

SBA01 SERIES BALL VALVE ACTUATOR

DESCRIPTION

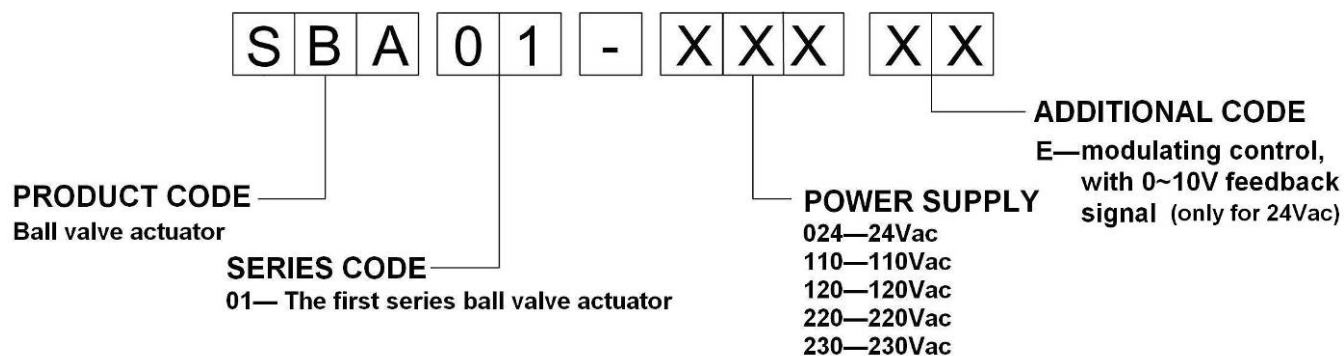
SBA01 series ball valve actuator is using bi-directional motor. Matching with DN15~DN25 SBV series ball valve, it is mainly used in central air-conditioning system, heating system, water treatment, and production industry to control the flow of chilled/hot medium



CHARACTERISTIC

- Bi-directional AC motor
- On/off type or floating (PID adjusting) type
- Built-in micro-switch for power saving
- With manual switch
- High control precision and sensitivity
- Low noise level, and more reliable
- Fireproof ABS engineering plastic, measure up UL94V-0 standard
- Detachable design, easy to install and maintain
- 0(2)~10V dc or 0(4)~20mA dc control input signal, proportional control.
- 0~10V feedback signal.

SBA01 SERIES BALL VALVE ACTUATOR MODEL SELECTION



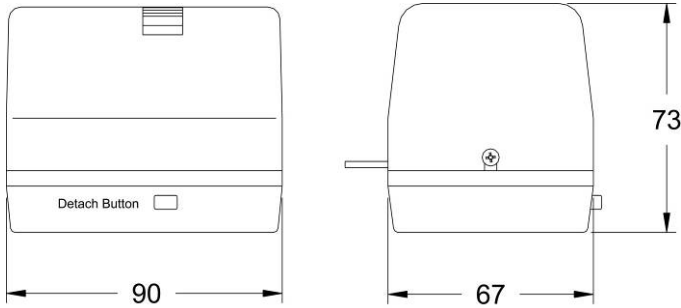
SPECIFICATIONS AND DATA

MODEL	SBA01-024E	SBA01-024	SBA01-110	SBA01-120	SBA01-220	SBA01-230
POWER SUPPLY	24Vac	24Vac	110Vac	120Vac	220Vac	230Vac
POWER CONSUMPTION	3.5VA	3VA			5VA	
CONTROL SIGNAL	0(2)~10V dc or 0(4)~20mA dc	—				
CURRENT FREQUENCY	50/60Hz					
OPERATION TIME	18s (50Hz) / 15s (60Hz)					
ROTATABLE ANGLE	0°~90°					
CONNECTING WIRES	0.5~1 mm ²					
MATERIAL	HOUSING	Fireproof ABS engineering plastic				
	CHASSIS	PC+ABS engineering plastic				
	GEAR	POM (polyoxymethylene) + brass				
	REDUCER PLATE	Stainless steel sheet				
OPERATION TEMP.	-5~+50°C					
STORAGE TEMP.	-20~65°C					

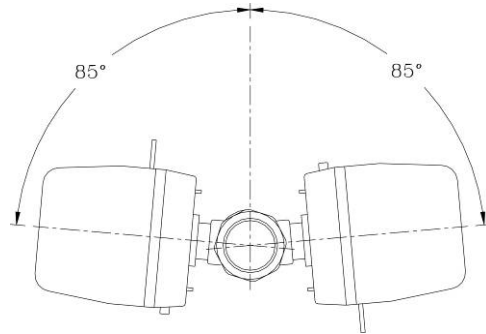
It also has 36s (50Hz) / 30s (60Hz) for optional, please indicate in purchase order.

