LOW-RANGE WET/WET INDUSTRIAL DIFFERENTIAL TRANSDUCER

STANDARD AND METRIC MODELS

0-50 to 0-800 inH$_2$O
0-2 to 0-22 psi-Standard Models
0-130 to 0-1500 mbar-Metric Models

Differential Pressure
mV/V Output
0 to 5 Vdc Output
4 to 20 mA Output

1 psi = 27.68 inH$_2$O
1 bar = 14.5 psi
1 kg/cm^2 = 14.22 psi
1 atmosphere = 14.7 psi = 29.93 inHg = 760.2 mmHg = 1.014 bar

PX82/PXM82 Series

NIST CE RoHS
Standard

- **Inches of Water Differential at Line Pressure—Up to 1500 psi (100 bar)**
- **Stainless Steel/Inconel® Construction for Harsh Industrial Environments**
- **High Overpressure Capability and High Operating Temperature**
- **5-Point Calibration Provided: 0%, 50%, 100%, 50%, 0%**

OMEGA's PX82/PXM82 Series wet/wet, differential pressure transducers can measure inches of water differential at line pressure up to 1500 psi (100 bar). This high line pressure capacity, a high operating temperature, and excellent temperature compensation make the PX82/PXM82 Series extremely accurate and reliable. The rugged Inconel® diaphragms and stainless steel body give the PX82/PXM82 Series high performance in harsh industrial environments. The PX82/PXM82 Series is available with mV/V, 5 V, or 4 to 20 mA outputs. Mounting in any position via use of one of the 4 ports is available on the high and low side.

LOW-RANGE WET/WET INDUSTRIAL DIFFERENTIAL TRANSDUCER

SPECIFICATIONS

mV/V Output

Electrical:
Excitation: 10 Vdc (15 V max)
Output: 1.5 mV/V nominal

Input Resistance: 5000 Ω minimum

Output Resistance: 5000 ±25 Ω

Zero Balance: ±2% FS

0.5 to 5.5 Vdc Output

Electrical:
Excitation: 10 to 35 Vdc
Output: 0.5 to 5.5 Vdc ±10%

Zero Balance: 0.5 V ±2% adj

4 to 20mA Output

Electrical:
Excitation: 10 to 40 Vdc
Output: 4 to 20 mA ±10% adj

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

COMMON SPECIFICATIONS

Performance:
Accuracy: 0.25% linearity, hysteresis and repeatability combined

Environmental:
Operating Temp Range: -34 to 107°C (-30 to 225°F)
Compensated Temp Range: -1 to 54°C (30 to 130°F)

Pressure Effects:
Zero: <2%/1000 psi (70 bar) line pressure
Span: -2.45%/1000 psi (70 bar) line pressure

Thermal Effects:
Zero: ±0.50% FSO maximum over compensated range
Span: ±0.50% rdg maximum over compensated range

Pressure:
Line Operating Pressure: 1500 psi (100 bar)
Safe Overpressure: 1000 psi (70 bar) each side
Burst Pressure: 2500 psi (170 bar) minimum

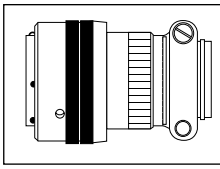
Mechanical:
Wetted Parts: 17-4 PH stainless steel and Inconel 625

Pressure Port: See dimensional drawings on following pages

Electrical Connection:
Style 0: 1.2 m (4') cable
Style 1: PTIH-10-6P (or equal)
Style 6: mini DIN

Mating Connector:
Style 1: PT06F10-6S (sold separately)
Style 6: Mating connector (included)

Weight: 1.8 kg (4 lb)



Style 1 Mating Connector PT06F10-6S

STANDARD
PX82B0-002DI shown smaller than actual size.

STANDARD AND METRIC CUSTOM CONFIGURATIONS

MODEL NUMBER SPECIFICATION:

PXM82B0-002DV

- psi RANGES
- METRIC bar RANGES
- ELECTRICAL CONNECTION:
  - 0 = 1.2 m (4') cable
  - 1 = PTIH-10-6P connector or equivalent
  - 6 = mini DIN connector (no shunt)
- RANGE IN psi FOR PX82, IN bar FOR PXM82
- DIFFERENTIAL PRESSURE
- OUTPUT:
  - V = 1.5 mV/V nominal
  - 5V = 0.5 to 5.5 Vdc
  - I = 4 to 20 mA
- PRESSURE PORT: = Three 1/8-27 FNPT and one 1/4 NPT male per side
  MB = Three G1/8 and one G1/4 female per side

