

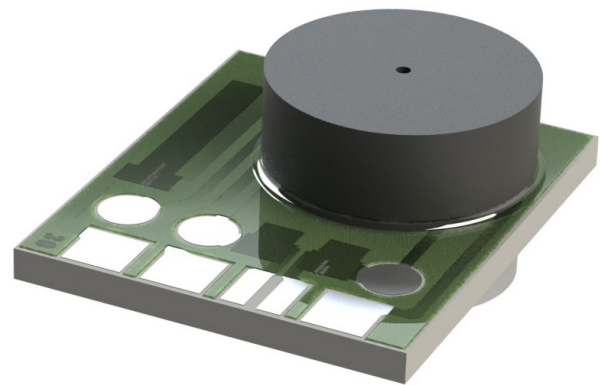


The AP Series is calibrated using laser trimmed resistors and is suitable for medical, industrial and consumer applications.

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 and REACH 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

Ranges	0 to 500 psi (0 to 35 bar), -15 to 300 psi (-1 to 20 bar), 0 to 60 psi (0 to 4 bar) Also available in low pressure ranges
Type	Gage, vacuum
Media	Air, gases and liquids
Flexibility	Custom options available

BENEFITS

Performance	Enjoy best-in-class performance due to Merit's proprietary Sentium technology.
Speed	Get to market quickly with creative and flexible solutions
Service	Experience prompt, personal, and professional support



AP Series Standard Part Number

APT-0300G-001-T01

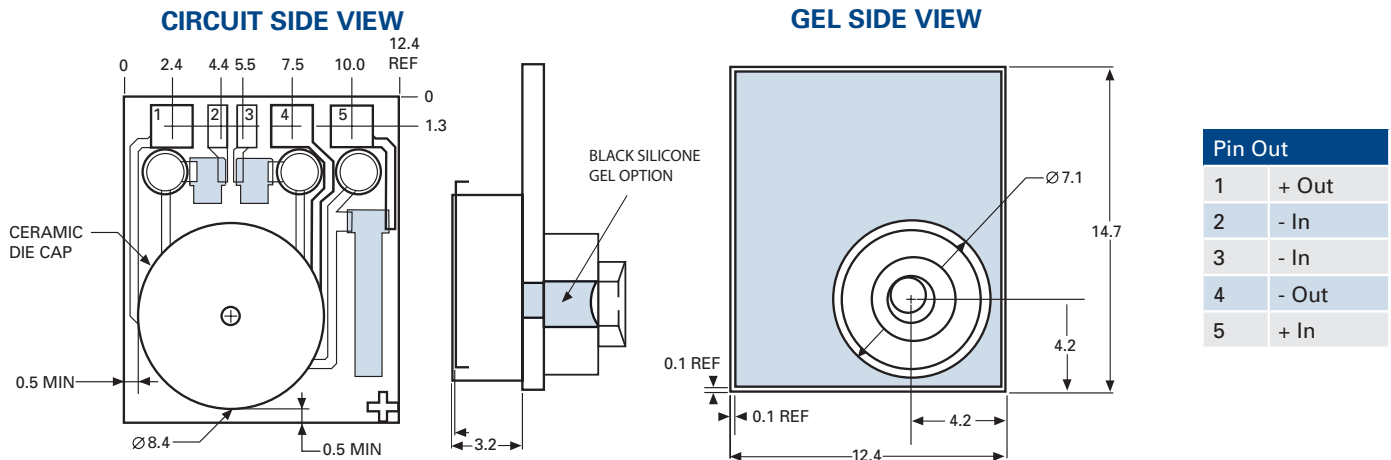
300psi, Gage, 6mV offset, with gel

SPECIFICATIONS

Parameter	Minimum	Typical	Maximum	Units	Notes
Electrical (22°C unless otherwise stated)					
Input Excitation	1	5	10	VDC	
Input Impedance	8000	12000	16000	ohms	
Output Impedance	4000	5000	6000	ohms	
Environmental					
Temp (Comp/Operating)	10	25	40	°C	
Temperature (Storage)	-55		60	°C	
Weight		1.17		Grams	with Gel
Performance					
Standard Part = APT-0300G-001-T01					
Pressure Range	-15		300	psi	
Offset	4.5	6.0	7.5	mV	Zero pressure: @25°C
Sensitivity		0.308		mV/psi @ 5V	equivalent to 65.523 uV/V/psi
Standard Part = APT-0060G-001-T02					
Pressure Range	0		60	psi	
Offset	0	2.5	4	mV	Zero pressure: @25°C
Sensitivity		0.792		mV/psi @ 5V	equivalent to 158.33 uV/V/psi
Accuracy*	-2	0	2	%FSO	10° – 40°C
Burst Pressure	3X				Full scale pressure

* The combined effect of Sensitivity, Nonlinearity, and Hysteresis errors over the operating temp range.

DIMENSIONS (millimeters)



TRANSFER FUNCTION EXAMPLE

300psi T01 Transfer Function
(Sensor pn APT-0300G-001-T01):

$$V_{out} = (0.308 P) + \text{Offset} \pm \text{Error}$$

*This graph assumes Offset = 6mV, error = 0mV,
Vs = 5.0V, and TEMP = 25°C*

