

Fluid control valve(2/2way)

2S Series (Direct-acting and normally closed)



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

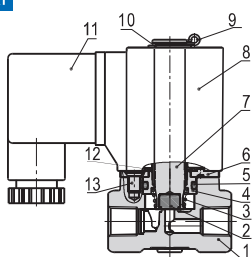
Acting	Direct acting				
Initial stats	Normally closed				
Adaptable fluid ①	Air, Water, Oil				
Viscosity limit	Under 20CST				
Ambient and fluid temperature(°C)		Water	Air	Oil	Ambient
	Max.	80	90	80	70
	Min.	1	-20 ②	-10 ③	-20

① Note: Please refer to P123 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 size ①	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, G thread and NPT 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. 2S050 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)
2S□030	CDA116 CLA116	AC	50	± 15 %	Terminal (CDA)	10.0VA	Class B	35
			60			8.0VA		30
		DC	—	± 10 %		6.5W		30
2S□050	CDA170 CLA170	AC	50	± 15 %	Grommet (CLA)	25.0VA		60
			60			22.0VA		55
		DC	—	± 10 %		10.5W		

Ordering code

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

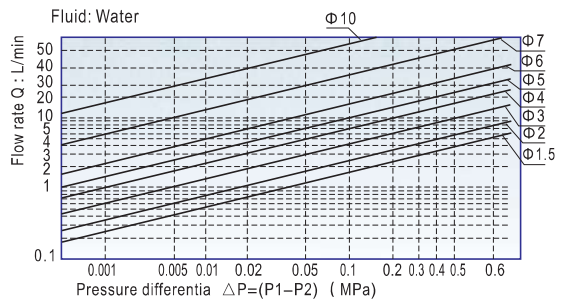
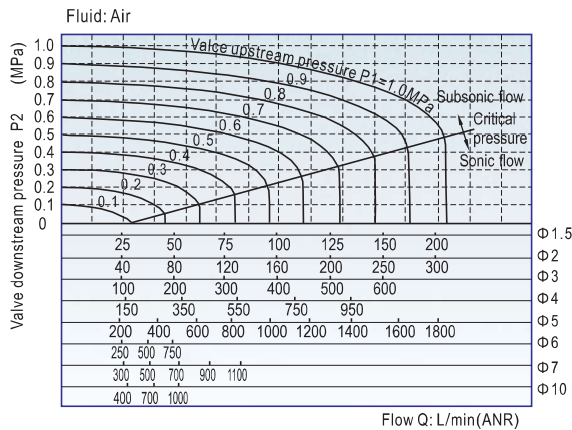
Ordering code of accessories

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

Fluid control valve(2/2way)

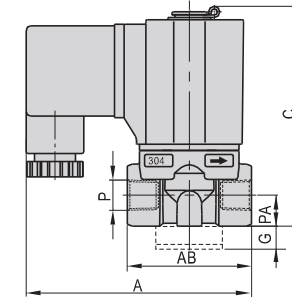
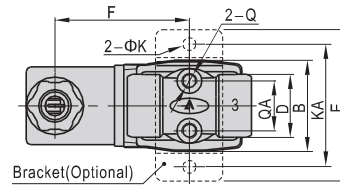
2S Series (Direct-acting and normally closed)

Flow Chart

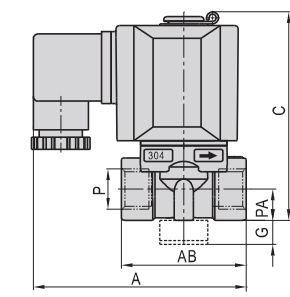
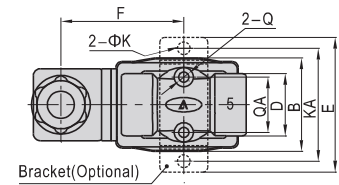


Dimensions

2S□030(Terminal)

