

All Stainless Steel Transducer/Transmitter Multimedia Compatibility High-Performance Silicon Technology **Metric Model**



**350 mbar to 20 bar Absolute Pressure
70 mbar to 700 bar Gage Pressure**

PXM309 Series



Cable style.

**Fast
Delivery!**

- ✓ 5-Point Traceable Calibration Certificate
- ✓ High Accuracy, $\pm 0.25\%$ FS BSL (Linearity, Hysteresis and Repeatability)
- ✓ 1% Total Error Band on Most Ranges
- ✓ Reverse Polarity and Over Voltage Protected
- ✓ -40 to 85°C (-40 to 185°F) Operating Temperature
- ✓ 0 to 10 Vdc or 4 to 20 mA Output
- ✓ Terminations: Cable, mini DIN or M12 Connector
- ✓ G $\frac{1}{4}$ Male Pressure Fitting
- ✓ IP65 Environmental Rating



mini DIN style.

PXM319-007G10V,
shown smaller than actual size.



M12 connector style.

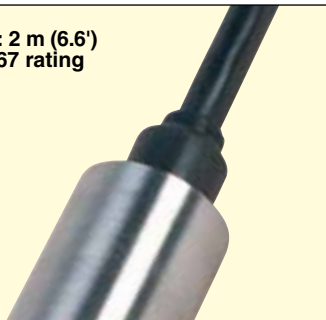
PXM359-020G10V,
shown smaller than actual size.

OMEGA's PXM309 Series industrial pressure transducers utilize two of our precision manufacturing techniques. Low pressure ranges from 70 mb to 3.5 bar, and absolute ranges to 20 bar use a precision micromachined silicon sensor protected by a stainless steel diaphragm. A thin film of oil transfers

the pressure and assures the high accuracy and stability of the sensor. Medium and high gage pressure ranges, from 7 bar up to 700 bar, use precision semiconductor strain gages that are fused directly to the stainless steel diaphragm yielding a rugged, durable bond that assures long

life and high stability. These precision techniques produce an accuracy of 0.25% FS BSL @ 25°C and a total error band of 1% on most ranges. The PXM309 Series transducers are available in absolute, or gage (relative) pressure and are sealed to an IP65 environmental rating.

PXM309: 2 m (6.6')
cable IP67 rating



PXM319: mini DIN
IP67 rating, absolute
IP65 rating, gage



PXM359: M12 connector
IP67 rating, absolute
IP65 rating, gage



SPECIFICATIONS

Supply Voltage

Reverse polarity and over voltage protected

0 to 10 Vdc Output: 15 to 30 Vdc at 10 mA

4 to 20 mA: 9 to 30 Vdc

Static Accuracy 350 mB to 700 bar: $\pm 0.25\%$ FS BSL at 25°C (includes linearity, hysteresis and repeatability)

Long Term Stability (1 yr): $\pm 0.25\%$ FS

Total Error Band*

- 70 mB $\pm 4.5\%$ gage
- 140 mB $\pm 3\%$ gage
- 350 mB $\pm 1.5\%$ gage and absolute
- 1 to 20 bar $\pm 1\%$ absolute
- 1 to 700 bar $\pm 1\%$ gage

Note*: Total error band includes all accuracy errors, thermal errors, span and zero tolerances.

Isolation (Body to Any Lead):

1 M Ω at 25 Vdc

Pressure Cycles: 1 x 10⁷ full scale cycles

Pressure Overload

70 mB to 3.5 bar Gage: 3 x rated pressure or 1.38 bar whichever is greater

350 mB to 20 bar Absolute: 3 x rated pressure or 1.38 bar whichever is greater

7 to 700 bar Gage: 2 x rated pressure

Burst Pressure

70 mB to 3.5 bar Gage: 5 x rated pressure or 1.72 bar whichever is greater

350 mB to 20 bar Absolute: 5 x rated pressure or 1.72 bar whichever is greater

7 to 700 bar Gage: 5 x rated pressure

Compensated Temperature

70 to 350 mbar Gage/Abs: 0 to 50°C (32 to 122°F)

1 to 700 bar Gage: -20 to 85°C (-4 to 185°F)

1 to 20 bar Absolute: -20 to 85°C (-4 to 185°F)

