



Fluid control valve(2/2way)

Product series

2S Series(Direct-acting and normally closed) 100



2S Series(Internally piloted and normally closed) 102



2KS Series(Direct-acting and normally opened) 104



Fluid valve

2KS Series(Internally piloted and normally opened) 106



2W Series(Direct-acting and normally closed) 108



2W Series(Internally piloted and normally closed) 110



2KW Series(Direct-acting and normally opened) 112



2KW Series(Internally piloted and normally opened) 114



2L Series(Direct-acting and normally closed) 116



2L Series(Internally piloted and normally closed) 118



2KL Series(Direct-acting and normally opened) 120



2KL Series(Internally piloted and normally opened) 122



2V Series 126



2P Series 128



2J Series 129



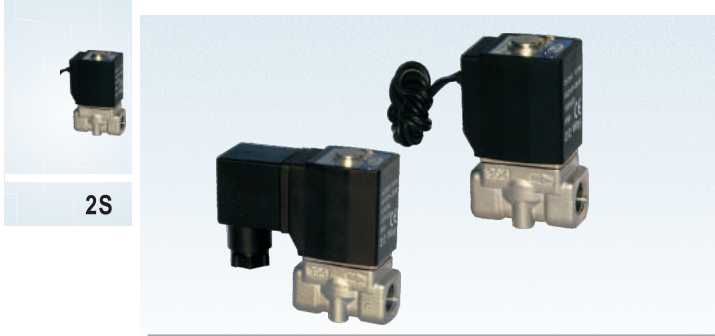
Installation and Application

1. Before installing, be sure the valve hasn't been damaged via transportation.
2. It's suggested to use the medium lubricated by 40 μ m filter element. Be aware of the flow direction and port size.
3. Please notice whether the installation condition accords with technical requirements (such as "voltage", "actuation frequency", "working pressure" and "scope of application temperature"), then the equipment can be installed and used.
4. Take measure to avoid vibration and frozen.
5. Before using the fittings and tubes make sure they are clean. When connecting to fittings, be sure the PTFE Thread Seal Tape is used correctly.
6. To keep the dust away, Default paragraph font; Never forget to install dirt-proof boot in air intake and outlet during dismounting.

Fluid control valve(2/2way)

2S Series (Direct-acting and normally closed)

AIRTAC



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 light weight. 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

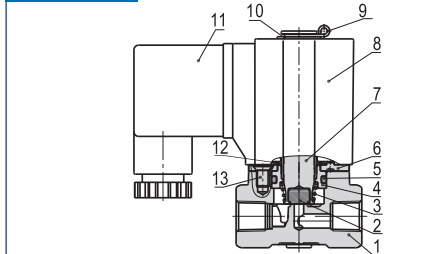
Acting	Direct acting				
Initial stats	Normally closed				
Adaptable fluid ①	Air, Water, Oil				
Viscosity limit	Under 20CST				
Ambient and fluid temperature(°C)		Water	Air	Oil	Ambient
	Max.	80	90	80	70
	Min.	1	-20 ②	-10 ③	-20

① Note: Please refer to P125 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 (Φ mm)	Cv	Valid area or section(mm²)	Weight ②(g)	Max. operating pressure differential		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		
	—08 1/4"				290				
2S030	—06 1/8"	3.0	0.33	6.0	300	1.0	150		
	—08 1/4"				290				
2SL030	—06 1/8"	4.0	0.55	10.0	300	0.5	75		
	—08 1/4"				290				
2ST030	—06 1/8"	6.0	1.10	12.0	300	0.1	15		
	—08 1/4"				290				
2SX050	—10 3/8"	3.0	0.34	6.1	600	3.0	450		
	—15 1/2"				590				
2SH050	—10 3/8"	4.0	0.55	10.0	600	2.0	300		
	—15 1/2"				590				
2S050	—10 3/8"	5.0	0.83	15.0	600	1.0	150		
	—15 1/2"				590				
2SL050	—10 3/8"	7.0	1.40	25.0	600	0.5	75		
	—15 1/2"				590				
2ST050	—10 3/8"	10.0	2.20	40.0	600	0.1	15		
	—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) Grommet (CLA)	10.0VA	Class B	35
			60			8.0VA		30
		DC	—	± 10 %		6.5W		30
2S□050	CDA170 CLA170	AC	50	± 15 %		25.0VA		60
			60			22.0VA		55
		DC	—	± 10 %		10.5W		40

