ASPS-71
INTELLIGENT PRESSURE SWITCH

Your Engineering Partner



Product Overview

ASPS-71 Intelligent Pressure Switch is an intelligent pressure measurement & control product which integrates pressure measurement, display, output and control. This product is in full-electronic structure. The piezoresistive silicon pressure sensor is adopted in the front end. 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 control system pressure.
This intelligent digital pressure controller 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 fluid media..

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 pressure
- LED for node action, easy to observe

APPLICATIONS

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

SPECIFICATIONS:

Performance parameters

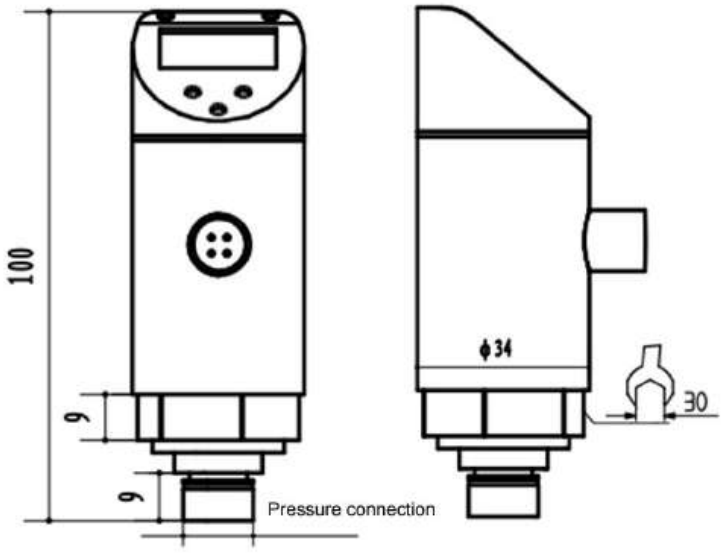
Pressure range 0～10kPa…60MPa
Overload capability 150～300%FS
Accuracy ±0.2%FS, ±0.5%FS
Power supply 12～30V, 24V recommended
Display mode OLED display of 4 digits
Output mode 2-way switch quantity, NPN and PNP compatible + 4～20mA
Load capacity ≤24V 1.2A
Power consumption ≤15mA
Operating temp. -25℃～80℃
Storage temp. -40℃～100℃
Response time ≤20ms
Insulation 100MΩ/250VDC
Protection grade IP65

Structural performance parameters

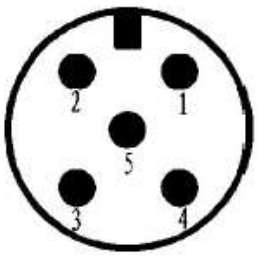
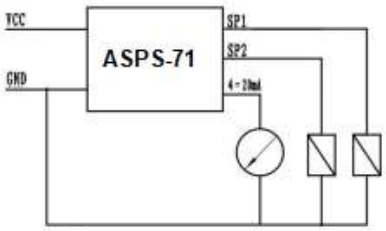
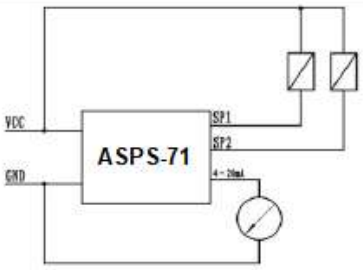
Housing material 304
Medium compatibility Liquid contacting diaphragm 316L, pressure port 304

Outline dimension

In mm

Dimension	

Wring method

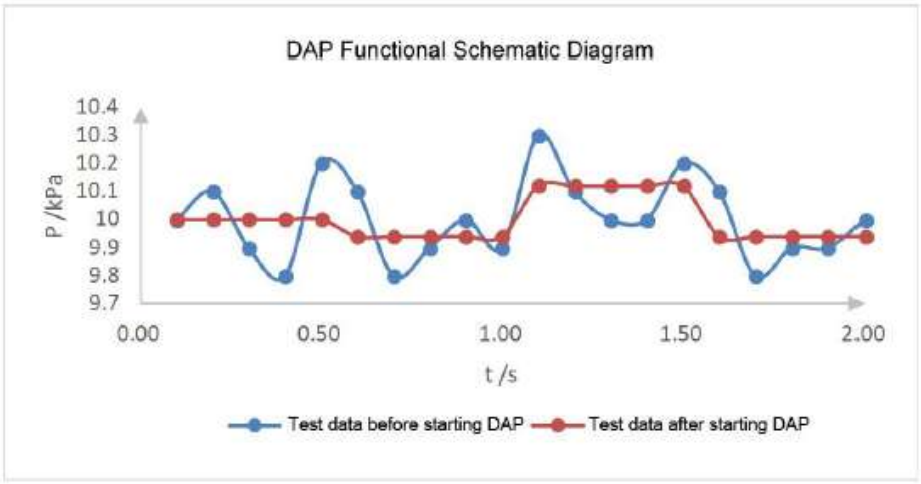
M12×1	Wiring definition	Wiring diagram
	1: VCC (Supply +) 2: SP2 (Switch 2) 3: GND (Supply -) 4: SP1 (Switch 1) 5: 4～20mA	 PNP output wiring diagram
		 NPN output wiring diagram

