

PCM303D Universal 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
- Diversified formal 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
- 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

PCM303D universal pressure transmitter adopts diffused silicon pressure sensor as pressure sensing element. The millivolt signal of sensor is transmitted into standard current signal through the internal special-purpose digital circuit. PCM303D pressure transmitter can be directly connected with computer interface card, control instruments, intelligent instruments or PLC etc. conveniently. Long-distance transmission can use current output. PCM303D pressure transmitter is featured with small size, light weight, all stainless steel sealing structure and ability to work in corrosive environments. The product is easy to install and has extremely high vibration and shock resistance. PCM303D pressure transmitter is widely used in process control, aviation, aerospace, automobile, medical equipment, HVAC and so on.

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

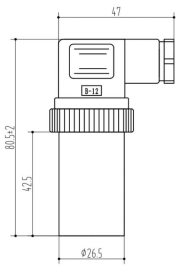
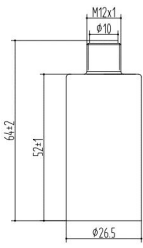
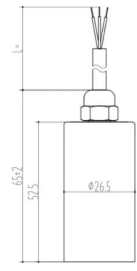
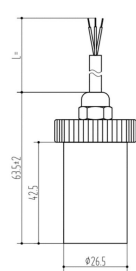
Pressure range	-100kPa~0kPa~35kPa...100MPa
Pressure reference	Gauge pressure Absolute pressure Sealed gauge pressure
Accuracy	0.5%FS
Hysteresis	0.1%FS
Repeatability	0.1%FS
Temperature drift	≤(-5~5)kPa: ±2%FS (0℃~60℃); customization

	Other ranges: $\pm 1.5\%FS(-10^{\circ}C \sim 70^{\circ}C)$
Response time	$\leq 90ms$ (Up to 90%FS)
Overload pressure	Refer to table for pressure range selection
Durability	10^6 pressure cycles
Ambient temperature	$-20^{\circ}C \sim 85^{\circ}C$
Medium temp.	$-30^{\circ}C \sim 105^{\circ}C$
Storage temp.	$-40^{\circ}C \sim 125^{\circ}C$
EMC	Immunity: IEC 61000-6-2 Radiation: IEC 61000-6-3
Insulation resistance	$100M \Omega / 250VDC$
Vibration resistance	Sine curve: 20g, 25Hz \sim 2kHz; IEC 60068-2-6
	Random: 7.5grms, 5Hz \sim 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 medium compatible with stainless steel 304
Hexnut	HEX27
Ex-proof grade	Intrinsically safe explosion-proof Exia II CT6 Ga (only for 4 \sim 20mA)
Net weight	150 \sim 180g

Performance parameters

Code	B1	B3	B7	B6	B6N
Output	4 \sim 20mA	0 \sim 5V	0 \sim 10V	0.5 \sim 4.5V R/M	0.5 \sim 4.5V Non-ratiometric
Supply	12 \sim 30VC			5VDC	

Electrical connection & wiring mode

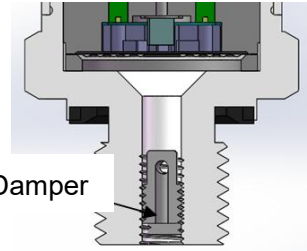
Thread code	J5: Hirschmann DIN43650	J4: M12 \times 1	J3: Cable outlet	J3H: Hirschmann with cable
Dimension In mm				
Protection grade	IP65			
Wiring method (2 wire current)	Pin 1: V+ (red) Pin 2: Iout (green)	Pin 1: V+ (red) Pin 2: Iout (green)	Red wire: V+ Green wire: Iout	Red wire: V+ Green wire: Iout
Connection mode (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 wire: Ground Yellow wire: Voltage output	Red wire: V+ Green wire: Ground Yellow wire: Voltage output

Application of damper

Applications

Cavitation, liquid hammer and pressure peak may occur in air or fluid systems with varying flow rates, such as the rapid closing of the valve or the start and stop of the pump.

