

INDUSTRIAL WET/WET DIFFERENTIAL PRESSURE TRANSDUCER WITH HIGH OVER PRESSURE CAPACITY

PXM80 Series
0-2 bar to 0-350 bar
Differential Pressure
mV/V Output
0-5 Vdc Output
4-20 mA Output

PXM80
\$895
Model Shown



1 bar = 14.5 psi
1 kg/cm² = 14.22 psi
1 Atmosphere =
14.7 psi = 29.93
in-Hg = 760.2 mm-Hg =
1.014 bar

- ✓ Low Differential Pressure at High Line Pressure - 100 bar Standard Optional up to 345 bar
- ✓ FM Intrinsically Safe
- ✓ All Stainless Steel Construction
- ✓ Sealed for Harsh Environments
- ✓ High Overpressure

OMEGA's PXM80 Series is a heavy duty, wet/wet, differential pressure transducer available in ranges from 0-2 to 0-350 bar. The Series is available with either of three outputs; mV/V, amplified 0-5 Vdc or 4-20 mA. These are suitable for interface with most PLCs and computer based control systems. An extremely high over pressure capacity of 100 bar or 150% of capacity (whichever is greater) make the PXM80 an extremely durable transducer. FM approved intrinsically safe rating is standard. The all stainless steel construction, high over pressure protection and FM approval, make the PXM80 Series differential pressure transducers a high reliability transducer in harsh industrial environments.

Model PXM80MD1-002BARDV
Shown Smaller Than Actual Size

Model PXM80MB1-100BARDV
Shown Smaller Than Actual Size

Model PXM80MD0-002BARDI
Shown Smaller Than Actual Size

METRIC SPEC
PRESSURE TRANSDUCERS

PXM80 SERIES DIFFERENTIAL PRESSURE TRANSDUCERS

Style 5 Sealed Metal Terminal Box

SPECIFICATIONS

mV/V OUTPUT

Electrical:

Excitation: 10 Vdc (15 V max)

Output: 2 mV/V nominal

Bridge Resistance: 350 Ω

Zero Balance: $\pm 1\%$ FSO

5Vdc OUTPUT

Electrical:

Excitation: 24-32 Vdc

Output: 0-5 Vdc $\pm 10\%$ adj.

Zero Balance: 0 V $\pm 10\%$ adj

4-20 mA OUTPUT

Electrical:

Excitation: 10-40 Vdc

Output: 4-20 mA $\pm 10\%$ adj

Max Loop Resistance:

(Input Voltage-12) x 50

Zero Balance: 4 mA, $+10\%$ -2%

COMMON SPECIFICATIONS

Performance:

Linearity:

≥ 2 bar : $\pm 0.25\%$ FSO

Hysteresis:

≥ 2 bar: $\pm 0.10\%$ FSO

Repeatability: $\pm 0.1\%$ FSO

Environmental:

Agency Approvals:

FM Intrinsically Safe

IS/I.II.III/1/CDEFG - Standard

Operational Temp Range:

mV/V: -73 to $+163^{\circ}\text{C}$ (-100 to $+325^{\circ}\text{F}$)

Amplified: -46 to $+107^{\circ}\text{C}$ (-50 to $+225^{\circ}\text{F}$)

Compensated Temp Range:

mV/V: $+17$ to $+71^{\circ}\text{C}$ (60 to $+160^{\circ}\text{F}$)

Thermal Effects:

Zero: ≥ 2 bar : 0.009% FSO/ $^{\circ}\text{C}$

Zero: ≥ 2 bar: 0.013% FSO/ $^{\circ}\text{C}$ (4-20 mA)

Span: ≥ 2 bar : 0.009% Rdg/ $^{\circ}\text{C}$

Pressure:

Line Pressure: 138 bar or 150% of rated pressure, whichever is greater

Burst Pressure: 414 bar minimum

Wetted Parts:

≥ 2 bar: 17-4 PH Stainless Steel

Pressure Port:

G $\frac{1}{4}$ <70 bar

G $\frac{1}{8}$ ≥ 70 bar

Electrical Termination:

Style 0 = 3 m cable

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

Style 5 = Metal Terminal Box

Style 6 = micro DIN

Mating Connector: Style 1

PT06F-10-6S (not included)

Style 6: Mating Connector Included

Model PXM80MD5-002BARDI
Shown Smaller Than Actual Size



Custom Configurations

—MODEL NUMBER SPECIFICATION:

PXM80MB0-100BARDV-options

OUTPUT: V = 2 mV/V NOMINAL
5T = 0-5 VDC
I = 4-20 mA

DIFFERENTIAL PRESSURE

RANGE

ELECTRICAL CONNECTION:

0 = 3 m cable

1 = PTIH-10-6P connector or equiv.

