

1240

UltraStable™

SPECIFICATIONS

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

The 1240 is a high performance 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.

When using the 1240 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 -20°C to +85°C using laser-trimmed resistors. Absolute, differential and gage pressure ranges from 0-15 to 0-100 psi are available. Multiple lead and tube configurations are available for different applications.

Please refer to the 1210 and 1220 information on products with operating pressures less than 0-15 psi. For current excitation, please refer to the Model 1230.

FEATURES

- ◆ Dual-in-Line Package
- ◆ -20°C to +85°C Compensated Temperature Range
- ◆ ±0.1% 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
- ◆ 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	◆	◆	◆

PERFORMANCE SPECIFICATIONS

Supply Voltage: See application schematic

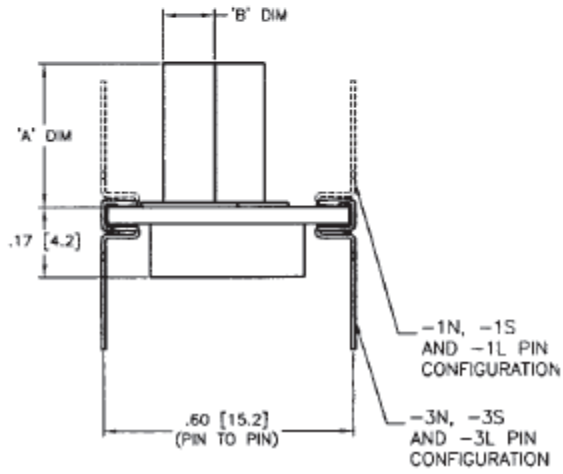
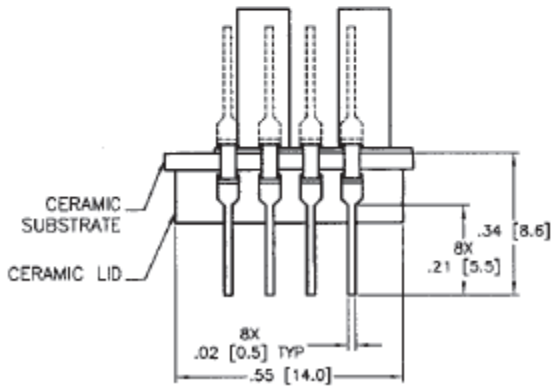
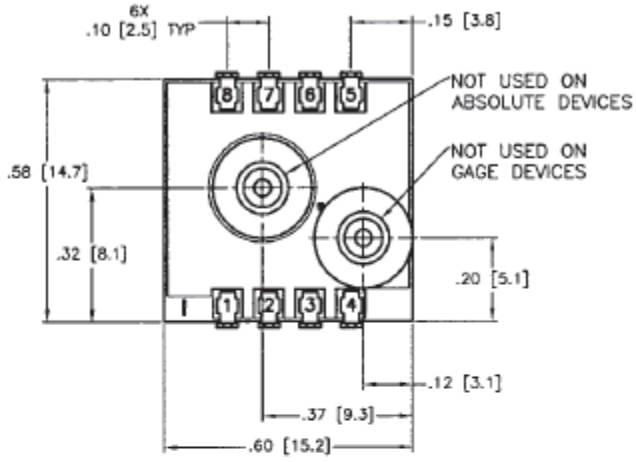
Ambient Temperature: 25°C (unless otherwise specified)

