Specifications Gage and Absolute Pressure

- Approvals:** RoHS compliant
- Minimum Isolation Between Case and Output Terminations:** 100M Ω @ 50 Vdc
- Pressure Cycles:** 1 million, minimum
- Long Term Stability (1-Year):** ±0.1% FS typical
- Shock:** 50 g, 11 mS half sine, vertical and horizontal axis
- Vibration:** 5-2000-5 Hz, 30 minute cycle, Curve L, Mil-Spec 810 figure 514-2-2, vertical and horizontal axis
- Bandwidth:** DC to 1 kHz typical
- Response Time:** <1 mS
- CE Compliant:**
- Emissions:** IEC550022 Class B
- Electrostatic Discharge Immunity:** IEC61000-4-2

- EM Field Immunity:** IEC61000-4-3
- EFT Immunity:** IEC61000-4-4
- Surge Immunity:** IEC61000-4-5
- Conducted RF:** IEC61000-4-6
- Rate Power Frequency Magnetic Field:** IEC61000-4-8
- Electrical Termination:**
  - PX409:** Integral 2 m (6') cable
  - PX409C:** Integral 2 m (6') cable with ½ NPT conduit fitting
  - PX419:** mini-DIN
  - PX429:** Twist lock
- Environmental Protection:**
  - PX409:** IP67
  - PX409C:** IP67
  - PX419:** IP65
  - PX429:** IP65

- Overpressure Gage Pressure:**
  - 10 inH<sub>2</sub>O:** 10 times span

- 1 psi:** 6 times span
- 2.5 to 1000 psi:** 4 times span
- 1500 to 5000 psi:** 7250 psi maximum
- Overpressure Absolute Pressure:**
  - 5 psia:** 6 times span
  - 2.5 psia to 1000 psia:** 4 times span
  - 1500 to 5000 psia:** 10,000 psi maximum

- Secondary Containment Gage/Diff/Vac/Compound:**
  - 10 inH<sub>2</sub>O to 5 psi:** To 1000 psi
  - 15 to 1000 psi:** To 3000 psi
  - 1500 to 5000 psi:** To 10,000 psi
- Absolute/Barometric:**
  - 5 to 1000 psi:** To 6000 psia
  - 1500 to 5000 psi:** To 10,000 psia
- Wetted Parts:** 316 SS
- Pressure Port:** ¼-18 NPT male
- Weight:** 115 to 200 gm (4 to 7 oz) depending upon configuration

# mV/V OUTPUT

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## HIGH PERFORMANCE PRESSURE TRANSDUCERS PIEZORESISTIVE DESIGN WITH HIGH TEMPERATURE PERFORMANCE

**100 mV Output**  
**0-10 inH<sub>2</sub>O to 0-5000 psi**  
**25 mb to 345 bar**

PX409-100GV,  
shown actual size.

### PX409 Series



**Stock Delivery for most Ranges!**

PX419-015GV,  
shown actual size.

PX429-015GV,  
shown actual size.

### mV/V Specifications

**Output:** 10 mV/V, 100 mV @ 10 Vdc (Ratiometric 5 to 10 Vdc)

**Supply Voltage:** 10 Vdc (5 mA @ 10 Vdc)

**Input/Output Resistance:** 5000 Ω ±20% typical

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

Compound ranges calibrated only in positive direction

**Zero Balance:** ±0.5% FS typical  
1% max (1% typical, 2% maximum for 2.5 psi and below)

**Span Setting:** ±0.5% FS typical 1% maximum (1% typical, 2% maximum for 2.5 psi and below) Calibrated in vertical direction with fitting down

**Operating Temperature Range:** -45 to 121°C (-49 to 250°F)

**Compensated Temperature:**  
**Ranges >5 psi:** -29 to 85°C (-20 to 185°F)  
**Ranges ≤ 5 psi:** -17 to 85°C (0 to 185°F)

**Thermal Effects Zero (Over Compensated Range):**

**Ranges >5 psi:** ±0.5% span  
**Ranges ≤ 5 psi:** ±1.0% span

**Thermal Effects Span (Over Compensated Range):**

**Ranges ≤ 5 psi:** ±1.0% span

### To Order

RANGE		2 m (6') CABLE TERMINATION	MINI-DIN TERMINATION	TWIST-LOCK TERMINATION
psi	bar			
<b>mV/V OUTPUT, GAGE PRESSURE RANGES</b>				
10 in-H <sub>2</sub> O	25 mb	PX409-10WGV	PX419-10WGV	PX429-10WGV
1	69 mb	PX409-001GV	PX419-001GV	PX429-001GV
2.5	172 mb	PX409-2.5GV	PX419-2.5GV	PX429-2.5GV
5	345 mb	PX409-005GV	PX419-005GV	PX429-005GV
15	1.0	PX409-015GV	PX419-015GV	PX429-015GV
30	2.1	PX409-030GV	PX419-030GV	PX429-030GV
50	3.4	PX409-050GV	PX419-050GV	PX429-050GV
100	6.9	PX409-100GV	PX419-100GV	PX429-100GV
150	10.3	PX409-150GV	PX419-150GV	PX429-150GV
250	17.2	PX409-250GV	PX419-250GV	PX429-250GV
500	34.5	PX409-500GV	PX419-500GV	PX429-500GV
750	51.7	PX409-750GV	PX419-750GV	PX429-750GV
1000	69	PX409-1.0KGV	PX419-1.0KGV	PX429-1.0KGV
1500	103	PX409-1.5KGV	PX419-1.5KGV	PX429-1.5KGV
2500	172	PX409-2.5KGV	PX419-2.5KGV	PX429-2.5KGV
3500	241	PX409-3.5KGV	PX419-3.5KGV	PX429-3.5KGV
5000	345	PX409-5.0KGV	PX419-5.0KGV	PX429-5.0KGV
<b>mV OUTPUT, ABSOLUTE PRESSURE RANGES</b>				
5	345 mb	PX409-005AV	PX419-005AV	PX429-005AV
15	1.0	PX409-015AV	PX419-015AV	PX429-015AV
30	2.1	PX409-030AV	PX419-030AV	PX429-030AV
50	3.4	PX409-050AV	PX419-050AV	PX429-050AV
100	6.9	PX409-100AV	PX419-100AV	PX429-100AV
150	10.3	PX409-150AV	PX419-150AV	PX429-150AV
250	17.2	PX409-250AV	PX419-250AV	PX429-250AV
500	34.5	PX409-500AV	PX419-500AV	PX429-500AV
750	51.7	PX409-750AV	PX419-750AV	PX429-750AV
1000	69	PX409-1.0KAV	PX419-1.0KAV	PX429-1.0KAV

**Ordering Examples:** PX409-1.0KGV, mV output, 1000 psi gage pressure range, 2 m (6') cable termination. PX429-015AV, mV output, 15 psi absolute pressure, twist lock termination, PT06F10-6S, mating twist lock connector (sold separately), and DP25B-S, 4-digit meter, system with meter.

(See page B-25h for information on meters).

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# 0 TO 5 Vdc OUTPUT

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## HIGH PERFORMANCE PRESSURE TRANSDUCERS

### PIEZORESISTIVE DESIGN WITH HIGH TEMPERATURE PERFORMANCE

**0 to 5 Vdc Output**  
**0-10 inH<sub>2</sub>O to 0-5000 psi**  
**25 mb to 0-345 bar**

PX409-100G5V,  
shown actual size.



PX419-100G5V,  
shown actual size.

**Stock Delivery for most Ranges!**

### PX409 Series



PX429-015G5V,  
shown actual size.

### Amplified Voltage Output Specifications

#### Output:

**0 to 5 Vdc Supply Voltage:**  
10 to 30 Vdc @ 10 mA

**0 to 10 Vdc Supply Voltage:**  
15 to 30 Vdc @ 10 mA

#### Accuracy (Combined Linearity, Hysteresis and Repeatability):

±0.08% BSL maximum  
Compound ranges calibrated only in positive direction"

**Zero Balance:** ±0.5% FS typical 1% maximum (1% typical, 2% maximum for 2.5 psi and below)

**Span Setting:** ±0.5% FS typical 1% maximum (1% typical, 2% maximum for 2.5 psi and below). Calibrated in vertical direction with fitting down

**Operating Temperature Range:**  
-45 to 115°C (-49 to 240°F)

#### Compensated Temperature:

**Ranges >5 psi:** -29 to 85°C (-20 to 185°F)

**Ranges ≤5 psi:** -17 to 85°C (0 to 185°F)

#### Thermal Effects Zero

**(Over Compensated Range):**

**Ranges >5 psi:** ±0.5% span

**Ranges ≤5 psi:** ±1.0% span

#### Thermal Effects Span

**(Over Compensated Range):**

**Ranges >5 psi:** ±0.5% span

### To Order

RANGE		2 m (6') CABLE TERMINATION	MINI-DIN TERMINATION	TWIST-LOCK TERMINATION
psi	bar			
<b>0 to 5 Vdc OUTPUT, GAGE PRESSURE RANGES</b>				
10 in-H <sub>2</sub> O	25 mb	PX409-10WG5V	PX419-10WG5V	PX429-10WG5V
1	69 mb	PX409-001G5V	PX419-001G5V	PX429-001G5V
2.5	172 mb	PX409-2.5G5V	PX419-2.5G5V	PX429-2.5G5V
5	345 mb	PX409-005G5V	PX419-005G5V	PX429-005G5V
15	1.0	PX409-015G5V	PX419-015G5V	PX429-015G5V
30	2.1	PX409-030G5V	PX419-030G5V	PX429-030G5V
50	3.4	PX409-050G5V	PX419-050G5V	PX429-050G5V
100	6.9	PX409-100G5V	PX419-100G5V	PX429-100G5V
150	10.3	PX409-150G5V	PX419-150G5V	PX429-150G5V
250	17.2	PX409-250G5V	PX419-250G5V	PX429-250G5V
500	34.5	PX409-500G5V	PX419-500G5V	PX429-500G5V
750	51.7	PX409-750G5V	PX419-750G5V	PX429-750G5V
1000	69	PX409-1.0KG5V	PX419-1.0KG5V	PX429-1.0KG5V
1500	103	PX409-1.5KG5V	PX419-1.5KG5V	PX429-1.5KG5V
2500	172	PX409-2.5KG5V	PX419-2.5KG5V	PX429-2.5KG5V
3500	241	PX409-3.5KG5V	PX419-3.5KG5V	PX429-3.5KG5V
5000	345	PX409-5.0KG5V	PX419-5.0KG5V	PX429-5.0KG5V
<b>0 to 5 Vdc OUTPUT, ABSOLUTE PRESSURE RANGES</b>				
5	345 mb	PX409-005A5V	PX419-005A5V	PX429-005A5V
15	1.0	PX409-015A5V	PX419-015A5V	PX429-015A5V
30	2.1	PX409-030A5V	PX419-030A5V	PX429-030A5V
50	3.4	PX409-050A5V	PX419-050A5V	PX429-050A5V
100	6.9	PX409-100A5V	PX419-100A5V	PX429-100A5V
150	10.3	PX409-150A5V	PX419-150A5V	PX429-150A5V
250	17.2	PX409-250A5V	PX419-250A5V	PX429-250A5V
500	34.5	PX409-500A5V	PX419-500A5V	PX429-500A5V
750	51.7	PX409-750A5V	PX419-750A5V	PX429-750A5V
1000	69	PX409-1.0KA5V	PX419-1.0KA5V	PX429-1.0KA5V

**Note:** To order with 0 to 10 Vdc output, change "5V" to "10V" no extra charge.

**Ordering Examples:** PX409-1.0KG5V, 5 V output, 1000 psi gage pressure range, 2 m (6') cable termination. PX429-015A5V, 5 V output, 15 psi absolute pressure, twist lock termination, PT06F10-6S, mating twist lock connector (sold separately), and DP25B-E, 4-digit meter, system with meter.  
 (See page B-25h for information on meters).

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# 4 TO 20 mA OUTPUT

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## HIGH PERFORMANCE PRESSURE TRANSMITTERS PIEZORESISTIVE DESIGN WITH HIGH TEMPERATURE PERFORMANCE

**4 to 20 mA Output**  
**0-10 inH<sub>2</sub>O to 0-5000 psi**  
**25 mb to 0-345 bar**

PX409-100GI,  
shown actual size.



PX419-100GI,  
shown actual size.

**Stock Delivery for most Ranges!**

### PX409 Series



PX429-015GI,  
shown actual size.

### 4 to 20 mA Specifications

**Output:** 4 to 20 mA  
**Supply Voltage:** 9 to 30 Vdc  
maximum loop res  $\Omega = (V_s - 9) \times 50$   
[9 to 20 Vdc above 105°C (229°F)]

**Accuracy (Combined Linearity, Hysteresis and Repeatability):**  
 $\pm 0.08\%$  BSL maximum  
Compound ranges calibrated only in positive direction

**Zero Balance:**  $\pm 0.5\%$  FS typical  
1% maximum (1% typical, 2% maximum for 2.5 psi and below)

**Span Setting:**  $\pm 0.5\%$  FS typical 1% maximum (1% typical, 2% max for 2.5 psi and below). Calibrated in vertical direction with fitting down

**Operating Temperature Range:**  
-45 to 115°C (-49 to 240°F)

**Compensated Temperature:**  
**Ranges >5 psi:** -29 to 85°C (-20 to 185°F)  
**Ranges  $\leq$  5 psi:** -17 to 85°C (0 to 185°F)

**Thermal Effects Zero (Over Compensated Range):**

**Ranges >5 psi:**  $\pm 0.5\%$  span  
**Ranges  $\leq$  5 psi:**  $\pm 1.0\%$  span

**Thermal Effects Span (Over Compensated Range):**

**Ranges >5 psi:**  $\pm 0.5\%$  span  
**Ranges  $\leq$  5 psi:**  $\pm 1.0\%$  span

### To Order

RANGE		2 m (6') CABLE TERMINATION	MINI-DIN TERMINATION	TWIST-LOCK TERMINATION
psi	bar			
<b>4 to 20 mA OUTPUT, GAGE PRESSURE RANGES</b>				
10 in-H <sub>2</sub> O	25 mb	PX409-10WGI	PX419-10WGI	PX429-10WGI
1	69 mb	PX409-001GI	PX419-001GI	PX429-001GI
2.5	172 mb	PX409-2.5GI	PX419-2.5GI	PX429-2.5GI
5	345 mb	PX409-005GI	PX419-005GI	PX429-005GI
15	1.0	PX409-015GI	PX419-015GI	PX429-015GI
30	2.1	PX409-030GI	PX419-030GI	PX429-030GI
50	3.4	PX409-050GI	PX419-050GI	PX429-050GI
100	6.9	PX409-100GI	PX419-100GI	PX429-100GI
150	10.3	PX409-150GI	PX419-150GI	PX429-150GI
250	17.2	PX409-250GI	PX419-250GI	PX429-250GI
500	34.5	PX409-500GI	PX419-500GI	PX429-500GI
750	51.7	PX409-750GI	PX419-750GI	PX429-750GI
1000	69	PX409-1.0KGI	PX419-1.0KGI	PX429-1.0KGI
1500	103	PX409-1.5KGI	PX419-1.5KGI	PX429-1.5KGI
2500	172	PX409-2.5KGI	PX419-2.5KGI	PX429-2.5KGI
3500	241	PX409-3.5KGI	PX419-3.5KGI	PX429-3.5KGI
5000	345	PX409-5.0KGI	PX419-5.0KGI	PX429-5.0KGI
<b>4 to 20 mA ABSOLUTE PRESSURE RANGES</b>				
5	345 mb	PX409-005AI	PX419-005AI	PX429-005AI
15	1.0	PX409-015AI	PX419-015AI	PX429-015AI
30	2.1	PX409-030AI	PX419-030AI	PX429-030AI
50	3.4	PX409-050AI	PX419-050AI	PX429-050AI
100	6.9	PX409-100AI	PX419-100AI	PX429-100AI
150	10.3	PX409-150AI	PX419-150AI	PX429-150AI
250	17.2	PX409-250AI	PX419-250AI	PX429-250AI
500	34.5	PX409-500AI	PX419-500AI	PX429-500AI
750	51.7	PX409-750AI	PX419-750AI	PX429-750AI
1000	69	PX409-1.0KAI	PX419-1.0KAI	PX429-1.0KAI

**Ordering Examples:** PX409-1.0KGI, 4 to 20 mA output, 1000 psi gage pressure range, 2m (6') cable termination. PX429-015AI, 4 to 20 mA output, 15 psi absolute pressure, twist lock termination, PT06F10-6S, mating twist lock connector (sold separately), and DP25B-E, 4-digit meter, system with meter.  
(See B-25h for information on meters).

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# TRANSUCERS PIEZORESISTIVE DESIGN

## WITH HIGH TEMPERATURE PERFORMANCE



PX409-100GI, shown smaller than actual size.

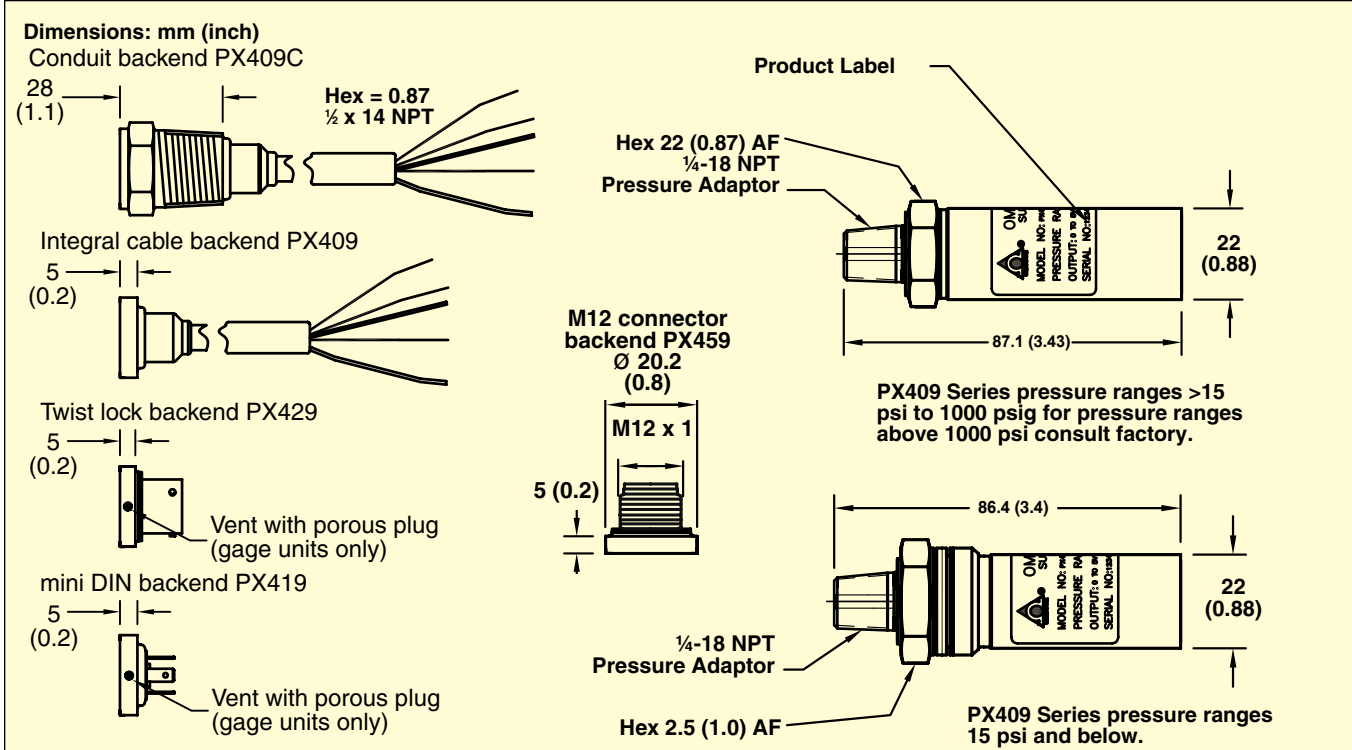
PX419-100GI, shown smaller than actual size.

PX429-015GI, shown smaller than actual size.

PX409 CABLE CONNECTION			
COLOR	mV	5/10V	mA
Black	- EXC	Common	- Supply
White	+ SIG	+ Output	NC
Green	- SIG	NC	NC
Red	+ EXC	+ EXC	+ Supply

PX419 and PX459 PIN OUT			
PIN	mV	5/10V	mA
1	+ EXC	+ EXC	+ Supply
2	- EXC	Common	- Supply
3	+ SIG	+ Output	NC
4	- SIG	NC	NC

PX429 TWIST LOCK PINOUT			
PIN	mV	5/10V	mA
A	+ EXC	+ EXC	+ Supply
B	- EXC	Common	- Supply
C	+ SIG	+ Output	NC
D	- SIG	NC	NC
E	NC	NC	NC
F	NC	NC	NC



METERS	
MODEL NO.	DESCRIPTION
DP41-S	6-digit high accuracy (0.005%) strain meter for use with mV/V output models
DP41-E	6-digit high accuracy (0.005%) process meter for use with voltage and current output models
DP41-B	6-digit high accuracy (0.005%) universal meter for use with voltage and current output models also accepts thermocouple and RTD inputs
DP25B-S	4-digit precision strain meter for use with mV/V output models
DP25B-E	4-digit precision process meter for use with voltage and current output models
ACCESSORIES	
CX5302	Extra mini-DIN connector for PX419 Series
PT06F10-6S	Mating twist lock connector for PX429 Series
PS-4G	Pressure snubber for air/gaseous media
PS-4E	Pressure snubber for water or light oils
PS-4D	Pressure snubber for dense liquids (motor oil)

B

## 4-Digit Precision Meter

### DP25B

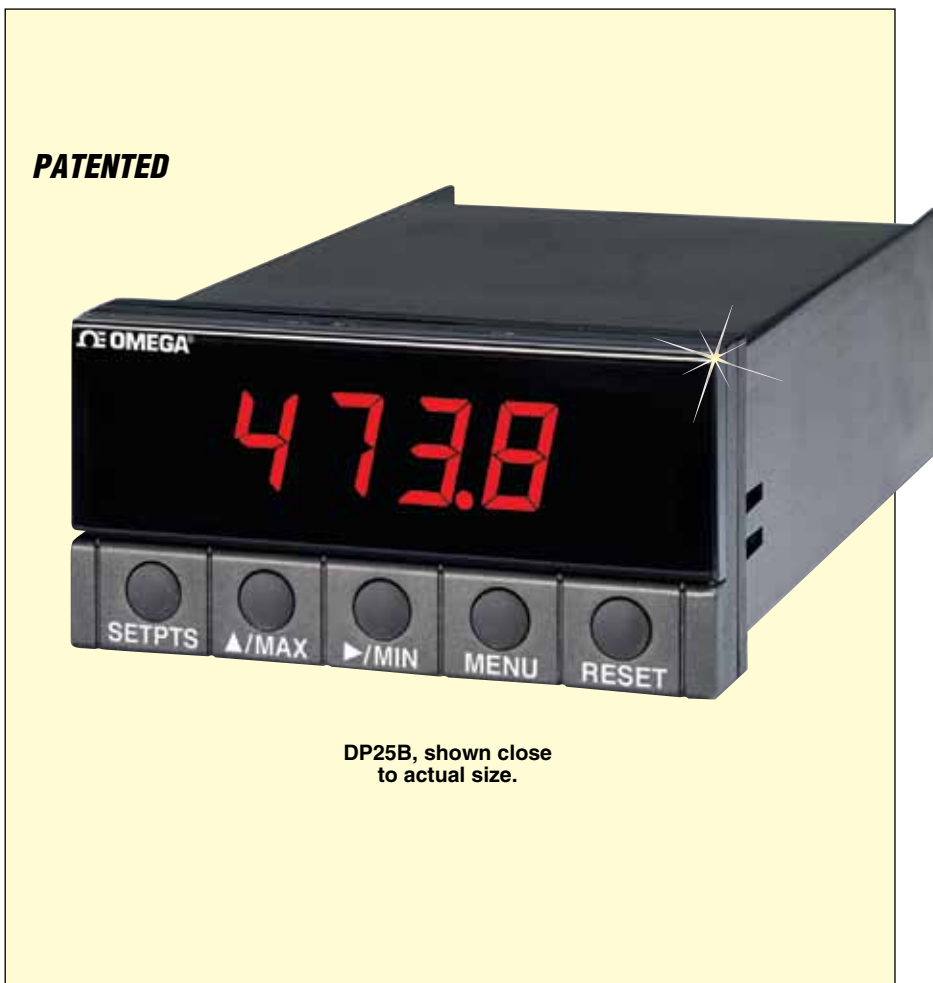


- ✓ mV, V, mA, Strain Gage Inputs
- ✓ Full Process Unit Scaling
- ✓ Built-In Transducer Power

### Process and Strain Models

Because they accept a wide range of DC voltage and current inputs, the DP25-B-E strain meters can handle most process and strain applications. Features include easy front-panel scaling to virtually any engineering units, a remote tare function for weighing applications, and a hardware lockout to prevent unauthorized changes in setup. In addition, the DP25-B-E meters feature built-in excitation in 4 user-selectable voltages, which makes them compatible with most transducers and transmitters.

**PATENTED**



DP25B, shown close to actual size.

### To Order

MODEL NO.	DESCRIPTION
DP25B-E	Voltage/current input with excitation
DP25B-S	mV input in excitation

Comes complete with operator's manual.

**Ordering Examples:** DP25B-E, voltage/current input meter for use with 0 to 5 V, 0 to 10 V, 4 to 20 mA output PX409 Series transducers. DP25B-S, mV input meter for use with mV/V output PX409 Series transducers.

# SI ION ON SAPPHIRE PRESSURE TRANSMITTER

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## WITH OPTIONAL LOOP POWERED PRESSURE MONITOR

### PX4200 Series

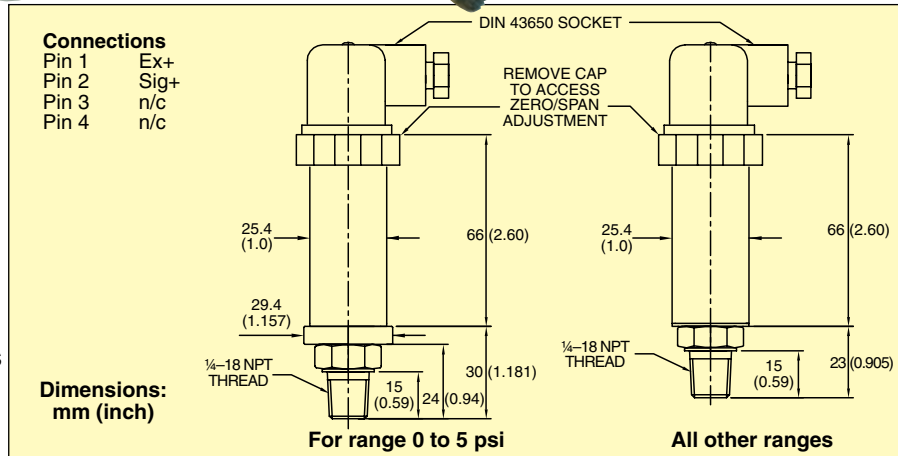
- ✓ Silicon on Sapphire Construction
- ✓ High Operating Temperature
- ✓ Titanium Wetted Parts
- ✓ 0.25% Accuracy
- ✓ Optional Plug-On Display with Available Set-point
- ✓ IP65 Enclosure

OMEGA's PX4200 Series Transmitters bring state-of-the-art Silicon-on-Sapphire (SOS) sensor technology to the industrial arena. SOS construction uses very stable solid state silicon strain gages on a Sapphire carrier which is glass bonded to a titanium diaphragm. This combination provides a very durable transducer which has excellent stability and corrosion resistance over a wide temperature range. A loop powered 3½ digit (-1999 to 1999) plug-on display adds versatility to the PX4200 by providing local display plus an available open collector set-point with 60 mA capability.

### SPECIFICATIONS

**Excitation:** 13 to 36 Vdc with PM1000  
 18 to 36 Vdc reverse polarity protected  
**Load Driving Capacity:** 1150Ω @ 36 Vdc, R maximum = (Vs-13)/20 with PM1000 R maximum = (Vs-18)/20  
**Output:** 4 to 20 mA (2-Wire) with zero and span adjustments  
**Accuracy:** ±0.25% full scale includes linearity, and hysteresis  
**Repeatability:** ±0.1% full scale  
**Long Term Stability (1yr):** ±0.2% full scale  
**Media Temperature:** -50 to 120°C (-58 to 248°F)  
**Ambient Temperature:** -40 to 80°C (-40 to 175°F)  
**Thermal Zero Effect:** <±0.016% full scale/°F  
**Thermal Span Effect:** <±0.016% full scale/°F  
**Humidity:** 95% RH non-condensing  
**Maximum Overpressure:** 200% full scale  
**Sensor:** Silicon on Sapphire  
**Wetted Parts:** Titanium  
**Case Material:** Stainless Steel, IP65  
**Pressure Port:** ¼ NPT male  
**Electrical Connection:** DIN 43650 plug mating connector supplied  
**Response Time:** 10 ms  
**Weight:** 90 g (3.2 oz)

Vacuum to 6000 psi  
 4 to 20 mA Output



To Order		
RANGE (psig)	MODEL NO.	COMPATIBLE METERS*
30 inHg to 0	PX4200-30VACI	DP41-E, DP25B-E, PM1000
0 inHg to 30	PX4200-30VACRI	DP41-E, DP25B-E, PM1000
0 to 5	PX4200-005GI	DP41-E, DP25B-E, PM1000
0 to 10	PX4200-010GI	DP41-E, DP25B-E, PM1000
0 to 15	PX4200-015GI	DP41-E, DP25B-E, PM1000
0 to 30	PX4200-030GI	DP41-E, DP25B-E, PM1000
0 to 60	PX4200-060GI	DP41-E, DP25B-E, PM1000
0 to 100	PX4200-100GI	DP41-E, DP25B-E, PM1000
0 to 150	PX4200-150GI	DP41-E, DP25B-E, PM1000
0 to 200	PX4200-200GI	DP41-E, DP25B-E, PM1000
0 to 300	PX4200-300GI	DP41-E, DP25B-E, PM1000
0 to 600	PX4200-600GI	DP41-E, DP25B-E, PM1000
0 to 1K	PX4200-1KGI	DP41-E, DP25B-E, PM1000
0 to 1.5K	PX4200-1.5KGI	DP41-E, DP25B-E, PM1000
0 to 3K	PX4200-3KGI	DP41-E, DP25B-E, DP24-E
0 to 6K	PX4200-6KGI	DP41-E, DP25B-E, DP24-E
PRESSURE MONITOR		
	PM1000	Plug-on display
	PM1001	Plug-on display with single set-point

\* Visit us online for compatible meters.  
 Comes complete with operator's manual.  
**Ordering Example:** PX4200-100GI, 0 to 100 psig range with a 4 to 20 mA current output, and PM1001 display with set-point.

SPECIALTY PRESSURE TRANSDUCERS



# SOLID STATE ISOLATED TRANSDUCER

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## IN A 1U8 TRANSISTOR CASE FOR OEM AND PC BOARD MOUNTING

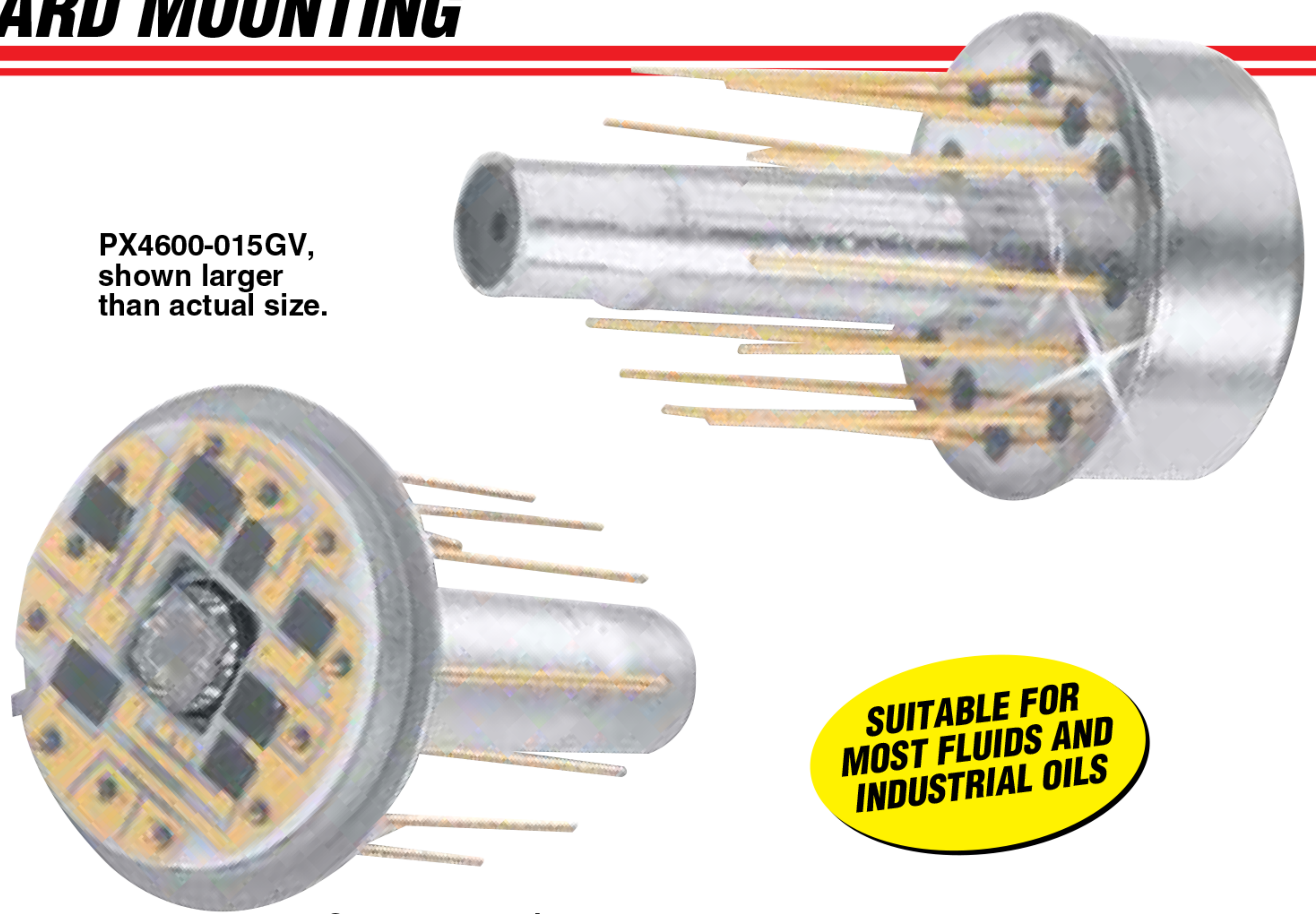
**mV/V Output**  
**0-15 to 0-300 psi**  
**0-1 to 0-20 bar**

### PX4600 Series



- ✓ **Small, Lightweight OEM Package**
- ✓ **Solid State Media Isolation Suitable for Use with Most Industrial Fluids and Oils**
- ✓ **Broad Temperature-Compensated Range of -55 to 121°C Yields High Stability with Changing Temperatures**
- ✓ **Electrical Isolation to 100 MΩ Ensures Long-Term Reliability**
- ✓ **Rugged, High Shock and Vibration Design for Tough OEM Applications**
- ✓ **100,000 Hours MTBF Typical**
- ✓ **Constant Voltage Operation—Easy to Use**
- ✓ **Built-In Temperature Sensor Standard**

OMEGA's PX4600 Series consists of accurate, highly reliable pressure transducers suitable for printed circuit board mounting. The small size and light weight of the PX4600 transducers make them ideal for tough vibration and shock environments. The sensor is a small silicon chip with 4 diffused silicon strain gages. Laser-trimmed resistors provide excellent temperature compensation from -54 to 121°C (-65 to 250°F), and users can adjust zero balance



PX4600-015GV, shown larger than actual size.

Cover removed to show detail.

**SUITABLE FOR MOST FLUIDS AND INDUSTRIAL OILS**

and span to tight tolerances. The unusually high performance of this transducer comes from a 4-active-arm bridge sensor using a micro-machined diffused silicon diaphragm and proprietary thin-film media and dielectric isolation barriers. See next page for specifications.



Actual size.

To Order			
RANGE		MODEL NO.	COMPATIBLE METERS*
<b>ABSOLUTE PRESSURE</b>			
0 to 15 psi	0 to 1.0 bar	<b>PX4600-015AV</b>	DP41-S, DP25B-S
0 to 20 psi	0 to 1.4 bar	<b>PX4600-020AV</b>	DP41-S, DP25B-S
0 to 50 psi	0 to 3.4 bar	<b>PX4600-050AV</b>	DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	<b>PX4600-100AV</b>	DP41-S, DP25B-S
0 to 200 psi	0 to 13.8 bar	<b>PX4600-200AV</b>	DP41-S, DP25B-S
0 to 300 psi	0 to 20.7 bar	<b>PX4600-300AV</b>	DP41-S, DP25B-S
<b>GAGE PRESSURE</b>			
0 to 15 psi	0 to 1.0 bar	<b>PX4600-015GV</b>	DP41-S, DP25B-S
0 to 20 psi	0 to 1.4 bar	<b>PX4600-020GV</b>	DP41-S, DP25B-S
0 to 50 psi	0 to 3.4 bar	<b>PX4600-050GV</b>	DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	<b>PX4600-100GV</b>	DP41-S, DP25B-S
0 to 200 psi	0 to 13.8 bar	<b>PX4600-200GV</b>	DP41-S, DP25B-S
0 to 300 psi	0 to 20.7 bar	<b>PX4600-300GV</b>	DP41-S, DP25B-S

Metric ranges available – consult Engineering.

\* Visit us online for compatible meters.

**Note:** Higher-performance units also available. Consult our custom design group for details.

**Ordering Examples:** PX4600-100GV, 100 psi gage pressure transducer.

PX4600-050AV, 50 psi absolute pressure transducer.

B-25

## SOLID STATE ISOLATED TRANSDUCER FOR OEM AND PC BOARD MOUNTING

### SPECIFICATIONS

**Electrical Excitation:** 10 Vdc  
**Output:** 30 mV ±10% @ 10 Vdc  
**Zero Balance:** 0 mV ±5% FSO  
**Input Resistance:** 2000 Ω minimum  
**Output Resistance:** 1000 to 1500 Ω  
**Dielectric Isolation Resistance:** 100 MΩ min @ 50 Vdc applied between the case or conductive media and the bridge circuit

### PERFORMANCE

**Accuracy:** ±0.25% FSO combined linearity, hysteresis, and repeatability  
**Sensing Element:** 4-active-arm bridge using a micro-machined diffused silicon diaphragm sensor and thin-film media and dielectric isolation barriers.

**Temperature Sensor:**  
 Output resistance @ 24°C (75°F)  
 900 to 1500 Ω

**Temperature Coefficient:**  
 8% min, 10% max per 55.5°C (100°F)

### ENVIRONMENTAL

**Operating Temperature:**

-55 to 150°C (-67 to 300°F)

**Compensated Temperature:**

-55 to 121°C (-67 to 250°F)

**Thermal Effects:**

**Zero:** ±0.036% FSO/°C

**Span:** ±0.036% FSO/°C

**Vibration Sensitivity:** At 35 g peak sinusoidal vibration from 10 Hz to 2000 Hz (½" D.A.), the output shall not exceed 0.04% FSO/g for 15 psi range, decreasing to 0.005% FSO/g for 100 psi and above.

**Natural Frequency:**

>35 kHz for 100 psi range

**Shock:** 100 g, 11 ms half sine wave without damage

**MTBF:** Typical 100,000 hours @ 55°C (131°F), fixed-wing aircraft service

### PRESSURE

**Standard Ranges:** 0 to 15, 20, 50, 100, 200, 300 psi gage and absolute pressure

**Proof Pressure:**

250% rated pressure, 500 psi max, will not cause changes in performance beyond specified tolerance

**Burst Pressure:**

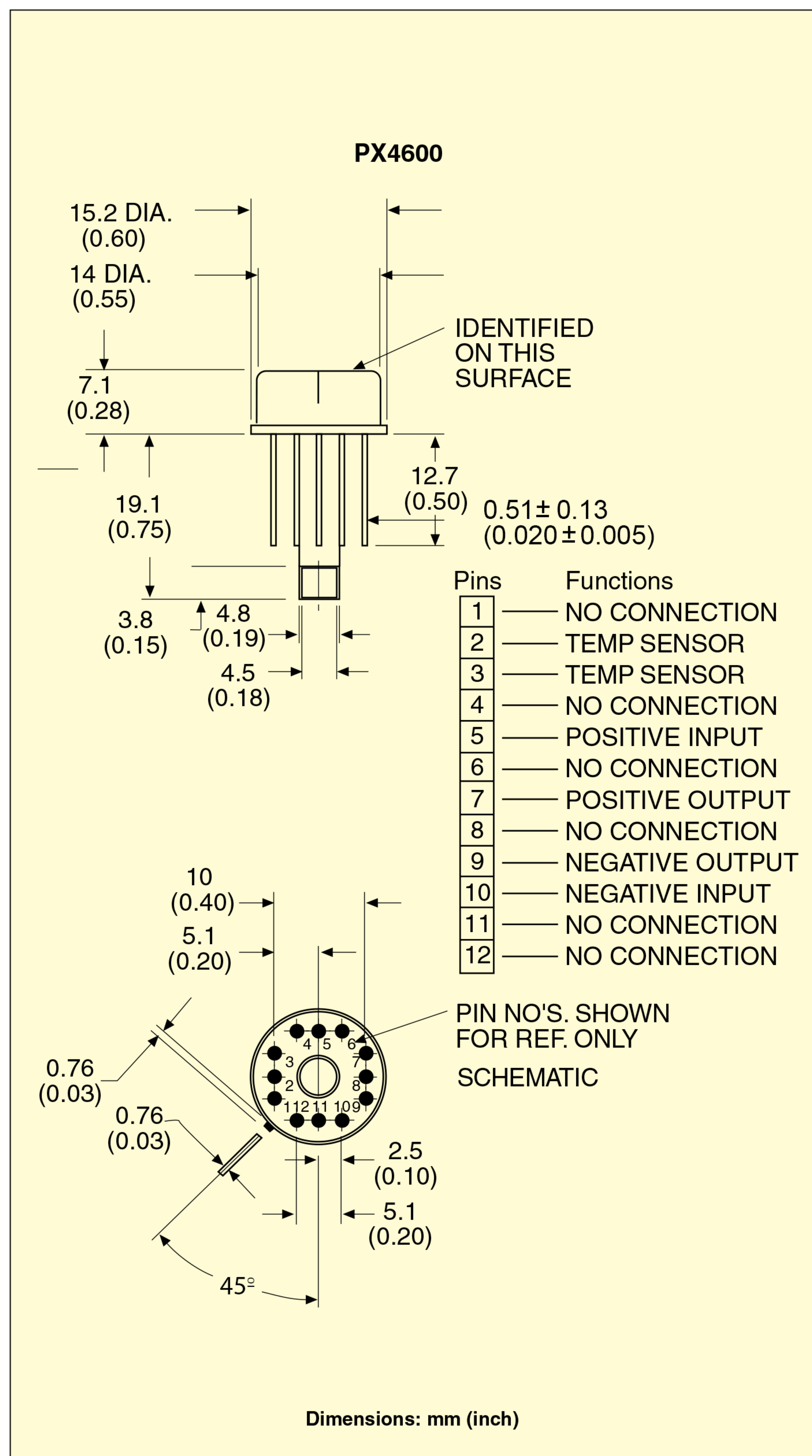
300% rated pressure, 500 psi max

### MECHANICAL

**Wetted Parts:**

Nitride, Pyrex® glass, epoxy and Kovar®

**Weight:** 5 g (0.2 oz) maximum



MILLIVOLT OUTPUT PRESSURE TRANSDUCERS B



**0 to -14.7 to 0-3000 psi**  
**0 to -1 to 0-207 bar**

## PX480A Series

- ✓ Excellent Total Accuracy and Interchangeability
- ✓ Gage Pressure, Vacuum, and Compound Ranges Available
- ✓ Rugged, Compact Design
- ✓ RFI/EMI Protection
- ✓ 316L Stainless Steel Wetted Parts

OMEGA's PX480A Series transducers, designed for general industrial and commercial requirements, offer excellent performance in a wide range of applications. They are based on proven micro-machined silicon technology, providing high reliability, long-term stability, and low cost. They are extremely accurate, with less than 0.3% FS reference accuracy. Wetted parts are made of 316L stainless steel for a wide range of media compatibility.

### SPECIFICATIONS

**Excitation:** 10 Vdc (regulated)  
**Output:** 0 to 50 mV for 0 to 1 psi models, 0 to 100 mV for all other ranges; bridge output  
**Load Resistance:** 50,000 Ω minimum  
**Accuracy:** 0.3% BFSL max (includes linearity, hysteresis and repeatability)  
**Operating Temperature:** -40 to 80°C (-40 to 176°F)  
**Compensated Temperature:**  
 15 psi and Above: -25 to 75°C (-13 to 167°F)  
 6 psi and Below: 0 to 50°C (32 to 122°F)

**Process Temperature:** -40 to 100°C (-40 to 212°F)

**Thermal Zero Effect:** 2% FS maximum over compensated temperature range

**Thermal Span Effect:** 2% FS maximum over compensated temperature range

PX480A-015GV, shown actual size.



**WIRING:**  
 Red = Ex -  
 Black = Ex +  
 Green = Sig +  
 White = Sig -

Metric thread adaptors available, visit us online

**1-Year Stability:** <0.25% FS  
**Proof Pressure:** 2x FS  
**Burst Pressure:** 3x FS  
**Wetted Parts:** 316L SS  
**Vibration:** 10 g, 55 to 2000 Hz  
**Shock:** 30 g

**Process Connection:** 1/8" NPT male  
**Electrical Connection:**  
 0.4 m (18") 24-gage shielded cable  
**Dimensions:** 1 1/2 hex;  
 72 H x 29.7 mm Dia. (2.84 x 1.17")  
**Weight:** 142 g (5 oz)

### To Order

#### GAGE PRESSURE RANGES

psi	bar	MODEL NO.	COMPATIBLE METERS*
0 to 1	0 to 68.9 mbar	PX480A-001GV	DP25B-S, DP41-S, DPiS Series
0 to 6	0 to 414 mbar	PX480A-006GV	DP25B-S, DP41-S, DPiS Series
0 to 15	0 to 1.0	PX480A-015GV	DP25B-S, DP41-S, DPiS Series
0 to 30	0 to 2.1	PX480A-030GV	DP25B-S, DP41-S, DPiS Series
0 to 60	0 to 4.1	PX480A-060GV	DP25B-S, DP41-S, DPiS Series
0 to 100	0 to 6.9	PX480A-100GV	DP25B-S, DP41-S, DPiS Series
0 to 200	0 to 13.8	PX480A-200GV	DP25B-S, DP41-S, DPiS Series
0 to 300	0 to 20.7	PX480A-300GV	DP25B-S, DP41-S, DPiS Series
0 to 500	0 to 34.5	PX480A-500GV	DP25B-S, DP41-S, DPiS Series
0 to 1000	0 to 69.0	PX480A-1KSV	DP25B-S, DP41-S, DPiS Series
0 to 2000	0 to 138	PX480A-2KSV	DP25B-S, DP41-S, DPiS Series
0 to 3000	0 to 207	PX480A-3KSV	DP25B-S, DP41-S, DPiS Series

#### VACUUM AND COMPOUND RANGES

0 to -14.7	0 to -1.0	PX480A-015VACV	DP25B-S, DP41-S, DPiS Series
-14.7 to 15	-1.0 to 1.0	PX480A-015CV	DP25B-S, DP41-S, DPiS Series

### Accessories

MODEL NO.	DESCRIPTION
PS-8E	Pressure snubber for water or light oils
PS-8D	Pressure snubber for dense liquids or oils
PS-8G	Pressure snubber for gases and steam

\* Visit us online for compatible meters.

Comes complete with operator's manual.

**Ordering Example:** PX480A-100GV, 0 to 100 psig transducer with 1 to 100 mV output.



# PRESSURE TRANSDUCER

## ULTRA-HIGH LONG-TERM STABILITY

**mV/V Output**  
**0-15 to 0-10,000 psi**  
**0-1 to 0-700 bar**

1 bar = 14.5 psi  
 1 kg/cm<sup>2</sup> = 14.22 psi  
 1 atmosphere = 14.7 psi = 29.93 inHg = 760.2 mmHg = 1.014 bar



**PX5000L1-3KGV,**  
 shown actual size.

### PX5000 Series



- ✓ High Shock and Vibration Resistance
- ✓ 100,000-Hour MTBF
- ✓ 0.1% Stability for 18 Months
- ✓ High Operating Temperature: -54 to 150°C (-65 to 300°F)
- ✓ Solid State Reliability
- ✓ 5-Point NIST Calibration Standard

### Applications

- ✓ Automotive Testing
- ✓ Gas Turbine Engines
- ✓ Flight Testing
- ✓ Aircraft
- ✓ Space Launch Vehicles and Satellites
- ✓ Weapon Systems

OMEGA's PX5000 Series pressure transducers have earned a reputation for high performance, reliability, and stability in tough, real-world applications. These outstanding transducers use OMEGA's advanced sputtered thin-film sensor technology.

In the sputtering process, gage material is accelerated in a vacuum chamber toward a sensor substrate, molecule by molecule. Each molecule interacts with an energy of several thousand electron volts—sufficient to penetrate a few atomic layers and produce the most stable and reliable bond possible. This unique molecular gage bonding provides superior

long-term calibration stability and reliability, since the sensors have no cement bonds to degrade with time or weaken at higher temperatures. The PX5000 transducer excels in adverse operating environments. The photo-etched gage pattern makes the sensing element components very small, with short interconnecting leads. This micro-geometry reduces vibration mass, making this transducer much less susceptible to vibration and shock failures and errors.

To Order			
Models with mV/V Output, MS33656-4 Fitting and Integral Connector			
RANGE		MODEL NO.	COMPATIBLE METERS*
<b>ABSOLUTE PRESSURE (Note: All Ranges Available in Absolute Pressure)</b>			
0 to 15 psi	0 to 1.0 bar	<b>PX5000L1-015AV</b>	DP41-S, DP25B-S
0 to 25 psi	0 to 1.7 bar	<b>PX5000L1-025AV</b>	DP41-S, DP25B-S
0 to 50 psi	0 to 3.4 bar	<b>PX5000L1-050AV</b>	DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	<b>PX5000L1-100AV</b>	DP41-S, DP25B-S
<b>GAGE PRESSURE (Note: All Ranges Also Available in Sealed Gage Pressure)</b>			
0 to 15 psi	0 to 1.0 bar	<b>PX5000L1-015GV</b>	DP41-S, DP25B-S
0 to 25 psi	0 to 1.7 bar	<b>PX5000L1-025GV</b>	DP41-S, DP25B-S
0 to 50 psi	0 to 3.4 bar	<b>PX5000L1-050GV</b>	DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	<b>PX5000L1-100GV</b>	DP41-S, DP25B-S
0 to 250 psi	0 to 17.2 bar	<b>PX5000L1-250GV</b>	DP41-S, DP25B-S
0 to 500 psi	0 to 34.5 bar	<b>PX5000L1-500GV</b>	DP41-S, DP25B-S
0 to 1000 psi	0 to 68.9 bar	<b>PX5000L1-1KGV</b>	DP41-S, DP25B-S
0 to 1500 psi	0 to 103 bar	<b>PX5000L1-1.5KGV</b>	DP41-S, DP25B-S
0 to 2500 psi	0 to 172 bar	<b>PX5000L1-2.5KGV</b>	DP41-S, DP25B-S
0 to 3000 psi	0 to 207 bar	<b>PX5000L1-3KGV</b>	DP41-S, DP25B-S
0 to 5000 psi	0 to 345 bar	<b>PX5000L1-5KGV</b>	DP41-S, DP25B-S
0 to 10,000 psi	0 to 689 bar	<b>PX5000L1-10KGV</b>	DP41-S, DP25B-S

Comes complete with 5-point calibration.

\* Visit us online for compatible meters.

Metric ranges available – Consult Engineering.

To order absolute pressure, replace "G" in model number with "A" (no extra charge).

To order sealed gage pressure, replace "G" in model number with "S" (no extra charge).

**Ordering Examples:** **PX5000L1-100AV**, 100 psi absolute pressure transducer, with MS33656-4 male pressure connection and integral electrical connector.  
**PTS06A-10-6S-R**, mating connector.

**PX5000L1-5KGV**, 5000 psi gage pressure transducer, with MS33656-4 male pressure connection and integral electrical connector. **PTS06A-10-6S-R**, mating connector.

MODEL NO.	DESCRIPTION
<b>PTS06A-10-6S-R</b>	Mating connector for PX5000 units w/PTIH-10-6P electrical connection

# HIGH-PERFORMANCE PRESSURE TRANSDUCER

Rugged all-welded construction ensures a durable and reliable instrument. And this transducer now provides electrostatic discharge (ESD) protection to 15 kV.

Users get state-of-the-art thin-film reliability and performance with the PX5000 pressure transducer, yet it is competitively priced. The result is highest value—premium performance without a premium price. This transducer is also available with an optional 11-point NIST-traceable calibration.

## SPECIFICATIONS

**Excitation:** 10 Vdc

**Output:** 30 mV typical, 26 mV minimum

**Input Resistance:**

2500 Ω typical, 800 Ω minimum, 3000 Ω maximum

**Output Resistance:**

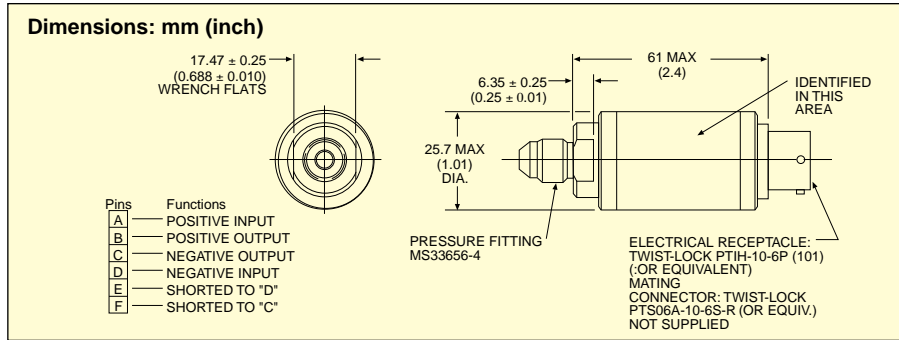
2500 Ω typical, 800 Ω minimum, 3300 Ω maximum; for 350 Ω bridge, see Custom Configurations

**Insulation Resistance:** 500MΩ minimum at 50Vdc over compensated range

**Sensing Element:** 4-active-arm bridge using sputter-deposited thin-film elements

**Accuracy:** Combined linearity, hysteresis and nonrepeatability: ±0.10% FSO 0 to 15 through 0 to 999 psi; ±0.15% FSO 1000 psi and above

**Calibration Stability:** ±0.1% for 18 months



**Reliability:** MTBF = 100,000 hours

**Operating Temp Range:** -54 to 150°C (-65 to 300°F)

**Compensated Temp Range:** -54 to 121°C (-65 to 250°F)

**Thermal Effects:**

**Span:** ±0.005% FSO/°F

**Zero:** ±0.005% FSO/°F

**Vibration Sensitivity:** At 35 g peak sinusoidal vibration from 10 Hz to 2000 Hz (½" D.A.), the output shall not exceed 0.04% FSO/g for 15 psi range to 0.003% FSO/g for 1000 psi and above

**Natural Frequency:** 50 kHz for 5000 psi range, decreasing logarithmically to 5 kHz for 15 psi range

**Shock:** Qualification level of 100 g, 11 ms half sine wave without damage

**Humidity:** Qualified per MIL-STD-810

**Electrostatic Discharge (ESD):** Protected to 15 kV

**Pressure:** 2 times rated pressure or 15,000 psi, whichever is less, will not cause changes in performance beyond the specified tolerances

**Burst Pressure:** 3 times rated pressure or 20,000 psi, whichever is less, will not cause rupture of the pressure containment cavity

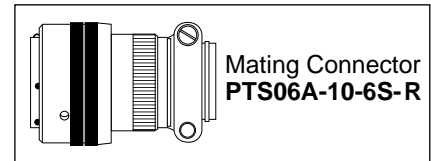
**Wetted Parts:** 17-4 PH stainless steel or 15-5 PH stainless steel

**Pressure Fitting:** ¼"-20 male per MS33656-4

**Mounting Sensitivity:** Less than 0.05% FSO change in zero when mounted by the pressure port to a manifold at a torque of 15 ft-lb on a solid copper gasket

**Mating Connector:** PTS06A-10-6S-R (sold separately)

**Weight:** 145 g (5 oz) maximum



## CUSTOM CONFIGURATIONS

SERIES	PRESSURE PORT	ELECTRICAL CONNECTION	RANGE	UNITS	OUTPUT	OPTIONS
PX5000*	[ 1 ]	[ 2 ]	[ 3 ]	[ 4 ]	[ 5 ]	[ 6 ]
	L = MS33656-4		015 psi	A,G,S	V = mV/V output	CAL11 = 11-point NIST-traceable calibration + additional cost
			025	A,G,S		
			050	A,G,S		
			100	A,G,S		
			250	A,G,S		
			500	A,G,S		
			1K	A,G,S		
			1.5K	A,G,S		
			2.5K	A,G,S		
			3K	A,G,S		
			5K	A,G,S		
			10K	A,G,S		

\* For 350 Ω bridge change model to PX5003, no additional charge.

1 = PTIH-10-6P connector (or equal). Mating connector (sold separately), order PTS06A-10-6S-R

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units – Absolute, Gage or Sealed gage
5. Select output
6. Select options and agency approvals

Metric ranges available – Consult Engineering.

**Ordering Examples:** PX5003L1-100AV, 350 Ω bridge, MS33656-4 male pressure port, PTIH-10-6P connector, 100 psi absolute pressure range and mV/V output, \$750. PTS06A-10-6S-R, mating connector (sold separately).

PX5000L1-5KSV-CAL11, 2500 Ω bridge, MS33656-4 male pressure port, PTIH-10-6P connector, 5000 psi sealed gage pressure range, mV/V output and optional 11-point NIST-traceable calibration. PTS06A-10-6S-R, mating connector (sold separately).

PX5000L1-1KGV, 2500 Ω bridge, MS33656-4 male pressure port, PTIH-10-6P connector, 1000 psi gage pressure range, mV/V output and standard 5-point NIST-traceable calibration. PTS06A-10-6S-R, mating connector (sold separately).