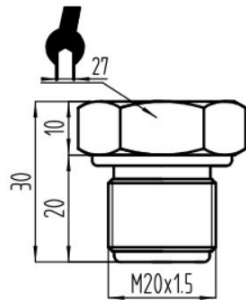
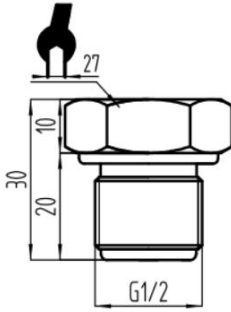
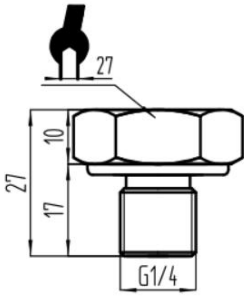
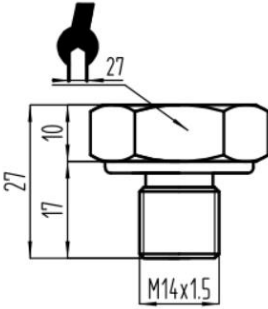
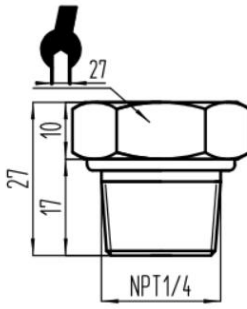
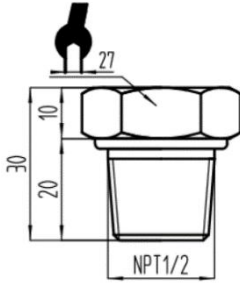
Even at relatively low operating pressures, these problems may occur at the Damper entrance and exit.



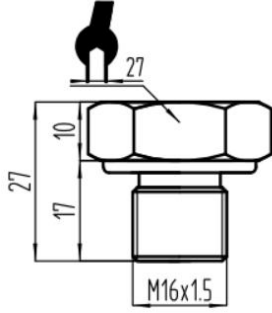
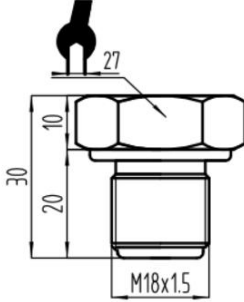
Medium condition

In the liquid containing particles, nozzle clogging may occur. The vertical mounting of pressure transmitter minimizes the risk of clogging because the flow of fluid happens in initial start only, the volume of the rear of the nozzle is fixed and the nozzle has a relatively large aperture (1.2 mm).

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	C7: NPT1/2
Dimension In mm			
Recommended torque	15~25Nm	15~25Nm	15~25Nm

Pressure connection

Thread code	C22: M16×1.5	C23: M18×1.5	
Dimension In mm			---
Recommended torque	15~25Nm	15~25Nm	

