

PCM390 Pressure Transmitter

Features

- Compact structure
- Digital circuit compensation
- Strong anti-interference, good long-term stability
- Small diameter, small size, easy to install and use
- Available for the measurement of absolute pressure, gauge pressure, and sealed gauge pressure
- A variety of electrical connections
- Liquid contacting diaphragm 316L
- Suitable for mass production

Applications and industries

- Air compressor
- Hydraulic and pneumatic equipment
- Servo valves and drive
- Air conditioning systems
- Piping systems

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.



Product overview

The PCM390 pressure transmitter is designed specially for small and medium-sized equipment applications, such as booster pumps, air compressors, and air conditioning systems. It is also applicable to a wide range of industrial applications, with various structural forms, output forms, and pressure connections to meet the requirements of most applications. The PCM390 is designed with a compact structure, especially suitable for installation in narrow spaces.

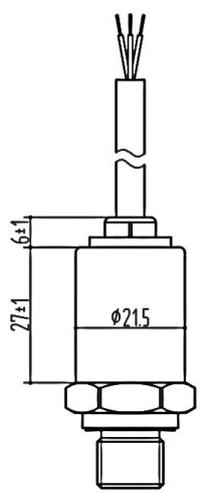
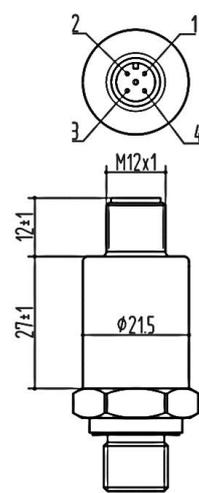
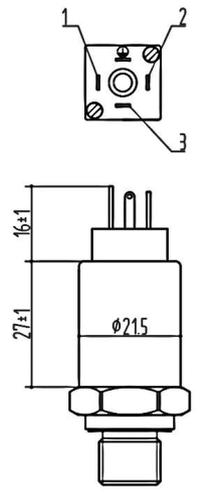
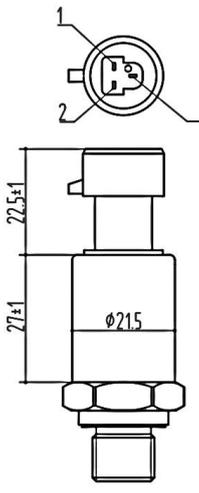
Notes:

- 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	0~35kPa...10MPa
Pressure reference	Gauge pressure Absolute pressure Sealed gauge pressure
Accuracy	±0.5%FS(@25±5°C)
Hysteresis & repeatability	±0.1%FS
Temperature drift	±1.5%FS(<100kPa, -10~70°C; ≥100kPa, -20°C~85°C)
Response time	<100ms
Durability	≥10 ⁶ pressure cycles
Ambient temp.	-20°C~85°C
Medium temp.	-30°C~105°C
Storage temp.	-40°C~120°C
EMC- interference	IEC 61000-6-3
EMC- immunity	IEC 61000-6-2
Insulation resistance	≥100MΩ/250VDC
Anti-vibration performance	Sine curve: 20g, 25Hz~2kHz; IEC 60068-2-6
	Random: 7.5grms, 5Hz~1kHz; IEC 60068-2-64
Shock resistance	Shock: 10g/11ms; IEC 60068-2-27
	Free fall: 1m; IEC 60068-2-32
Protection grade	IP65
Material	Wetted part: 316L
	Housing: 304
Net weight	50~90g

Output signal and power supply				
Code	B1	B3	B6	B7
Output signal	4~20mA	0~5V	0.5~4.5V R/M	0~10V
Power supply	9~30VDC	12~30VDC	5V	12~30VDC

Electrical connection and connection mode

Electrical connection	J3: Cable outlet	J4: M12
Dimension In mm		
Connection mode (2-wire current)	Red wire: Supply+ Green wire: Current output	Pin 1: Supply+ Pin 2: Current output
Connection mode (3-wire voltage)	Red wire: Supply+ Green wire: Ground Yellow: Voltage output	Pin 1: Supply+ Pin 2: Voltage output Pin 3: Ground
Electrical connection	J6: Mini 4 pin	J7: Round Packard
Dimension In mm		
Connection mode (2-wire current)	Pin 1: Supply+ Pin 2: Current output	Pin 1: Supply+ Pin 2: Current output
Connection mode (3-wire voltage)	Pin 1: Supply+ Pin 2: Ground Pin 3: Voltage output	Pin 1: Supply+ Pin 2: Ground Pin 3: Voltage output