Ordering code

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

Ordering code of accessories

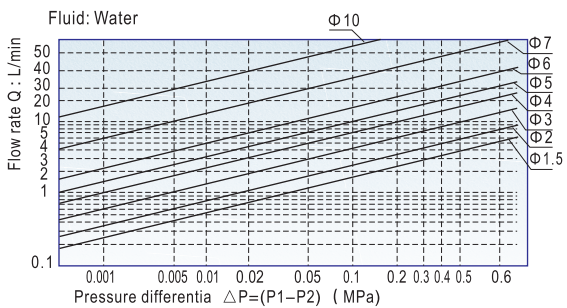
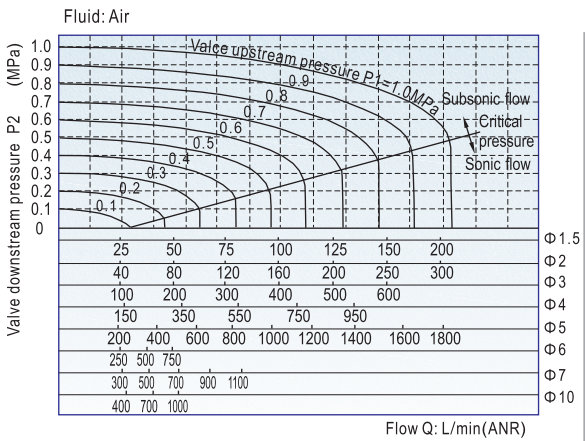
F-2S030-P1									
Accessories code				Accessories type					
F: Mounting accessories				P1: LB type					
Valve type									
2S030: 030 Series body 2S050: 050 Series body									

Fluid control valve(2/2way)

2S Series (Direct-acting and normally closed)

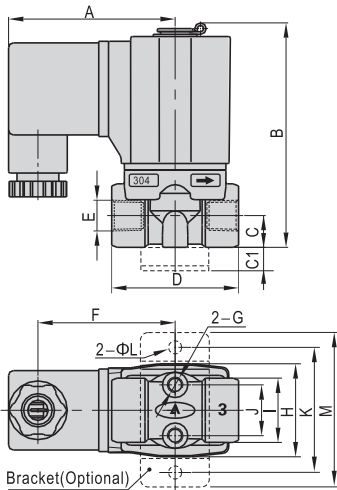


Flow Chart

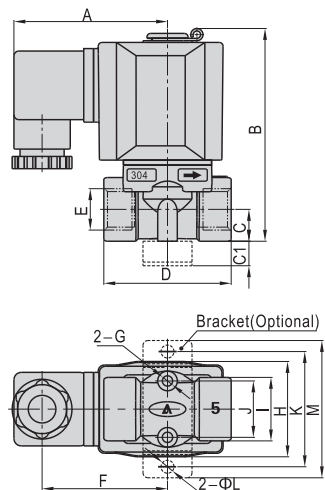


Dimensions

2S□030(Terminal)

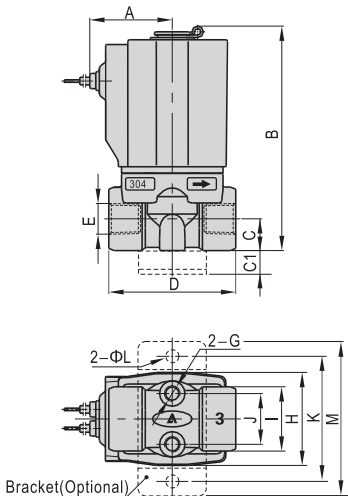


2S□050(Terminal)

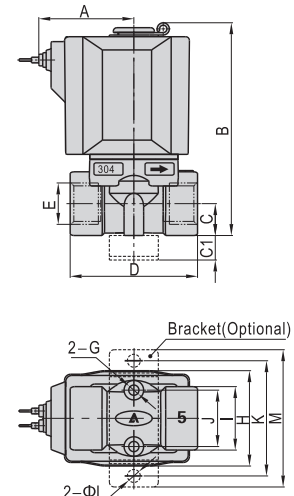


Type\Item	A	B	C	C1	D	E	F	G	H	I	J	K	L	M
2S□030-06	52.5	70.7	10	10	40	1/8"	43.3	M5	29.3	20.2	16	40	5.3	49
2S□030-08	52.5	70.7	10	10	40	1/4"	43.3	M5	29.3	20.2	16	40	5.3	49
2S□050-10	62.7	87	13	10	52	3/8"	51.2	M5	39	26	23	48	5.3	56
2S□050-15	62.7	87	13	10	52	1/2"	51.2	M5	39	26	23	48	5.3	56

2S□030(Grommet)



2S□050(Grommet)



