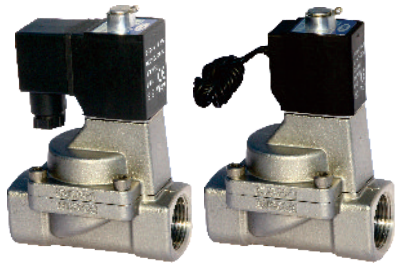


Fluid control valve(2/2 way)

2KL Series (Internally piloted and normally opened)



Symbol

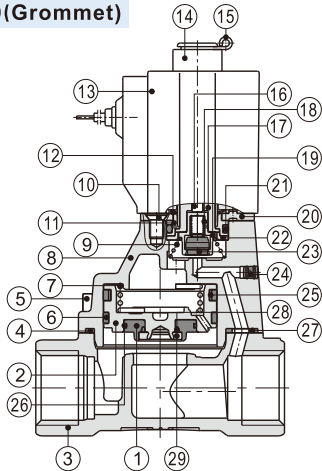


Product feature

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.

Inner structure

2KL150(Grommet)



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

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
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				

[Note1] G thread is available.

[Note2] 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 2KL200 2KL250	CDA116 CLA116	AC	50	± 15%	Terminal (CDA) Grommet (CLA)	15.0VA	Class H	50
			60			11.0VA		40
2KL320 2KL400 2KL500	CDA170 CLA170	AC	50	± 15%		6.5W		30
			60			35.0VA		65
		DC	—	± 10%		30.0VA		60
			—			10.5W		40

Valve's specification

Acting	Internally piloted				
Initial state	Normally opened				
Adaptable fluid	Steam, High temperature Water, Oil				
Viscosity limit	Under 20CST				
Ambient and fluid temperature (°C)		Oil	Water	Steam	Ambient
	Max.	150	150	183	100
	Min.	-10 [Note1]	1	—	-20

[Note1] 50CST or less.

Ordering code

Ordering code of valves

2KL 150 15 A □ G

① ② ③ ④ ⑤ ⑥

① Model	② Orifice size	③ Port size	④ Voltage	⑤ Electrical entry	⑥ Thread type
2KL: 2/2 way internally piloted and normally opened	150: Φ15mm	15: 1/2"	A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V	Blank: Terminal I: Grommet	G: G
	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"				

Ordering code of accessories

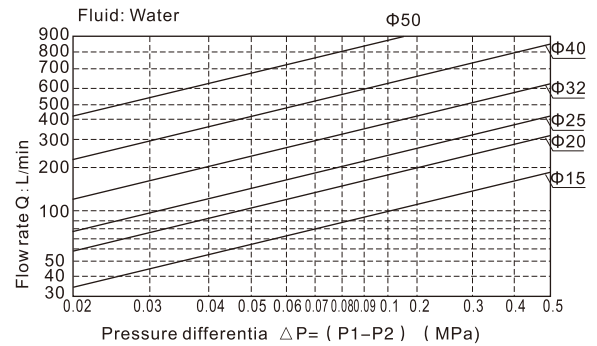
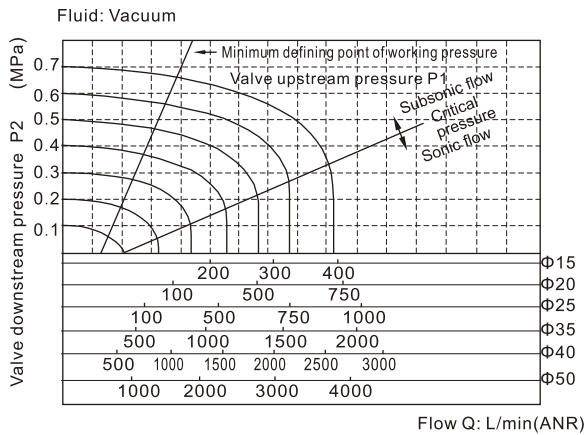
Ordering code of accessories is the same as 2S series valve's, Please refer to P150 for details of ordering code.

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

Fluid control valve(2/2 way)

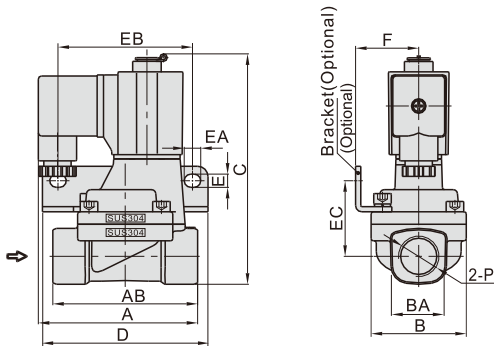
2KL Series (Internally piloted and normally opened)

Flow chart

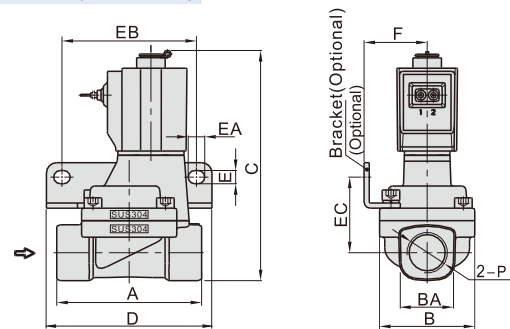


Dimensions

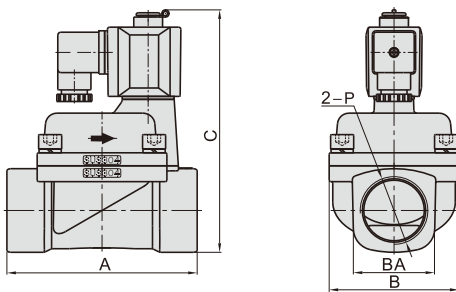
2KL150~250(Terminal)



