PC10D(WTD19) Differential Pressure Sensor

- Piezoresistive silicon chip employed
- Perfect long term stability
- MEMS technology
- Sensor diameter: 19mm

PC10D(WTD19) differential 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. PC10D(WTD19) 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.

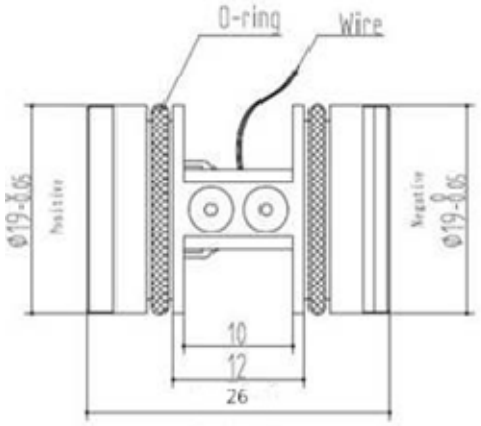
Caution

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

Pressure range			
Pressure range	10kPa, 35kPa, 70kPa, 100kPa, 250kPa, 400kPa, 600kPa, 1MPa, 1.6MPa, 2.5MPa (bar and psi unit available)		
Pressure reference	Differential pressure		
Overpressure	Range	Positive Overpressure	Negative Overpressure
	35kPa	70kPa	35kPa
	70kPa	150kPa	70kPa
	100kPa	200kPa	100kPa
	250kPa	500kPa	250kPa
	400kPa	800kPa	400kPa
	600kPa	1200kPa	600kPa
	1MPa	2MPa	1MPa
	1.6MPa	3.2MPa	1MPa
	2.5MPa	5MPa	1MPa
Output signal			
Zero output	±2mV		
Span output	≥40mV (≤35kPa) | ≥60mV (Other ranges)		
Specification			
Accuracy (linearity, repeatability and hysteresis)	±0.25%F.S. (Typical)		
Excitation	1.5mA (Typical)		
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		
Input impedance	2kΩ～5kΩ		
Long term stability	≤0.3%F.S.S/year		
Vibration	20g (20-5000HZ)		
Housing and diaphragm	Stainless steel 316L		
Oil filling	Silicon oil (Typical)		

Wire connection	4 wire (typical) | 5 wire (available)　　39×φ0.015, Silicon shielded, 200℃ bearing
Weight	40g(approx)

Wire connection



In mm

Wire	Connection
red	excitation+
blue	excitation-
yellow	output+
white	output-

How to order

PC10D　XX——————XX——————XX

Pressure range

Please write directly

Pressure reference

D: differential 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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