

# KG12 SERIES MOTORIZED VALVES

## DESCRIPTION

KG12 series motorized valves are used to control the opening or closing for the pipe in the chilled/hot water system so to control the room temperature. The valve is driven by hysteresis synchronous motor with spring return. It is normally close ball valve.

When the thermostat is working, it will provide an opening signal, and the motorized valve will be opened. Then the chilled/hot water enters the coil and the coil starts to supply the cold/warm air to the room. When the room temperature rises to the set point, the thermostat will cut the valve power off. At the same time the valve will be closed by return spring and shut off the water to the coil. The room temperature will be kept in the setting range all the time through the opening and closing the valve.

KG12 series motorized valves have two types: normally close 2-way and diverting 3-way. They have four sizes: 1/2", 3/4", 1" and 1 1/4". There are eleven 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 valves models with S behind are equipped with auxiliary switches to control other devices and meet different requirements.

KG12 series motorized valves' plates and covers are made of hard ABS plastic. They have high flow rate, low noise and reliable characteristics. The actuator and valve are connected by one screw (KG12...B... only), can be easily assembled or disassembled.



## MATERIAL AND TECHNICAL DATA

MATERIAL	VALVE BODY	Forged brass
	SEAL MATERIAL	Nitrile butadiene rubber (NBR)
	CHASSIS & COVER	Fire-retardant ABS engineering plastic
WORKING MEDIA		Chilled / hot water
MEDIA TEMPERATURE		2~94°C(36~201°F)
PRESSURE RATING		2.1MPa
RATING VOLTAGE		24Vac, 110Vac, 120V, 220/230Vac±10%, 50/60Hz
POWER		6.5W
DRIVING PARTS		Driven by synchronous motor, spring return
OPERATION DURATION		Motor: about 15s after power on      Spring: 5s after power off
AMBIENT TEMPERATURE		0~60°C(32~140°F)
STORAGE TEMPERATURE		-20~65°C Max. Rh, no condensation

## SPECIFICATIONS AND DATA

MODEL		TYPE	Kv	SIZE	CLOSE OFF PRESSURE
KG12(G)/(N)/(S)C21520A4	KG12(G)/(N)/(S)C21520B4	Normally close 2-Way	2.0	G1/2"	0.25MPa
KG12(G)/(N)/(S)C21532A4	KG12(G)/(N)/(S)C21532B4		3.2		0.20MPa
KG12(G)/(N)/(S)C22032A4	KG12(G)/(N)/(S)C22032B4		3.2	G3/4"	0.20MPa
KG12(G)/(N)/(S)C22046A4	KG12(G)/(N)/(S)C22046B4		4.6		0.15MPa
KG12(G)/(N)/(S)C22557A4	KG12(G)/(N)/(S)C22557B4		5.7	G1"	0.10MPa
KG12(G)/(N)/(S)C22568A4	KG12(G)/(N)/(S)C22568B4		6.8		0.08MPa
KG12(G)/(N)/(S)C232A0A4	KG12(G)/(N)/(S)C232A0B4		10.0	G1 <sup>1/4</sup> "	0.08Mpa
KG12(G)/(N)/(S)B31532A4	KG12(G)/(N)/(S)B31532B4	Diverting 3-Way	3.2	G1/2"	0.20MPa
KG12(G)/(N)/(S)B32046A4	KG12(G)/(N)/(S)B32046B4		4.6	G3/4"	0.15MPa
KG12(G)/(N)/(S)B32557A4	KG12(G)/(N)/(S)B32557B4		5.7	G1"	0.10MPa
KG12(G)/(N)/(S)B33284A4	KG12(G)/(N)/(S)B33284B4		8.4	G1 <sup>1/4</sup> "	0.08Mpa

- The model code A means the actuator is integrated on the valve. The letter B in last second code means easy assembly actuator.
- Accessories: Auxiliary switch (250Vac/3A). If you want to order the auxiliary switch, please add an "S" behind the model name.

## DIMENSIONS

MODEL	DIMENSION (mm)						
	A	B	C	D	E	F (2-way)	G (3-way)
1/2", 2-Way	80	40	91	68	65	108	--
1/2", 3-Way	80	40	91	68	65	--	118
3/4", 2-Way	89	44	91	68	65	108	--
3/4", 3-Way	89	44	91	68	65	--	120
1", 2-Way	93	44	91	68	65	110	--
1", 3-Way	93	44	91	68	65	--	126
1 1/4", 2-Way	105	54	91	68	65	124	--
1 1/4", 3-Way	105	54	91	68	65	--	139

