PCM260(WTL01) Level Transmitter

Features

- Diffused silicon piezoresistive pressure sensor
- Immersion probe measurement, easy to install
- For level measurement
- Multi-protective structure design, high protection ability
- LCD option
- Variety of styles, suitable for various industrial applications
- Anti-corrosion stainless steel material adopted, suitable for many occasions

Applications

- Static pressure level
- Liquid tanks
- Sewage
- Industrial water
- Pools
- Wells
- Rivers
- Seawater
- Lakes

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 PCM260 Level Transmitter adopts the high-performance diffusion silicon piezoresistive pressure sensor as the measuring element, and accurately measures static pressure of the liquid proportional to the level depth; the result is converted to the standard signal (current or voltage signal) through the signal conditioning circuit, establishing the linear corresponding relation between the output signal and liquid depth to realize the measurement for the liquid depth. PCM260 has the advantages of high precision and small volume. By submerging it directly into liquid, the height from the end of the transmitter to the liquid surface can be measured easily. The product is applicable to the level measurement and control in the petroleum, chemical, power plant, urban water supply, and hydrological exploration fields.

This product, with stable and reliable performance, has passed long-term aging and stability screening and can be used in the harsh outdoor environment. Meanwhile, on-site liquid level display and zero and span migration are available.

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.

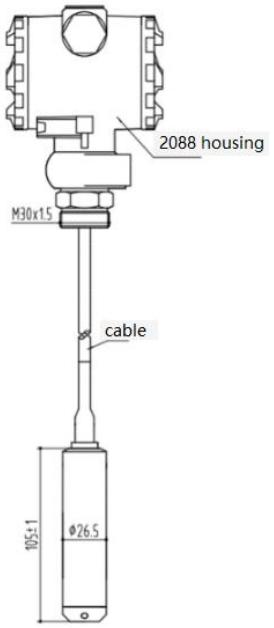
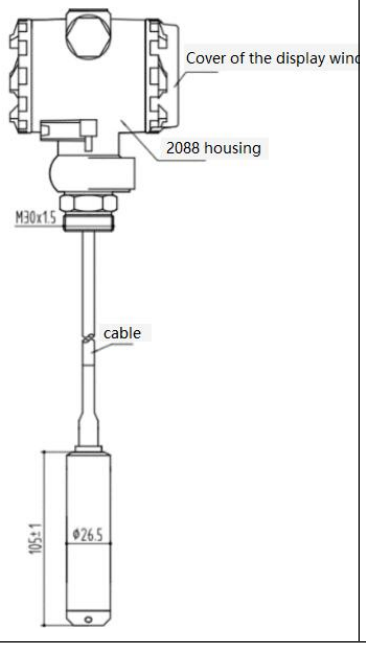
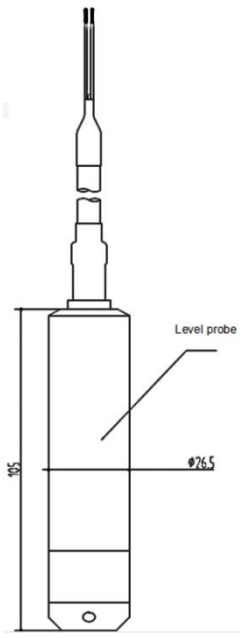
3 Complete installation, operation, and maintenance information is provided in the instructions of the product.