*Extra cable length: add suffix **"-(Length in feet)FT",** additional price per foot over standard length 1.2 m (4') on 5 V and 4 to 20 mA output.*

***Ordering Examples: PX82D0-500WCDI,** 500 inH_2O pressure range with 4 to 20 mA output and 1.2 m (4') PVC cable.*

***PX82D0-010DV-50FT,** 10 psi pressure range with mV/V output and 15.2 m (50') PVC cable.*

***PX82D1-200WCDI,** 200 inH_20 pressure range with 4 to 20 mA output and twist-lock connector, **PT06F10-6S,** mating connector (sold separately).*

mV/V OUTPUT STANDARD RANGES

mV/V Output
0-50 inH$_2$O to 0-22 psi
(0-130 to 0-1500 mbar)
Differential Pressure

PX82 Series

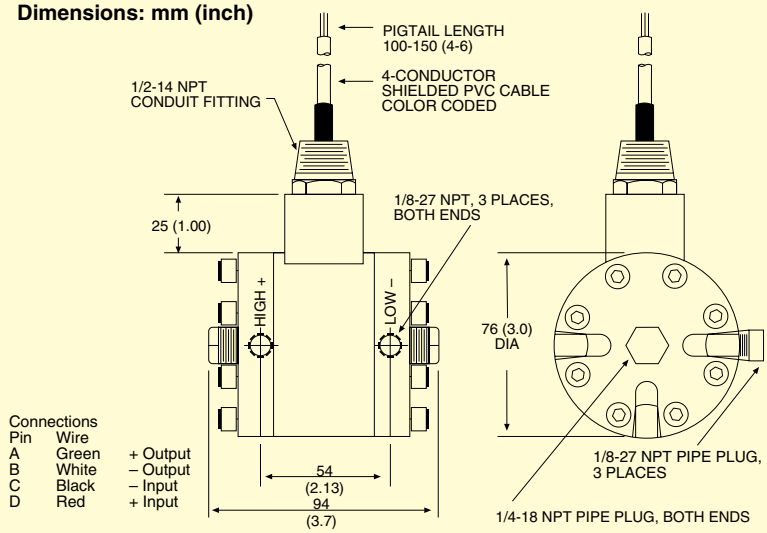
NIST CE RoHS
Standard

- inH$_2$O Differential at Line Pressure—Up to 1500 psi
- Stainless Steel/Inconel® Construction for Harsh Industrial Environments
- High Overpressure Capability and High Operating Temperature
- 5-Point Calibration Provided: 0%, 50%, 100%, 50%, 0%

STANDARD
PX82B1-005DV shown smaller than actual size.

Twist-lock style.

Dimensions: mm (inch)



STANDARD MODELS

To Order

Models with mV/V Output and 1.2 m (4') Cable

RANGE		MODEL NO.	COMPATIBLE METERS
0 to 50 inH$_2$O	0 to 125 mbar	**PX82B[*]-050WCDV**	DP41-S, DP25B-S
0 to 100 inH$_2$O	0 to 249 mbar	**PX82B[*]-100WCDV**	DP41-S, DP25B-S
0 to 150 inH$_2$O	0 to 374 mbar	**PX82B[*]-150WCDV**	DP41-S, DP25B-S
0 to 200 inH$_2$O	0 to 498 mbar	**PX82B[*]-200WCDV**	DP41-S, DP25B-S
0 to 300 inH$_2$O	0 to 748 mbar	**PX82B[*]-300WCDV**	DP41-S, DP25B-S
0 to 500 inH$_2$O	0 to 1245 mbar	**PX82B[*]-500WCDV**	DP41-S, DP25B-S
0 to 800 inH$_2$O	0 to 1993 mbar	**PX82B[*]-800WCDV**	DP41-S, DP25B-S
0 to 2 psi	0 to 0.14 bar	**PX82B[*]-002DV**	DP41-S, DP25B-S
0 to 3 psi	0 to 0.20 bar	**PX82B[*]-003DV**	DP41-S, DP25B-S
0 to 4 psi	0 to 0.27 bar	**PX82B[*]-004DV**	DP41-S, DP25B-S
0 to 5 psi	0 to 0.34 bar	**PX82B[*]-005DV**	DP41-S, DP25B-S
0 to 6 psi	0 to 0.41 bar	**PX82B[*]-006DV**	DP41-S, DP25B-S
0 to 8 psi	0 to 0.55 bar	**PX82B[*]-008DV**	DP41-S, DP25B-S
0 to 10 psi	0 to 0.69 bar	**PX82B[*]-010DV**	DP41-S, DP25B-S
0 to 15 psi	0 to 1.0 bar	**PX82B[*]-015DV**	DP41-S, DP25B-S
0 to 18 psi	0 to 1.2 bar	**PX82B[*]-018DV**	DP41-S, DP25B-S
0 to 22 psi	0 to 1.5 bar	**PX82B[*]-022DV**	DP41-S, DP25B-S

