

Industrial Wet/Wet Differential Pressure Transducer

With High Over Pressure Capacity

L

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

PXM80
£735

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

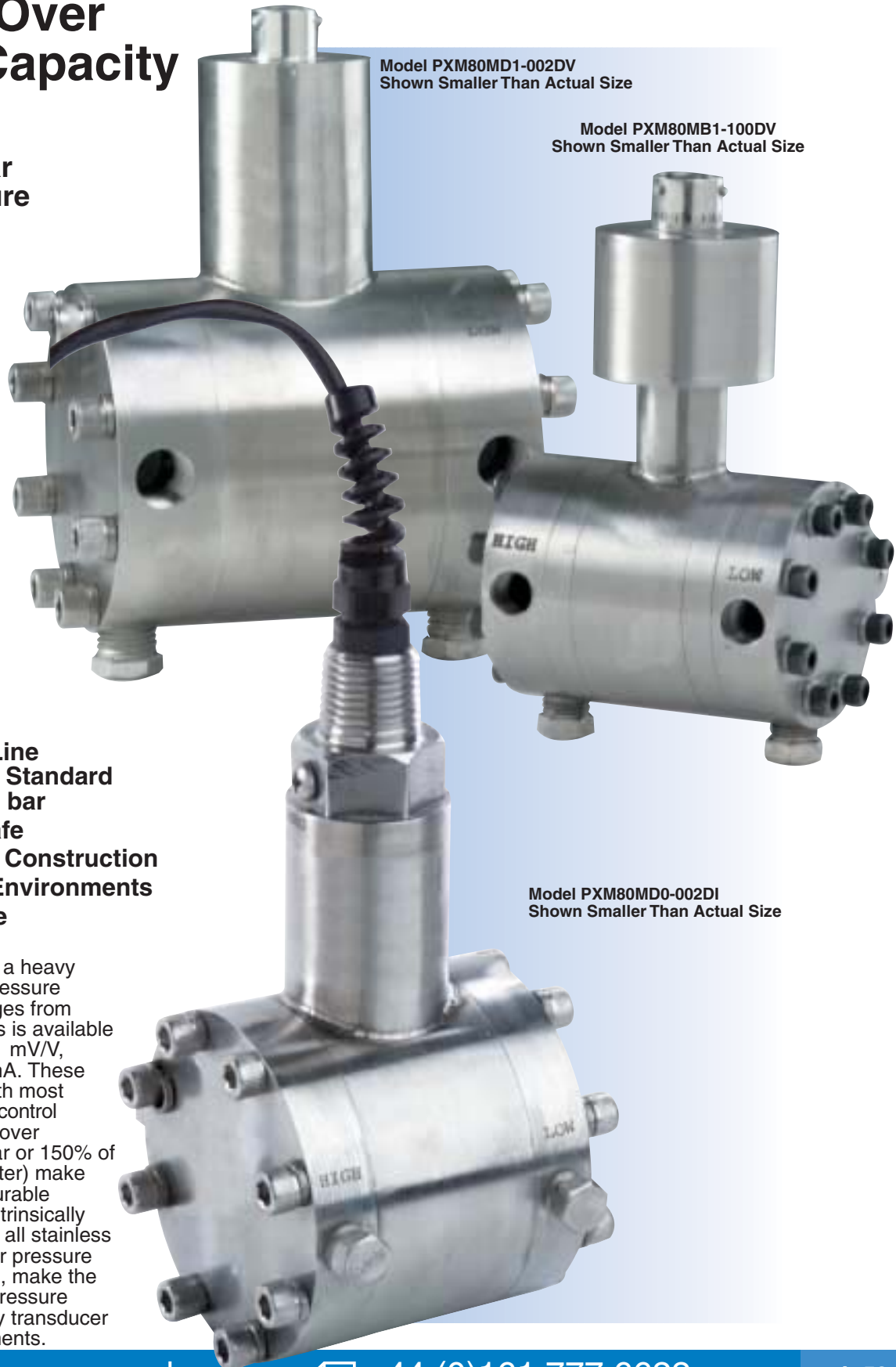
- ✓ Low Differential Pressure at High Line Pressure - 100 bar Standard Optional up to 345 bar
- ✓ FM Intrinsically Safe
- ✓ All Stainless Steel Construction
- ✓ Sealed for Harsh Environments
- ✓ High Overpressure

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 PXM80MD1-002DV
Shown Smaller Than Actual Size

Model PXM80MB1-100DV
Shown Smaller Than Actual Size

Model PXM80MD0-002DI
Shown Smaller Than Actual Size



PXM80 Series Differential Pressure Transducers

SPECIFICATIONS

mV/V OUTPUT

Electrical:

Excitation: 10 Vdc (15 V max)

Output: 2 mV/V nominal

Bridge Resistance: 350 Ω

Zero Balance: ±1% FSO

5Vdc OUTPUT

Electrical:

Excitation: 24-32 Vdc

Output: 0-5 Vdc ±10% adj.