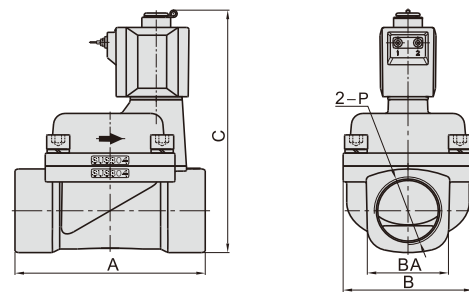
2KL150~250(Grommet)



2KL320~500(Terminal)



2KL320~500(Grommet)

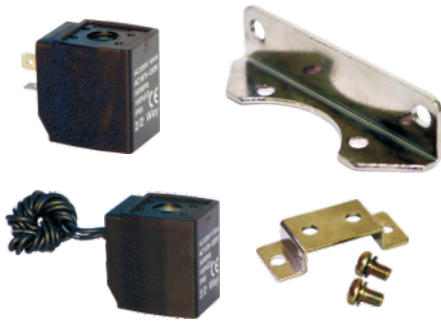


Model\Item	A	AB	B	BA	C	D	E	EA	EB	EC	F	P
2KL150-15	77	70	46	27.5	112.5	80	6.4	8	65	36.5	30.5	1/2"
2KL200-20	78.5	82	53	33.5	121	90	6.4	8	75	40	34	3/4"
2KL250-25	81	92	59	40.5	129.5	95	6.4	8	80	44.5	36	1"
2KL320-32	125	-	80	52	160	-	-	-	-	-	-	1 1/4"
2KL400-40	132	-	90	58	167	-	-	-	-	-	-	1 1/2"
2KL500-50	150	-	100	70	182	-	-	-	-	-	-	2"

Model\Item	A	B	BA	C	D	E	EA	EB	EC	F	P
2KL150-15	70	46	27.5	112.5	80	6.4	8	65	36.5	30.5	1/2"
2KL200-20	82	53	33.5	121	90	6.4	8	75	40	34	3/4"
2KL250-25	92	59	40.5	129.5	95	6.4	8	80	44.5	36	1"
2KL320-32	125	80	52	160	-	-	-	-	-	-	1 1/4"
2KL400-40	132	90	58	167	-	-	-	-	-	-	1 1/2"
2KL500-50	150	100	70	182	-	-	-	-	-	-	2"

Fluid control valve(2/2way)

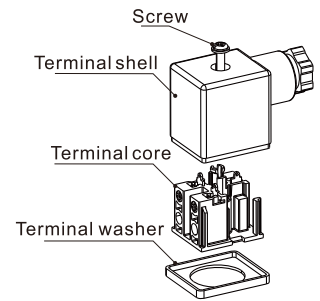
Coil and accessories



Hookup

Coil's type		Hookup	Connector's type
116 Series	CDA116 (Terminal)		PI2925
	CLA116 (Grommet)		-
170 Series	CDA170 (Terminal)		PL3030
	CLA170 (Grommet)		-

How to use connector



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	
116 Series	AC	220	50	± 15%	DIN Terminal	10.0VA	15.0VA	Class B	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%	Grommet	6.5W		Class H	30	30		
	12	-			25.0VA	35.0VA		60	65		
170 Series	AC	220	50	± 15%	DIN Terminal	22.0VA	30.0VA	Class H	55	60	
			60			25.0VA	35.0VA		60	65	
		110	50			22.0VA	30.0VA		55	60	
			60			25.0VA	35.0VA		60	65	
	24	50	25.0VA	35.0VA	60	65					
		60	22.0VA	30.0VA	55	60					
	DC	24	-	± 10%	Grommet	10.5W			Class H	40	40
		12	-			22.0VA	30.0VA			60	65

How to select coil

Valve type\Coil type		116 Series		170 Series	
		Class B	Class H	Class B	Class H
2W□030\2KW□030	2S□030\2KS□030	●	×	×	×
2L□030	2KL□030	×	●	×	×
2W□050\2KW□050	2S□050\2KS□050	×	×	●	×
2L□050	2KL□050	×	×	×	●
2W150~250\2KW150~250	2S150~250\2KS150~250	●	×	×	×
2L150~250	2KL150~250	×	●	×	×
2S320~500	2KS320~500	×	×	●	×
2L320~500	2KL320~500	×	×	×	●

How to select accessories

Valve type\Accessories type			F-2S030LB	F-2S050LB	F-2S150LB	F-2S200LB	F-2S250LB
2W□030\2KW□030	2S□030\2KS□030	2L□030\2KL□030	●	×	×	×	×
2W□050\2KW□050	2S□050\2KS□050	2L□050\2KL□050	×	●	×	×	×
2W150\2KW150	2S150\2KS150	2L150\2KL150	×	×	●	×	×
2W200\2KW200	2S200\2KS200	2L200\2KL200	×	×	×	●	×
2W250\2KW250	2S250\2KS250	2L250\2KL250	×	×	×	×	●
2S320~500\2KS320~500	2L320~500\2KL320~500		×	×	×	×	×

Ordering code of coil

CD A116 A □

① ② ③ ④

① Coil type	② Coil's bore	③ Voltage	④ Temperature resistance class of coil
CD: Terminal CL: Grommet	A116: Coil Specification(Bore sizeΦ11.6mm) A170: Coil Specification(Bore sizeΦ17.0mm)	A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V	Blank: B Class H: H Class