

Fluid control valve(2/2 way)

2KLA Series (Direct-acting and normally opened)



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 .

Specification

Model/Item	Port size [Note1]	Orifice size (Φmm)	Cv	Valid area or section (mm ²)	Weight [Note2](g)	Max.operating pressure differential		Proof pressure	
						MPa	psi	MPa	psi
2KLAH030	-06 1/8"	2.0	0.18	3.0	243.5	1.5	220	3.0	450
	-08 1/4"								
2KLA030	-06 1/8"	3.0	0.33	6.0	243.5	0.7	100		
	-08 1/4"								
2KLAH050	-10 3/8"	4.0	0.55	10.0	528	1.5	220		
	-15 1/2"								
2KLA050	-10 3/8"	5.0	0.83	15.0	528	0.7	100		
	-15 1/2"								

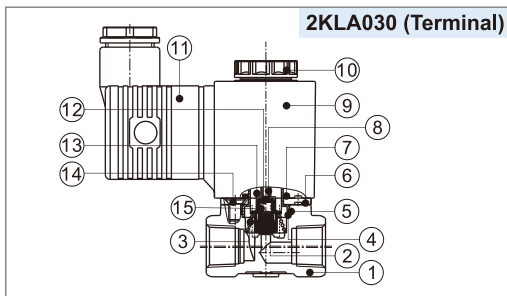
[Note1] PT thread, G thread and NPT thread are available.

[Note2] The weight in the table is the terminal valve's weight, 2KLA030 series grommet valve's weight is 10g less than terminal's. 2KLA050series 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)
2KLA□030	CDA110H CLA110H	AC	50	±15%	Terminal (CDA)	10.0VA	Class H	50
			60			8.0VA		45
		DC	-	±10%		7.0W		50
2KLA□050	CDA160H CLA160H	AC	50	±15%	Grommet (CLA)	25.0VA	Class H	65
			60			22.0VA		60
		DC	-	±10%		10.5W		50

Inner structure



No.	Item	No.	Item	No.	Item
1	Body	6	Fixed plate	11	Connector
2	Airtight ring	7	O-ring	12	Airtight bush
3	Spring	8	Mandril	13	Electromagnet
4	Steel bushing	9	Coil assembly	14	Screw
5	O-ring	10	Coil nut	15	Spring

Valve's specification

Acting	Direct acting				
	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

2KLA H 030 08 A □ □



① Model	② Pressure condition	③ Size series	④ Port size	⑤ Voltage	⑥ Electrical entry	⑦ Thread type
2KLA: 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"	A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V	Blank: Terminal I: Grommet[Note]	Blank: PT G: G T: NPT

[Note] The wire length is 0.5m.

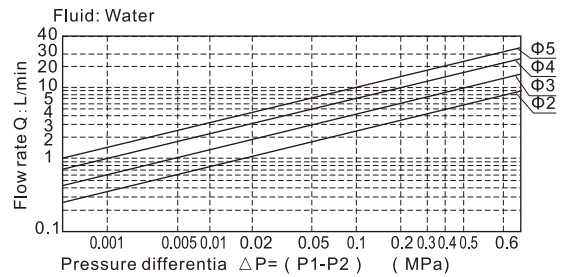
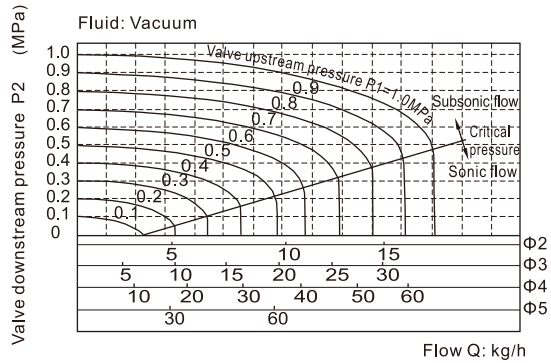
Ordering code of accessories

Ordering code of accessories is the same as 2WA series valve's, Please refer to P19 for details of ordering code.

