

# Fluid control valve(2/2way)

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



2S

### Specification

Type\Item	Port size <sup>①</sup>	Orifice size (Φmm)	Cv	Valid area or section(mm <sup>2</sup> )	Weight (g)	Max. 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				

① PT thread, NPT thread and G thread are available.

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

### 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.

### Valve's specification

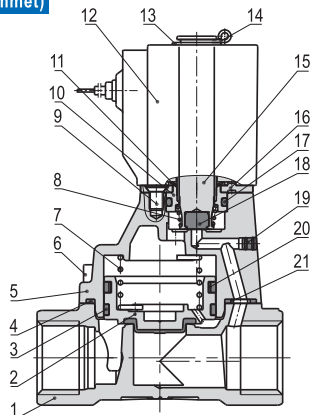
Acting	Internally piloted			
Initial stats	Normally closed			
Adaptable fluid ①	Air, Water, Oil			
Viscosity limit	Under 20CST			
Ambient and fluid temperature(°C)	Water	Air	Oil	Ambient
	Max. 80	90	80	70
	Min. 1	-20 ②	-10 ③	-20

① Note: Please refer to P121 for detail of other's fluid.

② Note: Dew point: -20(°C) or less. ③ Note: 50CST or less.

### Inner structure

2S150(Grommet)



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

### Specification of coil

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

### Ordering code

**2S 150 15 A** □ □

- Model**: 2S: 2/2 way internally piloted and normally closed
- Orifice size**:
  - 150: Φ 15mm
  - 200: Φ 20mm
  - 250: Φ 25mm
  - 320: Φ 32mm
  - 400: Φ 40mm
  - 500: Φ 50mm
- Port size**:
 

Orifice series	Port size
150: Φ 15mm	15: 1/2"
200: Φ 20mm	20: 3/4"
250: Φ 25mm	25: 1"
320: Φ 32mm	32: 1 1/4"
400: Φ 40mm	40: 1 1/2"
500: Φ 50mm	50: 2"
- Thread type**:
  - Blank: PT
  - T: NPT
  - G: G
- Electrical entry**:
  - Blank: Terminal
  - I: Grommet
- Voltage**:
  - A: AC220V
  - B: DC24V
  - C: AC110V
  - E: AC24V
  - F: DC12V

### Ordering code of accessories

**F-2S150 LB**

- Accessories code**: F: Mounting accessories
- Accessories type**: LB: LB type
- Valve type**:
  - 2S150: 150 Series body
  - 2S200: 200 Series body
  - 2S250: 250 Series body

Note: ⚠ 320\400\500 series valves do not have mounting accessories.

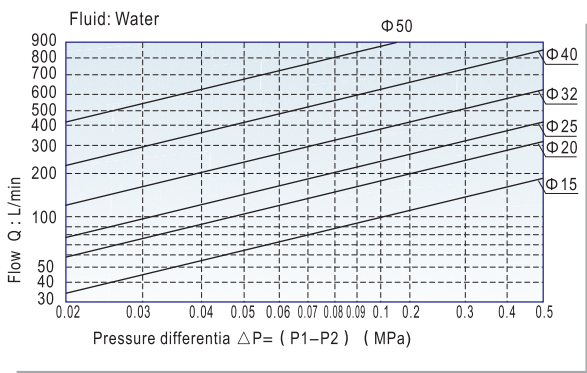
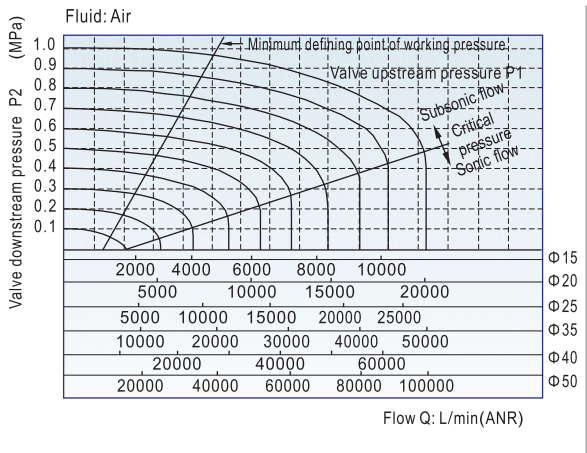


