

MS4426

SPECIFICATIONS

- ◆ PC Board Mountable Pressure Sensor
- ◆ 0-100 mV Output
- ◆ Voltage Excitation
- ◆ Gage and Absolute
- ◆ Temperature Compensated

The MS4426 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.

Integral temperature compensation is provided over a range of 0-50°C using laser-trimmed resistors. The pressure sensor is available in absolute or gage pressure ranges from 0-1 to 0-300 psi. The pressure ports are 1/8" barbed ports which mate with 3/32" ID tubing. The tube is vertically mounted to the printed circuit board. For a horizontally mounted tube in differential, gage and absolute pressure, refer to the MS4425.

FEATURES

- ◆ Dual-in-Line Package
- ◆ 0°C to 50°C Compensated
- ◆ Temperature Range
- ◆ $\pm 0.15\%$ Pressure Non Linearity
- ◆ Solid State Reliability

APPLICATIONS

- ◆ Medical Instruments
- ◆ Altitude Measurement
- ◆ Process Control
- ◆ Factory Automation
- ◆ Leak Detection

STANDARD RANGES

Range	psig	psia
0 to 1	◆	
0 to 5	◆	
0 to 15	◆	◆
0 to 30	◆	◆
0 to 50	◆	◆
0 to 100	◆	◆
0 to 150	◆	◆
0 to 300	◆	◆

PERFORMANCE SPECIFICATIONS

Supply Voltage: 12V

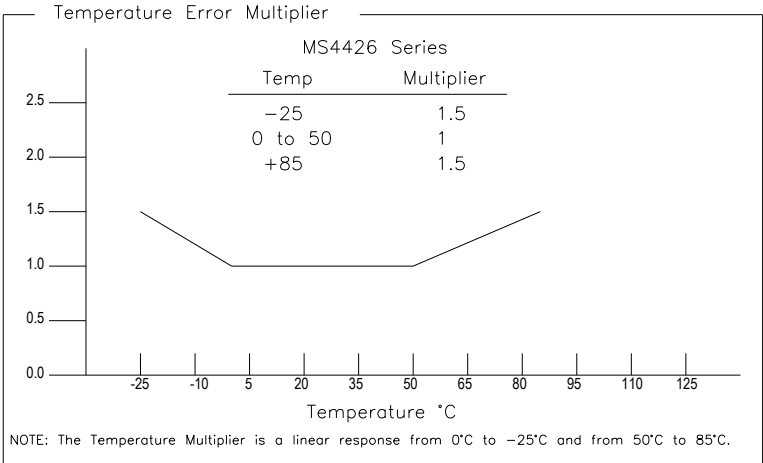
Ambient Temperature: 25°C (unless otherwise specified)

Pressure applied to Port 2

PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Span (0-1 psi)	17.6	18	18.4	mV	1
Span (0-5 psi)	58	60	62	mV	1
Span (0-15 to 0-50 psi)	88	90	92	mV	1
Span (0-100 & 0-300 psi)	98	100	102	mV	1
Span (0-150 psi)	148	150	152	mV	1
Zero Pressure Output	-1	±0.2	1	mV	1
Pressure Non Linearity	-0.15		0.15	% Span	2
Pressure Hysteresis	-0.20	±0.05	0.20	% Span	
Input Resistance	5	15	25	KΩ	
Output Resistance	3500	5000	6500	Ω	
Temperature Error – Span	-1	0.3	1	% Span	3
Temperature Error – Zero	-0.75	±0.2	0.75	mV	3
Supply Voltage		12	20	V	
Long Term Stability (Offset & Span)		±0.1		mV	4
Pressure Overload			3X	Rated	5
Compensated Temperature	0		50	°C	
Operating Temperature	-25		85	°C	
Storage Temperature	-40		125	°C	
Humidity	0		85	% RH	
Weight			3	grams	
Solder Temperature	260°C Max 5 Sec.				6
Media	Non-Corrosive Dry Gases Compatible with Silicon, Pyrex, RTV, Ceramic & Gold				

