

PCM710Y Intelligent Level Switch

Features

- High precision
- Adjustable response time
- NPN, PNP compatible, free switching
- Button operation, shortcut button for one-click zero calibration, fast unit switching
- OLED shows the current liquid level
- Level measurement for the liquid, oil medium etc.

Applications and industries

- Hydropower
- Chemical industry
- City water supply
- Scientific research
- Accurate measurement and control of pressure of fluids

Notes:

- 1 Please read the Instruction Manual of the product carefully before installation and check the relevant information of the product.
- 2 Strictly follow the wiring method for wiring, otherwise it may cause product damage or other potential faults.
- 3 Misuse of the product may cause danger or personal injury.



Product overview

PCM710Y Intelligent Level Switch is a product which integrates level measurement, display and control. This product is in full-electronic structure, with the stainless steel silicon pressure sensor probe throw-in type usage mode, under elaborate design and adjustment, so as to realize the high speed reaction of the level switch. The output signal is processed by the amplifier with high precision and low temperature drift, and then sent into high precision A/D converter. Through arithmetic processing by microprocessor, the output signal is displayed on site with 2-way switch quantity and 4~20mA analog quantity, accomplishing the measurement and control for the liquid level of the control system.

This intelligent level switch has advantages of flexible use, simple operation, easy commissioning and high safety and reliability. With the separate design for the probe and the display gauge head, this level switch has the features of easy installation, explicit indication etc. It is widely used for the liquid level measurement and control of oil can, oil tank, tank car, and in tap water, food hygiene, petroleum, chemical, mechanical, hydraulic and other industries.

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

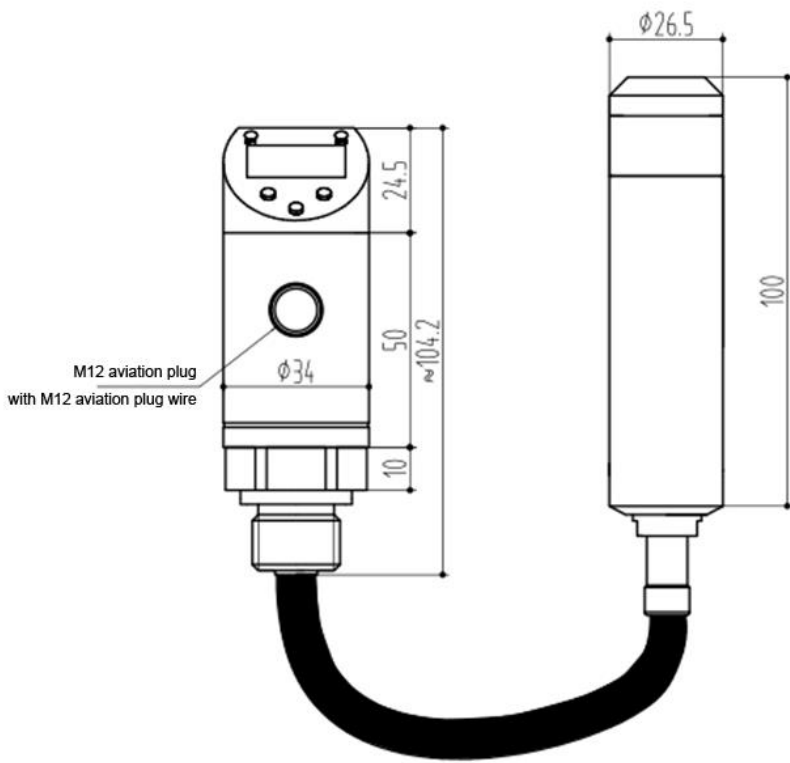
Pressure range	0~1m H ₂ O...5m H ₂ O
Overload capability	150~300%FS
Accuracy	±0.2%FS, ±0.5%FS
Power supply	12~30V, 24V recommended
Display mode	OLED display of 4 digits
Output mode	2-way switch quantity, NPN and PNP compatible + 4~20mA
Load capacity	≤24V 1.2A
Power consumption	≤15mA
Operating temp.	-25℃~80℃
Storage temp.	-40℃~100℃
Response time	≤20ms
Insulation	100MΩ/250VDC
Protection grade	IP65