Operating Temperature: -40 to 85°C (-40 to 185°F)

Response Time: 1 mS

Bandwidth: DC to 1 kHz type

Pressure Connection: G 1/4 Male

Wetted Parts

70 mB to 3.5 bar Gage: 316 SS

350 mB to 20 bar Absolute: 316 SS

7 to 700 bar Gage: 17-4PH SS

CE Compliant: EC55022, EC55011 Emissions Class A&B

IEC: 61000-2,-3,-4,-5,-6,&-9

Shock: 50 g 11 mSec half sine shock

Vibration: ± 20 g

Electrical Connections

PXM309: 1.5 m (5') 2 or 3-conductor cable, mA or 10V outputs, respectively

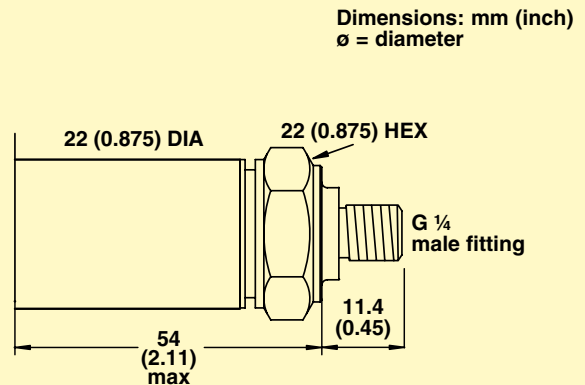
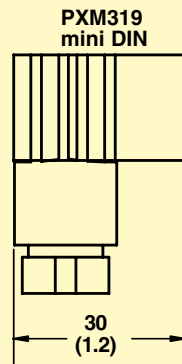
PXM319: mini DIN connector with mating connector included

PXM359: M12 4-pin connector

Weight: Typical 150 g (5.3 oz) depending upon configuration

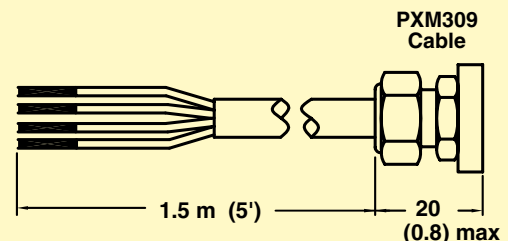
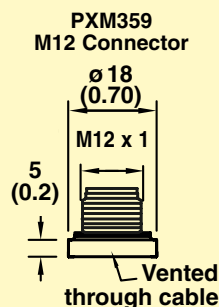
10 Vdc Output Wiring

Wiring	Cable	mini DIN	M12
Excitation (+)	Red	Pin 1	Pin 1
Excitation (-)	Black	Pin 2	Pin 2
Output (+)	White	Pin 3	Pin 3
N/C†		Pin 4	Pin 4



mA Output Wiring

Wiring	Cable	mini DIN	M12
Supply (+)	Red	Pin 1	Pin 1
Supply (-)	Black	Pin 2	Pin 2
N/C†		Pin 3	Pin 3
N/C†		Pin 4	Pin 4



† N/C: Do not connect any wires to this pin.



DP25B, shown smaller than actual size.



DP41-B, shown smaller than actual size.

