

LOW-RANGE WET/WET INDUSTRIAL DIFFERENTIAL TRANSDUCER

PX82 Series

0-50 to 0-800 inH₂O

0-2 to 0-22 psi

0-125 to 0-1500 mbar

Differential Pressure

mV/V Output

0 to 5 Vdc Output

4 to 20 mA Output

1 psi = 27.68 inH₂O

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

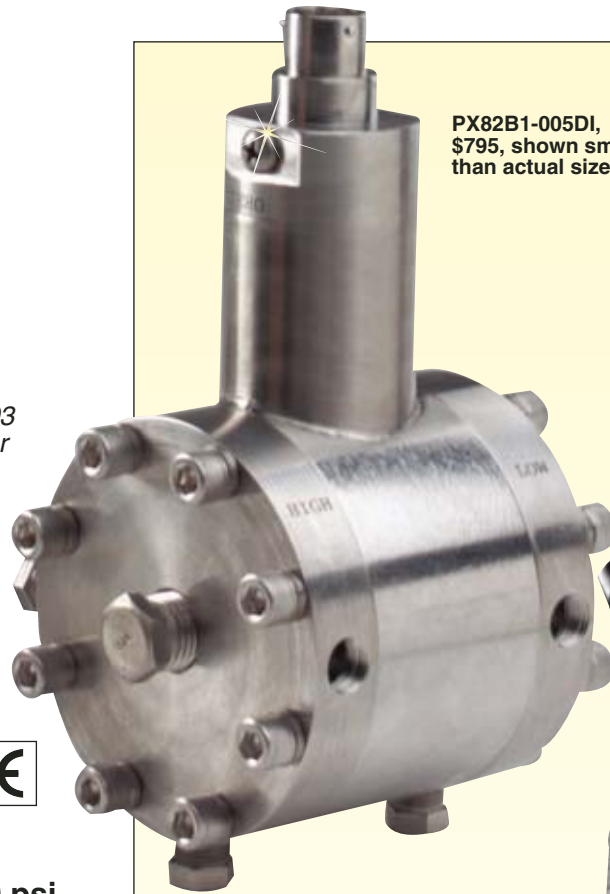
Starts at

\$795



- ✓ Inches of Water Differential at Line Pressure—Up to 1500 psi
- ✓ FM Approved Intrinsically Safe
- ✓ 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 Series wet/wet, differential pressure transducers can measure inches of water differential at line pressure up to 1500 psi. This high line pressure capacity, a high operating temperature, and excellent temperature compensation make the PX82 Series extremely accurate and reliable. An FM Approved Intrinsically Safe rating is standard. The rugged Inconel® diaphragms and stainless steel body give the PX82 Series high performance in harsh industrial environments. The PX82 Series is available with mV/V, 5 V, or 4 to 20 mA outputs.



PX82B1-005DI,
\$795, shown smaller
than actual size.



PX82B0-005DI,
\$795, shown smaller
than actual size.

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 min

Output Resistance: 5000 \pm 25 Ω

Zero Balance: \pm 2% FS

0.5 to 5.5 Vdc Output

Electrical:

Excitation: 10 to 35 Vdc

Output: 0.5 to 5.5 Vdc \pm 10%

Zero Balance: 0.5 V \pm 2% adj

4 to 20mA Output

Electrical:

Excitation: 10 to 40 Vdc

Output: 4 to 20 mA \pm 10% adj

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

COMMON SPECIFICATIONS

Performance:

Accuracy: 0.25% linearity, hysteresis and repeatability combined

Agency Approvals: FM Intrinsically Safe IS/I.II.III/1/CDEFG standard

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 line pressure

Span: -2.45%/1000 psi line pressure

Thermal Effects:

Zero: \pm 0.50% FSO maximum over compensated range

Span: \pm 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: 1/8"-27 NPTF thread

Electrical Connection:

Style 0: 1.2 m (4') cable

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

Style 6: micro DIN

Mating Connector:

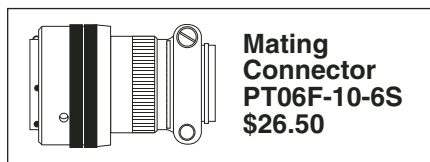
Style 1: PT06F-10-6S

(not included)

Style 6: Mating connector

(included)