Zero Balance: 0 V ±10% adj

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%

COMMON SPECIFICATIONS

Performance:

Linearity:

≥2 bar : ±0.25% FSO

Hysteresis:

≥2 bar : ±0.10% FSO

Repeatability: ±0.1% FSO

Environmental:

Agency Approvals:

FM Intrinsically Safe
IS/I.II.III/1/CDEFG - Standard

Operational 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: ≥2 bar : 0.009% FSO/°C

Zero: ≥2 bar: 0.013% FSO/°C (4-20 mA)

Span: ≥2 bar : 0.009% Rdg/°C

Pressure:

Line Pressure: 100 bar or 150% of rated pressure, whichever is greater

Burst Pressure: 414 bar minimum

Wetted Parts:

17-4 PH Stainless Steel

Pressure Port:

G ¼ <70 bar

G ½ ≥70 bar

Electrical Termination:

Style 0 = 3 m cable

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

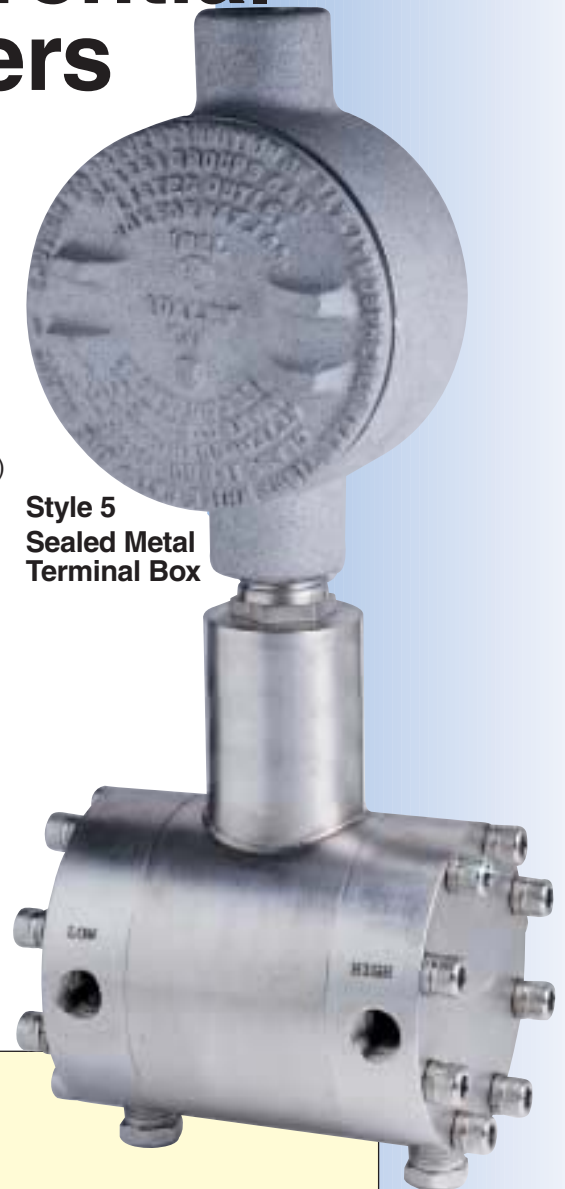
Style 5 = Metal Terminal Box

Style 6 = micro DIN

Mating Connector: Style 1

PT06F10-6S (not included)

