

Fluid control valve(2/2way)



2KSA Series (Direct-acting and normally opened)



Ordering code

Ordering code of valves

2KSA H 030 08 A □ T

① ② ③ ④ ⑤ ⑥ ⑦

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

[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 P178 for details of ordering code.

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
2KSAX030	-06 1/8"	1.5	0.10	1.8	245	2.0	300	3.0	450
	-08 1/4"								
2KSAH030	-06 1/8"	2.0	0.18	3.0	245	1.5	220		
	-08 1/4"								
2KSA030	-06 1/8"	3.0	0.33	6.0	245	0.7	100		
	-08 1/4"								
2KSAL030	-06 1/8"	4.0	0.55	10.0	245	0.4	60		
	-08 1/4"								
2KSAX050	-10 3/8"	3.0	0.34	6.1	530	2.0	300		
	-15 1/2"								
2KSAH050	-10 3/8"	4.0	0.55	10.0	530	1.5	220		
	-15 1/2"								
2KSA050	-10 3/8"	5.0	0.83	15.0	530	0.7	100		
	-15 1/2"							510	
2KSAL050	-10 3/8"	7.0	1.40	25.0	530	0.4	60		
	-15 1/2"							510	

[Note1] NPT thread is available.

[Note2] The weight in the table is the terminal valve's weight, 2KSA030 series grommet valve's weight is 10g less than terminal's. 2KSA050series grommet valve's weight is 20g less than terminal's.



Fluid control valve(2/2way)

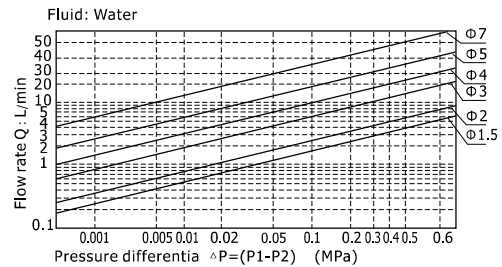
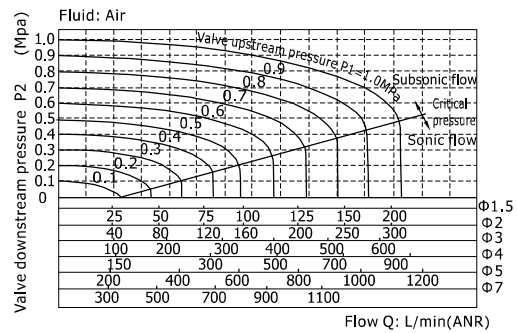


2KSA Series (Direct-acting and normally opened)

Product feature

1. Direct acting and normally opened 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 and large volume(L);
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 .

Flow chart



Valve's specification

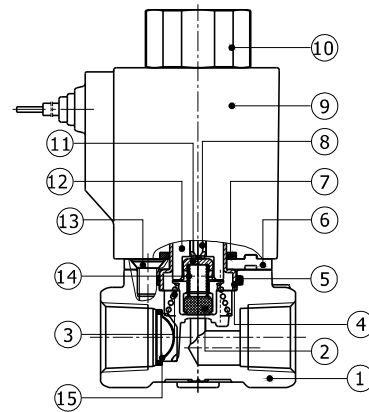
Acting		Direct acting			
Initial state		Normally opened			
Adaptable fluid		Air, Water, Oil			
Viscosity limit		Under 20CST			
Ambient and fluid temperature(°C)		Water	Air	Oil	Ambient
	Max.	80	90	80	70
	Min.	1	-20 [Note1]	-10 [Note2]	-20

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

Inner structure

2KSA030(Terminal)

No.	Item	No.	Item	No.	Item
1	Body	6	Fixed plate	11	Airtight bush
2	Airtight ring	7	O-ring	12	Electromagnet
3	Spring	8	Mandril	13	Screw
4	Coil axis	9	Coil assembly	14	Spring
5	O-ring	10	Coil nut	15	Filter



Specification of coil

Valve type	Coil type	Power type	Frequency (Hz)	Voltage range	Electrical entry	Power Consumption (VA/W)	Insulation	Temp. rise(°C)		
2KSA□030	CDA110K CLA110K	AC	50	±15%	Terminal (CDA)	15.0VA	Class F	50		
			60			11.0VA		40		
		DC	-	6.5W		30				
2KSA□050	CDA160K CLA160K	AC	50	±15%		Grommet (CLA)		35.0VA	Class F	65
			60					30.0VA		60
		DC	-	12.0W				40		