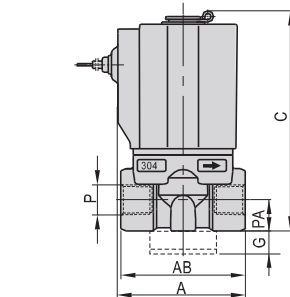
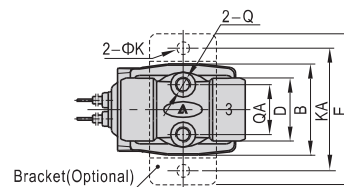


2S□050(Terminal)

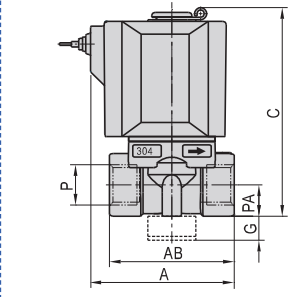
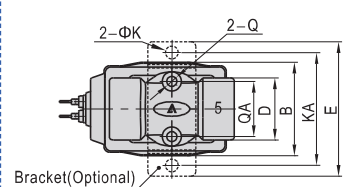


Type\Item	A	AB	B	C	D	E	F	G	K	KA	P	PA	Q	QA
2S□030-06	72.5	40	29.5	71	20	49	43.5	10	5.3	40	1/8"	10	M5	16
2S□030-08	72.5	40	29.5	71	20	49	43.5	10	5.3	40	1/4"	10	M5	16
2S□050-10	89.5	52	39	87	26	56	51	10	5.3	48	3/8"	13	M5	23
2S□050-15	89.5	52	39	87	26	56	51	10	5.3	48	1/2"	13	M5	23

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



2S

Fluid control valve(2/2way)

2S Series (Internally piloted and normally closed)

AIRTAC



Specification

Type\Item	Port size ①	Orifice size (Φmm)	Cv	Valid area or section(mm²)	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, G thread and NPT 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

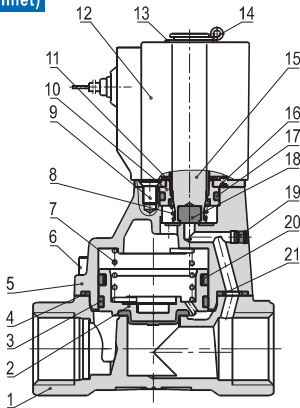
Acting	Internally piloted				
Initial stats	Normally closed				
Adaptable fluid ①	Air, Water, Oil				
Viscosity limit	Under 20CST				
Ambient and fluid temperature(°C)		Water	Air	Oil	Ambient
	Max.	80	90	80	70
	Min.	1	-20 ②	-10 ③	-20

① Note: Please refer to P123 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		60			8.0VA		30
2S250		DC	—	± 10 %	(Grommet) (CLA)	6.5W		30
2S320	CDA170	AC	50	± 15 %		25.0VA		60
2S400	CLA170		60			22.0VA		55
2S500		DC	—	± 10 %		10.5W		40

Ordering code

2S 150 15 A □ □			
Model		Thread type	
2S: 2/2 way internally piloted and normally closed		Blank: PT G: G T: NPT	
Orifice size		Electrical entry	
150: Φ 15mm 200: Φ 20mm 250: Φ 25mm 320: Φ 35mm 400: Φ 40mm 500: Φ 50mm		Blank: Terminal I: Grommet	
Port size		Voltage	
Orifice size Port size Φ 15mm 15: 1/2" Φ 20mm 20: 3/4" Φ 25mm 25: 1" Φ 35mm 32: 1 1/4" Φ 40mm 40: 1 1/2" Φ 50mm 50: 2"		A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V	