5 = Metal Terminal Box (4-20 mA only)

6 = Micro DIN connector

(No shunt)

PRESSURE PORT: MB = G $\frac{1}{8}$ female ≥ 70 BAR

MD = G $\frac{1}{4}$ female < 70 BAR

HIGH LINE PRESSURE:

LPM138 = 138 bar

LPM207 = 207 bar

LPM345 = 345 bar

To order extra cable on Cable Style models, add suffix “-(total length in metres)M” add \$6.50/m over the standard 3 m length.

Ordering Examples:

1.) PXM80MB6-100BARDV is a 100 bar range model with mV/V output, G $\frac{1}{8}$ pressure connection and a micro DIN connector, \$895.

2.) PXM80MD0-001BARDV-10M is a 1 bar range model with mV/V output, G $\frac{1}{4}$ pressure connection and a 10 m cable,
\$950 + (7 x 6.50) = \$995.50.

3.) PXM80MD1-20BARDV is a 20 bar range model with mV/V output, G $\frac{1}{4}$ pressure connection and an integral connector, \$895.
Mating Connector (not included) PT06F-10-6S, \$26.50.

HOW TO ORDER PXM80 SERIES WET/WET DIFFERENTIAL PRESSURE TRANSDUCERS WITH MV/V OUTPUT

PXM80 Series mV/V Output 0-2 bar to 0-350 bar Differential Pressure

PXM80
\$895
BASIC mV UNIT

- ✓ Low Differential Pressure at High Line Pressure - 100 bar Standard Optional up to 345 bar
- ✓ FM Intrinsically Safe
- ✓ All Stainless Steel Construction
- ✓ Sealed for Harsh Environments
- ✓ High Overpressure

SPECIFICATIONS

mV/V OUTPUT

Electrical:

Excitation: 10 Vdc (15 V max)

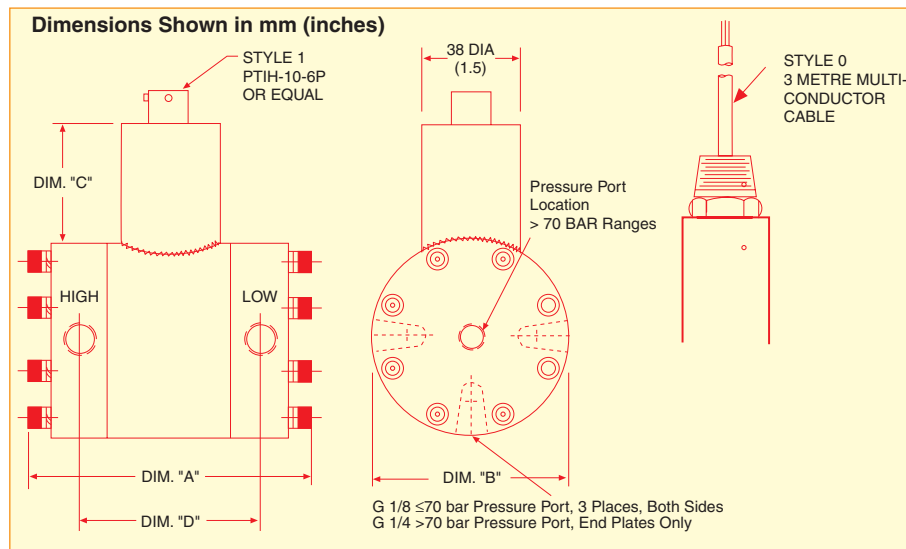
Output: 2 mV/V nominal

Bridge Resistance: 350 Ω

Zero Balance: ±1% FSO

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	



Dimensions in mm (inches)

Capacity	A	B	C	D
<2 bar	113 (4.43)	89 (3.5)	49 (1.94)	68 (2.69)
2 to 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

To Order (Specify Model Number)

