HIGH PERFORMANCE PRESSURE TRANSDUCER
LONG TERM RELIABILITY

PXM5500 Series
mV/V Output
0-1 to 0-600 bar

PXM5500

$550

Model Shown

MADE IN USA | NIST | OMEGADYNE

Model PXM5500MC6-010BARGV
Shown Smaller Than Actual Size

Model PXM5500MC0-010BARGV
Shown Smaller Than Actual Size

- **High Accuracy 0.1%**
- **Solid State Reliability**
- **Sputtered Strain Gauge Design**
- **High Shock and Vibration**
- **Low Drift**

Applications

- **Testing**
- **R&D/Engineering Test Laboratories**
- **Functional Test Systems**
- **Production Testing**
- **Product Quality Testing**
- **Flight Testing**
- **Gas Turbine and Engine Test Standards**
- **Ground Support Equipment**
- **Hydraulic Systems**
- **Custody Transfer Measurements**

OMEGA's PXM5500 Transducer Series provides high performance in demanding industrial and research applications where accuracy, reliability, and price are important. This transducer has a 10 year MTBF rate and is stable to 0.1% of FSO over an 18 month period. This translates into less down time, fewer test reruns, more time between calibrations, and high confidence in your pressure data. When recalibration is impossible, relying on the high stability of the PXM5500 Series transducer may be the only cost-effective way to obtain pressure data over the long term. OMEGA's thin film technology makes this premium performance possible. The strain gauges and associated structures are sputter-deposited directly onto the pressure sensing element thus eliminating the need for adhesives. The resulting molecular bond between the sensing element and the strain gauges ensures virtually no shifting, drifting, or "creep" in the performance of the transducer. The micro-geometry design of the PXM5500 sensing element results in a very small, low mass sensor that reduces effects of mechanical vibration and shock. The PXM5500 gives you the accuracy, reliability, and stability at competitive prices.

MOST POPULAR MODELS HIGHLIGHTED

To Order: *(Specify Model Number)*

Models with G 1/4 Male Pressure Connection, Cable or micro DIN & mV/V Output

RANGE (Bar)	MODEL NUMBER	PRICE	COMPATIBLE METERS**
Gauge Pressure			
0 to 1	**PXM5500MC[*]-001BARGV**	**$550**	DP41-S, DP25B-S
0 to 1.6	**PXM5500MC[*]-1.60BARGV**	**550**	DP41-S, DP25B-S
0 to 4	**PXM5500MC[*]-004BARGV**	**550**	DP41-S, DP25B-S
0 to 6	**PXM5500MC[*]-006BARGV**	**550**	DP41-S, DP25B-S
0 to 10	**PXM5500MC[*]-010BARGV**	**550**	DP41-S, DP25B-S
0 to 16	**PXM5500MC[*]-016BARGV**	**550**	DP41-S, DP25B-S
0 to 25	**PXM5500MC[*]-025BARGV**	**550**	DP41-S, DP25B-S
0 to 40	**PXM5500MC[*]-040BARGV**	**550**	DP41-S, DP25B-S
0 to 60	**PXM5500MC[*]-060BARGV**	**550**	DP41-S, DP25B-S
0 to 100	**PXM5500MC[*]-100BARGV**	**550**	DP41-S, DP25B-S
0 to 160	**PXM5500MC[*]-160BARGV**	**550**	DP41-S, DP25B-S
0 to 250	**PXM5500MC[*]-250BARGV**	**550**	DP41-S, DP25B-S
0 to 400	**PXM5500MC[*]-400BARGV**	**550**	DP41-S, DP25B-S
0 to 600	**PXM5500MC[*]-600BARGV**	**550**	DP41-S, DP25B-S

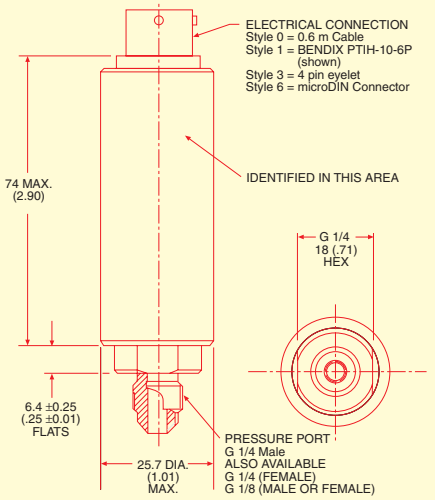
[*] = insert "0" for 0.6 m Cable or "6" for micro DIN connector

***See Section D for compatible Meters*

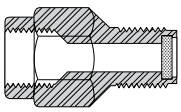
To order Absolute Pressure models, change "G" in the part number to "A". No charge.
To order Sealed Gauge models, change "G" in the part number to "S". No charge.