Fluid control valve(2/2 way)

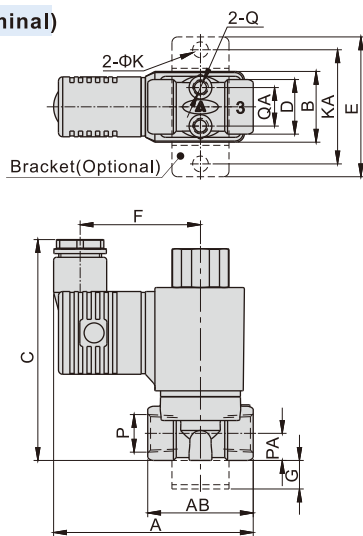
2KLA Series (Direct-acting and normally opened)

Flow chart

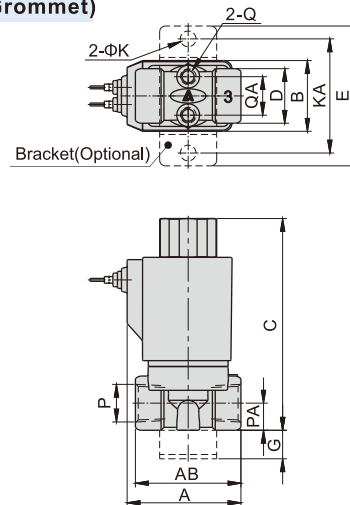


Dimensions

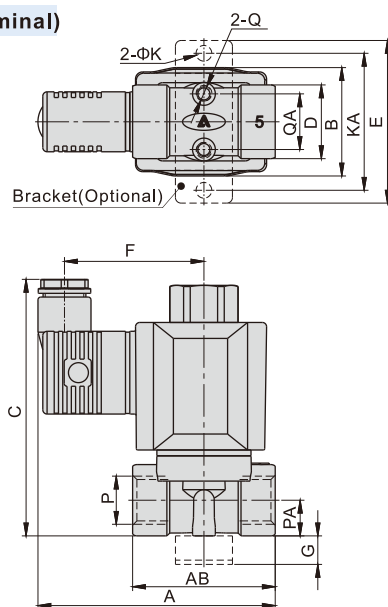
2KLA□030(Terminal)



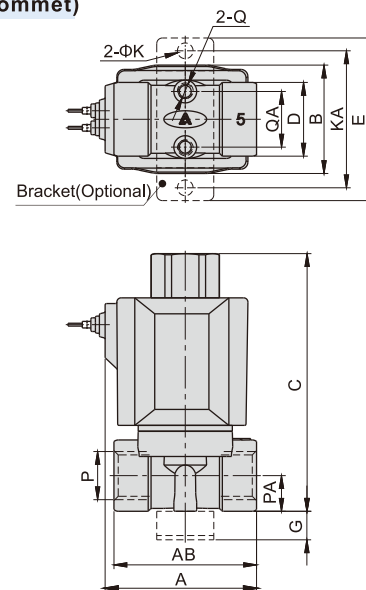
2KLA□030(Grommet)



2KLA□050(Terminal)



2KLA□050(Grommet)



Model\Item	A	AB	B	C	D	E	F	G	K	KA	P	PA	Q	QA
2KLA□030-06	70	37	25	77.5	19	49	42	10	5.5	40	1/8"	9.5	M5	13.5
2KLA□030-08	70	37	25	77.5	19	49	42	10	5.5	40	1/4"	9.5	M5	13.5
2KLA□050-10	83	50	38	90	26	57	49	10	5.5	48	3/8"	12.5	M5	19.5
2KLA□050-15	83	50	38	90	26	57	49	10	5.5	48	1/2"	12.5	M5	19.5

Model\Item	A	AB	B	C	D	E	G	K	KA	P	PA	Q	QA
2KLA□030-06	40	37	25	74	19	49	10	5.5	40	1/8"	9.5	M5	13.5
2KLA□030-08	40	37	25	74	19	49	10	5.5	40	1/4"	9.5	M5	13.5
2KLA□050-10	53	50	38	90	26	57	10	5.5	48	3/8"	12.5	M5	19.5
2KLA□050-15	53	50	38	90	26	57	10	5.5	48	1/2"	12.5	M5	19.5

Fluid control valve(2/2 way)

2KLA Series (Internally piloted and normally opened)