To Order

Range	Cable Models PXM309 Series	mini Din Models PXM319 Series	M12 Models PXM359 Series	Compatible Meters
Absolute Pressure				
350 mbar	PXM309-0.35A[*]	PXM319-0.35A[*]	PXM359-0.35A[*]	DP25B-E, DP41-B
1 bar	PXM309-001A[*]	PXM319-001A[*]	PXM359-001A[*]	DP25B-E, DP41-B
2 bar	PXM309-002A[*]	PXM319-002A[*]	PXM359-002A[*]	DP25B-E, DP41-B
3.5 bar	PXM309-3.5A[*]	PXM319-3.5A[*]	PXM359-3.5A[*]	DP25B-E, DP41-B
7 bar	PXM309-007A[*]	PXM319-007A[*]	PXM359-007A[*]	DP25B-E, DP41-B
15 bar	PXM309-015A[*]	PXM319-015A[*]	PXM359-015A[*]	DP25B-E, DP41-B
20 bar	PXM309-020A[*]	PXM319-020A[*]	PXM359-020A[*]	DP25B-E, DP41-B
Gage (Relative) Pressure				
70 mbar	PXM309-0.07G[*]	PXM319-0.07G[*]	PXM359-0.07G[*]	DP25B-E, DP41-B
140 mbar	PXM309-0.14G[*]	PXM319-0.14G[*]	PXM359-0.14G[*]	DP25B-E, DP41-B
350 mbar	PXM309-0.35G[*]	PXM319-0.35G[*]	PXM359-0.35G[*]	DP25B-E, DP41-B
1 bar	PXM309-001G[*]	PXM319-001G[*]	PXM359-001G[*]	DP25B-E, DP41-B
2 bar	PXM309-002G[*]	PXM319-002G[*]	PXM359-002G[*]	DP25B-E, DP41-B
3.5 bar	PXM309-3.5G[*]	PXM319-3.5G[*]	PXM359-3.5G[*]	DP25B-E, DP41-B
7 bar	PXM309-007G[*]	PXM319-007G[*]	PXM359-007G[*]	DP25B-E, DP41-B
10 bar	PXM309-010G[*]	PXM319-010G[*]	PXM359-010G[*]	DP25B-E, DP41-B
15 bar	PXM309-015G[*]	PXM319-015G[*]	PXM359-015G[*]	DP25B-E, DP41-B
20 bar	PXM309-020G[*]	PXM319-020G[*]	PXM359-020G[*]	DP25B-E, DP41-B
35 bar	PXM309-035G[*]	PXM319-035G[*]	PXM359-035G[*]	DP25B-E, DP41-B
70 bar	PXM309-070G[*]	PXM319-070G[*]	PXM359-070G[*]	DP25B-E, DP41-B
140 bar	PXM309-140G[*]	PXM319-140G[*]	PXM359-140G[*]	DP25B-E, DP41-B
200 bar	PXM309-200G[*]	PXM319-200G[*]	PXM359-200G[*]	DP25B-E, DP41-B
350 bar	PXM309-350G[*]	PXM319-350G[*]	PXM359-350G[*]	DP25B-E, DP41-B
500 bar	PXM309-500G[*]	PXM319-500G[*]	PXM359-500G[*]	DP25B-E, DP41-B
700 bar	PXM309-700G[*]	PXM319-700G[*]	PXM359-700G[*]	DP25B-E, DP41-B
Vacuum and Compound Gage Pressure				
0 to -1 bar	PXM309-001V[*]	PXM319-001V[*]	PXM359-001V[*]	DP25B-E, DP41-B
-1 to 0 to +1 bar	PXM309-001CG[*]	PXM319-001CG[*]	PXM359-001CG[*]	DP25B-E, DP41-B
-1 to 2 bar	PXM309-V002G[*]	PXM319-V002G[*]	PXM359-V002G[*]	DP25B-E, DP41-B
-1 to 3.5 bar	PXM309-V3.5G[*]	PXM319-V3.5G[*]	PXM359-V3.5G[*]	DP25B-E, DP41-B
-1 to 7 bar	PXM309-V007G[*]	PXM319-V007G[*]	PXM359-V007G[*]	DP25B-E, DP41-B
-1 to 10 bar	PXM309-V010G[*]	PXM319-V010G[*]	PXM359-V010G[*]	DP25B-E, DP41-B

Comes complete with 5-point traceable calibration certificate

[*] Insert "10V" for 0 to 10 Vdc output or "I" for 4 to 20 mA output

Note: M12 models require vented cable with gage units below 70 bar.

Accessories

Model No.	Description
P002414-1	2 m (6.6') vented cable with mating M12 connector and flying leads for PXM359
P002414-2	5 m (16.4') vented cable with mating M12 connector and flying leads for PXM359
PXMW-4	SEALING WASHER FOR G 1/4, STAINLESS STEEL WITH FKM SEAL (INCLUDED)

Ordering Examples: PXM309-007G10V, cable model, 7 bar range, gage pressure, 0 to 10 Vdc output.

PXM319-007AI, mini DIN model, 7 bar range, absolute pressure, 4 to 20 mA output.

PXM359-070GI, M12 termination, 70 bar range, gage pressure, 4 to 20 mA output, P002414-1, 2 m (6.6') vented cable with mating M12 connector for PXM359.