

Fluid control valve(2/2way)

2SA Series (Direct-acting and normally closed)



Symbol



Product feature

1. Direct acting and normally closed type 2/2 way fluid 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);
3. It is compact, small size and light weight. Easy to install and dismantle.
4. The valve body is made of SUS304. Its coil has a Heat resistance classification of Class F. The standard seal material is FPM-F. Please contact us if other seal material are required.
5. The protection class of the coil is IP65 and there is a choice for grommet or terminal electrical entry.

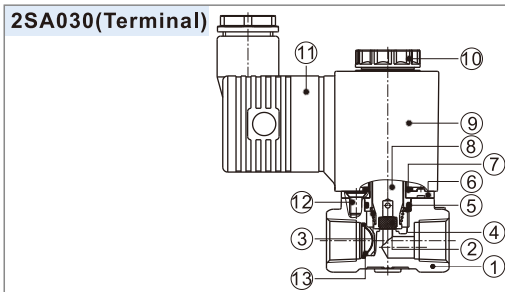
Specification

Model\Item	Port size [Note1]	Orifice size (Φmm)	Cv	Valid area or section (mm ²)	Weight [Note2](g)	Max.operating pressure differentia		Proof pressure		
						MPa	psi	MPa	psi	
2SAX030	-06	1/8"	1.5	0.10	1.8	245	3.0	450	5.0	750
	-08	1/4"				235				
2SAH030	-06	1/8"	2.0	0.18	3.0	245	2.0	300		
	-08	1/4"				235				
2SA030	-06	1/8"	3.0	0.33	6.0	245	1.0	150		
	-08	1/4"				235				
2SAL030	-06	1/8"	4.0	0.55	10.0	245	0.5	75		
	-08	1/4"				235				
2SAT030	-06	1/8"	6.0	1.10	12.0	245	0.1	15		
	-08	1/4"				235				
2SAX050	-10	3/8"	3.0	0.34	6.1	530	3.0	450		
	-15	1/2"				510				
2SAH050	-10	3/8"	4.0	0.55	10.0	530	2.0	300		
	-15	1/2"				510				
2SA050	-10	3/8"	5.0	0.83	15.0	530	1.0	150		
	-15	1/2"				510				
2SAL050	-10	3/8"	7.0	1.40	25.0	530	0.5	75		
	-15	1/2"				510				
2SAT050	-10	3/8"	10.0	2.20	40.0	530	0.1	15		
	-15	1/2"				510				

[Note1] PT thread, G thread and NPT thread are available.

[Note2] The weight in the table is the terminal valve's weight, 2SA030 series grommet valve's weight is 10g less than terminal's. 2SA050series grommet valve's weight is 20g less than terminal's.

Inner structure



No.	Item	No.	Item	No.	Item
1	Body	6	Fixed plate	11	Connector
2	Airtight ring	7	O-ring	12	Screw
3	Spring	8	Movable core	13	Filter [Note]
4	Steel bushing	9	Coil assembly		
5	O-ring	10	Coil nut		

[Note] Extra large volume type has no filter element.

Specification of coil

Valve type	Coil type	Power type	Frequency (Hz)	Voltage range	Electrical entry	Power Consumption (VA/W)	Insulation	Temp. rise(°C)
2SA□030	CDA110 CLA110	AC	50	±15%	Terminal (CDA)	10.0VA	Class F	50
			60			8.0VA		45
		DC	-	±10%		6.5W		50
2SA□050	CDA160 CLA160	AC	50	±15%	Grommet (CLA)	25.0VA	Class F	65
			60			22.0VA		60
		DC	-	±10%		12.0W		50

Valve's specification

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

[Note1] Dew point: -20(°C) or less ; [Note2] 50CST or less.

Ordering code

Ordering code of valves

2SA L 030 08 A □ □



① Model	② Pressure condition	③ Size series	④ Port size	⑤ Voltage	⑥ Electrical entry	⑦ Thread type
2SA: 2/2 way direct-acting and normally closed	X: Extra high pressure	030: 030 Series	06: 1/8"	A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V	Blank: Terminal I: Grommet[Note]	Blank: PT G: G T: NPT
	H: High pressure		08: 1/4"			
	Blank: Standard	050: 050 Series	10: 3/8"			
	L: Large volume		15: 1/2"			
	T: Extra large volume					

[Note] The wire length is 0.5m.

