

# Series SPS

## General Purpose Pressure Switch



- Application for Hydraulic, Pneumatic parts, semi-conductor, CNC machine, Oxygen producer, compressor, chemical plant and power plant etc. is possible to control pressure automatically.
- Compact Design
- Light Weight

### How to Order

**SPS** **203** — **02**

1      2      3

#### 1 General Purpose Pressure Switch

#### 2 Operating Pressure Range

203 : -0.05 ~ 0.3MPa(-0.5 ~ 3.1kgf)  
 206 : -0.05 ~ 0.6MPa(-0.5 ~ 6.1kgf)  
 210 : 0.01 ~ 1MPa(1 ~ 10.2kgf)  
 220 : 0.05 ~ 2MPa(5 ~ 20.4kgf)  
 230 : 0.05 ~ 3MPa(5 ~ 30.6kgf)

#### 3 Port Size

Blank : 7/16"-20(1/4" SAE Flare Type 45°)

01 : PT 1/4"

02 : PT 3/8"

03 : ø 2, 4×100 Capillary Tube, 1/4" Flare Nut

### Specification

Item \ Series	SPS-203	SPS-206	SPS-210	SPS-220	SPS-230
Fluid	Non Corrosive Water, Air, Liquids, Inert Gases, Steam				
Operating Pressure(kgf/cm <sup>2</sup> )	0.5CmHg ~ 3	0.5CmHg ~ 6	1 ~ 10	5 ~ 20	
Ambient and Fluid Temperature(°C)	-10 ~ 120°C				5 ~ 30
Range of On-Off control(kgf/cm <sup>2</sup> )	0.35 ~ 2	0.6 ~ 4	1 ~ 3	3 ~ 5	
Proof Pressure(kgf/cm <sup>2</sup> )	11	16.5		40	3 ~ 10
Weight(kg)	0.42				
Connection	1ab(When pressure increasing, ON or OFF)				
Operate Frequency	1 Time / 1 sec				
Durability	100,000 Times or more				
Power Supply	AC110V 10A / AC220V 5A				
Using Voltage	DC24V, AC110V, AC220V				
Max. Supply Voltage	2 ~ 5A				
Shock Resistance	30G				

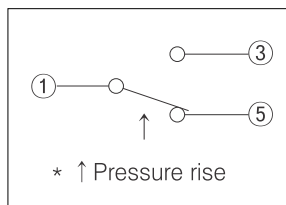
### Using Fluid

Material of parts which meets Fluid must be considered.

Applicable Fluid	Material	
	Bellows	Parts which meets fluid
Non corrosive water, air, liquids, inert, gases	Phosphorus/bronze	C3604B
※ Fluid which can't be corroded under 150°C		

※ Use under 80°C at atmosphere.

### Connection Structure

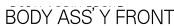


1 : Common Terminal

3 : Close on, Pressure Decrease

5 : Close on, Pressure Increase

## Construction



## Parts List

No.	Name	Material	Note
⑭	Supporting Bolt	BSME	
⑮	Supporting Nut	BSME	
⑯	Packing	CR	
⑰	Scale Flat	AL	
⑱	Screw	SWCH	3×5
⑲	Switch Box	PHENOL	
⑳	Switch Cover	N6	
㉑	Terminal	BSP	
㉒	Lower of Terminal	BSP	
㉓	Upper of Termianl	BSP	
㉔	Supporting pin of terminal	BS	BS 4×5
㉕	Supporting Bolt	SWCH	3×10

## Dimensions



Model	B
SPS-203-01	48.9
SPS-206-01	46
SPS-210-01	
SPS-220-01	42.7
SPS-230-01	
SPS-203-02	39.9
SPS-206-02	37
SPS-210-02	
SPS-220-02	33.7
SPS-230-02	

## ⚠ Precautions

Be aware of that before installation.

### Choice

#### ⚠ Notice

- ① Choose suitable material to using Fluid. It's choosen according to using Fluid. If you have a question please contact to us.

### Wires

#### ⚠ Caution

- ① Don't contact inner wire to lever which meet switch.

#### ⚠ Notice

- ① Inner diameter of opening wire grommet is  $\varnothing 17$ . 1/2B wire is mounted if grommet is seperated.

### Mounting · Piping

#### ⚠ Notice

- ① Mounting direction is possible for horizontal and vertical mode.

### Pressure

#### ⚠ Caution

- ① Mounting reducer is good to reduce pulsation in case of using liquids. SPS is easy to break because of and pulsation.

### Setting up Pressure

#### ⚠ Notice

- ① Set up pressure by turning adjustable bolt. For turning right, pressure will increase. For turning left, pressure will decrease.
- ② Control on-off gap by turning on-off gap adjustable bolt. For turning right, pressure will increase. For turning left, pressure will decrease.
- ③ Use on-off gap in the range.
- ④ scale is for standard pressure. Measure the pressure by pressure gauge.
- ⑤ Switching fixed scale is created value at pressure increasing.

SQ

SQ2

SP

SPM

ST

SN

SF

W1~  
W7

W8,9

SPS

TPC  
1000

TPC  
1200