

Fluid control valve(2/2 way)

2KL Series (Direct-acting and normally opened)

AIRTAC



2KL



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 standard high pressure (H) 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 H. The standard seal material is PTFE(Teflon) which is suitable for a variety of working medium such as water with high temperature and vapour.
5. The protection class of the coil is IP65 and there is a choice for grommet or terminal electrical entry .

Valve's specification

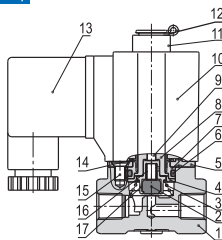
Acting	Direct acting			
Initial stats	Normally opened			
Adaptable fluid ①	Steam, High temperature Water, Oil			
Viscosity limit	Under 20CST			
Ambient and fluid temperature(°C)		Oil	Water	Steam
		Ambient		
	Max.	150	150	183
	Min.	-10②	1	-
				-20

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

② Note: 50CST or less.

Inner structure

2KL030(Terminal)



No.	Item	No.	Item	No.	Item
1	Body	7	Fixed cap	13	Connector
2	Airtight ring	8	Electromagnet	14	Spring washer
3	Spring	9	Man drill	15	Screw
4	Fixed ring	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 (Φ mm)	Cv	Valid area or section(mm²)	Weight ② (g)	Max. operating pressure differential	Proof pressure
						MPa	psi
2KLH030	-06 1/8"	2.0	0.18	3.0	305	1.5	220
	-08 1/4"				295		
2KL030	-06 1/8"	3.0	0.33	6.0	305	0.7	100
	-08 1/4"				295		
2KLH050	-10 3/8"	4.0	0.55	10.0	610	1.5	220
	-15 1/2"				600		
2KL050	-10 3/8"	5.0	0.83	15.0	610	0.7	100
	-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, 2KL030 series grommet valve's weight is 10g less than terminal's. 2KL050series 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)
2KL□030	CDA116 CLA116	AC	50	± 15 %	Terminal (CDA)	15.0VA	Class H	50
			60			11.0VA		40
		DC	—	± 10 %	Grommet (CLA)	6.5W		30
						35.0VA		65
2KL□050	CDA170 CLA170	AC	50	± 15 %	Terminal (CDA)	30.0VA	Class H	60
			60			10.5W		40
		DC	—	± 10 %	Grommet (CLA)	30.0VA		60
						10.5W		40

Ordering code

2KL H 030 08 A □ P									
Model		Pressure condition		Size series		Port size		Thread type	
2KL: 2/2 way direct-acting and normally opened		H: High pressure Blank: Standard		030: 030 Series 050: 050 Series		06: 1/8" 08: 1/4" 10: 3/8" 15: 1/2"		P: 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

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

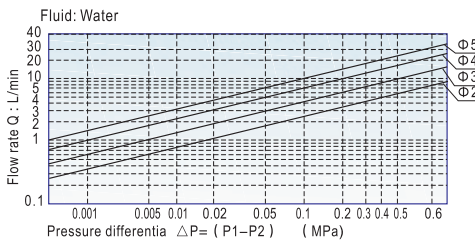
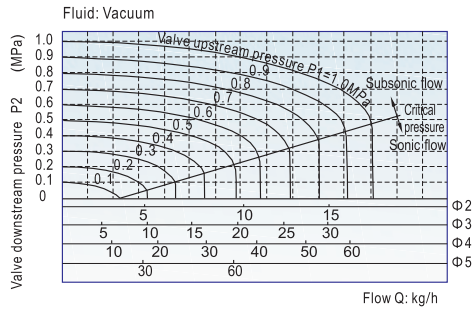


Fluid control valve(2/2 way)

2KL Series (Direct-acting and normally opened)

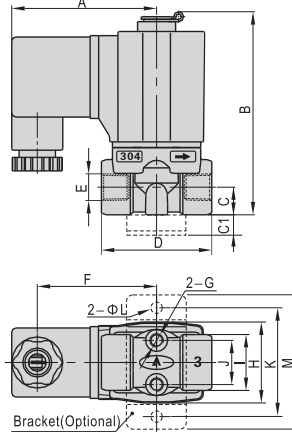
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Flow chart

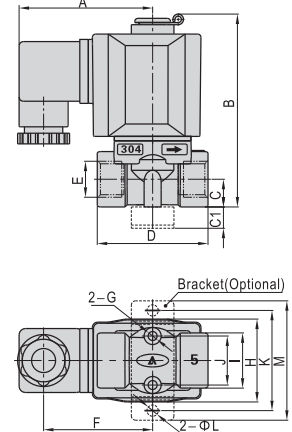


Dimensions

2KL□030(Terminal)

