

# PCO Series *H-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.

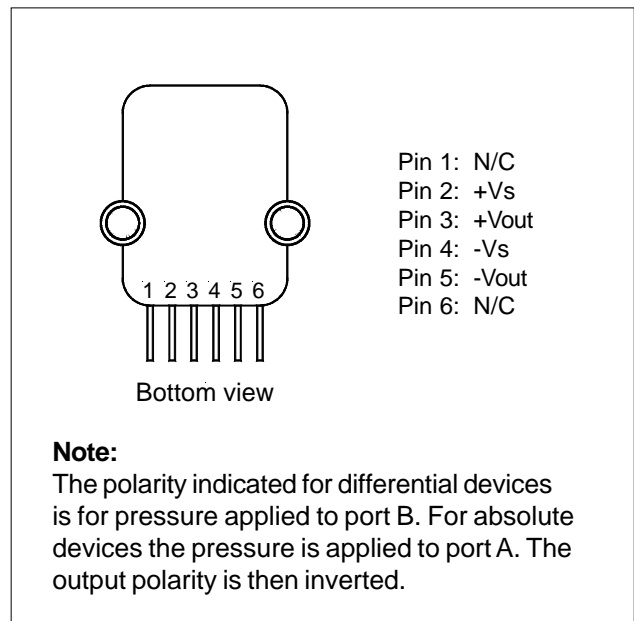


### SPECIFICATIONS

#### Maximum ratings

Supply voltage $V_s$	16 V <sub>DC</sub>
Lead temperature (soldering 2-4 sec.)	250 °C
Temperature ranges	
Compensated	
PCOH004DH	0...50 °C
all others	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 *H-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.
PCOH004DH	0 ... 4 inH <sub>2</sub> O	3 psi	15 psi	38 mV	40 mV	42 mV
PCOP0x3DH	0 ... 0.3 psi	5 psi	15 psi	18 mV	20 mV	22 mV
PCOP001DH	0 ... 1 psi	5 psi	15 psi	16 mV	18 mV	20 mV
PCOP005DH	0 ... 5 psi	10 psi	30 psi	57 mV	60 mV	63 mV
PCOP015DH	0 ... 15 psi	60 psi	120 psi	86 mV	90 mV	94 mV
PCOP030DH	0 ... 30 psi	90 psi	150 psi	86 mV	90 mV	94 mV
PCOP100DH	0 ... 100 psi	200 psi	250 psi	96 mV	100 mV	104 mV
PCOP150DH	0 ... 150 psi	200 psi	250 psi	86 mV	90 mV	94 mV
PCOP015AH	0 ... 15 psia	60 psia	120 psia	86 mV	90 mV	94 mV
PCOP100AH	0 ... 100 psia	200 psi	250 psi	96 mV	100 mV	104 mV

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

#### PCOH004DH

Characteristics	Min.	Typ.	Max.	Unit
Zero pressure offset			±1.0	mV
Combined non-linearity and hysteresis <sup>5</sup>		±0.5	±1.0	%FS
Temperature effects (0...50 °C) <sup>6</sup>	Offset		±1.0	mV
	Span		±2.0	%FS
Input resistance		5		kΩ
Output resistance		3		

#### All other devices

Characteristics	Min.	Typ.	Max.	Unit
Zero pressure offset			±0.5	mV
Combined non-linearity and hysteresis <sup>5</sup>		±0.5	±1.0	%FS
Temperature effects (0...70 °C) <sup>6</sup>	Offset	±0.2	±1.0	mV
	Span	±0.4	±2.0	%FS
Input resistance		5		kΩ
Output resistance		3		

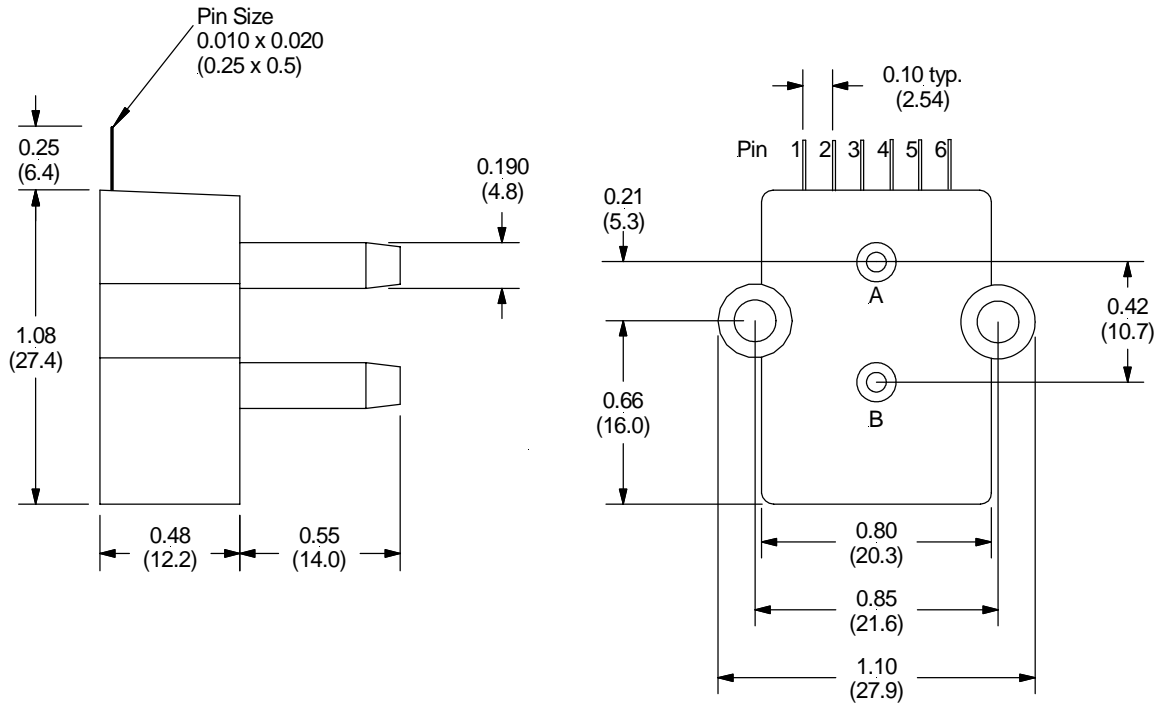
#### Specification notes:

- 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 inverted.
- 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 *H-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.