## **Pressure Sensors**

## Gage and Differential/Unamplified-Compensated

#### **Temperature Compensated Sensors**



#### **FEATURES**

- Lowest priced sensor with temperature compensation and calibration
- Variety of gage pressure port configurations - easily and quickly modified for your special needs
- Operable after exposure to frozen conditions
- Choice of termination for gage sensors
- Calibrated Null and Span
- Temperature compensated for Span over 0 to 50°C
- Provides interchangeability
- Can be used to measure vacuum or positive pressure
- Ideal for wet/wet differential applications

#### 26PC SERIES PERFORMANCE CHARACTERISTICS at 10.0 $\pm$ 0.01 VDC Excitation, 25°C

	Min.	Тур.	Max.	Units
Excitation		10	16	VDC
Repeatability & Hysteresis		±0.20		%Span
Response Time			1.0	msec
Input Resistance	5.5 K	7.5 K	11.5 K	ohms
Output Resistance	1.5 K	2.5 K	3.0 K	ohms
Stability over One Year		±0.5		%Span
Weight		2		grams

Total error calculation, see page 105.

#### **ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature	-40° to 85°C (-40° to +185°F)
Storage Temperature	-55° to +100°C (−67° to +212°F)
Compensated Temperature	0° to +50°C (32° to +122°F)
Shock	Qualification tested to 150 g
Vibration	MIL-STD-202. Method 213 (150g halfsine, 11 msec)
Media (P1 & P2)	Limited only to those media which will not attack polyetherimide, silicon, fluorosilicone, silicone, EPDM, and neoprene seals.

#### **26PC SERIES ORDER GUIDE**

Catalog Listing	Pressure Range (psi)	Line (% s	arity pan)	Null (m		N	lull Offse (mV)	et	Span (% s	Shift pan)		Span (mV)		Sensitivity mV/psi	Over- pressure psi
		Тур.	Max	Тур.	Max	Min.	Тур.	Max.	Тур.	Max.	Min.	Тур.	Max.	Тур.	Max.
26PCA TYPE	1	0.25	0.5	±0.5	±1.0	-1.5	0	+1.5	±1.0	±2.0	14.7	16.7	18.7	16.7	20
26PCB TYPE	5	0.4	0.5	±0.5	±1.0	-1.5	0	+1.5	±1.0	±1.5	47	50	53	10.0	20
26PCC TYPE	15	0.25	0.5	±0.5	±1.0	-1.5	0	+1.5	±0.75	±1.5	97	100	103	6.67	45
26PCD TYPE	30	0.1	0.2	±0.75	±1.5	-1.5	0	+1.5	±0.75	±1.5	97	100	103	3.33	60
26PCF TYPE	100	0.1	0.2	±1.0	±2.0	-2.0	0	+2.0	±0.5	±1.5	95	100	105	1.0	200
26PCJ TYPE	38*	0.1	0.5	±0.7	±1.5	-1.5	0	+1.5	±1.0	±1.5	37.5	39.5	41.5	2.63	60
26PCK TYPE	38*	0.1	0.5	±0.7	±1.5	-1.5	0	+1.5	±1.0	±1.5	37.5	39.5	41.5	2.63	60

<sup>\*</sup>Accuracy specifications calculated at 15 psi.

**Pressure Sensors** 26PC Series

## Gage and Differential/Unamplified-Compensated

#### **SENSOR SELECTION GUIDE**

2	6	PC	B	F*	A	2	G
Product	Circuit	Pressure	Pressure	Type of	Type of	Termination	Pressure
Family	Type	Transducer	Range	Seal	Port	Style	Measurement
2 20PC family	6 Compensated Calibrated		A 1 psi B 5 psi C 15 psi D 30 psi F 100 psi J 38 psi K 38 psi (passivated**)	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 90° Pot L 1/4-28 UNF w/O S Manifold	Cable Lock	G Gage D Differential

#### Example: 26PCBFA2G

Compensated and calibrated 5 psi sensor with fluorosilicone seal, straight port, 2 x 2 terminals, and Gage pressure measurement.

