# Honeywell

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Pressure Sensors 22PC Series

## Gage/Unamplified-Noncompensated

### **Basic Sensors**



### **FEATURES**

- Lowest priced pressure sensor
- Miniature package
- Can be used to measure with vacuum or positive pressure
- Operable after exposure to frozen conditions
- 2 mA constant current excitation significantly reduces sensitivity shift over temperature\*

## 22PC SERIES PERFORMANCE CHARACTERISTICS at 10.0 $\pm 0.01$ VDC Excitation, 25°C

	Min.	Тур.	Max.	Units
Excitation		10	12	VDC
Null Shift, 25° to 0°, 25° to 50°C		±2.0		mV
Null Offset	-30	0	+30	mV
Linearity, P2 > P1, BFSL		±0.25	±1.0	%Span
Span Shift, 25° to 0°, 25° to 50°C		±6.0		%Span
Repeatability & Hysteresis		±0.15		%Span
Response Time			1.0	msec
Input Resistance	4.0 K	5.0 K	6.0 K	ohms
Output Resistance	4.0 K	5.0 K	6.0 K	ohms
Weight		2		grams

### **ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature	-40° to +85°C (-40° to +185°F)
Storage Temperature	-55° to +100°C (-67° to +212°F)
Shock	Qualification tested to 150 g
Vibration	Qualification tested to 0 to 2 kHz, 20 g sine
Media (P1 & P2)	Limited only to those media which will not attack polyetherimide, silicon, fluorosilicone, silicone, EPDM, and neoprene seals

### 22PC SERIES ORDER GUIDE

Catalog	Pressure Range	Span, mV			Sensitivity mV/psi	Overpressure	
Listing	psi	Min.	Тур.	Max.	Typ.	psi, Max.	
22PCA Type	1.0	25	42	59	42	20	
22PCC Type	15	156	225	294	15	45	
22PCF Type	100	147	225	303	2.3	200	

### **SENSOR SELECTION GUIDE**

2 Product	2 Circuit	PC Pressure	A Pressure	F Type of	A Type of	6 Termination	G Pressure
Family	Туре	Transducer	Range	Seal	Port	Style	Measurement
<b>2</b> 20PC Family	2 Noncompen- sated low cost		<b>A</b> 1 psi <b>C</b> 15 psi	E EPDM F Fluorosilicone	A Straight B Barbed	<b>2</b> 2 x 2 <b>6</b> 1 x 4	<b>G</b> Gage
,			<b>F</b> 100 psi	N Neoprene S Silicone	<b>D</b> Modular <b>J</b> Needle	(.600")	

Example: 22PCAFA6G

Non-compensated low cost 1 psi sensor with fluorosilicone seal, straight port, 1 x 4 termination and gage pressure measurement.

See Accessory Guide, page 27.

Note: Not all catalog listings are established. Please refer to the Order Guides, or contact the MICRO SWITCH Application Center at the 800 number.

\*Non-compensated pressure sensors, excited by constant current instead of voltage, exhibit temperature compensation of Span. Application Note #1 briefly discusses current excitation.

Constant current excitation has an additional benefit of temperature measurement. When driven by a constant current source, a silicon pressure sensor's terminal voltage will rise with increased temperature. The rise in voltage not only compensates the Span, but is also an indication of die temperature.

### **Constant Current Excitation Schematic**

