

PC320 Industrial Pressure Sensor



- Piezoresistive silicon chip employed
- Perfect long term stability
- MEMS technology
- CE certificate
- Economic pressure sensor
- Sensor diameter: 19mm

PC320 industrial pressure sensor is a standard and most popular sensor applied in air and liquid pressure measuring. A high sensitivity silicon pressure chip is employed in the sensor. The housing is filled with oil for pressure transmission. The most important specification for industry application is long term stability. PC320 sensor is designed for industry application with perfect long term stability.

Diaphragm and pressure range

The diaphragm diameter has tight relation with pressure measured. Low pressure requires large diameter and high pressure needs small diameter. This is caused by oil expansion during temperature changing. It creates internal pressure due to the resistance of the diaphragm. The smaller diaphragm will create large internal pressure, and it is difficult to make zero compensation.

Caution

Please do not touch the diaphragm by finger and other hard objects, or it may be damaged.

Pressure range

Pressure range	-100kPa, 10kPa, 35kPa, 70kPa, 100kPa, 250kPa, 400kPa, 600kPa, 1MPa, 1.6MPa, 2.5MPa, 4MPa, 6MPa, 10MPa(bar and psi unit available)
Pressure reference	Gauge pressure Absolute pressure Sealed gauge pressure
Overpressure	300%F.S.($\leq 70\text{kPa}$) 200%F.S.($< 25\text{Mpa}$) 150%F.S.($\geq 25\text{Mpa}$)

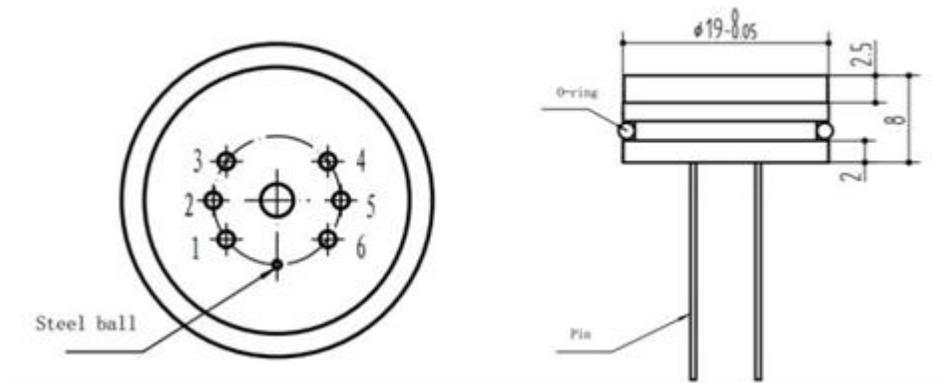
Output signal

Zero output	$\pm 2\text{mV}$
Span output	100mV(Typical) 60mV($< 100\text{kPa}$)

Specification

Accuracy (linearity, repeatability and hysteresis)	$\pm 0.25\% \text{F.S. (Typical)}$		
Excitation	1.5mA (Typical)		
Compensated temp.	$-10-70^{\circ}\text{C}$ (Typical) $0-60^{\circ}\text{C}$ ($< 100\text{kPa}$)		
Operating temp.	$-40-125^{\circ}\text{C}$		
Storage temp.	$-40-125^{\circ}\text{C}$		
Zero temp. coefficient	$0.02\% \text{F.S./}^{\circ}\text{C}$ ($\geq 100\text{kPa}$) $0.04\% \text{F.S./}^{\circ}\text{C}$ ($< 100\text{kPa}$)		
Span temp. coefficient	$0.02\% \text{F.S./}^{\circ}\text{C}$ ($\geq 100\text{kPa}$) $0.04\% \text{F.S./}^{\circ}\text{C}$ ($< 100\text{kPa}$)		
Insulation resistance	$> 200\text{Mohm}/250\text{VDC}$		
Bridge resistance	Min.	Max.	Unit
	2600	5500	ohm
Long term stability	$\leq 0.2\% \text{F.S./year}$		
Vibration	20g (20-5000HZ)		
Oil filling	Silicon oil (Typical)		
O-ring	NBR, Viton		
Housing and diaphragm	Stainless steel 316L		
Pin connection	Kovar pin (0.6um Gold plated)		
Weight	25g(approx)		

