

VERY-HIGH-ACCURACY-PRESSURE TRANSDUCER

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

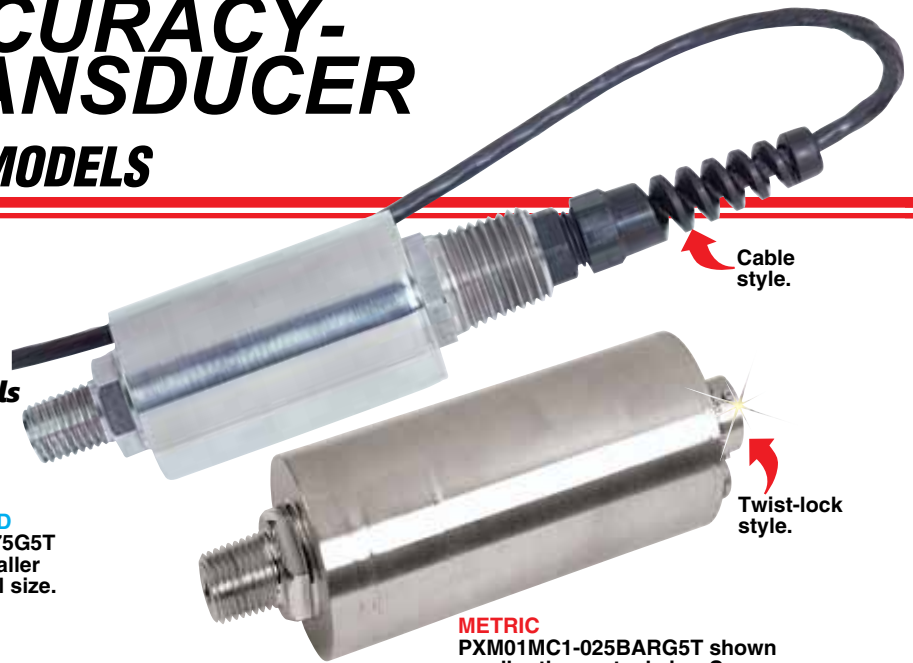


Standard On Request

- ✓ **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 configurations

Electrical Connection:

See custom configurations

Mating Connector:

PT06F10-6S

(sold separately)

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:

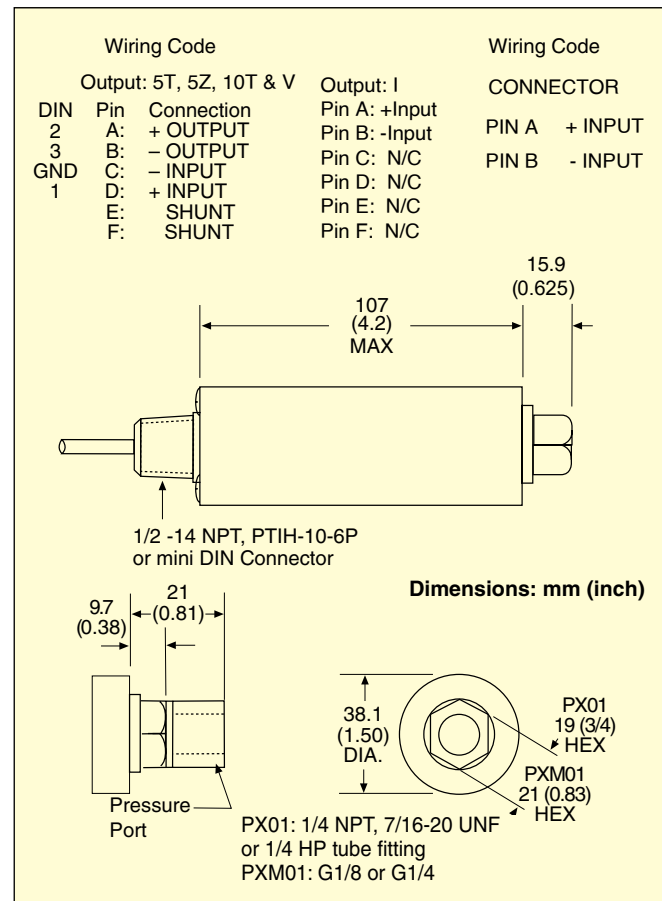
255 g (9 oz)

