

# PCM308 Pressure Transmitter for Hydraulic Industry

## Features

- 316L stainless steel isolation diaphragm structure
- High accuracy, all stainless steel structure
- Small size, light weight
- Good long-term stability
- Diversified formal structures, easy to install and use
- Wide pressure range, available for absolute pressure, gauge pressure and sealed gauge pressure
- Anti-vibration, shock resistance

## Applications

- Hydraulic process control
- Aviation and aerospace
- Auto industry and medical equipment
- Hydraulic piping 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

PCM308 is a pressure transmitter specially designed for hydraulic industry, whose pressure sensitive core is diffused silicon sensor. The internal application-specific integrated circuit converts the mV signal of the sensor into the standard current signal, which can directly connect with the computer interface card, control instrument, intelligent instrument or PLC etc. If it is used for remote transmission, current output is available. It has small size, light weight and all stainless steel seal structure, which can be used in corrosive environment. 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 other fields.

### Notes:

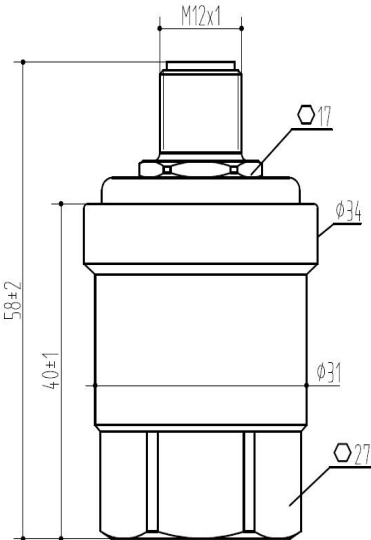
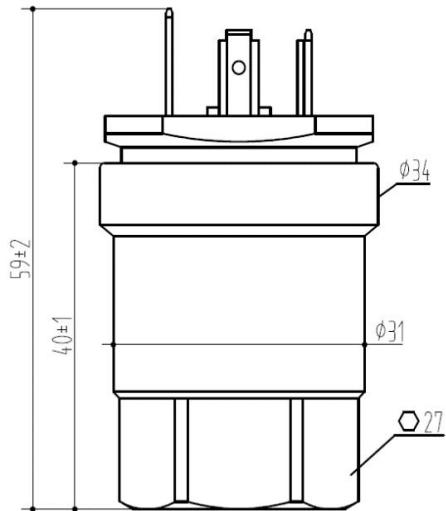
- 1 Do not misuse documentation.
- 2 The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- 3 Complete installation, operation, and maintenance information is provided in the instructions of the product.
- 4 Misuse of the product may cause danger or personal injury.

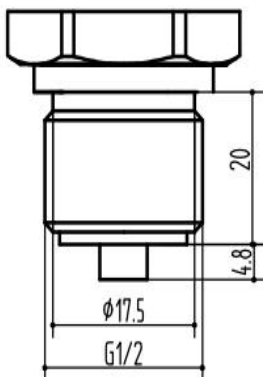
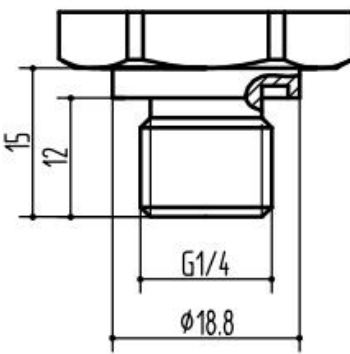
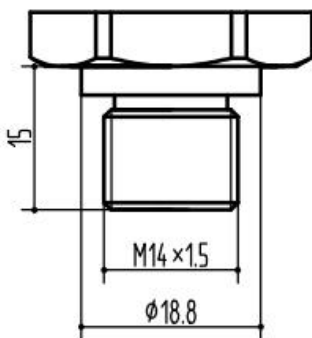
## Performance parameters