Style 6: Mating Connector Included



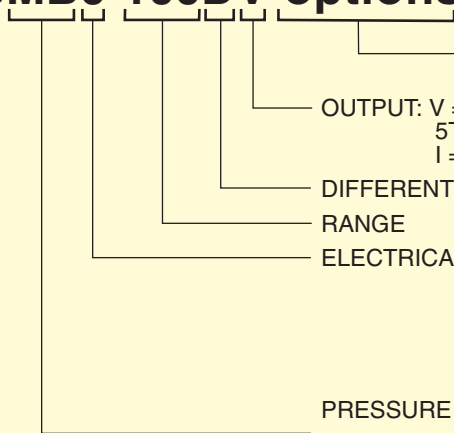
**Style 5
Sealed Metal
Terminal Box**

**Model PXM80MD5-002DI
Shown Smaller Than Actual Size**

Custom Configurations

-MODEL NUMBER SPECIFICATION:

PXM80MB0-100DV-options



HIGH LINE PRESSURE:

LPM138 = 138 bar (add £62)

LPM207 = 207 bar (add £103)

LPM345 = 345 bar (add £160)

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 1/8 female ≥ 70 BAR

MD = G 1/4 female < 70 BAR

To order extra cable on Cable Style models, add suffix "-(total length in metres)M" add £5.30/m over the standard 3 m length.

Ordering Examples:

1.) PXM80MB6-100DV is a 100 bar range model with mV/V output, G 1/8 pressure connection and a micro DIN connector, £735.

2.) PXM80MD0-002DV-10M is a 2 bar range model with mV/V output, G 1/4 pressure connection and a 10 m cable, £780 + (7 x 5.30) = £817.10.

3.) PXM80MD1-020V is a 20 bar range model with mV/V output, G 1/4 pressure connection and an integral connector, £735.

Mating Connector (not included) PT06F10-6S, £21.75.



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
£735

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)

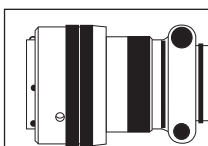
Output: 2 mV/V nominal

Bridge Resistance: 350 Ω

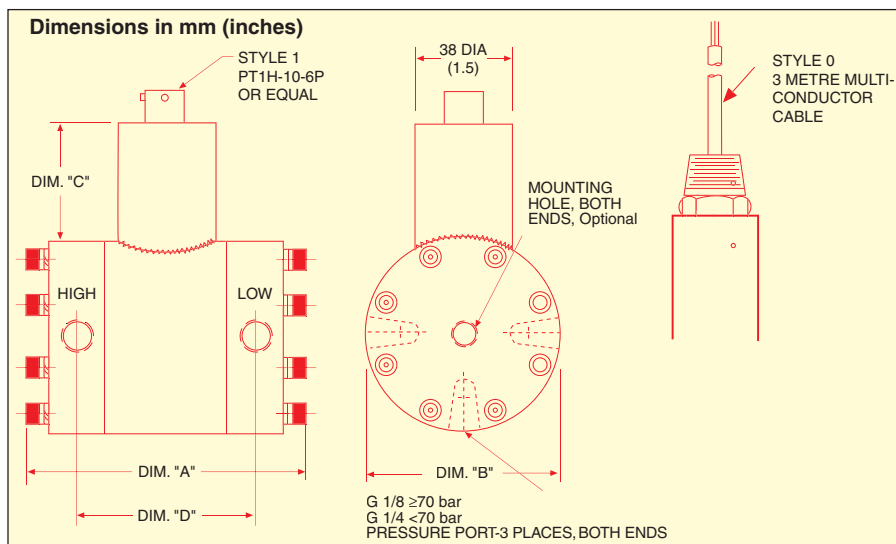
Zero Balance: ±1% FSO

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 | |



Style 1 Mating Connector
PT06F10-6S,
£21.75



Dimensions in mm (inches)

| Capacity | A | B | C | D |
|----------|--------------------|----------|-----------|-----------|
| <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[*]-002DV | £780 | i-series™, DP25B-S |
| 0 to 3.50 | PXM80MD[*]-3.50DV | 735 | i-series™, DP25B-S |
| 0 to 7 | PXM80MD[*]-007DV | 735 | i-series™, DP25B-S |
| 0 to 14 | PXM80MD[*]-014DV | 735 | i-series™, DP25B-S |
| 0 to 20 | PXM80MD[*]-020DV | 735 | i-series™, DP25B-S |
| 0 to 35 | PXM80MD[*]-035DV | 735 | i-series™, DP25B-S |
| 0 to 50 | PXM80MD[*]-050DV | 735 | i-series™, DP25B-S |
| 0 to 70 | PXM80MB[*]-070DV | 735 | i-series™, DP25B-S |
| 0 to 100 | PXM80MB[*]-100DV | 735 | i-series™, DP25B-S |
| 0 to 140 | PXM80MB[*]-140DV | 735 | i-series™, DP25B-S |
| 0 to 175 | PXM80MB[*]-175DV | 735 | i-series™, DP25B-S |
| 0 to 200 | PXM80MB[*]-200DV | 735 | i-series™, DP25B-S |
| 0 to 350 | PXM80MB[*]-350DV | 735 | i-series™, DP25B-S |