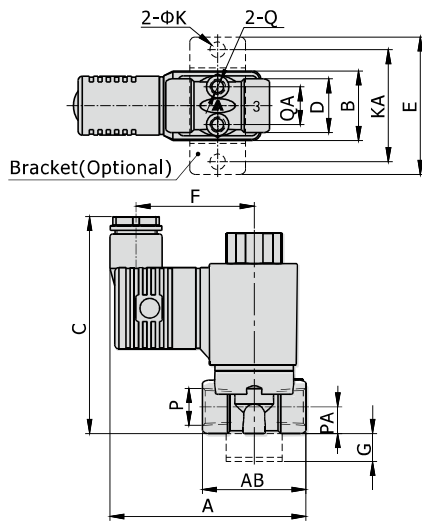
Fluid control valve(2/2way)



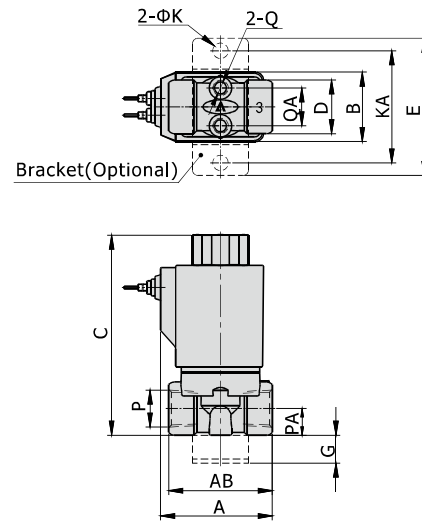
2KSA Series (Direct-acting and normally opened)

Dimensions

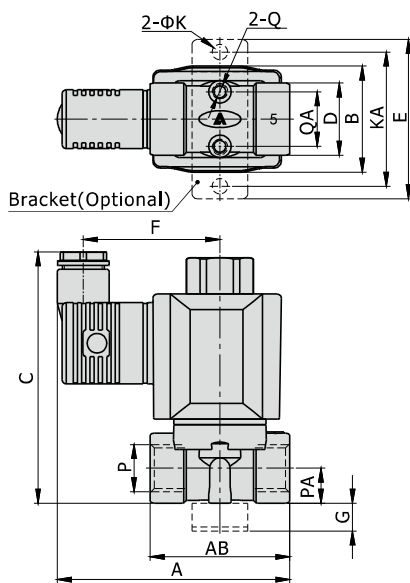
2KSA□030 (Terminal)



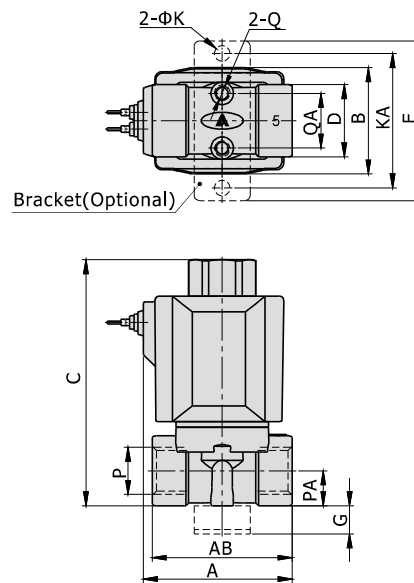
2KSA□030(Grommet)



2KSA□050 (Terminal)



2KSA□050(Grommet)



Model\Item	A	AB	B	C	D	E	F	G	K	KA	P	PA	Q	QA
2KSA□030-06	70	37	25	77.5	19	49	42	10	5.5	40	1/8"	9.5	M5	13.5
2KSA□030-08	70	37	25	77.5	19	49	42	10	5.5	40	1/4"	9.5	M5	13.5
2KSA□050-10	83	50	38	90	26	57	49	10	5.5	48	3/8"	12.5	M5	19.5
2KSA□050-15	83	50	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
2KSA□030-06	40	37	25	74	19	49	10	5.5	40	1/8"	9.5	M5	13.5
2KSA□030-08	40	37	25	74	19	49	10	5.5	40	1/4"	9.5	M5	13.5
2KSA□050-10	53	50	38	90	26	57	10	5.5	48	3/8"	12.5	M5	19.5
2KSA□050-15	53	50	38	90	26	57	10	5.5	48	1/2"	12.5	M5	19.5