Type\Item	A	B	C	C1	D	E	G	H	I	J	K	L	M
2S□030-06	26	70.7	10	10	40	1/8"	M5	29.3	20.2	16	40	5.3	49
2S□030-08	26	70.7	10	10	40	1/4"	M5	29.3	20.2	16	40	5.3	49
2S□050-10	39	87	13	10	52	3/8"	M5	39	26	23	48	5.3	56
2S□050-15	39	87	13	10	52	1/2"	M5	39	26	23	48	5.3	56

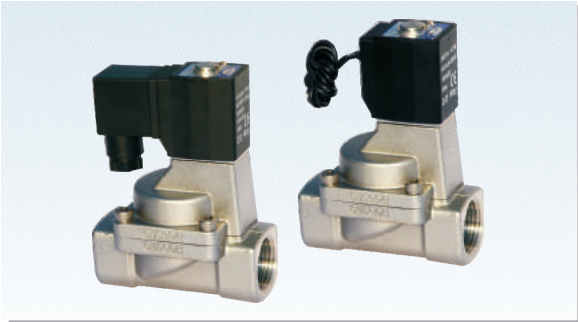


2S

Fluid control valve(2/2way)

2S Series (Internally piloted and normally closed)

AIRTAC



Specification

Type\Item	Port size ①	Orifice size (Φ mm)	Cv	Valid area or section (mm²)	Weight (2) (g)	Max. operating pressure differentialia		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. 2S320~500 series 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

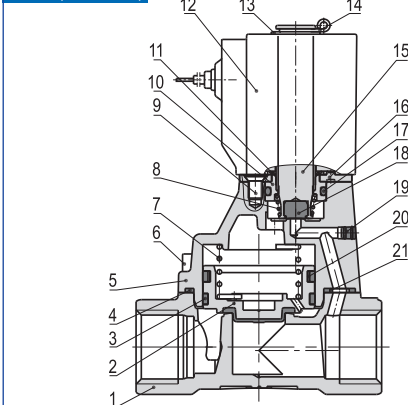
Acting	Internally piloted				
Initial stats	Normally closed				
Adaptable fluid ①	Air, Water, Oil				
Viscosity limit	Under 20CST				
Ambient and fluid temperature(°C)		Water	Air	Oil	Ambient
	Max.	80	90	80	70
	Min.	1	-20 ②	-10 ③	-20

① Note: Please refer to P125 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	± 10%		8.0VA		30
2S250		DC	—	± 10%	(Grommet) (CLA)	6.5W		30
2S320	CDA170	AC	50	± 15%		25.0VA		60
2S400	CLA170	DC	60	± 10%		22.0VA		55
2S500		DC	—	± 10%		10.5W		40

Ordering code

2S 150 15 A □ P			
Model		Thread type	
2S: 2/2 way internally piloted and normally closed		P: PT T: NPT G: G	
Orifice size		Electrical entry	
150: Φ15mm 200: Φ20mm 250: Φ25mm 320: Φ32mm 400: Φ40mm 500: Φ50mm		Blank: Terminal I: Grommet	
Port size		Voltage	
Orifice series Port size 150: Φ15mm 15: 1/2" 200: Φ20mm 20: 3/4" 250: Φ25mm 25: 1" 320: Φ32mm 32: 1 1/4" 400: Φ40mm 40: 1 1/2" 500: Φ50mm 50: 2"		A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V	

Ordering code of accessories

F-2S150-P1			
Accessories code		Accessories type	
F: Mounting accessories		P1: LB type	
Valve type			
2S150: 150 Series body 2S200: 200 Series body 2S250: 250 Series body			

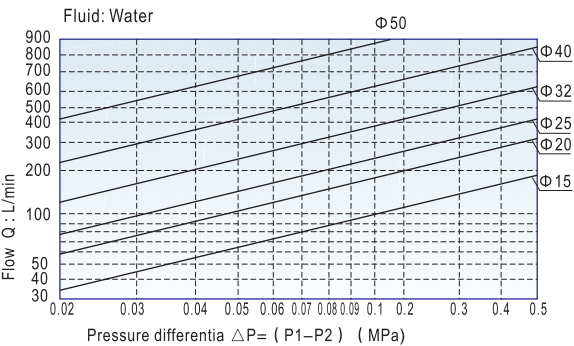
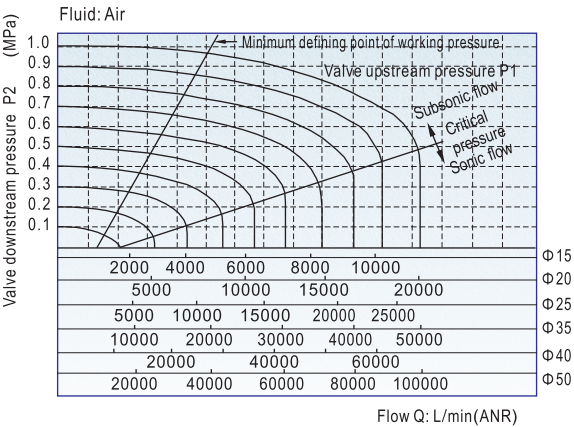
Note: 320\400\500 series valves do not have mounting accessories.

