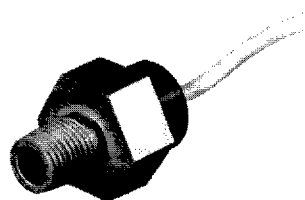


Pressure Sensors

High Pressure Gage/Unamplified

230PC Series

Temperature Compensated Sensors



FEATURES

- Male 1/4-18 NPT pressure port
- Remote atmospheric pressure reference
- Stainless steel housing
- Calibrated Null and Span
- Temperature compensated for Span over 0 to 50°C
- Provides interchangeability

236PC SERIES PERFORMANCE CHARACTERISTICS at 10.0 ±0.01 VDC Excitation, 25°C

	Min.	Typ.	Max.	Units
Excitation	---	10	16	VDC
Null Offset	-2	0	+2	mV
Null Shift, 25° to 0°, 25° to 50°C	---	±3.0	---	mV
Sensitivity Shift, 25° to 0°, 25° to 50°C	---	±1.5	---	%Span
Repeatability & Hysteresis	---	±0.25	---	%Span
Response Time	---	---	1.0	msec
Input Resistance	---	6.8 K	---	ohms
Output Resistance	---	4.0 K	---	ohms
Stability over One Year	---	±0.5	---	%Span
Weight	---	56	---	grams

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30° to +70°C (-22° to +158°F)
Storage Temperature	-40° to +105°C (-40° to +221°F)
Compensated Temperature	0° to +50°C (32° to +122°F)
Shock	MIL-STD-202, Method 213 (100 g, half sine, 6 msec)
Vibration	MIL-STD-202, Method 204 (10 to 2000 Hz at 20 g)
Media	P2 port Wetted materials; stainless steel 303 housing, epoxy adhesive, silicon, borosilicate glass, and silicon-to-glass bond

236PC SERIES ORDER GUIDE

Catalog Listing	Pressure Range psi	Span, mV			Sensitivity mV/psi Typ	Overpressure psi Max.	Linearity, %Span Max.
		Min.	Typ.	Max.			
236PC15GW	0-15	98	100	102	6.67	45	±2.50
236PC30GW	0-30	78	80	82	2.67	60	±1.50
236PC60GW	0-60	58	60	62	1.00	100	±0.50
236PC100GW	0-100	98	100	102	1.00	150	±0.50
236PC150GW	0-150	58	60	62	0.40	225	±0.50

4551830 0021154 512

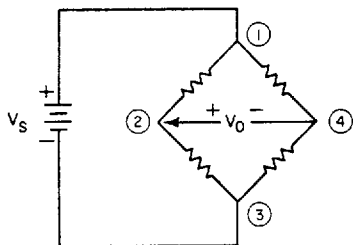
Pressure Sensors

High Pressure Gage/Unamplified

230PC Series

ELECTRICAL CONNECTIONS

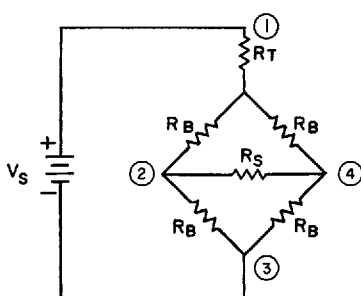
Voltage Excitation



NOTES

1. Circled numbers refer to sensor termination.
2. V_0 changes with pressure difference.
3. $V_0 = V_2 - V_4$ (referenced to pin 3).
4. Current excitation provides reduced sensitivity variation with temperature.

INTERNAL CIRCUITRY



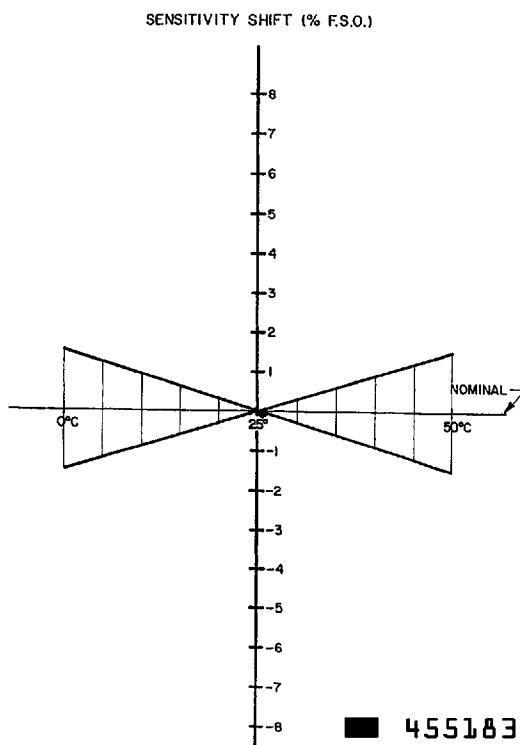
NOTES

1. Circled numbers refer to sensor termination.
2. $V_0 = V_2 - V_4$ (referenced to pin 3).
3. R_B = Strain gage resistors ($\sim 4.8 \text{ k}\Omega$).
4. R_T = Sensitivity temperature compensation resistor.
5. R_S = Sensitivity calibration resistor.