Models with mV/V Output - Specify Electrical Termination

RANGE (bar)	MODEL NO.	PRICE	COMPATIBLE METERS†
Differential Pressure			
0 to 2	PXM80MD[*]-002BARDV	\$950	DP41-S, DP25B-S
0 to 3.50	PXM80MD[*]-3.50BARDV	895	DP41-S, DP25B-S
0 to 7	PXM80MD[*]-007BARDV	895	DP41-S, DP25B-S
0 to 14	PXM80MD[*]-014BARDV	895	DP41-S, DP25B-S
0 to 20	PXM80MD[*]-020BARDV	895	DP41-S, DP25B-S
0 to 35	PXM80MD[*]-035BARDV	895	DP41-S, DP25B-S
0 to 50	PXM80MD[*]-050BARDV	895	DP41-S, DP25B-S
0 to 70	PXM80MD[*]-070BARDV	895	DP41-S, DP25B-S
0 to 100	PXM80MB[*]-100BARDV	895	DP41-S, DP25B-S
0 to 140	PXM80MB[*]-140BARDV	895	DP41-S, DP25B-S
0 to 175	PXM80MB[*]-175BARDV	895	DP41-S, DP25B-S
0 to 200	PXM80MB[*]-200BARDV	895	DP41-S, DP25B-S
0 to 350	PXM80MB[*]-350BARDV	895	DP41-S, DP25B-S

* Insert "0" for 3 m Cable, "1" for Twist Lock Connector, or "6" for micro DIN Connector
† See Section D for Compatible Meters

To order extra cable on Cable Style models, add suffix "-(total length in metres)M" add \$6.50/m over the standard 3 m length.

Ordering Examples:

1.) PXM80MD0-002BARDV-10M is a 2 bar range differential transducer with a G1/4 female pressure fittings, 10 m cable and a mV/V output, \$950 + (7 x 6.5) = **\$995.50**.

2.) PXM80MB1-100BARDV is a 100 bar range differential transducer with G1/8 pressure fittings, a twist lock electrical connector and a mV/V output, **\$895**. Mating Connector (not included) PT06F-10-6S, \$26.50.

HOW TO ORDER PXM80 SERIES WET/WET DIFFERENTIAL PRESSURE TRANSMITTERS WITH 0-5 VDC OUTPUT

PXM80 Series 0-5 Vdc Output 0-2 bar to 0-350 bar Differential Pressure

- ✓ Low Differential Pressure at High Line Pressure - 100 bar Standard Optional up to 345 bar
- ✓ FM Intrinsically Safe
- ✓ All Stainless Steel Construction
- ✓ Sealed for Harsh Environments
- ✓ High Overpressure

5Vdc OUTPUT

Electrical:

Excitation: 24-32 Vdc

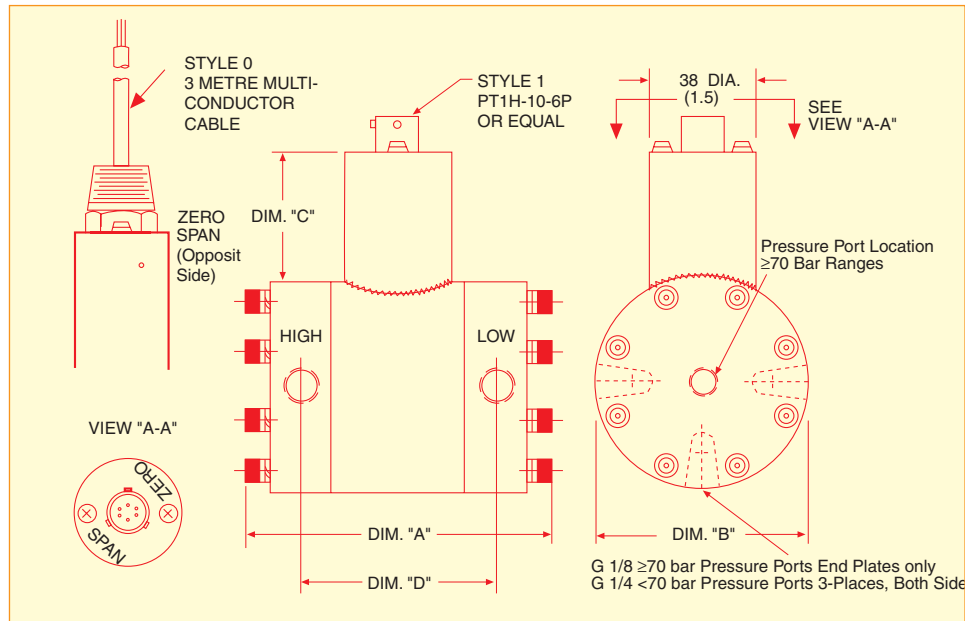
Output: 0-5 Vdc $\pm 10\%$ adj.