Symbol

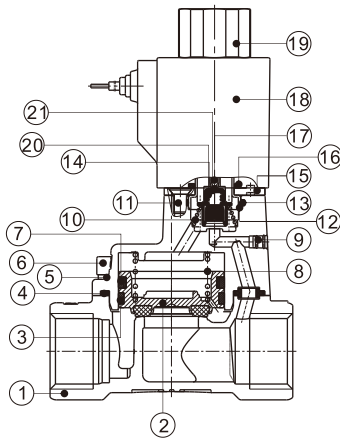


Product feature

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

2KLA150(Grommet)



No.	Item	No.	Item
1	Body	12	Steel bushing
2	Position	13	O-ring
3	Wear ring	14	Airtight ring
4	Gasket	15	Fixed plate
5	Cover	16	O-ring
6	Screw	17	Mandril
7	Spring	18	Coil assembly
8	Spring	19	Coil nut
9	Plug	20	Spring
10	Spring	21	Airtight bush
11	Screw		

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
2KLA150-15	1/2"	15.0	5.50	100.0	569	Max: 0.7 Min: 0.05	Max: 100 Min: 10	1.5	220
2KLA200-20	3/4"	20.0	9.50	170.0	722				
2KLA250-25	1"	25.0	12.50	220.0	1026				
2KLA320-32	1 1/4"	35.0	23.00	420.0	2261				
2KLA400-40	1 1/2"	40.0	31.00	560.0	2641				
2KLA500-50	2"	50.0	49.00	880.0	3508				

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

[Note2] The weight in the table is the terminal valve's weight, 2KLA150~250 series grommet valve's weight is 10g less than terminal's. 2KLA320~500 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)
2KLA150 2KLA200 2KLA250	CDA110H CLA110H	AC	50	±15%	Terminal (CDA) Grommet (CLA)	10.0VA	Class H	50
			60			8.0VA		45
2KLA320 2KLA400 2KLA500	CDA160H CLA160H	AC	50	±15%		25.0VA		50
			60			22.0VA		60
		DC	-	±10%	12.0W	50		

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

2KLA 150 15 A □ □

① ② ③ ④ ⑤ ⑥

① Model	② Orifice size	③ Port size	④ Voltage	⑤ Electrical entry	⑥ Thread type
2KLA: 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 [Note]	Blank: PT G: G 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"			

[Note] The wire length is 0.5m.

Ordering code of accessories

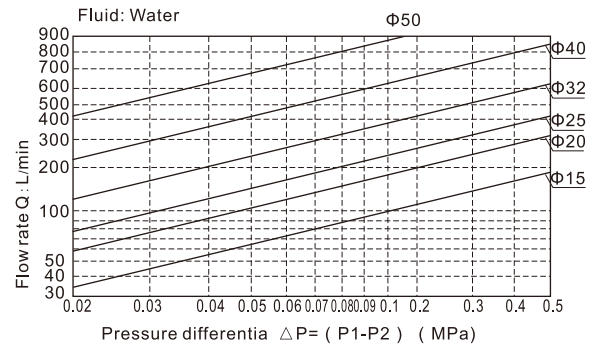
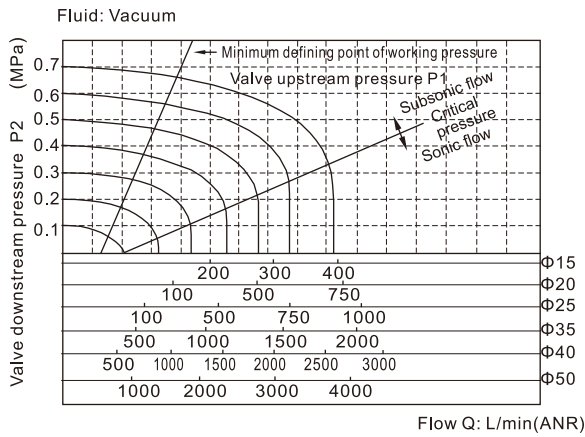
Ordering code of accessories is the same as 2WA series valve's. Please refer to P21 for details of ordering code.

