

PCM450 Flush Diaphragm Pressure Transmitter with Flange

Features

- Flange mounting
- 2-wire, 4~20mA analog output, HART® protocol, RS485 data communication
- Intelligent LCD display with backlight
- Diaphragm with a large size, fully-welded sealing, reliable and durable
- Used for the pressure measurement for gas, liquid, and steam
- Optional anti-corrosion diaphragm (Tantalum, Hastelloy C, 316L, 316L sprayed with PTFE)
- Especially suitable for high-temperature viscous liquids
- The price is lower than that of similar imported instruments

Applications and industries

- Process control fields for the industries such as petroleum, chemical, metallurgy, power generation, food & beverage, pulp & paper, pharmaceuticals, machinery manufacturing, scientific research, and aerospace & defense.

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 PCM450 Flush Diaphragm Pressure Transmitter with Flange is a type of flush membrane product to meet the customer's requirement for flange mounting. It adopts an imported diffusion silicon pressure sensitive element, and after long-term aging and stability screening, the product's performance is stable and reliable.

PCM450 takes the international standard of flange plates as the connection standard, and can realize the on-site flange mounting. The product's stress diaphragm is exposed and senses pressure directly, making it convenient for cleaning and able to meet the requirements of moisture-proof, waterproof, ex-proof, and other harsh working conditions. This product is widely used in industrial process control, petroleum, chemical, metallurgical, and other fields where the measuring medium is a viscous medium containing particles.

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.

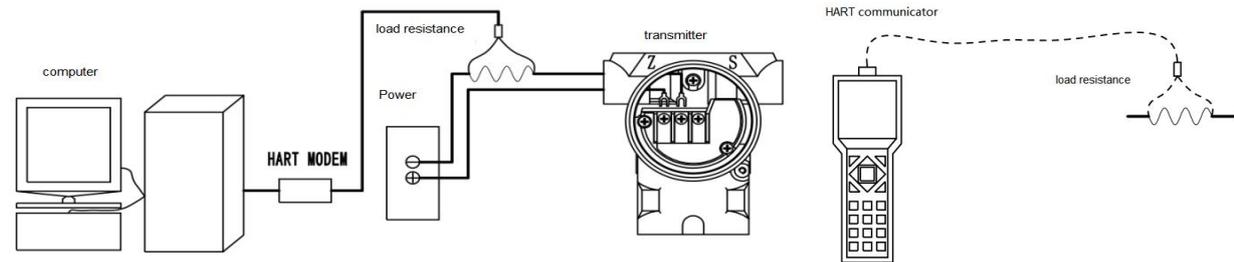
Performance parameters

Pressure range	-100kPa...0~10kPa...10MPa
Pressure reference	Absolute pressure Gauge pressure Sealed gauge pressure
Supply & output signal	4~20mA, 4~20mA+HART® protocol (24V power supply)
Accuracy	±0.5%F.S. (@25±5℃)
Temperature drift	≤35kPa: ±3%F.S. (0℃~60℃) Other ranges: ±2%F.S. (-10℃~70℃)
Operating temp.	-30℃~80℃; with LCD gauge outfit -30℃~70℃
Medium temp.	-40℃~100℃
Storage temp.	-40℃~85℃
Insulation resistance	≥100MΩ/250VDC (200MΩ/500VDC)
Protection grade	IP65
Ex-proof grade	Exd II BT6 Gb
Overload pressure	150%FS
Long-term stability	±0.2%FS/year
Diaphragm material	316L , 316L sprayed with PTFE, Hastelloy C, tantalum
Filling liquid	Silicon oil
Housing material	Die-casting aluminum epoxy resin coating
Electrical connection	M20×1.5
Process connection	DN25, DN50, DN80
Weight	About 3.5kg (DN50)

Pressure range selection

Code	Definition	Ranges (X: measured pressure value)
10kG	10kPa Gauge pressure	0kPa < X ≤ 10kPa
35kG	35kPa Gauge pressure	10kPa < X ≤ 35kPa
70kG	70kPa Gauge pressure	35kPa < X ≤ 70kPa
100kG	100kPa Gauge pressure	70kPa < X ≤ 100kPa
250kG	250kPa Gauge pressure	100kPa < X ≤ 250kPa
500kG	500kPa Gauge pressure	250kPa < X ≤ 500kPa
1MG	1MPa Gauge pressure	500kPa < X ≤ 1MPa
1.6MG	1.6MPa Gauge pressure	1MPa < X ≤ 1.6MPa
1MS	1MPa Sealed gauge pressure	1MPa < X ≤ 2.5MPa
2.5MS	2.5MPa Sealed gauge pressure	2.5MPa < X ≤ 4MPa
10MS	10MPa Sealed gauge pressure	4MPa < X ≤ 10MPa

