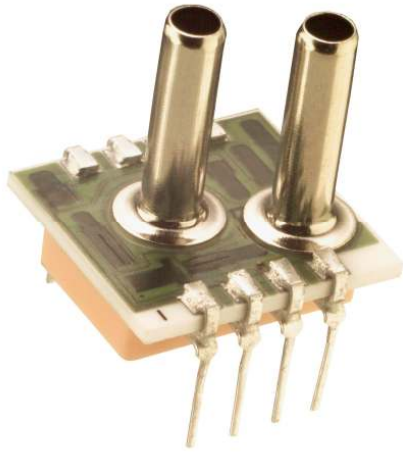


Model 1210 Sub psi



- PC Board Mountable Pressure Sensor
- 40 mV Output Typical
- Differential Pressures
- Metal Tube and Ceramic Barbed Ports
- 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 0-60°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 $\pm 1\%$. Differential pressure ranges from 0-5 to 0-10 in H₂O are available. Multiple leads, metal or ceramic barbed tubes are available for specific applications.

Please refer to the 1210 1 psi and standard datasheet for information on products with operating pressures greater than 1psi.

FEATURES

- Dual-in-Line Package
- Ceramic Barbed Ports Option
- $\pm 0.5\%$ Non Linearity
- $\pm 1.0\%$ Temperature Performance
- 1.0% Interchangeable Span (provided by gain set resistor)
- Solid State Reliability

APPLICATIONS

- Sleep Apnea
- Respirators/Ventilators
- Air Duct Flow
- Medical Instrumentation

STANDARD RANGES

Range	in H ₂ O
0 to 5	•
0 to 10	•

Model 1210 Sub psi

PERFORMANCE SPECIFICATIONS

Supply Current: 1.5 mA

Ambient Temperature: 25°C (unless otherwise specified)

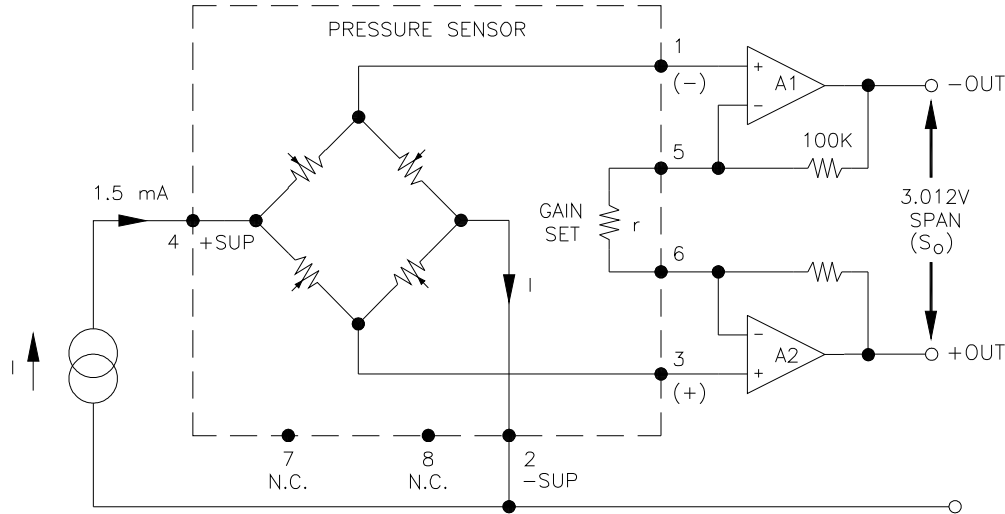
PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Span	25	40	75	mV	1
Zero Pressure Output	-2		2	mV	
Pressure Non Linearity	-0.5	±0.3	0.5	% Span	2
Pressure Hysteresis	-0.1	±0.03	0.1	% Span	
Input & Output Resistance	1800	3600	4500	Ω	
Temperature Error – Span	-1.0	±0.5	1.0	% Span	3
Temperature Error – Zero	-1.25	±0.5	1.25	% 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		±0.2		%Span	5
Pressure Overload			200	In H ₂ O	
Compensated Temperature	0		60	°C	
Operating Temperature	-25		+85	°C	
Storage Temperature	-40		+125	°C	
Weight			3	grams	
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 60°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 Sub psi

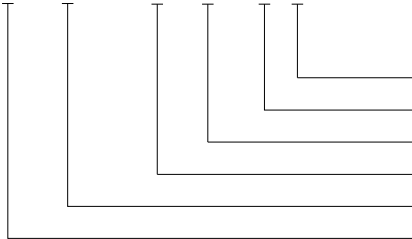
APPLICATION SCHEMATIC



APPLICATION SCHEMATIC

ORDERING INFORMATION

1210 A - 10W D - 3 S



Pressure Tubes (L = Long, S = Short, N = None, and B = Barbed)
 Lead Configuration (1,3 - See Dimensions Diagram)
 Type (D = Differential)
 Pressure
 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.
 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

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