

HIGH ACCURACY WET/WET DIFFERENTIAL PRESSURE TRANSDUCER

COMPACT SIZE

PXM81 Series
0-160 mbar to 0-35 bar
Differential Pressure
mV/V Output
0-5 Vdc Output
4-20 mA Output

PXM81
\$550
Basic Unit



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

- ✓ High Accuracy Wet/ Wet Differential Pressure
- ✓ All Stainless Steel Construction for Harsh Industrial Environments
- ✓ High Operating Temperature
- ✓ 5 Point Calibration Provided 0%, 50%, 100%, 50%, 0%

OMEGA's PXM81 Series wet/wet, differential pressure transducer is a compact, high accuracy transducer designed for industrial applications where low drift and long term reliability are important. Its small temperature compensation error minimizes errors due to changing process temperatures and the rugged all stainless steel construction allows the PXM81 to withstand typical harsh industrial environments found in chemical and industrial plants. Available with either mV/V, 0-5 Vdc or 4-20 mA outputs, the PXM81 Series transducers will interface most existing control systems.



Model PXM81MD1-007BARD5T
Shown Smaller than
Actual Size



Model PXM81MD0-1.40BARDI
Shown Smaller Than Actual
Size

PXM81 SERIES WET/WET DIFFERENTIAL PRESSURE TRANSDUCERS

SPECIFICATIONS

mV/V OUTPUT

Excitation: 10 Vdc
(15 V max)

Output: 3 mV/V nominal

Bridge Resistance:
350 Ω minimum

Zero Balance:
 $\pm 1\%$ FSO

5Vdc OUTPUT

Excitation: 24-32 Vdc

Output: 0 to 5 Vdc $\pm 10\%$ adj

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

4-20mA OUTPUT

Excitation: 10-40 Vdc

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

Zero Balance:
4 mA $\pm 10\%$ -2% adj

COMMON SPECIFICATIONS

Accuracy: $\pm 0.5\%$ Linearity,
Hysteresis and Repeatability Combined

Environmental:

Operational Temp Range:

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

5T & I: -46 to 121°C (-50 to 250°C)

Compensated Temp Range:

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

Thermal Effects: mV/V & 5V

Zero: $\pm 0.009\%$ FSO/ $^{\circ}\text{C}$

Span: $\pm 0.0054\%$ Rdg/ $^{\circ}\text{C}$

4-20 mA

Zero: $\pm 0.009\%$ FSO/ $^{\circ}\text{C}$

Span: $\pm 0.009\%$ Rdg/ $^{\circ}\text{C}$

Pressure:

Safe Over Pressure:

150% rated pressure

Burst Pressure: 300%
rated pressure

Mechanical:

Wetted Parts: 17-4 PH

Stainless Steel

Pressure Port:

G 1/4 Female

Electrical Connection:

Style 0: 3m cable,

Style 1: PTIH-10-6P (or equal)

Style 6: micro DIN

Mating Connector:

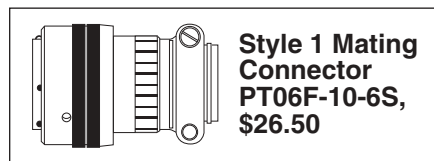
Style 1: PT06F-10-6S (not included)

Style 6: Mating Connector Included



Model PXM81MD0-1.40BARDI
Shown Smaller Than Actual
Size

PRESSURE TRANSDUCERS
B



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

Custom Configurations

—MODEL NUMBER SPECIFICATION:

PXM81MD0-020BARDV

OUTPUT:

V = 3 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.

6 = micro DIN connector*

(*no shunt)

PRESSURE PORT: MD = G 1/4 female

Ordering Examples:

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.

1.) PXM81MD0-350mBARDI-10M is a 350 mbar range model with 4-20 mA output and 10 metre cable, \$685 + 7 x 6.50 = **\$730.50**

2.) PXM81MD1-3.50BARDV is a 3.5 bar range model with mV/V output and PTIH-10-6P twist lock connector, \$550. Mating Connector (not included) PT06F-10-6S \$26.50.

