

# 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

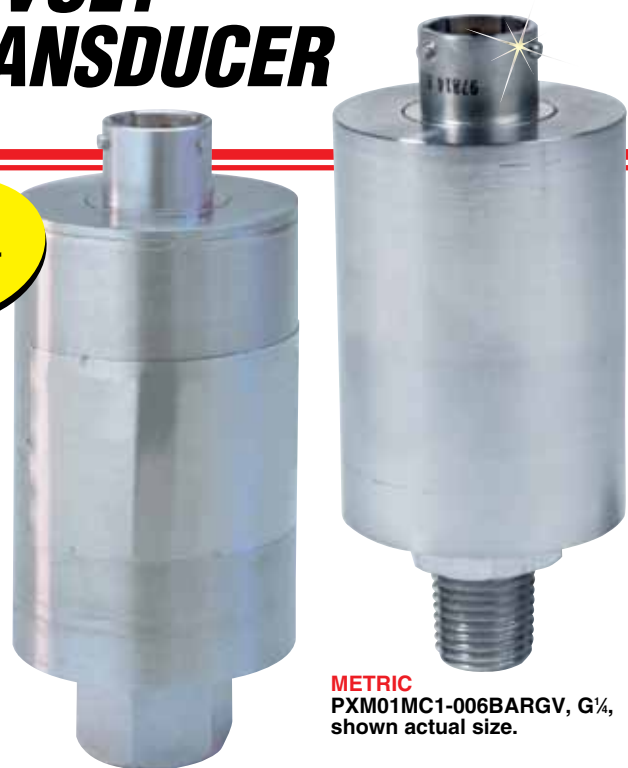
1 bar = 14.5 psi

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



**STANDARD**  
PX02K1-100GV, 1/16-20 UNF  
connection, shown  
actual size.

**METRIC**  
PX01MC1-006BARGV, G1/4,  
shown actual size.

## PX02/PXM02 Series



Standard

- ✓ High Operating Temp: 163°C (325°F)
- ✓ All Stainless Steel Construction
- ✓ Shunt Calibration for Fast System Setup
- ✓ Hermetically Sealed for Harsh Environments (Not Gage Units)

OMEGA's PX02/PXM02 is a high-accuracy, 30-millivolt output industrial pressure transducers. The all stainless steel construction and hermetically sealed case make them suitable for harsh environments. The PX02/PXM02 have a high operating range, a broad compensated range, and excellent temperature compensation that gives stable readings in harsh applications. They are available in gage, sealed, or absolute models as well as psi or metric ranges, with either connector or cable terminations.

### 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

**Linearity:** ±0.15% FS

**Hysteresis:** ±0.1% FS

**Repeatability:** ±0.1% FS

**Zero Balance:** 1.0% 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:** 0.003% rdg/°F

**Zero:** 0.003% FS/°F

**Proof Pressure:** 150% of rated pressure

**Burst Pressure:** 300% of rated pressure

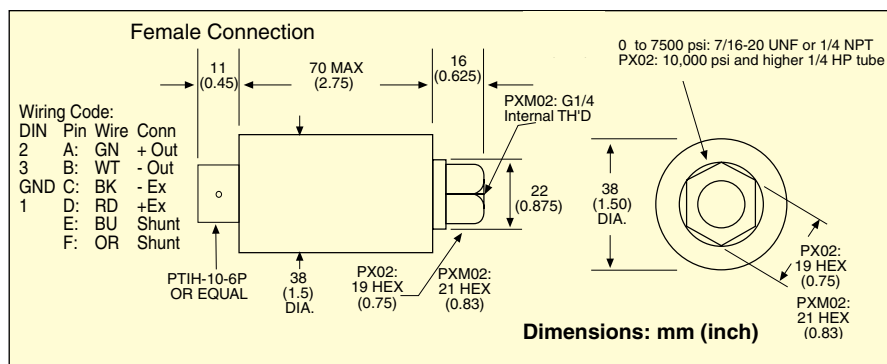
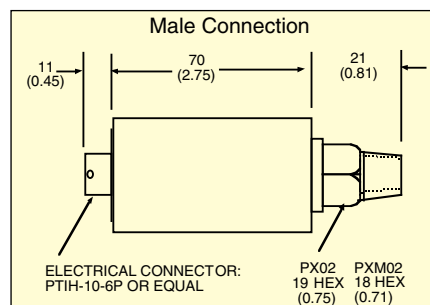
**Wetted Parts:** 17-4 PH SS

