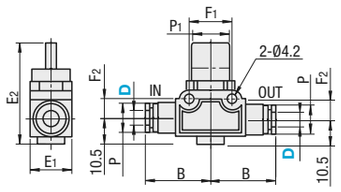
Hand Valves

Comparison points with similar parts | **RoHS Compliant. Cap Lever color is selectable.**

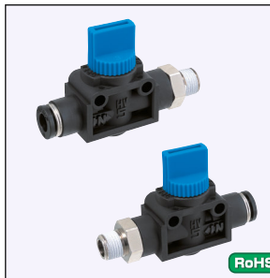


BVHVU

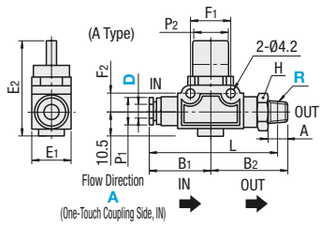


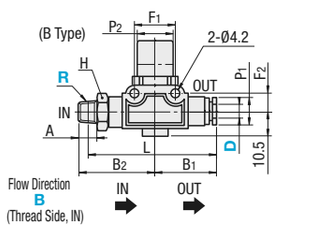
Marked inside body.

Part Number		2-Way / 3-Way Valve Selection	Handle Color	E_1	E_2	P	P_1	B	F_1	F_2	Effective Sectional Area (mm^2)	Mass (g)	Unit Price	Volume Discount Rate
Type	Tube O.D. (mm) D												1 ~ 9 pc(s).	10~30
BVHVU	4	2 (2-Way Valve) 3 (3-Way Valve)	Not Specified (Blue)	17	40.5	10	16.5	25.8	18	8	3.4	24		
	6			17	40.5	12.5	16.5	26.4	18	8	7.2	25		
	8			17	40.5	15	16.5	27.7	18	8	8.7	28		
	10		R (Red)	21.7	41	17.5	19.5	32.2	24	11	17.4	45		
	12			21.7	41	21	19.5	34.9	24	11	18.1	51		



BVHV



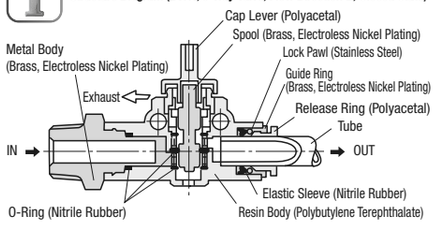


Part Number		R (PT) Selection	2-Way / 3-Way Valve Selection	Flow Direction	A	E_1	E_2	L	P_1	P_2	B_1	B_2	H (Wrench Flats)	F_1	F_2	Effective Sectional Area (mm^2)		Mass (g)	Unit Price	Volume Discount Rate
Type	Tube O.D. (mm) D															A Type	B Type		1 ~ 9 pc(s).	10~30
BVHV	6	1 (R1/8)	2 (2-Way Valve) 3 (3-Way Valve)	A B	8	17	40.5	55.9	12.5	16.5	26.4	33.5	14	18	8	7.5	8.3	34		
		2 (R1/4)			11			56.8				36.5				7.7	8.5	40		
		3 (R3/8)			12			58.3				38.3	17			7.5	8.2	53		
	8	1 (R1/8)			8	17	40.5	57.2	15	16.5	27.7	33.5	14	18	8	8.7	8.9	35		
		2 (R1/4)			11			58.2				36.5				8.9	8.9	41		
		3 (R3/8)			12			59.7				38.3	17			8.6	8.9	54		
	10	2 (R1/4)			11	21.7	41	68.7	17.5	19.5	32.2	42.5	17	24	11	16.2	16.6	62		
		3 (R3/8)			12			69.4				43.5				16	16.9	71		
		4 (R1/2)			15			70.5				46.5	21			15.7	16.5	93		
	12	2 (R1/4)			11	21.7	41	71.4	21	19.5	34.9	42.5	17	24	11	16.3	17	66		
		3 (R3/8)			12			72.1				43.5				16.3	17.1	74		
		4 (R1/2)			15			73.2				46.5	21			16.1	16.8	96		

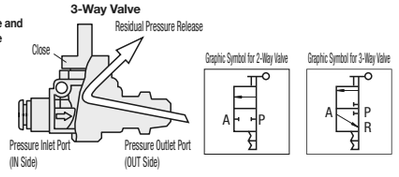
Ordering Example

Part Number	-	2-Way / 3-Way Valve Selection, R (RT) Selection	-	Handle Color Selection, 2-Way / 3-Way Valve Selection	-	Flow Direction
BVHVU6	-	2	-	R		
BVHV8	-	1	-	3	-	A

Structure Diagram (BVHV, 3-Way Valve, Flow Direction B, Closed State)



3-Way Valve and 2-Way Valve



- 3-Way Valve exhausts residual pressure from outlet side (equipment) when air is shut off and ensures safety during adjustment and repair of equipment.
- 2-Way Valve has no function to exhaust residual pressure and is suitable for use with air supply lines of equipment where residual pressure release is not desired, such as a tank and etc. Also suitable for vacuum plumbing.