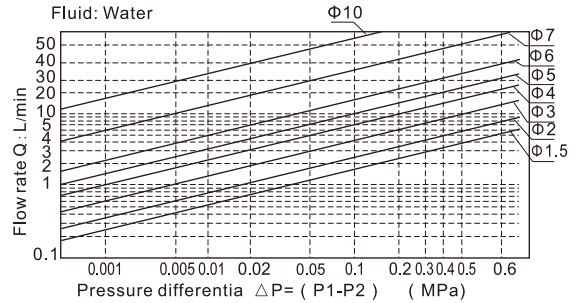
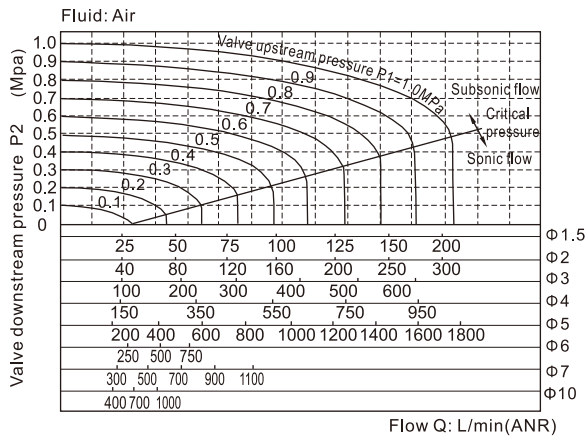
Ordering code of accessories

Ordering code of accessories is the same as 2WA series valve's. Please refer to P169 for details of ordering code.

Fluid control valve(2/2way)

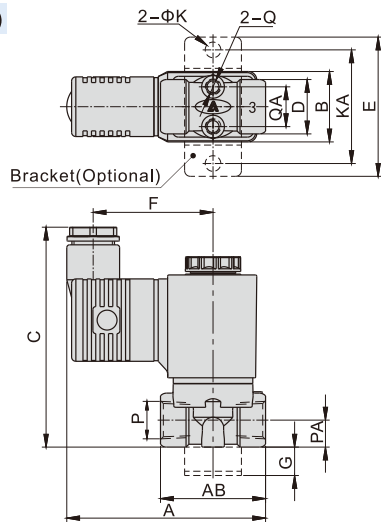
2SA Series (Direct-acting and normally closed)

Flow chart

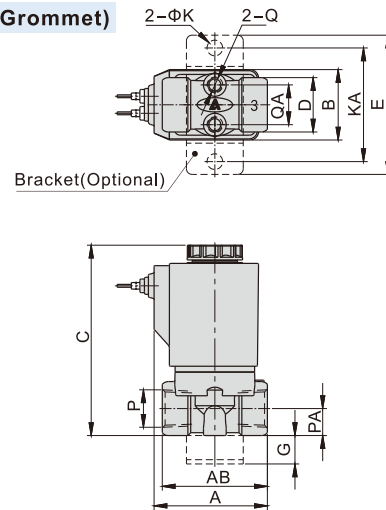


Dimensions

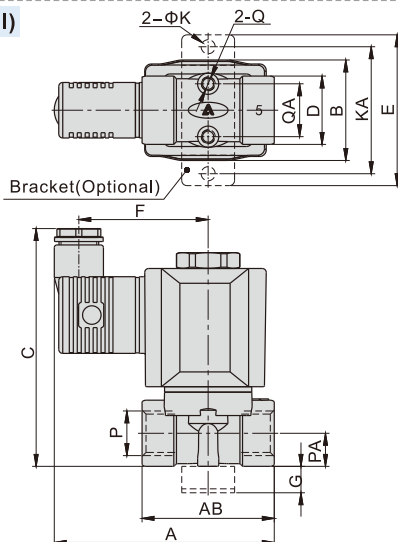
2SA□030 (Terminal)



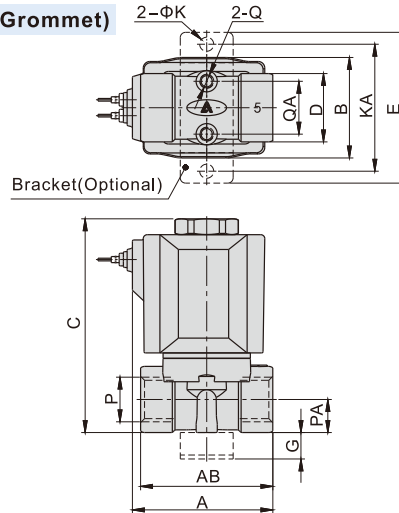
2SA□030(Grommet)