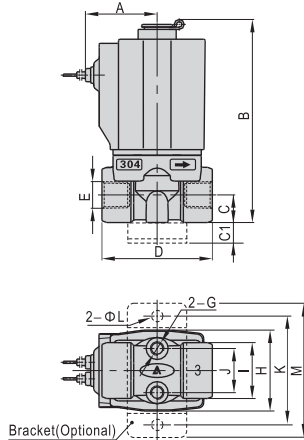


2KL□050(Terminal)

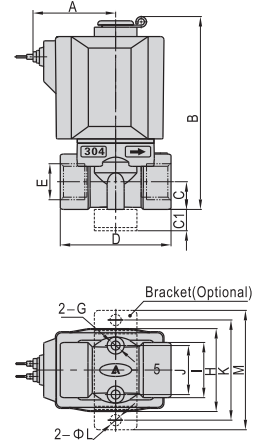


Type\Item	A	B	C	C1	D	E	F	G	H	I	J	K	L	M
2KL□030-06	52.5	76	10	10	40	1/8"	43.3	M5	29.3	20.2	16	40	5.3	49
2KL□030-08	52.5	76	10	10	40	1/4"	43.3	M5	29.3	20.2	16	40	5.3	49
2KL□050-10	62.7	92	13	10	52	3/8"	51.2	M5	39	26	23	48	5.3	56
2KL□050-15	62.7	92	13	10	52	1/2"	51.2	M5	39	26	23	48	5.3	56

2KL□030(Grommet)



2KL□050(Grommet)



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



2KL

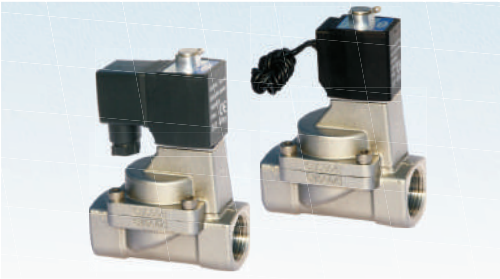
Fluid control valve(2/2 way)

2KL Series (Internally piloted and normally opened)

AIRTAC



2KL



Symbol



Product feature

1. Indirect acting (Internal pilot) and normally opened type 2/2 way solenoid valve. Its high sensibility allows it to change direction quickly.
2. It is compact, small size and light weight. It is easy to install and dismantle.
3. The valve body is made of SUS304. Its coil has a Heat resistance classification of Class H. The standard seal material is PTFE (Teflon) which is suitable for a variety of working medium such as water with high temperature and vapour.
4. The protection class of the coil is IP65 and there is a choice for grommet or terminal electrical entry.

Valve's specification

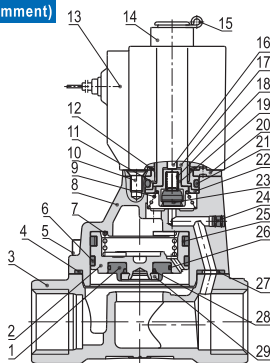
Acting	Internally piloted			
Initial state	Normally opened			
Adaptable fluid ①	Steam, High temperature Water, Oil			
Viscosity limit	Under 20CST			
Ambient and fluid temperature(°C)		Oil	Water	Steam
		Ambient		
	Max.	150	150	183
	Min.	-10 ②	1	-
				-20

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

② Note: 50CST or less.

Inner structure

2KL150(Grommet)



No.	Item	No.	Item	No.	Item
1	Gasket	11	Fixed cap	21	O-ring
2	Piston	12	Bead flange	22	Fixed ring
3	Body	13	Coil assembly	23	Airtight ring
4	Gasket	14	Position ring	24	Plug
5	Screw	15	E Clip	25	Spring
6	Wear ring	16	Man drill	26	O-ring
7	Spring	17	Electromagnet	27	Bush
8	Cover	18	Spring	28	O-ring
9	Spring	19	Airtight bush	29	Fixed ring
10	Screw	20	Fixed plate		

Specification

Type\Item	Port size ①	Orifice size (Φ mm)	Cv	Valid area or section(mm²)	Weight (g)	Max. operating pressure differential		Proof pressure	
						Mpa	psi	MPa	psi
2KL150-15	1/2"	15.0	5.50	100.0	675	Max:0.7 Min:0.05	Max:100 Min:10	1.5	220
2KL200-20	3/4"	20.0	9.50	170.0	880				
2KL250-25	1"	25.0	12.50	220.0	1125				
2KL320-32	1 1/4"	35.0	23.00	420.0	2710				
2KL400-40	1 1/2"	40.0	31.00	560.0	3260				
2KL500-50	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, 2KL150-250 series grommet valve's weight is 10g less than terminal's. 2KL320-500 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)
2KL150	CDA116 CLA116	AC	50	± 15 %	Terminal (CDA) Grommet (CLA)	15.0VA	Class H	50
2KL200			60			11.0VA		40
2KL250		DC	—	± 10 %		6.5W		30
2KL320	CDA170 CLA170		AC	50		35.0VA		65
2KL400		60		30.0VA		60		
2KL500		DC	—	± 10 %		10.5W		40

Ordering code

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

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.