MILLIVOLT OUTPUT  
PRESSURE TRANSDUCERS

B



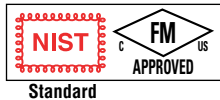
# INTRINSICALLY SAFE PRESSURE TRANSMITTERS FOR HAZARDOUS LOCATIONS

## STANDARD AND METRIC MODELS

**High 0.08% Accuracy**  
**Gage Pressure: 10 inH<sub>2</sub>O to 3500 psi (25 mb to 245 bar)**  
**Sealed Gage: 0 to 100 psi to 0 to 3500 psi (0 to 7 bar to 0 to 245 bar)**  
**Absolute Pressure: 5 to 1000 psi (350 mb to 70 bar)**  
**Compound Gage: ±10 inH<sub>2</sub>O to ±15 psi (±25 mbar to ±1 bar)**  
**Vacuum (Negative Gage): 0 to -10 inH<sub>2</sub>O to 0 to -15 psi (0 to -25 mbar to 0 to -1 bar)**  
**Barometric Ranges: 0, 16 or 26 inHg to 32 inHg (0, 550 or 880 hPa to 1100 hPa)**

**Please Note:**  
**Not for export,**  
**USA and Canada only**

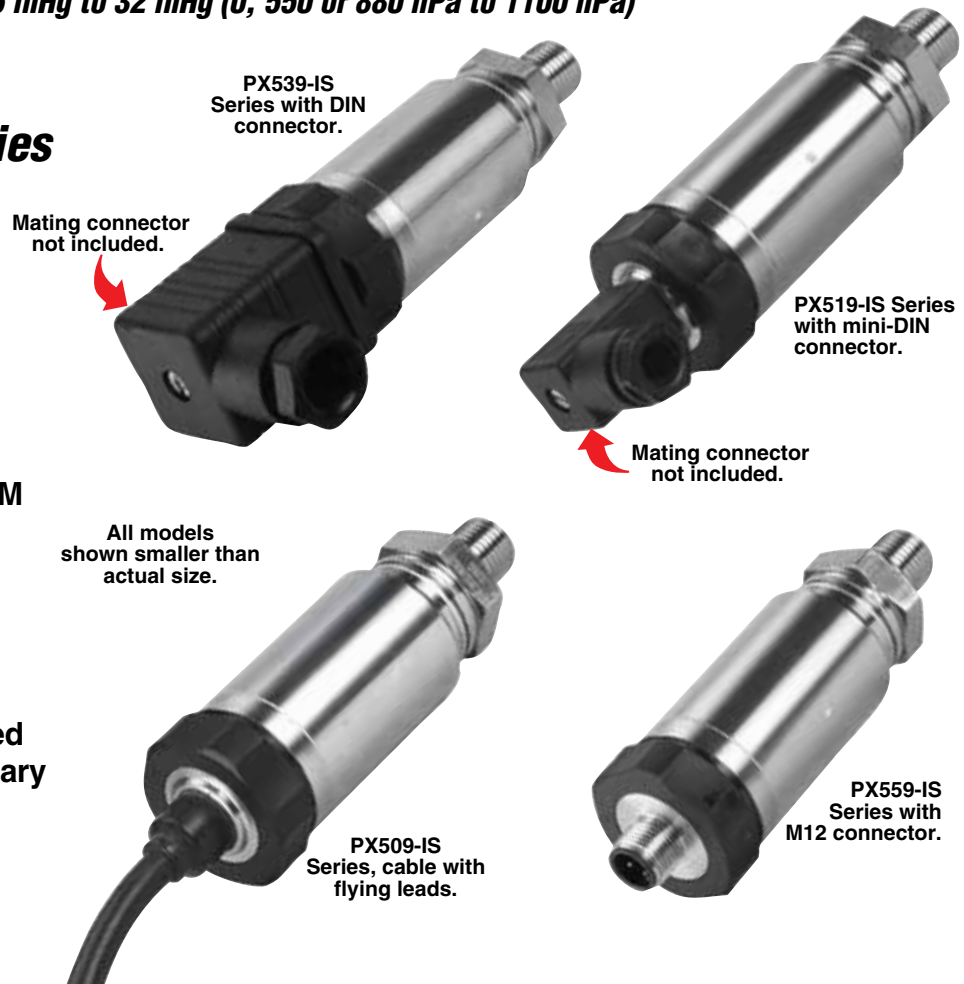
### PX509/PXM509-IS Series



- ✓ High 0.08% Accuracy with NIST Traceable Calibration Certificate
- ✓ 4 to 20 mA Output with FM Intrinsically Safe Rating
- ✓ Solid State Sensor for Long Term Stability
- ✓ 316L SS Wetted Parts and Welded Stainless Steel Construction
- ✓ Shock and Vibration Rated
- ✓ Ruggedized with Secondary Containment System
- ✓ Demountable Electrical Termination
- ✓ User Accessible Trim Pots on Most Models

### APPLICATIONS

- ✓ Process Control
- ✓ Hydraulic and Pneumatic Systems
- ✓ Natural Gas Compressors
- ✓ Chemical Refineries
- ✓ Oil and Gas
- ✓ Pipeline Measurements
- ✓ Hydrogen (316L SS Wetted Parts Standard)
- ✓ Power Generation



All models shown smaller than actual size.

The PX509 intrinsically safe transducers are rugged all stainless steel transducers specifically designed to meet the requirements for use in hazardous locations for all classes and zones.

Features include welded stainless steel construction, user accessible potentiometers, and a demountable electrical termination end. They are designed for rugged industrial applications, and have high shock and vibration ratings and excellent long term stability.

A precision micromachined silicon sensor is at the core, and provides a

very stable reading with exceptional high accuracy of 0.08% and a broad compensated range of -29 to 75°C (-20 to 167°F) on most ranges.

Modular construction allows for fast delivery of most configurations and fittings including agency approved models, plus, customized models also can be delivered quickly to suit your exact needs. Models with 1/2 NPT conduit fitting (PX509C) do not have a demountable termination and trim pots are an extra cost option.

Intrinsically safe models are available in many ranges and configurations.

# INTRINSICALLY SAFE TRANSMITTERS

## AGENCY APPROVALS

TYPE	AGENCY	APPROVAL LISTINGS
Intrinsically Safe (US and Canada)	FM	Hazardous (Classified) Location, Rated Intrinsically Safe, Securite Intrinsique Class I, II, III, Division 1 Gr A, B, C, D, E, F, G Class I, Zone 0 Aex ia IIc (US), Class I, Zone 0 Ex ia IIC (Canada), T4, Ta = -40 to 75°C
Non-Incendive	FM	FM Hazardous (Classified) Location, Rated Non-Incendive Class I Division 2 Groups A, B, C, D (US and Canada) T4, Ta = -40 to 75°C, Conduit electrical connections only

**NOTE:** Please refer to [www.omega.com/approvals/](http://www.omega.com/approvals/) for downloadable copies of FM Approvals Certificate of Compliance and installation control drawings.

## SPECIFICATIONS

### Compensated Temperature & Thermal Effects:

#### Compensated Temperature

10 inH<sub>2</sub>O to 5 psi: -17 to 75°C

15 to 3500 psi: -29 to 75°C

#### Zero Temperature Shift

10 inH<sub>2</sub>O to 5 psi: ±1.0% span

15 to 3500 psi: ±0.5% span

#### Span Temperature Shift

10 inH<sub>2</sub>O to 5 psi: ±1.0% span

15 to 3500 psi: ±0.5% span

#### Over Pressure

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

1 psi: 6 times

2.5 to 500 psi: 4 times

750 to 3500: 3 times

#### Containment

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

15 to 750 psi: To 3000 psi

1000 psi: To 4000 psi

1500 psi: To 6000 psi

2500 psi: To 8000 psi

3500 psi: To 11,000 psi

### Absolute/Barometric Pressure Ranges

#### Over Pressure

5 psia: 6 times span

15 to 1000 psia: 4 times span

1500 to 5000 psia: 7250 psia maximum

#### Containment

All Ranges: To 1000 psi

### Gauge/Vacuum/Compound Pressure Ranges

#### Over Pressure

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

1 psi: 6 times span

2.5 to 1000 psi: 4 times span

1500 to 5000 psi: 7250 psi maximum

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

**Accuracy (Combined Linearity, Hysteresis and Repeatability):**

±0.08% BSL maximum (other accuracies available)

For conduit (C and CW) zero and span set ±0.5% full scale typical ±1% maximum or set ±1% full scale typical ±2% maximum ranges 2.5 psi and below

**Pressure Cycles:** 1 million typical

**Long Term Stability (1-Year):** ±0.1% full scale typical

**Excitation Voltage:** 10 to 28 Vdc, output 4 to 20 mA

**Operating Temperature:** -40 to 75°C (-40 to 167°F)

**Wetted Material:** 316L stainless steel

**Bandwidth:** DC to 1kHz (typical)

**Sensor:** Oil filled silicon

**EMC Compliant:** Up to 30 m (98.4') of cable

EN 61326-1:2006

EN 61326-2-3:2006 Industrial levels

**Shock:** 50 g, 11 msec half sine shock

**Vibration:** ±20 g

**Response Time:** <1 msec

**RoHS Compliant**

**Standard Pressure Port:** ¼-18 NPT male

**Metric Pressure Port:** G1/4B male most popular (other ports available, please contact the Factory)

**Weight:** 315 g (11 oz) typical depending upon configuration

**PX509 also available in industrial models with 5 or 10 Vdc or 4 to 20 mA outputs.**

## ELECTRICAL TERMINATIONS



**Gage, Sealed Gage and Absolute Pressure Ranges 4 to 20 mA Output**

<b>To Order</b>			
<b>RANGE/RESOLUTION</b>		<b>STANDARD MODELS</b>	<b>METRIC MODELS</b>
<b>STANDARD</b>	<b>METRIC</b>		
<b>GAGE PRESSURE</b>		<b>SEE TABLE ON PREVIOUS PAGE FOR AGENCY APPROVALS</b>	
0 to 10 inH <sub>2</sub> O	0 to 25 mb	PX5 <sup>[**]</sup> -10WGC2IS	PXM5 <sup>[**]</sup> -025HGC2IS
0 to 1 psig	0 to 70 mb	PX5 <sup>[**]</sup> -001GC2IS	PXM5 <sup>[**]</sup> -070HGC2IS
0 to 2.5	0 to 170 mb	PX5 <sup>[**]</sup> -2.5GC2IS	PXM5 <sup>[**]</sup> -170HGC2IS
0 to 5	0 to 350 mb	PX5 <sup>[**]</sup> -005GC2IS	PXM5 <sup>[**]</sup> -350HGC2IS
0 to 15	0 to 1 bar	PX5 <sup>[**]</sup> -015GC2IS	PXM5 <sup>[**]</sup> -001BGC2IS
0 to 30	0 to 2	PX5 <sup>[**]</sup> -030GC2IS	PXM5 <sup>[**]</sup> -002BGC2IS
0 to 50	0 to 3.5	PX5 <sup>[**]</sup> -050GC2IS	PXM5 <sup>[**]</sup> -3.5BGC2IS
0 to 100	0 to 7	PX5 <sup>[**]</sup> -100GC2IS	PXM5 <sup>[**]</sup> -007BGC2IS
0 to 150	0 to 10	PX5 <sup>[**]</sup> -150GC2IS	PXM5 <sup>[**]</sup> -010BGC2IS
0 to 250	0 to 17.5	PX5 <sup>[**]</sup> -250GC2IS	PXM5 <sup>[**]</sup> -17.5BGC2IS
0 to 500	0 to 35	PX5 <sup>[**]</sup> -500GC2IS	PXM5 <sup>[**]</sup> -035BGC2IS
0 to 750	0 to 50	PX5 <sup>[**]</sup> -750GC2IS	PXM5 <sup>[**]</sup> -050BGC2IS
0 to 1000	0 to 70	PX5 <sup>[**]</sup> -1.0KGC2IS	PXM5 <sup>[**]</sup> -070BGC2IS
0 to 1500	0 to 100	PX5 <sup>[**]</sup> -1.5KGC2IS	PXM5 <sup>[**]</sup> -100BGC2IS
0 to 2500	0 to 175	PX5 <sup>[**]</sup> -2.5KGC2IS	PXM5 <sup>[**]</sup> -175BGC2IS
0 to 3500	0 to 245	PX5 <sup>[**]</sup> -3.5KGC2IS	PXM5 <sup>[**]</sup> -245BGC2IS
<b>SEALED GAGE</b>		<b>SEE TABLE ON PREVIOUS PAGE FOR AGENCY APPROVALS</b>	
0 to 100 psi	0 to 7 bar	PX5 <sup>[**]</sup> -100SGC2IS	PXM5 <sup>[**]</sup> -7BSGC2IS
0 to 150	0 to 10	PX5 <sup>[**]</sup> -150SGC2IS	PXM5 <sup>[**]</sup> -10BSGC2IS
0 to 250	0 to 17.5	PX5 <sup>[**]</sup> -250SGC2IS	PXM5 <sup>[**]</sup> -17.5BSGC2IS
0 to 500	0 to 35	PX5 <sup>[**]</sup> -500SGC2IS	PXM5 <sup>[**]</sup> -35BSGC2IS
0 to 750	0 to 50	PX5 <sup>[**]</sup> -750SGC2IS	PXM5 <sup>[**]</sup> -50BSGC2IS
0 to 1000	0 to 70	PX5 <sup>[**]</sup> -1.0KSGC2IS	PXM5 <sup>[**]</sup> -70BSGC2IS
0 to 1500	0 to 100	PX5 <sup>[**]</sup> -1.5KSGC2IS	PXM5 <sup>[**]</sup> -100BSGC2IS
0 to 2500	0 to 175	PX5 <sup>[**]</sup> -2.5KSGC2IS	PXM5 <sup>[**]</sup> -175BSGC2IS
0 to 3500	0 to 245	PX5 <sup>[**]</sup> -3.5KSGC2IS	PXM5 <sup>[**]</sup> -245BSGC2IS
<b>ABSOLUTE PRESSURE MODELS</b>		<b>SEE TABLE ON PREVIOUS PAGE FOR AGENCY APPROVALS</b>	
0 to 5 psi	0 to 350 mb	PX5 <sup>[**]</sup> -005AC2IS	PXM5 <sup>[**]</sup> -350HAC2IS
0 to 15	0 to 1 bar	PX5 <sup>[**]</sup> -015AC2IS	PXM5 <sup>[**]</sup> -001BAC2IS
0 to 30	0 to 2	PX5 <sup>[**]</sup> -030AC2IS	PXM5 <sup>[**]</sup> -002BAC2IS
0 to 50	0 to 3.5	PX5 <sup>[**]</sup> -050AC2IS	PXM5 <sup>[**]</sup> -3.5BAC2IS
0 to 100	0 to 7	PX5 <sup>[**]</sup> -100AC2IS	PXM5 <sup>[**]</sup> -007BAC2IS
0 to 150	0 to 10	PX5 <sup>[**]</sup> -150AC2IS	PXM5 <sup>[**]</sup> -010BAC2IS
0 to 250	0 to 17.5	PX5 <sup>[**]</sup> -250AC2IS	PXM5 <sup>[**]</sup> -17.5BAC2IS
0 to 500	0 to 35	PX5 <sup>[**]</sup> -500AC2IS	PXM5 <sup>[**]</sup> -035BAC2IS
0 to 750	0 to 50	PX5 <sup>[**]</sup> -750AC2IS	PXM5 <sup>[**]</sup> -050BAC2IS
0 to 1000	0 to 70	PX5 <sup>[**]</sup> -1.0KAC2IS	PXM5 <sup>[**]</sup> -070BAC2IS
0 to 1500	0 to 100	PX5 <sup>[**]</sup> -1.5KAC2IS	PXM5 <sup>[**]</sup> -100BAC2IS
0 to 2500	0 to 175	PX5 <sup>[**]</sup> -2.5KAC2IS	PXM5 <sup>[**]</sup> -175BAC2IS
0 to 3500	0 to 245	PX5 <sup>[**]</sup> -3.5KAC2IS	PXM5 <sup>[**]</sup> -245BAC2IS

All models come complete with 5-point NIST traceable calibration.

Any cable or connector must meet the requirements of the environment where it is being installed. The safety engineer should specify the cables and connectors.

<b>[**] SELECT</b>	<b>MODEL NO.</b>	<b>ELECTRICAL TERMINATION</b>	<b>ENVIRONMENT RATING</b>
09	PX509	Cable with flying leads, 2 m (6')	IP65
09C	PX509C	Cable with ½ NPT conduit connector (no trim pots, not demountable)	IP65
09CP	PX509CP	Cable with ½ NPT conduit connector and side accessible trim pots	IP65
09CW	PX509CW	Submersible cable with ½ NPT conduit connector (no trim pots, not demountable) 3 m (10')	IP65
09CWP	PX509CWP	Submersible cable with ½ NPT conduit connector and side accessible trim pots (not demountable) 3 m (10')	IP65
19	PX519	mini-DIN connector (mating connector not included)	IP65
29	PX529	Twist-lock 6 pin connector	IP65
39	PX539	DIN connector (mating connector not included)	IP65
49	PX549	Glass to metal sealed solder pins	IP65
59	PX559	M12 connector, M12 cables sold separately	IP65

**Ordering Examples:** PX509C-100GC2IS, 2 m (6') cable termination with ½ NPT conduit fitting, 100 psig range, 4 to 20 mA output with FM intrinsically safe rating.

PX509CP-1.0KGC2IS, 2 m (6') cable termination with ½ NPT conduit fitting with side accessible trim pots, 1000 psig range, 4 to 20 mA output with FM intrinsically safe rating.

PX519-005AC2IS, mini-DIN connector (mating connector not included), 0 to 5 psi absolute range, 4 to 20 mA output with FM intrinsically safe rating.

# INTRINSICALLY SAFE PRESSURE TRANSMITTERS FOR HAZARDOUS LOCATIONS

## STANDARD AND METRIC MODELS

### ELECTRICAL TERMINATIONS



### Compound Gage, Vacuum and Barometric Pressure Ranges 4 to 20 mA Output

#### To Order

RANGE		STANDARD MODELS	METRIC MODELS
STANDARD	METRIC		
COMPOUND GAGE RANGES		SEE TABLE FOR AGENCY APPROVALS	
±10 inH <sub>2</sub> O	±25 mbar	PX5 <sup>[**]</sup> -10WCGBC2IS	PXM5 <sup>[**]</sup> -025HCGBC2IS
±1 psig	±70 mbar	PX5 <sup>[**]</sup> -001CGBC2IS	PXM5 <sup>[**]</sup> -070HCGBC2IS
±2	±170 mbar	PX5 <sup>[**]</sup> -2.5CGBC2IS	PXM5 <sup>[**]</sup> -170HCGBC2IS
±5	±350 mbar	PX5 <sup>[**]</sup> -005CGBC2IS	PXM5 <sup>[**]</sup> -350HCGBC2IS
±15	±1 bar	PX5 <sup>[**]</sup> -015CGBC2IS	PXM5 <sup>[**]</sup> -001BCGBC2IS
VACUUM RANGES (NEGATIVE GAGE)		SEE TABLE FOR AGENCY APPROVALS	
0 to -10 inH <sub>2</sub> O	0 to -25 mbar	PX5 <sup>[**]</sup> -10WVC2IS	PXM5 <sup>[**]</sup> -025HVC2IS
0 to -1 psig	0 to -70 mbar	PX5 <sup>[**]</sup> -001VC2IS	PXM5 <sup>[**]</sup> -070HVC2IS
0 to -2.5	0 to -170 mbar	PX5 <sup>[**]</sup> -2.5VC2IS	PXM5 <sup>[**]</sup> -170HVC2IS
0 to -5	0 to -350 mbar	PX5 <sup>[**]</sup> -005VC2IS	PXM5 <sup>[**]</sup> -350HVC2IS
0 to -15	0 to -1 bar	PX5 <sup>[**]</sup> -015VC2IS	PXM5 <sup>[**]</sup> -001BVC2IS
BAROMETRIC RANGES (ABSOLUTE PRESSURE)		SEE TABLE FOR AGENCY APPROVALS	
0 to 32 inHg	0 to 1100 hPa	PX5 <sup>[**]</sup> -32BC2IS	PXM5 <sup>[**]</sup> -1100HBC2IS
16 to 32 inHg	550 to 1100 hPa	PX5 <sup>[**]</sup> -16BC2IS	PXM5 <sup>[**]</sup> -550HBC2IS
26 to 32 inHg	880 to 1100 hPa	PX5 <sup>[**]</sup> -26BC2IS	PXM5 <sup>[**]</sup> -880HBC2IS

All models come complete with 5-point NIST traceable calibration.

Any cable or connector must meet the requirements of the environment where it is being installed. The safety engineer should specify the cables and connectors.

[**] SELECT	MODEL NO.	ELECTRICAL TERMINATION	ENVIRONMENT RATING
09	PX509	Cable with flying leads, 2 m (6')	IP65
09C	PX509C	Cable with ½ NPT conduit connector and specify model PX509C (no trim pots, not demountable)	IP65
09CP	PX509CP	Cable with ½ NPT conduit connector and side accessible trim pots specify model PX509CP	IP65
09CW	PX509CW	Submersible cable with ½ NPT conduit connector (no trim pots, not demountable) 3 m (10')	IP65
09CWP	PX509CWP	Submersible cable with ½ NPT conduit connector and side accessible trim pots (not demountable) 3 m (10')	IP65
19	PX519	Mini-DIN connector (mating connector not included)	IP65
29	PX529	Twist-lock 6 pin connector	IP65
39	PX539	DIN connector (mating connector not included)	IP65
49	PX549	Glass to metal sealed solder pins	IP65
59	PX559	M12 connector, M12 cables sold separately	IP65

Custom configurations also available, visit us online for details.

**Ordering Examples:** PX509C-16BC2IS, 2 m (6') cable termination with ½ NPT conduit fitting, 16 to 32 inHg barometric range, 4 to 20 mA output with FM intrinsically safe rating.

PX529C-2.5VC2IS, twist-lock 6 pin connector, 0 to -2.5 psi vacuum range, 4 to 20 mA output with FM intrinsically safe rating.

PX549-16HBC2IS, glass to metal sealed solder pins, 550 to 1100 hPa barometric range, 4 to 20 mA output with FM intrinsically safe rating.

PX559-001CGBC2IS, M12 connector termination, ±1 psi compound gage range, 12 mA ±8 mA output (zero =12 mA) with FM intrinsically safe rating.





# Heavy-Duty Industrial Pressure

## Transmitters

### Imperial and Metric Models

**Unique Dual 1/2 and 1/4 NPT Fitting**  
**4 to 20 mA, 0 to 5 Vdc or 0 to 10 Vdc Outputs**  
**0-10 to 0-30,000 psi-Imperial Models**  
**0-0.7 to 0-400 bar-Metric Models**

1 bar = 14.5 psi  
 1 kg/cm<sup>2</sup> = 14.22 psi  
 1 atmosphere = 14.7 psi = 29.93 inHg = 760.2 mmHg = 1.014 bar

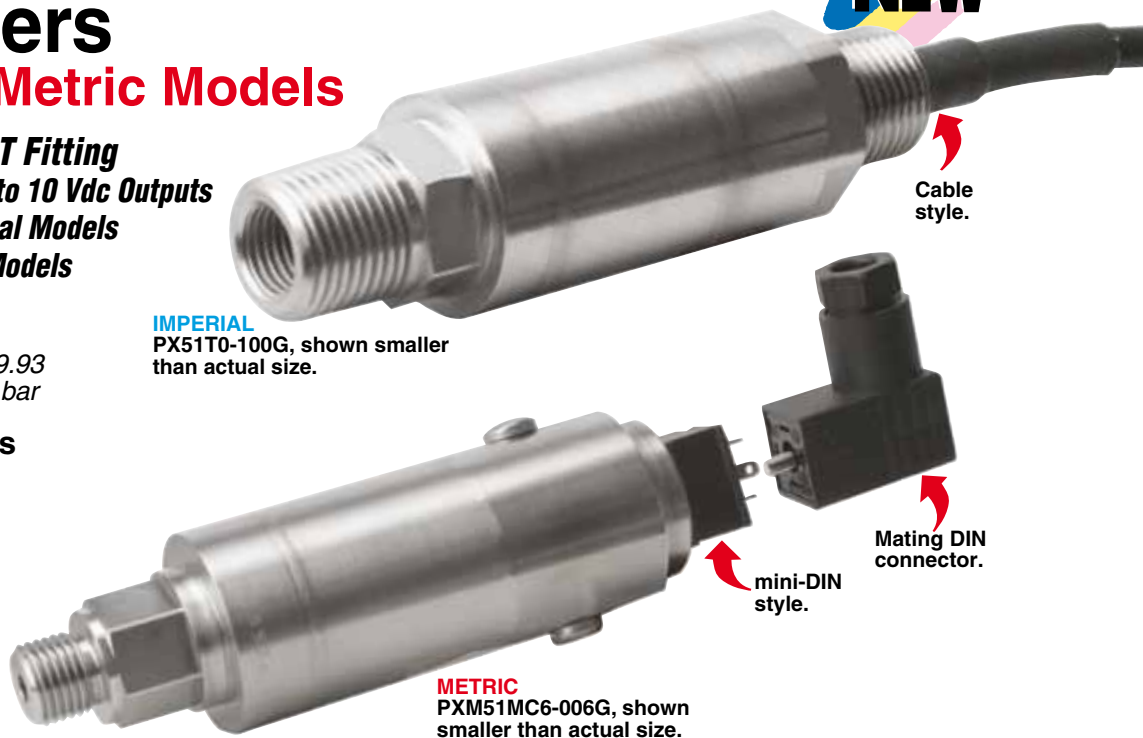
#### PX51/PXM51 Series



- ✓ Rugged Thick Film Sensing Element
- ✓ All Stainless Steel Construction
- ✓ Sealed SS Case for Harsh Environments

OMEGA's PX51 Series consists of high-accuracy, low-cost pressure transmitters. Their sealed, all stainless steel construction makes them suitable for the harshest environments. They are available in gage, absolute, or sealed gage models. Ten feet of PVC insulated shielded cable is standard, or a twist-lock style connector is also available. A wide selection of amplified voltage and current outputs makes the PX51 a truly versatile family of industrial transmitters.

**IMPERIAL**  
 PX51T0-100G, shown smaller than actual size.



**METRIC**  
 PXM51MC6-006G, shown smaller than actual size.

#### Specifications

##### Output/Excitation Voltages

**4 to 20 mA or 0 to 5 Vdc Outputs:**  
 10 to 32 Vdc max  
**0 to 10 Vdc Outputs:**  
 16 to 32 Vdc max

**Accuracy (Combined Linearity, Hysteresis and Repeatability):**  
 ±0.25% FS

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

**Over pressure:** 1.5x Range

**Burst pressure:** 3x Range

**With Potentiometers Zero and Span Adjustable:** ±10% FS

**Without Potentiometers Zero and Span Set:** ±5% Zero typical, ±1% Span max

**Compensated Temperature Range:**  
 16 to 71°C (60 to 160°F)

**Zero Shift:** 0.005%FS/°F

**Span Shift:** 0.003% Reading/°F

**Operating Temperature:** -40 to 104°C (-40 to 220°F)

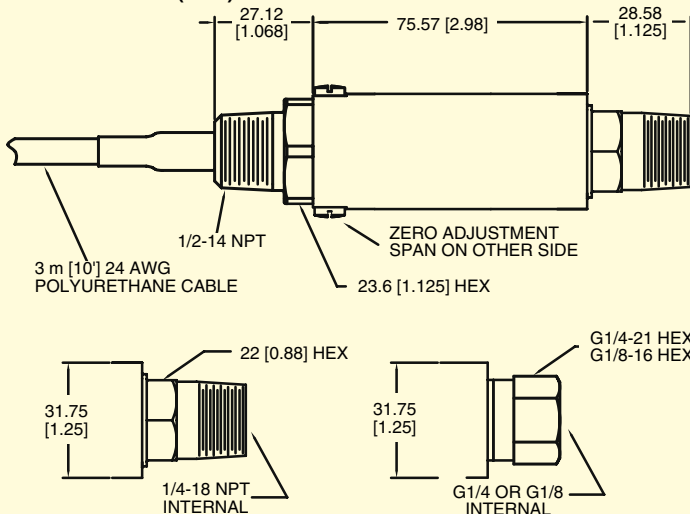
**Wetted Material:** 17-4 Stainless Steel  
**EMC Compliant:** Up to 30 m (98.4') of cable

**EN 61326-1:2006**

**EN 61326-2-3:2006** Industrial levels

**Electrical Connection (for PTIH-10-6P twist-lock connector):** PT06F10-6S (sold separately)

#### Dimensions: mm (inch)



#### WIRING CODES

		4 to 20 mA	0 to 5 Vdc	0 to 10 Vdc
CABLE	BLACK	SUPPLY (-)	SUPPLY (-)	SUPPLY (-)
	WHITE	—	OUTPUT (+)	OUTPUT (+)
	GREEN	CASE	OUTPUT (-)	OUTPUT (-)
	RED	SUPPLY (+)	SUPPLY (+)	SUPPLY (+)
TWIST-LOCK ELECTRICAL PINOUT	PIN A	SUPPLY (+)	SUPPLY (+)	SUPPLY (+)
	PIN B	SUPPLY (-)	SUPPLY (-)	SUPPLY (-)
	PIN C	NO CONNECT	OUTPUT (+)	OUTPUT (+)
	PIN D	NO CONNECT	OUTPUT (-)	OUTPUT (-)
	PIN E	CASE	NO CONNECT	NO CONNECT
	PIN F	NO CONNECT	NO CONNECT	NO CONNECT
M12 ELECTRICAL PINOUT	PIN 1	SUPPLY (+)	SUPPLY (+)	SUPPLY (+)
	PIN 2	SUPPLY (-)	SUPPLY (-)	SUPPLY (-)
	PIN 3	NO CONNECT	OUTPUT (+)	OUTPUT (+)
	PIN 4	CASE	OUTPUT (-)	OUTPUT (-)
MINI-DIN ELECTRICAL PINOUT	PIN 1	SUPPLY (+)	SUPPLY (+)	SUPPLY (+)
	PIN 2	SUPPLY (-)	SUPPLY (-)	SUPPLY (-)
	PIN 3	NO CONNECT	OUTPUT (+)	OUTPUT (+)
	PIN 4	CASE	OUTPUT (-)	OUTPUT (-)

**PLEASE NOTE OUTPUT (-) IS TIED TO SUPPLY (-) FOR 0 to 5 Vdc AND 0 to 10 Vdc VERSIONS.**



# Electrical Termination Styles

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## For Both Imperial and Metric Models

Code

0



3 m (10') cable (standard)  
with 1/2 NPT conduit

1



PTIH-10-6P twist-lock  
connector

5



M12 connector

Code

6



mini-DIN connector

GW



Submersible waterproof  
cable with 1/2 NPT conduit



# Transmitter

## IMPERIAL CUSTOM CONFIGURATIONS

PX51 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>C</b> = 1/4-18 NPT-M			010	A,G,SG	I = 4 to 20 mA output 5V = 0 to 5 Vdc output 10V = 0 to 10 Vdc output	(No Suffix) = Potentiometers Standard NP = No Potentiometers
<b>D</b> = 1/4-18 NPT-F			015	A,G,SG		
<b>T</b> = Dual 1/2-14 NPT external 1/4-18 NPT internal			020	A,G,SG		
<b>K</b> = 7/16-20 UNF-F			025	A,G,SG		
<b>J</b> = 7/16-20 UNF-M			030	A,G,SG		
<b>S</b> = 1/4 HP Tube Fitting (≥10,000 psi ranges)			075	A,G,SG		
			100	A,G,SG		
			200	A,G,SG		
			300	A,G,SG		
<b>0</b> = 3 m (10') pigtail with 1/2 NPT conduit			500	A,G,SG		
<b>1</b> = PTIH-10-6P twist-lock 6-pin connector			750	A,G,SG		
<b>5</b> = M12 connector			1K	A,G,SG		
<b>6</b> = mini-DIN connector			1.5K	A,G,SG		
<b>GW</b> = Submersible waterproof cable with 1/2 NPT conduit			2K	A,G,SG		
			2.5K	A,G,SG		
			3K	A,G,SG		
			3.5K	A,G,SG		
			5K	A,G,SG		
			7.5K	A,G,SG		
			10K <sup>†</sup>	A,G,SG		
			15K <sup>†</sup>	A,G,SG		
			20K <sup>†</sup>	A,G,SG		
			30K <sup>†</sup>	A,G,SG		

*† = Supplied with type "S" pressure port; 1/4" HP tube fitting.*

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units - Absolute, Gage or Sealed Gage
5. Select output
6. Select options

**Ordering Examples:** *PX51T1-100GI*, 100 psi gage pressure transmitter with dual 1/2-14 NPT external 1/4-18 NPT internal and *PTIH-10-6P* connector, 4 to 20 mA output. *PT06F10-6S*, mating connector (sold separately). *PX51T0-1KSGI*, 1000 psi sealed pressure transmitter with dual 1/2-14 NPT external 1/4-18 NPT internal and 3 m (10') cable, 4 to 20 mA output.

## METRIC CUSTOM CONFIGURATIONS

PXM51 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>MA</b> = G3/8 Male			0.7	A,G,SG	I = 4 to 20 mA output 5V = 0 to 5 Vdc output 10V = 0 to 10 Vdc output	(No Suffix) = Potentiometers Standard NP = No Potentiometers
<b>MB</b> = G3/8 Female			001	A,G,SG		
<b>MC</b> = G1/2 Male			1.60	A,G,SG		
<b>MD</b> = G1/2 Female			2.50	A,G,SG		
			004	A,G,SG		
<b>0</b> = 3 m (10') cable (std) with 1/2 NPT conduit			006	A,G,SG		
<b>1</b> = PTIH-10-6P twist-lock 6 pin connector			010	A,G,SG		
<b>5</b> = M12 connector			016	A,G,SG		
<b>6</b> = mini-DIN connector			025	A,G,SG		
<b>GW</b> = Submersible waterproof cable with 1/2 NPT conduit			040	A,G,SG		
			060	A,G,SG		
			100	A,G,SG		
			160	A,G,SG		
			250	A,G,SG		
			400	A,G,SG		

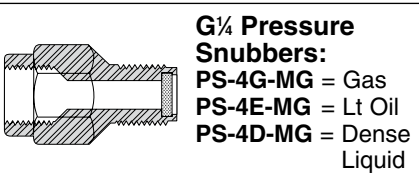
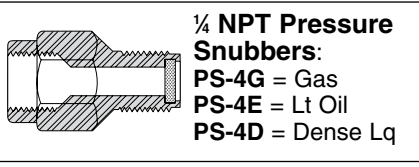
**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units - Absolute, Gage or Sealed Gage
5. Select output
6. Select options

**Ordering Examples:** *PXM51MB0-010SGI*, 10 bar sealed gage pressure transmitter with G3/8 Female pressure port and 3 m (10') cable, 4 to 20 mA output. *PXM51MD1-010AI*, 10 bar absolute pressure transducer with G1/2 Female pressure port and *PTIH-10-6P* connector, 4 to 20 mA output.

## IMPERIAL MODELS

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Range		Model No.	Compatible Meters
<b>Absolute Pressure (All Ranges Available in Absolute Pressure)</b>			
0 to 15 psi	0 to 1.0 bar	PX51T[*]-015A[**]	DP41-E, DP25B-E, DP24-E
0 to 25 psi	0 to 1.4 bar	PX51T[*]-025A[**]	DP41-E, DP25B-E, DP24-E
0 to 30 psi	0 to 2.1 bar	PX51T[*]-030A[**]	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX51T[*]-050A[**]	DP41-E, DP25B-E, DP24-E
<b>Gage Pressure (All Ranges Also Available in Sealed Gage Pressure)</b>			
0 to 10 psi	0 to 0.69 bar	PX51T[*]-010G[**]	DP41-E, DP25B-E, DP24-E
0 to 15 psi	0 to 1.0 bar	PX51T[*]-015G[**]	DP41-E, DP25B-E, DP24-E
0 to 20 psi	0 to 1.4 bar	PX51T[*]-020G[**]	DP41-E, DP25B-E, DP24-E
0 to 30 psi	0 to 2.1 bar	PX51T[*]-030G[**]	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX51T[*]-050G[**]	DP41-E, DP25B-E, DP24-E
0 to 75 psi	0 to 5.2 bar	PX51T[*]-075G[**]	DP41-E, DP25B-E, DP24-E
0 to 100 psi	0 to 6.9 bar	PX51T[*]-100G[**]	DP41-E, DP25B-E, DP24-E
0 to 200 psi	0 to 13.8 bar	PX51T[*]-200G[**]	DP41-E, DP25B-E, DP24-E
0 to 300 psi	0 to 20.7 bar	PX51T[*]-300G[**]	DP41-E, DP25B-E, DP24-E
0 to 500 psi	0 to 34.5 bar	PX51T[*]-500G[**]	DP41-E, DP25B-E, DP24-E
0 to 750 psi	0 to 51.7 bar	PX51T[*]-750G[**]	DP41-E, DP25B-E, DP24-E
0 to 1000 psi	0 to 68.9 bar	PX51T[*]-1KG[**]	DP41-E, DP25B-E, DP24-E
0 to 1500 psi	0 to 103 bar	PX51T[*]-1.5KG[**]	DP41-E, DP25B-E, DP24-E
0 to 2000 psi	0 to 138 bar	PX51T[*]-2KG[**]	DP41-E, DP25B-E, DP24-E
0 to 3500 psi	0 to 241 bar	PX51T[*]-3.5KG[**]	DP41-E, DP25B-E, DP24-E
0 to 5000 psi	0 to 345 bar	PX51T[*]-5KG[**]	DP41-E, DP25B-E, DP24-E
0 to 7500 psi	0 to 517 bar	PX51T[*]-7.5KG[**]	DP41-E, DP25B-E, DP24-E
0 to 10,000 psi	0 to 689 bar	PX51S[*]-10KG[**]	DP41-E, DP25B-E†, DP24-E†
0 to 15,000 psi	0 to 1034 bar	PX51S[*]-15KG[**]	DP41-E, DP25B-E†, DP24-E†
0 to 20,000 psi	0 to 1379 bar	PX51S[*]-20KG[**]	DP41-E, DP25B-E†, DP24-E†
0 to 30,000 psi	0 to 2068 bar	PX51S[*]-30KG[**]	DP41-E, DP25B-E†, DP24-E†

All models come complete with 5-point NIST traceable calibration.

[\*] = Insert "0" for 3 m (10') cable, "1" for twist-lock 6 pin connector, "5" for M12 connector, "6" for mini-DIN connector, or "GW" for submersible waterproof cable.

[\*\*] = Insert "I" for 4 to 20 mA output, "5V" for 0 to 5 Vdc output or "10V" for 0 to 10 Vdc output.

Note: To order Standard configurations including Potentiometers, no suffix required. For "No Potentiometers", add "NP" suffix.

† 4-digit meter, counts in increments of 10.

Ordering Examples: PX51S0-010G5V 10 psi gage transmitter, 0 to 5 Vdc output with 3 m (10') cable.

PX51T0-5KGI, 5000 psi gage pressure transmitter, 4 to 20 mA output with 3 m (10') cable.

## METRIC MODELS

### To Order

Models with G $\frac{1}{4}$  Male Pressure Connection, Cable or Connector

Range		Model No.	Compatible Meters
<b>Gage Pressure</b>			
0 to 0.7 bar	0 to 10 psi	PXM51MC[*]-0.7G[**]	iSeries, DP41-E, DP25B-E
0 to 1 bar	0 to 15 psi	PXM51MC[*]-001G[**]	iSeries, DP41-E, DP25B-E
0 to 1.60 bar	0 to 23 psi	PXM51MC[*]-1.60G[**]	iSeries, DP41-E, DP25B-E
0 to 2.50 bar	0 to 36 psi	PXM51MC[*]-2.50G[**]	iSeries, DP41-E, DP25B-E
0 to 4 bar	0 to 58 psi	PXM51MC[*]-004G[**]	iSeries, DP41-E, DP25B-E
0 to 6 bar	0 to 87 psi	PXM51MC[*]-006G[**]	iSeries, DP41-E, DP25B-E
0 to 10 bar	0 to 145 psi	PXM51MC[*]-010G[**]	iSeries, DP41-E, DP25B-E
0 to 16 bar	0 to 232 psi	PXM51MC[*]-016G[**]	iSeries, DP41-E, DP25B-E
0 to 25 bar	0 to 363 psi	PXM51MC[*]-025G[**]	iSeries, DP41-E, DP25B-E
0 to 40 bar	0 to 580 psi	PXM51MC[*]-040G[**]	iSeries, DP41-E, DP25B-E
0 to 60 bar	0 to 870 psi	PXM51MC[*]-060G[**]	iSeries, DP41-E, DP25B-E
0 to 100 bar	0 to 1450 psi	PXM51MC[*]-100G[**]	iSeries, DP41-E, DP25B-E
0 to 160 bar	0 to 2321 psi	PXM51MC[*]-160G[**]	iSeries, DP41-E, DP25B-E
0 to 250 bar	0 to 3626 psi	PXM51MC[*]-250G[**]	iSeries, DP41-E, DP25B-E
0 to 400 bar	0 to 5802 psi	PXM51MC[*]-400G[**]	iSeries, DP41-E, DP25B-E

All models come complete with 5-point NIST traceable calibration. Pressure port for all metric models is G $\frac{1}{4}$ B male.

[\*] = Insert "0" for 3 m (10') cable, "1" for twist-lock 6 pin connector, "5" for M12 connector, "6" for mini-DIN connector or "GW" for submersible waterproof cable.

To order sealed gage pressure models, replace "G" in model number with "SG" (no extra charge).

To order absolute pressure models, replace "G" in model number with "A" (no extra charge).

[\*\*] = Insert "I" for 4 to 20 mA output, "5V" for 0 to 5 Vdc output or "10V" for 0 to 10 Vdc output (no extra charge).

Note: To order Metric configurations including Potentiometers, no suffix required. For "No Potentiometers", add "NP" suffix.

Ordering Examples: PXM51MC6-25GI, 25 bar gage pressure transducer with G $\frac{1}{4}$  male thread, mini-DIN connector and 4 to 20 mA output.

PXM51MD0-1.60AI. 1.6 bar absolute pressure transducer with G $\frac{1}{4}$  internal thread. 3 m (10') cable and 4 to 20 mA output.

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# Heavy-Duty Industrial Pressure

## Transmitters

### Imperial and Metric Models

**Unique Dual 1/2 and 1/4 NPT Fitting**  
**4 to 20 mA, 0 to 5 Vdc or 0 to 10 Vdc Outputs**  
**0-10 to 0-30,000 psi-Imperial Models**  
**0-0.7 to 0-400 bar-Metric Models**

1 bar = 14.5 psi  
 1 kg/cm<sup>2</sup> = 14.22 psi  
 1 atmosphere = 14.7 psi = 29.93 inHg = 760.2 mmHg = 1.014 bar

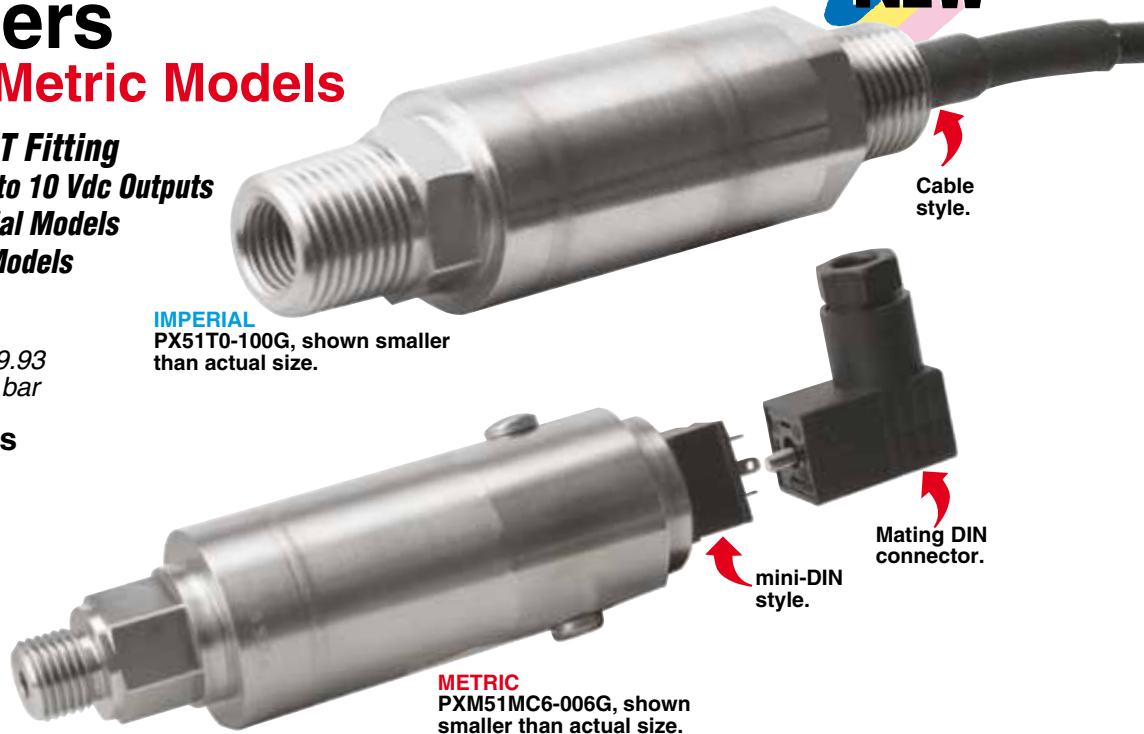
#### PX51/PXM51 Series



- ✓ Rugged Thick Film Sensing Element
- ✓ All Stainless Steel Construction
- ✓ Sealed SS Case for Harsh Environments

OMEGA's PX51 Series consists of high-accuracy, low-cost pressure transmitters. Their sealed, all stainless steel construction makes them suitable for the harshest environments. They are available in gage, absolute, or sealed gage models. Ten feet of PVC insulated shielded cable is standard, or a twist-lock style connector is also available. A wide selection of amplified voltage and current outputs makes the PX51 a truly versatile family of industrial transmitters.

**IMPERIAL**  
 PX51T0-100G, shown smaller than actual size.



**METRIC**  
 PXM51MC6-006G, shown smaller than actual size.

#### Specifications

##### Output/Excitation Voltages

**4 to 20 mA or 0 to 5 Vdc Outputs:**  
 10 to 32 Vdc max  
**0 to 10 Vdc Outputs:**  
 16 to 32 Vdc max

**Accuracy (Combined Linearity, Hysteresis and Repeatability):**  
 ±0.25% FS

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

**With Potentiometers Zero and Span Adjustable:** ±10% FS

**Without Potentiometers Zero and Span Set:** ±5.0% typical, ±1% max

**Compensated Temperature Range:**  
 16 to 71°C (60 to 160°F)

**Zero Shift:** 0.005%FS/°F

**Span Shift:** 0.003% Reading/°F

**Proof Pressure:** 150%

**Burst Pressure:** 300%

**Operating Temperature:** -40 to 104°C (-40 to 220°F)

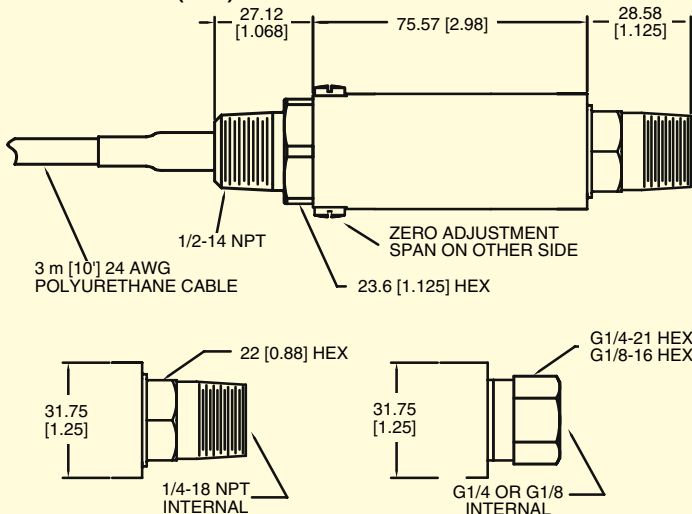
**Wetted Material:** 17-4 Stainless Steel  
**EMC Compliant:** Up to 30 m (98.4') of cable

**EN 61326-1:2006**

**EN 61326-2-3:2006** Industrial levels

**Electrical Connection (for PTIH-10-6P twist-lock connector):** PT06F10-6S (sold separately)

#### Dimensions: mm (inch)



WIRING CODES		4 to 20 mA	0 to 5 Vdc	0 to 10 Vdc
CABLE	BLACK	SUPPLY (-)	SUPPLY (-)	SUPPLY (-)
	WHITE	—	OUTPUT (+)	OUTPUT (+)
	GREEN	CASE	OUTPUT (-)	OUTPUT (-)
	RED	SUPPLY (+)	SUPPLY (+)	SUPPLY (+)
TWIST-LOCK ELECTRICAL PINOUT	PIN A	SUPPLY (+)	SUPPLY (+)	SUPPLY (+)
	PIN B	SUPPLY (-)	SUPPLY (-)	SUPPLY (-)
	PIN C	NO CONNECT	OUTPUT (+)	OUTPUT (+)
	PIN D	NO CONNECT	OUTPUT (-)	OUTPUT (-)
	PIN E	CASE	NO CONNECT	NO CONNECT
	PIN F	NO CONNECT	NO CONNECT	NO CONNECT
M12 ELECTRICAL PINOUT	PIN 1	SUPPLY (+)	SUPPLY (+)	SUPPLY (+)
	PIN 2	SUPPLY (-)	SUPPLY (-)	SUPPLY (-)
	PIN 3	NO CONNECT	OUTPUT (+)	OUTPUT (+)
	PIN 4	CASE	OUTPUT (-)	OUTPUT (-)
MINI-DIN ELECTRICAL PINOUT	PIN 1	SUPPLY (+)	SUPPLY (+)	SUPPLY (+)
	PIN 2	SUPPLY (-)	SUPPLY (-)	SUPPLY (-)
	PIN 3	NO CONNECT	OUTPUT (+)	OUTPUT (+)
	PIN 4	CASE	OUTPUT (-)	OUTPUT (-)

**PLEASE NOTE OUTPUT (-) IS TIED TO SUPPLY (-) FOR 0 to 5 Vdc AND 0 to 10 Vdc VERSIONS.**



# Electrical Termination Styles

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## For Both Imperial and Metric Models

Code

0



3 m (10') cable (standard)  
with 1/2 NPT conduit

1



PTIH-10-6P twist-lock  
connector

5



M12 connector

Code

6



mini-DIN connector

GW



Submersible waterproof  
cable with 1/2 NPT conduit



# Transmitter

## IMPERIAL CUSTOM CONFIGURATIONS

PX51 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>C</b> = 1/4-18 NPT-M			010	A,G,SG	I = 4 to 20 mA output 5V = 0 to 5 Vdc output 10V = 0 to 10 Vdc output	(No Suffix) = Potentiometers Standard NP = No Potentiometers
<b>D</b> = 1/4-18 NPT-F			015	A,G,SG		
<b>T</b> = Dual 1/2-14 NPT external 1/4-18 NPT internal			020	A,G,SG		
<b>K</b> = 7/16-20 UNF-F			025	A,G,SG		
<b>J</b> = 7/16-20 UNF-M			030	A,G,SG		
<b>S</b> = 1/4 HP Tube Fitting (≥10,000 psi ranges)			075	A,G,SG		
			100	A,G,SG		
			200	A,G,SG		
			300	A,G,SG		
<b>0</b> = 3 m (10') pigtail with 1/2 NPT conduit			500	A,G,SG		
<b>1</b> = PTIH-10-6P twist-lock 6-pin connector			750	A,G,SG		
<b>5</b> = M12 connector			1K	A,G,SG		
<b>6</b> = mini-DIN connector			1.5K	A,G,SG		
<b>GW</b> = Submersible waterproof cable with 1/2 NPT conduit			2K	A,G,SG		
			2.5K	A,G,SG		
			3K	A,G,SG		
			3.5K	A,G,SG		
			5K	A,G,SG		
			7.5K	A,G,SG		
			10K <sup>†</sup>	A,G,SG		
			15K <sup>†</sup>	A,G,SG		
			20K <sup>†</sup>	A,G,SG		
			30K <sup>†</sup>	A,G,SG		

*† = Supplied with type "S" pressure port; 1/4" HP tube fitting.*

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units - Absolute, Gage or Sealed Gage
5. Select output
6. Select options

**Ordering Examples:** **PX51T1-100GI**, 100 psi gage pressure transmitter with dual 1/2-14 NPT external 1/4-18 NPT internal and **PTIH-10-6P** connector, 4 to 20 mA output. **PT06F10-6S**, mating connector (sold separately). **PX51T0-1KSGI**, 1000 psi sealed pressure transmitter with dual 1/2-14 NPT external 1/4-18 NPT internal and 3 m (10') cable, 4 to 20 mA output.

## METRIC CUSTOM CONFIGURATIONS

PXM51 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>MA</b> = G3/8 Male			0.7	A,G,SG	I = 4 to 20 mA output 5V = 0 to 5 Vdc output 10V = 0 to 10 Vdc output	(No Suffix) = Potentiometers Standard NP = No Potentiometers
<b>MB</b> = G3/8 Female			001	A,G,SG		
<b>MC</b> = G1/2 Male			1.60	A,G,SG		
<b>MD</b> = G1/2 Female			2.50	A,G,SG		
			004	A,G,SG		
<b>0</b> = 3 m (10') cable (std) with 1/2 NPT conduit			006	A,G,SG		
<b>1</b> = PTIH-10-6P twist-lock 6 pin connector			010	A,G,SG		
<b>5</b> = M12 connector			016	A,G,SG		
<b>6</b> = mini-DIN connector			025	A,G,SG		
<b>GW</b> = Submersible waterproof cable with 1/2 NPT conduit			040	A,G,SG		
			060	A,G,SG		
			100	A,G,SG		
			160	A,G,SG		
			250	A,G,SG		
			400	A,G,SG		

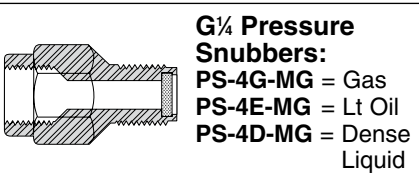
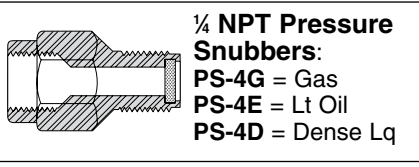
**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units - Absolute, Gage or Sealed Gage
5. Select output
6. Select options

**Ordering Examples:** **PXM51MB0-010SGI**, 10 bar sealed gage pressure transmitter with G3/8 Female pressure port and 3 m (10') cable, 4 to 20 mA output. **PXM51MD1-010AI**, 10 bar absolute pressure transducer with G1/2 Female pressure port and **PTIH-10-6P** connector, 4 to 20 mA output.

## IMPERIAL MODELS

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)



Range		Model No.	Compatible Meters
<b>Absolute Pressure (All Ranges Available in Absolute Pressure)</b>			
0 to 15 psi	0 to 1.0 bar	PX51T[*]-015A[**]	DP41-E, DP25B-E, DP24-E
0 to 25 psi	0 to 1.4 bar	PX51T[*]-025A[**]	DP41-E, DP25B-E, DP24-E
0 to 30 psi	0 to 2.1 bar	PX51T[*]-030A[**]	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX51T[*]-050A[**]	DP41-E, DP25B-E, DP24-E
<b>Gage Pressure (All Ranges Also Available in Sealed Gage Pressure)</b>			
0 to 10 psi	0 to 0.69 bar	PX51T[*]-010G[**]	DP41-E, DP25B-E, DP24-E
0 to 15 psi	0 to 1.0 bar	PX51T[*]-015G[**]	DP41-E, DP25B-E, DP24-E
0 to 20 psi	0 to 1.4 bar	PX51T[*]-020G[**]	DP41-E, DP25B-E, DP24-E
0 to 30 psi	0 to 2.1 bar	PX51T[*]-030G[**]	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX51T[*]-050G[**]	DP41-E, DP25B-E, DP24-E
0 to 75 psi	0 to 5.2 bar	PX51T[*]-075G[**]	DP41-E, DP25B-E, DP24-E
0 to 100 psi	0 to 6.9 bar	PX51T[*]-100G[**]	DP41-E, DP25B-E, DP24-E
0 to 200 psi	0 to 13.8 bar	PX51T[*]-200G[**]	DP41-E, DP25B-E, DP24-E
0 to 300 psi	0 to 20.7 bar	PX51T[*]-300G[**]	DP41-E, DP25B-E, DP24-E
0 to 500 psi	0 to 34.5 bar	PX51T[*]-500G[**]	DP41-E, DP25B-E, DP24-E
0 to 750 psi	0 to 51.7 bar	PX51T[*]-750G[**]	DP41-E, DP25B-E, DP24-E
0 to 1000 psi	0 to 68.9 bar	PX51T[*]-1KG[**]	DP41-E, DP25B-E, DP24-E
0 to 1500 psi	0 to 103 bar	PX51T[*]-1.5KG[**]	DP41-E, DP25B-E, DP24-E
0 to 2000 psi	0 to 138 bar	PX51T[*]-2KG[**]	DP41-E, DP25B-E, DP24-E
0 to 3500 psi	0 to 241 bar	PX51T[*]-3.5KG[**]	DP41-E, DP25B-E, DP24-E
0 to 5000 psi	0 to 345 bar	PX51T[*]-5KG[**]	DP41-E, DP25B-E, DP24-E
0 to 7500 psi	0 to 517 bar	PX51T[*]-7.5KG[**]	DP41-E, DP25B-E, DP24-E
0 to 10,000 psi	0 to 689 bar	PX51S[*]-10KG[**]	DP41-E, DP25B-E†, DP24-E†
0 to 15,000 psi	0 to 1034 bar	PX51S[*]-15KG[**]	DP41-E, DP25B-E†, DP24-E†
0 to 20,000 psi	0 to 1379 bar	PX51S[*]-20KG[**]	DP41-E, DP25B-E†, DP24-E†
0 to 30,000 psi	0 to 2068 bar	PX51S[*]-30KG[**]	DP41-E, DP25B-E†, DP24-E†

All models come complete with 5-point NIST traceable calibration.

[\*] = Insert "0" for 3 m (10') cable, "1" for twist-lock 6 pin connector, "5" for M12 connector, "6" for mini-DIN connector, or "GW" for submersible waterproof cable.

[\*\*] = Insert "I" for 4 to 20 mA output, "5V" for 0 to 5 Vdc output or "10V" for 0 to 10 Vdc output.

Note: To order Standard configurations including Potentiometers, no suffix required. For "No Potentiometers", add "NP" suffix.

† 4-digit meter, counts in increments of 10.

Ordering Examples: PX51S0-010G5V 10 psi gage transmitter, 0 to 5 Vdc output with 3 m (10') cable.

PX51T0-5KGI, 5000 psi gage pressure transmitter, 4 to 20 mA output with 3 m (10') cable.

## METRIC MODELS

### To Order

Models with G $\frac{1}{4}$  Male Pressure Connection, Cable or Connector

Range		Model No.	Compatible Meters
<b>Gage Pressure</b>			
0 to 0.7 bar	0 to 10 psi	PXM51MC[*]-0.7G[**]	iSeries, DP41-E, DP25B-E
0 to 1 bar	0 to 15 psi	PXM51MC[*]-001G[**]	iSeries, DP41-E, DP25B-E
0 to 1.60 bar	0 to 23 psi	PXM51MC[*]-1.60G[**]	iSeries, DP41-E, DP25B-E
0 to 2.50 bar	0 to 36 psi	PXM51MC[*]-2.50G[**]	iSeries, DP41-E, DP25B-E
0 to 4 bar	0 to 58 psi	PXM51MC[*]-004G[**]	iSeries, DP41-E, DP25B-E
0 to 6 bar	0 to 87 psi	PXM51MC[*]-006G[**]	iSeries, DP41-E, DP25B-E
0 to 10 bar	0 to 145 psi	PXM51MC[*]-010G[**]	iSeries, DP41-E, DP25B-E
0 to 16 bar	0 to 232 psi	PXM51MC[*]-016G[**]	iSeries, DP41-E, DP25B-E
0 to 25 bar	0 to 363 psi	PXM51MC[*]-025G[**]	iSeries, DP41-E, DP25B-E
0 to 40 bar	0 to 580 psi	PXM51MC[*]-040G[**]	iSeries, DP41-E, DP25B-E
0 to 60 bar	0 to 870 psi	PXM51MC[*]-060G[**]	iSeries, DP41-E, DP25B-E
0 to 100 bar	0 to 1450 psi	PXM51MC[*]-100G[**]	iSeries, DP41-E, DP25B-E
0 to 160 bar	0 to 2321 psi	PXM51MC[*]-160G[**]	iSeries, DP41-E, DP25B-E
0 to 250 bar	0 to 3626 psi	PXM51MC[*]-250G[**]	iSeries, DP41-E, DP25B-E
0 to 400 bar	0 to 5802 psi	PXM51MC[*]-400G[**]	iSeries, DP41-E, DP25B-E

All models come complete with 5-point NIST traceable calibration. Pressure port for all metric models is G $\frac{1}{4}$ B male.

