

INDUSTRIAL WET/WET DIFFERENTIAL PRESSURE—HIGH OVERPRESSURE CAPACITY

STANDARD AND METRIC MODELS

PX80/PXM80 Series

0-30 to 0-5000 psi—Standard Models

0-2 to 0-350 bar—Metric Models

Differential Pressure

mV/V Output

0 to 5 Vdc Output

4 to 20 mA Output

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

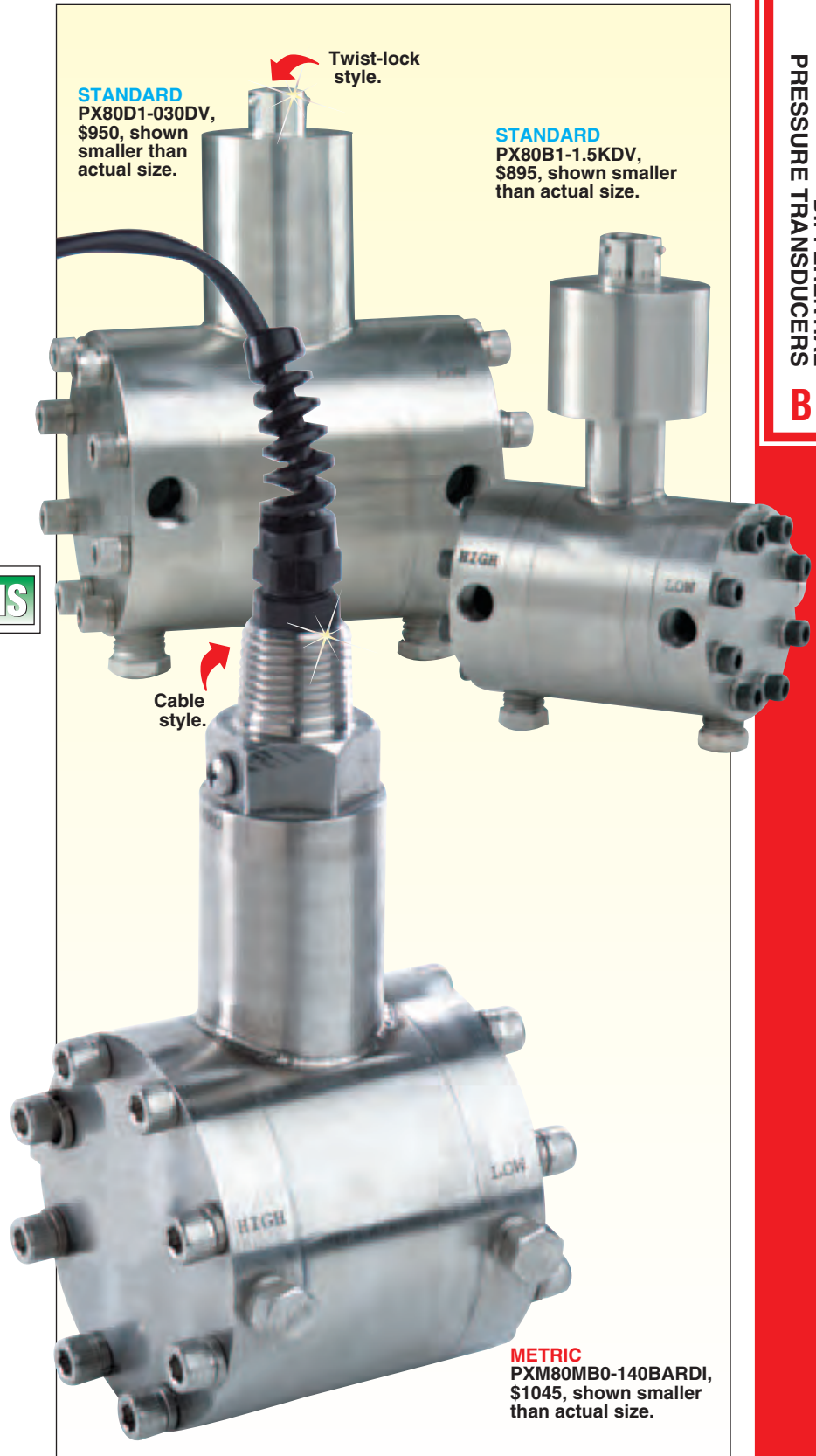
Starts at
\$895



Standard

- ✓ Low Differential Pressure at High Line Pressure—1500 psi (100 bar) Standard, Optional Up to 3000 psi (200 bar)
- ✓ FM Intrinsically Safe
- ✓ All Stainless Steel Construction
- ✓ Sealed for Harsh Environments
- ✓ Rugged Lightning-Protected Housing Available, Style 5

OMEGA's PX80/PXM80 is a heavy-duty, wet/wet, differential pressure transducer that comes in ranges of 0-30 to 0-5000 psi (0-2 to 0-350 bar). Models are available in any of 3 outputs: mV/V, amplified 0 to 5 Vdc, or 4 to 20 mA. All are suitable for interface with most PLCs and computer-based control systems. An extremely high overpressure capacity of 1500 psi or 150% of capacity (whichever is greater) makes the PX80/PXM81 an extremely durable transducer. An FM Approved Intrinsically Safe rating is standard. The all stainless steel construction, high overpressure protection, and FM approval offer high reliability in harsh industrial environments.



DIFFERENTIAL
PRESSURE TRANSDUCERS
B

DIFFERENTIAL PRESSURE TRANSDUCERS

