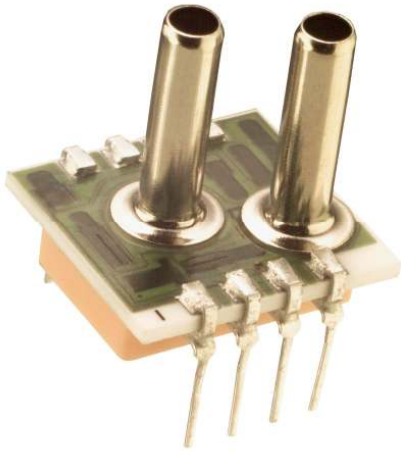


## Model 1220 1 psi



- PC Board Mountable Pressure Sensor
- 0-50 mV Output
- Voltage Excitation
- Gage and Differential
- Temperature Compensated

### DESCRIPTION

The Model 1220 is a temperature compensated, piezoresistive silicon pressure sensor packaged in a dual-in-line configuration and intended for cost sensitive applications where excellent performance and long-term stability are required.

When using the 1220 with a fixed voltage reference and current set resistor as shown in the application schematic, a span of 50mV and 1% interchangeability can be achieved. Integral temperature compensation is provided over a range of 0-50°C using laser-trimmed resistors.

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

### FEATURES

- Dual-in-Line Package
- 0°C to 50°C Compensated Temperature Range
- $\pm 0.3\%$  Non Linearity
- 1.0% Interchangeable Span (provided by current set resistor)
- Solid State Reliability

### APPLICATIONS

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

### STANDARD RANGES

Range	psid	psig
0 to 1	•	•

# Model 1220 1psi

## PERFORMANCE SPECIFICATIONS

Supply Voltage: See application schematic

Ambient Temperature: 25°C (unless otherwise specified)

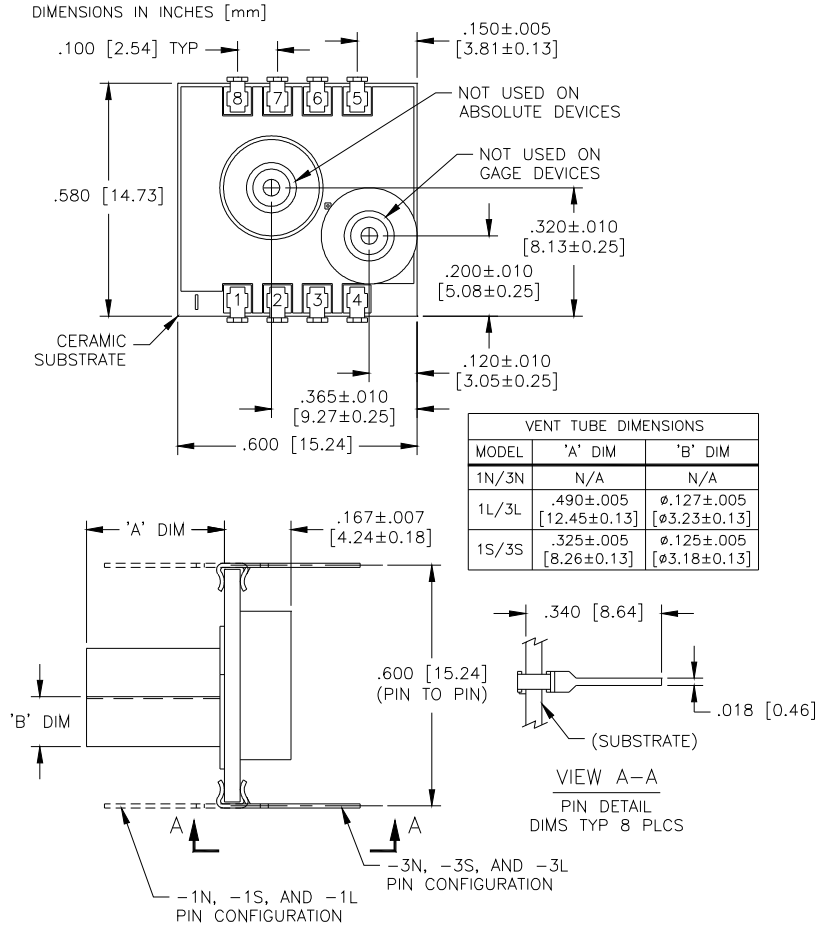
PARAMETERS	PRESSURE RANGE 0 – 1 psi			UNITS	NOTES
	MIN	TYP	MAX		
Span	49.5	50	50.5	mV	1
Zero Pressure Output	-2		2	mV	2
Pressure Non Linearity	-0.3	±0.2	0.3	%Span	
Pressure Hysteresis	-0.05	±0.01	0.05	%Span	
Input & Output Resistance	1800		4500	Ω	
Temperature Error – Span	-1.0	±0.5	1.0	%Span	3
Temperature Error – Zero	-1.0	±0.5	1.0	%Span	3
Thermal Hysteresis – Zero		±0.1		%Span	3
Supply Voltage Reference		1.235		V	1
Response Time (10% to 90%)		1.0		mS	4
Output Noise (10Hz to 1kHz)		1.0		μV p-p	
Long Term Stability (Offset & Span)		±0.2		%Span	5
Pressure Overload			10	psi	
Compensated Temperature	0		50	°C	
Operating Temperature	-40		+125	°C	
Storage Temperature	-50		+150	°C	
Weight			3	grams	
Solder Temperature	250°C Max 5 Sec.				
Media	Non-Corrosive Dry Gases Compatible with Silicon, Pyrex, RTV, Gold, Ceramic, Nickel, and Aluminum				