[\*] = Insert "0" for 3 m (10') cable, "1" for twist-lock 6 pin connector, "5" for M12 connector, "6" for mini-DIN connector or "GW" for submersible waterproof cable.

To order sealed gage pressure models, replace "G" in model number with "SG" (no extra charge).

To order absolute pressure models, replace "G" in model number with "A" (no extra charge).

[\*\*] = Insert "I" for 4 to 20 mA output, "5V" for 0 to 5 Vdc output or "10V" for 0 to 10 Vdc output (no extra charge).

Note: To order Metric configurations including Potentiometers, no suffix required. For "No Potentiometers", add "NP" suffix.

Ordering Examples: PXM51MC6-25GI, 25 bar gage pressure transducer with G $\frac{1}{4}$  male thread, mini-DIN connector and 4 to 20 mA output.

PXM51MD0-1.60AI. 1.6 bar absolute pressure transducer with G $\frac{1}{4}$  internal thread. 3 m (10') cable and 4 to 20 mA output.

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# RANGIARI INDUSTRIAL

## ROMETEC srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

# PRESSURE TRANSMITTER

## LCD WITH BACKLIGHT



**Ranges 0-50 psi to 0-7500 psi**  
**(0-3.4 to 0-517 bar)**  
**Compound ranges to Vac to 50 psi**  
**(Vac to 3.4 bar)**  
**4 to 20 mA Output**

### PX5100 Series



Optional

- ✓ Compact Size
- ✓ NEMA 4X (IP65) Environmental Rating
- ✓ Backlit LCD for Easy Reading
- ✓ Display Rotates in 90° Increments to Fit Location
- ✓ All Stainless Steel Wetted Parts
- ✓ Quick Ranging with Internal Push-Buttons
- ✓ Scale to Display in Any Engineering Units
- ✓ MIN/MAX and HOLD Functions
- ✓ Program Lock Function
- ✓ High Overpressure
- ✓ High Life Cycles
- ✓ Key Lock Function

### Applications

- ✓ Pump Control
- ✓ Hydraulic Control Systems
- ✓ Compressor Control
- ✓ Process Automation
- ✓ Water and Tank Level



PX5100

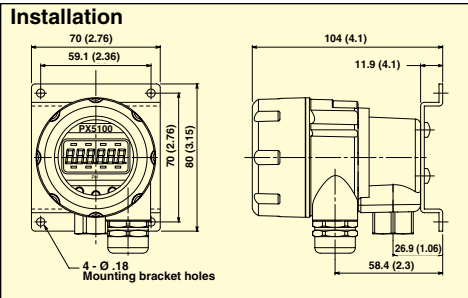


PX5100

The OMEGA PX5100 is a compact, industrial, rangeable, pressure transmitter ideal for monitoring pressures in process automation, hydraulic systems, compressors, pumps and in tank level applications where consistent, reliable pressure measurement is essential. The PX5100 has rugged field-proven thin film sensor technology and can monitor a wide variety of wet or dry media. Available in ranges from 0-50 to 0-7500 psi and compound ranges up to -15/50 psi, this versatile transmitter includes min, max to record high and low pressure events and hold feature. A rugged aluminum NEMA 4X (IP65) enclosure

measures only 2.65" in diameter and incorporates a backlit LCD display for local reading. The output is a two-wire configurable 4 to 20 mA signal that can be adjusted to re-range the transmitter or "tare" unwanted fluid head preloads. Rangeability for zero and span are from -10% to 110% FS URL (Upper Range Limit). This means a 100 psi transducer can have the zero set between -10 psi to FS 110 psi. For example zero could be set for 30 psi and maximum 90 psi so the output would be 4 mA at 30 psi, midpoint 12 mA would be 60 psi and 20 mA would be 90 psi.

PRESSURE TRANSDUCERS  
**B**



## SPECIFICATIONS

**Output:** 4 to 20 mAdc (2-wire)

**Supply Voltage:** 12 to 32 Vdc

V<sub>min</sub>=12V+(0.022Ax loop res)

**Insulation Resistance:** 50 Vdc  
(>100 M Ω)

**Rangeability/Adjustments:**

**Zero:** -10 to 110% FS

**Span:** -10 to 110% FS

**Accuracy:** ±0.25% FS URL (Upper Range Limit) @23°C includes linearity, hysteresis and repeatability

*Note: Accuracy and output resolution based upon FS (URL) value.*

**Stability:** ±0.25% FS/year

**Response Time:** 30 ms (adjustable)

**Output Resolution:** 0.1% FS (URL)

**Display:** 4 digit, 10 mm LCD with Red backlight

**Display Accuracy:** ±0.25% FS (URL)  
+ 1 digit

**Storage Temperature:** -20 to 70°C  
(-4 to 158°F)

**Operating Temperature:** -10 to 60°C  
(14 to 140°F)

**Compensated Temperature:**  
-10 to 60°C (14 to 140°F)

**Temperature Effects (Over Comp Range):** ±0.02% FS (URL)/°C (from 23°C reference)

**Overpressure (FS):**

≤1500 psi

**Proof:** 200%

**Burst:** 500%

**3000, 5000 psi:**

**Proof:** 200%

**Burst:** 500%

**7500 psi**

**Proof:** 120%

**Burst:** 150%

**Vibration:** 5 g 150 Hz

**Shock:** 10 g 16 ms

**Pressure Connection:** ¼ NPT female

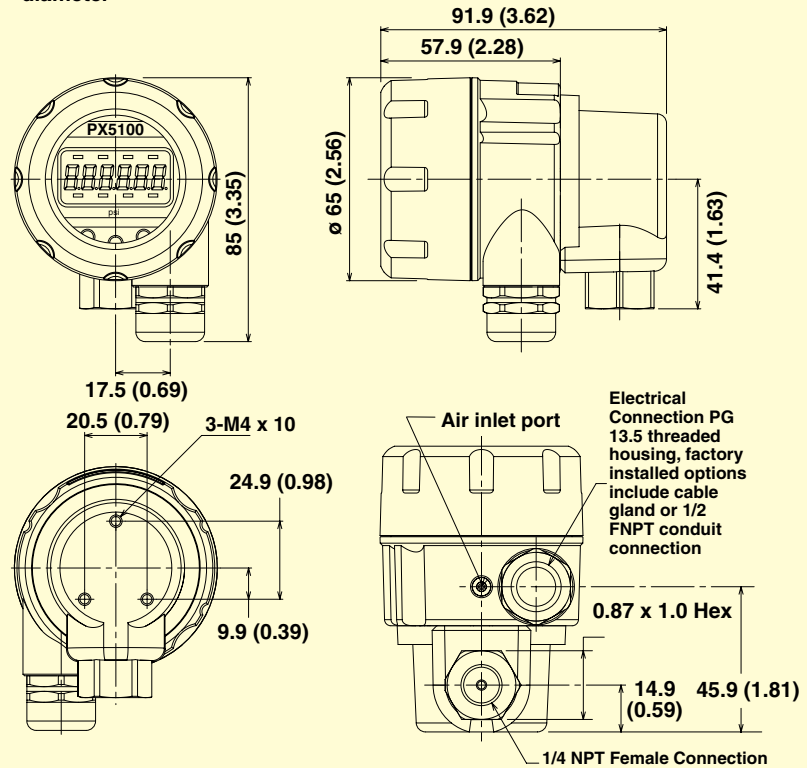
**Electrical Connection:** ½ NPT female conduit fitting

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

**Media:** Fluids and gasses compatible with 316SS and 17-4 pH SS

**Weight:** Approx 454 g (1 lb)

Ø = diameter



Dimensions: mm (inch)

## To Order

**SPAN and ZERO ADJUSTABLE -10% to +110% FS (URL)**

RANGE (URL)		MODEL NO.
psi	bar	
<b>COMPOUND GAGE</b>		
-Vac to +15	-Vac to +1	PX5100-015CGI
-Vac to +30	-Vac to +2.1	PX5100-030CGI
-Vac to +50	-Vac to +3.4	PX5100-050CGI
<b>GAGE PRESSURE</b>		
0 to 50	0 to 3.4	PX5100-050GI
0 to 100	0 to 6.9	PX5100-100GI
0 to 150	0 to 10	PX5100-150GI
0 to 300	0 to 21	PX5100-300GI
0 to 500	0 to 34	PX5100-500GI
0 to 1000	0 to 69	PX5100-1KGI
0 to 1500	0 to 103	PX5100-1.5KGI
0 to 3000	0 to 207	PX5100-3KGI
0 to 5000	0 to 345	PX5100-5KGI
0 to 7500	0 to 517	PX5100-7.5KGI

**OPTIONS (ADD AS SUFFIX TO MODEL NO.)**

-XRH	9-point NIST traceable calibration, must specify at time of order
-X6B	Oxygen cleaning

Comes complete with mounting bracket and operator's manual.

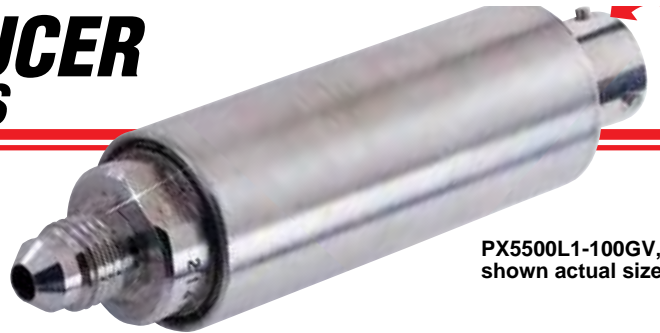
**Ordering Example:** PX5100-100GI, 100 psig rangeable transmitter, 4 to 20 mA output.

PX5100-015CGI, vacuum to 15 psi compound gage rangeable transmitter, 4 to 20 mA output (4 mA = vacuum, 20 mA = + 15 psi).

# PRESSURE TRANSDUCER

## STANDARD AND METRIC UNITS

**mV/V Output**  
**0-15 to 0-10,000 psi-Standard Models**  
**0-1 to 0-600 bar Metric Models**



PX5500L1-100GV,  
 shown actual size.

### PX5500/PXM5500 Series



- ✓ High Accuracy: 0.1%
- ✓ Solid State Reliability
- ✓ Sputtered Strain Gage Design
- ✓ High Shock and Vibration Resistance
- ✓ Low Drift
- ✓ 5-Point NIST Calibration Standard

### Applications

- ✓ Testing
- ✓ R&D/Engineering Test Laboratories
- ✓ Functional Test Systems
- ✓ Production Testing
- ✓ Product Quality Assurance
- ✓ Flight Testing
- ✓ Gas Turbine and Engine Test Standards
- ✓ Ground Support Equipment
- ✓ Hydraulic Systems
- ✓ Custody Transfer Measurements

OMEGA's PX5500/PXM5500 Series transducers provide high performance in demanding industrial and research applications in which accuracy, reliability, and price are important. These transducers have a 10-year MTBF rate and are stable to 0.1% of FSO over an 18-month period. This translates into less downtime, fewer test reruns, more time between calibrations, and high confidence in pressure data. When recalibration is impossible, relying

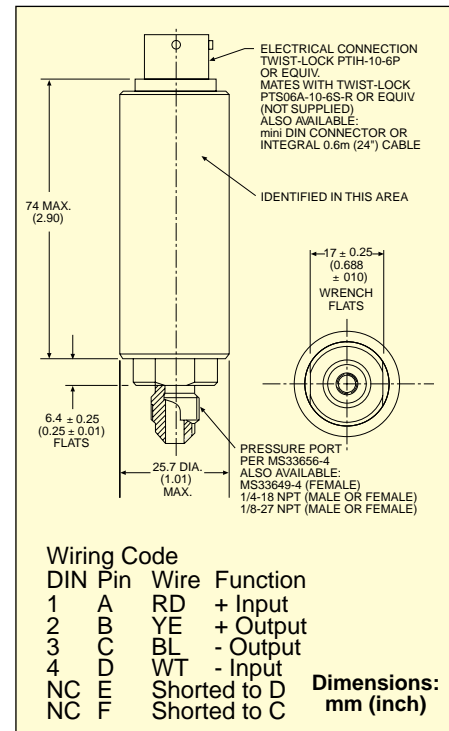
on the high stability of a PX5500/PXM5500 Series transducers may be the only cost-effective way to obtain pressure data over the long term. OMEGA's thin-film technology makes this premium performance possible. The strain gages and associated structures are sputter-deposited directly onto the pressure sensing element, thus eliminating the need for adhesives. The resulting molecular bond between the sensing element and the strain gages ensures virtually no shifting, drifting, or "creep" in the performance of the transducer. The micro-geometry design of the PX5500/PXM5500 sensing elements results in a very small, low-mass sensor that reduces effects of mechanical vibration and shock. The PX5500/PXM5500 gives you accuracy, reliability, and stability at competitive prices.

### SPECIFICATIONS

#### mV/V MODELS

- Excitation:** 10 Vdc
- Output FSO:** 30 mV typ, 26 mV min
- Input Resistance:** 2500 Ω typical, 800 Ω min, 3000 Ω max.  
 For 350 Ω bridge models see Custom Configurations.
- Output Resistance:** 2500 Ω typical, 800 Ω minimum, 3300 Ω maximum
- Insulation Resistance:** 500MΩ at 50Vdc over the compensated range
- Sensing Element:** 4-active-arm bridge using sputter-deposited thin-film elements
- Accuracy:** Combined linearity, hysteresis and nonrepeatability:  
 ±0.10% FSO (BFSL) <1000 psi  
 ±0.15% FSO 1000 psi and above
- Calibration Stability:** ±0.1% for 18 months
- Vibration Sensitivity:** At 35 g peak sinusoidal vibration from 10 Hz to 2000 Hz (½" D.A.), the output shall not exceed 0.04% FSO/g for 15 psi range, decreasing to 0.003% FSO/g for 1000 psi and above
- Natural Frequency:** 5 kHz for 15 psi, increasing logarithmically to 50 kHz for 5000 psi

- Shock:** Qualification level of 100 g, 11 ms half sine wave without damage
- Electrostatic Discharge (ESD):** Protected to 15 kV
- Operating Temp Range:** -54 to 150°C (-65 to 300°F)
- Compensated Temp Range:** -18 to 82°C (0 to 180°F)
- Thermal Effects:**
  - Span:** ±0.0025% FSO/°F
  - Zero:** ±0.0025% FSO/°F
- Proof Pressure:** 2 times rated pressure or 15,000 psi, whichever is less, will not cause changes in performance beyond the specified tolerance
- Burst Pressure:** 3 times rated pressure or 20,000 psi, whichever is less, will not cause rupture of the pressure containment cavity
- Wetted Parts:** 17-4 PH or 15-5 PH SS
- Electrical Connection:** PTIH-10-6P standard – see custom configurations
- Pressure Port:** See drawing below
- Mating Connector:** PTS06A10-6S-R (sold separately)
- Weight:** 200 g (7 oz) maximum



MILLIVOLT OUTPUT  
 PRESSURE TRANSDUCERS  
**B**

# HIGH-PERFORMANCE THIN FILM PRESSURE TRANSDUCER

## STANDARD CUSTOM CONFIGURATIONS

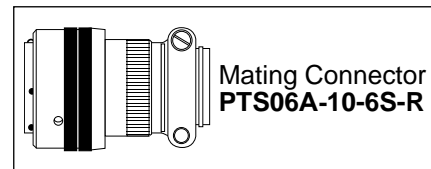
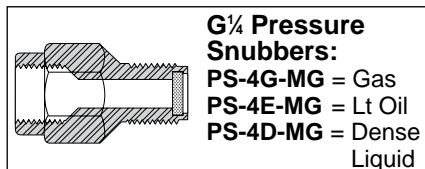
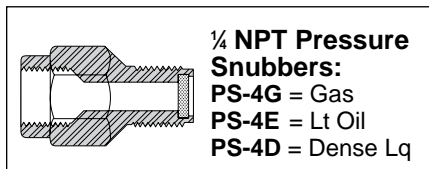
PX5500* SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
	A = 1/8-27 NPT Male B = 1/8-27 NPT Female C = 1/4-18 NPT Male D = 1/4-18 NPT Female L = MS33656-4 M = MS33649-4		015 psi 025 050 100 250 500 1K 1.5K 2.5K 3K 5K 10K	A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S	<b>Base Price PX5500</b> V = mV/V 5T = 0 to 5V I = 4 to 20mA	<b>CAL11</b> = 11-pt cal + cost
<p>*For a 350 Ω bridge change model number to PX5503. No additional charge.</p>		<p>0 = 0.6 m (2') cable add cost per/ft over 0.6 m (2')</p> <p>1 = PTIH-10-6P connector (or equal). Mating connector (sold separately), order <b>PTS06A-10-6S-R</b></p> <p>6 = DIN connector</p>				<p><b>To order a custom configuration:</b></p> <ol style="list-style-type: none"> <li>1. Select a pressure port</li> <li>2. Select electrical connection</li> <li>3. Select a pressure range</li> <li>4. Select pressure units – Absolute, Gage or Sealed gage</li> <li>5. Select output</li> <li>6. Select options and agency approvals</li> </ol>

Comes complete with 5-point calibration.

**Ordering Examples:** **PX5503A1-015AV**, 350 Ω bridge, 1/8-27 NPT male pressure port, PTIH-10-6P style connector, 15 psi absolute pressure range and mV/V output.

**PTS06A-10-6S-R**, mating connector (sold separately). **PX5500M1-10KG5T**, MS33649-4 female pressure port, PTIH-10-6P style connector, 10,000 psi gage pressure range and 0 to 5 Vdc output. **PTS06A-10-6S-R**, mating connector (sold separately).

**PX5500L0-015AI-25FT**, MS33656-4 male pressure port, 8 m (25') lead wire, 15 psi absolute pressure range and 4 to 20 mA output.



## METRIC PSI RANGE CUSTOM CONFIGURATIONS

PXM5500 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
	MA = G1/8B Male MB = G1/8B Female no charge MC = G1/4B Male MD = G1/4B Female no charge		1.0 1.6 4.0 6.0 10 16 25 40 60 100 160 250 400 600	A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S A, G, S	I = 4 to 20 mA Base price PXM5500	<b>CAL11</b> = 11-point calibration certificate ( )m = Optional cable length in meters
<p>0 = 0.6 m (2') cable (std) add cost per/m over 0.2 m (2')</p> <p>1 = PTIH-10-6P connector (or equal, no charge)</p> <p>6 = mini DIN connector</p>						<p><b>To order a custom configuration:</b></p> <ol style="list-style-type: none"> <li>1. Select a pressure port</li> <li>2. Select electrical connection</li> <li>3. Select a pressure range</li> <li>4. Select pressure units – Absolute, Gage or Sealed gage</li> <li>5. Select output</li> <li>6. Select options and agency approvals</li> </ol>

Visit us online for additional options including extended compensated temperatures.

**Ordering Examples:** **PXM5500MB0-010BARS5T**, 10 bar sealed gage pressure transducer with G1/8B female connection and 0.6 m (2') cable termination.

**PXM5500MD1-010BARA5T**, 10 bar absolute pressure transducer with G1/4B female connection and twist-lock connector.

**PTS06A-10-6S-R**, mating connector (sold separately).





MILLIVOLT OUTPUT  
PRESSURE TRANSDUCERS  
**B**



**STANDARD**  
PX5500L1-100GV,  
shown actual size.



**METRIC**  
PXM5500MC6-010BARGV,  
shown actual size.

**ACCESSORY**

MODEL NO.	DESCRIPTION
PTS06A-10-6S-R	Mating connector for PX5500/PXM5500 units with PTIH-10-6P electrical connection

**To Order**

Models with mV/V Output, MS33656-4 Connection, Integral Connector

RANGE		MODEL NO.	COMPATIBLE METERS*
<b>ABSOLUTE PRESSURE (All Ranges Available in Absolute Pressure)</b>			
0 to 15 psi	0 to 1.0 bar	PX5500L1-015AV	DP41-S, DP25B-S
0 to 25 psi	0 to 1.7 bar	PX5500L1-025AV	DP41-S, DP25B-S
0 to 50 psi	0 to 3.4 bar	PX5500L1-050AV	DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	PX5500L1-100AV	DP41-S, DP25B-S
<b>GAGE PRESSURE (All Ranges also Available in Sealed Gage Pressure)</b>			
0 to 15 psi	0 to 1.0 bar	PX5500L1-015GV	DP41-S, DP25B-S
0 to 25 psi	0 to 1.7 bar	PX5500L1-025GV	DP41-S, DP25B-S
0 to 50 psi	0 to 3.4 bar	PX5500L1-050GV	DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	PX5500L1-100GV	DP41-S, DP25B-S
0 to 250 psi	0 to 17.2 bar	PX5500L1-250GV	DP41-S, DP25B-S
0 to 500 psi	0 to 34.5 bar	PX5500L1-500GV	DP41-S, DP25B-S
0 to 1000 psi	0 to 68.9 bar	PX5500L1-1KGV	DP41-S, DP25B-S
0 to 1500 psi	0 to 103 bar	PX5500L1-1.5KGV	DP41-S, DP25B-S
0 to 2500 psi	0 to 172 bar	PX5500L1-2.5KGV	DP41-S, DP25B-S
0 to 3000 psi	0 to 207 bar	PX5500L1-3KGV	DP41-S, DP25B-S
0 to 5000 psi	0 to 345 bar	PX5500L1-5KGV	DP41-S, DP25B-S
0 to 10,000 psi	0 to 689 bar	PX5500L1-10KGV	DP41-S, DP25B-S

Comes complete with 5-point calibration.

\* Visit us online for compatible meters.

To order absolute pressure models, replace "G" in model number with "A". No extra charge.

To order sealed gage models, replace "G" in model number with "S". No extra charge.

**Ordering Examples:** PX5500L1-1KSV, 1000 psi sealed gage transducer with PTIH-10-6P electrical connection and MS33656-4 male pressure port. PTS06A-10-6S-R, mating connector (sold separately).

PX5500L1-100AV, 100 psi absolute pressure transducer with PTIH-10-6P electrical connection and MS33656-4 male pressure port. PTS06A-10-6S-R, mating connector (sold separately).

**METRIC MODELS**

**To Order**

Models with G 1/4 Male Pressure Connection, Cable or mini DIN and mV/V Output

RANGE		MODEL NO.	COMPATIBLE METERS*
<b>GAGE PRESSURE</b>			
0 to 1 bar	0 to 15 psi	PXM5500MC[*]-001BARGV	DP41-S, DP25B-S
0 to 1.60 bar	0 to 23 psi	PXM5500MC[*]-1.60BARGV	DP41-S, DP25B-S
0 to 4 bar	0 to 58 psi	PXM5500MC[*]-004BARGV	DP41-S, DP25B-S
0 to 6 bar	0 to 87 psi	PXM5500MC[*]-006BARGV	DP41-S, DP25B-S
0 to 10 bar	0 to 145 psi	PXM5500MC[*]-010BARGV	DP41-S, DP25B-S
0 to 16 bar	0 to 232 psi	PXM5500MC[*]-016BARGV	DP41-S, DP25B-S
0 to 25 bar	0 to 363 psi	PXM5500MC[*]-025BARGV	DP41-S, DP25B-S
0 to 40 bar	0 to 580 psi	PXM5500MC[*]-040BARGV	DP41-S, DP25B-S
0 to 60 bar	0 to 870 psi	PXM5500MC[*]-060BARGV	DP41-S, DP25B-S
0 to 100 bar	0 to 1450 psi	PXM5500MC[*]-100BARGV	DP41-S, DP25B-S
0 to 160 bar	0 to 2321 psi	PXM5500MC[*]-160BARGV	DP41-S, DP25B-S
0 to 250 bar	0 to 3626 psi	PXM5500MC[*]-250BARGV	DP41-S, DP25B-S
0 to 400 bar	0 to 5802 psi	PXM5500MC[*]-400BARGV	DP41-S, DP25B-S
0 to 600 bar	0 to 8702 psi	PXM5500MC[*]-600BARGV	DP41-S, DP25B-S

Comes complete with 5-point NIST-traceable calibration.

\* Visit us online for compatible meters.

[\*] = Insert "0" for 0.6 m (2') cable "1" for twist-lock connector for "6" for mini DIN connector.

To order absolute pressure models, replace "G" in model number with "A" (no extra charge).

To order sealed gage models, replace "G" in model number with "S" (no extra charge).

**Ordering Example:** PXM5500MC6-60BARSV, mV/V output, 60 bar sealed gage transducer with mini DIN connector and G 1/4 male pressure port. Mating connector included.

# High-Performance Thin Film

## Pressure Transducer

### Imperial and Metric Models

0-5 and 0-10 Vdc Output Models

3 Wire Amplifier

0-15 to 0-10,000 psi-Imperial Models

0-1 to 0-600 bar-Metric Models

1 bar = 14.5 psi

1 kg/cm<sup>2</sup> = 14.22 psi

1 atmosphere = 14.7 psi = 29.93

inHg = 760.2 mmHg = 1.014 bar

PX5500/  
PXM5500 Series



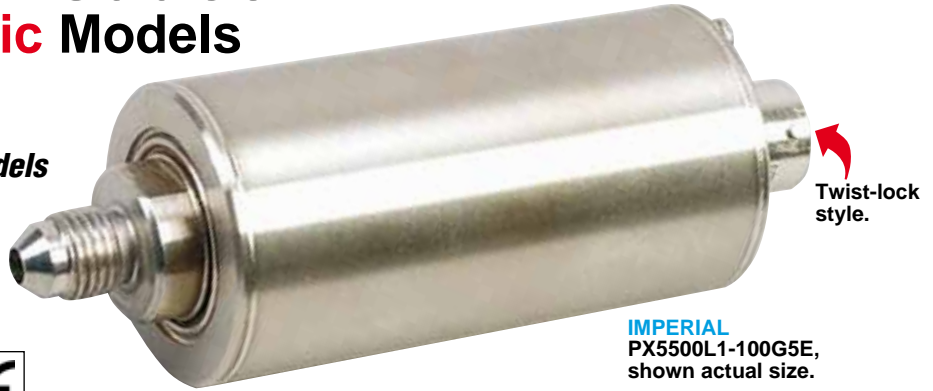
Standard

- ✓ Integral Shunt Calibration
- ✓ Low Noise, 5 Vdc and 10 Vdc Output Models
- ✓ High 0.1% Accuracy
- ✓ Solid State Reliability
- ✓ Sputtered Strain Gage Design
- ✓ High Shock and Vibration Resistance
- ✓ Low Drift

#### Applications

- ✓ R&D/Engineering Test Laboratories
- ✓ Functional Test Systems
- ✓ Production Testing
- ✓ Flight Testing
- ✓ Gas Turbine and Engine Test Stands
- ✓ Hydraulic Systems
- ✓ Custody Transfer Measurements

OMEGA'S PX5500/PXM5500 transducer series provides high performance in demanding industrial and research applications where accuracy, reliability, and price are important. These transducers have a 10-year MTBF rate and are stable to 0.1% of FSO over an 18-month period. This translates into less downtime, fewer test reruns, more time between calibrations, and high confidence in your pressure data. When recalibration is impossible, relying on the high stability of the PX5500/PXM5500 Series transducers may be the only cost-effective way to obtain pressure data over the long term. OMEGA's thin-film technology makes this premium performance possible. The strain gages and



IMPERIAL  
PX5500L1-100G5E,  
shown actual size.

associated parts are sputter-deposited directly onto the pressure sensing element, eliminating the need for adhesives. The resulting molecular bond between the sensing element and the strain gage ensures virtually no shifting, drifting, or "creep" in the performance of the transducer. The micro-geometry design of the PX5500/PXM5500 sensing element affords a very small, low-mass sensor that reduces effects of mechanical vibration and shock. The PX5500/PXM5500 gives you accuracy, reliability, and stability at competitive prices.

#### Specifications

**Electrical Connection:** See Custom Configurations

**Pressure Port:** See Custom Configurations

**Mating Connector (Style 1):** PT06F10-6S-R (sold separately)

**Weight:** 225 g (8 oz) max

**Excitation:** 16 to 38 Vdc unregulated

**Output (FS) 5E/5T Models:** 5 Vdc ±0.1 Vdc ±10% adj

**Output (FS) 10E Models:** 10 Vdc ±0.1 Vdc ±10% adj

**CE Compliant:** Meets industrial emissions and immunity to EN61326

**Zero Balance:** 0 Vdc ±0.1 Vdc ±5% adj

**Input Current:** 20 mA max with no load

**Output Resistance:** 100 Ω max

**Insulation Resistance:** 100MΩ at 50Vdc between all pins shorted together and case

**Electrostatic Discharge:** Protected to 15 kV max

**Sensing Element:** 4-active-arm bridge using sputter-deposited thin-film elements

**Accuracy:** Combined linearity, hysteresis and repeatability: ±0.10% FS (BFSL) <70 bar (<1000 psi) ±0.15% FS 70 bar (1000 psi) and above

**Natural Frequency:** 5 kHz for 1 bar (15 psi), increasing logarithmically to 50 kHz for 5000 psi

**Operating Temp Range:** -54 to 121°C (-65 to 250°F)

**Compensated Temp Range:** -18 to 82°C (0 to 180°F)

**Thermal Effects (Over the Compensated Range):**

**Span:** ±0.015% FS/°F (0.027%/°C)

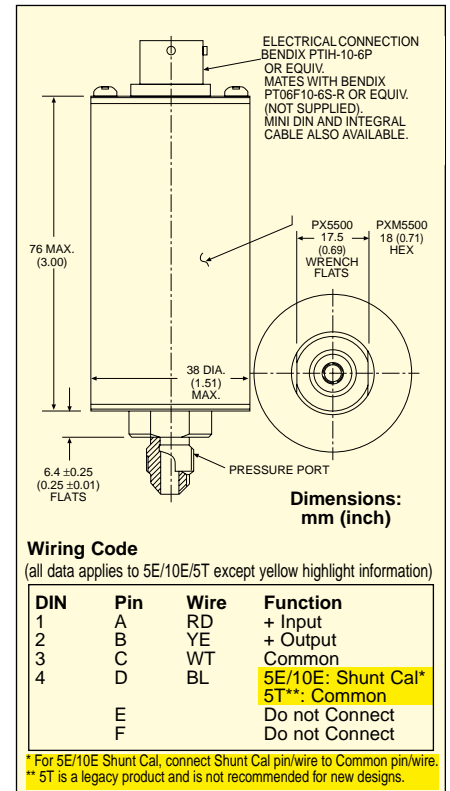
**Zero:** ±0.015% FS/°F (0.027%/°C)

**Proof Pressure:** 2 times rated pressure or 1000 bar (15,000 psi), whichever is less, will not cause changes in performance beyond the specified tolerance

**Burst Pressure:** 3 times rated pressure or 1300 bar (20,000 psi), whichever is less, will not cause rupture of the pressure containment cavity

**Wetted Parts:**

17-4 PH or 15-5 PH stainless steel



# High-Performance Thin-Film Pressure Transducer

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## Imperial Custom Configurations

PX5500 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>A</b> = 1/8-27 NPT male	<b>B</b> = 1/8-27 NPT female <b>C</b> = 1/4-18 NPT male <b>D</b> = 1/4-18 NPT female <b>L</b> = MS33656-4 <b>M</b> = MS33649-4  <b>0</b> = 0.6 m (2') cable <b>add cost per/foot</b> over 0.6 m (2') <b>1</b> = PTIH-10-6P twist-lock connector (or equal, no charge). Mating connector (sold separately), order <b>PT06F10-6S-R</b> <b>6</b> = mini DIN connector (no charge)		015 psi	S,G,A	<b>5E</b> = 0 to 5 Vdc	<b>CAL11</b> = 11-point calibration certificate <b>+ cost</b> ( )ft = Optional cable length in meters
<b>B</b> = 1/8-27 NPT female		025	S,G,A	<b>10E</b> = 0 to 10 Vdc		
<b>C</b> = 1/4-18 NPT male		050	S,G,A	<b>5T*</b> = 0 to 5 Vdc		
<b>D</b> = 1/4-18 NPT female		100	S,G,A	* 5T is a legacy product and is not recommended for new designs.		
<b>L</b> = MS33656-4		250	S,G,A			
<b>M</b> = MS33649-4		500	S,G,A			
		1K	S,G,A			
		1.5K	S,G,A			
		2.5K	S,G,A			
		3K	S,G,A			
	5K	S,G,A				
	10K	S,G,A				

Visit us online for additional options including extended compensated temperatures.

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units – Sealed Gage, Gage or Absolute
5. Select output
6. Select options

## To Order

Popular Imperial Models with 0 to 5 or 0 to 10 Vdc Output Shown Below (See Custom Configurations Section for All Available Versions/Options)

Pressure Range		Model No. (With Output Termination Style)		
Imperial	Metric	0.6 m (2') Cable	PTIH-10-6P Connector	mini DIN Connector
<b>Absolute Pressure (All Ranges Available in Absolute Pressure, See Custom Configurations Section)</b>				
0 to 15 psi	0 to 1.0 bar	PX5500[*]0-015A[**]	PX5500[*]1-015A[**]	PX5500[*]6-015A[**]
0 to 25 psi	0 to 1.7 bar	PX5500[*]0-025A[**]	PX5500[*]1-025A[**]	PX5500[*]6-025A[**]
0 to 50 psi	0 to 3.4 bar	PX5500[*]0-050A[**]	PX5500[*]1-050A[**]	PX5500[*]6-050A[**]
0 to 100 psi	0 to 6.9 bar	PX5500[*]0-100A[**]	PX5500[*]1-100A[**]	PX5500[*]6-100A[**]
<b>Gage Pressure (All Ranges Also Available in Sealed Gage Pressure, See Below)</b>				
0 to 15 psi	0 to 1.0 bar	PX5500[*]0-015G[**]	PX5500[*]1-015G[**]	PX5500[*]6-015G[**]
0 to 25 psi	0 to 1.7 bar	PX5500[*]0-025G[**]	PX5500[*]1-025G[**]	PX5500[*]6-025G[**]
0 to 50 psi	0 to 3.4 bar	PX5500[*]0-050G[**]	PX5500[*]1-050G[**]	PX5500[*]6-050G[**]
0 to 100 psi	0 to 6.9 bar	PX5500[*]0-100G[**]	PX5500[*]1-100G[**]	PX5500[*]6-100G[**]
0 to 250 psi	0 to 17.2 bar	PX5500[*]0-250G[**]	PX5500[*]1-250G[**]	PX5500[*]6-250G[**]
0 to 500 psi	0 to 34.5 bar	PX5500[*]0-500G[**]	PX5500[*]1-500G[**]	PX5500[*]6-500G[**]
0 to 1000 psi	0 to 68.9 bar	PX5500[*]0-1KG[**]	PX5500[*]1-1KG[**]	PX5500[*]6-1KG[**]
0 to 1500 psi	0 to 103 bar	PX5500[*]0-1.5KG[**]	PX5500[*]1-1.5KG[**]	PX5500[*]6-1.5KG[**]
0 to 2500 psi	0 to 172 bar	PX5500[*]0-2.5KG[**]	PX5500[*]1-2.5KG[**]	PX5500[*]6-2.5KG[**]
0 to 3000 psi	0 to 207 bar	PX5500[*]0-3KG[**]	PX5500[*]1-3KG[**]	PX5500[*]6-3KG[**]
0 to 5000 psi	0 to 345 bar	PX5500[*]0-5KG[**]	PX5500[*]1-5KG[**]	PX5500[*]6-5KG[**]
0 to 10,000 psi	0 to 689 bar	PX5500[*]0-10KG[**]	PX5500[*]1-10KG[**]	PX5500[*]6-10KG[**]

Comes complete with 5-point NIST-traceable calibration. Visit us online for compatible meters.

[\*] Pressure Port (see Custom Configurations section and enter **A, B, C, D, L, or M**).

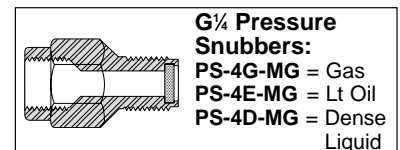
[\*\*] Output Voltage Range: Enter "**5E**" for 0 to 5 Vdc output, or "**10E**" for 0 to 10 Vdc output.

To order absolute pressure transducers, change "**G**" in model number to "**A**" (no extra charge).

To order sealed gage transducers, change "**G**" in model number to "**S**" (no extra charge).

**Ordering Examples:** **PX5500L1-025A10E**, 25 psi absolute transducer with 0 to 10 Vdc output, PTIH-10-6P electrical connection, and MS33656-4, male pressure port. **PT06F10-6S-R**, mating connector (sold separately).

**PX5500C6-5KG5E**, 5000 psi gage pressure transducer with 0 to 5 Vdc output, mini DIN electrical connection, and 1/4-18 NPT male pressure port.





**Metric Custom Configurations**

PXM5500 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>MA</b> = G½B Male <b>extra charge</b>			001BAR	S,G,A	<b>5E</b> = 0 to 5 Vdc	<b>CAL11</b> = 11-point calibration certificate
<b>MB</b> = G½B Female no charge			1.60BAR	S,G,A	<b>10E</b> = 0 to 10 Vdc	<b>+ cost</b>
<b>MC</b> = G½B Male <b>extra charge</b>			004BAR	S,G,A	<b>5T*</b> = 0 to 5 Vdc	<b>( )ft</b> = Optional cable length in meters
<b>MD</b> = G½B Female no charge			006BAR	S,G,A	* <b>5T</b> is a legacy product and is not recommended for new designs.	
	<b>0</b> = 0.6 m (2') cable (std) <b>add cost per/meter</b> over 0.6 m (2')		010BAR	S,G,A		
	<b>1</b> = PTIH-10-6P twist-lock connector (or equal, no charge). Mating connector (sold separately), order <b>PT06F10-6S-R</b>		016BAR	S,G,A		
	<b>6</b> = mini DIN connector (no charge)		025BAR	S,G,A		
			040BAR	S,G,A		
			060BAR	S,G,A		
			100BAR	S,G,A		
			160BAR	S,G,A		
			250BAR	S,G,A		
			400BAR	S,G,A		
			600BAR	S,G,A		

Visit us online for additional options including extended compensated temperatures.

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units – Sealed Gage, Gage or Absolute
5. Select output
6. Select options

Popular Metric Models with 0 to 5 or 0 to 10 Vdc Output Shown Below (See Custom Configurations Section for All Available Versions/Options)				
Pressure Range		Model No. (With Output Termination Style)		
Metric	Imperial	0.6 m (2') Cable	PTIH-10-6P Connector	mini DIN Connector
<b>Gage Pressure (All Ranges Also Available in Absolute and Sealed Gage Pressure, See Below)</b>				
0 to 1 bar	0 to 15 psi	PXM5500M[*]0-001BARG[**]	PXM5500M[*]1-001BARG[**]	PXM5500M[*]6-001BARG[**]
0 to 1.60 bar	0 to 23 psi	PXM5500M[*]0-1.60BARG[**]	PXM5500M[*]1-1.60BARG[**]	PXM5500M[*]6-1.60BARG[**]
0 to 4 bar	0 to 58 psi	PXM5500M[*]0-004BARG[**]	PXM5500M[*]1-004BARG[**]	PXM5500M[*]6-004BARG[**]
0 to 6 bar	0 to 87 psi	PXM5500M[*]0-006BARG[**]	PXM5500M[*]1-006BARG[**]	PXM5500M[*]6-006BARG[**]
0 to 10 bar	0 to 145 psi	PXM5500M[*]0-010BARG[**]	PXM5500M[*]1-010BARG[**]	PXM5500M[*]6-010BARG[**]
0 to 16 bar	0 to 232 psi	PXM5500M[*]0-016BARG[**]	PXM5500M[*]1-016BARG[**]	PXM5500M[*]6-016BARG[**]
0 to 25 bar	0 to 363 psi	PXM5500M[*]0-025BARG[**]	PXM5500M[*]1-025BARG[**]	PXM5500M[*]6-025BARG[**]
0 to 40 bar	0 to 580 psi	PXM5500M[*]0-040BARG[**]	PXM5500M[*]1-040BARG[**]	PXM5500M[*]6-040BARG[**]
0 to 60 bar	0 to 870 psi	PXM5500M[*]0-060BARG[**]	PXM5500M[*]1-060BARG[**]	PXM5500M[*]6-060BARG[**]
0 to 100 bar	0 to 1450 psi	PXM5500M[*]0-100BARG[**]	PXM5500M[*]1-100BARG[**]	PXM5500M[*]6-100BARG[**]
0 to 160 bar	0 to 2321 psi	PXM5500M[*]0-160BARG[**]	PXM5500M[*]1-160BARG[**]	PXM5500M[*]6-160BARG[**]
0 to 250 bar	0 to 3626 psi	PXM5500M[*]0-250BARG[**]	PXM5500M[*]1-250BARG[**]	PXM5500M[*]6-250BARG[**]
0 to 400 bar	0 to 5802 psi	PXM5500M[*]0-400BARG[**]	PXM5500M[*]1-400BARG[**]	PXM5500M[*]6-400BARG[**]
0 to 600 bar	0 to 8702 psi	PXM5500M[*]0-600BARG[**]	PXM5500M[*]1-600BARG[**]	PXM5500M[*]6-600BARG[**]

Comes complete with 5-point NIST-traceable calibration. Visit us online for compatible meters.

[\*] Pressure Port (see Custom Configurations section and enter **MA**, **MB**, **MC**, or **MD**).

[\*\*] Output Voltage Range: Enter "**5E**" for 0 to 5 Vdc output, or "**10E**" for 0 to 10 Vdc output.

To order absolute pressure models, replace "**G**" in model number with "**A**" (no extra charge).

To order sealed gage models, replace "**G**" in model number with "**S**" (no extra charge).

**Ordering Examples:** **PXM5500MC6-060BARS5E**, 60 bar sealed gage transducer with 0 to 5 Vdc output, mini DIN electrical connection and G¼ male pressure port. Mating connector included.

**PXM5500MC0-010BARA10E**, 10 bar absolute pressure transducer with 0 to 10 Vdc output, 0.6 m (2') cable connection and G¼ male pressure port.

**Accessories**

Model No.	Description
PT06F10-6S-R	Mating connector for PX5500/PXM5500 Series units with PTIH-10-6P twist-lock connector



# THIN-FILM TRANSMITTER

## STANDARD AND METRIC MODELS

**4 to 20 mA Output**

**0-15 to 0-10,000 psi-Standard Models**

**0-1 to 0-600 bar-Metric Models**

1 bar = 14.5 psi

1 kg/cm<sup>2</sup> = 14.22 psi

1 atmosphere = 14.7 psi = 29.93

inHg = 760.2 mmHg = 1.014 bar



**STANDARD**  
PX5500L1-100GI,  
shown actual size.

## PX5500/PXM5500 Series



OMEGA's PX5500/PXM5500 transducer series provides high performance in demanding industrial and research applications where accuracy, reliability, and price are important. These transducers have a 10-year MTBF rate and are stable to 0.1% of FS over an 18-month period. This translates into less downtime, fewer test reruns, more time between calibrations, and more reliable pressure data. When recalibration is impossible, relying on the high stability of a PX5500/PXM5500 transducer may be the only cost-effective way to obtain pressure data over the long term. OMEGA's thin-film technology makes this premium performance possible. The strain gages and associated structures are sputter-deposited directly onto the pressure sensing element, thus eliminating the need for adhesives. The resulting molecular bond between the sensing element and the strain gages ensures virtually no shifting, drifting, or "creep" in the performance of the transducer. The micro-geometry design of the PX5500/PXM5500 sensing element results in a very small, low-mass sensor that reduces effects of mechanical vibration and shock. The PX5500/PXM5500 delivers accuracy, reliability, and stability at competitive prices.

### SPECIFICATIONS

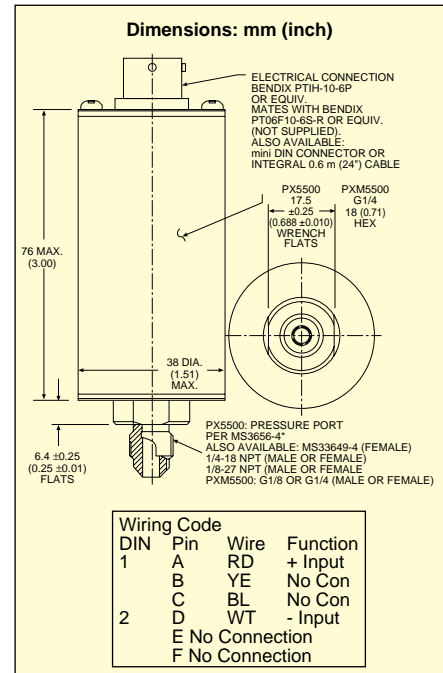
#### mA Models

**Excitation:** 10 to 40 Vdc unregulated, reverse polarity protected

**Output (FS):** 4 to 20 mA ±0.8 mA adj

**Zero Balance:** 4 mA ±0.4 mA adj

**Input Current:** 20 mA max with no load



- ✓ High 0.1% Accuracy
- ✓ Solid State Reliability
- ✓ Sputtered Strain Gage Design
- ✓ High Shock and Vibration Resistance
- ✓ Low Drift
- ✓ 5-Point NIST Calibration Standard

## Applications

- ✓ Testing
- ✓ R&D/Engineering Test Laboratories
- ✓ Functional Test Systems
- ✓ Production Testing
- ✓ Product Quality Assurance
- ✓ Flight Testing
- ✓ Gas Turbine and Engine Test Standards
- ✓ Ground Support Equipment
- ✓ Hydraulic Systems
- ✓ Custody Transfer Measurements

**Load Impedance:** 50 (V – 10) Ω max where V is supply voltage (40 Vdc max)

**Insulation Resistance:** 100MΩ at 50Vdc between all pins shorted together and case

**Electrostatic Discharge:** Protected to 15 kV max

**Sensing Element:** 4-active-arm bridge using sputter-deposited thin-film elements

**Accuracy (Combined Linearity, Hysteresis and Repeatability):** ±0.10% FS (BFSL) <1000 psi  
±0.15% FS 1000 psi and above

**Vibration Sensitivity:** At 20 g peak sinusoidal vibration from 10 to 2000 Hz (½" D.A.), the output shall not exceed 0.04% FS/g for 15 psi range, decreasing to 0.003% FS/g for 1000 psi and above

**Natural Frequency:** 5 kHz for 15 psi, increasing logarithmically to 50 kHz for 5000 psi

# SPUTTERED SILICON TECHNOLOGY

**Shock:** Qualification level of 100 g, 11 ms half sine wave without damage

**Operating Temp Range:** -40 to 85°C (-40 to 185°F)

**Compensated Temp Range:** -18 to 82°C (0 to 180°F)

**Thermal Effects (Over the Compensated Range):**

**Span:** ±0.02% FS/°F  
**Zero:** ±0.02% FS/°F

**Proof Pressure:** 2 times rated pressure or 15,000 psi, whichever is less, will not cause changes in performance beyond the specified tolerance

**Burst Pressure:** 3 times rated pressure or 20,000 psi, whichever is less, will not cause rupture of the pressure containment cavity

**Wetted Parts:** 17-4 PH or 15-5 PH stainless steel

**Pressure Port:** See dimensional drawings on page B-215

**Electrical Connection:** PTIH-10-6P standard

**Mating Connector:** PT06F10-6S-R (sold separately)

**Weight:** 225 g (8 oz) maximum



CURRENT OUTPUT PRESSURE TRANSDUCERS  
**B**

## STANDARD CUSTOM CONFIGURATIONS

PX5500 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
A = 1/8-27 NPT male			015	A, G, S	<b>Base Price PX5500</b> I = 4 to 20 mA	<b>CAL11</b> = 11-pt cal + cost ( )ft = Optional cable length in feet
B = 1/8-27 NPT female			025	A, G, S		
C = 1/4-18 NPT male			050	A, G, S		
D = 1/4-18 NPT female			100	A, G, S		
L = MS33656-4			250	A, G, S		
M = MS33649-4			500	A, G, S		
			1K	A, G, S		
	0 = 0.6 m (2') cable		1.5K	A, G, S		
	add cost per/ft over 0.6 m (2')		2.5K	A, G, S		
	1 = PTIH-10-6P connector		3K	A, G, S		
	(or equal, no charge).		5K	A, G, S		
	Mating connector		10K	A, G, S		
	(sold separately), order					
	<b>PT06F10-6S-R</b>					
	6 = mini DIN connector					

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units – Absolute, Gage or Sealed gage
5. Select output
6. Select options and agency approvals

**Ordering Examples:** **PX5500A1-015AV**, 1/8-27 NPT male pressure port, twist-lock connector, 15 psi absolute pressure range and mV/V output. **PT06F10-6S-R**, mating connector (sold separately). **PX5500M1-10KG5T**, MS33649-4 female pressure port, twist-lock connector, 10,000 psi gage pressure range and 0 to 5 Vdc output. **PT06F10-6S-R**, mating connector (sold separately). **PX5500L0-015AI-25FT**, MS33656-4 male pressure port, 8 m (25') lead wire, 15 psi absolute pressure range and 4 to 20mA output.

## METRIC CUSTOM CONFIGURATIONS

PXM5500 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
MA = G1/8B Male cost			1.0	A, G, S	<b>Base price</b> <b>PXM5500</b> I = 4 to 20 mA	<b>CAL11</b> = 11-point calibration certificate ( )m = Optional cable length in meters
MB = G1/8B Female no charge			1.6	A, G, S		
MC = G1/8B Male cost			4.0	A, G, S		
MD = G1/8B Female no charge			6.0	A, G, S		
			10	A, G, S		
	0 = 0.6 m (2') cable (std)		16	A, G, S		
	add cost per/m over 0.2 m (2')		25	A, G, S		
	1 = PTIH-10-6P connector		40	A, G, S		
	(or equal, no charge)		60	A, G, S		
	6 = mini DIN connector		100	A, G, S		
			160	A, G, S		
			250	A, G, S		
			400	A, G, S		
			600	A, G, S		

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units – Absolute, Gage or Sealed gage
5. Select output
6. Select options and agency approvals

Visit us online for additional options including extended compensated temperatures.

**Ordering Examples:** **PXM5500MB0-010BARS5T**, 10 bar sealed gage pressure transducer with G1/8B female connection and 0.6 m (2') cable termination.

**PXM5500MD1-010BARA5T**, 10 bar absolute pressure transducer with G1/8B female connection and twist-lock connector.

**PT06F10-6S-R**, mating connector (sold separately).

## STANDARD MODELS

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

style.



**STANDARD**  
PX5500L1-100GI,  
shown actual size.

### Models with 4 to 20 mA Output, MS33656-4 Connection, Twist-Lock Connector

RANGE		MODEL NO.	COMPATIBLE METERS*
<b>Absolute Pressure (All Ranges Available in Absolute Pressure)</b>			
0 to 15 psi	0 to 1.0 bar	PX5500L[*]-015AI	DP41-E, DP25B-E, DP24-E
0 to 25 psi	0 to 1.7 bar	PX5500L[*]-025AI	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX5500L[*]-050AI	DP41-E, DP25B-E, DP24-E
0 to 100 psi	0 to 6.9 bar	PX5500L[*]-100AI	DP41-E, DP25B-E, DP24-E
<b>Gage Pressure (All Ranges Also Available in Sealed Gage Pressure)</b>			
0 to 15 psi	0 to 1.0 bar	PX5500L[*]-015GI	DP41-E, DP25B-E, DP24-E
0 to 25 psi	0 to 1.7 bar	PX5500L[*]-025GI	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX5500L[*]-050GI	DP41-E, DP25B-E, DP24-E
0 to 100 psi	0 to 6.9 bar	PX5500L[*]-100GI	DP41-E, DP25B-E, DP24-E
0 to 250 psi	0 to 17.2 bar	PX5500L[*]-250GI	DP41-E, DP25B-E, DP24-E
0 to 500 psi	0 to 34.5 bar	PX5500L[*]-500GI	DP41-E, DP25B-E, DP24-E
0 to 1000 psi	0 to 68.9 bar	PX5500L[*]-1KGI	DP41-E, DP25B-E, DP24-E
0 to 1500 psi	0 to 103 bar	PX5500L[*]-1.5KGI	DP41-E, DP25B-E, DP24-E
0 to 2500 psi	0 to 172 bar	PX5500L[*]-2.5KGI	DP41-E, DP25B-E, DP24-E
0 to 3000 psi	0 to 207 bar	PX5500L[*]-3KGI	DP41-E, DP25B-E, DP24-E
0 to 5000 psi	0 to 345 bar	PX5500L[*]-5KGI	DP41-E, DP25B-E, DP24-E
0 to 10,000 psi	0 to 689 bar	PX5500L[*]-10KGI	DP41-E, DP25B-E, DP24-E

Comes complete with 5-point NIST traceable calibration.

\* Visit us online for compatible meters.

[\*] = Insert "0" for 0.6 m (2') cable, "1" for twist-lock connector, or "6" for mini DIN connector.

To order absolute pressure models, change "G" in model number to "A" (no extra charge).

To order sealed gage models, change "G" in model number to "S" (no extra charge).

**Ordering Examples:** PX5500L1-1KSI, 1000 psi sealed gage transducer with 4 to 20 mA output, PTIH-10-6P electrical connector and MS33656-4, male pressure port.

PT06F10-6S-R, mating connector (sold separately).

PX5500L1-100AI, 100 psi absolute pressure transducer with 4 to 20 mA output, PTIH-10-6P electrical connector and MS33656-4, male pressure port. PT06F10-6S-R, mating connector (sold separately).

## METRIC MODELS

### Models with G 1/4 Male Pressure Connection, Cable or Connector and 4 to 20 mA Output

RANGE		MODEL NO.	COMPATIBLE METERS*
<b>GAGE PRESSURE</b>			
0 to 1 bar	0 to 15 psi	PXM5500MC[*]-001BARGI	DP41-E, DP25B-E, DP24-E
0 to 1.60 bar	0 to 23 psi	PXM5500MC[*]-1.60BARGI	DP41-E, DP25B-E, DP24-E
0 to 4 bar	0 to 58 psi	PXM5500MC[*]-004BARGI	DP41-E, DP25B-E, DP24-E
0 to 6 bar	0 to 87 psi	PXM5500MC[*]-006BARGI	DP41-E, DP25B-E, DP24-E
0 to 10 bar	0 to 145 psi	PXM5500MC[*]-010BARGI	DP41-E, DP25B-E, DP24-E
0 to 16 bar	0 to 232 psi	PXM5500MC[*]-016BARGI	DP41-E, DP25B-E, DP24-E
0 to 25 bar	0 to 363 psi	PXM5500MC[*]-025BARGI	DP41-E, DP25B-E, DP24-E
0 to 40 bar	0 to 580 psi	PXM5500MC[*]-040BARGI	DP41-E, DP25B-E, DP24-E
0 to 60 bar	0 to 870 psi	PXM5500MC[*]-060BARGI	DP41-E, DP25B-E, DP24-E
0 to 100 bar	0 to 1450 psi	PXM5500MC[*]-100BARGI	DP41-E, DP25B-E, DP24-E
0 to 160 bar	0 to 2321 psi	PXM5500MC[*]-160BARGI	DP41-E, DP25B-E, DP24-E
0 to 250 bar	0 to 3626 psi	PXM5500MC[*]-250BARGI	DP41-E, DP25B-E, DP24-E
0 to 400 bar	0 to 5802 psi	PXM5500MC[*]-400BARGI	DP41-E, DP25B-E, DP24-E
0 to 600 bar	0 to 8702 psi	PXM5500MC[*]-600BARGI	DP41-E, DP25B-E, DP24-E

Comes complete with 5-point NIST traceable calibration.

\* Visit us online for compatible meters.

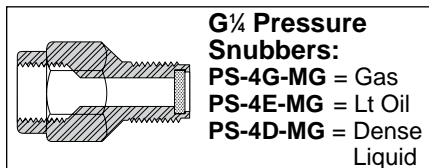
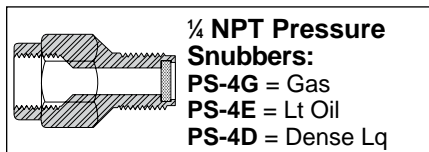
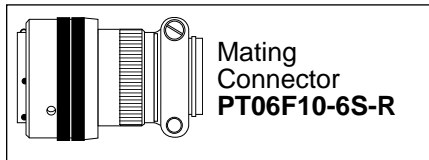
[\*] = Insert "0" for 0.6 m (2') cable, "1" for twist-lock connector, or "6" for mini DIN connector.

To order absolute pressure models, replace "G" in model number with "A" (no extra charge).

To order sealed gage models, replace "G" in model number with "S" (no extra charge).

**Ordering Examples:** PXM5500MC0-060BARSI, 60 bar sealed gage transmitter with 4 to 20 mA output, 0.6 m (2') cable connection and G 1/4 male pressure port.

PXM5500MC6-1.60BARAI, 1.6 bar absolute pressure transmitter with 4 to 20 mA output, mini-DIN connection and G 1/4 male pressure port. Matina connector included.



## ACCESSORY

MODEL NO.	DESCRIPTION
PT06F10-6S-R	Mating connector for PX5500 units with integral twist-lock connector

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

# PRESSURE TRANSDUCER WITH 3/8-24 THREAD

**0-200 to 0-10,000 psi**  
**0-13.8 to 0-689 bar**

## PX600 Series



Standard

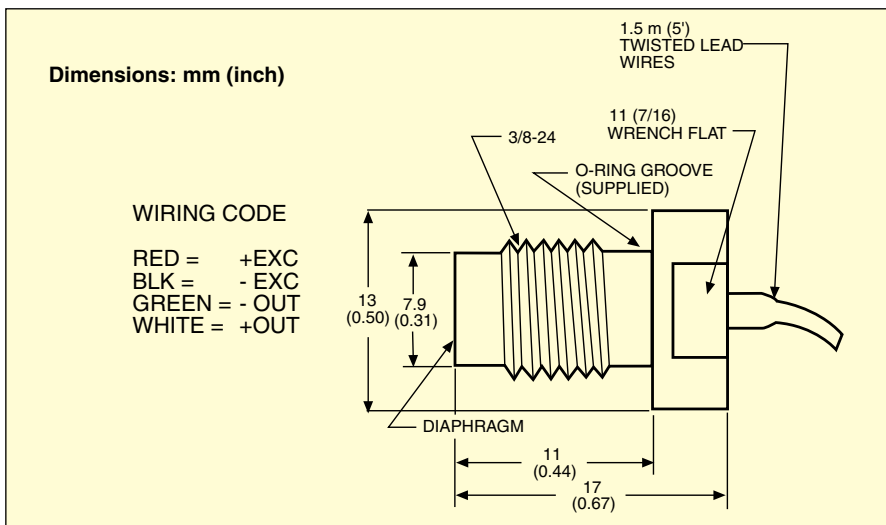


PX600-500GV shown actual size.

