

PCM300 Universal Pressure Transmitter

Features

- 316L stainless steel isolation diaphragm structure
- High accuracy, all stainless steel structure
- Micro amplifier, voltage and current signal output
- 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
- Vibration and shock resistance
- The zero point and full span of the product can be adjusted externally

Applications

- Equipment supporting
- Pneumatic, hydraulic
- Energy saving and environmental protection
- Medical

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

PCM300 universal pressure transmitter adopts diffused silicon pressure sensor as sensitive element. Through internal ASIC, the millivolt signal of sensor is transmitted into standard voltage and current signal. PCM300 can be directly connected with computer, control instruments and display instruments etc. Using high stability and high reliability piezoresistive pressure sensor and high performance transmitter dedicated circuit, the overall performance is stable and reliable, and it can carry out long-distance signal transmission. It adopts integrated all stainless steel structure. It is easy to install and has extremely high vibration resistance and shock resistance. Besides, it can be used in harsh outdoor scenes for a long time.

Notes:

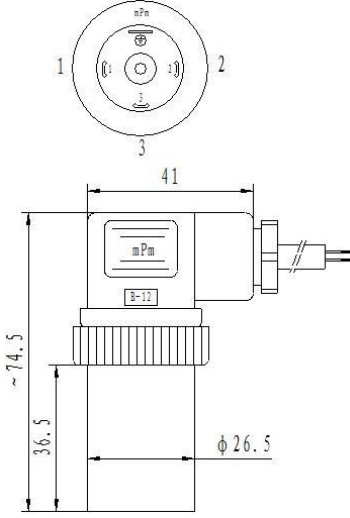
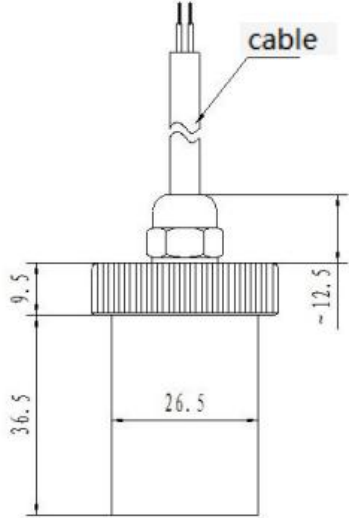
- 1 Do not misuse documentation.
- 2 The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- 3 Complete installation, operation, and maintenance information is provided in the instructions of the product.
- 4 Misuse of the product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

Pressure range	
Pressure range	-100kPa...0~35kPa...60MPa
Pressure reference	Gauge pressure, Absolute pressure, Sealed gauge pressure
Accuracy (linearity, repeatability and hysteresis)	0.5%FS
Hysteresis	0.1%FS
Repeatability	0.1%FS
Temp. drift	35kPa: $\pm 2\%FS(0^{\circ}C \sim 60^{\circ}C)$ Others: $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$
Response time	$\leq 2ms$ (Up to 90%FS)
Overpressure	Refer to "Pressure range selection"
Durability	$\geq 10^6$ pressure cycles
Ambient temp.	$-20^{\circ}C \sim 85^{\circ}C$
Medium temp.	$-25^{\circ}C \sim 85^{\circ}C$
Storage temp.	$-40^{\circ}C \sim 125^{\circ}C$
EMC	Immunity : IEC 61000-6-2 Radiation: IEC 61000-6-3
Insulation resistance	$\geq 100M\Omega/250VDC$
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
Medium compatibility	All media compatible with stainless steel 316L
Hexagon	HEX27
Ex-proof grade	Intrinsically safe explosion-proof Exia II CT4
Net weight	220~360g

Output and power supply

Code	B1	B3	B2	B7	B12	B6
Output	4~20mA	0~5V	1~5V	0~10V	1~10V	0.5~4.5V R/M
Supply	12~30VDC					5VDC