Style 5 sealed metal terminal box, \$1045 most ranges, see pages B-274 to B-275.

SPECIFICATIONS

mV/V Output

Electrical:

Excitation: 10 Vdc (15 V max)

Output: 2 mV/V nominal

Bridge Resistance: 350 Ω

Zero Balance: ±1% FSO

5 Vdc Output

Electrical:

Excitation: 24 to 32 Vdc

Output: 0 to 5 Vdc ±10% adj

Zero Balance: 0 V ±10% adj

4 to 20 mA Output

Electrical:

Excitation: 10 to 40 Vdc

Output: 4 to 20 mA ±0.8 mA adj

Max Loop Resistance:

(Input voltage – 12) x 50

Zero Balance: 4 mA ± 0.4 mA adj

COMMON SPECIFICATIONS

Performance:

Linearity: ±0.25% FSO

Hysteresis: ±0.10% FSO

Repeatability: ±0.1% FSO

Environmental:

Agency Approvals:

FM Intrinsically Safe

IS/I.I.II/1/CDEFG standard

Operating Temp Range:

mV/V: -73 to 163°C (-100 to 325°F)

Amplified: -46 to 107°C
(-50 to 225°F)

Compensated Temp Range:

mV/V: 17 to 71°C (60 to 160°F)

Thermal Effects:

Zero: 0.009% FSO/°C

(mV and 5 V)

Zero: 0.013% FSO/°C (4 to 20 mA)

Span: 0.009% rdg/°C

Pressure:

Line Pressure: 1500 psi (100 bar) or 150% of rated pressure, whichever is greater

Burst Pressure: 6000 psi (414 bar) minimum

Wetted Parts: 17-4 PH stainless steel and Buna-N O-ring

Pressure Port: See dimensional drawings on following pages

Electrical Termination:

Style 0 = 3 m (10') cable

Style 1 = PTIH-10-6P (or equiv)

Style 5 = Metal terminal box

(4 to 20 mA output models only)

Style 6 = mini DIN

Mating Connector:

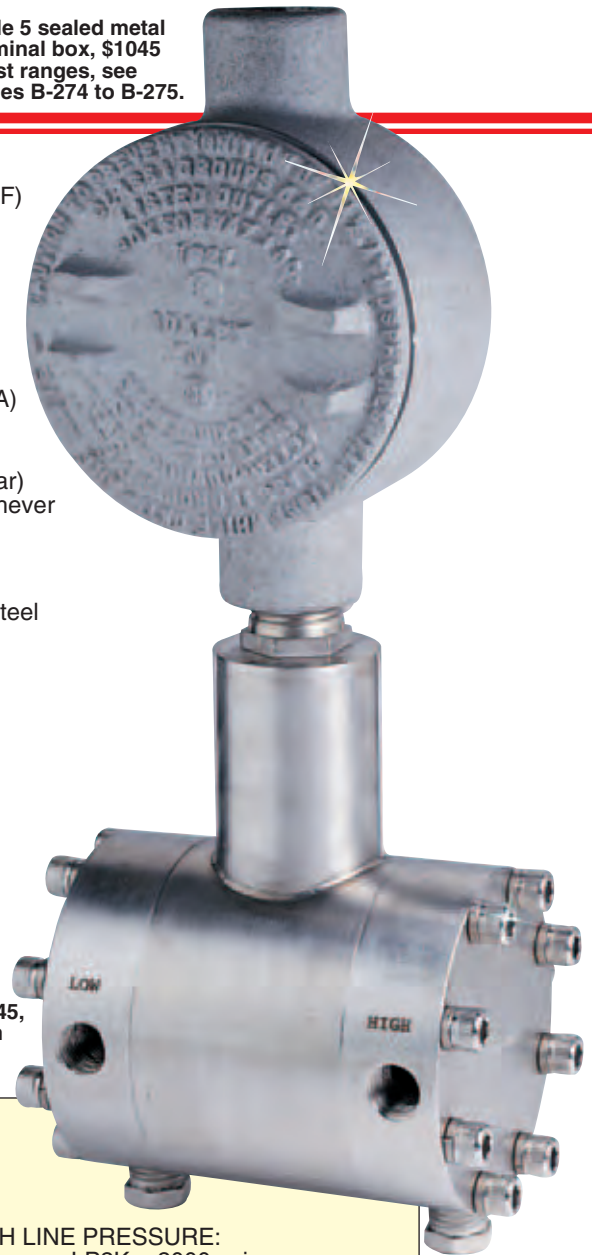
Style 1: PT06F10-6S

(sold separately)

Style 6: Mating connector (included)

Weight: 5 lb

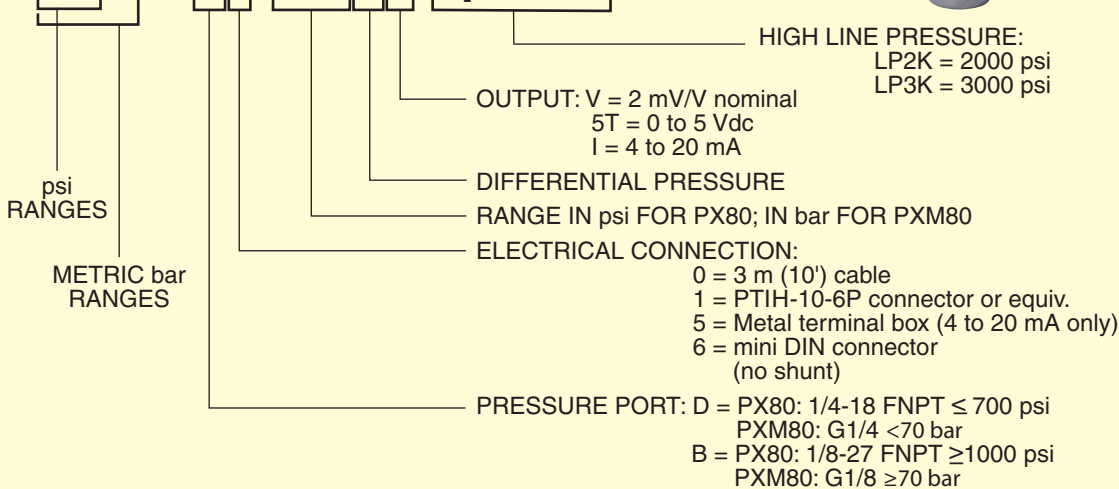
STANDARD
PX80D5-050DI, \$1045, shown smaller than actual size.



