

1210

1psi

SPECIFICATIONS

- **PC Board Mountable Pressure Sensor**
- **0-100 mV Output**
- **Current Excitation**
- **Gage and Differential**
- **Temperature Compensated**

The 1210 1psi 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 0-50°C 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%.

Please refer to the 1210 standard datasheet for information on products with operating pressures greater than 1psi. For voltage excitation, please refer to the Model 1220.

FEATURES

- Dual-in-Line Package
- 1.0% Interchangeable Span (provided by gain set resistor)
- ±0.3% Non Linearity
- Solid State Reliability

APPLICATIONS

- Medical Instruments
- Airspeed Measurement
- Process Control
- Factory Automation
- Leak Detection

STANDARD RANGES

Range	psid	psig	Port Styles
0 to 1	•	•	S, L, N, B*

*Barb port styles are only available in lead configuration type 3. See Ordering Information.

PERFORMANCE SPECIFICATIONS

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

	PRESSURE RANGE 0 – 1 psi				
PARAMETERS	**MIN**	**TYP**	**MAX**	**UNITS**	**NOTES**
Full Scale Output Span	50	100	150	mV	1
Zero Pressure Output (Offset)	-2.0		2.0	mV	
Pressure Non Linearity	-0.3		0.3	%Span	2
Pressure Hysteresis	-0.1	±0.01	0.1	%Span	
Input/Output Resistance	1800		6500	Ω	
Temperature Error – Span	-1.0	±0.5	1.0	%Span	3
Temperature Error – Zero	-1.0	±0.5	1.0	%Span	3
Thermal Hysteresis – Zero		±0.1		%Span	3
Long Term Stability (Offset & Span)		±0.2		%Span/year	
Supply Current	0.5	1.5	2.0	mA	4
Response Time (10% to 90%)		1.0		mSec	5
Output Noise		1.0		µV p-p	6
Output Load Resistance	2			MΩ	7
Insulation Resistance (50Vdc)	50			MΩ	
Pressure Overload			10	psi	
Operating Temperature	-40		+125	°C	
Storage Temperature	-50		+150	°C	
Media	Non-Corrosive Dry Gases Compatible with wetted materials				8
Weight	3 grams				

Notes

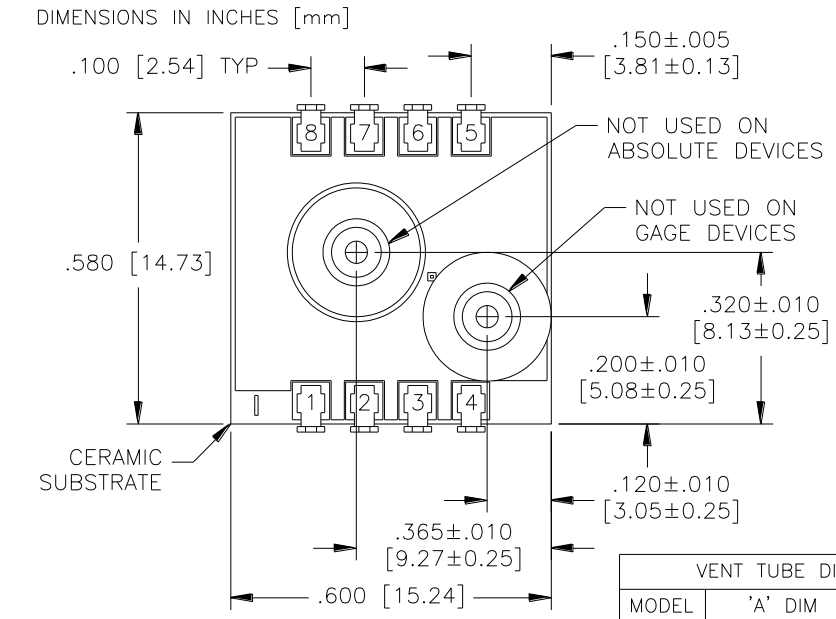
1. Output span of unamplified sensor.
2. Best fit straight line.
3. Temperature range: 0°C to 50°C with reference to 25°C.
4. Guarantees input/output ratiometricity for span.
5. For a zero-to-full scale pressure step change.
6. 10Hz to 1kHz.
7. Prevents increase of TC-Span due to output loading.

