



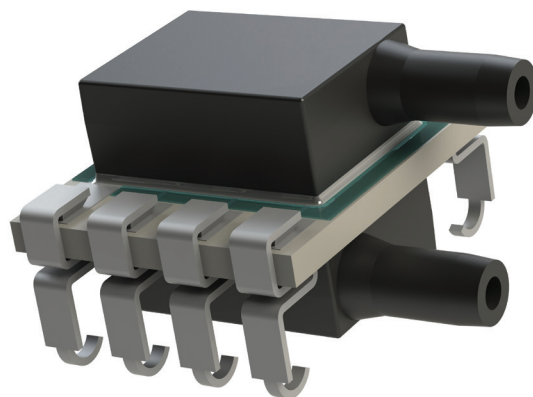
LP Series - Uncompensated is a surface mountable pressure sensor package with an uncompensated output suitable for **ultra-low pressure sensing applications**.

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



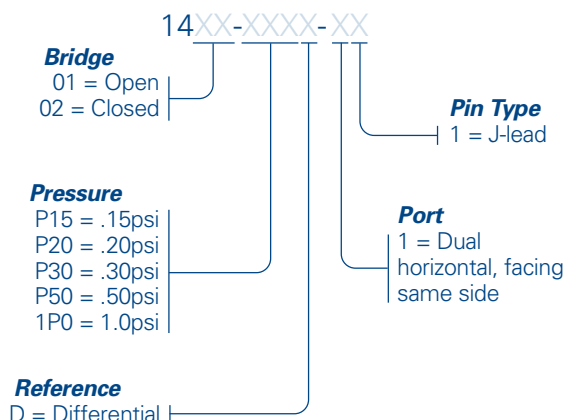
FEATURES

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 ₂ O)
Type	Gage and Differential
Media	Clean, Dry Air and Non-corrosive Gases
Packaging	Tape and Reel
Customization	Sensitivity, Resistance, Bridge, Constraint, etc.

BENEFITS

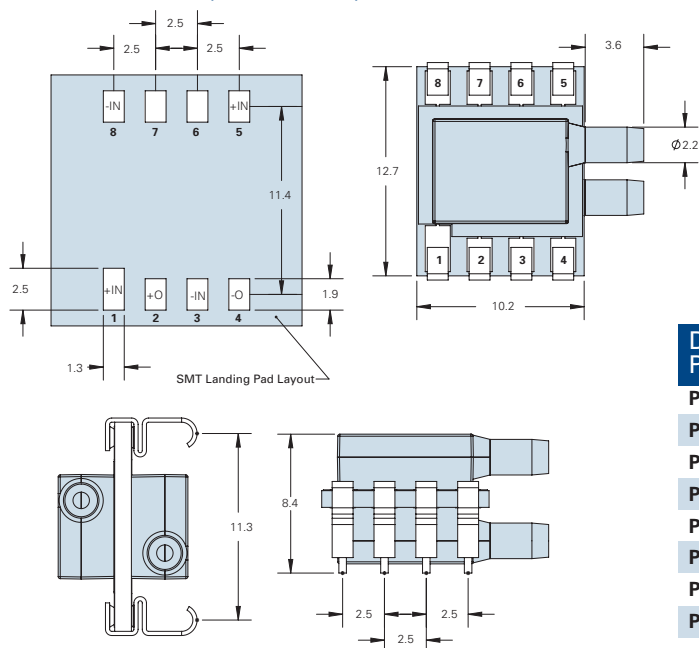
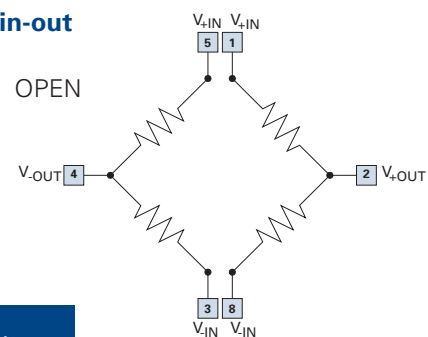
Performance	Enjoy best-in-class performance due to Merit's proprietary Sentiium technology
Cost	Save money over time with high-performing die
Security	Feel confident doing business with an experienced company backed by a solid parent company (NASDAQ: MMSI)
Speed	Get to market quickly with creative and flexible solutions
Service	Experience prompt, personal and professional support

1400 Family Part Number Configurator



SPECIFICATIONS

Parameter	Minimum	Typical	Maximum	Units	Notes
Electrical					
Excitation (In)		5	15	V	Maximum: 3mA
Impedance	4000	5000	6000	Ω	
Operating Temperature	-40		85	°C	
Storage Temperature	-55		100	°C	
Performance					
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	$\mu\text{V/V}/^\circ\text{C}$	-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				
Full Scale Output (@ 5 volts)					
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	
Media Compatibility					
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
P1	+IN	+IN
P2	+O	+O
P3	-IN	-IN
P4	-O	-O
P5	+IN	N/C
P6	N/C	N/C
P7	N/C	N/C
P8	-IN	N/C

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Merit Sensor:

<u>1401-P30G-11</u>	<u>1402-1P0G-11</u>	<u>1402-P15G-11</u>	<u>1402-P15D-11</u>	<u>1402-P30G-11</u>	<u>1401-1P0G-11</u>	<u>1402-0015G-11</u>
<u>1401-P15G-11</u>	<u>1402-0050G-11</u>	<u>1402-0005G-11</u>	<u>1402-1P0D-11</u>	<u>1401-1P0D-11</u>	<u>1402-P30D-11</u>	<u>1401-P30D-11</u>