



RoHS

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
- ±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 | МАХ | 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 | | | ЗX | 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 | 260ºC Max 5 Se | ec. | | | 6 | |
| Media | Non-Corrosive Dry Gases Compatible with Silicon, Pyrex, | | | | | |

RTV, Ceramic & Gold

Notes

1. Ratiometric to supply voltage.

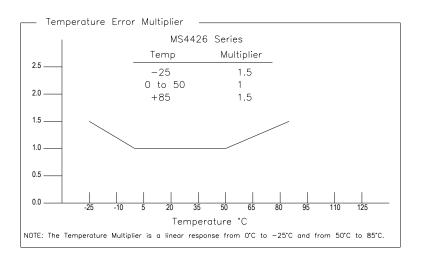
2. Best fit straight line. Non linearity for 5psi and 150psi devices is 0.25%

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.

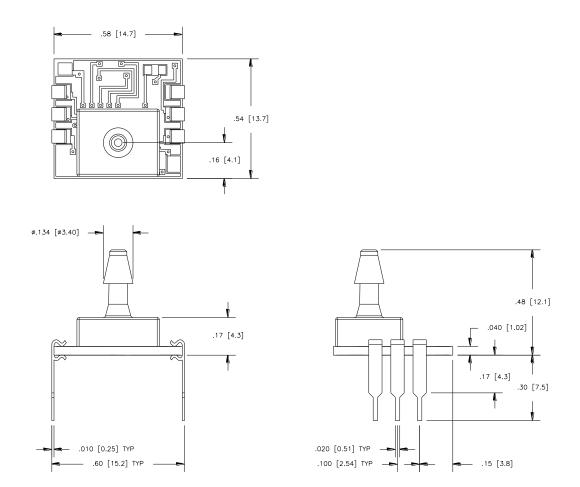
5. 3X or 400 psi max, whichever is less.

6. For more details refer to 4425/4426 Mounting Application Note.



DIMENSION

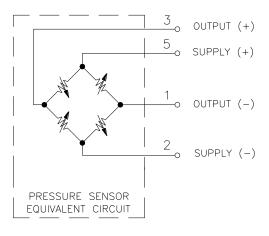
DIMENSIONS ARE IN INCHES [mm]



MS4426-XXXG/A

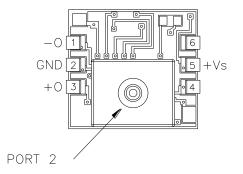
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CONNECTIONS



MS4426-XXXG/A

PACKAGE STYLE, PINOUT, AND PORT DESIGNATION



MS4426-xxxA/Gy

ORDERING INFORMATION

| 4426 | | — | 015 | Α | 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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09/2017



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