

INDUSTRIAL WET/WET DIFFERENTIAL PRESSURE—HIGH OVERPRESSURE CAPACITY

STANDARD AND METRIC MODELS

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

PX80/PXM80 Series



- ✓ Low Differential Pressure at High Line Pressure—1500 psi (100 bar) Standard
- ✓ 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/PXM80 an extremely durable transducer. The all stainless steel construction and high overpressure protection offer high reliability in harsh industrial environments.



DIFFERENTIAL PRESSURE TRANSDUCERS **B**

DIFFERENTIAL PRESSURE TRANSDUCERS

Style 5 sealed metal terminal box most ranges, visit omega.com for details.

SPECIFICATIONS

mV/V Output

Electrical:

Excitation: 10 Vdc (15 V maximum)

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

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 5V)

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

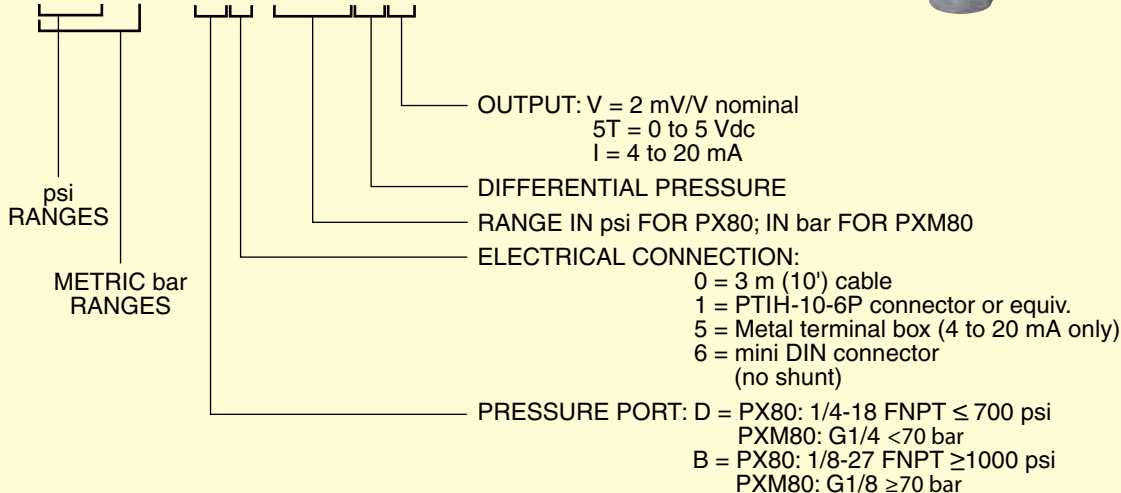


STANDARD
PX80D5-050DI
shown smaller than
actual size.

STANDARD AND METRIC CUSTOM CONFIGURATIONS

MODEL NUMBER SPECIFICATION:

PXM80D0-100DV



To order extra cable on cable style models, add suffix “-(length in feet)FT” and add cost/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
PX80D0-030DI-25FT, 30 psid range model, 4 to 20 mA output and 7.6m (25') cable.

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

4 to 20 mA OUTPUT STANDARD RANGES

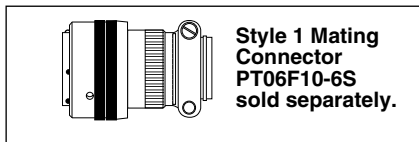
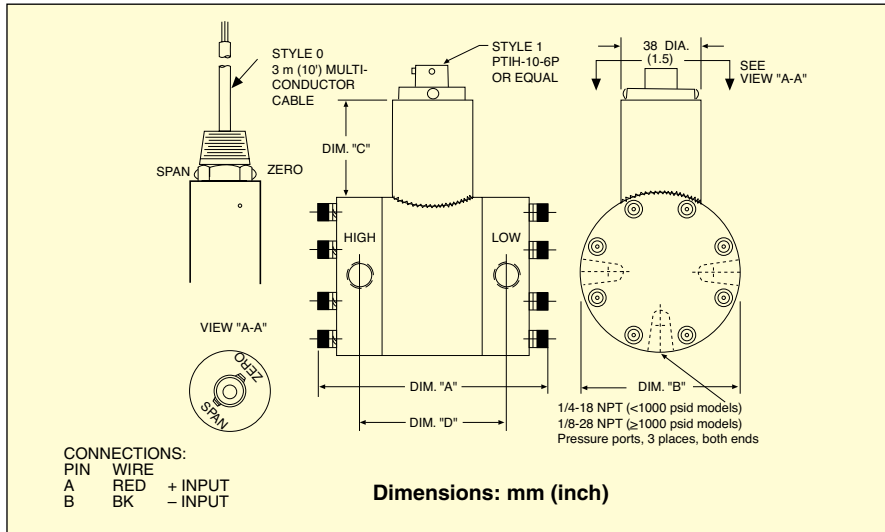
4 to 20 mA Output
0-30 to 0-5000 psid
(0-2 bar to 0-350 bar)
Differential Pressure