- ✓ All Stainless Steel Diaphragm and Threaded Sidewall Construction
- ✓ Rugged Stainless Steel Case Protects Components in Industrial Environments
- ✓ Uses a Standard 5 Vdc Regulated Power Supply for Maximum Versatility
- ✓ Custom Subminiature Design Techniques Provide Small Size and Preserve Accuracy

### SPECIFICATIONS

**Excitation:** 5 Vdc @ 15 mA  
**Output:** 10 mV typical @ 5 Vdc  
**Sensitivity:** 2 mV/V nominal  
**Input Impedance:** 350 Ω min  
**Output Resistance:** 350 Ω min  
**Insulation Resistance:** 5 MΩ @ 75 Vdc  
**Accuracy:** ±1% FS (linearity and hysteresis combined)  
**Repeatability:** ±0.1% FS  
**Zero Balance:** ±3% FS  
**Operating Temperature Range:** -54 to 121°C (-65 to 250°F)  
**Compensated Temperature Range:** 16 to 71°C (60 to 160°F)  
**Thermal Zero Effect:** <±0.018% full scale/°C  
**Thermal Sensitivity Effect:** ±0.036% reading/°C  
**Proof Pressure:** 150% range  
**Burst Pressure:** 400% range  
**Body and Diaphragm Material:** 17-4 PH stainless steel  
**O-Ring:** 2-011, FKM  
**Electrical Connection:** 4-conductor cable  
**Weight:** 14 g (0.5 oz)



To Order			
RANGE		MODEL NO.	COMPATIBLE METERS
psig	bar		
0 to 200	0 to 13.8	PX600-200GV	DP41-S**, DP25B-S**, DP87**
0 to 500	0 to 34.5	PX600-500GV	DP41-S**, DP25B-S**, DP87**
0 to 1000	0 to 68.9	PX600-1KGV	DP41-S**, DP25B-S**, DP87**
0 to 2000	0 to 138	PX600-2KGV	DP41-S**, DP25B-S**, DP87**
0 to 3000	0 to 207	PX600-3KGV	DP41-S**, DP25B-S**, DP87**
0 to 5000	0 to 345	PX600-5KGV	DP41-S**, DP25B-S**, DP87**
0 to 10,000	0 to 689	PX600-10KGV	DP41-S**, DP25B-S**, DP87**

### ACCESSORIES

MODEL NO.	DESCRIPTION
2-011-P	Polyvinyl O-rings, 10 pack
2-011-V	FKM O-rings, 10 pack

Comes complete with 5-point calibration and FKM O-rings.

\*\* Meter excitation voltage requires field adjustment by customer to 5 Vdc.

Ordering Example: PX600-200GV 200 psig subminiature transducer



# PRESSURE TRANSDUCER

## STANDARD AND METRIC MODELS

**mV/V Output**  
**0-15 to 0-300 psi-Standard Models**  
**0-1 to 0-25 bar-Metric Models**

### PX6000/PXM6000 Series



- High Reliability
- Long-Term Stability
- All Stainless Steel Case
- Vacuum Range Available

### Applications

- Automotive Testing
- Research and Development
- Engineering Testing and Evaluation
- Production Testing
- Flight Recorders
- Engine Monitoring
- Ground Support Equipment
- Built-In Temperature Sensor

OMEGA's PX6000/PXM6000 Series pressure transducers fit easily into your application. These low-cost transducers are small and light, and mounting requires no bulky structures. You select from 3 electrical terminations and 6 pressure fittings. The sensor is a small [about 2.54 cm (0.1") square silicon chip with 4 diffused strain gages, mounted in the stainless steel case. Laser-trimmed resistors provide temperature compensation and adjust zero balance and span. The 30 mV full range output is compatible with most amplifiers and data acquisition systems.

The PX6000/PXM6000 uses solid state media isolation for improved reliability. Thin films of chemically inert materials are deposited or grown on the chip surface to provide electrical isolation between the sensor and pressure medium. The

sensor is less sensitive to vibration and more dependable in high-shock environments. Corrosion resistance is outstanding, and the isolation will remain effective because there is no gel or oil column to deteriorate.

### SPECIFICATIONS

#### ELECTRICAL

**Excitation:** 10 Vdc  
**Output:** 3 mV/V  $\pm$  10%  
**Input Resistance:** 2000  $\Omega$  minimum  
**Output Resistance:** 1000  $\Omega$  minimum, 1500  $\Omega$  maximum  
**Zero Balance:** 0 mV  $\pm$  5% FSO  
**Dielectric Isolation Resistance:** 100 M $\Omega$  minimum at 50 Vdc applied between the case or a conductive medium and the bridge circuit  
**Sensing Element:** 4-active-arm bridge using a micro-machined diffused silicon diaphragm sensor, thin-film media and dielectric isolation barriers

**Temperature Sensor:**  
 Output resistance @ 24°C (75°F)  
 900 to 1500  $\Omega$

**Temperature Coefficient:**  
 8% minimum, 10% maximum per 55.5°C (100°F)

#### PERFORMANCE

**Accuracy:**  $\pm$ 0.25% FS combined linearity, hysteresis and repeatability for all ranges

#### ENVIRONMENTAL

**Operating Temp Range:**  
 -54 to 150°C (-65 to 300°F)

**Compensated Temp Range:**  
 -54 to 121°C (-65 to 250°F)

#### Thermal Effects:

**Span:**  $\leq$   $\pm$ 0.02% of FS/°F  
**Zero:**  $\leq$   $\pm$ 0.02% of FS/°F

**Vibration Sensitivity:** At 35g peak sinusoidal vibration from 10 Hz to 2000 Hz (1/2" D.A.), the output shall not exceed 0.04% FS/g for 15 psi range to 0.005% FS/g for 100 psi and above

**Natural Frequency:** Greater than 35 kHz for 100 psi and above

**Shock:** 100 g, 11 ms half sine wave without damage



PX6000L1-100GV  
 MS33656-4 pressure ports standard, shown actual size.

### PRESSURE

**Proof Pressure:** 2 times rated pressure will not cause changes in performance beyond the specified tolerances

**Burst Pressure:** 3 times rated pressure for pressure ranges below 200 psi, or 2.5 times rated pressure for pressure ranges above 200 psi will not cause rupture of the pressure sensor

### MECHANICAL

**Wetted Parts:** 316 stainless steel, silicon nitride, Pyrex® glass, epoxy, Kovar®

**Electrical Connection:**  
 PTIH-10-6P or 0.6 m (2') cable, 4-pin solder terminal header, or mini-DIN connector

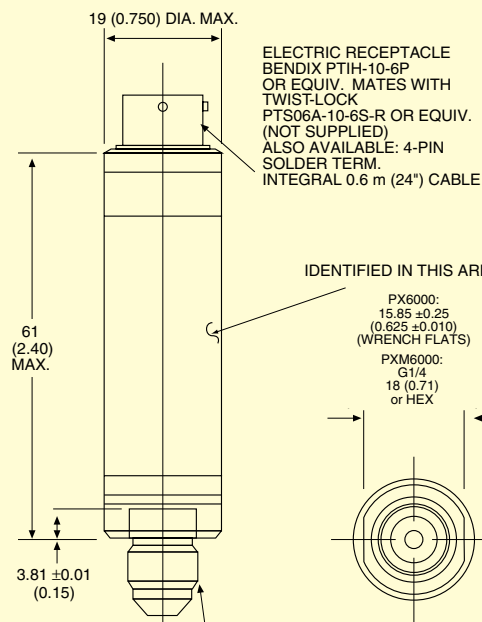
**Pressure Port:** See custom configurations

**Weight:** 4 oz max, excluding pressure fitting and electrical connection

**Mating Connector:**  
 PTS06A-10-6S-R (sold separately)

### Dimensions: mm (inch)

PX6000L1



**Pin Wire**  
**A = + Input (Red)**  
**B = + Output (Green)**  
**C = - Output (Blue)**  
**D = - Input (White)**  
**E = Temp. Sensor (Black)**  
**F = Temp. Sensor (Orange)**  
**Shield = N/C**

PRESSURE PORT PER MS33656-4 (1/4 TUBE)  
 ALSO AVAILABLE: MS33649-4 (FEMALE)  
 1/4-18 NPT (MALE OR FEMALE)  
 1/8-27 NPT (MALE OR FEMALE)  
 G1/8 B (MALE OR FEMALE)  
 G1/4 B (MALE)

# DIFFUSED SEMICONDUCTOR PRESSURE TRANSDUCER

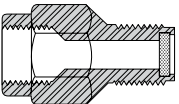
## STANDARD CUSTOM CONFIGURATIONS

PX6000 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	CALIBRATION OPTION [ 6 ]
A = 1/8-27 NPT Male B = 1/8-27 NPT Female C = 1/4-18 NPT Male D = 1/4-18 NPT Female L = MS33656-4 Male M = MS33649-4 Female			30* 015 020 050 100 200 300	VAC G,A G,A G,A G,A G,A G,A	V = mV/V output	CA11 = 11-point NIST calibration <b>additional cost</b>  [ 7 ] CABLE LENGTH -XXXFT <b>** available when selection [ 2 ] = 0 **</b>
<p>0 = 0.6 m (2') cable (std) <b>additional cost/ft</b> over 0.6 m (2')</p> <p>1 = PTIH-10-6P connector or equal (no charge). Mating connector (not included), order <b>PTS06A-10-6S-R</b>.</p> <p>3 = 4-pin eyelet header (no charge). Temp sensor not available</p> <p>6 = mini DIN connector (no charge). Temp sensor not available.</p>			<p>* Referenced to atmospheric pressure, 30 Vac range is 30 to 0 inHg vacuum, all other ranges are psi</p>		<p><b>To order a custom configuration:</b></p> <ol style="list-style-type: none"> <li>1. Select a pressure port</li> <li>2. Select electrical connection</li> <li>3. Select a pressure range</li> <li>4. Select pressure units</li> <li>5. Select output</li> <li>6. Select options and agency approvals</li> <li>7. Select extra length cable</li> </ol>	
<p><b>Note: All mV/V models meet CE requirements.</b></p>						

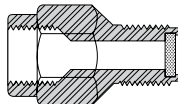
**Ordering Examples:** **PX6000M1-100GI**, 100 psi vented gage pressure transducer with MS33649-4 female pressure connection, PTIH-10-6P electrical connector and 4 to 20 mA output. **PTS06A-10-6S-R**, mating connector (sold separately).

**PX6000A0-30VACV-25FT**, 30 to 0 inHg vacuum transducer with a 1/8-27 NPT male pressure connection, a reverse-acting (30 inHg vacuum = full scale output) mV/V output, and a 7.6 m (25') cable.

**PX6000L1-015A5T**, 15 psi absolute pressure transducer with MS33656-4 male pressure connection, PTIH-10-6P electrical connector and 0 to 5 Vdc output. **PTS06A-10-6S-R**, mating connector (sold separately).



**1/4 NPT Pressure Snubbers:**  
**PS-4G** = Gas  
**PS-4E** = Lt Oil  
**PS-4D** = Dense Lq



**G1/4 Pressure Snubbers:**  
**PS-4G-MG** = Gas  
**PS-4E-MG** = Lt Oil  
**PS-4D-MG** = Dense Liquid

## METRIC CUSTOM CONFIGURATIONS

PXM6000 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	CALIBRATION OPTION [ 6 ]
MA = G1/8 B Male <b>additional cost</b> MB = G1/8 B Female no charge MC = G1/8 B Male <b>additional cost</b>			1.0 1.6 4.0 6.0 10 16	A, G A, G A, G A, G A, G A, G	V = mV/V	CAL11 = 11-point NIST calibration <b>additional cost</b>  [ 7 ] CABLE LENGTH -XXXM <b>** available when selection [ 2 ] = 0 **</b>
<p>0 = 0.6 m (2') cable (std) <b>additional cost/ft</b> over 0.6 m (2')</p> <p>1 = PTIH-10-6P connector (or equal, no charge)</p> <p>3 = 4-pin eyelet* *no shunt cal (no charge)</p> <p>6 = mini DIN connector* *no shunt cal (no charge)</p>			<p><b>Note: All mV/V models meet CE requirements.</b></p>		<p><b>To order a custom configuration:</b></p> <ol style="list-style-type: none"> <li>1. Select a pressure port</li> <li>2. Select electrical connection</li> <li>3. Select a pressure range</li> <li>4. Select pressure units – absolute, gage</li> <li>5. Select output</li> <li>6. Select options and agency approvals</li> <li>7. Select extra length cable</li> </ol>	

**Ordering Examples:** **PXM6000MB0-010BARAV**, 10 bar absolute pressure transducer with G1/8 B female connection and 0.6 m (2') cable termination.

**PXM6000MD1-010BARAV**, 10 bar absolute pressure transducer with G1/4 B female connection and twist-lock connector **PTS06A-10-6S-R** mating connector (sold separately).



MILLIVOLT OUTPUT PRESSURE TRANSDUCERS

**B**

Cable



**STANDARD**  
PX6000C0-015AV,  
with 1/4 NPT male port,  
shown actual size.

**STANDARD MODELS**

<b>To Order</b>			
Models with MS33656-4 Pressure Connection, Integral Connector & mV/V Output			
RANGE		MODEL NO.	COMPATIBLE METERS*
psi	bar		
<b>VACUUM</b>			
30 to 0 (inHg)	-1 to 0	PX6000L1-30VACV	DP41-S, DP25B-S
<b>ABSOLUTE PRESSURE</b>			
0 to 15	0 to 1.0	PX6000L1-015AV	DP41-S, DP25B-S
0 to 20	0 to 1.4	PX6000L1-020AV	DP41-S, DP25B-S
0 to 50	0 to 3.4	PX6000L1-050AV	DP41-S, DP25B-S
0 to 100	0 to 6.9	PX6000L1-100AV	DP41-S, DP25B-S
0 to 200	0 to 13.8	PX6000L1-200AV	DP41-S, DP25B-S
0 to 300	0 to 20.7	PX6000L1-300AV	DP41-S, DP25B-S
<b>GAGE PRESSURE</b>			
0 to 15	0 to 1.0	PX6000L1-015GV	DP41-S, DP25B-S
0 to 20	0 to 1.4	PX6000L1-020GV	DP41-S, DP25B-S
0 to 50	0 to 3.4	PX6000L1-050GV	DP41-S, DP25B-S
0 to 100	0 to 6.9	PX6000L1-100GV	DP41-S, DP25B-S
0 to 200	0 to 13.8	PX6000L1-200GV	DP41-S, DP25B-S
0 to 300	0 to 20.7	PX6000L1-300GV	DP41-S, DP25B-S

Comes complete with 5-point NIST traceable calibration.

\* Visit us online for compatible meters.

**Ordering Example:** PX6000L1-050GV, 50 psi gage pressure transducer with PTIH-10-6P electrical connection and MS33656-4 male pressure port. PTS06A-10-6S-R, mating connector (sold separately).

**ACCESSORY**

MODEL NO.	DESCRIPTION
PTS06A-10-6S-R	Mating connector for PX6000 units with PTIH-10-6P electrical connection



**METRIC**  
PXM6000MC6-004BARAV,  
shown installed,  
smaller than actual size.

**METRIC MODELS**

<b>To Order</b>			
Models with G 1/4 Male Pressure Connection, Cable or mini DIN and mV/V Output			
RANGE		MODEL NO.	COMPATIBLE METERS*
<b>ABSOLUTE PRESSURE</b>			
0 to 1 bar	0 to 15 psi	PXM6000MC[*]-001BARAV	DP41-S, DP25B-S
0 to 1.60 bar	0 to 23 psi	PXM6000MC[*]-1.60BARAV	DP41-S, DP25B-S
0 to 4 bar	0 to 58 psi	PXM6000MC[*]-004BARAV	DP41-S, DP25B-S
0 to 6 bar	0 to 87 psi	PXM6000MC[*]-006BARAV	DP41-S, DP25B-S
0 to 10 bar	0 to 145 psi	PXM6000MC[*]-010BARAV	DP41-S, DP25B-S
0 to 16 bar	0 to 232 psi	PXM6000MC[*]-016BARAV	DP41-S, DP25B-S
<b>GAGE PRESSURE</b>			
0 to 1 bar	0 to 15 psi	PXM6000MC[*]-001BARGV	DP41-S, DP25B-S
0 to 1.60 bar	0 to 23 psi	PXM6000MC[*]-1.60BARGV	DP41-S, DP25B-S
0 to 4 bar	0 to 58 psi	PXM6000MC[*]-004BARGV	DP41-S, DP25B-S
0 to 6 bar	0 to 87 psi	PXM6000MC[*]-006BARGV	DP41-S, DP25B-S
0 to 10 bar	0 to 145 psi	PXM6000MC[*]-010BARGV	DP41-S, DP25B-S
0 to 16 bar	0 to 232 psi	PXM6000MC[*]-016BARGV	DP41-S, DP25B-S
0 to 25 bar	0 to 319 psi	PXM6000MC[*]-025BARGV	DP41-S, DP25B-S

Comes complete with 5-point calibration.

\* Visit us online for compatible meters.

[\*] = Insert "0" for 0.6 m (2') cable or "6" for mini DIN connector.

**Ordering Example:** PXM6000MC0-004BARGV, 4 bar gage pressure transducer with 0.6 m (2') cable and G 1/4 male pressure port.



# TRANSDUCER

## STANDARD AND METRIC MODELS



PX6000C1-100G5T, shown actual size.

VOLTAGE OUTPUT PRESSURE TRANSDUCERS

**0-5 Vdc Output**  
**0-15 to 0-300 psi-Standard Models**  
**0-1 to 0-16 bar-Metric Models**

1 bar = 14.5 psi  
 1 kg/cm<sup>2</sup> = 14.22 psi  
 1 atmosphere = 14.7 psi = 29.93 inHg = 760.2 mmHg = 1.014 bar

### PX6000/PXM6000 Series



- High Reliability
- Long-Term Stability
- All Stainless Steel Case
- Vacuum Range Available

OMEGA's PX6000/PXM6000 pressure transducers fit easily into your applications. This low-cost transducer is small and light, and mounting requires no bulky structures. You select from 3 electrical terminations and 6 pressure fittings. The sensor is a small [about 2.5 mm (0.1")] square silicon chip with 4 diffused strain gages, mounted in the stainless steel case. Laser-trimmed resistors provide temperature compensation and adjust zero balance and span.

The PX6000 Series uses solid state media isolation for improved reliability. Thin films of chemically inert materials are deposited or grown on the chip surface to provide electrical isolation between the sensor and the pressure medium. The sensor is less sensitive to vibration and more dependable in high-shock environments because the films add no significant mass. Corrosion resistance is outstanding, and the isolation will remain effective because there is no gel or oil column to deteriorate.

### SPECIFICATIONS

**Excitation:** 16 to 38 Vdc unregulated

**Output:** 0 to 5 Vdc ±0.1Vdc adjustable ±10% FSO

**Input Current:** 15 mA maximum with no load

**Output Resistance:** Less than 200 Ω

**Zero Balance:** 0V ±0.1 Vdc Adjustable ±5% FSO

**Dielectric Isolation Resistance:** 100 MΩ minimum at 45 Vdc applied between the case or a conductive medium and the bridge circuit

**Sensing Element:** 4-active-arm bridge using a micro-machined diffused silicon diaphragm sensor, thin-film media and dielectric isolation barriers

**Temperature Sensor:** Output resistance @ 24°C (75°F) 900 to 1500 Ω

**Temperature Coefficient:** 8% min, 10% maximum per 55.5°C (100°F)

**Accuracy:** Combined linearity, hysteresis and repeatability ≤ ±0.25% FSO for all ranges

**Operational Temp Range:** -54 to 121°C (-65 to 250°F)

**Compensated Temp Range:** -18 to 82°C (0 to 180°F)

### Thermal Effects:

**Span:** ≤±0.03% FSO/°C (0.054%/°C)

**Zero:** ≤±0.03% FSO/°C (0.054%/°C)

**Vibration Sensitivity:** At 20 g peak sinusoidal vibration from 10 Hz to 2000 Hz (½" D.A.), the output shall not exceed 0.04% FSO/g for 15 psi range to 0.005% FSO/g for 100 psi and above

**Natural Frequency:** Greater than 35 kHz for 7 bar (100 psi) and above

**Shock:** 100 g, 11 ms half sine wave without damage

### Proof Pressure:

2 times rated pressure will not cause changes in performance beyond the specified tolerances

**Burst Pressure:** 3 times rated pressure for pressure ranges below 14 bar (200 psi), or 2.5 times rated pressure for pressure ranges above 200 psi will not cause rupture of the pressure sensor

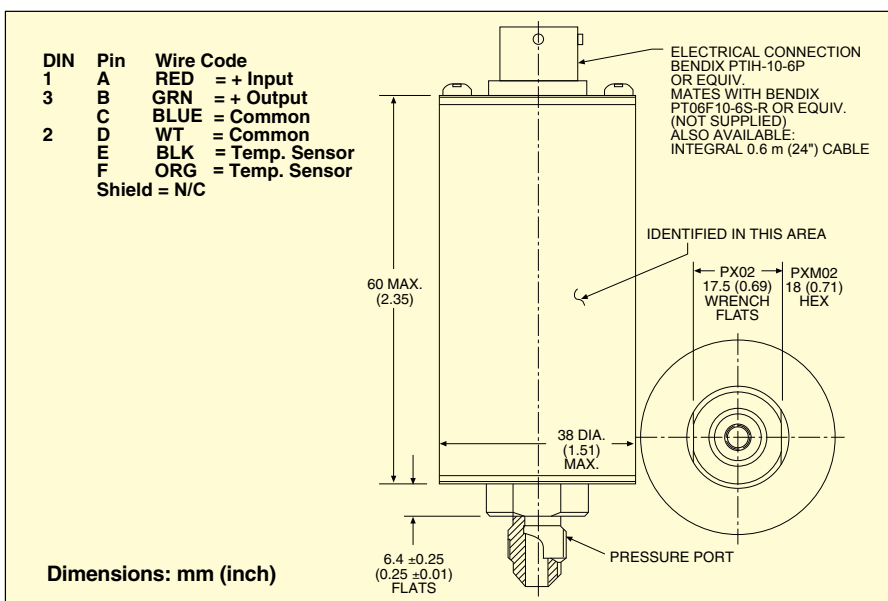
**Wetted Parts:** 316 stainless steel, silicon, Pyrex® glass, epoxy, Kovar®

**Electrical Connection:** See Custom Configurations, next page

**Pressure Port:** See Custom Configurations, next page

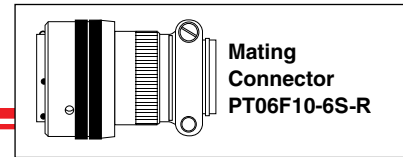
**Weight:** 170 g (6 oz) typical

**Mating Connector (Style 1):**





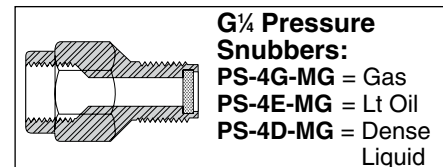
# DIFFUSED SEMICONDUCTOR TRANSDUCER



## STANDARD CUSTOM CONFIGURATIONS

PX6000 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	CALIBRATION OPTION [ 6 ]
A = 1/8-27 NPT male B = 1/8-27 NPT female C = 1/4-18 NPT male D = 1/4-18 NPT female L = MS33656-4 male M = MS33649-4 female			30* 015 020 050 100 200 300	VAC G,A G,A G,A G,A G,A G,A	5T = 0 to 5 Vdc output	CAL11 = 11-point NIST calibration <b>additional cost</b>  [ 7 ] CABLE LENGTH -XXXFT <b>** available when selection [ 2 ] = 0 **</b>
0 = 0.6 m (2') cable (std) <b>additional cost/ft</b> over 0.6 m (2') 1 = PTIH-10-6P connector (or equal, no charge). Mating connector (sold separately), order <b>PT06F10-6S-R</b> . 6 = mini DIN connector (no charge); (no temp sensor)			* Referenced to atmospheric pressure, 30 Vac range is 30 to 0 inHg vacuum, all other ranges are psi.			
			<b>To order a custom configuration:</b> <ol style="list-style-type: none"> <li>1. Select a pressure port</li> <li>2. Select electrical connection</li> <li>3. Select a pressure range</li> <li>4. Select pressure units</li> <li>5. Select output</li> <li>6. Select options and agency approvals</li> <li>7. Select extra length cable</li> </ol>			

**Ordering Examples:** **PX6000M1-100G5T**, 100 psi vented gage pressure transducer with MS33649-4, female pressure connection, PTIH-10-6P, electrical connector and 0 to 5 V output. **PT06F10-6S-R**, mating connector (sold separately).  
**PX6000A0-30VAC5T-25FT**, 30 to 0 inHg vacuum transducer with a 1/8-27 NPT male pressure connection, a reverse-acting (30 inHg vacuum = full scale output) 0 to 5 output, and 7.6 m (25') cable. **PX6000L1-015A5T**, 15 psi absolute pressure transducer with MS33656-4, male pressure connection, PTIH-10-6P, electrical connector and 0 to 5 Vdc output.  
**PT06F10-6S-R**, mating connector (sold separately).



## METRIC CUSTOM CONFIGURATIONS

PXM6000 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	CALIBRATION OPTION [ 6 ]
MA = G 1/8B Male <b>additional cost</b> MB = G 1/8B Female no charge MC = G 1/8B Male <b>additional cost</b> MD = G 1/8B Female no charge			1.0 1.6 4.0 6.0 10 16	G,A G,A G,A G,A G,A G,A	5T= 0 to 5 Vdc output	CAL11 = 11-point NIST calibration <b>additional cost</b>  [ 7 ] CABLE LENGTH -XXXM <b>** available when selection [ 2 ] = 0 **</b>
0 = 0.6 m (2') cable (std) <b>additional cost/m</b> over 0.6 m (2') 1 = PTIH-10-6P connector (or equal, no charge) 6 = mini DIN connector (no charge) (no temp sensor)			<b>To order a custom configuration:</b> <ol style="list-style-type: none"> <li>1. Select a pressure port</li> <li>2. Select electrical connection</li> <li>3. Select a pressure range</li> <li>4. Select pressure units – absolute, gage</li> <li>5. Select output</li> <li>6. Select options and agency approvals</li> <li>7. Select extra length cable</li> </ol>			
Visit us online for additional options including extended compensated temperatures.						

**Ordering Examples:** **PXM6000MB0-010BARG5T**, 10 bar gage pressure transducer with G 1/8B female connection and 0.6 m (2') cable termination, 0 to 5V output.  
**PXM6000MD1-010BARA5T**, 10 bar absolute pressure transducer with G 1/8B female connection, 0 to 5V output, and twist-lock connector.  
**PT06F10-6S-R**, mating connector (sold separately).



## STANDARD MODELS

To Order			
MODELS WITH 0 TO 5 VDC OUTPUT, 1/4NPT-M PRESSURE CONNECTION			
RANGE		MODEL NO.	COMPATIBLE METERS**
<b>VACUUM</b>			
30 to 0 inHg	102 to 0 kPa	PX6000C[*]1-30VAC5T	DP41-E, DP25B-E, DP24-E
<b>ABSOLUTE PRESSURE</b>			
0 to 15 psi	0 to 1.0 bar	PX6000C[*]-015A5T	DP41-E, DP25B-E, DP24-E
0 to 20 psi	0 to 1.4 bar	PX6000C[*]-020A5T	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX6000C[*]-050A5T	DP41-E, DP25B-E, DP24-E
0 to 100 psi	0 to 6.9 bar	PX6000C[*]-100A5T	DP41-E, DP25B-E, DP24-E
0 to 200 psi	0 to 13.8 bar	PX6000C[*]-200A5T	DP41-E, DP25B-E, DP24-E
0 to 300 psi	0 to 20.7 bar	PX6000C[*]-300A5T	DP41-E, DP25B-E, DP24-E
<b>GAGE PRESSURE</b>			
0 to 15 psi	0 to 1.0 bar	PX6000C[*]-015G5T	DP41-E, DP25B-E, DP24-E
0 to 20 psi	0 to 1.4 bar	PX6000C[*]-020G5T	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX6000C[*]-050G5T	DP41-E, DP25B-E, DP24-E
0 to 100 psi	0 to 6.9 bar	PX6000C[*]-100G5T	DP41-E, DP25B-E, DP24-E
0 to 200 psi	0 to 13.8 bar	PX6000C[*]-200G5T	DP41-E, DP25B-E, DP24-E
0 to 300 psi	0 to 20.7 bar	PX6000C[*]-300G5T	DP41-E, DP25B-E, DP24-E

Comes complete with 5-point NIST traceable calibration.

[\*] Insert "0" for 0.6 m cable, "1" for twist-lock connector or "6" for mini DIN connector.

\*\* Visit us online for compatible meters.

**Ordering Examples:** PX6000C1-050G5T, 50 psi gage pressure transducer with 0 to 5 Vdc output, PTIH-10-6P electrical connection and MS33656-4 male pressure port. PT06F10-6S-R, mating connector (sold separately).

PX6000C1-015A5T, 15 psi absolute pressure transducer with 0 to 5 Vdc output, PTIH-10-6P electrical connection and MS33656-4 male pressure port. PT06F10-6S-R, mating connector (sold separately).

## ACCESSORY

MODEL NO.	DESCRIPTION
PT06F10-6S-R	Mating connector for PX6000 Series units with twist-lock connector

## METRIC MODELS

MODELS WITH G1/4 MALE PRESSURE CONNECTION, CABLE OR CONNECTOR AND 0 TO 5 VDC OUTPUT			
RANGE		MODEL NO.	COMPATIBLE METERS**
<b>ABSOLUTE PRESSURE</b>			
0 to 1 bar	0 to 15 psi	PXM6000MC[*]-001BARA5T	DP41-E, DP25B-E
0 to 1.60 bar	0 to 23 psi	PXM6000MC[*]-1.60BARA5T	DP41-E, DP25B-E
0 to 4 bar	0 to 58 psi	PXM6000MC[*]-004BARA5T	DP41-E, DP25B-E
0 to 6 bar	0 to 87 psi	PXM6000MC[*]-006BARA5T	DP41-E, DP25B-E
0 to 10 bar	0 to 145 psi	PXM6000MC[*]-010BARA5T	DP41-E, DP25B-E
0 to 16 bar	0 to 232 psi	PXM6000MC[*]-016BARA5T	DP41-E, DP25B-E
<b>GAGE PRESSURE</b>			
0 to 1 bar	0 to 15 psi	PXM6000MC[*]-001BARG5T	DP41-E, DP25B-E
0 to 1.60 bar	0 to 23 psi	PXM6000MC[*]-1.60BARG5T	DP41-E, DP25B-E
0 to 4 bar	0 to 58 psi	PXM6000MC[*]-004BARG5T	DP41-E, DP25B-E
0 to 6 bar	0 to 87 psi	PXM6000MC[*]-006BARG5T	DP41-E, DP25B-E
0 to 10 bar	0 to 145 psi	PXM6000MC[*]-010BARG5T	DP41-E, DP25B-E
0 to 16 bar	0 to 232 psi	PXM6000MC[*]-016BARG5T	DP41-E, DP25B-E
0 to 25 bar	0 to 363 psi	PXM6000MC[*]-025BARG5T	DP41-E, DP25B-E

Comes complete with 5-point NIST traceable calibration.

[\*] Insert "0" for 0.6 m cable, "1" for twist-lock connector or "6" for mini DIN connector.

\*\* Visit us online for compatible meters.

**Ordering Examples:** PXM6000MC0-010BARG5T, 10 bar gage pressure transducer with 0 to 5 Vdc output, 0.6 m (2') cable and G1/4 male pressure port.

PXM6000MC6-01.6BARA5T, 1.6 bar absolute pressure transducer with 0 to 5 Vdc output, mini DIN electrical connector and G1/4 male pressure port. Mating connector included.



PRESSURE TRANSDUCERS

B

# DISSIPATED SEMICONDUCTOR PRESSURE TRANSMITTER

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## STANDARD AND METRIC MODELS



**4 to 20 mA Output**  
**0-15 to 0-300 psi-Standard Models**  
**0-1 to 0-25 bar-Metric Models**

### PX6000/PXM6000 Series



**STANDARD**  
**PX6000L1-100GI,**  
 shown actual size.

- ✓ High Reliability
- ✓ Long-Term Stability
- ✓ All Stainless Steel Case
- ✓ Vacuum Range Available
- ✓ Built-In Temperature Sensor

### Applications

- ✓ Automotive Testing
- ✓ Research and Development
- ✓ Engineering Testing and Evaluation
- ✓ Production Testing
- ✓ Flight Recorders
- ✓ Engine Monitoring
- ✓ Ground Support Equipment

The Omega™ PX6000/PXM6000 Series pressure transducers fit easily into many applications. These low-cost transducers are small and light, and mounting requires no bulky structures. Users can select from 3 electrical terminations and 6 pressure fittings. The sensor is a small [about 2.54 mm (0.1") square] silicon chip, with 4 diffused strain gages mounted in the stainless steel case. Laser-trimmed resistors provide temperature compensation and adjust zero balance and span. The 4 to 20 mA output easily interfaces with most control and data acquisition systems. The PX6000/PXM6000 uses solid state media isolation for improved reliability. Thin films of chemically inert materials are deposited or grown on the chip surface to

provide electrical isolation between the sensor and pressure medium. These sensors are less sensitive to vibration and more dependable in high-shock environments because the films add no significant mass. Corrosion resistance is outstanding, and the isolation will remain effective because there are no gel or oil columns to deteriorate.

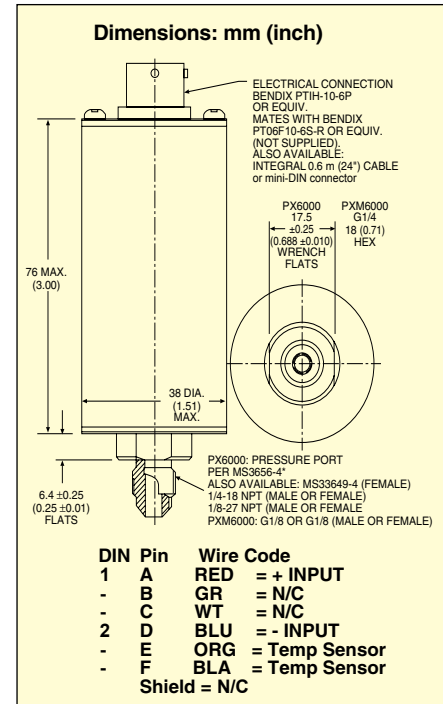
### SPECIFICATIONS

- Excitation:** 10 to 40 Vdc unregulated
- Output:** 4 to 20 mA adjustable  $\pm 10\%$  FS
- Load Impedance (Maximum):**  $50 \times (V - 10) \Omega$  where V = supply voltage (40 Vdc maximum)
- Zero Balance:** 4 mA adjustable  $\pm 10\%$  FS
- Dielectric Isolation Resistance:** 100 M $\Omega$  minimum at 45 Vdc applied between the case or a conductive medium and the bridge circuit
- Sensing Element:** 4-active-arm bridge using a micro-machined diffused silicon diaphragm sensor, thin-film media and dielectric isolation barriers
- Temperature Sensor:** Output resistance @ 24°C (75°F) 900 to 1500
- Temperature Coefficient:** 8% minimum, 10% maximum per 55.5°C (100°F)
- Accuracy:** Combined linearity, hysteresis and repeatability  $\leq \pm 0.25\%$  FS for all ranges
- Operating Temp Range:** -29 to 85°C (-20 to 185°F)
- Compensated Temp Range:** -29 to 85°C (-20 to 185°F)
- Thermal Effects:**

- Span:**  $\leq \pm 0.02\%$  of FS/°F
- Zero:**  $\leq \pm 0.02\%$  of FS/°F

**Vibration Sensitivity:** At 20 g peak sinusoidal vibration from 10 to 2000 Hz ( $\frac{1}{2}$ " D.A.), the output shall not exceed 0.04% FS/g for 15 psi range to 0.005% FS/g for 100 psi and above

- Natural Frequency:** Greater than 35 kHz for 100 psi and above
- Shock:** 100 g, 11 ms half sine wave without damage
- Proof Pressure:** 2 times rated pressure will not cause changes in performance beyond the specified tolerances
- Burst Pressure:** 3 times rated pressure for pressure ranges below 200 psi, or 2.5 times rated pressure for pressure ranges above 200 psi, will not cause rupture of the pressure sensor
- Wetted Parts:** 316 stainless steel, silicon, Pyrex® glass, epoxy, Kovar®
- Electrical Connection:** PT1H-10-6P (standard) or 0.6 m (2') cable or mini-DIN connector
- Pressure Port:** See dimensional drawing below
- Weight:** 170 g (6 oz) typical
- Mating Connector:** PT06F10-6S-R (sold separately)



# DIFFUSED SEMICONDUCTOR PRESSURE TRANSMITTER

## STANDARD CUSTOM CONFIGURATIONS

PX6000 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	CALIBRATION OPTION [ 6 ]
A = 1/8-27 NPT male			30*	VAC	I = 4 to 20 mA output	<b>CAL11</b> = 11-point NIST calibration <b>additional cost</b>
B = 1/8-27 NPT female			015	A,G		
C = 1/4-18 NPT male			020	A,G		
D = 1/4-18 NPT female			050	A,G		
L = MS33656-4 male			100	A,G		<b>[ 7 ] CABLE LENGTH</b> -XXXFT
M = MS33649-4 female			200	A,G		<b>** available when selection [ 2 ] = 0 **</b>
			300	A,G		

\* Referenced to atmospheric pressure, 30 Vac range is 30 to 0 inHg vacuum, all other ranges are psi

0 = 0.6 m (2') Teflon cable (std) **additional cost/ft** over 0.6 m (2')

1 = PTIH-10-6P connector (or equal, no charge). Mating connector (sold separately), order **PT06F10-6S-R**

6 = mini DIN connector (no charge) (no temp sensor)

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units
5. Select output
6. Select options and agency approvals
7. Select extra length cable

**Ordering Examples:** *PX6000M1-100GI*, 100 psi vented gage pressure transducer with MS33649-4, female pressure connection, PTIH-10-6P electrical connector, 4 to 20 mA output. *PT06F10-6S-R*, mating connector (sold separately).  
*PX6000L1-015AI*, 15 psi absolute pressure transducer with MS33656-4, male pressure connection, PTIH-10-6P, electrical connector and 4 to 20 mA output. *PT06F10-6S-R*, mating connector (sold separately).

## METRIC CUSTOM CONFIGURATIONS

PXM6000 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	CALIBRATION OPTION [ 6 ]
MA = G1/8 Male <b>additional cost</b>			-1	VAC	I = 4 to 20 mA	<b>CAL11</b> = 11-point NIST calibration <b>additional cost</b>
MB = G1/8 Female no charge			1.0	A, G		
MC = G1/8 Male <b>additional cost</b>			1.6	A, G		
MD = G1/8 Female no charge			4.0	A, G		
			6.0	A, G		<b>[ 7 ] CABLE LENGTH</b> -XXXM
			10	A, G		<b>** available when selection [ 2 ] = 0 **</b>
			16	A, G		
			25	A, G		

0 = 0.6 m (2') Teflon cable (std) **additional cost/ft** over 0.6 m (2')

1 = PTIH-10-6P connector (or equal, no charge). Mating connector (sold separately), order **PT06F10-6S-R**

6 = mini DIN connector (no charge) (no temp sensor)

**To order a custom configuration:**

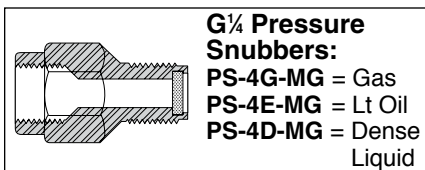
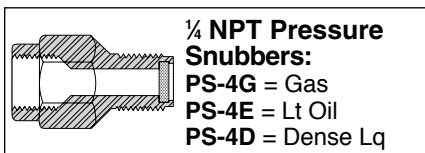
1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units – absolute, gage
5. Select output
6. Select options and agency approvals
7. Select extra length cable

**Ordering Examples:** *PXM6000MB0-010BARGI*, 10 bar gage pressure transducer with G1/8 female connection and 0.6 m (2') cable termination.  
*PXM6000MD1-010BARAI*, 10 bar absolute pressure transducer with G1/8 female connection and twist-lock connector. *PT06F10-6S-R*, mating connector (sold separately).





**METRIC**  
PXM6000MC1-010BARAI,  
shown actual size.



**ACCESSORY**

MODEL NO.	DESCRIPTION
PT06F10-6S-R	Mating connector for PX6000 units with PTIH-10-6P electrical connection

**STANDARD MODELS**

<b>To Order</b>			
Models with 4 to 20 mA Output, 1/4 NPT-M Pressure Connection, Integral Connector			
RANGE		MODEL NO.	COMPATIBLE METERS*
<b>VACUUM</b>			
30 to 0 inHg	102 to 0 kPa	PX6000L[*]-30VACI	DP41-E, DP25B-E, DP24-E
<b>ABSOLUTE PRESSURE</b>			
0 to 15 psi	0 to 1.0 bar	PX6000L[*]-015AI	DP41-E, DP25B-E, DP24-E
0 to 20 psi	0 to 1.4 bar	PX6000L[*]-020AI	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX6000L[*]-050AI	DP41-E, DP25B-E, DP24-E
0 to 100 psi	0 to 6.9 bar	PX6000L[*]-100AI	DP41-E, DP25B-E, DP24-E
0 to 200 psi	0 to 13.8 bar	PX6000L[*]-200AI	DP41-E, DP25B-E, DP24-E
0 to 300 psi	0 to 20.7 bar	PX6000L[*]-300AI	DP41-E, DP25B-E, DP24-E
<b>GAGE PRESSURE</b>			
0 to 15 psi	0 to 1.0 bar	PX6000L[*]-015GI	DP41-E, DP25B-E, DP24-E
0 to 20 psi	0 to 1.4 bar	PX6000L[*]-020GI	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX6000L[*]-050GI	DP41-E, DP25B-E, DP24-E
0 to 100 psi	0 to 6.9 bar	PX6000L[*]-100GI	DP41-E, DP25B-E, DP24-E
0 to 200 psi	0 to 13.8 bar	PX6000L[*]-200GI	DP41-E, DP25B-E, DP24-E
0 to 300 psi	0 to 20.7 bar	PX6000L[*]-300GI	DP41-E, DP25B-E, DP24-E

Comes complete with 5-point NIST traceable calibration.

\* Visit us online for compatible meters.

[\*] = Insert "0" for 0.6 m (2') cable, "1" for twist-lock connector, or "6" for mini DIN connector.

**Ordering Examples:** PX6000L1-050GI, 50 psi gage pressure transducer with 4 to 20 mA output, PTIH-10-6P, electrical connector and MS33656-4, male pressure port.

PT06F10-6S-R, mating connector (sold separately).

PX6000L1-015AI, 15 psi absolute pressure transducer with 4 to 20 mA output, PTIH-10-6P electrical connector and MS33656-4, male pressure port. PT06F10-6S-R, mating connector (sold separately).

**METRIC MODELS**

Models with G 1/4 Male Pressure Connection, Cable or mini DIN and 4 to 20 mA Output			
RANGE		MODEL NO.	COMPATIBLE METERS*
<b>ABSOLUTE PRESSURE</b>			
0 to 1 bar	0 to 15 psi	PXM6000MC[*]-001BARAI	DP41-S, DP25B-S
0 to 1.60 bar	0 to 23 psi	PXM6000MC[*]-1.60BARAI	DP41-S, DP25B-S
0 to 4 bar	0 to 58 psi	PXM6000MC[*]-004BARAI	DP41-S, DP25B-S
0 to 6 bar	0 to 87 psi	PXM6000MC[*]-006BARAI	DP41-S, DP25B-S
0 to 10 bar	0 to 145 psi	PXM6000MC[*]-010BARAI	DP41-S, DP25B-S
0 to 16 bar	0 to 232 psi	PXM6000MC[*]-016BARAI	DP41-S, DP25B-S
<b>GAGE PRESSURE</b>			
0 to 1 bar	0 to 15 psi	PXM6000MC[*]-001BARGI	DP41-S, DP25B-S
0 to 1.60 bar	0 to 23 psi	PXM6000MC[*]-1.60BARGI	DP41-S, DP25B-S
0 to 4 bar	0 to 58 psi	PXM6000MC[*]-004BARGI	DP41-S, DP25B-S
0 to 6 bar	0 to 87 psi	PXM6000MC[*]-006BARGI	DP41-S, DP25B-S
0 to 10 bar	0 to 145 psi	PXM6000MC[*]-010BARGI	DP41-S, DP25B-S
0 to 16 bar	0 to 232 psi	PXM6000MC[*]-016BARGI	DP41-S, DP25B-S
0 to 25 bar	0 to 363 psi	PXM6000MC[*]-025BARGI	DP41-S, DP25B-S

Comes complete with 5-point calibration.

\* Visit us online for compatible meters.

[\*] = Insert "0" for 0.6 m (2') cable, "1" for twist-lock connector, or "6" for mini DIN connector.

**Ordering Example:** PXM6000MC0-004BARGI, 4 bar gage pressure transmitter with 4 to 20 mA output, 0.6 m (2') cable and G 1/4 male pressure port.

# GAGE, VACUUM, OR COMPOUND RANGES

## RUGGED STAINLESS STEEL CONSTRUCTION

**Vacuum to 20,000 psi  
 (1380 bar)**

### PX603/PX613 Series



- ✓ Excellent Long-Term Stability
- ✓ NEMA 4 (IP65) Cable or Connector Models
- ✓ 0.4% Accuracy
- ✓ Thin-Film Design for High Reliability
- ✓ Ideal for Liquid or Gas
- ✓ Zero and Span Adjustments

#### SPECIFICATIONS

**Excitation:** 10 to 36 Vdc unregulated

**Output:** 1 to 5 Vdc (3 wire)

**Supply Current:** <3.0 mA

**Insulation Resistance:**  
 100 MΩ @ 50V

**Accuracy:** ±0.4% BFSL

**Hysteresis:** ±0.2% full scale

**Repeatability:** ±0.05% full scale

**Stability:** ±1.0%/year

**Durability:** 100 million cycles

**Operating Temperature:**  
 -48 to 90°C (-55 to 195°F)

**Compensated Temperature:**  
 -29 to 82°C (-20 to 180°F)

**Thermal Zero Effect:** ±0.07% full scale/°C

**Thermal Span Effect:** ±0.07% full scale/°C

**Proof Pressure:**

15 to 2000 psi = 200% full scale

3000 to 5000 psi = 150% full scale

7500 to 20,000 psi = 120% full scale

DP41-E meter,  
 sold separately,  
 see [omega.com](http://omega.com)

PT06F8-4S connector,  
 sold separately.

PX613-100G5V  
 twist-lock style,  
 shown smaller  
 than actual size.

PX603-3KG5V  
 cable style,  
 shown smaller  
 than actual size.

PS-4 snubber, sold  
 separately.

Metric thread  
 adaptors available,  
 see [omega.com](http://omega.com)

**Burst Pressure:**

15 to 2000 psi = 800% full scale

3000 to 5000 psi = 500% full scale

7500 to 20,000 psi = 500% full scale

**Gages:** Thin-film polysilicone

**Diaphragm:** 17-4 PH stainless steel

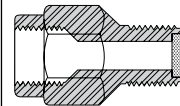
**Case:** 300 Series stainless steel

**Pressure Connection:**

15 to 10,000 psi = ¼ NPT

15,000 and 20,000 psi = female

Aminco fitting



¼ NPT Pressure

**Snubbers:**

PS-4G = Gas

PS-4E = Lt Oil

PS-4D = Dense Lq

**Electrical Connection:** 0.9 m (36")

braided-shield PVC cable or connector

**Mating Connector:** PT06F8-4S  
 (sold separately)

**Weight:** 128 g (4.5 oz) without cable

**Response Time:** 5 ms

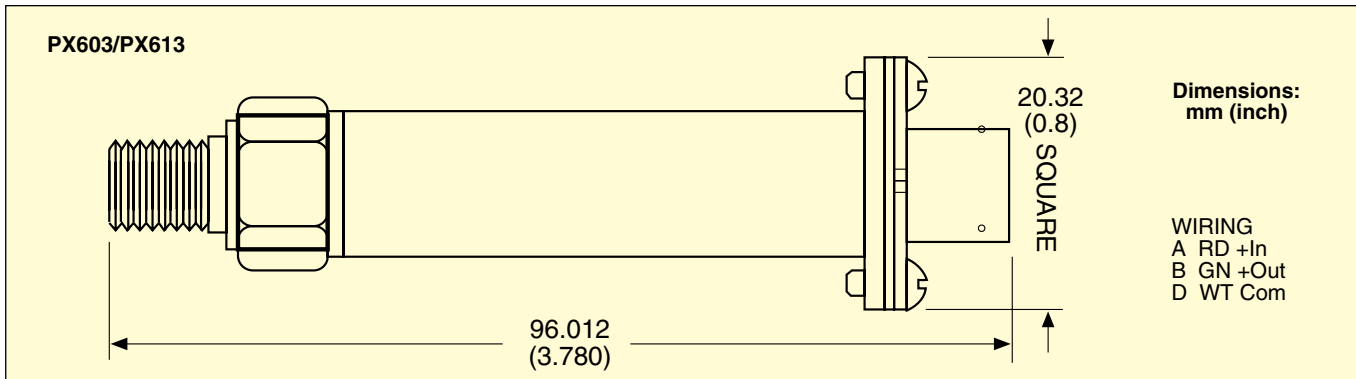
**Construction:** Sealed units, except  
 PX603 ≤500 psi is vented to room



VOLTAGE OUTPUT  
 PRESSURE TRANSDUCERS

**B**

## THIN-FILM TRANSDUCERS



### To Order

RANGE†	bar	MODEL NO. [*] INSERT 0 or 1	COMPATIBLE METERS**
Vacuum to 0 psig	-1 to 0	PX6[*]3-30VAC5V	DP3002-E, DP41-E, DP25B-E
Vacuum to 15 psig	-1 to 1.0	PX6[*]3-30V15G5V	DP3002-E, DP41-E, DP25B-E
Vacuum to 30 psig	-1 to 2.1	PX6[*]3-30V30G5V	DP3002-E, DP41-E, DP25B-E
Vacuum to 60 psig	-1 to 4.1	PX6[*]3-30V60G5V	DP3002-E, DP41-E, DP25B-E
0 to 15 psig	0 to 1.0	PX6[*]3-015G5V	DP3002-E, DP41-E, DP25B-E
0 to 30 psig	0 to 2.1	PX6[*]3-030G5V	DP3002-E, DP41-E, DP25B-E
0 to 60 psig	0 to 4.1	PX6[*]3-060G5V	DP3002-E, DP41-E, DP25B-E
0 to 100 psig	0 to 6.9	PX6[*]3-100G5V	DP3002-E, DP41-E, DP25B-E
0 to 150 psig	0 to 10.3	PX6[*]3-150G5V	DP3002-E, DP41-E, DP25B-E
0 to 200 psig	0 to 13.8	PX6[*]3-200G5V	DP3002-E, DP41-E, DP25B-E
0 to 300 psig	0 to 20.7	PX6[*]3-300G5V	DP3002-E, DP41-E, DP25B-E
0 to 500 psig	0 to 34.5	PX6[*]3-500G5V	DP3002-E, DP41-E, DP25B-E
0 to 1000 psig	0 to 68.9	PX6[*]3-1KG5V	DP3002-E, DP41-E, DP25B-E
0 to 2000 psig	0 to 138	PX6[*]3-2KG5V	DP3002-E, DP41-E, DP25B-E
0 to 3000 psig	0 to 207	PX6[*]3-3KG5V	DP3002-E, DP41-E, DP25B-E
0 to 5000 psig	0 to 345	PX6[*]3-5KG5V	DP3002-E, DP41-E, DP25B-E
0 to 7500 psig	0 to 517	PX6[*]3-7.5KG5V	DP3002-E, DP41-E, DP25B-E
0 to 10,000 psig	0 to 689	PX6[*]3-10KG5V	DP3002-E, DP41-E, DP25B-E
0 to 15,000 psig	0 to 1034	PX6[*]3-15KG5V†	DP3002-E, DP41-E, DP25B-E
0 to 20,000 psig	0 to 1379	PX6[*]3-20KG5V†	DP3002-E, DP41-E, DP25B-E

Comes complete with operator's manual.

\*\* See [omega.com/meters](http://omega.com/meters) for compatible meters.

†15,000 and 20,000 psi models supplied with female Aminco fitting.

[\*] Insert "0" for cable style, "1" for connector style.

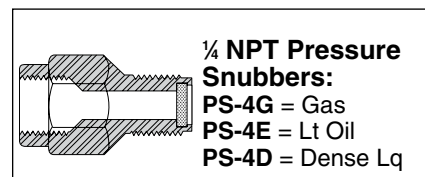
**Ordering Examples:** PX603-500G5V, cable-style transducer with 1 to 5 Vdc output and range of 0 to 500 psi.

PX613-500G5V, connector-style transducer with 1 to 5 Vdc output and range of 0 to 500 psi.

PT06F8-4S, mating connector (sold separately).

### ACCESSORIES

MODEL NO.	DESCRIPTION
PT06F8-4S	Mating connector for PX613 Series transducers
PS-4D	Pressure snubber, for oil, 225 to 500 SSU (10 to 50 SAE)
PS-4E	Pressure snubber, for water and light oil, 30 to 225 SSU
PS-4G	Pressure snubber, for air, stream and gases



# PRESSURE TRANSDUCER

## 1/4 NPT PRESSURE CONNECTION

**mV/V Output**  
**0-50 to 0-5000 psi**  
**0-3.4 to 0-345 bar**

**PX61C Series**  
**All Ranges**

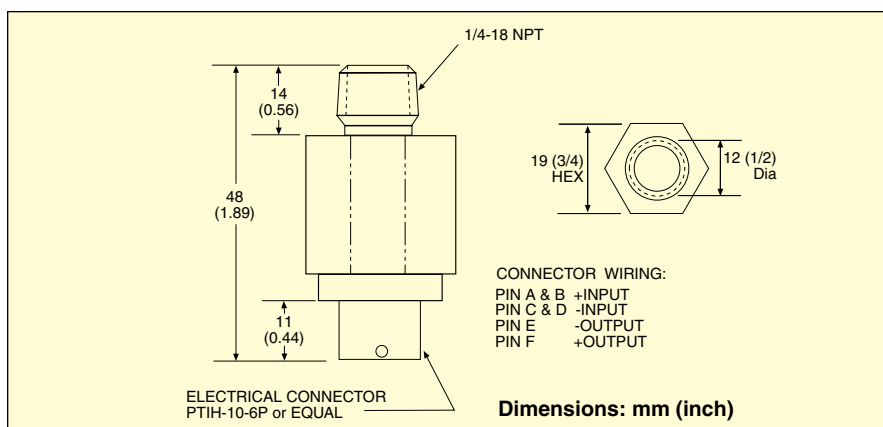


- ✓ Miniature Flush Diaphragm
- ✓ Flush Diaphragm for Precise Measurements
- ✓ All Welded Construction

### SPECIFICATIONS

**Excitation:** 5 Vdc  
**Output Range:** 2 mV/V -30% +50%  
 (For 50 PSI, 1 mV/V -30% +50%)  
**Bridge Resistance:** 350 Ω nominal  
**Zero Balance:** ±3.0% of FSO  
**Accuracy:** 1.0% linearity and hysteresis combined; calibrated at 0%, 50%, 100%, 50%, 0%  
**Repeatability:** 0.1% of FSO  
**Operating Temperature Range:**  
 -54 to 121°C (-65 to 250°F)  
**Compensated Temperature Range:**  
 16 to 71°C (60 to 160°F)  
**Thermal Effects:**  
**Zero:** ±0.01% FS/°F  
**Span:** ±0.02% FSO/°F  
**Proof Pressure:** 150% of capacity  
**Burst Pressure:** 500% of capacity or 10,000 psi, whichever is less  
**Electrical Connections:** PTIH-10-6P connector  
**Mating Connector:** PT06F10-6S-R (sold separately)  
**Pressure Connection:** 1/4-18 NPT  
**Wetted Parts:** 17-4 PH stainless steel  
**Weight:** 50 g (0.55 oz)

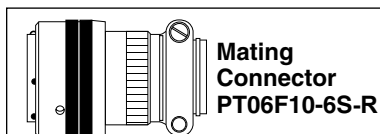
Shown larger than actual size.



To Order			
RANGE	MODEL NO.	COMPATIBLE METERS*	
<b>ABSOLUTE PRESSURE (All Ranges Available in Absolute Pressure)</b>			
0 to 50 psi	0 to 3.4 bar	<b>PX61C1-050AV</b>	DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	<b>PX61C1-100AV</b>	DP41-S, DP25B-S
<b>GAGE PRESSURE (All Ranges Also Available in Sealed Gage Pressure)</b>			
0 to 50 psi	0 to 3.4 bar	<b>PX61C1-050GV</b>	DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	<b>PX61C1-100GV</b>	DP41-S, DP25B-S
0 to 200 psi	0 to 13.8 bar	<b>PX61C1-200GV</b>	DP41-S, DP25B-S
0 to 300 psi	0 to 20.7 bar	<b>PX61C1-300GV</b>	DP41-S, DP25B-S
0 to 500 psi	0 to 34.5 bar	<b>PX61C1-500GV</b>	DP41-S, DP25B-S
0 to 1000 psi	0 to 68.9 bar	<b>PX61C1-1KGV</b>	DP41-S, DP25B-S
0 to 2500 psi	0 to 172 bar	<b>PX61C1-2.5KGV</b>	DP41-S, DP25B-S
0 to 4000 psi	0 to 276 bar	<b>PX61C1-4KGV</b>	DP41-S, DP25B-S
0 to 5000 psi	0 to 345 bar	<b>PX61C1-5KGV</b>	DP41-S, DP25B-S

Comes complete with 5-point NIST-traceable calibration.  
 \* Visit us online for compatible meters. Metric ranges available – Consult Engineering.  
 To order sealed gage pressure models, replace “G” in model number with “S” (no extra charge).  
 To order absolute pressure models, replace “G” in model number with “A” (no extra charge).  
**Ordering Examples:** **PX61C1-100AV**, 100 psi absolute pressure transducer with PTIH-10-6P electrical connection and 1/4-18 NPT male pressure port. **PT06F10-6S-R**, mating connector (sold separately).  
**PX61C1-100SV**, 100 psi sealed gage pressure transducer with PTIH-10-6P electrical connection and 1/4-18 NPT male pressure port. **PT06F10-6S-R**, mating connector (sold separately).

ACCESSORY	
MODEL NO.	DESCRIPTION
PT06F10-6S-R	Mating connector for PX61C series transducers



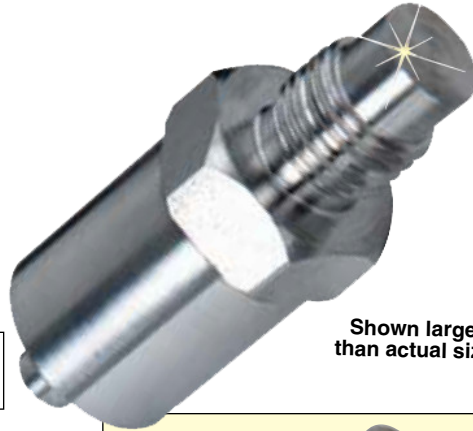


# PRESSURE TRANSDUCER

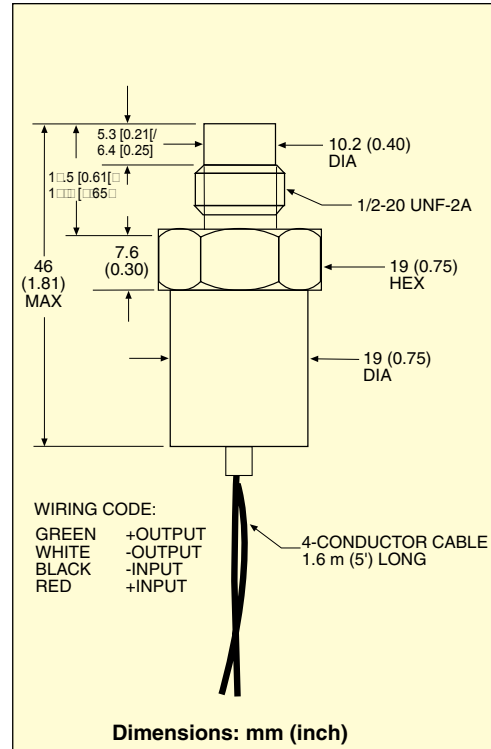
## 1/2-20 UNF PRESSURE CONNECTION

**mV/V Output**  
**0-50 to 0-15,000 psi**  
**0-3 to 0-1000 bar**

**PX61V Series**  
**All Ranges**



Shown larger than actual size.