HART communication connection diagram

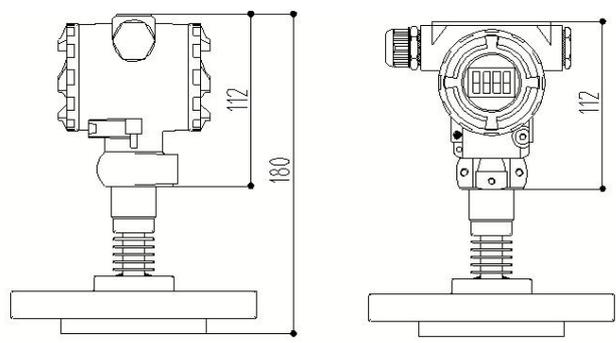
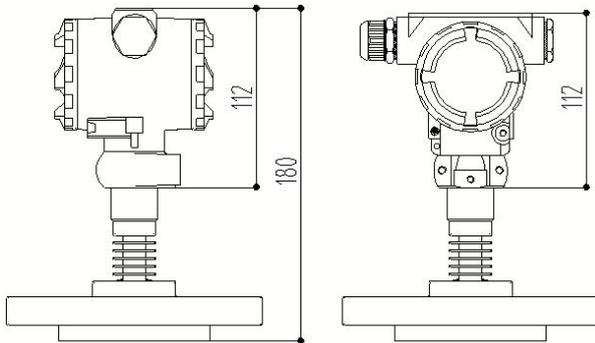