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

Fluid control valve(2/2 way)

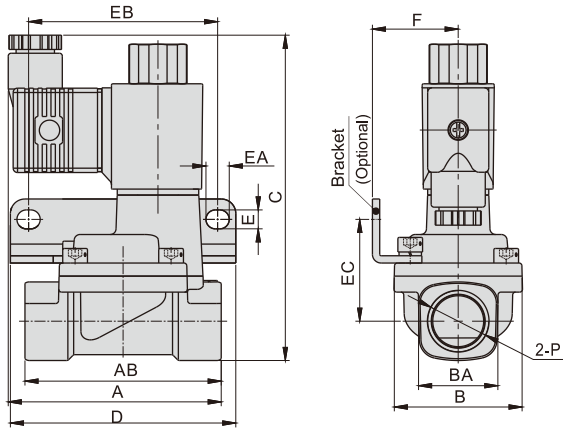
2KLA Series (Internally piloted and normally opened)

Flow chart

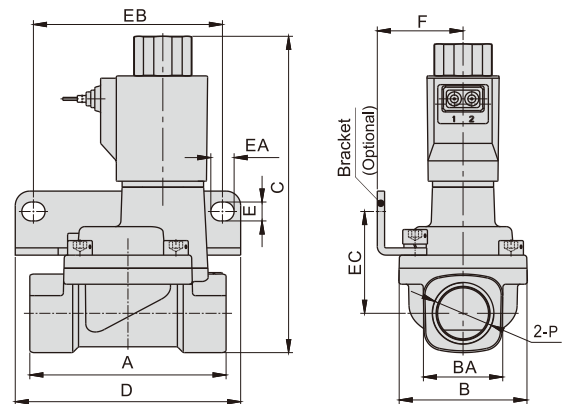


Dimensions

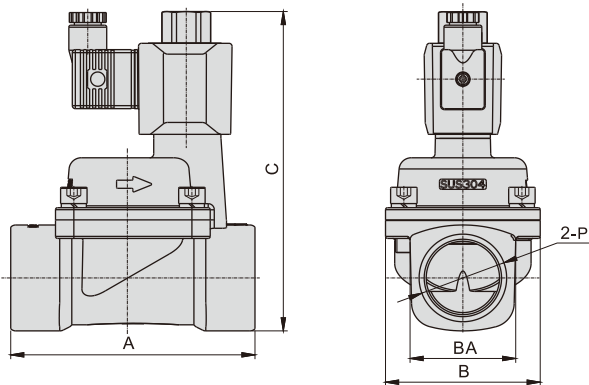
2KLA150~250(Terminal)



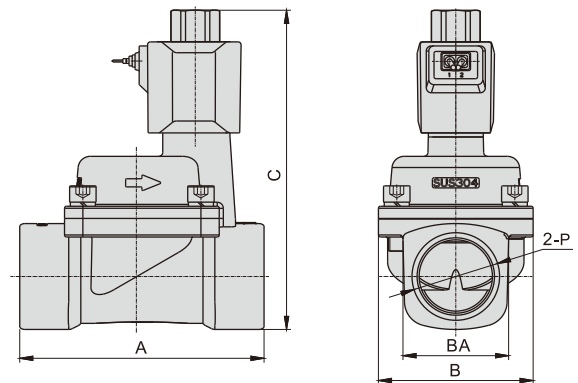
2KLA150~250(Grommet)



2KLA320~500(Terminal)



2KLA320~500(Grommet)



Model/Item	A	AB	B	BA	C	D	E	EA	EB	EC	F	P
2KLA150-15	73.5	67.5	44	27.5	112	77.5	6.5	8	65	35	29.5	1/2"
2KLA200-20	75.5	79.5	51	33.5	119	87.5	6.5	8	75	38	33	3/4"
2KLA250-25	77.5	90	57	40.5	126	93	6.5	8	80	42	35	1"
2KLA320-32	120	-	76	52	165.5	-	-	-	-	-	-	1 1/4"
2KLA400-40	126	-	86	58	175.5	-	-	-	-	-	-	1 1/2"
2KLA500-50	144	-	96	70	186.5	-	-	-	-	-	-	2"

