

RoHS

50

SPECIFICATIONS

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

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. 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	•

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 S	ec.					
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.

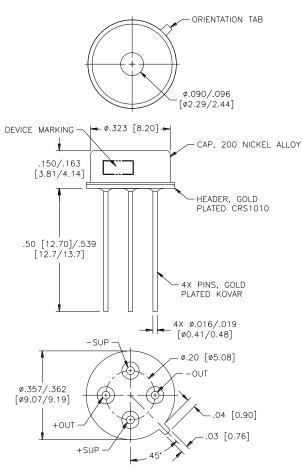
3. Over the temperature range 0-50°C with respect to 25°C.

4. For a zero-to-full scale pressure step change.

5. Long term stability over a one year period with constant voltage and temperature.

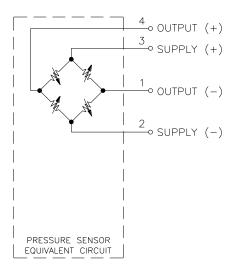
6. 3X or 500 psi max.

DIMENSIONS

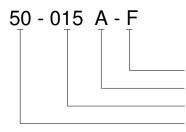


DIMENSIONS ARE IN INCHES [mm]

CONNECTIONS



ORDERING INFORMATION



Coating (F = Gel Fill, Blank = No Coating) Type (A = Absolute) Pressure Range Model

NORTH AMERICA

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