Application of damper

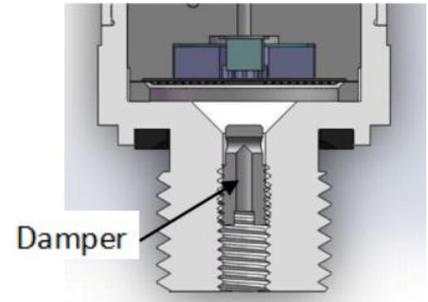
Application

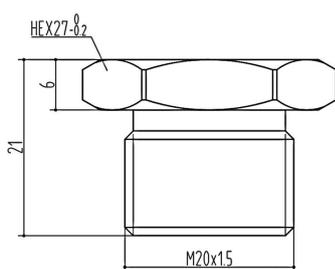
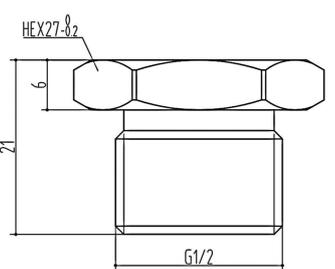
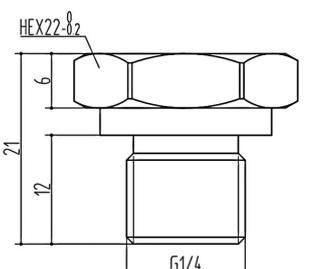
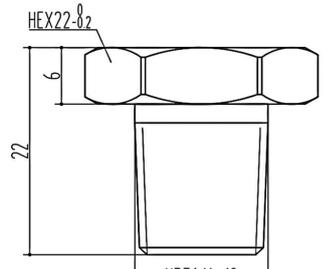
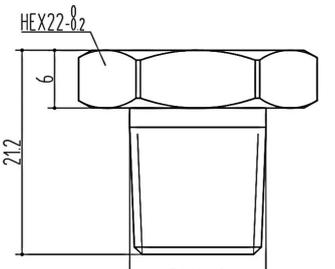
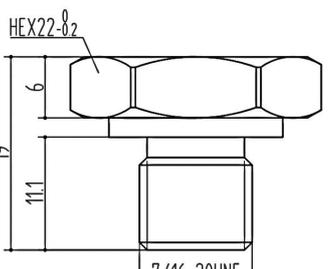
Cavitation, liquid hammer, and the pressure peak may occur in air or hydraulic systems with varying flow rates, such as the rapid closing of a valve or the start and stop of a pump.

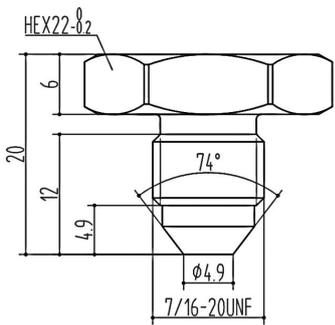
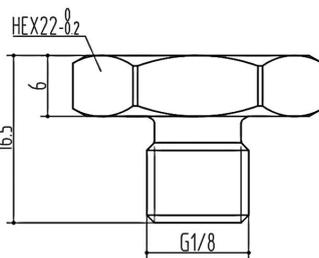
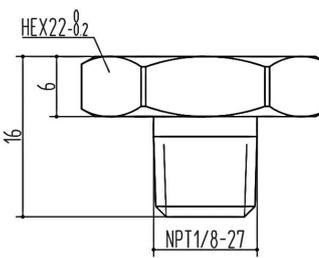
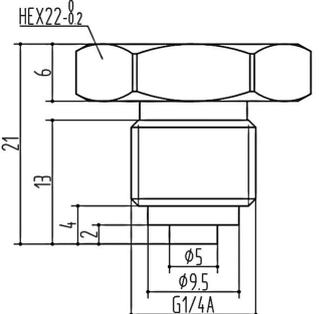
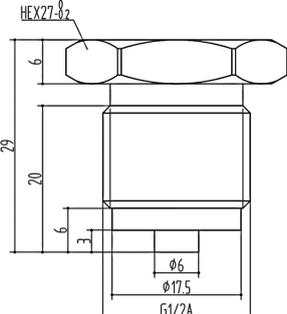
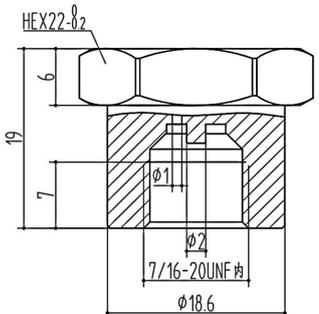
Even at relatively low operating pressures, these problems may occur at the entrance and exit.

Installation method

In the liquid containing particles, nozzle clogging may occur. The vertical mounting of the pressure transmitter minimizes the risk of clogging.



Pressure connection			
Thread code	C1: M20×1.5	C2: G1/2	C3: G1/4
Dimension In mm			
Recommended torque	15~25N·m	15~25N·m	15~25N·m
Thread code	C5: NPT1/4	C6: R1/4	C11: 7/16-20UNF
Dimension In mm			
Recommended torque	15~25N·m	15~25N·m	15~25N·m

