



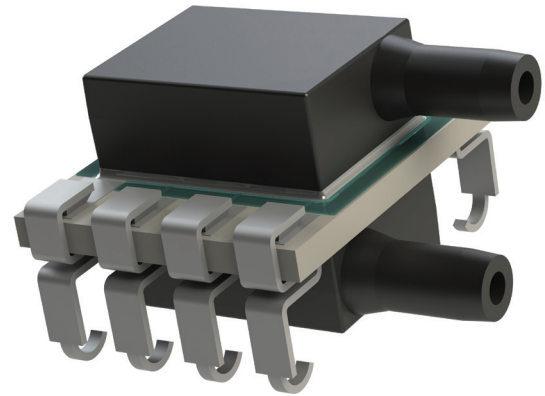
LP Series - Uncompensated is a surface mountable pressure sensor package with an uncompensated output suitable for ultra-low pressure sensing applications.

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



FEATURES

Pressure Range	0.15 to 1 psi (10.3 to 68.9 mbar; 1.03 to 6.89 KPa; 4.2 to 27.7 inH <sub>2</sub> O)
Type	Gage and Differential
Media	Clean, Dry Air and Non-corrosive Gases
Packaging	Tape and Reel
Customization	Sensitivity, Resistance, Bridge, Constraint, etc.

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

**1400 Family Part Number Configurator**

14XX-XXXX-XX

**Bridge**  
01 = Open  
02 = Closed

**Pressure**  
P15 = .15psi  
P20 = .20psi  
P30 = .30psi  
P50 = .50psi  
1P0 = 1.0psi

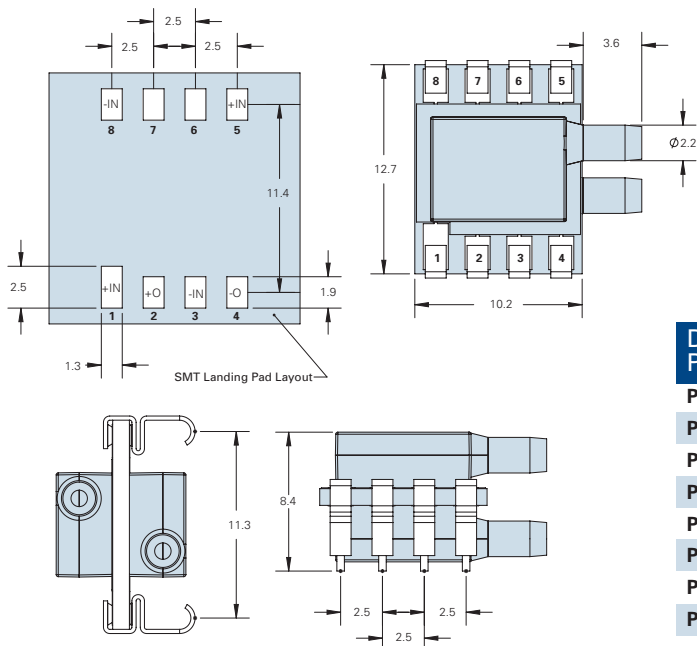
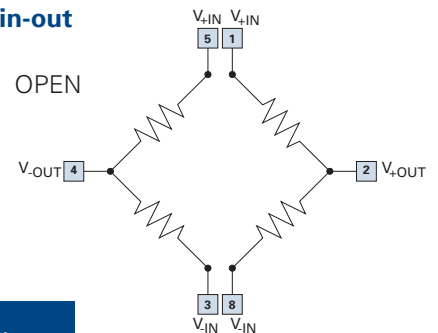
**Pin Type**  
1 = J-lead

**Port**  
1 = Dual horizontal, facing same side

**Reference**  
D = Differential

**SPECIFICATIONS**

Parameter	Minimum	Typical	Maximum	Units	Notes
<b>Electrical</b>					
Excitation (In)		5	15	V	Maximum: 3mA
Impedance	4000	5000	6000	Ω	
Operating Temperature	-40		85	°C	
Storage Temperature	-55		100	°C	
<b>Performance</b>					
Offset	-10	0	10	mV/V	Zero Pressure; gage only; @25°C
Non-linearity	-0.25	0	0.25	% FSO	Best Fit Straight Line; @25°C
Pressure Hysteresis	-0.1	0	0.1	% FSO	@25°C
Temp Coeff – Zero	-20	0	20	μV/V/°C	-25°C to 75°C
Temp Coeff – Resistance	2000	2500	3000	PPM/°C	-25°C to 75°C
Temp Coeff – Sensitivity (0.15psi)	-2500	-3000	-3500	PPM/°C	-25°C to 75°C
Temp Coeff – Sensitivity (0.2psi – 1psi)	-2000	-2500	-3000	PPM/°C	-25°C to 75°C
Long-Term Stability	-0.25	0	0.25	% FSO	@125°C
Proof Pressure	5X				Full scale pressure
Burst Pressure	10psi				
<b>Full Scale Output (@ 5 volts)</b>					
0.15psi	30	37.5	45	mV	
0.20psi	32	40	48	mV	
0.30psi	36	45	54	mV	
0.50psi	40	50	60	mV	
1.00psi	40	50	60	mV	
<b>Media Compatibility</b>					
For Use with non-corrosive dry gasses					
Solder temperature: max 250 °C, 5 seconds max					

**DIMENSIONS (millimeters)**

**SENSOR BRIDGE Pin-out**


Device Pinout	Open	Close
<b>P1</b>	+IN	+IN
<b>P2</b>	+O	+O
<b>P3</b>	-IN	-IN
<b>P4</b>	-O	-O
<b>P5</b>	+IN	N/C
<b>P6</b>	N/C	N/C
<b>P7</b>	N/C	N/C
<b>P8</b>	-IN	N/C