### Notes

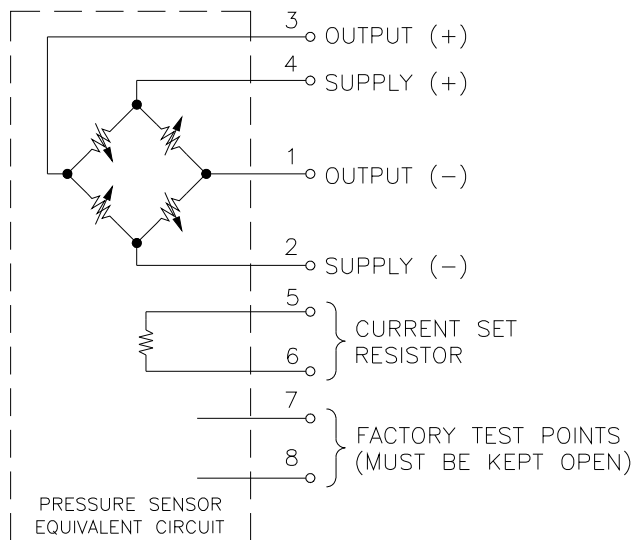
1. Refer to application schematic.
2. Best fit straight line.
3. Maximum temperature error between 0°C and 50°C with respect to 25°C.
4. For a zero-to-full scale pressure step change.
5. Long term stability over a one year period with constant voltage and temperature.

# Model 1220 1psi

## DIMENSIONS

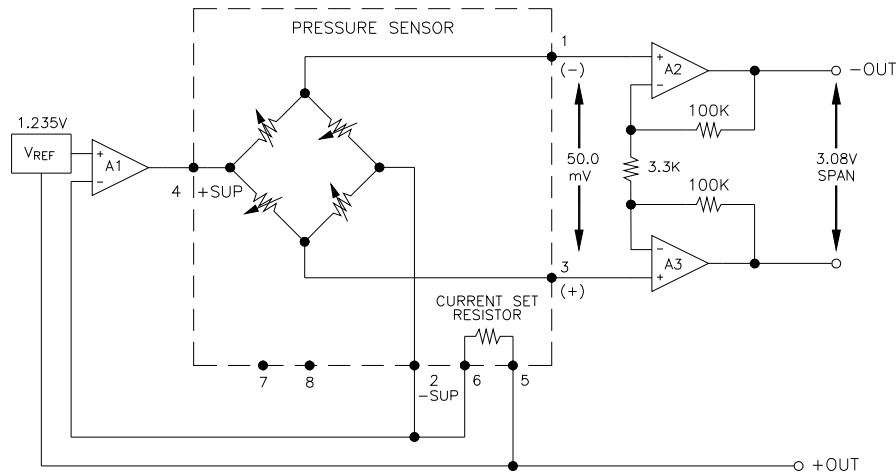


## CONNECTIONS



# Model 1220 1psi

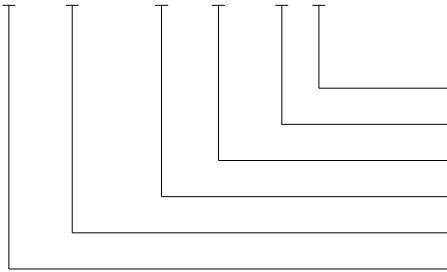
## APPLICATION SCHEMATIC



APPLICATION SCHEMATIC

## ORDERING INFORMATION

1220 A - 001 G - 3 S



Pressure Tubes (L = Long, S = Short, N = None)  
 Lead Configuration (1,3 - See Dimensions Diagram)  
 Type (G= Gage, D = Differential)  
 Pressure Range  
 Grade  
 Model

### NORTH AMERICA

Measurement Specialties  
 45738 Northport Loop West  
 Fremont, CA 94538  
 Tel: 1-800-767-1888  
 Fax: 1-510-498-1578  
 Sales: [pfg.cs.amer@meas-spec.com](mailto:pfg.cs.amer@meas-spec.com)

### EUROPE

Measurement Specialties  
 (Europe), Ltd.  
 26 Rue des Dames  
 78340 Les Clayes-sous-Bois, France  
 Tel: +33 (0) 130 79 33 00  
 Fax: +33 (0) 134 81 03 59  
 Sales: [pfg.cs.emea@meas-spec.com](mailto:pfg.cs.emea@meas-spec.com)

### ASIA

Measurement Specialties  
 (China), Ltd.  
 No. 26 Langshan Road  
 Shenzhen High-Tech Park (North)  
 Nanshan District, Shenzhen 518107  
 China  
 Tel: +86 755 3330 5088  
 Fax: +86 755 3330 5099  
 Sales: [pfg.cs.asia@meas-spec.com](mailto:pfg.cs.asia@meas-spec.com)

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.