PCM303D Pressure Transmitter

Features

- SS316L isolation diaphragm structure
- High accuracy, all stainless steel structure
- Small size and light weight
- Strong anti-interference, good long-term stability
- Multiple forms and structures, easy to install and use
- Wide pressure range, available for measurement of absolute pressure, gauge pressure, and sealed gauge pressure
- Anti-vibration, shock resistance

Applications and industries

- Process control
- Aviation and aerospace
- Automobile and medical equipment
- Pipeline system

Notes:

1 Do not touch the diaphragm with hard objects, which may cause damage to the 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 PCM303D pressure transmitter uses a diffusion silicon pressure sensor as its sensitive element. The built-in integrated circuit converts the sensor's millivolt signal into a standard current signal, which can be directly connected with the computer interface card, control instrument, intelligent instrument, or PLC. If it is used for remote transmission, the current output is available. PCM303D has a small size, light weight, and an all-stainless-steel sealing structure, and can be used in corrosive environments. The product is easy to install and has high anti-vibration and shock resistance performance, which can be widely used in process control, aviation & aerospace, auto industry, medical equipment, HVAC, and many other fields.

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.

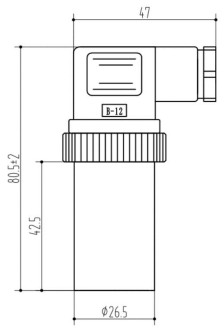
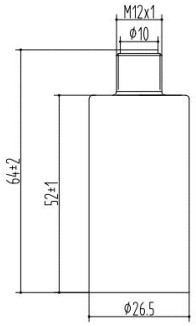
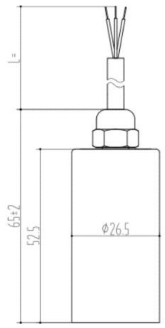
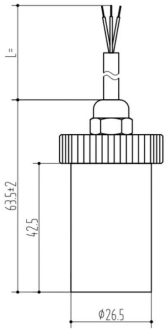
3 Complete installation, operation, and maintenance information is provided in the instructions of the product.

4 Misuse of the product may cause danger or personal injury.

Performance parameters	
Pressure range	-100kPa~0kPa…35kPa…60MPa
Pressure reference	Gauge pressure | Absolute pressure | Sealed gauge pressure
Accuracy	0.5%FS
Hysteresis	0.1%FS
Repeatability	0.1%FS
Temperature drift	≤35kPa:±3%FS (0℃~60℃)
	Other ranges:±1.5%FS(-10℃~70℃)
Response time	≤90ms
Overload pressure	(Refer to “Pressure range selection” on page 5)
Durability	≥1×10^6 pressure cycles
Ambient temp.	-20℃~85℃
Medium temp.	-30℃~105℃
Storage temp.	-40℃~125℃
EMC	Immunity: IEC 61000-6-2; Radiation: IEC 61000-6-3
Insulation resistance	≥250MΩ/500VDC(100MΩ/250VDC)
Vibration resistance	Sine curve: 20g, 25Hz~2kHz; IEC 60068-2-6
	Random: 7.5grms, 5Hz~1kHz; IEC 60068-2-64
Shock resistance	Shock: 20g/1ms; IEC 60068-2-27
	Free fall: 1m; IEC 60068-2-32
Protection grade	IP65
Surge	IEC 61000-4-5 3 level 2KV
Voltage resistance	Current output: 500V/AC 1min
Static electricity	IEC 61000-4-2 4 level
Medium compatibility	All media compatible with stainless steel 304
Hexnut	HEX27
Ex-proof grade	Intrinsic safety explosion-proof ExiaIICT6 (only for 4~20mA)
Net weight	150~180g

Output signal and power supply					
Code	**B1**	**B3**	**B7**	**B6**	**B6N**
Output	4~20mA	0~5V	0~10V	0.5~4.5V R/M	0.5~4.5V Non-ratiometric
Supply	12~30VC			5VDC	

Electrical connection & wiring mode

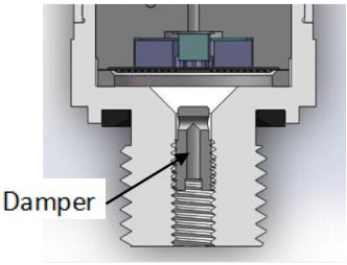
Thread code	J5: Hirschmann DIN43650	J4: M12×1	J3: Cable outlet	J3H: Hirschmann with cable
Dimension In mm				
Protection grade	IP65			
Connection (2-wire current)	Pin 1: V+ (red) Pin 2: Iout (green)	Pin 1: V+ (red) Pin 2: Iout (green)	Red wire: V+ Green wire: Iout	Red wire: V+ Green wire: Iout
Connection (3-wire voltage)	Pin 1: V+ (red) Pin 2: Ground (green) Pin 3: Voltage output (yellow)	Pin 1: V+ (red) Pin 2: Ground (green) Pin 3: Voltage output (yellow)	Red wire: V+ Green: Ground Yellow: Voltage output	Red wire: V+ Green: Ground Yellow: Voltage output

Application of damper

Application

Cavitation, liquid hammer, and pressure peaks may occur in air or hydraulic systems with varying flow rates, such as the rapid closing of a valve or the starting and stopping of a pump.

