

PC8(WT15) Industrial Pressure Sensor



- Piezoresistive silicon chip employed
- Perfect long term stability
- MEMS technology
- Sensor diameter: 15mm

PC8(WT15) 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 PC8(WT15) sensor is designed for industry application with perfect long term stability. It has a smaller diameter compared with PC10(WT19) pressure sensor.

Diaphragm and pressure range

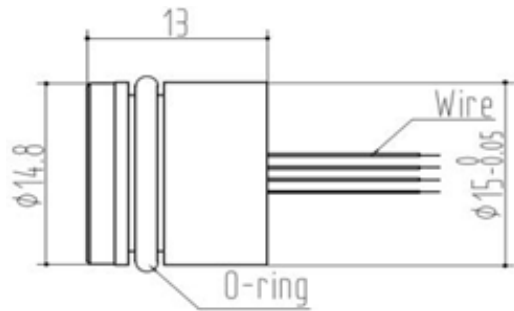
The diaphragm diameter has tight relation with pressure measured. Low pressure requires large diameter and high pressure needs small diameter. This is caused by oil expansion during temperature changing. It creates internal pressure due to the resistance of the diaphragm. The smaller diaphragm will create 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	$\geq 60\text{mV}$
Specification	
Accuracy (linearity, repeatability and hysteresis)	$\pm 0.25\% \text{F.S. (Typical)}$
Excitation	1.5mA
Compensated temp.	$-10^{\circ}\text{C} - 70^{\circ}\text{C}$
Operating temp.	$-40^{\circ}\text{C} - 125^{\circ}\text{C}$
Storage temp.	$-40^{\circ}\text{C} - 125^{\circ}\text{C}$
Zero temp. coefficient	$0.02\% \text{F.S.} / ^{\circ}\text{C}$
Span temp. coefficient	$0.02\% \text{F.S.} / ^{\circ}\text{C}$
Insulation resistance	$> 200\text{Mohm} / 250\text{VDC}$
Input impedance	$2\text{k}\Omega - 5\text{k}\Omega$
Long term stability	$\leq 0.2\% \text{F.S.S.} / \text{year}$
Vibration	20g (20-5000Hz)
Oil filling	Silicon oil
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°C bearing
Pin connection	Kovar pin (0.6um Gold plated)
Weight	25g(approx)

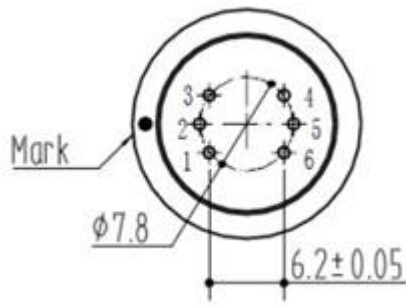
Wire connection



In mm

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

Pin connection

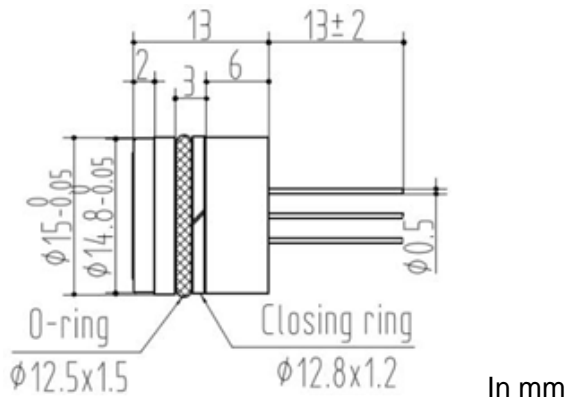


Without temperature compensation

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

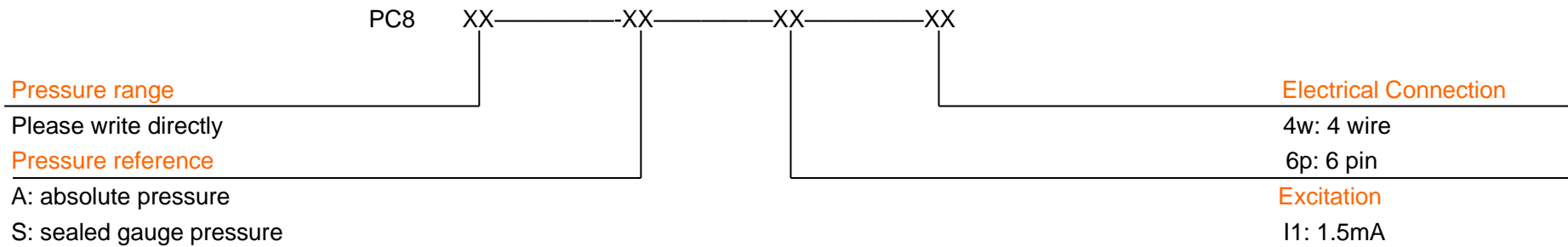
Pin	Connection
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with temperature compensation



3	excitation+	1.5mA supply
5	excitation-	
1,6	pending	
2	output+	
4	output-	

How to order



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