**Pressure Port:** See custom configurations chart

**Electrical Connection:** See custom configurations chart

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

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



## STANDARD MODELS

### To Order

| RANGE  |               | 1/16"-20 UNF MODEL | 1/4 NPT MODEL  | COMPATIBLE METERS |
|--|---------------|--------------------|----------------|-------------------|
| <b>Connector Style – Absolute Pressure (All Ranges Available in Absolute Pressure)</b>     |               |                    |                |                   |
| 0 to 15 psi  | 0 to 1.0 bar  | PX02K1-015AV       | PX02C1-015AV   | DP41-S, DP25B-S   |
| 0 to 20 psi  | 0 to 1.4 bar  | PX02K1-020AV       | PX02C1-020AV   | DP41-S, DP25B-S   |
| 0 to 25 psi  | 0 to 1.7 bar  | PX02K1-025AV       | PX02C1-025AV   | DP41-S, DP25B-S   |
| 0 to 50 psi  | 0 to 3.4 bar  | PX02K1-050AV       | PX02C1-050AV   | 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 | PX02K1-010GV       | PX02C1-010GV   | DP41-S, DP25B-S   |
| 0 to 15 psi  | 0 to 1.0 bar  | PX02K1-015GV       | PX02C1-015GV   | DP41-S, DP25B-S   |
| 0 to 50 psi  | 0 to 3.4 bar  | PX02K1-050GV       | PX02C1-050GV   | DP41-S, DP25B-S   |
| 0 to 75 psi  | 0 to 5.2 bar  | PX02K1-075GV       | PX02C1-075GV   | DP41-S, DP25B-S   |
| 0 to 100 psi   | 0 to 6.9 bar  | PX02K1-100GV       | PX02C1-100GV   | DP41-S, DP25B-S   |
| 0 to 200 psi   | 0 to 13.8 bar | PX02K1-200GV       | PX02C1-200GV   | DP41-S, DP25B-S   |
| 0 to 300 psi   | 0 to 20.7 bar | PX02K1-300GV       | PX02C1-300GV   | DP41-S, DP25B-S   |
| 0 to 500 psi   | 0 to 34.5 bar | PX02K1-500GV       | PX02C1-500GV   | DP41-S, DP25B-S   |
| 0 to 1000 psi  | 0 to 68.9 bar | PX02K1-1KGV        | PX02C1-1KGV    | DP41-S, DP25B-S   |
| 0 to 1500 psi  | 0 to 103 bar  | PX02K1-1.5KGV      | PX02C1-1.5KGV  | DP41-S, DP25B-S   |
| 0 to 2000 psi  | 0 to 138 bar  | PX02K1-2KGV        | PX02C1-2KGV    | DP41-S, DP25B-S   |
| 0 to 3500 psi  | 0 to 241 bar  | PX02K1-3.5KGV      | PX02C1-3.5KGV  | DP41-S, DP25B-S   |
| 0 to 5000 psi  | 0 to 345 bar  | PX02K1-5KGV        | PX02C1-5KGV    | DP41-S, DP25B-S   |
| 0 to 7500 psi  | 0 to 517 bar  | PX02K1-7.5KGV      | PX02C1-7.5KGV  | DP41-S, DP25B-S   |
| 0 to 10,000** psi  | 0 to 689 bar  | PX02S1-10KGV**     | PX02S1-10KGV** | DP41-S, DP25B-S*  |
| 0 to 20,000** psi  | 0 to 1379 bar | PX02S1-20KGV**     | PX02S1-20KGV** | DP41-S, DP25B-S*  |
| 0 to 30,000** psi  | 0 to 2068 bar | PX02S1-30KGV**     | PX02S1-30KGV** | DP41-S, DP25B-S*  |

Comes complete with 5-point NIST-traceable calibration. \* 4-digit meter. \*\* 1/4 HP tube fitting.

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

**Ordering Examples:** PX02K1-500GV, 500 psi gage pressure transducer with mV/V output, 1/16"-20 female fitting and PTIH-10-6P connector. PT06F10-6S, mating connector (sold separately).