Wetted materials: glass, ceramic, silicon, fluorosilicone, nickel, gold and aluminum

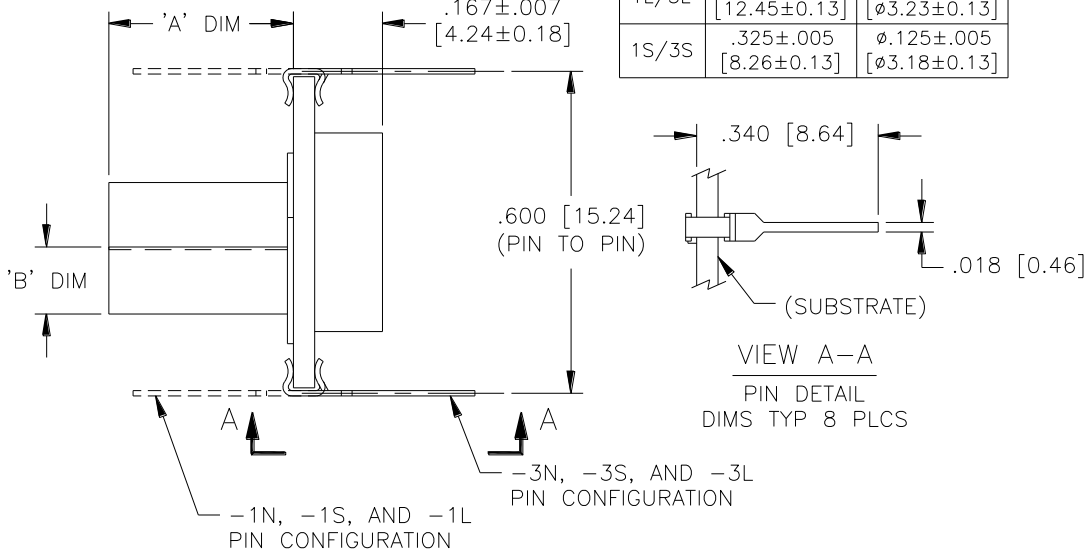
Additional Notes

Soldering leads pins: 250°C for 5 seconds, maximum.

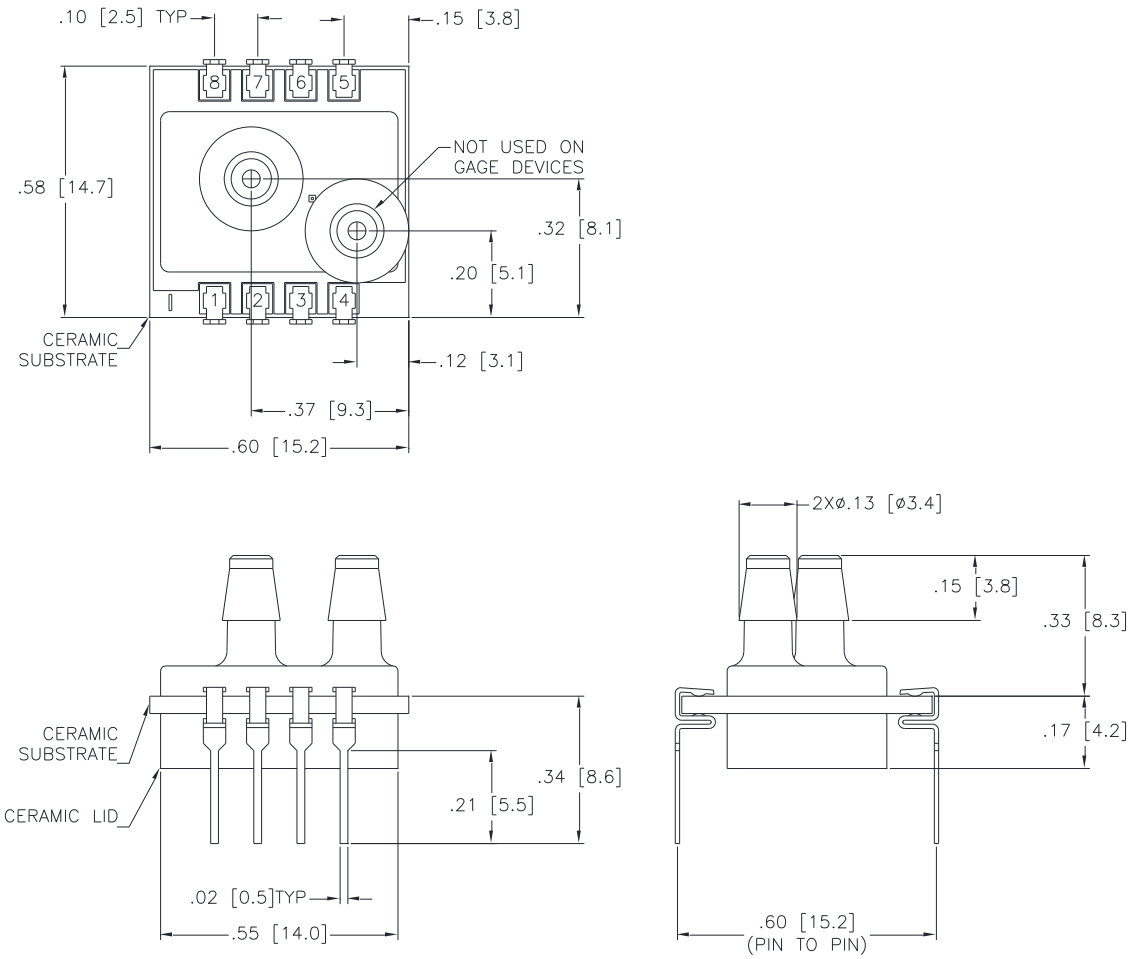
DIMENSIONS (TUBE VERSION)



