

# Pneumatic Pressure Switch

## Series IS3000

Can be used for small electrical loads 10mA e.g. relays, programmable controllers, etc.

Easy electrical wiring  
Wide space for wiring.  
Fixed wiring possible with G(PF) 1/2 connector.

Wide calibration range  
0.1 to 0.7MPa

High frequency operation and long life due to piston construction  
High Frequency: 1 cycle/sec  
Long life: 10 million. cycles

With indicator light (Optional)



IS3100  
(Gasket piping)

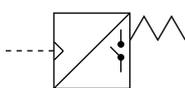
IS3000-02  
(1/4 thread)



IS3110  
(Gasket piping)

IS3010-02  
(1/4 thread)

JIS Symbol



### Model

Model	Piping method	Micro switch style	Min. applicable load
IS3000-02	1/4 thread	Standard	5V DC 160mA
IS3100	Gasket piping		
IS3010-02	1/4 thread	Micro load	5V DC 1mA
IS3110	Gasket piping		

### Specifications

Fluid	Air
Proof pressure	1.0MPa
Max. pressure	0.8MPa
Operating pressure range	0.1 to 0.7MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Contacts	1ab
Hysteresis	0.05MPa or less
Repeatability	±0.05MPa
Weight	0.15kg

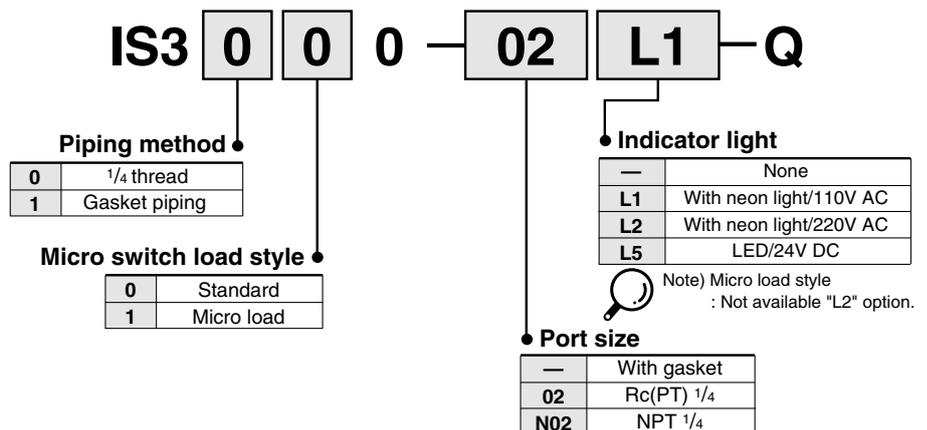
### Micro Switch Ratings

Model	IS3 <sup>0</sup> 00								IS3 <sup>0</sup> 10	
	Non inductive load (A)				Inductive load (A)				Non inductive (A)	
	Load resistance		Light load		Inductive load		Motor load		Load resistance	
Circuit	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.
	Rated voltage (V)									
AC125	5	1.5	0.7	3	2.5	1.3	0.1			
AC250	3	1	0.5	2	1.5	0.8	—			
DC30	4	2		3	3		0.1			
DC125	0.4	0.05		0.4	0.05		—			

Insulation resistance: 100M or more at 500V DC

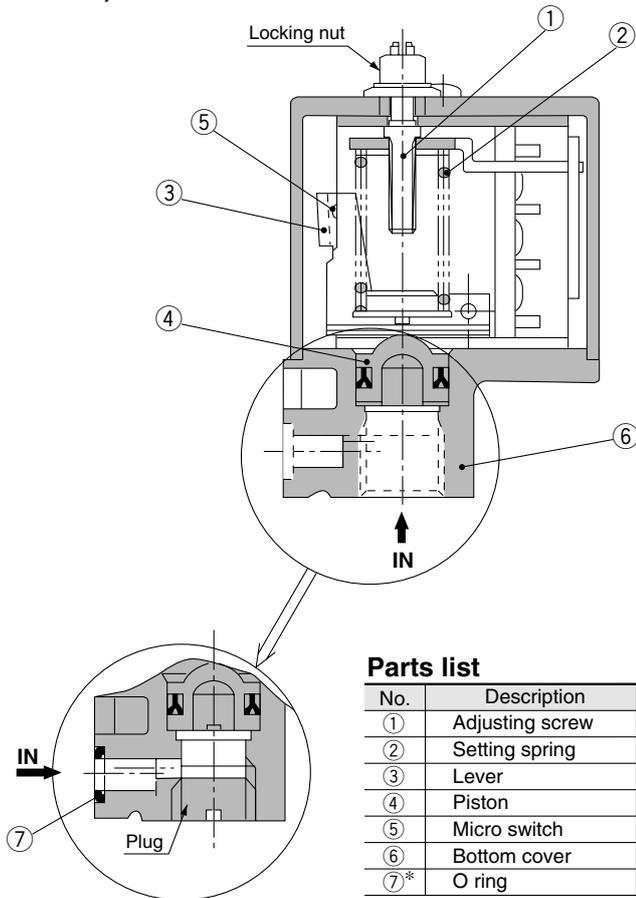
Voltage resistance: 1500V AC, 50/60Hz for 1 min. (In case of switch with neon light: 1000V AC for 1 min.)