PX80 Series

4 to 20 mA Models



- ✓ Low Differential Pressure at High Line Pressure—1500 psi Standard
- ✓ All Stainless Steel Construction
- ✓ Sealed for Harsh Environments
- ✓ High Overpressure



| CONNECTIONS 4 to 20 mA | | | |
|------------------------|-----|-------|-----|
| | PIN | Cable | DIN |
| + Input | A | Red | 1 |
| - Input | B | Black | 2 |

Dimensions: mm (inch)

| CAPACITY | A | B | C | D |
|-----------|--------------------|-----------|-----------|----------|
| <1000 psi | 111 (4.38) | 75 (2.94) | 62 (2.44) | 76 (3.0) |
| ≥1000 psi | 76 (3.0) + fitting | 51 (2.0) | 76 (3.0) | N/A |

STANDARD MODELS

| To Order | | | |
|-------------------------------|-----------|-----------------|-------------------------|
| Models with 4 to 20 mA Output | | | |
| RANGE psid | RANGE bar | MODEL NO. | COMPATIBLE METERS* |
| 0 to 30 | 0 to 2 | PX80D[*]-030DI | DP41-E, DP25B-E, DP24-E |
| 0 to 50 | 0 to 3.4 | PX80D[*]-050DI | DP41-E, DP25B-E, DP24-E |
| 0 to 100 | 0 to 6.9 | PX80D[*]-100DI | DP41-E, DP25B-E, DP24-E |
| 0 to 200 | 0 to 13.8 | PX80D[*]-200DI | DP41-E, DP25B-E, DP24-E |
| 0 to 300 | 0 to 20.7 | PX80D[*]-300DI | DP41-E, DP25B-E, DP24-E |
| 0 to 500 | 0 to 34.5 | PX80D[*]-500DI | DP41-E, DP25B-E, DP24-E |
| 0 to 700 | 0 to 48.3 | PX80D[*]-700DI | DP41-E, DP25B-E, DP24-E |
| 0 to 1000 | 0 to 68.9 | PX80B[*]-1KDI | DP41-E, DP25B-E, DP24-E |
| 0 to 1500 | 0 to 103 | PX80B[*]-1.5KDI | DP41-E, DP25B-E, DP24-E |
| 0 to 2000 | 0 to 138 | PX80B[*]-2KDI | DP41-E, DP25B-E, DP24-E |
| 0 to 2500 | 0 to 172 | PX80B[*]-2.5KDI | DP41-E, DP25B-E, DP24-E |
| 0 to 3000 | 0 to 207 | PX80B[*]-3KDI | DP41-E, DP25B-E, DP24-E |
| 0 to 5000 | 0 to 345 | PX80B[*]-5KDI | DP41-E, DP25B-E, DP24-E |

Comes complete with 5-point NIST traceable calibration.

* Visit us online for compatible meters.

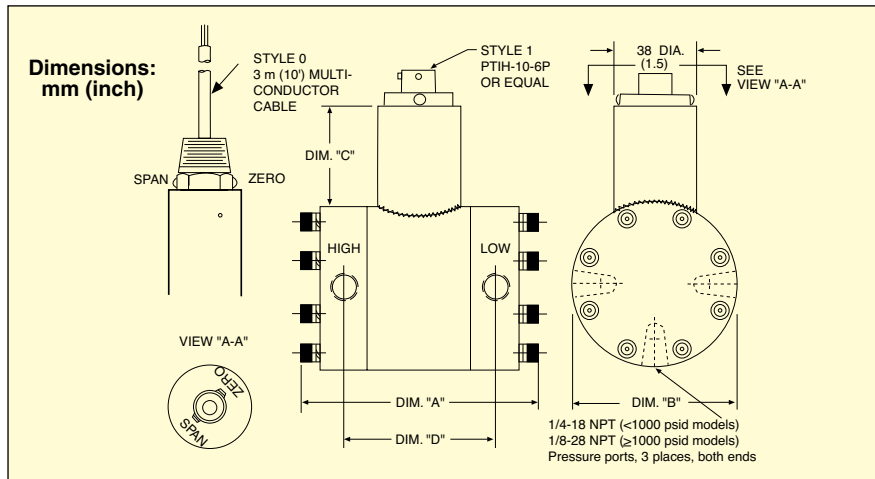
[*] Insert "0" for 3 m (10') cable, "1" for twist-lock 6 pin connector, or "6" for mini DIN connector. To order extra cable length, add suffix "(Length in feet)FT" to model number and add cost/ft beyond standard 3 m (10') length.

