PCM391 Pressure Transmitter

Features

- Compact structure
- Digital circuit compensation
- Strong anti-interference and excellent long-term stability
- Small diameter, small size, easy to install and use
- Available for measurement of absolute pressure, gauge pressure and sealed gauge pressure
- Multiple electrical connection options
- SS316L Diaphragm
- Suitable for mass production

Applications

- Air compressor
- Hydraulic and pneumatic equipment
- Servo valve and transmission
- Air-conditioning system
- 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.

Overview

PCM391 pressure transmitter is specially designed for small and medium-sized equipment applications such as booster pump, air compressor and air conditioning system. It is also applicable to a wide range of industrial applications in a variety of structures, outputs and pressure connections, which meets most application requirements. It has the compact structure which is especially suitable for the installation in the small 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.

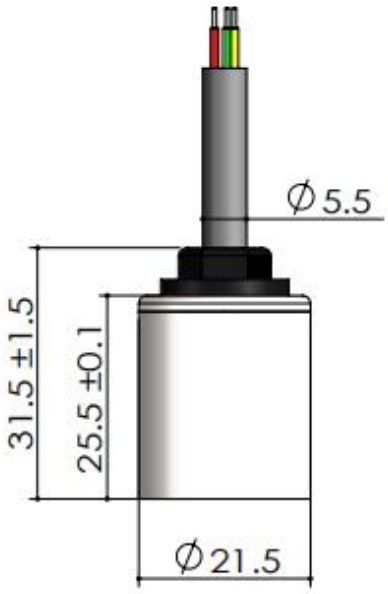
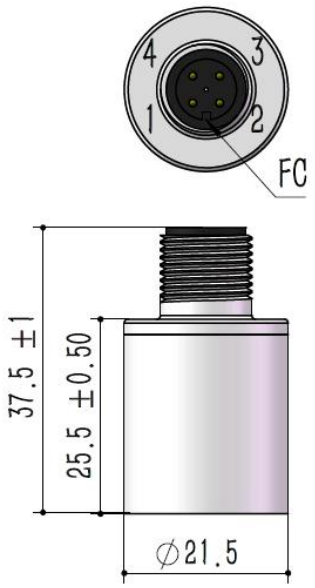
Performance parameters	
Pressure range	0～100kPa…5MPa
Pressure reference	Gauge pressure, Absolute pressure, Sealed gauge pressure
Accuracy	±0.5%FS(typ.); ±1%FS(max.)
Hysteresis & repeatability	≤±0.1%FS
Temperature drift	≤±1.5%FS(-20℃～85℃)

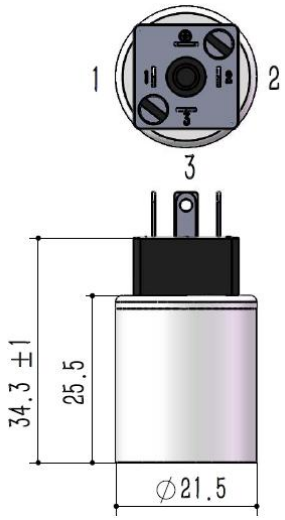
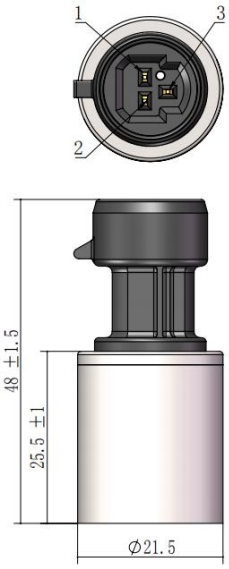
Response time	＜100ms
Service life	≥10^6 pressure cycles
Ambient temp.	-20℃～80℃
Medium temp.	-30℃～105℃
Storage temp.	-40℃～120℃
EMC-interference	IEC 61000-6-3
EMC-immunity	IEC 61000-6-2
Insulation resistance	≥100MΩ/500VDC(200MΩ/250VDC)
Vibration resistance	Sine curve: 20g, 25Hz～2kHz; IEC 60068-2-6 Random: 7.5grms, 5Hz～1kHz; IEC 60068-2-64
Shock resistance	Shock: 10g/11ms; IEC 60068-2-27 Free fall: 1m; IEC 60068-2-32
Protection	IP65
Material	Wetted part: ASTM S31603 (AISI304) Housing: ASTM S30400 (AISI304) Electrical connection: PA66
Weight	50g～90g
Withstand voltage	1800V AC/1min

