

# 4425 Pressure Sensor

**PC Board Mountable Pressure Sensor**  
**0-100 mV Output**  
**Differential and Absolute Pressure**  
**Temperature Compensated**

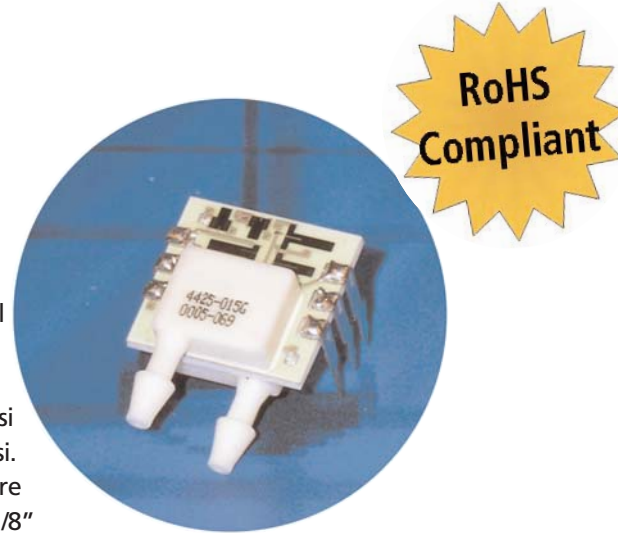
## DESCRIPTION

The **4425** 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

differential pressure ranges from 0-1 psi to 0-100 psi. The pressure ports are 1/8" barbed ports which mate with 3/32" ID tubing. These tubes are parallel to the printed circuit board to allow other boards to be located above the sensor. For a vertical mounted tube in gage or absolute pressure, refer to model 4426.



## FEATURES

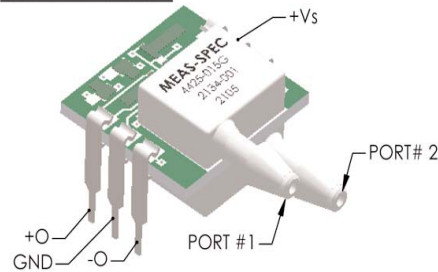
- ◆ Dual-in-line Package
- ◆ 0°C to +50°C Compensated Temperature Range
- ◆ ±0.25% Pressure Non-linearity
- ◆ Solid State Reliability

## APPLICATIONS

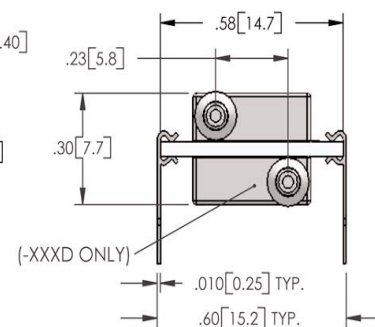
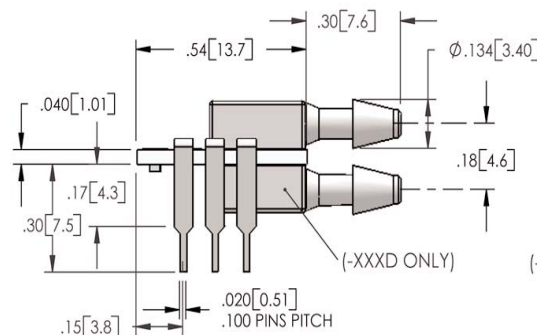
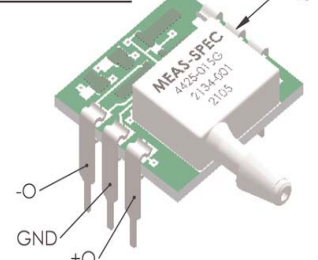
- ◆ Medical Instruments
- ◆ Altitude/Airspeed Measurement
- ◆ Process Control
- ◆ Factory Automation
- ◆ Leak Detection

## dimensions

MODEL 4425-XXXD



MODEL 4425-XXXA



(Dimensions in inches [mm])

## standard ranges

Range	psid	psia
0 to 1	•	
0 to 5	•	
0 to 15	•	•
0 to 30	•	•
0 to 50	•	•
0 to 100	•	•

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## performance specifications

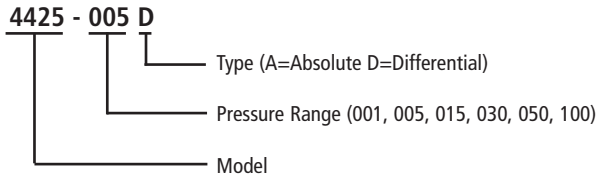
All parameters measured at 12V and at 25°C after 10 second warm up unless otherwise specified. Pressure applied to port #2.

PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Full Scale Output (0-1 PSI)	17.6	18	18.4	mV	1
Full Scale Output (0-5 PSI)	58	60	62	mV	1
Full Scale Output (0-15 to 0-50 PSI)	88	90	92	mV	1
Full Scale Output (0-100 PSI)	98	100	102	mV	1
Zero Pressure Output	-1	±0.2	1	mV	1
Pressure Non Linearity	-0.25		0.25	% Span	2
Pressure Hysteresis		±0.2		% Span	
Input Resistance	5000	15000	25000	Ω	
Output Resistance	3500	5000	6500	Ω	
Temperature Error – Span (0 to +50°C)	-1		1	% Span	3
Temperature Error – Zero (0 to +50°C)	-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 Range	0°C to +50°C				
Operating Temperature Range	-25°C to +85°C				
Storage Temperature Range	-40°C to +125°C				
Solder Temperature	260°C Max 5 Sec.				
Humidity	0 to 85% RH				
Media	Non-Corrosive Dry Gases Compatible with Silicon, Pyrex, RTV, Ceramic & Gold				
Weight	3 g				

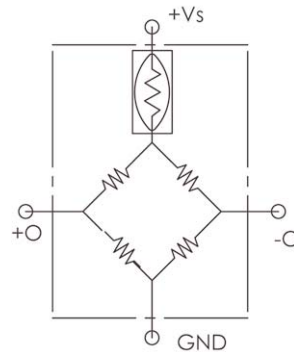
### Notes

1. Ratiometric to supply voltage.
2. Best fit straight line. Non linearity for 5psi devices is 0.75%.
3. Maximum temperature error between 0°C and 50°C with respect to 25°C.
4. Long term stability over a one year period.
5. 3X or 150 psi max, whichever is less
6. For more details refer to 4425/4426 Mounting Application Note.
7. For high humidity applications, contact factory

## ordering information



## connections



EQUIVALENT CIRCUIT