* Insert "0" for 3 m Cable, "1" for Twist Lock Connector, or "6" for micro DIN Connector
 † See Section 5 for Compatible Meters

To order extra cable on Cable Style models, add suffix "-(total length in metres)M" add £5.30/m over the standard 3 m length.

Ordering Examples:

- 1.) PXM80MD0-002DV-10M** is a 2 bar range differential transducer with a G1/4 female pressure fittings, 10 m cable and a mV/V output, £780 + (7 x 5.30) = **£817.10**.
- 2.) PXM80MB1-100DV** is a 100 bar range differential transducer with G1/8 pressure fittings, a twist lock electrical connector and a mV/V output, **£735**. Mating Connector (not included) **PT06F10-6S, £21.75**.

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

5 Vdc OUTPUT

Electrical:

Excitation: 24-32 Vdc

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

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

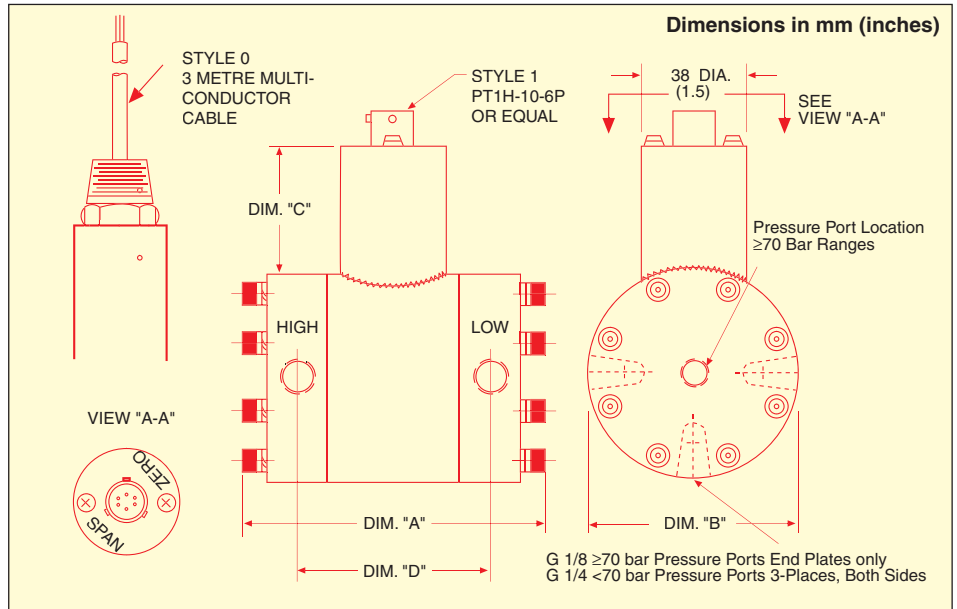
CONNECTIONS 5Vdc

| | 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
£855
BASIC 5V UNIT



Style 1 Mating Connector
PT06F10-6S,
£21.75



Dimensions in mm (inches)

| Capacity | A | B | C | D |
|---------------|--------------------|----------|-----------|-----------|
| <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[*]-002D5T | £900 | i-series™, DP25B-E, DP24-E |
| 0 to 3.50 | PXM80MD[*]-3.50D5T | 900 | i-series™, DP25B-E, DP24-E |
| 0 to 7 | PXM80MD[*]-007D5T | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 14 | PXM80MD[*]-014D5T | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 20 | PXM80MD[*]-020D5T | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 35 | PXM80MD[*]-035D5T | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 50 | PXM80MD[*]-050D5T | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 70 | PXM80MB[*]-070D5T | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 100 | PXM80MB[*]-100D5T | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 140 | PXM80MB[*]-140D5T | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 175 | PXM80MB[*]-175D5T | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 200 | PXM80MB[*]-200D5T | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 350 | PXM80MB[*]-350D5T | 855 | i-series™, DP25B-E, DP24-E |

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

To order extra cable on Cable Style models, add suffix "-(total length in metres)M" and add £5.30/m over the standard 3 m length.

