

# VERY-HIGH-ACCURACY MILLIVOLT OUTPUT PRESSURE TRANSDUCER

## STANDARD AND METRIC MODELS

### mV/V Output

0-10 to 0-30,000 psi-  
Standard Models

0-700 mbar 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

Available in Cable  
or Connector  
Styles



PX01K1-100GV, 7/16-20 UNF female connection, shown actual size.

PXM01MC1-010BARGV, G 3/4 male, shown actual size.

## PX01/PXM01 Series



Standard

- ✓ 0.05% Linearity
- ✓ High Operating Temperature: 163°C (325°F)
- ✓ 3 mV/V Output
- ✓ All Stainless Steel Construction
- ✓ Shunt Calibration for Fast System Setup
- ✓ Hermetically Sealed Design for Harsh Environments (Not Gage Units)
- ✓ Internal Shunt for Easy System Checks

### SPECIFICATIONS

#### mV/V Output

Excitation: 10 Vdc (15 Vdc max)

Output: 3 mV/V ±0.25%

Input Resistance: 350 ±10 Ω

Output Resistance: 350 ±10 Ω

Zero Balance: 1.0% FS

Linearity: ±0.05% FS

Hysteresis: ±0.05% FS

Repeatability: ±0.05% FS

Shunt Calibration: Value specified on calibration sheet

Sensing Element: 4-active-arm bridge, using thick-film strain gages in a hermetically sealed chamber

Operating Temp Range:

-73 to 163°C (-100 to 325°F)

Compensated Temp Range:

16 to 71°C (60 to 160°F)

Thermal Effects:

Span: 0.0015% rdg/°F

Zero: 0.0015% FS/°F

Proof Pressure: 150% of rated pressure

Burst Pressure: 300% of rated pressure

Wetted Parts: 17-4 PH SS

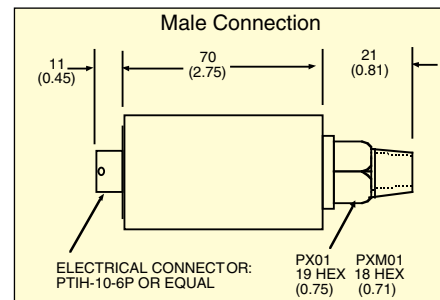
Pressure Port: See custom configurations

Electrical Connection: See custom configurations

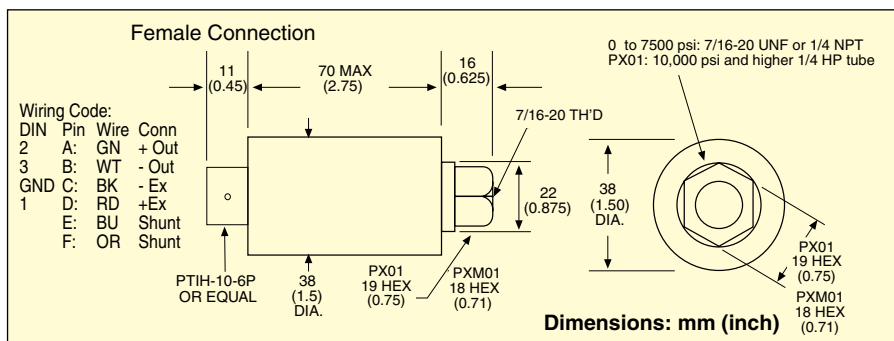
Mating Connector (Style 1):

PT06F10-6S (sold separately)

Weight: 255 g (9 oz)

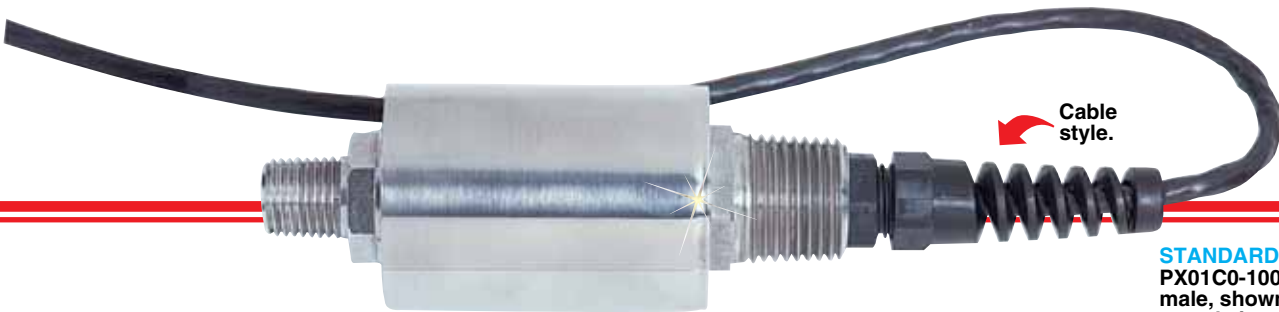


OMEGA's PX01/PXM01 are very-high-accuracy, 30-millivolt output industrial pressure transducer. Their all stainless steel construction and hermetically sealed case make them suitable for harsh environments. The PX01/PXM01 has a high operating range, a broad compensated range, and excellent temperature compensation that gives stable readings in harsh applications.