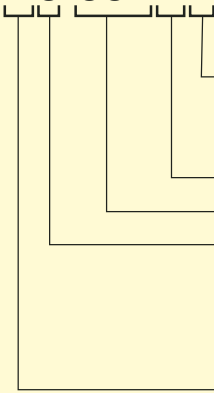
Weight: 1.8 kg (4 lb)



Custom Configurations

MODEL NUMBER SPECIFICATION:

PX82B0-002DV



OUTPUT:

V = 1.5 mV/V nominal

5V = 0.5 to 5.5 Vdc

I = 4 to 20 mA

DIFFERENTIAL PRESSURE

RANGE IN psi

ELECTRICAL CONNECTION:

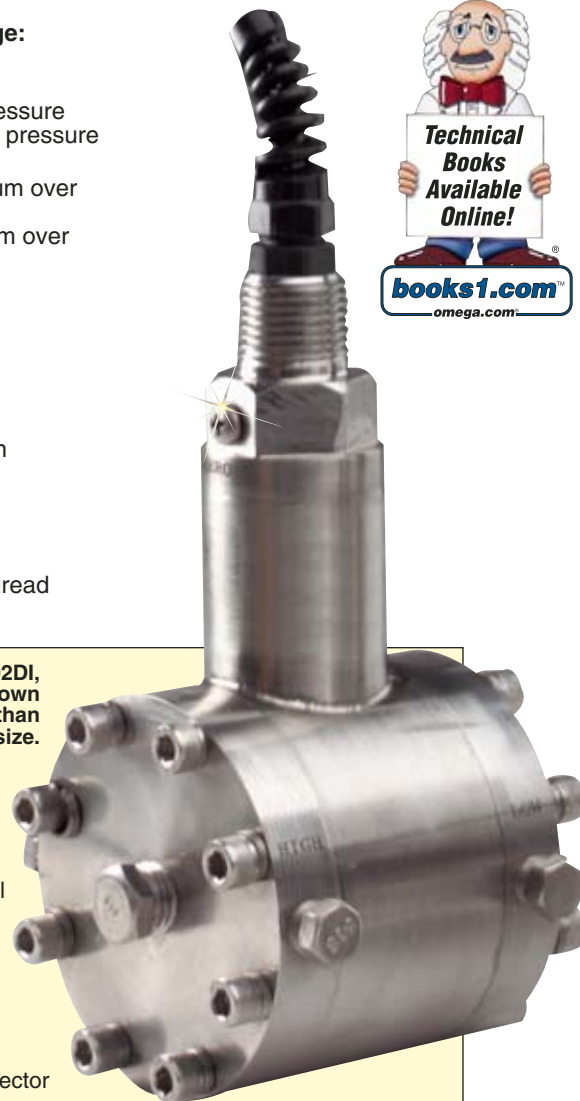
0 = 1.2 m (4') cable

1 = PTIH-10-6P connector or equivalent

6 = Micro DIN connector (no shunt)

PRESSURE PORT: B = Three 1/8"-27 NPTF

PX82B0-002DI,
\$950, shown
smaller than
actual size.



Extra cable length: add suffix "-(Length in feet)FT", \$2/ft over standard length 3 m (10') on 5 V and 4 to 20 mA output.

Ordering Examples: PX82D0-500WC DI, 500 inH₂O pressure range with 4 to 20 mA output and 3 m (10') PVC cable, \$950.

PX82D0-010DV-50FT, 10 psi pressure range with mV/V output and 15.2 m (50') PVC cable \$795 + 92 = \$887.

PX82D1-200WC DI, 200 inH₂O pressure range with 4 to 20 mA output and integral connector, \$950. PT06F-10-6S, mating connector (not included), \$26.50. PX82D1-800WC DI-FM, 800 inH₂O pressure range 4 to 20 mA output and integral connector with FM Hazardous Location rating, \$950 + 150 = \$1100. PT06F-10-6S, mating connector (not included), \$26.50.

