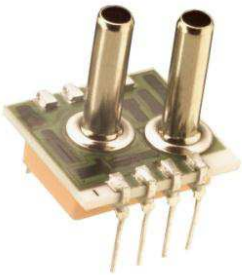
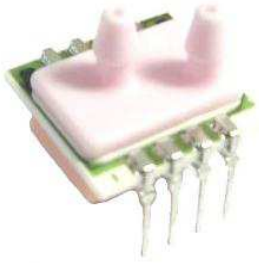




1210

Sub psi

SPECIFICATIONS

- **PC Board Mountable Pressure Sensor**
- **40 mV Output Typical**
- **Differential Pressures**
- **Metal Tube and Ceramic Barbed Ports**
- **Temperature Compensated**

The 1210 sub PSI is a temperature compensated, piezoresistive silicon pressure sensor packaged in a dual-in-line configuration. It is intended for cost sensitive applications where excellent performance and long-term stability are required.

Integral temperature compensation is provided over a range of 0-60ºC using laser-trimmed resistors. An additional laser-trimmed resistor is included to normalize pressure sensitivity variations by programming the gain of an external differential amplifier. This provides sensitivity interchangeability of ±1%. Differential pressure ranges from 0-5 (12.5mB) to 0-10 (25mB) inches of H_2O are available. Multiple leads, metal or ceramic barbed tubes are available for specific applications.

Please refer to the 1210 1psi and standard datasheet for information on products with operating pressures greater than 1psi.

FEATURES

- Dual-in-Line Package
- Ceramic Barbed Ports Option
- 3/32 in. ID Hosing [2.4mm]
- ±0.5% Non Linearity
- ±1.0% Temperature Performance
- 1.0% Interchangeable Span (provided by gain set resistor)
- Solid State Reliability

APPLICATIONS

- Sleep Apnea
- Respirators/Ventilators
- Air Duct Flow
- Medical Instrumentation

STANDARD RANGES

Pressure	Gauge	Differential
0 to 5	1S,3S,1L,3L,3B	1S,3S,1L,3L,3B
0 to 10	1S,3S,1L,3L,3B	1S,3S,1L,3L,3B

PERFORMANCE SPECIFICATIONS

Supply Current: 1.5 mA
Ambient Temperature: 25ºC (unless otherwise specified)

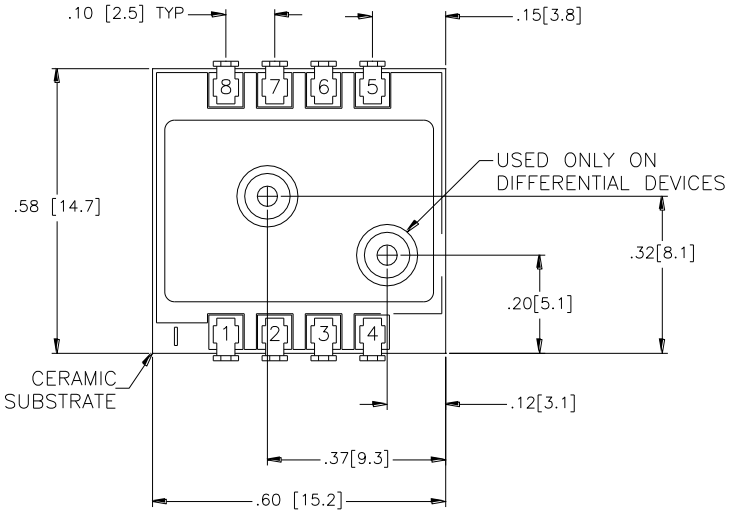
PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Span	20	40	75	mV	1
Zero Pressure Output	-2		2	mV	
Pressure Non Linearity	-0.5	±0.3	0.5	% Span	2
Pressure Hysteresis	-0.25	±0.15	0.25	% Span	
Input & Output Resistance	1000	3600	4500	Ω	
Temperature Error – Span	-1.0	±0.5	1.0	% Span	3
Temperature Error – Zero	-1.25	±0.5	1.25	% Span	3
Thermal Hysteresis – Zero		±0.1		% Span	3
Supply Current		1.5	2.0	mA	
Response Time (10% to 90%)		200		µS	4
Output Noise (10Hz to 1kHz)		1.0		µV p-p	
Long Term Stability		±0.2		%Span	5
Pressure Overload			200	in H_2O	
Compensated Temperature	0		60	°C	
Operating Temperature	-25		+85	ºC	
Storage Temperature	-40		+125	ºC	
Weight			3	grams	
Media	Non-Corrosive Dry Gases Compatible with Silicon, Pyrex, RTV, Gold, Ceramic, Nickel, and Aluminum				

