

PC10R Glass Micro Melt Sensor

Features

- Impact resistance
- Highly reliable imported pressure chips
- Wide temperature compensation
- Φ 19mm standard OEM
- High performance, all solid-state, and high reliability
- 18 months warranty period

Applications

- Hydraulic system and valves
- Process control system
- Construction machinery
- Fatigue equipment
- Stamping, forging and other equipment
- Refrigeration equipment and HVAC control.

Notes:

- 1 Do not touch the diaphragm with hard objects, which may cause damage to the diaphragm.
- 2 Please read the Instruction Manual of the product carefully before installation and check the relevant information of the product.
- 3 Strictly follow the wiring method for wiring, otherwise it may cause product damage or other potential faults.
- 4 Misuse of the product may cause danger or personal injury.



Product overview

The PC10R micro melt sensor is the core component for manufacturing pressure sensors and pressure transmitters. As a high-performance and impact resistant pressure sensitive element, it can be easily amplified and assembled into a standard signal output transmitter.

For the micro melt sensor, a sensitive chip is bonded to a 17-4PH stainless steel diaphragm through glass adhesive, and external pressure is transmitted to the sensitive chip through the stainless steel diaphragm. The sensitive chip does not directly contact the measured medium, forming an all solid structure for pressure measurement. Therefore, this product can be applied in various occasions, especially in environments with high impact and harsh corrosive media.

The micro melt sensor is pressure sealed with an O-ring for easy installation.

The company can also undertake special customization according to user needs, such as pressure sensors with fully welded structure, wide temperature compensation, high reliability, strong impact resistance, and vibration resistance, especially for supporting national defense weapons and equipment.

Performance parameters

Pressure range	0~1MPa...100MPa
Pressure reference	Gauge pressure
Excitation	5VDC
Output Impedance	3kΩ~5kΩ
Electrical Connection	4pin 2.0 row pin
Compensation temperature	0℃~70℃
Operating temperature	-40℃~100℃
Storage temperature	-40℃~125℃
Insulation resistance	≥100MΩ/250VDC
Response time	≤1ms (up to 90%FS)
Measurement medium	All liquids and gases compatible with 17-4PH
Mechanical vibration	20g (20~5000HZ)
Shock	50g (10ms)
Life time	10×10 ⁶ (cycles)
Diaphragm material	17-4PH
Housing material	304
Infusion of liquid	/
Sealing	O-ring: nitrile Retaining ring: Polytetrafluoro