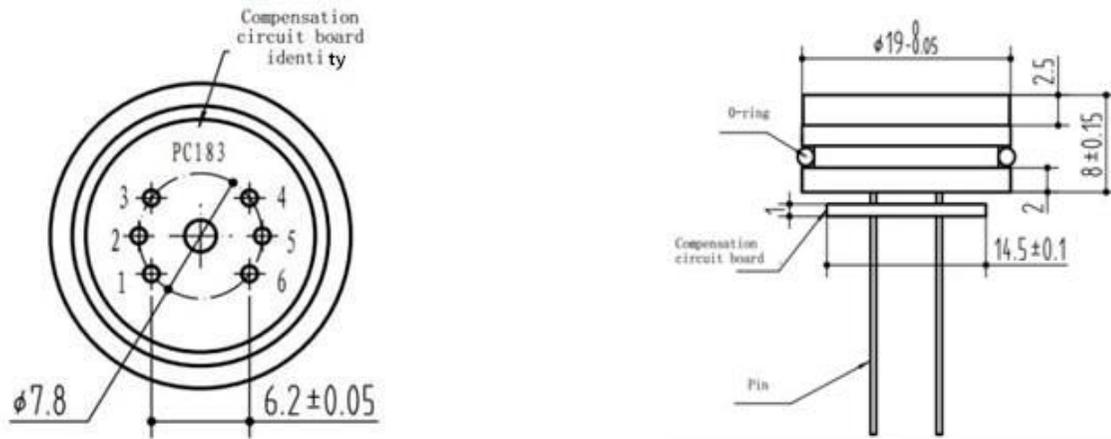
Without temperature compensation



In mm

Pin	Connection
3	excitation+
1,6	excitation-
5	pending
2	output+
4	output-

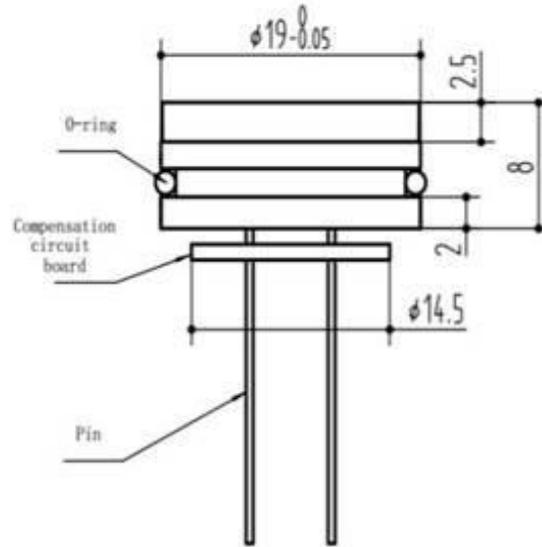
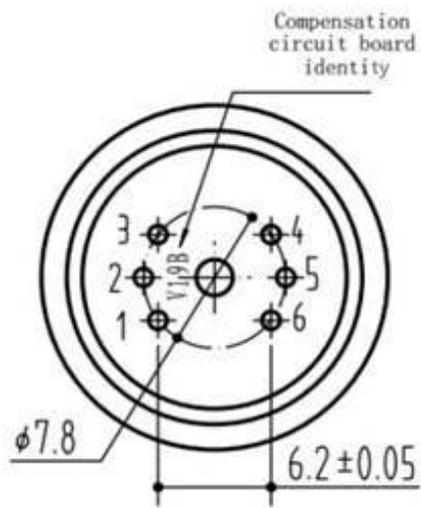
1.5mA supply with temperature compensation



In mm

Pin	Connection
3	excitation+
5	excitation-
2	output+
4	output-

5V supply with temperature compensation



In mm

Pin	Connection
5	excitation+
1 or 6	excitation-(Valid pin as an identity)
2	output+
4	output-

How to order

PC320 XX—XX—XX

Pressure range

Please write directly

Pressure reference

G: gauge pressure

A: absolute pressure

S: sealed gauge pressure

Excitation

I1: 1.5mA

Wotian reserves the right to make any change in this publication without notice. The information provided is believed to be accurate and reliable as of this product sheet.

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