DIGITAL PRESSURE SWITCH

PCM710



GENERAL FEATURES

- High precision
- Adjustable response time
- 2 switch outputs
- NPN, PNP compatible, free switching
- Button operation, shortcut button for zero calibration, fast unit switching
- OLED shows current pressure
- LED for node action, easy to observe



PCM710 pressure switch is an intelligent digital product for pressure measurement and control which integrates pressure measurement, display, output and control. The product is in full electronic structure. Piezoresistive silicon pressure sensor is adopted in the front end. The output signal is processed by the amplifier of 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 control system pressure.

PCM710 has advantages of flexible use, simple operation, easy commissioning and high safety and reliability. It is widely used in hydropower, tap water, petroleum, chemical, mechanical, hydraulic and other industries for the measurement, display and control of pressure of fluids.

APPLICATION FIELDS

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

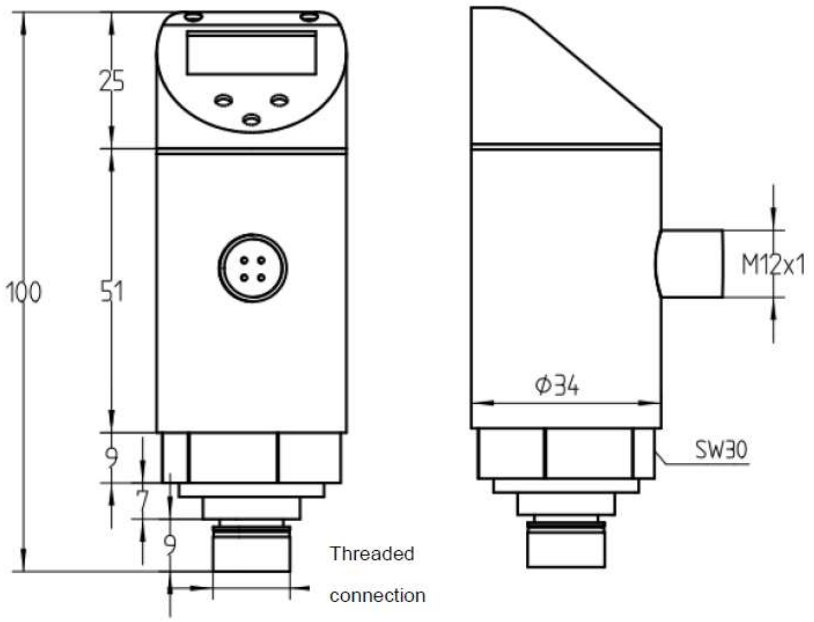


TECHNICAL SPECIFICATIONS

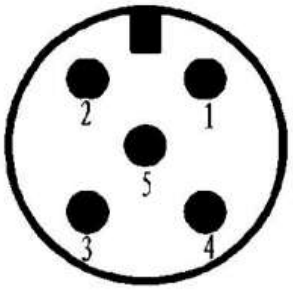
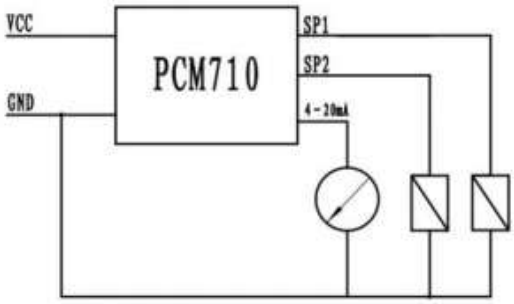
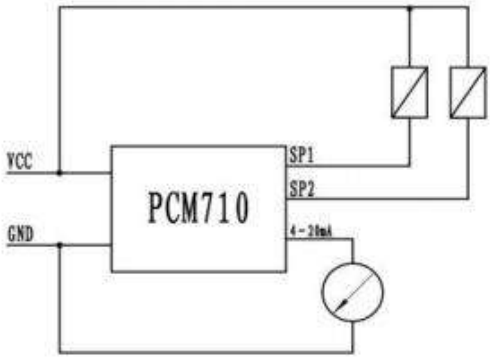
Electrical Performance Parameters	
Pressure range	0～0,1 Bar...400 Bar
Overload capability	150～300%FS
Accuracy	±0.5%FS
Supply	12 - 30V, 24V recommended
Display mode	OLED display of 4 digits
Output mode	2-way switch quantity, NPN and PNP compatible + 4～20mA
Load capacity	≤24V 1.2A
Power consumption	≤15mA
Operating temp.	-25°C...80°C
Storage temp.	-40°C...100°C
Response time	≤20ms
Insulation	100MΩ/250VDC
Protection	IP65
Structural Performance Parameters	
Housing material	304
Medium compatibility	Liquid contacting diaphragm 316L, pressure port 304