Comes complete with 5-point NIST traceable calibration.
***[*]** Insert **"0"** for 1.2 m (4') cable, **"1"** for twist-lock connector, or **"6"** for mini DIN connector.*
*To order extra cable length, add suffix **"-(length in feet)FT"** to model number and additional price per foot beyond standard length.*
***Ordering Examples: PX82B0-100WCDV,** 100 inH$_2$O differential pressure transducers with 1.5 mV/V output and 1.2 m (4') of shielded cable.*
***PX2B0-010DV-25FT,** 10 psi differential pressure transducer with 1.5 mV/V output and 7.6 m (25') of shielded cable.*

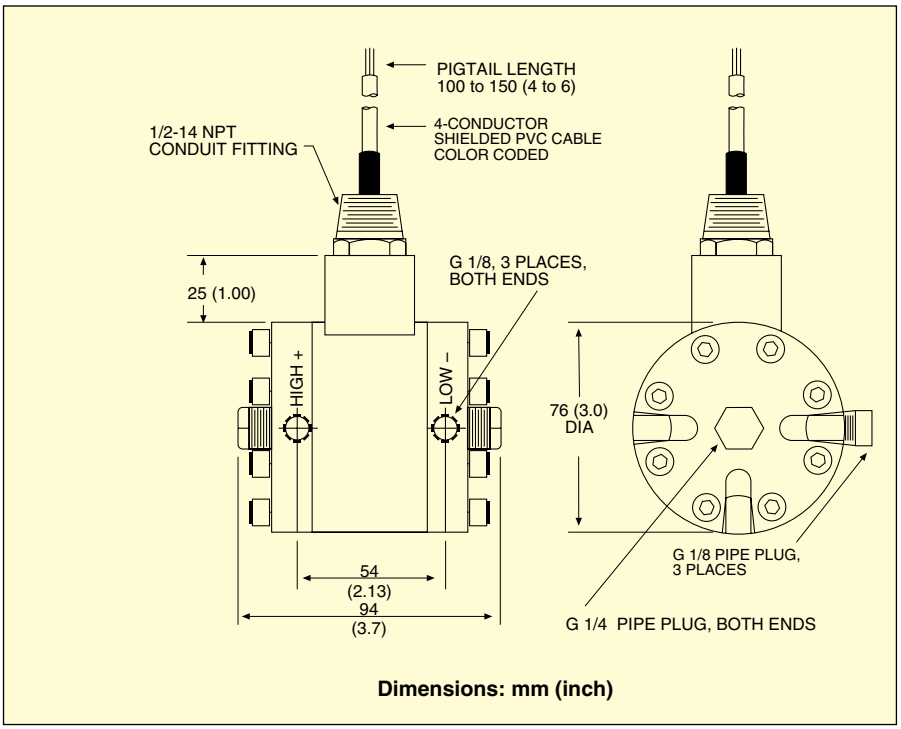
mV/V OUTPUT METRIC RANGES

mV/V Output
0-130 mbar to 0-2 bar
0-2 to 0-30 psi
Differential Pressure

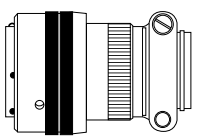
PXM82 Series

NIST CE RoHS
Standard

- mbar Differential at Line Pressure—Up to 100 bar
- Stainless Steel/Inconel Construction for Harsh Industrial Environments
- High Overpressure Capability
- High Operating Temperature
- 5-Point Calibration Provided: 0%, 50%, 100%, 50%, 0%



Dimensions: mm (inch)



Style 1 Mating Connector PT06F10-6S.

CONNECTIONS mV/V

	PIN	Cable	DIN
+Output	A	Green	2
-Output	B	White	3
-Input	C	Black	GRND
+Input	D	Red	1

METRIC
PXM82MB1-190mBARDI shown smaller than actual size.

