

## PC13(WT13) Industrial Pressure Sensor



- Piezoresistive silicon chip employed
- Perfect long term stability
- MEMS technology
- CE certificate
- Sensor diameter: 13mm

PC13(WT13) 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 PC13(WT13) sensor is designed for industry application with perfect long term stability.

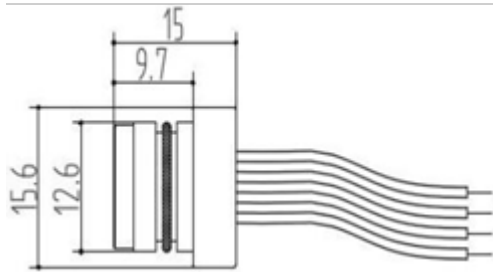
### Diaphragm and pressure range

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

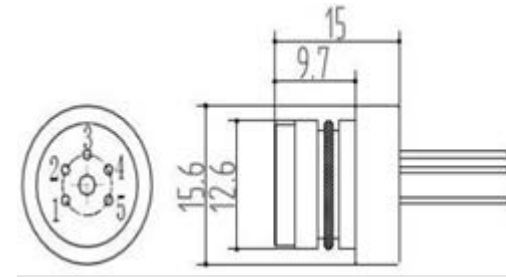
Please do not touch the diaphragm by finger and other hard objects, or it may be damaged.

Pressure range			
Pressure range	1MPa, 1.6MPa, 2.5MPa, 4MPa, 6MPa, 10MPa, 16MPa, 25MPa, 40MPa, 60MPa, 100MPa(bar and psi unit available)		
Pressure reference	Absolute pressure   Sealed gauge pressure		
Overpressure	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)		
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)		
Operating temp.	$-40-125^{\circ}\text{C}$		
Storage temp.	$-40-125^{\circ}\text{C}$		
Zero temp. coefficient	$0.02\% \text{F.S.} / ^{\circ}\text{C} (\geq 4\text{MPa})$   $0.03\% \text{F.S.} / ^{\circ}\text{C} (< 4\text{MPa})$		
Span temp. coefficient	$0.02\% \text{F.S.} / ^{\circ}\text{C} (\geq 4\text{MPa})$   $0.03\% \text{F.S.} / ^{\circ}\text{C} (< 4\text{MPa})$		
Insulation resistance	$> 200\text{Mohm}/250\text{VDC}$		
Bridge resistance	Min.	Max.	Unit
	2600	5500	ohm
Long term stability	$\leq 0.2\% \text{F.S.}/\text{year}$		
Vibration	20g (20-5000HZ)		
Oil filling	Silicon oil (Typical)   Olive oil available for sanitary application		
O-ring	NBR, Viton		
Housing and diaphragm	Stainless steel 316L		
Wire connection	4 wire (typical)   5 wire (available) $39 \times \phi 0.015$ , Silicon shielded, $200^{\circ}\text{C}$ bearing		
Pin connection	Kovar pin (0.6um Gold plated)		
Weight	17g(approx)		



In mm

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



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

How to order

PC13(WT13) XX-XX-XX-XX

Pressure range

Please write directly

Pressure reference

A: absolute pressure

S: sealed gauge pressure

Electrical Connection

W: wire connection

P: pin connection

Excitation

C1: 1.5mA

C2: others (please specify)

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