Signal interference suppression

DAP damping mechanism:

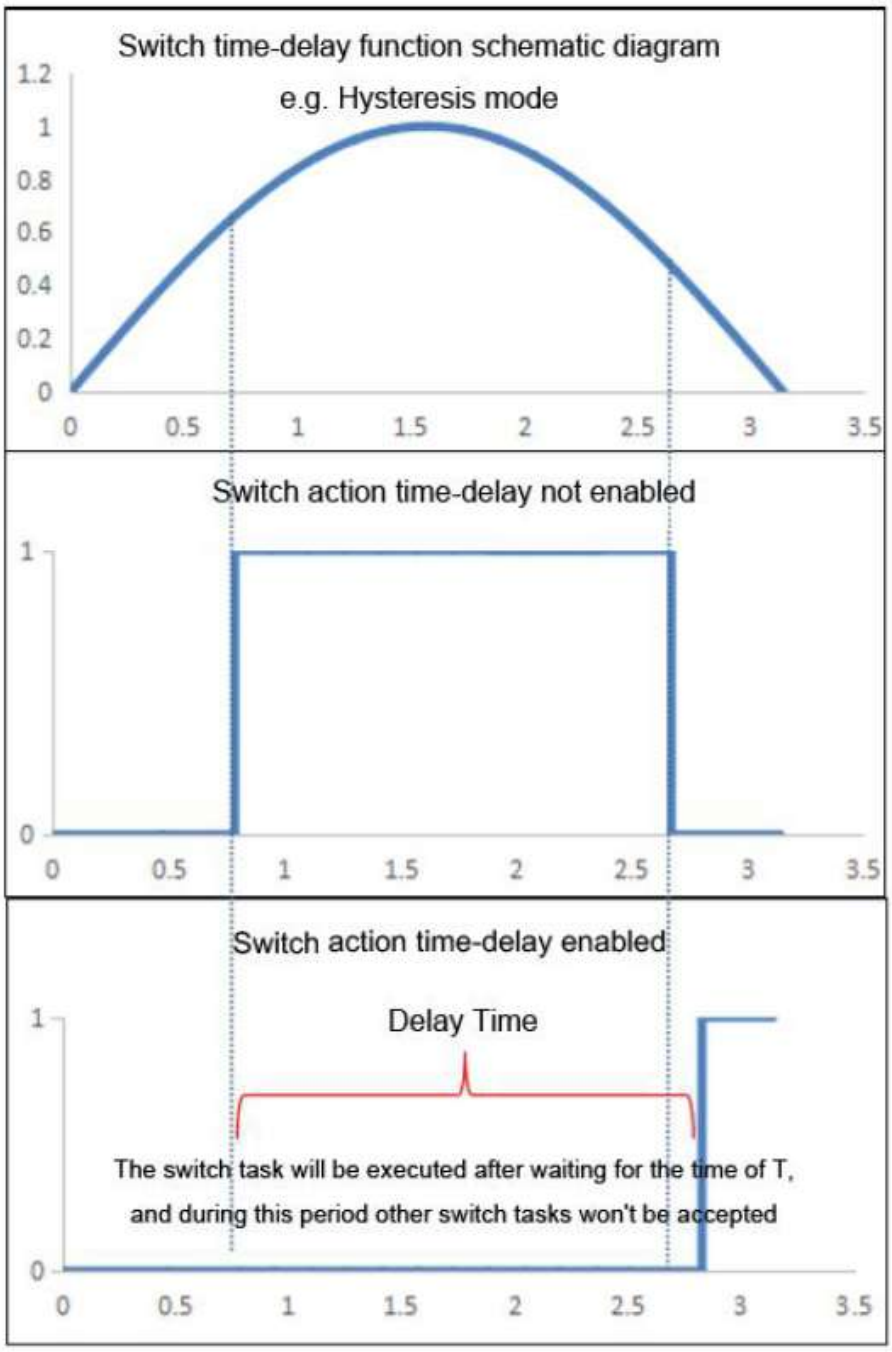
As the switch action determination basis, the current pressure measurement value sampling frequency is programmable. When DAP starts, the pressure sampling data will be the average pressure value over a period of time.

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



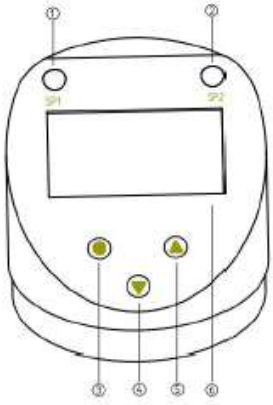
Switch action time-delay mechanism:

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 pressure, the functions of fast zero point correction and fast unit switchover can be realized by pressing [▲]/[▼].