STANDARD AND METRIC CUSTOM CONFIGURATIONS

MODEL NUMBER SPECIFICATION:

PXM80D0-100DV-options



To order extra cable on cable style models, add suffix "--(length in feet)FT" and \$2/ft beyond the standard 3 m (10') length.

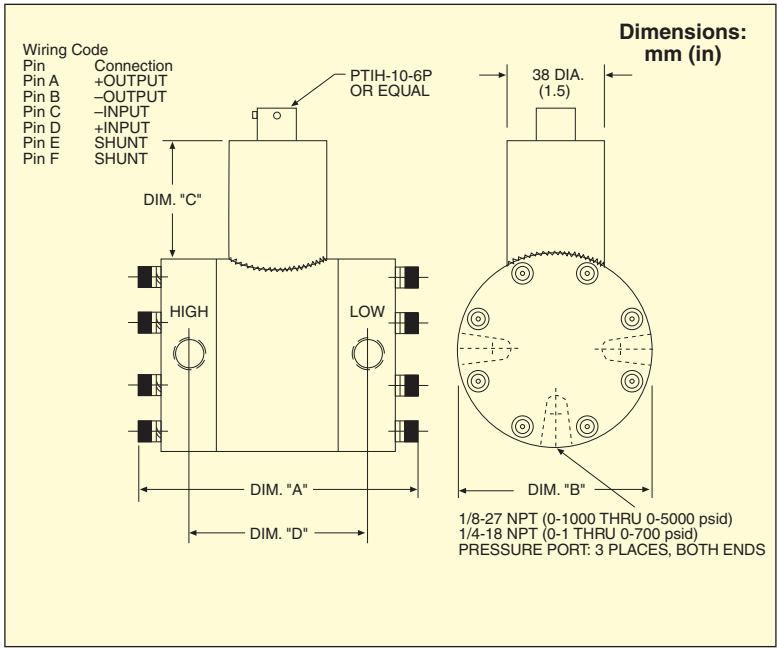
Ordering Examples: PX80B5-1KDI, 1000 psid range model with 4 to 20 mA output and a lightning-protected amplifier housing, \$1045. PX80D5-030DI-25FT, 30 psid range model, 4 to 20 mA output and 7.6m (25') cable, 1100 + 30 = \$1130.

PX80D1-200DV, 200 psid range model with mV/V output and twist-lock connector, \$895. PT06F10-6S, mating connector (sold separately), \$26.50.

mV/V OUTPUT STANDARD RANGES

PX80 Series mV/V Output 0-30 to 0-5000 psi (0-2 to 0-350 bar) Differential Pressure

mV Models
Starts at
\$895



DIFFERENTIAL
PRESSURE TRANSDUCERS
B

- ✓ Low Differential Pressure at High Line Pressure—1500 psi Standard, Optional Up to 3000 psi
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- ✓ All Stainless Steel Construction
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- ✓ High Overpressure

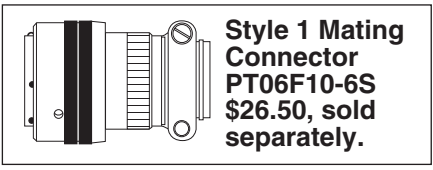
Dimensions: mm (in)

Capacity	A	B	C	D
<1000 psi	111 (4.38)	76 (3.0)	49 (1.94)	75 (2.94)
≥1000 psi	76 (3.0) + Fitting	51 (2.0)	54 (2.13)	N/A

