PCM10 Industrial Pressure Sensor

- Amplified output (ASIC inside)
- I²C
- 0.5 to 4.5V

PCM10 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. The PCM10 sensor is designed for industry application with perfect long term stability.

Diaphragm and pressure range

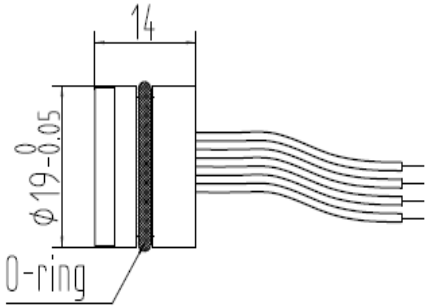
The diaphragm diameter has tight relation with pressure measured. Low pressure requires large diameter and high pressure needs small diameter. This is caused by oil expansion during temperature changing. It creates internal pressure due to the resistance of the diaphragm. The smaller diaphragm will create 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	35kPa, 70kPa, 100kPa, 250kPa, 400kPa, 600kPa, 1MPa, 1.6MPa, 2.5MPa, 4MPa, 6MPa, 10MPa, 16MPa, 25MPa (bar and psi unit available)		
Pressure reference	Gauge pressure | Absolute pressure | Sealed gauge pressure		
Overpressure	300%F.S.(≤70Kpa) | 200%F.S.(＜25Mpa) | 150%F.S(≥25Mpa)		
Output signal			
Output	0.5 to 4.5V ratio metric (5V excitation)		
	I²C (3.3V excitation)		
Specification			
Accuracy (linearity, repeatability and hysteresis)	±0.5%F.S. (Typical)		
Excitation	5VDC | 3.3VDC		
Compensated temp.	0℃-60℃ (≤35kPa) | -10℃-70℃ (Other ranges)		
Operating temp.	-40-125℃		
Storage temp.	-40-125℃		
Zero temp. coefficient	0.02%F.S./ ℃ (≥100kPa) | 0.04%F.S. / ℃(<100kPa)		
Span temp. coefficient	0.02%F.S. / ℃(≥100kPa) | 0.04%F.S. / ℃(<100kPa)		
Insulation resistance	＞200Mohm/250VDC		
Bridge resistance	Min.	Max.	Unit
	2600	5500	ohm
Long term stability	≤0.2%F.S.S/year		
Vibration	20g (20-5000Hz)		
Oil filling	Silicon oil (Typical)		
O-ring	NBR, Viton		
Housing and diaphragm	Stainless steel 316L		
Wire connection	4 wire (typical) | 5 wire (available) 39×φ0.015, Silicon shielded, 200℃ bearing		
Weight	40g(approx)		
Protection	IP65		

Wire connection



In mm

0.5 to 4.5V ratio metric	
red	Excitation+
blue	Output-
yellow	Output+
I²C	
red	Excitation+
blue	Excitation-
yellow	SCL
white	SDL

How to order

PCM10 XX XX XX XX

Pressure range

Please write directly

Pressure reference

A: absolute pressure

G: gauge pressure

S: sealed gauge pressure

Output

B6: 0.5 to 4.5V ratio metric

B9: I²C

Excitation

V3: 5V

V5: 3.3V

Contact us

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