



The MS Series is a surface-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 Sentiium® 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	15 to 500 psi (1 to 34.5 bar; 103 to 3,447 KPa)
Type	Absolute, gage
Media	Clean, dry air and non-corrosive gases
Packaging	Substrates, covers, gels, etc.
Flexibility	Sensitivity, resistance, bridge, constraint, etc.

BENEFITS

Performance	Enjoy best-in-class performance due to Merit's proprietary Sentiium 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.



MS Series Part Number Configurator

MXX-XXXX-XX			
Impedance 1 = 5kohm Closed Bridge 2 = 3.5kohm Closed Bridge			Cover 1 = No Gel 2 = Gel ^{1,2}
Constraint 1 = Absolute 2 = Gage			Cap 1 = Ceramic Cap 2 = Round Ceramic Chimney
PSI 0015 = 15 psi 0050 = 50 psi 0100 = 100 psi 0300 = 300 psi 0500 = 500 psi			See reverse for dimensions

Example: M11-0015-11 offers 5kohm Impedance, Closed Bridge, Absolute Constraint, 15 psi, Ceramic Cap, No Gel

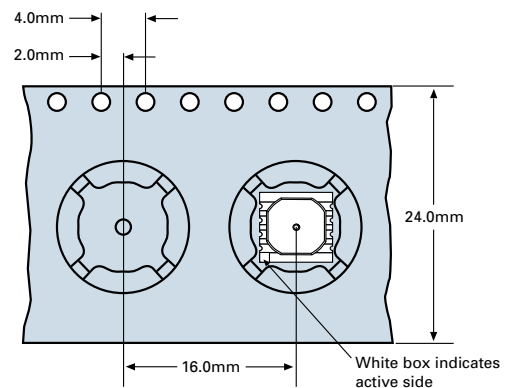
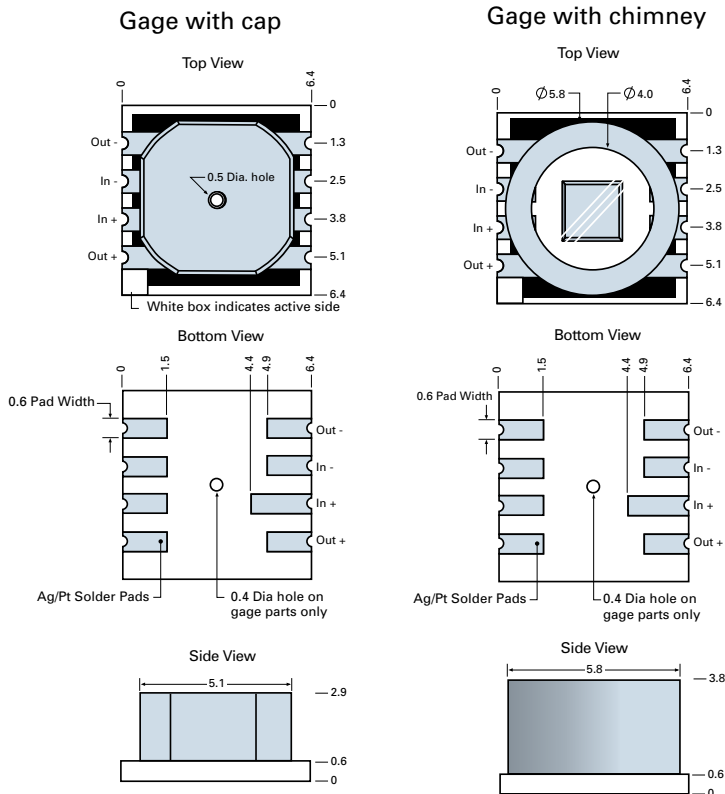
¹ Not available with cap. ² Not available above 100 psi.

MS Series Standard Part Numbers

M11-0015-11	M22-0300-11	M21-0015-21
M11-0050-11	M22-0500-11	M21-0050-21
M11-0100-11	M11-0015-21	M21-0100-21
M11-0300-11	M11-0050-21	M21-0300-21
M11-0500-11	M11-0100-21	M21-0500-21
M12-0015-11	M11-0300-21	M22-0015-21
M12-0050-11	M11-0500-21	M22-0050-21
M12-0100-11	M12-0015-21	M22-0100-21
M12-0300-11	M12-0050-21	M22-0300-21
M12-0500-11	M12-0100-21	M22-0500-21
M21-0015-11	M12-0300-21	M21-0015-22
M21-0050-11	M12-0500-21	M21-0050-22
M21-0100-11	M11-0015-22	M21-0100-22
M21-0300-11	M11-0050-22	M22-0015-22
M21-0500-11	M11-0100-22	M22-0050-22
M22-0015-11	M12-0015-22	M22-0100-22
M22-0050-11	M12-0050-22	
M22-0100-11	M12-0100-22	

SPECIFICATIONS

Parameter	Minimum	Typical	Maximum	Units	Notes
Electrical & Environmental					
Excitation (In)		5	15	V	Maximum: 3 mA
Impedance	4000	5000	6000	Ω	Optional: 3,500 +/- 500
Operating Temperature	-40		85	°C	Sentium® technology
Storage Temperature	-55		160	°C	
Performance					
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	$\mu\text{V/V}/^\circ\text{C}$	-40°C to 85°C
Temp Coeff – Resistance	2300	2800	3300	PPM/°C	-40°C to 85°C
Temp Coeff – Sensitivity	-1500	-2200	-2500	PPM/°C	-40°C to 85°C
Thermal Hysteresis	-0.1	0	0.1	% FSO	Zero pressure
Burst Pressure	2X				Room Temperature
Full-Scale Output (@ 5 volts excitation)					
15 psi (1 bar; 103 KPa)	60	75	90	mV	Closed bridge only
50 psi (3.4 bar; 345 KPa)	100	125	150	mV	
100 psi (6.9 bar; 689 KPa)	120	150	180	mV	
300 psi (20.7 bar; 2068 KPa)	120	150	180	mV	
500 psi (34.5 bar; 3447 KPa)	140	175	210	mV	

DIMENSIONS AND ELECTRICAL (millimeters)
PACKAGING AND SHIPPING (millimeters)


Absolute and Gage available