



# Heavy-Duty Industrial Pressure Transmitters

## Imperial and Metric Models

**Unique Dual 1/2 and 1/4 NPT Fitting**  
**4 to 20 mA, 0 to 5 Vdc or 0 to 10 Vdc Outputs**  
**0-10 to 0-30,000 psi-Imperial Models**  
**0-0.7 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

### PX51/PXM51 Series

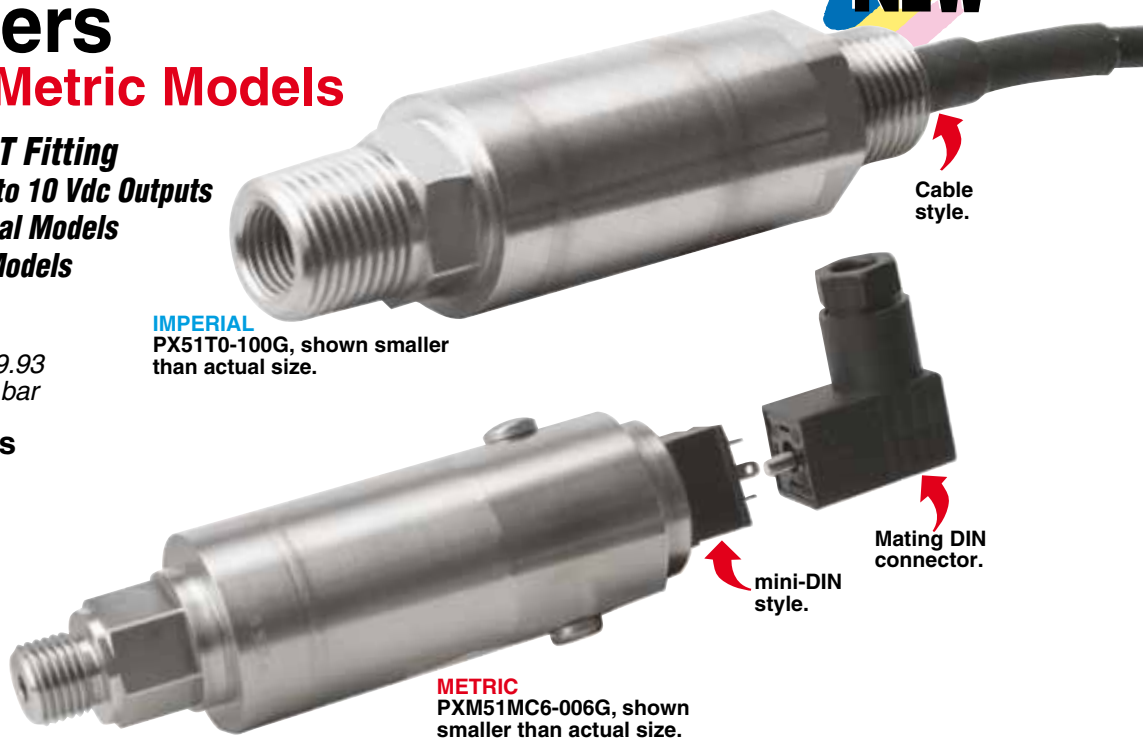


- ✓ Rugged Thick Film Sensing Element
- ✓ All Stainless Steel Construction
- ✓ Sealed SS Case for Harsh Environments

OMEGA's PX51 Series consists of high-accuracy, low-cost pressure transmitters. Their sealed, all stainless steel construction makes them suitable for the harshest environments. They are available in gage, absolute, or sealed gage models. Ten feet of PVC insulated shielded cable is standard, or a twist-lock style connector is also available. A wide selection of amplified voltage and current outputs makes the PX51 a truly versatile family of industrial transmitters.

