PCM320 Pressure Transmitter for Compressor

Features

- Compact structure, exquisite appearance
- Digital circuit processing
- High precision and high stability
- Small size and light weight
- Strong anti-interference; good long-term stability
- Various structures; easy installation and use
- Wide measuring range; can measure absolute pressure, gauge pressure, and sealed gauge pressure
- Multiple options for process connection and electrical connection
- Suitable for mass production; economic and reliable

Applications

- Hydraulic and pneumatic equipment
- Chemicals and Chemical Industry
- Compressor
- Ink-jet printer

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 PCM320 pressure transmitter is designed with a compact integrated stainless steel structure with a built-in digital processing circuit that converts the millivolt signal of the sensor to a standard voltage or current output signal. Its structures and output forms are various. PCM320 is featured with small size, light weight, easy installation and use, and stable performance. It is widely used in industrial automation equipment and has good adaptability to various complicated environments.

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.

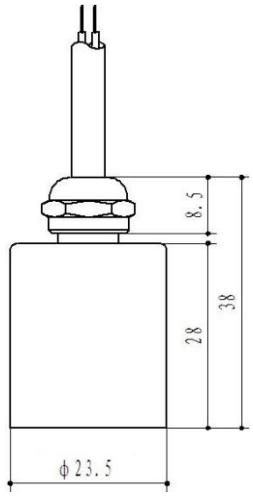
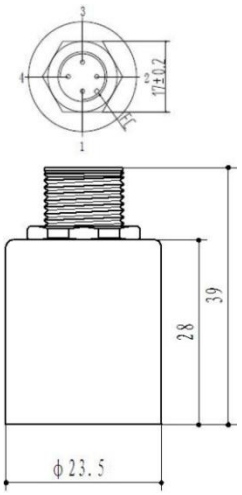
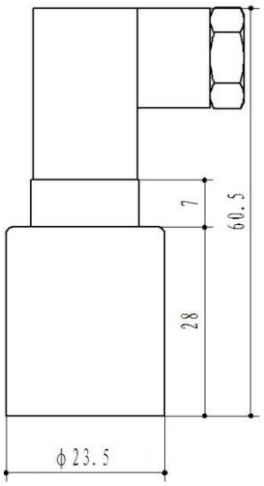
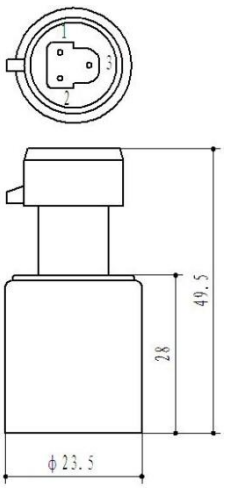
3 Complete installation, operation, and maintenance information is provided in the instructions of the product.

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

Performance parameters	
Pressure range	-100kPa…0~35kPa…60MPa
Pressure reference	Gauge pressure, Absolute pressure, Sealed gauge pressure
Accuracy	0.5%FS (@25±5℃)
Hysteresis	0.1%FS
Repeatability	0.1%FS
Temp. drift	35kPa: ±2%FS (0℃~60℃) Others: ±1.5%FS (-20℃~85℃)
Response time	≤90ms (Up to 90%FS)
Overload pressure	(Refer to “Pressure range selection” on Page 5.)
Durability	≥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	≥100MΩ/500VDC (200MΩ/250VDC)
Vibration resistance	Sine curve: 20g, 25Hz~2kHz; IEC 60068-2-6 Random: 7.5grms, 5Hz~1kHz; IEC 60068-2-64
Shock resistance	Shock: 200g/1ms; IEC 60068-2-27 Free fall: 1m; IEC 60068-2-32
Protection	IP65
Medium compatibility	All media compatible with stainless steel 316L
Hex nut	HEX24
Ex-proof grade	Intrinsic safety explosion-proof Exia Ⅱ CT6 (only for 4~20mA)
Net weight	120~150g

Output and power supply					
Code	**B1**	**B3**	**B7**	**B6**	**B6N**
Output signal	4~20mA	0~5V	0~10V	0.5~4.5V R/M	0.5~4.5V Non R/M
Power supply	12~36VDC	12~36VDC	12~36VDC	5VDC	5VDC

