

Key Operation Ball Valve

Introduction

- It can prevent various caused by inappropriate operations the unauthorized or unskilled persons in constructing, inspecting and running piping-work.
- It can prevent the accidents caused by inappropriate operations without permission or by intention in the places to come and go freely.

SBVL210 Series Low Pressure Key Operation Ball Valves

Features

- Locking handle in On and Off positions
- Compact design
- Low operating torques
- Variety of End connections



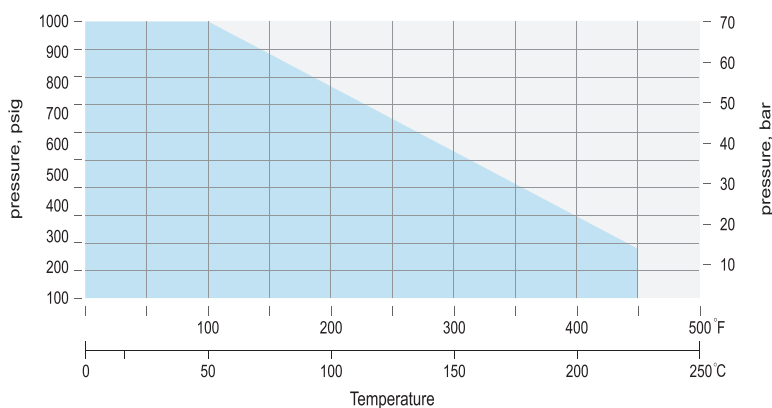
Specifications

- Pressure rating: 1000psig (69bar) @100 °F(38 °C)
- Body material: 316 stainless steel body
- Port Connections: 1/4" to 1" and 6mm to 25mm
- Orifice: 5.0mm to 16.0mm

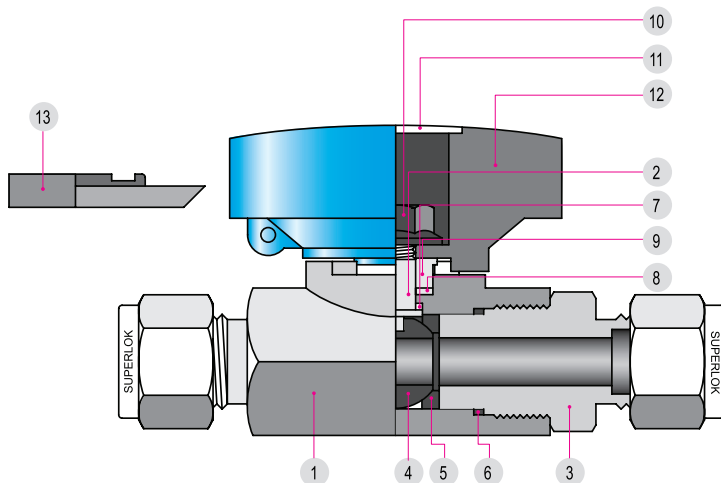
Testing

- Each and every valve is tested with nitrogen at 1000psig (69bar).
- Valve have max allowable leak rate of 0.1 cm³/min
- Shell testing is performed on demand.

Pressure-Temperature Rating



Materials of Construction



No.	Component	Material Grade ASTM Specification
*1	Body	A185-F316 / A276-316 / A351-CF8M
*2	Stem	A276-316
*3	End Connector	A276-316
*4	Ball	A276-316
*5	Ball Seal	PTFE
*6	Connector Seal	PTFE
*7	Lower Stem Seal	PTFE
*8	Upper Stem Seal	PTFE
*9	Stem Washer	A276-304
10	Nut	Stainless Steel
11	Handle Cap	Aluminum
12	Handle	Aluminum
13	Master Key	Zinc

- Wetted components are marked **

SBVL210 Series

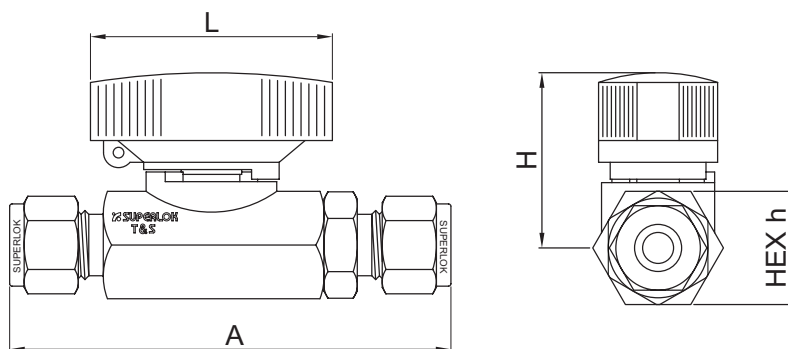


Table of dimensions

Part Number	Orifice	Cv	End Connection	Dimensions				
				h	A	H	L	
SBVL 210	S6M	5.0	1.25	6mm SUPERLOK	18.0	79.8	32.3	42.0
	S4			1/4" SUPERLOK				
	S10M	7.0	2.5	10mm SUPERLOK				
	S6			3/8" SUPERLOK				
	S12M	9.0	9.5	12mm SUPERLOK				
	S8			1/2" SUPERLOK				
	S16M	12.5	12.7	16mm SUPERLOK				
	S12			3/4" SUPERLOK				
	S25M	16.0	17.5	25mm SUPERLOK				
S16	1" SUPERLOK							

- Dimensions based on SUPERLOK nuts finger-tight.
- All dimensions in millimeters unless specified as "inch". Dimension are for reference only, subject to change.

