

## 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  $\pm 1\%$ .

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)
- $\pm 0.3\%$  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)

PARAMETERS	PRESSURE RANGE 0 – 1 psi			UNITS	NOTES
	MIN	TYP	MAX		
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

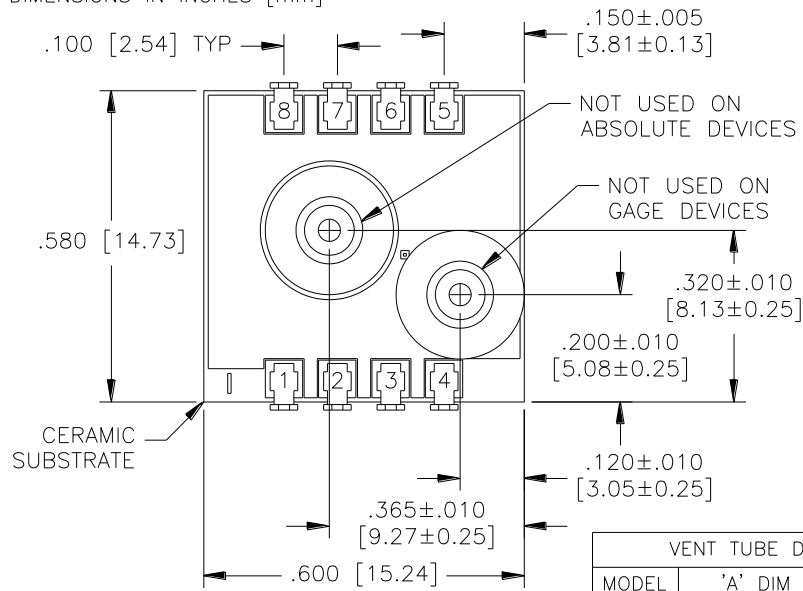
1. Output span of unamplified sensor.
  2. Best fit straight line.
  3. Temperature range: 0°C to 50°C with reference to 25°C.
  4. Guarantees input/output ratiometricity for span.
  5. For a zero-to-full scale pressure step change.
  6. 10Hz to 1kHz.
  7. Prevents increase of TC-Span due to output loading.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

### Additional Notes

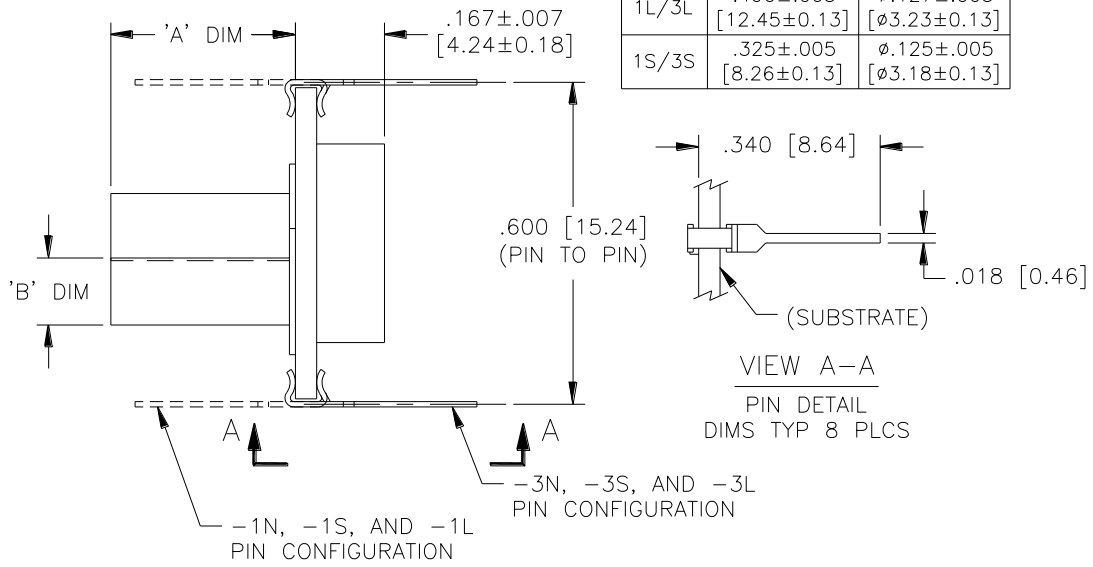
Soldering leads pins: 250°C for 5 seconds, maximum.