3.) PXM81MD6-014BARD5T is a 14 bar range model with 0-5 Vdc output with a micro DIN connector, \$685. Mating Connector (included)

HOW TO ORDER PXM81 SERIES WET/WET DIFFERENTIAL PRESSURE TRANSDUCERS WITH MV/V OUTPUT

PXM81 Series mV/V Output 0-350 mbar to 0-35 bar Differential Pressure

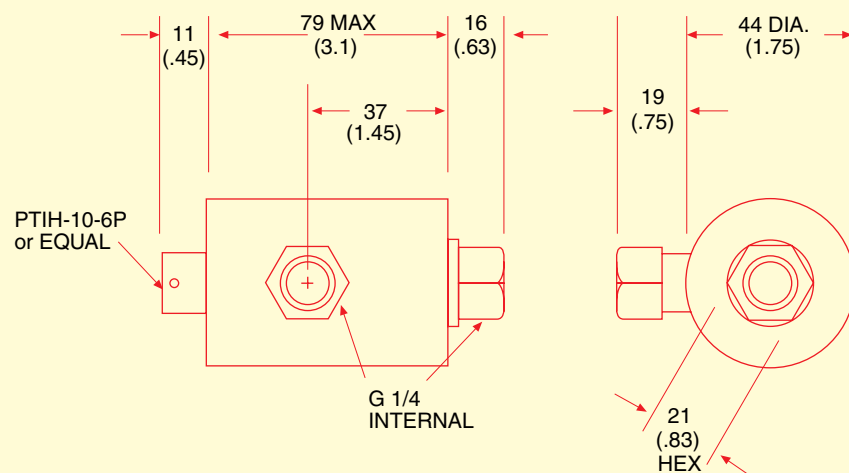
- ✓ High Accuracy Wet/ Wet Differential Pressure
- ✓ All Stainless Steel Construction for Harsh Industrial Environments
- ✓ High Operating Temperature
- ✓ 5 Point Calibration Provided 0%, 50%, 100%, 50%, 0%

mV/V OUTPUT
Excitation: 10 Vdc
(15 V max)
Output: 3 mV/V nominal
Bridge Resistance:
350 Ω nominal
Zero Balance:
 $\pm 1\%$ FSO



Model PXM81MD1-007BARD5T
Shown Smaller than Actual Size

Dimensions Shown in mm (Inches)



PXM81
\$550
Basic mV Unit

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	

To Order (Specify Model Number)

mV/V Output with G 1/4 Pressure Connection, Specify Electrical Connection

RANGE	MODEL NO.	PRICE	COMPATIBLE METERS†
Differential Pressure Pressure			
0-350 mbar	PXM81MD[*]-350mBARDV	\$550	DP41-S, DP25B-S
0-700 mbar	PXM81MD[*]-700mBARDV	550	DP41-S, DP25B-S
0-1.4 bar	PXM81MD[*]-1.40BARDV	550	DP41-S, DP25B-S
0-3.5 bar	PXM81MD[*]-3.50BARDV	550	DP41-S, DP25B-S
0-7 bar	PXM81MD[*]-007BARDV	550	DP41-S, DP25B-S
0-14 bar	PXM81MD[*]-014BARDV	550	DP41-S, DP25B-S
0-20 bar	PXM81MD[*]-020BARDV	550	DP41-S, DP25B-S
0-35 bar	PXM81MD[*]-035BARDV	550	DP41-S, DP25B-S

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

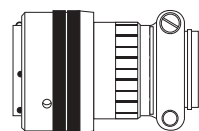
† See Section D for Compatible Meters

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.) PXM81MD0-014BARDV-10M is a 14 bar differential pressure transducer with 3 mV/V output and 10 m cable, \$550 + (7 x 6.50) = **\$595.50**.

2.) PXM81MD1-350mBARDV is a 350 millibar differential pressure transducer with 3 mV/V output and a twist lock connector, \$550. Mating connector (not included), **PT06F-10-6S, \$26.50**.



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

**METRIC SPEC
PRESSURE TRANSDUCERS**



- ✓ **High Accuracy Wet/ Wet Differential Pressure**
- ✓ **All Stainless Steel Construction for Harsh Industrial Environments**
- ✓ **High Operating Temperature**
- ✓ **5 Point Calibration Provided 0%, 50%, 100%, 50%, 0%**

	PIN	Cable	DIN
+Output	A	Green	2
-Output	B	White	3
-Input	C	Black	GRND
+input	D	Red	4
Shunt	E	Orange	
Shunt	F	Blue	



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

MD0-1.40BARDI
Smaller
actual Size

0-5 Vdc Output with G 1/4 Pressure Connection, Specify Electrical Termination

* 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.) PXM81MD0-014BARD5T-10M is a 14 bar differential pressure transducer with 0-5 Vdc output and 10 m cable, \$685 + (7 x 6.50) = **\$730.50**.

