

# 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

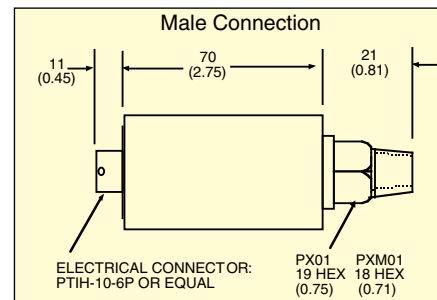
Wetted Parts: 17-4 PH SS

Pressure Port: See custom configurations

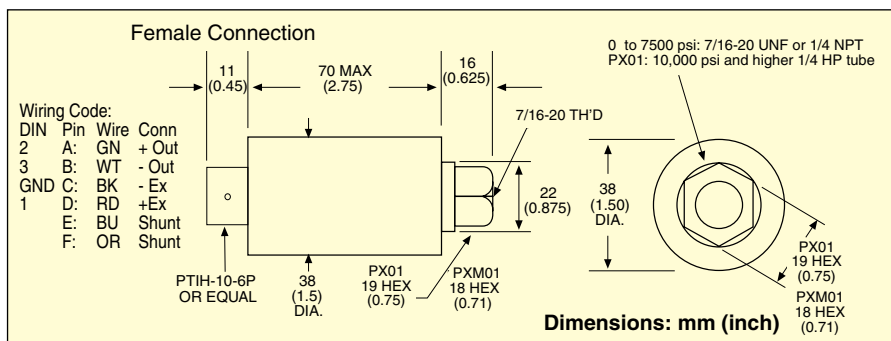
Electrical Connection: See custom configurations

Mating Connector (Style 1): PT06F10-6S (sold separately)

Weight: 255 g (9 oz)

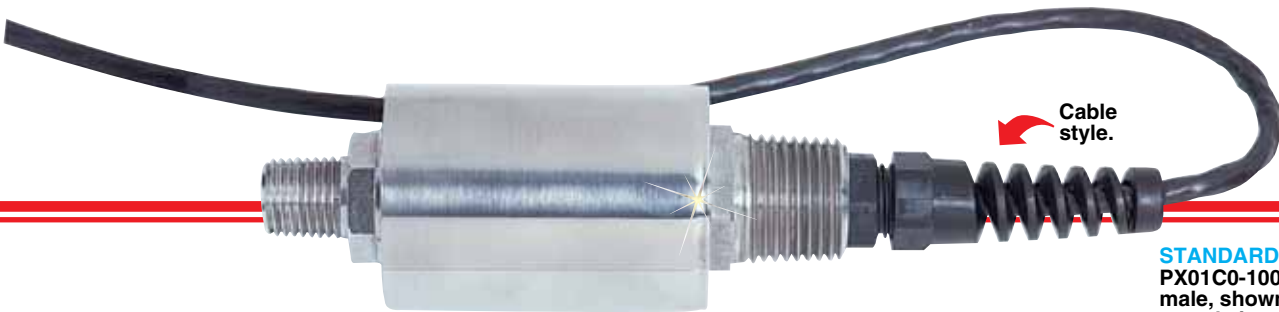


OMEGA's PX01/PXM01 are very-high-accuracy, 30-millivolt output industrial pressure transducer. Their all stainless steel construction and hermetically sealed case make them suitable for harsh environments. The PX01/PXM01 has a high operating range, a broad compensated range, and excellent temperature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



MILLIVOLT OUTPUT  
PRESSURE TRANSDUCERS

B

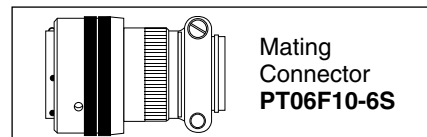
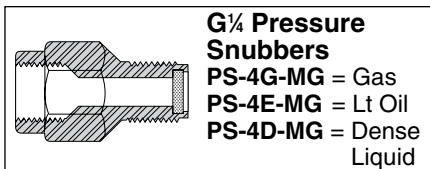


**STANDARD**  
PX01C0-100GV, ¼ NPT male, shown smaller than actual size.

**STANDARD CUSTOM CONFIGURATIONS**

| PX01 SERIES   | PRESSURE PORT [ 1 ]  | ELECTRICAL CONNECTION [ 2 ] | RANGE (psi) [ 3 ]  | UNITS [ 4 ]  | OUTPUT [ 5 ]  | OPTIONS [ 6 ]   |
|---|--|-----------------------------|--|--|---|---|
| Models < 10,000 psi:<br><b>C</b> = ¼-18 NPT-M<br><b>D</b> = ¼-18 NPT-F<br><b>J</b> = 7/16-20 UNF-M<br><b>K</b> = 7/16-20 UNF-F<br>Models ≥10,000 psi:<br><b>S</b> = ¼ HP tube fitting |  |                             | 002*<br>005*<br>010<br>015<br>020<br>025<br>050<br>075<br>100<br>150<br>200<br>250<br>300<br>500<br>750<br>1K<br>1.5K<br>2K<br>3K<br>3.5K<br>5K<br>7.5K<br>10K<br>20K<br>30K   | A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S | <b>Base Price PX01:</b><br>V = mV/V output  | <b>OL</b> = Overload stops where available<br><b>+ additional cost</b><br><b>OX</b> = Oxygen cleaning<br><b>+ additional cost</b><br>plus 2 weeks |
|   | <b>0</b> = 3 m (10') cable (std)<br><b>1</b> = <b>PTIH-10-6P</b> connector (or equal)<br>Mating connector (sold separately), order <b>PT06F10-6S</b><br><b>6</b> = mini DIN connector* (*no shunt cal) |                             |  |  | <b>For additional options including extended temperatures ranges, visit us online</b> |   |
|   |  |                             | <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> |  |   |   |
|   |  |                             | * 2 and 5 psi ranges available only with amplified output.   |  |   |   |

**Ordering Examples:** PX01C1-100GV, 100 psi gage pressure transducer with ¼-18 NPT male fitting, PTIH-10-6P connector and mV/V output. PT06F10-6S, mating connector (sold separately).



**METRIC CUSTOM CONFIGURATIONS**

| PXM01 SERIES   | PRESSURE PORT [ 1 ]   | ELECTRICAL CONNECTION [ 2 ] | RANGE (BAR) [ 3 ]  | UNITS [ 4 ]  | OUTPUT [ 5 ]   | OPTIONS [ 6 ]   |
|--|---|-----------------------------|--|--|--|---|
| <b>MA</b> = G½B Male<br><b>MB</b> = G½B Female<br><b>MC</b> = G½B Male<br><b>MD</b> = G½B Female |   |                             | 1.0<br>1.6<br>2.5<br>4.0<br>6.0<br>10<br>16<br>25<br>40<br>60<br>100<br>160<br>250<br>400  | A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S<br>A, G, S | <b>Base Price PXM01:</b><br>V = mV/V output  | <b>OX</b> = Cleaned for oxygen service<br><b>OL</b> = Overload stops<br><b>( )m</b> = Optional cable length in meters |
|  | <b>0</b> = 3 m (10') cable (std)<br><b>1</b> = <b>PTIH-10-6P</b> connector (or equal)<br><b>6</b> = mini DIN connector* (*no shunt cal) |                             |  |  | <b>For additional options including extended compensated temperatures, visit us online</b> |   |
|  |   |                             | <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</li> </ol> |  |  |   |

**Ordering Examples:** PXM01MB0-010BARSV, 10 bar sealed gage pressure transducer with G½ B female connection and 3 m (10') cable termination.

PXM01MD1-010BARAV, 10 bar absolute pressure transducer with G½B 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.

