

# PCM91 Monocrystalline Silicon Single Pressure Sensor Component

## Feature

- Adopting an advanced monocrystalline silicon single pressure sensor
- Wide range coverage of 0~6kPa... 40MPa
- 2-wire, 4~20mA @HART Protocol
- Intelligent LCD gauge 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 for industries such as petroleum, chemical, metallurgy, power generation, food & beverage, pulp & paper, pharmaceuticals, machinery manufacturing, scientific research, and aerospace & defense.

### 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 PCM91 monocrystalline silicon single pressure sensor component uses the German-imported MEMS monocrystalline silicon pressure sensor chip. The sensor signal is converted to a standard signal through special signal processing. This product, with stable and reliable performance, has passed long-term aging and stability testing and can be used in harsh outdoor environments. It also ensures the on-site pressure display, with zero and span transferable.

The connection interface of PCM91 can be compatible with other brands' transmitters or can be customized to meet users' requirements. The products of this series are widely applied to industrial process control, petroleum, chemical, metallurgy, and other industries.

### Note:

- 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	
Pressure range	0~6kPa... 40MP
Pressure type	Gauge pressure, absolute pressure
Power supply	12V~32VDC, recommend 24VDC
Output signal	4~20mA + HART⑦ protocol
Accuracy	±0.075%FS (Standard ranges)
Temperature drift	±6kPa: ±0.3%FS; other ranges: ±0.25%FS (-20~70℃)
Ambient temp.	-30℃~70℃ (Working temperature ranges of LCD gauge head)
Medium temp.	-40℃~125℃
Storage temp.	-30℃~70℃
Overload pressure	(Refer to range selection on page 4.)
Long-term stability	±0.2%FS/year
Diaphragm material	Isolated diaphragm 316L, Ha C (≤10MPa)
Media compatibility	Various medium compatible with 316L and fluororubber

**Outline Drawing** (unit: mm)

Product model	Outline drawing	Note
PCM91		<p>Note 1: ① Pressure port specification: M20×1.5, G1/2, NPT1/2, NPT1/2 female</p> <p>Note 2: ② Thread connector specifications: 55-16 British threads, M56×1.5, M45×1.5, M27×2</p> <p>Note 3: M45×1.5, M27×2 thread L= 93.8mm; 55-16 British threads, M56×1.5 thread L=89.8mm</p>

**Pressure connection**

Code	C1: M20×1.5-6g	C2: G1/2
Dimension Unit: mm		
Recommended torque	15~25Nm	15~25Nm

**Pressure connection (cont.)**

Code	C7: NPT1/2	C7F: NPT1/2 (Female)
Dimension Unit: mm		
Recommended torque	15~25Nm	15~25Nm

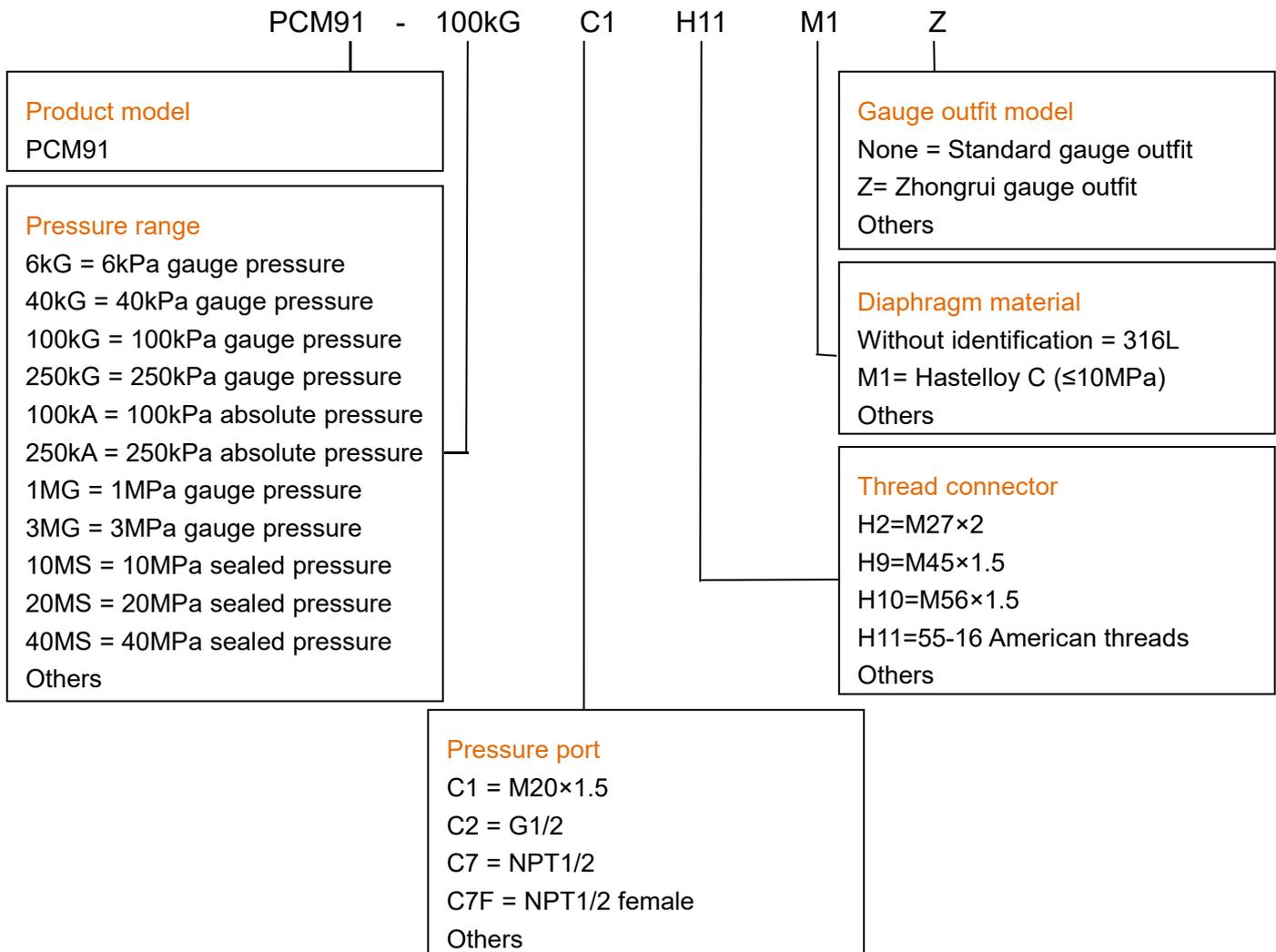
**Thread connector**

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

### 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
10MA	0~10MPa	20MPa
20MA	0~20MPa	40MPa
40MA	0~40MPa	60MPa

### How to order





**Example:** PCM91-100kGC1H11-Z

PCM91, pressure range:  $\pm 100\text{kPa}$ , gauge pressure; output signal: 4~20mA @HART protocol; pressure port M20×1.5; thread connector: 55-16 inch thread; diaphragm: 316L; Beijing zhongrui gauge outfit.

## Ordering tips

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.

## Contact us

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