MERIT SENSOR™

DATA SHEET

AP Series

The AP Series is calibrated at room temperature using laser trimmed resistors and is 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.

TECHNOLOGY: Merit Sensor utilizes a piezoresistive Wheatstone bridge with a chemically etched silicon diaphragm. All products are RoHS compliant.

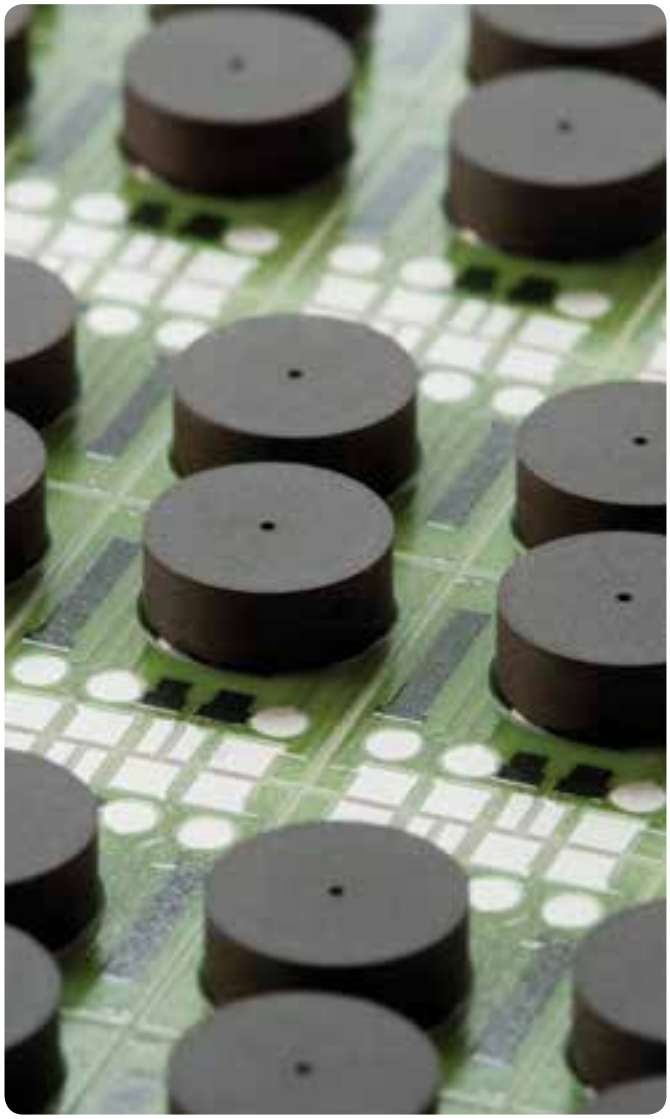
CAPABILITIES: Merit Sensor designs, engineers, fabricates, dices, assembles, and tests products from a state-of-the-art facility near Salt Lake City, Utah.

FEATURES

Range	-15 to 300 psi (-1 to 20.7 bar; -103 to 2,068 KPa) Also available in higher pressures
Type	Gage
Media	Air, gases and liquids
Packaging	Bulk
Flexibility	Custom options available

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



AP Series Standard Part Number

505071004

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1600 W. Merit Parkway • South Jordan, Utah • 84095 • USA

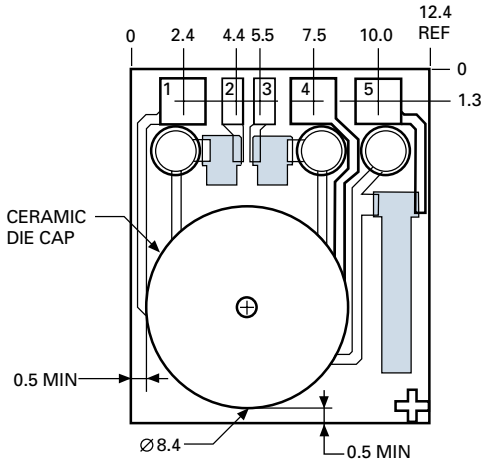
SPECIFICATIONS

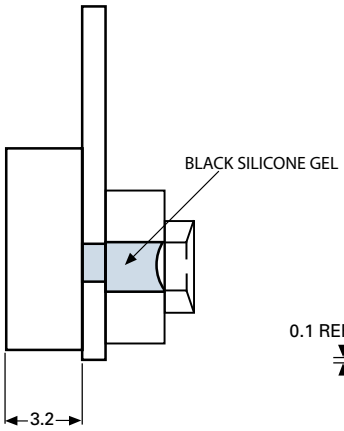
Parameter	Minimum	Typical	Maximum	Units	Notes
General					
Pressure Range	-15		300	PSI	
Burst Pressure	3X			Full scale pressure	
Electrical (22°C unless otherwise stated)					
Input Excitation	2.4	5	6	VDC	
Input Impedance	8000	12000	16000	ohms	
Output Impedance	4000	5000	6000	ohms	
Environmental					
Temp (Comp/Operating)	10	25	40	°C	
Temperature (Storage)	-25		60	°C	
Storage Life			5	Years	
Performance					
Offset	4.5	6.0	7.5	mV/5V	
Sensitivity	64.868	65.523	66.178	uV/V/psi	
Linearity	-1	0	1	%FSO (BFSL)	
Hysteresis	-1		1	%FSO	
Accuracy*	-2	0	2	%FSO	

* The combined effect of Sensitivity, Repeatability, Nonlinearity, and Hysteresis errors over the temperature range of 25°C to 15°C, and 25°C to 40°C, expressed as a percent of Full Scale pressure (%FS).

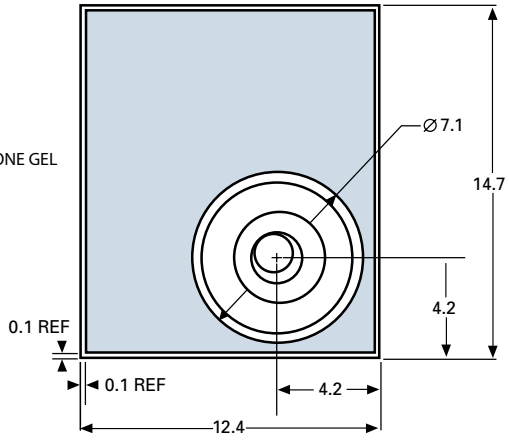
DIMENSIONS (millimeters)

CIRCUIT SIDE VIEW





GEL SIDE VIEW



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

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