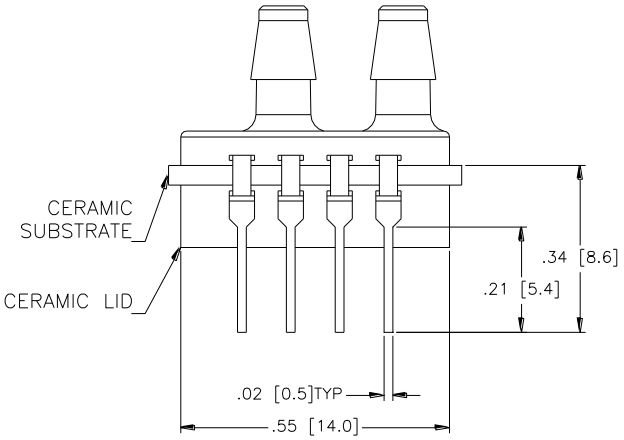
Notes

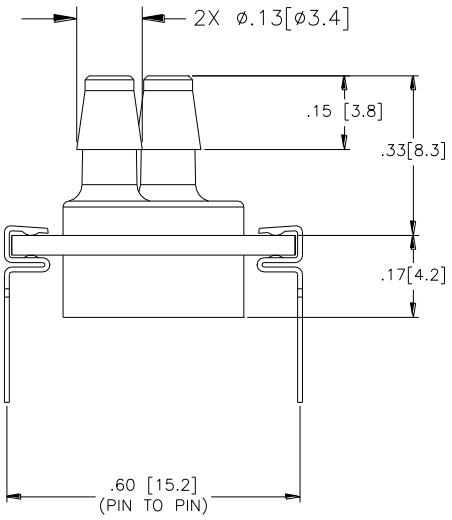
1. Ratiometric to supply current.
2. Best fit straight line. Non linearity for 10inH20 is 0.75%
3. Maximum temperature error between 0°C and 60°C with respect to 25°C.Thermal error of offset for 5inH20 is 2.0%
4. For a zero-to-full scale pressure step change.
5. Long term stability over a one year period with constant current and temperature.

DIMENSIONS

'BARB' VERSION
DIMENSIONS IN INCHES [mm]