MILLIVOLT OUTPUT  
PRESSURE TRANSDUCERS

B



**STANDARD**  
PX01C0-100GV, 1/4 NPT male, shown smaller than actual size.

**STANDARD CUSTOM CONFIGURATIONS**

PX01 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	A, G, S A, G, S	<b>Base Price PX01:</b> V = mV/V output	<b>OL</b> = Overload stops where available <b>+ additional cost</b> <b>OX</b> = Oxygen cleaning <b>+ additional cost</b> plus 2 weeks
	<b>0</b> = 3 m (10') cable (std) <b>1</b> = <b>PTIH-10-6P</b> 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 temperatures ranges, visit us online</b>	
					<b>To order a custom configuration:</b> 1. Select a pressure port 2. Select electrical connection 3. Select a pressure range 4. Select pressure units 5. Select output 6. Select options	

\* 2 and 5 psi ranges available only with amplified output.

**Ordering Examples:** PX01C1-100GV, 100 psi gage pressure transducer with 1/4-18 NPT male fitting, PTIH-10-6P connector and mV/V output. PT06F10-6S, mating connector (sold separately).

**G 1/4 Pressure Snubbers**  
**PS-4G-MG** = Gas  
**PS-4E-MG** = Lt Oil  
**PS-4D-MG** = Dense Liquid

Mating Connector  
**PT06F10-6S**

**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 B Male <b>MB</b> = G 1/8 B Female <b>MC</b> = G 1/8 B Male <b>MD</b> = G 1/8 B Female			1.0 1.6 2.5 4.0 6.0 10 16 25 40 60 100 160 250 400	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 A, G, S	<b>Base Price PXM01:</b> V = mV/V output	<b>OX</b> = Cleaned for oxygen service <b>OL</b> = Overload stops <b>( )m</b> = Optional cable length in meters
	<b>0</b> = 3 m (10') cable (std) <b>1</b> = <b>PTIH-10-6P</b> connector (or equal) <b>6</b> = mini DIN connector* (*no shunt cal)				<b>For additional options including extended compensated temperatures, visit us online</b>	
					<b>To order a custom configuration:</b> 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:** PXM01MB0-010BARSV, 10 bar sealed gage pressure transducer with G 1/8 B female connection and 3 m (10') cable termination.

PXM01MD1-010BARAV, 10 bar absolute pressure transducer with G 1/4 B female connection and twist-lock connector. PT06F10-6S, mating connector (sold separately).

## STANDARD MODELS

### To Order

RANGE		7/16-20-F MODEL	1/4 NPT-M MODEL	COMPATIBLE METERS†
<b>Connector Style – Absolute Pressure (All Ranges Available in Absolute Pressure)</b>				
0 to 15 psi	0 to 1.0 bar	PX01K1-015AV	PX01C1-015AV	DP41-S, DP25B-S
0 to 20 psi	0 to 1.4 bar	PX01K1-020AV	PX01C1-020AV	DP41-S, DP25B-S
0 to 25 psi	0 to 1.7 bar	PX01K1-025AV	PX01C1-025AV	DP41-S, DP25B-S
0 to 50 psi	0 to 3.4 bar	PX01K1-050AV	PX01C1-050AV	DP41-S, DP25B-S
<b>Connector Style – Gage Pressure (All Ranges Also Available in Sealed Gage Pressure)</b>				
0 to 10 psi	0 to 0.69 bar	PX01K1-010GV	PX01C1-010GV	DP41-S, DP25B-S
0 to 15 psi	0 to 1.0 bar	PX01K1-015GV	PX01C1-015GV	DP41-S, DP25B-S
0 to 50 psi	0 to 3.4 bar	PX01K1-050GV	PX01C1-050GV	DP41-S, DP25B-S
0 to 75 psi	0 to 5.2 bar	PX01K1-075GV	PX01C1-075GV	DP41-S, DP25B-S
0 to 100 psi	0 to 6.9 bar	PX01K1-100GV	PX01C1-100GV	DP41-S, DP25B-S
0 to 200 psi	0 to 13.8 bar	PX01K1-200GV	PX01C1-200GV	DP41-S, DP25B-S
0 to 300 psi	0 to 20.7 bar	PX01K1-300GV	PX01C1-300GV	DP41-S, DP25B-S
0 to 500 psi	0 to 34.5 bar	PX01K1-500GV	PX01C1-500GV	DP41-S, DP25B-S
0 to 1000 psi	0 to 68.9 bar	PX01K1-1KGV	PX01C1-1KGV	DP41-S, DP25B-S
0 to 1500 psi	0 to 103 bar	PX01K1-1.5KGV	PX01C1-1.5KGV	DP41-S, DP25B-S
0 to 2000 psi	0 to 138 bar	PX01K1-2KGV	PX01C1-2KGV	DP41-S, DP25B-S
0 to 3500 psi	0 to 241 bar	PX01K1-3.5KGV	PX01C1-3.5KGV	DP41-S, DP25B-S
0 to 5000 psi	0 to 345 bar	PX01K1-5KGV	PX01C1-5KGV	DP41-S, DP25B-S
0 to 7500 psi	0 to 517 bar	PX01K1-7.5KGV	PX01C1-7.5KGV	DP41-S, DP25B-S
0 to 10,000** psi	0 to 689 bar	PX01S1-10KGV	PX01S1-10KGV	DP41-S, DP25B-S*
0 to 20,000** psi	0 to 1379 bar	PX01S1-20KGV	PX01S1-20KGV	DP41-S, DP25B-S*
0 to 30,000** psi	0 to 2068 bar	PX01S1-30KGV	PX01S1-30KGV	DP41-S, DP25B-S*

