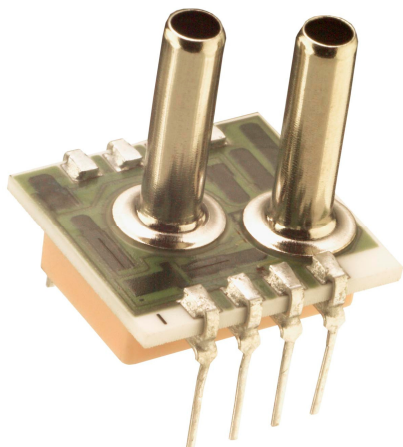


## Model 1220 Standard



- PC Board Mountable Pressure Sensor
- 0-50 mV Output
- Voltage Excitation
- Gage, Absolute, 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. Gage, absolute, and differential pressure ranges from 0-2 psi to 0-100 psi are available. Multiple lead and tube configurations are available for specific applications.

Please refer to the 1220 1psi datasheet for low pressure applications. For current excitation, please refer to the Model 1210.

### FEATURES

- Dual-in-Line Package
- 0°C to 50°C Compensated Temperature Range
- $\pm 0.1\%$  Non Linearity
- 1.0% Interchangeable Span (provided by current set resistor)
- Solid State Reliability

### APPLICATIONS

- Medical Instruments
- Airspeed and Altitude Measurements
- Process Control
- Factory Automation
- Vacuum Measurement
- Handheld Calibrators

### STANDARD RANGES

Range	psia	psid	psig
0 to 2		•	•
0 to 5	•	•	•
0 to 15	•	•	•
0 to 30	•	•	•
0 to 50	•	•	•
0 to 100	•	•	•

# Model 1220 Standard

## PERFORMANCE SPECIFICATIONS

**Supply Voltage:** See application schematic

**Ambient Temperature:** 25°C (unless otherwise specified)

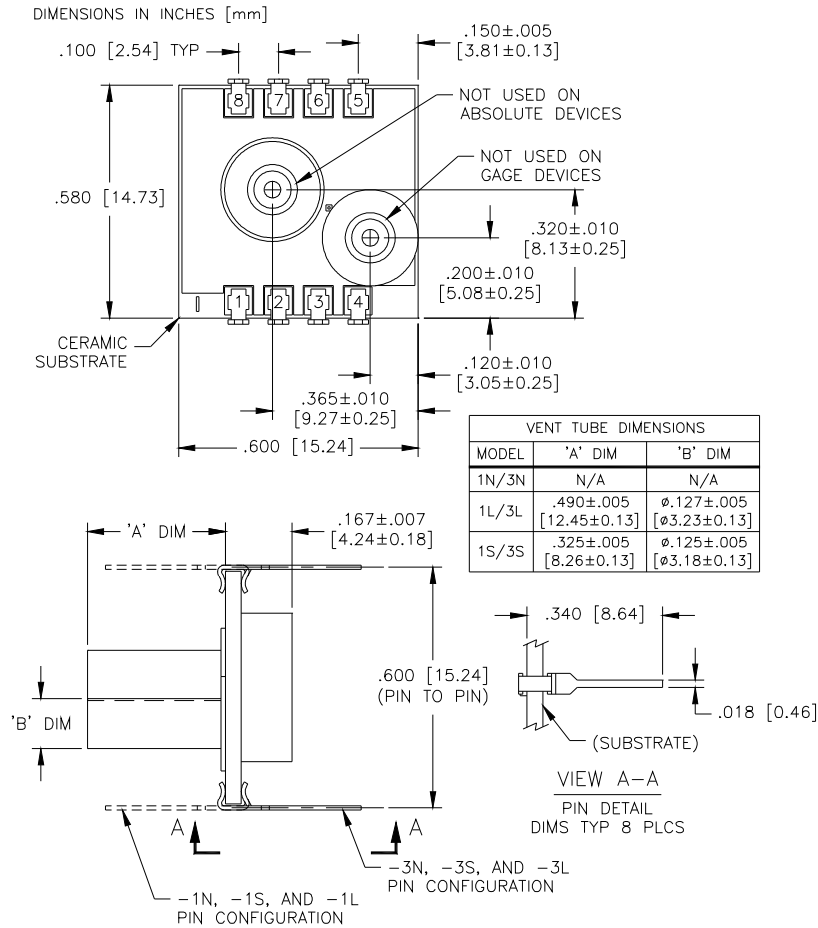
PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Span	49.5	50	50.5	mV	1
Zero Pressure Output	-2		2	mV	2
Pressure Non Linearity	-0.1	±0.05	0.1	%Span	
Pressure Hysteresis	-0.05	±0.01	0.05	%Span	
Input & Output Resistance	2500	4400	6000	Ω	
Temperature Error – Span	-0.5	±0.3	0.5	%Span	3
Temperature Error – Zero	-0.5	±0.1	0.5	%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)		±0.1		%Span	5
Pressure Overload			3X	Rated	6
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, Ceramic, Nickel, Gold, and Aluminum				