METRIC MODELS

To Order

mV/V Output with G ¼ Pressure Connection, Specify Electrical Termination

RANGE		MODEL NO.	COMPATIBLE METERS
DIFFERENTIAL PRESSURE			
0 to 130 mbar	0 to 1.9 psi	**PXM82MB[*]-130mBARDV**	DP41-S, DP25B-S
0 to 190 mbar	0 to 2.8 psi	**PXM82MB[*]-190mBARDV**	DP41-S, DP25B-S
0 to 250 mbar	0 to 3.6 psi	**PXM82MB[*]-250mBARDV**	DP41-S, DP25B-S
0 to 370 mbar	0 to 5.4 psi	**PXM82MB[*]-370mBARDV**	DP41-S, DP25B-S
0 to 500 mbar	0 to 7.3 psi	**PXM82MB[*]-500mBARDV**	DP41-S, DP25B-S
0 to 750 mbar	0 to 11 psi	**PXM82MB[*]-750mBARDV**	DP41-S, DP25B-S
0 to 1.00 bar	0 to 15 psi	**PXM82MB[*]-001BARDV**	DP41-S, DP25B-S
0 to 1.25 bar	0 to 18 psi	**PXM82MB[*]-1.25BARDV**	DP41-S, DP25B-S
0 to 2.00 bar	0 to 30 psi	**PXM82MB[*]-002BARDV**	DP41-S, DP25B-S

Comes complete with 5-point NIST traceable calibration.
***[*]** Insert **"0"** for 1.2 m (4') cable, **"1"** for twist-lock connector or **"6"** for mini DIN connector. To order extra cable on cable style models, add suffix **"-(total length in meters)M"** and additional price per meter beyond the standard length.*

***Ordering Examples: PXM82MD0-130mBARDV-10M,** 130 mbar differential pressure transducer with 1.5 mV/V output and 10 m (32') cable.*

***PXM82MD1-001BARDV,** 1 bar differential pressure transducer with 1.5 mV/V output and twist-lock connector. **PT06F10-6S,** mating connector (sold separately).*

0.5 to 5.5 Vdc OUTPUT STANDARD RANGES

0.5 to 5.5 Vdc Output
0-50 inH2O to 0-22 psi
(0-130 to 0-1500 mbar)
Differential Pressure

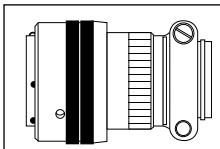
PX82 Series

NIST CE RoHS
Standard

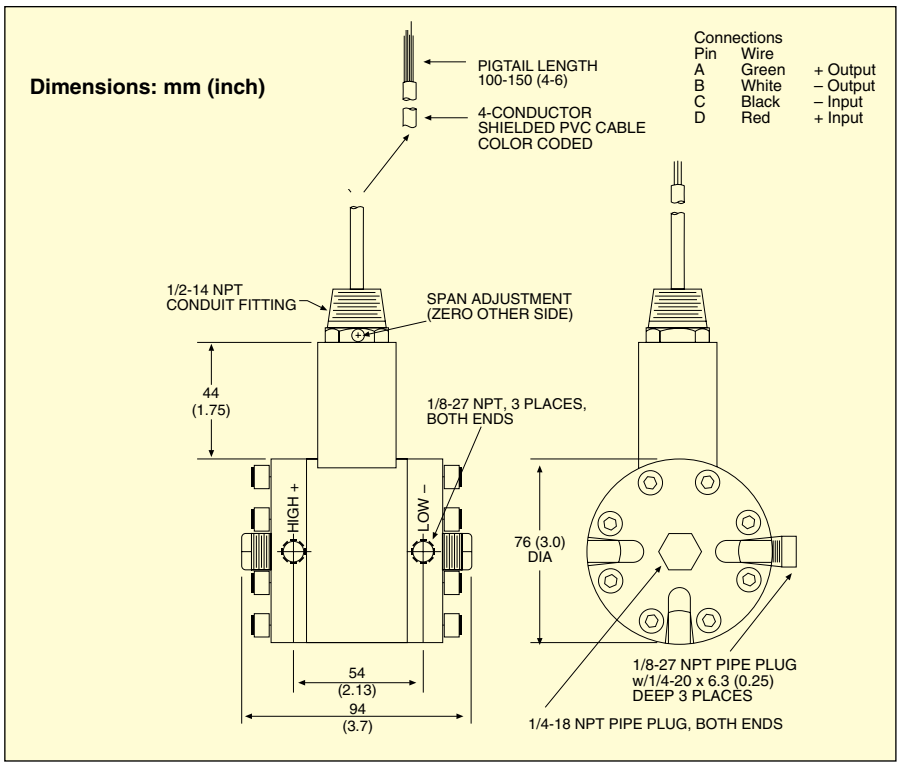
- **inH2O Differential at Line Pressure—Up to 1500 psi**
- **Stainless Steel/Inconel® Construction for Harsh Industrial Environments**
- **High Overpressure Capability and High Operating Temperature**
- **5-Point Calibration Provided: 0%, 50%, 100%, 50%, 0%**

CONNECTIONS Volts

	PIN	Cable	DIN
+ Output	A	Green	2
– Output	B	White	3
– Input	C	Black	GRND
+ Input	D	Red	1



Style 1 Mating Connector PT06F10-6S.