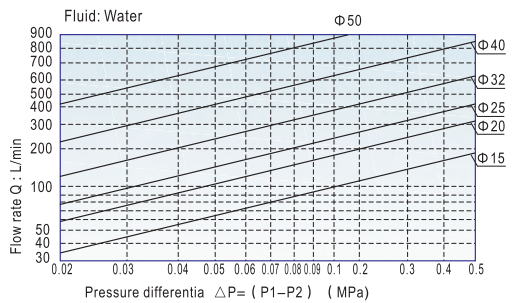
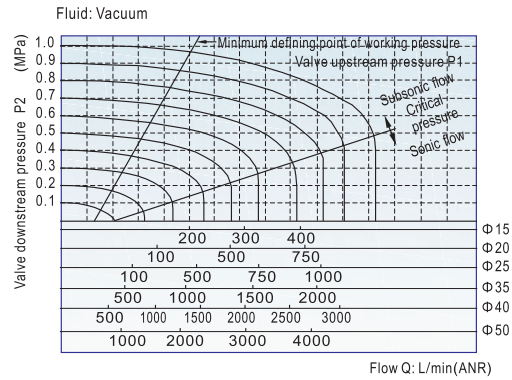
Note: 320/400/500 series valves do not have mounting accessories.

Fluid control valve(2/2 way)

2KL Series (Internally piloted and normally opened)

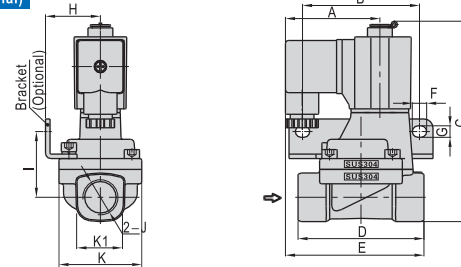
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Flow chart

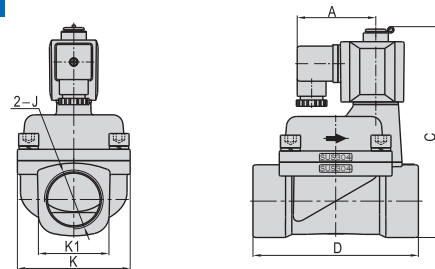


Dimensions

2KL150-250(Terminal)

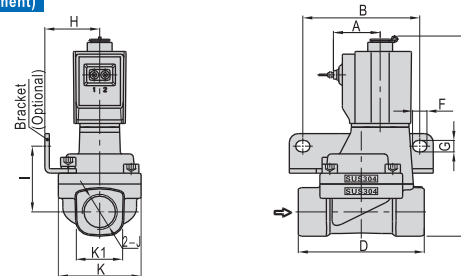


2KL320-500(Terminal)

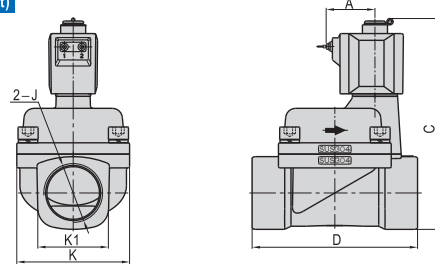


Type\Item	A	B	C	D	E	F	G	H	I	J	K	K1
2KL150-15	52.5	65	112.3	70	77	8	6.4	30.5	36.5	1/2"	46	27.5
2KL200-20	52.5	75	120.8	82	78.5	8	6.4	34	40	3/4"	53	33.5
2KL250-25	52.5	80	129.3	92	81	8	6.4	36	44.5	1"	59	40.5
2KL320-32	62.7	-	159.6	125	-	-	-	-	-	1 1/4"	80	52
2KL400-40	62.7	-	167.1	132	-	-	-	-	-	1 1/2"	90	58
2KL500-50	62.7	-	182.1	150	-	-	-	-	-	2"	100	70

2KL150-250(Grommet)



2KL320-500(Grommet)



Type\Item	A	B	C	D	F	G	H	I	J	K	K1
2KL150-15	26	65	112.3	70	8	6.4	30.5	36.5	1/2"	46	27.5
2KL200-20	26	75	120.8	82	8	6.4	34	40	3/4"	53	33.5
2KL250-25	26	80	129.3	92	8	6.4	36	44.5	1"	59	40.5
2KL320-32	38.8	-	159.6	125	-	-	-	-	1 1/4"	80	52
2KL400-40	38.8	-	167.1	132	-	-	-	-	1 1/2"	90	58
2KL500-50	38.8	-	182.1	150	-	-	-	-	2"	100	70



2KL