Fluid control valve(2/2way)

2S Series (Internally piloted and normally closed)

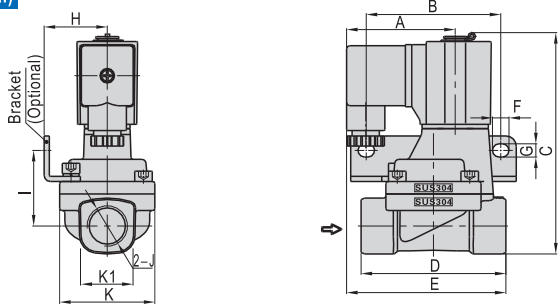


Flow chart

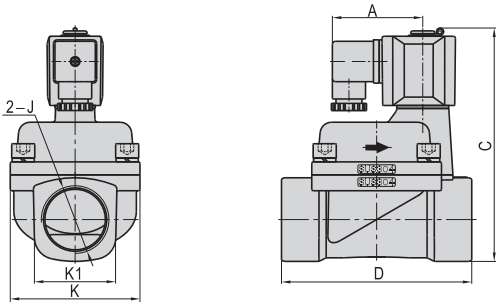


Dimensions

2S150~250(Terminal)

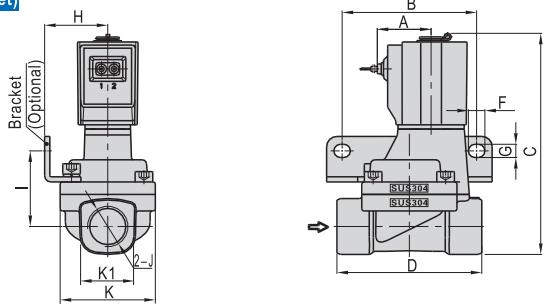


2S320~500(Terminal)

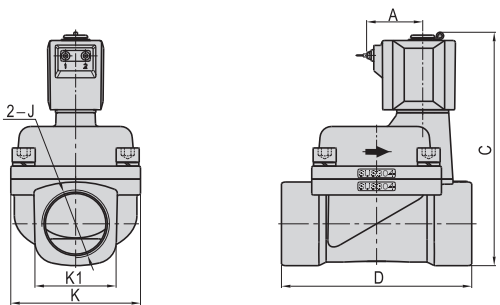


Type\Item	A	B	C	D	E	F	G	H	I	J	K	K1
2S150-15	52.5	65	107	70	77	8	6.4	30.5	36.5	1/2"	46	27.5
2S200-20	52.5	75	115.4	82	78.5	8	6.4	34	40	3/4"	53	33.5
2S250-25	52.5	80	124	92	81	8	6.4	36	44.5	1"	59	40.5
2S320-32	62.7	-	154.3	125	-	-	-	-	-	1 1/4"	80	52
2S400-40	62.7	-	161.8	132	-	-	-	-	-	1 1/2"	90	58
2S500-50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

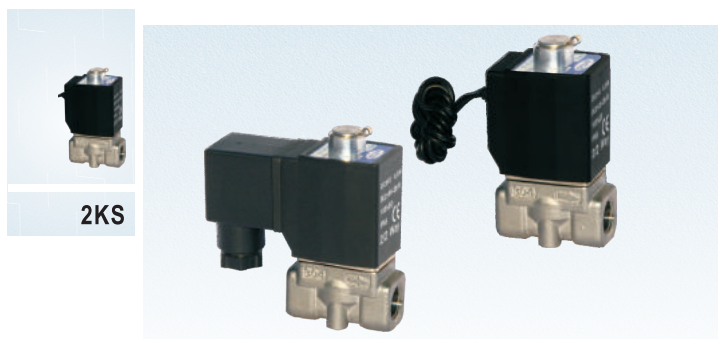


2S

Fluid control valve(2/2way)

2KS Series (Direct-acting and normally opened)

AIRTAC



Symbol



Product feature

1. Direct acting and normally opened 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 and large volume(L) to choose from;
3. It is compact, small size and light weight. 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

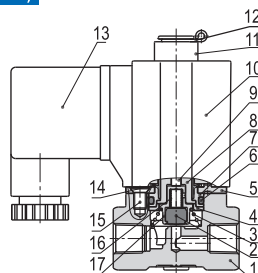
Acting	Direct acting				
Initial stats	Normally closed				
Adaptable fluid ①	Air, Water, Oil				
Viscosity limit	Under 20CST				
Ambient and fluid temperature(°C)	Max.	Water 80	Air 90	Oil 80	Ambient 70
	Min.	1	-20 ②	-10 ③	-20

① Note: Please refer to P125 for detail of other's fluid.