### Notes

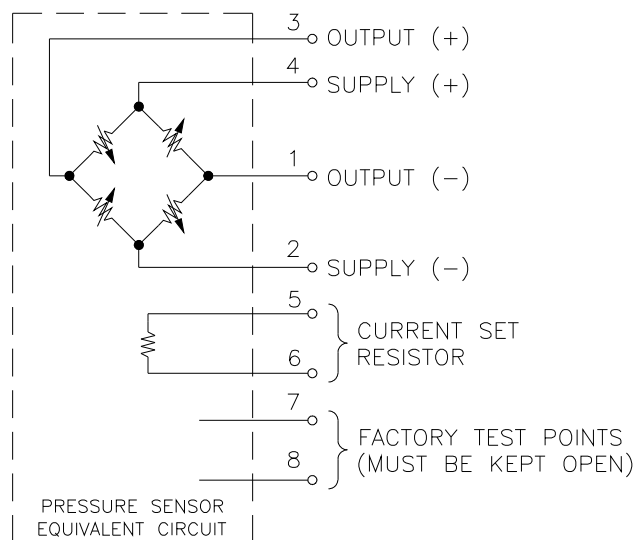
1. Refer to application schematic.
2. Best fit straight line.
3. Maximum temperature error between 0°C and 50°C with respect to 25°C.
4. For a zero-to-full scale pressure step change.
5. Long term stability over a one year period with constant voltage and temperature.
6. 2X maximum for 100 psi device. 20psi maximum for 2 and 5 psi devices.

# Model 1220 Standard

## DIMENSIONS

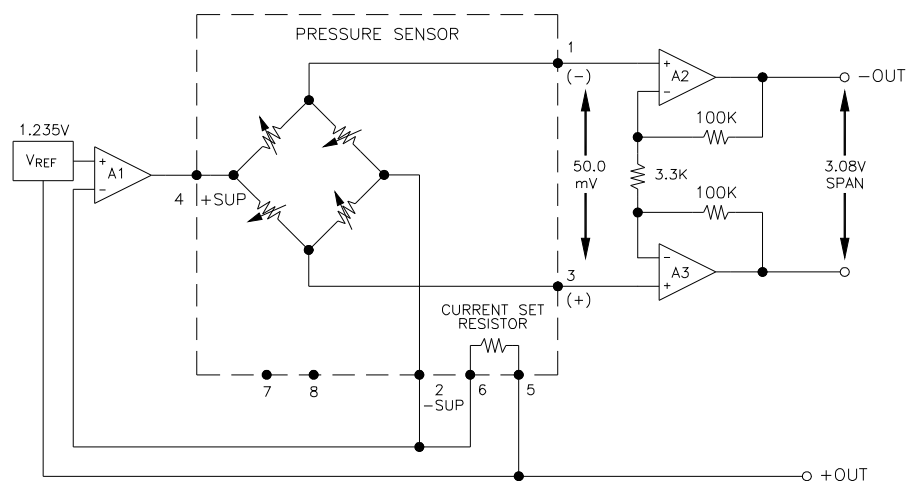


## CONNECTIONS



## Model 1220 Standard

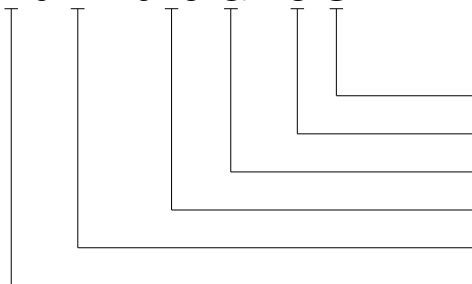
## APPLICATION SCHEMATIC



APPLICATION SCHEMATIC

## ORDERING INFORMATION

1220 A - 015 G - 3 S



Pressure Tubes (L = Long, S = Short, N = None)  
Lead Configuration (1,3 - See Dimensions Diagram)  
Type (G= Gage, A = Absolute, 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: [pfq.cs.amer@meas-spec.com](mailto:pfq.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.  
F1.6-4D, Tian An Development  
Compound  
Shenzhen, China 518048  
Tel: +86 755 8330 1004  
Fax: +86 755 8330 6797  
Sales: [pfg.cs.asia@meas-spec.com](mailto:pfg.cs.asia@meas-spec.com)

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