

SBV120H Ball Valves

One-piece Type

Features

- Simple design with one piece body
- Tight and smooth, low torque and easy operation
- One-piece ball stem
- Panel mountable
- Variety of End Connections
- Straight, Angle and 3-Way flow patterns
- Each and every valve is tested at the factory



Specifications

- Pressure rating : up to 3000psig (206bar)@70°F (21°C)
- Temperature rating : 50 to 150°F (10 to 65°C) with PTFE seat and packing
- Body material : 316 stainless steel and Brass
- Port Connections : 1/16" to 3/4" and 3mm to 12mm
- Orifice : 0.052 to 0.406 in. (1.3 to 10.3mm)

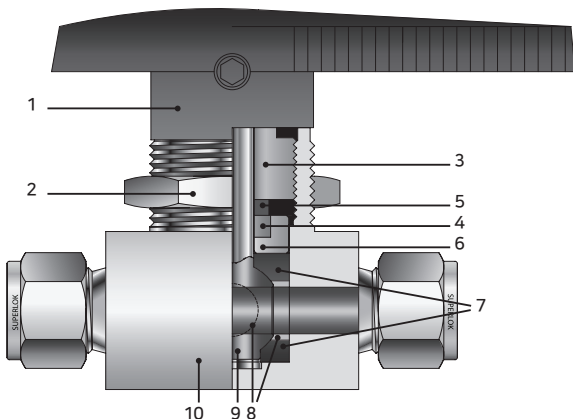
Testing

Each Valve is tested with nitrogen at 1000psig (69bar) to maximum allowable leak rate of 0.1 SCCM.

Packing Adjustment

- Valves are adjusted for factory testing at 1000psig (69bar).
- Packing must be readjusted for service at higher pressures.

Materials of Construction

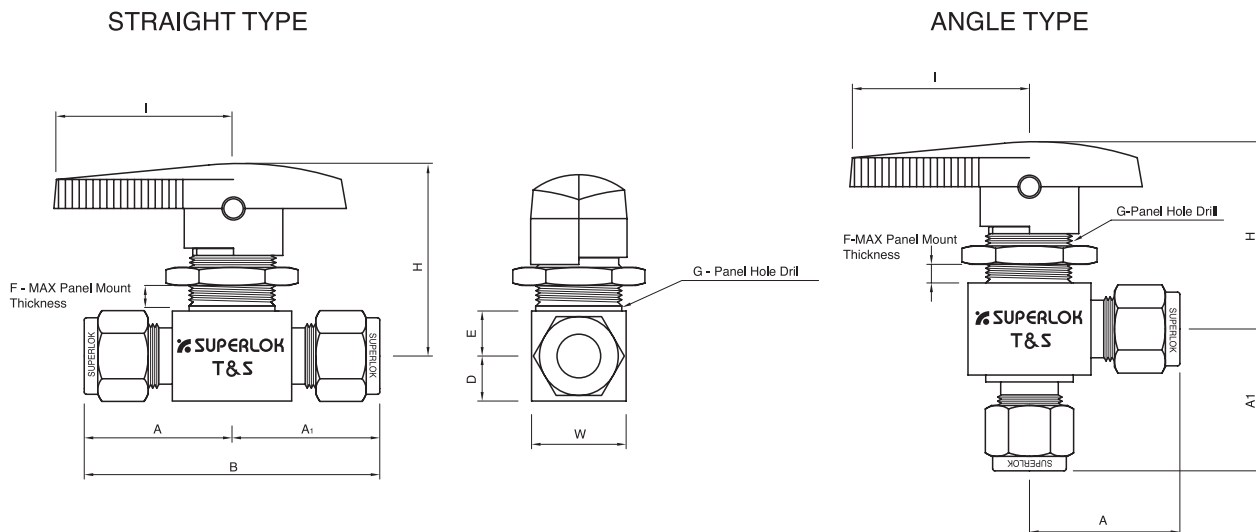


No.	Component	Material Grade / ASTM Specification	
		Stainless Steel	Brass
1	Handle	Nylon	
	Set Screw	Stainless Steel	
2	Panel Nut	Stainless Steel	Brass
3	Packing Bolt	SS316 / A276	Brass / B16
*4	Packing	PTFE	
5	Upper Packing Gland	SS316 / A276	
6	Lower Packing Gland		
*7	Upper&Lower Ball Seat	PTFE	
*8	Side Disc	SS316 - Sintered	
	Side Ring		
*9	Ball Stem	SS316 / A276	
*10	Body	SS316 / A182	Brass / B16

* Wetted components

Table of Dimensions

2-Way (On-off Valve)