**IMPERIAL**  
 PX51T0-100G, shown smaller than actual size.

**METRIC**  
 PXM51MC6-006G, shown smaller than actual size.



### Specifications

**Output/Excitation Voltages**  
**4 to 20 mA or 0 to 5 Vdc Outputs:**  
 10 to 32 Vdc max  
**0 to 10 Vdc Outputs:**  
 16 to 32 Vdc max

**Accuracy (Combined Linearity, Hysteresis and Repeatability):**  
 ±0.25% FS

**Minimum Resistance Between Transducer Body and Any Wire:**  
 100 MΩ @ 50 Vdc

**With Potentiometers Zero and Span Adjustable:** ±10% FS

**Without Potentiometers Zero and Span Set:** ±5.0% typical, ±1% max

**Compensated Temperature Range:**  
 16 to 71°C (60 to 160°F)

**Zero Shift:** 0.005%FS/°F

**Span Shift:** 0.003% Reading/°F

**Proof Pressure:** 150%

**Burst Pressure:** 300%

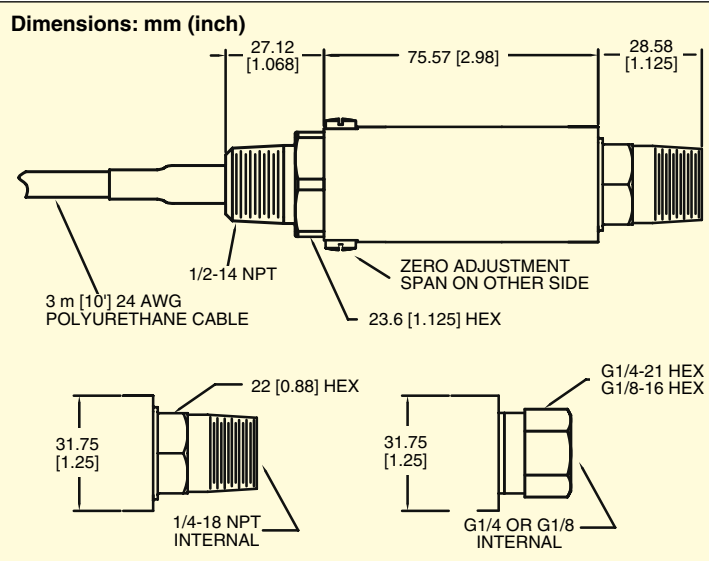
**Operating Temperature:** -40 to 104°C (-40 to 220°F)

**Wetted Material:** 17-4 Stainless Steel

**EMC Compliant:** Up to 30 m (98.4') of cable

**EN 61326-1:2006**  
**EN 61326-2-3:2006** Industrial levels

**Electrical Connection (for PTIH-10-6P twist-lock connector):** PT06F10-6S (sold separately)



WIRING CODES		4 to 20 mA	0 to 5 Vdc	0 to 10 Vdc
CABLE	BLACK	SUPPLY (-)	SUPPLY (-)	SUPPLY (-)
	WHITE	—	OUTPUT (+)	OUTPUT (+)
	GREEN	CASE	OUTPUT (-)	OUTPUT (-)
	RED	SUPPLY (+)	SUPPLY (+)	SUPPLY (+)
TWIST-LOCK ELECTRICAL PINOUT	PIN A	SUPPLY (+)	SUPPLY (+)	SUPPLY (+)
	PIN B	SUPPLY (-)	SUPPLY (-)	SUPPLY (-)
	PIN C	NO CONNECT	OUTPUT (+)	OUTPUT (+)
	PIN D	NO CONNECT	OUTPUT (-)	OUTPUT (-)
	PIN E	CASE	NO CONNECT	NO CONNECT
	PIN F	NO CONNECT	NO CONNECT	NO CONNECT
M12 ELECTRICAL PINOUT	PIN 1	SUPPLY (+)	SUPPLY (+)	SUPPLY (+)
	PIN 2	SUPPLY (-)	SUPPLY (-)	SUPPLY (-)
	PIN 3	NO CONNECT	OUTPUT (+)	OUTPUT (+)
	PIN 4	CASE	OUTPUT (-)	OUTPUT (-)
MINI-DIN ELECTRICAL PINOUT	PIN 1	SUPPLY (+)	SUPPLY (+)	SUPPLY (+)
	PIN 2	SUPPLY (-)	SUPPLY (-)	SUPPLY (-)
	PIN 3	NO CONNECT	OUTPUT (+)	OUTPUT (+)
	PIN 4	CASE	OUTPUT (-)	OUTPUT (-)