Ordering Examples: PX80D0-050DI-25FT, 50 psid differential transmitter with 7.6 m (25') cable and 1/4-18 NPT fitting. PX80B0-1.5KDI, 1500 psid differential transmitter with 3 m (10') cable, and 1/4-27 NPT fitting.

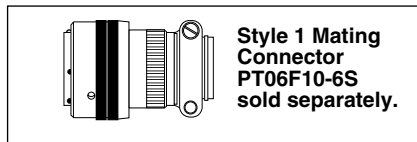
4 to 20 mA OUTPUT **METRIC** RANGES

4 to 20 mA Output
0-2 to 0-350 bar
0-30 to 0-5000 psi
Differential Pressure

PXM80 Series
4 to 20 mA Models



- ✓ Low Differential Pressure at High Line Pressure—100 bar Standard
- ✓ All Stainless Steel Construction
- ✓ Sealed for Harsh Environments
- ✓ High Overpressure



| CONNECTIONS 4 to 20 mA | | | |
|------------------------|-----|-------|-----|
| | PIN | Cable | DIN |
| + Input | A | Red | 1 |
| - Input | B | Black | 2 |

Dimensions: mm (inch)

| CAPACITY | A | B | C | D |
|----------|--------------------|-----------|-----------|----------|
| <70 bar | 111 (4.38) | 75 (2.94) | 62 (2.44) | 76 (3.0) |
| ≥70 bar | 76 (3.0) + fitting | 51 (2.0) | 76 (3.0) | N/A |

METRIC MODELS

| To Order | | | |
|---|---------------|-----------------------------|-------------------------|
| Models with 4 to 20 mA Output, Specify Electrical Termination | | | |
| RANGE | MODEL NO. | COMPATIBLE METERS* | |
| DIFFERENTIAL PRESSURE | | | |
| 0 to 2 bar | 0 to 29 psi | PXM80MD[*]-002BARDI | DP41-E, DP25B-E, DP24-E |
| 0 to 3.50 bar | 0 to 51 psi | PXM80MD[*]-3.50BARDI | DP41-E, DP25B-E, DP24-E |
| 0 to 7 bar | 0 to 102 psi | PXM80MD[*]-007BARDI | DP41-E, DP25B-E, DP24-E |
| 0 to 14 bar | 0 to 203 psi | PXM80MD[*]-014BARDI | DP41-E, DP25B-E, DP24-E |
| 0 to 20 bar | 0 to 290 psi | PXM80MD[*]-020BARDI | DP41-E, DP25B-E, DP24-E |
| 0 to 35 bar | 0 to 508 psi | PXM80MD[*]-035BARDI | DP41-E, DP25B-E, DP24-E |
| 0 to 50 bar | 0 to 725 psi | PXM80MD[*]-050BARDI | DP41-E, DP25B-E, DP24-E |
| 0 to 70 bar | 0 to 1015 psi | PXM80MB[*]-070BARDI | DP41-E, DP25B-E, DP24-E |
| 0 to 100 bar | 0 to 1450 psi | PXM80MB[*]-100BARDI | DP41-E, DP25B-E, DP24-E |
| 0 to 140 bar | 0 to 2031 psi | PXM80MB[*]-140BARDI | DP41-E, DP25B-E, DP24-E |
| 0 to 175 bar | 0 to 2538 psi | PXM80MB[*]-175BARDI | DP41-E, DP25B-E, DP24-E |
| 0 to 200 bar | 0 to 2901 psi | PXM80MB[*]-200BARDI | DP41-E, DP25B-E, DP24-E |
| 0 to 350 bar | 0 to 5076 psi | PXM80MB[*]-350BARDI | DP41-E, DP25B-E, DP24-E |

Comes complete with 5-point NIST traceable calibration. * Visit us online for compatible meters

[*] Insert "0" for 3 m (10') cable, "1" for twist-lock 6 pin connector, "5" for metal terminal box or "6" for mini DIN connector. To order extra cable on cable style models, add suffix "-(total length in meters)M" and add cost/m beyond the standard 3 m (10') length.

Ordering Examples: **PXM80MD0-002BARDI-10M**, 2 bar range differential transmitter with G 1/4 female pressure fittings, 10 m (32') cable and 4 to 20 mA output.
PXM80MB1-100BARDI, 100 bar range differential transmitter with G 1/8 pressure fittings, twist-lock 6 pin electrical connector and 4 to 20 mA output. **PT06F10-6S**, mating connector (sold separately).