▲ All the data will be changed without prior notice.

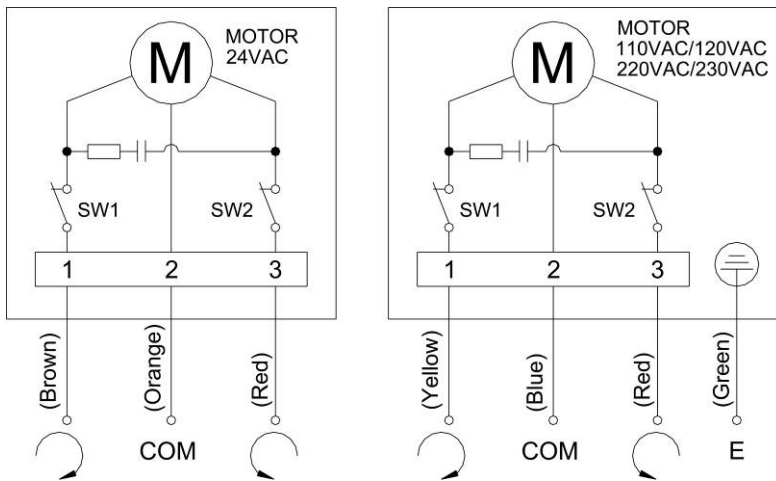
DIMENSIONS



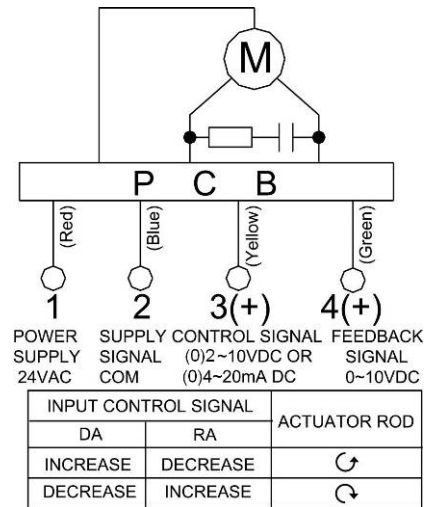
INSTALLATION ANGLE



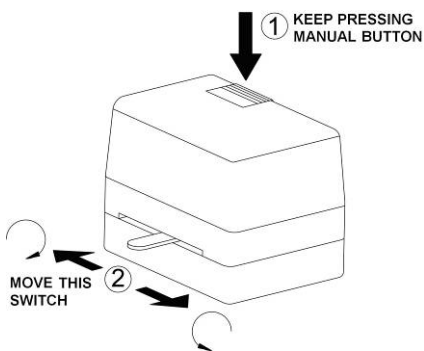
WIRING



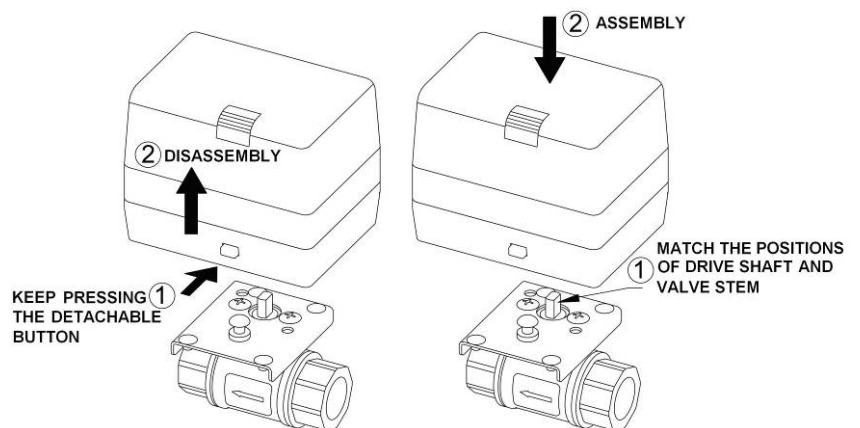
PCB WIRING



MANUAL SWITCH



ASSEMBLY/DISASSEMBLY



NOTICE:

- When the valve is installed vertically on pipe, please prevent drip into the actuator.
- The actuator can not be covered by insulative material.
- The PCB settings for 0~10V control mode and 4~20mA control mode are quite different. If need 4~20mA control mode, please indicate it in the purchase order. (only for the product which has feedback function)

WARNING:

- Cut off power supply when repairing or maintaining.
- Do not connect or disconnect wire when power is on.

SBV01 SERIES FULL PORT BALL VALVE BODY

DESCRIPTION

SBV01 series ball valve bodies are widely used to control water flow in central air-conditioning, heating system. The valves are 3-piece structure, and have six sizes: DN15, DN20, DN32, DN40 and DN50.

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 sealing.

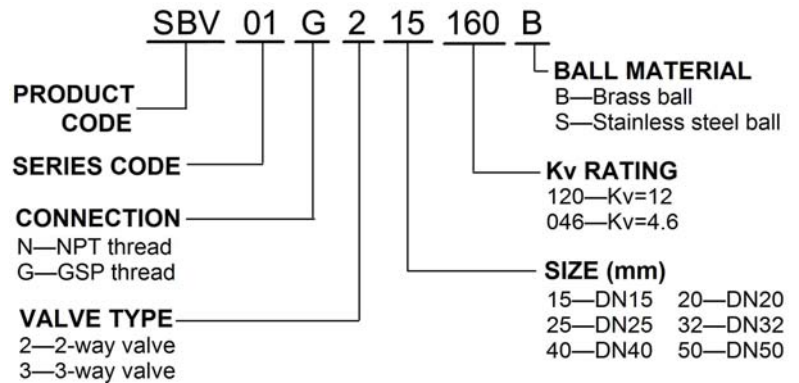


ACTUATOR APPLICATION	VALVE SIZE	CONNECTION
SBA01	DN15, DN 20, DN 25	Release button
SBA04	DN 40, DN 50	Bolt

