

- PC Board Mountable Pressure Sensor
- 0-60 mV Output
- Voltage Excitation
- Absolute Pressure
- Low Cost
- OEM Applications

DESCRIPTION

The 50 is a piezoresistive silicon pressure sensor packaged in a TO-5 configuration. Absolute pressure ranges from 0-15 to 0-500 psi are available. It is intended for high volume applications where small size, light weight, and low cost are required. 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. The devices are shipped in plastic anti-static shipping tubes for use with automated production equipment. For high volume gage applications, contact the factory.

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
- Altitude Measurement
- Barometric Pressure

STANDARD RANGES

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

Model 50

PERFORMANCE SPECIFICATIONS

Supply Voltage: 3 Vdc

Ambient Temperature: 25°C (unless otherwise specified)

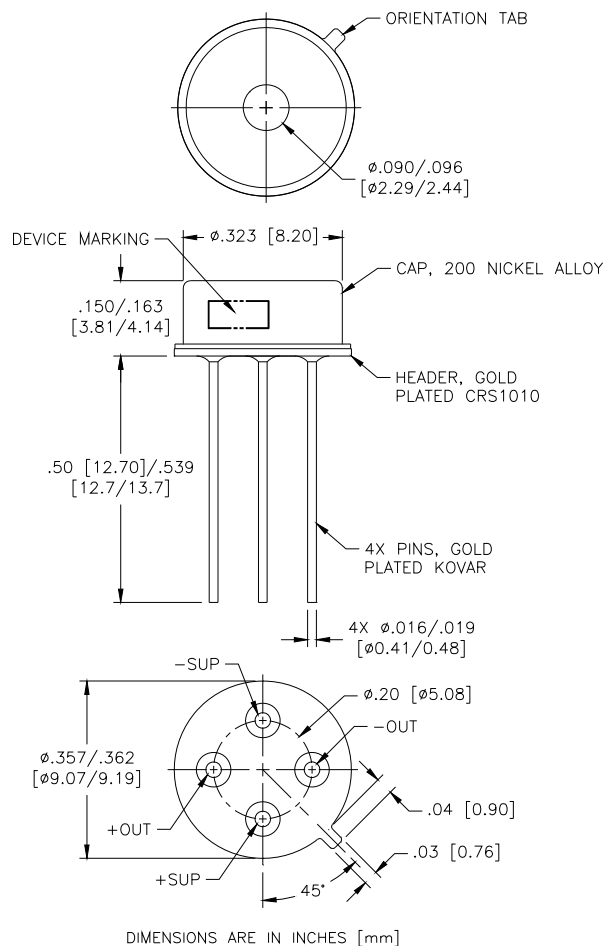
PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Span	30	60	120	mV	1
Zero Pressure Output	-25		25	mV	
Pressure Non Linearity	-0.25		0.25	%Span	2
Pressure Hysteresis	-0.1		0.1	%Span	
Input & Output Resistance	3500	5000	6000	Ω	
Temperature Coefficient – Span		-0.13		%/°C	3
Temperature Coefficient – Zero		0.05		%/°C	3
Temperature Coefficient – Resistance		0.15		%/°C	3
Thermal Hysteresis – Zero	-0.2		0.2	%Span	3
Supply Voltage		3.0	12.0	Vdc	
Response Time (10% to 90%)		1.0		mS	4
Output Noise (10Hz to 1kHz)		1.0		μV p-p	
Long Term Stability (Offset & Span)		0.5		%Span	5
Pressure Overload			3X	Rated	6
Operating Temperature	-40		+125	°C	
Storage Temperature	-50		+150	°C	
Weight			1	grams	
Soldering Temperature	250°C Max 5 Sec.				
Media	Non-Corrosive Dry Gases Compatible with Silicon, Pyrex, RTV, Gold, Nickel, and Aluminum				

Notes

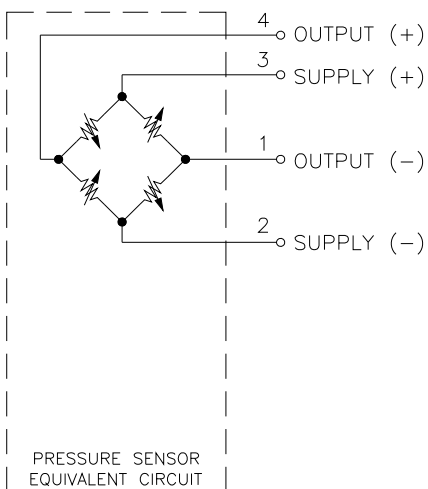
1. Ratiometric to supply voltage. For 250psi devices, the minimum span value is 25mV.
2. Best fit straight line.
3. Over the temperature range 0-50°C with respect to 25°C.
4. For a zero-to-full scale pressure step change.
5. Long term stability over a one year period with constant voltage and temperature.
6. 3X or 500 psi max.

Model 50

DIMENSIONS



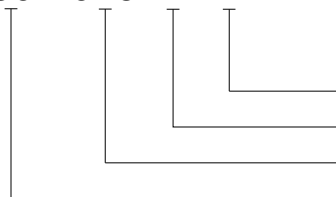
CONNECTIONS



Model 50

ORDERING INFORMATION

50 - 015 A - F



Coating (F = Gel Fill, Blank = No Coating)

Type (A = Absolute)

Pressure Range

Model

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Measurement Specialties
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Fax: 1-510-498-1578
Sales: pfg.cs.amer@meas-spec.com

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Fax: +33 (0) 134 81 03 59
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