

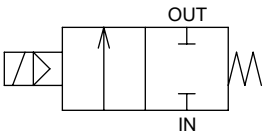
For compressed air
Thin pilot operated 2-port solenoid valve

SP Series

- ●NC (open when energized)
- ●Diaphragm drive
- ●Port size: Actuator (SP-10/SP-13)
  Push-in fitting (SP-10)

JIS symbol

●NC (open when energized)



Specifications

Item		SP-10	SP-13
Working fluid		Compressed air	
Working pressure differential	MPa	0.02 to 0.2	
Max. working pressure	MPa	0.2	
Proof pressure	MPa	0.3	
Fluid temperature	°C	0 to 70 (no freezing)	
Ambient temperature	°C	0 to 60	
Atmosphere		Place free of corrosive gas/explosive gas and not exposed to water	
Valve structure		Pilot operated diaphragm drive	
Internal leakage	cm^3/min	2 or less	
External leakage	cm^3/min	·2 or less	
Mounting orientation		Unrestricted	
C[$dm^3/(S \cdot bar)$]		1.0	1.4
Electrical specifications			
Rated voltage		24 VDC, 12 VDC	
Voltage fluctuation range		±10%	
Power consumption	W	0.6	
Rating		Intermittent (50%duty)	
Thermal class		Class 130 (B)	

How to order

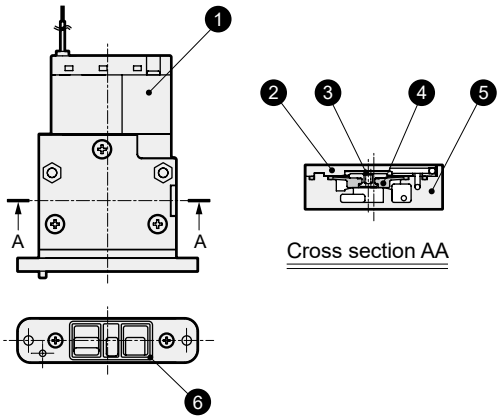
SP - 10 | 06K | 3 - E | 2C

- Ⓐ Product width
- Ⓑ Port size
- Ⓒ Voltage
- Ⓓ Pilot operated
- Ⓔ Coil option

Code	Description
Ⓐ Product width	
10	10mm
13	13mm
Ⓑ Port size	
ACT	Actuator
06K	Ø6 Push-in fitting *1
Ⓒ Voltage	
3	24 VDC
4	12 VDC
Ⓓ Pilot operated	
E	External exhaust specifications
R	Internal exhaust specifications *2
Ⓔ Coil option	
2C	Lead wire (without both lamp/surge suppressor)

*1 Available only for SP-10
*2 Available only for SP-13
The internal exhaust specifications is such that the pilot chamber does not exhaust to the atmosphere, but to the OUT side circuit.

Internal structure and parts list

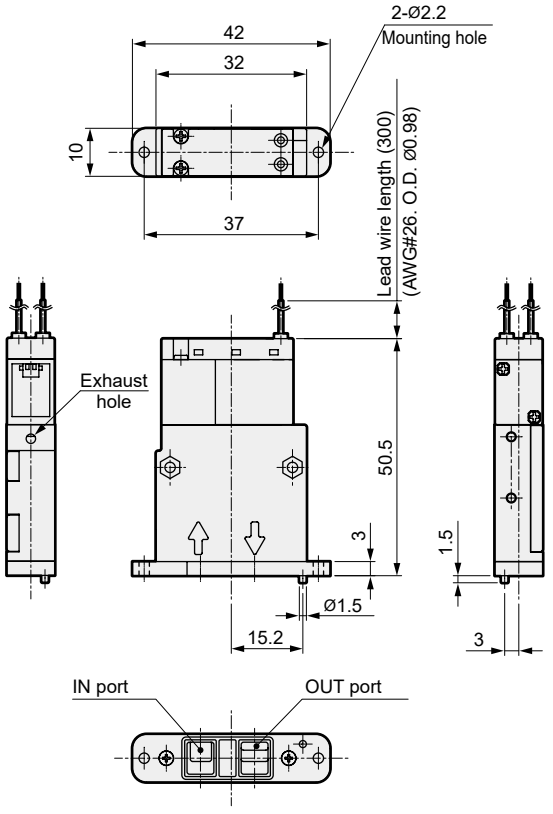


Part No.	Part name	Material	
1	Coil assembly	–	–
2	Stuffing	PPS	Polyphenylene sulfide
3	Spring	SUS	Stainless steel
4	Diaphragm assembly	H-NBR/PPS	Hydrogenated nitrile rubber/ Polyphenylene sulfide
5	Body	PPS	Polyphenylene sulfide
6	Gasket	H-NBR	Hydrogenated nitrile rubber