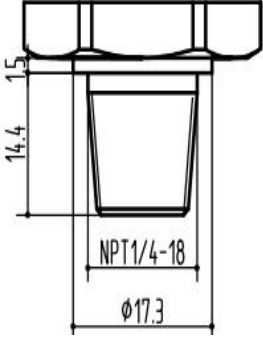
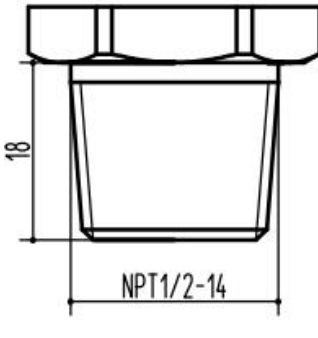
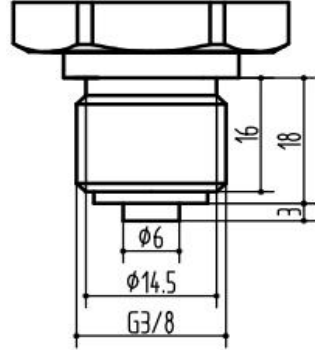
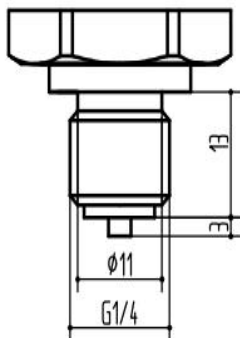
Pressure range	-100kPa~0...60MPa
Pressure reference	Gauge pressure, Absolute pressure, Sealed gauge pressure
Accuracy	0.5%FS
Hysteresis	0.1%FS
Repeatability	0.1%FS
Temp. drift	±1.5%FS(-20℃~85℃)
Response time	≤90ms (up to 90%FS)
Overpressure	Refer to "Pressure range selection"
Service life	≥10 <sup>6</sup> pressure cycles
Ambient temp.	-40℃~85℃
Medium temp.	115- (0.35×Ambient temp.) °C
Storage temp.	-40℃~125℃
EMC	Immunity: IEC 61000-6-2, Radiation: IEC 61000-6-3
Insulation resistance	≥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	IP65
Surge	IEC 61000-4-5 level 1
Voltage resistance	500V/AC 1min
Static electricity	IEC 61000-4-2 level 2
Medium compatibility	All media compatible with stainless steel 316L
Hex nut	HEX27
Net weight	130g±20g

## Output and power supply

Code	B1	Available for customization
Output	4~20mA	—
Power supply	12~36VDC	—

Electrical connection & wiring mode		
Connector code	J4: M12×1	J5: DIN43650
Dimension In mm		
Protection	IP65	IP65
Wiring method (2 wire current)	Pin 1: Power supply+ (Red wire) Pin 2: Current output (Green wire)	Pin 1: Power supply+ (Red wire) Pin 2: Current output (Green wire)

Pressure port			
Thread Code	C2: G1/2	C3: G1/4 (ED)	C4: M14×1.5
Dimension In mm			
Recommended torque	15~25Nm	15~25Nm	15~25Nm

Thread Code	C5: NPT1/4、Z1/4	C7: NPT1/2、Z1/2	C15: G3/8
Dimension In mm			
Recommended torque	15~25Nm	15~25Nm	15~25Nm
Thread Code	C34: G1/4 (EN837)		
Dimension In mm		-	-
Recommended torque	15~25Nm	-	-

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

Pressure range selection					
Pressure range code	Pressure reference	Pressure range	Overpressure	Burst pressure	Remark
100k	G、A	0~100kPa	200%FS	500%FS	
160k	G、A	0~160kPa	200%FS	500%FS	
250k	G、A	0~250kPa	200%FS	500%FS	
400k	G、A	0~400kPa	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	0~1.6MPa	200%FS	500%FS	
2.5M	S	0~2.5MPa	200%FS	500%FS	
4M	S	0~4MPa	200%FS	300%FS	
6M	S	0~6MPa	200%FS	300%FS	
10M	S	0~10MPa	200%FS	300%FS	
16M	S	0~16MPa	200%FS	300%FS	

25M	S	0~25MPa	150%FS	200%FS	
40M	S	0~40MPa	150%FS	200%FS	
60M	S	0~60MPa	150%FS	200%FS	
(-100~0)k	G	-100~0kPa	300kPa	600kPa	

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

### Accessory

Name	Appearance	Description	Item number
Imported Hirschmann plug		Imported	100040301013
Hirschmann plug made in China		Made in China	100040301005
Damper		Refer to "Application of damper"	100030500027

Note: The default Hirschmann plug is made in China and the product is without cable. If cable is needed, please install the cable by yourself and the recommended external diameter of the cable is  $\phi 5 \sim \phi 7$ .