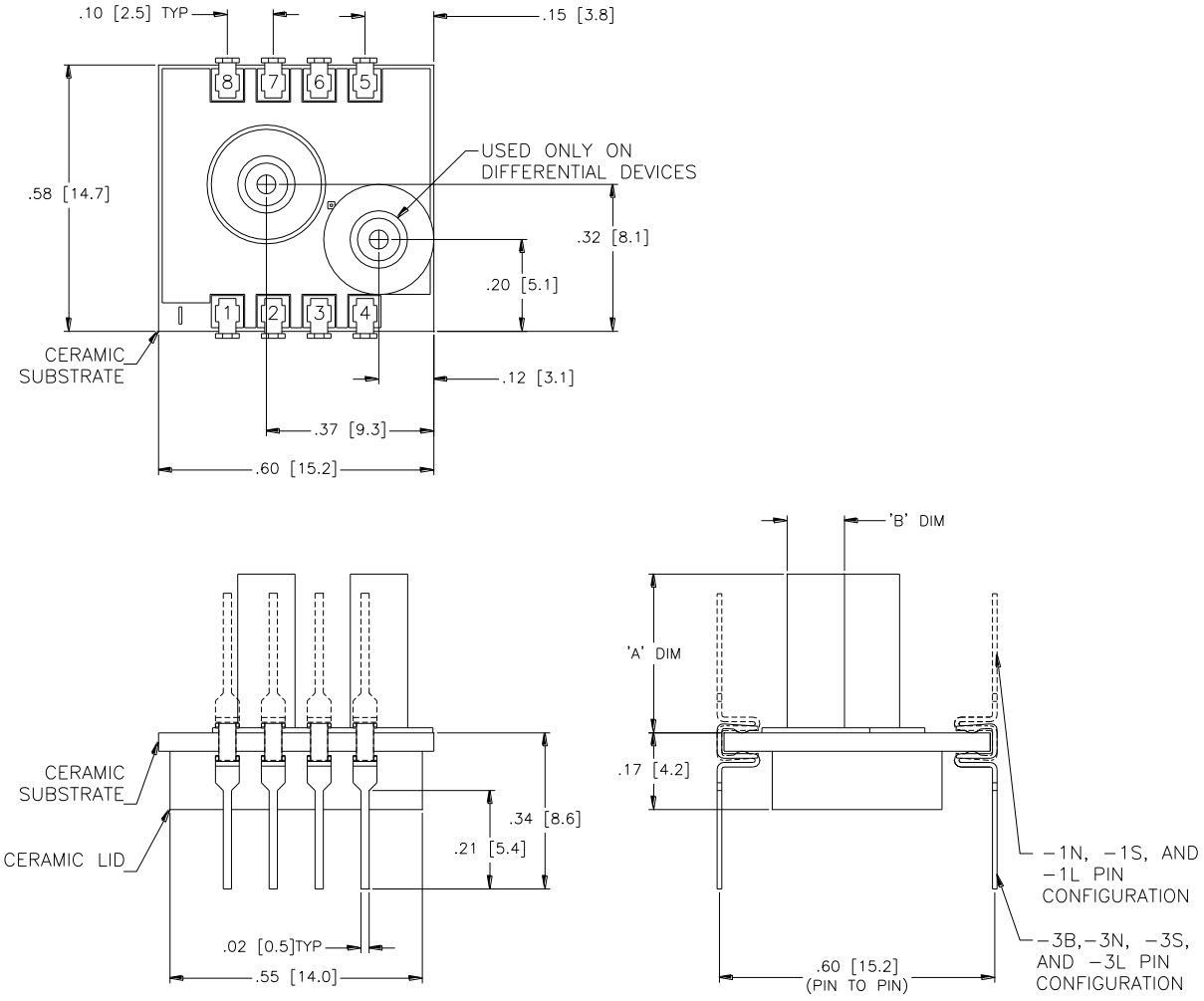




PAD NO	FUNCTION
1	−OUT
2	−EX
3	+OUT
4	+EX
5,6	GAIN
7,8	TEST

'TUBE' VERSION

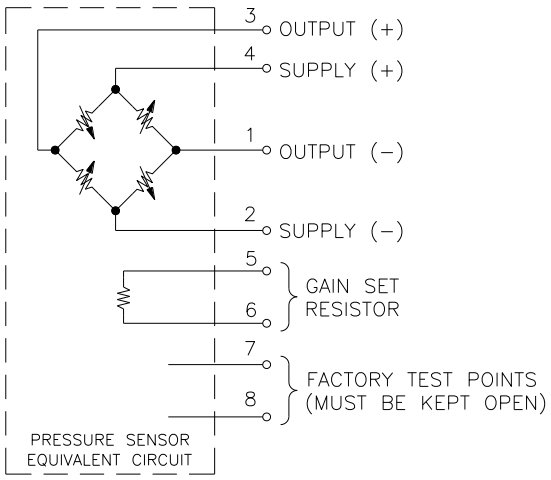
DIMENSIONS IN INCHES [mm]