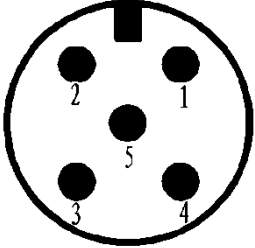
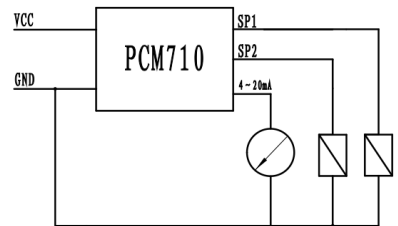
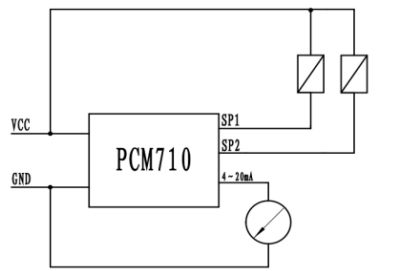
Structural performance parameters

Housing material	304
Medium compatibility	Liquid contacting diaphragm 316L, probe 304

Outline dimension

In mm

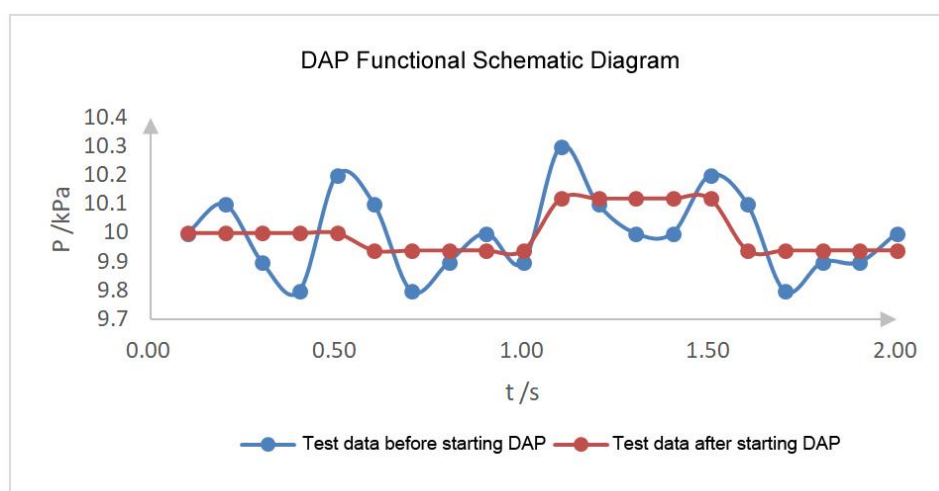
Dimension	 <p>M12 aviation plug with M12 aviation plug wire</p> <p>24.5</p> <p>50</p> <p>10</p> <p>~104.2</p> <p>34</p> <p>26.5</p> <p>100</p>
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M12×1	Wiring definition	Wiring diagram
	1: VCC (Supply +) 2: SP2 (Switch 2) 3: GND (Supply -) 4: SP1 (Switch 1) 5: 4~20mA	 <p>PNP output wiring diagram</p>
		 <p>NPN output wiring diagram</p>

Signal interference suppression
DAP
damping mechanism:

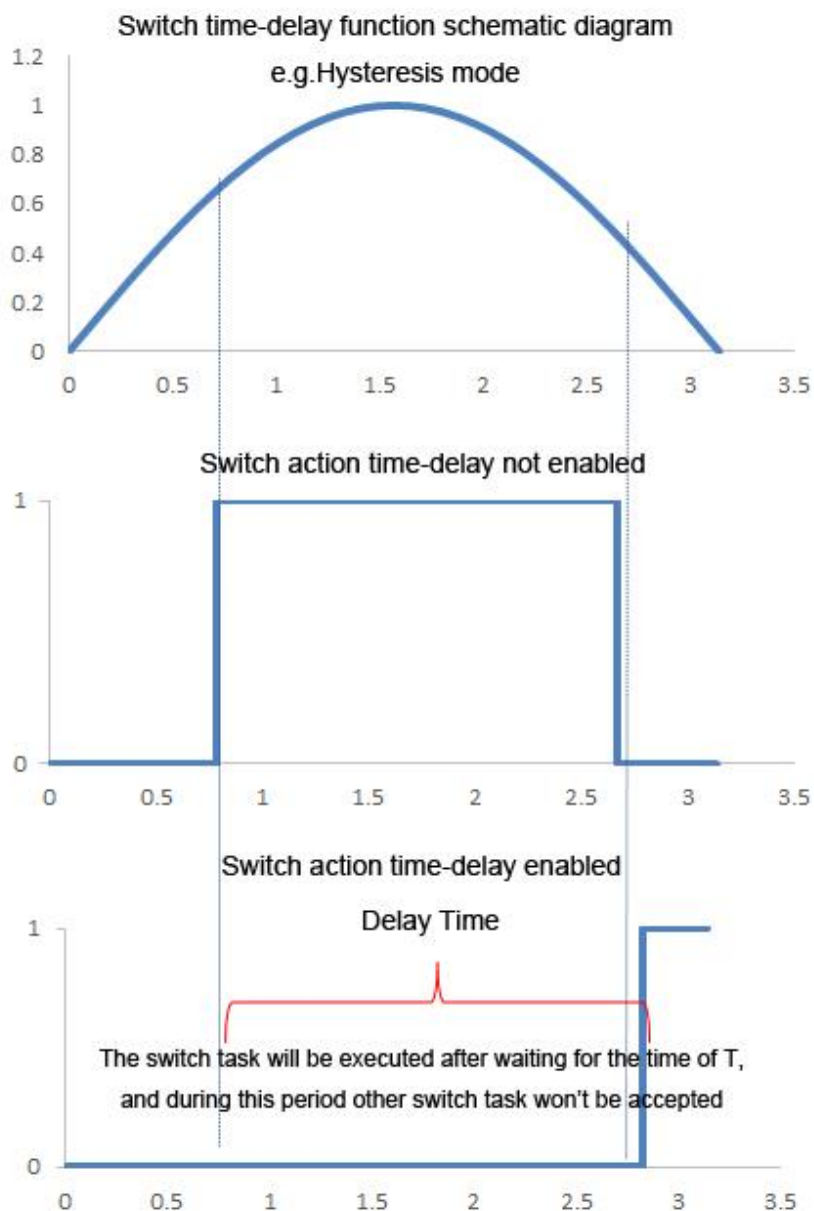
As the switch action determination basis, the current pressure measurement value sampling frequency is programmable. When DAP starts, the pressure sampling data will be the average pressure value over a period of time.

The low sampling frequency can effectively restrain the high frequency pressure signal noise.



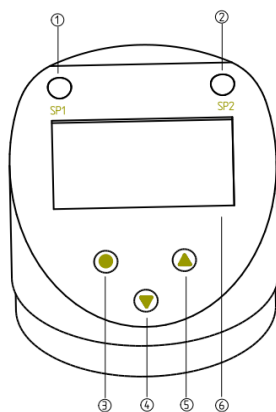
Switch action time-delay mechanism:

When the pressure switch captures a switch action task, the user can select to adopt the instantaneous switch action or the subsequent action after the delayed t/s. During the delayed time, the pressure switch doesn't respond to any switch operation, so as to avoid repeated switch actions.



Fast operating mode

When the system is under the normally displayed liquid level, the functions of fast zero point correction and fast unit switchover can be realized by pressing \blacktriangle / \blacktriangledown .



