

2S Series (Direct-acting and normally closed)

Back
2S



Symbol



Product feature

1. Direct acting and normally closed type 2/2 way solenoid valve. Its high sensibility allows it to change direction quickly;
2. It has wide pressure range, including extra high pressure (X), high pressure (H), standard , large volume(L) and extra large volume (T) to choose from;
3. It is compact, small size and lightweight. It is easy to install and dismantle.
4. The valve body is made of SUS304 . Its coil has a Heat resistance classification of Class B. The standard seal material is FPM-F. Please contact us if other material are required.
5. The protection class of the coil is IP65 and there is a choice for grommet or terminal electrical entry .

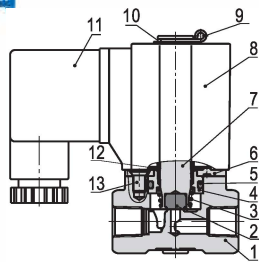
Valve's specification

Acting	Direct acting			
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

2S030 Terminal



No.	Item	No.	Item	No.	Item
1	Body	6	Wear ring	11	Connector
2	Airtight ring	7	Movable core	12	Washer
3	Spring	8	Coil	13	Screw
4	Fixed cap	9	E Clip		
5	O-ring	10	Gasket		

Specification

Type\Item	Port size①	Orifice size (Φmm)	Cv	Valid area or section(mm²)	Weight ②(g)	Max.operating pressure differentia		Proof pressure	
						MPa	psi	MPa	psi
2SX030	-06 1/8"	1.5	0.10	1.8	300	3.0	450	5.0	750
	-08 1/4"				295				
2SH030	-06 1/8"	2.0	0.18	3.0	300	2.0	300	5.0	750
	-08 1/4"				290				
2S030	-06 1/8"	3.0	0.33	6.0	300	1.0	150	5.0	750
	-08 1/4"				290				
2SL030	-06 1/8"	4.0	0.55	10.0	300	0.5	75	5.0	750
	-08 1/4"				290				
2ST030	-06 1/8"	6.0	1.10	12.0	300	0.1	15	5.0	750
	-08 1/4"				290				
2SX050	-10 3/8"	3.0	0.34	6.1	600	3.0	450	5.0	750
	-15 1/2"				590				
2SH050	-10 3/8"	4.0	0.55	10.0	600	2.0	300	5.0	750
	-15 1/2"				590				
2S050	-10 3/8"	5.0	0.83	15.0	600	1.0	150	5.0	750
	-15 1/2"				590				
2SL050	-10 3/8"	7.0	1.40	25.0	600	0.5	75	5.0	750
	-15 1/2"				590				
2ST050	-10 3/8"	10.0	2.20	40.0	600	0.1	15	5.0	750
	-15 1/2"				590				

① PT thread, NPT thread and G thread are available.
② The weight in the table is the terminal valve's weight, 2S030 series grommet valve's weight is 10g less than terminal's. 2S050series 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 (VA/W)	Insulation	Temp.rise(°C)		
2S□030	CDA116 CLA116	AC	50	± 15%	Terminal (CDA)	10.0VA	Class B	35		
			60			8.0VA		30		
2S□050	CDA170 CLA170	AC	50	± 15%		Grommet (CLA)		6.5W	Class B	30
			60					25.0VA		60
2S□050	CDA170 CLA170	DC	-	± 10%	Grommet (CLA)		22.0VA	Class B		55
			-				10.5W			40

Ordering code

2S L 030 08 A □ □

- Model**: 2S: 2/2 way direct-acting and normally closed
- Pressure condition**: X: Extra high pressure, H: High pressure, Blank: Standard, L: Large volume, T: Extra large volume
- Size series**: 030: 030 Series, 050: 050 Series
- Port size**: 030 Series: 06: 1/8", 08: 1/4"; 050 Series: 10: 3/8", 15: 1/2"
- 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

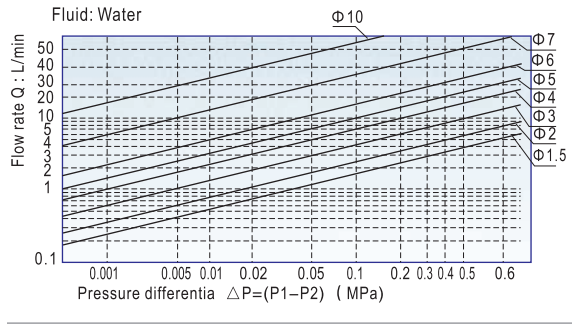
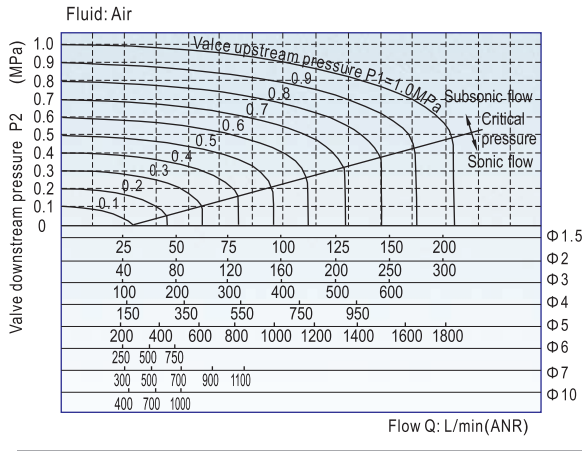
F-2S030 LB