MATERIAL

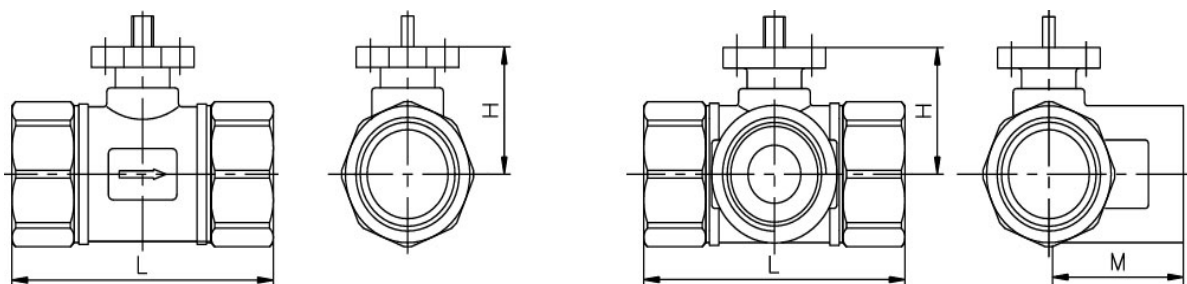
MODEL SELECTION

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



TECHNICAL DATA

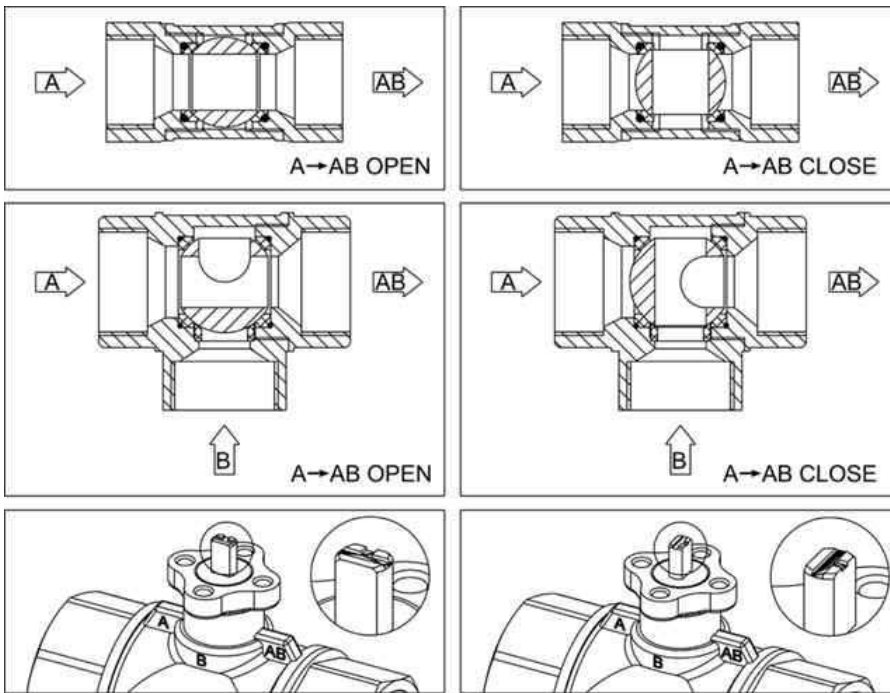
MODEL	TYPE	FLOW RATE		CONNECTION	CLOSE-OFF PRESSURE (MPa)	RATED BODY PRESSURE. (MPa)
		Kv	Cv			
SBV01G215120B(S)	2-way	12	14	G1/2	0.6	2.5
SBV01G315120B(S)	3-way	12	14			
SBV01G220150B(S)	2-way	15	17.5	G3/4	0.6	
SBV01G320150B(S)	3-way	15	17.5			
SBV01G225220B(S)	2-way	22	25	G1	0.6	
SBV01G325220B(S)	3-way	22	25			
SBV01G232310B(S)	2-way	31	36.3	G1 1/4	0.6	
SBV01G332310B(S)	3-way	31	36.3			
SBV01G240330B(S)	2-way	33	38.6	G1 1/2	0.6	
SBV01G340330B(S)	3-way	33	38.6			
SBV01G250500B(S)	2-way	50	58.5	G2	0.6	
SBV01G350500B(S)	3-way	50	58.5			



DIMENSIONS (MM)

DN mm	DIMENSIONS (mm)				THREAD G	MAX. PIPE THREAD SIZE (mm)
	L		H	M		
	2-way	3-way				
15	68	68	32	33	1/2"	13
20	68	68	32	34	3/4"	13
25	82	84	37	43	1"	17
32	98	104	48	50	1 1/4"	19
40	105	111	48	50	1 1/2"	19
50	122	143	52	61	2"	29

FLOW DIRECTION



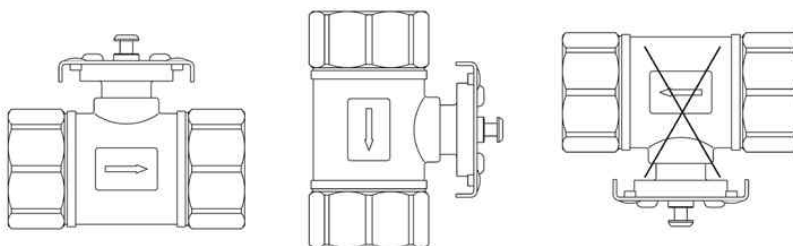
The Kv (Cv) ratings listed on above table are from port A to port AB. The flow ratings from port B to port AB are about 50% of above Kv (Cv) ratings.

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. SBV01 series 3-way valve can be used as mixing valve or diverted valve. **Please notice that the "T" mark on valve stem indicates the ports on the valve ball.**

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. Please see the details on Installation Indication.

The ball valve can be installed horizontally or vertically. **THE ACTUATOR MUST BE INSTALLED ABOVE THE VALVE BODY.**



D04	D03	D02	D01
081028	071201	070806	070428

SBV02 SERIES CHARACTERIZED OPENING BALL VALVE BODY

DESCRIPTION

SBV02 series ball valve bodies are widely used to control water flow in central air-conditioning, heating system. Controlled by standard floating signal or 3-point signal from angle rotation actuators, the valve ball can be rotated to different angle. The valves are 3-piece structure, and have six sizes: DN15, DN20, DN25, DN32, DN40 and DN50.