Ordering code of accessories

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

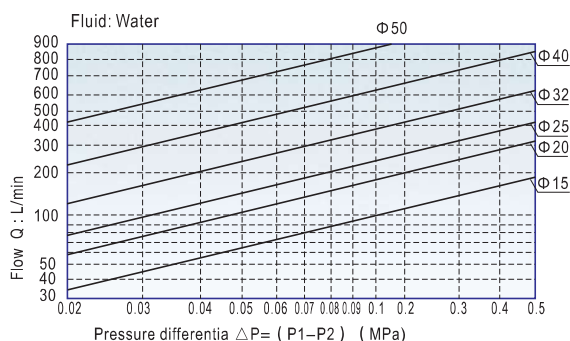
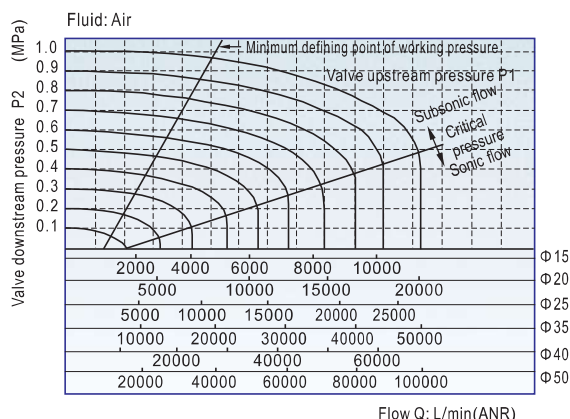
Note: ⚠ 320\400\500 series valves do not have mounting accessories.



Fluid control valve(2/2way)

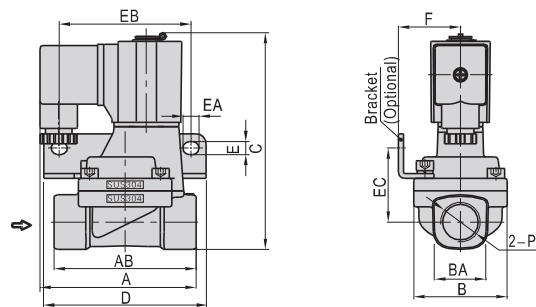
2S Series (Internally piloted and normally closed)

Flow chart

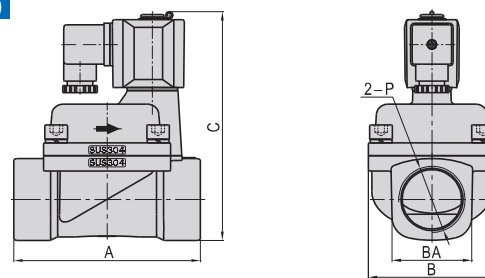


Dimensions

2S150~250(Terminal)

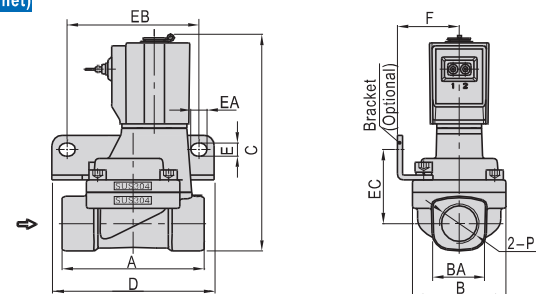


2S320~500(Terminal)

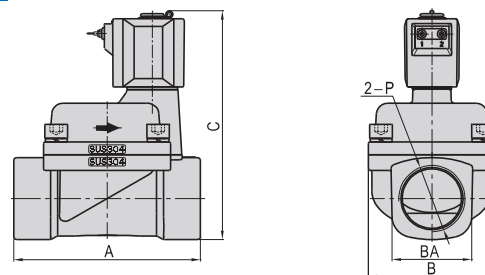


Type\Item	A	AB	B	BA	C	D	E	EA	EB	EC	F	P
2S150-15	77	70	46	27.5	107	80	6.4	8	65	36.5	30.5	1/2"
2S200-20	78.5	82	53	33.5	115.5	90	6.4	8	75	40	34	3/4"
2S250-25	81	92	59	40.5	124	95	6.4	8	80	44.5	36	1"
2S320-32	125	-	80	52	154.5	-	-	-	-	-	-	1 1/4"
2S400-40	132	-	90	58	162	-	-	-	-	-	-	1 1/2"
2S500-50	150	-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



2S

Fluid control valve(2/2way)

2KS Series (Direct-acting and normally opened)

AIRTAC



2KS



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.