Ordering Information

Example : **SBVL 210 - S8 - RD - OT**

1
2 3
4
5

1. Valve Series

SBVL210

2. End Connection

S : SUPERLOK Tube Fitting
 F : Female Thread
 M : Male Thread

3. End Connection Size

Tube O.D Designation

Tube O.D (inch)	1/4	3/8	1/2	3/4	1
Designation	4	6	8	12	16
Tube O.D (inch)	6	10	12	16	25
Designation	6M	10M	12M	16M	25M

Pipe Thread Designation

Size (inch)	1/4	3/8	1/2	3/4	1
Screwed BSPT	4R	6R	8R	12R	16R
Screwed NPT	4N	6N	8N	12N	16N

4. Handle Color

Blank : Blue (Standard)
 RD : Red
 BK : Black

5. Valve Type

Blank : Standard Type
 OT : Open Free Type
 CT : Close Free Type

Key Operation Ball Valves

SBVL360 Series High Pressure Key Operation Ball Valves

Features

- Locking handle in On and Off positions
- High flow capacity in a compact design
- Low operating torques
- Positive handle stops
- Variety of End connections



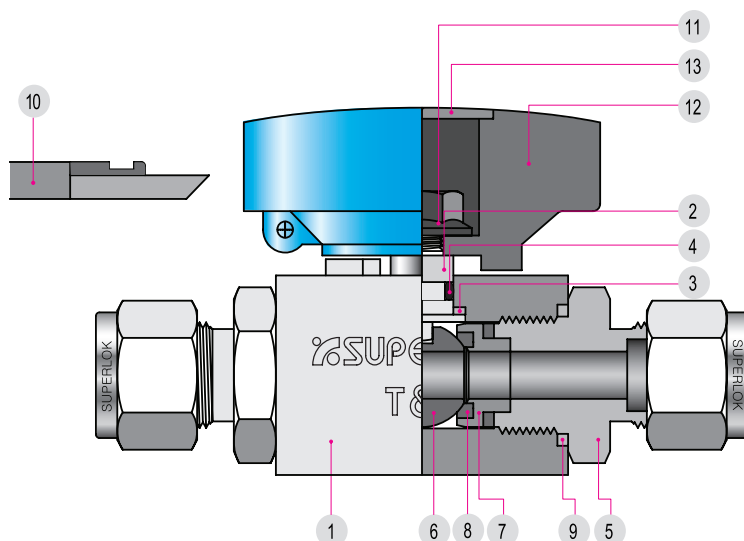
Specifications

- Pressure rating: 6000psig (413bar) @70 °F(21 °C) with standard PCTFE seat
- Temperature rating: -65 to 350 °F (-54 to 177 °C) with standard PCTFE seat
- Body material: 316 stainless steel body
- Port connections: 1/4" to 3/4" and 6mm to 25mm

Testing

- Each and every valve is tested with nitrogen at 1000psig (69bar).
- Valve have max allowable leak rate of 0.1 cm³/min
- Shell testing is performed on demand.

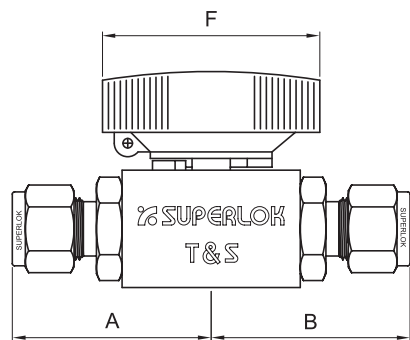
Materials of Construction



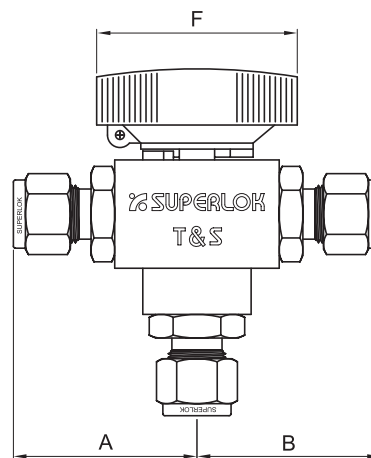
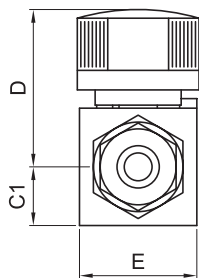
No.	Component	Material Grade ASTM Specification
*1	Body	A276-316 / A351-CF8M
*2	Stem	SS316 / A276
*3	Thrust Washer	PEEK
*4	O-Ring	NBR
*5	End Connector	A276-316
*6	Ball	A276-316
*7	Seal Retainer	A276-316
*8	Ball Seal	PCTFE
*9	Connector Seal	PTFE
10	Master Key	Zinc
11	Nut	Stainless Steel
12	Handle	Aluminum
13	Handle Cap	Aluminum