**PLEASE NOTE OUTPUT (-) IS TIED TO SUPPLY (-) FOR 0 to 5 Vdc AND 0 to 10 Vdc VERSIONS.**



# Electrical Termination Styles

For Both **Imperial** and **Metric** Models

Code

0



3 m (10') cable (standard)  
with 1/2 NPT conduit

1



PTIH-10-6P twist-lock  
connector

5



M12 connector

Code

6



mini-DIN connector

Mating DIN  
connector

GW



Submersible waterproof  
cable with 1/2 NPT conduit

# Heavy-Duty Industrial Transmitter



## IMPERIAL CUSTOM CONFIGURATIONS

PX51 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>C</b> = 1/4-18 NPT-M			010	A,G,SG	I = 4 to 20 mA output 5V = 0 to 5 Vdc output 10V = 0 to 10 Vdc output	(No Suffix) = Potentiometers Standard NP = No Potentiometers
<b>D</b> = 1/4-18 NPT-F			015	A,G,SG		
<b>T</b> = Dual 1/2-14 NPT external 1/4-18 NPT internal			020	A,G,SG		
<b>K</b> = 7/16-20 UNF-F			025	A,G,SG		
<b>J</b> = 7/16-20 UNF-M			030	A,G,SG		
<b>S</b> = 1/4 HP Tube Fitting (≥10,000 psi ranges)			050	A,G,SG		
			075	A,G,SG		
			100	A,G,SG		
			200	A,G,SG		
			300	A,G,SG		
<b>0</b> = 3 m (10') pigtail with 1/2 NPT conduit			500	A,G,SG		
<b>1</b> = PTIH-10-6P twist-lock 6-pin connector			750	A,G,SG		
<b>5</b> = M12 connector			1K	A,G,SG		
<b>6</b> = mini-DIN connector			1.5K	A,G,SG		
<b>GW</b> = Submersible waterproof cable with 1/2 NPT conduit			2K	A,G,SG		
			2.5K	A,G,SG		
			3K	A,G,SG		
			3.5K	A,G,SG		
			5K	A,G,SG		
			7.5K	A,G,SG		
			10K <sup>†</sup>	A,G,SG		
			15K <sup>†</sup>	A,G,SG		
			20K <sup>†</sup>	A,G,SG		
			30K <sup>†</sup>	A,G,SG		

*† = Supplied with type "S" pressure port; 1/4" HP tube fitting.*

**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:** *PX51T1-100GI*, 100 psi gage pressure transmitter with dual 1/2-14 NPT external 1/4-18 NPT internal and *PTIH-10-6P* connector, 4 to 20 mA output. *PT06F10-6S*, mating connector (sold separately). *PX51T0-1KSGI*, 1000 psi sealed pressure transmitter with dual 1/2-14 NPT external 1/4-18 NPT internal and 3 m (10') cable, 4 to 20 mA output.

## METRIC CUSTOM CONFIGURATIONS

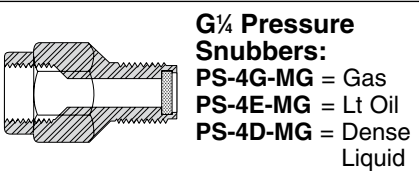
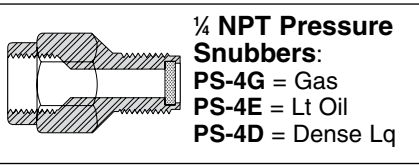
PXM51 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (BAR) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>MA</b> = G3/8 Male			0.7	A,G,SG	I = 4 to 20 mA output 5V = 0 to 5 Vdc output 10V = 0 to 10 Vdc output	(No Suffix) = Potentiometers Standard NP = No Potentiometers
<b>MB</b> = G3/8 Female			001	A,G,SG		
<b>MC</b> = G1/2 Male			1.60	A,G,SG		
<b>MD</b> = G1/2 Female			2.50	A,G,SG		
			004	A,G,SG		
<b>0</b> = 3 m (10') cable (std) with 1/2 NPT conduit			006	A,G,SG		
<b>1</b> = PTIH-10-6P twist-lock 6 pin connector			010	A,G,SG		
<b>5</b> = M12 connector			016	A,G,SG		
<b>6</b> = mini-DIN connector			025	A,G,SG		
<b>GW</b> = Submersible waterproof cable with 1/2 NPT conduit			040	A,G,SG		
			060	A,G,SG		
			100	A,G,SG		
			160	A,G,SG		
			250	A,G,SG		
			400	A,G,SG		

