



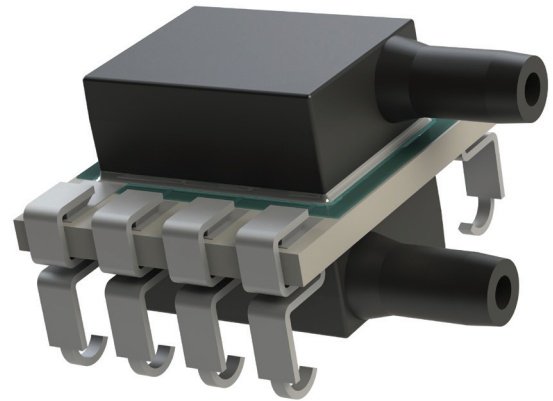
LP Series - Digital is a surface mountable pressure sensor package with a compensated digital output suitable for ultra-low pressure sensing applications.

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.



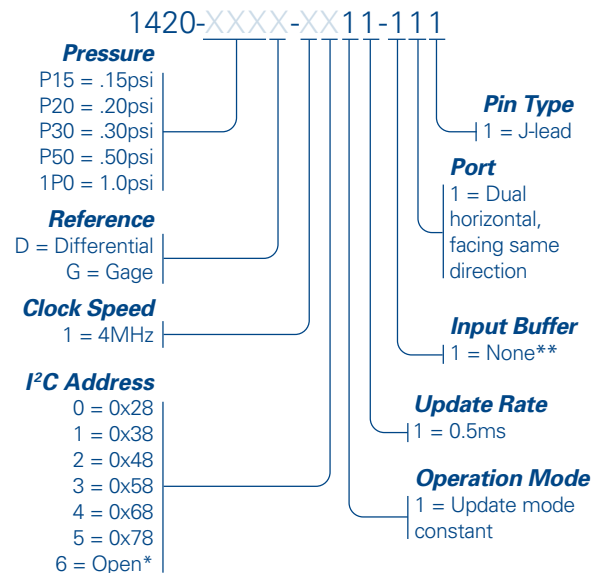
FEATURES

Pressure Range	0.15 to 1 psi (10.3 to 68.9 mbar; 1.03 to 6.89 KPa; 4.2 to 27.7 in H ₂ O)
Output	I ² C
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

1420 Family Part Number Configurator



*Device will respond to any address.

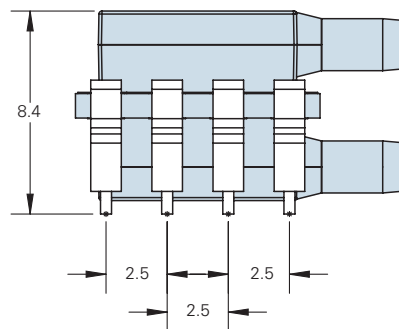
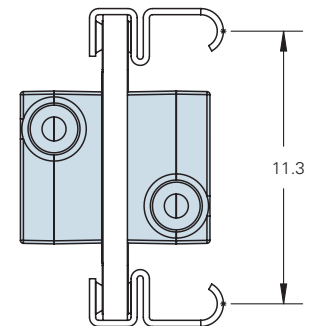
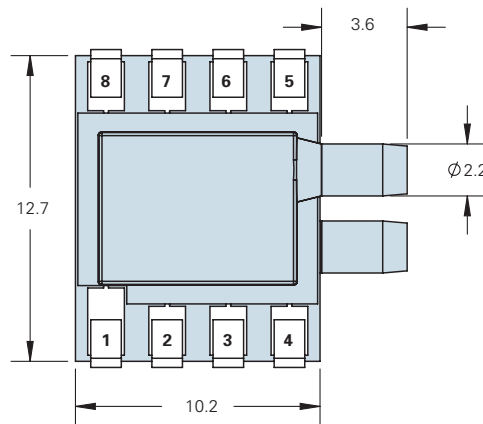
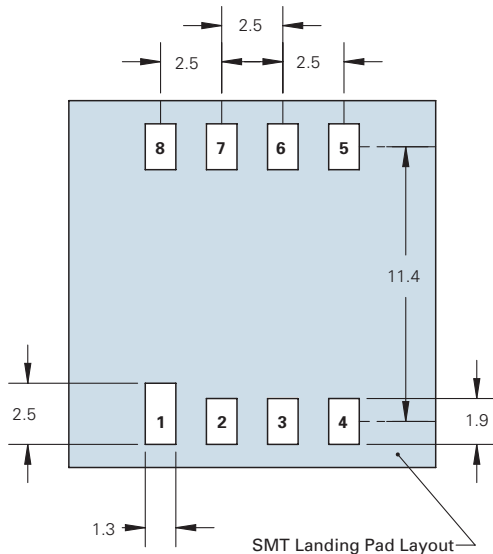
**47nF capacitor recommended between Vdd and Ground.

SPECIFICATIONS

Parameter	Minimum	Typical	Maximum	Units	Notes
Electrical					
Supply Voltage (Vdd)	4.5	5	5.5	V	
Supply Current		3		mA	(1)
Operating Temperature	-40		85	°C	
Storage Temperature	-55		100	°C	
Performance					
Pressure ADC Resolution			14	Bits	
Temperature ADC Resolution			10	Bits	
Pressure Accuracy	-1.5		1.5	% FSO	(2) (3)
Startup time			8	ms	
Digital update time	0.5		125	ms	
Proof Pressure	5X				(4)
Burst Pressure	10 psi				
Media Compatibility					
For Use With Non-corrosive Dry Gasses					
Solder temperature: max 250 °C, 5 seconds max					

Notes:

- (1) @5V input voltage,
- (2) Over 0°C to 60°C
- (3) Applicable if Vdd = 4.75V to 5.25V
- (4) Full scale pressure

DIMENSIONS (millimeters)

Device Pinout

- P1** = Vdd - Supply voltage
- P2** = N/C
- P3** = N/C
- P4** = VSS - Ground
- P5** = N/C
- P6** = SS - I²C conversion complete signal/SPI slave select
- P7** = SDA/MISO - I²C data/SPI data
- P8** = SCL/SCLK - I²C clock/SPI clock