

# Fluid control valve(2/2way)

## 2S Series (Internally piloted and normally closed)



### Symbol

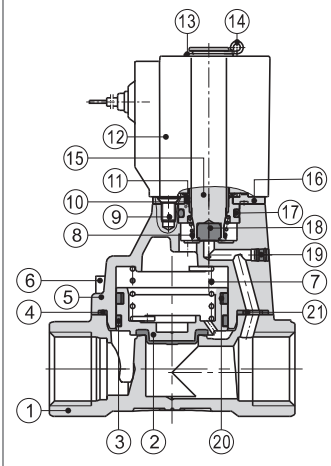


### Product feature

1. Indirect acting (Internal pilot) and normally closed type 2/2 way solenoid valve. Its can change direction quickly and has large flow.
2. It is compact, small and light weight. It is easy to install and dismantle;
3. The valve body is made of SUS304 . The coil has a Heat resistance classification of Class B . The standard seal material is FPM-F. Please contact us if other material are required.
4. The protection class of the coil is IP65 and there is a choice for grommet or terminal electrical entry .

### Inner structure

#### 2S150(Grommet)



No.	Item
1	Body
2	Piston
3	Wear ring
4	O-ring
5	Cover
6	Screw
7	Spring
8	Spring
9	Screw
10	Fixed cap
11	Washer
12	Coil assembly
13	Washer
14	E Clip
15	Movable core
16	Fixed plate
17	O-ring
18	Airtight ring
19	Plug
20	Spring
21	Spacer

### Specification

Model\Item	Port size [Note1]	Orifice size (Φ mm)	Cv	Valid area or section (mm <sup>2</sup> )	Weight [Note2](g)	Operating pressure differential		Proof pressure	
						MPa	psi	MPa	psi
2S150-15	1/2"	15.0	5.50	100.0	675	Max: 1.0 Min: 0.05	Max: 150 Min: 10	1.5	220
2S200-20	3/4"	20.0	9.50	170.0	875				
2S250-25	1"	25.0	12.50	220.0	1120				
2S320-32	1 1/4"	35.0	23.00	420.0	2700				
2S400-40	1 1/2"	40.0	31.00	560.0	3250				
2S500-50	2"	50.0	49.00	880.0	4300				

[Note1] G thread is available.

[Note2] The weight in the table is the terminal valve's weight, 2S150~250 series grommet valve's weight is 10g less than terminal's. 2S320~500 series grommet valve's weight is 20g less than terminal's.

### Specification of coil

Valve type	Coil type	Power type	Frequency (Hz)	Voltage range	Electrical entry	Power Consumption	Insulation	Temp. rise(°C)
2S150 2S200 2S250	CDA116 CLA116	AC	50	± 15%	Terminal (CDA)	10.0VA	Class B	35
			60			8.0VA		30
		DC	-	± 10%		6.5W		30
2S320 2S400 2S500	CDA170 CLA170	AC	50	± 15%	Grommet (CLA)	25.0VA		60
			60			22.0VA		55
		DC	-	± 10%		10.5W	40	

### Valve's specification

Acting	Internally piloted				
Initial state	Normally closed				
Adaptable fluid [Note1]	Air, Water, Oil				
Viscosity limit	Under 20CST				
Ambient and fluid temperature (°C)		Water	Air	Oil	Ambient
	Max.	80	90	80	70
	Min.	1	-20 [Note2]	-10 [Note3]	-20

[Note1] Please refer to P142 for detail of other's fluid;

[Note2] Dew point: -20(°C) or less; [Note3] 50CST or less.

### Ordering code

#### Ordering code of valves

2S 150 15 A □ G					
① Model	② Orifice size	③ Port size	④ Voltage	⑤ Electrical entry	⑥ Thread type
2S: 2/2 way internally piloted and normally closed	150: Φ15mm	15: 1/2"	A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V	Blank: Terminal I: Grommet	G: G
	200: Φ20mm	20: 3/4"			
	250: Φ25mm	25: 1"			
	320: Φ35mm	32: 1 1/4"			
	400: Φ40mm	40: 1 1/2"			
500: Φ50mm	50: 2"				

#### Ordering code of accessories

F-2S150 LB		
① Accessories code	② Valve type	③ Accessories type
F: Mounting accessories	2S150: 150 Series valve 2S200: 200 Series valve 2S250: 250 Series valve	LB: LB Type

