

# PCM400 Pressure Transmitter

## Features

- High performance diffuse piezoresistive silicon sensor adopted
- Used for the pressure measurement for multiple kinds of media such as gas, liquid etc.
- Wide pressure ranges
- Optional digital display
- Optional multiple kinds of output signals

## Applications and industries

- Industrial field control
- Oil field
- Heavy industry
- Chemical industry
- Gas pipe network
- Water supply pipe network

### Notes:

- 1 Do not touch the diaphragm with hard objects, which may cause damage to the isolation 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

PCM400 pressure transmitter uses a high performance, high stability OEM pressure sensor as the signal measuring element. The sensor signal is converted into standard signal transmission through special signal processing. After long-term aging and stability screening, the product performance is stable. It can be applied to the harsh environment of the open field, and meanwhile ensures the field pressure display, with zero point and full span transferable.

For PCM400 Pressure Transmitter installation connection mode, it can be processed based on the user's requirement, or the specification compatible with the transmitters of other brands can be provided. The products of this series widely apply to the industrial process control, petroleum, chemical industry, metallurgy and other industries.

### 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.

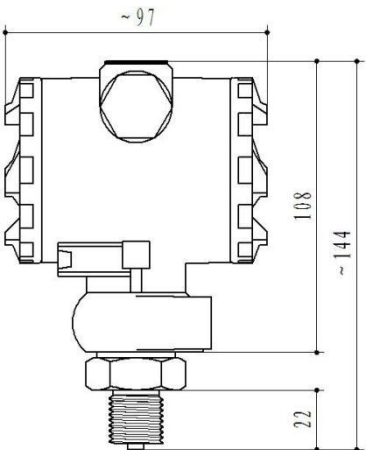
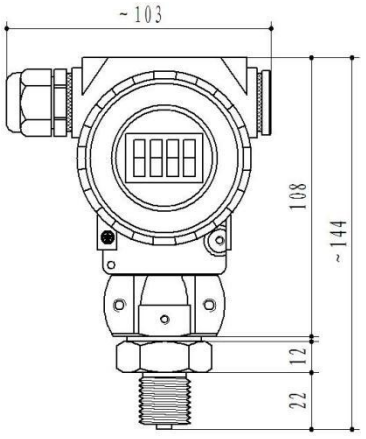
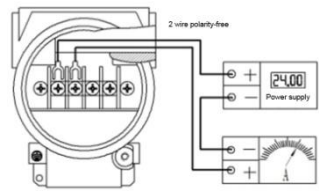
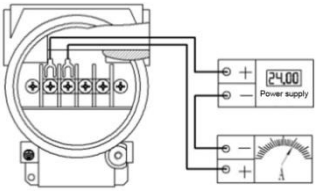
## Performance parameters

Pressure range	-100kPa...0~20kPa...100MPa
Pressure reference	Gauge pressure, Absolute pressure, Sealed gauge pressure
Supply & output	Supply:18-36V;Output:4-20mA
	Supply:12-36V;Output:4-20mA with display;
Operating temp.	-20℃~85℃
Medium temp.	-20℃~85℃
Storage temp.	-40℃~85℃
Zero temp. coefficient	Range>35kPa: ± 1.5% FS (@ -10℃~70℃)
	Range ≤ 35kPa: ± 3% FS (@ 0℃~60℃)

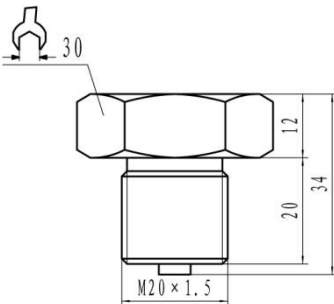
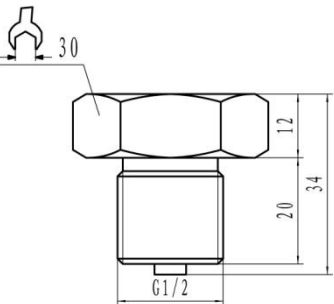
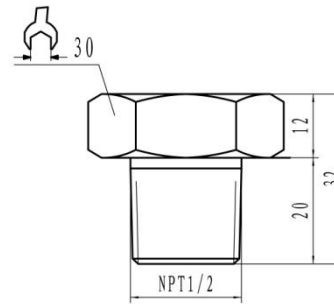
### Performance parameters (cont.)