MECHANICAL DIMENSIONS

In mm

Dimensional drawing	

ELECTRICAL CONNECTIONS

M12x1	Wiring defination	Wiring diagram
	1: VCC (Supply +) 2: SP2 (Switch 2) 3: GND (Supply -) 4: SP1 (Switch 1) 5: 4-20mA	 PNP output wiring diagram
		 NPN output wiring diagram

Notes:

1 Do not touch the diaphragm with hard objects, which may cause damage to the diaphragm.

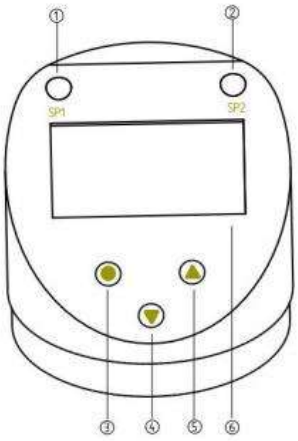
2 Please read the Instruction Manual of the product carefully before installation and check the relevant information of the product

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.

FAST OPERATING MODE

When the system is under the normally displayed pressure, the functions of fast zero point correction and fast unit switchover can be realized by pressing [▲]/[▼]



Operating Instructions for Keys
-When the pressure is displayed normally;
3 [●] Short-press to call out the menu interface
4 [▼] Long-press the fast zero point correction
5 [▲] Short-press the fast unit switchover

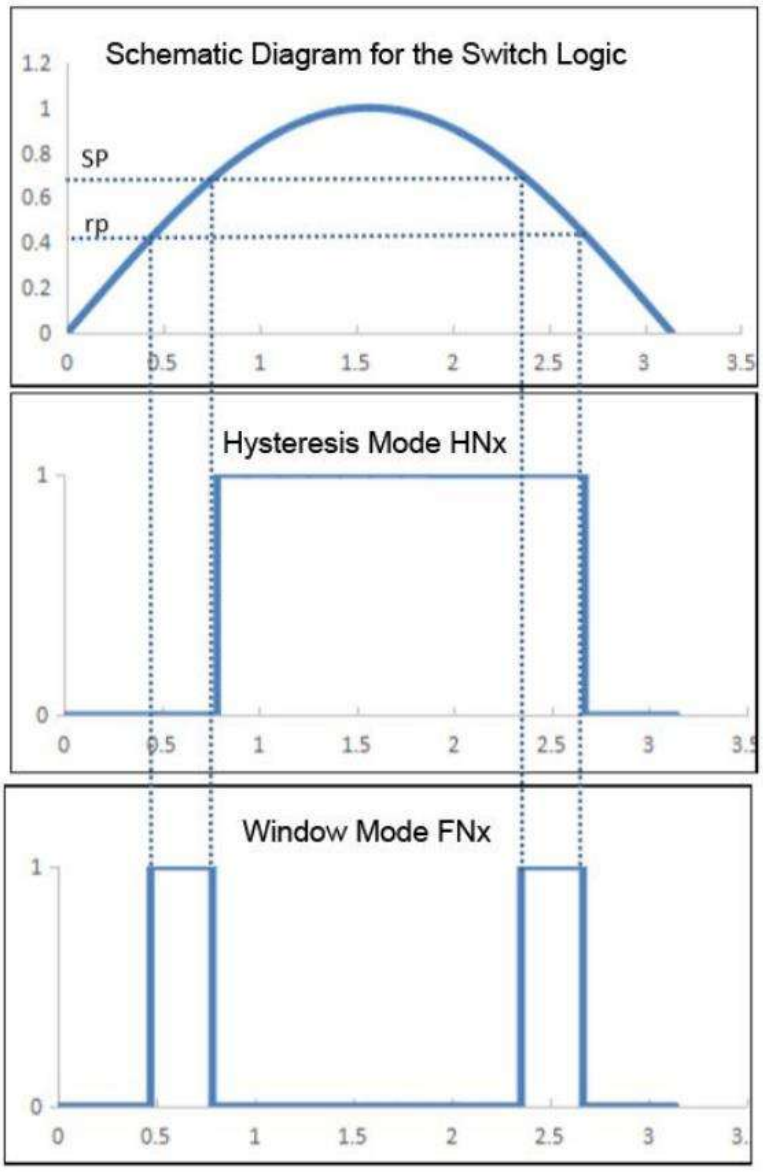
-When entering the menu interface;
[●] OK/Exit
Long-press to edit data [▲]/[▼]

