

# PCO Series P-grade

## Precision compensated pressure sensors / mV-output

### FEATURES

- Ranges from 4 inH<sub>2</sub>O to 150 psi, differential, gage or absolute
- Precision temperature compensated
- Calibrated offset and span
- Voltage excitation
- Excellent long term stability

### MEDIA COMPATIBILITY

To be used with non-corrosive, non-ionic working fluids such as clean dry air, dry gases and the like.

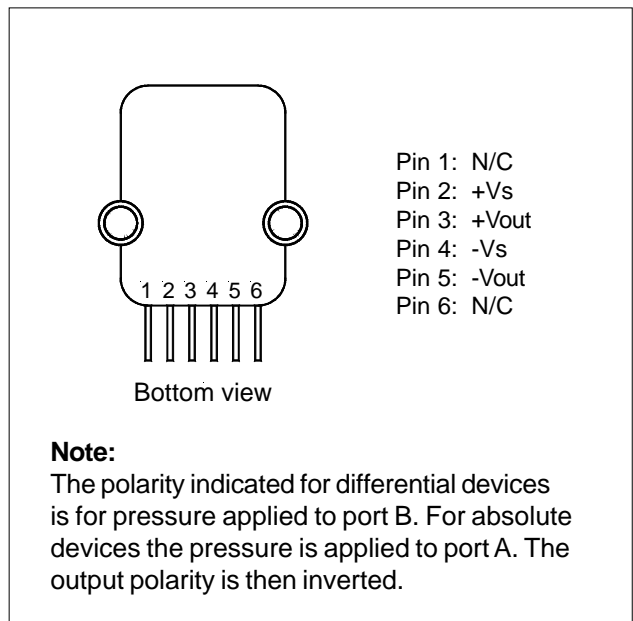


### SPECIFICATIONS

#### Maximum ratings

Supply voltage $V_s$	16 V <sub>DC</sub>
Lead temperature (soldering 2-4 sec.)	250 °C
Temperature ranges	
Compensated	0...70 °C
Operating	-25...85 °C
Storage	-40...125 °C
Humidity limits (non-condensing)	0...95 % RH
Common mode pressure	50 psig

### ELECTRICAL CONNECTION



# PCO Series P-grade

## Precision compensated pressure sensors / mV-output

### PRESSURE SENSOR CHARACTERISTICS<sup>1</sup>

Part no.	Operating pressure	Proof pressure <sup>2</sup>	Burst pressure <sup>3</sup>	Full scale span <sup>4</sup>		
				Min.	Typ.	Max.
PCOH004DP	0 ... 4 inH <sub>2</sub> O	3 psi	15 psi	39.5 mV	40 mV	40.5 mV
PCOP0x3DP	0 ... 0.3 psi	5 psi	15 psi	19.8 mV	20 mV	20.2 mV
PCOP001DP	0 ... 1 psi	5 psi	15 psi	17.82 mV	18 mV	18.18 mV
PCOP005DP	0 ... 5 psi	10 psi	30 psi	59.4 mV	60 mV	60.6 mV
PCOP015DP	0 ... 15 psi	60 psi	120 psi	89.1 mV	90 mV	90.9 mV
PCOP030DP	0 ... 30 psi	90 psi	150 psi	89.1 mV	90 mV	90.9 mV
PCOP100DP	0 ... 100 psi	200 psi	250 psi	99 mV	100 mV	101 mV
PCOP150DP	0 ... 150 psi	200 psi	250 psi	89.1 mV	90 mV	90.9 mV
PCOP015AP	0 ... 15 psia	60 psia	120 psia	89.1 mV	90 mV	90.9 mV
PCOP030AP	0 ... 30 psia	90 psia	150 psia	89.1 mV	90 mV	90.9 mV
PCOP100AP	0 ... 100 psia	200 psia	250 psia	99 mV	100 mV	101 mV

### COMMON PERFORMANCE CHARACTERISTICS<sup>1</sup>

Characteristics		Min.	Typ.	Max.	Unit
Zero pressure offset	PCOH004DP, PCO...AP			±0.5	mV
	all others			±0.25	
Combined non-linearity and hysteresis <sup>5</sup>			±0.1	±0.5	%FS
Temperature effects (0...70 °C) <sup>6</sup>	Offset		±0.1	±0.5	mV
	Span		±0.2	±1.0	%FS
Input resistance			5		kΩ
Output resistance			3		