- Miniature Flush Diaphragm
- All Stainless Steel Construction
- Available in psia, psis, psig, and Metric Ranges

### SPECIFICATIONS

**Excitation:** 5 Vdc  
**Output Range:** 2 mV/V -30% +50%  
 (For 50 PSI, 1 mV/V -30% +50%)  
**Accuracy:** 1.0% linearity and hysteresis combined  
**Repeatability:** ±0.1% of FSO  
**Balance:** ±3.0% of FSO  
**Bridge Resistance:** 350 Ω nominal  
**Operating Temperature Range:** -54 to 121°C (-65 to 250°F)  
**Compensated Temperature Range:** 16 to 71°C (60 to 160°F)  
**Thermal Effects:**  
**Zero:** ±0.01% FS/°F  
**Span:** ±0.02% FSO/°F  
**Proof Pressure:** 150% of capacity  
**Burst Pressure Minimum:** 300% of capacity or 30,000 psi, whichever is less  
**Electrical Connections:** 1.5 m (5'); 4-conductor cable or PTH-10-6P connector  
**Pressure Connection:** 1/2-20 UNF-2A  
**Wetted Parts:** 17-4 PH stainless steel

### ACCESSORY

MODEL NO.	DESCRIPTION
PT06F10-6S-R	Mating connector for PX61V1 series transducers

### To Order

RANGE	MODEL NO.	COMPATIBLE METERS**
<b>ABSOLUTE PRESSURE (All Ranges Available in Absolute Pressure)</b>		
0 to 50 psi	0 to 3.4 bar	PX61V[*]-050AV DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	PX61V[*]-100AV DP41-S, DP25B-S
<b>GAGE PRESSURE (All Ranges Also Available in Sealed Gage Pressure)</b>		
0 to 50 psi	0 to 3.4 bar	PX61V[*]-050GV DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	PX61V[*]-100GV DP41-S, DP25B-S
0 to 150 psi	0 to 10.3 bar	PX61V[*]-150GV DP41-S, DP25B-S
0 to 200 psi	0 to 13.8 bar	PX61V[*]-200GV DP41-S, DP25B-S
0 to 300 psi	0 to 20.7 bar	PX61V[*]-300GV DP41-S, DP25B-S
0 to 500 psi	0 to 34.5 bar	PX61V[*]-500GV DP41-S, DP25B-S
0 to 1000 psi	0 to 68.9 bar	PX61V[*]-1KGV DP41-S, DP25B-S
0 to 2500 psi	0 to 172 bar	PX61V[*]-2.5KGV DP41-S, DP25B-S
0 to 5000 psi	0 to 345 bar	PX61V[*]-5KGV DP41-S, DP25B-S
0 to 10,000 psi	0 to 689 bar	PX61V[*]-10KGV DP41-S, DP25B-S
0 to 15,000 psi	0 to 1034 bar	PX61V[*]-15KGV DP41-S, DP25B-S†

Comes complete with 5-point NIST-traceable calibration. Metric ranges available – Consult Engineering.

† 4-digit meter, counts in increments of 10. \*\* Visit us online for compatible meters.

[\*] To order cable style insert "0", to order connector style insert "1".

To order psia models, replace "G" in model number with "A".

To order psis models, replace "G" in model number with "S".

**Ordering Examples:** PX61V0-100AV, 100 psi absolute pressure transducer with 1.5 m (5') cable and 1/2-20 UNF male pressure port.

PX61V0-100SV, 100 psi sealed gage pressure transducer with 1.5 m (5') cable and 1/2-20 UNF male pressure port.



MILLIVOLT OUTPUT  
 PRESSURE TRANSDUCERS  
**B**

## High Accuracy Submersible Pressure Transmitter

### Product Details

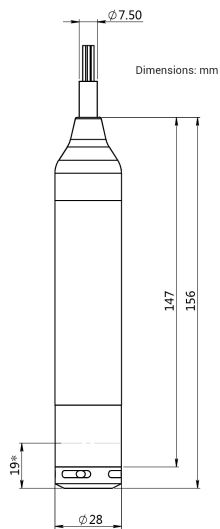
PX633 Submersible Level Transmitter is designed for dealing with the most demanding level measurement conditions. The sensor adopts advanced microprocessor technology with comprehensive linear and temperature error compensation assuring the high precision measurements.

The probe employs full potting, reference tube condensation countermeasures, a dual seal design, and a rugged stainless steel body to assure long term reliability, performance, and stability. The signal transmitting module has transient voltage protection to assure operation under the harsh surge voltage environments (surge protection is not guaranteed and is not covered by warranty). An inverted cone seal extends working life of cable and transducer in conditions where the sensor may experience severe stress from turbulent process media. PX633 Submersible level transmitter is the optimal choice to satisfy all of high demand level measuring applications.



### Features

- Available with Accuracies of 0.5%, 0.25% and 0.1% of Full Scale
- Designed for Complete Submergibility
- Unique Cable Seal System Insures Water-Tight Integrity
- High Static Accuracy and Repeatability
- Fully Temperature Compensated
- CE Certificate Included
- 100% Computer Tested, Calibrated and Serialized
- Calibration Sheet Provided



\*Show the distance from sensing diaphragm to the bottom of product  
Weight: about 340g (without cable)

Product Number	Pressure Range	Accuracy Value	Cable Length
PX633A1-003GI	0 to 3 psi	±0.1%	20' CABLE
PX633A1-005GI	0 to 5 psi	±0.1%	20' CABLE
PX633A1-015GI	0 to 15 psi	±0.1%	50' CABLE
PX633A1-030GI	0 to 30 psi	±0.1%	90' CABLE
PX633A1-100GI	0 to 100 psi	±0.1%	250' CABLE
PX633A1-150GI	0 to 150 psi	±0.1%	365' CABLE
PX633A1-250GI	0 to 250 psi	±0.1%	595' CABLE
PX633A1-300GI	0 to 300 psi	±0.1%	710' CABLE
PX633A2-003GI	0 to 3 psi	±0.25%	20' CABLE
PX633A2-005GI	0 to 5 psi	±0.25%	20' CABLE
PX633A2-015GI	0 to 15 psi	±0.25%	50' CABLE
PX633A2-030GI	0 to 30 psi	±0.25%	90' CABLE
PX633A2-100GI	0 to 100 psi	±0.25%	250' CABLE
PX633A2-150GI	0 to 150 psi	±0.25%	365' CABLE
PX633A2-250GI	0 to 250 psi	±0.25%	595' CABLE
PX633A2-300GI	0 to 300 psi	±0.25%	710' CABLE
PX633A5-003GI	0 to 3 psi	±0.5%	20' CABLE
PX633A5-005GI	0 to 5 psi	±0.5%	20' CABLE
PX633A5-015GI	0 to 15 psi	±0.5%	50' CABLE
PX633A5-030GI	0 to 30 psi	±0.5%	90' CABLE
PX633A5-100GI	0 to 100 psi	±0.5%	250' CABLE
PX633A5-150GI	0 to 150 psi	±0.5%	365' CABLE
PX633A5-250GI	0 to 250 psi	±0.5%	595' CABLE
PX633A5-300GI	0 to 300 psi	±0.5%	710' CABLE

## Specifications

*Turndown = nominal range of the device / set span of device*  
 EXAMPLE: a PX3005-1KWDWBI with set span of 500"H2O TD = 1000"H2O/500"H2O = 2

### Accuracy:

20°C ± 5°C (68°F ± 9°)  
 PX633A1: 0.01% FS NLHR  
 PX633A2: 0.25% FS NLHR  
 PX633A5: 0.50% FS NLHR

### Long Term Stability:

±0.2% FS/ year

### Ambient temperature effects (20°C to 80°C)

±0.2% FS/10K

### Power Supply Effects:

± 0.005% FS/V (Zero and Span)

### Load Effect:

± 0.05% FS/kΩ (Zero and Span)

### Vibration Effects:

IEC61298-3/GB/T 18271.3; 20g (5-2000HZ, max<±3mm) <0.1% FS

### Supply Voltage (U):

10.5 to 55VDC

### Output Signal:

4 to 20mA DC

### Load Resistance Ω:

<(U-10)/0.021

### Maximum Current:

20.8mA

### Transmission Distance:

< 1000m

### Power Consumption:

500mW(20.8mA output @ 24VDC)

### Operating Temperature:

-10 to 70°C (14 to 158°F)

### Storage Temperature:

-30 to 80°C (- 22 to 176°F)

### Protection Class:

IP68

### Electrical Connection:

PUR cable, outer diameter (7.5±0.2)mm

### Isolation Diaphragm Material:

316 SS

### Fill Fluid:

Silicon oil

### Sensor Seal:

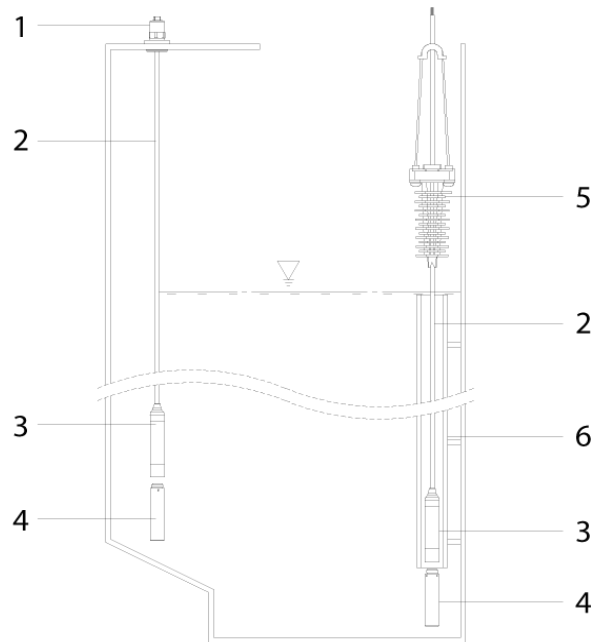
O-ring, FMK

### Side Cover Material / Diameter:

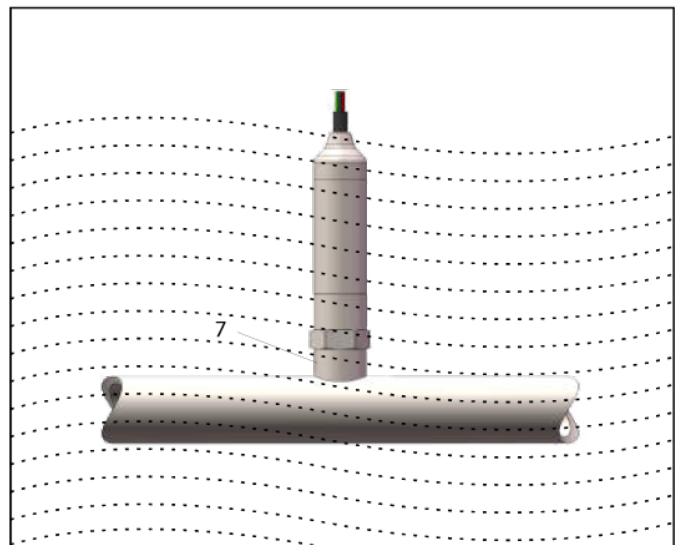
316 SS/ 28mm

### EMC Environment:

GB/T 9254/CISPR22  
 GB/T 17626.2/IEC61000-4-2  
 GB/T 17626.3/IEC61000-4-3  
 GB/T 17626.8/IEC61000-4-8  
 GB/T 17626.4/IEC61000-4-4  
 GB/T 17626.5/IEC61000-4-5  
 GB/T 17626.6/IEC61000-4-6



1. Tank Cable Clamp, PX633-CLAMP
2. Transmitter Cable
3. Level transmitter
4. Counter weight, PX633-WEIGHT
5. Cable clamp hanger, PX633-HANGER
6. Protective Tube (user provided)



7. Thread Connection, PX633-M20, other threads available

Nominal Cable lengths noted, tolerance is ± 0.5m/1.5ft

# LABORATORY TRANSDUCER

**0-0.1 to 0-50 inH<sub>2</sub>O**  
**0-25 Pa to 0-12.5 kPa**

## PX653 Series



Standard



PX653-10D5V, with DP3002-E meter, shown smaller than actual size.

### Ideal Applications:

- ✓ Clean Rooms
- ✓ HVAC
- ✓ Laboratory Fume Hoods

### SPECIFICATIONS

**Excitation:** 12 to 36 Vdc  
**Output:** 1 to 5 Vdc (3 wire)  
**Linearity:** 0.5% FS (BFSL)  
**Hysteresis:** 0.02% FS  
**Repeatability:** 0.05% FS  
**Operating Temperature:** -29 to 72°C (-20 to 160°F)  
**Compensated Temperature:** 2 to 57°C (35 to 135°F)  
**Thermal Effects:**  
 Zero: 0.015% FS/°F  
 Span: 0.015% rdg/°F  
**Proof Pressure:** 15 psi  
**Burst Pressure:** 20 psi  
**Static Pressure:** 25 psi  
**Gage Type:** Capacitance  
**Supply Current:** <5 mA  
**Calibration Report:** NIST cal at 25, 50, 75 and 100% FS; upscale and downscale provided  
**Response Time:** 250 ms  
**Wetted Parts:**  
 Dry, clean, non-corrosive gases only  
**Enclosure:** NEMA 2 (IP62)  
**Dimensions:** 107 H x 117 W x 53 mm D (4.2 x 4.6 x 2.1")  
**Pressure Port:** ¼ barbed fittings (tubing TY-316-100)  
**Electrical Connections:** Screw terminal  
**Weight:** 368 g (13 oz)

DIFFERENTIAL PRESSURE TRANSDUCERS **B**

To Order			
RANGE		MODEL NO.	COMPATIBLE METERS
inH <sub>2</sub> O	Pa/kPa		
0 to 0.1	0 to 25	PX653-0.1D5V	DP25B-E, DP41-E, DP460-E
0 to 0.25	0 to 62	PX653-0.25D5V	DP25B-E, DP41-E, DP460-E
0 to 0.50	0 to 125	PX653-0.5D5V	DP25B-E, DP41-E, DP460-E
0 to 0.75	0 to 187	PX653-0.75D5V	DP25B-E, DP41-E, DP460-E
0 to 1	0 to 249	PX653-01D5V	DP25B-E, DP41-E, DP3002-E
0 to 2	0 to 498	PX653-02D5V	DP25B-E, DP41-E, DP460-E
0 to 3	0 to 748	PX653-03D5V	DP25B-E, DP41-E, DP460-E
0 to 5	0 to 1.25	PX653-05D5V	DP25B-E, DP41-E, DP460-E
0 to 10	0 to 2.49	PX653-10D5V	DP25B-E, DP41-E, DP3002-E
0 to 25	0 to 6.23	PX653-25D5V	DP25B-E, DP41-E, DP460-E
0 to 50	0 to 12.5	PX653-50D5V	DP25B-E, DP41-E, DP460-E
BI-DIRECTIONAL RANGES			
±0.1	25	PX653-0.1BD5V	DP25B-E, DP41-E, DP460-E
±0.25	62	PX653-0.25BD5V	DP25B-E, DP41-E, DP460-E
±0.50	125	PX653-0.5BD5V	DP25B-E, DP41-E, DP460-E
±1	249	PX653-01BD5V	DP25B-E, DP41-E, DP460-E
±2.5	623	PX653-2.5BD5V	DP25B-E, DP41-E, DP460-E
±5	1.25	PX653-05BD5V	DP25B-E, DP41-E, DP460-E
±10	2.49	PX653-10BD5V	DP25B-E, DP41-E, DP460-E
±25	6.23	PX653-25BD5V	DP25B-E, DP41-E, DP460-E
±50	12.5	PX653-50BD5V	DP25B-E, DP41-E, DP460-E

Comes complete with NIST traceable calibration certificate and operator's manual.

Ordering Examples: PX653-01D5V, 0 to 1 inH<sub>2</sub>O range with 1 to 5 Vdc output.

PX653-01BD5V, ±1 inH<sub>2</sub>O range, 1 to 5 Vdc output with 0 = 3 Vdc.



# INDUSTRIAL TRANSDUCER

**0-0.1 to 0-200 inH<sub>2</sub>O**  
**0-25 Pa to 0-50 kPa**

## PX654 Series



PX654-100D5V,  
shown smaller than  
actual size.

### Ideal Applications:

- ✓ Boiler Inlet Air Systems
- ✓ HVAC
- ✓ Industrial Fume Hoods
- ✓ Level Control

### SPECIFICATIONS

**Excitation:** 12 to 36 Vdc  
**Output:** 1 to 5 Vdc  
**Linearity:** 0.3% full scale (BFSL)  
**Hysteresis:** 0.02% full scale  
**Repeatability:** 0.05% full scale  
**Operating Temp:** -29 to 85°C (-20 to 185°F)  
**Compensated Temp:** -18 to 72°C (35 to 160°F)  
**Thermal Effects:**  
     **Zero:** 0.015% full scale/°F  
     **Span:** 0.015% full scale/°F  
**Proof Pressure:** 10 psi  
**Burst Pressure:** 50 psi  
**Static Pressure:** 100 psi  
**Gage Type:** Capacitance  
**Supply Current:** <5 mA  
**Calibration Report:** NIST cal at 25, 50, 75 and 100% full scale; upscale and downscale provided  
**Response Time:** 250 ms  
**Wetted Parts:** Dry, clean, non-corrosive gases only  
**Enclosure:** NEMA 4X (IP65)  
**Dimensions:** 137 L x 76 W x 64 mm D (5.4 x 3 x 2.5")  
**Pressure Port:** ¼ FNPT  
**Electrical Connections:** Screw terminal (two ½ FNPT conduit)  
**Weight:** 955 g (2.1 lb)

### To Order

RANGE		MODEL NO.	COMPATIBLE METERS
inH <sub>2</sub> O	Pa		
0 to 0.1	0 to 25	PX654-0.1D5V	DP25B-E, DP41-E, DP460-E
0 to 0.25	0 to 62	PX654-0.25D5V	DP25B-E, DP41-E, DP460-E
0 to 0.50	0 to 125	PX654-0.5D5V	DP25B-E, DP41-E, DP460-E
0 to 1	0 to 249	PX654-01D5V	DP25B-E, DP41-E, DP460-E
0 to 2	0 to 498	PX654-02D5V	DP25B-E, DP41-E, DP460-E
0 to 3	0 to 748	PX654-03D5V	DP25B-E, DP41-E, DP460-E
0 to 5	0 to 1.25k	PX654-05D5V	DP25B-E, DP41-E, DP460-E
0 to 10	0 to 2.49k	PX654-10D5V	DP25B-E, DP41-E, DP460-E
0 to 25	0 to 6.23k	PX654-25D5V	DP25B-E, DP41-E, DP460-E
0 to 50	0 to 12.5k	PX654-50D5V	DP25B-E, DP41-E, DP460-E
0 to 100	0 to 24.9k	PX654-100D5V	DP25B-E, DP41-E, DP460-E
0 to 200	0 to 49.8k	PX654-200D5V	DP25B-E, DP41-E, DP460-E
BI-DIRECTIONAL RANGES			
±0.05	12	PX654-0.05BD5V	DP25B-E, DP41-E, DP460-E
±0.1	25	PX654-0.1BD5V	DP25B-E, DP41-E, DP460-E
±0.25	62	PX654-0.25BD5V	DP25B-E, DP41-E, DP460-E
±0.50	125	PX654-0.5BD5V	DP25B-E, DP41-E, DP460-E
±1	249	PX654-01BD5V	DP25B-E, DP41-E, DP460-E
±2.5	623	PX654-2.5BD5V	DP25B-E, DP41-E, DP460-E
±5	1.25k	PX654-05BD5V	DP25B-E, DP41-E, DP460-E
±10	2.49k	PX654-10BD5V	DP25B-E, DP41-E, DP460-E
±25	6.23k	PX654-25BD5V	DP25B-E, DP41-E, DP460-E
±50	12.5k	PX654-50BD5V	DP25B-E, DP41-E, DP460-E
±100	24.9k	PX654-100BD5V	DP25B-E, DP41-E, DP460-E

Comes complete with operator's manual and NIST traceable calibration.  
 \* See section D for compatible meters.

**Ordering Examples:** PX654-01D5V, 0 to 1 inH<sub>2</sub>O differential pressure range with 1 to 5 Vdc output, 0 = 1 Vdc.

PX654-2.5BD5V, ±2.5 psi differential pressure range with 1 to 5 Vdc output, 0 psi = 3 Vdc.

# DIN RAIL DIFFERENTIAL PRESSURE TRANSDUCER

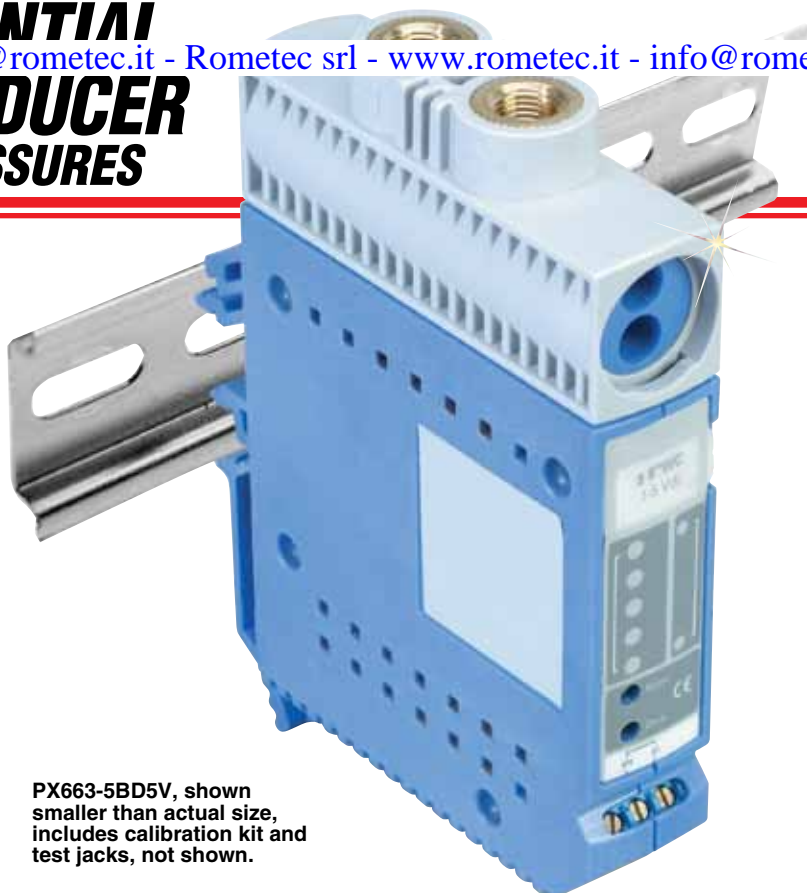
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## LOW DIFFERENTIAL PRESSURES

**PX663 Series**  
1 to 5 Vdc Output

**PX665 Series**  
4 to 20 mA Output  
0-0.1 to 0-50 inH<sub>2</sub>O  
0-0.25 to 0-125 mbar

### PX663/ PX665 Series



PX663-5BD5V, shown smaller than actual size, includes calibration kit and test jacks, not shown.

DIFFERENTIAL PRESSURE TRANSDUCERS

- ✓ Compact Space-Saving DIN Rail Mountable Design
- ✓ Low Differential Pressure Ranges
- ✓ On-Board Voltage Regulation Allows Use of Low-Cost, Unregulated Power Supply
- ✓ Voltage and Current Output Models

### SPECIFICATIONS

Excitation: 12 to 36 Vdc

Output:

PX663: 1 to 5 Vdc

PX665: 4 to 20 mA

Accuracy: ±0.5% FS

Non-Linearity: ±0.4% full scale

Hysteresis: ±0.02% full scale

Non-Repeatability: ±0.05%

PX663 Supply Current: <10 mA

Warm-Up Time: 5 sec maximum to meet standard specifications from initial power-up

Stability: Maximum change (full scale/year) ±0.5%

Response Time: 250 ms

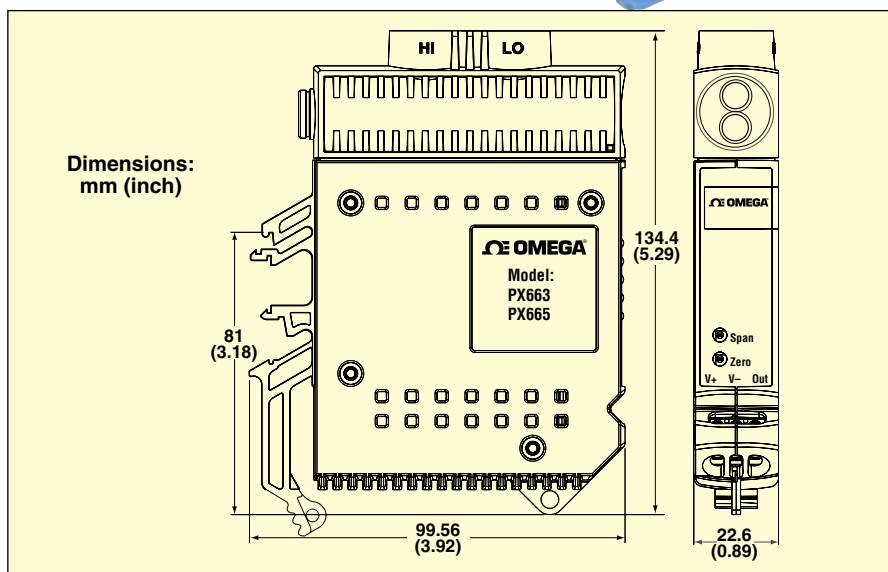
Temperature Limits:

Storage: -40 to 82°C (-40 to 180°F)

Operating: -28 to 82°C (-20 to 180°F)

(10 to 95% RH non-condensing)

Compensated: 2 to 57°C (35 to 135°F)



#### Thermal Coefficients:

Zero: ±0.036% full scale/°C (±0.02% full scale/°F)

Span: ±0.036% full scale/°C (±0.02% full scale/°F)

EMC: CE compliant to EN61326: 1997 ANNEX A harmonized heavy industrial transmitter specification

#### Overpressure Limits:

Proof: 15 psid

Burst: 25 psi

Maximum Static Pressure: 25 psi

#### Mounting Position Effect:

0.5" WC and higher 0.1% FS/g

Below 0.5" WC 0.25% FS/g

Note: Mounting position effect easily corrected with zero potentiometer

#### Zero and Span Potentiometers (Front Accessible, Non-Interactive):

Zero: ±5% full scale

Span: ±3% full scale

Pressure Connections: 1/8 NPT female

Weight: 127 g (4.5 oz)

Enclosure: Glass-filled polycarbonate (UL94 -V-1)

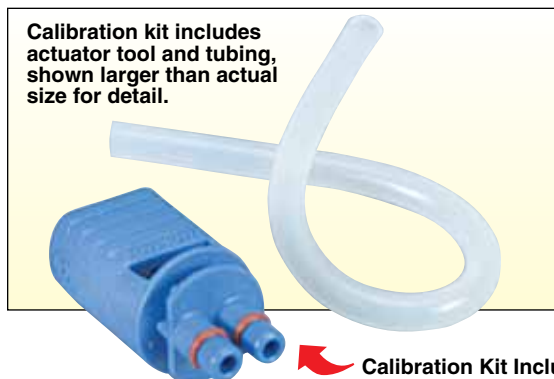
#### Pressure Media:

Clean, dry and non-corrosive gas

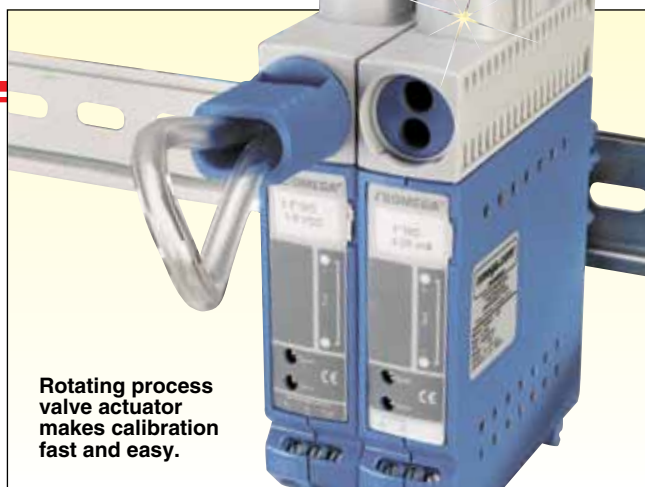
NOT FOR USE WITH LIQUIDS

#### Mounting:

DIN rail types EN50022, 35 and 45



Calibration Kit Included!



<b>To Order</b>				
RANGE		1 to 5 Vdc OUTPUT	4 to 20 mA OUTPUT	COMPATIBLE METERS*
inH <sub>2</sub> O	mbar	MODEL NO.	MODEL NO.	
0 to 0.10	0.25	PX663-0.1D5V	PX665-0.1DI	DP25B-E, DPi8, DP41-E
0 to 0.25	0.62	PX663-0.25D5V	PX665-0.25DI	DP25B-E, DPi8, DP41-E
0 to 0.50	1.25	PX663-0.5D5V	PX665-0.5DI	DP25B-E, DPi8, DP41-E
0 to 0.75	1.87	PX663-0.75D5V	PX665-0.75DI	DP25B-E, DPi8, DP41-E
0 to 1.00	2.50	PX663-1D5V	PX665-1DI	DP25B-E, DPi8, DP41-E
0 to 1.50	3.70	PX663-1.5D5V	PX665-1.5DI	DP25B-E, DPi8, DP41-E
0 to 2.00	5.00	PX663-2D5V	PX665-2DI	DP25B-E, DPi8, DP41-E
0 to 2.50	6.20	PX663-2.5D5V	PX665-2.5DI	DP25B-E, DPi8, DP41-E
0 to 3.00	7.50	PX663-3D5V	PX665-3DI	DP25B-E, DPi8, DP41-E
0 to 5.00	12.50	PX663-5D5V	PX665-5DI	DP25B-E, DPi8, DP41-E
0 to 10.00	24.90	PX663-10D5V	PX665-10DI	DP25B-E, DPi8, DP41-E
0 to 15.00	37.40	PX663-15D5V	PX665-15DI	DP25B-E, DPi8, DP41-E
0 to 20.00	49.80	PX663-20D5V	PX665-20DI	DP25B-E, DPi8, DP41-E
0 to 25.00	62.30	PX663-25D5V	PX665-25DI	DP25B-E, DPi8, DP41-E
0 to 50.00	125.00	PX663-50D5V	PX665-50DI	DP25B-E, DPi8, DP41-E
<b>BI-DIRECTIONAL RANGES</b>				
±0.05	±0.12	PX663-0.05BD5V	PX665-0.05BDI	DP25B-E, DPi8, DP41-E
±0.10	±0.25	PX663-0.1BD5V	PX665-0.1BDI	DP25B-E, DPi8, DP41-E
±0.25	±0.62	PX663-0.25BD5V	PX665-0.25BDI	DP25B-E, DPi8, DP41-E
±0.50	±1.25	PX663-0.5BD5V	PX665-0.5BDI	DP25B-E, DPi8, DP41-E
±0.75	±1.87	PX663-0.75BD5V	PX665-0.75BDI	DP25B-E, DPi8, DP41-E
±1.00	±2.50	PX663-1BD5V	PX665-1BDI	DP25B-E, DPi8, DP41-E
±2.00	±5.00	PX663-2BD5V	PX665-2BDI	DP25B-E, DPi8, DP41-E
±2.50	±6.20	PX663-2.5BD5V	PX665-2.5BDI	DP25B-E, DPi8, DP41-E
±3.00	±7.50	PX663-3BD5V	PX665-3BDI	DP25B-E, DPi8, DP41-E
±5.00	±12.50	PX663-5BD5V	PX665-5BDI	DP25B-E, DPi8, DP41-E
±10.00	±24.90	PX663-10BD5V	PX665-10BDI	DP25B-E, DPi8, DP41-E
±25.00	±125.00	PX663-25BD5V	PX665-25BDI	DP25B-E, DPi8, DP41-E

\* See [omega.com](http://omega.com) for compatible meters.

Comes complete with operator's manual, calibration kit, and test jacks. Custom configurations available. Please consult Engineering.

**Ordering Examples:** PX663-2.5BD5V, differential pressure range with 4 to 20 mA output, 0 = 12 mA, ±2.5 inH<sub>2</sub>O.

PX665-2.5DI 0 to 2.5 psi differential pressure, 4 to 20 mA output with 4 mA 0 = psi



# DIN RAIL DIFFERENTIAL PRESSURE TRANSDUCER

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## LOW DIFFERENTIAL PRESSURES

### PX663 Series

1 to 5 Vdc Output

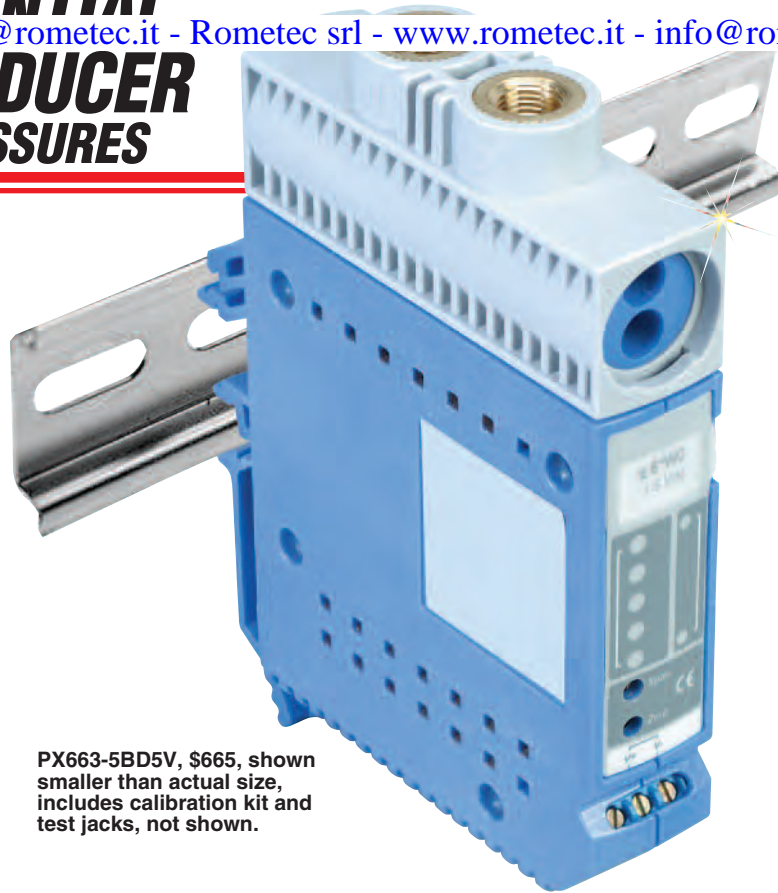
### PX665 Series

4 to 20 mA Output

0-0.1 to 0-50 inH<sub>2</sub>O

0-0.25 to 0-125 mbar

Starts at  
**\$650**



PX663-5BD5V, \$665, shown smaller than actual size, includes calibration kit and test jacks, not shown.

DIFFERENTIAL PRESSURE TRANSDUCERS B

- ✓ Compact Space-Saving DIN Rail Mountable Design
- ✓ Low Differential Pressure Ranges
- ✓ On-Board Voltage Regulation Allows Use of Low-Cost, Unregulated Power Supply
- ✓ Voltage and Current Output Models

### SPECIFICATIONS

Excitation: 12 to 36 Vdc

Output:

PX663: 1 to 5 Vdc

PX665: 4 to 20 mA

Accuracy:  $\pm 0.5\%$  FS

Non-Linearity:  $\pm 0.4\%$  FS

Hysteresis:  $\pm 0.02\%$  FS

Non-Repeatability:  $\pm 0.05\%$

PX663 Supply Current: <10 mA

Warm-Up Time: 5 sec max to meet standard specifications from initial power-up

Stability: Max change (FS/year)  $\pm 0.5\%$

Response Time: 250 ms

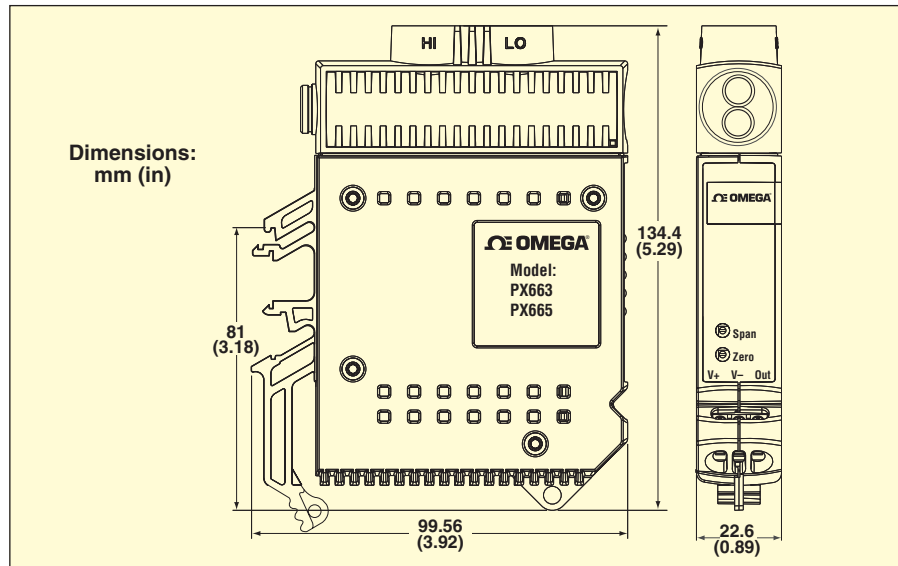
Temperature Limits:

Storage: -40 to 82°C (-40 to 180°F)

Operating: -28 to 82°C (-20 to 180°F)

(10 to 95% RH non-condensing)

Compensated: 2 to 57°C (35 to 135°F)



### Thermal Coefficients:

Zero:  $\pm 0.036\%$  FS/°C ( $\pm 0.02\%$  FS/°F)

Span:  $\pm 0.036\%$  FS/°C ( $\pm 0.02\%$  FS/°F)

EMC: CE compliant to EN61326; 1997 ANNEX A harmonized heavy industrial transmitter specification

### Overpressure Limits:

Proof: 15 psid

Burst: 25 psi

Max Static Pressure: 25 psi

### Mounting Position Effect:

0.5" WC and higher 0.1% FS/g

Below 0.5" WC 0.25% FS/g

Note: Mounting position effect easily corrected with zero potentiometer

### Zero and Span Potentiometers (Front Accessible, Non-Interactive):

Zero:  $\pm 5\%$  FS

Span:  $\pm 3\%$  FS

Pressure Connections: 1/8 NPT female

Weight: 127 g (4.5 oz)

Enclosure: Glass-filled polycarbonate (UL94 -V-1)

### Pressure Media:

Clean, dry and non-corrosive gas

NOT FOR USE WITH LIQUIDS

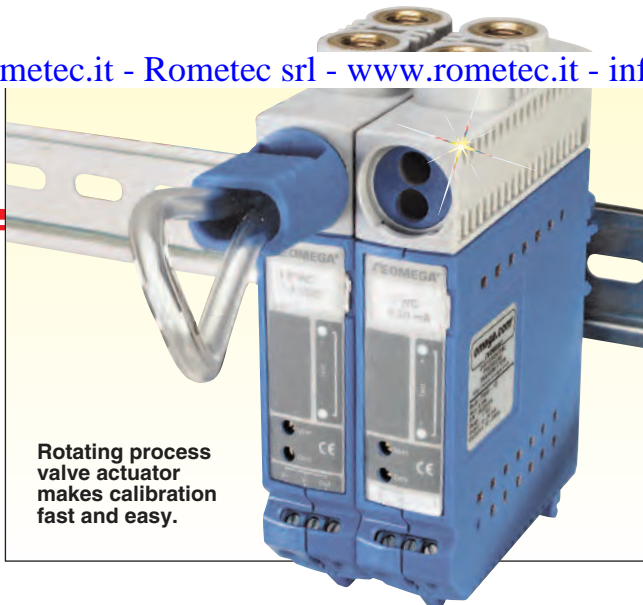
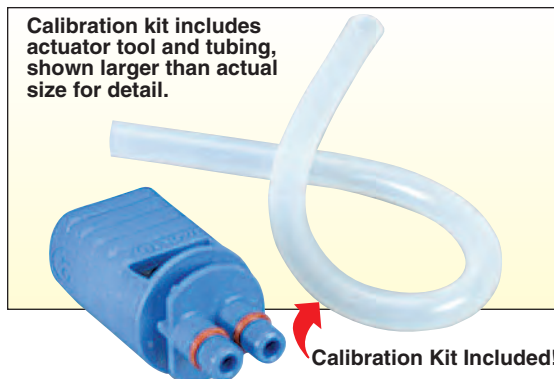
### Mounting:

DIN rail types EN50022, 35 and 45



# BIM BAH DIFFERENTIAL PRESSURE TRANSDUCERS

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**MOST POPULAR MODELS HIGHLIGHTED!**

<b>To Order (Specify Model Number)</b>						
RANGE		1 to 5 Vdc OUTPUT		4 to 20 mA OUTPUT		COMPATIBLE METERS*
inH <sub>2</sub> O	mbar	MODEL NO.	PRICE	MODEL NO.	PRICE	
0 to 0.10	0.25	PX663-0.1D5V	\$780	PX665-0.1DI	\$765	DP25B-E, DPi8, DP41-E
0 to 0.25	0.62	PX663-0.25D5V	735	PX665-0.25DI	720	DP25B-E, DPi8, DP41-E
0 to 0.50	1.25	PX663-0.5D5V	700	PX665-0.5DI	685	DP25B-E, DPi8, DP41-E
0 to 0.75	1.87	PX663-0.75D5V	665	PX665-0.75DI	650	DP25B-E, DPi8, DP41-E
0 to 1.00	2.50	PX663-1D5V	665	PX665-1DI	650	DP25B-E, DPi8, DP41-E
0 to 1.50	3.70	PX663-1.5D5V	665	PX665-1.5DI	650	DP25B-E, DPi8, DP41-E
0 to 2.00	5.00	PX663-2D5V	665	PX665-2DI	650	DP25B-E, DPi8, DP41-E
0 to 2.50	6.20	PX663-2.5D5V	665	PX665-2.5DI	650	DP25B-E, DPi8, DP41-E
0 to 3.00	7.50	PX663-3D5V	665	PX665-3DI	650	DP25B-E, DPi8, DP41-E
0 to 5.00	12.50	PX663-5D5V	665	PX665-5DI	650	DP25B-E, DPi8, DP41-E
0 to 10.00	24.90	PX663-10D5V	665	PX665-10DI	650	DP25B-E, DPi8, DP41-E
0 to 15.00	37.40	PX663-15D5V	665	PX665-15DI	650	DP25B-E, DPi8, DP41-E
0 to 20.00	49.80	PX663-20D5V	665	PX665-20DI	650	DP25B-E, DPi8, DP41-E
0 to 25.00	62.30	PX663-25D5V	665	PX665-25DI	650	DP25B-E, DPi8, DP41-E
0 to 50.00	125.00	PX663-50D5V	665	PX665-50DI	650	DP25B-E, DPi8, DP41-E
<b>BI-DIRECTIONAL RANGES</b>						
±0.05	±0.12	PX663-0.05BD5V	\$780	PX665-0.05BDI	\$765	DP25B-E, DPi8, DP41-E
±0.10	±0.25	PX663-0.1BD5V	735	PX665-0.1BDI	720	DP25B-E, DPi8, DP41-E
±0.25	±0.62	PX663-0.25BD5V	700	PX665-0.25BDI	685	DP25B-E, DPi8, DP41-E
±0.50	±1.25	PX663-0.5BD5V	665	PX665-0.5BDI	650	DP25B-E, DPi8, DP41-E
±0.75	±1.87	PX663-0.75BD5V	665	PX665-0.75BDI	650	DP25B-E, DPi8, DP41-E
±1.00	±2.50	PX663-1BD5V	665	PX665-1BDI	650	DP25B-E, DPi8, DP41-E
±2.00	±5.00	PX663-2BD5V	665	PX665-2BDI	650	DP25B-E, DPi8, DP41-E
±2.50	±6.20	PX663-2.5BD5V	665	PX665-2.5BDI	650	DP25B-E, DPi8, DP41-E
±3.00	±7.50	PX663-3BD5V	665	PX665-3BDI	650	DP25B-E, DPi8, DP41-E
±5.00	±12.50	PX663-5BD5V	665	PX665-5BDI	650	DP25B-E, DPi8, DP41-E
±10.00	±24.90	PX663-10BD5V	665	PX665-10BDI	650	DP25B-E, DPi8, DP41-E
±25.00	±125.00	PX663-25BD5V	665	PX665-25BDI	650	DP25B-E, DPi8, DP41-E

\* See section D for compatible meters.

Comes complete with operator's manual, calibration kit, and test jacks. Custom configurations available. Please consult Engineering.

Ordering Examples: **PX663-2.5BD5V**, differential pressure range with 4 to 20 mA output, 0 = 12 mA, ±2.5 inH<sub>2</sub>O, \$650.

**PX665-2.5DI**, 0 to 2.5 psi, differential pressure, 4 to 20 mA output with 4 mA 0 = psid, \$650.

Recommended Reference Book: Fundamentals of Temperature, Pressure, and Air Flow Measurement **OP-6**, \$265.  
Visit [omega.com/bobi](http://omega.com/bobi) for Additional Books



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# SIIRMFERSIRI F PRESSIONE

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## TRANSDUCERS

### FOR LEVEL, DEPTH OR GROUND WATER MEASUREMENTS

**Gage, Sealed Gage or Absolute Pressure**  
**mV/V, 0 to 5 Vdc, 0 to 10 Vdc, or 4 to 20 mA Outputs**  
**0-10 inH<sub>2</sub>O to 0-1000 psi**

### **PX709GW Series** **Level/Submersible**



- ✓ Precision Micromachined Silicon Sensor
- ✓ 5-Point NIST Traceable Calibration
- ✓ Lightning/Surge Protection Available on Amplified Models
- ✓ 316L SS Case and Diaphragm
- ✓ Fused Polyurethane Cable
- ✓ Premium Temperature Performance
- ✓ Broad Compensated Temperature Range
- ✓ 0.20% Standard Accuracy or Optional 0.08% High Accuracy Models for Precise Depth Measurement
- ✓ Available in Gage Pressure: Vented to Atmosphere Through the Cable; Sealed Gage: Not Vented to Atmosphere; or Absolute Pressure: Vacuum Reference
- ✓ Reverse Polarity Protected
- ✓ Protective Nose Cone and Desiccant Available
- ✓ Standard or Custom Cable Lengths

The PX709GW Series submersible depth transducers are designed to make precision level or depth measurements in fresh water or liquids compatible with 316 SS reliably for years in harsh industrial environments. The PX709GW



series has the proven Omega micromachined silicon technology as its core sensor. The Piezoresistive technology uses precision solid state strain gages molecularly embedded into a highly stable silicon wafer. The silicon is mounted in a sealed chamber and protected from the environmental fluids by a pressure sensitive stainless steel diaphragm. A very small volume of silicone oil transfers the pressure from the diaphragm to the silicon sensor. The cable is molded onto the case using a unique high pressure, high temperature system to assure the best possible quality seal for long life and durability. This technology produces a very rugged, high stability sensor with exceptional accuracy, minimal thermal effects and long term reliability.



PX709GW available with optional lightning protection shown smaller than actual size.

Nose cone included.

#### **Applications**

- Level Monitoring and Control
- Depth Measurement
- Surface Water Monitoring
- Tank Level
- Well Water Depth
- Waste Water Applications
- Dewatering Installations
- Construction Bypass

PRESSURE TRANSDUCERS  
**B**

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# SIIRMEDSIRI E DDECCIDE TRANSDUCEDD

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## FOR LEVEL, DEPTH OR GROUND MEASUREMENTS

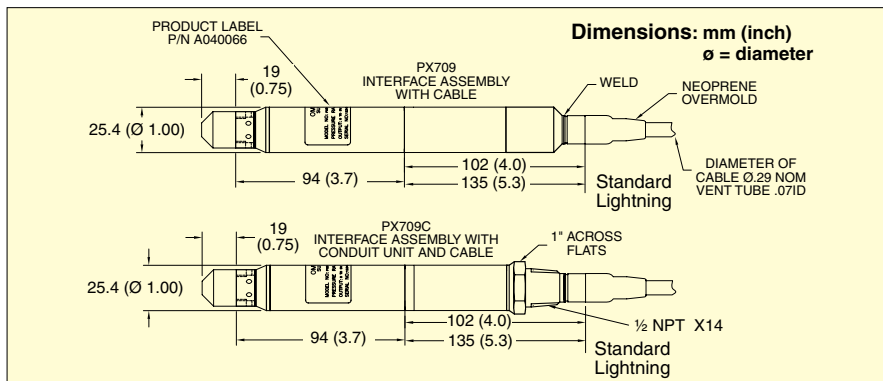
### PX709GW Connections

	mV/V	VOLTAGE	CURRENT
Red	(+) V in	(+) V in	(+) Supply
Black	(-) V in	(-) Common	(-) Supply
Green	(-) Signal	no connection or Common*	Shunt (option)
White	(+) Signal	(+) Signal	Shunt (option)

\* If 4-wire voltage output is chosen, see application note in manual.



Shown monitoring river level for flood warning.



### COMMON SPECIFICATIONS

**Approvals:** RoHS compliant

**Accuracy (Combined Linearity, Hysteresis and Repeatability):**

Standard  $\pm 0.20\%$  BSL or high accuracy, option "HH",  $\pm 0.08\%$  BSL

**Setting Accuracy Zero:**  $\pm 0.5\%$  full scale typical,  $\pm 1.0\%$  full scale maximum ( $\pm 1.0\%$  full scale typical,  $\pm 2.0\%$  full scale maximum for ranges  $\leq 2.5$  psi)

**Setting Accuracy Span:**  $\pm 0.5\%$  full scale typical,  $\pm 1.0\%$  FS maximum ( $\pm 1.0\%$  full scale typical,  $\pm 2.0\%$  full scale maximum for ranges  $\leq 2.5$  psi) calibrated in vertical direction with fitting down

**Minimum Resistance Between Transducer Body and Any Wire:**  $100M \Omega @ 50$  Vdc (before surge protection)

**Pressure Cycles:** 1 million minimum  
**Long Term Stability (1 year.):**  $\pm 0.1\%$  full scale typical

**Operating Temperature:**  $-18$  to  $79^\circ\text{C}$  ( $0$  to  $175^\circ\text{F}$ ) with no solid freeze

**Compensated Temperature:**  $-1$  to  $88^\circ\text{C}$  ( $30$  to  $190^\circ\text{F}$ )

**Thermal Effects (Over Compensated Range):**

**Zero Balance:**

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

Ranges  $\leq 5$  psi:  $\pm 0.5\%$  span

**Span Setting:**

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

Ranges  $\leq 5$  psi:  $\pm 0.5\%$  span

**Bandwidth:** DC to 1 kHz typical

**Response Time:** 500 usec, 0 to 90% step change

**CE Compliant:** Meets EN 61326-1: 2006 for industrial locations (certified with 91 m (300'))

**Lightning Protection Option**

(if included): Integral lightning surge protection to IEC-61000-4-5 (Level 4)

**Shock:** 50 g, 11 ms, half-sine horizontal and vertical axis

**Vibration:**  $\pm 20$  g

**Overpressure**

**Gage and Sealed Gage:**

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

**1 psi:** 6 times span

**2.5 to 1000 psi:** 4 times span

**Absolute:**

**5 psia:** 6 times span; ranges

**>5 psia:** 4 times span

**Containment Pressure**

**Gage Pressure**

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

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

**Absolute Pressure:**

**5 to 1000 psi:** to 6000 psia

**Wetted Parts:** 316L stainless steel

**Body Material:** 316L stainless steel

**Pressure Connection:** 9/16-18 UNF female

**Transducer Weight:** 285 g (10 oz) typical depending upon configuration

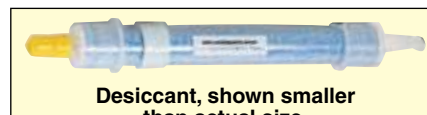
**Cable Construction:** Polyurethane jacket with double Kevlar® reinforcing stringers, fused to case, with large vent tube

**Cable Pull Strength:** 109 kg (240 lb)

**Cable Conductors:** Four 24 AWG (19/36 stranded tinned copper) with ETFE insulation. Meets MIL-W-22759/16 & SAE AS22759/16

**Cable Sealing:** Fused to case via molded Neoprene boot rated to 610 m (2000') depth

**Standard Cable Lengths (ft):** 10, 15, 20, 25, 30, 40, 50, 60, 65, 74, 100, 150, 200, 300, for other lengths contact factory for lead times (see page 6)



Desiccant, shown smaller than actual size



# SIIRMEDSIRI E DRESCIDE TRANSDUCERS

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## PX709GW SERIES WITH 100 mV OUTPUT

Submersible Level Transducer

### To Order

10 mV/V OUTPUT, 0.2% ACCURACY<sup>1</sup> WITH 3 m (10') CABLE [Maximum recommended cable length\*\* on mV models 7.8 m (25')] GAGE PRESSURE RANGES (INTERMEDIATE RANGES AVAILABLE, CONSULT PRESSURE ENGINEERING)

RANGE PSIG	EQUIVALENT DEPTH ftH <sub>2</sub> O	EQUIVALENT DEPTH mH <sub>2</sub> O	STD CABLE LENGTH	STANDARD PART NUMBER <sup>2</sup> STANDARD 0.20% ACCURACY	HIGH ACCURACY MODELS 0.08% ACCURACY
0 to 0.36	10.00 inH <sub>2</sub> O	250 mmH <sub>2</sub> O	3 m (10')	PX709GW-10WGV- <sup>[**]</sup>	PX709GW-10WGV-HH- <sup>[**]</sup>
0 to 1	27.68 inH <sub>2</sub> O	670 mmH <sub>2</sub> O	3 m (10')	PX709GW-001GV- <sup>[**]</sup>	PX709GW-001GV-HH- <sup>[**]</sup>
0 to 2.5	69.24 inH <sub>2</sub> O	1757 mmH <sub>2</sub> O	3 m (10')	PX709GW-2.5GV- <sup>[**]</sup>	PX709GW-2.5GV-HH- <sup>[**]</sup>
0 to 5	11.5	3.51	3 m (10')	PX709GW-005GV- <sup>[**]</sup>	PX709GW-005GV-HH- <sup>[**]</sup>
0 to 10	23.1	7.04	3 m (10')	PX709GW-010GV- <sup>[**]</sup>	PX709GW-010GV-HH- <sup>[**]</sup>
0 to 15	34.6	10.5	3 m (10')	PX709GW-015GV- <sup>[**]</sup>	PX709GW-015GV-HH- <sup>[**]</sup>
0 to 30	69.2	21.1	3 m (10')	PX709GW-030GV- <sup>[**]</sup>	PX709GW-030GV-HH- <sup>[**]</sup>
0 to 50	115	35.1	3 m (10')	PX709GW-050GV- <sup>[**]</sup>	PX709GW-050GV-HH- <sup>[**]</sup>
0 to 100	231	70.4	3 m (10')	PX709GW-100GV- <sup>[**]</sup>	PX709GW-100GV-HH- <sup>[**]</sup>
0 to 150	346	105	3 m (10')	PX709GW-150GV- <sup>[**]</sup>	PX709GW-150GV-HH- <sup>[**]</sup>
0 to 250	577	176	3 m (10')	PX709GW-250GV- <sup>[**]</sup>	PX709GW-250GV-HH- <sup>[**]</sup>
0 to 500	1153	351	3 m (10')	PX709GW-500GV- <sup>[**]</sup>	PX709GW-500GV-HH- <sup>[**]</sup>
0 to 750	1730	527	3 m (10')	PX709GW-750GV- <sup>[**]</sup>	PX709GW-750GV-HH- <sup>[**]</sup>
0 to 1000	2307	703	3 m (10')	PX709GW-1.0KGV- <sup>[**]</sup>	PX709GW-1.0KGV-HH- <sup>[**]</sup>

### SEALED GAGE PRESSURE RANGES (PSISG)

0 to 100	231	70.4	3 m (10')	PX709GW-100SGV- <sup>[**]</sup>	PX709GW-100SGV-HH- <sup>[**]</sup>
0 to 150	346	105	3 m (10')	PX709GW-150SGV- <sup>[**]</sup>	PX709GW-150SGV-HH- <sup>[**]</sup>
0 to 250	577	176	3 m (10')	PX709GW-250SGV- <sup>[**]</sup>	PX709GW-250SGV-HH- <sup>[**]</sup>
0 to 500	1153	351	3 m (10')	PX709GW-500SGV- <sup>[**]</sup>	PX709GW-500SGV-HH- <sup>[**]</sup>
0 to 750	1730	527	3 m (10')	PX709GW-750SGV- <sup>[**]</sup>	PX709GW-750SGV-HH- <sup>[**]</sup>
0 to 1000	2307	703	3 m (10')	PX709GW-1.0KSGV- <sup>[**]</sup>	PX709GW-1.0KSGV-HH- <sup>[**]</sup>

### ABSOLUTE PRESSURE RANGES (PSIA)

0 to 5	11.5	3.51	3 m (10')	PX709GW-005AV- <sup>[**]</sup>	PX709GW-005AV-HH- <sup>[**]</sup>
0 to 10	23.1	7.04	3 m (10')	PX709GW-010AV- <sup>[**]</sup>	PX709GW-010AV-HH- <sup>[**]</sup>
0 to 15	34.6	10.5	3 m (10')	PX709GW-015AV- <sup>[**]</sup>	PX709GW-015AV-HH- <sup>[**]</sup>
0 to 30	69.2	21.1	3 m (10')	PX709GW-030AV- <sup>[**]</sup>	PX709GW-030AV-HH- <sup>[**]</sup>
0 to 50	115	35.1	3 m (10')	PX709GW-050AV- <sup>[**]</sup>	PX709GW-050AV-HH- <sup>[**]</sup>
0 to 100	231	70.4	3 m (10')	PX709GW-100AV- <sup>[**]</sup>	PX709GW-100AV-HH- <sup>[**]</sup>
0 to 150	346	105	3 m (10')	PX709GW-150AV- <sup>[**]</sup>	PX709GW-150AV-HH- <sup>[**]</sup>
0 to 250	577	176	3 m (10')	PX709GW-250AV- <sup>[**]</sup>	PX709GW-250AV-HH- <sup>[**]</sup>
0 to 500	1153	351	3 m (10')	PX709GW-500AV- <sup>[**]</sup>	PX709GW-500AV-HH- <sup>[**]</sup>
0 to 750	1730	527	3 m (10')	PX709GW-750AV- <sup>[**]</sup>	PX709GW-750AV-HH- <sup>[**]</sup>
0 to 1000	2307	703	3 m (10')	PX709GW-1.0KAV- <sup>[**]</sup>	PX709GW-1.0KAV-HH- <sup>[**]</sup>

### mV/V OUTPUT SPECIFICATIONS

**Output:** 100 mV @ 10 Vdc (Ratiometric 5 to 10 Vdc)

**\*\*Cable Length:** For lengths over 7.6 (25') output signal is attenuated ½% per 30.5 m (100') nominal

**Supply Voltage:** 5 to 10 Vdc (ratiometric)

**Current Draw:** 5 mA @ 10 Vdc

**Input Impedance:** 1000 to 5000 Ω

**Output Impedance:** 5000 Ω ± 10% Typical

See Common Specifications for other parameters

Comes complete with 5-point NIST traceable calibration certificate.

[\*\*] To order with additional cable length, specify total length in feet, **PX709GW-001GV-25FT**, additional cost for length over 10 feet.

Consult sales for stock cable length to assure fast delivery.

1.) To order with optional high accuracy for extra cost, insert code **"-HH"** for 0.08% accuracy after the V, **PX709GW-100GV-HH-<sup>[\*\*]</sup>**.

2.) To order with ½ NPT conduit fitting specify Model **PX709C** for additional cost, **PX709CGW-010GV**.

3.) Lightning protection is available on amplified voltage and mA output models for additional costs.

**Ordering Examples:** **PX709GW-001GV**, 1 psi gage submersible transducer with 10 mV/V output, 3 m (10') of cable and standard 0.2% accuracy.

