



# MODEL 13 Low Pressure

## PC Board Mountable Pressure Sensor

0-1 PSI

0-100 mV Output

Temperature Compensated

Low Cost

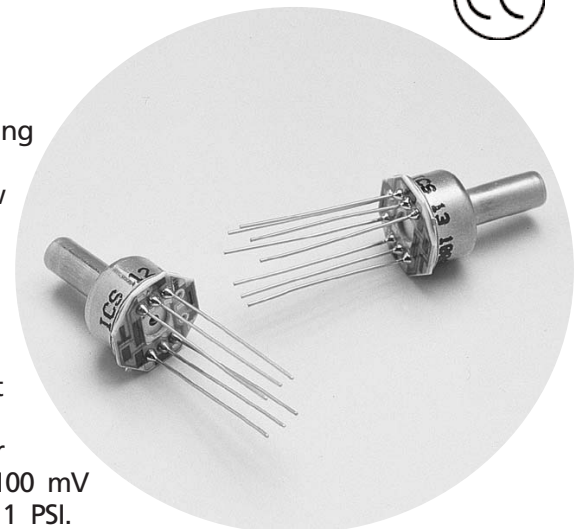
### DESCRIPTION

The Model 13 is a temperature compensated, piezoresistive silicon pressure sensor packaged in TO-8 configurations. It provides excellent performance and long-term stability.

Integral temperature compensation is provided over a range of 0-50°C using a laser-trimmed ceramic compensation board. An additional laser-trimmed resistor is included which can be used to adjust the gain of an external differential amplifier and provide sensitivity interchangeability of ±1%.

The sensing element used in low pressure Model 13 has a double bossed design that produces a high sensor output of 100 mV (typical) at 1 PSI.

This package style is also available in ranges up to 0-250 PSI. For sensors in a dual-in-line package please refer to the Models 1210 and 1220. For additional information regarding uncompensated sensors, please contact the factory.



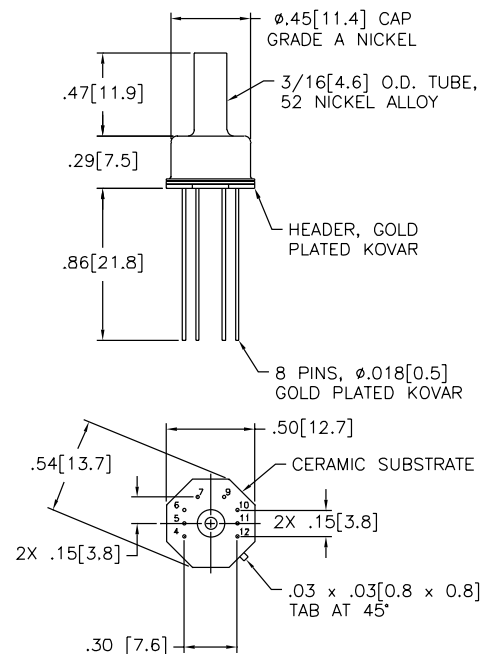
### FEATURES

- ◆ Solid State Reliability
- ◆ 100mV Output Span
- ◆ Interchangeable
- ◆ Temperature Compensated
- ◆ Low Power

### APPLICATIONS

- ◆ Medical Instruments
- ◆ HVAC
- ◆ Factory Automation
- ◆ Process Control
- ◆ Avionics
- ◆ Air Flow Management

### Dimensions



DIMENSIONS ARE IN INCHES [mm]

### Standard Ranges

Range

psig

0 to 1

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## performance specifications

Supply Current: 1.5 mA

Ambient Temperature: 25°C (Unless otherwise specified)

### PRESSURE RANGE 0 -1 psi

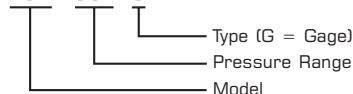
PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Full Scale Output Span	65	100	150	mV	1
Zero Pressure Output			2	±mV	2
Pressure Non-linearity		0.2	0.3	±%Span	3
Pressure Hysteresis		0.01	0.05	±%Span	
Input & Output Resistance	2500	4400	6000	Ω	
Temperature Error - Span		0.5	1.0	±%Span	4,5
Temperature Error - Zero		0.5	1.0	±%Span	4,5
Thermal Hysteresis - Zero		0.1		±%Span	4
Supply Current		1.5	2.0	mA	
Response Time (10% to 90%)		1.0		mS	5
Output Noise		1.0		µV p-p	6
Output Load Resistance	2			MΩ	
Insulation Resistance (50 VDC)	50			MΩ	7
Long Term Stability		0.2		±%Span/yr	
Pressure Overload			10	psi	
Operating Temperature	-40°C to +125°C				
Storage Temperature	-50°C to +150°C				
Media	Non-Corrosive Gases Compatible with Wetted Materials				
Weight	3 Grams				

### Notes

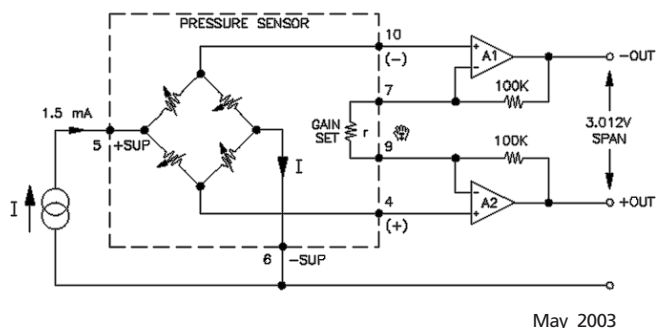
1. Output span of unamplified sensor.
2. For most models, compensation resistors are an integral part of the sensor package; no additional external resistors are required. Test pins must be kept open.
3. Best Fit Straight Line.
4. Temperature range: 0-50°C in reference to 25°C.
5. For a zero-to-full scale pressure step change.
6. 10 Hz to 1kHz.
7. Between case and sensing element.
8. Wetted materials are glass, ceramic, silicon, RTV, nickel, gold, and aluminum.

## Ordering Information

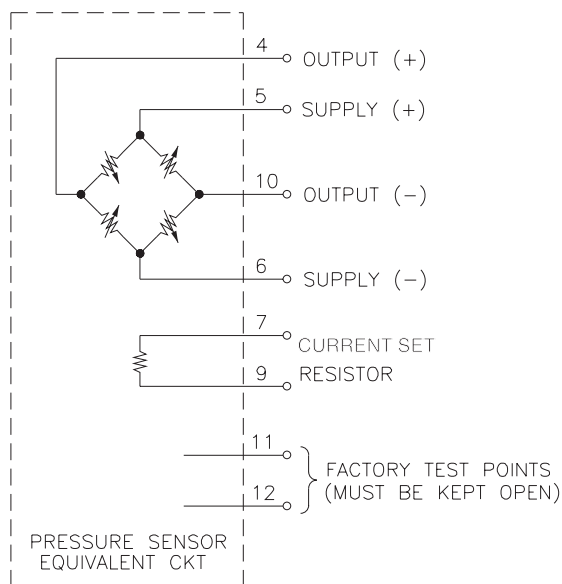
13A - 001 G



## Application Schematic



## Connections



**measurement**  
SPECIALTIES