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 valves can be matched with SBA01 and SBA04 series actuators.

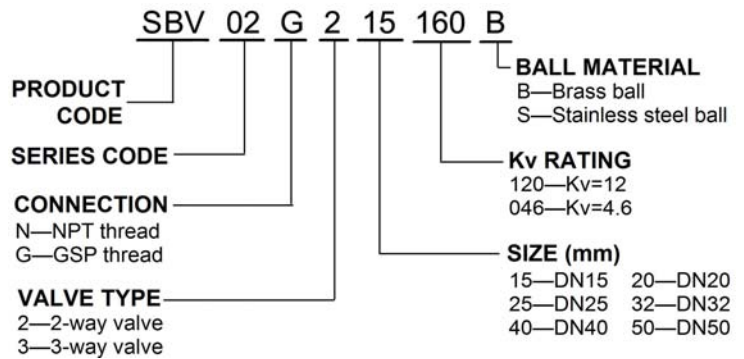
ACTUATOR APPLICATION	VALVE SIZE	ACTUATOR CONNECTION
SBA01	DN15, DN 20, DN 25	Press button
SBA04	DN32, DN 40, DN 50	Bolt



MATERIAL

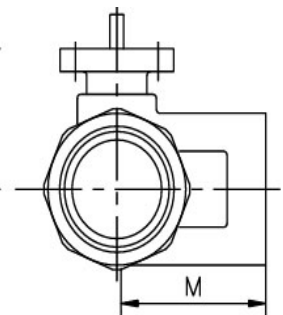
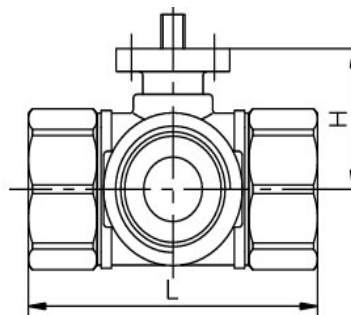
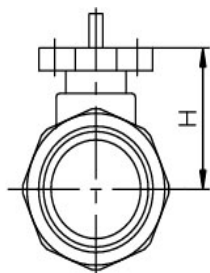
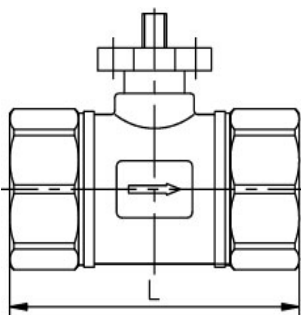
MODEL SELECTION

MATERIAL	BODY	Forged brass
	BALL	Casting brass (chrome-plate)
	SEAT	PTFE (Poly tetrae fluoro ethylene)
	STEM	Stainless steel
	O-RING	NBR
WORKING MEDIA		Chilled/hot water or 50% glycol
MEDIA TEMPERATURE		2°C~94°C



DIMENSIONS (MM)