Fluid control valve(2/2way)



2KSA Series (Internally piloted and normally opened)



Ordering code

Ordering code of valves

2KSA 150 15 A □ T

① ② ③ ④ ⑤ ⑥

① Model	② Orifice size	③ Port size	④ Voltage	⑤ Electrical entry	⑥ Thread type
2KSA: 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 [Note]	T: NPT
	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"			

[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 P181 for details of ordering code.

Model\Item	Port size [Note1]	Orifice size (Φmm)	Cv	Valid area or section (mm ²)	Weight [Note2](g)	Operating pressure differentia		Proof pressure	
						MPa	psi	MPa	psi
2KSA150-15	1/2"	15.0	5.50	100.0	575	Max: 0.7 Min: 0.05	Max: 100 Min: 10	1.5	220
2KSA200-20	3/4"	20.0	9.50	170.0	735				
2KSA250-25	1"	25.0	12.50	220.0	1035				
2KSA320-32	1 1/4"	35.0	23.00	420.0	2288				
2KSA400-40	1 1/2"	40.0	31.00	560.0	2678				
2KSA500-50	2"	50.0	49.00	880.0	3558				

[Note1] NPT thread is available.

[Note2] The weight in the table is the terminal valve's weight,
Grommet valve's weight is 10g less than terminal's.



Fluid control valve(2/2way)



2KSA Series (Internally piloted and normally opened)

Product feature

1. Indirect acting (Internal pilot) and normally opened type 2/2 way fluid valve. Its 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 .

Valve's specification

Acting		Direct acting			
Initial state		Normally opened			
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

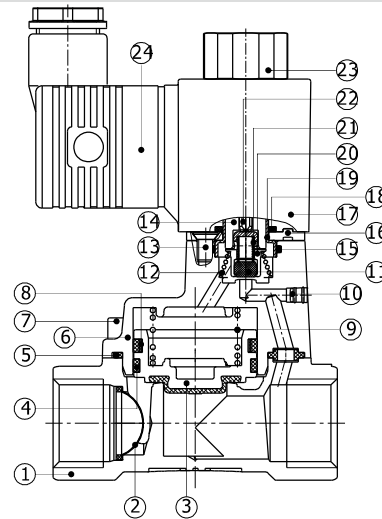
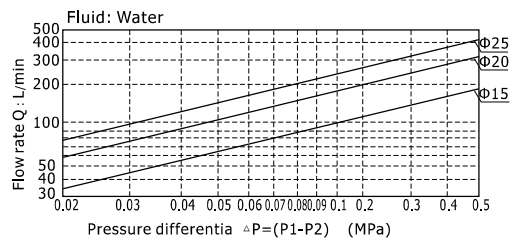
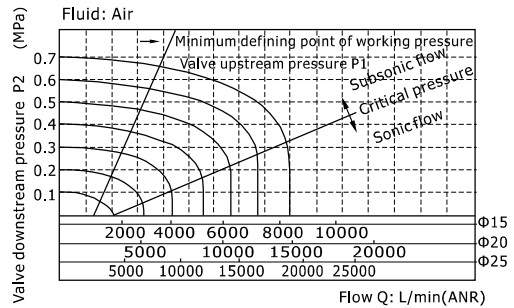
[Note1] Dew point: -20(°C) or less. [Note2] 50CST or less.

Inner structure

2KSA150(Terminal)

No.	Item	No.	Item	No.	Item
1	Body	9	Spring	17	Coil assembly
2	Filter	10	Plug	18	O-ring
3	Piston	11	Airtight ring	19	Coil axis
4	Wear ring	12	Spring	20	Airtight ring
5	O-ring	13	Screw	21	Spring
6	Cover	14	Movable core	22	Mandril
7	Screw	15	O-ring	23	Coil nut
8	Spring	16	Fixed plate	24	Connector