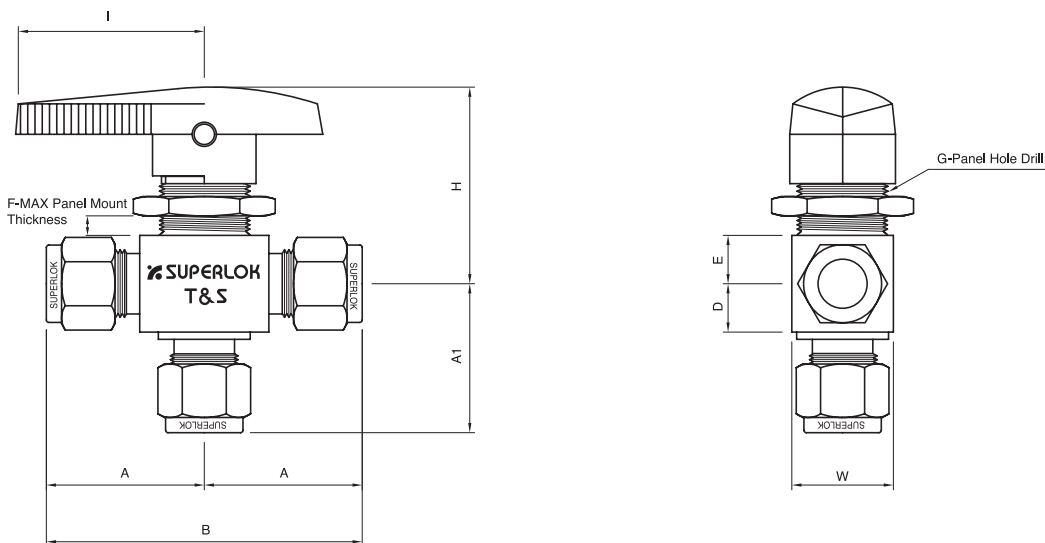


Part No.	Orifice	Cv	End Connections		Dimensions															
			Inlet	Outlet	A	A1	B	D	E	F	G	H	I	W						
SBV120 H1	S1	1.3	0.1	1/16" SUPERLOK	21.3	21.3	42.6	8.7	8.7	6.4	15.0	36.0	29.0	17.4						
	S3M	2.4	0.2	3mm SUPERLOK	25.4	25.4	50.8													
	S2	0.2	1/8" SUPERLOK																	
	F2N	0.5	1/8" FEMALE NPT	20.6	20.6	41.2														
	S6M	3.2	0.6	6mm SUPERLOK	27.7	27.7	55.4													
SBV120 H2	S4	0.6	1/4" SUPERLOK				10.0	10.0	4.8	19.8	43.7	38.5	20.0							
	F2N	1.2	1/8" FEMALE NPT	25.4	25.4	50.8														
	F4N	0.9	1/4" FEMALE NPT	26.2	26.2	52.4														
	F4R	0.9	1/4" ISO FEMALE																	
	M4N	1.2	1/4" MALE NPT	25.4	25.4	50.8														
	M4N-S4	1.6	1/4" MALE NPT 1/4" SUPERLOK	25.4	30.2	55.6														
	S6M	1.4	6mm SUPERLOK	30.2	30.2	60.4														
	S4	1.4	1/4" SUPERLOK																	
SBV120 H3	S8M	1.5	8mm SUPERLOK	31.0	31.0	62.0	14.3	14.2	9.4	28.5	56.1	51.0	28.5							
	S6	1.5	3/8" SUPERLOK	32.5	32.5	65.0														
	F4N	3.0	1/4" FEMALE NPT	31.8	31.8	63.6														
	F6N	2.6	3/8" FEMALE NPT																	
	F6R	2.6	3/8" ISO FEMALE																	
SBV120 H4	S6	6.0	3/8" SUPERLOK	38.9	38.9	77.8	17.5	17.5	9.4	38.1	71.8	75.0	39.0							
	S10M	6.0	10mm SUPERLOK																	
	F8N	6.3	1/2" FEMALE NPT	39.6	39.6	79.2														
	F8R	6.3	1/2" ISO FEMALE																	
	S12M	12.0	12mm SUPERLOK	50.0	50.0	100														
SBV120 H4	S8	12.0	1/2" SUPERLOK																	
	S12	6.4	3/4" SUPERLOK																	

- Dimensions and Drawings are for reference only and are subject to change without prior notice.
 - Unless otherwise specified, all dimensions are in millimeters.
 - Sizes, pressure classes, and end connections not listed are available upon request.
 - Dimensions shown with SUPERLOK nuts finger-tight, where applicable.

Table of Dimensions

3-Way (Switching Valve)