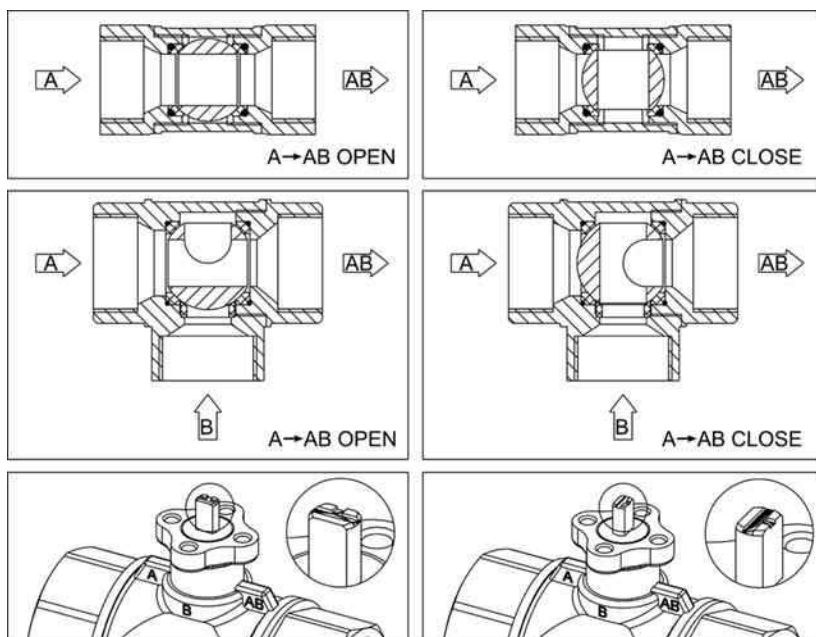
SIZE (mm)	DIMENSION (mm)				THREAD (G)	MAX. PIPE THREAD SIZE (mm)
	L		H	M		
	2-way	3-way				
15	68	68	32	33	1/2"	13
20	68	68	32	34	3/4"	13
25	82	84	37	43	1"	17
32	98	104	48	50	1 1/4"	19
40	105	111	48	50	1 1/2"	19
50	122	143	52	61	2"	29



TECHNICAL DATA

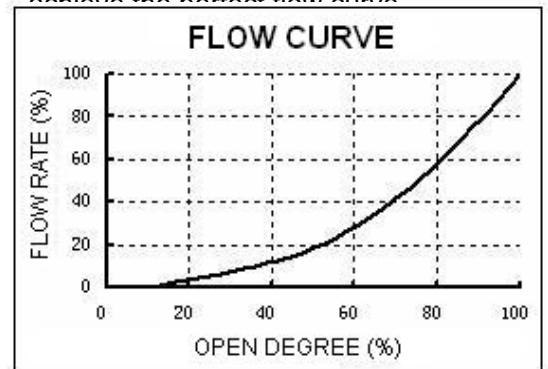
MODEL	TYPE	FLOW RATE		CONNECTION THREAD	CLOSE OFF PRESSURE (MPa)	RATED BODY PRESSURE. (MPa)
		Kv	Cv			
SBV02G215040B(S)	2-way	4	4.7	G1/2	0.6	2.5
SBV02G315040B(S)	3-way	4	4.7		0.6	
SBV02G220063B(S)	2-way	6.3	7.4	G3/4	0.6	
SBV02G320063B(S)	3-way	6.3	7.4		0.6	
SBV02G225100B(S)	2-way	10	11.7	G1	0.6	
SBV02G325100B(S)	3-way	10	11.7		0.6	
SBV02G232160B(S)	2-way	16	18.7	G11/4	0.6	
SBV02G332160B(S)	2-way	16	18.7		0.6	
SBV02G240250B(S)	2-way	25	29.3	G11/2	0.6	
SBV02G340250B(S)	3-way	25	29.3		0.6	
SBV02G250400B(S)	2-way	40	46.8	G2	0.6	
SBV02G350400B(S)	3-way	40	46.8		0.6	

FLOW DIRECTION



The Kv (Cv) ratings listed on above table are from port A to port AB. The flow ratings from port B to port AB are about 70% of above Kv (Cv) ratings.

The characterized opening side of the valve is connecting to water inlet pipe to achieve the perfect flow curve.

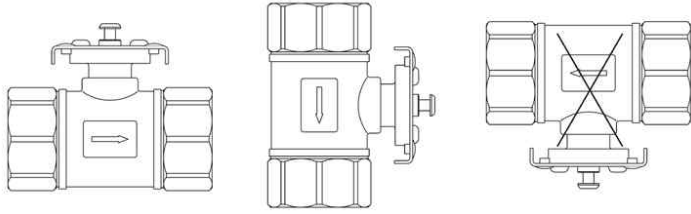


SBV02 series 2-way valve must be installed on the return pipe to reduce thermal stress on the valve ball sealing. SBV02 series 3-way valve can be used as mixing valve or diverted valve. **Please notice that the “T” mark on valve stem indicates the ports on the valve ball.**

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. Please see the details on Installation Indication.

The ball valve can be installed horizontally or vertically. **THE ACTUATOR MUST BE INSTALLED ABOVE THE VALVE BODY.**



D02	D01
081010	071220