Electrical connection and wiring method

Connector code	J5: DIN43650	J3H: DIN43650 with cable
Dimension In: mm		
Protection grade	IP65	
Connection mode Current (2 wires)	Pin 1: Supply+(red wire) Pin 2: Current output(green wire)	Red: Supply+ Green: Current output
Connection mode Voltage (3 wires)	Pin 1:Supply+ (red wire) Pin 2:Ground (green wire) Pin 3:Voltage output (yellow wire)	Red: Supply+ Green: Ground Yellow: Voltage output

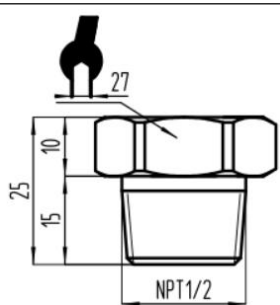
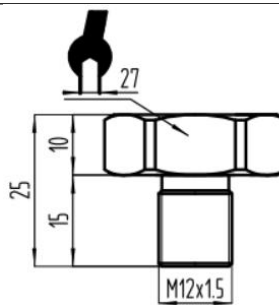
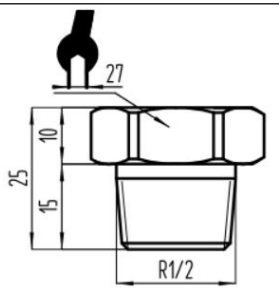
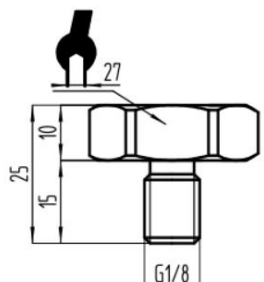
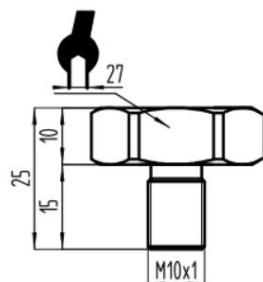
Electrical connection and wiring method

Connector code	J3: Cable outlet	J4: M12 (M12×0.75)
Dimension In mm		
Protection	IP65	
Connection mode Current (2 wires)	Pin 1: Supply+ Pin 2: Current output	Pin 1: Supply+ Pin 2: Current output
Connection mode Voltage (3 wires)	Pin 1: Supply+ Pin 2: Ground Pin 3: Voltage output	Pin 1: Supply+ Pin 2: Ground Pin 3: Voltage output

Pressure port

Thread code	C1: M20×1.5	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	C6: R1/4
Dimension In mm			
Recommended torque	15~25Nm	15~25Nm	1~25Nm

Pressure port(cont.)

Thread code	C7: NPT1/2	C8: M12×1.5	C10: R1/2
Dimension In mm			
Recommended torque	15~25Nm	15~25Nm	15~25Nm
Thread code	C14: G1/8	C20: M10×1	-
Dimension In mm			-
Recommended torque	15~25Nm	15~25Nm	-