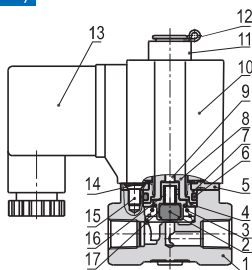
Valve's specification

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

- ① Note: Please refer to P123 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, G thread and NPT 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. 2KS050series 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 □ □									
Model			Thread type						
2KS: 2/2 way direct-acting and normally opened			Blank: PT G: G T: NPT						
Pressure condition			Electrical entry						
X: Extra high pressure H: High pressure Blank: Standard L: 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			Port size						
030 Series			06: 1/8"						
			08: 1/4"						
050 Series			10: 3/8"						
			15: 1/2"						

Ordering code of accessories

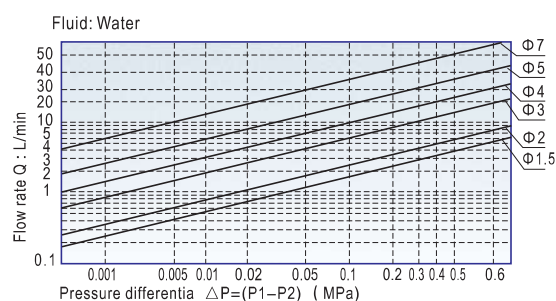
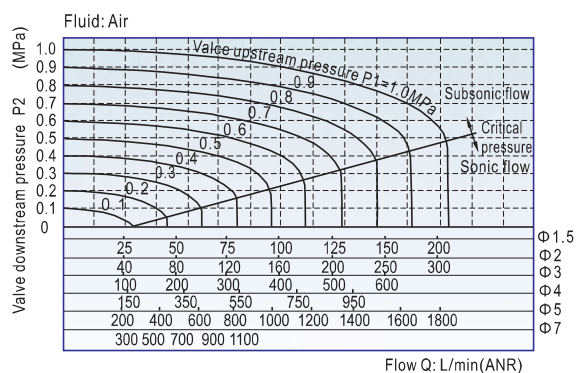
Ordering code of accessories is the same as 2S series valve's, Please refer to P98 for details of ordering code.

Fluid control valve(2/2way)

2KS Series (Direct-acting and normally opened)

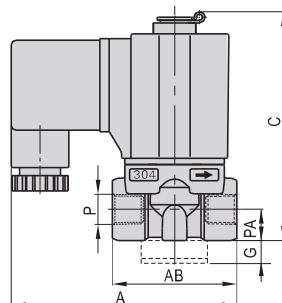
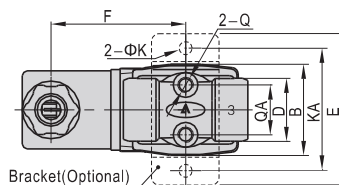
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Flow Chart



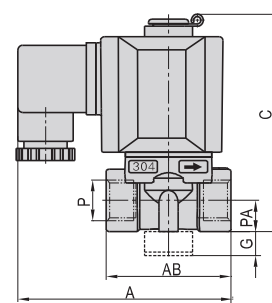
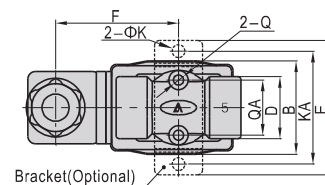
Dimensions

2KS□030(Terminal)

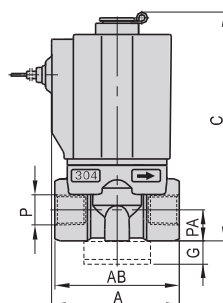
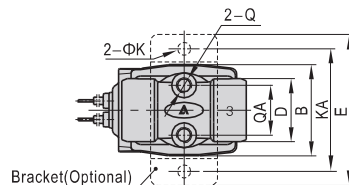


Type\Item	A	AB	B	C	D	E	F	G	K	KA	P	PA	Q	QA
2KS□030-06	72.5	40	29.3	76	20	49	43.5	10	5.3	40	1/8"	10	M5	16
2KS□030-08	72.5	40	29.3	76	20	49	43.5	10	5.3	40	1/4"	10	M5	16
2KS□050-10	89.5	52	39	92	26	56	51	10	5.3	48	3/8"	13	M5	23
2KS□050-15	89.5	52	39	92	26	56	51	10	5.3	48	1/2"	13	M5	23