Output and power supply

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

Electrical connection & wiring mode

Connector code	J3: Cable outlet	J4: M12
Dimension In mm		
Wring method (2 wire current)	Red wire: Power supply+ Green wire Current output	Pin 1: Power supply+ Pin 2: Current output Pin 3: Not connected

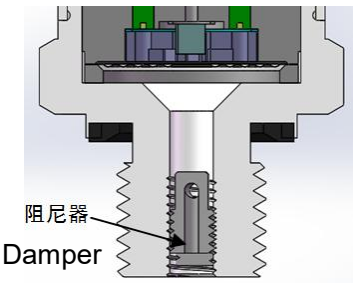
Wring method (3 wire voltage)	Red wire: Power supply+ Green wire: Common-ground Yellow wire: Voltage output	Pin 1: Power supply+ Pin 2: Voltage output Pin 3: Common-ground
Connector code	J6：Mini Din	J7：Packard
Dimension In mm		
Wring method (2 wire current)	Pin 1: Power supply+ Pin 2: Current output Pin 3: Not connected Ground: Not connected	Pin 1: Power supply+ Pin 2: Current output Pin 3: Not connected
Wring method (3 wire voltage)	Pin 1: Power supply+ Pin 2: Common-ground Pin 3: Voltage output Ground: Not connected	Pin 1: Power supply+ Pin 2: Common-ground Pin 3: 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 entrance and exit.



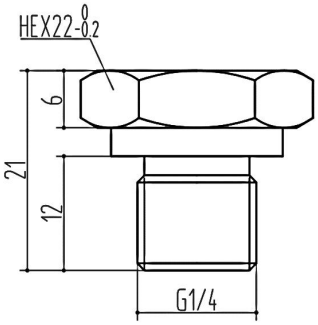
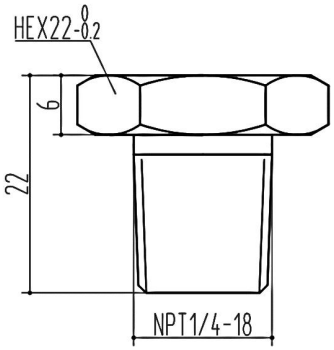
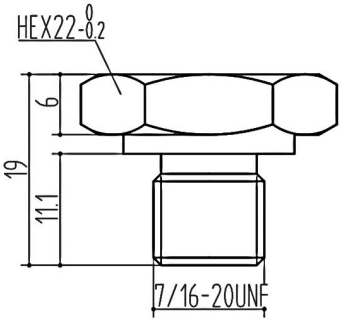
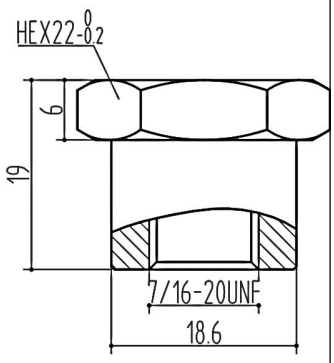
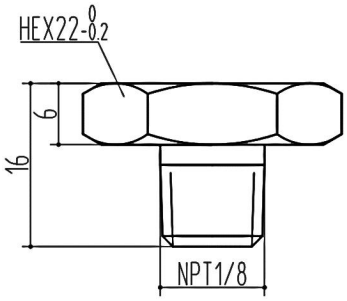
Installation

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

Accessory

Name	Appearance	Description	Material No.
M4 damper		1. Refer to “Application of damper” 2. Not applicable for thread code as C11F	100030500027

Pressure connection

Thread code	C3：G1/4	C5：NPT1/4-18	C11：7/16-20UNF
Dimension In mm			
Recommended torque	15～25N•m	15～25 N•m	15～25 N•m
Thread code	C11F：7/16-20UNF Female	C18：NPT1/8	
Dimension In mm			
Recommended torque	15～25 N•m	15～25 N•m	

