

**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 (-40°C to 85°C) 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.

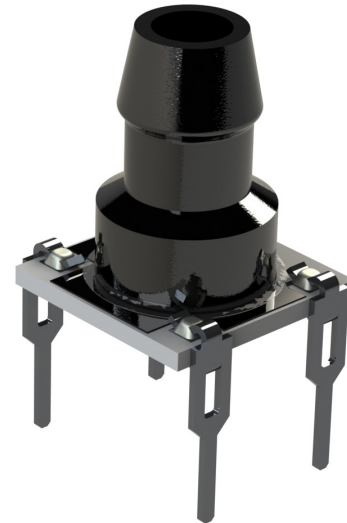
**CAPABILITIES:** Merit Sensor designs, engineers, fabricates, dices, assembles, and tests products from a state-of-the-art facility near Salt Lake City, Utah.

### FEATURES

<b>Range</b>	5 to 50 psi (0.34 to 3.5 bar; 34.5 to 345 KPa)
<b>Type</b>	Absolute, gage
<b>Media</b>	Clean, dry air and non-corrosive gases
<b>Packaging</b>	Trays
<b>Customization</b>	Sensitivity, resistance, bridge, constraint, etc.

### BENEFITS

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



### PMD Series Part Number Configurator



**Example:** PMDG-005 is gage, 5psi

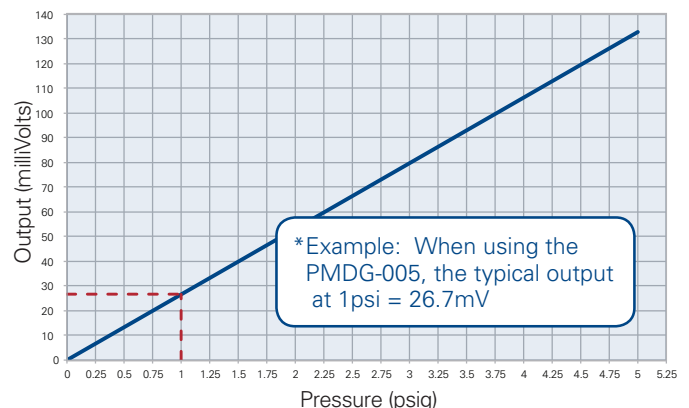
### PMD Series Standard Part Numbers

PMDG-005	PMDA-015	PMDG-050
PMDG-015	PMDG-030	PMDA-050
	PMDA-030	

### Typical Transfer Function (Sensor pn PMDG-005)

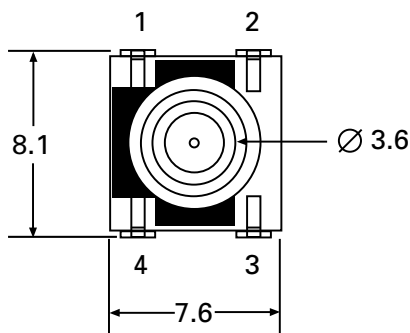
$$V_{out} = (26.7 * P) + \text{Offset} \pm \text{Error}$$

This graph assumes offset = 0mV, Vs = 5.0V, and TEMP = 25°C



**SPECIFICATIONS**

Parameter	Minimum	Typical	Maximum	Units	Notes
<b>Electrical &amp; Environmental</b>					
Excitation (In)		5	15	V	Maximum: 3 mA
Impedance	4000	5000	6000	$\Omega$	
Operating Temperature	-40		85	°C	
Storage Temperature	-55		100	°C	
<b>Mechanical</b>					
Barb Torque Shear	22			lbf	See barb drawing
Barb Torque Shear – <i>Post Exposure</i>	16			lbf	60°C for 7 days @ 95% RH
<b>Performance</b>					
Offset	-5	0	5	mV/V	Zero pressure; gage only; @25°C
Non-linearity	-0.25	0	0.25	% FSO	Best Fit Straight Line; @25°C
Pressure Hysteresis	-0.1	0	0.1	% FSO	@25°C
Temp Coeff – Zero	-25	0	25	$\mu\text{V/V}/^\circ\text{C}$	-40°C to 85°C
Temp Coeff – Resistance	2500	3100	3500	PPM/°C	-40°C to 85°C
Temp Coeff – Sensitivity	-1500	-2000	-2500	PPM/°C	-40°C to 85°C
Thermal Hysteresis	-0.1	0	0.1	% FSO	Zero pressure
Long-Term Stability	-0.1	0	0.1	% FSO	
Burst Pressure	10X				Full scale pressure
<b>Full-Scale Output (@ 5 volts excitation)</b>					
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	

**DIMENSIONS AND ELECTRICAL (millimeters)**


Pin	Out
1	+ In
2	+ Out
3	- In
4	- Out