2.) **PXM81MD1-350mBARD5T** is a 350 millibar differential pressure transducer with 0-5 Vdc output and a twist lock connector, **\$685**. Mating connector (not included), **PT06F-10-6S, \$26.50**.

HOW TO ORDER PXM81 SERIES WET/WET DIFFERENTIAL PRESSURE TRANSMITTERS WITH 4-20 MA OUTPUT

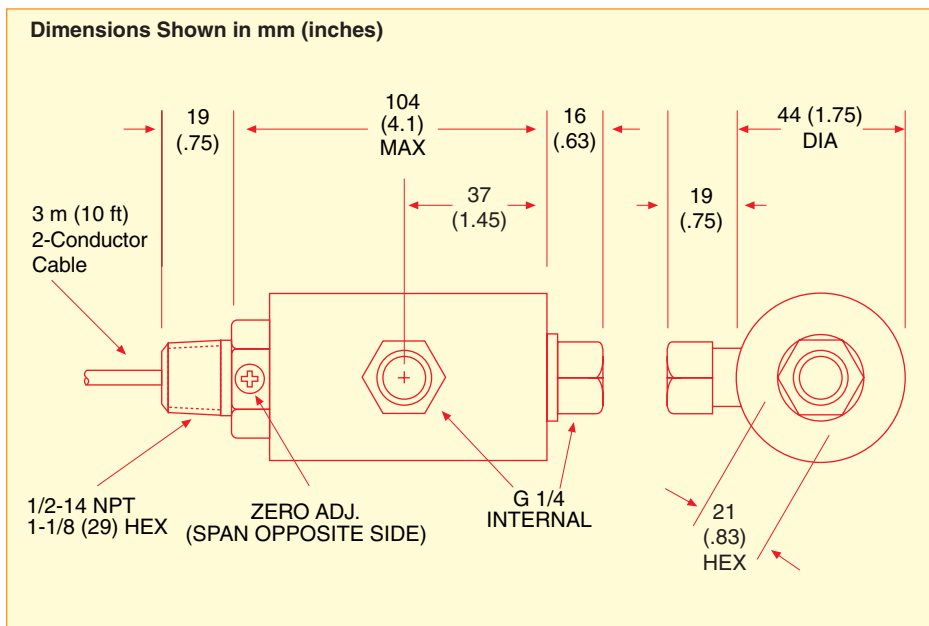
PXM81 Series 4-20 mA Output 0-160 mbar to 0-35 bar Differential Pressure

- ✓ High Accuracy Wet/ Wet Differential Pressure
- ✓ All Stainless Steel Construction for Harsh Industrial Environments
- ✓ High Operating Temperature
- ✓ 5 Point Calibration Provided 0%, 50%, 100%, 50%, 0%

PXM81

\$685

Basic mA Unit



Model PXM81MD1-1.40BARD5T
Shown Smaller Than Actual Size

CONNECTIONS 4-20 mA

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

To Order (Specify Model Number)

4-20 mA Output with G 1/4 Pressure Connection, Specify Electrical Termination

RANGE	MODEL NO.	PRICE	COMPATIBLE METERS†
Differential Pressure			
0 to 160 mbar	PXM81MD[*]-160mBARDI	\$685	DP41-E, DP25B-E, DP24-E
0 to 350 mbar	PXM81MD[*]-350mBARDI	685	DP41-E, DP25B-E, DP24-E
0 to 700 mbar	PXM81MD[*]-700mBARDI	685	DP41-E, DP25B-E, DP24-E
0 to 1.4 bar	PXM81MD[*]-1.40BARDI	685	DP41-E, DP25B-E, DP24-E
0 to 3.5 bar	PXM81MD[*]-3.50BARDI	685	DP41-E, DP25B-E, DP24-E
0 to 7 bar	PXM81MD[*]-007BARDI	685	DP41-E, DP25B-E, DP24-E
0 to 14 bar	PXM81MD[*]-014BARDI	685	DP41-E, DP25B-E, DP24-E
0 to 20 bar	PXM81MD[*]-020BARDI	685	DP41-E, DP25B-E, DP24-E
0 to 35 bar	PXM81MD[*]-035BARDI	685	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.) PXM81MD0-014BARDI-10M is a 14 bar differential pressure transducer with 4-20 mA output and 10 m cable, \$685 + (7 x 6.50) = **\$730.50**.
- 2.) PXM81MD1-350mBARDI is a 350 millibar differential pressure transducer with 4-20 mA output and a twist lock connector, **\$685**. Mating connector (not included), **PT06F-10-6S, \$26.50**.