Flow chart



Specification of coil

Valve type	Coil type	Power type	Frequency (Hz)	Voltage range	Electrical entry	Power Consumption (VA/W)	Insulation	Temp. rise(°C)
2KSA150 2KSA200 2KSA250	CDA110K CLA110K	AC	50	±15%	Terminal(CDA) Grommet(CLA)	15.0VA	Class F	50
			60			11.0VA		45
		DC	-	±10%		6.5W	50	
2KSA320 2KSA400 2KSA500	CDA160K CLA160K	AC	50	±15%		35.0VA	Class F	65
			60			30.0VA		60
		DC	-	±10%		12.0W	50	



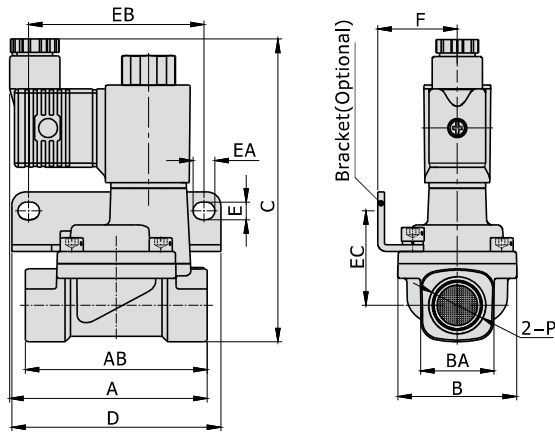
Fluid control valve(2/2way)



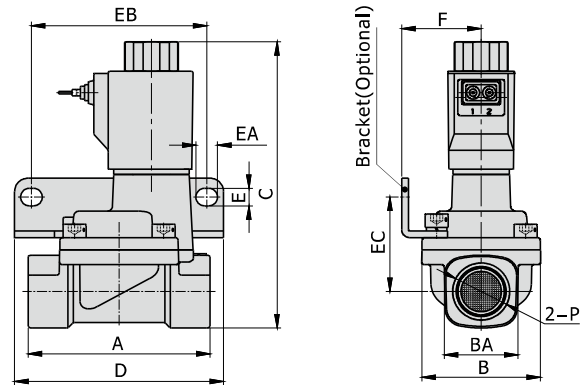
2KSA Series (Internally piloted and normally opened)

Dimensions

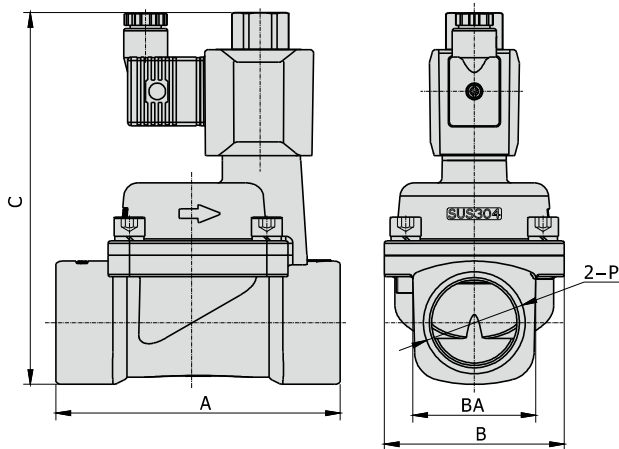
2KSA150~250Terminal



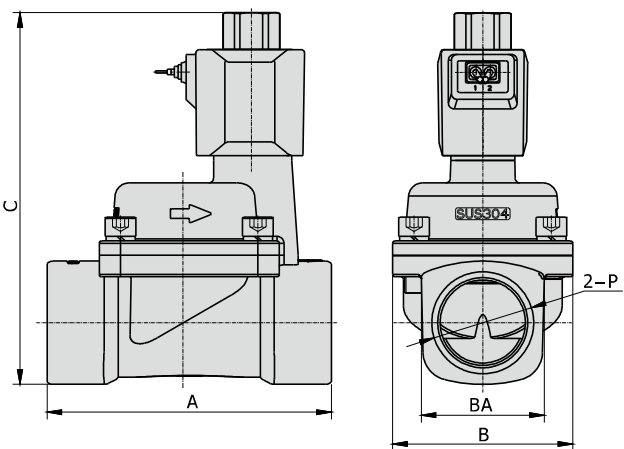
2KSA150~250Grommet



2KSA320~500Terminal



2KSA320~500Grommet



Model\Item	A	AB	B	BA	C	D	E	EA	EB	EC	F	P
2KSA150-15	73.5	67.5	44	27.5	112	77.5	6.5	8	65	35	29.5	1/2"
2KSA200-20	75.5	79.5	51	33.5	119	87.5	6.5	8	75	38	33	3/4"
2KSA250-25	77.5	90	57	40.5	126	93	6.5	8	80	42	35	1"
2KSA320-32	120	-	76	52	165.5	-	-	-	-	-	-	1 1/4"
2KSA400-40	126	-	86	58	175.5	-	-	-	-	-	-	1 1/2"
2KSA500-50	144	-	96	70	186.5	-	-	-	-	-	-	2"