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

Inner structure

2KS030(Terminal)



No.	Item	No.	Item	No.	Item
1	Body	7	Fixed cap	13	Connector
2	Airtight ring	8	Electromagnet	14	Washer
3	Spring	9	Man drill	15	Screw
4	Bead flange	10	Coil assembly	16	Spring
5	Fixed plate	11	Position ring	17	Airtight bush
6	O-ring	12	E Clip		

Specification

Type\Item	Port size ①	Orifice size (Φmm)	Cv	Valid area or section(mm²)	Weight ② (g)	Max.operating pressure differential		Proof pressure	
						MPa	psi	MPa	psi
2KSX030	-06 1/8"	1.5	0.10	1.8	305	2.0	300	3.0	450
	-08 1/4"				295				
2KSH030	-06 1/8"	2.0	0.18	3.0	305	1.5	220		
	-08 1/4"				295				
2KS030	-06 1/8"	3.0	0.33	6.0	305	0.7	100		
	-08 1/4"				295				
2KSL030	-06 1/8"	4.0	0.55	10.0	305	0.4	60		
	-08 1/4"				295				
2KSX050	-10 3/8"	3.0	0.34	6.1	610	2.0	300		
	-15 1/2"				600				
2KSH050	-10 3/8"	4.0	0.55	10.0	610	1.5	220		
	-15 1/2"				600				
2KS050	-10 3/8"	5.0	0.83	15.0	610	0.7	100		
	-15 1/2"				600				
2KSL050	-10 3/8"	7.0	1.40	25.0	610	0.4	60		
	-15 1/2"				600				

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

② The weight in the table is the terminal valve's weight, 2KS030 series grommet valve's weight is 10g less than terminal's. 2KS050 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 (VA/W)	Insulation	Temp. rise(°C)
2KS□030	CDA116 CLA116	AC	50	± 15 %	(Terminal) (CDA)	15.0VA	Class B	50
			60			11.0VA		40
		DC	—	± 10 %	(Grommet) (CLA)	6.5W		30
			—			35.0VA		65
2KS□050	CDA170 CLA170	AC	50	± 15 %	(Terminal) (CDA)	30.0VA		60
			60			10.5W		40
		DC	—	± 10 %	(Grommet) (CLA)	30.0VA		60
			—			10.5W		40

Ordering code

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

Ordering code of accessories

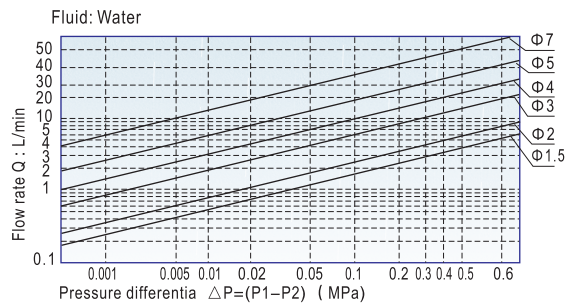
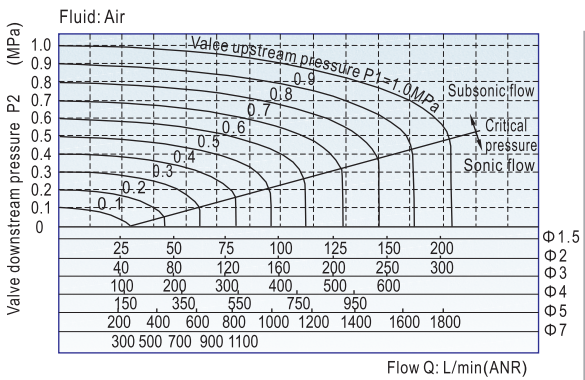
Ordering code of accessories is the same as 2S series valve's, Please refer to P100 for details of ordering code.