2SA□050 (Terminal)



2SA□050(Grommet)



Model/Item	A	AB	B	C	D	E	F	G	K	KA	P	PA	Q	QA
2SA□030-06	70	37	25	77.5	19	49	42	10	5.5	40	1/8"	9.5	M5	13.5
2SAT□030-06	71.5	39.5	25	77.5	19	49	42	10	5.5	40	1/8"	9.5	M5	13.5
2SA□030-08	70	37	25	77.5	19	49	42	10	5.5	40	1/4"	9.5	M5	13.5
2SAT□030-08	71.5	39.5	25	77.5	19	49	42	10	5.5	40	1/4"	9.5	M5	13.5
2SA□050-10	83	50	38	90	26	57	49	10	5.5	48	3/8"	12.5	M5	19.5
2SAT□050-10	84	51	38	90	26	57	49	10	5.5	48	3/8"	12.5	M5	19.5
2SA□050-15	83	50	38	90	26	57	49	10	5.5	48	1/2"	12.5	M5	19.5
2SAT□050-15	84	51	38	90	26	57	49	10	5.5	48	1/2"	12.5	M5	19.5

Model/Item	A	AB	B	C	D	E	G	K	KA	P	PA	Q	QA
2SA□030-06	40	37	25	67	19	49	10	5.5	40	1/8"	9.5	M5	13.5
2SAT□030-06	41.5	39.5	25	67	19	49	10	5.5	40	1/8"	9.5	M5	13.5
2SA□030-08	40	37	25	67	19	49	10	5.5	40	1/4"	9.5	M5	13.5
2SAT□030-08	41.5	39.5	25	67	19	49	10	5.5	40	1/4"	9.5	M5	13.5
2SA□050-10	53	50	38	81	26	57	10	5.5	48	3/8"	12.5	M5	19.5
2SAT□050-10	54	51	38	81	26	57	10	5.5	48	3/8"	12.5	M5	19.5
2SA□050-15	53	50	38	81	26	57	10	5.5	48	1/2"	12.5	M5	19.5
2SAT□050-15	54	51	38	81	26	57	10	5.5	48	1/2"	12.5	M5	19.5

Fluid control valve(2/2way)

2SA Series (Internally piloted and normally closed)



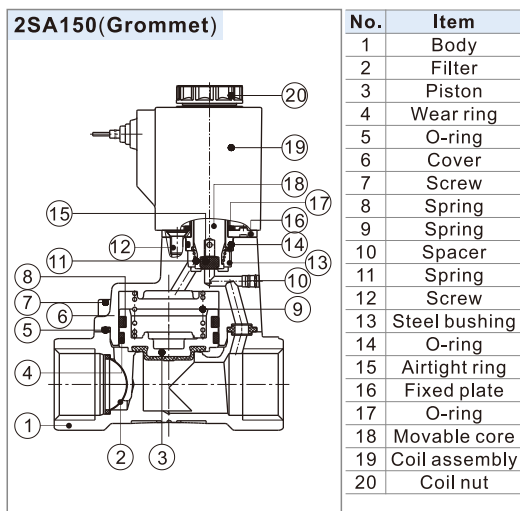
Symbol



Product feature

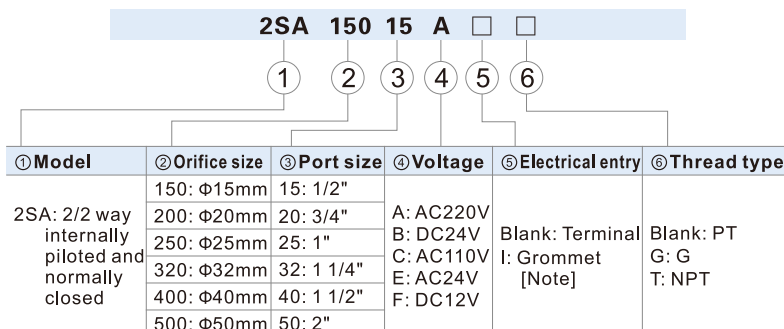
1. Indirect acting (Internal pilot) and normally closed type 2/2 way fluid valve. It can change direction quickly and has large flow.
2. It is compact, small and light weight. Easy to install and dismantle;
3. The valve body is made of SUS304. The coil has a Heat resistance classification of Class F. The standard seal material is FPM-F. Please contact us if other seal 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



Ordering code

Ordering code of valves



[Note] The wire length is 0.5m.