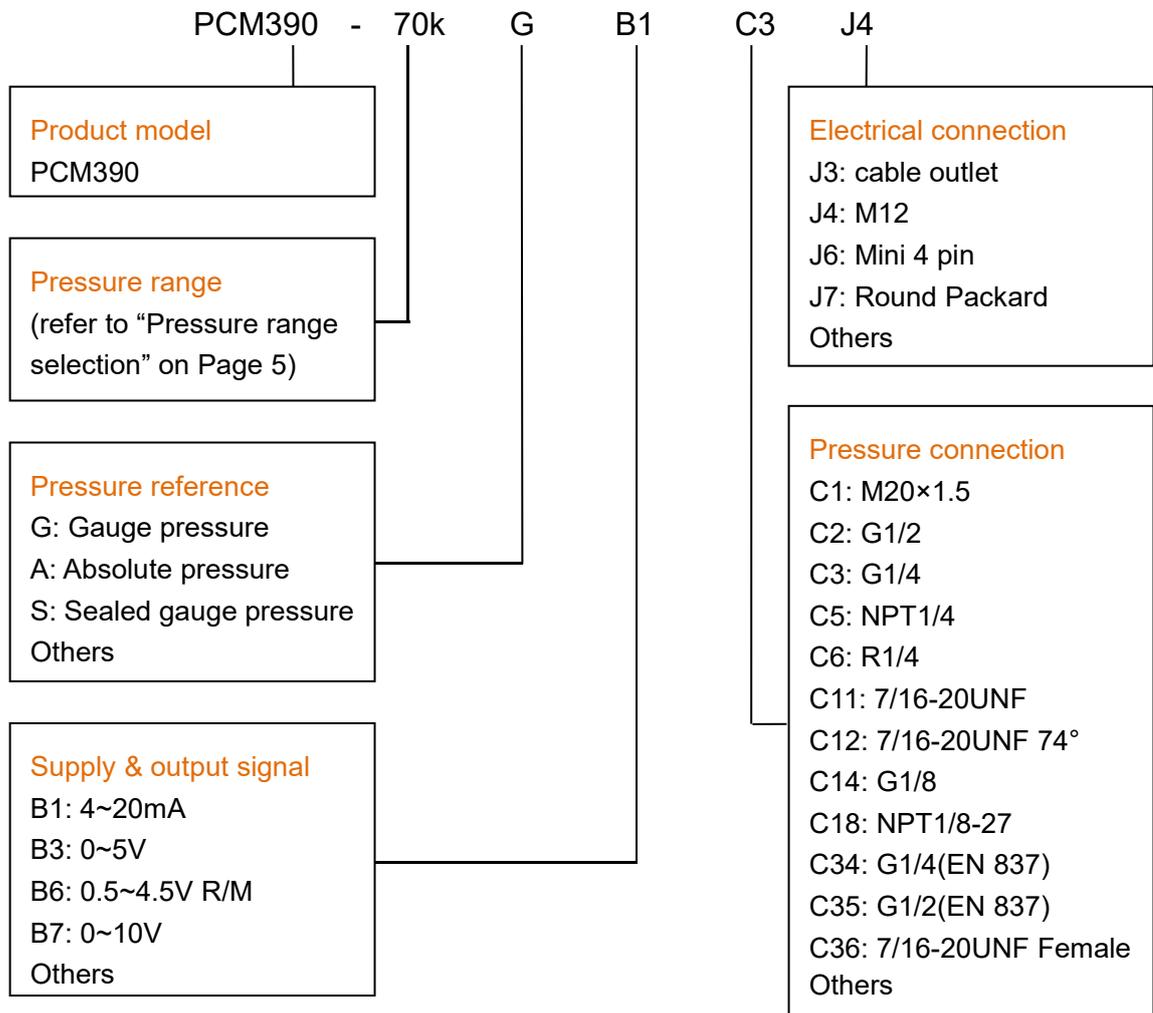
Thread code	C12: 7/16-20UNF(74°)	C14: G1/8	C18: NPT1/8-27
Dimension In mm			
Recommended torque	15~25N·m	15~25N·m	15~25N·m
Thread code	C34: G1/4(EN 837)	C35: G1/2(EN 837)	C36: 7/16-20UNF female
Dimension In mm			
Recommended torque	15~25N·m	15~25N·m	15~25N·m

Note: The torque depends on all kinds of factors, such as the 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	0~35kPa	300%FS	600%FS	
70k	G	0~70kPa	300%FS	600%FS	
100k	G, A	0~100kPa	200%FS	500%FS	
160k	G	0~160kPa	200%FS	500%FS	
250k	G, A	0~250kPa	200%FS	500%FS	
400k	G	0~400kPa	200%FS	500%FS	
600k	G	0~600kPa	200%FS	500%FS	
1M	G	0~1MPa	200%FS	500%FS	
1.6M	S	0~1.6MPa	200%FS	500%FS	
2.5M	S	0~2.5MPa	200%FS	500%FS	
6M	S	0~6MPa	200%FS	300%FS	
10M	S	0~10MPa	200%FS	300%FS	

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

How to order



Example: PCM390-70kGB1C3J4

The product model is PCM390, 70k: pressure range 0~70kPa, G: pressure reference gauge pressure, B1: output signal 4~20mA, C3: pressure connection G1/4, J4: electrical connection M12.



Ordering tips

- 1 Ensure the measured medium is compatible with the contacting part of the product.
- 2 For special requirements on the appearance and performance parameters, customization is available.
- 3 For customized power supply and output signals, please consult us.
- 4 The minimum order quantity for the product is 10 pieces.

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