Fluid control valve(2/2way)

2KSeries (Direct-acting and normally opened)

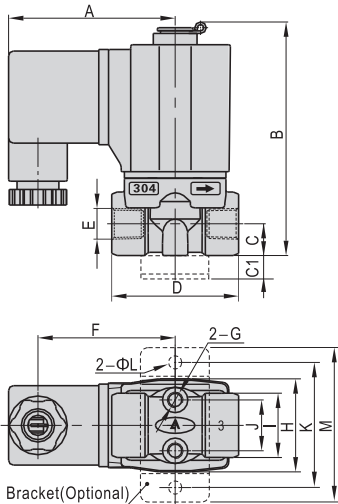


Flow Chart

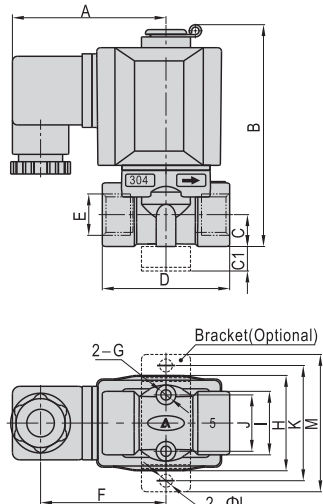


Dimensions

2KS□030(Terminal)

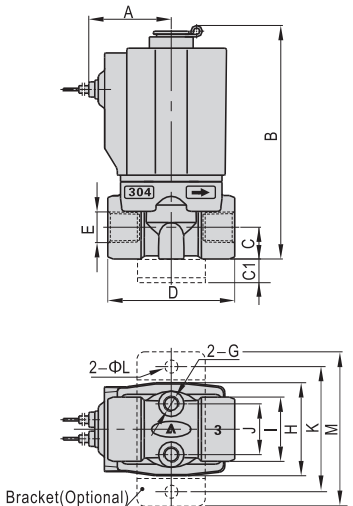


2KS□050(Terminal)

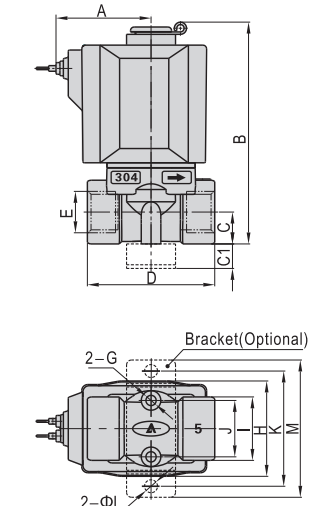


Type\Item	A	B	C	C1	D	E	F	G	H	I	J	K	L	M
2KS□030-06	52.5	76	10	10	40	1/8"	43.3	M5	29.3	20.2	16	40	5.3	49
2KS□030-08	52.5	76	10	10	40	1/4"	43.3	M5	29.3	20.2	16	40	5.3	49
2KS□050-10	62.7	92	13	10	52	3/8"	51.2	M5	39	26	23	48	5.3	56
2KS□050-15	62.7	92	13	10	52	1/2"	51.2	M5	39	26	23	48	5.3	56

2KS□030(Grommet)



2KS□050(Grommet)



Type\Item	A	B	C	C1	D	E	G	H	I	J	K	L	M
2KS□030-06	26	76	10	10	40	1/8"	M5	29.3	20.2	16	40	5.3	49
2KS□030-08	26	76	10	10	40	1/4"	M5	29.3	20.2	16	40	5.3	49
2KS□050-10	39	92	13	10	52	3/8"	M5	39	26	23	48	5.3	56
2KS□050-15	39	92	13	10	52	1/2"	M5	39	26	23	48	5.3	56



2KS

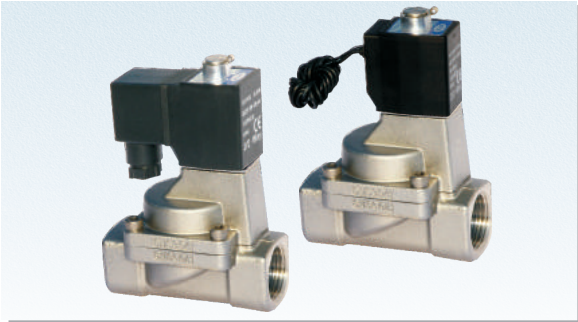
Fluid control valve(2/2way)

2KS Series (Internally piloted and normally opened)

AIRTAC



2KS



Specification

Type\Item	Port size ①	Orifice size (Φ mm)	Cv	Valid area or section(mm²)	Weight ② (g)	Max. operating pressure differential MPa	psi	Proof pressure MPa	psi
2KS150-15	1/2"	15.0	5.50	100.0	680	Max:0.7 Min:0.05	Max:100 Min:10	1.5	220
2KS200-20	3/4"	20.0	9.50	170.0	880				
2KS250-25	1"	25.0	12.50	220.0	1125				
2KS320-32	1 1/4"	35.0	23.00	420.0	2710				
2KS400-40	1 1/2"	40.0	31.00	560.0	3260				
2KS500-50	2"	50.0	49.00	880.0	4310				

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. 2S320~500 series grommet valve's weight is 20g less than terminal's.

