

PCM91 Single Crystal Silicon Single Pressure Module

Feature

- Adopting advanced monocrystalline silicon single pressure sensors
- Wide range coverage of 0-6kPa... 40MPa
- Two wire system, 4 to 20mA@HART Protocol
- Intelligent LCD meter head with backlight
- It has both remote transmission and local zero and range adjustment
- Complete variety, high precision, and good stability

Application

- Process control fields in industries such as petroleum, chemical, metallurgy, electricity, food, papermaking, pharmaceuticals, machinery manufacturing, scientific experiments, and aviation and military applications

Note:

- 1 Do not touch the diaphragm with hard objects, as it may cause damage to the isolation diaphragm.
- 2 Before installation, please carefully read the product manual and verify the relevant information of the product.
- 3 Strictly follow the wiring method, otherwise it may cause product damage and other potential faults.
- 4 Incorrect use can lead to danger and personal injury.



Product overview

The internal die of PCM91 monocrystalline silicon pressure module adopts a German imported MEMS monocrystalline silicon pressure die. The sensor signal is converted into a standard signal output through a dedicated signal processing module. After long-term aging and stability screening, the product performance is stable and reliable. At the same time, it can display on-site pressure, zero point, and full range migration.

The PCM91 single crystal silicon single pressure component installation interface form can be processed according to user requirements, and can also provide specifications compatible with other brands of transmitters. This series of products is widely used in industrial process control, petroleum, chemical, metallurgical and other industries.

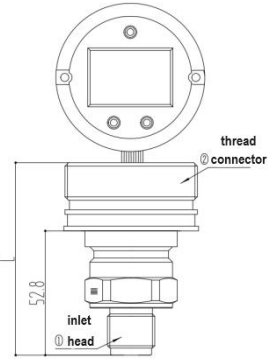
Note:

- 1 Do not misuse the file.
- 2 The information in this selection is for reference only and cannot be used as a product installation guide.
- 3 provides complete installation, operation, and maintenance information in the product manual.

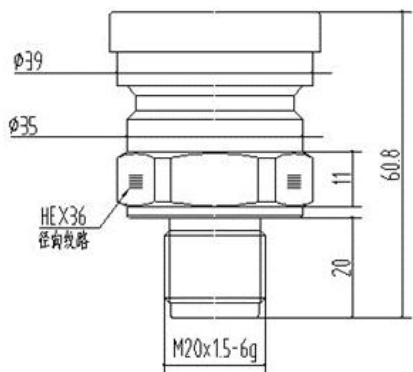
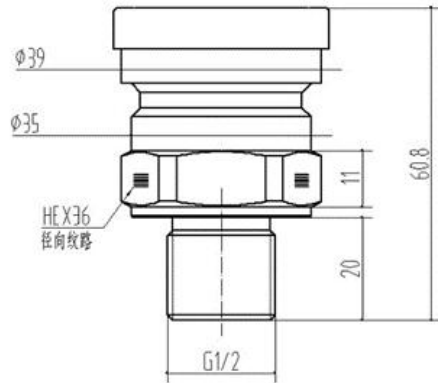
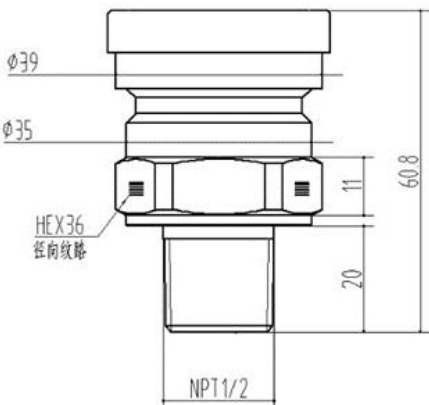
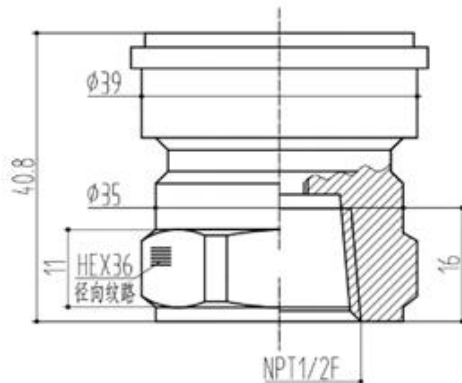
Performance parameter