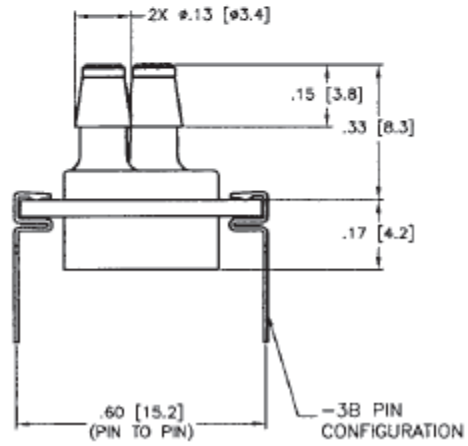
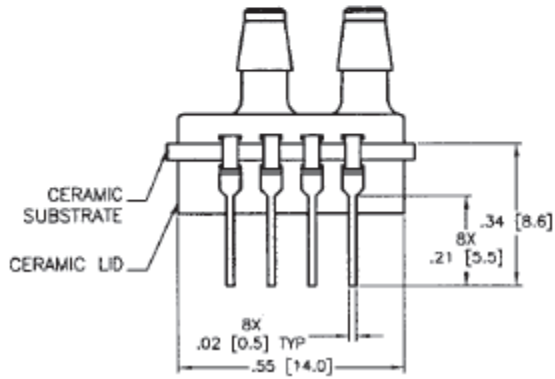
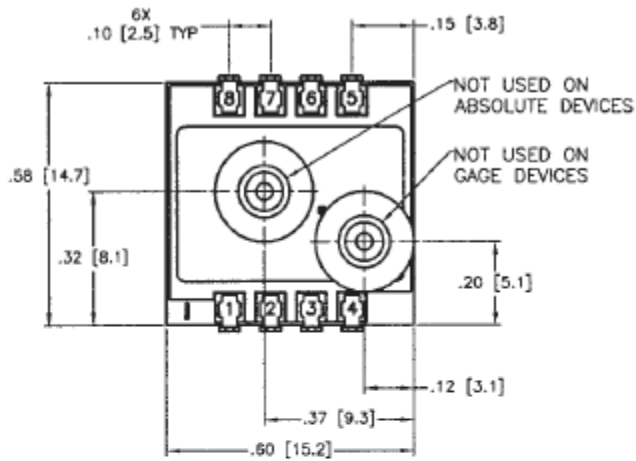
PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Span	49.5	50	50.5	mV	1
Zero Pressure Output	-2		2	mV	
Pressure Non Linearity	-0.1	±0.05	0.1	%Span	2
Pressure Hysteresis	-0.1	±0.01	0.1	%Span	
Input Resistance	2200	4000	5800	Ω	
Output Resistance		4200		Ω	
Temperature Error – Span	-0.5	±0.3	0.5	%Span	3
Temperature Error – Zero	-0.5	±0.1	0.5	%Span	3,8
Temperature Coefficient – Resistance		0.15		%/°C	3
Thermal Hysteresis – Zero		±0.05		%Span	3
Short Term Stability (Offset & Span)		±0.05		%Span	4
Long Term Stability (Offset & Span)		±0.1		%Span	5
Supply Voltage Reference		1.235		V	1
Response Time (10% to 90%)		1.0		mS	6
Output Noise (10Hz to 1kHz)		1.0		μV p-p	
Pressure Overload			3X	Rated	7
Compensated Temperature	-20		+85	°C	8
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

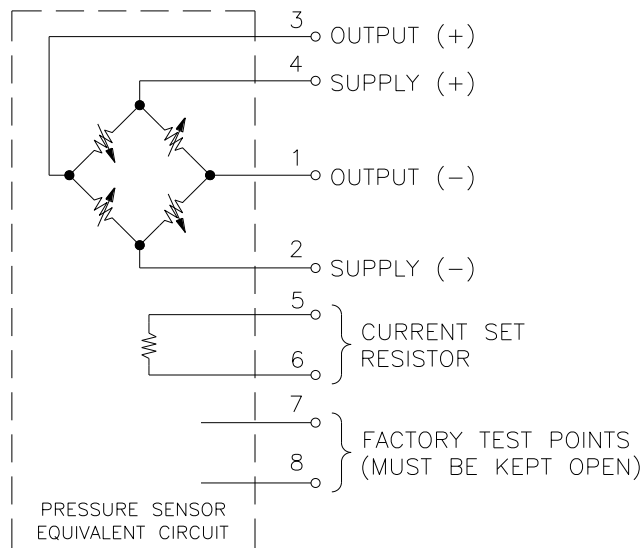
1. Refer to application schematic.
2. Best fit straight line. Non Linearity for 2 PSI is ±0.2% 5 PSI is ± 0.50%.
3. Maximum temperature error between -20°C and +85°C with respect to 25°C.
4. Short term stability over 7 days with constant current and temperature.
5. Long term stability over a one year period with constant current and temperature.
6. For a zero-to-full scale pressure step change.
7. 2X maximum for 100 psi device.
8. For pressure ranges below 15psi, compensated temperature range is 0°C to 50°C and thermal error of offset is ±1.25%.