STANDARD MODELS

To Order

Models with 5 V Output

RANGE		MODEL NO.	COMPATIBLE METERS
0 to 50 inH2O	0 to 125 mbar	**PX82B[*]-050WCD5V**	DP41-S, DP25B-S
0 to 100 inH2O	0 to 249 mbar	**PX82B[*]-100WCD5V**	DP41-S, DP25B-S
0 to 150 inH2O	0 to 374 mbar	**PX82B[*]-150WCD5V**	DP41-S, DP25B-S
0 to 200 inH2O	0 to 498 mbar	**PX82B[*]-200WCD5V**	DP41-S, DP25B-S
0 to 300 inH2O	0 to 748 mbar	**PX82B[*]-300WCD5V**	DP41-S, DP25B-S
0 to 500 inH2O	0 to 1245 mbar	**PX82B[*]-500WCD5V**	DP41-S, DP25B-S
0 to 800 inH2O	0 to 1993 mbar	**PX82B[*]-800WCD5V**	DP41-S, DP25B-S
0 to 2 psi	0 to 0.14 bar	**PX82B[*]-002D5V**	DP41-S, DP25B-S
0 to 3 psi	0 to 0.20 bar	**PX82B[*]-003D5V**	DP41-S, DP25B-S
0 to 4 psi	0 to 0.27 bar	**PX82B[*]-004D5V**	DP41-S, DP25B-S
0 to 5 psi	0 to 0.34 bar	**PX82B[*]-005D5V**	DP41-S, DP25B-S
0 to 6 psi	0 to 0.41 bar	**PX82B[*]-006D5V**	DP41-S, DP25B-S
0 to 8 psi	0 to 0.55 bar	**PX82B[*]-007D5V**	DP41-S, DP25B-S
0 to 10 psi	0 to 0.69 bar	**PX82B[*]-010D5V**	DP41-S, DP25B-S
0 to 15 psi	0 to 1.0 bar	**PX82B[*]-015D5V**	DP41-S, DP25B-S
0 to 18 psi	0 to 1.2 bar	**PX82B[*]-018D5V**	DP41-S, DP25B-S
0 to 22 psi	0 to 1.5 bar	**PX82B[*]-022D5V**	DP41-S, DP25B-S

Comes complete with 5-point NIST traceable calibration.

***[*]** Insert **"0"** for 1.2 m (4') cable, **"1"** for twist-lock connector, or **"6"** for mini DIN connector.*

*Extra cable length: add suffix **"-(length in feet)FT"**, additional price per foot over standard length.*

***Ordering Examples: PX82B0-100WCD5V,** 100 inH2O differential pressure transducer with 0.5 to 5.5 Vdc output and 1.2 m (4') shielded PVC cable.*

***PX82B1-010D5V,** 10 psi differential pressure transducer with 0.5 to 5.5 Vdc output and twist-lock connection. **PT06F10-6S,** mating connector (sold separately).*