Span temp. coefficient	Range > 35kPa: $\pm 1.5\%$ FS (@ -10 °C ~ 70 °C) Range $\leq 35$ kPa: $\pm 3\%$ FS (@ 0 °C ~ 60 °C)
Overload pressure	150%FS ~ 300%FS
Mechanical vibration	20g (20 ~ 5000Hz)
Shock	20g / 11ms
Comprehensive accuracy	$\pm 0.5\%$ FS
Insulation	100M $\Omega$ /250VDC
Response time	$\leq 100$ ms (Up to 90%FS)
Long-term stability	$\pm 0.2\%$ FS/year
EMC surge	(IEC61000-4-5) 2kV
EMC static	(IEC61000-4-2) contact discharge 8kV, air discharge 15kV
Protection grade	IP65
Ex-proof grade	Intrinsically safe ex-proof Exia II CT6
Material	Low copper aluminum alloy for shell, 316L for isolation diaphragm
Medium compatibility	All the media compatible with stainless steel 316L

### Electrical connection & wiring mode

Type	J1: 2088 housing	J2: 2088 housing with display
Dimension In mm		
Connection mode (Current output)		

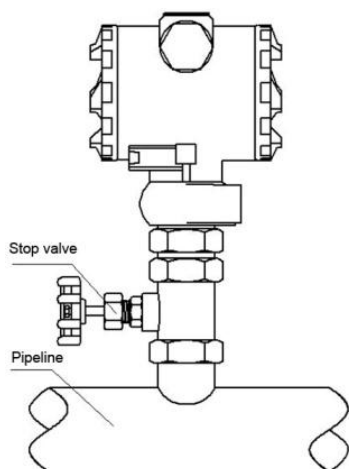
## Pressure port

Type	C1: M20×1.5	C2: G1/2	C7: NPT1/2
Dimension In mm			

## Installation instruction (for reference only)

### Installation tips:

- (1) The product is installed vertically on the field pressure connection.
- (2) During the outdoor installation, try to put the transmitter in a dry and ventilated place, and avoid direct strong sunshine and rain, or else the performance will become poor or break down.
- (3) When the product is installed in the area with frequent lightning, "lightning protection" should be indicated when ordering; meanwhile, we suggest that the user additionally install the lightning protection equipment on site, and ensure reliable grounding of the product and the power supply, which can reduce the probability of the transmitter damage caused by the lightning.
- (4) If no output or abnormal output of the transmitter is found after the installation, please check:



- ① Whether the electrical connection is accurate and firm;
- ② Whether the supply voltage is too low and whether the load resistance is too high.