Operating instructions for the 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

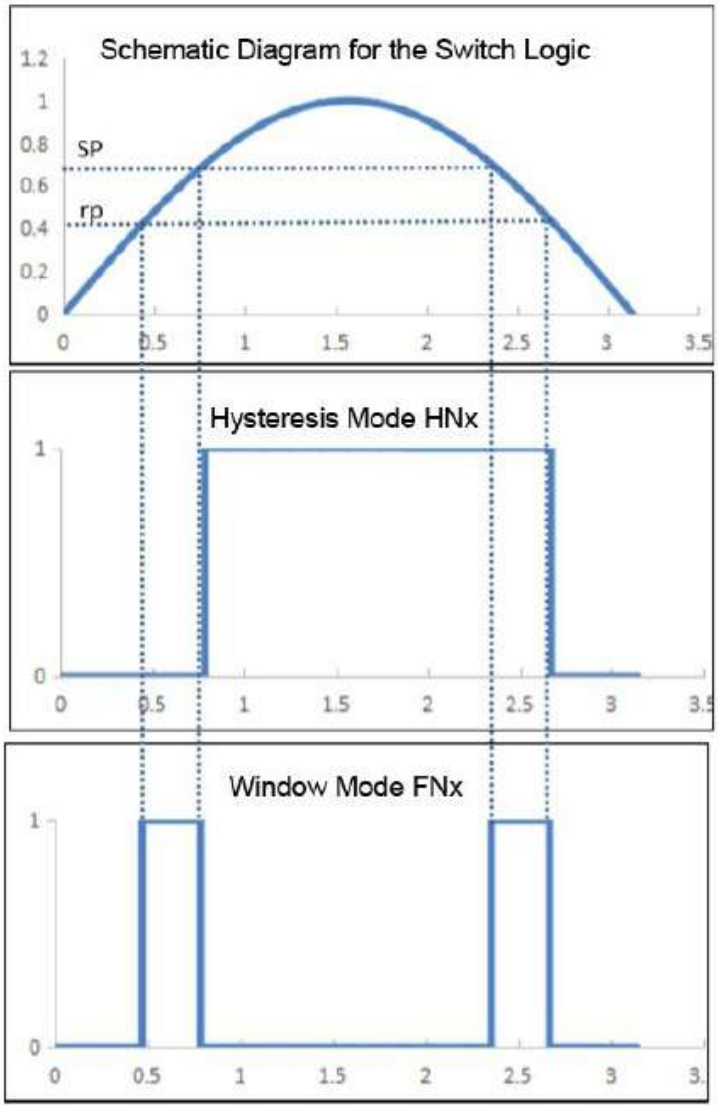
Long-press [▲] [▼] to edit the data

Switch action characteristics

Supporting two kinds of switching modes:

1. Hysteresis mode
2. Window mode

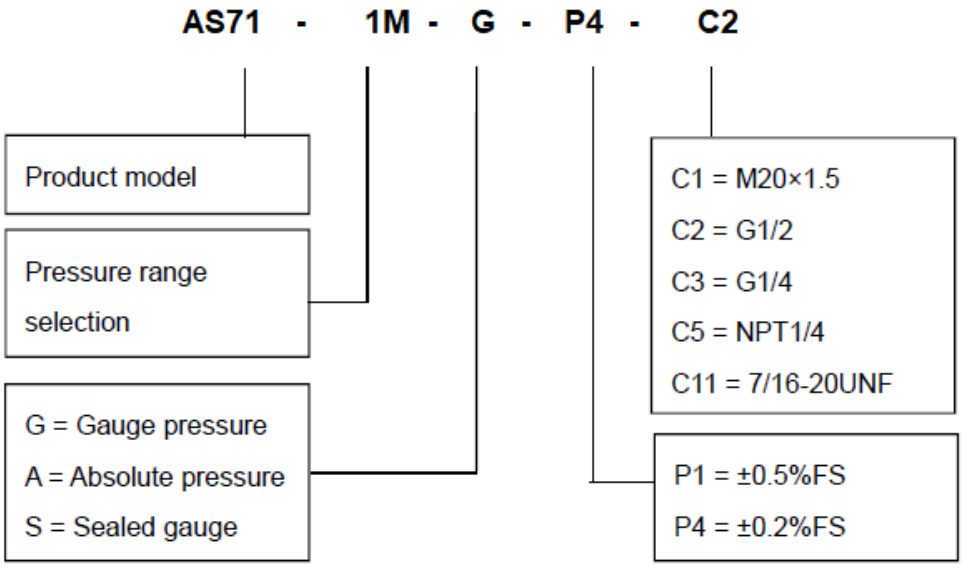
Normally open/Normally closed options



Pressure range selection

Pressure range code	Pressure reference	Pressure range	Overpressure % FS	Burst pressure %FS
10k	G	0~10kPa	300	600
35k	G	0~35kPa	300	600
70k	G	0~70kPa	300	600
100k	G, A	0~100kPa	200	500
250k	G, A	0~250kPa	200	500
400k	G, A	0~400kPa	200	500
600k	G, A	0~600kPa	200	500
1.0M	G, A	0~1.0MPa	200	500
2.5M	G, S	0~2.5MPa	200	500
6M	S	0~6MPa	200	400
10M	S	0~10MPa	200	400
16M	S	0~16MPa	200	400
25M	S	0~25MPa	150	300
40M	S	0~40MPa	150	300
60M	S	0~60MPa	150	300

How to order



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.

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