

VERY-HIGH-ACCURACY MILLIVOLT OUTPUT PRESSURE TRANSDUCER

7/16-20 OR 1/4 NPT CONNECTIONS

PX01 Series

mV/V Output

0-10 to 0-30,000 psi

0-700 mbar to 0-2000 bar

1 bar = 14.5 psi

1 kg/cm² = 14.22 psi

1 atmosphere = 14.7 psi = 29.93

inHg = 760.2 mmHg = 1.014 bar

Starts at
\$680



PX01K1-100GV, 7/16-20 female connection, \$680, shown smaller than actual size.

PX01C1-100GV 1/4 NPT male connection, \$700, shown smaller than actual size.



- ✓ 0.05% Linearity
- ✓ High Operating Temperature: 163°C (325°F)
- ✓ FM Approved Intrinsically Safe
- ✓ 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

OMEGA's PX01 is a very-high-accuracy, 30-millivolt output industrial pressure transducer. The all stainless steel construction and hermetically sealed case make it suitable for harsh environments. An FM Approved Intrinsically Safe rating is standard. The PX01 has a high operating range, a broad compensated range, and excellent temperature compensation that gives stable readings in harsh applications. It is available in gage, sealed, or absolute models as well as psi or metric ranges. NPT or 7/16-20 O-ring pressure fittings are available, as are connector or cable electrical 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

Zero Balance: 1.0% FS

Linearity: ±0.05% FS

Hysteresis: ±0.05% FS

Repeatability: ±0.05% FS

Agency Approvals: Standard FM Intrinsically Safe IS/I.II.III/1/CDEFG

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: Ranges <10,000 psi: style "K" 7/16-20 UNF female; style "C" 1/4 NPT male; ranges ≥10,000 psi: style "S" 7/16-18, 1/4" HP tube

Also Available: 1/4-18 NPT female or 7/16-20 UNF male

Electrical Connection:

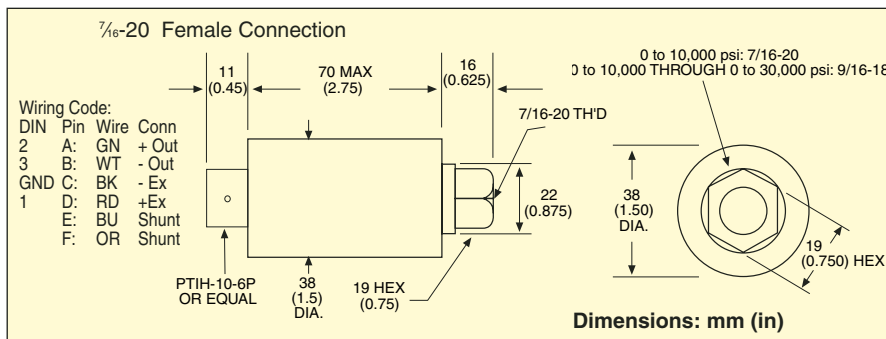
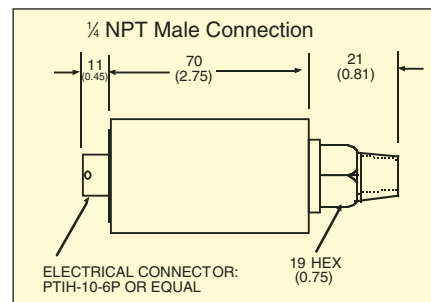
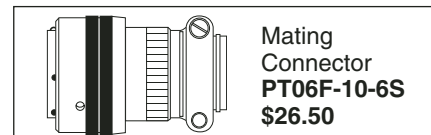
Style "1": PT1H-10-6P or equal

