

**The BP Series** is ideal for high-volume, disposable medical applications for blood pressure monitoring.

**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, tests, sells and services die and packaged products from a state-of-the-art facility near Salt Lake City, Utah.

## FEATURES

<b>Range</b>	-30 to 300 mmHg (-0.58 to 5.8 psi; 40 to 400 mbar; 4 to 40 KPa). Also available in higher pressures
<b>Type</b>	Gage
<b>Media</b>	Air, gases and liquids
<b>Packaging</b>	Packaged die with gel on ceramic substrate
<b>Flexibility</b>	Custom options available

## BENEFITS

<b>Performance</b>	Compliant with the AAMI BP22 specification
<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



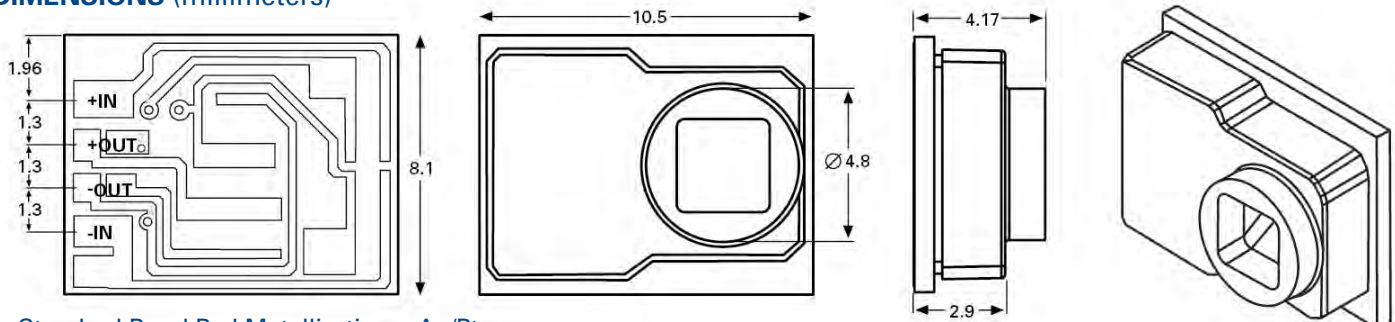
**BP Series** Standard Part Number

901051001

**SPECIFICATIONS**

Parameter	Minimum	Typical	Maximum	Units	Notes
<b>General</b>					
Pressure Range	-30		300	mmHg	
Overpressure	125			PSI	
<b>Electrical (22°C unless otherwise stated)</b>					
Input Excitation	1		10	VDC	Calibrated to 6 VDC
Risk Current			2	μA	5
Input Impedance	200			Ω	Per AAMI BP 22
Output Impedance	285		315	Ω	
<b>Environmental</b>					
Temp (Comp/Operating)	15		40	°C	
Temperature (Storage)	-25		70	°C	
Humidity	10		90	%	
Light Sensitivity			1	mmHg	
Operating Product Life	168			Hours	
Shelf Life	3			Years	
<b>Mechanical</b>					
Weight			2	Grams	
Volume Displacement			.02	mm <sup>3</sup>	
Media Interface					Medical grade, dielectric gel
Gel Tube Interface Material					Polycarbonate
<b>Performance 1</b>					
Offset	-25	0	25	mmHg	Zero
Sensitivity	4.95	5	5.05	μV/V/mmHg	
Calibration	97.5	100	102.5	mmHg	2
Symmetry			5	%	
Accuracy (-30 to 50 mmHg)	-1 mmHg - 1% of Reading	0	+1 mmHg + 1% of Reading		6
Accuracy (50 to 300 mmHg)	-3	0	3	% output	6
Temp Coeff – Zero	-0.3	0	0.3	mmHg/°C	3
Temp Coeff – Sensitivity	-0.1	0	0.1	%/°C	3
Frequency Response	1,200			Hz	5
Phase Shift			5	degrees	5
Offset Drift			1	mmHg/8 hrs	4, 5

1. Assumes 6 VDC, 22°C and after five second warm-up unless otherwise specified.
2. Output of sensor with no pressure applied and a 150 KΩ resistor shorted across + IN to + OUT.
3. Over a temperature range of 15°C to 40°C.
4. Normalized offset/bridge voltage – 8hours after 20 second warm-up.
5. Previously qualified, not tested in production.
6. Combined effect of sensitivity, repeatability, nonlinearity and hysteresis errors.

**DIMENSIONS (millimeters)**


Standard Bond Pad Metallization = Ag/Pt