PMD Series

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

Range 5 to 50 psi (0.34 to 3.5 bar; 34.5

to 345 KPa)

Type Absolute, gage

Media Clean, dry air and non-corrosive gases

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)

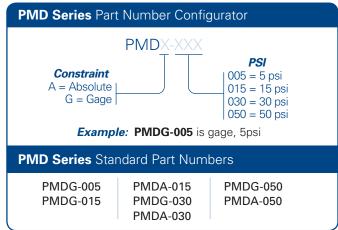
Speed Get to market quickly with creative and

flexible solutions.

Service Experience prompt, personal, and

professional support.

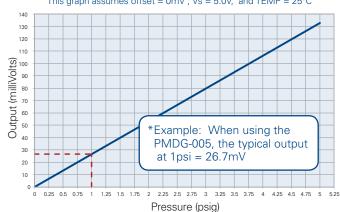




Typical Transfer Function (Sensor pn PMDG-005)

Vout = (26.7 * P) + Offset ± Error

This graph assumes offset = 0mV , Vs = 5.0V, and $TEMP = 25^{\circ}C$

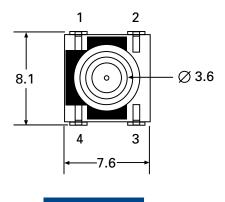




SPECIFICATIONS

Parameter	Minimum	Typical	Maximum	Units	Notes
Electrical & Environmental					
Excitation (In)		5	15	V	Maximum: 3 mA
Impedance	4000	5000	6000	Ω	
Operating Temperature	-40		85	°C	
Storage Temperature	-55		100	°C	
Mechanical					
Barb Torque Shear	22			lbf	See barb drawing
Barb Torque Shear – <i>Post Exposure</i>	16			lbf	60°C for 7 days @ 95% RH
Performance					
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	μV/V/°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
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	

DIMENSIONS AND ELECTRICAL (millimeters)



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