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

Pressure range selection

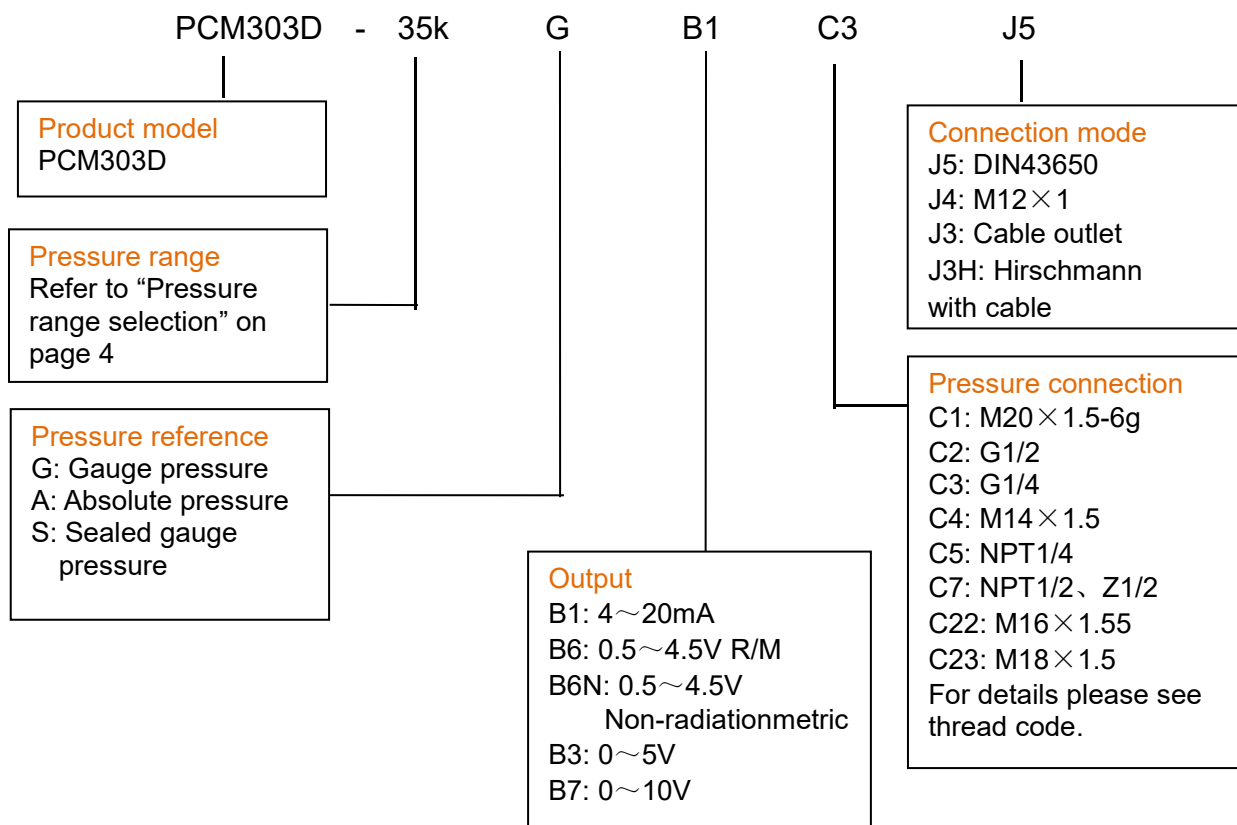
Pressure range code	Pressure reference	Pressure range	Overload pressure	Burst pressure	Note
35k	G、A	0~35kPa	300%FS	600%FS	
70k	G	0~70kPa	200%FS	500%FS	
100k	G、A	0~100kPa	200%FS	500%FS	
250k	G、A	0~250kPa	200%FS	500%FS	
600k	G、A	0~600kPa	200%FS	500%FS	
1M	G、A	0~1MPa	200%FS	500%FS	
1.6M	G、A、S	0~1.6MPa	200%FS	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	
100M	S	0~100MPa	150%FS	300%FS	
(-100~0)k	G	-100~0kPa	150%FS	300%FS	

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

Accessory

Name	Appearance	Description	Material No.
M4 damper		Refer to "Application of damper"	100030100027
Hirschmann plug made in China		Made in China	100040301005
M12 Thread M12×1		MB12FAAFF04ST	100040304001

How to order





Example: PCM303D-35kGB1C3J5

The product model is PCM303D, 35k: pressure range 0~35kPa, G: pressure reference gauge pressure, B1: output signal 4~20mA, C3: pressure connection G1/4, J5: electrical connector DIN43650.

Ordering tips

1. Please ensure the compatibility between the measured medium and the contacting part of the product when placing an order.
2. For the pressure range between 1~35kPa, the product can be customized.(Range \leq 6kPa, use non-oil-filled pressure sensor, the measuring medium must be pure gas).
3. For the pressure range between 25~100MPa, with the super strong pressure impact for the application on site, the product can be customized.

Contact us

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