## Pressure range selection

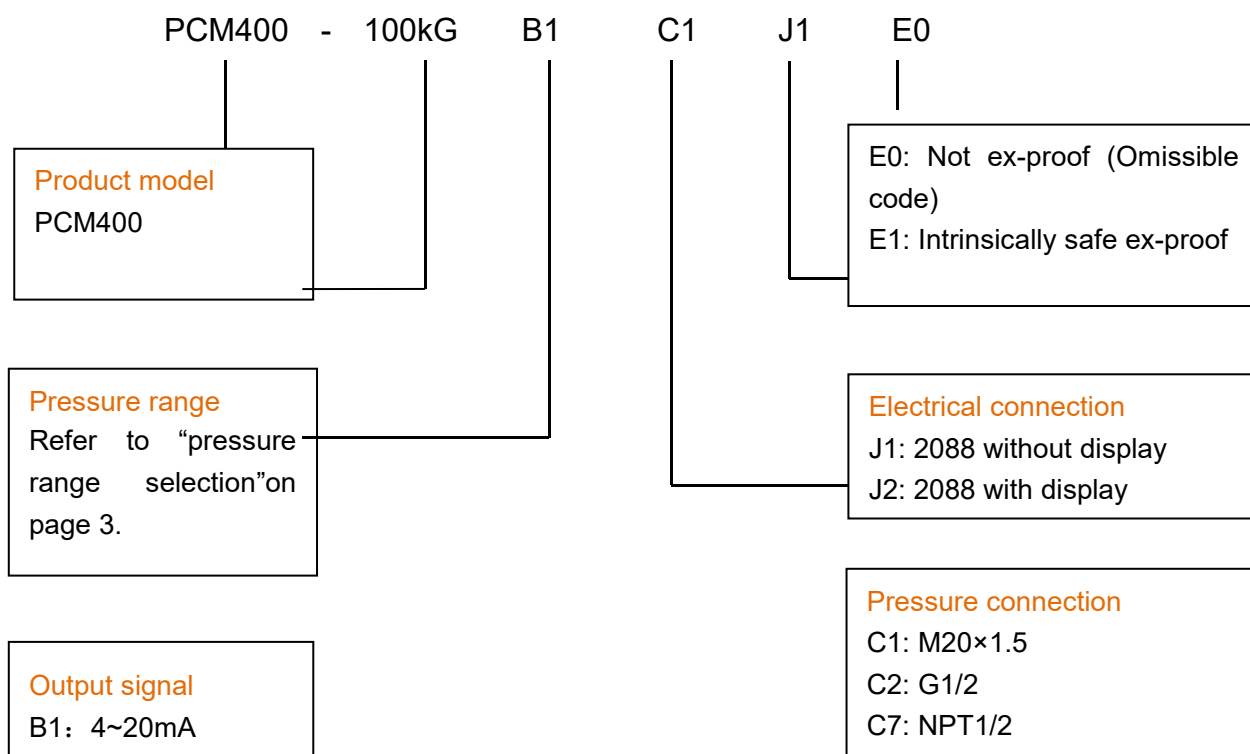
Pressure range code	Pressure reference	Pressure range	Overpressure	Burst pressure	Remark
10kG	G	0~10kPa	300%FS	600%FS	
20kG	G	0~20kPa	300%FS	600%FS	
35kG	G	0~35kPa	300%FS	600%FS	
70kG	G	0~70kPa	300%FS	600%FS	
100kG	G	0~100kPa	200%FS	500%FS	
160kG	G	0~160kPa	200%FS	500%FS	
250kG	G	0~250kPa	200%FS	500%FS	
400kG	G	0~400kPa	200%FS	500%FS	
600kG	G	0~600kPa	200%FS	500%FS	
1MG	G	0~1MPa	200%FS	500%FS	
100kA	A	0~100kPa	200%FS	500%FS	
160kA	A	0~160kPa	200%FS	500%FS	
250kA	A	0~250kPa	200%FS	500%FS	
400kA	A	0~400kPa	200%FS	500%FS	
600kA	A	0~600kPa	200%FS	500%FS	
1MA	A	0~1MPa	200%FS	500%FS	
1.6MS	S	0~1.6MPa	200%FS	500%FS	

### Pressure range selection (cont.)

Pressure range code	Pressure reference	Pressure range	Overpressure	Burst pressure	Remark
2.5MS	S	0~2.5MPa	200%FS	500%FS	
6MS	S	0~6MPa	200%FS	400%FS	
10MS	S	0~10MPa	200%FS	400%FS	
16MS	S	0~16MPa	200%FS	400%FS	
25MS	S	0~25MPa	150%FS	400%FS	
40MS	S	0~40MPa	150%FS	300%FS	
60MS	S	0~60MPa	150%FS	300%FS	
100MS	S	0~100MPa	150%FS	300%FS	

Note: G stands for gauge pressure, A, absolute pressure, S, sealed gauge pressure.

### How to order



#### Example: PCM400-100kGB1C1J1

Product model: PCM400. 100k: pressure range 0~100k. G: gauge pressure. B1: output signal 4~20mA. C1: pressure connection C1: M20×1.5. J1: Electrical connection 2088 housing without display.

### Optional accessories

Standard accessories: white plastic tense wire with end cap; optional self-paying accessories: metal tense wire with end cap, and please specify this in the order.



## **Ordering tips**

The products with display are divided into two types: digital tube display and LCD display, and please specify this in the order.

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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