

OEM Pressure Sensor Differential Gage and Absolute PC Board Mountable Low Cost

Features

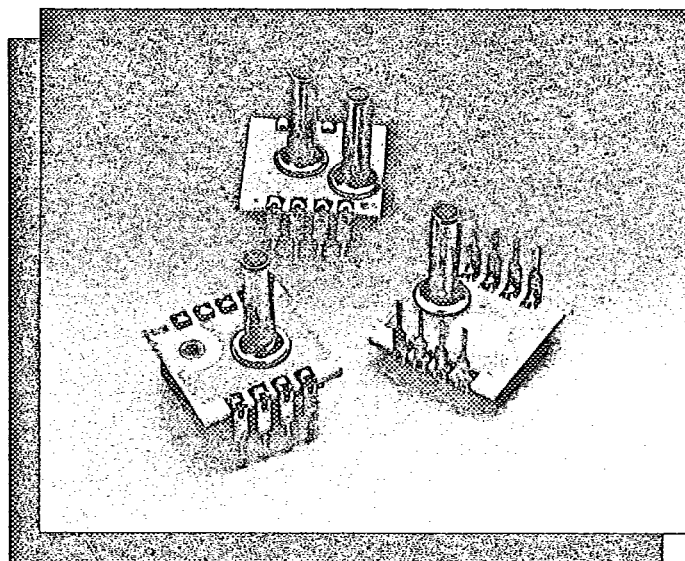
- Solid State Reliability
- $\pm 0.1\%$ Accuracy
- 100 mV Output Span
- DIP Package
- Media Compatible
- Second Source Availability
- Performance Graded
- Low Power
- Low Noise

Typical Applications

- Medical Instruments
- Automotive
- Process Control
- Factory Automation
- Liquid Level
- Air Flow Measurement
- Water Management
- Leak Detection
- Avionics
- Spirometers

Standard Ranges

0 to 2 psig	0 to 2 psid	
0 to 5 psig	0 to 5 psid	0 to 5 psia
0 to 15 psig	0 to 15 psid	0 to 15 psia
0 to 30 psig	0 to 30 psid	0 to 30 psia
0 to 50 psig	0 to 50 psid	
0 to 100 psig	0 to 100 psid	



Description

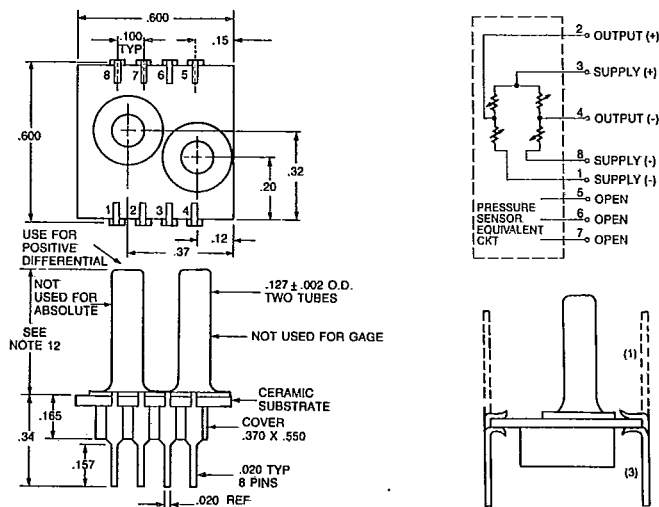
The Model 410 is a general purpose, solid-state, piezoresistive pressure sensor packaged in a dual-in-line configuration and is intended for use where excellent long-term stability, high volume, and low cost are required and where the user requires no compensation or prefers to perform temperature compensation and offset calibration during system integration.

External compensation resistors can be added to reduce zero and span temperature coefficients and the zero pressure output. The device can be driven by either a constant current or a constant voltage source. The compensation required is different for either type of excitation.

Two performance grades are available in gage, absolute and differential pressure from 0-2 psi to 0-100 psi. The gage version has a wide range of both liquid and gas media compatibility.

Various lead and pressure tube configurations are available for customizing the package for specific applications.

Connections/Dimensions



ALL DIMENSIONS IN INCHES

(1), (3)-LEAD CONFIGURATION
SEE NOTE 13

Model 410

T-65-13

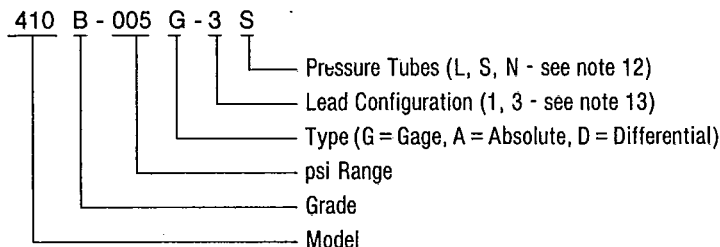
Performance Specifications

Supply Current = 1.5 mA & Ambient Temperature = 25°C (Unless otherwise specified)

PARAMETER	GRADE						UNITS	NOTES
	A			B				
	MIN	TYP	MAX	MIN	TYP	MAX		
Full Scale Output Span	75	100	150	50	100	200	mV	1
Zero Pressure Output	-20	10	20	-40	10	80	mV	2
Linearity		0.05	0.1			0.25	±% Span	3
Pressure Hysteresis		0.01	0.1			0.1	±% Span	
Input & Output Resistance	4000		6000	4000		6000	Ω	
Temperature Coefficient - Span		1.5			2.0		±% Span	2,4
Temperature Coefficient - Zero		0.5			1.0		±% Span	2,4
Temperature Coefficient - Resistance		0.22			0.22		%/°C	4
Thermal Hysteresis - Zero		0.1			0.2		±% Span	4
Supply Current		1.5	2.0		1.5	2.0	mA	5
Supply Voltage			12.0			12.0	Volts DC	
Response Time (10% to 90%)		1.0			1.0		mS	6
Output Noise		1.0			1.0		μV p-p	7
Output Load Resistance	2			2			MΩ	8
Insulation Resistance (50 VDC)	50			50			MΩ	
Long Term Stability		0.2			0.5		±%Span/yr	
Pressure Overload			3X			3X	Rated	9
Operating Temperature	-40°C to +125C							
Storage Temperature	-55°C to +150C							
Media	Liquids and Gases Compatible With Wetted Materials							10
Weight	3 Grams							

Notes

- For 2 psi, output span is 30-60 mV for Grade A, 30-100 mV for Grade B.
- External resistors can be added to reduce zero and span temperature coefficients and the zero pressure output. Compensation requirements differ for constant current or constant voltage excitation. Contact Factory.
- Best Fit Straight Line.
- Temperature range: 0-50°C in reference to 25°C.
- Guarantees input/output ratiometricity.
- For a zero-to-full scale pressure step change.
- 10 Hz to 1 kHz.
- Prevents increase of TC-Span due to output loading.
- 3X or 200 psi maximum, whichever is less. 20 psi for 2 psi and 5 psi versions.
- Wetted materials are glass, ceramic, silicon, RTV, nickel.
- Soldering of lead pins: 250°C for 5 seconds maximum.
- Tube length: L=470 ± 5 mil, S=300 ± 3 mil, N=no tube.
- Lead pins can either be in the same or the opposite direction as the pressure tube. See drawing on Front Page for lead configurations.

Ordering Information**Represented By**

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