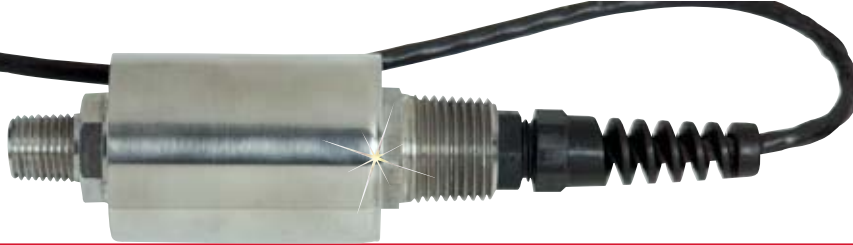
Style "0": 3 m (10') cable

Mating Connector:

PT06F-10-6S (not included)

Weight: 255 g (9 oz)





PX01C0-100GV, ¼ NPT male connection, \$700, shown smaller than actual size.

CUSTOM CONFIGURATIONS

| SERIES PX02 | PRESSURE PORT [1] | ELECTRICAL CONNECTION [2] | RANGE (psi) [3] | UNITS [4] | OUTPUT [5] | OPTIONS [6] |
|--|--|-----------------------------------|-------------------------|----------------|--------------------------|--|
| Models < 10,000 psi | | | 002* | S,G,A | V = mV/V output | OL = Overload stops where available |
| C = ¼-18 NPT-M +\$20 | | | 005* | S,G,A | | + \$65 |
| D = ¼-18 NPT-F, no charge | | | 010 | S,G,A | 5T = 0 to 5 Vdc output | OX = Oxygen cleaning |
| J = 7/16-20 UNF-M +\$20 | | | 015 | S,G,A | + \$155 all ranges | + \$75 plus 2 weeks |
| K = 7/16-20 UNF-F, no charge | | | 020 | S,G,A | 5Z = Isolated 0 to 5 Vdc | |
| Models ≥ 10,000 psi | | | 025 | S,G,A | + \$190 | |
| S = ¼ HP tube fitting no charge | | | 050 | S,G,A | 10T = 0 to 10 Vdc output | See page B-12 for additional options, including extended temperature ranges. |
| | | | 075 | S,G,A | + \$155 all ranges | |
| | | | 100 | S,G,A | I = 4 to 20 mA output | |
| | | | 150 | S,G,A | + \$175 all ranges | |
| | 0 = 3 m (10') cable (std) | | 200 | S,G,A | | |
| | 1 = PTIH-10-6P connector (or equal, no charge). Mating connector (not included), order | | 250 | S,G,A | | |
| | PT06F-10-6S \$26.50 | | 300 | S,G,A | | |
| | 5 = Lightning-protected amplifier box (no charge, 4 to 20 mA models only) | | 500 | S,G,A | | |
| | 6 = DIN connector | | 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 | | |

* 2 and 5 psi ranges available only with amplified output.
Metric ranges available – see Metric Section.

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

Ordering Examples: PX01C1-100GI, 100 psi gage pressure transducer with ¼-18 NPT male fitting, PTIH-10-6P connector and 4 to 20 mA output, \$680 + 175 + 20 = \$875. PT06F-10-6S, mating connector (not included), \$26.50. PX01K0-1KS5Z, 1000 psi sealed gage pressure transducer with 7/16-20 UNF female fitting, 3 m (10') cable and isolated 0 to 5 Vdc output, \$680 + 190 = \$870. PX01J1-015A5T, 15 psi absolute pressure transducer with 7/16-20 UNF male fitting, PTIH-10-6P connector and 0 to 5 Vdc output, \$680 + 155 + 20 + 50 = \$905. PT06F-10-6S, mating connector (not included), \$26.50.