Zero Balance: 0 V $\pm 10\%$ adj

CONNECTIONS 5Vdc

	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	

PXM80
\$1045
BASIC 5V UNIT



Dimensions Shown in mm (inches)

Capacity	A	B	C	D
2 to <70 bar	111 (4.38)	76 (3.0)	62 (2.44)	75 (2.94)
>70 bar	76 (3.0) + Fitting	51 (2.0)	76 (3.0)	N/A

To Order (Specify Model Number)

Models with 0-5V Output - Specify Electrical Termination

RANGE (bar)	MODEL NO.	PRICE	COMPATIBLE METERS†
Differential Pressure			
0 to 2	PXM80MD[*]-002BARD5T	\$1100	DP41-E, DP25B-E, DP24-E
0 to 3.50	PXM80MD[*]-3.50BARD5T	1100	DP41-E, DP25B-E, DP24-E
0 to 7	PXM80MD[*]-007BARD5T	1045	DP41-E, DP25B-E, DP24-E
0 to 14	PXM80MD[*]-014BARD5T	1045	DP41-E, DP25B-E, DP24-E
0 to 20	PXM80MD[*]-020BARD5T	1045	DP41-E, DP25B-E, DP24-E
0 to 35	PXM80MD[*]-035BARD5T	1045	DP41-E, DP25B-E, DP24-E
0 to 50	PXM80MD[*]-050BARD5T	1045	DP41-E, DP25B-E, DP24-E
0 to 70	PXM80MD[*]-070BARD5T	1045	DP41-E, DP25B-E, DP24-E
0 to 100	PXM80MB[*]-100BARD5T	1045	DP41-E, DP25B-E, DP24-E
0 to 140	PXM80MB[*]-140BARD5T	1045	DP41-E, DP25B-E, DP24-E
0 to 175	PXM80MB[*]-175BARD5T	1045	DP41-E, DP25B-E, DP24-E
0 to 200	PXM80MB[*]-200BARD5T	1045	DP41-E, DP25B-E, DP24-E
0 to 350	PXM80MB[*]-350BARD5T	1045	DP41-E, DP25B-E, DP24-E

* Insert "0" for 3 m Cable, "1" for Twist Lock Connector, or "6" for micro DIN Connector

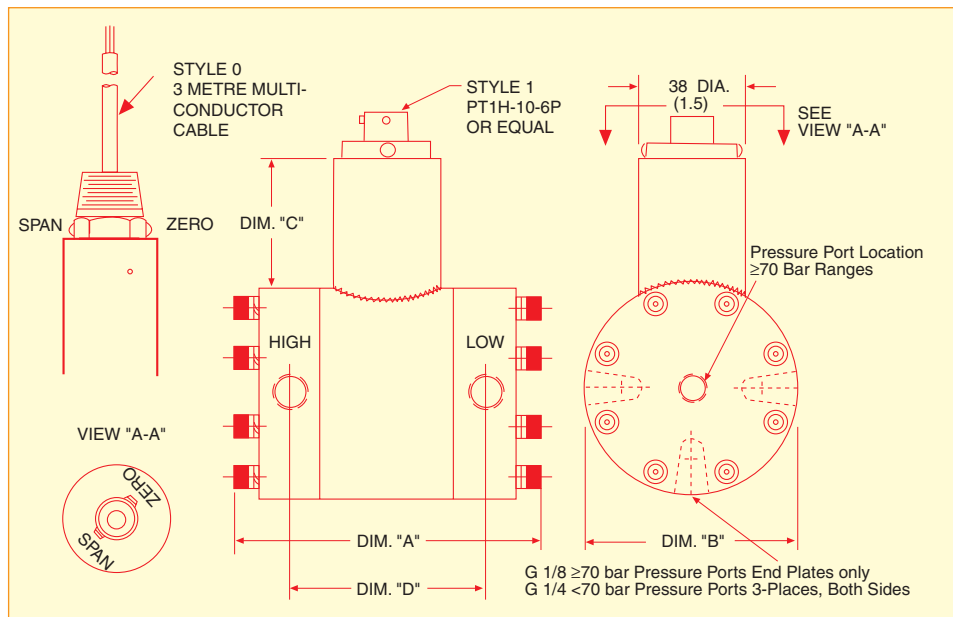
† See Section D for Compatible Meters

To order extra cable on Cable Style models, add suffix "--(total length in metres)M" and add \$6.50/m over the standard 3 m length.

