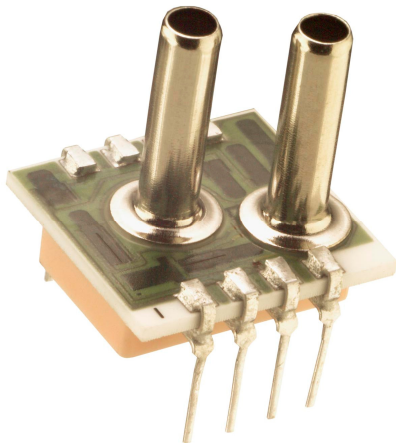


Model 1210 1 psi



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

DESCRIPTION

The Model 1210 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
- 0°C to 50°C Compensated Temperature Range
- $\pm 0.3\%$ Non Linearity
- 1.0% Interchangeable Span (provided by gain 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 1210 1 psi

PERFORMANCE SPECIFICATIONS

Supply Current: 1.5 mA

Ambient Temperature: 25°C (unless otherwise specified)

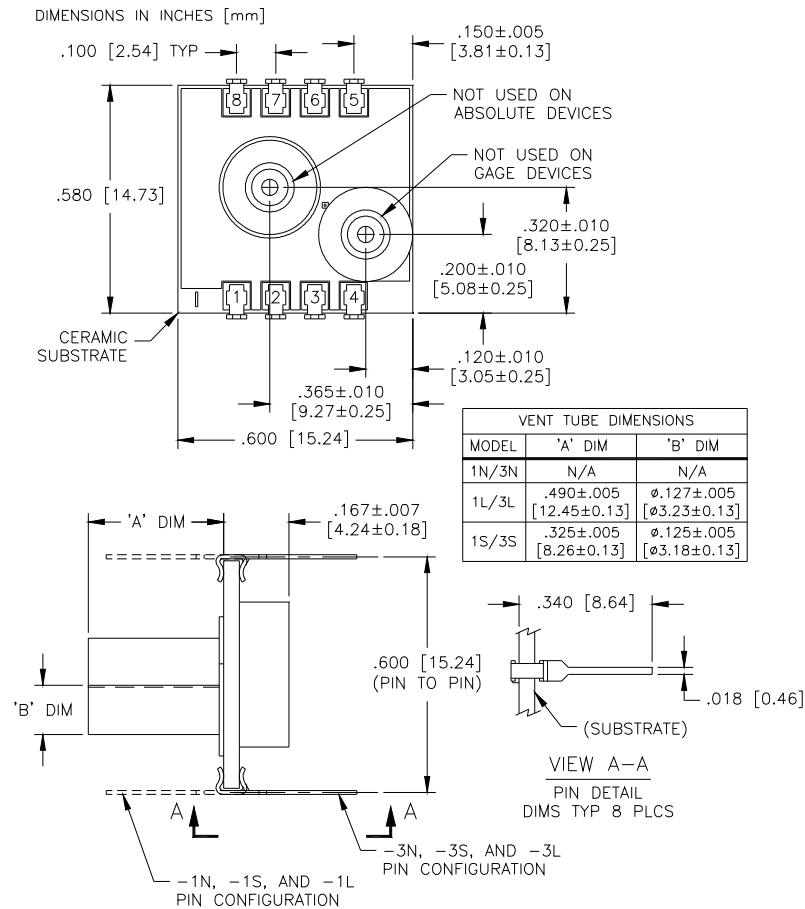
| PARAMETERS | PRESSURE RANGE 0 – 1 psi | | | UNITS | NOTES |
|-------------------------------------|--|-------|------|--------|-------|
| | MIN | TYP | MAX | | |
| Span | 65 | 100 | 150 | mV | 1 |
| Zero Pressure Output | -2 | | 2 | mV | |
| Pressure Non Linearity | -0.3 | ±0.2 | 0.3 | %Span | 2 |
| 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 Current | | 1.5 | 2.0 | mA | |
| 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