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

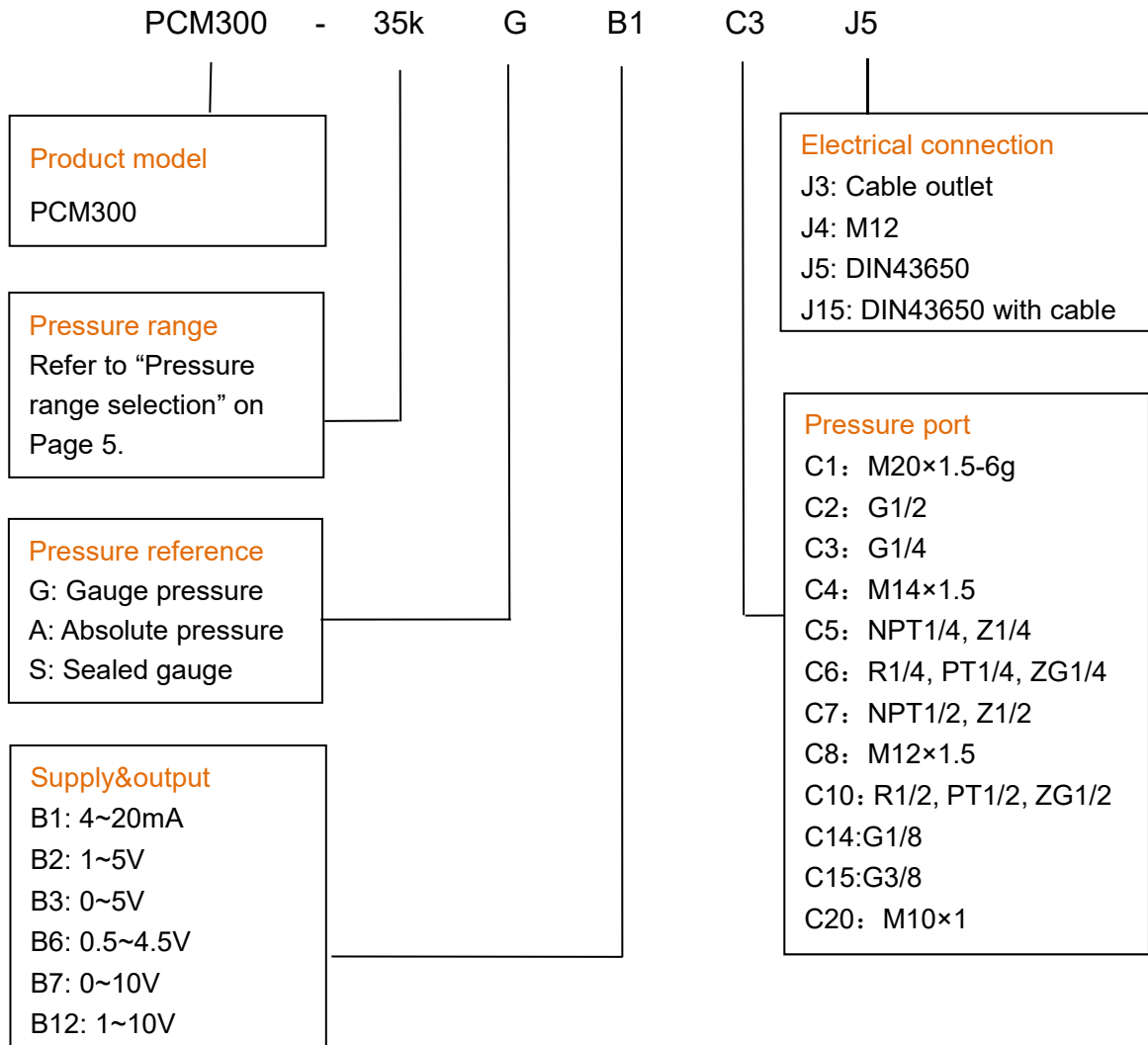
Pressure range selection

Pressure range code	Pressure reference	Pressure range	Overpressure	Burst pressure	Remark
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 stands for gauge pressure, A, absolute pressure, S, sealed gauge pressure.

Accessory

Name	Appearance	Description	Item number
LCD12 display gauge		1. LCD display 2. Green backlight	100040100008
BS-6 digital display gauge		1. Nixie tube display 2. Red backlight	100040101000
Hirschmann plug made in China		Made in China	100040301005
Imported Hirschmann plug		Imported	100040301013



Example: PCM300-35kGB1C3J5

PCM300: product model. 35k: pressure range 0~35kPa. G:gauge pressure. B1: output signal 4~20mA. C3: pressure port G1/4. J5: electrical connection DIN43650.

Ordering tips:

1. Ensure compatibility between measured media and contacting part of product when placing an order.
2. Can customize for ranges between 10~35kPa.
3. Can customize for ranges between 25~60MPa with super pressure shock on the application site.

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.

Contact us

Nanjing Wotian Technology Co., Ltd.

Website: www.wtsensor.com

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

E-mail: dr@wtsensor.com