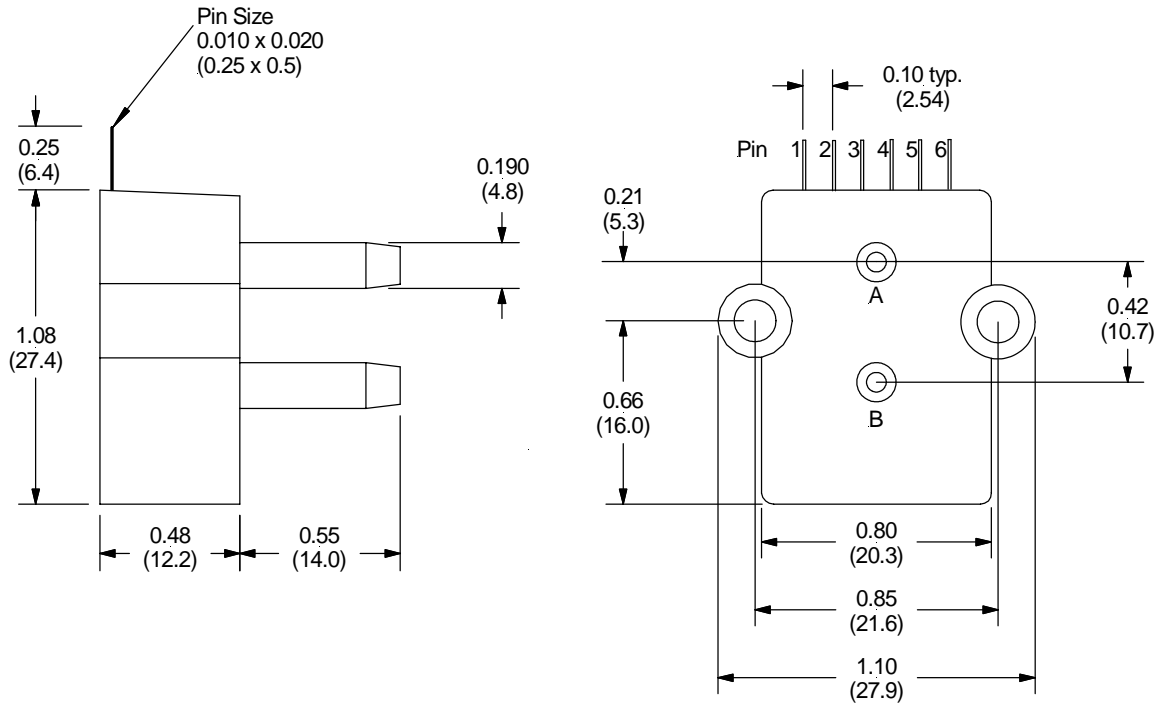
#### Specification notes:

- Reference conditions: unless otherwise noted, supply voltage  $V_S = 12\text{ V}$ ,  $T_A = 25^\circ\text{C}$ , common-mode pressure 0, pressure applied to port B. For absolute devices pressure is applied to port A and the output polarity is inversed.
- Proof pressure is the maximum pressure which may be applied without causing durable shifts of the electrical parameters of the sensing element.
- Burst pressure is the maximum pressure which may be applied without causing damage to the sensing element or leaks from the housing.
- Full scale span is the algebraic difference between the output voltage at full-scale pressure and the output at zero pressure. The span is ratiometric to the supply voltage.
- Non-linearity refers to the **Best Straight Line** fit measured for offset pressure, full-scale pressure and ½ full-scale pressure.
- Shifts relative to 25°C.

# PCO Series *P-grade*

## Precision compensated pressure sensors / mV-output

### PHYSICAL DIMENSIONS



dimensions in inches (mm)

Sensortech reserves the right to make changes to any products herein. Sensortech does not assume any liability arising out of the application or use of any product or circuit described herein, neither does it convey any license under its patent rights nor the rights of others.