

PC91B Monocrystalline silicon pressure sensor

Features

- Adopt imported MEMS monocrystalline silicon pressure dies
- With overpressure protection
- 316L stainless steel fully welded integral structure
- Gauge pressure type can be used for negative pressure measurement
- Suitable for various threaded housings

Applications

- Provide OEM parts for industrial transmitter manufacturers.



Product overview

The PC91B monocrystalline silicon pressure sensor adopts imported MEMS monocrystalline silicon pressure dies, achieving internationally leading overpressure performance and ensuring excellent signal stability. It is assembled with a fully welded sealed structure and filled with silicone oil under high vacuum. Different materials of measurement diaphragms not only isolate the measured medium from the pressure die but also enable the sensor to reliably measure the pressure difference signals of various strongly corrosive media over the long term.

In the PC91B monocrystalline silicon pressure sensor, the measured pressure directly acts on the sensor's diaphragm, causing a micro-displacement proportional to the pressure. Integrated electronic circuits detect this change and convert it into a corresponding standard measurement signal for pressure.

Notes:

1. Do not touch the diaphragm with hard objects, as it may cause damage to the isolation diaphragm.
2. Please read the product manual carefully before installation and check the relevant information of the product.
3. Connect the wires strictly in accordance with the wiring method; otherwise, it may cause damage to the product and other potential faults.
4. Incorrect use may lead to danger and personal injury.

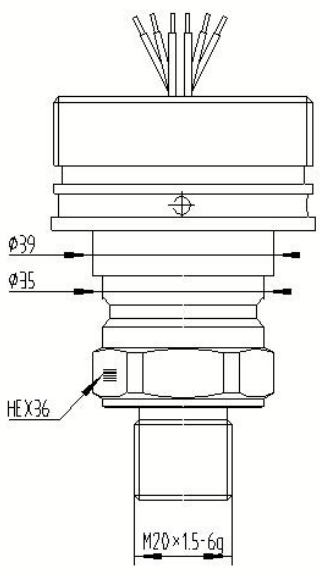
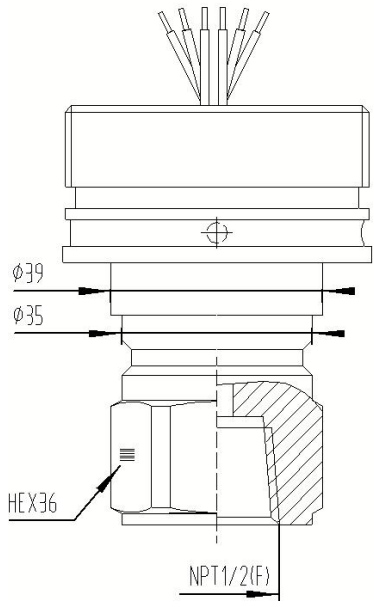
Notes:

1. Do not touch the diaphragm with hard objects, as it may cause damage to the isolation diaphragm.
2. Please read the product manual carefully before installation and check the relevant information of the product.
3. Connect the wires strictly in accordance with the wiring method; otherwise, it may cause damage to the product and other potential faults.
4. Incorrect use may lead to danger and personal injury.

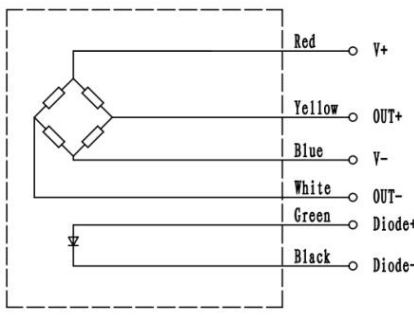
Performance parameters

Power supply	5V DC
Operating temp.	-40℃～85℃
Storage temp.	-50℃～125℃
Output	60～140mV
Zero-point temperature drift	±0.1%FS/℃ (Range≥10kPa)
	±0.5%FS/℃ (Range<10kPa)
Thermal hysteresis	±0.1%FS (Range<10kPa)
	±0.05%FS (Range≥10kPa)
Pressure hysteresis	±0.05%FS
Long-term drift	±0.05%FS /Year
Non-linearity	±0.5%FS (Range≥10kPa),±1.5%FS (Range<10kPa)
Max overpressure	See range selection
Diaphragm material	316L, Hastelloy C

Thread connection

Thread code	C1: M20×1.5-6g	C7F: NPT1/2 (F)
Dimension Unit: mm		
Suggested torque	15～25Nm	15～25Nm