Specification

Model\Item	Port size [Note1]	Orifice size (Φmm)	Cv	Valid area or section (mm ²)	Weight [Note2](g)	Operating pressure differential		Proof pressure	
						MPa	psi	MPa	psi
2SA150-15	1/2"	15.0	5.50	100.0	575	Max:1.0 Min:0.05	Max:100 Min:10	1.5	220
2SA200-20	3/4"	20.0	9.50	170.0	735				
2SA250-25	1"	25.0	12.50	220.0	1035				
2SA320-32	1 1/4"	35.0	23.00	420.0	2288				
2SA400-40	1 1/2"	40.0	31.00	560.0	2678				
2SA500-50	2"	50.0	49.00	880.0	3558				

[Note1] PT thread, G thread and NPT thread are available.

[Note2] The weight in the table is the terminal valve's weight, Grommet valve's weight is 10g 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)
2SA150 2SA200 2SA250	CDA110 CLA110	AC	50	±15%	Terminal (CDA)	10.0VA	Class F	50
			60			8.0VA		45
		DC	-	±10%		6.5W		50
2SA320 2SA400 2SA500	CDA160 CLA160	AC	50	±15%	Grommet (CLA)	25.0VA		65
			60			22.0VA		60
		DC	-	±10%		12.0W	50	

Valve's specification

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

[Note1] Dew point: -20(°C) or less ; [Note2] 50CST or less.

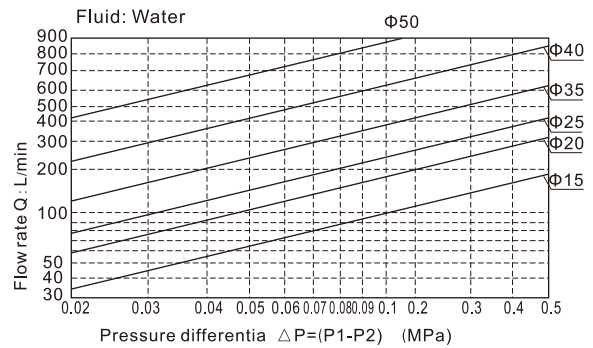
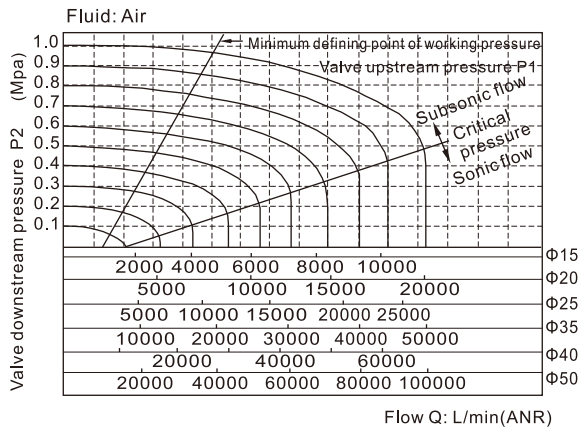
Ordering code of accessories

Ordering code of accessories is the same as 2WA series valve's, Please refer to P171 for details of ordering code.

Fluid control valve(2/2way)

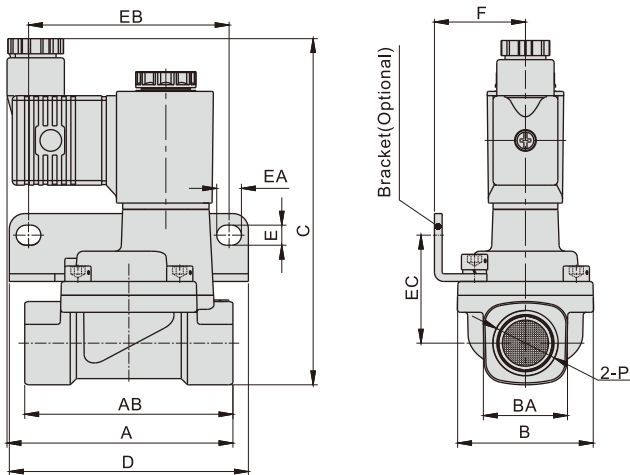
2SA Series (Internally piloted and normally closed)