Ordering Examples: 1.) PXM80MD0-002BARD5T-10M is a 2 bar range differential transducer with a G1/4 female pressure fittings, 10 m cable and a 0-5 Vdc output, \$1100 + (7 x 6.50) = \$1145.50.

2.) PXM80MB1-100BARD5T is a 100 bar range differential transducer with G1/8 pressure fittings, a Twist lock style electrical connector and a 0-5 Vdc output, \$1045. Mating Connector (not included) PT06F-10-6S, \$26.50.

HOW TO ORDER PXM80 SERIES WET/WET DIFFERENTIAL PRESSURE TRANSMITTERS 4-20 MA OUTPUT



Dimensions Shown in mm (inches)

Capacity	A	B	D
2 to 70 bar	111 (4.38)	75 (2.94)	76 (3.0)
>70 bar	76 (3.0) + Fitting	51 (2.0)	N/A

PXM80 Series 4-20 mA Output 0-2 bar to 0-350 bar Differential Pressure

- ✓ Low Differential Pressure at High Line Pressure - 100 bar Standard Optional up to 345 bar
- ✓ FM Intrinsically Safe
- ✓ All Stainless Steel Construction
- ✓ Sealed for Harsh Environments
- ✓ High Overpressure

4-20 mA OUTPUT

Electrical:

Excitation: 10-40 Vdc

Output: 4-20 mA ±10% adj

Max Loop Resistance:
(Input Voltage-12) x 50

Zero Balance: 4 mA, +10% -2%

CONNECTIONS 4-20 mA

	PIN	Cable	DIN
+ Input	A	Red	1
- Input	B	Black	2



To Order (Specify Model Number)

Models with 4-20 mA Output - Specify Electrical Termination

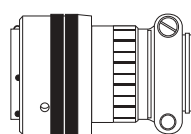
RANGE (bar)	MODEL NO.	PRICE	COMPATIBLE METERS†
Differential Pressure			
0 to 2	PXM80MD[*]-002BARDI	\$1100	DP41-E, DP25B-E, DP24-E
0 to 3.50	PXM80MD[*]-3.50BARDI	1100	DP41-E, DP25B-E, DP24-E
0 to 7	PXM80MD[*]-007BARDI	1045	DP41-E, DP25B-E, DP24-E
0 to 14	PXM80MD[*]-014BARDI	1045	DP41-E, DP25B-E, DP24-E
0 to 20	PXM80MD[*]-020BARDI	1045	DP41-E, DP25B-E, DP24-E
0 to 35	PXM80MD[*]-035BARDI	1045	DP41-E, DP25B-E, DP24-E
0 to 50	PXM80MD[*]-050BARDI	1045	DP41-E, DP25B-E, DP24-E
0 to 70	PXM80MD[*]-070BARDI	1045	DP41-E, DP25B-E, DP24-E
0 to 100	PXM80MB[*]-100BARDI	1045	DP41-E, DP25B-E, DP24-E
0 to 140	PXM80MB[*]-140BARDI	1045	DP41-E, DP25B-E, DP24-E
0 to 175	PXM80MB[*]-175BARDI	1045	DP41-E, DP25B-E, DP24-E
0 to 200	PXM80MB[*]-200BARDI	1045	DP41-E, DP25B-E, DP24-E
0 to 350	PXM80MB[*]-350BARDI	1045	DP41-E, DP25B-E, DP24-E

* Insert "0" for 3 m Cable, "1" for Twist Lock Connector, "5" for Metal Terminal Box or "6" for micro DIN Connector

† See Section D for Compatible Meters

To order extra cable on Cable Style models, add suffix "-(total length in metres)M" add \$6.50/m over the standard 3 m length.

Ordering Examples: 1.) PXM80MD0-002BARDI-10M is a 2 bar range differential transducer with a G1/4 female pressure fittings, 10 m cable and a 4-20 mA output, \$1045 + 7 x 6.50 = **\$1145.50**. 2.) PXM80MB1-100BARDI is a 100 bar range differential transducer with G1/8 pressure fittings, a Twist lock style electrical connector and a 4-20 mA output, **\$1045**. Mating Connector (not included) PT06F-10-6S, **\$26.50**.



Style 1 Mating
Connector
PT06F-10-6S,
\$26.50