PX02C0-100AV, 100 psi absolute pressure transducer with mV/V output, 1/4 NPT male fitting and 3 m (10') cable.



**METRIC**  
PXM02MC6-010BARGV, mini DIN style, shown actual size.

## 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   | PXM02MD[*]-001BARGV  | DP41-S, DP25B-S   |  |
| 0 to 1.60 bar  | 0 to 23 psi   | PXM02MD[*]-1.60BARGV | DP41-S, DP25B-S   |  |
| 0 to 2.50 bar  | 0 to 36 psi   | PXM02MD[*]-2.50BARGV | DP41-S, DP25B-S   |  |
| 0 to 4 bar   | 0 to 58 psi   | PXM02MD[*]-004BARGV  | DP41-S, DP25B-S   |  |
| 0 to 6 bar   | 0 to 87 psi   | PXM02MD[*]-006BARGV  | DP41-S, DP25B-S   |  |
| 0 to 10 bar  | 0 to 145 psi  | PXM02MD[*]-010BARGV  | DP41-S, DP25B-S   |  |
| 0 to 16 bar  | 0 to 232 psi  | PXM02MD[*]-016BARGV  | DP41-S, DP25B-S   |  |
| 0 to 25 bar  | 0 to 363 psi  | PXM02MD[*]-025BARGV  | DP41-S, DP25B-S   |  |
| 0 to 40 bar  | 0 to 580 psi  | PXM02MD[*]-040BARGV  | DP41-S, DP25B-S   |  |
| 0 to 60 bar  | 0 to 870 psi  | PXM02MD[*]-060BARGV  | DP41-S, DP25B-S   |  |
| 0 to 100 bar   | 0 to 1450 psi | PXM02MD[*]-100BARGV  | DP41-S, DP25B-S   |  |
| 0 to 160 bar   | 0 to 2321 psi | PXM02MD[*]-160BARGV  | DP41-S, DP25B-S   |  |
| 0 to 250 bar   | 0 to 3626 psi | PXM02MD[*]-250BARGV  | DP41-S, DP25B-S   |  |
| 0 to 400 bar   | 0 to 5802 psi | PXM02MD[*]-400BARGV  | DP41-S, DP25B-S   |  |

Comes complete with 5-point NIST-traceable calibration.

[\*] = Insert “0” for cable “1” for twist-lock connector “6” for micro DIN connector.

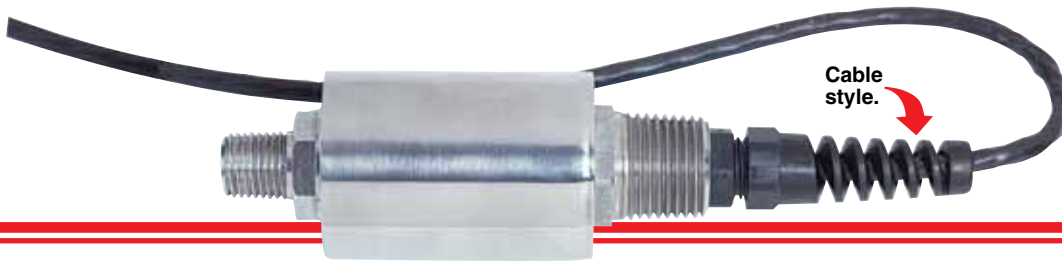
To order absolute pressure models, replace “G” in model number with “A” and add to price.

To order sealed gage models, replace “G” in model number with “S” (no extra charge).

To order female threads, see Custom Configurations on next page.

**Ordering Examples:** PXM02MD6-060BARSV, 60 bar sealed gage pressure transducer with mV/V output, G 1/4 female fitting and micro DIN connector. Mating connector included.

PXM02MC0-010BARAV, 10 bar absolute pressure transducer with mV/V output, G 1/4 male fitting and 3 m (10') cable.



PX02C0-100GV, 1/4 NPT male, shown smaller than actual size.

