

PCM403 Pressure Transmitter

Features

- High-performance diffusion silicon piezoresistive 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

The PCM403 pressure transmitter uses a high-performance, high-stability OEM pressure sensor as the signal-measuring element. 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 screening 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 PCM403 can be compatible with other brands' transmitters or can be customized to meet users' requirements. The products of this series are widely apply to the industrial process control, petroleum, chemical, metallurgy, and other industries.

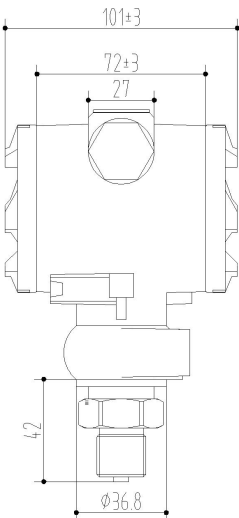
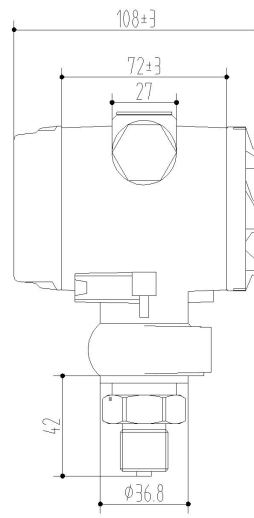
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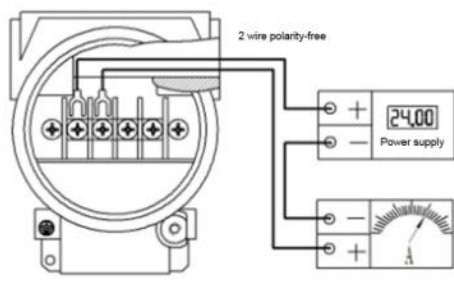
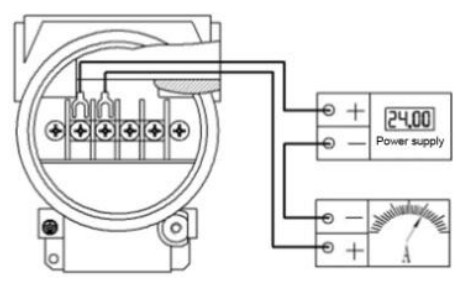
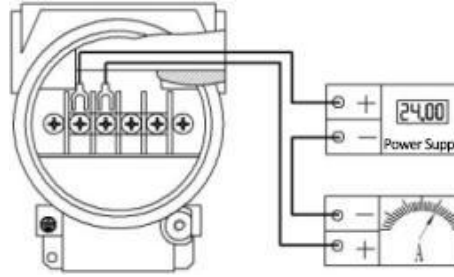
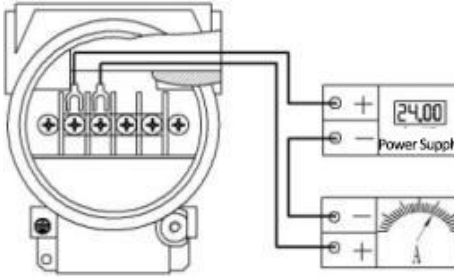
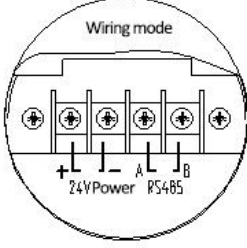
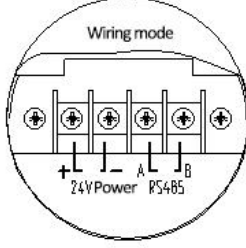
- 1 Do not misuse documentation.
- 2 The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- 3 Complete installation, operation, and maintenance information is provided in the instructions of the product.
- 4 Misuse of the product may cause danger or personal injury.

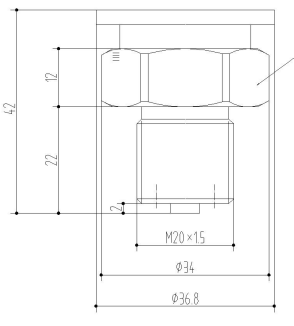
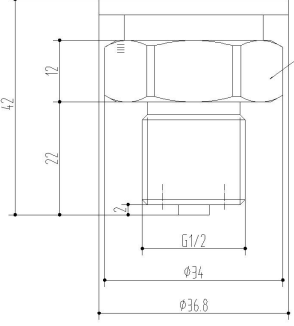
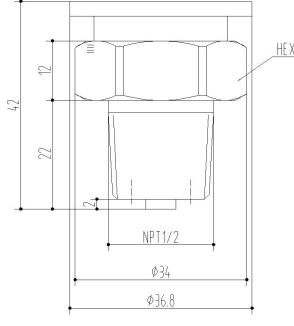
Performance parameters