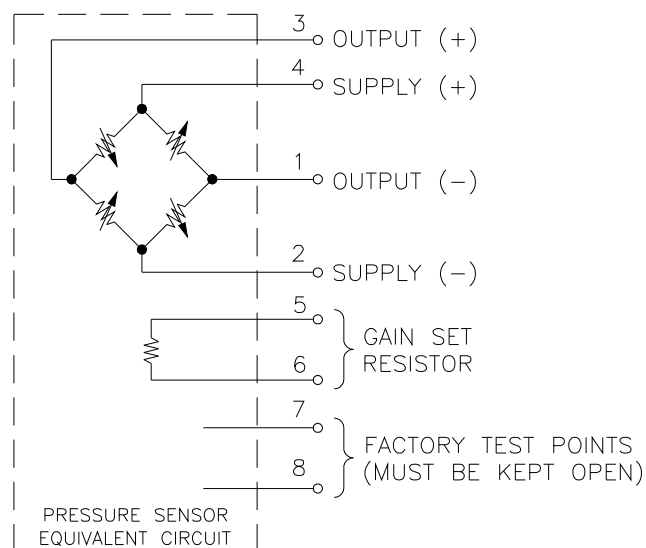
1. Ratiometric to supply current.
2. Best fit straight line.
3. Maximum temperature error between 0°C and 50°C with respect to 25°C.
4. For a zero-to-full scale pressure step change.
5. Long term stability over a one year period with constant current and temperature.

Model 1210 1 psi

DIMENSIONS

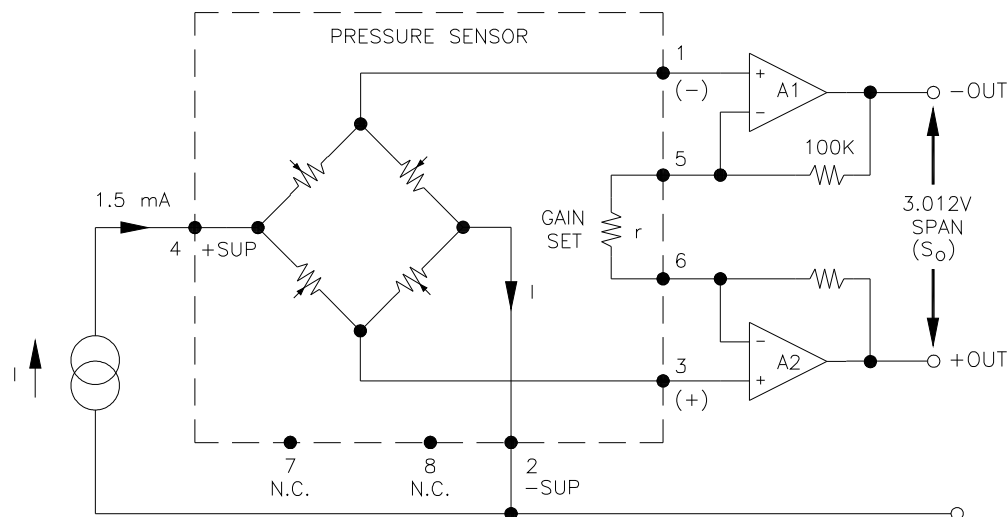


CONNECTIONS



Model 1210 1 psi

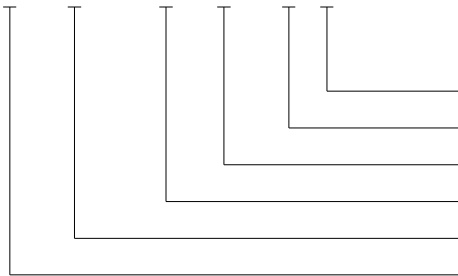
APPLICATION SCHEMATIC



APPLICATION SCHEMATIC

ORDERING INFORMATION

1210 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

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

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

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