Symbol



Product feature

1. Indirect acting (Internal pilot) and normally opened 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.

Coil specification

Valve type	Coil type	Power type	Frequency (Hz)	Voltage range	Electrical entry	Power Consumption (VA/W)	Insulation	Temp. rise(°C)
2KS150	CDA116	AC	50	± 15%	(Terminal) (CDA)	15.0VA	Class B	50
2KS200	CLA116	DC	60			11.0VA		40
2KS250			—	± 10%		6.5W		30
2KS320	CDA170	AC	50	± 15%	(Grommet) (CLA)	35.0VA		65
2KS400	CLA170	DC	60			30.0VA		60
2KS500			—	± 10%		10.5W		40

Ordering code

2KS 150 15 A □ P

Model	Thread type
2KS: 2/2 way internally piloted and normally opened	P: PT T: NPT G: G
Orifice size	Electrical entry
150: Φ 15mm	Blank: Terminal I: Grommet
200: Φ 20mm	
250: Φ 25mm	
320: Φ 32mm	
400: Φ 40mm	
500: Φ 50mm	
Port size	Voltage
Orifice series	A: AC220V
150: Φ 15mm	B: DC24V
200: Φ 20mm	C: AC110V
250: Φ 25mm	E: AC24V
320: Φ 32mm	F: DC12V
400: Φ 40mm	
500: Φ 50mm	

Valve's specification

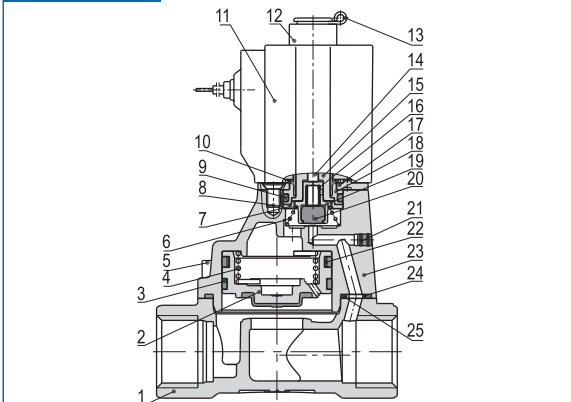
Acting	Internally piloted			
Initial stats	Normally opened			
Adaptable fluid ①	Air, Water, Oil			
Viscosity limit	Under 20CST			
Ambient and fluid temperature(°C)		Water	Air	Oil
		Ambient		
Max.	80	90	80	70
Min.	1	-20 ②	-10 ③	-20

① Note: Please refer to P125 for detail of other's fluid.

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

Inner structure

2KS150(Grommet)



No.	Item	No.	Item	No.	Item	No.	Item
1	Body	8	Screw	15	Movable core	22	Spring
2	Piston	9	O-ring	16	Spring	23	Cover
3	Wear ring	10	Washer	17	Fixed plate	24	Bushing
4	Spring	11	Coil assembly	18	Fixed cap	25	O-ring
5	Screw	12	Position ring	19	Airtight bushing		
6	Spring	13	E Clip	20	Airtight ring		
7	Fixed ring	14	Man drill	21	Plug		

Ordering code of accessories

Ordering code of accessories is the same as 2S series valve's. Please refer to P102 for details of ordering code.

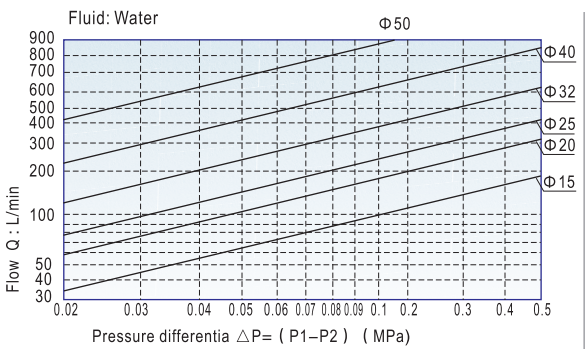
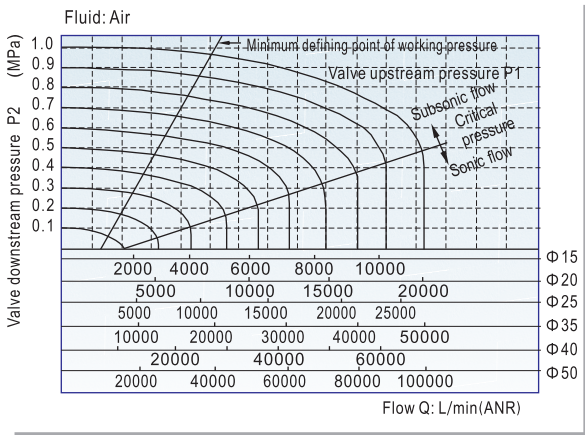
Note: 320\400\500 series valves do not have mounting accessories.