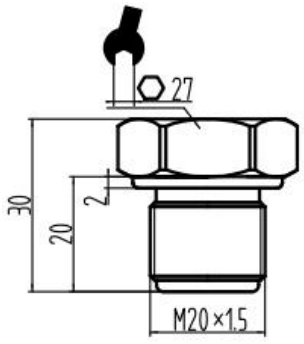
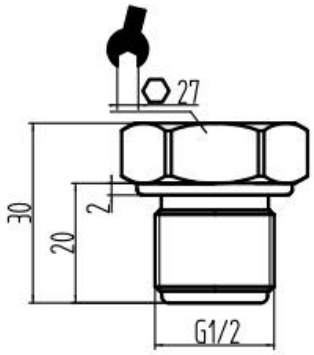
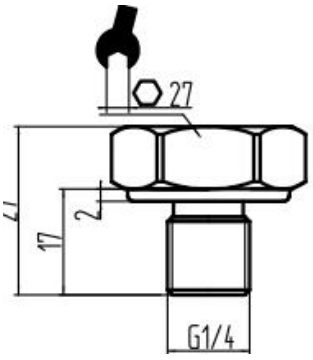
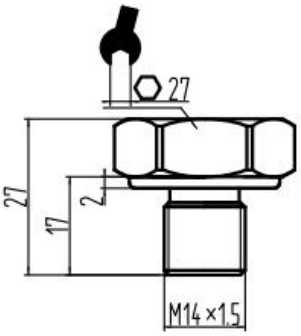
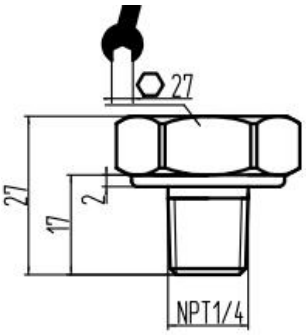
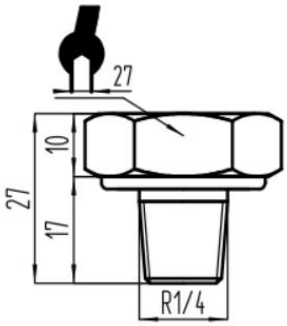
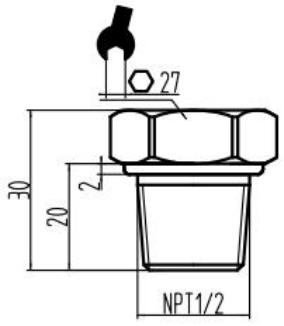
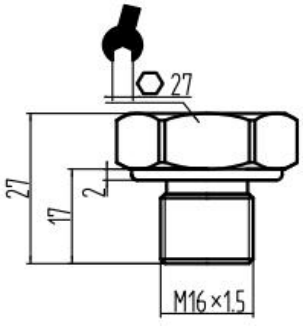
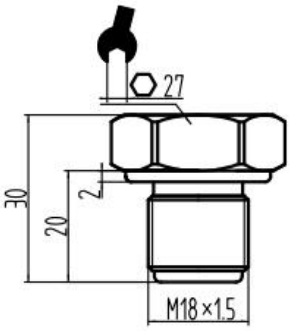
Even at relatively low operating pressures, these problems may occur at the inlet and outlet.



Media condition

Nozzle clogging may occur in liquids containing particles. Vertical mounting of the pressure transmitter can minimize this risk. This is because fluid flow happens only during initial startup, the volume of the rear of the nozzle is fixed, and the nozzle has a relatively large aperture (1.2mm).

Pressure connection

Thread code	C1: M20×1.5-6g	C2: G1/2	C3: G1/4
Dimension In mm			
Recommended torque	15~25Nm	15~25Nm	15~25Nm
Thread code	**C4: M14×1.5**	**C5: NPT1/4, Z1/4**	**C6: R1/4, PT1/4, ZG1/4**
Dimension In mm			
Recommended torque	15~25Nm	15~25Nm	15~25Nm
Thread code	**C7: NPT1/2**	**C22: M16×1.5**	**C23: M18×1.5**
Dimension In mm			
Recommended torque	15~25Nm	15~25Nm	15~25Nm

Note: The torque depends on various factors, such as gasket material, kitting material, thread lubrication, and pressure.

