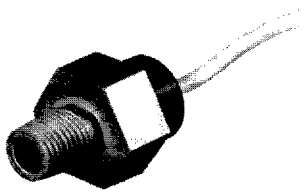
Pressure Sensors
High Pressure Gage/Unamplified

Temperature Compensated Sensors



FEATURES
- Male ¼-18 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

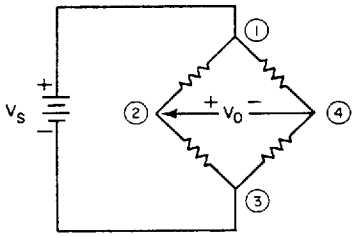
Operating Temperature	–30° to +70°C (–22° to +158°F)
Storage Temperature	–40° to +105°C (–40° to +221°F)
Compensated Temperature	0° to +50°C (32° to +122°F)
Shock	MIL-STD-202, Method 213 (100 g, half sine, 6 msec)
Vibration	MIL-STD-202, Method 204 (10 to 2000 Hz at 20 g)
Media	P2 port Wetted materials;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

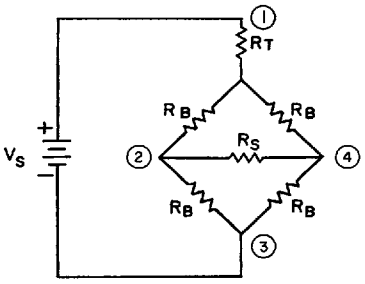
ELECTRICAL CONNECTIONS

Voltage Excitation



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

INTERNAL CIRCUITRY

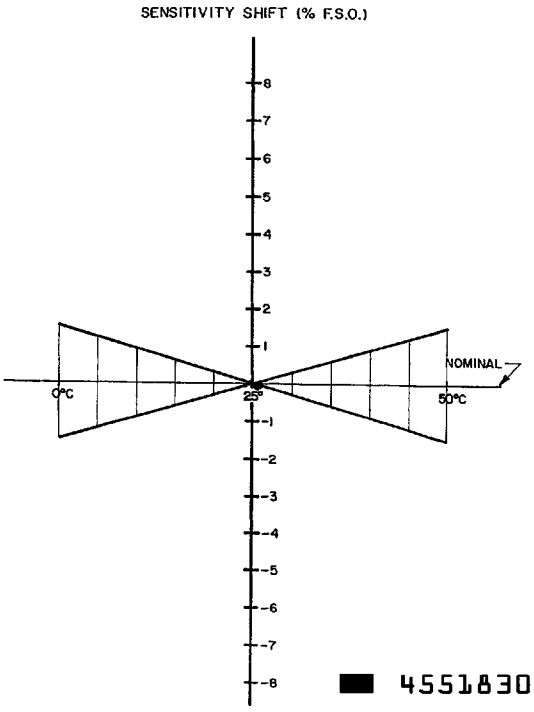


NOTES
1. Circled numbers refer to sensor termination.
2. $V_O = V_2 - V_4$ (referenced to pin 3).
3. R_B = Strain gage resistors (~4.8 kΩ).
4. R_T = Sensitivity temperature compensation resistor.
5. R_S = Sensitivity calibration resistor.

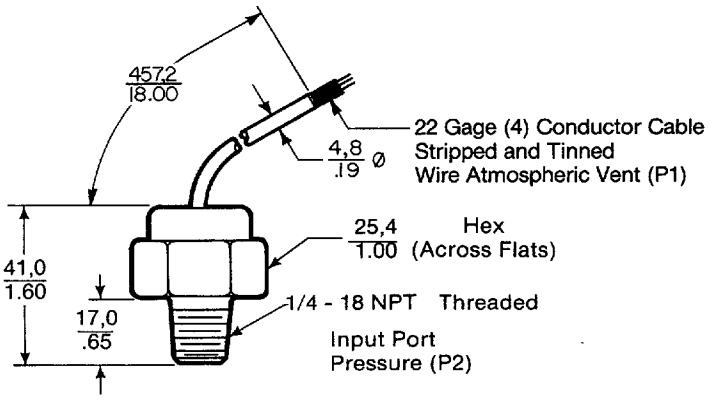
When a positive pressure is applied to port P2, the differential voltage $V_2 - V_4$ (voltage at pin 2, with respect to ground, increases and voltage at pin 4 decreases) increases linearly with respect to the input pressure. When a vacuum pressure is pulled at port P2 (or positive pressure applied to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

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.

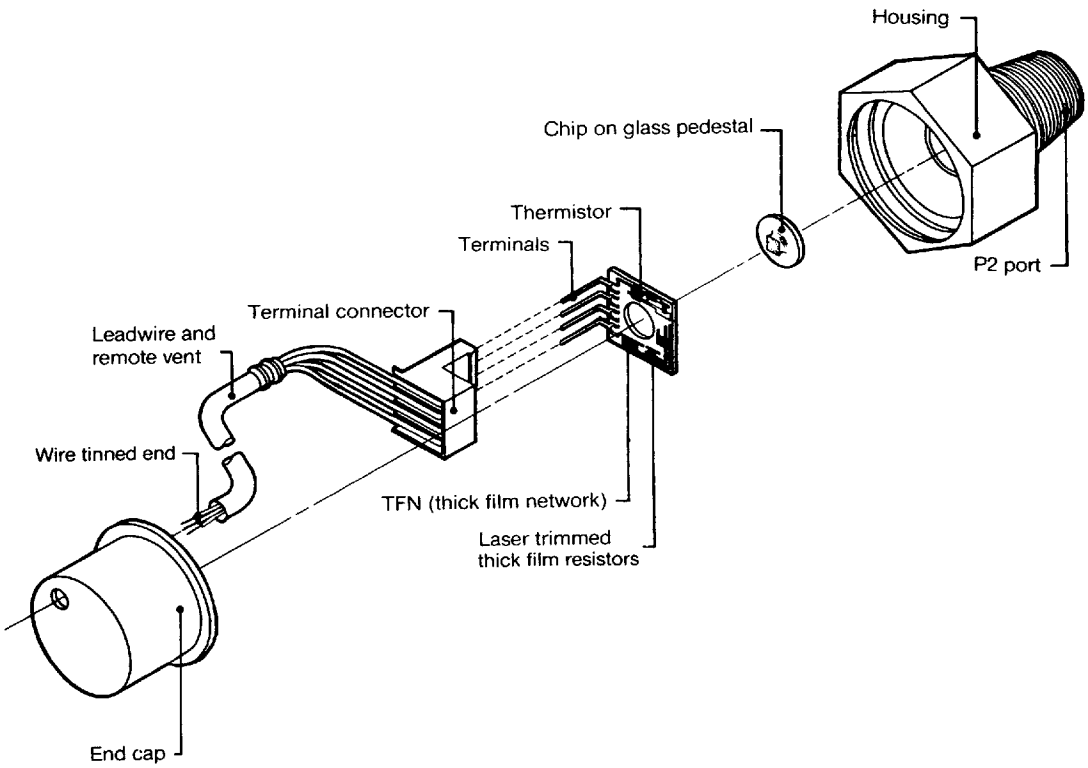


MOUNTING DIMENSIONS (For reference only)



Leadwires
1 - Red, Vs
2 - White, Output A
3 - Black, Ground (–)
4 - Green, Output B

230PC CONSTRUCTION



Unamplified