STANDARD MODELS **MOST POPULAR MODELS HIGHLIGHTED!**

To Order (Specify Model Number)				
Models with mV Output and Integral Connector				
RANGE		MODEL NO.	PRICE	COMPATIBLE METERS*
0 to 30 psid	0 to 2.1 bar	PX80D[*]-030DV	\$950	DP41-S, DP25B-S
0 to 50 psid	0 to 3.4 bar	PX80D[*]-050DV	950	DP41-S, DP25B-S
0 to 100 psid	0 to 6.9 bar	PX80D[*]-100DV	895	DP41-S, DP25B-S
0 to 200 psid	0 to 13.8 bar	PX80D[*]-200DV	895	DP41-S, DP25B-S
0 to 300 psid	0 to 20.7 bar	PX80D[*]-300DV	895	DP41-S, DP25B-S
0 to 500 psid	0 to 34.5 bar	PX80D[*]-500DV	895	DP41-S, DP25B-S
0 to 700 psid	0 to 48.3 bar	PX80D[*]-700DV	895	DP41-S, DP25B-S
0 to 1000 psid	0 to 68.9 bar	PX80B[*]-1KDV	895	DP41-S, DP25B-S
0 to 1500 psid	0 to 103 bar	PX80B[*]-1.5KDV	895	DP41-S, DP25B-S
0 to 2000 psid	0 to 138 bar	PX80B[*]-2KDV	895	DP41-S, DP25B-S
0 to 2500 psid	0 to 172 bar	PX80B[*]-2.5KDV	895	DP41-S, DP25B-S
0 to 3000 psid	0 to 207 bar	PX80B[*]-3KDV	895	DP41-S, DP25B-S
0 to 5000 psid	0 to 345 bar	PX80B[*]-5KDV	895	DP41-S, DP25B-S

CONNECTIONS mV/V			
	PIN	Cable	DIN
+Output	A	Green	2
-Output	B	White	3
-Input	C	Black	GRND
+Input	D	Red	1
Shunt	E	Blue	
Shunt	F	Orange	



Recommended Reference Book: Control Valves, GE-2530, \$160. See Section Y for Additional Books.

Comes complete with 5-point NIST traceable calibration.

* See section D for compatible meters.

[*] Insert "0" for 3 m (10') cable, "1" for twist-lock connector, or "6" for mini DIN connector.
Ordering Examples: PX80D1-030DV, ±30 psid range differential transducer with 1/4-18 NPT pressure fittings, twist-lock electrical connector and mV/V output, \$950. PT06F10-6S, mating connector (sold separately), \$26.50.

PX80B1-1KDV, ±1000 psid range differential transducer with 1/8-27 NPT pressure fittings, twist-lock electrical connector and mV/V output, \$895.

mV/V OUTPUT METRIC RANGES

PXM80 Series

mV/V Output

0-2 to 0-350 bar

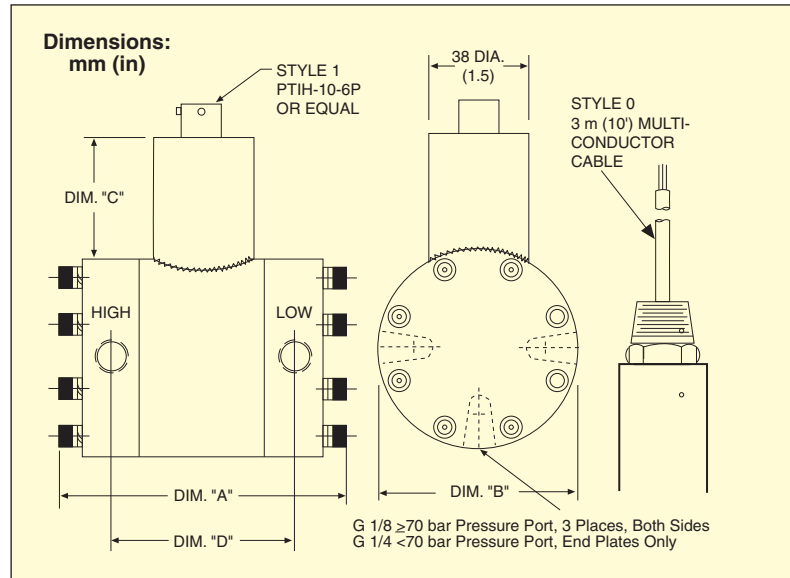
0-30 to 0-5000 psi

Differential Pressure

All Ranges
mV Models
\$895



Standard



- ✓ Low Differential Pressure at High Line Pressure—100 bar Standard, Optional Up to 200 bar
- ✓ FM Intrinsically Safe
- ✓ All Stainless Steel Construction
- ✓ Sealed for Harsh Environments
- ✓ High Overpressure