Pressure range selection

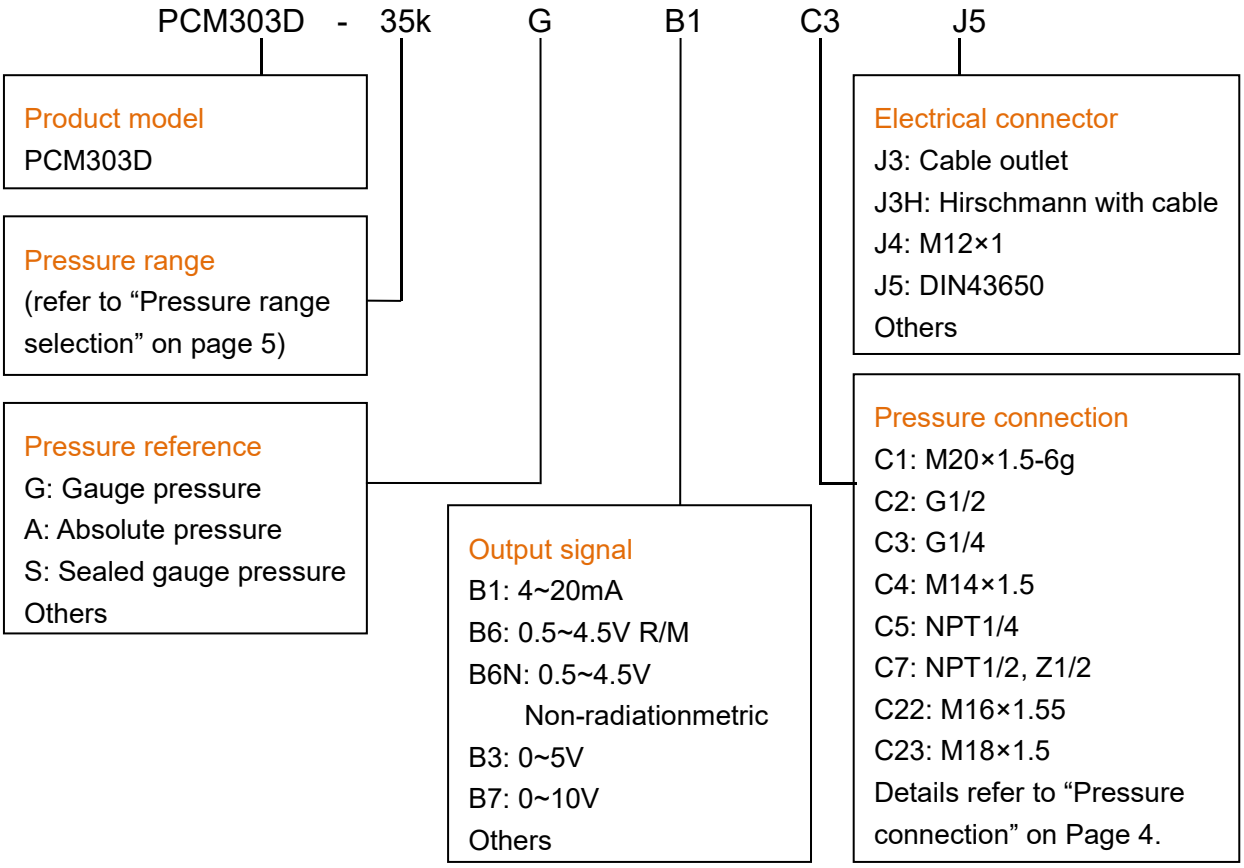
Pressure range code	Pressure reference	Pressure range	Overload pressure	Burst pressure	Note
(-100~0)k	G	-100~0kPa	300kPa	600kPa	
10k	G	0~10kPa	300%FS	600%FS	
35k	G, A	0~35kPa	300%FS	600%FS	
70k	G	0~70kPa	200%FS	500%FS	
100k	G, A	0~100kPa	200%FS	500%FS	
250k	G, A	0~250kPa	200%FS	500%FS	
600k	G, A	0~600kPa	200%FS	500%FS	
1M	G, A	0~1MPa	200%FS	500%FS	
1.6M	G, A, S	0~1.6MPa	200%FS	500%FS	
2.5M	S	0~2.5MPa	200%FS	500%FS	
6M	S	0~6MPa	200%FS	400%FS	
10M	S	0~10MPa	200%FS	400%FS	
25M	S	0~25MPa	200%FS	400%FS	
40M	S	0~40MPa	200%FS	400%FS	
60M	S	0~60MPa	150%FS	300%FS	

Note 1: G, gauge pressure, A, absolute pressure, S, sealed gauge pressure.

Accessory

Name	Appearance	Description	Item number
M4 damper		Refer to “Application of damper”	100030500027
Hirschmann plug made in China		Made in China	100040301005
M12 Thread M12×1		MB12FAAFF04ST	100040304001
LCD12 display gauge		1. LCD display 2. Green backlight	100040100008
BS-6 digital display gauge		1. Nixie tube display 2. Red backlight	100040101000

How to order



Example: PCM303D-35kGB1C3J5

The product model is PCM303D, pressure range 0~35kPa, gauge pressure, output signal 4~20mA, pressure connection: G1/4, electrical connector: DIN43650.

Ordering tips

1 Ensure the measured medium is compatible with the contacting part of the product when placing an order.

2 Customization is available for pressure ranges between 1~35kPa. (For ranges ≤6kPa, an oil-free sensor should be selected, and the measured medium must be pure gas.)

3 Customization is available for ranges between 25~100MPa, where the application site involves extreme pressure impacts.

Contact us

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