Electrical connection & wiring method

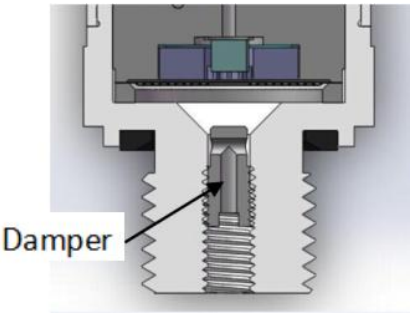
Connector code	J3: Cable outlet	J4: M12	J6: Mini Hirschmann	J7: Round Packard
Dimension In mm				
Protection	IP65	IP65	IP65	IP65
Connection mode: Current (2 wires)	Red: Supply+ Green: Current output	Pin 1: Supply+ Pin 2: Current output	Pin 1: Supply+ Pin 2: Current output	Pin 1: Supply+ Pin 2: Current output
Connection mode: Voltage (3 wires)	Red: Supply+ Green: Ground Yellow: Voltage output	Pin 1: Supply+ Pin 2: Voltage output Pin 3: Ground	Pin 1: Supply+ Pin 2: Ground Pin 3: Voltage output	Pin 1: Supply+ Pin 2: Ground Pin 3: Voltage output

Application of damper

Application

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

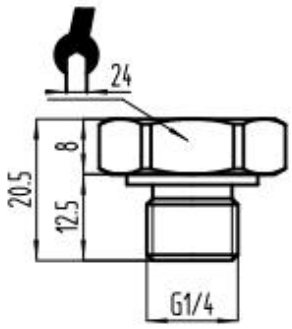
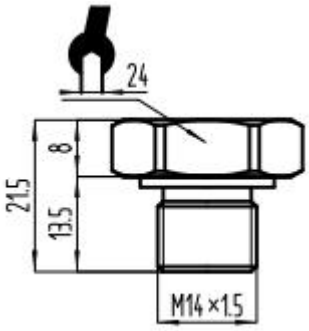
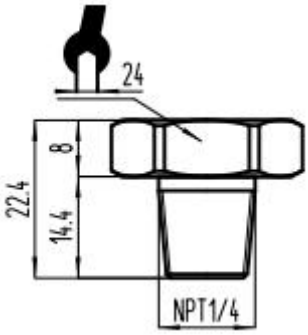
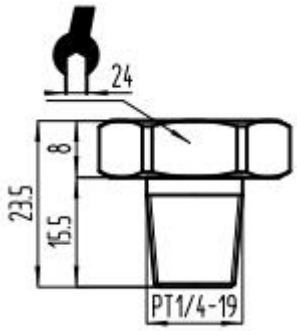
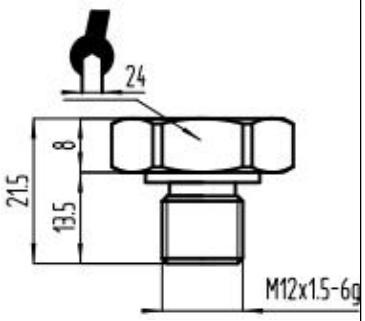
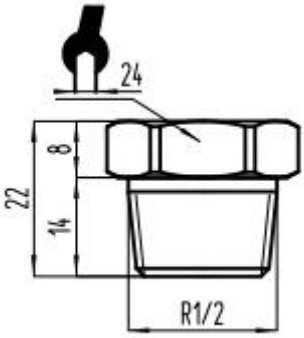
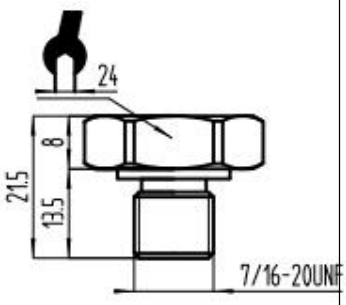
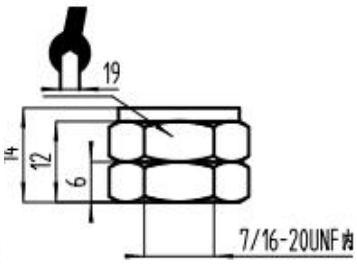
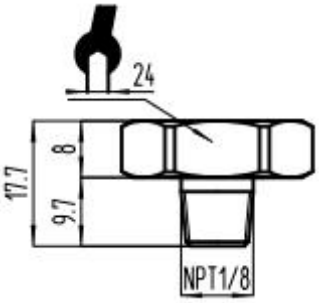
Even at relatively low operating pressures, these problems may occur at the entrance and exit.