Range	±6kPa G, ±40kPa G, ±100kPa G, -100~250kPa G, 0~100kPa A, 0~250kPa A, -0.1~1MPa G, -0.1~3MPa G, 0~10MPa S, 0~20MPa S, 0~40MPa S
Pressure type	Gauge pressure, absolute pressure, sealed pressure
Power supply	12V~32V, recommend 24V
Output	4~20mA+HART protocol
Accuracy	6kPa: ±0.1%FS; other ranges: ±0.075%FS
Temperature drift	±6kPa: ±0.3%FS; other ranges: ±0.25%FS (-20~70℃)
Ambient temperature	-30℃~80℃; with display -30℃~70℃
Medium temperature	-40℃~125℃
Storage temperature	-40℃~85℃
Insulation resistance	≥200MΩ/500VDC
Vibration	20g (20~5000Hz)
Shock	100g (11ms)
Overload pressure	Refer to range selection
Long term stability	±0.2%FS/year
Material	Isolated diaphragm316L、Ha C (≤10MPa)
Media compatibility	Various medium compatible with 316L and fluororubber

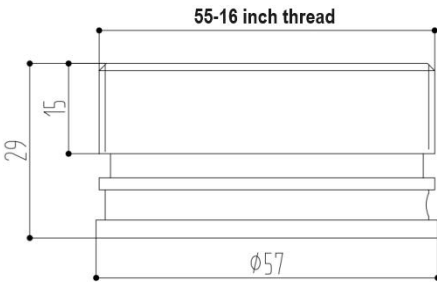
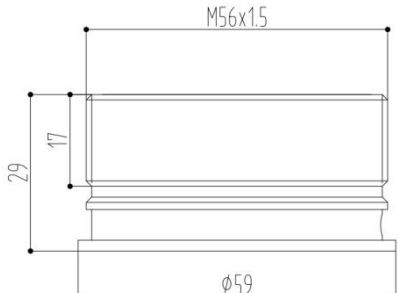
Outline Drawing

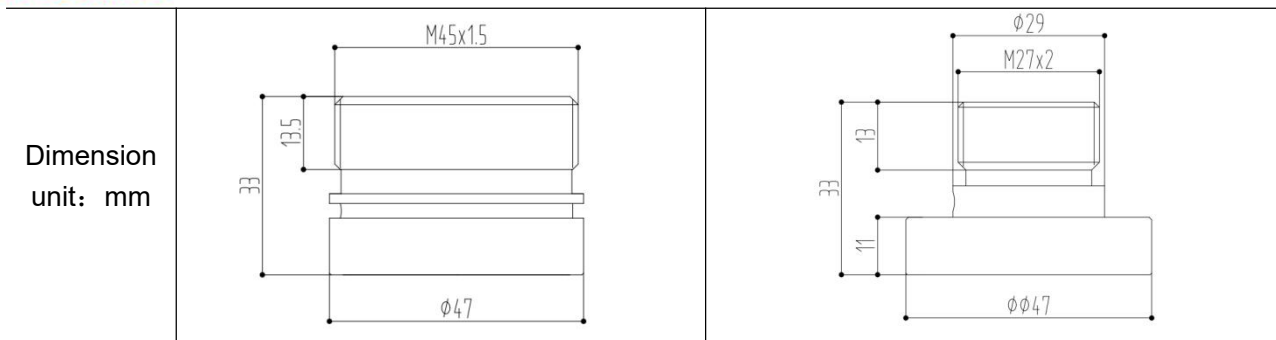
Product model	Outline drawing	Note	unit: mm
PCM91		<p>Note 1: ① Specification of inlet head: M20 × 1.5, G1/2, NPT1/2, NPT1/2 female</p> <p>Note 2: ② Thread connector specifications: 55-16 inch threads, M56 × 1.5, M45 × 1.5, M27 × 2</p> <p>Note 3: M45 × 1.5, M27 × 2 thread L=93.8mm; 55-16 inch thread, M56 × 1.5 thread L=89.8mm</p>	