Structure dimension

in mm

J1: 2088 housing

J1X: 2088 housing with display



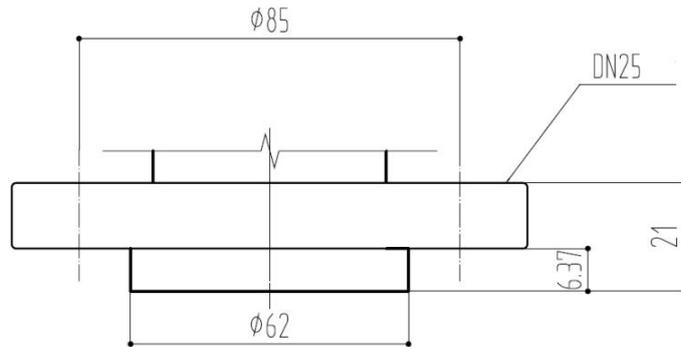
Pressure connection

in mm

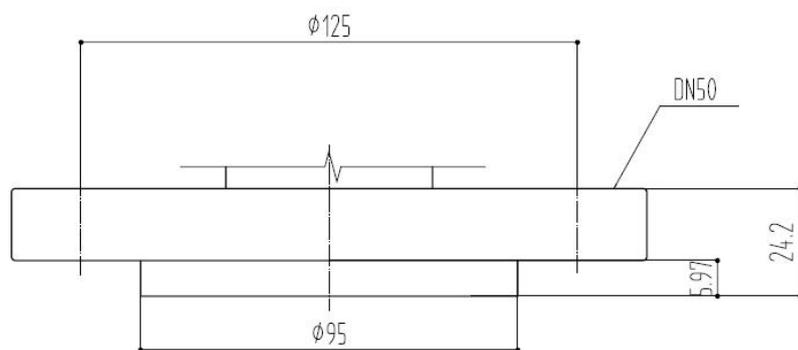
Flange model

Dimension drawing

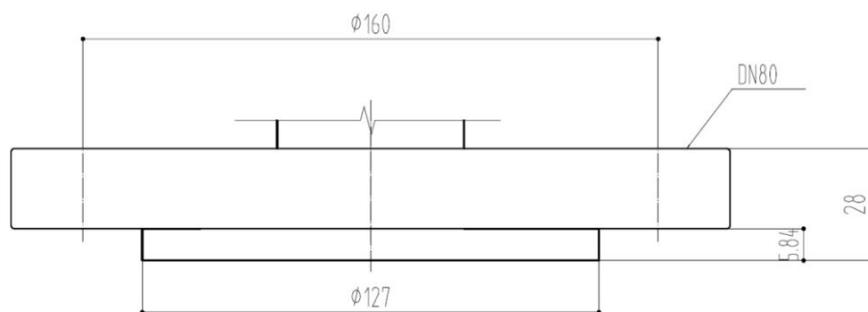
DN25



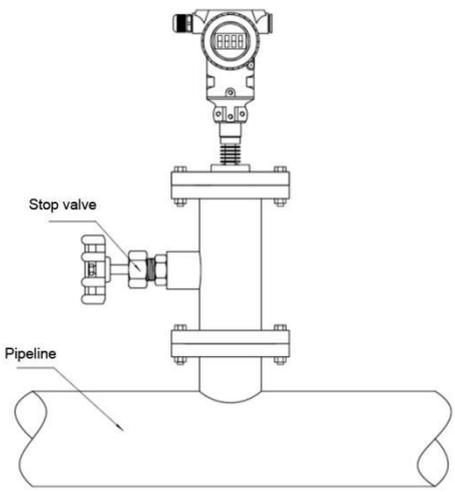
DN50



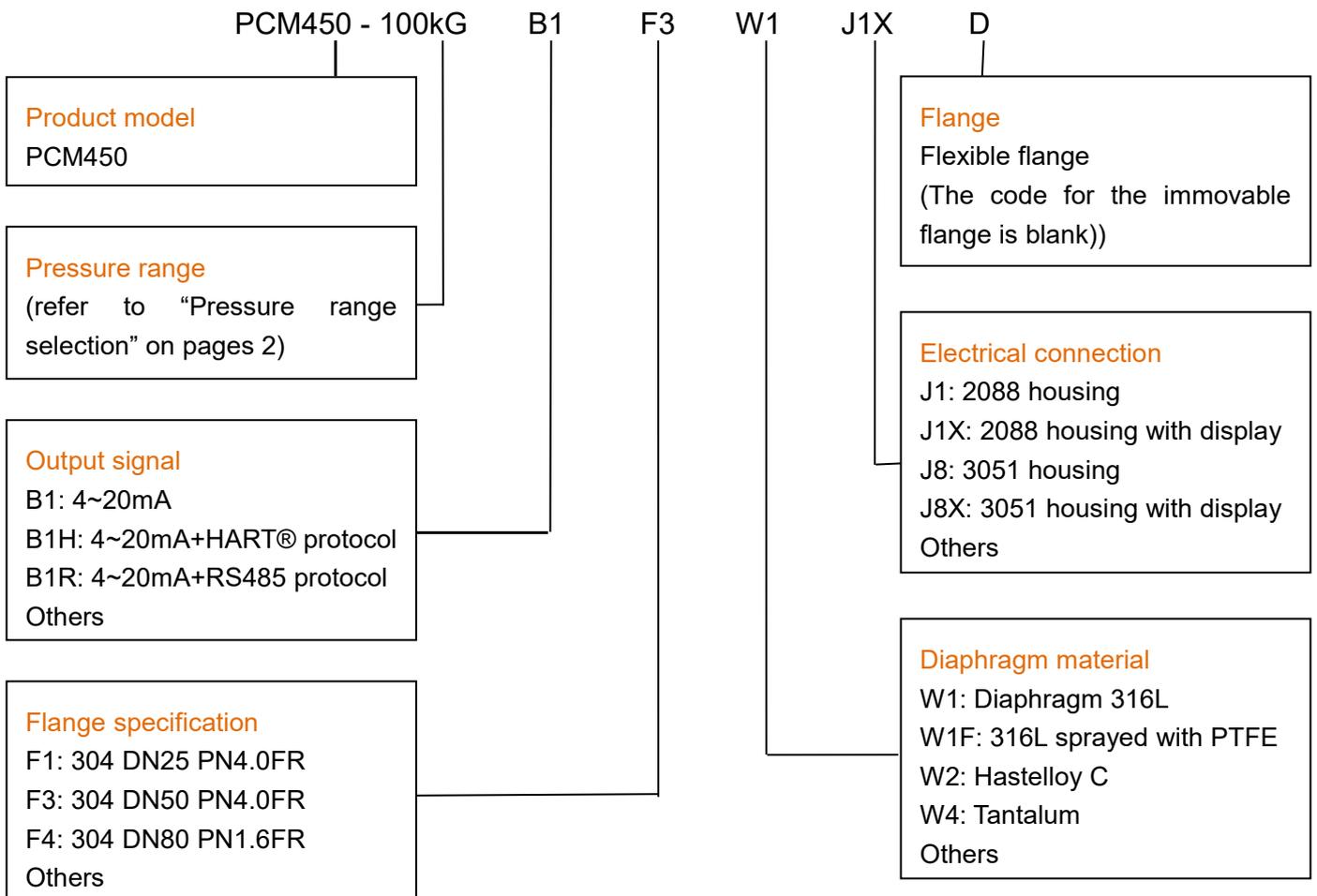
DN80



Installation diagram

Outline drawing	Installation instruction
 <p style="font-size: small;">Stop valve</p> <p style="font-size: small;">Pipeline</p>	<ul style="list-style-type: none"> ▲ Integrated pressure transmitter, direct installation with the process connector; ▲ The gasket is selected based on the medium characteristics and temperature range, and ensures the balanced locking of various bolts.

How to order





Example: PCM450-100kGB1F3W1J1XD

The product model is PCM450. Pressure range 100kPa, gauge pressure, B1: output signal 4~20mA, F3: flange specification 304 DN50 PN4.0FR, W1: diaphragm material 316L, J1X: electrical connection 2088 housing with display. Flexible flange.

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 The product selection code cannot be combined arbitrarily. Please consult before ordering.

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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