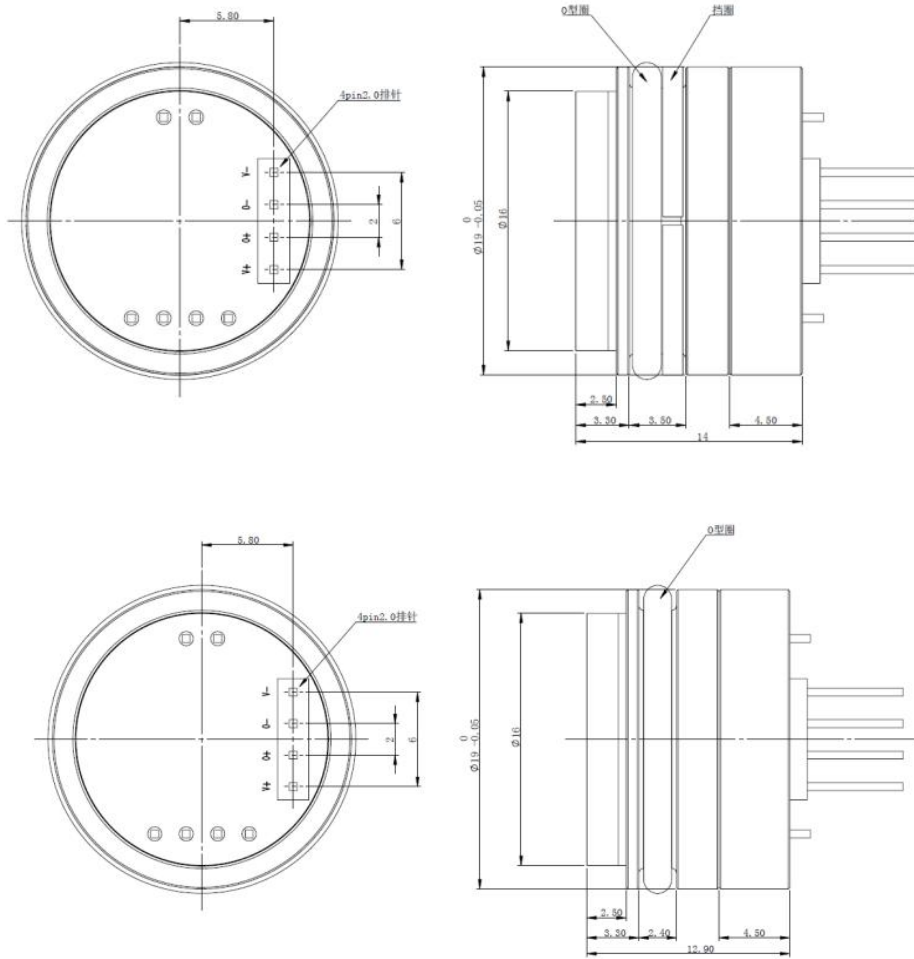
Basic parameters

Item	Condition	Min	Nominal	Max	Unit	Note
Non-linearity(Including non-linearity,hysteresis, repeatability)		-1	±0.5	1	%FS	Notes(1)
Zero output	Excitation:5VDC	-2	0	2	mV	
Full span output	Excitation:5VDC	30	80	100	mV	
Zero temp. drift		-2	±1	2	%FS	Notes(2)
Sensitivity temp. drift		-2	±1	2	%FS	Notes(2)
Long term stability		-0.3	±0.25	0.3	%FS/Year	

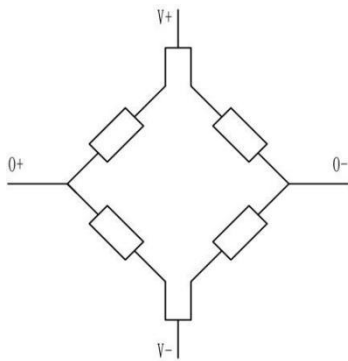
Note:

1. Calculate according to the BFSL least squares method.
2. Within the compensation temperature range, 0 ℃ to 70 ℃.
3. After passing through high and low temperatures, return to the reference temperature

External dimensions and electrical definition:



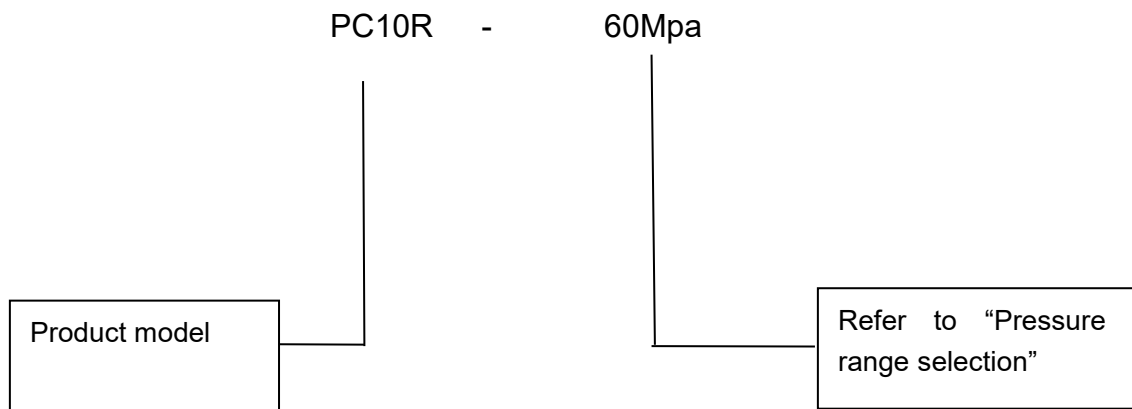
Equivalent circuit:



Pressure range selection

Pressure range code	Pressure range	Overpressure	Burst pressure	NOTES
1M	0-1MPa	200%FS	300%FS	
6M	0~6MPa	200%FS	300%FS	
10M	0~10MPa	200%FS	300%FS	
25M	0~25MPa	150%FS	200%FS	
40M	0~40MPa	150%FS	200%FS	
60M	0~60MPa	150%FS	200%FS	
100M	0~100MPa	150%FS	200%FS	

How to order



Example: PC10R-60MPa

Product model is PC10R sensor, pressure range: 60MPa, gauge pressure, 4 pin 2.0 row pin, 5VDC excitation, voltage compensation.



Ordering tips

- 1.Ensure compatibility between measured media and contacting part of product.
- 2.For special requirements on the appearance and performance parameters, customization is available.

Wotian reserves the right to make any change in this publication without notice. The information provided is believed to be accurate and reliable as of this product sheet.

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