- Accessories code**: F: Mounting accessories
- Accessories type**: LB: LB type
- Valve type**: 2S030: 030 Series body, 2S050: 050 Series body

Fluid control valve(2/2way)

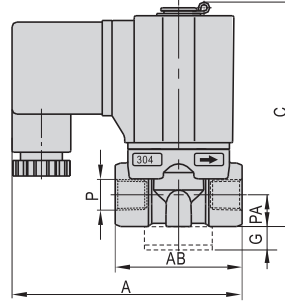
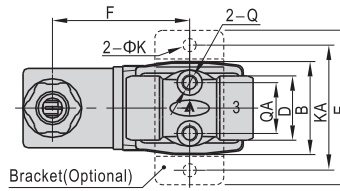
2S Series (Direct-acting and normally closed)

Flow Chart

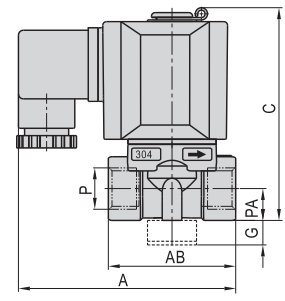
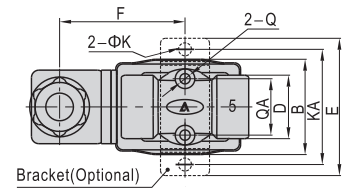


Dimensions

2S□030(Terminal)

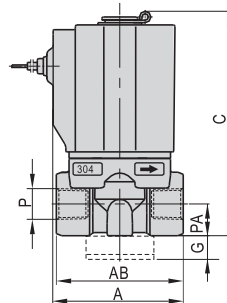
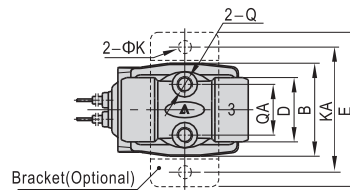


2S□050(Terminal)

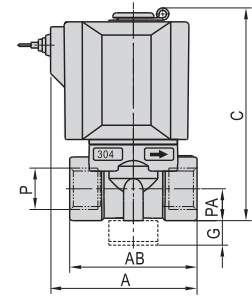
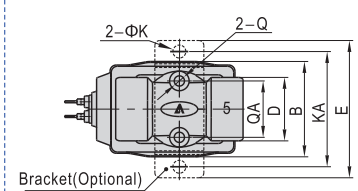


Type\Item	A	AB	B	C	D	E	F	G	K	KA	P	PA	Q	QA
2S□030-06	72.5	40	29.5	71	20	49	43.5	10	5.3	40	1/8"	10	M5	16
2S□030-08	72.5	40	29.5	71	20	49	43.5	10	5.3	40	1/4"	10	M5	16
2S□050-10	89.5	52	39	87	26	56	51	10	5.3	48	3/8"	13	M5	23
2S□050-15	89.5	52	39	87	26	56	51	10	5.3	48	1/2"	13	M5	23

2S□030(Grommet)



2S□050(Grommet)



Type\Item	A	AB	B	C	D	E	G	K	KA	P	PA	Q	QA
2S□030-06	41	40	29.5	71	20	49	10	5.3	40	1/8"	10	M5	16
2S□030-08	41	40	29.5	71	20	49	10	5.3	40	1/4"	10	M5	16
2S□050-10	60	52	39	87	26	56	10	5.3	48	3/8"	13	M5	23
2S□050-15	60	52	39	87	26	56	10	5.3	48	1/2"	13	M5	23



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2S

Fluid control valve(2/2way)

2S Series (Internally piloted and normally closed)



2S

Specification

Type\Item	Port size ^①	Orifice size (Φ mm)	Cv	Valid area or section(mm ²)	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. 2S320-5000series 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 CLA116	AC	50	± 15%	(Terminal) (CDA)	10.0VA	Class B	35		
2S200			60			8.0VA		30		
2S250		DC	-	± 10%		6.5W		30		
2S320	CDA170 CLA170	AC	50	± 15%		(Grommet) (CLA)		25.0VA	Class B	60
2S400			60					22.0VA		55
2S500		DC	-	± 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