### How to Order



## Construction

IS3000-02/3010-02  
(1/4 thread)

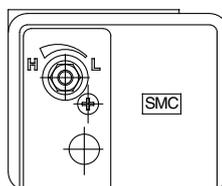
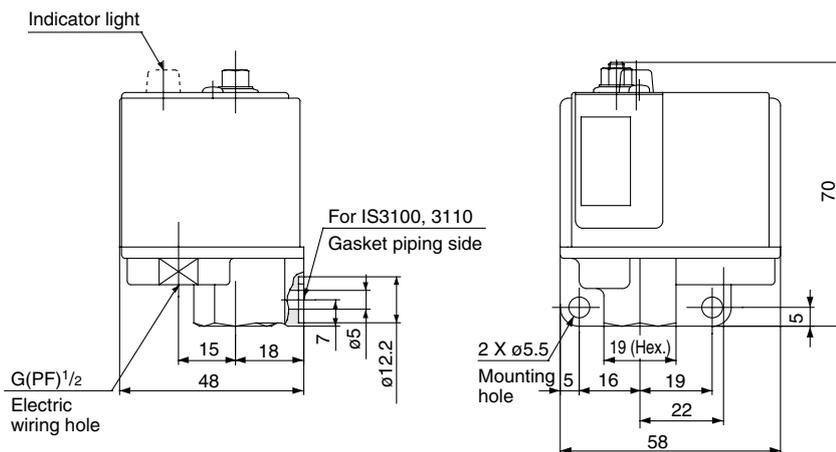


### Parts list

No.	Description	Material
①	Adjusting screw	SS41
②	Setting spring	SWP-B
③	Lever	SPCD
④	Piston	POM
⑤	Micro switch	—
⑥	Bottom cover	ADC12
⑦*	O ring	NBR

\* Only for gasket mounting style

## Dimensions



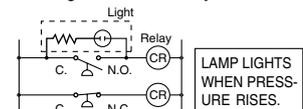
## Precautions

### Wiring

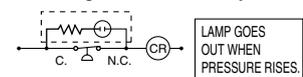
#### Warning

- Light ass'y for 24V DC has 2 terminals. One is "+" for red load wire and the other is "-" for black load wire.
- Light ass'y for 24V DC has 3mA of current leakage. Connect the LED directly to the power supply if the input of the PLC sees the switch as closed at all times due to leakage.

Ex.1) When using contact "a" only or "a&b" contacts



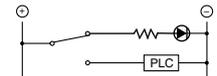
Ex.2) When using contact "b" only



#### Caution

- In case of using switches with indicator light, wire the indicator light per the following:

Ex.3)



- Please put the enclosed seal of "LAMP LIGHTS WHEN PRESSURE RISES." or "LAMP GOES OUT WHEN PRESSURE RISES." on the equipment where it is easy to see.

### Installation/Piping

#### Caution

- Make a space for maintenance taking the regulation screw on the top of switch body into consideration.
- Mounting is possible in either horizontal or vertical orientations.

### Calibration Procedures

#### Caution

- Turn the adjusting screw on the cover to set the pressure with the bladed driver. Fix the screw with locking nut after adjusting. Hysteresis is a fixed value.  
Increase the setting value by turning to "+"  
Decrease the setting value by turning to "-"
- Use a flat screwdriver to set the pressure. Then, lock it in place with the lock nut. Otherwise the set pressure will change.
- The hysteresis (the ON-OFF range) is fixed.
- Set pressure scale is the value when pressure increases.

### Environment

#### Warning

Do not use in an environment with water or splashing oil to avoid malfunction or damage to switch caused by corrosion of electric circuit.

### Others

#### Caution

- Spare part is LIGHT ASS'Y only. If it is necessary to repair, contact SMC.

Light Ass'y

For 110V AC: 1530118-1

220V AC: 1530118-2

24V DC: 1530118-5