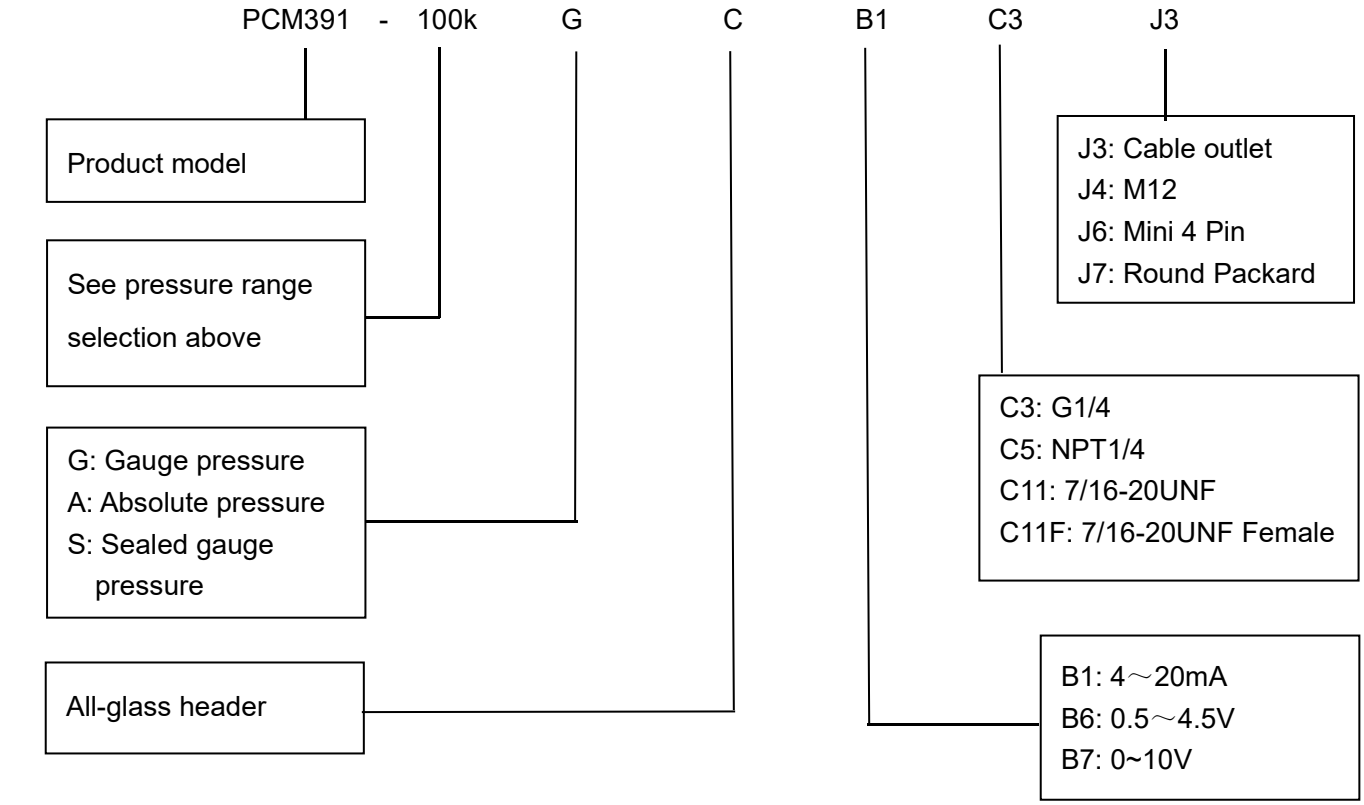
Note: Recommended torque depends on a number of factors such as gasket material, supporting material, thread lubrication and pressure.

Pressure range selection

Pressure range code	Pressure reference	Pressure range	Overpressure	Burst pressure	NOTES
100kC	G、A	0～100kPa	200%FS	500%FS	
160kC	G	0～160kPa	200%FS	500%FS	
250kC	G、A	0～250kPa	200%FS	500%FS	
400kC	G	0～400kPa	200%FS	500%FS	
600kC	G、A	0～600kPa	200%FS	500%FS	
1MC	G、A	0～1MPa	200%FS	500%FS	
1.6MC	G、S	0～1.6MPa	200%FS	500%FS	
2.5MC	S	0～2.5MPa	200%FS	500%FS	
4MC	S	0～4MPa	200%FS	400%FS	
5MC	S	0～5MPa	200%FS	300%FS	

Note: G-Gauge pressure, A-Absolute pressure, S-Sealed gauge pressure

How to order



Example: PCM391-100kGCB1C3J3

Refer to product model PCM391, with pressure range 0～100kPa, gauge pressure, output 4～20mA, pressure port G1/4, electrical connection cable outlet.

Ordering tips

1. Please note the compatibility of wetted part with the measured medium during the selection.
2. If there are special requirements on the appearance and parameters, the product can be customized.

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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