Model\Item	A	B	BA	C	D	E	EA	EB	EC	F	P
2KSA150-15	67.5	44	27.5	109	77.5	6.5	8	65	35	29.5	1/2"
2KSA200-20	79.5	51	33.5	116	87.5	6.5	8	75	38	33	3/4"
2KSA250-25	90	57	40.5	123	93	6.5	8	80	42	35	1"
2KSA320-32	120	76	52	156.5	-	-	-	-	-	-	1 1/4"
2KSA400-40	126	86	58	164.5	-	-	-	-	-	-	1 1/2"
2KSA500-50	144	96	70	179.5	-	-	-	-	-	-	2"



Fluid control valve

Coil and accessories



Ordering code

Ordering code of coil

CD A110 A □

① ② ③ ④

① Coil type	② Coil's bore	③ Voltage	④ Temperature resistance class
CD: Terminal CL: Grommet	A110: Coil Specification (Bore sizeΦ10.0mm) A160: Coil Specification (Bore sizeΦ16.0mm)	A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V	Blank: F Class H: H Class

Specification

Model\Item	Power type	Voltage (V)	Frequency (Hz)	Voltage range	Electrical entry	Power Consumption (VA/W)		Insulation	Temp.rise (°C)			
						For NC	For NO		NC	NO		
110 Series	AC	220	50	± 15%	DIN Terminal Grommet	10.0VA	15.0VA	Class F	35	50		
			60			8.0VA	11.0VA		30	40		
		110	50			10.0VA	15.0VA		35	50		
			60			8.0VA	11.0VA		30	40		
		24	50			10.0VA	15.0VA		35	50		
			60			8.0VA	11.0VA		30	40		
	DC	24	-	± 10%	6.5W		30		30			
		12										
160 Series	AC	220	50	± 15%	DIN Terminal Grommet	25.0VA	35.0VA	Class F	60	65		
			60			22.0VA	30.0VA		55	60		
		110	50			25.0VA	35.0VA		60	65		
			60			22.0VA	30.0VA		55	60		
		24	50			25.0VA	35.0VA		60	65		
			60			22.0VA	30.0VA		55	60		
		DC	24			-	± 10%		12.0W		40	40
			12									



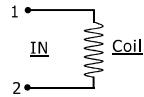
Fluid control valve



Coil and accessories

Hookup

Coil's type		Hookup
110 Series	CDA110 (Terminal)	AC
		DC
	CLA110 (Grommet)	AC
		DC
160 Series	CDA160 (Terminal)	AC
		DC
	CLA160 (Grommet)	AC
		DC



How to select coil

Valve type\Coil type		110Series		160 Series	
		Class F	Class H	Class F	Class H
2SA□030	2KSA□030	●	×	×	×
2SA□050	2KSA□050	×	×	●	×
2SA150~250	2KSA150~250	●	×	×	×
2WA□030	2KWA□030	●	×	×	×
2WA□050	2KWA□050	×	×	●	×
2WA150~250	2KWA150~250	●	×	×	×

How to select accessories

Valve type\ Accessories type	F-2WA030LB	F-2WA050LB	F-2WA150LB	F-2WA200LB	F-2WA250LB
2SA□030 2KSA□030	●	×	×	×	×
2SA□050 2KSA□050	×	●	×	×	×
2SA150 2KSA150	×	×	●	×	×
2SA200 2KSA200	×	×	×	●	×
2SA250 2KSA250	×	×	×	×	●
2WA□030 2KWA□030	●	×	×	×	×
2WA□050 2KWA□050	×	●	×	×	×
2WA150 2KWA150	×	×	●	×	×
2WA200 2KWA200	×	×	×	●	×
2WA250 2KWA250	×	×	×	×	●

How to use connector

