

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 within the housing,

and no leakage will happen. It is more reliable compared with O-ring sealing for leakage.

Caution

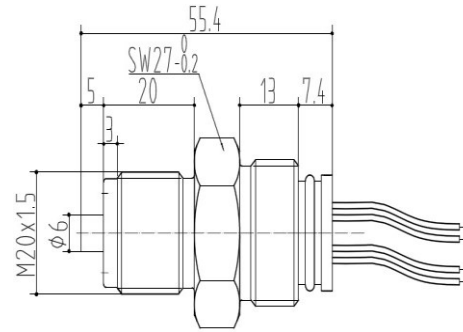
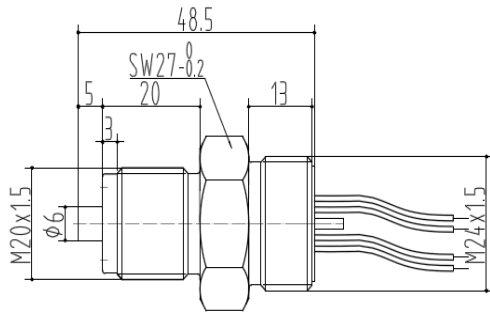
The sensor is welded with housing, so no leakage will happen. That is more reliable compared with O-ring sealing. But if the sensor has a problem, the housing will be wasted.

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.($\leq 70\text{kPa}$) 200%F.S.($< 25\text{Mpa}$) 150%F.S.($\geq 25\text{Mpa}$)
Output signal	
Zero output	$\pm 2\text{mV}$
Span output	60-120mV 100mV(Typical) 40mV(for 10kpa)
Specification	
Accuracy (linearity, repeatability and hysteresis)	$\pm 0.25\% \text{F.S. (Typical)}$
Excitation	1.5mA (Typical) 5VDC 10VDC
Compensated temp.	$-10^{\circ}\text{C} - 70^{\circ}\text{C} (\geq 100\text{kPa})$ $0^{\circ}\text{C} - 60^{\circ}\text{C} (< 100\text{kPa})$
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%F.S. / $^{\circ}\text{C}$ ($\geq 100\text{kPa}$) 0.04%F.S. / $^{\circ}\text{C}$ ($< 100\text{kPa}$)
Span temp. coefficient	0.02%F.S. / $^{\circ}\text{C}$ ($\geq 100\text{kPa}$) 0.04%F.S. / $^{\circ}\text{C}$ ($< 100\text{kPa}$)
Insulation resistance	$> 200\text{Mohm}/250\text{VDC}$
Input impedance	2.5k Ω - 6k Ω
Long term stability	$\leq 0.2\% \text{F.S.}/\text{year}$
Vibration	20g (20-5000HZ)
Shock	100g (11ms)
Response time	$\leq 1\text{ms}$ (up 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 $\times \phi 0.015$, Silicon shielded, 200 $^{\circ}\text{C}$ bearing
Pin connection	Kovar pin (0.6 μm Gold plated)
Weight	130g(approx)

Drawing

For pressure range <25MPa

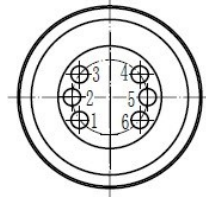
For pressure range ≥25MPa



In mm

without temperature compensation 1.5mA supply with temperature compensation 5V supply with temperature compensation

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



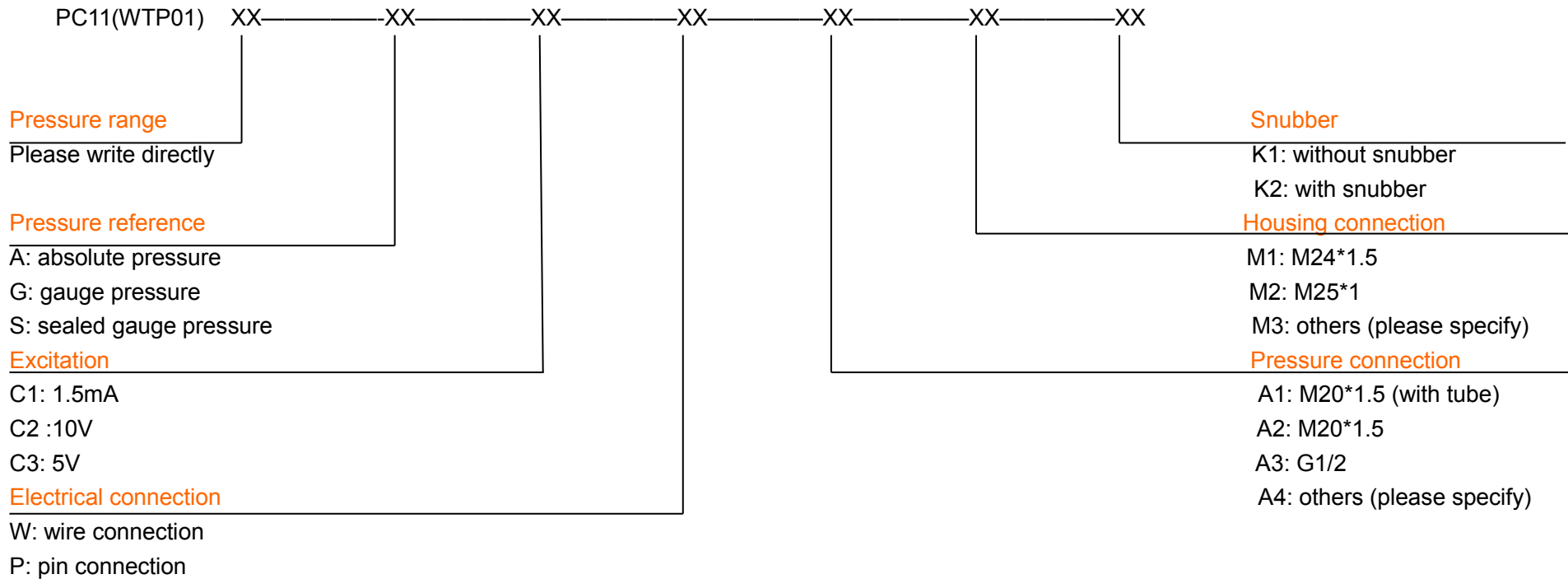
Pin	Connection
3	excitation+
1or6	excitation-
5	pending
2	output+
4	output-

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

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.			
Code	A1	A2	A3



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Contact us

Nanjing Wotian Technology Co.,Ltd.

Add: 5 Wenying Road, Binjiang Development Zone, Nanjing, 211161, China

Sales Manager: Wuzhou Lian

MP: 0086-13998828452

Email: lianwuzhou@wtsensorus.com

American Company

Wotian Sensor Corporation

Sales Manager: Geoffery Gao

MP: 001- 626 808 1707

E-mail: geoffery@wtsensorus.com

German Company

Wotian Sensor GmbH

Sales Manager: Frances

E-mail: frances@wtsensorus.com

Anshan Wotian Sensor Corp. (Branch Factory)

Add: 262, Yueling Road, Gaoxin District, Anshan, China

Korean Company

Korea Wotian Technology Co., Ltd.

Sales Manager: Yinji An

MP: 0086- 13478122009

E-mail: anyinji@wtsensorus.com