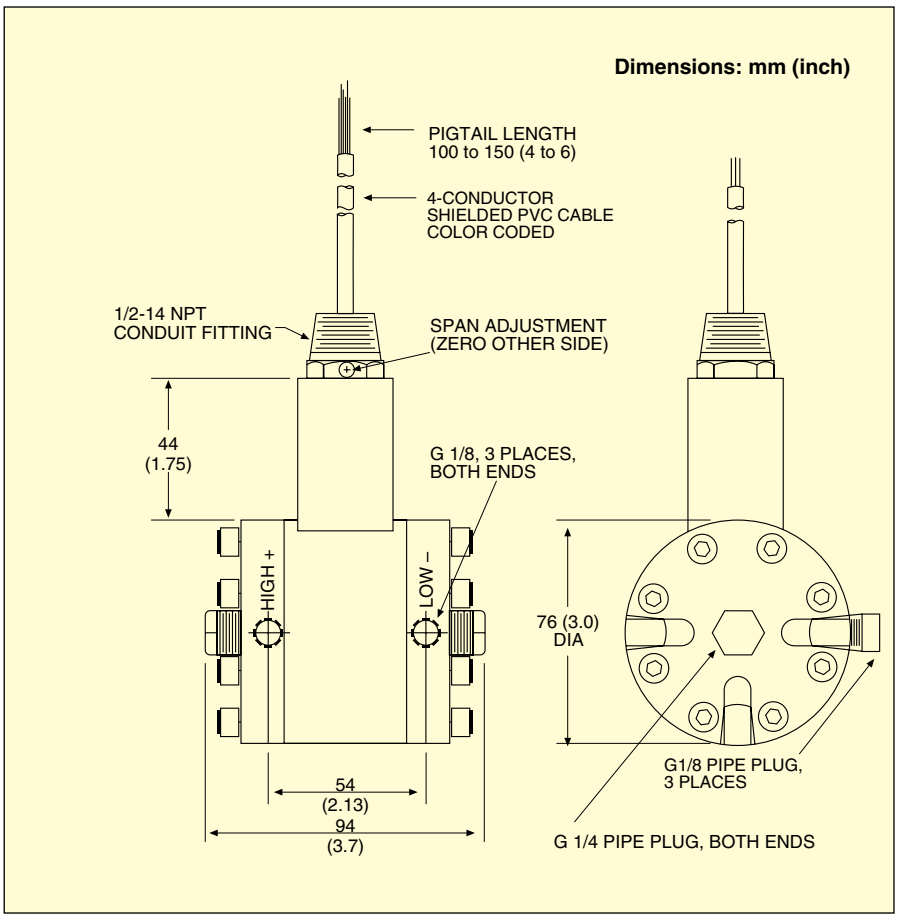
0.5 to 5.5 Vdc OUTPUT METRIC RANGES

0.5 to 5.5 Vdc Output
0-130 mbar to 0-2 bar
0-2 to 0-30 psi
Differential Pressure

PXM82 Series

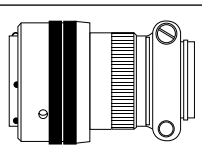
Standard

- mbar Differential at Line Pressure—Up to 100 bar
- Stainless Steel/Inconel® Construction for Harsh Industrial Environments
- High Overpressure Capability
- High Operating Temperature
- 5-Point Calibration Provided: 0%, 50%, 100%, 50%, 0%



CONNECTIONS Volts

	PIN	Cable	DIN
+ Output	A	Green	2
– Output	B	White	3
– Input	C	Black	GRND
+ Input	D	Red	1



Style 1 Mating Connector PT06F10-6S.

METRIC MODELS

To Order

Models with G ⅛ and G ¼ Female Pressure Connection, Specify Electrical Termination

RANGE		MODEL NO.	COMPATIBLE METERS
DIFFERENTIAL PRESSURE			
0 to 130 mbar	0 to 1.9 psi	**PXM82MB[*]-130mBARD5V**	DP41-S, DP25B-S
0 to 190 mbar	0 to 2.8 psi	**PXM82MB[*]-190mBARD5V**	DP41-S, DP25B-S
0 to 250 mbar	0 to 3.6 psi	**PXM82MB[*]-250mBARD5V**	DP41-S, DP25B-S
0 to 370 mbar	0 to 5.4 psi	**PXM82MB[*]-370mBARD5V**	DP41-S, DP25B-S
0 to 500 mbar	0 to 7.3 psi	**PXM82MB[*]-500mBARD5V**	DP41-S, DP25B-S
0 to 750 mbar	0 to 11 psi	**PXM82MB[*]-750mBARD5V**	DP41-S, DP25B-S
0 to 1.00 bar	0 to 15 psi	**PXM82MB[*]-001BARD5V**	DP41-S, DP25B-S
0 to 1.25 bar	0 to 18 psi	**PXM82MB[*]-1.25BARD5V**	DP41-S, DP25B-S
0 to 2.00 bar	0 to 30 psi	**PXM82MB[*]-002BARD5V**	DP41-S, DP25B-S

Comes complete with 5-point NIST traceable calibration.

***[*]** Insert **"0"** for 1.2 m (4') cable, **"1"** for twist-lock connector or **"6"** for mini DIN connector.*

*To order extra cable on cable-style models, add suffix **"-(Total length in meters)M"** and additional price per meter beyond the standard length.*

***Ordering Examples: PXM82MD0-130mBARD5V-10M,** 130 mbar differential pressure transmitter with 0.5 to 5.5 Vdc output and 10 m (32') cable.*

***PXM82MD1-001BARD5V,** 1 bar differential pressure transmitter with 0.5 to 5.5 Vdc output and twist-lock connector. **PT06F10-6S,** mating connector (sold separately).*

4 to 20 mA OUTPUT STANDARD RANGES

4 to 20 mA Output
0-50 inH2O to 0-22 psi
(0-130 to 0-1500 mbar)
Differential Pressure