**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:** *PXM51MB0-010SGI*, 10 bar sealed gage pressure transmitter with G3/8 Female pressure port and 3 m (10') cable, 4 to 20 mA output. *PXM51MD1-010AI*, 10 bar absolute pressure transducer with G3/8 Female pressure port and *PTIH-10-6P* connector, 4 to 20 mA output.

## IMPERIAL MODELS



To Order			
Range		Model No.	Compatible Meters
<b>Absolute Pressure (All Ranges Available in Absolute Pressure)</b>			
0 to 15 psi	0 to 1.0 bar	PX51T[*]-015A[**]	DP41-E, DP25B-E, DP24-E
0 to 25 psi	0 to 1.4 bar	PX51T[*]-025A[**]	DP41-E, DP25B-E, DP24-E
0 to 30 psi	0 to 2.1 bar	PX51T[*]-030A[**]	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX51T[*]-050A[**]	DP41-E, DP25B-E, DP24-E
<b>Gage Pressure (All Ranges Also Available in Sealed Gage Pressure)</b>			
0 to 10 psi	0 to 0.69 bar	PX51T[*]-010G[**]	DP41-E, DP25B-E, DP24-E
0 to 15 psi	0 to 1.0 bar	PX51T[*]-015G[**]	DP41-E, DP25B-E, DP24-E
0 to 20 psi	0 to 1.4 bar	PX51T[*]-020G[**]	DP41-E, DP25B-E, DP24-E
0 to 30 psi	0 to 2.1 bar	PX51T[*]-030G[**]	DP41-E, DP25B-E, DP24-E
0 to 50 psi	0 to 3.4 bar	PX51T[*]-050G[**]	DP41-E, DP25B-E, DP24-E
0 to 75 psi	0 to 5.2 bar	PX51T[*]-075G[**]	DP41-E, DP25B-E, DP24-E
0 to 100 psi	0 to 6.9 bar	PX51T[*]-100G[**]	DP41-E, DP25B-E, DP24-E
0 to 200 psi	0 to 13.8 bar	PX51T[*]-200G[**]	DP41-E, DP25B-E, DP24-E
0 to 300 psi	0 to 20.7 bar	PX51T[*]-300G[**]	DP41-E, DP25B-E, DP24-E
0 to 500 psi	0 to 34.5 bar	PX51T[*]-500G[**]	DP41-E, DP25B-E, DP24-E
0 to 750 psi	0 to 51.7 bar	PX51T[*]-750G[**]	DP41-E, DP25B-E, DP24-E
0 to 1000 psi	0 to 68.9 bar	PX51T[*]-1KG[**]	DP41-E, DP25B-E, DP24-E
0 to 1500 psi	0 to 103 bar	PX51T[*]-1.5KG[**]	DP41-E, DP25B-E, DP24-E
0 to 2000 psi	0 to 138 bar	PX51T[*]-2KG[**]	DP41-E, DP25B-E, DP24-E
0 to 3500 psi	0 to 241 bar	PX51T[*]-3.5KG[**]	DP41-E, DP25B-E, DP24-E
0 to 5000 psi	0 to 345 bar	PX51T[*]-5KG[**]	DP41-E, DP25B-E, DP24-E
0 to 7500 psi	0 to 517 bar	PX51T[*]-7.5KG[**]	DP41-E, DP25B-E, DP24-E
0 to 10,000 psi	0 to 689 bar	PX51S[*]-10KG[**]	DP41-E, DP25B-E†, DP24-E†
0 to 15,000 psi	0 to 1034 bar	PX51S[*]-15KG[**]	DP41-E, DP25B-E†, DP24-E†
0 to 20,000 psi	0 to 1379 bar	PX51S[*]-20KG[**]	DP41-E, DP25B-E†, DP24-E†
0 to 30,000 psi	0 to 2068 bar	PX51S[*]-30KG[**]	DP41-E, DP25B-E†, DP24-E†

All models come complete with 5-point NIST traceable calibration.

