



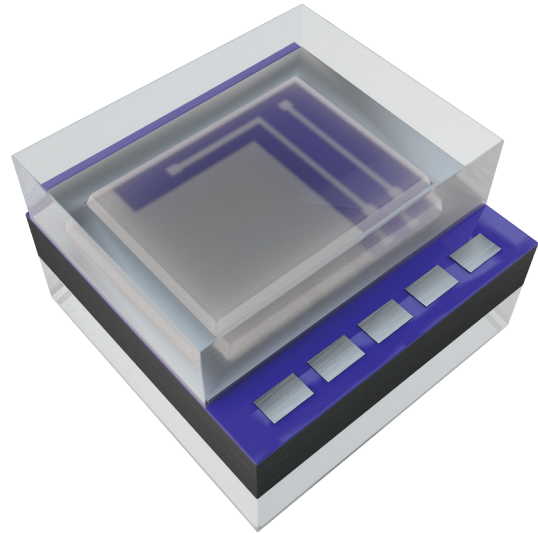
**The HM Series** is ideal for high-volume, low and medium pressure, harsh-media applications.

**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 150°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.



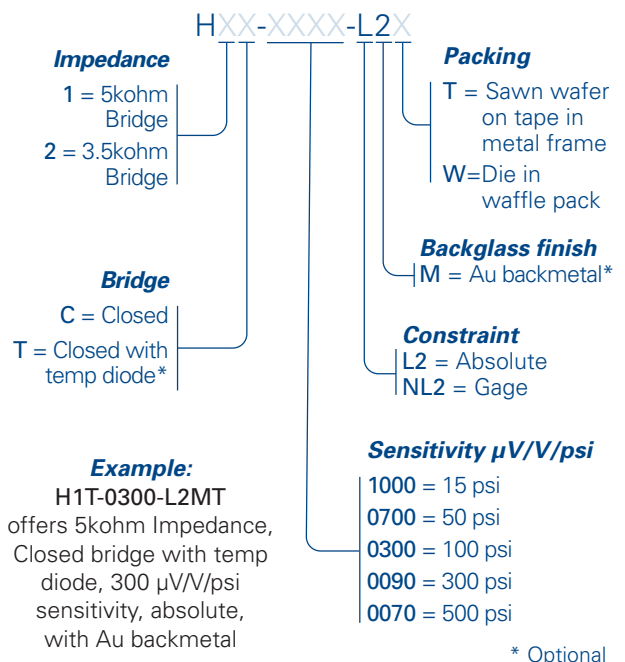
## FEATURES

<b>Range</b>	15 to 500 psi (1 to 34.5 bar; 103 to 3,447 KPa)
<b>Type</b>	Absolute; pressurized from cavity side Gage; pressurized from either side of the diaphragm
<b>Media</b>	Air, gases and liquids that are compatible with silicon and glass
<b>Shipping</b>	Wafers on tape, waffle pack
<b>Flexibility</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

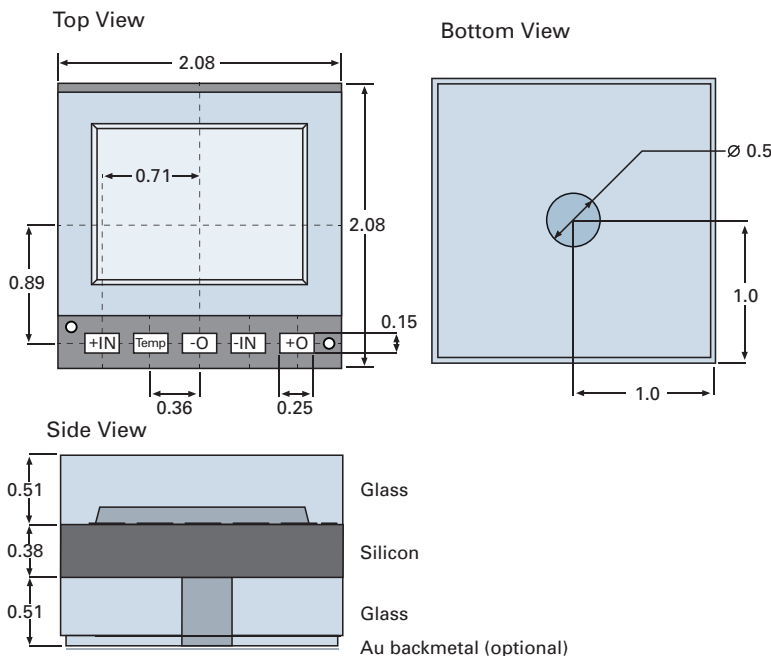
## HM Series Part Number Configurator



## SPECIFICATIONS

Parameter	Minimum	Typical	Maximum	Units	Notes
<b>Electrical &amp; Environmental</b>					
Excitation (I <sub>n</sub> )		5	15	V	Maximum: 3 mA
Impedance	4000	5000	6000	Ω	Optional: 3,500 +/- 500
Operating Temperature	-40		150	°C	Sentium® technology
Storage Temperature	-55		160	°C	
<b>Performance</b>					
Offset	-10	0	10	mV/V	Zero pressure; gage only; @25°C
Non-linearity	-0.2	0	0.2	% 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 150°C
Temp Coeff – Resistance	2300	2800	3300	PPM/°C	-40°C to 150°C
Temp Coeff – Sensitivity	-1500	-2200	-2500	PPM/°C	-40°C to 150°C
U <sub>diode</sub> @ I <sub>S</sub> = 40uA	350	530	800	mV	Room Temp
TC of U <sub>diode</sub>	-4.0		-1.0	mV/°C	-40 to 150C
Long-Term Stability	-0.2	0	0.2	% FSO	
Long-Term Stability (15psi only)	-0.4	0	0.4	% FSO	
Burst Pressure	5X				Full scale pressure
Burst Pressure (500 psi part)	1500			psi	
<b>Full-Scale Output (@ 5 volts excitation)</b>					
15 psi (1 bar; 103 KPa)	60	75	90	mV	Other outputs available upon request
40 psi (2.8 bar; 275.8 KPa)	104	130	156	mV	
100 psi (6.9 bar; 689.5 KPa)	120	150	180	mV	
300 psi (20.7 bar; 2,068 KPa)	110	135	160	mV	
500 psi (34.5 bar; 3,447 KPa)	140	175	210	mV	

## DIMENSIONS (millimeters, post cut)



## ELECTRICAL