DIMENSIONS (TUBE VERSION)

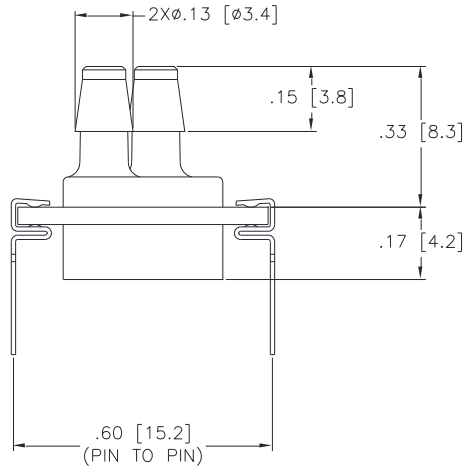
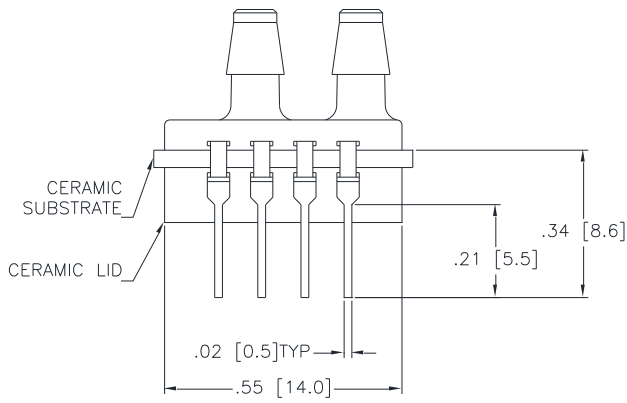
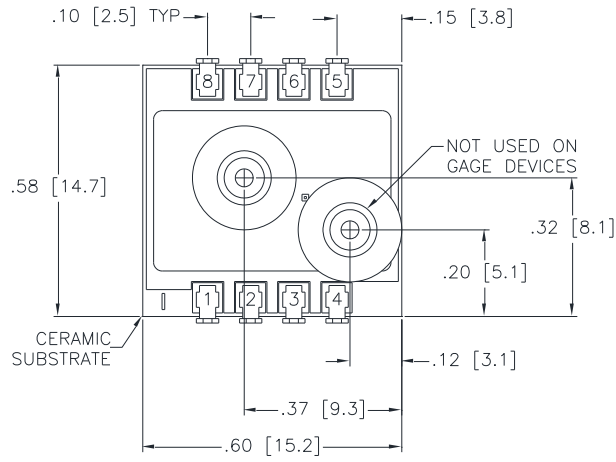
DIMENSIONS IN INCHES [mm]



VENT TUBE DIMENSIONS		
MODEL	'A' DIM	'B' DIM
1N/3N	N/A	N/A
1L/3L	.490±.005 [12.45±0.13]	∅.127±.005 [∅3.23±0.13]
1S/3S	.325±.005 [8.26±0.13]	∅.125±.005 [∅3.18±0.13]

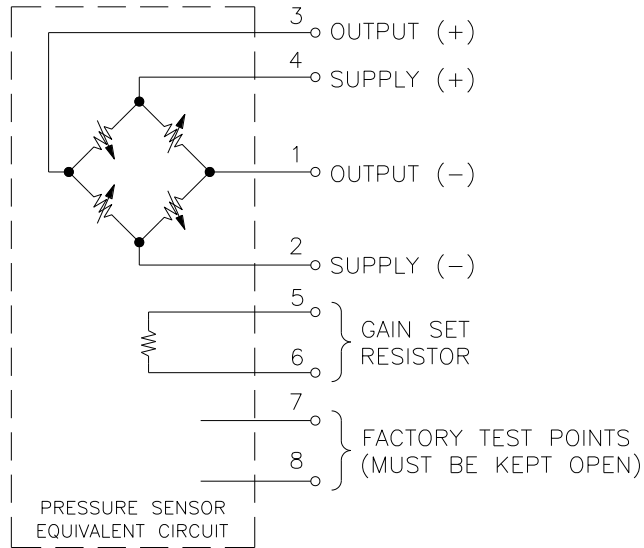


DIMENSIONS (BARB VERSION)