- Wetted components are marked **

SBVL360 Series



2 - way



3 - way

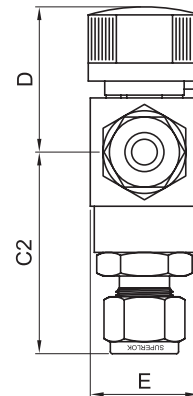


Table of dimensions

Part Number	Orifice	Cv	End Connection	Dimensions							
				A	B	C1	C2	D	E	F	
SBVL3601 or SBVL36013	S6M	4.8	1.04	6mm SUPERLOK	43.8	43.8	12.0	43.8	33.7	24.0	42.0
	S4			1/4" SUPERLOK	43.8	43.8		43.8			
	F2N			1/8" FEMALE NPT	34.0	34.0		34.0			
	M4N			1/4" MALE NPT	40.2	40.2		40.2			
SBVL3602 or SBVL36023	S8M	6.4	2.34	8mm SUPERLOK	45.2	45.2	13.5	53.2	36.2	27.0	50.0
	S10M			10mm SUPERLOK	46.0	46.0		54.0			
	S6			3/8" SUPERLOK	45.7	45.7		53.7			
	F4N			1/4" FEMALE NPT	38.4	38.4		46.4			
	M4N			1/4" MALE NPT	41.1	41.1		49.1			
	M6N			3/8" MALE NPT	41.1	41.1		49.1			
SBVL3603 or SBVL36023	S12M	10.3	6.42	12mm SUPERLOK	59.2	59.2	16.0	69.2	41.5	32.0	60.0
	S16M			16mm SUPERLOK	59.2	59.2		69.2			
	S8			1/2" SUPERLOK	59.4	59.4		69.4			
	S12			3/4" SUPERLOK	59.2	59.2		69.2			
	F6N			3/8" FEMALE NPT	49.5	49.5		59.5			
	F8N			1/2" FEMALE NPT	54.6	54.6		64.6			
	M8N			1/2" MALE NPT	56.4	56.4		66.4			

• Dimensions based on SUPERLOK nuts finger-tight.
 • All dimensions in millimeters unless specified as "inch". Dimension are for reference only, subject to change.

Technical Data

Temperature and Pressure Rating

Seat Material	Temperature Rating	Pressure Rating @ 100°F (38°C)		Pressure Rating @ Max. Temperature	
		Stainless Steel	Brass	Stainless Steel	Brass
PCTFE	-65 to 300°F (-54 to 148°C)	6000psig (413 bar)	3000psig (207 bar)	1000psig@300°F (68.9bar@148°C)	700psig@300°F (48bar@200°C)
PEEK	-65 to 450°F (-54 to 232°C)	6000psig (413 bar)	3000psig (207 bar)	700psig@400°F (48bar@200°C)	
PTFE	-65 to 300°F (-54 to 148°C)	1500psig (103 bar)	1500psig (103 bar)	250psig@300°F (17.2bar@148°C)	

Ordering Information

Example: **SBVL 3602 - S6 - PE - RD - OT**

1
2 3
4
5
6

1. Valve Series

2-Way

SBVL3601

SBVL3602

SBVL3603

3-Way

SBVL36013

SBVL36023

SBVL30233

2. End Connection

S : SUPERLOK Tube Fitting

F : Female Thread

M : Male Thread

3. End Connection Size

Tube O.D Designation

Tube O.D (inch)	1/4	3/8	1/2	3/4
Designation	4	6	8	12
Tube O.D (mm)	6	8	10	12
Designation	6M	10M	16M	16M

4. Handle Color

Blank : PCTFE

PE : PEEK

PT : PTFE

5. Handle Color

Blank : Blue (Standard)

RD : Red

BK : Black

6. Valve Type

Blank : Standard Type

OT : Open Free Type

CT : Close Free Type

ST : Special Type

Pipe Thread Designation

Size (inch)	1/4	3/8	1/2	3/4
Screwed BSPT	4R	6R	8R	12R
Screwed NPT	4N	6N	8N	12N

Valve Type

■ Standard Type : Locking function works at both of the open & close end as a MASTER KEY is taken out from the handle.

The MASTER KEY is needed all the way you turn on and off the valve.

■ Open Free Type : Locking function works at the open end as a MASTER KEY is taken out from the handle.

It is free to open the handle of valve without a MASTER KEY, but the handle will not move in the state of full open.

The MASTER KEY is needed as you start to close the valve. (It is very useful and available in the line where a fatal accident or serious damage can be broken out as the fluid of the line is blocked up.)

■ Close Free Type : Locking function works at the close end as a MASTER KEY is taken out from the handle.

It is free to close the handle of valve without a MASTER KEY, but the handle will not move in the state of full close.

The MASTER KEY is needed as you start to open the valve. (It is very useful and available in the line where a fatal accident or serious damage can be broken out as the valve is opened with permission or by intention.)