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

| RANGE | 7/16-20-F MODEL | PRICE | ¼ NPT-M MODEL | PRICE | COMPATIBLE METERS† | |
|--|-----------------|---------------|---------------|---------------|--------------------|------------------|
| Connector Style – Absolute Pressure (All Ranges Available in Absolute Pressure) | | | | | | |
| 0 to 15 psi | 0 to 1.0 bar | PX01K1-015AV | \$800 | PX01C1-015AV | \$820 | DP41-S, DP25B-S |
| 0 to 20 psi | 0 to 1.4 bar | PX01K1-020AV | 800 | PX01C1-020AV | 820 | DP41-S, DP25B-S |
| 0 to 25 psi | 0 to 1.7 bar | PX01K1-025AV | 800 | PX01C1-025AV | 820 | DP41-S, DP25B-S |
| 0 to 50 psi | 0 to 3.4 bar | PX01K1-050AV | 730 | PX01C1-050AV | 750 | DP41-S, DP25B-S |
| Connector Style – Gage Pressure (All Ranges Also Available in Sealed Gage Pressure) | | | | | | |
| 0 to 10 psi | 0 to 0.69 bar | PX01K1-010GV | \$750 | PX01C1-010GV | \$770 | DP41-S, DP25B-S |
| 0 to 15 psi | 0 to 1.0 bar | PX01K1-015GV | 750 | PX01C1-015GV | 770 | DP41-S, DP25B-S |
| 0 to 50 psi | 0 to 3.4 bar | PX01K1-050GV | 680 | PX01C1-050GV | 700 | DP41-S, DP25B-S |
| 0 to 75 psi | 0 to 5.2 bar | PX01K1-075GV | 680 | PX01C1-075GV | 700 | DP41-S, DP25B-S |
| 0 to 100 psi | 0 to 6.9 bar | PX01K1-100GV | 680 | PX01C1-100GV | 700 | DP41-S, DP25B-S |
| 0 to 200 psi | 0 to 13.8 bar | PX01K1-200GV | 680 | PX01C1-200GV | 700 | DP41-S, DP25B-S |
| 0 to 300 psi | 0 to 20.7 bar | PX01K1-300GV | 680 | PX01C1-300GV | 700 | DP41-S, DP25B-S |
| 0 to 500 psi | 0 to 34.5 bar | PX01K1-500GV | 680 | PX01C1-500GV | 700 | DP41-S, DP25B-S |
| 0 to 1000 psi | 0 to 68.9 bar | PX01K1-1KGV | 680 | PX01C1-1KGV | 700 | DP41-S, DP25B-S |
| 0 to 1500 psi | 0 to 103 bar | PX01K1-1.5KGV | 680 | PX01C1-1.5KGV | 700 | DP41-S, DP25B-S |
| 0 to 2000 psi | 0 to 138 bar | PX01K1-2KGV | 680 | PX01C1-2KGV | 700 | DP41-S, DP25B-S |
| 0 to 3500 psi | 0 to 241 bar | PX01K1-3.5KGV | 680 | PX01C1-3.5KGV | 700 | DP41-S, DP25B-S |
| 0 to 5000 psi | 0 to 345 bar | PX01K1-5KGV | 680 | PX01C1-5KGV | 700 | DP41-S, DP25B-S |
| 0 to 7500 psi | 0 to 517 bar | PX01K1-7.5KGV | 680 | PX01C1-7.5KGV | 700 | DP41-S, DP25B-S |
| 0 to 10,000** psi | 0 to 689 bar | PX01S1-10KGV | 750 | not available | | DP41-S, DP25B-S* |
| 0 to 20,000** psi | 0 to 1379 bar | PX01S1-20KGV | 750 | not available | | DP41-S, DP25B-S* |
| 0 to 30,000** psi | 0 to 2068 bar | PX01S1-30KGV | 750 | not available | | DP41-S, DP25B-S* |

Comes with 5-point calibration. Metric ranges available – see Metric Section. * 4-digit meter. ** ¼ HP tube fitting. † See section D for compatible meters. To order absolute pressure, replace “G” in model number with “A”, add \$50. 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, \$680. PT06F-10-6S, mating connector (not included), \$26.50. PX01C0-100AV, 100 psi absolute pressure transducer with mV/V output, ¼ NPT male fitting and 3 m (10') cable, \$750.