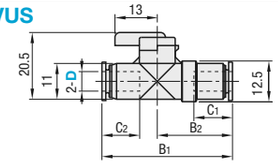
Ball Valves
One-Touch Couplings

■Union Straight - Single Handle



RoHS

BVUS



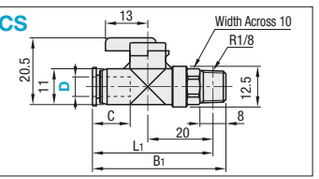
Part Number Type	D	B1	B2	C1	C2	Effective Sectional Area (mm²)	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~30
BVUS	4	36.9	20.3	10.9	11	3.4	13		
	6	40.1	23.1	11.7	11.6	10.3	13		

■Straight - Single Handle



RoHS

BVCS



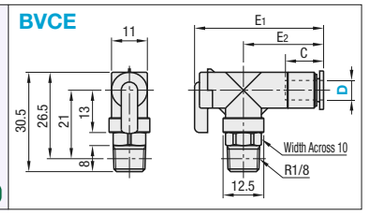
Part Number Type	D	B1	L1	C	Effective Sectional Area (mm²)	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~30
BVCS	4	40.6	36.6	11	3.8	15		
	6	41	37	11.6	10.5	15		

■Elbows - Single Handle



RoHS

BVCE



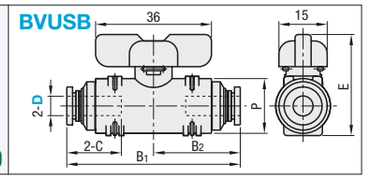
Part Number Type	D	C	E1	E2	Effective Sectional Area (mm²)	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~30
BVCE	4	10.9	36.8	21.8	4	21		
	6	11.7	39.6	24.6	8	21		

■Union Straight - Double Handle



RoHS

BVUSB



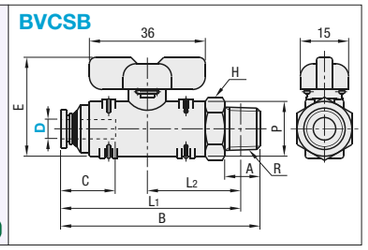
Part Number Type	D	B1	B2	P	C	E	Effective Sectional Area (mm²)	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~30
BVUSB	6	53.9	27	17	17	31.4	10.5	45		
	8	55.4	27.7	17	18.2	31.4	20.5	41		
	10	65.4	32.7	24	20.7	37.8	41	104		
	12	68.6	34.3	24	23.3	37.8	55.5	100		

■Straight - Double Handle



RoHS

BVCSB



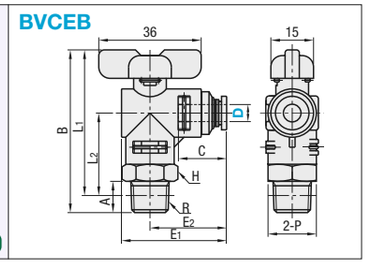
Part Number Type	D	Nominal	R	A	B	L1	L2	P	C	E	Width Across H	Effective Sectional Area (mm²)	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~30
BVCSB	6	1	1/8	8	59	55	28	17	17	31.4	17	12.5	56		
		2	1/4	11	62	55.9	29						59		
	8	1	1/8	8	59.7	55.7	28	17	18.2	31.4	17	22	54		
		2	1/4	11	62.7	56.7	29					23	57		
	10	2	1/4	11	73.7	67.7	35	24	20.7	37.8	24	39.5	131		
		3	3/8	12	74.7	68.4	35.7					41	134		

■Elbows - Double Handle



RoHS

BVCEB

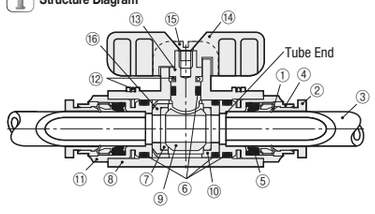


Part Number Type	D	Nominal	R	A	B	L1	L2	P	C	E1	E2	Width Across H	Effective Sectional Area (mm²)	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~30
BVCEB	6	1	1/8	8	54.2	50.2	28	17	17	37	27	17	11.5	57		
		2	1/4	11	57.2	51.2	29							60		
	8	1	1/8	8	54.2	50.2	28	17	18.2	37.7	27.7	17	17.5	54		
		2	1/4	11	57.2	51.2	29						18.5	58		
	10	2	1/4	11	68.7	62.7	37.5	24	20.7	44.7	32.7	24	35.5	134		
		3	3/8	12	69.7	63.4	38.2						36	136		