Operating instructions for the keys

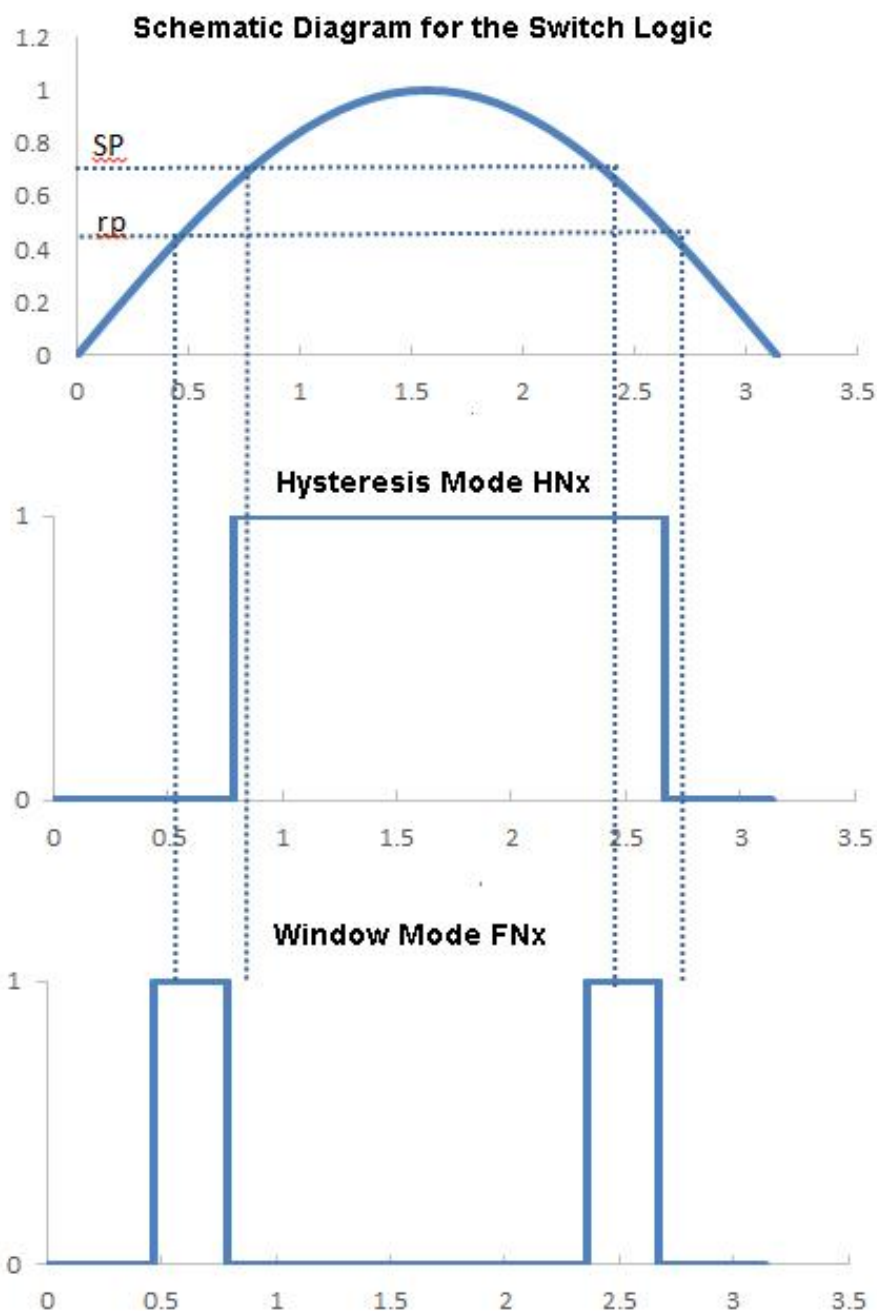
- When the liquid level is displayed normally
- ③ \bullet Short-press to call out the menu interface
- ④ \blacktriangledown Long-press the fast zero point correction
- ⑤ \blacktriangle Short-press the fast unit switchover

Switch action characteristics

Supporting two kinds of switching modes:

1. Hysteresis mode
2. Window mode

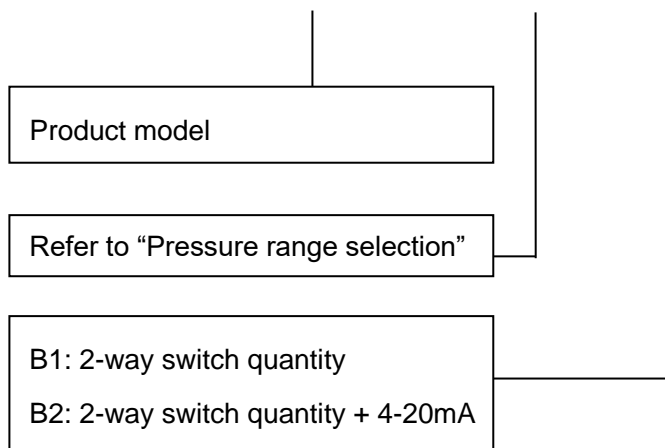
Normally open/Normally closed options



Pressure range selection

Pressure range code	Pressure range	Overpressure %FS	Burst pressure %FS
1m	0~1m H ₂ O	300	600
2m	0~2m H ₂ O	300	600
5m	0~5m H ₂ O	300	600

PCM710Y - 1m B1



Example: PCM710Y-1mB1

Refer to PCM710Y Level Switch, with pressure range 1m H₂O, and output of 2-way switch quantity

Accessory

Name	Specifications
M12×1 female with wire	M12×1 female 5-pin with wire 2m

Ordering tips

- (1) Please ensure the compatibility between the measured medium and the contacting part of the product when placing an order.
- (2) If there are special requirements for the product appearance or performance parameter, our company can provide customization.

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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