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.
SPECIFICATIONS

mV/V Output

Electrical:
- Excitation: 10 Vdc (15 V maximum)
- Output: 2 mV/V nominal

Bridge Resistance: 350 Ω
Zero Balance: ±1% FSO

V dc 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 AND METRIC CUSTOM CONFIGURATIONS

MODEL NUMBER SPECIFICATION:

PX80D0-100DV

OUTPUT: V = 2 mV/V nominal
5T = 0 to 5 Vdc
I = 4 to 20 mA

DIFFERENTIAL PRESSURE
RANGE IN psi FOR PX80; IN bar FOR PXM80

ELECTRICAL CONNECTION:

0 = 3 m (10') cable
1 = PTIH-10-6P connector or equiv.
5 = Metal terminal box (4 to 20 mA only)
6 = mini DIN connector (no shunt)

PRESSURE PORT: D = PX80: 1/4-18 FNPT ≤ 700 psi
PX80D0: G1/4 <70 bar
B = PX80: 1/8-27 FNPT ≥1000 psi
PX80D0: G1/8 ≥70 bar

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: PX80BS-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.
PX80DI-200DV, 200 psid range model with mV/V output and twist-lock 6 pin connector. PT06F10-6S, mating connector (sold separately).
PX80 Series
mV Models

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

mV/V Output STANDARD RANGES

mV/V Output
0-30 to 0-5000 psi
(0-2 to 0-350 bar)
Differential Pressure

STANDARD MODELS

To Order
Models with mV Output and Integral Connector

<table>
<thead>
<tr>
<th>RANGE</th>
<th>MODEL NO.</th>
<th>COMPATIBLE METERS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 30 psid</td>
<td>PX80D[1]-030DV</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td>0 to 50 psid</td>
<td>PX80D[1]-050DV</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td>0 to 100 psid</td>
<td>PX80D[1]-100DV</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td>0 to 200 psid</td>
<td>PX80D[1]-200DV</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td>0 to 300 psid</td>
<td>PX80D[1]-300DV</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td>0 to 500 psid</td>
<td>PX80D[1]-500DV</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td>0 to 700 psid</td>
<td>PX80D[1]-700DV</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td>0 to 1000 psid</td>
<td>PX80B[1]-1KDV</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td>0 to 1500 psid</td>
<td>PX80B[1]-1.5KDV</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td>0 to 2000 psid</td>
<td>PX80B[1]-2KDV</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td>0 to 2500 psid</td>
<td>PX80B[1]-2.5KDV</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td>0 to 3000 psid</td>
<td>PX80B[1]-3KDV</td>
<td>DP41-S, DP25B-S</td>
</tr>
<tr>
<td>0 to 5000 psid</td>
<td>PX80B[1]-5KDV</td>
<td>DP41-S, DP25B-S</td>
</tr>
</tbody>
</table>

Comes complete with 5-point NIST traceable calibration.

* Visit us online for compatible meters.

[1] Insert “0” for 3 m (10’) cable, “1” for twist-lock 6 pin connector, or “6” for mini DIN connector.

Ordering Examples: PX80D[1]-030DV, ±30 psid range differential transducer with ¼-18 NPT pressure fittings, twist-lock 6 pin electrical connector and mV/V output. PT06F10-6S, mating connector (sold separately).

PX80B[1]-1KDV, ±1000 psid range differential transducer with ¼-27 NPT pressure fittings, twist-lock 6 pin electrical connector and mV/V output.
**mV/V OUTPUT METRIC RANGES**

**mV/V Output**
- 0-2 to 0-350 bar
- 0-30 to 0-5000 psi

**Differential Pressure**

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**PXM80 Series**
**mV Models**

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

**METRIC MODELS**

**To Order**
Models with mV/V Output, Specify Electrical Termination

### RANGE | MODEL NO. | COMPATIBLE METERS*  
---|---|---  
DIFFERENTIAL PRESSURE  
0 to 2 bar | PXM80MD[*]-002BARDV | DP41-S, DP25B-S  
0 to 3.50 bar | PXM80MD[*]-3.50BARDV | DP41-S, DP25B-S  
0 to 7 bar | PXM80MD[*]-007BARDV | DP41-S, DP25B-S  
0 to 14 bar | PXM80MD[*]-014BARDV | DP41-S, DP25B-S  
0 to 20 bar | PXM80MD[*]-020BARDV | DP41-S, DP25B-S  
0 to 35 bar | PXM80MD[*]-035BARDV | DP41-S, DP25B-S  
0 to 50 bar | PXM80MD[*]-050BARDV | DP41-S, DP25B-S  
0 to 70 bar | PXM80MB[*]-070BARDV | DP41-S, DP25B-S  
0 to 100 bar | PXM80MB[*]-100BARDV | DP41-S, DP25B-S  
0 to 140 bar | PXM80MB[*]-140BARDV | DP41-S, DP25B-S  
0 to 175 bar | PXM80MB[*]-175BARDV | DP41-S, DP25B-S  
0 to 200 bar | PXM80MB[*]-200BARDV | DP41-S, DP25B-S  
0 to 350 bar | PXM80MB[*]-350BARDV | DP41-S, DP25B-S

*Visit us online for compatible meters.

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:**
- PXM80MD-002BARDV-10M, 2 bar range differential transducer with G ¼ female pressure fittings, 10 m (32’) cable and mV/V output.
- PXM80MB1-100BARDV, 100 bar range differential transducer with G ¼ pressure fittings, twist-lock 6 pin electrical connector and mV/V output. PT06F10-6S, mating connector (sold separately).

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**Dimensions:** mm (inch)

<table>
<thead>
<tr>
<th>CAPACITY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;70 bar</td>
<td>111 (4.38)</td>
<td>76 (3.0)</td>
<td>49 (1.94)</td>
<td>75 (2.94)</td>
</tr>
<tr>
<td>≥70 bar</td>
<td>76 (3.0) + fitting</td>
<td>51 (2.0)</td>
<td>54 (2.13)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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**CONNECTIONS mV/V**

<table>
<thead>
<tr>
<th>PIN</th>
<th>Cable</th>
<th>DIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>+Output</td>
<td>A</td>
<td>Green 2</td>
</tr>
<tr>
<td>-Output</td>
<td>B</td>
<td>White 3</td>
</tr>
<tr>
<td>-Input</td>
<td>C</td>
<td>Black GRND</td>
</tr>
<tr>
<td>+Input</td>
<td>D</td>
<td>Red 1</td>
</tr>
<tr>
<td>Shunt</td>
<td>E</td>
<td>Blue</td>
</tr>
<tr>
<td>Shunt</td>
<td>F</td>
<td>Orange</td>
</tr>
</tbody>
</table>

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*Insert “0” for 3 m (10’) cable, “1” for twist-lock 6 pin connector or “6” for mini DIN connector*

*Comes complete with 5-point NIST traceable calibration.*