

Model 50 Pressure Sensor

PC Board Mountable

0-60 mV Output

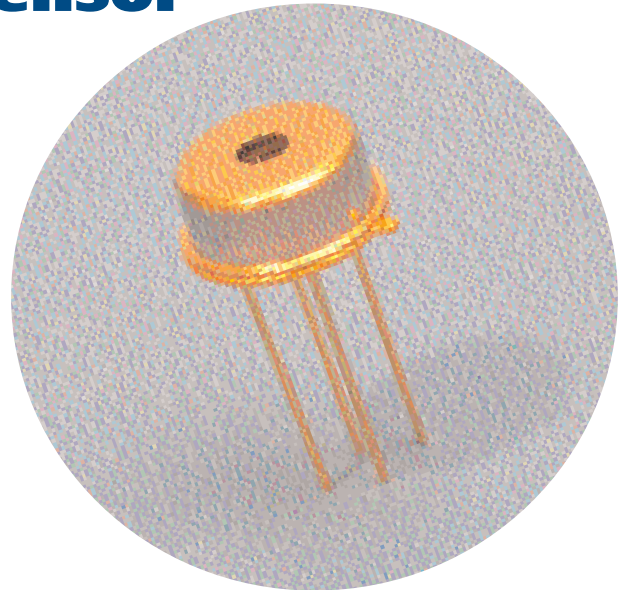
Absolute Pressure

Low Cost

DESCRIPTION

The **Model 50** is a piezoresistive silicon pressure sensor packaged in a T0-5 configuration. This is offered in a nickel can without a tube. Pressure can be applied on top of the package.

Absolute pressure ranges from 0-5 to 0-500 PSI are available. The pressure media is applied to the circuit side of the chip. This design is intended for non-corrosive gases and is not recommended for liquids. A gel filling can be applied to provide mild protection against humidity and dust. For high volume gage applications, contact the factory.



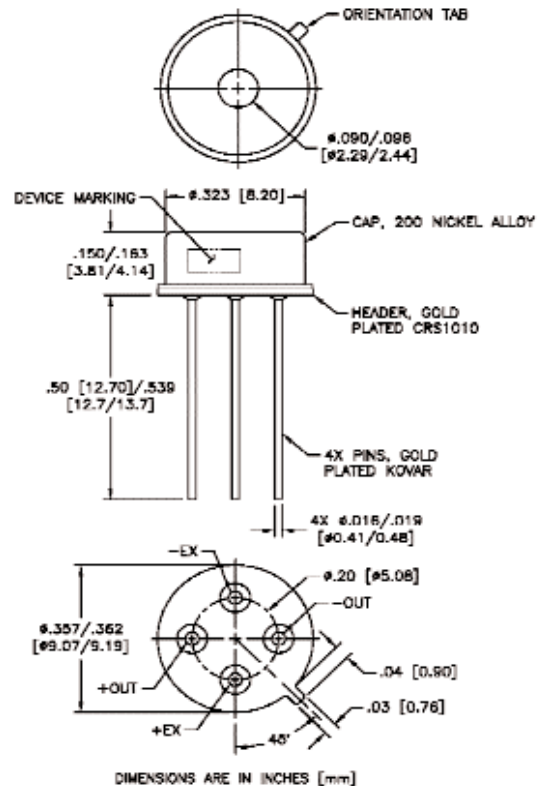
dimensions

FEATURES

- ◆ T0-5 Package
- ◆ -40°C to +125°C Operating range
- ◆ ±0.25% Pressure Non-linearity
- ◆ Solid State Reliability

APPLICATIONS

- ◆ Tire Pressure Sensor
- ◆ Consumer Appliances
- ◆ Medical Instrumentation
- ◆ Barometric Pressure
- ◆ Altitude Measurement



Model 50 PC Board Mountable Pressure Sensor

performance specifications

Supply Voltage: 3 VDC

Ambient Temperature: 25°C (Unless otherwise specified)

PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Full Scale Output Span	30	60	120	mV	
Zero Pressure Output	-25		25	mV	
Pressure Non Linearity	-0.25		0.25	% Span	1
Pressure Hysteresis	-0.1		0.1	% Span	
Input / Output Resistance	3500	5000	6000	Ω	
Temperature Coefficient—Span		-0.20		% / °C	2
Temperature Coefficient—Zero		+0.05		% / °C	2
Temperature Coefficient—Resistance		+0.25		% / °C	2
Thermal Hysteresis—Zero	-0.2		0.2	% Span	2
Supply Voltage		3.0	12.0	VDC	
Response Time (10% to 90%)		1.0		mSec	3
Output Noise		1.0		μVp-p	4
Insulation Resistance (50 VDC)	50			MΩ	
Long Term Stability—Offset		0.5		% Span / Year	
Pressure Overload			3X	Rated	5
Operating Temperature Range	-40°C to +125°C				
Storage Temperature Range	-50°C to +150°C				
Media - Pressure Port	Non-corrosive Gases				
Weight	0.9 Grams				

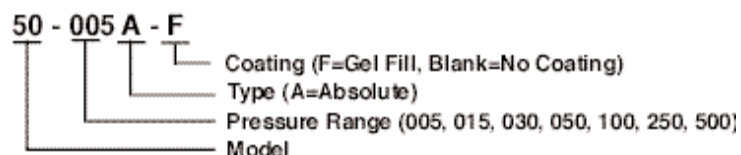
Notes

1. Best fit straight line.
2. Over the temperature range 0°C to 50°C with respect to 25°C.
3. For a zero-to-full scale pressure step change.
4. 10Hz to 1KHz
5. 1000psi for 500psi device
6. For sensors above 100 psi, the entire sensor is required to be inside the pressure chamber.

standard ranges

Range	psia
0 to 5	•
0 to 15	•
0 to 30	•
0 to 50	•
0 to 100	•
0 to 250 ⁶	•
0 to 500 ⁶	•

ordering information



connections