### Application of damper

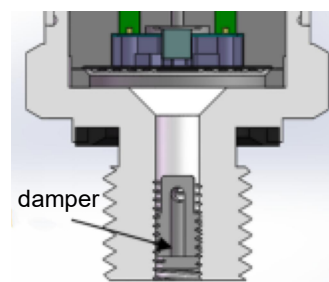
#### Applications

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.

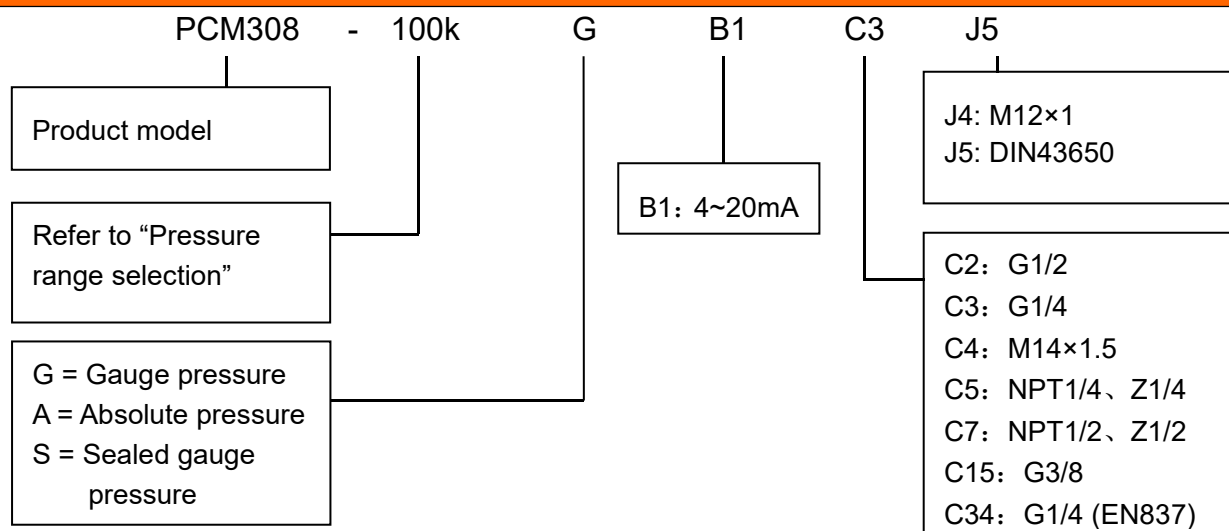
Even at relatively low operating pressures, these problems may occur at the entrance and exit.

#### 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 is limited to the initial start-up while the volume behind the nozzle is fixed and the nozzle aperture is relatively large (1.2mm).



## How to order



Example: PCM308-100kGB1C3J5

Refer to product model PCM308, pressure range 0~100kPa, pressure reference gauge pressure, output signal 4~20mA, pressure connection G1/4, electrical connector DIN43650.

## Ordering tips

1. Please pay attention to the compatibility between the measured medium and the contacting part of the product when placing an order.
2. For the pressure range between -100kPa~60MPa, the product can be customized.
3. The default label is printed label.

## Contact us

Nanjing Wotian Technology Co.,Ltd.

Website: [www.wtsensor.com](http://www.wtsensor.com)

Add: 5 Wenying Road, Binjiang Development Zone, Nanjing, 211161, China

E-mail: [dr@wtsensor.com](mailto:dr@wtsensor.com)