Ordering Example

Part Number	-	Nominal
BVUS6		
BVCSB6	-	2

Structure Diagram



No.	Name of Parts	Material
①	Lock Pawl	Stainless Steel
②	Release Ring	POM / Polyacetal
③	Tube	Polyurethane or Nylon
④	Guide Ring	Brass (Electroless Nickel Plating)
⑤	Elastic Sleeve	NBR, Nitrile Rubber
⑥	O-Rings	NBR, Nitrile Rubber
⑦	Ball Seal	Teflon Resin
⑧	Resin Body	Single Handle Type: PBT, Polybutylene Terephthalate Double Handle Type: PPS, Polyphenylene Sulfide
⑨	Ball	Brass (Electroless Nickel Plating)
⑩	Ball Holder	Brass (Electroless Nickel Plating)
⑪	Coupling Metal Body	Brass (Electroless Nickel Plating)
⑫	Lock Pin	Stainless Steel
⑬	Stem	Brass (Electroless Nickel Plating)
⑭	Handle	POM / Polyacetal
⑮	Flat Pan-Head Screw	Steel
⑯	Ball Holder	Brass (Electroless Nickel Plating)

■Features

- Single handle type has a scale on lever and is able to control the flow.
- Double handle type is possible to flow water.

■Specifications

Type	Single Handle	Double Handle
Applicable Fluid	Air	Air, Water (*)
Operating Temperature Range	0 ~ 60°C (No Freezing)	
Operating Pressure Range	0~0.7MPa	0~0.9MPa
Operating Vacuum Level	-100kPa	

* Observe following conditions when water is the applicable fluid.
1. Operating Pressure: 0 ~ 0.3MPa
2. No water hammer (impulsive flow)
3. Attach Insert for Soft Tubes (**P.1390**) to plumbing tube.

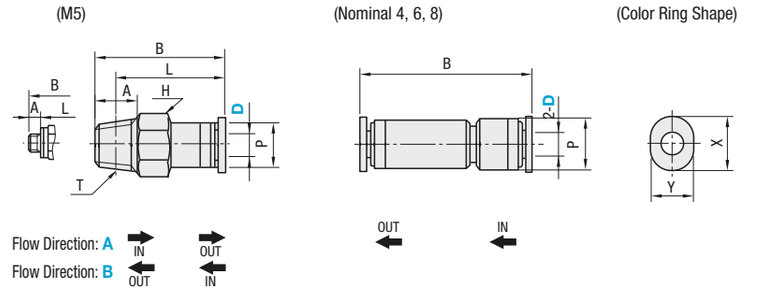
Check Valves

■Check Valves



RoHS

BVCVP



Part Number Type	Tube O.D. (mm) D	Nominal Selection	Flow Direction	Thread Size T	A	B	L	P	H (Wrench Flats)	X	Y	Effective Sectional Area (mm²)	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~30
BVCVP	4	M5	A B	M5x0.8	3	24.2	21.2	9	8	9.8	7.8	2.6	4.3		
		1		R1 / 8	8	23.9	19.9	9	10			2.7	7.7		
		4	-	-	-	31.5	-	9	-			2.9	3.7		
	6	1	A B	R1 / 8	8	30.5	26.5	11	10	11.8	9.8	7.2	9.0		
		2		R1 / 4	11	27.8	21.8		14			7.3	16.1		
		6	-	-	-	34	-	11	-			7.5	5.4		
	8	1	A B	R1 / 8	8	35.5	31.5	14	14	-	-	7.3	19.3		
		2		R1 / 4	11	39.5	33.5					14.5	21.7		
		8	-	-	-	47.3	-	15	-			15.5	13.0		

Name of Parts	Material	Surface Treatment
Resin Body	PBT	-
O-Rings	NBR	-
Valve Body	POM	-
Valve Retainer	POM	-
Valve Gasket	NBR	-
Release Ring	POM	-
Guide Ring	Brass	Electroless Nickel Plating
Spring	Stainless Steel	
Elastic Sleeve	NBR	-
Metal Part	Brass	Electroless Nickel Plating

■Features

- Capable of maintaining OUT pressure unchanged to prevent a back flow of air.
- Suitable for holding vacuum and for low-pressure plumbing.
- Lightweight due to resin material.

■Specifications

Applicable Fluid	Air
Operating Pressure Range	0.1~0.9MPa
Min. Operating Pressure*	0.01MPa
Operating Temperature Range	0 ~ 60°C (No Freezing)
Minimum reverse differential pressure	0.04MPa

*The minimum differential pressure is the initial pressure on the secondary (OUT) side when air flows from the free flow side.

Ordering Example

Part Number	-	Nominal	-	Flow Direction
BVCVP4	-	M5	-	B
BVCVP6	-	6		