4 Misuse of the product may cause danger or personal injury.

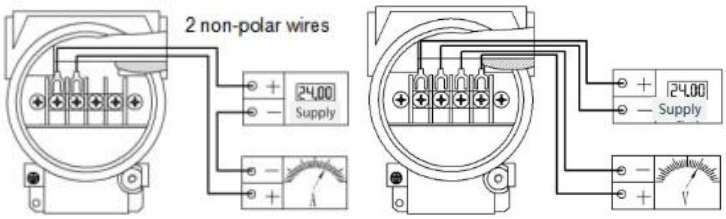
Performance parameters

Pressure range	0~1m…5m…10mH_2O. Other pressure ranges can be customized.
Supply & output signal	Supply: 18~36V; Output: 4~20mA for 2088 housing without display
	Supply: 12~36V; Output: 4~20mA for cable outlet, 2088 housing with display
	Digital circuit board / analogue circuit board for cable outlet. Others can be customized.
Operating temp.	-20℃~85℃
Medium temp.	-10℃~70℃
Storage temp.	-40℃~125℃
Zero temp. coefficient	±1.5%FS
Span temp. coefficient	±1.5%FS
Overload pressure	200%FS~300%FS
Mechanical vibration	20g (20~5000HZ)
Shock	100g /11ms
Accuracy	±0.5%FS (Range>1m); ±1%FS (Range≤1m)
Insulation	200MΩ/250VDC
Response time	≤1ms (Up to 90%FS analogue circuit board) <100ms (Up to 90%FS digital circuit board)
Long-term stability	±0.2%FS/year
Protection	IP68
Material	Stainless steel for level probe
	Polyurethane wires for cable
Medium compatibility	All kinds of media compatible with stainless steel 304

Electrical connection and wiring method

Code	J1: 2088 housing	J1X: 2088 housing with display	J3: Cable outlet
Dimension In mm			

Wiring method

Wiring method	 Current output Voltage output	① Red wire: Supply+ Green wire: Current output ② Red wire: Supply+ Yellow wire: Voltage output Green wire: Ground

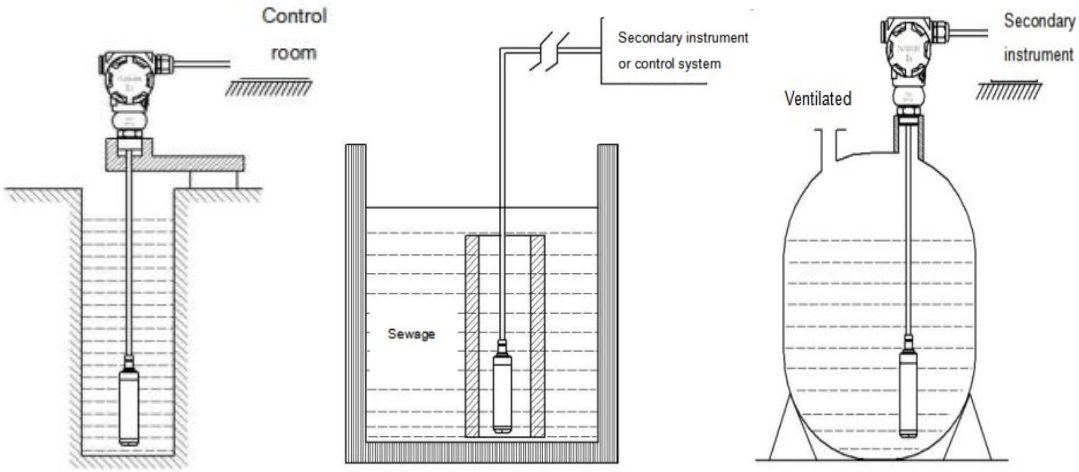
Installation instructions (for reference only)

1. Product selection

(1) It is recommended to use the level transmitter with the 2088 housing for outdoor conditions. If a direct-lead level transmitter is selected for outdoor conditions, the terminal must be sealed in a waterproof junction box or protected by other sealing measures.

(2) If installing in a lightning-prone area, indicate "lightning protection" when ordering. It is also recommended to install lightning protection devices on-site and ensure reliable grounding of both the product and power supply to reduce the probability of lightning damage to the transmitter.

2. Installation in still water (deep wells, pools, liquid tanks, etc.)



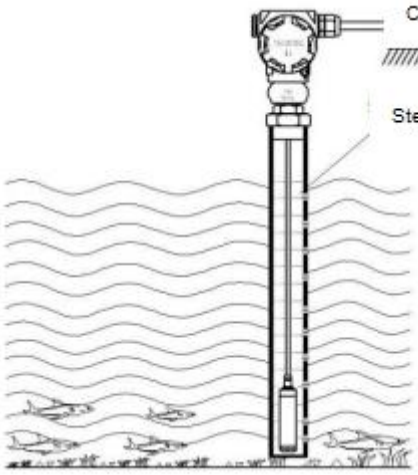
Installation tips:

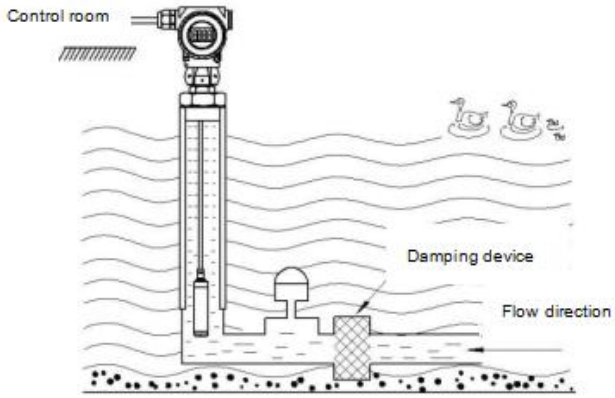
(1) When measuring the level of stationary fluid in an open container, place the level transmitter vertically into the bottom of the container and secure the cable connecting the transmitter to the junction box at the opening of the container.

(2) When the medium viscosity is relatively large (such as the sewage pool), a casing or bracket can be installed to ensure that the transmitter can be put into the bottom of the container.

(3) For outdoor installations, the terminal box of the transmitter should be placed in a ventilated and dry area, and avoid direct exposure to sunlight and rain to prevent excessive housing temperature or water ingress, which could damage the internal circuit board.

3. Installation in moving water (rivers, lakes, etc.)





Installation tips:

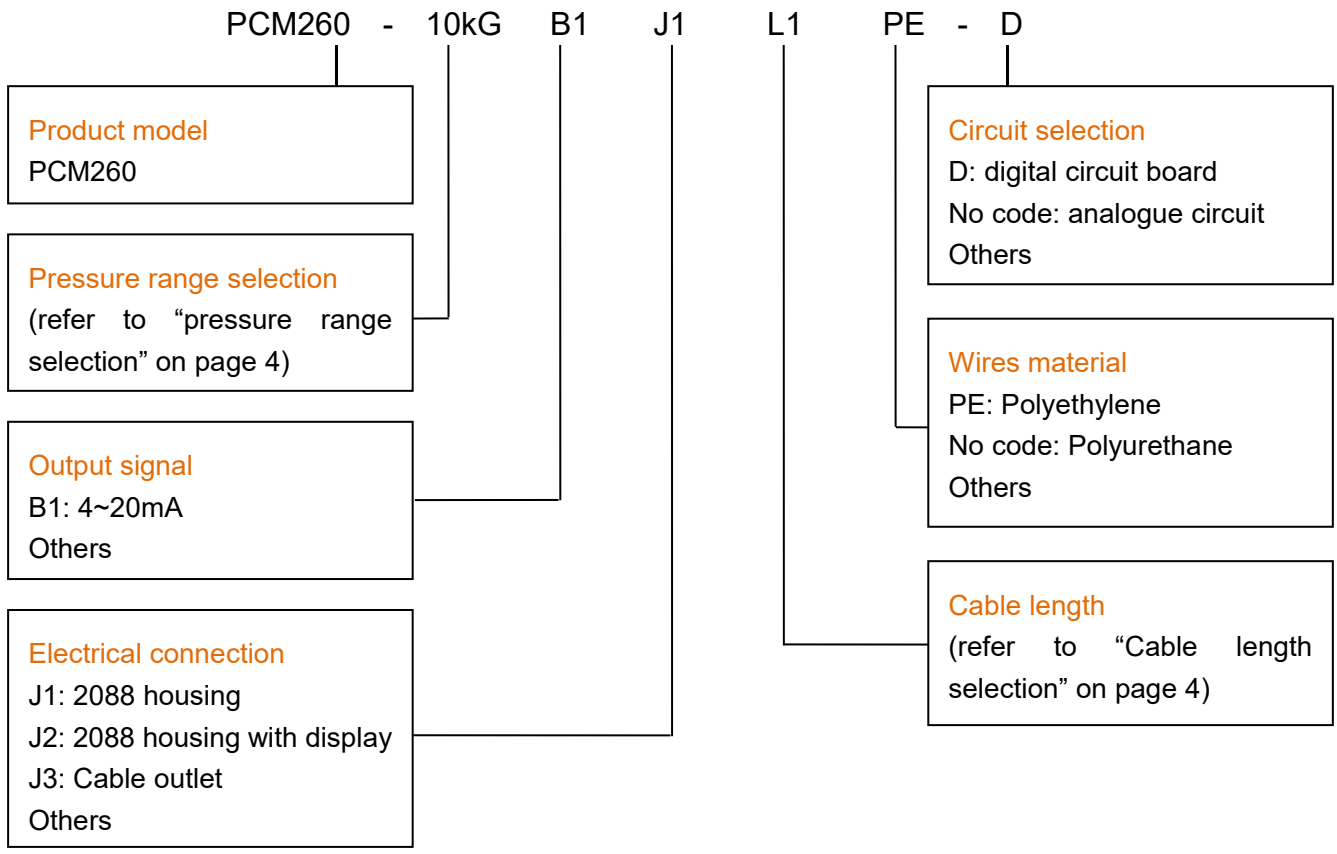
(1) When measuring the water level in flowing water, when the medium fluctuates greatly, a steel pipe with an inner diameter of about 5cm can be inserted in the water channel. Make several holes of about Φ5 in diameter on the side of the immersed pipe opposite to the flow direction to allow water to enter the pipe and fix the cable and junction box at the outlet of the pipe.