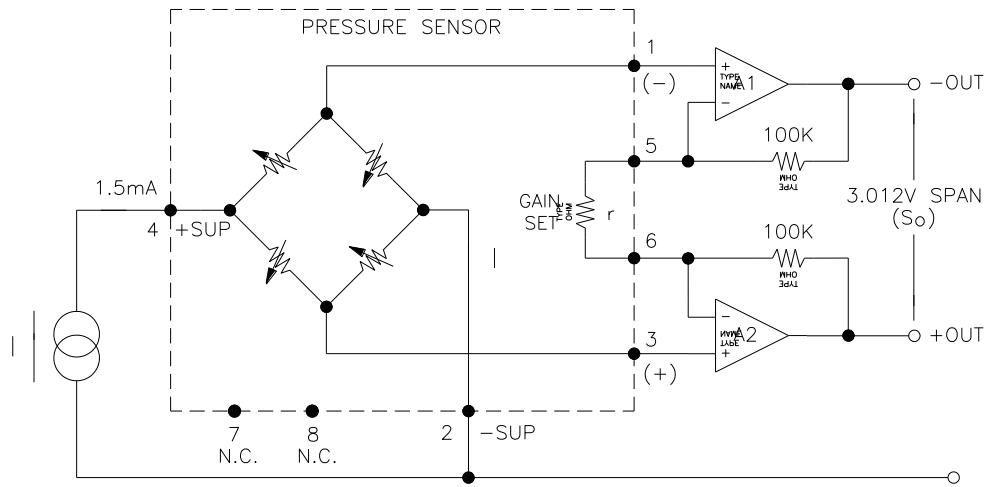


PAD NO	FUNCTION
1	-OUT
2	-EX
3	+OUT
4	+EX
5,6	GAIN
7,8	TEST

## CONNECTIONS

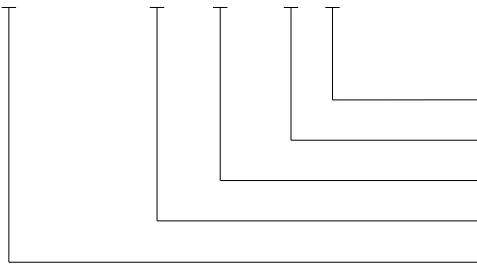


## APPLICATION SCHEMATIC



## ORDERING INFORMATION

1210A - 001 G - 3 S



Vent (L = Long, S = Short, N = None, B = Barb)

Lead Configuration (1 = Same side as vent, 3 = Opposite side as vent)

Type (G= Gage, D = Differential)

Pressure Range

Model

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

**NORTH AMERICA**

Measurement Specialties, Inc.,  
a TE Connectivity Company  
Tel: 800-522-6752  
[customercare.frmt@te.com](mailto:customercare.frmt@te.com)

**EUROPE**

Measurement Specialties (Europe), Ltd.,  
a TE Connectivity Company  
Tel: 800-440-5100  
[customercare.bevx@te.com](mailto:customercare.bevx@te.com)

**ASIA**

Measurement Specialties (China), Ltd.,  
a TE Connectivity Company  
Tel: 0400-820-6015  
<mailto:customer-care.shzn@te.com>

**TE.com/sensorsolutions**

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.

# Mouser Electronics

Authorized Distributor

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

## TE Connectivity:

[1210A-002D-3L](#) [1210A-005D-3L](#) [1210A-100A-3L](#) [1210A-001D-3L](#) [1210A-030D-3L](#) [1210A-015A-3L](#) [1210A-005A-3L](#)  
[1210A-015D-3L](#) [1210A-030A-3L](#) [1210A-100D-3L](#) [1210A-100G-3S](#) [1210A-030D-3S](#) [1210A-100D-3S](#) [1210A-10WD-](#)  
[3S](#) [1210A-015D-3S](#) [1210A-001D-3S](#) [1210A-015G-3L](#) [1210A-015A-3N](#) [1210A-100G-3N](#) [1210A-001G-3S](#) [1210A-](#)  
[005G-3S](#) [1210A-002D-3S](#) [1210A-015G-3S](#) [1210A-005D-3S](#) [1210A-002D-3N](#) [1210A-100G-1S](#) [1210A-015A-3S](#)  
[1210A-100G-3L](#)