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]

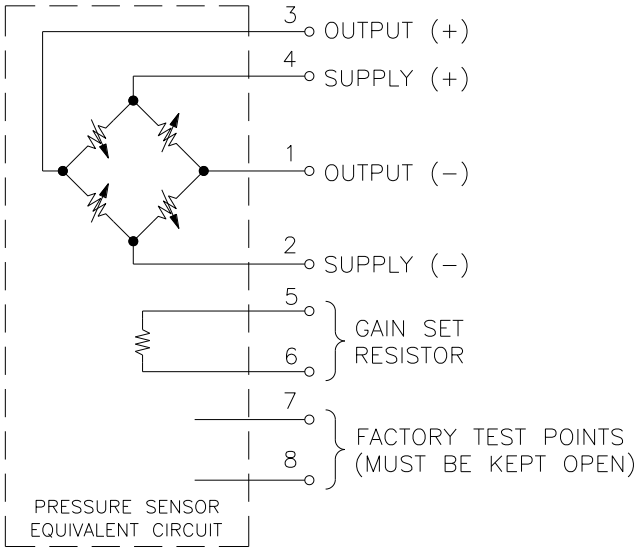


DIMENSIONS (BARB VERSION)

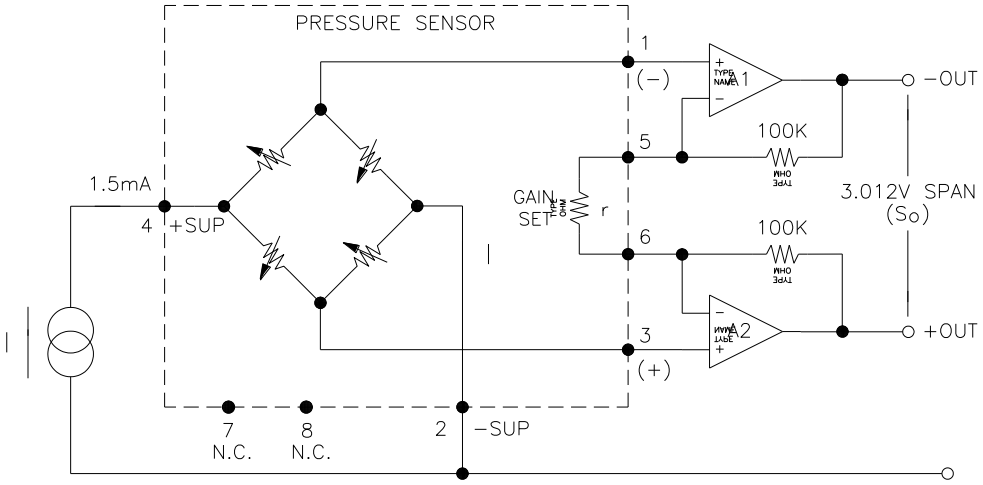


PAD NO	FUNCTION
1	−OUT
2	−EX
3	+OUT
4	+EX
5,6	GAIN
7,8	TEST

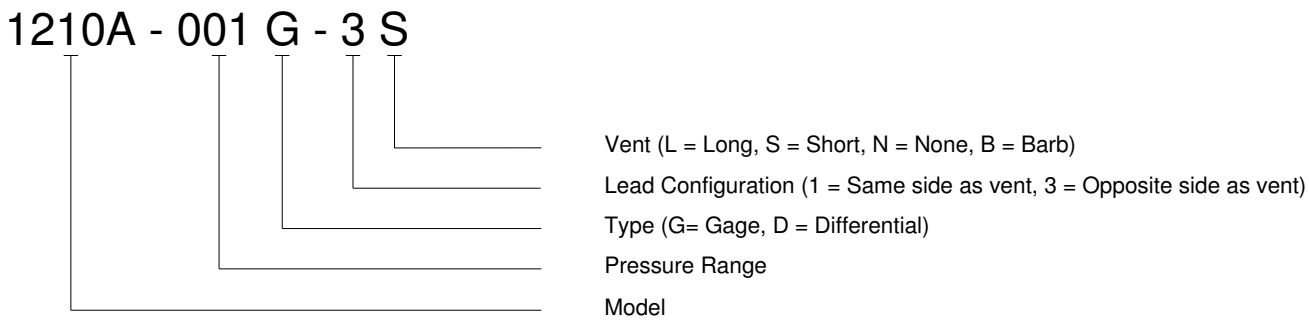
CONNECTIONS



APPLICATION SCHEMATIC



ORDERING INFORMATION



*Barb vent port style only available in lead configuration type 3.

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