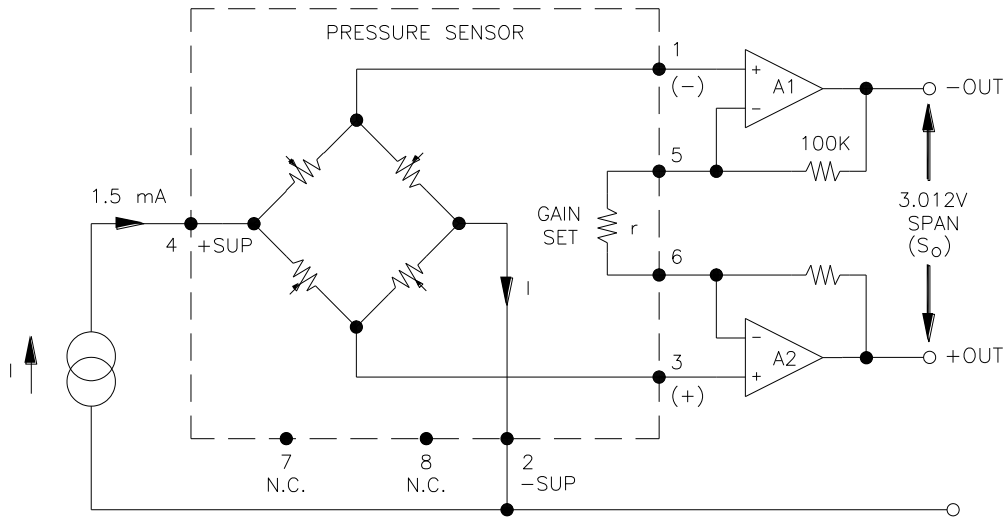
VENT TUBE DIMENSIONS		
MODEL	'A' DIM	'B' DIM
1N/3N	N/A	N/A
1L/3L	.490±.005 [12.45±0.13]	ø.127±.005 [ø3.23±0.13]
1S/3S	.325±.005 [8.26±0.13]	ø.125±.005 [ø3.18±0.13]

PAD NO	FUNCTION
1	-OUT
2	-EX
3	+OUT
4	+EX
5,6	GAIN
7,8	TEST

CONNECTIONS

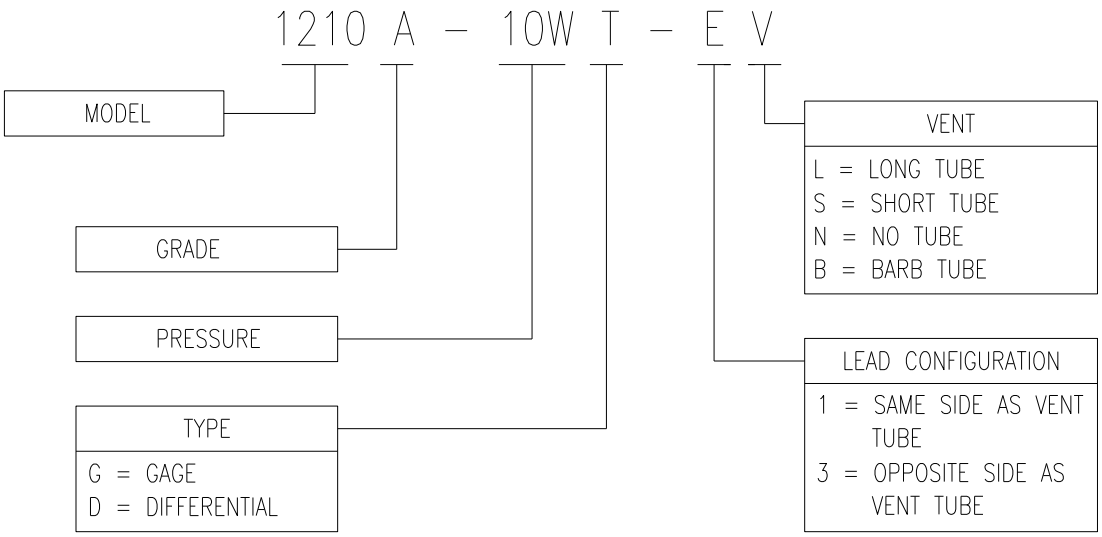


APPLICATION SCHEMATIC



APPLICATION SCHEMATIC

ORDERING INFORMATION



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