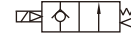
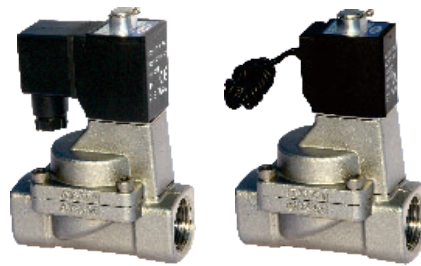


# Fluid control valve(2/2way)

## 2KL Series (Internally piloted and normally opened )



### Ordering code

Ordering code of valves

**2KL 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
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	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"			

### 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.

### Specification

Model\Item	Port size [Note1]	Orifice size (Φmm)	Cv	Valid area or section (mm <sup>2</sup> )	Weight [Note2](g)	Operating pressure differentia		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] NPT 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.

[Note1] PT thread, G thread and NPT thread are 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.

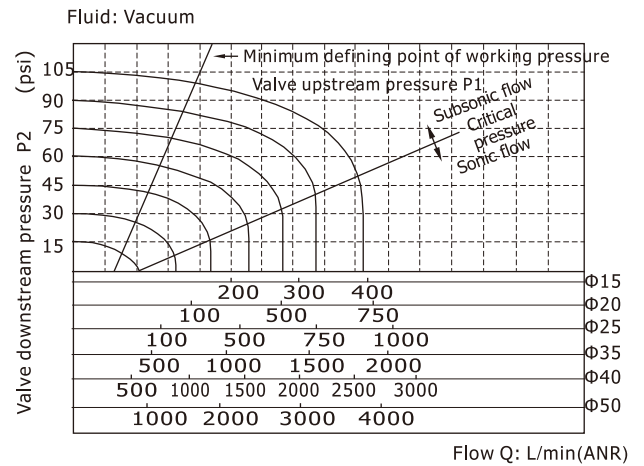
# Fluid control valve(2/2way)

## 2KL Series (Internally piloted and normally opened )

### 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 .

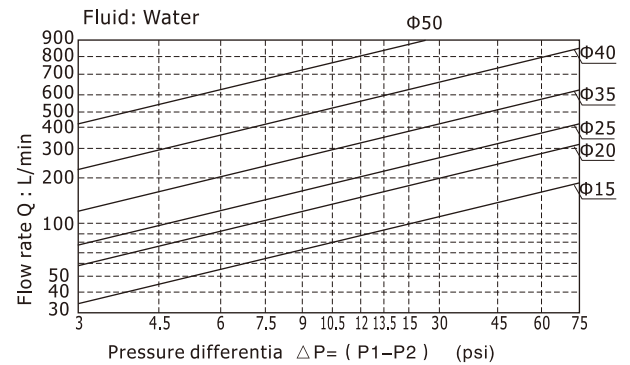
### Flow chart



### 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.



### Specification of coil

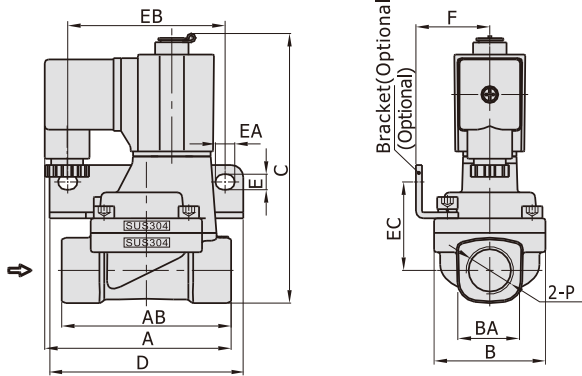
Valve type	Coil type	Power type	Frequency (Hz)	Voltage range	Electrical entry	Power Consumption (VA/W)	Insulation	Temp. rise(°C)		
2KL150	CDA116 CLA116	AC	50	± 15%	Terminal (CDA)	15.0VA	Class H	50		
2KL200			60			11.0VA		40		
2KL250		DC	-	6.5W		30				
2KL320	CDA170 CLA170	AC	50	± 15%		Grommet (CLA)		35.0VA	Class H	65
2KL400			60					30.0VA		60
2KL500		DC	-	10.5W				40		