Fluid control valve(2/2way)

2KS Series (Internally piloted and normally opened)

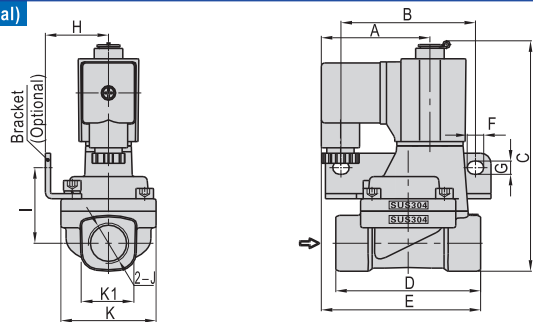


Flow chart

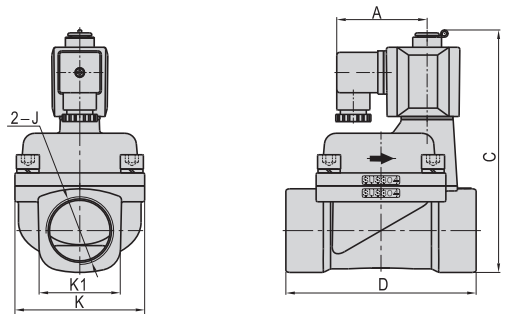


Dimensions

2KS150~250(Terminal)

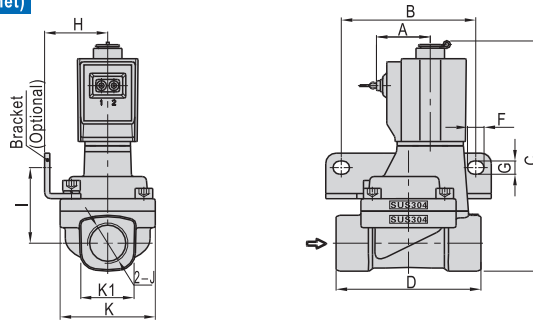


2KS320~500(Terminal)

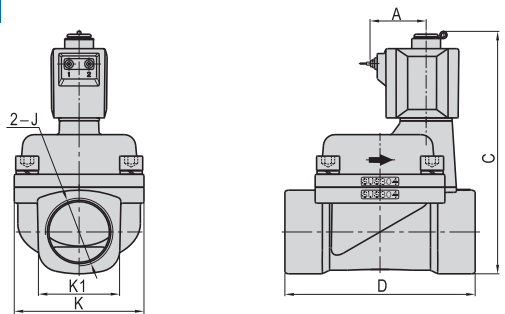


Type\Item	A	B	C	D	E	F	G	H	I	J	K	K1
2KS150-15	52.5	65	112.3	70	77	8	6.4	30.5	36.5	1/2"	46	27.5
2KS200-20	52.5	75	120.8	82	78.5	8	6.4	34	40	3/4"	53	33.5
2KS250-25	52.5	80	129.3	92	81	8	6.4	36	44.5	1"	59	40.5
2KS320-32	62.7	-	159.6	125	-	-	-	-	-	1 1/4"	80	52
2KS400-40	62.7	-	167.1	132	-	-	-	-	-	1 1/2"	90	58
2KS500-50	62.7	-	182.1	150	-	-	-	-	-	2"	100	70

2KS150~250(Grommet)



2KS320~500(Grommet)



Type\Item	A	B	C	D	F	G	H	I	J	K	K1
2KS150-15	26	65	112.3	70	8	6.4	30.5	36.5	1/2"	46	27.5
2KS200-20	26	75	120.8	82	8	6.4	34	40	3/4"	53	33.5
2KS250-25	26	80	129.3	92	8	6.4	36	44.5	1"	59	40.5
2KS320-32	38.8	-	159.6	125	-	-	-	-	1 1/4"	80	52
2KS400-40	38.8	-	167.1	132	-	-	-	-	1 1/2"	90	58
2KS500-50	38.8	-	182.1	150	-	-	-	-	2"	100	70



2KS