HOW TO ORDER PX82 SERIES LOW-RANGE WET/WET INDUSTRIAL DIFFERENTIAL TRANSDUCER WITH mV/V OUTPUT

PX82 Series
mV/V Output
0-50 inH₂O to 0-22 psi
(0-130 to 0-1500 mbar)
Differential Pressure

Starts at
\$795

- ✓ 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%

mV/V Output
Electrical:

Excitation: 10 Vdc (15 V max)

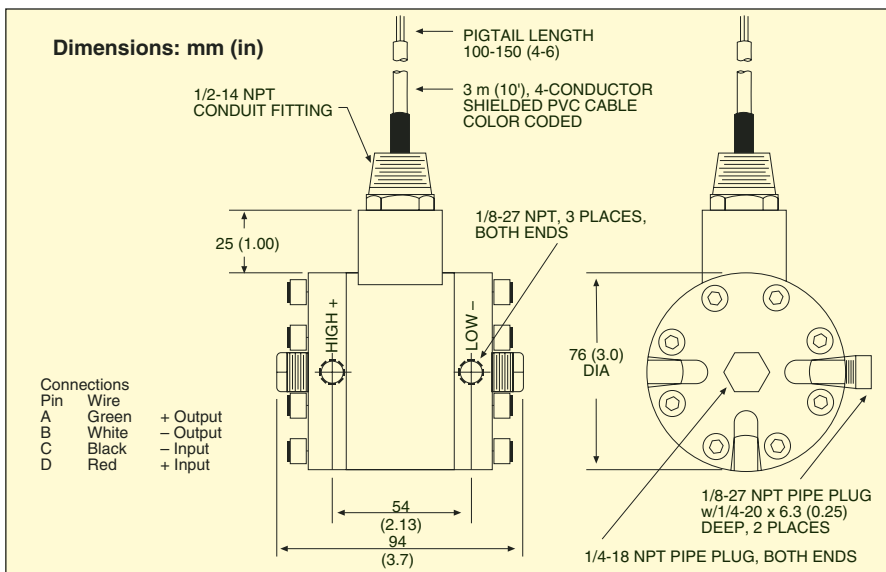
Output: 1.5 mV/V nominal

Input Resistance: 5000 Ω min

Output Resistance: 5000 ±25 Ω

Zero Balance: ±2% FS

PX82B1-005DV,
\$795, shown
smaller than
actual size.



MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

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

RANGE	MODEL NO.	PRICE	COMPATIBLE METERS*
0 to 50 inH ₂ O 0 to 12.5 kPa	PX82B[*]-050WCDV	\$795	DP41-S, DP25B-S
0 to 100 inH ₂ O 0 to 24.9 kPa	PX82B[*]-100WCDV	795	DP41-S, DP25B-S
0 to 150 inH ₂ O 0 to 37.4 kPa	PX82B[*]-150WCDV	795	DP41-S, DP25B-S
0 to 200 inH ₂ O 0 to 49.8 kPa	PX82B[*]-200WCDV	795	DP41-S, DP25B-S
0 to 300 inH ₂ O 0 to 74.8 kPa	PX82B[*]-300WCDV	795	DP41-S, DP25B-S
0 to 500 inH ₂ O 0 to 125 kPa	PX82B[*]-500WCDV	795	DP41-S, DP25B-S
0 to 800 inH ₂ O 0 to 199 kPa	PX82B[*]-800WCDV	795	DP41-S, DP25B-S
0 to 2 psi 0 to 0.14 bar	PX82B[*]-002DV	795	DP41-S, DP25B-S
0 to 3 psi 0 to 0.20 bar	PX82B[*]-003DV	795	DP41-S, DP25B-S
0 to 4 psi 0 to 0.27 bar	PX82B[*]-004DV	795	DP41-S, DP25B-S
0 to 5 psi 0 to 0.34 bar	PX82B[*]-005DV	795	DP41-S, DP25B-S
0 to 6 psi 0 to 0.41 bar	PX82B[*]-006DV	795	DP41-S, DP25B-S
0 to 8 psi 0 to 0.55 bar	PX82B[*]-008DV	795	DP41-S, DP25B-S
0 to 10 psi 0 to 0.69 bar	PX82B[*]-010DV	795	DP41-S, DP25B-S
0 to 15 psi 0 to 1.0 bar	PX82B[*]-015DV	795	DP41-S, DP25B-S
0 to 18 psi 0 to 1.2 bar	PX82B[*]-018DV	795	DP41-S, DP25B-S
0 to 22 psi 0 to 1.5 bar	PX82B[*]-022DV	795	DP41-S, DP25B-S

Comes with 5-point calibration.

