PC11(WTP01) Pressure Sensor

- Piezoresistive silicon chip employed
- Perfect long term stability
- MEMS Technology
- CE certificate

PC11(WTP01) 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 transducer. The sensor is welded with the housing, no leakage will happen. It is more reliable compared with O-ring sealing for leakage.

Caution

The sensor is welded with housing, so no leakage will happen. That is more reliable compared with O-ring sealing. But if the sensor has a problem, the housing will be wasted.

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Pressure range			
Pressure range	-100Kpa, 10kPa, 35kPa, 70kPa, 100kPa, 250kPa, 400kPa, 600kPa, 1MPa, 1.6MPa, 2.5MPa, 4MPa, 6MPa, 10MPa, 16MPa, 25MPa, 40MPa, 60MPa, 100MPa		
Pressure reference	Gauge pressure | 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	100mV(Typical) ｜60mV(for 10kpa)		
Specification			
Accuracy (linearity, repeatability and hysteresis)	±0.25%F.S. (Typical)		
Excitation	1.5mA (Typical) | 5VDC | 10VDC		
Compensated temp.	-10-70℃(Typical) 0-60℃(<100kPa)		
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)		
Shock	100g, 10ms		
Response time	≤1ms(10% to 90%F.S.)		
Lifetime	$10*10^6$ (cycles)		
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×φ0.015, Silicon shielded, 200℃ bearing		
Pin connection	Kovar pin (0.6um Gold platted)		
Weight	130g(approx)		

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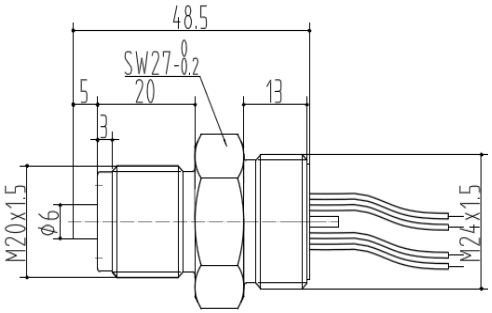
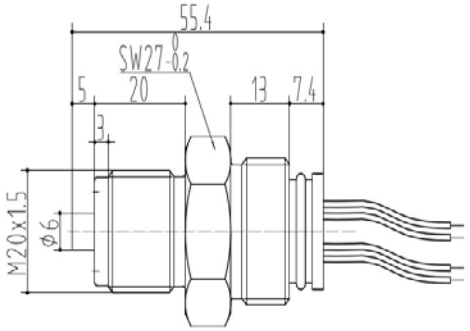
Drawing

For pressure range <25MPa

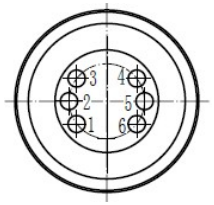


For pressure range ≥25MPa



In mm

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



without temperature compensation

Pin	Connection
3	excitation+
1or6	excitation-
5	pending
2	output+
4	output-

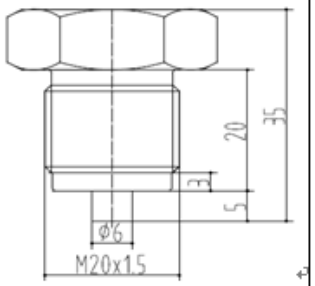
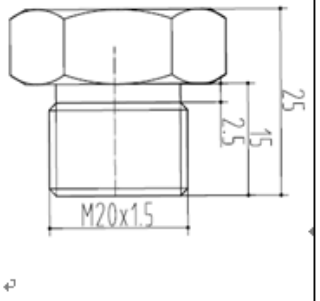
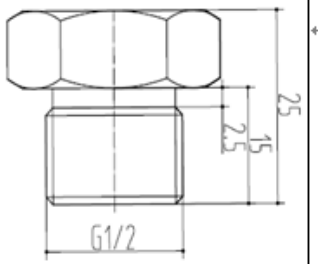
1.5mA supply with temperature compensation

Pin	Connection
3	excitation+
5	excitation-
1or6	pending
2	output+
4	output-

5V supply with temperature compensation

Pin	Connection
5	excitation+
1or6	excitation-
3	pending
2	output+
4	output-

Pressure port

Thread	M20*1.5	M20*1.5	G1/2
Dimension in mm, Hex 27mm			
Code	A1	A2	A3

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How to order

PC11(WTP01) XX———-XX———XX———XX———XX———XX———XX

Pressure range

Please write directly

Pressure reference

A: absolute pressure

G: gauge pressure

S: sealed gauge pressure

Excitation

C1: 1.5mA

C2 :10V

C3: 5V

Electrical connection

W: wire connection

P: pin connection

Snubber

K1: without snubber

K2: with snubber

Housing connection

M1: M24*1.5

M2: M25*1

M3: others (please specify)

Pressure connection

A1: M20*1.5 (with tube)

A2: M20*1.5

A3: G1/2

A4: others (please specify)

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