SWITCH ACTION CHARACTERISTICS

Supporting two kinds of switching modes

1.Hysteresis mode
2.Window mode

Normally open / normally closed options



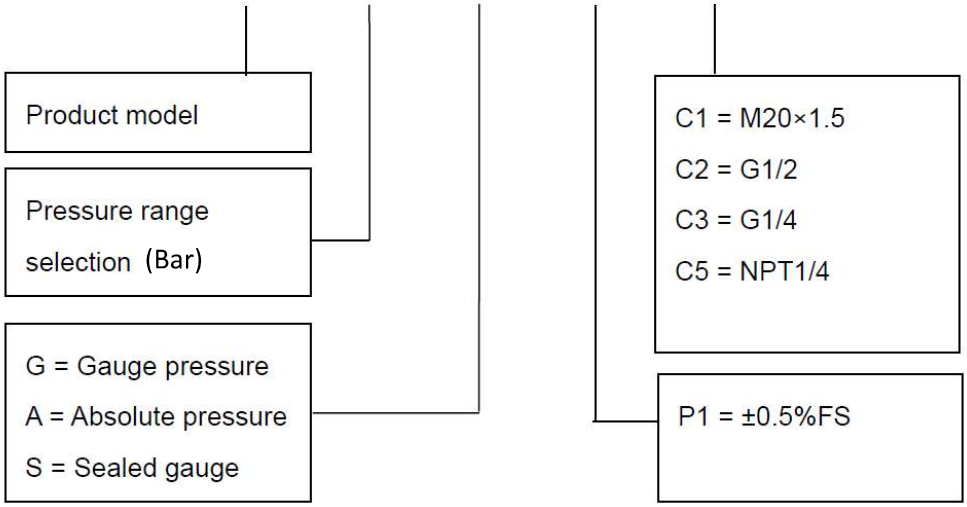
PRESSURE RANGE SELECTION

Code	Pressure reference	Pressure range	Overpressure %FS	Burst pressure %FS
0,1Bar	G	0～0,1 Bar	300	600
0,35Bar	G	0～0,35 Bar	300	600
0,7Bar	G	0～0,7 Bar	300	600
1Bar	G, A	0～1 Bar	200	500
2,5Bar	G, A	0～2,5 Bar	200	500
4Bar	G, A	0～4 Bar	200	500
6Bar	G, A	0～6 Bar	200	500
10Bar	G, A	0～10 Bar	200	500
25Bar	G, S	0～25 Bar	200	500
60Bar	S	0～60 Bar	200	400
100Bar	S	0～100 Bar	200	400
160Bar	S	0～160 Bar	200	400
250Bar	S	0～250 Bar	150	300
400Bar	S	0～400 Bar	150	300

Note: G: Gauge pressure, A: Absolute pressure, S: Sealed gauge pressure

ORDER CODING

PCM710 - 10Bar - G - P1 - C1



Example: PCM710-10Bar-G-P1-C1
PCM710 pressure switch, pressure range 10 Bar, gauge pressure, accuracy ±0.5%FS, threaded connection M20×1.5.

Ordering Tips:
1. Ensure compatibility between measured media and contacting part of product.
2. Customization is available for special requirements on the appearance and performance parameters of the product.

Optional Accessories	
Name	**Specification**
M12×1 female with wire	M12×1 female 5-pin with wire 2m