Dimensions: mm (in)

CAPACITY	A	B	C	D
<70 bar	111 (4.38)	76 (3.0)	49 (1.94)	75 (2.94)
≥70 bar	76 (3.0) + fitting	51 (2.0)	54 (2.13)	N/A

METRIC MODELS

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)				
Models with mV/V Output, Specify Electrical Termination				
RANGE	MODEL NO.	PRICE	COMPATIBLE METERS*	
DIFFERENTIAL PRESSURE				
0 to 2 bar	0 to 29 psi	PXM80MD[*]-002BARDV	\$895	DP41-S, DP25B-S
0 to 3.50 bar	0 to 51 psi	PXM80MD[*]-3.50BARDV	895	DP41-S, DP25B-S
0 to 7 bar	0 to 102 psi	PXM80MD[*]-007BARDV	895	DP41-S, DP25B-S
0 to 14 bar	0 to 203 psi	PXM80MD[*]-014BARDV	895	DP41-S, DP25B-S
0 to 20 bar	0 to 290 psi	PXM80MD[*]-020BARDV	895	DP41-S, DP25B-S
0 to 35 bar	0 to 508 psi	PXM80MD[*]-035BARDV	895	DP41-S, DP25B-S
0 to 50 bar	0 to 725 psi	PXM80MD[*]-050BARDV	895	DP41-S, DP25B-S
0 to 70 bar	0 to 1015 psi	PXM80MB[*]-070BARDV	895	DP41-S, DP25B-S
0 to 100 bar	0 to 1450 psi	PXM80MB[*]-100BARDV	895	DP41-S, DP25B-S
0 to 140 bar	0 to 2031 psi	PXM80MB[*]-140BARDV	895	DP41-S, DP25B-S
0 to 175 bar	0 to 2538 psi	PXM80MB[*]-175BARDV	895	DP41-S, DP25B-S
0 to 200 bar	0 to 2901 psi	PXM80MB[*]-200BARDV	895	DP41-S, DP25B-S
0 to 350 bar	0 to 5076 psi	PXM80MB[*]-350BARDV	895	DP41-S, DP25B-S

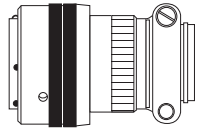
Comes complete with 5-point NIST traceable calibration.

[*] Insert "0" for 3 m (10') cable, "1" for twist-lock connector or "6" for mini DIN connector
* See section D for compatible meters.

To order extra cable on cable style models, add suffix "(total length in meters)M" and \$8.00/m beyond the standard 3 m (10') length.

Ordering Examples: **PXM80MD0-002BARDV-10M**, 2 bar range differential transducer with G 1/4 female pressure fittings, 10 m (32') cable and mV/V output, \$895 + 7 (6.50) = **\$940.50**.
PXM80MB1-100BARDV, 100 bar range differential transducer with G 1/8 pressure fittings, twist-lock electrical connector and mV/V output, **\$895**. **PT06F10-6S**, mating connector (sold separately), **\$26.50**.

CONNECTIONS mV/V			
	PIN	Cable	DIN
+Output	A	Green	2
-Output	B	White	3
-Input	C	Black	GRND
+Input	D	Red	1
Shunt	E	Blue	
Shunt	F	Orange	



**Style 1 Mating Connector
PT06F10-6S
\$26.50, sold separately.**

Recommended Reference Book:
Pump Handbook,
ME-0341, \$150. See Section Y
for Additional Books.