SENSITIVITY SHIFT

The diagram at right illustrates how sensitivity shift relates to temperature. Note that the maximum shift occurs at temperature extremes. Therefore, if a sensor is not exposed to the entire temperature range, the maximum sensitivity shift will actually be less than the value specified.

When a positive pressure is applied to port P2, the differential voltage $V_2 - V_4$ (voltage at pin 2, with respect to ground, increases and voltage at pin 4 decreases) increases linearly with respect to the input pressure. When a vacuum pressure is pulled at port P2 (or positive pressure applied to port P1) the voltage $V_2 - V_4$ decreases linearly with respect to the input pressure.



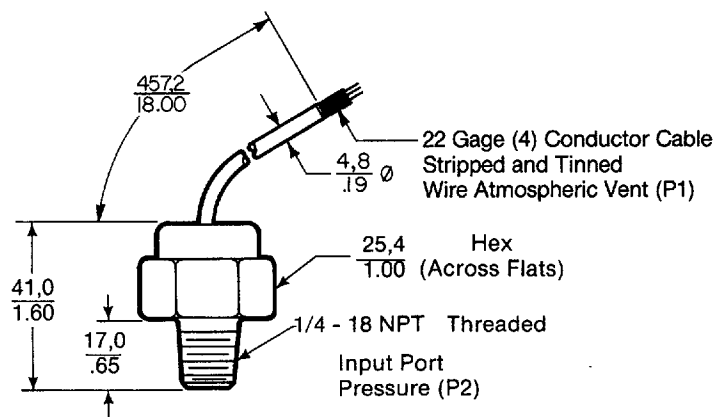
4551830 0021155 459

Pressure Sensors

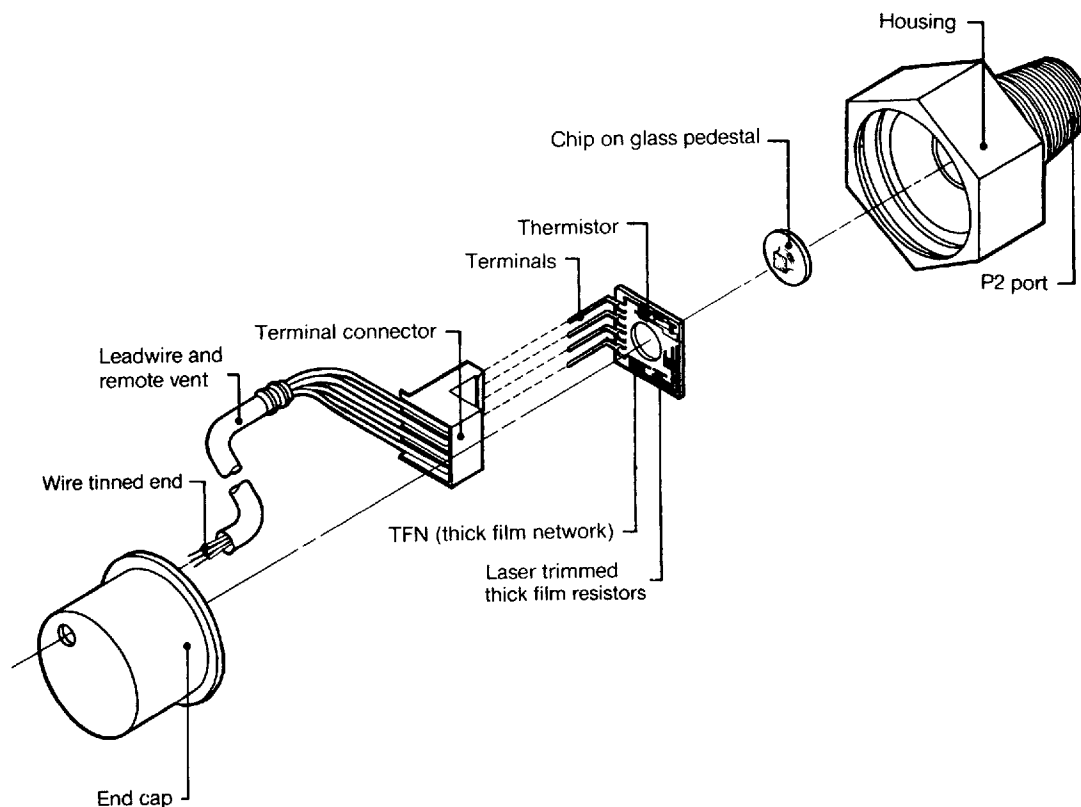
High Pressure Gauge/Unamplified

230PC Series

MOUNTING DIMENSIONS (For reference only)



230PC CONSTRUCTION



Unamplified

4551830 0021156 395