# Fluid control valve(2/2way)

## 2KL Series (Internally piloted and normally opened )

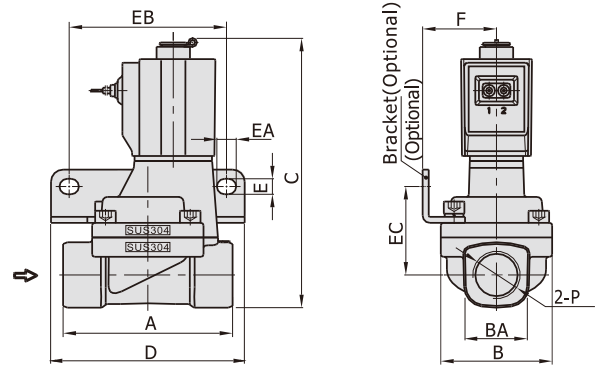
### Dimensions

#### 2KL150~250 (Terminal)

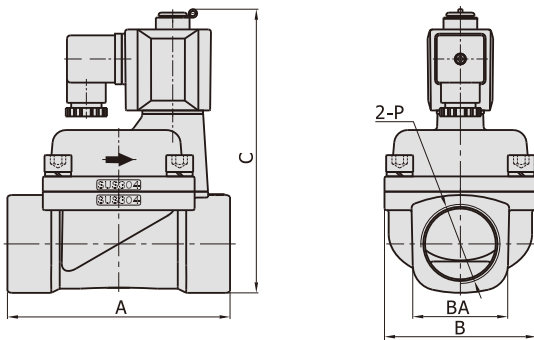


#### 2KL150~250(Grommet)

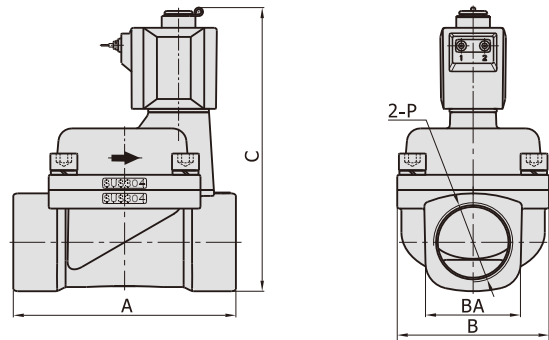
[Unit: mm]



#### 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"

## Coil and accessories



### 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

### Specification

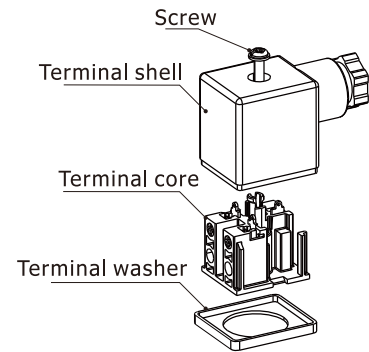
Model\Item	Power type	Voltage (V)	Frequency (Hz)	Voltage range	Electrical entry	Power Consumption (VA/W)		Insulation	Temp.rise(°C)			
						For NC	For NO		NC	NO		
116 Series	AC	220	50	± 15%	DIN Terminal	10.0VA	15.0VA	Class B	35	50		
			60			8.0VA	11.0VA		30	40		
		110	50			10.0VA	15.0VA		35	50		
			60			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			30	30		
		12				Class H	30		65			
170 Series	AC	220	50	± 15%	DIN Terminal			25.0VA		35.0VA	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%	Grommet			10.5W		40	40	
		12										

## Coil and accessories

### Hookup

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

### How to use connector



### 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		×	×	×	×	×

