

# SBV01 SERIES BALL VALVE BODY

## DESCRIPTION

SBV01 series ball valve bodies are widely used to control water flow in central air-conditioning, heating system. Controlling by different type actuators, SBV01 series ball valve has modulating type and on/off type, which can regulate flux or swift flow direction in the chilled/hot water circuit.

The modulating ball valve can open/close to a particular angle after received standard modulating or 3-point signal from the actuator. With the flux control unit, its flow characteristic is equal percentage. This makes there is no furious flow increasing when the valve is opening, and keeps a more stable flow control.

The on/off ball valve is controlled by receiving open/close signal from actuator.

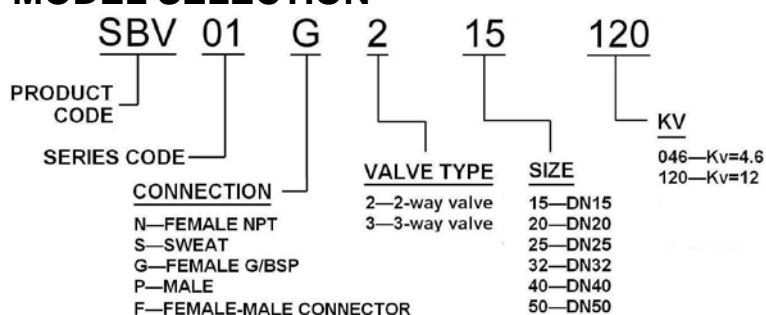
There are 6 sizes valves: DN15, DN20, DN25, DN32, DN40 and DN50, and each size have different Kv values. The ball sealing inside the valve is made of PTFE material of high lubricating ability and wearability. It makes the valve has high closing-off pressure and great hermetization. The actuator can be assembled or disassembled easily by pressing the detachable button.



## MATERIAL

<b>MATERIAL</b>	<b>BODY</b>	Forged brass
	<b>BALL</b>	Casting brass (chrome-plate)
	<b>BALL SEALING</b>	PTFE (Poly tetrae fluoro ethylene)
	<b>STEM</b>	Brass
	<b>SEAL</b>	NBR
<b>WORKING MEDIA</b>		Chilled/hot water; 50% glycol
<b>MEDIA TEMPERATURE</b>		2℃~94℃

## MODEL SELECTION



## TECHNICAL DATA

MODEL	TYPE	FLOW RATE		CONNECTION	CLOSSING-OFF PRESSURE (MPa)	RATED BODY PRESSURE. (MPa)
		Kv	Cv			
SBV01G215020	2-way	2.0	2.34	G1/2	0.6	2.5
SBV01G215120	2-way	12	14		0.6	
SBV01G315120	3-way	12	14		0.6	
SBV01G220150	2-way	15	17.5	G3/4	0.6	
SBV01G320150	3-way	15	17.5		0.6	
SBV01G225220	2-way	22	25	G1	0.6	
SBV01G325220	3-way	22	25		0.6	
SBV01G232340	2-way	31	36.3	G1 <sup>1/4</sup>	0.6	
SBV01G240320	2-way	33	38.6	G1 <sup>1/2</sup>	0.6	
SBV01G250500	2-way	50	58.5	G2	0.6	

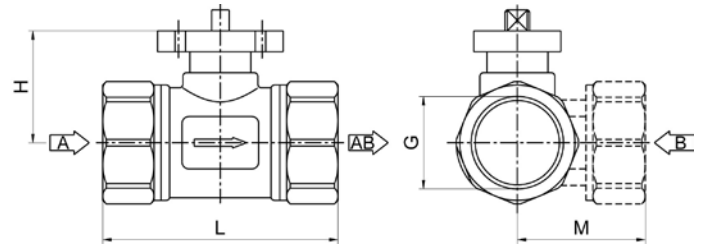
Note:

The above data is only for female connection valves, inside of which don't have flow control unit. And there is no 3-way available yet for DN32~DN50 model.