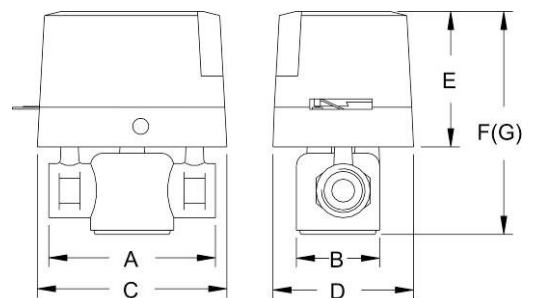
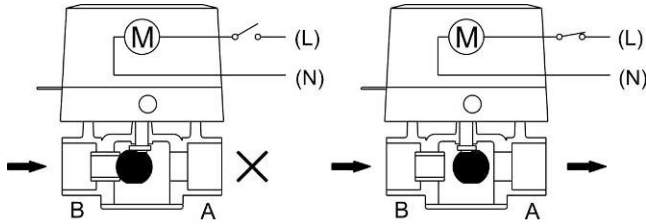


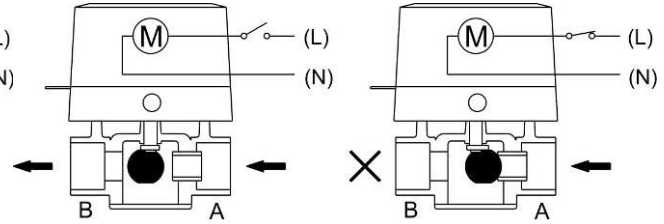
Fig. 1

## WORKING SITUATION

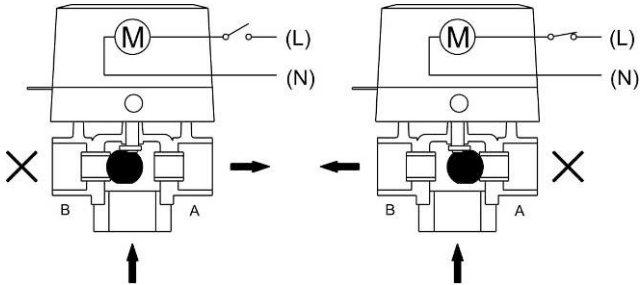
### 2-way normally close valve



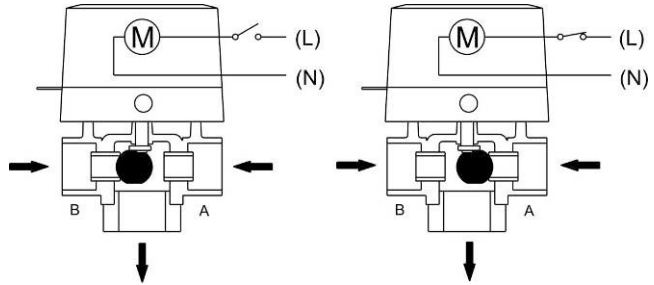
### 2-way normally open valve



### 3-way diverted valve

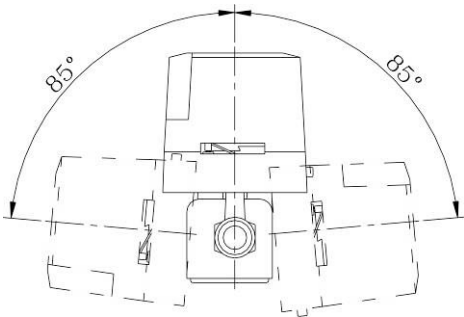


### 3-way mixing valve

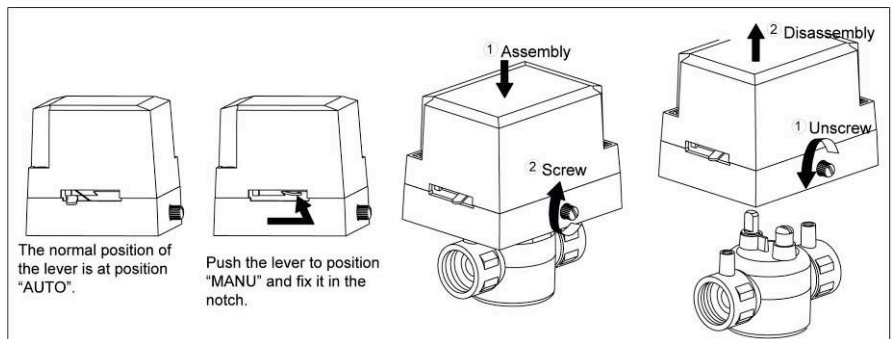


## INSTALLATION

### Permitted angle of installation



### Assembly/Disassembly indication



**Notice:**  
After installation,  
must remove the lever stopper  
before the first use.