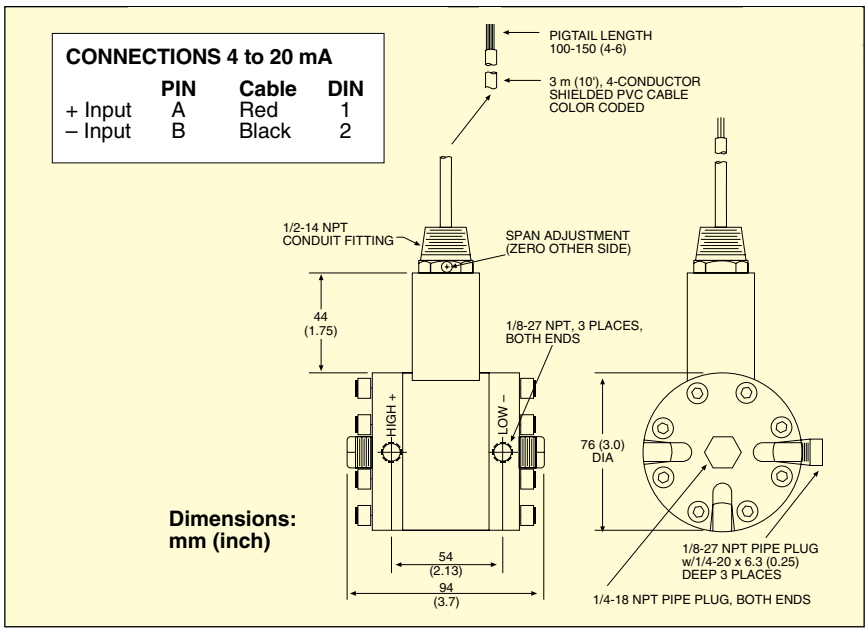
PX82 Series

NIST CE RoHS
Standard

- inH2O Differential at Line Pressure—Up to 1500 psi
- Stainless Steel/Inconel® Construction for Harsh Industrial Environments
- High Overpressure Capability and High Operating Temperature
- 5-Point Calibration Provided: 0%, 50%, 100%, 50%, 0%

STANDARD
PX82B0-002DI shown smaller than actual size.

Twist-lock style.



STANDARD MODELS

To Order

Models with 4 to 20 mA Output

RANGE		MODEL NO.	COMPATIBLE METERS
0 to 50 inH2O	0 to 125 mbar	**PX82B[*]-050WCDI**	DP41-S, DP25B-S
0 to 100 inH2O	0 to 249 mbar	**PX82B[*]-100WCDI**	DP41-S, DP25B-S
0 to 150 inH2O	0 to 374 mbar	**PX82B[*]-150WCDI**	DP41-S, DP25B-S
0 to 200 inH2O	0 to 498 mbar	**PX82B[*]-200WCDI**	DP41-S, DP25B-S
0 to 300 inH2O	0 to 748 mbar	**PX82B[*]-300WCDI**	DP41-S, DP25B-S
0 to 500 inH2O	0 to 1245 mbar	**PX82B[*]-500WCDI**	DP41-S, DP25B-S
0 to 800 inH2O	0 to 1993 mbar	**PX82B[*]-800WCDI**	DP41-S, DP25B-S
0 to 2 psi	0 to 0.14 bar	**PX82B[*]-002DI**	DP41-S, DP25B-S
0 to 3 psi	0 to 0.20 bar	**PX82B[*]-003DI**	DP41-S, DP25B-S
0 to 4 psi	0 to 0.27 bar	**PX82B[*]-004DI**	DP41-S, DP25B-S
0 to 5 psi	0 to 0.34 bar	**PX82B[*]-005DI**	DP41-S, DP25B-S
0 to 6 psi	0 to 0.41 bar	**PX82B[*]-006DI**	DP41-S, DP25B-S
0 to 8 psi	0 to 0.55 bar	**PX82B[*]-008DI**	DP41-S, DP25B-S
0 to 10 psi	0 to 0.69 bar	**PX82B[*]-010DI**	DP41-S, DP25B-S
0 to 15 psi	0 to 1.0 bar	**PX82B[*]-015DI**	DP41-S, DP25B-S
0 to 18 psi	0 to 1.2 bar	**PX82B[*]-018DI**	DP41-S, DP25B-S
0 to 22 psi	0 to 1.5 bar	**PX82B[*]-022DI**	DP41-S, DP25B-S

Comes complete with 5-point NIST traceable calibration.