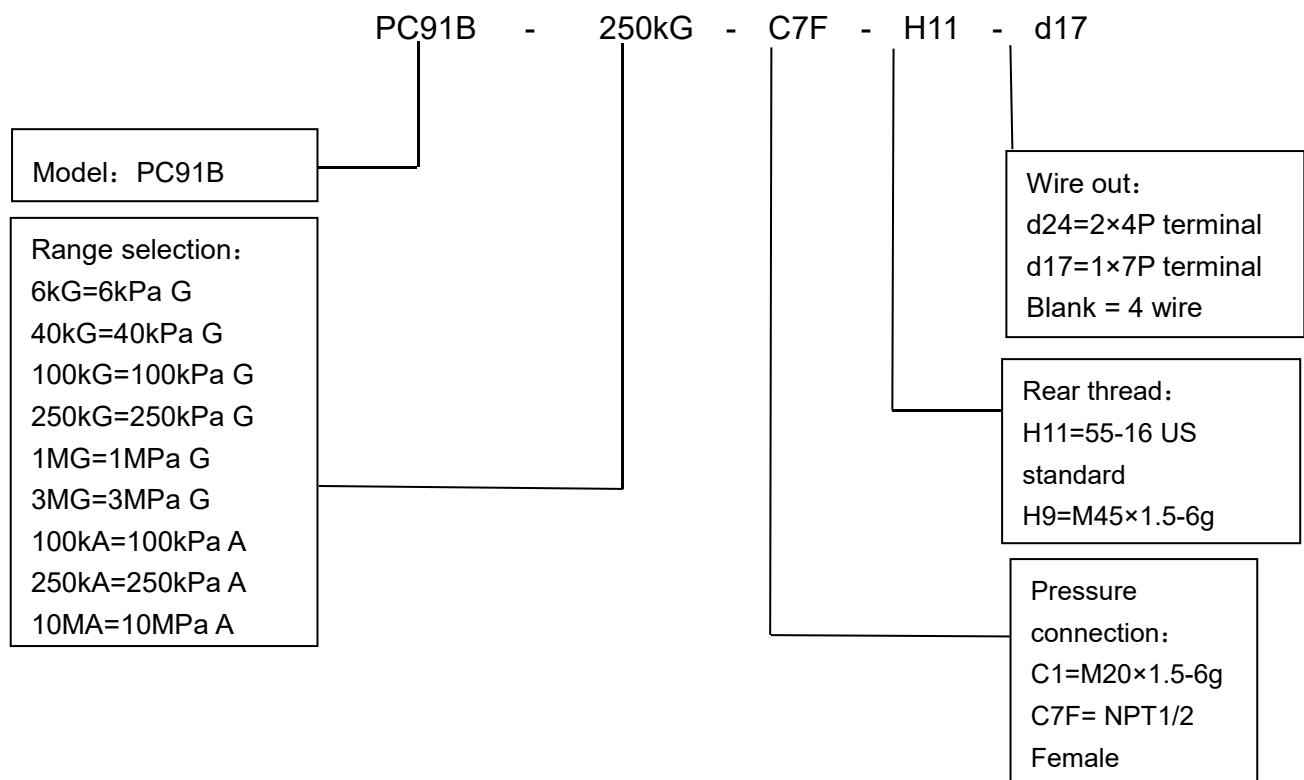
Electrical connection

Electrical schematic diagram	Wire color	Wiring method
	Red Blue Yellow White Green Black	V+ V- OUT+ OUT- Diode+ Diode-

Range selection

Range code	Pressure type	Pressure range	Overpressure
6kG	Gauge pressure	0~6kPa	30kPa
40kG	Gauge pressure	0~40kPa	200kPa
100kG	Gauge pressure	0~100kPa	300kPa
250kG	Gauge pressure	0~250kPa	750kPa
1MG	Gauge pressure	0~1MPa	2MPa
3MG	Gauge pressure	0~3MPa	6MPa
100kA	Absolute pressure	0~100kPa	300kPa
250kA	Absolute pressure	0~250kPa	750kPa
10MA	Absolute pressure	0~10MPa	20MPa

How to order





Example: PC91B-250kGC7FH11d24

It means PC91B, range: 250kPa, pressure type: gauge pressure, interface thread: NPT1/2 female, rear thread: 55-16 US standard thread, diaphragm material: 316L stainless steel, 2×4P terminal lead-out.

Contact us

Nanjing Wotian Technology Co.,Ltd.

Website: www.wtsensor.com

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

Email: dr@wtsensor.com