Pressure range	-100kPa...0~10kPa...100MPa
Output signal	4~20mA 4~20mA with display 4~20mA+HART with display 4~20mA+RS485 with display
Operating temp.	-20℃~85℃
Medium temp.	-20℃~85℃
Storage temp.	-40℃~125℃
Zero temp. coefficient	±3%FS -100kPa≤range≤35kPa G (@0~60℃) ±1.5%FS 35kPa G<range (@-10~70℃)
Span temp. coefficient	±3%FS -100kPa≤range≤35kPa G (@0~60℃) ±1.5%FS 35kPa G<range (@-10~70℃)
Overload pressure	Refer to “Pressure range selection” on page 4.
Anti-vibration performance	Sine curve: 20g, 25Hz~2kHz; IEC 60068-2-6 Random: 7.5grms, 5Hz~1kHz; IEC 60068-2-64
Shock resistance	Shock: 100g/11ms; IEC 60068-2-27 Free fall: 1m; IEC 60068-2-32
Comprehensive accuracy	0.2 level; 0.5 level
Insulation resistance	≥100MΩ/250VDC
Response time	≤100ms (Up to 90%FS)
Long-term stability	±0.2%FS/year
EMC surge	(IEC61000-4-5) 2kV
EMC static	(IEC61000-4-2) contact discharge 8kV, air discharge 15kV
Protection grade	IP65
Material	Low copper aluminum alloy for shell, 316L for isolation diaphragm; 304 for pressure port

Electrical connection & wiring mode

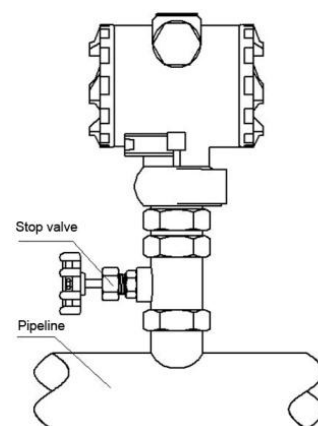
Type	J1: 2088 housing	J2: 2088 housing with display
Dimension In mm		

<p>Connection mode (Current output)</p>		
<p>Connection mode (with HART protocol)</p>		
<p>Connection mode (RS485)</p>		

Pressure port			
Type	C1: M20×1.5	C2: G1/2	C7: NPT1/2
<p>Dimension In mm</p>			

Installation tips:

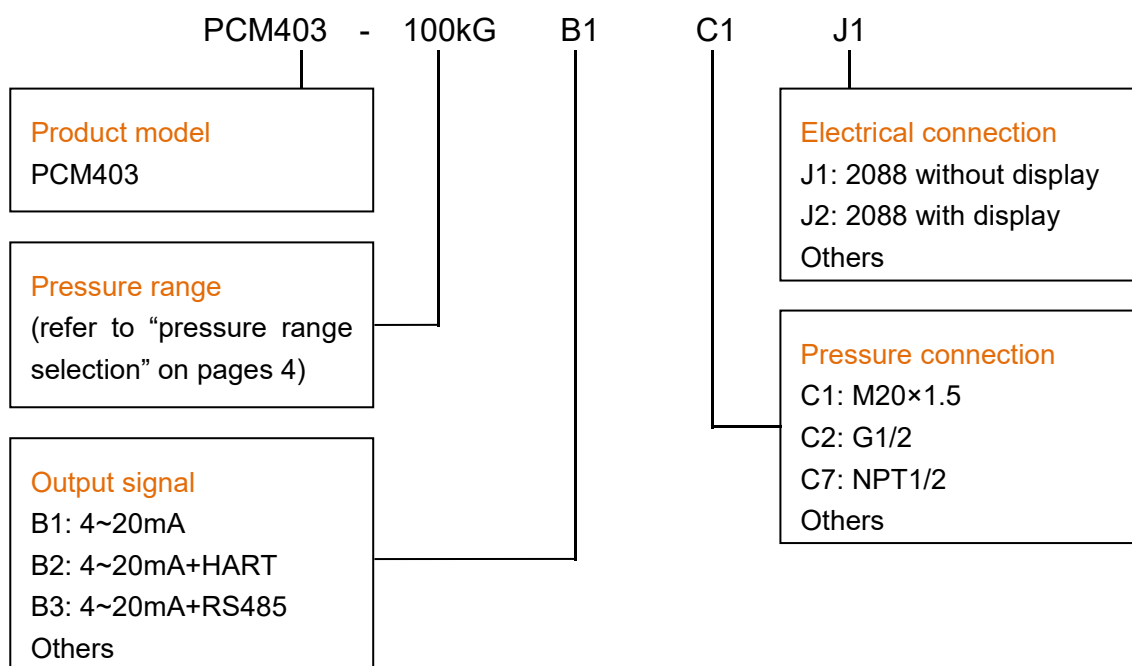
- (1) The product is installed vertically on the field pressure connection.
- (2) When installing outdoors, the transmitter should be placed in a ventilated and dry place, avoiding direct exposure to strong light and rain; otherwise, it will cause performance degradation or malfunction.
- (3) When installing the product in a lightning-prone area, “lightning protection” should be indicated when ordering; meanwhile, it is highly recommended to install lightning protection devices on site, and ensure both the product and power supply are reliably grounded. These measures will reduce the probability of lightning damage to the transmitter.
- (4) If no output or abnormal output after 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

Code	Pressure reference	Pressure range	Overpressure	Burst pressure	Note
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	
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		
100MS	S	0~100MPa	150%FS		
-100G	G	-100~0kPa	200%FS	500%FS	

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



Example: PCM403-100kGB1C1J1

Product model: PCM403, pressure range 0~100k, gauge pressure, output signal 4~20mA, pressure connection M20×1.5, electrical connection 2088 housing without display.

Optional accessories

Standard accessories: white plastic tense wires and end caps; Metal tense wires and end caps shall be offered as optional extras at an additional cost. Please specify this in the order.

Ordering tips

This product offers optional HART and RS485 protocols. 4~20mA+HART: Display/Non-display available; 4~20mA+RS485: Display only. Please specify the requirements 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.

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