

# TVI-FSL SERIES FAN COIL SPRING LOADED DETACHABLE VALVE



## DESCRIPTION

FSL Series motorized valve size is ½” to 1¼” . It is used to control the opening or closing for the pipe in chilled or hot water system so to control the room temperature. The actuator is driven by hysteretic synchronous motor, and returned by spring. Valve is normally closed when it doesn't work. When it needed to work, the thermostat sends a signal to the valve to open the valve, and then the valve works after connecting with the AC power. After the valve is opened, the chilled or hot water enters into the coil, and cool air or hot air is supplied to the room. When the room temperature rises to the set point, the thermostat sends a signal to the valve to cut off the power, and the spring returns to close the valve, so the water to the coil is shut off. The room temperature is kept in the setting scope all the time through the opening and closing of the valve.

FSL series motorized valve has two types: normal-closed 2-way and mixing 3-way. It has four sizes: DN15, DN20, DN25, DN32. There are eight models according to the flow types and fluid characteristics.

The actuator is connected with the valve body by nut. It can be mounted later after the valve body has been mounted on the pipe already. It has convenient-mounted and flexible wire-connection characteristics. The actuator flat design can be mounted very near the wall, occupied small space. This product is reliable, long-life, and low noise. It also can be make a set with FSL series valve, very flexible.

## MATERIAL AND TECHNICAL DATA

	<b>MODEL</b>	FSL Series valve
<b>MATERIAL</b>	<b>VALVE BODY</b>	Forging brass
	<b>VALVE STEM</b>	Stainless steel (AISI302)
	<b>SEAL MATERIAL</b>	Nitrile butadiene rubber (NBR)
	<b>ACTUATOR PLATE</b>	PA Engineering plastic
	<b>ACTUATOR COVER</b>	Fireproof ABS engineering plastic (UL94V-0)
	<b>WORKING MEDIA</b>	Chilled / Hot water
	<b>MEDIA TEMPERATURE</b>	2~94℃
	<b>HUMIDITY</b>	100%
	<b>WORKING ENVIRONMENTAL TEMPERATURE</b>	0~60℃
	<b>STORAGE TEMPERATURE</b>	-20~65℃ Max. RH: No condensation
	<b>PROTECTION CLASS</b>	IP20

## FSL ACTUATOR TECHNICAL DATA

MODEL	RATED VOLTAGE	POWER	RPM	DRIVING WAY	OPERATING TIME WHEN FIT WITH FSL VALVE BODY
SRM2-220	AC220V ± 10%	6W	4	Driven by Synchronous hysteresis motor, and returned by spring	Full opening time: About 10 seconds when power-on; Closing time: About 5 seconds when power-off
SRM2-110	AC110V ± 10%				
SRM2-24	AC24V ± 10%				
SRM3-220	AC220V ± 10%	6W	3		Full opening time: About 26 seconds when power-on; Closing time: About 7 seconds when power-off
SRM3-110	AC110V ± 10%				
SRM3-24	AC24V ± 10%				

## FSL VALVE BODY TECHNICAL DATA

MODEL	TYPE	SIZE	Kv FACTOR	CLOSING-OFF PRES. (KPa)	RATING PRES. (MPa)	FITTED ACTUATOR
TVI-FSL-215	Normal- closed 2-way	G1/2"	2.0	300	1.6	SRM2-220 SRM2-110 SRM2-24
TVI-FSL-315	Mixing 3-way	G1/2"	2.0	300		
TVI-FSL-220	Normal- closed 2-way	G3/4"	2.8	150		
TVI-FSL-320	Mixing 3-way	G3/4"	2.8	150		
TVI-FSL-225	Normal- closed 2-way	G1"	4.6	120	1.6	SRM3-220 SRM3-110 SRM3-24
TVI-FSL-325	Mixing 3-way	G1"	4.6	120		
TVI-FSL-232	Normal-closed 2-way	G1 <sup>1/4</sup> "	10	100		
TVI-FSL-332	Mixing 3-way	G1 <sup>1/4</sup> "	10	100		

SIZE	DIMENSIONS(mm)	
	A	B
DN15 2-way	66	125
DN15 3-way	66	142
DN20 2-way	72	128
DN20 3-way	72	147
DN25 2-way	89	133
DN25 3-way	89	154
DN32 2-way	90	146
DN32 3-way	90	169

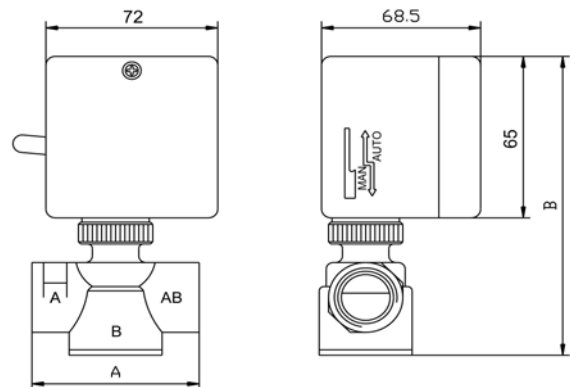


Fig. 1 Dimensions

## OPERATION INSTRUCTION

When the valve is mounted on horizontal pipe, the angle must be positioned less than 85° (See Fig. 2).

When the valve is mounted on vertical pipe, it must be prevented from dripping.

When installation, please note the arrow direction of the valve. Move the manual operating lever slowly and hold in the retaining notch, and then the valve is in normal-opened position. When the valve is first powered on, the lever goes back to the automatic position again.

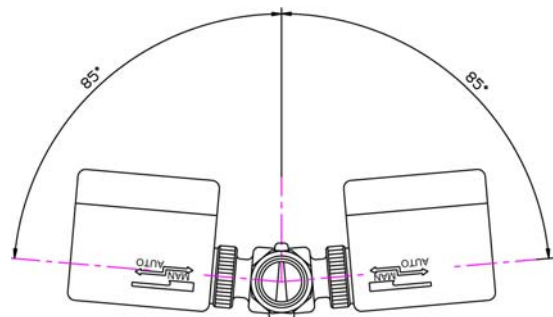


Fig. 2 Installation Position

## INSTALLATION

Normal-closed 2-way and mixing 3-way valve are installed as Fig. 3 & 4. For high building, pressure-reducing valve should be installed on branch pipe at ground floor.

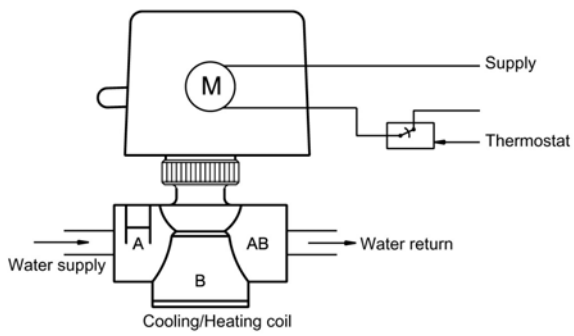


Fig. 3 2-Way Valve

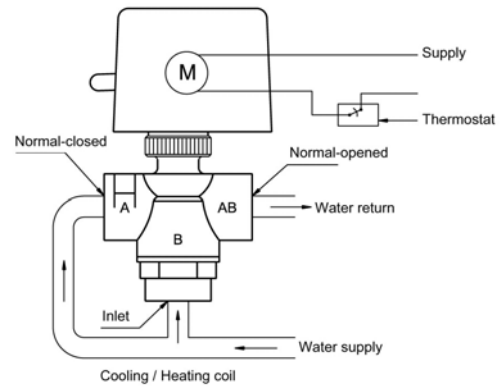


Fig. 4 3-Way Valve