

## KG13 SERIES FLOATING / MODULATING VALVE

### DESCRIPTION

KG13 series floating/modulating valves are mainly used in central air-conditioning cool/heat water system. It can accurately control the flow of cool/heat medium according to the actual requirement, and will not result in sudden change of temperature and to control the room temperature accurately.

The valve is driven by bi-directional motor, which is connected with the floating thermostat by common, open and close terminals. The floating thermostat will continuously collect the data and make processing, and send out control signals to operate or stop the motor so as to control the open/close angle of the valve. Then the chilled/hot water will enter into the fan coil, and cool/heat air will be supplied to the room. When the room temperature reaches the set point, the thermostat will make the valve power off. So the opening angle of the valve will be always at the best state, and the room temperature will be kept within the set range of the thermostat.

If the matching controller is without overtime protection function, the timing protection device can be selected to assemble in the valve. With this timing protection device, the life of the motor will be extended. KG13 series floating/modulating valve has two types: 2-way and 3-way. It has four sizes: 1/2", 3/4", 1" and 1 1/4". There are 11 kinds of specifications classified by the access type and the fluid characteristic. There are also different pipe connection for customers' selection: BSP(G), NPT(N), SWEAT(S), INVERTED FLARE(F), etc.

The base and cover of KG13 series floating / modulating valve is used flameproof engineering plastic. Ball valve plug is used to control the fluid. It has the advantages of large flow rate, high differential pressure, low noise, stable and dependable performances. It can withstand the high/low temperature and high humidity condition often appeared in concealed fan coil unit.

Further more it also has the following advantages:

- Bi-directional floating proportional control;
- High precision and sensitivity of temperature control;
- Various AC voltages for selection, such as 24V, 110V and 220V, etc.;
- Timing protection device (for 24V working power supply, it can be assembled for optional), to ensure motor reliable and durable life;
- Built-in electronic card (24V working power supply only) can receive 0~10V or 4~20mA DC input control signal, and provide proportional control;
- The valve actuator and valve body is used tight lock connection. The actuator can be installed after the installation of valve body. It has flexible and convenient assembly.



### SPECIFICATIONS AND DATA

PRODUCT CODE	TYPE	FLOW RATE (Kv)	SIZE	CLOSE OFF PRES. (MPa)	BODY PRES. (MPa)	MEDIUM	FLUID TEMP. (°C)	WORKING TEMP. (°C)	TECHNICAL DATA
KG13G21520A(B)4*	2-way	2.0	G1/2"	0.3	2.1	Chilled / hot water	2~94	<40	Rated Voltage(for option): 220V AC <b>5VA</b> 110V AC <b>2.5VA</b> 24V AC <b>2.5VA</b> Frequency: 50/60Hz Full stroke time: 2-way valve: DN15, DN20 <b>65S</b> DN25 <b>70S</b> DN32 <b>90S</b> 3-way valve: DN15, DN20 <b>75S</b> DN25 <b>80S</b> DN32 <b>120S</b>
KG13G21532A(B)4		3.2		0.3					
KG13G22032A(B)4		3.2	G3/4"	0.3					
KG13G22046A(B)4		4.6		0.3					
KG13G22557A(B)4		5.7	G1"	0.3					
KG13G22568A(B)4		6.8		0.3					
KG13G232A0A(B)4		10.0	G1 1/4"	0.3					
KG13G31532A(B)4	3-way	3.2	G1/2"	0.3					
KG13G32046A(B)4		4.6	G3/4"	0.3					
KG13G32557A(B)4		5.7	G1"	0.3					
KG13G33284A(B)4		8.4	G1 1/4"	0.3					

▲ \* The "A" in "A(B)4" means the valve is non-detachable type. The "B" means easy assembly type. The number 4 means 220VAC/230VAC voltage; if 24VAC, change the model to "1"; if 110VAC, change the model to "2"; if 120VAC, change the model to "3". Other parameters are the same as the above and won't be listed in details.

▲ If with built-in electronic card, add "-E" behind the product code. E.g. "KG13G21520A1-E". And the Electronic Card Setting Diagram will be attached. (24Vac only)

▲ All the data will be changed without prior notice.