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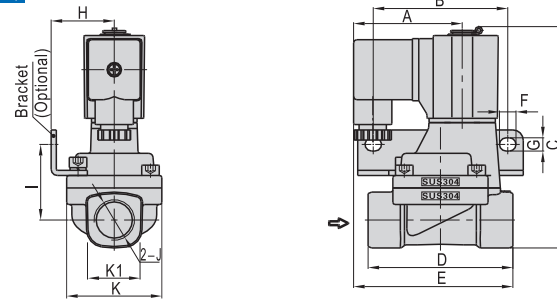


### Flow chart

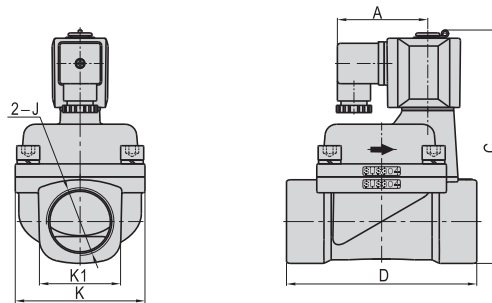


### Dimensions

#### 2S150-250(Terminal)

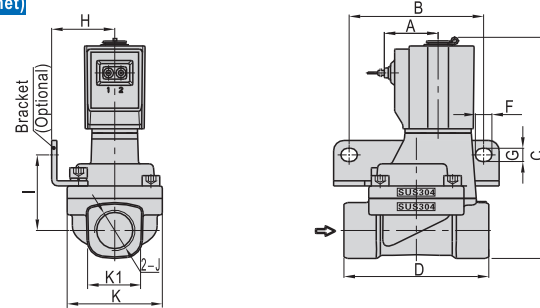


#### 2S320-500(Terminal)

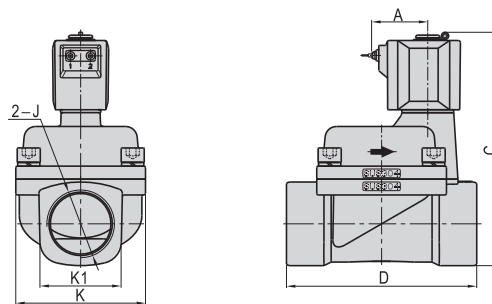


Type\Item	A	B	C	D	E	F	G	H	I	J	K	K1
2S150-15	52.5	65	107	70	77	8	6.4	30.5	36.5	1/2"	46	27.5
2S200-20	52.5	75	115.4	82	78.5	8	6.4	34	40	3/4"	53	33.5
2S250-25	52.5	80	124	92	81	8	6.4	36	44.5	1"	59	40.5
2S320-32	62.7	-	154.3	125	-	-	-	-	-	1 1/4"	80	52
2S400-40	62.7	-	161.8	132	-	-	-	-	-	1 1/2"	90	58
2S500-50	62.7	-	176.8	150	-	-	-	-	-	2"	100	70

#### 2S150-250(Grommet)



#### 2S320-500(Grommet)



Type\Item	A	B	C	D	F	G	H	I	J	K	K1
2S150-15	26	65	107	70	8	6.4	30.5	36.5	1/2"	46	27.5
2S200-20	26	75	115.4	82	8	6.4	34	40	3/4"	53	33.5
2S250-25	26	80	124	92	8	6.4	36	44.5	1"	59	40.5
2S320-32	38.8	-	154.3	125	-	-	-	-	1 1/4"	80	52
2S400-40	38.8	-	161.8	132	-	-	-	-	1 1/2"	90	58
2S500-50	38.8	-	176.8	150	-	-	-	-	2"	100	70