(2) When the medium of the water channel fluctuates greatly or the sediment is large, a damping device can be installed to filter the sediment, eliminate the adverse effects of dynamic pressure and waves, and ensure the measurement accuracy.

Pressure range selection					
Pressure range	**Pressure reference**	**Range code**	**Overload pressure**	**Burst pressure**	**Note**
≤1m H_2O	G	10kG	300%FS	600%FS	
<4m H_2O	G	35kG	300%FS	600%FS	
<7m H_2O	G	70kG	300%FS	600%FS	
≤10m H_2O	G	100kG	300%FS	600%FS	

Cable length selection		
Pressure range code	**Nominal cable length**	**Code**
10kG	Cable length 1 meter	L1
35kG	Cable length 2 meter	L2
70kG	Cable length 4 meter	L4
100kG	Cable length 7 meter	L7

How to order



Example: PCM260-10kGB1J1L1

Refer to product model PCM260, pressure range 10kPa, gauge pressure, output signal 4~20mA, electrical connection: 2088 housing, cable length 1m.

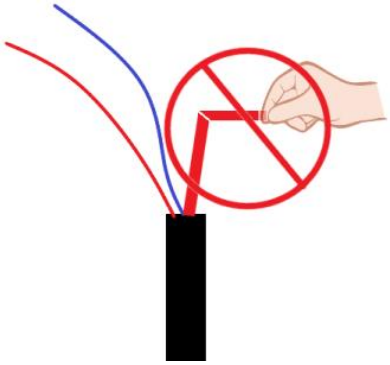
Note: The default wire material is polyurethane.

Optional accessories

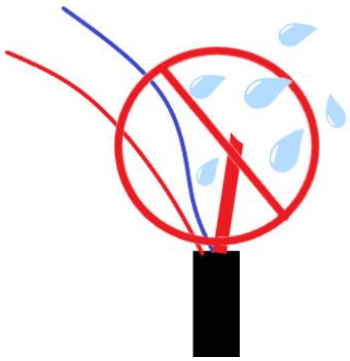
1 The part of the cable exceeding the standard cable length
2 PCM260 anti-blocking protective cover (with filter)
3 Protective cap vent baffle
4 The anti-interference board can be chosen for the product with 2088 housing.

Notes

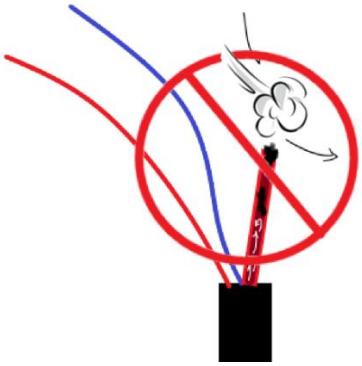
The air duct of the liquid level transmitter needs to remain open to the atmosphere. During operation, ensure that the duct is not blocked or bent. Additionally, proper waterproof and dustproof measures should be applied to the air duct; otherwise, it may impair transmitter performance and cause damage to the device.



Do Not Bend



Do Not Expose to Rain or Water



No Dust Blockage

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