2KS□050(Terminal)

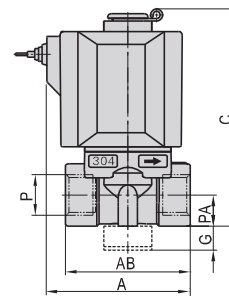
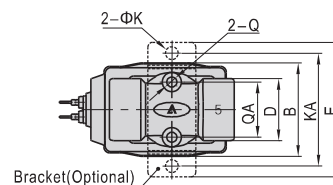


2KS□030(Grommet)



Type\Item	A	AB	B	C	D	E	G	K	KA	PA	P	Q	QA
2KS□030-06	41	40	29.5	76	20	49	10	5.3	40	10	1/8"	M5	16
2KS□030-08	41	40	29.5	76	20	49	10	5.3	40	10	1/4"	M5	16
2KS□050-10	60	52	39	92	26	56	10	5.3	48	13	3/8"	M5	23
2KS□050-15	60	52	39	92	26	56	10	5.3	48	13	1/2"	M5	23

2KS□050(Grommet)



2KS

Fluid control valve(2/2way)

2KS Series (Internally piloted and normally opened)

AIRTAC



2KS



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.

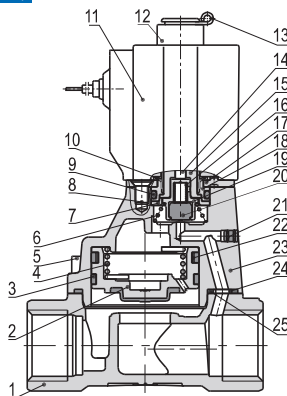
Valve's specification

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
	Max.	80	90	80
	Min.	1	-20 ②	-10 ③
				Ambient
				70
				-20

- ① Note: Please refer to P123 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		

Specification

Type\Item	Port size ①	Orifice size (Φmm)	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, G thread and NPT 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.

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		60			11.0VA		40
2KS250		DC	—	± 10 %		6.5W		30
2KS320	CDA170	AC	50	± 15 %	(Grommet) (CLA)	35.0VA		65
2KS400	CLA170		60			30.0VA		60
2KS500		DC	—	± 10 %		10.5W		40

Ordering code

2KS 150 15 A ☐ ☐

Model
 2KS: 2/2 way internally piloted and normally opened

Orifice size
 150: Φ15mm
 200: Φ20mm
 250: Φ25mm
 320: Φ35mm
 400: Φ40mm
 500: Φ50mm

Port size
 Φ15mm 15: 1/2"
 Φ20mm 20: 3/4"
 Φ25mm 25: 1"
 Φ35mm 32: 1 1/4"
 Φ40mm 40: 1 1/2"
 Φ50mm 50: 2"

Thread type
 Blank: PT
 G: G
 T: NPT

Electrical entry
 Blank: Terminal
 I: Grommet

Voltage
 A: AC220V
 B: DC24V
 C: AC110V
 E: AC24V
 F: DC12V

Ordering code of accessories

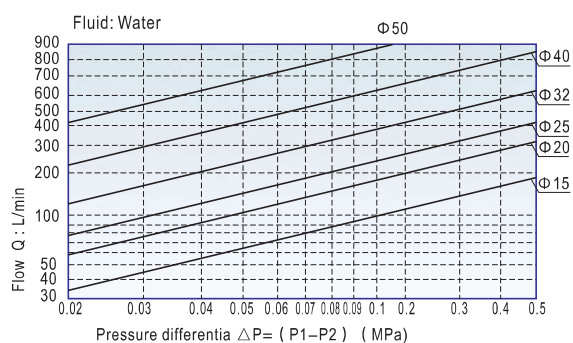
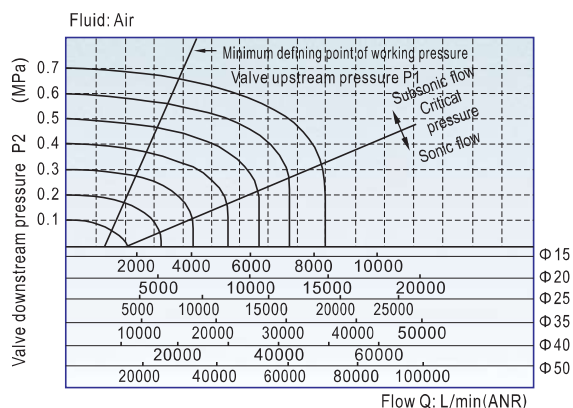
Ordering code of accessories is the same as 2S series valve's, Please refer to P100 for details of ordering code.

