# Honeywell

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Sensing and Control Honeywell Inc. 11 West Spring Street Freeport, Illinois 61032



#### **Pressure Sensors** 24PC Series

### Gage and Differential/Unamplified-Noncompensated

#### **Basic Sensors**



#### **FEATURES**

- Miniature package
- · Variety of gage pressure port configurations - easily and quickly modified for your special needs
- Operable after exposure to frozen conditions
- Ideal for wet/wet differential applications
- Choice of termination for gage sensors
- 2 mA constant current excitation significantly reduces sensitivity shift over temperature\*
- Can be used to measure vacuum or positive pressure

#### 24PC SERIES PERFORMANCE CHARACTERISTICS at 10.0 ±0.01 VDC Excitation, 25°C

	Min.	Тур.	Max.	Units
Excitation		10	12	VDC
Null Offset	-30	0	+30	mV
Null Shift, 25° to 0°, 25° to 50°C		±2.0		mV
Linearity, P2 > P1, BFSL		±0.25	±1.0	%Span
Span Shift, 25° to 0°, 25° to 50°C		±5.0*		%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
Stability over One Year		±0.5		%Span
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.

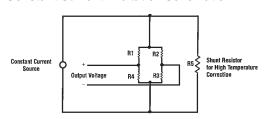
#### 24PC SERIES ORDER GUIDE

Catalog	Pressure Range	Span, mV			Sensitivity mV/psi	Overpressure	
Listing	psi	Min.	Тур.	Max.	Typ.	psi Max.	
24PCE Type	0.5	24	35	46	70	20	
24PCA Type	1.0	30	45	60	45	20	
24PCB Type	5.0	85	115	145	23	20	
24PCC Type	15	165	225	285	15	45	
24PCD Type	30	240	330	420	11	60	
24PCF Type	100	156	225	294	2.25	200	
24PCG Type	250	145	212	280	0.85	500	

<sup>\*</sup> 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**



**Pressure Sensors** 24PC Series

## Gage and Differential/Unamplified-Noncompensated

### **SENSOR SELECTION GUIDE**

2 Product Family	4 Circuit Type	PC Pressure Transducer	A Pressure Range	F* Type of Seal	A Type of Port	2 Termination Style	G Pressure Measurement
2 20PC family	4 Noncompensated		A 1 psi B 5 psi C 15 psi D 30 psi E 0.5 psi F 100 psi G 250 psi	E EPDM F Fluorosilicone N Neoprene S Silicone	A Straight B Barbed C Luer D Modular H M5 Thread I 90° Port J Needle K Reverse 98 Por L 1/4 - 28 UNF W	Cable Lock	G Gage D Differential
					<b>M</b> 1/4 - 28 UNF w. <b>S</b> Manifold	/o Cable Lock	

#### Example: 24PCAFA2G

Standard, non-compensated 1 psi sensor with fluorosilicone seal, straight port, 2 x 2 terminals, and Gage pressure measurement. \*Other media seal materials may be available.

See Accessory Guide, page 27.

Not all combinations are established. Contact 800 number before final design.