Input Resistance (mV/V Output):

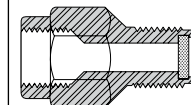
350 \pm 10 Ω

Output Resistance (mV/V

Output): 350 \pm 10 Ω



VERY-HIGH-ACCURACY-PRESSURE TRANSDUCER



"C" or "D" models only

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

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	5T = 0 to 5 Vdc	OL = Overload stops + additional cost
C	¼-18 NPT-M		005	S,G,A	5Z = Isolated 0 to 5Vdc	OX = Cleaned for oxygen use + additional cost plus 2 weeks
D	¼-18 NPT-F		010	S,G,A	10T = 0 to 10 Vdc	()ft = Optional cable length in feet + additional cost/ft over 10 feet
J	7/16-20 UNF-M		015	S,G,A	I = 4 to 20 mA	
K	7/16-20 UNF-F		020	S,G,A	V = mV/V output	
	Models ≥10,000 psi		025	S,G,A		
S	¼ HP tube fitting		050	S,G,A		
			075	S,G,A		
			100	S,G,A		
	0 = 3 m (10') cable (std)		150	S,G,A		
	+ add cost/ft over 3 m (10')		200	S,G,A		
	1 = PTIH-10-6P connector (or equal)		250	S,G,A		
	Mating connector (sold separately), order PT06F10-6S		300	S,G,A		
			500	S,G,A		
	6 = mini DIN connector		750	S,G,A		
	*no shunt cal		1K	S,G,A		
	5 = Lightning-protected amplifier box (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		

To order a custom configuration:

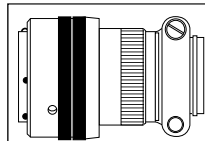
1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units
5. Select output
6. Select options

† Supplied with ¼ HP tube fitting.
 2 and 5 psi ranges available only on amplified output

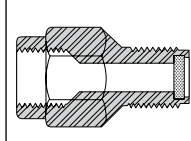
For additional options including extended compensated temperatures, visit us online

VOLTAGE OUTPUT PRESSURE TRANSDUCERS **B**

Ordering Examples: **PX01C1-100GV**, 100 psi gage pressure transducer with ¼-18 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



G¼ 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]
MA	G¼B Male		0.16	S,G,A	5T = 0 to 5 Vdc	OX = Cleaned for oxygen service
MB	G¼B Female		0.4	S,G,A	5Z = Isolated 0 to 5Vdc	OL = Overload stops
MC	G¼B Male		1.0	S,G,A	10T = 0 to 10 Vdc	()m = Optional cable length in meters + additional cost/m over 3 m
MD	G¼B Female		1.6	S,G,A	I = 4 to 20 mA	
			2.5	S,G,A	V = mV/V output	
			4.0	S,G,A		
	0 = 3 m (10') cable (std)		6.0	S,G,A		
	+ add cost/m over 3 m (10')		10	S,G,A		
	1 = PTIH-10-6P connector (or equal)		16	S,G,A		
	Mating connector (sold separately), order PT06F10-6S		25	S,G,A		
			40	S,G,A		
			60	S,G,A		
	6 = mini DIN connector*		100	S,G,A		
	*no shunt cal		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 G¼B female connection, 3 m (10') cable termination, and 4 to 20 mA output. **PXM01MC1-010BARA10T**, 10 bar absolute pressure transducer with G¼B male connection, twist-lock connector and 0 to 10 Vdc output. **PXM01MB0-010BARSV**, 10 bar sealed gage pressure transducer with G1/8B female connection and 3 m(10') cable termination. **PT06F10-6S**, mating connector (sold separately).

VERY-HIGH-ACCURACY-PRESSURE TRANSDUCER

STANDARD MODELS

To Order				
RANGE		3/16-20 UNF MODEL NO.	1/4 NPT MODEL NO.	COMPATIBLE METERS*
psi	bar			
Connector Style – Absolute Pressure (All Ranges Available in Absolute Pressure)				
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
Connector Style – Gage Pressure (All Ranges Also Available in Sealed Gage Pressure)				
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.

Twist-lock style.

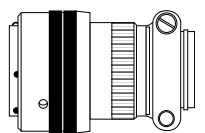


STANDARD
PX01C1-100G5T
shown smaller
than actual size.

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

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.