Ordering Examples: 1.) PXM5500MC6-60BARSV** is a mV/V Output, 60 bar Sealed Gauge transducer with micro DIN Connector and G 1/4 Male Pressure Port, **$550.
Mating Connector included.

Dimension shown in mm (inches)



DIN	Pin	Wire Code
1	A	RED = + Input
2	B	YEL = + Output
3	C	BL = – Output
4	D	WT = – Input
		E = Shorted to D
		F = Shorted to C



G 1/4 Pressure Snubbers $20
PSM-4 = G 1/4

CUSTOM CONFIGURATIONS

SPECIFICATIONS:
mV/V MODELS

Excitation: 10 Vdc

Output FSO:
30 mV typical, 26 mV minimum

Input Resistance: 1000 Ω typical, 800 Ω minimum, 1500 Ω max.
For 350 Ω bridge models see custom configurations.

Output Resistance: 1000 Ω typical, 800 Ω minimum, 1200 Ω maximum

Insulation Resistance: 500 MΩ @ 45 Vdc over the compensated range

Sensing Element:
4 active-arm bridge using sputter-deposited thin-film elements

Accuracy: Combined Linearity, Hysteresis and Nonrepeatability: ±0.10% FSO (BFSL) <70 bar
±0.15% FSO 70 bar and above

Calibration Stability:
±0.1% for 18 months

Vibration Sensitivity: At 35g peak sinusoidal vibration from 10 Hz to 2000 Hz (½" D.A.), the output shall not exceed 0.04% FSO/g for 1 bar range, decreasing to 0.003% FSO/g for 70 bar and above

Natural Frequency: 5 kHz for 1 bar, increasing logarithmically to 50 kHz for 300 bar

Shock: Qualification level of 100g, 11 milliseconds half sine wave without damage

Electrostatic Discharge (ESD):
Protected to 15kV

Operating Temp Range:
-54° to +150°C (-65° to +300°F)

Compensated Temp Range:
-18° to +82° C (0° to +180°F)

Thermal Effects: Span: ±0.0045% FSO/°F Zero: ±0.0045% FSO/°C

Proof Pressure:
2.0 times rated pressure or 1,000 bar, whichever is less, will not cause changes in performance beyond the specified tolerance

Burst Pressure: 3.0 times rated pressure or 1,300 bar whichever is less, will not cause rupture of the pressure containment cavity

Wetted Parts:
17-4 PH or 15-5 PH Stainless Steel

Electrical Connection: 0.6 m Cable or microDIN- see Custom Configurations

Pressure Port: G 1/4 (Male), standard - see Custom Configurations

Optional: G 1/4 (Female) and G 1/8 Male/Female

Mating Connector:
Style 6: Included with microDIN;
Style 1: PTS06A-10-6S Not Included

Weight: 200 g (7 oz) maximum

–MODEL NUMBER SPECIFICATION:

PXM5500MC0-006BARAV

OPTION CODES (add to end of model number)
–CAL5 (for 5 point calibration certificate)
–CAL11 (for 11 point calibration certificate)
–[ ]m (Optional cable length
Example:
–12m = 12 metres total of cable

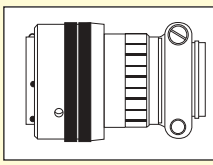
OUTPUT: V = 3 mV/V nominal
5T = 0 to 5 Vdc
I = 4 to 20 mA

UNITS (A = absolute, S = sealed gauge, G = gauge)

RANGE

ELECTRICAL CONNECTION:
0 = 0.6 m cable
1 = PTIH-10-6P connector or equiv.
3 = 4 pin eyelet
6 = micro DIN connector

PRESSURE PORT: MA = G 1/8 male
MB = G 1/8 female
MC = G 1/4 male - (std)
MD = G 1/4 female



Style 1 Mating Connector PTS06A-10-6S, $47.00

Ordering Examples:

1.) PX5500MC1-025BARSV, *25 bar Sealed Gauge Pressure range and 3 mV/V output with G 1/4 male fitting and PTIH-10-6P electrical connection,* ***$550****. Mating connector (not included)* ***PTS06A-10-6S****,* ***$47.00****.*

2.) PX5500MD0-001BARAV, *1 bar Absolute Pressure range and 3 mV/V output with G 1/4 female fitting and 0.6 m cable,* ***$550****.*

3.) PXM5500MA6-006BARGV, *6 bar Gauge Pressure range and 3 mV/V output with G 1/8 male pressure port and micro DIN electrical connection,* ***$550****. Mating connector included.*