Model/Item	A	B	BA	C	D	E	EA	EB	EC	F	P
2KLA150-15	67.5	44	27.5	102	77.5	6.5	8	65	35	29.5	1/2"
2KLA200-20	79.5	51	33.5	109	87.5	6.5	8	75	38	33	3/4"
2KLA250-25	90	57	40.5	116	93	6.5	8	80	42	35	1"
2KLA320-32	120	76	52	156.5	-	-	-	-	-	-	1 1/4"
2KLA400-40	126	86	58	164.5	-	-	-	-	-	-	1 1/2"
2KLA500-50	144	96	70	179.5	-	-	-	-	-	-	2"



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		
110 Series	AC	220	50	± 15%	DIN Terminal	10.0VA	15.0VA	Class F	50
			60			8.0VA	11.0VA		45
		110	50			10.0VA	15.0VA		50
			60			8.0VA	11.0VA		45
	24	50	10.0VA	15.0VA	50				
		60	8.0VA	11.0VA	45				
DC	24	-	± 10%	Grommet	6.5W		50		
	12								
160 Series	AC	220	50	± 15%	DIN Terminal	25.0VA	35.0VA	65	
			60			22.0VA	30.0VA	60	
		110	50			25.0VA	35.0VA	65	
			60			22.0VA	30.0VA	60	
		24	50			25.0VA	35.0VA	65	
			60			22.0VA	30.0VA	60	
	DC	24	-	± 10%	Grommet	12.0W		50	
		12							

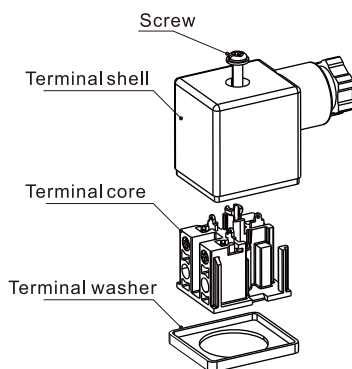
Hookup

Coil's type		Hookup
110 Series	CDA110 (Terminal)	AC
	CLA110 (Grommet)	DC
160 Series	CDA160 (Terminal)	AC
	CLA160 (Grommet)	DC
	CDA160 (Terminal)	DC
	CLA160 (Grommet)	DC

How to select coil

Valve type\Coil type	110Series		160 Series	
	Class F	Class H	Class F	Class H
2WA□030 2KWA□030	●	×	×	×
2SA□030 2KSA□030	●	×	×	×
2LA□030 2KLA□030	×	●	×	×
2WA□050 2KWA□050	×	×	●	×
2SA□050 2KSA□050	×	×	●	×
2LA□050 2KLA□050	×	×	×	●
2WA150~250 2KWA150~250	●	×	×	×
2SA150~250 2KSA150~250	●	×	×	×
2LA150~250 2KLA150~250	×	●	×	×
2SA320~500 2KSA320~500	×	×	●	×
2LA320~500 2KLA320~500	×	×	×	●

How to use connector



How to select accessories

Valve type\Accessories type	F-2WA030LB	F-2WA050LB	F-2WA150LB	F-2WA200LB	F-2WA250LB
2WA□030 2KWA□030	●	×	×	×	×
2SA□030 2KSA□030	●	×	×	×	×
2LA□030 2KLA□030	●	×	×	×	×
2WA□050 2KWA□050	×	●	×	×	×
2SA□050 2KSA□050	×	●	×	×	×
2LA□050 2KLA□050	×	●	×	×	×
2WA150 2KWA150	×	×	●	×	×
2SA150 2KSA150	×	×	●	×	×
2LA150 2KLA150	×	×	●	×	×
2WA200 2KWA200	×	×	×	●	×
2SA200 2KSA200	×	×	×	●	×
2LA200 2KLA200	×	×	×	●	×
2WA250 2KWA250	×	×	×	×	●
2SA250 2KSA250	×	×	×	×	●
2LA250 2KLA250	×	×	×	×	●

Ordering code of coil

CD A110 A □

① ② ③ ④

① Coil type	② Coil's bore	③ Voltage	④ Temperature resistance class
CD: Terminal CL: Grommet	A110: Coil Specification (Bore sizeΦ10.0mm) A160: Coil Specification (Bore sizeΦ16.0mm)	A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V	Blank: F Class H: H Class