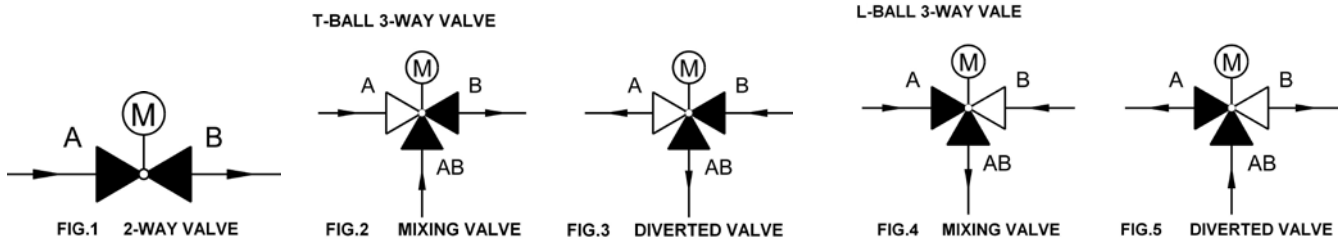
The Kv/Cv for 3-way valve is the flow rate from port A to B.

## DIMENSIONS (MM)

DN	DIMENSIONS			THREAD	MAX. PIPE SIZE
mm	L	H	M (3-WAY)	G	
15	68	32	46	1/2"	13
20	68	32	46	3/4"	13
25	82	37	57	1"	17
32	98	48	N/A	1 1/4"	19
40	98	48		1 1/2"	19
50	122	52		2"	29



## FLOW DIRECTION



## WORKING THEORY:

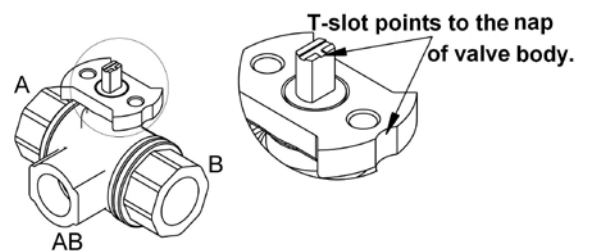
SBV01 series 2-way valve is a flow-cutting device. Because of that, it must be installed on the return pipe to reduce thermal stress of the valve ball sealing. The flow direction of the system must be conformed with the indication marked on the valve body. There are two type 3-way valves, one is T-ball valve, and the other is L-ball valve.

For the T-ball 3-way valve, the flow directions are indicated above. If it is used as mixing valve, when it is no signal, the flow direction is from **Port AB** to **Port B**, **Port A** is closed. When the actuator gets action signal, water flows from **Port A** to **Port B**, **Port AB** is closed. If it is used as diverted valve, when it is no signal, water flows **Port B** to **Port AB**, **Port A** is closed. When the actuator gets action signal, water flows from **Port B** to **Port A**, **Port AB** is closed.

If the L-ball 3-way valve is used as mixing valve, when it is no signal, the flow direction is from **Port A** to **Port AB**, **Port B** is closed. When the actuator gets action signal, water flows from **Port B** to **Port AB**, **Port A** is closed. If it is used as diverted valve, when it is no signal, water flows **Port AB** to **Port A**, **Port B** is closed. When the actuator gets action signal, water flows from **Port AB** to **Port B**, **Port A** is closed.

## HOW TO IDENTIFY THE PORT A OR PORT B:

If the valve body is not covered by insulation material, please identify them by arrow. The arrow are point to **Port B**. If the arrow can't be seen, please use the T-slot on the valve plate to judge. The side with the nap is **Port B**, as the picture.



## INSTALLATION & ADJUSTMENT

Because the valve can be installed on the pipe without the actuator, the adjustment can only processed after the actuator assembled on the valve. The installation of the actuator is very easy, no tools request. See the details in the specification of the actuator.

The ball valve can be installed vertically (FIG.6) or horizontally (FIG.7). THE ACTUATOR MUST BE INSTALLED ABOVE THE VALVE BODY (FIG.8).

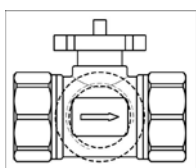


FIG.6

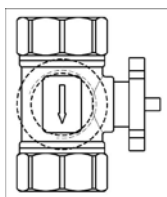


FIG.7

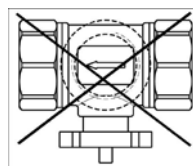
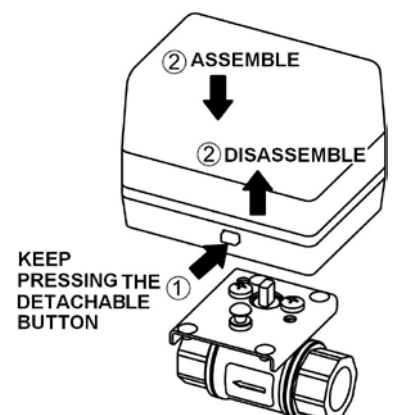


FIG.8



D02	D01
070806	070428