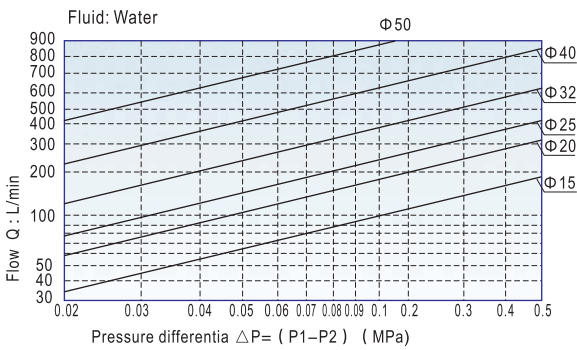
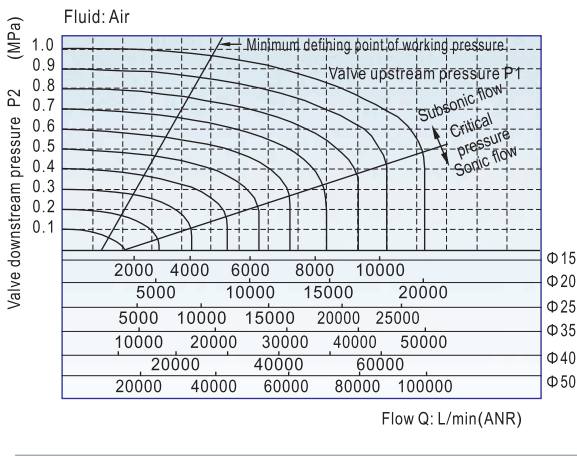
- Accessories code**: F: Mounting accessories
- Accessories type**: LB: LB type
- Valve type**:
 - 2S150: 150 Series body
 - 2S200: 200 Series body
 - 2S250: 250 Series body

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

Fluid control valve(2/2way)

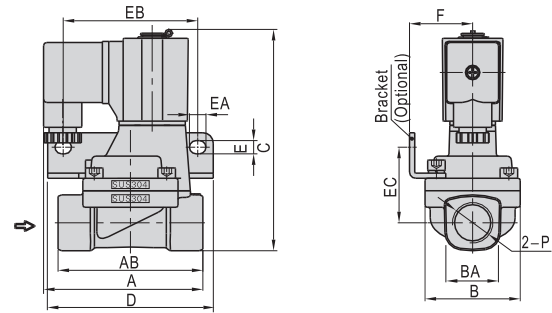
2S Series (Internally piloted and normally closed)

Flow chart

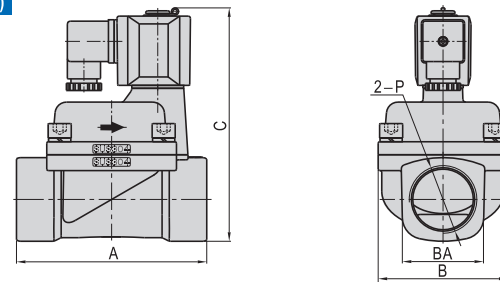


Dimensions

2S150-250(Terminal)

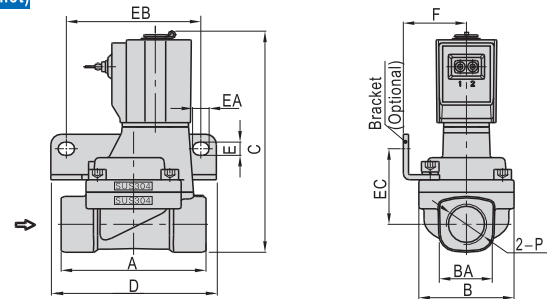


2S320-500(Terminal)

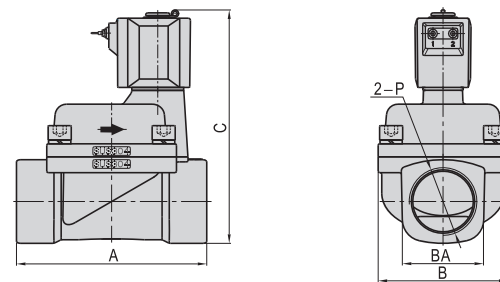


Type\Item	A	AB	B	BA	C	D	E	EA	EB	EC	F	P
2S150-15	77	70	46	27.5	107	80	6.4	8	65	36.5	30.5	1/2"
2S200-20	78.5	82	53	33.5	115.5	90	6.4	8	75	40	34	3/4"
2S250-25	81	92	59	40.5	124	95	6.4	8	80	44.5	36	1"
2S320-32	125	-	80	52	154.5	-	-	-	-	-	-	1 1/4"
2S400-40	132	-	90	58	162	-	-	-	-	-	-	1 1/2"
2S500-50	150	-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

2S150-250(Grommet)



2S320-500(Grommet)



Type\Item	A	B	BA	C	D	E	EA	EB	EC	F	P
2S150-15	70	46	27.5	107	80	6.4	8	65	36.5	30.5	1/2"
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"