See Accessories Guide, page 27.

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

<sup>\*</sup>Other media seal materials may be available.

<sup>\*\*</sup>P2 side of die coated for environmental and dielectic protection.

# Unamplified

#### **ACCESSORIES SELECTION GUIDE**

Catalog		
Listing	Description	Drawing
PC-10182	Steel lockring (included with Port Style A, 1 x 4 terminals only) 22, 24, 26PC only	Figure 1
PC-15111	Cable retaining clip for large port Flow-Through sensor only	Figure 4
PC-15110	Single hole plastic bracket	Figure 3
PC-15015	Mounting bracket	Figure 6
PC-15132	Plastic Mounting bracket	Figure 5
20PCWHRC	Flow-Through wire harness and retaining clip	Figure 2
26PCBKT	Mounting bracket for large port Flow-Through sensor only	Figure 7
PC-15202	Mounting bracket for Luer Port	Figure 8
PC-15204	Mounting bracket for Straight Port	Figure 9

Figure 1 PC-10182 Steel Lockring

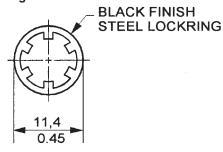


Figure 3 PC-15110 Single Hole Plastic Bracket

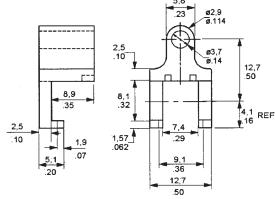


Figure 5 PC-15132 Plastic Mounting Bracket

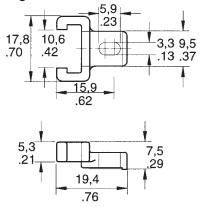


Figure 2 20PCWHRC

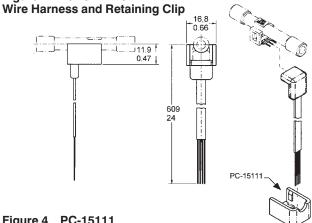
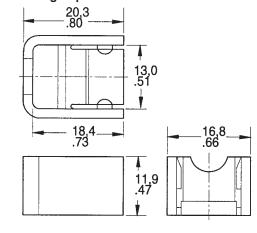


Figure 4 PC-15111 Cable Retaining Clip



## **Pressure Sensors**

## Accessories

Figure 6 PC-15015 Mounting Bracket

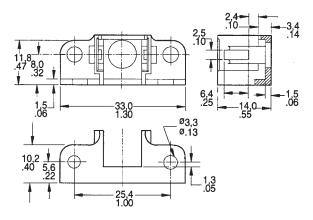


Figure 7 26PCBKT For use with N, P Large Ports

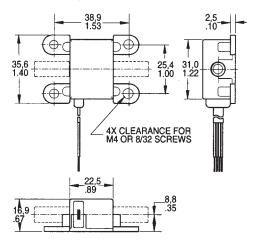
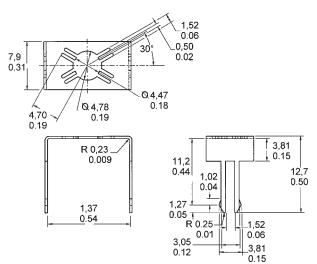
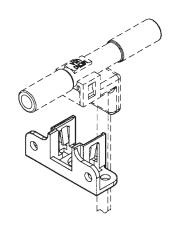


Figure 8 PC-15202 For use with C Luer Port





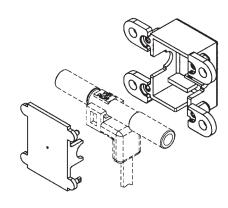
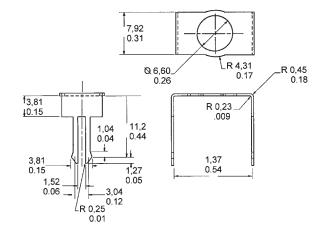


Figure 9 PC-15204
For use with A Straight Port



**Note:** PC-15202 and PC-15204 are Printed Circuit Board mountable and solderable; designed to be used in a .063 thick PC Board with a recommended mounting hole size of .125  $\pm$ .005 in.