Flow chart

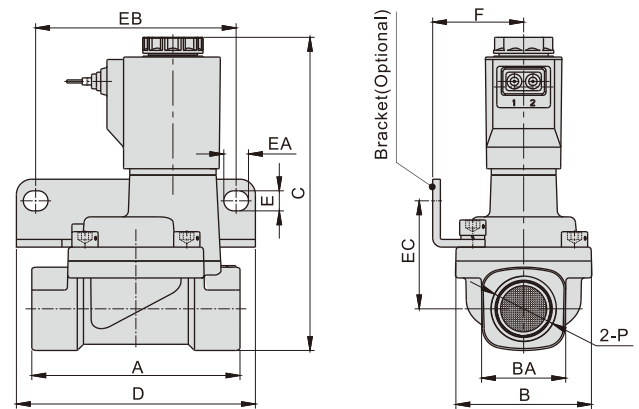


Dimensions

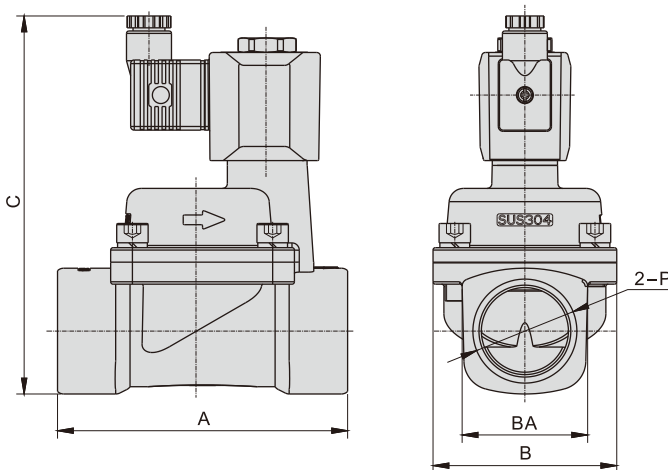
2SA150~250 (Terminal)



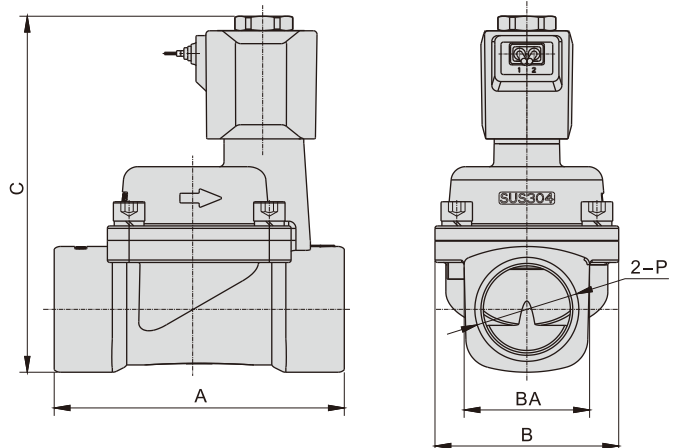
2SA150~250(Grommet)



2SA320~500 (Terminal)



2SA320~500(Grommet)



Model\Item	A	AB	B	BA	C	D	E	EA	EB	EC	F	P
2SA150-15	73.5	67.5	44	27.5	112	77.5	6.5	8	65	35	29.5	1/2"
2SA200-20	75.5	79.5	51	33.5	119	87.5	6.5	8	75	38	33	3/4"
2SA250-25	77.5	90	57	40.5	126	93	6.5	8	80	42	35	1"
2SA320-32	120	-	76	52	156	-	-	-	-	-	-	1 1/4"
2SA400-40	126	-	86	58	166	-	-	-	-	-	-	1 1/2"
2SA500-50	144	-	96	70	177	-	-	-	-	-	-	2"

Model\Item	A	B	BA	C	D	E	EA	EB	EC	F	P
2SA150-15	67.5	44	27.5	102	77.5	6.5	8	65	35	29.5	1/2"
2SA200-20	79.5	51	33.5	109	87.5	6.5	8	75	38	33	3/4"
2SA250-25	90	57	40.5	116	93	6.5	8	80	42	35	1"
2SA320-32	120	76	52	147	-	-	-	-	-	-	1 1/4"
2SA400-40	126	86	58	155	-	-	-	-	-	-	1 1/2"
2SA500-50	144	96	70	170	-	-	-	-	-	-	2"