PC30 Pressure Sensor with Thread

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

PC30 pressure sensor is a standard and 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 PC30 sensor is designed for industry application with perfect long term stability.

Diaphragm and pressure range

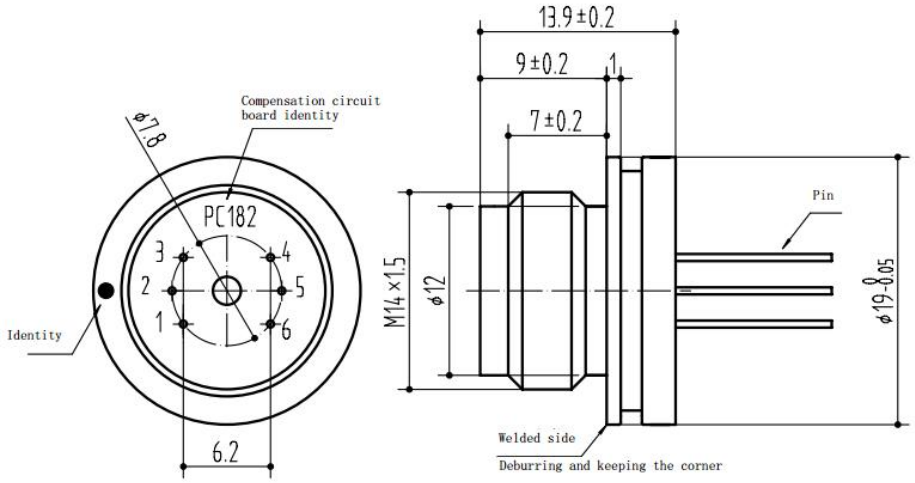
The diaphragm diameter has tight relation with pressure measured. Low pressure requires large diameter and high pressure needs small diameter. This is caused by oil expansion during temperature changing. It creates internal pressure due to the resistance of the diaphragm. The smaller diaphragm will create 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	300%F.S.(≤70Kpa) | 200%F.S.(<25Mpa) | 150%F.S.(≥25Mpa)
Output signal	
Zero output	±2mV
Span output	≥60mV
Specification	
Accuracy (linearity, repeatability and hysteresis)	±0.25%F.S. (Typical)
Excitation	1.5mA (Typical)
Compensated temp.	-10ºC -70ºC
Operating temp.	-40ºC -125ºC
Storage temp.	-40ºC -125ºC
Zero temp. coefficient	0.02%F.S./ºC(≥100kPa) | 0.04%F.S./ºC(<100kPa)
Span temp. coefficient	0.02%F.S./ºC(≥100kPa) | 0.04%F.S./ºC(<100kPa)
Insulation resistance	>200Mohm/250VDC
Input impedance	2kΩ-5kΩ
Long term stability	≤0.2%F.S.S./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×φ0.015, Silicon shielded, 200ºC bearing
Pin connection	Kovar pin (0.6um Gold platted)

Drawing



In mm

1.5mA supply with temperature compensation

Pin	Connection
1 and 6	Pending
2	Output+
3	Excitation+
4	Output-
5	Excitation-

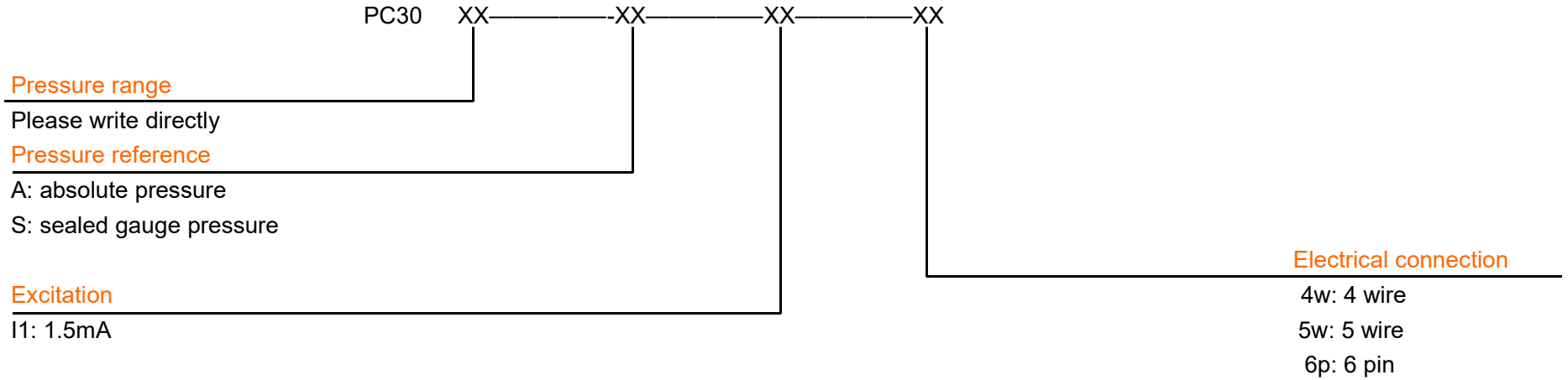
Without temperature compensation

Pin	Connection
1 and 6	Excitation+
2	Output+
3	Excitation+
4	Output-
5	Pending

5V supply with temperature compensation

Pin	Connection
1 or 6	Excitation+
2	Output+
3	Excitation+
4	Output-
5	Pending

How to order



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