**PX709GW-005AV-HH-25FT**, 5 psi absolute pressure submersible transducer with 10 mV/V output, 7.6 m (25') of cable and high 0.08% accuracy.

**PX709CGW-2.5GV-20FT**, 2.5 psi gage submersible transducer with 10 mV/V output a ½ NPT conduit fitting, 6.1 m (20') of cable

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PRESSURE TRANSDUCERS B

### OPTIONS FOR SUBMERSIBLE TRANSDUCERS

<b>PX709-BOX1</b>	Terminal enclosure without surge protection - for use with all models
<b>PX709-BOX2</b>	Terminal enclosure with surge protection - for use with 4 to 20 mA without Shunt Cal (one surge protection module)
<b>PX709-BOX3</b>	Terminal enclosure with surge protection - for use with voltage output sensors and 4 to 20 mA with Shunt Cal option (two surge protection modules)
<b>A019385</b>	Replacement desiccant to keep moisture out of vent tube

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## PX709GW SERIES WITH 0 TO 5 Vdc OR 0 TO 10 Vdc OUTPUT

### Submersible Level Transducer

#### To Order

5 Vdc OUTPUT, 0.2% ACCURACY<sup>1</sup> WITH 3 m (10') CABLE [Maximum cable length 91 m (300')]

GAGE PRESSURE RANGES (INTERMEDIATE RANGES AVAILABLE, CONSULT PRESSURE ENGINEERING)

RANGE PSIG	EQUIVALENT DEPTH ftH <sub>2</sub> O	EQUIVALENT DEPTH mmH <sub>2</sub> O	STD CABLE LENGTH	STANDARD PART NUMBER <sup>2</sup> STANDARD 0.20% ACCURACY	LIGHTNING <sup>3</sup> PROTECTED MODELS STANDARD 0.20% ACCURACY
0 to 0.36	10.00 inH <sub>2</sub> O	250 mmH <sub>2</sub> O	3 m (10')	PX709GW-10WG5V- <b>[**]</b>	PX709LGW-10WG5V- <b>[**]</b>
0 to 1	27.68 inH <sub>2</sub> O	670 mmH <sub>2</sub> O	3 m (10')	PX709GW-001G5V- <b>[**]</b>	PX709LGW-001G5V- <b>[**]</b>
0 to 2.5	69.24 inH <sub>2</sub> O	1757 mmH <sub>2</sub> O	3 m (10')	PX709GW-2.5G5V- <b>[**]</b>	PX709LGW-2.5G5V- <b>[**]</b>
0 to 5	11.5	3.51	3 m (10')	PX709GW-005G5V- <b>[**]</b>	PX709LGW-005G5V- <b>[**]</b>
0 to 10	23.1	7.04	3 m (10')	PX709GW-010G5V- <b>[**]</b>	PX709LGW-010G5V- <b>[**]</b>
0 to 15	34.6	10.5	3 m (10')	PX709GW-015G5V- <b>[**]</b>	PX709LGW-015G5V- <b>[**]</b>
0 to 30	69.2	21.1	3 m (10')	PX709GW-030G5V- <b>[**]</b>	PX709LGW-030G5V- <b>[**]</b>
0 to 50	115	35.1	3 m (10')	PX709GW-050G5V- <b>[**]</b>	PX709LGW-050G5V- <b>[**]</b>
0 to 100	231	70.4	3 m (10')	PX709GW-100G5V- <b>[**]</b>	PX709LGW-100G5V- <b>[**]</b>
0 to 150	346	105	3 m (10')	PX709GW-150G5V- <b>[**]</b>	PX709LGW-150G5V- <b>[**]</b>
0 to 250	577	176	3 m (10')	PX709GW-250G5V- <b>[**]</b>	PX709LGW-250G5V- <b>[**]</b>
0 to 500	1153	351	3 m (10')	PX709GW-500G5V- <b>[**]</b>	PX709LGW-500G5V- <b>[**]</b>
0 to 750	1730	527	3 m (10')	PX709GW-750G5V- <b>[**]</b>	PX709LGW-750G5V- <b>[**]</b>
0 to 1000	2307	703	3 m (10')	PX709GW-1.0KG5V- <b>[**]</b>	PX709LGW-1.0KG5V- <b>[**]</b>
<b>SEALED GAGE PRESSURE (PSIG)</b>					
0 to 100	231	70.4	3 m (10')	PX709GW-100SG5V- <b>[**]</b>	PX709LGW-100SG5V- <b>[**]</b>
0 to 150	346	105	3 m (10')	PX709GW-150SG5V- <b>[**]</b>	PX709LGW-150SG5V- <b>[**]</b>
0 to 250	577	176	3 m (10')	PX709GW-250SG5V- <b>[**]</b>	PX709LGW-250SG5V- <b>[**]</b>
0 to 500	1153	351	3 m (10')	PX709GW-500SG5V- <b>[**]</b>	PX709LGW-500SG5V- <b>[**]</b>
0 to 750	1730	527	3 m (10')	PX709GW-750SG5V- <b>[**]</b>	PX709LGW-750SG5V- <b>[**]</b>
0 to 1000	2307	703	3 m (10')	PX709GW-1.0KSG5V- <b>[**]</b>	PX709LGW-1.0KSG5V- <b>[**]</b>
<b>ABSOLUTE PRESSURE (PSIA)</b>					
0 to 5	11.5	3.51	3 m (10')	PX709GW-005A5V- <b>[**]</b>	PX709LGW-005A5V- <b>[**]</b>
0 to 10	23.1	7.04	3 m (10')	PX709GW-010A5V- <b>[**]</b>	PX709LGW-010A5V- <b>[**]</b>
0 to 15	34.6	10.5	3 m (10')	PX709GW-015A5V- <b>[**]</b>	PX709LGW-015A5V- <b>[**]</b>
0 to 30	69.2	21.1	3 m (10')	PX709GW-030A5V- <b>[**]</b>	PX709LGW-030A5V- <b>[**]</b>
0 to 50	115	35.1	3 m (10')	PX709GW-050A5V- <b>[**]</b>	PX709LGW-050A5V- <b>[**]</b>
0 to 100	231	70.4	3 m (10')	PX709GW-100A5V- <b>[**]</b>	PX709LGW-100A5V- <b>[**]</b>
0 to 150	346	105	3 m (10')	PX709GW-150A5V- <b>[**]</b>	PX709LGW-150A5V- <b>[**]</b>
0 to 250	577	176	3 m (10')	PX709GW-250A5V- <b>[**]</b>	PX709LGW-250A5V- <b>[**]</b>
0 to 500	1153	351	3 m (10')	PX709GW-500A5V- <b>[**]</b>	PX709LGW-500A5V- <b>[**]</b>
0 to 750	1730	527	3 m (10')	PX709GW-750A5V- <b>[**]</b>	PX709LGW-750A5V- <b>[**]</b>
0 to 1000	2307	703	3 m (10')	PX709GW-1.0KA5V- <b>[**]</b>	PX709LGW-1.0KA5V- <b>[**]</b>

#### 5V and 10V OUTPUT SPECIFICATIONS

**Output:** 0 to 5 Vdc or 0 to 10 Vdc (3 or 4 wire user selectable) see application note/manual

**Supply Voltage:** 5V output: 10 to 30 Vdc @ 10 mA, 10V output: 15 to 30 Vdc @ 10 mA

**Lightning Protection:** See application note/manual

See Common Specifications for other parameters

Comes complete with 5-point NIST traceable calibration certificate.

[\*\*] To order with additional cable length, specify total length in feet, **PX709GW-001G5V-25FT**, additional cost for length over 10 feet.

Consult sales for stock cable length to assure fast delivery.

1.) To order with optional high accuracy for extra cost, insert code “-HH” after 5V for 0.08% accuracy, **PX709-150G5V-HH-**[\*\*]****.

2.) To order with ½ NPT conduit fitting for extra cost, specify Model **PX709C**, for additional cost **PX709CGW-010G5V**.

3.) To order with optional Lightning/Surge protection for extra cost, specify model **PX709LGW**, **PX709LGW-001G5V**.

4.) To order with optional Lightning/Surge protection and conduit fitting for extra cost, specify model **PX709CLGW**, **PX709CLGW-001G5V**.

**Ordering Examples:** **PX709GW-001G5V**, 1 psi gage submersible transducer with 0 to 5 Vdc output, 3 m (10') of cable and standard 0.2% accuracy. **PX709LGW-005A5V-HH-25FT**, 5 psi absolute pressure, lightning protected submersible transducer with 0 to 5 Vdc output, 7.6 m (25') of cable and high 0.08% accuracy.

**PX709CGW-010G5V-25FT**, 0.5 psi gage submersible transducer with 0 to 10 Vdc output, ½ NPT conduit fitting and 0.1 m (30") of cable.

#### OPTIONS FOR SUBMERSIBLE TRANSDUCERS

<b>PX709-BOX1</b>	Terminal enclosure without surge protection - for use with all models
<b>PX709-BOX2</b>	Terminal enclosure with surge protection - for use with 4 to 20 mA without Shunt Cal (one surge protection module)
<b>PX709-BOX3</b>	Terminal enclosure with surge protection - for use with voltage output sensors and 4 to 20 mA with Shunt Cal option (two surge protection modules)
<b>A019385</b>	Replacement desiccant to keep moisture out of vent tube

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## PX709GW SERIES WITH 4 TO 20 mA OUTPUT

Submersible Level Transducer

### To Order

4 to 20 OUTPUT, 0.2% ACCURACY<sup>1</sup> WITH 3 m (10') CABLE [Maximum cable length 91 m (300')]

GAGE PRESSURE RANGES (INTERMEDIATE RANGES AVAILABLE, CONSULT PRESSURE ENGINEERING)

RANGE PSIG	EQUIVALENT DEPTH ftH <sub>2</sub> O	EQUIVALENT DEPTH mH <sub>2</sub> O	STD CABLE LENGTH	STANDARD PART NUMBER <sup>2</sup> STANDARD 0.20% ACCURACY	LIGHTNING <sup>3</sup> PROTECTED MODELS STANDARD 0.20% ACCURACY
0 to 0.36	10.00 inH <sub>2</sub> O	250 mmH <sub>2</sub> O	3 m (10')	PX709GW-10WGI- <b>[**]</b>	PX709LGW-10WGI- <b>[**]</b>
0 to 1	27.68 inH <sub>2</sub> O	670 mmH <sub>2</sub> O	3 m (10')	PX709GW-001GI- <b>[**]</b>	PX709LGW-001GI- <b>[**]</b>
0 to 2.5	69.24 inH <sub>2</sub> O	1757 mmH <sub>2</sub> O	3 m (10')	PX709GW-2.5GI- <b>[**]</b>	PX709LGW-2.5GI- <b>[**]</b>
0 to 5	11.5	3.51	3 m (10')	PX709GW-005GI- <b>[**]</b>	PX709LGW-005GI- <b>[**]</b>
0 to 10	23.1	7.04	3 m (10')	PX709GW-010GI- <b>[**]</b>	PX709LGW-010GI- <b>[**]</b>
0 to 15	34.6	10.5	3 m (10')	PX709GW-015GI- <b>[**]</b>	PX709LGW-015GI- <b>[**]</b>
0 to 30	69.2	21.1	3 m (10')	PX709GW-030GI- <b>[**]</b>	PX709LGW-030GI- <b>[**]</b>
0 to 50	115	35.1	3 m (10')	PX709GW-050GI- <b>[**]</b>	PX709LGW-050GI- <b>[**]</b>
0 to 100	231	70.4	3 m (10')	PX709GW-100GI- <b>[**]</b>	PX709LGW-100GI- <b>[**]</b>
0 to 150	346	105	3 m (10')	PX709GW-150GI- <b>[**]</b>	PX709LGW-150GI- <b>[**]</b>
0 to 250	577	176	3 m (10')	PX709GW-250GI- <b>[**]</b>	PX709LGW-250GI- <b>[**]</b>
0 to 500	1153	351	3 m (10')	PX709GW-500GI- <b>[**]</b>	PX709LGW-500GI- <b>[**]</b>
0 to 750	1730	527	3 m (10')	PX709GW-750GI- <b>[**]</b>	PX709LGW-750GI- <b>[**]</b>
0 to 1000	2307	703	3 m (10')	PX709GW-1.0KGI- <b>[**]</b>	PX709LGW-1.0KGI- <b>[**]</b>
<b>SEALED GAGE PRESSURE (PSISG)</b>					
0 to 100	231	70.4	3 m (10')	PX709GW-100SGI- <b>[**]</b>	PX709LGW-100SGI- <b>[**]</b>
0 to 150	346	105	3 m (10')	PX709GW-150SGI- <b>[**]</b>	PX709LGW-150SGI- <b>[**]</b>
0 to 250	577	176	3 m (10')	PX709GW-250SGI- <b>[**]</b>	PX709LGW-250SGI- <b>[**]</b>
0 to 500	1153	351	3 m (10')	PX709GW-500SGI- <b>[**]</b>	PX709LGW-500SGI- <b>[**]</b>
0 to 750	1730	527	3 m (10')	PX709GW-750SGI- <b>[**]</b>	PX709LGW-750SGI- <b>[**]</b>
0 to 1000	2307	703	3 m (10')	PX709GW-1.0KSGI- <b>[**]</b>	PX709LGW-1.0KSGI- <b>[**]</b>
<b>ABSOLUTE PRESSURE (PSIA)</b>					
0 to 5	11.5	3.51	3 m (10')	PX709GW-005AI- <b>[**]</b>	PX709LGW-005AI- <b>[**]</b>
0 to 10	23.1	7.04	3 m (10')	PX709GW-010AI- <b>[**]</b>	PX709LGW-010AI- <b>[**]</b>
0 to 15	34.6	10.5	3 m (10')	PX709GW-015AI- <b>[**]</b>	PX709LGW-015AI- <b>[**]</b>
0 to 30	69.2	21.1	3 m (10')	PX709GW-030AI- <b>[**]</b>	PX709LGW-030AI- <b>[**]</b>
0 to 50	115	35.1	3 m (10')	PX709GW-050AI- <b>[**]</b>	PX709LGW-050AI- <b>[**]</b>
0 to 100	231	70.4	3 m (10')	PX709GW-100AI- <b>[**]</b>	PX709LGW-100AI- <b>[**]</b>
0 to 150	346	105	3 m (10')	PX709GW-150AI- <b>[**]</b>	PX709LGW-150AI- <b>[**]</b>
0 to 250	577	176	3 m (10')	PX709GW-250AI- <b>[**]</b>	PX709LGW-250AI- <b>[**]</b>
0 to 500	1153	351	3 m (10')	PX709GW-500AI- <b>[**]</b>	PX709LGW-500AI- <b>[**]</b>
0 to 750	1730	527	3 m (10')	PX709GW-750AI- <b>[**]</b>	PX709LGW-750AI- <b>[**]</b>
0 to 1000	2307	703	3 m (10')	PX709GW-1.0KAI- <b>[**]</b>	PX709LGW-1.0KAI- <b>[**]</b>

### 4 to 20 mA SPECIFICATIONS

**Output:** 4 to 20 mA

**Supply Voltage:** 10 to 30 Vdc [(10 to 20 Vdc above 105°C (229°F)) maximum loop res Ω = (Vs-10) x 50

**Lightning Protection:** See application note/manual

See Common Specifications for other parameters

Comes complete with 5-point NIST traceable calibration certificate.

**[\*\*]** To order with additional cable length, specify total length in feet, **PX709GW-001GI-25**, additional cost for length over 10 feet.

Consult sales for stock cable length to assure fast delivery.

1.) To order with optional high accuracy for extra cost, insert code **"-HH"** after **"I"** for 0.08% accuracy, **PX709-150GI-HH-**[\*\*]****

2.) To order with ½ NPT Conduit fitting for extra cost, specify Model **PX709C**, for additional cost **PX709CGW-010GI**

3.) To order with optional Lightning/Surge protection for extra cost, specify model **PX709LGW**, **PX709LGW-001GI**

4.) To order with optional Lightning/Surge protection and conduit fitting for extra cost, specify model **PX709CLGW**, **PX709CLGW-001GI**

**Ordering Examples:** **PX709GW-001GI**, 1 psi gage submersible transducer with 4 to 20 mA output, 3 m (10') of cable and standard 0.2% accuracy  
**PX709LGW-005AI-HH-25FT**, 5 psi absolute pressure, lightning protected submersible transducer with 4 to 20 mA output, 7.6 m (25') of cable and high 0.08% accuracy

**PX709CGW-010GI-25FT**, 0.5 psi gage submersible transducer with 4 to 20 mA output, ½ NPT conduit fitting with 3 m (10') of cable

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PRESSURE TRANSDUCERS **B**

### OPTIONS FOR SUBMERSIBLE TRANSDUCERS

<b>PX709-BOX1</b>	Terminal enclosure without surge protection - for use with all models
<b>PX709-BOX2</b>	Terminal enclosure with surge protection - for use with 4 to 20 mA without Shunt Cal (one surge protection module)
<b>PX709-BOX3</b>	Terminal enclosure with surge protection - for use with voltage output sensors and 4 to 20 mA with Shunt Cal option (two surge protection modules)
<b>A019385</b>	Replacement desiccant to keep moisture out of vent tube

# SIIRMEDCIRI E DDECCIDE TRANSMITTEDE

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## BUILD A TRANSDUCER TO YOUR SPECIFICATIONS

### Build a Transducer to your Specifications

1	2	3	4	5	6	7
SERIES	TYPE	RANGE CODE	PRESSURE TYPE	OUTPUT	ACCURACY	TOTAL CABLE LENGTH (FT)
PX709	GW	015	G	I	HH	50 FT
PX709 = Cable PX709C = Conduit	GW = Stainless Steel Wetted Parts LGW = Lightning Protected (amplified models only)	Range (psi) xxx	G = Gage A = Absolute SG = Sealed gage	V = mV/V 5V = 5 Vdc 10V = 10 Vdc I = 4 to 20 mA	Blank = Std. 0.2% Accuracy HH = High 0.08% Accuracy	Total Length in Feet if not 10'  Extra cost for additional length over 10'

Optional Higher Accuracy: Add suffix "-HH" after the "V" or "I" in the model number

Optional Conduit Fitting Cable Exit: Specify model **PX709CGW**

Optional Lightning Protection: Specify model **PX709LGW**

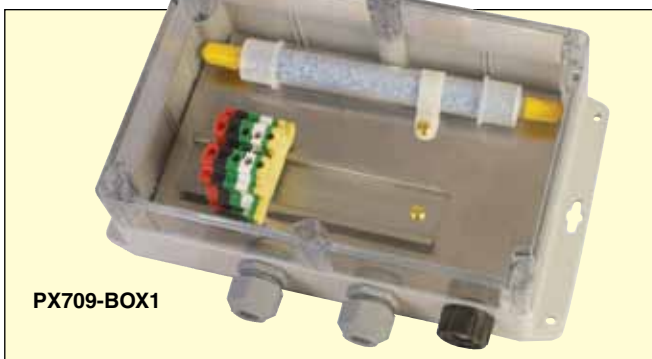
Optional Lightning Protection and Conduit fitting: Specify model **PX709CLGW**

### To select your submersible transducer all you have to do is

<b>SELECT:</b>	Accuracy
Range	Total Cable Length (see table of stocked lengths)
Pressure Type	
Output	

## STANDARD CABLE LENGTHS FOR FAST DELIVERY

OMEGA® has designed the PX709 Series to be highly modular so we can configure and ship most models in 1 week. We stock the modules and can quickly assemble and do precision calibrations for any of our several thousand possible combinations. The cable molded onto the transducer using a high pressure, temperature molding process to assure complete sealing. We stock a series of molded cable assemblies in standard lengths to suit most common applications which we can build onto your transducer and deliver in 1 week (see the list below). We also can provide custom lengths with slightly longer lead times to allow for the molding process.



PX709-BOX1

PX709-BOX1 Waterproof terminal box for PX709 provides a waterproof environment for electrical terminations and housing the desiccant. Also available with optional lightning protection



PX709C with 1/2 NPT conduit fitting.

PX709 with standard cable fitting.

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

STANDARD LENGTHS
3 m (10')
4.6 m (15')
6.1 m (20')
7.6 m (25')
9.1 m (30')
12.2 m (40')
15.2 m (50')
18.3 m (60')
19.8 m (65')
22.5 m (74')
30.5 m (100')
45.7 m (150')
91.4 m (300')



# 316 STAINLESS STEEL INDUSTRIAL PRESSURE TRANSMITTER

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## PX831 Series

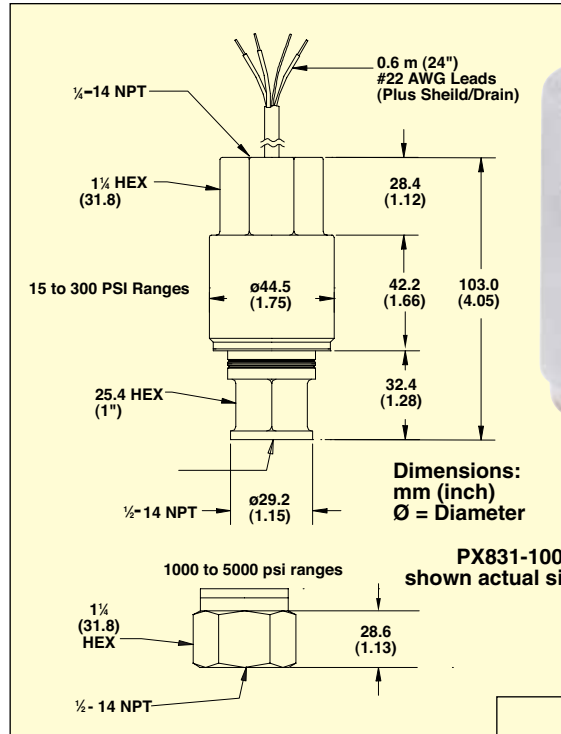


- ✓ 0.3% Full Scale Accuracy
- ✓ Compact Size
- ✓ 1/2 NPT Process Connection
- ✓ 3/4 NPT Conduit Connection with 0.6 m (24") Cable
- ✓ All Welded 316 Stainless Steel Construction
- ✓ FM Approved

The PX831 is a durable, accurate, fixed-range transmitter designed to give years of stable performance in even the toughest environmental and media conditions. Its small size and light weight eliminate the need for complicated mounting hardware and mechanical supports, thereby reducing installation time substantially. The in-line connection permits simple field wiring without additional hardware, contributing to the speed and ease of installation.

### SPECIFICATIONS

**Excitation:** 12 to 30 Vdc  
**Output:** 4 to 20 mA (2 wire)  
**Max Loop Resistance:** 900 Ω @ 30 Vdc  
**Accuracy:** ±0.3% of span @ 25°C (includes linearity, hysteresis and repeatability)  
**Zero Offset:** 4 mA ±2% of span  
**Span:** 16 mA ±1% of span  
**Storage/Process Temperatures:** -40 to 100°C (-40 to 212°F)  
**Ambient Temperature:** -40 to 60°C (-40 to 140°F)  
**Thermal Effects (Zero and Span Combined):** ±2% per 28°C (50°F) from -40 to 60°C (-40 to 140°F)  
**Proof Pressure:** 300% of rated pressure  
**Humidity Limits:** 0 to 100% RH  
**Vibration Effect:** ± 0.1% FS for 3 g to 200 Hz  
**Housing:** 316 stainless steel,



Metric thread adaptors available.

**Wetted Parts:** 316 L stainless steel  
**Fill Fluid:** DC 200 silicone  
**Weight:** 374 g (0.87 lb)  
**Factory Mutual:** Explosion-proof for Class I, Division I, Groups B, C and D; Class II Groups E, F and G; and Class III Hazardous Locations and Indoor and Outdoor NEMA 4 (IP65) Enclosure

**Canadian Standards Association:** Explosion-proof for Class I, Division I, Groups B, C and D; Class II Groups E, F and G; and Class III Hazardous Locations and meets CSA requirements for Enclosure 4

To Order		
RANGE	MODEL NO.	COMPATIBLE METERS*
0 to 15 psig	PX831-015GI	iSeries, DP41-E, DP25B-E, DP24-E
0 to 30 psig	PX831-030GI	iSeries, DP41-E, DP25B-E, DP24-E
0 to 100 psig	PX831-100GI	iSeries, DP41-E, DP25B-E, DP24-E
0 to 300 psig	PX831-300GI	iSeries, DP41-E, DP25B-E, DP24-E
0 to 1000 psig	PX831-1KGI	iSeries, DP41-E, DP25B-E, DP24-E
0 to 3000 psig	PX831-3KGI	iSeries, DP41-E, DP25B-E, DP24-E
0 to 5000 psig	PX831-5KGI	iSeries, DP41-E, DP25B-E, DP24-E
ABSOLUTE PRESSURE		
0 to 15 psia	PX831-015AI	iSeries, DP41-E, DP25B-E, DP24-E
0 to 30 psia	PX831-030AI	iSeries, DP41-E, DP25B-E, DP24-E
0 to 100 psia	PX831-100AI	iSeries, DP41-E, DP25B-E, DP24-E
VACUUM AND COMPOUND RANGES		
0 to 30 inHg vacuum	PX831-30VACI	iSeries, DP41-E, DP25B-E, DP24-E
30 inHg vac to 15 psig	PX831-30V15GI	iSeries, DP41-E, DP25B-E, DP24-E
30 inHg vac to 30 psig	PX831-30V30GI	iSeries, DP41-E, DP25B-E, DP24-E
30 inHg vac to 60 psig	PX831-30V60GI	iSeries, DP41-E, DP25B-E, DP24-E

Comes complete with operator's manual.

\* Visit us online for compatible meters.

**Ordering Example:** PX831-100GI, industrial pressure transmitter with 0 to 100 psig range and 4 to 20 mA output.



CURRENT OUTPUT  
PRESSURE TRANSDUCERS  
B

# PRESSURE TRANSMITTER FOR HAZARDOUS LOCATIONS EXPLOSION/FLAME PROOF AND IS RATED



**Compound Ranges: Vac to 100 psi (-1 to 7 bar)**

**Gage Ranges:**

**0 to 5 to 0 to 10,000 psi**

**(0 to 344 mbar to 0 to 690 bar)**

**4 to 20 mA Output**

## PX835 Series



**Designed to Meet the Stringent Requirements for use in Hazardous Industrial Locations Such as:**

- ✓ Oil Field Equipment
- ✓ Upstream Oil and Gas Production
- ✓ Natural Gas Compression and Transfer Control
- ✓ Alternative Energy Projects
- ✓ Fuel Cell Manufacturing

The PX835 explosion proof pressure transmitter is ideal for a broad spectrum of pressure sensing requirements, requiring approvals for explosion/flame proof. The PX835 is designed with an all welded stainless steel case and manufactured to provide the user with accurate, reliable, and stable output data. This is accomplished through the use of state of the art sensor technology combined with digital calibration to provide extremely linear and precise performance over the entire specified pressure and temperature range.

### SPECIFICATIONS

**Output:** 4 to 20 mA<sub>dc</sub> (2-wire)

**Supply Voltage:** 12 to 32 V<sub>dc</sub>  
V<sub>min</sub> = 12 V + (0.022A x loop res)

**Insulation Resistance (Circuit to Case):** 100M Ω @ 30 V<sub>dc</sub>

**Circuit Protection:** Reverse polarity and mis-wire protected



1/2 NPT male conduit fitting

1/4 NPT male

PX835 Series shown actual size.

PRESSURE TRANSMITTERS B

**Accuracy:** ±0.5% TP; ±0.40% BFSL includes non-linearity, hysteresis and non-repeatability, zero offset and span setting errors (add 0.05% for ranges above 5000 psi)

**Stability:** ≤±0.25% span/year @ ref conditions (21°C/70°F)

**Response Time:** 2 ms

**Storage/Process/Operating**

**Temperature:** -40 to 125°C (-40 to 257°F)

**Compensated Temperature:** -20 to 85°C (-4 to 185°F)

**Temperature Effects (Over Comp Range):** 2% span

**Humidity Effects:** No performance effects 0 to 95% RH, non-condensing

**Vibration:**

**Shock:** 100 g peak, 11 ms

**Random:** 10 g RMS, 20 to 2000 Hz

**Sweep:** 50 to 2000 Hz, 5 g peak

**Position Effect:** ±0.02% typical

OVERPRESSURE:	PROOF	BURST
0/Vac to 300 psi:	1.5 x FS	2 x FS min
500 to 10,000 psi:	1.2 x FS	1.5 x FS

**Electrical Termination:** 1/2 NPT male conduit fitting and 4.6 m (15') cable with flying lead termination

**Pressure Connection:** 1/4 NPT male

**Environmental Rating:** NEMA 7, 9 (IP65)

**Hazardous Area Certifications:**

**Explosion Proof - cUL (USA/CNL):**

Specify PX835; Class I, Div 1 & 2, Groups A, B, C, and D; Class II, Div 1 & 2, Groups E, F, and G

**Flame Proof - ATEX:** Specify PX835

CE Ex II 2 G; Ex d IIC T4

**Intrinsically Safe - FM/CSA:**

Class I, Div 1; Class I, Div 2, non-incendive

**CE Compliance:** EN 61326: 1997 + A1:1998 Annex A, A2/2001

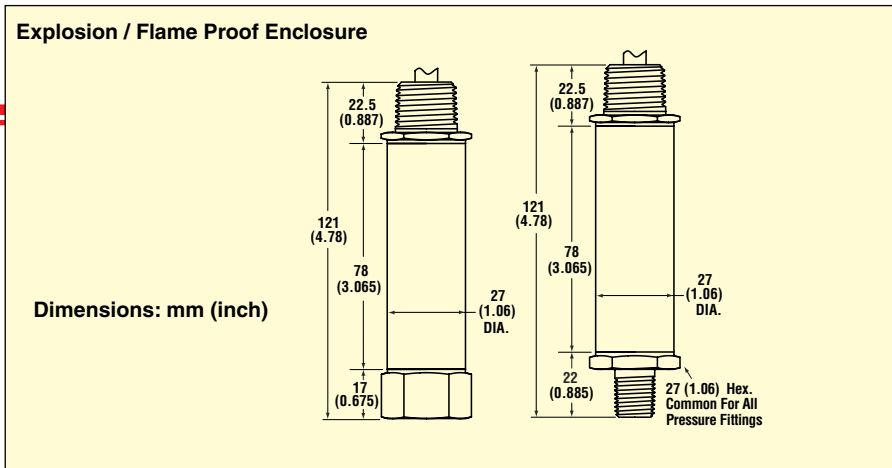
Heavy Industrial Immunity (Annex A table A.1); Light Industrial/Residential Emission (Table 4)

**Wetted Parts:** 316SS diaphragm and pressure port

**Case:** 304 SS

**Cable Gland:** Fits cable diameter 9 to 12 mm (0.35 to 0.47")

**Weight:** Approximately 254 g (8 oz)



- ✓ Explosion Proof
- ✓ Flame Proof
- ✓ Intrinsically Safe

**To Order Visit [omega.com/px835](http://omega.com/px835) for Pricing and Details**

RANGE		4 to 20 mA OUTPUT MODEL
psi	bar	
¼ NPT MALE CONDUIT FITTING		
<b>VACUUM and COMPOUND RANGES</b>		
0 to Vac	0 to -1	PX835-15NGI
Vac to 15	-1 to +1	PX835-015CGI
Vac to 30	-1 to +2	PX835-030CGI
Vac to 45	-1 to +3	PX835-045CGI
Vac to 60	-1 to +4	PX835-060CGI
Vac to 100	-1 to +7	PX835-100CGI
<b>GAGE PRESSURE RANGES</b>		
0 to 5	0 to 0.3	PX835-005GI
0 to 10	0 to 0.7	PX835-010GI
0 to 15	0 to 1	PX835-015GI
0 to 30	0 to 2	PX835-030GI
0 to 60	0 to 4	PX835-060GI
0 to 100	0 to 7	PX835-100GI
0 to 150	0 to 10	PX835-150GI
0 to 200	0 to 14	PX835-200GI
0 to 300	0 to 20	PX835-300GI
0 to 500	0 to 34	PX835-500GI
0 to 750	0 to 51	PX835-750GI
0 to 1000	0 to 69	PX835-1KGI
0 to 1500	0 to 103	PX835-1.5KGI
0 to 2000	0 to 138	PX835-2KGI
0 to 3000	0 to 207	PX835-3KGI
0 to 5000	0 to 345	PX835-5KGI
0 to 7500	0 to 517	PX835-7.5KGI
0 to 10,000	0 to 690	PX835-10KGI



PX835 Series shown actual size.

Comes complete with 9-point NIST traceable calibration and operating instructions.

For oxygen cleaning, add suffix "-X6B" to model number, for additional cost.

**Ordering Example:** PX835-030GI, 0 to 30 psi range pressure transmitter, 4 to 20 mA output, ¼ NPT male termination.



# **PRESSURE TRANSMITTER**

## **EXPLOSION PROOF/INTRINSICALLY SAFE**

### **PX880 Series**



- ✓ **Miniature Size**
- ✓ **±0.25% Accuracy**
- ✓ **All Welded 316 Stainless Steel Construction**
- ✓ **Zero and Span Adjustability**
- ✓ **Full 5:1 Range Turndown**
- ✓ **4 to 20 mA Output**
- ✓ **FM and CSA Ratings**

The PX880 Series comprises the most compact, durable, accurate, cost-effective, full-featured pressure transmitters available. The 4 to 20 mA output is standard, with a 12 to 48 Vdc power supply.

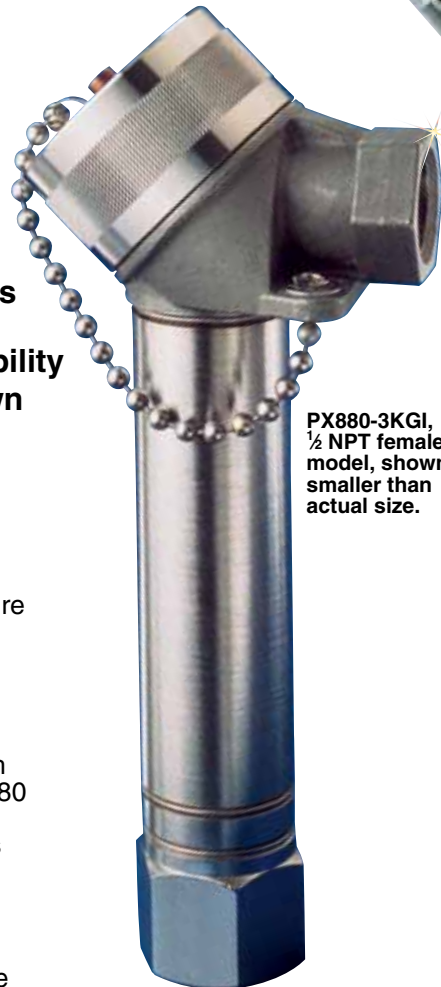
Designed for stable performance in the toughest environments, with 316 SS welded construction, PX880 transmitters are ideal for use with corrosive media and in hazardous environments.

Both models have FM and CSA approvals for intrinsic safety and meet NACE standards for offshore applications. With the cover retained by a stainless steel chain and no internal jumpers for span turndown, losses due to misplaced or dropped parts are eliminated.

The small size and light weight of both models eliminate any complicated mounting hardware or mechanical supports, which reduces installation time substantially. The integral junction box permits simple field wiring without the need for additional hardware, and adds to the speed and ease of installation.

#### **OPERATION**

The heart of the PX880 pressure transmitter is a silicon piezoresistive sensing chip. This miniature microetched semiconductor gives



PX880-3KGI, 1/2 NPT female model, shown smaller than actual size.



PX881-015GI, flush mount model, shown smaller than actual size.

PX881-CPL, 1 1/2 in pipe coupling, sold separately, see next page.



PX881-PLUG, see next page.

a voltage output proportional to the applied pressure. The chip is isolated from the process media by a stainless steel diaphragm. Silicone oil is used to transmit the process pressure to the sensor.

An amplifier PCB enclosed in a sealed chamber is used to convert the millivolt signal from the sensor to a calibrated 4 to 20 mA transmitter output. Feed-throughs for EMI and RF protection are used between the amplifier board and the terminal housing.

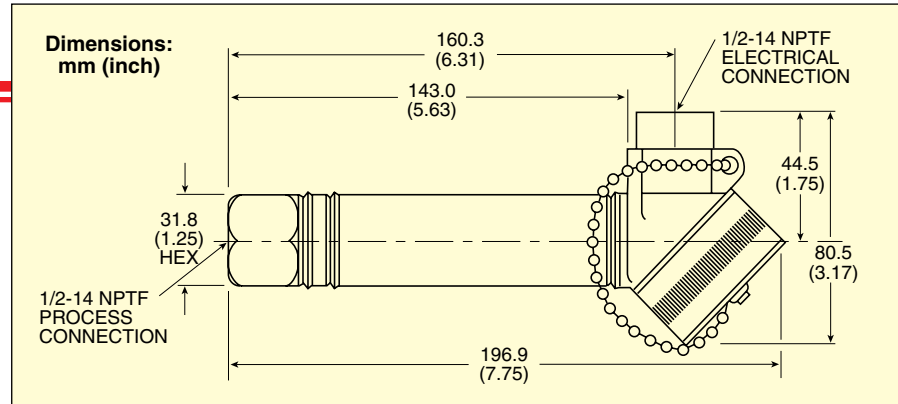
Each transmitter is tested over both pressure and temperature ranges. A compensator circuit is used to bring the output of the sensor into specification. After compensation,

every transmitter is tested a second time for pressure and temperature effects to ensure that it meets performance specifications. The transmitters are calibrated to the upper ranges listed in the order box, but end users can recalibrate them to different ranges. Recalibration is done via 3 screw potentiometers inside the transmitter's head. Recalibrating to any range between the 2 listed for a particular sensor can be accomplished with a known pressure source.

The PX881 is flush diaphragm pressure transmitter, designed to mount flush against process media and to prevent any media particles from collecting at the diaphragm.



**PX880 1/2 NPT Series**



**SPECIFICATIONS**

**Excitation:** 12 to 40 Vdc with reverse polarity protection

**Output:** 4 to 20 mA (2 wire)

**Accuracy:** ±0.2% of calibrated span including linearity, hysteresis and repeatability

**Max Loop Resistance:** 600 Ω @ 24 Vdc  
max Ω = (supply voltage – 12) x 50

**Storage Temperature:**  
-40 to 100°C (-40 to 212°F)

**Operating Temperature:**  
-40 to 100°C (-40 to 212°F)

**Compensated Temperature:**  
-29 to 82°C (-20 to 180°F)

**Thermal Effects:** Zero and span combined ±0.02% upper range/°F (30 to 130°F) ±0.032% upper range/°F (-20 to 180°F)

**Proof Pressure:** 200% upper range

**Stability:** ±0.5% of upper range for 6 months

**Vibration:** 0.1% upper limit for 3 g @ 200 Hz

**Approvals:** FM (Intrinsically Safe for Class 1, 2, 3 Div 1 Groups A, B, C, D, E, G; Explosion proof for Class 1, 2, 3 Div 1, Groups B, C, D, E, G NEMA 4 enclosure)

CSA (Intrinsic Safety for Class 1, 2, 3, Div 1 Groups A, B, C, D, E, F, G; Explosion proof for Class 1, 2, 3 Div 1, Groups B, C, D, E, F, G Enclosure 4)

**Wetted Parts:**

**PX880:** 316 SS

**PX881:** 316 SS, PTFE gasket and Hastelloy diaphragm

**Pressure Port:**

**PX880:** 1/2 NPTF

**PX881:** Weldolet pipe coupling

**Electrical Connection:** 1/2 NPTF

**Body Material:** 316 SS

**Cast Head:** CF-8M (316 cast SS) with Buna-N O-ring

**Fluid Fill:** DC 200 silicone oil

**Response Time:** 20 ms

**Weight:** 725 g (1.6 lb)

**ACCESSORIES**

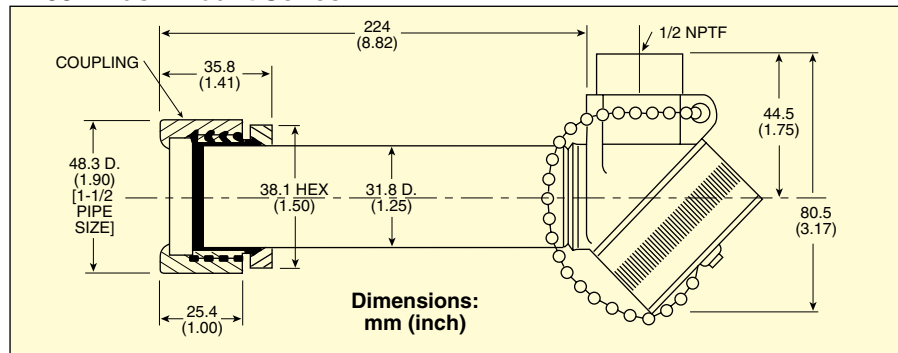
MODEL NO.	DESCRIPTION
PX881-CPL	38.1 mm (1.5") pipe coupling
PX881-PLUG	Plug

**PX880 Series 1/2 NPT Female Connection Transmitter**

**To Order**

5:1 Turndown		PX880 1/2 NPT Female Connection	
RANGE psig	RANGE bar	MODEL NO.	COMPATIBLE METERS
0-30 to 0-150 inH <sub>2</sub> O	0-75 to 0-373 mbar	PX880-150WCGI	DP41-E, DP25B-E, DP24-E
0-6 to 0-15	0-0.4 to 0-1	PX880-015GI	DP41-E, DP25B-E, DP24-E
0-15 to 0-30	0-1 to 0-2	PX880-030GI	DP41-E, DP25B-E, DP24-E
0-20 to 0-100	0-1.4 to 0-6.9	PX880-100GI	DP41-E, DP25B-E, DP24-E
0-60 to 0-300	0-4.1 to 0-20.7	PX880-300GI	DP41-E, DP25B-E, DP24-E
0-200 to 0-1000	0-13.8 to 0-68.9	PX880-1KGI	DP41-E, DP25B-E, DP24-E
0-600 to 0-3000	0-41.4 to 0-207	PX880-3KGI	DP41-E, DP25B-E, DP24-E
0-1000 to 0-5000	0-68.9 to 0-345	PX880-5KGI	DP41-E, DP25B-E, DP24-E
3 to 15	0.2 to 1.0	PX880-X15GI	DP41-E, DP25B-E, DP24-E

**PX881 Flush Mount Series**



**PX881 Series Flush Mount Transmitter**

5:1 Turndown		PX881 FLUSH MOUNT*	
RANGE psig	RANGE bar	MODEL NO.	COMPATIBLE METERS
0-3 to 0-15	0-0.2 to 0-1.0	PX881-015GI	DP41-E, DP25B-E, DP24-E
0-6 to 0-30	0-0.41 to 0-2.1	PX881-030GI	DP41-E, DP25B-E, DP24-E
0-20 to 0-100	0-1.4 to 0-6.9	PX881-100GI	DP41-E, DP25B-E, DP24-E
0-60 to 0-300	0-4.1 to 20.7	PX881-300GI	DP41-E, DP25B-E, DP24-E

*Comes complete with operator's manual.*

**Note:** Units are shipped calibrated to highest range.

A pressure snubber should be used with all PX880 Series transmitters to suppress destructive waterhammer shock waves. Snubbers are determined by the pressure media. **PS-2G** for gaseous media, air, steam, etc. **PS-2E** for water and light oils, **PS-2D** for dense liquid, motor oil.

\* Requires **PX881-CPL** 38.1 mm (1 1/2") coupling.

**Ordering Example:** **PX881-030GI**, flush mount transmitter with a 0-6 to 0-30 psig range, and **PX881-CPL**, coupling.



CURRENT OUTPUT PRESSURE TRANSDUCERS

**B**

# III TDA UICU DDECCIDE TDANCRIPED

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## WITH HIGH OPERATING TEMPERATURE RANGE

### mV/V Output

0-5000 to 0-200,000 psi

0-350 to 0-14,000 bar

1 bar = 14.5 psi

1 kg/cm<sup>2</sup> = 14.22 psi

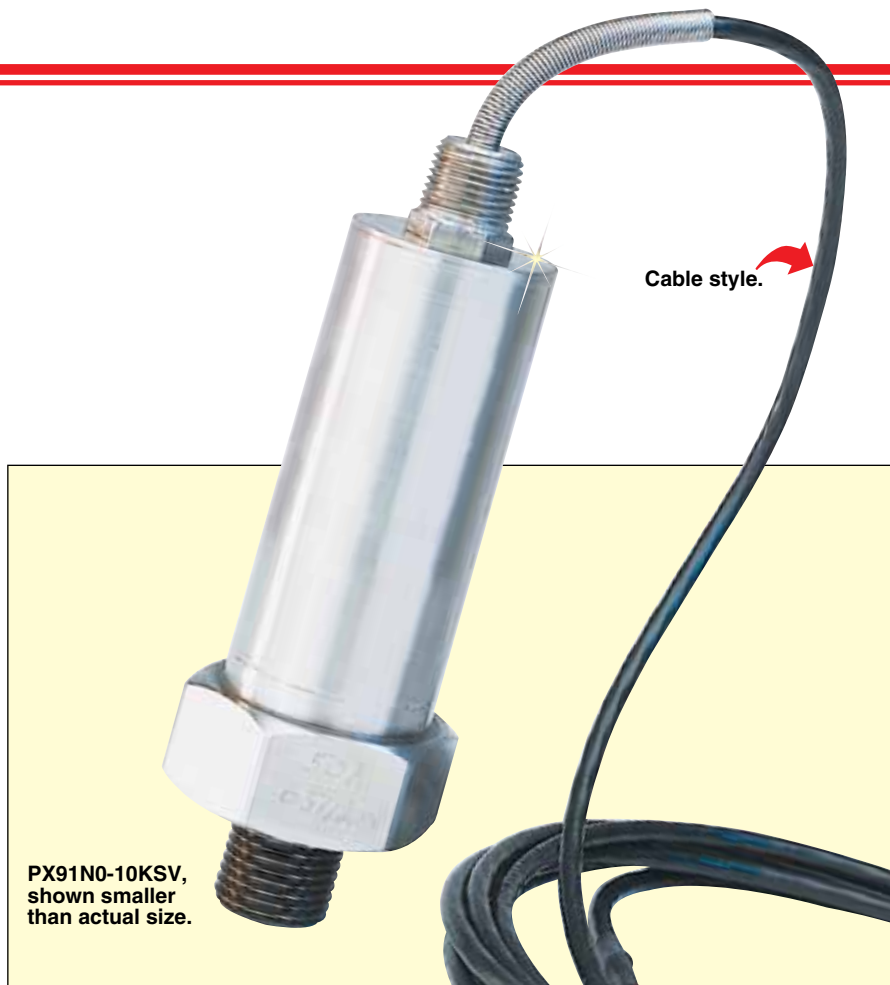
1 atmosphere = 14.7 psi = 29.93

inHg = 760.2 mmHg = 1.014 bar

## PX91 Series



Standard



PX91N0-10KSV, shown smaller than actual size.

- ✓ All Stainless Steel Construction
- ✓ High Operating Temperature, up to 204°C (400°F)
- ✓ Hermetically Sealed for Harsh Environments

OMEGA's PX91 is a rugged, ultra-high pressure transducer series. Hermetically sealed, with all stainless steel construction, it is designed for use in test chambers. The PX91 is available in sealed gage pressures up to 200,000 psi. It has a high operating temperature up to 204°C (400°F). The pressure connection is via a high-pressure ferrule connection.

To Order			
RANGE		MODEL NO.	COMPATIBLE METERS**
CABLE STYLE, SEALED GAGE PRESSURE			
0 to 5000 psi	0 to 345 bar	PX91N0-5KSV	DP41-S, DP25B-S
0 to 10,000 psi	0 to 689 bar	PX91N0-10KSV	DP41-S, DP25B-S
0 to 15,000 psi	0 to 1034 bar	PX91N0-15KSV	DP41-S, DP25B-S*
0 to 20,000 psi	0 to 1379 bar	PX91N0-20KSV	DP41-S, DP25B-S*
0 to 30,000 psi	0 to 2068 bar	PX91N0-30KSV	DP41-S, DP25B-S*
0 to 35,000 psi	0 to 2413 bar	PX91N0-35KSV	DP41-S, DP25B-S*
0 to 50,000 psi	0 to 3447 bar	PX91N0-50KSV	DP41-S, DP25B-S*
0 to 60,000 psi	0 to 4137 bar	PX91N0-60KSV	DP41-S, DP25B-S*
0 to 80,000 psi	0 to 5516 bar	PX91P0-80KSV	DP41-S, DP25B-S*
0 to 100,000 psi	0 to 6895 bar	PX91P0-100KSV	DP41-S, DP25B-S*
0 to 120,000 psi	0 to 8274 bar	PX91P0-120KSV	DP41-S, DP25B-S*
0 to 150,000 psi	0 to 10,342 bar	PX91P0-150KSV	DP41-S, DP25B-S*
0 to 200,000 psi	0 to 13,790 bar	PX91P0-200KSV	DP41-S, DP25B-S*

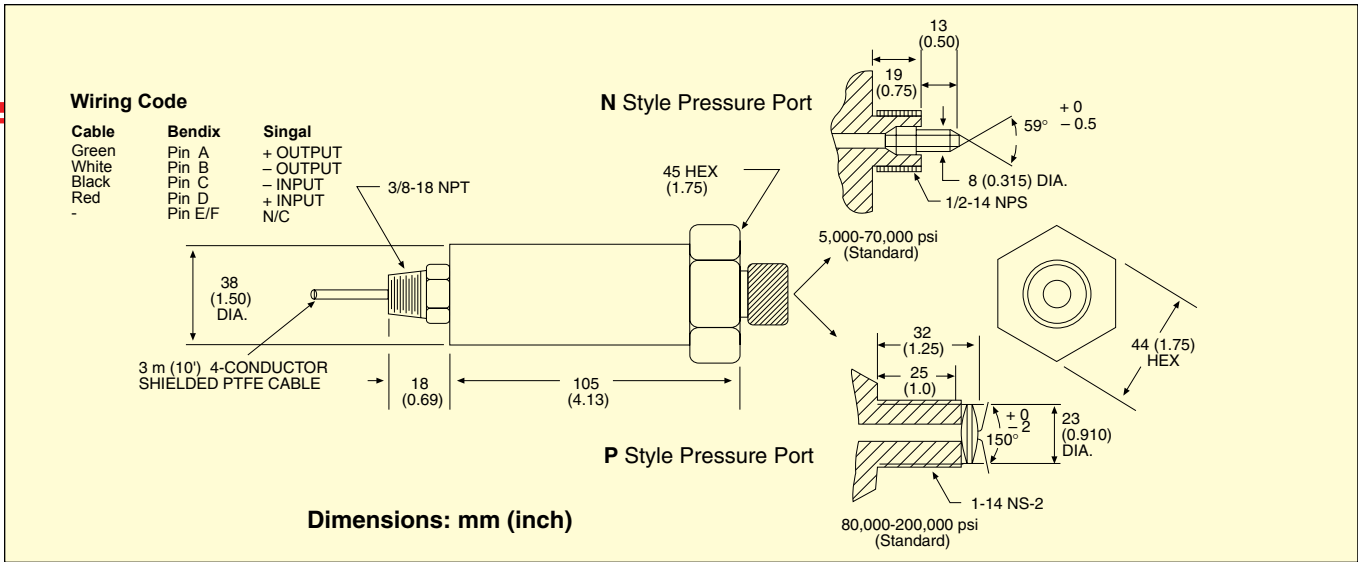
Comes complete with 5-point NIST traceable calibration.

Metric ranges available – consult Engineering.

\* 4-digit meter. \*\* Visit us online for compatible meters.

Ordering Examples: PX91P0-100KSV, 100,000 psi sealed gage model with 1-14 NS fitting and 3 m (10') cable.

PX91N0-15KSV, 15,000 psi sealed gage model with 1/2-14 NPSM fitting and 3 m (10') cable.

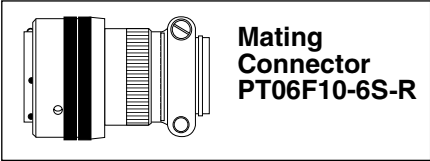


**SPECIFICATIONS**

**mV/V Output**  
**Excitation:** 10 Vac/Vdc (15V max)  
**Output:** 1 mV/V ±0.5%  
**Bridge Resistance:** 350 Ω nominal  
**Zero Balance:** ±2.5%  
**Linearity:**  
 ≤70K psi: ±0.35% FSO  
 >70K psi: ±0.50% FSO  
**Hysteresis:** ±0.10% FSO  
**Repeatability:** ±0.10% FSO  
**Operating Temp Range:**  
 -56 to 204°C (-70 to 400°F)  
**Electrical Connection:** 3 m (10')  
 4-conductor shielded cable

**Compensated Temp Range:**  
 21 to 218°C (70 to 425°F)  
**Thermal Effects:**  
**Span:** 0.01% rdg/°F  
**Zero:** 0.01% FSO/°F  
**Proof Pressure:**  
 ≤70K psi: 120% of rated pressure  
 >70K psi: 110% of rated pressure  
**Burst Pressure:**  
 ≤70K psi: 150% of rated pressure  
 >70K psi: 120% of rated pressure

**Wetted Parts:**  
 ≤70K psi: 17-4 PH stainless steel  
 >70K psi: 455 stainless steel  
**Pressure Port:**  
 ≤70K psi: ½-14 NPSM  
 (use with 0.315" dia. 59° ferrule)  
 >70K psi: 1-14 NS-2  
 (use with 0.910" dia 150° ferrule)  
**Calibration:**  
 ≤30k psi: Full scale calibration  
 >30k psi: Calibration up to 30k psi.  
 Consult Sales for full scale price.



**CUSTOM CONFIGURATIONS**

PX91 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
	N = ½-14 NPSM (use with 0.315" dia. 59° ferrule)		5K 10K 15K 20K 30K 35K 50K 60K 80K 100K 120K 150K 200K	S = Sealed gage	V = mV/V	Visit us online for additional options.
	P = 1-14 NS-2 (use with 0.910" dia. 150° ferrule)					
	0 = 3 m (10') PTFE cable					
	1 = PTIH-10-6P Connector					

*Metric ranges available – consult Engineering.*

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units
5. Select output

To order extra cable on cable style models, add suffix “-(length in feet) FT” for additional cost per foot beyond the standard 3 m (10') length.  
**Ordering Examples:** PX91N0-50KSV-25FT, 50,000 psi sealed gage pressure range model with mV/V output, ½-14 NPSM fitting and 7.6 m (25') cable.  
 PX91P0-100KSV, 100,000 psi sealed gage pressure range model with mV output, 1-14 NS-2 fitting and 3 m (10') cable.

## TRANSDUCERS CABLE OR CONNECTOR STYLE

**0-5 Vdc Output**

**0-5000 to 0-200,000 psi**

**0-350 to 0-14,000 bar**

1 bar = 14.5 psi

1 kg/cm<sup>2</sup> = 14.22 psi

1 atmosphere = 14.7 psi = 29.93

inHg = 760.2 mmHg = 1.014 bar

### PX91 Series



PX91N1-30KS5T



Twist-lock style.

Cable style.

Both models shown smaller than actual size.

PX91N0-30KS5T



- ✓ Ranges Up to 200,000 psi
- ✓ High Operating Temperature, Up to 121°C (250°F)
- ✓ Hermetically Sealed for Harsh Environments
- ✓ Internal Shunt Resistor

OMEGA's PX91 amplified output series comprises rugged, high-temperature/ultra-high-pressure transducers. They are hermetically sealed, with all stainless steel construction, and are designed for the harshest test chamber environments. The PX91 is available in sealed gage pressures from 5000 psi to 200,000 psi. The electrical connection is either a sealed connector or a lightning-protected, amplifier housing. The pressure connection is via a high-pressure ferrule.

### To Order

RANGE	MODEL NO.	COMPATIBLE METERS**
<b>SEALED GAGE PRESSURE – [*] INSERT "0" FOR CABLE OR "1" FOR CONNECTOR</b>		
0 to 5000 psi	0 to 345 bar	<b>PX91N[*]-5KS5T</b> DP41-E, DP25B-E, DP24-E
0 to 10,000 psi	0 to 689 bar	<b>PX91N[*]-10KS5T</b> DP41-E, DP25B-E, DP24-E
0 to 15,000 psi	0 to 1034 bar	<b>PX91N[*]-15KS5T</b> DP41-E, DP25B-E*, DP24-E*
0 to 20,000 psi	0 to 1379 bar	<b>PX91N[*]-20KS5T</b> DP41-E, DP25B-E*, DP24-E*
0 to 30,000 psi	0 to 2068 bar	<b>PX91N[*]-30KS5T</b> DP41-E, DP25B-E*, DP24-E*
0 to 35,000 psi	0 to 2413 bar	<b>PX91N[*]-35KS5T</b> DP41-E, DP25B-E*, DP24-E*
0 to 50,000 psi	0 to 3447 bar	<b>PX91N[*]-50KS5T</b> DP41-E, DP25B-E*, DP24-E*
0 to 60,000 psi	0 to 4137 bar	<b>PX91N[*]-60KS5T</b> DP41-E, DP25B-E*, DP24-E*
0 to 80,000 psi	0 to 5516 bar	<b>PX91P[*]-80KS5T</b> DP41-E, DP25B-E*, DP24-E*
0 to 100,000 psi	0 to 6895 bar	<b>PX91P[*]-100KS5T</b> DP41-E, DP25B-E*, DP24-E*
0 to 120,000 psi	0 to 8274 bar	<b>PX91P[*]-120KS5T</b> DP41-E, DP25B-E*, DP24-E*
0 to 150,000 psi	0 to 10,342 bar	<b>PX91P[*]-150KS5T</b> DP41-E, DP25B-E*, DP24-E*
0 to 200,000 psi	0 to 13,790 bar	<b>PX91P[*]-200KS5T</b> DP41-E, DP25B-E*, DP24-E*

Comes complete with 5-point NIST traceable calibration.

Metric ranges available – consult Engineering.

\* 4-digit meter.

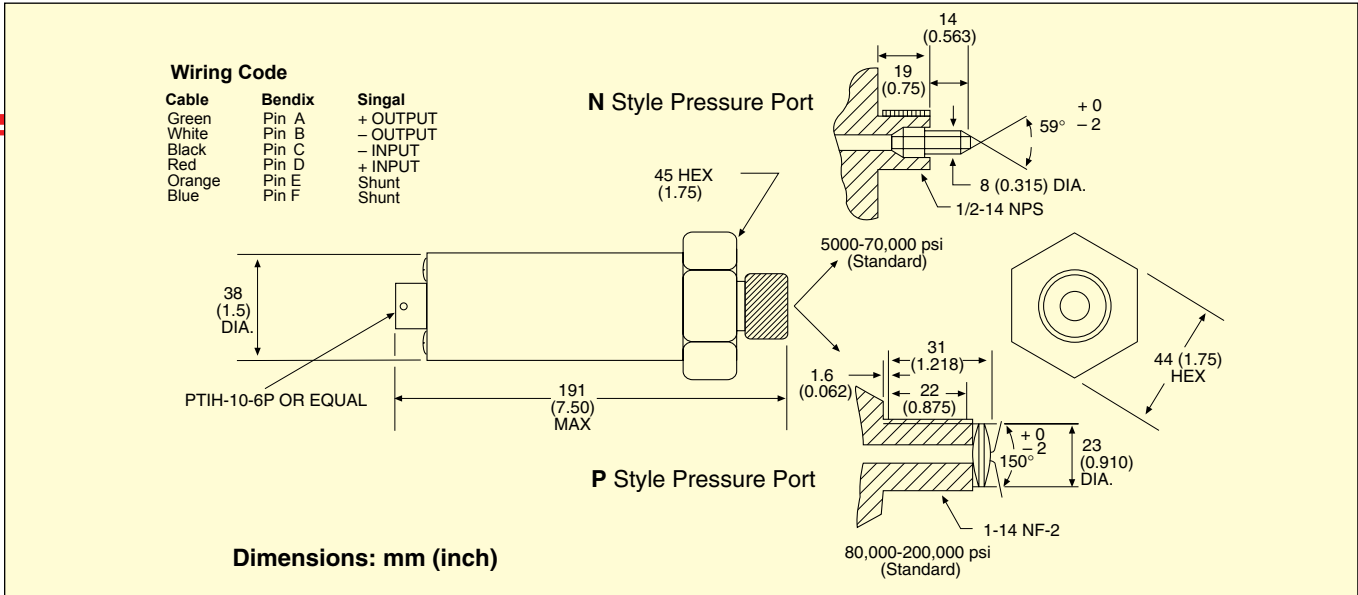
\*\* Visit us online for compatible meters.