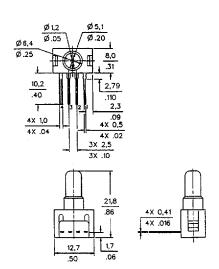
## Gage and Differential/Unamplified

#### MOUNTING DIMENSIONS (for reference only)

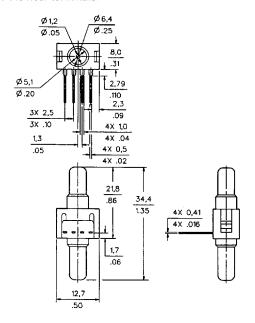
#### **GAGE SENSOR**

Pressure is applied to port P2. Port P1 vents to ambient pressure.

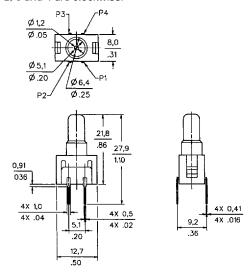
#### "1 x 4" Termination (Style 1), Port Style A, Straight Pin 1 is notched, and is shown at the right of the package. Pin 2 is next to pin 1, etc.



**DIFFERENTIAL SENSOR** Straight Port, 1 x 4 termination (Style 2) ONLY Port P1 is near terminals.



"2 x 2" Termination (Style 2), Port Style A, Straight Pin 1 is notched, and is shown at lower right corner. Pins 2, 3 and 4 are clockwise.

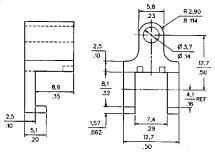


#### **ACCESSORIES**

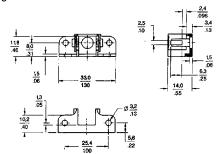
Lockring (included with A port)

BLACK FINISH STEEL LOCKRING PC10182

#### Single hole Plastic Bracket (purchase separately) PC10949



#### **Dual Port Plastic Bracket** (purchase separately) PC15015



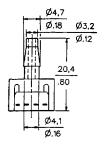
## 22/24/26PC Series

### **Pressure Sensors**

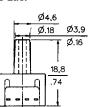
# Gage and Differential/Unamplified

#### OTHER GAGE SENSOR PORT STYLES (2 x 2 or 1 x 4 Termination)

#### **B** Barbed



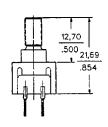
#### C Luer



#### D Modular



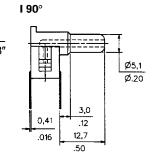
#### H M5 Thread



O-Ring Size 007

O-Ring Counterbore

.040'' deep  $\pm .005 \times .30 \pm .003''$ 



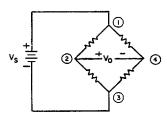
#### **20PC SERIES CIRCUIT - NOTES**

- 1. Circled numbers refer to Sensor Terminals (interface pins).
- V<sub>0</sub> increases with pressure change.
- 3.  $V_0 = V_2 V_4$
- 4. Pin 1 designated with a notch.

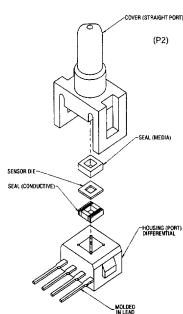
#### Pin Designation

Pin 1 ν<sub>s</sub> (+) Output (+) Pin 2 Ground (-) Pin 3 Pin 4 Output (-)

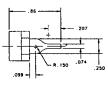
#### **EXCITATION**



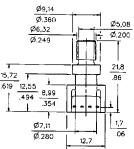
#### 20PC Construction



#### J Needle



#### M 1/4-28 UNF Thread



O-Ring

Size 009

O-Ring Counterbore

.040'' deep  $\pm .002 \times .360'' \pm .003''$