Metric ranges available – consult Engineering.

[*] Insert "0" for 3 m (10') cable, "1" for Bendix connector, or "6" for DIN connector.

* See section D for compatible meters.

To order extra cable length, add suffix "--(Length in feet)FT" to model number and \$2/ft beyond standard length of 3 m (10').

Ordering Examples: PX82B0-300WCDV, 300 inH₂O differential pressure transducers with 1.5 mV/V output and 1.2 m (4') of shielded cable, \$795. PX2B0-010DV-25FT, 10 psi differential pressure transducer with 1.5 mV/V output and 7.6 m (25') of shielded cable, \$795 + 42 = \$837.

ACCESSORY

MODEL NO.	PRICE	DESCRIPTION
ES-2070	\$210	Reference Book: Hazardous Materials Handbook

HOW TO ORDER PX82 SERIES LOW-RANGE WET/WET INDUSTRIAL DIFFERENTIAL TRANSMITTER WITH 0.5 TO 5.5 Vdc OUTPUT

PX82 Series
0.5 to 5.5 Vdc Output
0-50 inH₂O to 0-22 psi
(0-130 to 0-1500 mbar)
Differential Pressure

Starts at
\$950

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

0.5 to 5.5 Vdc Output

Electrical:

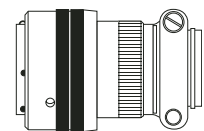
Excitation: 10 to 35 Vdc

Output: 0.5 to 5.5 Vdc ±10%

Zero Balance: 0.5 V ±2% adj

CONNECTIONS Volts

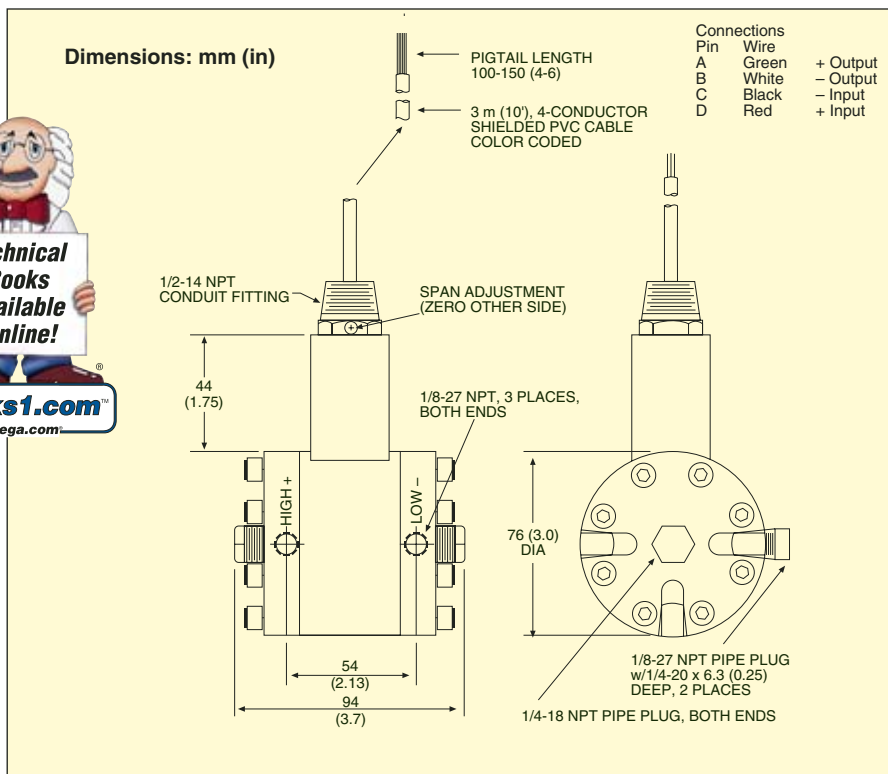
	PIN	Cable	DIN
+ Output	A	Green	2
- Output	B	White	3
- Input	C	Black	GRND
+ Input	D	Red	1



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

ACCESSORY

MODEL NO.	PRICE	DESCRIPTION
ES-2132	\$125	Reference Book: Hydraulic Design Handbook



MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

Models with 5 V Output

RANGE	MODEL NO.	PRICE	COMPATIBLE METERS*	
0 to 50 inH ₂ O	0 to 12.5 kPa	PX82B[*]-050WCD5V	\$950	DP41-S, DP25B-S
0 to 100 inH ₂ O	0 to 24.9 kPa	PX82B[*]-100WCD5V	950	DP41-S, DP25B-S
0 to 150 inH ₂ O	0 to 37.4 kPa	PX82B[*]-150WCD5V	950	DP41-S, DP25B-S
0 to 200 inH ₂ O	0 to 49.8 kPa	PX82B[*]-200WCD5V	950	DP41-S, DP25B-S
0 to 300 inH ₂ O	0 to 74.8 kPa	PX82B[*]-300WCD5V	950	DP41-S, DP25B-S
0 to 500 inH ₂ O	0 to 125 kPa	PX82B[*]-500WCD5V	950	DP41-S, DP25B-S
0 to 800 inH ₂ O	0 to 199 kPa	PX82B[*]-800WCD5V	950	DP41-S, DP25B-S
0 to 2 psi	0 to 0.14 bar	PX82B[*]-002D5V	950	DP41-S, DP25B-S
0 to 3 psi	0 to 0.20 bar	PX82B[*]-003D5V	950	DP41-S, DP25B-S
0 to 4 psi	0 to 0.27 bar	PX82B[*]-004D5V	950	DP41-S, DP25B-S
0 to 5 psi	0 to 0.34 bar	PX82B[*]-005D5V	950	DP41-S, DP25B-S
0 to 6 psi	0 to 0.41 bar	PX82B[*]-006D5V	950	DP41-S, DP25B-S
0 to 8 psi	0 to 0.55 bar	PX82B[*]-007D5V	950	DP41-S, DP25B-S
0 to 10 psi	0 to 0.69 bar	PX82B[*]-010D5V	950	DP41-S, DP25B-S
0 to 15 psi	0 to 1.0 bar	PX82B[*]-015D5V	950	DP41-S, DP25B-S
0 to 18 psi	0 to 1.2 bar	PX82B[*]-018D5V	950	DP41-S, DP25B-S
0 to 22 psi	0 to 1.5 bar	PX82B[*]-022D5V	950	DP41-S, DP25B-S

Comes with 5-point calibration.

Metric ranges available – consult Engineering.

[*] Insert "0" for 3 m (10') cable, "1" for Bendix connector, or "6" for DIN connector.

* See section D for compatible meters.

Extra cable length: add suffix "-(Length in feet)FT", \$2/ft over standard 3 m (10') length.

Ordering Examples: PX82B0-300WCD5V, 300 inH₂O differential pressure transducer with 0.5 to 5.5 Vdc output and 3 m (10') shielded PVC cable, \$950. PX82B0-010D5V-25FT, 10 psi differential pressure transducer with 0.5 to 5.5 Vdc output and 8 m (25') shielded PVC cable, \$950 + 30 = \$980.

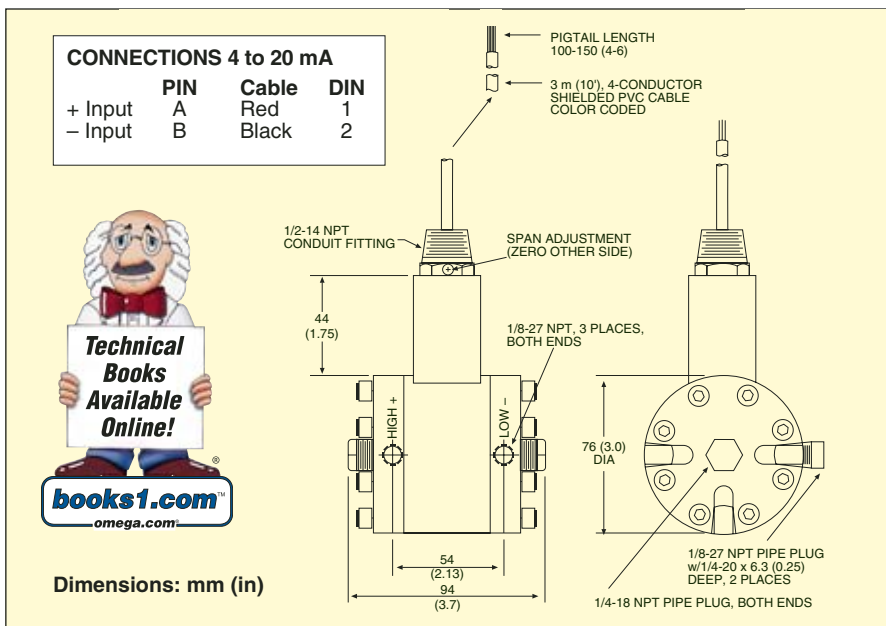
HOW TO ORDER PX82 SERIES LOW-RANGE WET/WET INDUSTRIAL DIFFERENTIAL TRANSMITTER WITH 4 TO 20 mA OUTPUT