[\*] Insert "0" for 3 m (10') cable, "1" for connector style or "5" for amplifier housing.

Ordering Examples: **PX91N1-60KS5T**, 60,000 psi sealed gage model with 0 to 5 Vdc output, 1/2 -14 NPSM fitting, connector style. **PT06F10-6S-R**, mating connector (sold separately).

**PX91P0-80KS5T**, 80,000 psi sealed gage model with 0 to 5 Vdc output, 1-14 NS fitting and 3 m (10') PTFE cable.



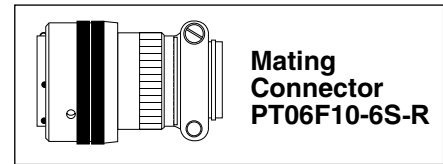


**SPECIFICATIONS**

**Excitation:** 28 Vdc ±4 V  
**Output:** 0 to 5 Vdc ±10% adj  
**Zero Balance:** 0 V ±10% FSO adj  
**Non-Linearity:**  
 ≤70K psi: 0.35% FS  
 >70K psi: 0.5% FS  
**Hysteresis:** 0.10% FS  
**Repeatability:** 0.10% FS  
**Operating Temp Range:**  
 -46 to 121°C (-50 to 250°F)  
**Shunt:** 80% FSO  
**Compensated Temp Range:**  
 17 to 71°C (60 to 160°F)

**Thermal Effects:**  
**Span:** 0.005% rdg/°F  
**Zero:** 0.005% FSO/°F  
**Proof Pressure:**  
 ≤50k PSI: 120% of rated pressure  
 >50k PSI: 110% of rated pressure  
**Burst Pressure:**  
 ≤50k PSI: 150% of rated pressure  
 >50k PSI: 120% of rated pressure  
**Wetted Parts:**  
 ≤70K: 17-4 PH SS  
 >70K: 455 SS

**Pressure Port:**  
 ≤70K psi: ½-14 NPSM (fits 0.315" dia. 59° ferrule)  
 >70K psi: 1-14 NS-2 (use 0.910" dia. 150° ferrule)  
**Electrical Connection:**  
 PTIH-10-6P or 10' cable  
**Optional:** Lightning-protected amplifier housing  
**Mating Connector:** For connector style, PT06F10-6S-R (sold separately)



**CUSTOM CONFIGURATIONS**

PX91 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>Ranges ≤70,000 psi</b> N = ½-14 NPSM (use with 0.315" dia. 59° ferrule) <b>Ranges &gt;70,000 psi</b> P = 1-14 NS-2 (use with 0.910" dia. 150° ferrule)			5K 10K 15K 20K 30K 35K 50K 60K 80K 100K 120K 150K 200K	S = Sealed gage	5T = 0 to 5 Vdc	Visit us online for additional options, including extended compensated temperatures.
0 = 3 m (10') cable + add cost/ft over 3 m (10') 1 = PTIH-10-6P connector (or equal, no charge) Mating connector (sold separately), order <b>PT06F10-6S-R</b> Amplified Models Only { 5 = Lightning-protected amplifier housing (no charge)						

*Metric ranges available – consult Engineering.*

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units
5. Select output

To order extra cable on cable style models, add suffix “-(length in feet) FT” for additional cost per foot beyond the standard 3 m (10') length.  
**Ordering Examples:** PX91P5-100KS5T, 100,000 psi sealed gage pressure range model with 0 to 5 Vdc output, 1-14 NS-2 fitting and lightning-protected amplifier housing. PX91P1-80KS5T, 80,000 psi sealed gage pressure range model with 0 to 5 Vdc output, 1-14 NS-2 fitting and integral connector. PT06F10-6S-R, mating connector (sold separately). PX91N0-50K5T-25FT, 50,000 psi sealed gage pressure range model with 0 to 5 Vdc output, NPSM fitting and 7.6 m (25') cable. PX91P0-100KS5T, 100,000 psi sealed gage pressure range model with 0 to 5 Vdc output, 1-14 NS fitting and twist-lock 6 pin connector. PT06F10-6S-R, mating connector (sold separately).

## TRANSMITTER LIGHTNING-PROTECTED HEAD STYLE

**4 to 20 mA Output**  
**0-5000 to 0-200,000 psi**  
**0-350 to 0-14,000 bar**

1 bar = 14.5 psi  
1 kg/cm<sup>2</sup> = 14.22 psi  
1 atmosphere = 14.7 psi = 29.93 inHg = 760.2 mmHg = 1.014 bar

### PX91 Series



- ✓ Ranges Up to 200,000 psi
- ✓ All Stainless Steel Case
- ✓ High Operating Temperature, Up to 121°C (250°F)
- ✓ Lightning-Protected Amplifier Housing

OMEGA's PX91 amplified output series comprises rugged, high-temperature/ultra high-pressure transducers. They are hermetically sealed, with all stainless steel construction, and are designed for the harshest test chamber environments. The PX91 is available in sealed gage pressures from 5000 psi to 200,000 psi. The electrical connection is a lightning-protected amplifier housing. The pressure connection is via a high-pressure ferrule.



PX91N5-50KSI shown much smaller than actual size.

**To Order Visit [omega.com/px91-ic](http://omega.com/px91-ic) for Pricing and Details**

RANGE		MODEL NO.	COMPATIBLE METERS**
<b>PROTECTED HEAD STYLE, SEALED GAGE PRESSURE, 4 to 20 mA OUTPUT</b>			
0 to 5000 psi	0 to 345 bar	<b>PX91N5-5KSI</b>	DP41-E, DP25B-E, DP24-E
0 to 10,000 psi	0 to 689 bar	<b>PX91N5-10KSI</b>	DP41-E, DP25B-E, DP24-E
0 to 15,000 psi	0 to 1034 bar	<b>PX91N5-15KSI</b>	DP41-E, DP25B-E*, DP24-E*
0 to 20,000 psi	0 to 1379 bar	<b>PX91N5-20KSI</b>	DP41-E, DP25B-E*, DP24-E*
0 to 30,000 psi	0 to 2068 bar	<b>PX91N5-30KSI</b>	DP41-E, DP25B-E*, DP24-E*
0 to 35,000 psi	0 to 2413 bar	<b>PX91N5-35KSI</b>	DP41-E, DP25B-E*, DP24-E*
0 to 50,000 psi	0 to 3447 bar	<b>PX91N5-50KSI</b>	DP41-E, DP25B-E*, DP24-E*
0 to 60,000 psi	0 to 4137 bar	<b>PX91N5-60KSI</b>	DP41-E, DP25B-E*, DP24-E*
0 to 80,000 psi	0 to 5516 bar	<b>PX91P5-80KSI</b>	DP41-E, DP25B-E*, DP24-E*
0 to 100,000 psi	0 to 6895 bar	<b>PX91P5-100KSI</b>	DP41-E, DP25B-E*, DP24-E*
0 to 120,000 psi	0 to 8274 bar	<b>PX91P5-120KSI</b>	DP41-E, DP25B-E*, DP24-E*
0 to 150,000 psi	0 to 10,342 bar	<b>PX91P5-150KSI</b>	DP41-E, DP25B-E*, DP24-E*
0 to 200,000 psi	0 to 13,790 bar	<b>PX91P5-200KSI</b>	DP41-E, DP25B-E*, DP24-E*

Comes complete with 5-point NIST traceable calibration and operator's manual. Metric ranges available – consult Engineering.

\* 4-digit meter.

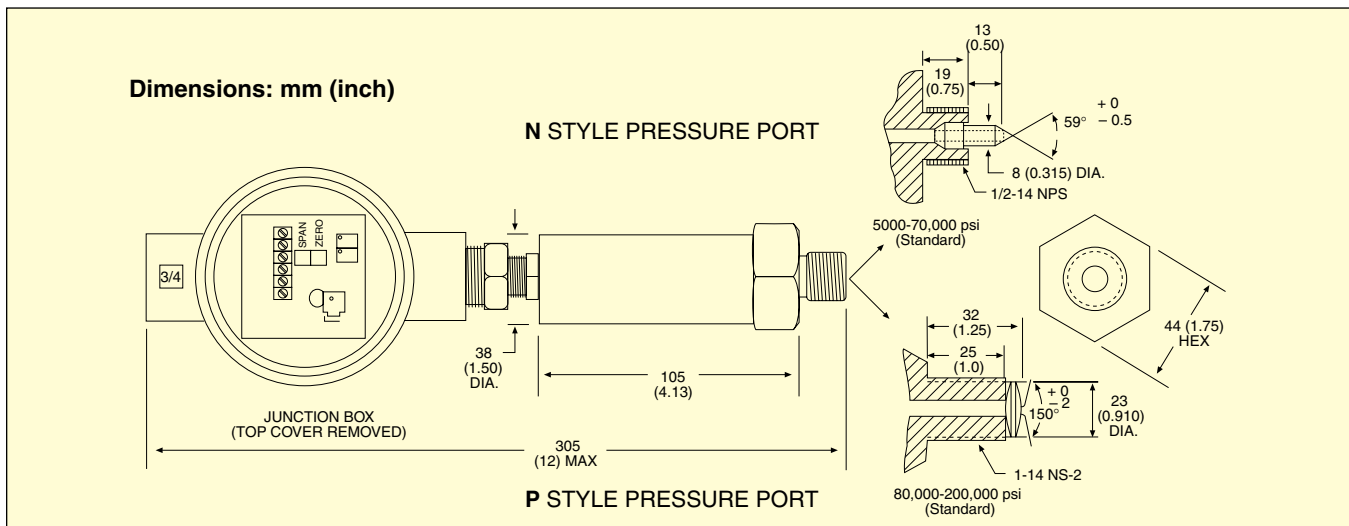
\*\* See [omega.com](http://omega.com) for compatible meters.

**Ordering Examples:** **PX91N5-60KSI**, 60,000 psi sealed gage model with 4 to 20 mA output, 1/2-14 NPSM fitting and lightning-protected amplifier housing.

**PX91P5-80KSI**, 80,000 psi sealed gage model with 4 to 20 mA output, 1-14 NS fitting and lightning-protected amplifier housing.

# ULTRA-HIGH-PRESSURE TRANSMITTER

SPECIALTY  
PRESSURE TRANSDUCERS  
**B**



## SPECIFICATIONS

**4 to 20 mA Output**

### ELECTRICAL

**Excitation:** 12 to 40 Vdc

**Output:** 4 to 20 mA ±10% adj

**Zero Balance:** 4 mA +10% -2% adj

### Linearity:

≤70K psi: ±0.35% FSO

>70K psi: ±0.50% FSO

**Hysteresis:** ±0.10% FSO

**Repeatability:** ±0.10% FSO

**Operating Temp Range:**

-46 to 121°C (-50 to 250°F)

### Compensated Temp Range:

17 to 71°C (60 to 160°F)

### Thermal Effects:

**Span:** 0.005% rdg/°F

**Zero:** 0.005% FSO/°F

### Proof Pressure:

≤50k PSI: 120% of rated pressure

>50k PSI: 110% of rated pressure

### Burst Pressure:

≤50k PSI: 150% of rated pressure

>50k PSI: 120% of rated pressure

### Wetted Parts:

≤70K psi: 17-4 PH stainless steel

>70K psi: 455 stainless steel

### Pressure Port:

≤70K psi: ½-14 NPSM  
(use 0.315" dia. 59° ferrule)

>70K psi: 1-14 NS-2  
(use 0.910" dia. 150° ferrule)

**Electrical Connection:** Terminal strip inside lightning-protected amplifier housing

**Optional:** PTIH-10-6P or equal

**Mating Connector:** PT06F10-6S-R (sold separately)

## CUSTOM CONFIGURATIONS

PX91 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>Ranges ≤70,000 psi</b> N = ½-14 NPSM (use with 0.315" dia 59° ferrule)			5K 10K 15K 20K 30K 35K 50K 60K 80K 100K 120K 150K 200K	S = Sealed gage	I = 4 to 20 mA	See omega.com for additional options.
<b>Ranges &gt;70,000 psi</b> P = 1-14 NS-2 (use with 0.910" dia. 150° ferrule)						
0 = 3 m (10') PTFE cable + add cost/ft over 3 m (10')						
1 = PTIH-10-6P connector (or equal, no charge) Mating connector (sold separately), order <b>PT06F10-6S-R</b>						
Amplified Models Only { 5 = Lightning-protected amplifier housing (no charge)						

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units
5. Select output

Metric ranges available – consult Engineering.

To order extra cable on cable style models, add suffix “-(length in feet) FT” for additional cost per foot beyond the standard 3 m (10') length.

**Ordering Examples:** PX91P5-100KSI, 100,000 psi sealed gage pressure range model with 4 to 20 mA output, 1-14 NS-2 fitting and lightning-protected amplifier housing.

PX91P1-100KSI, 100,000 psi sealed gage pressure range model with 4 to 20 mA output, 1-14 NS fitting and integral twist-lock connector.

PT06F10-6S-R, mating connector (sold separately).

**4 to 20 mA Output**  
**0-5 to 0-15,000 psi**  
**0-0.4 to 0-1000 bar**

## PX920 Series



- ✓ Silicon-on-Sapphire Sensor Assures High Stability and Repeatability
- ✓ High Accuracy 0.2%
- ✓ NEMA 4 (IP65) Stainless Steel Body
- ✓ Solid State Reliability
- ✓ High Shock and Vibration
- ✓ Low Drift

### Typical Applications

- ✓ Mechanical and Civil Engineering Projects
- ✓ Process Plants
- ✓ Production Test Facilities
- ✓ Water Resource Management
- ✓ Power Generation

OMEGA's PX920 series are extremely tough process transmitters suitable for use in demanding process and industrial applications. Rugged stainless steel construction and featuring S.O.S. technology with a custom IC amplifier give the PX920 series high stability, low drift and long life.

Important features of this transmitter include easily accessible zero and span adjustment for simplified set-up and recalibration.



PX920-100GI, shown smaller than actual size.

SOS construction uses very stable solid state silicon strain gages on a Sapphire carrier which is glass bonded to a titanium diaphragm. This combination provides a very durable transducer which has excellent stability over a wide temperature range. Additionally, the all titanium diaphragm and Stainless Steel wetted parts provide maximum durability and corrosion resistance to harsh industrial chemicals.

To Order		
MODEL NO.	RANGE (psig)	COMPATIBLE METERS
PX920-30VACI	30 inHg to 0	DP41-E, DP25-E, DP24-E
PX920-005GI	0 to 5	DP41-E, DP25-E, DP24-E
PX920-010GI	0 to 10	DP41-E, DP25-E, DP24-E
PX920-015GI	0 to 15	DP41-E, DP25-E, DP24-E
PX920-030GI	0 to 30	DP41-E, DP25-E, DP24-E
PX920-060GI	0 to 60	DP41-E, DP25-E, DP24-E
PX920-100GI	0 to 100	DP41-E, DP25-E, DP24-E
PX920-150GI	0 to 150	DP41-E, DP25-E, DP24-E
PX920-200GI	0 to 200	DP41-E, DP25-E, DP24-E
PX920-300GI	0 to 300	DP41-E, DP25-E, DP24-E
PX920-600GI	0 to 600	DP41-E, DP25-E, DP24-E
PX920-1KGI	0 to 1K	DP41-E, DP25-E, DP24-E
PX920-1.5KGI	0 to 1.5K	DP41-E, DP25-E, DP24-E
PX920-3KGI	0 to 3K	DP41-E, DP25-E, DP24-E
PX920-6KGI	0 to 6K	DP41-E, DP25-E, DP24-E
PX920-10KGI	0 to 10K	DP41-E, DP25-E, DP24-E
PX920-15KGI	0 to 15K	DP41-E, DP25-E*, DP24-E*

\* 4-digit meters

Metric ranges available—consult engineering

Ordering Example: PX920-1KGI, 1000 psi transducer with 4 to 20 mA output, PG9 cable gland and internal terminal block electrical connection with 1/2 male NPT pressure port.



# PRESSURE TRANSDUCER

**0-10 to 0-7500 psi**  
**0-0.70 to 0-517 bar**

## PX931 Series

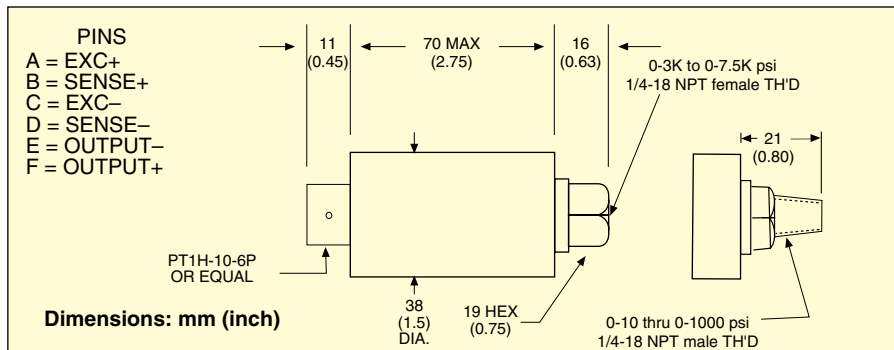


PX931-3KSV,  
shown smaller  
than actual size.

- ✓ Rugged Stainless Steel Case Protects Components in Industrial Environments
- ✓ Connects to a PT06F10-6S-R Connector for Easy Field Connections
- ✓ Stainless Steel Diaphragm Welded for Compatibility with Most Media
- ✓ Uses a Standard 10 Vdc Regulated Power Supply for Maximum Versatility
- ✓ 1/4 NPT Process Fitting for Fast, Easy, and Secure Installation
- ✓ Excellent Temperature Stability
- ✓ Units 100 psi and Below are Vented Gage for High Precision

**Thermal Zero Effect:**  
±0.005% FS/°F  
**Thermal Sensitivity Effect:**  
±0.005% rdg/°F  
**Proof Pressure:** 150% of range  
**Burst Pressure:** 300% of range  
**Body Material:** 17-4 PH stainless steel, hermetically sealed  
**Diaphragm Material:** 17-4 PH SS

**Pressure Port:** 1/4-18 NPT  
**Male Thread:** 10 to 1000 psi  
**Female Thread:** 3000 to 7500 psi  
**Mating Connector** PT06F10-6S-R (not included)  
**Pressure Cavity Volume:** 0.171 in<sup>3</sup>  
**Weight:** 290 g (10 oz)



### SPECIFICATIONS

**Excitation:** 10 Vdc (15 Vdc max) @ 30 mA  
**Output:** 30 mV ±0.25% @ 10 Vdc  
**Sensitivity:** 3 mV/V  
**Input Impedance:** 350 Ω min  
**Output Resistance:** 350 ±5 Ω  
**Insulation Resistance:** >5 MΩ @ 75 Vdc  
**Accuracy:** 0.15%  
**Hysteresis:** ±0.10%  
**Repeatability:** ±0.05%  
**Zero Balance:** ±1.0%  
**Shunt Calibration:** 59 kΩ  
**Operating Temperature Range:** -73 to 163°C (-100 to 325°F)  
**Compensated Temperature Range:** 16 to 71°C (60 to 160°F)

### To Order

RANGE	MODEL NO.	COMPATIBLE METERS*
0 to 10 psi	0 to 0.69 bar	<b>PX931-010GV</b> DP41-S, DP25B-S, DP3002-S
0 to 25 psi	0 to 1.72 bar	<b>PX931-025GV</b> DP41-S, DP25B-S, DP3002-S
0 to 50 psi	0 to 3.4 bar	<b>PX931-050GV</b> DP41-S, DP25B-S, DP87
0 to 100 psi	0 to 6.9 bar	<b>PX931-100SV</b> DP41-S, DP25B-S, DP87
0 to 200 psi	0 to 13.8 bar	<b>PX931-200SV</b> DP41-S, DP25B-S, DP3002-S
0 to 500 psi	0 to 34.5 bar	<b>PX931-500SV</b> DP41-S, DP25B-S, DP87
0 to 1000 psi	0 to 68.9 bar	<b>PX931-1KSV</b> DP41-S, DP25B-S, DP87
0 to 3000 psi	0 to 207 bar	<b>PX931-3KSV</b> DP41-S, DP25B-S, DP41-S
0 to 5000 psi	0 to 345 bar	<b>PX931-5KSV</b> DP41-S, DP25B-S, DP87
0 to 7500 psi	0 to 517 bar	<b>PX931-7.5KSV</b> DP41-S, DP25B-S, DP87

Comes with 5-point calibration.

\* Visit us online for compatible meters.

Absolute ranges available. Change "G" to "A" in model number, for additional cost.

**Ordering Examples:** PX931-500SV, 500 psi sealed gage pressure transducer.

PX931-025GV, 25 psi gage pressure transducer. PT06F10-6S-R, mating connector (sold separately).



MILLIVOLT OUTPUT  
PRESSURE TRANSDUCERS

B

# PRESSURE TRANSMITTER WITH SHUNT CALIBRATOR FOR QUICK CALIBRATION CHECKS

**PX941A Series**  
0-10 to 0-7500 psi  
0-0.7 to 0-500 bar



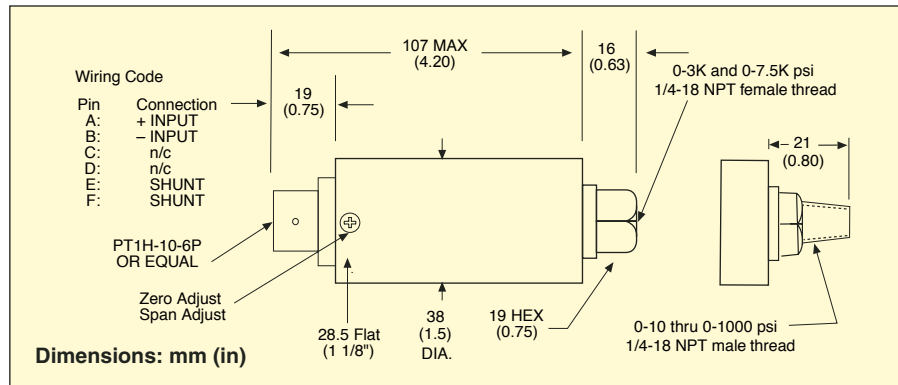
PX941A-025GI, shown smaller than actual size.



- ✓ **Stainless Steel Diaphragm for Compatibility with Most Media**
- ✓ **1/4 NPT Fitting for Fast, Easy, and Secure Installation**
- ✓ **Rugged Stainless Steel Case Protects Components from Industrial Environments**
- ✓ **Quick-Disconnect Style for Easy Field Connections**
- ✓ **2-Wire, 4 to 20 mA Output Provides Excellent Noise Immunity over Long Cable Runs**
- ✓ **Adjustable Zero and Span**
- ✓ **Units ≤50 psi are Vented Gage for High Precision**

## SPECIFICATIONS

**Excitation:** 12 to 40 Vdc @ 20 mA  
**Output:** 4 to 20 mA (2 wire) (±10% adjustable)  
**Insulation Resistance:** 5 MΩ @ 75 Vdc  
**PERFORMANCE**  
**Accuracy:** ±0.15% (combined effect of linearity, hysteresis and repeatability)  
**Shunt Value:** On calibration sheet (80% FS)  
**Hysteresis:** ±0.10% typical  
**Repeatability:** ±0.05% typical  
**Zero Balance:** 4 mA (+10%, -2% adj)  
**Operating Temperature Range:** -18 to 85°C (0 to 185°F)  
**Compensated Temperature Range:** 16 to 71°C (60 to 160°F)  
**Thermal Zero Effect:** ±0.005% full scale/°F  
**Thermal Sensitivity Effect:**



**Proof Pressure:** 150% range  
**Burst Pressure:** 300% range

## CONSTRUCTION

**Body Material:** 17-4 PH stainless steel  
**Diaphragm Material:** 17-4 PH stainless steel

**Pressure Port:** 1/4-18 NPT  
**Male Thread:** 10 to 1000 psi  
**Female thread:** 3000 to 7500 psi  
**Mating Connector:** PT06F10-6S-R (not included)  
**Weight:** 383 g (13.5 oz)

**MOST POPULAR MODELS HIGHLIGHTED!**

## To Order (Specify Model Number)

RANGE	MODEL NO.	COMPATIBLE METERS*
0 to 10 psi	0 to 0.69 bar	<b>PX941A-010GI</b> DP41-E, DP25B-E, DP460
0 to 25 psi	0 to 1.7 bar	<b>PX941A-025GI</b> DP41-E, DP25B-E, DP460
0 to 50 psi	0 to 3.4 bar	<b>PX941A-050GI</b> DP41-E, DP25B-E, DP460
0 to 100 psi	0 to 6.9 bar	<b>PX941A-100SI</b> DP41-E, DP25B-E, DP460
0 to 200 psi	0 to 13.8 bar	<b>PX941A-200SI</b> DP41-E, DP25B-E, DP460
0 to 500 psi	0 to 34.5 bar	<b>PX941A-500SI</b> DP41-E, DP25B-E, DP460
0 to 1000 psi	0 to 68.9 bar	<b>PX941A-1KSI</b> DP41-E, DP25B-E, DP460
0 to 3000 psi	0 to 207 bar	<b>PX941A-3KSI</b> DP41-E, DP25B-E, DP460
0 to 5000 psi	0 to 345 bar	<b>PX941A-5KSI</b> DP41-E, DP25B-E, DP460
0 to 7500 psi	0 to 517 bar	<b>PX941A-7.5KSI</b> DP41-E, DP25B-E, DP460

Comes with 5-point calibration.

\* See section D for compatible meters.

Absolute ranges available. Change "G" or "S" to "A" in model number.

**Ordering Examples:** PX941A-050GI, 50 psi gage transmitter with 4 to 20 mA output.

PX941A-1KSI, 1000 psi sealed gage transmitter with 4 to 20 mA output.

PT06F10-6S-R, mating connector (not included).

## ACCESSORY

MODEL NO.	DESCRIPTION
EE-2584	Reference Book: Process Plant Instrumentation

# PRESSURE TRANSDUCER WITH SHUNT FOR QUICK CALIBRATION CHECKS

**PX951 Series**  
 0-10 to 0-7500 psi  
 0-0.7 to 0-500 bar



PX951-1KS5V, shown smaller than actual size.



Zero and span adjustments.



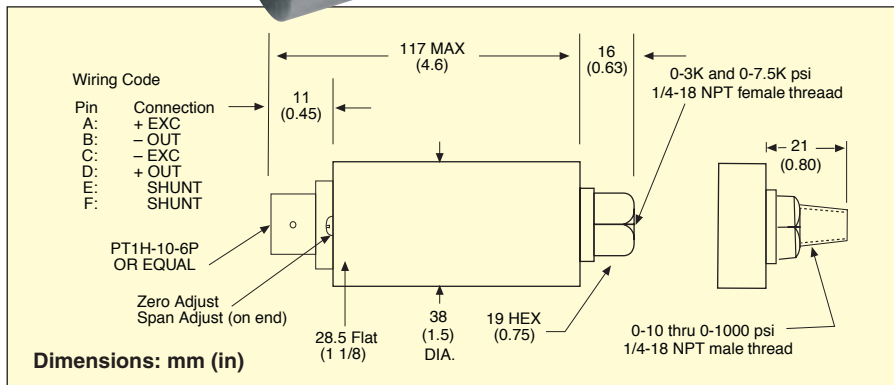
- ✓ **Stainless Steel Diaphragm for Compatibility with Most Media**
- ✓ **1/4 NPT Fitting for Fast, Easy, and Secure Installation**
- ✓ **Rugged Stainless Steel Case Protects Components from Industrial Environments**
- ✓ **Quick Disconnect Style for Easy Field Connections**
- ✓ **0 to 5 Vdc Output for Maximum Versatility**
- ✓ **Adjustable Zero and Span**
- ✓ **Units ≤ 50 psi are Vented Gage for High Precision**

## SPECIFICATIONS

**Excitation:** 24 to 32 Vdc @ 25 mA  
**Output:** 0 to 5 Vdc (4 wire) ±10% adj  
**Insulation Resistance:** 5 MΩ @ 75 Vdc

## PERFORMANCE

**Accuracy:** ±0.15% (combined effect of linearity, hysteresis and repeatability)  
**Hysteresis:** ±0.10% typical  
**Repeatability:** +0.05% typical  
**Zero Balance:** 0 Vdc ±10% adj  
**Shunt Value:** 80% full scale  
**Response Time:** 2 ms  
**Operating Temperature Range:** -45 to 121°C (-50 to 250°F)  
**Compensated Temperature Range:** 16 to 71°C (60 to 160°F)  
**Thermal Zero Effect:** ±0.005% full scale/°F  
**Thermal Sensitivity Effect:** ±0.005% reading/°F  
**Proof Pressure:** 150% range



**Burst Pressure:** 300% range

## CONSTRUCTION

**Body Material:** 17-4 PH stainless steel  
**Diaphragm Material:** 17-4 PH stainless steel  
**Pressure Port:** 1/4-18 NPT

**Male Thread:** 10 to 1000 psi  
**Female thread:** 3000 to 7500 psi  
**Mating Connector:** PT06F10-6S-R (not included)  
**Weight:** 383 g (13.5 oz)

**MOST POPULAR MODELS HIGHLIGHTED!**

## To Order (Specify Model Number)

RANGE		MODEL NO.	COMPATIBLE METERS*
0 to 10 psi	0 to 0.69 bar	PX951-010G5V	DP41-E, DP25B-E, DP460
0 to 25 psi	0 to 1.7 bar	PX951-025G5V	DP41-E, DP25B-E, DP460
0 to 50 psi	0 to 3.4 bar	PX951-050G5V	DP41-E, DP25B-E, DP460
0 to 100 psi	0 to 6.9 bar	PX951-100S5V	DP41-E, DP25B-E, DP460
0 to 200 psi	0 to 13.8 bar	PX951-200S5V	DP41-E, DP25B-E, DP460
0 to 500 psi	0 to 34.5 bar	PX951-500S5V	DP41-E, DP25B-E, DP460
0 to 1000 psi	0 to 68.9 bar	PX951-1KS5V	DP41-E, DP25B-E, DP460
0 to 3000 psi	0 to 207 bar	PX951-3KS5V	DP41-E, DP25B-E, DP460
0 to 5000 psi	0 to 345 bar	PX951-5KS5V	DP41-E, DP25B-E, DP460
0 to 7500 psi	0 to 517 bar	PX951-7.5KS5V	DP41-E, DP25B-E, DP460

Comes with 5-point calibration.

\* See section D for compatible meters.

Absolute ranges available, replace "G" or "S" with "A" in model number.

**Ordering Examples:** PX951-050G5V, 50 psi gage transmitter with 0 to 5 Vdc output.

PX951-1KA5V, 1000 psi absolute transmitter with 0 to 5 Vdc output.

PT06F10-6S-R, mating connector (not included).

## ACCESSORY

MODEL NO.	DESCRIPTION
ME-1756	Reference Book: Practical Injection Molding

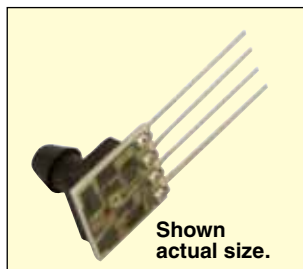
# MINIATURE SILICON PRESSURE SENSORS TEMPERATURE COMPENSATED

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)



**Gage, Absolute or Differential Pressure**  
**4 inH<sub>2</sub>O to 150 psi**  
**10 mbar to 10 bar**

## PXCPC Series



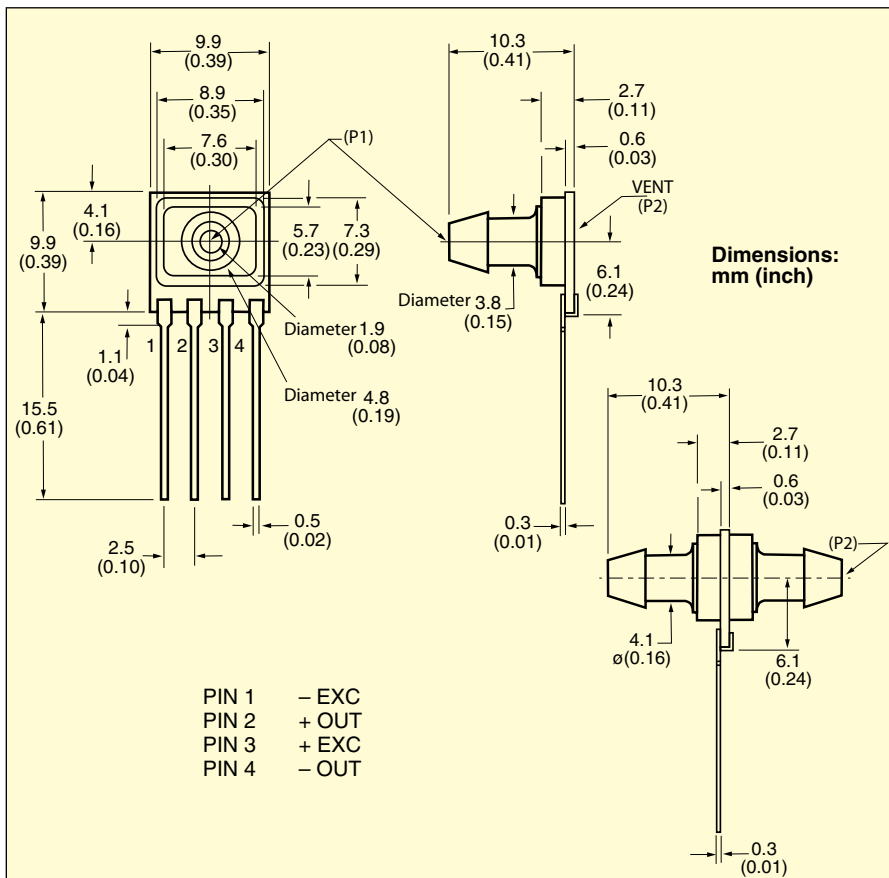
- ✓ Low Cost, Small Size, PC Board Mountable
- ✓ Micromachined Silicon Technology
- ✓ High Impedance, Low Current Draw
- ✓ 4-Pin Package
- ✓ For Use with Clean Dry Gases

The PXCPC Series pressure sensors come standard with tube pressure ports and use state-of-the-art micromachined silicon technology to deliver accurate, stable pressure measurement in a miniature package. On sensors of 5 psi and above the high side of the silicon is protected by a silicone gel coating. The sensors are designed for use with non-corrosive non-ionic gases. Many industrial and research gases fall into this category.



PXCPC

PRESSURE TRANSDUCERS  
**B**



## SPECIFICATIONS

@ 12 Vdc, 25°C (77°F)

**Excitation:** 12 Vdc typical (3 Vdc minimum to 16 Vdc maximum)

**Output mV (@ 12 Vdc) Range:**

- 4 inH<sub>2</sub>O: 25 ±2 mV
- 10 inH<sub>2</sub>O: 20 ±1 mV
- 1 psi: 18 ±1 mV
- 5 psi: 60 ±1 mV
- 15 to 60 psi: 90 ±5 mV
- 100 psi: 100 ±5 mV
- 150 psi: 90 ±5 mV

**Linearity, Hysteresis Error:** 0.25% typical 1% maximum

**Operating Temperature:** -25 to 85°C (-13 to 185°F)

**Compensated Temperature:** 0 to 70°C (32 to 158°F)

**Thermal Effects**

**Zero Shift:** ±1.0 mV

**Span Shift:** ±2.0% span

**Input Impedance:** 5 kΩ

**Output Impedance:** 3 kΩ

**Over Pressure (Maximum)**

**Absolute:** The lesser of 3 x full scale or 250 psi

**Gage/Diff:**

- ≤ 1 psi Range: 3 psi maximum
- >1 psi: The lesser of 3 x full scale of 250 psi

**Common Mode Pressure:**

50 psi maximum

**Weight:** 2 g (0.06 oz)

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)



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

RANGE		MODEL NO.	DESCRIPTION
psi	bar		
<b>GAGE PRESSURE</b>			
0 to 4 inH <sub>2</sub> O	0 to 10 mb	<b>PXCPC-004WCGV</b>	4 inH <sub>2</sub> O miniature pressure sensor
0 to 10 inH <sub>2</sub> O	0 to 25 mb	<b>PXCPC-010WCGV</b>	10 inH <sub>2</sub> O miniature pressure sensor
0 to 1 psi	0 to 69 mb	<b>PXCPC-001GV</b>	1 psig miniature pressure sensor
0 to 5	0 to 345 mb	<b>PXCPC-005GV</b>	5 psig miniature pressure sensor
0 to 15	0 to 1 bar	<b>PXCPC-015GV</b>	15 psig miniature pressure sensor
0 to 30	0 to 2	<b>PXCPC-030GV</b>	30 psig miniature pressure sensor
0 to 60	0 to 4	<b>PXCPC-060GV</b>	60 psig miniature pressure sensor
0 to 100	0 to 7	<b>PXCPC-100GV</b>	100 psig miniature pressure sensor
0 to 150	0 to 10	<b>PXCPC-150GV</b>	150 psig miniature pressure sensor
<b>ABSOLUTE PRESSURE</b>			
0 to 15	0 to 1 bar	<b>PXCPC-015AV</b>	15 psia miniature pressure sensor
0 to 30	0 to 2	<b>PXCPC-030AV</b>	30 psia miniature pressure sensor
0 to 60	0 to 4	<b>PXCPC-060AV</b>	60 psia miniature pressure sensor
0 to 100	0 to 7	<b>PXCPC-100AV</b>	100 psia miniature pressure sensor
0 to 150	0 to 10	<b>PXCPC-150AV</b>	150 psia miniature pressure sensor
<b>DIFFERENTIAL PRESSURE</b>			
0 to 4 inH <sub>2</sub> O	0 to 10 mb	<b>PXCPC-004WCDV</b>	4 inH <sub>2</sub> O miniature pressure sensor
0 to 10 inH <sub>2</sub> O	0 to 25 mb	<b>PXCPC-010WCDV</b>	10 inH <sub>2</sub> O miniature pressure sensor
0 to 1 psi	0 to 69 mb	<b>PXCPC-001DV</b>	1 psid miniature pressure sensor
0 to 5	0 to 345 mb	<b>PXCPC-005DV</b>	5 psid miniature pressure sensor
0 to 15	0 to 1 bar	<b>PXCPC-015DV</b>	15 psid miniature pressure sensor
0 to 30	0 to 2	<b>PXCPC-030DV</b>	30 psid miniature pressure sensor
0 to 60	0 to 4	<b>PXCPC-060DV</b>	60 psid miniature pressure sensor
0 to 100	0 to 7	<b>PXCPC-100DV</b>	100 psid miniature pressure sensor
0 to 150	0 to 10	<b>PXCPC-150DV</b>	150 psid miniature pressure sensor
<b>ACCESSORY</b>			
<b>CX136-4</b>	4-pin push on connector		

**Ordering Examples:** **PXCPC-030GV**, 30 psig gage pressure range miniature pressure sensor with 90 mV output @ 12 Vdc.

**PXCPC-015AV**, 15 psia absolute pressure range miniature pressure sensor with 90 mV output @ 12 Vdc.

**PXCPC-001DV**, 1 psid differential pressure range miniature pressure sensor with 18 mV output @ 12 Vdc.

## High Performance Meter

With High Resolution 6-Digit Display

### DP41-S Series



- ✓ Compatible with Strain Gage Bridge Sensors or Ratiometric Voltage Sensors
- ✓ Adjustable Filtering Up to 13 Hz
- ✓ Displays Up to 999,999 Counts
- ✓ NEMA 4 (IP65) Front Panel
- ✓ Remote Tare, Min, Max, Reset, and Hold Features

- ✓ Min/Max (Peak/Valley) Detection
- ✓ Red LED Display Standard, Green Optional



DP41-S strain gage indicator shown smaller than actual size. Visit [omega.com/dp41-s](http://omega.com/dp41-s) for details.

The high-performance DP41-S strain gage indicators have inputs for strain gage bridge and ratiometric voltage sensors. Built-in excitation is standard. The input range is selected via internal jumpers, and the user can perform scaling to engineering units on the front keypad. With optional RS232 or RS485 communications, the operator can program the display remotely.

# OUTPUT PRESSURE TRANSDUCER

## STANDARD AND METRIC MODELS

**0 to 5 Vdc Output**  
**0-2 to 0-30,000 psi-Standard Models**  
**0-150 mbar to 0-400 bar-Metric Models**

### PX02/PXM02 Series



PX02K1-100G5T shown smaller than actual size.

Twist-lock style.



PX02C0-100G5T shown smaller than actual size.

VOLTAGE OUTPUT PRESSURE TRANSDUCERS  
**B**

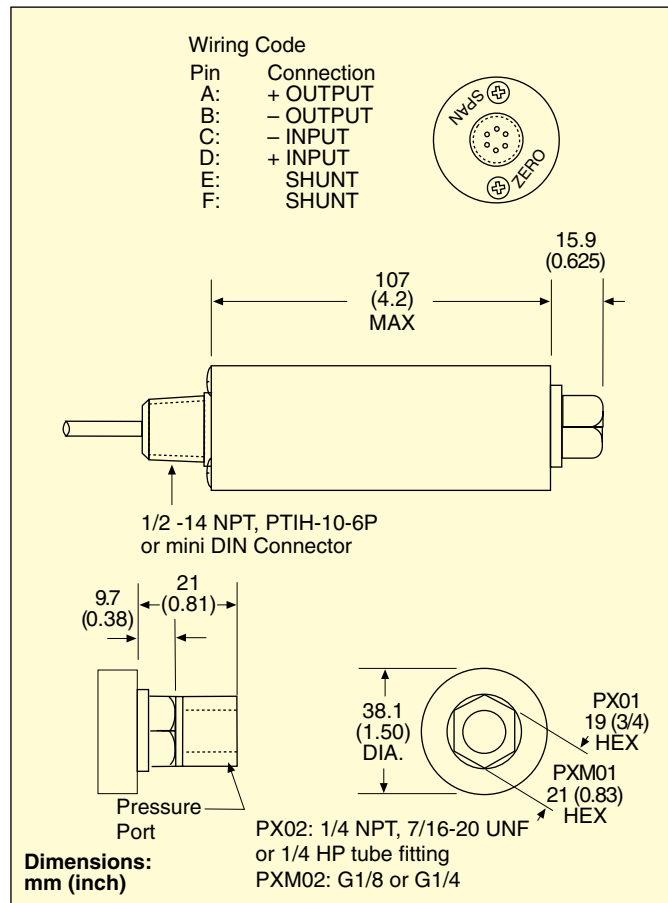
- ✓ Internal Shunt Resistor for Easy System Checks
- ✓ All Stainless Steel Construction
- ✓ Available in Gage, Absolute, Sealed Gage, psi, and Metric Ranges
- ✓ Cable, Connector Models or Mini DIN
- ✓ Optional Pressure Ports to Fit Most Industrial Applications

**Proof Pressure:** 150% of rated pressure  
**Burst Pressure:** 300% of rated pressure  
**Wetted Parts:** 17-4 PH stainless steel  
**Pressure Port:** See custom configurations  
**Electrical Connection:** See custom configurations  
**Mating Connector:** (Style 1) PT06F10-6S (sold separately)  
**Weight:** 388 g (13.7 oz)

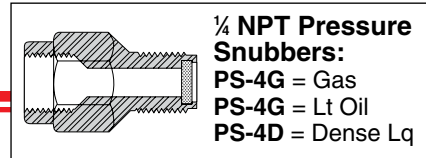
OMEGA's PX02/PXM02 are high-accuracy, amplified voltage output, industrial pressure transducers. All stainless steel construction and a hermetically sealed case make the PX02/PXM02 suitable for harsh industrial environments. They are a true high-accuracy industrial device.

### SPECIFICATIONS

**Excitation:** 24 to 32 Vdc  
**Output:** 0 to 5 Vdc  $\pm 10\%$  adjustable  
**Linearity:**  $\pm 0.15\%$  FSO  
**Hysteresis:**  $\pm 0.1\%$  FSO  
**Repeatability:**  $\pm 0.05\%$  FSO  
**Zero Balance:** 0 V  $\pm 10\%$  adj  
**Sensing Element:** 4-active-arm bridge, using thick-film strain gages in a hermetically sealed chamber (except gage units)  
**Shunt Calibration Value:** Specified on calibration sheet  
**Operating Temp Range:** -46 to 121°C (-50 to 250°F)  
**Compensated Temp Range:** 16 to 71°C (60 to 160°F)  
**Thermal Effects:**  
**Span:** 0.003% of rdg/°F  
**Zero:** 0.003% of FSO/°F

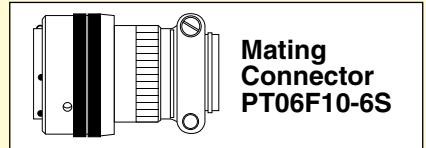


# ΠΙΠ-ΑΒΒΟΡΑΓΓΙ ALL STAINLESS STEEL TRANSDUCER



## STANDARD CUSTOM CONFIGURATIONS

PX02 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
Models <10,000 psi <b>C</b> = 1/4-18 NPT-M <b>D</b> = 1/4-18 NPT-F <b>J</b> = 7/16-20 UNF-M <b>K</b> = 7/16-20 UNF-F Models ≥10,000 psi <b>S</b> = 1/4 HP tube fitting			002 005 010 015 020 025 050 075 100 150 200 250 300 500 750 1K 1.5K 2K 3K 3.5K 5K 7.5K 10K† 20K† 30K†	S,G,A S,G,A	<b>5T</b> = 0 to 5 Vdc output <b>5Z</b> = Isolated 0 to 5 Vdc <b>10T</b> = 0 to 10 Vdc output	<b>OL</b> = Overload stops + <b>additional cost</b> (when available) <b>OX</b> = Cleaned for oxygen use + <b>additional cost</b> plus 2 weeks <b>( )ft</b> = Optional cable length in feet + <b>add cost/ft</b> over 10 feet
	<b>0</b> = 3 m (10') cable (std) + <b>add cost/ft</b> over 3 m (10')					
	<b>1</b> = PTIH-10-6P connector (or equal) Mating connector (sold separately), order <b>PT06F10-6S</b>					
	<b>6</b> = mini DIN connector* * no shunt cal					
<b>For additional options including extended compensated temperatures, visit us online.</b>						

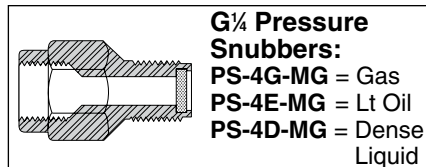


† Supplied with 1/4 HP tube fitting.

**Ordering Examples:** **PX02C1-100G5T**, 100 psi gage pressure transducer with 1/4-18 NPT male fitting, PTIH-10-6P, connector, and 0 to 5V output. **PT06F10-6S**, mating connector (sold separately). **PX02K0-1KS5Z**, 1000 psi sealed gage pressure transducer with 7/16-20 UNF female fitting, 3 m (10') cable and isolated 0 to 5 Vdc output. **PX02J1-015A5T**, 15 psi absolute pressure transducer with 7/16-20 UNF male fitting, PTIH-10-6P, connector and 0 to 5 Vdc output. **PT06F10-6S** mating connector (sold separately).

### To order a custom configuration:

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units
5. Select output
6. Select options



## METRIC CUSTOM CONFIGURATIONS

PXM02 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>MA</b> = G1/8 Male <b>MB</b> = G1/8 Female <b>MC</b> = G1/4 Male <b>MD</b> = G1/4 Female			0.16 0.4 1.0 1.6 2.5 4.0 6.0 10 16 25 40 60 100 160 250 400	S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A S,G,A	<b>5T</b> = 0 to 5 Vdc <b>5Z</b> = Isolated 0 to 5 Vdc <b>10T</b> = 0 to 10 Vdc output	<b>OX</b> = Cleaned for oxygen service <b>OL</b> = Overload stops <b>( )m</b> = Optional cable length in meters + <b>add cost/m</b> over 3 m
	<b>0</b> = 3 m (10') cable (std) + <b>add cost/m</b> over 3 m (10')					
	<b>1</b> = PTIH-10-6P connector (or equal) Mating connector (sold separately), order <b>PT06F10-6S</b>					
	<b>6</b> = mini DIN connector* *no shunt cal					
<b>For additional options including extended compensated temperatures, visit us online.</b>						

**Ordering Examples:** **PXM02MB0-010BARS5T**, 10 bar sealed gage pressure transducer with G1/8 female connection and 3 m (10') cable termination.

**PXM02MD1-010BARAV**, 10 bar absolute pressure transducer with G1/8 female connection and twist-lock 6 pin connector. **PT06F10-6S**, mating connector (sold separately).

## To Order

RANGE	$\frac{1}{16}$ -20 UNF MODEL NO.	$\frac{1}{4}$ NPT MODEL NO.	COMPATIBLE METERS†	
<b>ABSOLUTE PRESSURE (All Ranges Available in Absolute Pressure)</b>				
0 to 10 psi	0 to 0.69 bar	PX02K1-010A5T	PX02C1-010A5T	DP41-E, DP25B-E
0 to 15 psi	0 to 1.0 bar	PX02K1-015A5T	PX02C1-015A5T	DP41-E, DP25B-E
0 to 20 psi	0 to 1.4 bar	PX02K1-020A5T	PX02C1-020A5T	DP41-E, DP25B-E
0 to 25 psi	0 to 1.72 bar	PX02K1-025A5T	PX02C1-025A5T	DP41-E, DP25B-E
0 to 50 psi	0 to 3.4 bar	PX02K1-050A5T	PX02C1-050A5T	DP41-E, DP25B-E
<b>GAGE PRESSURE (All Ranges Also Available in Sealed Gage Pressure)</b>				
0 to 2 psi	0 to 0.14 bar	PX02K1-002G5T	PX02C1-002G5T	DP41-E, DP25B-E
0 to 5 psi	0 to 0.34 bar	PX02K1-005G5T	PX02C1-005G5T	DP41-E, DP25B-E
0 to 10 psi	0 to 0.69 bar	PX02K1-010G5T	PX02C1-010G5T	DP41-E, DP25B-E
0 to 15 psi	0 to 1.0 bar	PX02K1-015G5T	PX02C1-015G5T	DP41-E, DP25B-E
0 to 50 psi	0 to 3.4 bar	PX02K1-050G5T	PX02C1-050G5T	DP41-E, DP25B-E
0 to 75 psi	0 to 5.2 bar	PX02K1-075G5T	PX02C1-075G5T	DP41-E, DP25B-E
0 to 100 psi	0 to 6.9 bar	PX02K1-100G5T	PX02C1-100G5T	DP41-E, DP25B-E
0 to 200 psi	0 to 13.8 bar	PX02K1-200G5T	PX02C1-200G5T	DP41-E, DP25B-E
0 to 300 psi	0 to 20.7 bar	PX02K1-300G5T	PX02C1-300G5T	DP41-E, DP25B-E
0 to 500 psi	0 to 34.5 bar	PX02K1-500G5T	PX02C1-500G5T	DP41-E, DP25B-E
0 to 1000 psi	0 to 68.9 bar	PX02K1-1KG5T	PX02C1-1KG5T	DP41-E, DP25B-E
0 to 1500 psi	0 to 103 bar	PX02K1-1.5KG5T	PX02C1-1.5KG5T	DP41-E, DP25B-E
0 to 2000 psi	0 to 138 bar	PX02K1-2KG5T	PX02C1-2KG5T	DP41-E, DP25B-E
0 to 3500 psi	0 to 241 bar	PX02K1-3.5KG5T	PX02C1-3.5KG5T	DP41-E, DP25B-E
0 to 5000 psi	0 to 345 bar	PX02K1-5KG5T	PX02C1-5KG5T	DP41-E, DP25B-E
0 to 7500 psi	0 to 517 bar	PX02K1-7.5KG5T	PX02C1-7.5KG5T	DP41-E, DP25B-E
0 to 10,000 psi**	0 to 689 bar	PX02S1-10KG5T**	PX02S1-10KG5T**	DP41-E, DP25B-E*
0 to 20,000 psi**	0 to 1379 bar	PX02S1-20KG5T**	PX02S1-20KG5T**	DP41-E, DP25B-E*
0 to 30,000 psi**	0 to 2068 bar	PX02S1-30KG5T**	PX02S1-30KG5T**	DP41-E, DP25B-E*

Comes complete with 5-point NIST-traceable calibration.

† Visit us online for compatible meters.

\* 4-digit meter, counts in increments of 10. \*\*  $\frac{1}{4}$  HP tube fitting pressure port.

To order absolute pressure, replace "G" in model number with "A" and add **cost** to price.

To order sealed gage units, replace "G" in model number with "S" (no extra charge).

**Ordering Examples:** PX02K1-1KG5T, 1000 psi gage transducer with 0 to 5 V output, twist-lock 6 pin connector and  $\frac{1}{16}$ -20 UNF female pressure connection. PT06F10-6S, mating connector (sold separately).

PX02C0-010G5T, 10 psi gage transducer with 0 to 5 V output, 3 m (10') cable and  $\frac{1}{4}$  NPT male pressure connection.

## METRIC MODELS

Models with G $\frac{1}{4}$ Female Pressure Connection, Cable or Connector and 5 V Output			
RANGE		MODEL NO.	COMPATIBLE METERS†
<b>GAGE PRESSURE</b>			
0 to 0.16 bar	0 to 2.3 psi	PXM02MD0-160BARG5T	DP41-S, DP25B-S
0 to 0.4 bar	0 to 5.8 psi	PXM02MD0-400BARG5T	DP41-S, DP25B-S
0 to 1 bar	0 to 15 psi	PXM02MD0-001BARG5T	DP41-S, DP25B-S
0 to 1.60 bar	0 to 23 psi	PXM02MD0-1.60BARG5T	DP41-S, DP25B-S
0 to 2.50 bar	0 to 58 psi	PXM02MD0-2.50BARG5T	DP41-S, DP25B-S
0 to 4 bar	0 to 87 psi	PXM02MD0-004BARG5T	DP41-S, DP25B-S
0 to 6 bar	0 to 145 psi	PXM02MD0-006BARG5T	DP41-S, DP25B-S
0 to 10 bar	0 to 232 psi	PXM02MD0-010BARG5T	DP41-S, DP25B-S
0 to 16 bar	0 to 363 psi	PXM02MD0-016BARG5T	DP41-S, DP25B-S
0 to 25 bar	0 to 580 psi	PXM02MD0-025BARG5T	DP41-S, DP25B-S
0 to 40 bar	0 to 870 psi	PXM02MD0-040BARG5T	DP41-S, DP25B-S
0 to 60 bar	0 to 1450 psi	PXM02MD0-060BARG5T	DP41-S, DP25B-S
0 to 100 bar	0 to 2321 psi	PXM02MD0-100BARG5T	DP41-S, DP25B-S
0 to 160 bar	0 to 3626 psi	PXM02MD0-160BARG5T	DP41-S, DP25B-S
0 to 250 bar	0 to 5802 psi	PXM02MD0-250BARG5T	DP41-S, DP25B-S
0 to 400 bar	0 to 8702 psi	PXM02MD0-400BARG5T	DP41-S, DP25B-S

Comes complete with 5-point NIST-traceable calibration. † Visit us online for compatible meters.

To order absolute pressure models, replace "G" in model number with "A" and add **cost** to price.

To order sealed gage models, replace "G" in model number with "S" (no extra charge).

To order female thread, see custom configurations below.

**Ordering Examples:** PXM02MD6-004BARG5T, 4 bar gage transducer with 0 to 5 V output, mini DIN connector and G $\frac{1}{4}$  female pressure connection. Mating connector included.

PXM02MD0-001BARA5T, 1 bar absolute transducer with 0 to 5 V output, 3 m (10') cable and G $\frac{1}{4}$  female pressure connection.



**METRIC**  
PXM02MC6-010BARG5T  
shown actual size.

VOLTAGE OUTPUT  
PRESSURE TRANSDUCERS  
**B**



# Transducer/Transmitter

## Multimedia Compatibility

### High-Performance Silicon Technology

### Metric Model

**350 mbar to 20 bar Absolute Pressure**  
**70 mbar to 700 bar Gage Pressure**

#### PXM309 Series



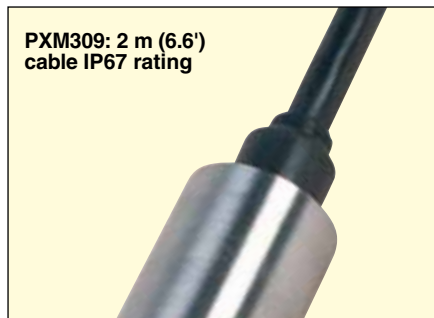
- ✓ 5-Point Traceable Calibration Certificate
- ✓ High Accuracy,  $\pm 0.25\%$  FS BSL (Linearity, Hysteresis and Repeatability)
- ✓ 1% Total Error Band on Most Ranges
- ✓ Reverse Polarity and Over Voltage Protected
- ✓ -40 to 85°C (-40 to 185°F) Operating Temperature
- ✓ 0 to 10 Vdc or 4 to 20 mA Output
- ✓ Terminations: Cable, mini DIN or M12 Connector
- ✓ G 1/4 Male Pressure Fitting
- ✓ IP65 Environmental Rating



OMEGA's PXM309 Series industrial pressure transducers utilize two of our precision manufacturing techniques. Low pressure ranges from 70 mb to 3.5 bar, and absolute ranges to 20 bar use a precision micromachined silicon sensor protected by a stainless steel diaphragm. A thin film of oil transfers

the pressure and assures the high accuracy and stability of the sensor. Medium and high gage pressure ranges, from 7 bar up to 700 bar, use precision semiconductor strain gages that are fused directly to the stainless steel diaphragm yielding a rugged, durable bond that assures long

life and high stability. These precision techniques produce an accuracy of 0.25% FS BSL @25°C and a total error band of 1% on most ranges. The PXM309 Series transducers are available in absolute, or gage (relative) pressure and are sealed to an IP65 environmental rating.



## SPECIFICATIONS

### Supply Voltage

Reverse polarity and over voltage protected

**0 to 10 Vdc Output:** 15 to 30 Vdc at 10 mA

**4 to 20 mA:** 9 to 30 Vdc

**Static Accuracy 350 mB to 700 bar:**  $\pm 0.25\%$  FS BSL at 25°C (includes linearity, hysteresis and repeatability)

**Long Term Stability (1 yr):**  $\pm 0.25\%$  FS

### Total Error Band\*

- 70 mB  $\pm 4.5\%$  gage
- 140 mB  $\pm 3\%$  gage
- 350 mB  $\pm 1.5\%$  gage and absolute
- 1 to 20 bar  $\pm 1\%$  absolute
- 1 to 700 bar  $\pm 1\%$  gage

*Note\*:* Total error band includes all accuracy errors, thermal errors, span and zero tolerances.