Part No.	Orifice	Cv	End Connections		Dimensions														
			Inlet	Outlet	A	A1	B	D	E	F	G	H	I	W					
SBV120 H13	S1	1.3	0.08	1/16" SUPERLOK		21.3	20.6	42.6	8.7	8.7	6.4	15.0	36.0	29.0	17.4				
	S3M	2.4	0.15	3mm SUPERLOK		25.4	24.6	50.8											
	S2		0.15	1/8" SUPERLOK		20.6	20.6	41.2											
	F2N	3.2	0.3	1/8" FEMALE NPT		27.7	26.9	55.4											
	S6M		0.35	6mm SUPERLOK															
S4	0.35	1/4" SUPERLOK																	
SBV120 H23	F4N	4.8	0.75	1/4" FEMALE NPT		26.2	26.2	52.4	10.0	10.0	4.8	19.8	43.7	38.5	21				
	F4R			1/4" ISO FEMALE		25.4	30.2	55.6											
	M4N-S4			0.8	1/4" MALE NPT	1/4" SUPERLOK	30.2	30.2								60.4			
	S6M			0.9	6mm SUPERLOK		31.0	31.0								62.0			
	S4			0.8	1/4" SUPERLOK														
S8M	0.8	8mm SUPERLOK																	
SBV120 H33	F4N	7.1	1.7	1/4" FEMALE NPT		31.8	31.8	63.6	14.3	14.2	9.4	28.5	56.1	51.0	28.5				
	F6N			3/8" FEMALE NPT															
	F6R			3/8" ISO FEMALE															
	S6			3/8" SUPERLOK															
	S10M			10mm SUPERLOK															
SBV120 H43	F8N	10.3	3.5	1/2" FEMALE NPT		39.6	39.6	79.2	17.5	17.5	9.4	38.1	71.8	75.0	38.1				
	F8R			1/2" ISO FEMALE															
	S12M			12mm SUPERLOK															
	S8			4.6	1/2" SUPERLOK											50.0	50.0	100	
	S12			3.8	3/4" SUPERLOK														

- Dimensions and Drawings are for reference only and are subject to change without prior notice.
- Unless otherwise specified, all dimensions are in millimeters.
- Sizes, pressure classes, and end connections not listed are available upon request.
- Dimensions shown with SUPERLOK nuts finger-tight, where applicable.

Pressure Rating

Valve	2-Way Straight Pattern psig (bar)	2-Way Angle Pattern psig (bar)	3-Way Switching psig (bar)
SBV120H1	2500 (172)	2500 (172)	2500 (172)
SBV120H2	3000 (206)	2500 (172)	2500 (172)
SBV120H3	2500 (172)	1500 (103)	1500 (103)
SBV120H4	2500 (172)	1500 (103)	1500 (103)

Flow Data at 70°F (21°C)

Straight Type

Cv	Pressure Drop to Atmospher (Δp), psi					
	10	50	100	10	50	100
	Air Flow, SCFM			Water Flow, US GPM		
0.50	6.9	19.1	33.9	1.6	3.5	5.0
0.60	8.3	23.0	40.7	1.9	4.2	6.0
0.90	12.0	34.0	61.0	2.8	6.4	9.0
1.2	17.0	46.0	81.0	3.8	8.5	12.0
1.5	21.0	57.0	100.0	4.7	11.0	15.0
1.6	22.0	61.0	110.0	5.0	11.0	16.0
2.4	33.0	92.0	160.0	7.6	17.0	24.0
2.6	36.0	99.5	176.0	8.2	18.0	26.0
3.0	41.5	115.0	203.0	9.5	21.0	30.0
6.0	83.0	230.0	407.0	19.0	42.0	60.0
6.3	87.2	241.0	427.0	19.9	44.5	63.0
6.4	88.6	245.0	434.0	20.2	45.3	64.0
12	166.0	459.0	814.0	38.0	85.0	120.0

Angle Type & 3-Way

Cv	Pressure Drop to Atmospher (Δp), psi					
	10	50	100	10	50	100
	Air Flow, SCFM			Water Flow, US GPM		
0.30	4.2	11.5	20.3	0.9	2.1	3.0
0.35	4.8	13.4	23.7	1.1	2.4	3.5
0.75	10.0	29.0	51.0	2.3	5.3	7.5
0.80	11.0	31.0	54.0	2.5	5.6	8.0
0.90	12.0	34.0	61.0	2.8	6.3	9.0
1.5	20.6	57.4	102.0	4.7	11.0	15.0
1.7	23.5	65.0	115.0	5.3	12.0	17.0
20.	27.7	76.5	136.0	6.3	14.0	20.0
3.5	48.4	134.0	237.0	11.0	25.0	35.0
3.8	52.6	145.0	258.0	12.0	27.0	38.0
4.6	63.7	176.0	312.0	15.0	33.0	46.0

Ordering Information

Example :

SBV120H1 A - S 6M - SS

1
2
3
4
5

1. Valve Series

- SBVH120H1
- SBVH120H2
- SBVH120H3
- SBVH120H4

2. Pattern

- (Blank)** = 2-Way Straight (Standard)
- A** = 2-Way Angle
- 3** = 3-Way

3. End Connection Type

- S** = SUPERLOK Tube Fitting
- F** = Female Thread
- M** = Male Thread

4. End Connection Size

Tube O.D Designator

Tube OD (inch)	1/16	1/8	1/4	3/8	1/2	3/4
Designator	1	2	4	6	8	12
Tube OD (mm)	3	6	8	10	12	
Designator	3M	6M	8M	10M	12M	

Pipe Thread Designator

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

5. Material

- SS(Blank)** = 316 Stainless Steel
- B** = BRASS

**KENMORE
CONTROLS**
FLUID CONTROL PRODUCTS

 **BMT**



Kenmore Controls
8 Industrial Way, Suite 5D
Salem, NH 03079

Phone: 603-458-1541

E-mail: sales@kenmorecontrols.com



www.kenmorecontrols.com