DIMENSIONS

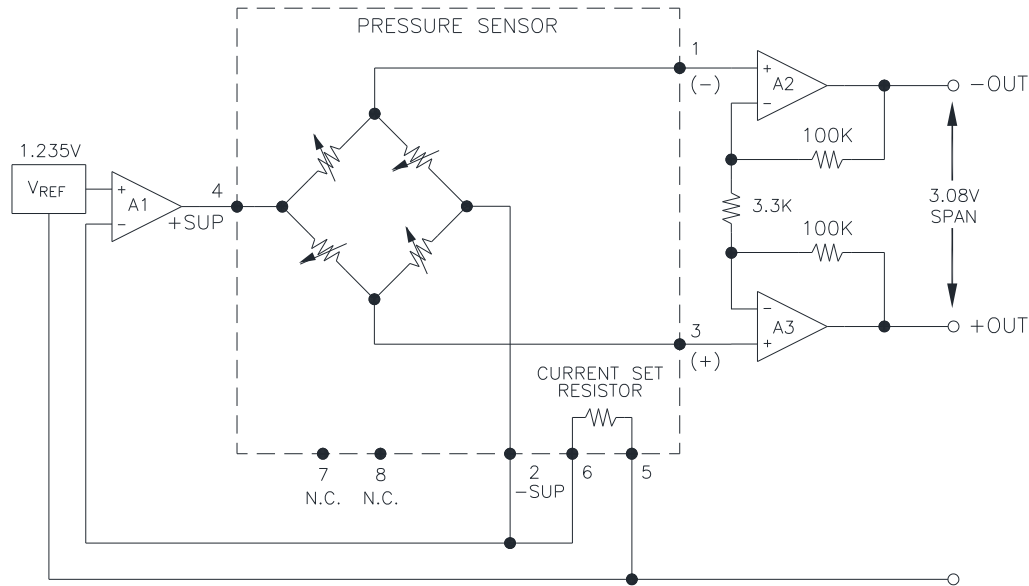




CONNECTIONS



APPLICATION SCHEMATIC



ORDERING INFORMATION

1240 Model Name	002	A	3	B
Pressure range [psi]	002 015 030 005 100			
Pressure Type				
A = Absolute	G =Gage			
D =Differential				
Lead Configuration				
1 =Same side as Vent Tube				
3 =Opposite Side as vent tube				
Vent Type				
L =Long Tube	N =No Tube			
S =Short Tube	B =Barb			

NORTH AMERICA

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

EUROPE

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

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
Tel: 0400-820-6015
mailto:customercare.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.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Board Mount Pressure Sensors](#) category:

Click to view products by [TE Connectivity](#) manufacturer:

Other Similar products are found below :

[6407-249V-17343P](#) [6407-250V-09273P](#) [80527-25.0H2-05](#) [80541-B00000150-01](#) [80541-B00000200-05](#) [80554-00700100-05](#) [80568-00300050-01](#) [93.631.4253.0](#) [93.731.4353.0](#) [93.932.4553.0](#) [136PC150G2](#) [136PC15A1](#) [142PC95AW71](#) [142PC05DW70](#) [15PSI-G-4V](#) [1805-01A-L0N-B](#) [26PCBKT](#) [26PCCFA6D26](#) [26PCCFS2G](#) [26PCCVA6D](#) [93.632.7353.0](#) [93.731.3653.0](#) [93.931.4853.0](#) [93.932.4853.0](#) [SCDA120-XSC05DC](#) [185PC30DH](#) [20INCH-G-MV-MINI](#) [26PCAFJ3G](#) [26PCCEP5G24](#) [26PCDFA3G](#) [26PCJEU5G19](#) [ASCX15AN-90](#) [TSCSAAN001PDUCV](#) [DCAL401DN](#) [DCAL401GN](#) [XZ202798SSC](#) [XZ203676HSC](#) [6407-249V-09343P](#) [6407-250V-17343P](#) [SP370-25-116-0](#) [81794-B00001200-01](#) [HSCDLNN100PGAA5](#) [82681-B00000100-01](#) [81618-B00000040-05](#) [SSCDJNN015PAAA5](#) [TSCDLNN100MDUCV](#) [TSCSAAN100PDUCV](#) [NBPDANN015PGUNV](#) [NBPLLNS150PGUNV](#) [142PC100D](#)