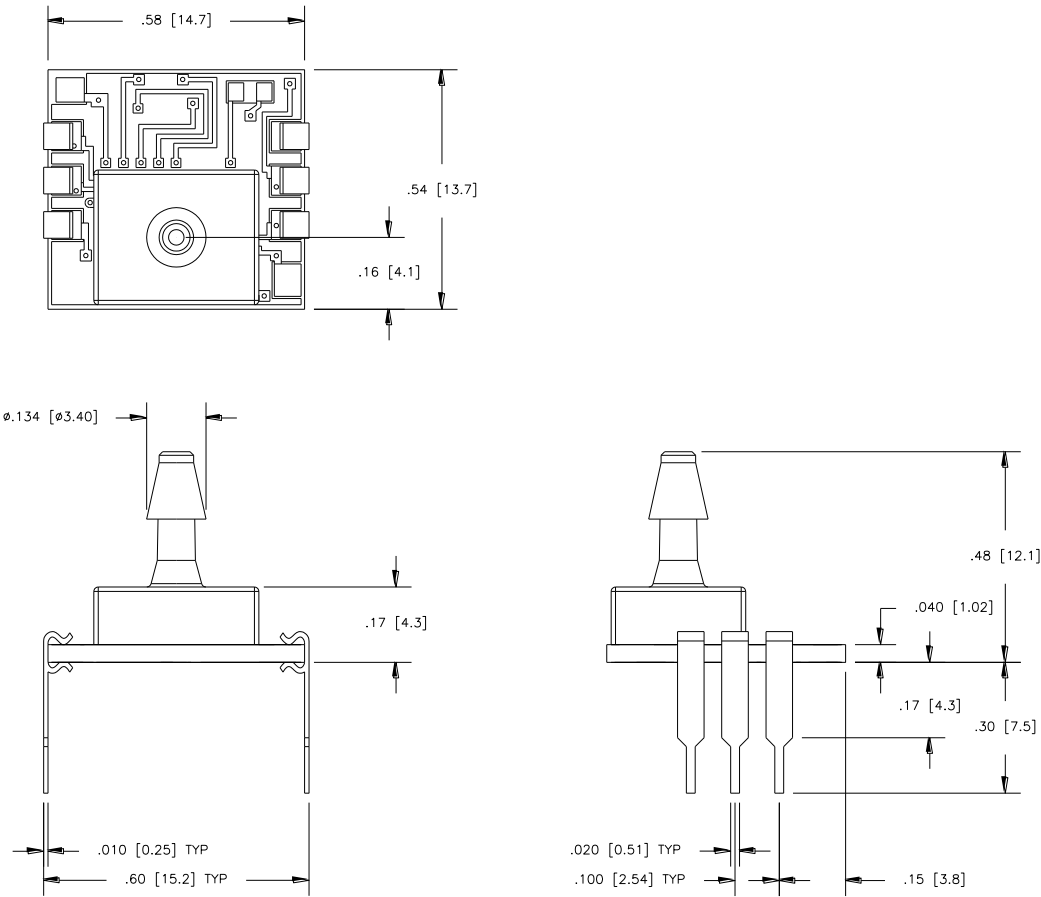
Notes

1. Ratiometric to supply voltage.
2. Best fit straight line. Non linearity for 5psi and 150psi devices is 0.25%
3. Maximum temperature error between 0°C and 50°C with respect to 25°C. For errors beyond the compensated temperature, see Temperature Error Multiplier Chart below.
4. Long term stability over a one year period with constant voltage and temperature.
5. 3X or 400 psi max, whichever is less.
6. For more details refer to 4425/4426 Mounting Application Note.



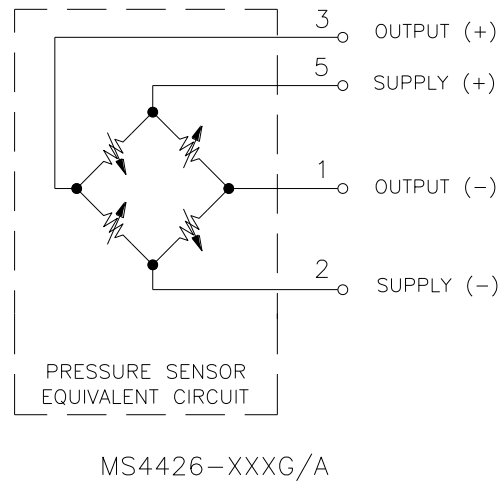
DIMENSION

DIMENSIONS ARE IN INCHES [mm]

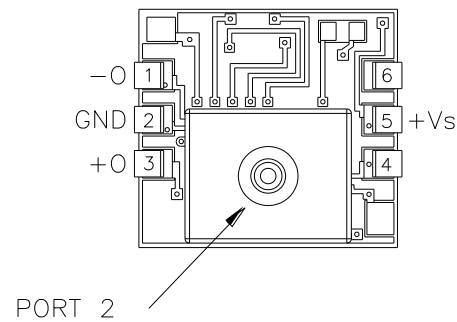


MS4426-XXXG/A

CONNECTIONS



PACKAGE STYLE, PINOUT, AND PORT DESIGNATION



MS4426-xxxA/Gy

ORDERING INFORMATION

4426		015		A	F
Model Name					
Pressure Range					
001	005	015			
030	050	100			
150	300				
Pressure Type					
A=Absolute		G=Gage			
Coating					
F=Gel Fill		'Blank'=No Fill			

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