Media condition

In the liquid containing particles, nozzle clogging may occur. Vertical mounting of the pressure transmitter can minimize this risk. This is because the 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 (1.2 mm).

The effect of medium viscosity on response time is small. Even if the viscosity reaches 100 CST, the response time will not exceed 4 ms.

Pressure port			
Thread code	**C3: G1/4**	**C4: M14×1.5**	**C5: NPT1/4, Z1/4**
Dimension In mm			
Recommended torque	15~25Nm	15~25Nm	15~25Nm
Thread code	**C6: R1/4, PT1/4, ZG1/4**	**C8: M12×1.5-6g**	**C10: R1/2, PT1/2, ZG1/2**
Dimension In mm			
Recommended torque	15~25Nm	15~25Nm	15~25Nm
Thread code	**C11: 7/16-20UNF Male**	**C12: 7/16-20UNF Female**	**C18: NPT1/8, Z1/8**
Dimension In mm			
Recommended torque	15~25Nm	15~25Nm	15~25Nm

Note: Torque depends on various factors, such as the gasket material, supporting materials, thread lubrication, and pressure.

Pressure range selection

Pressure range code	Pressure reference	Pressure range	Overload pressure	Burst pressure	Note
35k	G, A	0~35kPa	150%FS	500%FS	
70k	G	0~70kPa	150%FS	500%FS	
100k	G, A	0~100kPa	150%FS	300%FS	
250k	G, A	0~250kPa	150%FS	300%FS	
400k	G, A	0~400kPa	150%FS	300%FS	
600k	G, A	0~600kPa	150%FS	300%FS	
1M	G, A, S	0~1MPa	150%FS	300%FS	
1.6M	G, S	0~1.6MPa	150%FS	300%FS	
2.5M	G, S	0~2.5MPa	150%FS	300%FS	
4M	S	0~4MPa	150%FS	300%FS	
6M	S	0~6MPa	150%FS	300%FS	
10M	S	0~10MPa	150%FS	300%FS	
16M	S	0~16MPa	150%FS	300%FS	
25M	S	0~25MPa	150%FS	300%FS	
40M	S	0~40MPa	150%FS	300%FS	
60M	S	0~60MPa	150%FS	200%FS	

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

Accessory

Name	Appearance	Description	Item number
M4 damper		(Refer to “Application of damper” on Page 3.)	100030100027
Mini 4 pin connector		Imported connector OMAL	100040301006
M12 connector		MB12FAAFF04ST	100040304001
Round Packard connector male		DuPont material	100040305002

How to order

PCM320 - 35k G B1 C3 J3

Product model
PCM320

Pressure range
(refer to "Pressure range selection" on Page 5)

Pressure reference
G: Gauge pressure
A: Absolute pressure
S: Sealed gauge pressure
Others

Supply & output signal
B1: 4~20mA
B3: 0~5V
B6: 0.5~4.5V (R/M)
B6N: 0.5~4.5V(non R/M)
B7: 0~10V
Others

Electrical connection
J3: Cable outlet
J4: M12
J6: Mini 4 pin
J7: Round Packard
Others

Pressure connection
C3: G1/4
C4: M14×1.5
C5: NPT1/4, Z1/4
C6: R1/4, PT1/4, ZG1/4
C8: M12×1.5
C10: R1/2, PT1/2, ZG1/2
C11: 7/16-20UNF Male
C12: 7/16-20UNF Female
C18: NPT1/8, Z1/8
Others

Example: PCM320-35kGB1C3J3

Product model: PCM320, pressure range 0~35kPa. G:gauge pressure. B1: output signal 4~20mA. C3: pressure port G1/4. J3: cable outlet.

Ordering tips

1 Ensure the measured medium is compatible with the contacting part of the product when ordering.
2 Can customize for ranges between 10~35kPa.
3 Can customize for ranges between 25~60MPa with super pressure shock on the application site.

Contact us

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