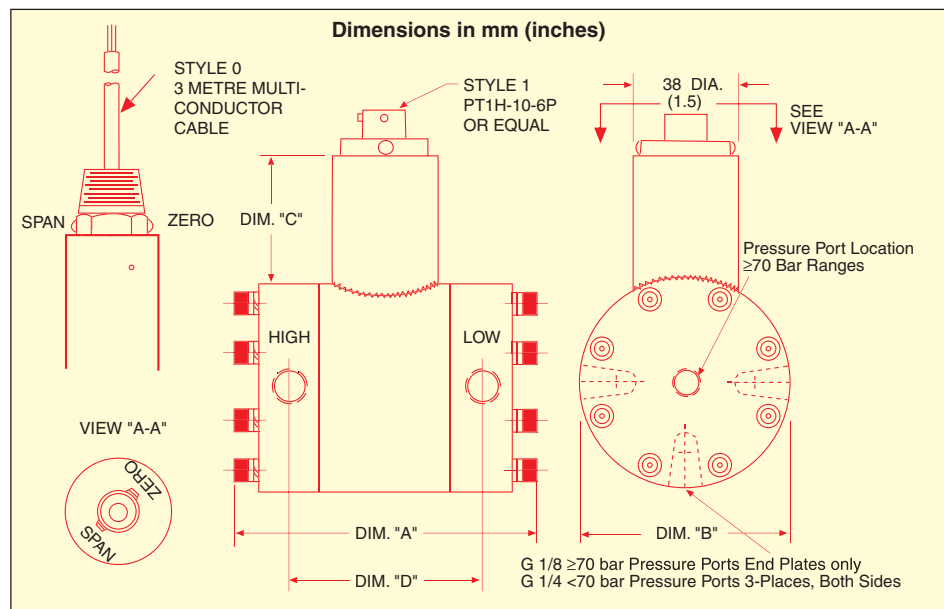
Ordering Examples: 1.) PXM80MD0-002D5T-10M is a 2 bar range differential transducer with a G1/4 female pressure fittings, 10 m cable and a 0-5 Vdc output, £900 + (7 x 5.30) = £937.10.

2.) PXM80MB1-100D5T is a 100 bar range differential transducer with G1/8 pressure fittings, a Twist lock style electrical connector and a 0-5 Vdc output, £855. Mating Connector (not included) PT06F10-6S, £21.75.





How to Order PXM80 Series Wet/Wet Differential Pressure Transmitters 4-20 mA Output



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%

Dimensions in mm (inches)

| Capacity | A | B | D |
|----------|--------------------|-----------|----------|
| <70 bar | 111 (4.38) | 75 (2.94) | 76 (3.0) |
| ≥70 bar | 76 (3.0) + Fitting | 51 (2.0) | N/A |

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[*]-002DI | £900 | i-series™, DP25B-E, DP24-E |
| 0 to 3.50 | PXM80MD[*]-3.50DI | 900 | i-series™, DP25B-E, DP24-E |
| 0 to 7 | PXM80MD[*]-007DI | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 14 | PXM80MD[*]-014DI | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 20 | PXM80MD[*]-020DI | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 35 | PXM80MD[*]-035DI | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 50 | PXM80MD[*]-050DI | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 70 | PXM80MB[*]-070DI | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 100 | PXM80MB[*]-100DI | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 140 | PXM80MB[*]-140DI | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 175 | PXM80MB[*]-175DI | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 200 | PXM80MB[*]-200DI | 855 | i-series™, DP25B-E, DP24-E |
| 0 to 350 | PXM80MB[*]-350DI | 855 | i-series™, 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 S for Compatible Meters

To order extra cable on Cable Style models, add suffix "-(total length in metres)M" add £5.30/m over the standard 3 m length.

Ordering Examples: 1.) PXM80MD0-002DI-10M is a 2 bar range differential transducer with G1/4 female pressure fittings, 10 m cable and a 4-20 mA output, £900 + (7 x 5.30) = £937.10.

2.) PXM80MB1-100DI is a 100 bar range differential transducer with G1/8 pressure fittings, a Twist lock style electrical connector and a 4-20 mA output, £855. Mating Connector (not included) PT06F10-6S, £21.75.



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