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

Fluid control valve(2/2way)

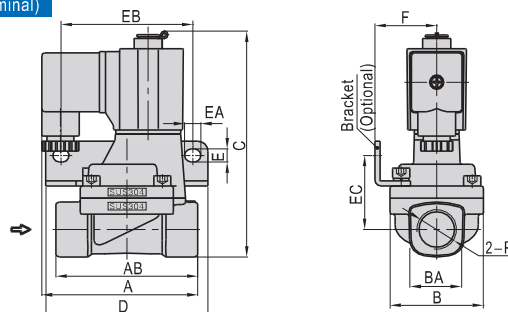
2KS Series (Internally piloted and normally opened)

Flow chart

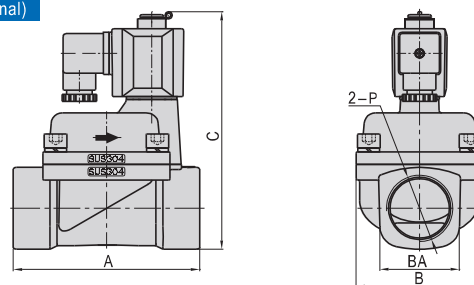


Dimensions

2KS150~250(Terminal)

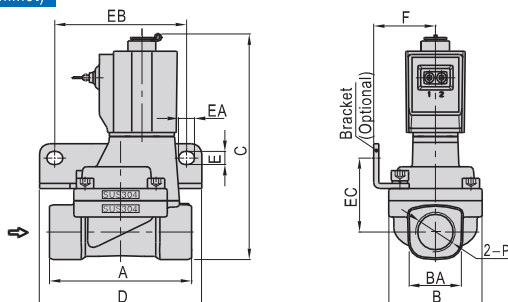


2KS320~500(Terminal)

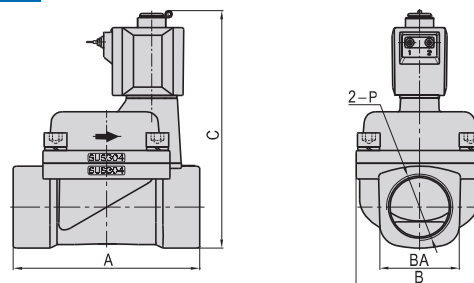


Type\Item	A	AB	B	BA	C	D	E	EA	EB	EC	F	P
2KS150-15	77	70	46	27.5	112.5	80	6.4	8	65	36.5	30.5	1/2"
2KS200-20	78.5	82	53	33.5	121	90	6.4	8	75	40	34	3/4"
2KS250-25	81	92	59	40.5	129.5	95	6.4	8	80	44.5	36	1"
2KS320-32	125	-	80	52	160	-	-	-	-	-	-	1 1/4"
2KS400-40	132	-	90	58	167	-	-	-	-	-	-	1 1/2"
2KS500-50	150	-	100	70	182	-	-	-	-	-	-	2"

2KS150~250(Grommet)



2KS320~500(Grommet)



Type\Item	A	B	BA	C	D	E	EA	EB	EC	F	P
2KS150-15	70	46	27.5	112.5	80	6.4	8	65	36.5	30.5	1/2"
2KS200-20	82	53	33.5	121	90	6.4	8	75	40	34	3/4"
2KS250-25	92	59	40.5	129.5	95	6.4	8	80	44.5	36	1"
2KS320-32	125	80	52	160	-	-	-	-	-	-	1 1/4"
2KS400-40	132	90	58	167	-	-	-	-	-	-	1 1/2"
2KS500-50	150	100	70	182	-	-	-	-	-	-	2"



2KS