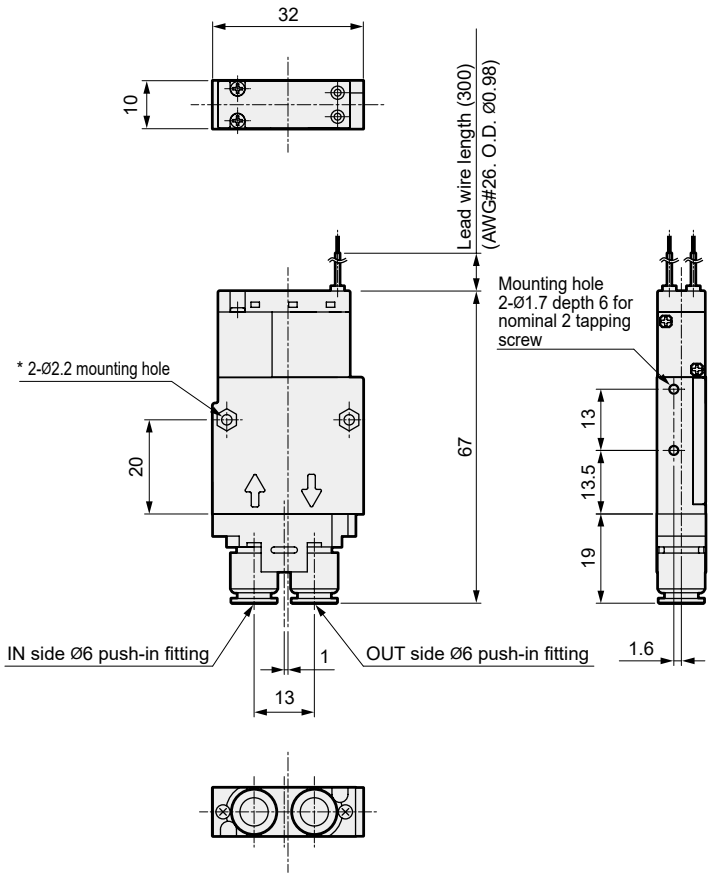
Dimensions

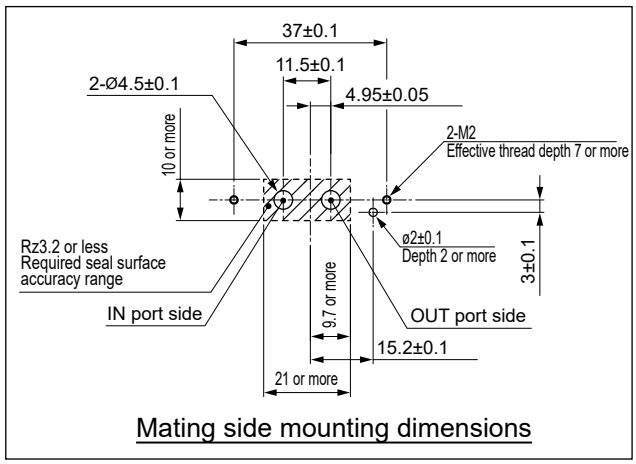
●SP-10

Actuator



ø6 Push-in fitting



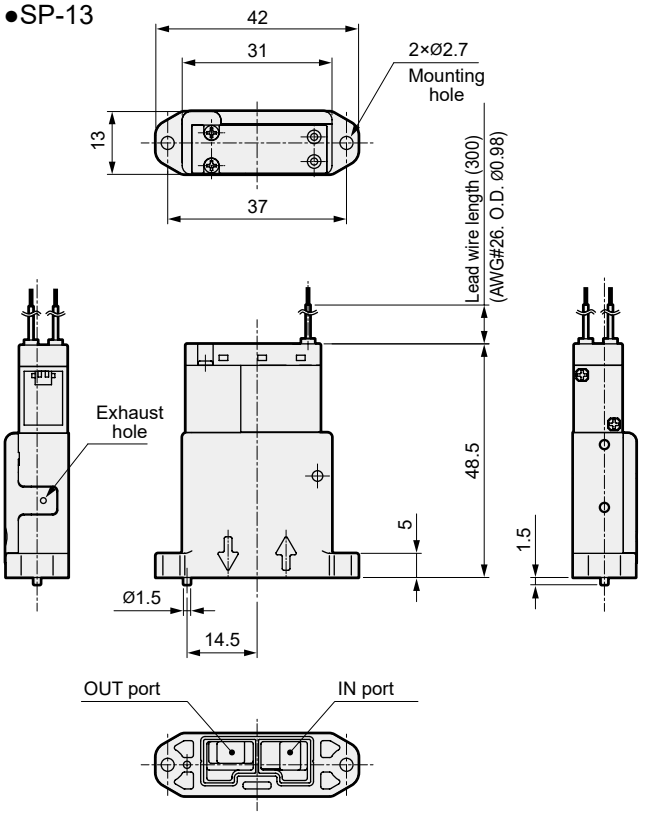


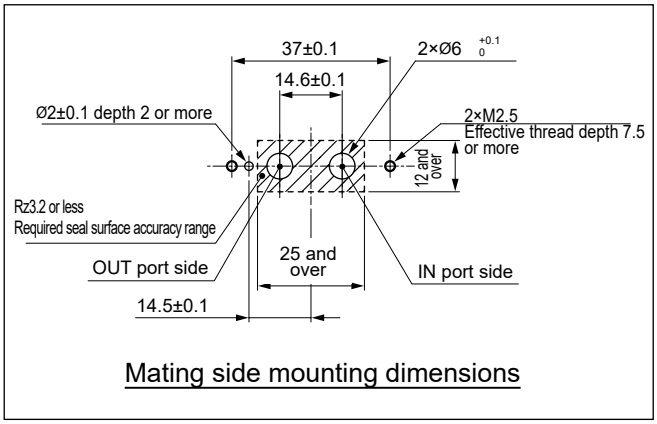
Mating side mounting dimensions

* For M2 screw
Can also be fixed with M2 nut

Dimensions

●SP-13



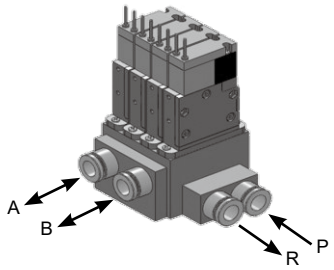


Mating side mounting dimensions

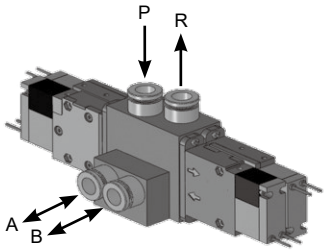
Manifold layout example (switching valve for oxygen concentrator)

Supports a variety of manifold variations according to your equipment space!

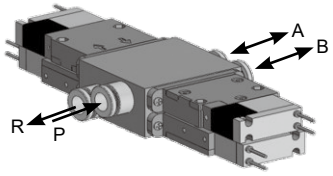
Standard layout



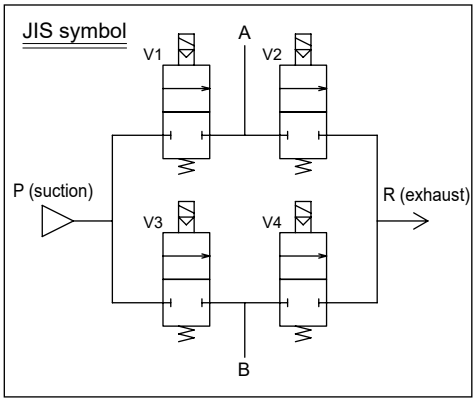
Vertical type



Flat type



[Circuit diagram]



Effective layout utilizing side gaps or top or bottom surface gaps within the unit is possible.

Install in places where it was too tight before!

● Manifolds available as custom made.Contact CKD for details.