

The PMD Series is a thru-hole mountable pressure monitoring device suitable for low to medium pressure applications.

COMPANY: Merit Sensor is a leader in piezoresistive pressure sensing and partners with clients to create high performing solutions for a variety of applications and industries.

SENTIUM: Merit Sensor products incorporate a proprietary Sentium® technology developed to provide a best-in-class operating temperature range and superior stability.

TECHNOLOGY: Merit Sensor utilizes a piezoresistive Wheatstone bridge in a design that anodically bonds glass to a chemically etched silicon diaphragm. All products are RoHS compliant.

CAPABILITIES: Merit Sensor designs, engineers, fabricates, dices, assembles, and tests products from a state-of-the-art facility near Salt Lake City, Utah.

FEATURES

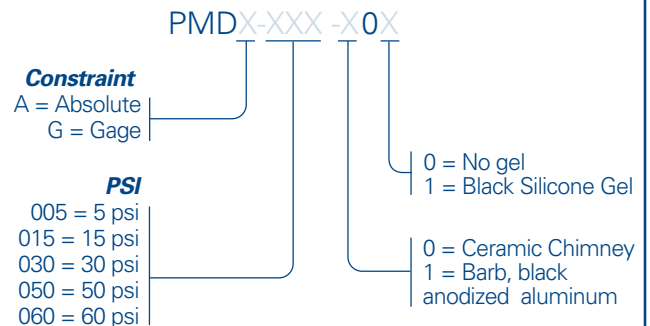
Range	5 to 60 psi (.34 to 4.1 bar; 34.5 to 414 KPa)
Type	Absolute, gage
Media	<i>No Gel Coating (standard):</i> Clean dry air and non-corrosive gas <i>With Silicone Gel coating:</i> Non-corrosive gas, but also for use in applications where condensation can occur
Packaging	Trays
Customization	Sensitivity, resistance, bridge, constraint, etc.

BENEFITS

Performance	Enjoy best-in-class performance due to Merit's proprietary Sentium technology.
Cost	Save money over time with high-performing die
Security	Feel confident doing business with an experienced company backed by a solid parent company (NASDAQ: MMSI)
Speed	Get to market quickly with creative and flexible solutions.
Service	Experience prompt, personal, and professional support.



PMD Series Part Number Configurator



Examples:

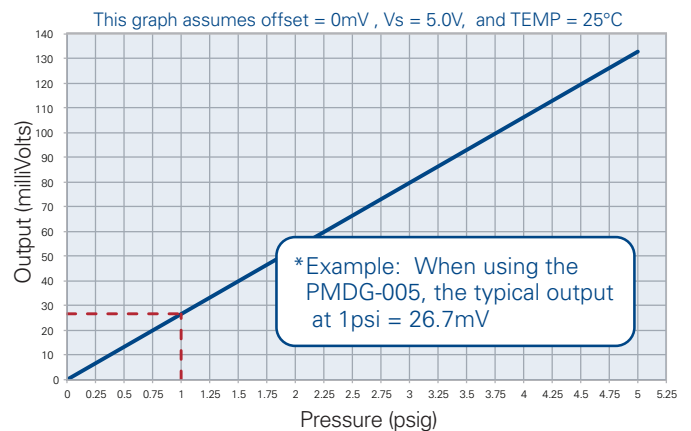
PMDG-005-100 is gage 5psi part, aluminum barb no gel	PMDG-060-101 is gage, 60 psi part, aluminum barb with gel	PMDA-015-001 is gage, 15psi part, ceramic chimney with gel
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PMD Series Standard Part Numbers