Comes complete with 5-point calibration. Metric ranges available – PXM01 Series, visit us online. \* 4-digit meter. \*\* 1/4 HP tube fitting.

† Visit us online for compatible meters.

To order absolute pressure, replace “G” in model number with “A”, add **cost**. To order sealed gage pressure, replace “G” in model number with “S” (no extra charge).

**Ordering Examples:** PX01K1-500SV, 500 psi sealed gage pressure transducer with mV/V output, 7/16-20 female fitting and PTIH-10-6P connector. PT06F10-6S, mating connector (sold separately).

PX01C0-100AV, 100 psi absolute pressure transducer with mV/V output, 1/4 NPT male fitting and 3 m (10') cable.



## METRIC MODELS

Models with G 1/4 Female Pressure Connection, Cable or Connector and mV/V Output			
RANGE		MODEL NO.	COMPATIBLE METERS*
<b>GAGE PRESSURE</b>			
0 to 1 bar	0 to 15 psi	PXM01MD[*]-001BARGV	DP41-S, DP25B-S
0 to 1.60 bar	0 to 23 psi	PXM01MD[*]-1.60BARGV	DP41-S, DP25B-S
0 to 2.50 bar	0 to 36 psi	PXM01MD[*]-2.50BARGV	DP41-S, DP25B-S
0 to 4 bar	0 to 58 psi	PXM01MD[*]-004BARGV	DP41-S, DP25B-S
0 to 6 bar	0 to 87 psi	PXM01MD[*]-006BARGV	DP41-S, DP25B-S
0 to 10 bar	0 to 145 psi	PXM01MD[*]-010BARGV	DP41-S, DP25B-S
0 to 16 bar	0 to 232 psi	PXM01MD[*]-016BARGV	DP41-S, DP25B-S
0 to 25 bar	0 to 363 psi	PXM01MD[*]-025BARGV	DP41-S, DP25B-S
0 to 40 bar	0 to 580 psi	PXM01MD[*]-040BARGV	DP41-S, DP25B-S
0 to 60 bar	0 to 870 psi	PXM01MD[*]-060BARGV	DP41-S, DP25B-S
0 to 100 bar	0 to 1450 psi	PXM01MD[*]-100BARGV	DP41-S, DP25B-S
0 to 160 bar	0 to 2321 psi	PXM01MD[*]-160BARGV	DP41-S, DP25B-S
0 to 250 bar	0 to 3626 psi	PXM01MD[*]-250BARGV	DP41-S, DP25B-S
0 to 400 bar	0 to 5802 psi	PXM01MD[*]-400BARGV	DP41-S, DP25B-S

Comes complete with 5-point NIST traceable calibration.\* Visit us online for compatible meters.

[\*] = Insert “0” for 3 m (10') cable “1” for twist-lock connector “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).

To order female thread, see Custom Configurations, visit us online.

**Ordering Examples:** PXM01MD6-60BARSV, 60 bar sealed gage pressure transducer with mV/V output, G 1/4 female fitting and mini DIN connector. Mating connector included.

PXM01MC0-010BARAV, 10 bar absolute pressure transducer with mV/V output, G 1/4 male fitting and 3 m (10') cable with 1/2 NPT conduit fitting.