## DIMENSIONS (Refer to Figure 1)

TYPE	DIMENSIONS (mm)				
	C	D	E	F	G
DN15 2-way	115	73	67	80	90
DN15 3-way	125	73	67	80	90
DN20 2-way	115	73	67	89	90
DN20 3-way	127	73	67	89	90
DN25 2-way	117	73	67	93	90
DN25 3-way	139	73	67	93	90
DN32 2-way	131	73	67	105	90
DN32 3-way	146	73	67	105	90

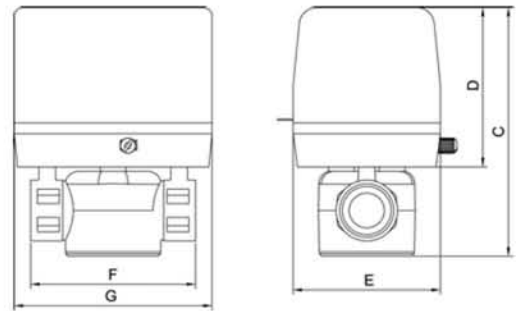
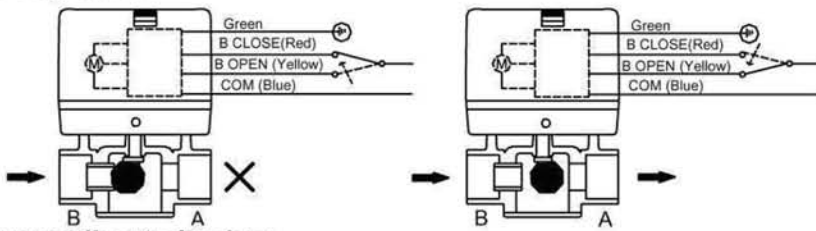
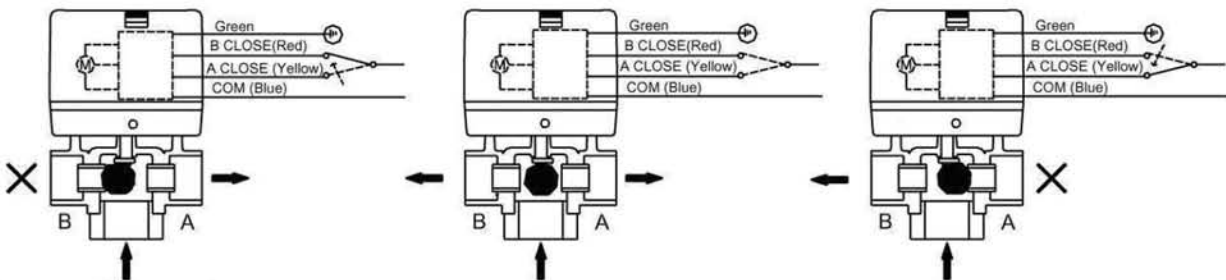


Fig. 1

### 2-way valve:



### 3-way diverted valve:



### 3-way mixing valve

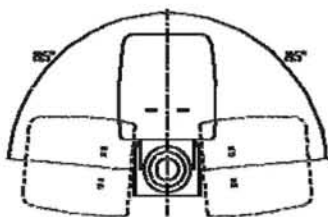
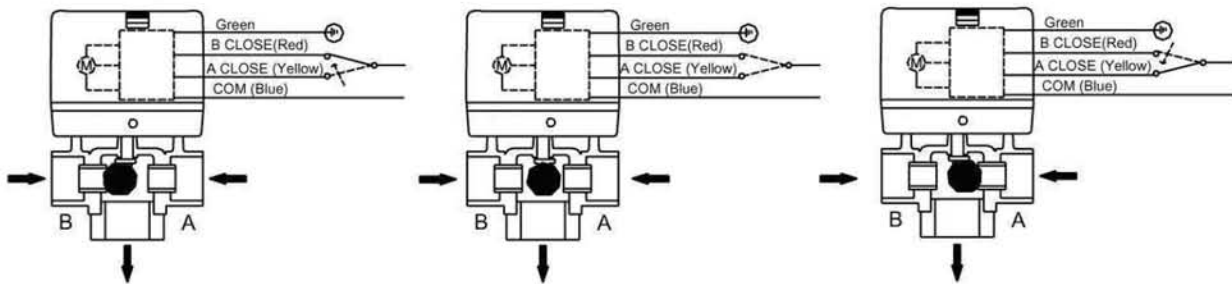


Fig. 3 Installation Position

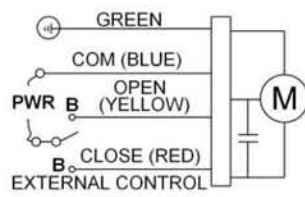


Fig. 4 Wiring Diagram (Floating)

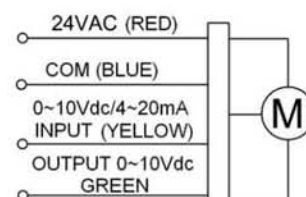


Fig.5 Wiring Diagram (Modulating)

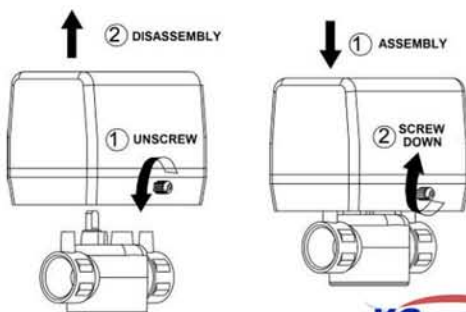


Fig. 6 Assembly and disassembly