PMDG-005-100	PMDG-030-100	PMDA-050-100
PMDG-015-100	PMDA-030-100	PMDA-060-100
PMDA-015-100	PMDG-050-100	PMDG-060-101

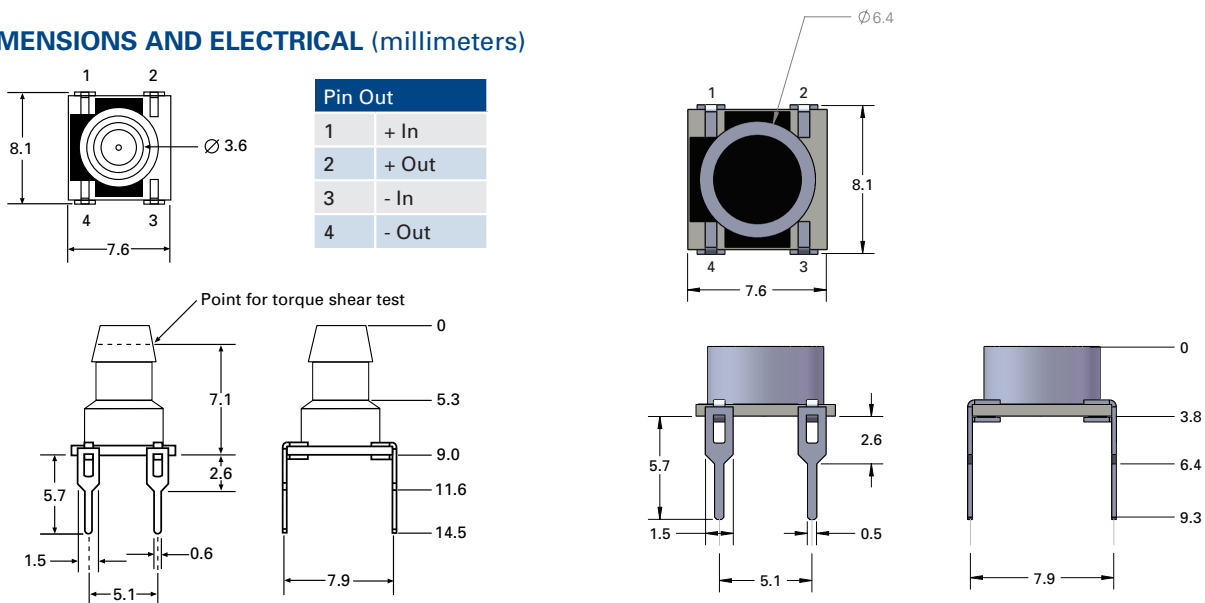
Typical Transfer Function (Sensor pn PMDG-005)

$$V_{out} = (26.7 * P) + \text{Offset} \pm \text{Error}$$



SPECIFICATIONS

Parameter	Minimum	Typical	Maximum	Units	Notes
Electrical & Environmental					
Excitation (In)	1.5	5	15	V	Maximum: 3 mA
Impedance	4000	5000	6000	Ω	
Operating Temperature	-40		125	$^{\circ}\text{C}$	
Storage Temperature	-55		125	$^{\circ}\text{C}$	
Weight		0.486		Grams	Barb and Gel
		0.434		Grams	Chimney and Gel
Mechanical					
Barb Torque Shear	22			lbf	See barb drawing
Barb Torque Shear – Post Exposure	16			lbf	60 $^{\circ}\text{C}$ for 7 days @ 95% RH
Performance					
Offset	-10	0	10	mV/V	Zero pressure; gage only; @25 $^{\circ}\text{C}$
(Standard)	-0.25	0	0.25	% FSO	Best Fit Straight Line; @25 $^{\circ}\text{C}$
Non-linearity (50 psi only)	-0.15	0	0.15	% FSO	Best Fit Straight Line; @25 $^{\circ}\text{C}$
Pressure Hysteresis	-0.1	0	0.1	% FSO	@25 $^{\circ}\text{C}$
Temp Coeff – Zero	-25	0	25	$\mu\text{V/V}/^{\circ}\text{C}$	-40 $^{\circ}\text{C}$ to 85 $^{\circ}\text{C}$
Temp Coeff – Resistance	2500	3100	3500	PPM/ $^{\circ}\text{C}$	-40 $^{\circ}\text{C}$ to 85 $^{\circ}\text{C}$
Temp Coeff – Sensitivity	-1500	-2000	-2500	PPM/ $^{\circ}\text{C}$	-40 $^{\circ}\text{C}$ to 85 $^{\circ}\text{C}$
Thermal Hysteresis	-0.1	0	0.1	% FSO	Zero pressure
Long-Term Stability	-0.1	0	0.1	% FSO	
Burst Pressure	5X				
Full-Scale Output (@ 5 volts excitation)					
5 psi (0.34 bar; 34.5 KPa)	107	133	160	mV	Additional outputs available upon request
15 psi (1 bar; 103 KPa)	120	150	180	mV	
30 psi (2.1 bar; 207 KPa)	128	160	192	mV	
50 psi (3.5 bar; 345 KPa)	107	133	160	mV	
60 psi (4.1 bar; 414 Kpa)	128	160	192	mV	

DIMENSIONS AND ELECTRICAL (millimeters)


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