PX82 Series
4 to 20 mA Output
0-50 inH₂O to 0-22 psi
(0-130 to 0-1500 mbar)
Differential Pressure

Starts at
\$950

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

4 to 20 mA Output
Electrical:
Excitation: 10 to 40 Vdc
Output: 4 to 20 mA ±10% adj
Zero Balance: 4 mA +10% -2% adj



MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)				
Models with 4 to 20 mA Output				
RANGE		MODEL NO.	PRICE	COMPATIBLE METERS*
0 to 50 inH ₂ O	0 to 12.5 kPa	PX82B[*]-050WCDI	\$950	DP41-S, DP25B-S
0 to 100 inH ₂ O	0 to 24.9 kPa	PX82B[*]-100WCDI	950	DP41-S, DP25B-S
0 to 150 inH ₂ O	0 to 37.4 kPa	PX82B[*]-150WCDI	950	DP41-S, DP25B-S
0 to 200 inH ₂ O	0 to 49.8 kPa	PX82B[*]-200WCDI	950	DP41-S, DP25B-S
0 to 300 inH ₂ O	0 to 74.8 kPa	PX82B[*]-300WCDI	950	DP41-S, DP25B-S
0 to 500 inH ₂ O	0 to 125 kPa	PX82B[*]-500WCDI	950	DP41-S, DP25B-S
0 to 800 inH ₂ O	0 to 199 kPa	PX82B[*]-800WCDI	950	DP41-S, DP25B-S
0 to 2 psi	0 to 0.14 bar	PX82B[*]-002DI	950	DP41-S, DP25B-S
0 to 3 psi	0 to 0.20 bar	PX82B[*]-003DI	950	DP41-S, DP25B-S
0 to 4 psi	0 to 0.27 bar	PX82B[*]-004DI	950	DP41-S, DP25B-S
0 to 5 psi	0 to 0.34 bar	PX82B[*]-005DI	950	DP41-S, DP25B-S
0 to 6 psi	0 to 0.41 bar	PX82B[*]-006DI	950	DP41-S, DP25B-S
0 to 8 psi	0 to 0.55 bar	PX82B[*]-008DI	950	DP41-S, DP25B-S
0 to 10 psi	0 to 0.69 bar	PX82B[*]-010DI	950	DP41-S, DP25B-S
0 to 15 psi	0 to 1.0 bar	PX82B[*]-015DI	950	DP41-S, DP25B-S
0 to 18 psi	0 to 1.2 bar	PX82B[*]-018DI	950	DP41-S, DP25B-S
0 to 22 psi	0 to 1.5 bar	PX82B[*]-022DI	950	DP41-S, DP25B-S

Comes with 5-point calibration. Metric ranges available – consult Engineering.
[*] Insert “0” for 3 m (10’) cable, “1” for Bendix connector, or “6” for DIN connector.
* See section D for compatible meters.
For FM hazardous location models, add suffix “-FM” to model number and \$150.
Extra cable length: Add suffix “-(Length in feet)FT” and \$2/ft beyond standard 3 m (10’) length.
Ordering Examples: PX82B0-300WCDI-25FT, 300 inH₂O differential pressure transmitter with 4 to 20 mA output and 7.6 m (25’) shielded PVC cable, \$950 + 30 = \$980.
PX82B1-005DI-FM, 5 psi differential pressure transmitter with 4 to 20 mA output, FM hazardous location rating and Bendix connector, \$950 + 150 = \$1100.
PT06F-10-6S, mating connector (not included), \$26.50.

MODEL NO.	PRICE	DESCRIPTION
CM-4422	\$40	Reference Book: Hydraulics and Pneumatics

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