PC92D Monocrystalline Silicon Differential Pressure Sensor

Feature

- Imported high-stability monocrystalline silicon differential pressure die
- High precision and good stability
- Static pressure error within ±0.1%F.S./10MPa
- Patented dual overpressure protection diaphragm design
- Static pressure limit up to 40MPa
- Constant voltage excitation
- 316L stainless steel fully-welded integrated structure
- Symmetric positive and negative pressure, no internal O-ring
- Large diaphragm structure

Application

- Core components of the differential pressure transmitter
- Core components of the differential pressure flow transmitter

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 PC92D monocrystalline silicon differential pressure sensor features an overpressure protection function. It adopts the high-stability German-imported monocrystalline silicon differential pressure chip as its differential pressure sensitive core, sealed with a fully welded structure and filled with silicon oil under high vacuum. Measuring diaphragms of different materials isolate the differential pressure chip from the measured medium, while enabling the pressure sensor to perform long-term, reliable measurement of differential pressure signals for various highly corrosive media. Under external excitation, the differential pressure sensor converts the measured differential pressure signal into a linearly proportional millivolt output signal.

Notes:

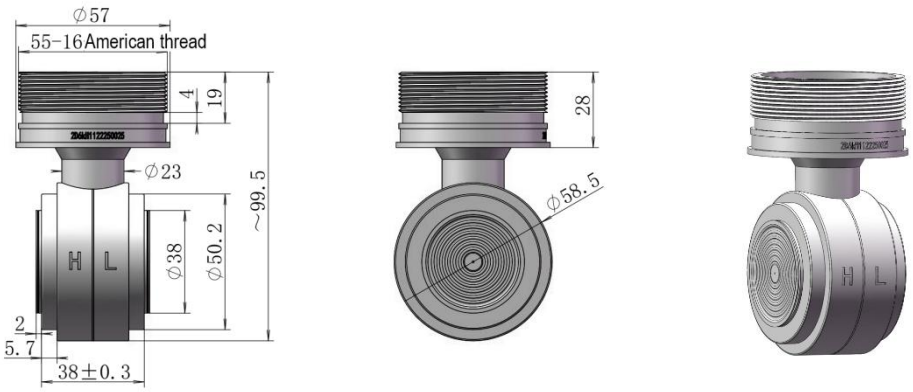
1 Do not misuse documentation.

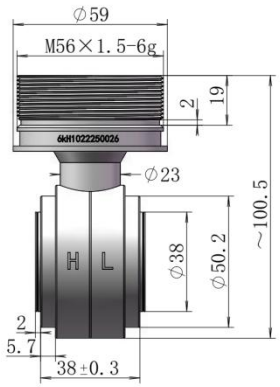
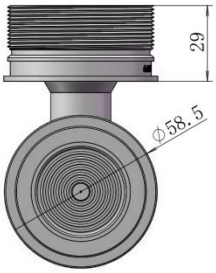
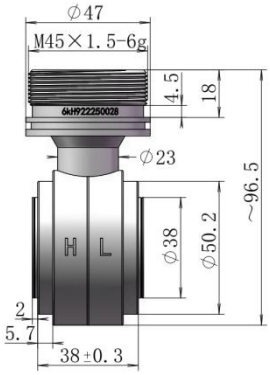
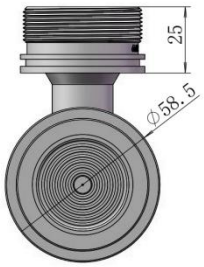
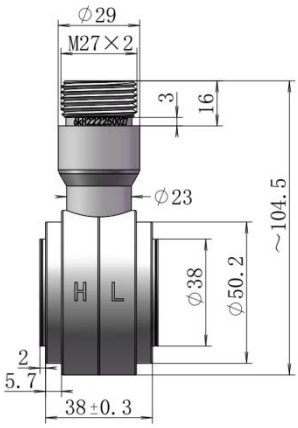
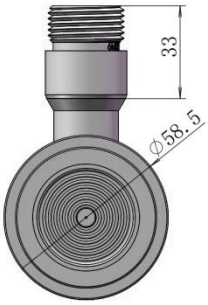
2 The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.

3 Complete installation, operation, and maintenance information is provided in the instructions of the product.

4 Misuse of the product may cause danger or personal injury.

Performance parameter	
Power supply	5V DC
Operating temp.	-40ºC ~ 85ºC
Medium temp.	-50ºC ~ 125ºC
Output voltage	60~140mV
Zero temp. drift	±0.03%F.S./ºC
Temp. hysteresis	±0.1%F.S. (6kPa < range ≤ 250kPa) ±0.5%F.S. (range ≤ 6kPa)
Pressure hysteresis	±0.025%F.S.
Long-term drift	±0.05%F.S./year
Non-linearity	±0.5%F.S. (6kPa < range ≤ 250kPa) ±1.5%F.S. (range ≤ 6kPa)
Static pressure effect	±0.1%F.S./10MPa (6kPa < range ≤ 250kPa) ±0.1%F.S./5MPa (range ≤ 6kPa)
Single pressure effect	±0.1%F.S./10MPa (6kPa < range ≤ 250kPa) ±0.1%F.S./5MPa (range ≤ 6kPa)
Diaphragm material	SS316L

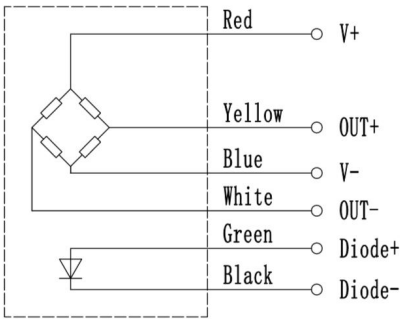
Structure & dimension (in: mm)	
Connection method code	Dimension
H11: 55-16 American thread	

H10: **M56×1.5**			
H9: **M45×1.5**			
H2: **M27×2**			

Pressure range selection

Code	Pressure range	Single-end overload pressure	Static pressure
6k	-6kPa ~ 0 ~ 6kPa	16MPa	25MPa
40k	-40kPa ~ 0 ~ 40kPa	16MPa	40MPa
250k	-250kPa ~ 0 ~ 250kPa	16MPa	40MPa

Electrical connection

Electrical schematic diagram	Wire color	Definition
	Red	Power+ (IN+)
	Blue	Power- (IN-)
	Yellow	Output+ (OUT+)
	White	Output- (OUT-)
	Green	Temp.+ (Diode+)
	Black	Temp.- (Diode-)

Ordering information

PCM92D - 250k - H11 - d17

Product model
PC92D

Pressure range
6k = -6kPa~0~6kPa
40k = -40kPa~0~40kPa
250k = -250kPa~0~250kPa
Others

Electrical connection
Default = 6 wires 110mm
d17 = Terminal A2506H-07P 150mm
Others

Pressure connection
H11 = 55-16 American threads
H10 = M56×1.5
H9 = M45×1.5
H2 = M27×2
Others

Example of ordering information: PC92D - 250k - H11 - d17

Product model: PC92D, 250k: pressure range is ±250kPa, H11: pressure port is 55-16 American threads, d17: electrical connection is terminal A2506H-07P 150mm, Diaphragm: 316L, Oil filling: silicon oil.

Ordering tips

If you have any other requirements, please specify them separately.

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.

Contact us

Nanjing Wotian Technology Co.,Ltd.

Website: www.wtsensor.com

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

E-Mail: dr@wtsensor.com