**STANDARD CUSTOM CONFIGURATIONS**

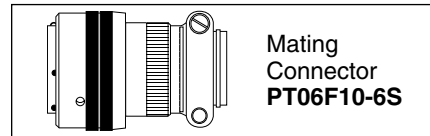
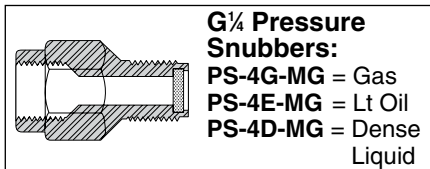
| PX02 SERIES                    | PRESSURE PORT [ 1 ]   | ELECTRICAL CONNECTION [ 2 ] | RANGE (psi) [ 3 ] | UNITS [ 4 ] | OUTPUT [ 5 ]    | OPTIONS [ 6 ]  |
|--------------------------------|---|-----------------------------|-------------------|-------------|-----------------|--|
| Models < 10,000 psi            |   |                             | —                 | A, G, S     | V = mV/V output | OL = Overload stops where available<br>OX = Oxygen cleaning plus 2 weeks |
| <b>C</b> = 1/4-18 NPT-M        |   |                             | —                 | 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     |                 |  |
|                                | <b>0</b> = 3 m (10') cable (std)                            |                             | 150               | A, G, S     |                 |  |
|                                | <b>1</b> = PTIH-10-6P connector                             |                             | 200               | A, G, S     |                 |  |
|                                | Mating connector (sold separately), order <b>PT06F10-6S</b> |                             | 250               | A, G, S     |                 |  |
|                                |   |                             | 300               | A, G, S     |                 |  |
|                                |   |                             | 500               | A, G, S     |                 |  |
|                                | <b>6</b> = mini DIN connector no shunt cal                  |                             | 750               | A, G, S     |                 |  |
|                                |   |                             | 1K                | A, G, S     |                 |  |
|                                |   |                             | 1.5K              | A, G, S     |                 |  |
|                                |   |                             | 2K                | 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     |                 |  |
|                                |   |                             | 20K               | A, G, S     |                 |  |
|                                |   |                             | 30K               | A, G, S     |                 |  |

**Visit [omega.com](http://omega.com) for additional options, including extended temperature ranges.**

**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 Examples:** *PX02C1-100GV*, 100 psi gage pressure transducer with 1/4-18 NPT male fitting, PTIH-10-6P connector and 3 mV/V output. *PT06F10-6S*, mating connector (sold separately).  
*PX02K0-1KSV*, 1000 psi sealed gage pressure transducer with 7/16-20 UNF female fitting, 3 m (10') cable, and isolated 3 mV/V output.  
*PX02J1-015AV*, 15 psi absolute pressure transducer with 7/16-20 UNF male fitting, PTIH-10-6P connector and 3 mV/V 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> = G 1/8 B Male   |  |                             | 1.0               | A, G, S     | V = mV/V     | OX = Cleaned for oxygen service<br>OL = Overload stops<br>( )m = Optional cable length in meters |
| <b>MB</b> = G 1/8 B Female |  |                             | 1.6               | A, G, S     |              |  |
| <b>MC</b> = G 1/4 B Male   |  |                             | 2.5               | A, G, S     |              |  |
| <b>MD</b> = G 1/4 B Female |  |                             | 4.0               | A, G, S     |              |  |
|                            |  |                             | 6.0               | A, G, S     |              |  |
|                            |  |                             | 10                | A, G, S     |              |  |
|                            |  |                             | 16                | A, G, S     |              |  |
|                            | <b>0</b> = 3 m (10') cable (std)           |                             | 25                | A, G, S     |              |  |
|                            | <b>1</b> = PTIH-10-6P connector            |                             | 40                | A, G, S     |              |  |
|                            | <b>6</b> = mini DIN connector no shunt cal |                             | 60                | A, G, S     |              |  |
|                            |  |                             | 100               | A, G, S     |              |  |
|                            |  |                             | 160               | A, G, S     |              |  |
|                            |  |                             | 250               | A, G, S     |              |  |
|                            |  |                             | 400               | A, G, S     |              |  |

**Visit [omega.com](http://omega.com) 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:** *PXM02MB0-010BARSV*, 10 bar sealed gage pressure transducer with G 1/8 B female connection, 3 m (10') cable termination and 3 mV/V output.  
*PXM02MD1-010BARAV*, 10 bar absolute pressure transducer with G 1/8 B female connection, twist-lock connector and 3 mV/V output. *PT06F10-6S*, mating connector (sold separately).



MILLIVOLT OUTPUT PRESSURE TRANSDUCERS **B**