[\*] = Insert "0" for 3 m (10') cable, "1" for twist-lock 6 pin connector, "5" for M12 connector, "6" for mini-DIN connector, or "GW" for submersible waterproof cable.

[\*\*] = Insert "I" for 4 to 20 mA output, "5V" for 0 to 5 Vdc output or "10V" for 0 to 10 Vdc output.

Note: To order Standard configurations including Potentiometers, no suffix required. For "No Potentiometers", add "NP" suffix.

† 4-digit meter, counts in increments of 10.

Ordering Examples: PX51S0-010G5V 10 psi gage transmitter, 0 to 5 Vdc output with 3 m (10') cable.

PX51T0-5KGI, 5000 psi gage pressure transmitter, 4 to 20 mA output with 3 m (10') cable.

## METRIC MODELS

To Order			
Models with G $\frac{3}{4}$ Male Pressure Connection, Cable or Connector			
Range		Model No.	Compatible Meters
<b>Gage Pressure</b>			
0 to 0.7 bar	0 to 10 psi	PXM51MC[*]-0.7G[**]	iSeries, DP41-E, DP25B-E
0 to 1 bar	0 to 15 psi	PXM51MC[*]-001G[**]	iSeries, DP41-E, DP25B-E
0 to 1.60 bar	0 to 23 psi	PXM51MC[*]-1.60G[**]	iSeries, DP41-E, DP25B-E
0 to 2.50 bar	0 to 36 psi	PXM51MC[*]-2.50G[**]	iSeries, DP41-E, DP25B-E
0 to 4 bar	0 to 58 psi	PXM51MC[*]-004G[**]	iSeries, DP41-E, DP25B-E
0 to 6 bar	0 to 87 psi	PXM51MC[*]-006G[**]	iSeries, DP41-E, DP25B-E
0 to 10 bar	0 to 145 psi	PXM51MC[*]-010G[**]	iSeries, DP41-E, DP25B-E
0 to 16 bar	0 to 232 psi	PXM51MC[*]-016G[**]	iSeries, DP41-E, DP25B-E
0 to 25 bar	0 to 363 psi	PXM51MC[*]-025G[**]	iSeries, DP41-E, DP25B-E
0 to 40 bar	0 to 580 psi	PXM51MC[*]-040G[**]	iSeries, DP41-E, DP25B-E
0 to 60 bar	0 to 870 psi	PXM51MC[*]-060G[**]	iSeries, DP41-E, DP25B-E
0 to 100 bar	0 to 1450 psi	PXM51MC[*]-100G[**]	iSeries, DP41-E, DP25B-E
0 to 160 bar	0 to 2321 psi	PXM51MC[*]-160G[**]	iSeries, DP41-E, DP25B-E
0 to 250 bar	0 to 3626 psi	PXM51MC[*]-250G[**]	iSeries, DP41-E, DP25B-E
0 to 400 bar	0 to 5802 psi	PXM51MC[*]-400G[**]	iSeries, DP41-E, DP25B-E

All models come complete with 5-point NIST traceable calibration. Pressure port for all metric models is G $\frac{3}{4}$ B male.

[\*] = Insert "0" for 3 m (10') cable, "1" for twist-lock 6 pin connector, "5" for M12 connector, "6" for mini-DIN connector or "GW" for submersible waterproof cable.

To order sealed gage pressure models, replace "G" in model number with "SG" (no extra charge).

To order absolute pressure models, replace "G" in model number with "A" (no extra charge).

[\*\*] = Insert "I" for 4 to 20 mA output, "5V" for 0 to 5 Vdc output or "10V" for 0 to 10 Vdc output (no extra charge).

Note: To order Metric configurations including Potentiometers, no suffix required. For "No Potentiometers", add "NP" suffix.

Ordering Examples: PXM51MC6-25GI, 25 bar gage pressure transducer with G $\frac{3}{4}$  male thread, mini-DIN connector and 4 to 20 mA output.

PXM51MD0-1.60AI, 1.6 bar absolute pressure transducer with G $\frac{3}{4}$  internal thread, 3 m (10') cable and 4 to 20 mA output.