Thread of the inlet head

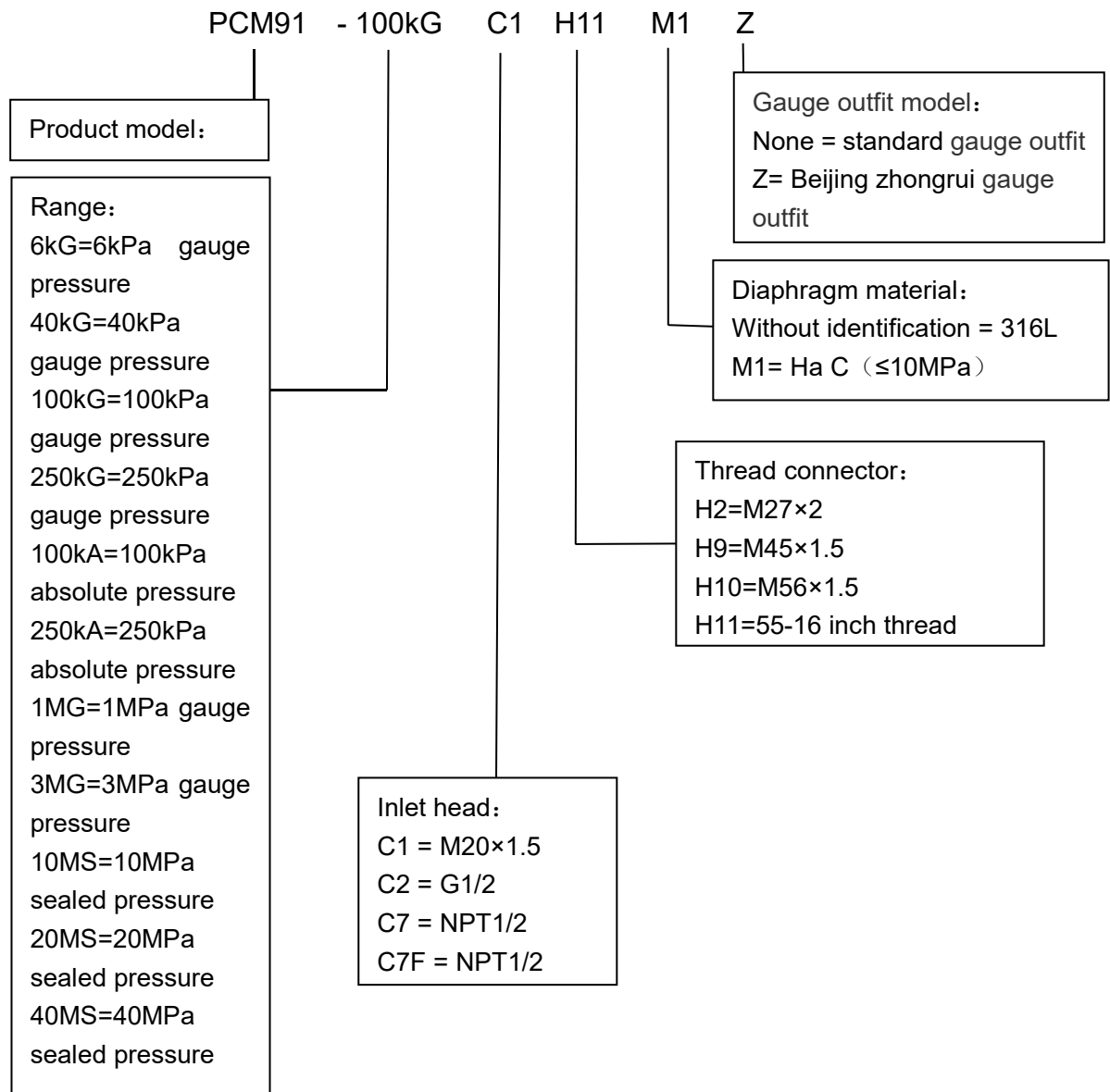
Code	C1: M20×1.5-6g	C2: G1/2
Dimension unit: mm		
Suggested torque	15~25Nm	15~25Nm
Code	C7: NPT1/2	C7F: NPT1/2 (Female)
Dimension unit: mm		
Suggested torque	15~25Nm	15~25Nm

Thread connector

Code	H11: 55-16 inch thread	H10: M56×1.5
Dimension unit: mm		
Code	H9: M45×1.5	C7F: NPT1/2 (Female)



Range selection		
Range code	Range	Overload pressure
6kG	±6kPa	300kPa
40kG	±40kPa	1MPa
100kG	±100kPa	2MPa
250kG	-100~250kPa	4MPa
100kA	0~100kPa A	2MPa
250kA	0~250kPa A	2MPa
1MG	-0.1~1MPa	6MPa
3MG	-0.1~3MPa	12MPa
10MS	0~10MPa	20MPa
20MS	0~20MPa	40MPa
40MS	0~40MPa	60MPa



Example: PCM91-100kC1H11-Z

PCM91; range: ±100kPa gauge prssure; output: 4~20mA@HARTprotocol; Inlet head: M20×1.5; thread connector: 55-16 inch thread; diaphragm: 316L; Beijing zhongrui gauge outfit.

Ordering tips:

1. Accessories need to be purchased 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.



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