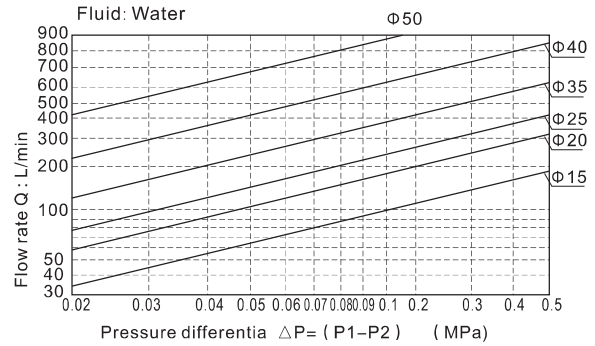
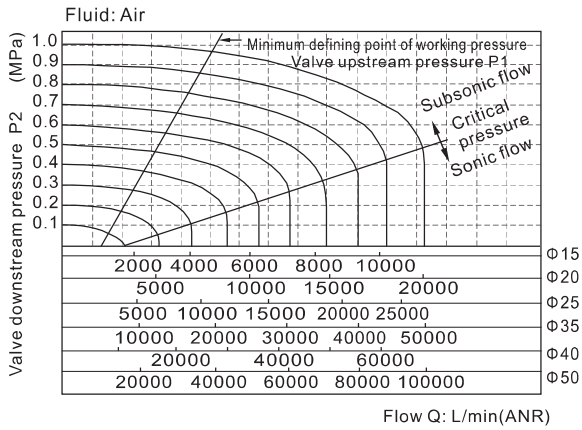
[[Note] 320\400\500 series valves do not have mounting accessories.



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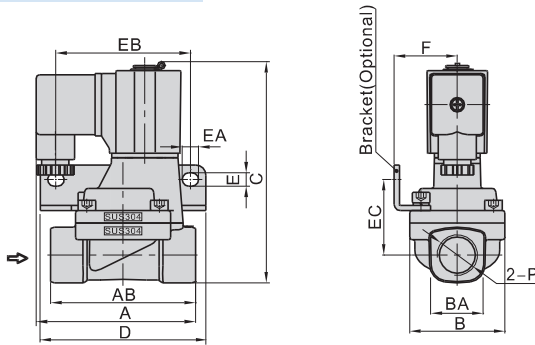
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### Flow chart

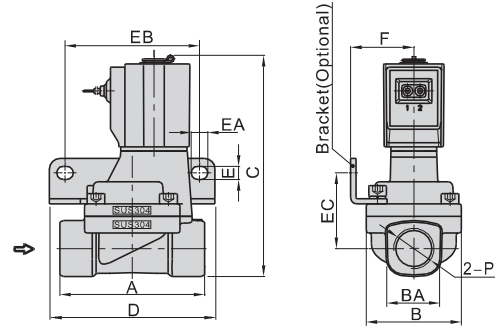


### Dimensions

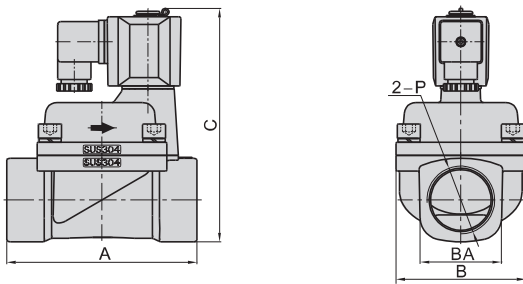
#### 2S150~250 (Terminal)



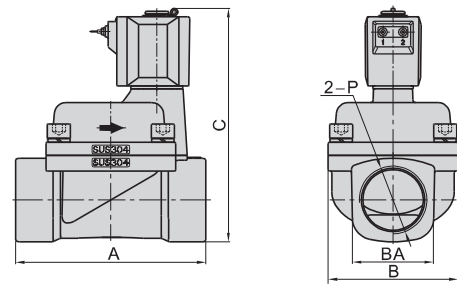
#### 2S150~250(Grommet)



#### 2S320~500 (Terminal)



#### 2S320~500(Grommet)



Model\Item	A	AB	B	BA	C	D	E	EA	EB	EC	F	P
2S150-15	77	70	46	27.5	107	80	6.4	8	65	36.5	30.5	1/2"
2S200-20	78.5	82	53	33.5	115.5	90	6.4	8	75	40	34	3/4"
2S250-25	81	92	59	40.5	124	95	6.4	8	80	44.5	36	1
2S320-32	125	-	80	52	154.5	-	-	-	-	-	-	1 1/4"
2S400-40	132	-	90	58	162	-	-	-	-	-	-	1 1/2"
2S500-50	150	-	100	70	177	-	-	-	-	-	-	2"

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2S200-20	82	53	33.5	115.5	90	6.4	8	75	40	34	3/4"
2S250-25	92	59	40.5	124	95	6.4	8	80	44.5	36	1
2S320-32	125	80	52	154.5	-	-	-	-	-	-	1 1/4"
2S400-40	132	90	58	162	-	-	-	-	-	-	1 1/2"
2S500-50	150	100	70	177	-	-	-	-	-	-	2"