***[*]** Insert **"0"** for 1.2 m (4') cable, **"1"** for twist-lock connector, or **"6"** for mini DIN connector.*

*Extra cable length: Add suffix **"-(length in feet)FT"** and additional price per foot beyond standard length.*

***Ordering Examples: PX82B0-100WCDI-25FT,** 100 inH2O differential pressure transmitter with 4 to 20 mA output and 7.6 m (25') shielded PVC cable.*

4 to 20 mA OUTPUT METRIC RANGES

4 to 20 mA Output
0-130 mbar to 0-2 bar
0-2 to 0-30 psi
Differential Pressure

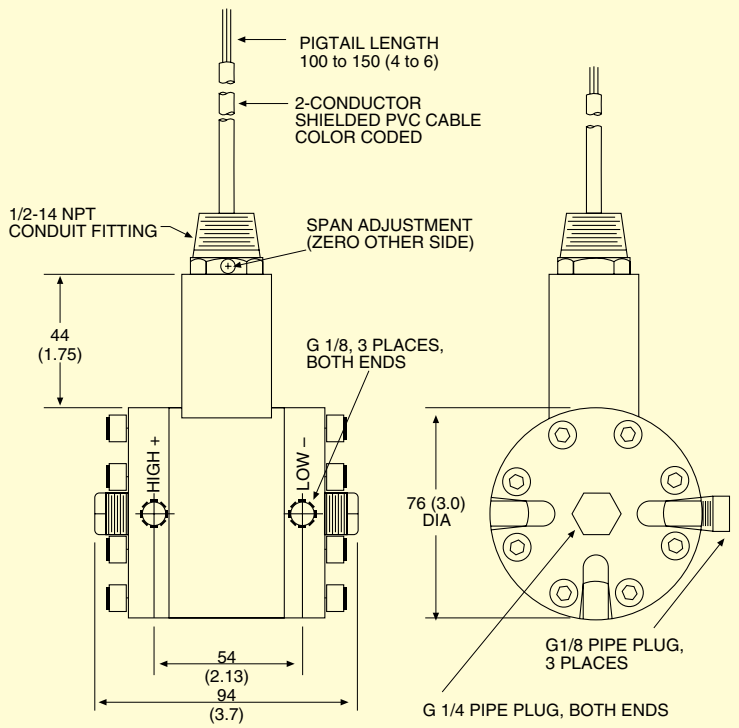
PXM82 Series

NIST CE RoHS

Standard

- mbar Differential at Line Pressure—Up to 100 bar
- Stainless Steel/Inconel® Construction for Harsh Industrial Environments
- High Overpressure Capability
- High Operating Temperature
- 5-Point Calibration Provided: 0%, 50%, 100%, 50%, 0%

Dimensions: mm (inch)



METRIC
PXM82MB1-190mBARDI shown smaller than actual size.

METRIC MODELS

To Order

Models with G ⅛ and G ¼ Female Pressure Connection, Specify Electrical Termination

RANGE		MODEL NO.	COMPATIBLE METERS
DIFFERENTIAL PRESSURE			
0 to 130 mbar	0 to 1.9 psi	**PXM82MB[*]-130mBARDI**	DP41-S, DP25B-S
0 to 190 mbar	0 to 2.8 psi	**PXM82MB[*]-190mBARDI**	DP41-S, DP25B-S
0 to 250 mbar	0 to 3.6 psi	**PXM82MB[*]-250mBARDI**	DP41-S, DP25B-S
0 to 370 mbar	0 to 5.4 psi	**PXM82MB[*]-370mBARDI**	DP41-S, DP25B-S
0 to 500 mbar	0 to 7.3 psi	**PXM82MB[*]-500mBARDI**	DP41-S, DP25B-S
0 to 750 mbar	0 to 11 psi	**PXM82MB[*]-750mBARDI**	DP41-S, DP25B-S
0 to 1.00 bar	0 to 15 psi	**PXM82MB[*]-001BARDI**	DP41-S, DP25B-S
0 to 1.25 bar	0 to 18 psi	**PXM82MB[*]-1.25BARDI**	DP451-S, DP25B-S
0 to 2.00 bar	0 to 30 psi	**PXM82MB[*]-002BARDI**	DP41-S, DP25B-S

Comes complete with 5-point NIST traceable calibration.

***[*]** Insert **"0"** for 1.2 m (4') cable, **"1"** for twist-lock connector or **"6"** for mini DIN connector*

*To order extra cable on cable-style models, add suffix **"-(Total length in meters)M"** and additional price per meter beyond the standard length.*

***Ordering Examples: PXM82MD0-130mBARDI-10M,** 130 mbar differential pressure transmitter with 4 to 20 mA output and 10 m (32') cable.*

***PXM82MD1-001BARDI,** 1 bar differential pressure transmitter with 4 to 20 mA output and twist-lock connector. **PT06F10-6S,** mating connector (sold separately).*