### Isolation (Body to Any Lead):

1 M  $\Omega$  at 25 Vdc

**Pressure Cycles:** 1 x 10<sup>7</sup> full scale cycles

### Pressure Overload

**70 mB to 3.5 bar Gage:** 3 x rated pressure or 1.38 bar whichever is greater

**350 mB to 20 bar Absolute:** 3 x rated pressure or 1.38 bar whichever is greater

**7 to 700 bar Gage:** 2 x rated pressure

### Burst Pressure

**70 mB to 3.5 bar Gage:** 5 x rated pressure or 1.72 bar whichever is greater

**350 mB to 20 bar Absolute:** 5 x rated pressure or 1.72 bar whichever is greater

**7 to 700 bar Gage:** 5 x rated pressure

### Compensated Temperature

**70 to 350 mbar Gage/Abs:** 0 to 50°C (32 to 122°F)

**1 to 700 bar Gage:** -20 to 85°C (-4 to 185°F)

**1 to 20 bar Absolute:** -20 to 85°C (-4 to 185°F)

**Operating Temperature:** -40 to 85°C (-40 to 185°F)

**Response Time:** 1 mS

**Bandwidth:** DC to 1 kHz type

**Pressure Connection:** G ¼ Male

### Wetted Parts

**70 mB to 3.5 bar Gage:** 316 SS

**350 mB to 20 bar Absolute:** 316 SS

**7 to 700 bar Gage:** 17-4PH SS

**0 to 35 bar:** may contain HNBR o-ring in wetted pressure port assembly

**CE Compliant:** EC55022, EC55011 Emissions Class A&B

**IEC:** 61000-2,-3,-4,-5,-6,&-9

**Shock:** 50 g 11 mSec half sine shock

**Vibration:**  $\pm 20$  g

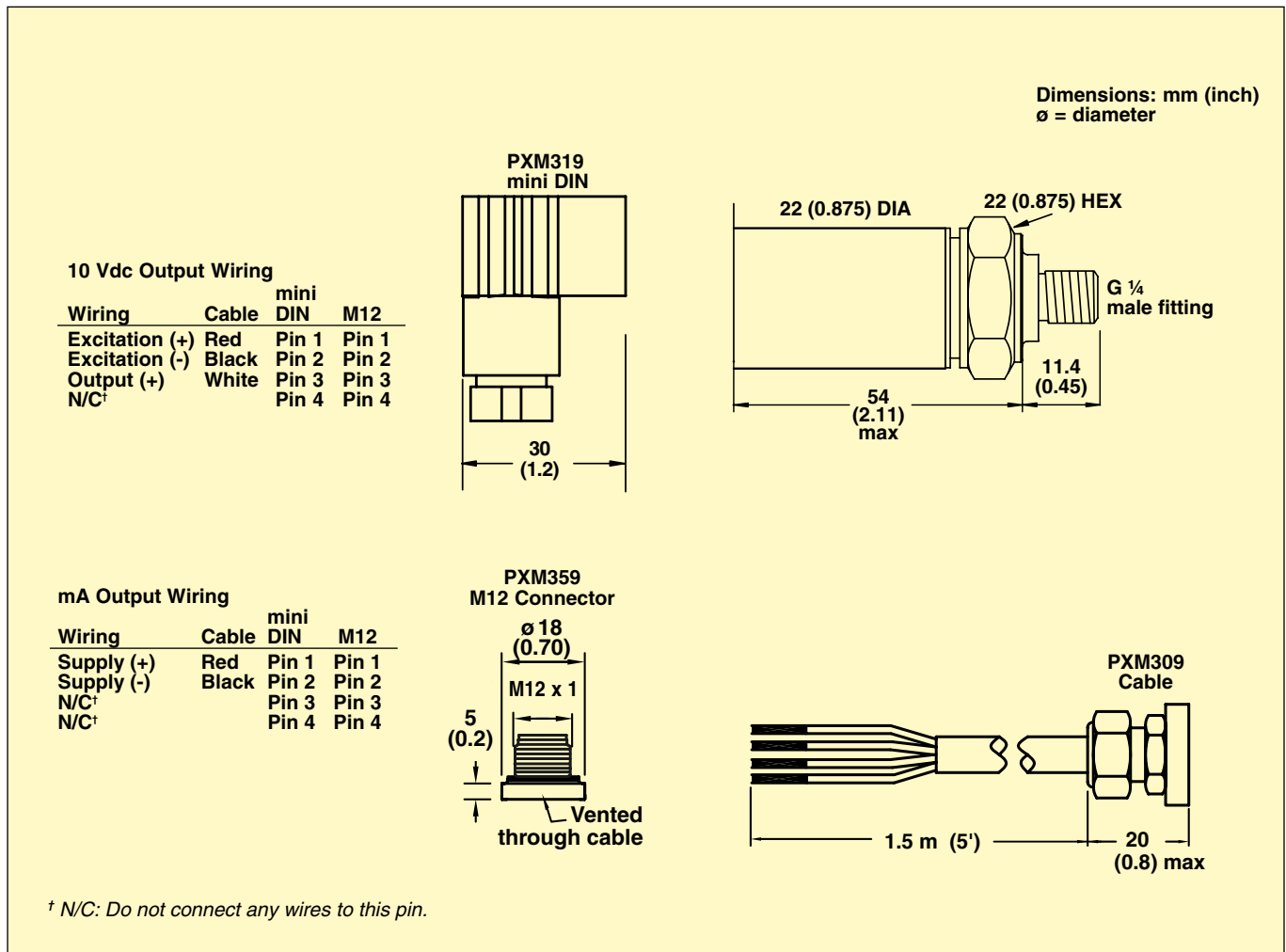
### Electrical Connections

**PXM309:** 1.5 m (5') 2 or 3-conductor cable, mA or 10V outputs, respectively

**PXM319:** mini DIN connector with mating connector included

**PXM359:** M12 4-pin connector

**Weight:** Typical 150 g (5.3 oz) depending upon configuration





DP25B, shown smaller than actual size.



DP41-B, shown smaller than actual size.

## To Order

Range	Cable Models PXM309 Series	mini Din Models PXM319 Series	M12 Models PXM359 Series	Compatible Meters
<b>Absolute Pressure</b>				
350 mbar	PXM309-0.35A[*]	PXM319-0.35A[*]	PXM359-0.35A[*]	DP25B-E, DP41-B
1 bar	PXM309-001A[*]	PXM319-001A[*]	PXM359-001A[*]	DP25B-E, DP41-B
2 bar	PXM309-002A[*]	PXM319-002A[*]	PXM359-002A[*]	DP25B-E, DP41-B
3.5 bar	PXM309-3.5A[*]	PXM319-3.5A[*]	PXM359-3.5A[*]	DP25B-E, DP41-B
7 bar	PXM309-007A[*]	PXM319-007A[*]	PXM359-007A[*]	DP25B-E, DP41-B
15 bar	PXM309-015A[*]	PXM319-015A[*]	PXM359-015A[*]	DP25B-E, DP41-B
20 bar	PXM309-020A[*]	PXM319-020A[*]	PXM359-020A[*]	DP25B-E, DP41-B
<b>Gage (Relative) Pressure</b>				
70 mbar	PXM309-0.07G[*]	PXM319-0.07G[*]	PXM359-0.07G[*]	DP25B-E, DP41-B
140 mbar	PXM309-0.14G[*]	PXM319-0.14G[*]	PXM359-0.14G[*]	DP25B-E, DP41-B
350 mbar	PXM309-0.35G[*]	PXM319-0.35G[*]	PXM359-0.35G[*]	DP25B-E, DP41-B
1 bar	PXM309-001G[*]	PXM319-001G[*]	PXM359-001G[*]	DP25B-E, DP41-B
2 bar	PXM309-002G[*]	PXM319-002G[*]	PXM359-002G[*]	DP25B-E, DP41-B
3.5 bar	PXM309-3.5G[*]	PXM319-3.5G[*]	PXM359-3.5G[*]	DP25B-E, DP41-B
7 bar	PXM309-007G[*]	PXM319-007G[*]	PXM359-007G[*]	DP25B-E, DP41-B
10 bar	PXM309-010G[*]	PXM319-010G[*]	PXM359-010G[*]	DP25B-E, DP41-B
15 bar	PXM309-015G[*]	PXM319-015G[*]	PXM359-015G[*]	DP25B-E, DP41-B
20 bar	PXM309-020G[*]	PXM319-020G[*]	PXM359-020G[*]	DP25B-E, DP41-B
35 bar	PXM309-035G[*]	PXM319-035G[*]	PXM359-035G[*]	DP25B-E, DP41-B
70 bar	PXM309-070G[*]	PXM319-070G[*]	PXM359-070G[*]	DP25B-E, DP41-B
140 bar	PXM309-140G[*]	PXM319-140G[*]	PXM359-140G[*]	DP25B-E, DP41-B
200 bar	PXM309-200G[*]	PXM319-200G[*]	PXM359-200G[*]	DP25B-E, DP41-B
350 bar	PXM309-350G[*]	PXM319-350G[*]	PXM359-350G[*]	DP25B-E, DP41-B
500 bar	PXM309-500G[*]	PXM319-500G[*]	PXM359-500G[*]	DP25B-E, DP41-B
700 bar	PXM309-700G[*]	PXM319-700G[*]	PXM359-700G[*]	DP25B-E, DP41-B
<b>Vacuum and Compound Gage Pressure</b>				
0 to -1 bar	PXM309-001V[*]	PXM319-001V[*]	PXM359-001V[*]	DP25B-E, DP41-B
-1 to 0 to +1 bar	PXM309-001CG[*]	PXM319-001CG[*]	PXM359-001CG[*]	DP25B-E, DP41-B
-1 to 2 bar	PXM309-V002G[*]	PXM319-V002G[*]	PXM359-V002G[*]	DP25B-E, DP41-B
-1 to 3.5 bar	PXM309-V3.5G[*]	PXM319-V3.5G[*]	PXM359-V3.5G[*]	DP25B-E, DP41-B
-1 to 7 bar	PXM309-V007G[*]	PXM319-V007G[*]	PXM359-V007G[*]	DP25B-E, DP41-B
-1 to 10 bar	PXM309-V010G[*]	PXM319-V010G[*]	PXM359-V010G[*]	DP25B-E, DP41-B

Comes complete with 5-point traceable calibration certificate

[\*] Insert "10V" for 0 to 10 Vdc output or "I" for 4 to 20 mA output

**Note:** M12 models require vented cable with gage units below 70 bar.

## Accessories

Model No.	Description
P002414-1	2 m (6.6') vented cable with mating M12 connector and flying leads for PXM359
P002414-2	5 m (16.4') vented cable with mating M12 connector and flying leads for PXM359
PXMW-4	SEALING WASHER FOR G 1/4, STAINLESS STEEL WITH FKM SEAL (INCLUDED)

**Ordering Examples:** PXM309-007G10V, cable model, 7 bar range, gage pressure, 0 to 10 Vdc output.

PXM319-007AI, mini DIN model, 7 bar range, absolute pressure, 4 to 20 mA output.

# INTRINSICALLY SAFE PRESSURE

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

## TRANSMITTERS FOR HAZARDOUS LOCATIONS STANDARD AND METRIC MODELS

### High 0.08% Accuracy

Gage Pressure: 10 inH<sub>2</sub>O to 3500 psi (25 mb to 245 bar)

Sealed Gage: 0 to 100 psi to 0 to 3500 psi (0 to 7 bar to 0 to 245 bar)

Absolute Pressure: 5 to 1000 psi (350 mb to 70 bar)

Compound Gage: ±10 inH<sub>2</sub>O to ±15 psi (±25 mbar to ±1 bar)

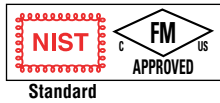
Vacuum (Negative Gage): 0 to -10 inH<sub>2</sub>O to 0 to -15 psi (0 to -25 mbar to 0 to -1 bar)

Barometric Ranges: 0, 16 or 26 inHg to 32 inHg (0, 550 or 880 hPa to 1100 hPa)

Please Note:  
Not for export,  
USA and Canada only

PMW-4 WASHER INCLUDED

### PX509/PXM509-IS Series



- ✓ High 0.08% Accuracy with NIST Traceable Calibration Certificate
- ✓ 4 to 20 mA Output with FM Intrinsically Safe Rating
- ✓ Solid State Sensor for Long Term Stability
- ✓ 316L SS Wetted Parts and Welded Stainless Steel Construction
- ✓ Shock and Vibration Rated
- ✓ Ruggedized with Secondary Containment System
- ✓ Demountable Electrical Termination
- ✓ User Accessible Trim Pots on Most Models

### APPLICATIONS

- ✓ Process Control
- ✓ Hydraulic and Pneumatic Systems
- ✓ Natural Gas Compressors
- ✓ Chemical Refineries
- ✓ Oil and Gas
- ✓ Pipeline Measurements
- ✓ Hydrogen (316L SS Wetted Parts Standard)
- ✓ Power Generation

PX539-IS Series with DIN connector.

Mating connector not included.



PX519-IS Series with mini-DIN connector.

Mating connector not included.



All models shown smaller than actual size.



PX509-IS Series, cable with flying leads.

PX559-IS Series with M12 connector.



The PX509 intrinsically safe transducers are rugged all stainless steel transducers specifically designed to meet the requirements for use in hazardous locations for all classes and zones.

Features include welded stainless steel construction, user accessible potentiometers, and a demountable electrical termination end. They are designed for rugged industrial applications, and have high shock and vibration ratings and excellent long term stability.

A precision micromachined silicon sensor is at the core, and provides a

very stable reading with exceptional high accuracy of 0.08% and a broad compensated range of -29 to 75°C (-20 to 167°F) on most ranges.

Modular construction allows for fast delivery of most configurations and fittings including agency approved models, plus, customized models also can be delivered quickly to suit your exact needs. Models with 1/2 NPT conduit fitting (PX509C) do not have a demountable termination and trim pots are an extra cost option.

Intrinsically safe models are available in many ranges and configurations.

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)



# INTRINSICALLY SAFE TRANSMITTERS

## AGENCY APPROVALS

TYPE	AGENCY	APPROVAL LISTINGS
Intrinsically Safe (US and Canada)	FM	Hazardous (Classified) Location, Rated Intrinsically Safe, Securite Intrinsique Class I, II, III, Division 1 Gr A, B, C, D, E, F, G Class I, Zone 0 Aex ia IIc (US), Class I, Zone 0 Ex ia IIC (Canada), T4, Ta = -40 to 75°C
Non-Incendive	FM	FM Hazardous (Classified) Location, Rated Non-Incendive Class I Division 2 Groups A, B, C, D (US and Canada) T4, Ta = -40 to 75°C, Conduit electrical connections only

**NOTE:** Please refer to [www.omega.com/approvals/](http://www.omega.com/approvals/) for downloadable copies of FM Approvals Certificate of Compliance and installation control drawings.

## SPECIFICATIONS

### Compensated Temperature & Thermal Effects:

#### Compensated Temperature

10 inH<sub>2</sub>O to 5 psi: -17 to 75°C

15 to 3500 psi: -29 to 75°C

#### Zero Temperature Shift

10 inH<sub>2</sub>O to 5 psi: ±1.0% span

15 to 3500 psi: ±0.5% span

#### Span Temperature Shift

10 inH<sub>2</sub>O to 5 psi: ±1.0% span

15 to 3500 psi: ±0.5% span

#### Over Pressure

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

1 psi: 6 times

2.5 to 500 psi: 4 times

750 to 3500: 3 times

#### Containment

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

15 to 750 psi: To 3000 psi

1000 psi: To 4000 psi

1500 psi: To 6000 psi

2500 psi: To 8000 psi

3500 psi: To 11,000 psi

### Absolute/Barometric Pressure Ranges

#### Over Pressure

5 psia: 6 times span

15 to 1000 psia: 4 times span

1500 to 5000 psia: 7250 psia maximum

#### Containment

All Ranges: To 1000 psi

### Gauge/Vacuum/Compound Pressure Ranges

#### Over Pressure

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

1 psi: 6 times span

2.5 to 1000 psi: 4 times span

1500 to 5000 psi: 7250 psi maximum

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

**Accuracy (Combined Linearity, Hysteresis and Repeatability):**

±0.08% BSL maximum (other accuracies available)

For conduit (C and CW) zero and span set ±0.5% full scale typical ±1% maximum or set ±1% full scale typical ±2% maximum ranges 2.5 psi and below

**Pressure Cycles:** 1 million typical

**Long Term Stability (1-Year):** ±0.1% full scale typical

**Excitation Voltage:** 10 to 28 Vdc, output 4 to 20 mA

**Operating Temperature:** -40 to 75°C (-40 to 167°F)

**Wetted Material:** 316L stainless steel

**Bandwidth:** DC to 1kHz (typical)

**Sensor:** Oil filled silicon

**EMC Compliant:** Up to 30 m (98.4') of cable

EN 61326-1:2006

EN 61326-2-3:2006 Industrial levels

**Shock:** 50 g, 11 msec half sine shock

**Vibration:** ±20 g

**Response Time:** <1 msec

**RoHS Compliant**

**Standard Pressure Port:**

¼-18 NPT male

**Metric Pressure Port:** G1/4B male most popular (other ports available, please contact the Factory)

**Weight:** 315 g (11 oz) typical depending upon configuration

**PX509 also available in industrial models with 5 or 10 Vdc or 4 to 20 mA outputs.**

## ELECTRICAL TERMINATIONS



**Gage, Sealed Gage and Absolute Pressure Ranges 4 to 20 mA Output**

<b>To Order</b>			
<b>RANGE/RESOLUTION</b>		<b>STANDARD MODELS</b>	<b>METRIC MODELS</b>
<b>STANDARD</b>	<b>METRIC</b>		
<b>GAGE PRESSURE</b>		<b>SEE TABLE ON PREVIOUS PAGE FOR AGENCY APPROVALS</b>	
0 to 10 inH <sub>2</sub> O	0 to 25 mb	PX5 <sup>[**]</sup> -10WGC2IS	PXM5 <sup>[**]</sup> -025HGC2IS
0 to 1 psig	0 to 70 mb	PX5 <sup>[**]</sup> -001GC2IS	PXM5 <sup>[**]</sup> -070HGC2IS
0 to 2.5	0 to 170 mb	PX5 <sup>[**]</sup> -2.5GC2IS	PXM5 <sup>[**]</sup> -170HGC2IS
0 to 5	0 to 350 mb	PX5 <sup>[**]</sup> -005GC2IS	PXM5 <sup>[**]</sup> -350HGC2IS
0 to 15	0 to 1 bar	PX5 <sup>[**]</sup> -015GC2IS	PXM5 <sup>[**]</sup> -001BGC2IS
0 to 30	0 to 2	PX5 <sup>[**]</sup> -030GC2IS	PXM5 <sup>[**]</sup> -002BGC2IS
0 to 50	0 to 3.5	PX5 <sup>[**]</sup> -050GC2IS	PXM5 <sup>[**]</sup> -3.5BGC2IS
0 to 100	0 to 7	PX5 <sup>[**]</sup> -100GC2IS	PXM5 <sup>[**]</sup> -007BGC2IS
0 to 150	0 to 10	PX5 <sup>[**]</sup> -150GC2IS	PXM5 <sup>[**]</sup> -010BGC2IS
0 to 250	0 to 17.5	PX5 <sup>[**]</sup> -250GC2IS	PXM5 <sup>[**]</sup> -17.5BGC2IS
0 to 500	0 to 35	PX5 <sup>[**]</sup> -500GC2IS	PXM5 <sup>[**]</sup> -035BGC2IS
0 to 750	0 to 50	PX5 <sup>[**]</sup> -750GC2IS	PXM5 <sup>[**]</sup> -050BGC2IS
0 to 1000	0 to 70	PX5 <sup>[**]</sup> -1.0KGC2IS	PXM5 <sup>[**]</sup> -070BGC2IS
0 to 1500	0 to 100	PX5 <sup>[**]</sup> -1.5KGC2IS	PXM5 <sup>[**]</sup> -100BGC2IS
0 to 2500	0 to 175	PX5 <sup>[**]</sup> -2.5KGC2IS	PXM5 <sup>[**]</sup> -175BGC2IS
0 to 3500	0 to 245	PX5 <sup>[**]</sup> -3.5KGC2IS	PXM5 <sup>[**]</sup> -245BGC2IS
<b>SEALED GAGE</b>		<b>SEE TABLE ON PREVIOUS PAGE FOR AGENCY APPROVALS</b>	
0 to 100 psi	0 to 7 bar	PX5 <sup>[**]</sup> -100SGC2IS	PXM5 <sup>[**]</sup> -7BSGC2IS
0 to 150	0 to 10	PX5 <sup>[**]</sup> -150SGC2IS	PXM5 <sup>[**]</sup> -10BSGC2IS
0 to 250	0 to 17.5	PX5 <sup>[**]</sup> -250SGC2IS	PXM5 <sup>[**]</sup> -17.5BSGC2IS
0 to 500	0 to 35	PX5 <sup>[**]</sup> -500SGC2IS	PXM5 <sup>[**]</sup> -35BSGC2IS
0 to 750	0 to 50	PX5 <sup>[**]</sup> -750SGC2IS	PXM5 <sup>[**]</sup> -50BSGC2IS
0 to 1000	0 to 70	PX5 <sup>[**]</sup> -1.0KSGC2IS	PXM5 <sup>[**]</sup> -70BSGC2IS
0 to 1500	0 to 100	PX5 <sup>[**]</sup> -1.5KSGC2IS	PXM5 <sup>[**]</sup> -100BSGC2IS
0 to 2500	0 to 175	PX5 <sup>[**]</sup> -2.5KSGC2IS	PXM5 <sup>[**]</sup> -175BSGC2IS
0 to 3500	0 to 245	PX5 <sup>[**]</sup> -3.5KSGC2IS	PXM5 <sup>[**]</sup> -245BSGC2IS
<b>ABSOLUTE PRESSURE MODELS</b>		<b>SEE TABLE ON PREVIOUS PAGE FOR AGENCY APPROVALS</b>	
0 to 5 psi	0 to 350 mb	PX5 <sup>[**]</sup> -005AC2IS	PXM5 <sup>[**]</sup> -350HAC2IS
0 to 15	0 to 1 bar	PX5 <sup>[**]</sup> -015AC2IS	PXM5 <sup>[**]</sup> -001BAC2IS
0 to 30	0 to 2	PX5 <sup>[**]</sup> -030AC2IS	PXM5 <sup>[**]</sup> -002BAC2IS
0 to 50	0 to 3.5	PX5 <sup>[**]</sup> -050AC2IS	PXM5 <sup>[**]</sup> -3.5BAC2IS
0 to 100	0 to 7	PX5 <sup>[**]</sup> -100AC2IS	PXM5 <sup>[**]</sup> -007BAC2IS
0 to 150	0 to 10	PX5 <sup>[**]</sup> -150AC2IS	PXM5 <sup>[**]</sup> -010BAC2IS
0 to 250	0 to 17.5	PX5 <sup>[**]</sup> -250AC2IS	PXM5 <sup>[**]</sup> -17.5BAC2IS
0 to 500	0 to 35	PX5 <sup>[**]</sup> -500AC2IS	PXM5 <sup>[**]</sup> -035BAC2IS
0 to 750	0 to 50	PX5 <sup>[**]</sup> -750AC2IS	PXM5 <sup>[**]</sup> -050BAC2IS
0 to 1000	0 to 70	PX5 <sup>[**]</sup> -1.0KAC2IS	PXM5 <sup>[**]</sup> -070BAC2IS
0 to 1500	0 to 100	PX5 <sup>[**]</sup> -1.5KAC2IS	PXM5 <sup>[**]</sup> -100BAC2IS
0 to 2500	0 to 175	PX5 <sup>[**]</sup> -2.5KAC2IS	PXM5 <sup>[**]</sup> -175BAC2IS
0 to 3500	0 to 245	PX5 <sup>[**]</sup> -3.5KAC2IS	PXM5 <sup>[**]</sup> -245BAC2IS

All models come complete with 5-point NIST traceable calibration.

Any cable or connector must meet the requirements of the environment where it is being installed. The safety engineer should specify the cables and connectors.

<b>[**] SELECT</b>	<b>MODEL NO.</b>	<b>ELECTRICAL TERMINATION</b>	<b>ENVIRONMENT RATING</b>
09	PX509	Cable with flying leads, 2 m (6')	IP65
09C	PX509C	Cable with ½ NPT conduit connector (no trim pots, not demountable)	IP65
09CP	PX509CP	Cable with ½ NPT conduit connector and side accessible trim pots	IP65
09CW	PX509CW	Submersible cable with ½ NPT conduit connector (no trim pots, not demountable) 3 m (10')	IP65
09CWP	PX509CWP	Submersible cable with ½ NPT conduit connector and side accessible trim pots (not demountable) 3 m (10')	IP65
19	PX519	mini-DIN connector (mating connector not included)	IP65
29	PX529	Twist-lock 6 pin connector	IP65
39	PX539	DIN connector (mating connector not included)	IP65
49	PX549	Glass to metal sealed solder pins	IP65
59	PX559	M12 connector, M12 cables sold separately	IP65

**Ordering Examples:** PX509C-100GC2IS, 2 m (6') cable termination with ½ NPT conduit fitting, 100 psig range, 4 to 20 mA output with FM intrinsically safe rating.

PX509CP-1.0KGC2IS, 2 m (6') cable termination with ½ NPT conduit fitting with side accessible trim pots, 1000 psig range, 4 to 20 mA output with FM intrinsically safe rating.

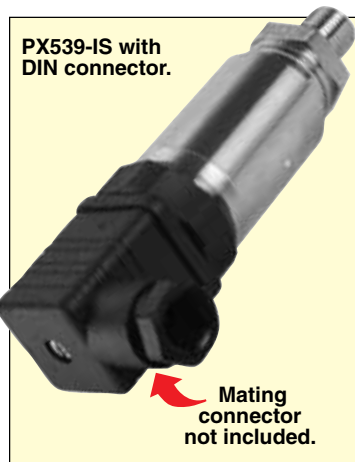
PX519-005AC2IS, mini-DIN connector (mating connector not included), 0 to 5 psi absolute range, 4 to 20 mA output with FM intrinsically safe rating.

# INTRINSICALLY SAFE PRESSURE TRANSMITTERS FOR HAZARDOUS LOCATIONS

## STANDARD AND METRIC MODELS

Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it) - Rometec srl - [www.rometec.it](http://www.rometec.it) - [info@rometec.it](mailto:info@rometec.it)

### ELECTRICAL TERMINATIONS



### Compound Gage, Vacuum and Barometric Pressure Ranges 4 to 20 mA Output

#### To Order

RANGE		STANDARD MODELS	METRIC MODELS
STANDARD	METRIC		
COMPOUND GAGE RANGES		SEE TABLE FOR AGENCY APPROVALS	
±10 inH <sub>2</sub> O	±25 mbar	PX5[**]-10WCGBC2IS	PXM5[**]-025HCGBC2IS
±1 psig	±70 mbar	PX5[**]-001CGBC2IS	PXM5[**]-070HCGBC2IS
±2	±170 mbar	PX5[**]-2.5CGBC2IS	PXM5[**]-170HCGBC2IS
±5	±350 mbar	PX5[**]-005CGBC2IS	PXM5[**]-350HCGBC2IS
±15	±1 bar	PX5[**]-015CGBC2IS	PXM5[**]-001BCGBC2IS
VACUUM RANGES (NEGATIVE GAGE)		SEE TABLE FOR AGENCY APPROVALS	
0 to -10 inH <sub>2</sub> O	0 to -25 mbar	PX5[**]-10WVC2IS	PXM5[**]-025HVC2IS
0 to -1 psig	0 to -70 mbar	PX5[**]-001VC2IS	PXM5[**]-070HVC2IS
0 to -2.5	0 to -170 mbar	PX5[**]-2.5VC2IS	PXM5[**]-170HVC2IS
0 to -5	0 to -350 mbar	PX5[**]-005VC2IS	PXM5[**]-350HVC2IS
0 to -15	0 to -1 bar	PX5[**]-015VC2IS	PXM5[**]-001BVC2IS
BAROMETRIC RANGES (ABSOLUTE PRESSURE)		SEE TABLE FOR AGENCY APPROVALS	
0 to 32 inHg	0 to 1100 hPa	PX5[**]-32BC2IS	PXM5[**]-1100HBC2IS
16 to 32 inHg	550 to 1100 hPa	PX5[**]-16BC2IS	PXM5[**]-550HBC2IS
26 to 32 inHg	880 to 1100 hPa	PX5[**]-26BC2IS	PXM5[**]-880HBC2IS

All models come complete with 5-point NIST traceable calibration.

Any cable or connector must meet the requirements of the environment where it is being installed. The safety engineer should specify the cables and connectors.

[**] SELECT	MODEL NO.	ELECTRICAL TERMINATION	ENVIRONMENT RATING
09	PX509	Cable with flying leads, 2 m (6')	IP65
09C	PX509C	Cable with ½ NPT conduit connector and specify model PX509C (no trim pots, not demountable)	IP65
09CP	PX509CP	Cable with ½ NPT conduit connector and side accessible trim pots specify model PX509CP	IP65
09CW	PX509CW	Submersible cable with ½ NPT conduit connector (no trim pots, not demountable) 3 m (10')	IP65
09CWP	PX509CWP	Submersible cable with ½ NPT conduit connector and side accessible trim pots (not demountable) 3 m (10')	IP65
19	PX519	Mini-DIN connector (mating connector not included)	IP65
29	PX529	Twist-lock 6 pin connector	IP65
39	PX539	DIN connector (mating connector not included)	IP65
49	PX549	Glass to metal sealed solder pins	IP65
59	PX559	M12 connector, M12 cables sold separately	IP65

Custom configurations also available, visit us online for details.

**Ordering Examples:** PX509C-16BC2IS, 2 m (6') cable termination with ½ NPT conduit fitting, 16 to 32 inHg barometric range, 4 to 20 mA output with FM intrinsically safe rating.

PX529C-2.5VC2IS, twist-lock 6 pin connector, 0 to -2.5 psi vacuum range, 4 to 20 mA output with FM intrinsically safe rating.

PX549-16HBC2IS, glass to metal sealed solder pins, 550 to 1100 hPa barometric range, 4 to 20 mA output with FM intrinsically safe rating.

PX559-001CGBC2IS, M12 connector termination, ±1 psi compound gage range, 12 mA ±8 mA output (zero =12 mA) with FM intrinsically safe rating.

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# High-Performance Thin Film

## Pressure Transducer

### Imperial and Metric Models

**0-5 and 0-10 Vdc Output Models**

**3 Wire Amplifier**

**0-15 to 0-10,000 psi-Imperial Models**

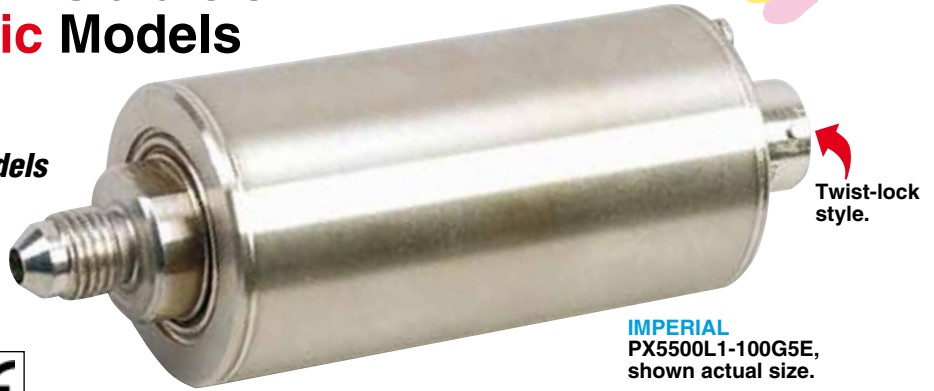
**0-1 to 0-600 bar-Metric Models**

1 bar = 14.5 psi

1 kg/cm<sup>2</sup> = 14.22 psi

1 atmosphere = 14.7 psi = 29.93

inHg = 760.2 mmHg = 1.014 bar



**IMPERIAL**  
PX5500L1-100G5E,  
shown actual size.

**PX5500/  
PXM5500 Series**



Standard

- ✓ **Integral Shunt Calibration**
- ✓ **Low Noise, 5 Vdc and 10 Vdc Output Models**
- ✓ **High 0.1% Accuracy**
- ✓ **Solid State Reliability**
- ✓ **Sputtered Strain Gage Design**
- ✓ **High Shock and Vibration Resistance**
- ✓ **Low Drift**

#### Applications

- ✓ **R&D/Engineering Test Laboratories**
- ✓ **Functional Test Systems**
- ✓ **Production Testing**
- ✓ **Flight Testing**
- ✓ **Gas Turbine and Engine Test Stands**
- ✓ **Hydraulic Systems**
- ✓ **Custody Transfer Measurements**

OMEGA'S PX5500/PXM5500 transducer series provides high performance in demanding industrial and research applications where accuracy, reliability, and price are important. These transducers have a 10-year MTBF rate and are stable to 0.1% of FSO over an 18-month period. This translates into less downtime, fewer test reruns, more time between calibrations, and high confidence in your pressure data. When recalibration is impossible, relying on the high stability of the PX5500/PXM5500 Series transducers may be the only cost-effective way to obtain pressure data over the long term. OMEGA's thin-film technology makes this premium performance possible. The strain gages and

associated parts are sputter-deposited directly onto the pressure sensing element, eliminating the need for adhesives. The resulting molecular bond between the sensing element and the strain gage ensures virtually no shifting, drifting, or "creep" in the performance of the transducer. The micro-geometry design of the PX5500/PXM5500 sensing element affords a very small, low-mass sensor that reduces effects of mechanical vibration and shock. The PX5500/PXM5500 gives you accuracy, reliability, and stability at competitive prices.

#### Specifications

**Electrical Connection:** See Custom Configurations

**Pressure Port:** See Custom Configurations

**Mating Connector (Style 1):** PT06F10-6S (sold separately)

**Weight:** 225 g (8 oz) max

**Excitation:** 16 to 38 Vdc unregulated

**Output (FS) 5E/5T Models:** 5 Vdc ±0.1 Vdc ±10% adj

**Output (FS) 10E Models:** 10 Vdc ±0.1 Vdc ±10% adj

**CE Compliant:** Meets industrial emissions and immunity to EN61326

**Zero Balance:** 0 Vdc ±0.1 Vdc ±5% adj

**Input Current:** 20 mA max with no load

**Output Resistance:** 100 Ω max

**Insulation Resistance:** 100 M Ω @ 45 Vdc between all pins shorted together and case

**Electrostatic Discharge:** Protected to 15 kV max

**Sensing Element:** 4-active-arm bridge using sputter-deposited thin-film elements

**Accuracy:** Combined linearity, hysteresis and repeatability: ±0.10% FS (BFSL) <70 bar (<1000 psi) ±0.15% FS 70 bar (1000 psi) and above

**Natural Frequency:** 5 kHz for 1 bar (15 psi), increasing logarithmically to 50 kHz for 5000 psi

**Operating Temp Range:** -54 to 121°C (-65 to 250°F)

**Compensated Temp Range:** -18 to 82°C (0 to 180°F)

**Thermal Effects (Over the Compensated Range):**

**Span:** ±0.015% FS/°F (0.027%/°C)

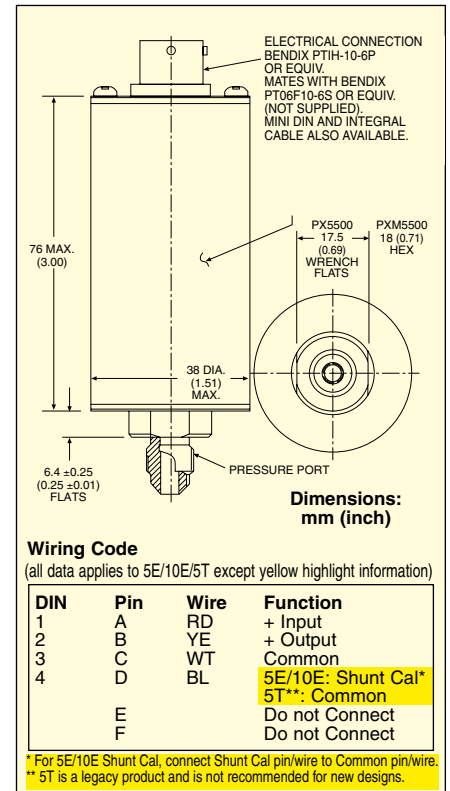
**Zero:** ±0.015% FS/°F (0.027%/°C)

**Proof Pressure:** 2 times rated pressure or 1000 bar (15,000 psi), whichever is less, will not cause changes in performance beyond the specified tolerance

**Burst Pressure:** 3 times rated pressure or 1300 bar (20,000 psi), whichever is less, will not cause rupture of the pressure containment cavity

**Wetted Parts:**

17-4 PH or 15-5 PH stainless steel







# High-Performance Thin-Film Pressure Transducer

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## Imperial Custom Configurations

PX5500 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>A</b> = 1/8-27 NPT male	<b>B</b> = 1/8-27 NPT female <b>C</b> = 1/4-18 NPT male <b>D</b> = 1/4-18 NPT female <b>L</b> = MS33656-4 <b>M</b> = MS33649-4  <b>0</b> = 0.6 m (2') cable <b>add cost per/foot</b> <b>over 0.6 m (2')</b> <b>1</b> = PTIH-10-6P twist-lock connector (or equal, no charge). Mating connector (sold separately), order <b>PT06F10-6S</b> <b>6</b> = mini DIN connector (no charge)		015 psi	S,G,A	<b>5E</b> = 0 to 5 Vdc	<b>CAL11</b> = 11-point calibration certificate + <b>cost</b> ( )ft = Optional cable length in meters
<b>B</b> = 1/8-27 NPT female		025	S,G,A	<b>10E</b> = 0 to 10 Vdc		
<b>C</b> = 1/4-18 NPT male		050	S,G,A	<b>5T*</b> = 0 to 5 Vdc		
<b>D</b> = 1/4-18 NPT female		100	S,G,A	* 5T is a legacy product and is not recommended for new designs.		
<b>L</b> = MS33656-4		250	S,G,A			
<b>M</b> = MS33649-4		500	S,G,A			
		1K	S,G,A			
		1.5K	S,G,A			
		2.5K	S,G,A			
		3K	S,G,A			
	5K	S,G,A				
	10K	S,G,A				

Visit us online for additional options including extended compensated temperatures.

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units – Sealed Gage, Gage or Absolute
5. Select output
6. Select options

## To Order

Popular Imperial Models with 0 to 5 or 0 to 10 Vdc Output Shown Below (See Custom Configurations Section for All Available Versions/Options)

Pressure Range		Model No. (With Output Termination Style)		
Imperial	Metric	0.6 m (2') Cable	PTIH-10-6P Connector	mini DIN Connector
<b>Absolute Pressure (All Ranges Available in Absolute Pressure, See Custom Configurations Section)</b>				
0 to 15 psi	0 to 1.0 bar	PX5500[*]0-015A[**]	PX5500[*]1-015A[**]	PX5500[*]6-015A[**]
0 to 25 psi	0 to 1.7 bar	PX5500[*]0-025A[**]	PX5500[*]1-025A[**]	PX5500[*]6-025A[**]
0 to 50 psi	0 to 3.4 bar	PX5500[*]0-050A[**]	PX5500[*]1-050A[**]	PX5500[*]6-050A[**]
0 to 100 psi	0 to 6.9 bar	PX5500[*]0-100A[**]	PX5500[*]1-100A[**]	PX5500[*]6-100A[**]
<b>Gage Pressure (All Ranges Also Available in Sealed Gage Pressure, See Below)</b>				
0 to 15 psi	0 to 1.0 bar	PX5500[*]0-015G[**]	PX5500[*]1-015G[**]	PX5500[*]6-015G[**]
0 to 25 psi	0 to 1.7 bar	PX5500[*]0-025G[**]	PX5500[*]1-025G[**]	PX5500[*]6-025G[**]
0 to 50 psi	0 to 3.4 bar	PX5500[*]0-050G[**]	PX5500[*]1-050G[**]	PX5500[*]6-050G[**]
0 to 100 psi	0 to 6.9 bar	PX5500[*]0-100G[**]	PX5500[*]1-100G[**]	PX5500[*]6-100G[**]
0 to 250 psi	0 to 17.2 bar	PX5500[*]0-250G[**]	PX5500[*]1-250G[**]	PX5500[*]6-250G[**]
0 to 500 psi	0 to 34.5 bar	PX5500[*]0-500G[**]	PX5500[*]1-500G[**]	PX5500[*]6-500G[**]
0 to 1000 psi	0 to 68.9 bar	PX5500[*]0-1KG[**]	PX5500[*]1-1KG[**]	PX5500[*]6-1KG[**]
0 to 1500 psi	0 to 103 bar	PX5500[*]0-1.5KG[**]	PX5500[*]1-1.5KG[**]	PX5500[*]6-1.5KG[**]
0 to 2500 psi	0 to 172 bar	PX5500[*]0-2.5KG[**]	PX5500[*]1-2.5KG[**]	PX5500[*]6-2.5KG[**]
0 to 3000 psi	0 to 207 bar	PX5500[*]0-3KG[**]	PX5500[*]1-3KG[**]	PX5500[*]6-3KG[**]
0 to 5000 psi	0 to 345 bar	PX5500[*]0-5KG[**]	PX5500[*]1-5KG[**]	PX5500[*]6-5KG[**]
0 to 10,000 psi	0 to 689 bar	PX5500[*]0-10KG[**]	PX5500[*]1-10KG[**]	PX5500[*]6-10KG[**]

Comes complete with 5-point NIST-traceable calibration. Visit us online for compatible meters.

[\*] Pressure Port (see Custom Configurations section and enter **A, B, C, D, L, or M**).

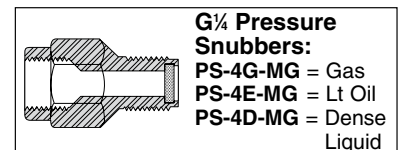
[\*\*] Output Voltage Range: Enter "**5E**" for 0 to 5 Vdc output, or "**10E**" for 0 to 10 Vdc output.

To order absolute pressure transducers, change "**G**" in model number to "**A**" (no extra charge).

To order sealed gage transducers, change "**G**" in model number to "**S**" (no extra charge).

**Ordering Examples:** **PX5500L1-025A10E**, 25 psi absolute transducer with 0 to 10 Vdc output, PTIH-10-6P electrical connection, and MS33656-4, male pressure port. **PT06F10-6S**, mating connector (sold separately).

**PX5500C6-5KG5E**, 5000 psi gage pressure transducer with 0 to 5 Vdc output, mini DIN electrical connection, and 1/4-18 NPT male pressure port.





**Metric Custom Configurations**

PXM5500 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>MA</b> = G $\frac{1}{4}$ B Male <b>extra charge</b>			001BAR	S,G,A	<b>5E</b> = 0 to 5 Vdc	<b>CAL11</b> = 11-point calibration certificate
<b>MB</b> = G $\frac{1}{4}$ B Female no charge			1.60BAR	S,G,A	<b>10E</b> = 0 to 10 Vdc	+ <b>cost</b>
<b>MC</b> = G $\frac{1}{4}$ B Male <b>extra charge</b>			004BAR	S,G,A	<b>5T*</b> = 0 to 5 Vdc	( ) <b>ft</b> = Optional cable length in meters
<b>MD</b> = G $\frac{1}{4}$ B Female no charge			006BAR	S,G,A	* <b>5T</b> is a legacy product and is not recommended for new designs.	
<b>0</b> = 0.6 m (2') cable (std) <b>add cost per/ meter over 0.6 m (2')</b>			010BAR	S,G,A		
<b>1</b> = PTIH-10-6P twist-lock connector (or equal, no charge). Mating connector (sold separately), order <b>PT06F10-6S</b>			016BAR	S,G,A		
<b>6</b> = mini DIN connector (no charge)			025BAR	S,G,A		
			040BAR	S,G,A		
			060BAR	S,G,A		
			100BAR	S,G,A		
			160BAR	S,G,A		
			250BAR	S,G,A		
			400BAR	S,G,A		
			600BAR	S,G,A		

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units – Sealed Gage, Gage or Absolute
5. Select output
6. Select options

Visit us online for additional options including extended compensated temperatures.

Popular Metric Models with 0 to 5 or 0 to 10 Vdc Output Shown Below (See Custom Configurations Section for All Available Versions/Options)				
Pressure Range		Model No. (With Output Termination Style)		
Metric	Imperial	0.6 m (2') Cable	PTIH-10-6P Connector	mini DIN Connector
<b>Gage Pressure (All Ranges Also Available in Absolute and Sealed Gage Pressure, See Below)</b>				
0 to 1 bar	0 to 15 psi	PXM5500M[*]0-001BARG[**]	PXM5500M[*]1-001BARG[**]	PXM5500M[*]6-001BARG[**]
0 to 1.60 bar	0 to 23 psi	PXM5500M[*]0-1.60BARG[**]	PXM5500M[*]1-1.60BARG[**]	PXM5500M[*]6-1.60BARG[**]
0 to 4 bar	0 to 58 psi	PXM5500M[*]0-004BARG[**]	PXM5500M[*]1-004BARG[**]	PXM5500M[*]6-004BARG[**]
0 to 6 bar	0 to 87 psi	PXM5500M[*]0-006BARG[**]	PXM5500M[*]1-006BARG[**]	PXM5500M[*]6-006BARG[**]
0 to 10 bar	0 to 145 psi	PXM5500M[*]0-010BARG[**]	PXM5500M[*]1-010BARG[**]	PXM5500M[*]6-010BARG[**]
0 to 16 bar	0 to 232 psi	PXM5500M[*]0-016BARG[**]	PXM5500M[*]1-016BARG[**]	PXM5500M[*]6-016BARG[**]
0 to 25 bar	0 to 363 psi	PXM5500M[*]0-025BARG[**]	PXM5500M[*]1-025BARG[**]	PXM5500M[*]6-025BARG[**]
0 to 40 bar	0 to 580 psi	PXM5500M[*]0-040BARG[**]	PXM5500M[*]1-040BARG[**]	PXM5500M[*]6-040BARG[**]
0 to 60 bar	0 to 870 psi	PXM5500M[*]0-060BARG[**]	PXM5500M[*]1-060BARG[**]	PXM5500M[*]6-060BARG[**]
0 to 100 bar	0 to 1450 psi	PXM5500M[*]0-100BARG[**]	PXM5500M[*]1-100BARG[**]	PXM5500M[*]6-100BARG[**]
0 to 160 bar	0 to 2321 psi	PXM5500M[*]0-160BARG[**]	PXM5500M[*]1-160BARG[**]	PXM5500M[*]6-160BARG[**]
0 to 250 bar	0 to 3626 psi	PXM5500M[*]0-250BARG[**]	PXM5500M[*]1-250BARG[**]	PXM5500M[*]6-250BARG[**]
0 to 400 bar	0 to 5802 psi	PXM5500M[*]0-400BARG[**]	PXM5500M[*]1-400BARG[**]	PXM5500M[*]6-400BARG[**]
0 to 600 bar	0 to 8702 psi	PXM5500M[*]0-600BARG[**]	PXM5500M[*]1-600BARG[**]	PXM5500M[*]6-600BARG[**]

Comes complete with 5-point NIST-traceable calibration. Visit us online for compatible meters.

[\*] Pressure Port (see Custom Configurations section and enter **MA**, **MB**, **MC**, or **MD**).

[\*\*] Output Voltage Range: Enter “**5E**” for 0 to 5 Vdc output, or “**10E**” for 0 to 10 Vdc output.

To order absolute pressure models, replace “**G**” in model number with “**A**” (no extra charge).

To order sealed gage models, replace “**G**” in model number with “**S**” (no extra charge).

**Ordering Examples:** **PXM5500MC6-060BARS5E**, 60 bar sealed gage transducer with 0 to 5 Vdc output, mini DIN electrical connection and G $\frac{1}{4}$  male pressure port. Mating connector included.

**PXM5500MC0-010BARA10E**, 10 bar absolute pressure transducer with 0 to 10 Vdc output, 0.6 m (2') cable connection and G $\frac{1}{4}$  male pressure port.

**Accessories**

Model No.	Description
<b>PT06F10-6S</b>	Mating connector for PX5500/PXM5500 Series units with PTIH-10-6P twist-lock connector

# Omega Link Pressure Monitoring and Control Smart Probe

- Low-cost smart pressure sensor
- All stainless-steel body
- No excitation required
- Battery powered long-range wireless capable with IF-006
- 2x digital I/O (monitor input or control output)
- 10,000+ sample data/event logging
- Integrated alarm and control
- Secure authentication and password protection



## Omega Link SP-006: Introduction

Omega's Omega Link Pressure Monitoring Smart Probes measure gas, liquid, and vapor pressure for a wide range of applications. Featuring all stainless-steel pressure sensor construction and available in 1, 50, 100, and 250 psi configurations. No excitation is required as power is provided by Omega Link modular wireless or wired interfaces via a rugged M12 connector.

Users may apply a calibration correction to the measured pressure using either 1 single offset or a calculated 2-point correction for improved accuracy across the entire measurement range.

Temperature data is also available for monitoring the internal temperature of the pressure sensor.

## Smart Core Enabled

Smart Core is integral to all Omega Link Smart Sensing Devices. In addition to allowing for modular integration to the Omega Link Ecosystem using any Omega Link Smart Interface, this powerful suite of advanced features enable plug-and-play connectivity, alarm and notifications, data logging, SYNC configuration, and storage of 10,000 data points and events.

## Intuitive Configuration

Configure your Omega Link Smart Probe using our free SYNC configuration software. Configurable features include selective data extraction, measurement and device traceability, local alarms, and adaptive transmission rates.

## Edge Control and Built in I/O

The Omega Link SP-006 features 2 discrete I/O pins. These can be used for a myriad of applications including driving relays, physical alarms, or sensing dry contacts like door switches. The SP-006

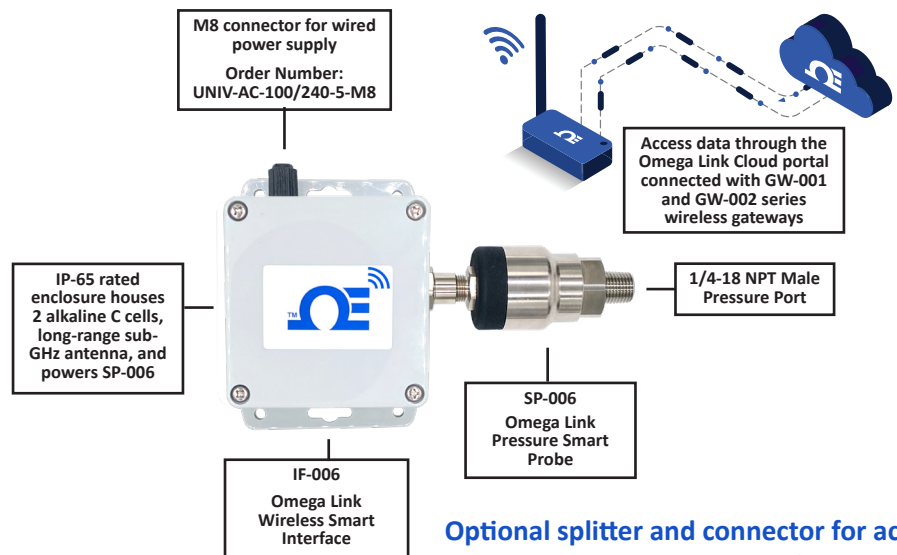
can also be utilized as an edge controller, with autonomous independent decision-making capabilities to generate local alarms or provide control outputs based on sensor inputs.

## Long-Range Wireless Solution\*

Pairing the SP-006 with the IF-006 Series interface produces a self-contained, long-range, wireless solution. This setup can also be externally powered by adding the UNIV-AC100/240-M8 power adaptor.

*\*Note: IF-006 must be paired with an Omega Link wireless gateway*

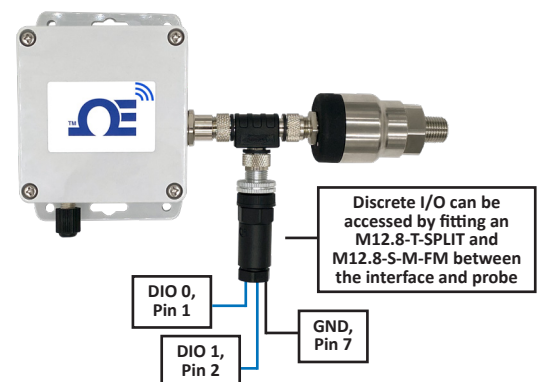
## Wireless Configuration for Smart Pressure Probe



## Optional splitter and connector for access to configurable Discrete I/O signals

## Modularity

Customize your Omega Link Ecosystem by taking advantage of discrete I/O features accessible through the modular addition of an M12.8-T-SPLIT and M12.8-S-M-FM terminal.



## Specifications

### PRESSURE

**Range:** 1, 50, 100, 250 psi

**Accuracy:** ±0.5% full-scale

**Resolution:** 0.1

**Absolute Maximum Pressure:** 1.5 times full-scale for each range

**Caution:** Do not exceed 500 psi

### INTERNAL SENSOR TEMPERATURE

**Range:** -10 to 80°C

**Accuracy:** ±1.5°C

**Resolution:** 0.1°C

### INPUT POWER

**Voltage:** 2.8 V DC - 3.3 V DC

### DIO DIGITAL INPUTS

$V_{inHighThreshold} = 2.2 V_{MAX}$

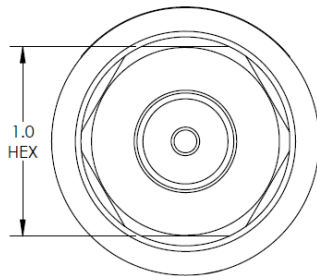
$V_{inLowThreshold} = 0.3 V_{MIN}$

$V_{inMAX} = 30 V DC$

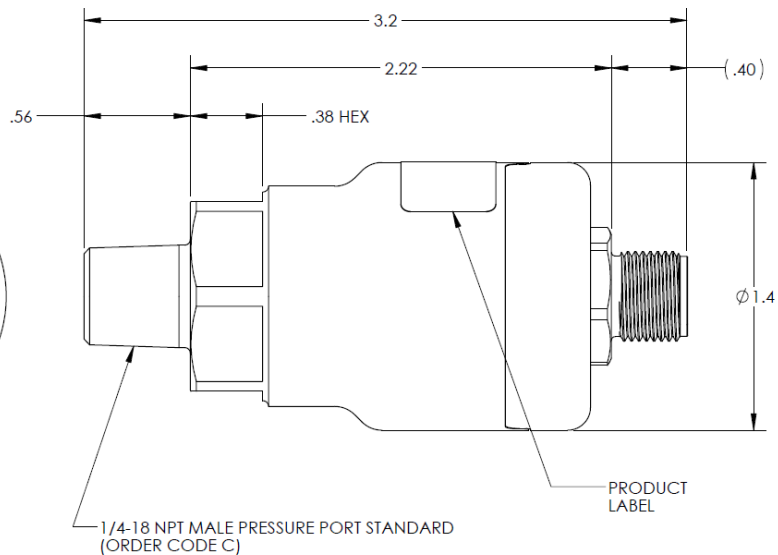
### DIO DIGITAL OUTPUTS

2x Open Drain 200 mA max

$V_{MAX} = 30 V DC$



Units shown in inches



INQUIRE FOR OTHER MALE AND FEMALE PRESSURE PORTS:

- 1/8-27 NPT (ORDER CODES A & B)
- 1/4-18 NPT FEMALE (ORDER CODE D)
- BSPP 1/8 B (ORDER CODES MA & MB)
- BSPP 1/4 B (ORDER CODES MC & MD)
- 7/16-20 UNJF (ORDER CODES J & K)
- 9/16-18 UNF (ORDER CODES L & M)
- M12X1.5 (ORDER CODES ME & MF)

### ENVIRONMENTAL

**Storage Temperature:** -40 to 85°C  
less than 95% RH, non-condensing

**Environmental Rating:** IP50

### GENERAL

**Configuration:** Configurable with a Omega Link Smart Interface (such as the IF-001 USB Adaptor and SYNC configuration software

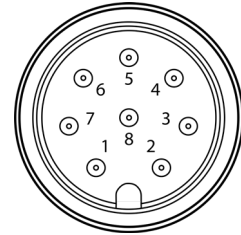
### Smart Interface Connectivity:

USB (IF-001), Modbus (IF-002), Wireless (IF-006)

### Software:

Compatible with Omega Enterprise Gateway and SYNC configuration software

## M12 8-Pin Male Connector



Pin	Name	Function
Pin 1	DIO 0	Discrete I/O Signal 0
Pin 2	INTR	Interrupt Signal
Pin 3	SCL	I2C Clock Signal
Pin 4	SDA	I2C Data Signal
Pin 5	Shield	Shield Ground
Pin 6	DIO 1	Discrete I/O Signal 1
Pin 7	GND	Power Ground
Pin 8	3.3VDD	Power Supply

## Omega Link SP-006 Ordering Guide

When ordering an Omega Link SP-006, specify your preferred configuration of Pressure Range and Pressure Type by using the table below:

Model Number	Description
SP-006-1-C-001G	Omega Link pressure monitoring and control smart probe with discrete I/O - 1 psi 6.89 kPa Gauge
SP-006-1-C-050G	Omega Link pressure monitoring and control smart probe with discrete I/O - 50 psi 345 kPa Gauge
SP-006-1-C-050A	Omega Link pressure monitoring and control smart probe with discrete I/O - 50 psi 345 kPa Absolute
SP-006-1-C-100G	Omega Link pressure monitoring and control smart probe with discrete I/O - 100 psi 689 kPa Gauge
SP-006-1-C-250G	Omega Link pressure monitoring and control smart probe with discrete I/O - 250 psi 1724 kPa Gauge



## Omega Link Smart Interface

Omega Link Smart Sensing devices require an Omega Link Smart Interface to operate and connect to your Omega Link Ecosystem. There are both wired and wireless options.

Model Number	Description
IF-001	Wired USB Smart Interface
IF-002	Wired RS485/Modbus Smart Interface
IF-006-1-NA	Wireless Sub GHz Wireless Interface -915 MHz
IF-006-1-EU	Wireless Sub GHz Wireless Interface -868 MHz

## Omega Link Gateways

An Omega Link Gateway is **required** to connect your Smart Probe to the Omega Link Cloud or Omega Enterprise Gateway.

Model Number	Description
GW-001-0	Wired IIoT Gateway Standard, Ethernet connectivity, Modbus RTU RS232/RS485 and Modbus TCP
GW-001-2-NA	Wireless IIoT Gateway Standard, Ethernet connectivity, connects up to 100 Omega Link Smart Sensors- 915 MHz
GW-001-2-EU	Wireless IIoT Gateway Standard, Ethernet connectivity, connects up to 100 Omega Link Smart Sensors- 868 MHz
GW-001-3-NA	Wireless IIoT Gateway Pro, Ethernet connectivity, power over Ethernet, connects up to 100 Omega Link Smart Sensors, Modbus RTU RS232/RS485 and Modbus TCP, 2x USB ports- 915 MHz
GW-001-3-EU	Wireless IIoT Gateway Pro, Ethernet connectivity, power over Ethernet, connects up to 100 Omega Link Smart Sensors, Modbus RTU RS232/RS485 and Modbus TCP, 2x USB ports- 868 MHz
GW-002-1-LTE	Wireless LTE IIoT Gateway Pro connects up to 40 Omega Link Smart Sensors, Modbus RTU RS232/RS485 and Modbus TCP, 1x RJ45 port, 1x USB port - 915 MHz

## Accessories

Model Number	Description
M12.8-T-SPLIT	Smart Probe M12-8 pin shielded T-Splitter - enables access to I/O pins
M12.8-S-M-FM	M12-8 pin Straight Plug Field install connector with screw terminals
DM12CAB-8-1-RA	1m (3.3') cable dual M12-8 connector, right angle terminator
DM12CAB-8-3-RA	3m (9.8') cable dual M12-8 connector, right angle terminator
DM12CAB-8-5-RA	5m (16.4') cable dual M12-8 connector, right angle terminator
DM12CAB-8-1	1m (3.3') cable dual M12-8 straight connector
DM12CAB-8-3	3m (9.8') cable dual M12-8 straight connector
DM12CAB-8-5	5m (16.4') cable dual M12-8 straight connector

## Your Data at a Glance with the Omega Link Cloud

The Omega Link Cloud consolidates and brings your data to you when you need it, wherever you are. The intuitive cloud interface allows you to monitor and store your data, set alarms and alerts, and provides insights on device activity. Visit the OMEGA website for more details.

