



Ball Valves (One-Touch Coupling)


Ball Valves (One-Touch Coupling) – Union Straight Single Handle
RoHS10




Ball Valves (One-Touch Coupling) – Straight Single Handle
RoHS10




Ball Valves (One-Touch Coupling) – Elbow Single Handle
RoHS10



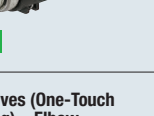
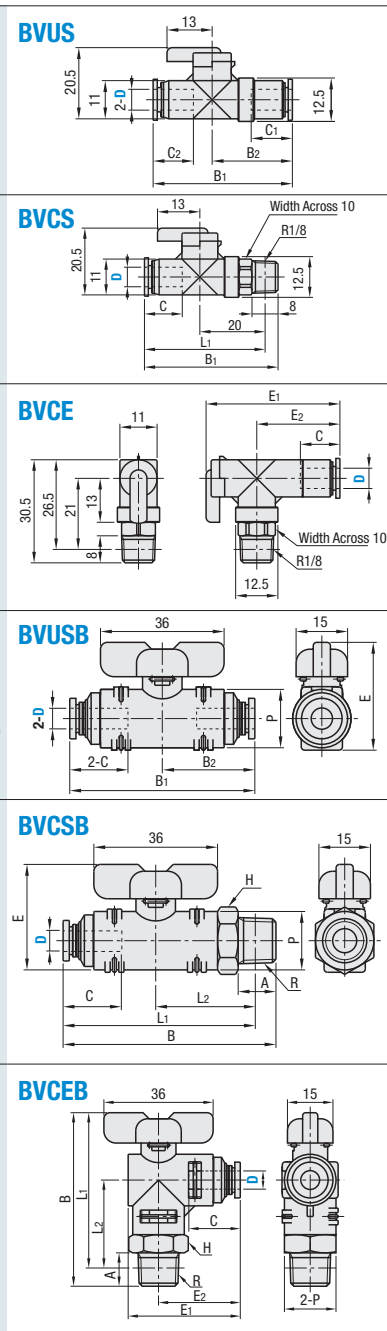
Ball Valves (One-Touch Coupling) – Union Straight Double Handle
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Ball Valves (One-Touch Coupling) – Elbow Double Handle
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Part Number	Type	D	B ₁	B ₂	C ₁	C ₂	Effective Sectional Area (mm ²)	Mass (g)
BVUS	4	36.9	20.3	10.9	11	3.4	13	
	6	40.1	23.1	11.7	11.6	10.3	13	

Part Number	Type	D	B ₁	L ₁	C	Effective Sectional Area (mm ²)	Mass (g)
BVCS	4	40.6	36.6	11	3.8	15	
	6	41	37	11.6	10.5	15	

Part Number	Type	D	C	E ₁	E ₂	Effective Sectional Area (mm ²)	Mass (g)
BVCE	4	10.9	36.8	21.8	4	21	
	6	11.7	39.6	24.6	8	21	

Part Number	Type	D	B ₁	B ₂	P	C	E	Effective Sectional Area (mm ²)	Mass (g)
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	

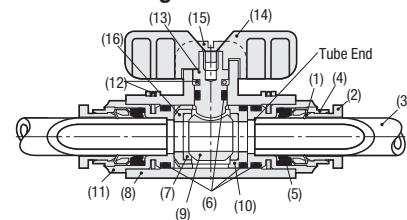
Part Number	Type	D	Nom.	R	A	B	L ₁	L ₂	P	C	E	Wrench H	Effective Sectional Area (mm ²)	Mass (g)
BVCSB	6	1	1/8	8	59	55	28	17	17	31.4	17	12.5	56	
		2	1/4	11	62	55.9	29	17	17	31.4	17	12.5	59	
	8	1	1/8	8	59.7	55.7	28	17	18.2	31.4	17	22	54	
		2	1/4	11	62.7	56.7	29	24	20.7	37.8	24	39.5	131	
		3	3/8	12	74.7	68.4	35.7	24	20.7	37.8	24	41	134	
		4	1/2	15	86.7	80.4	41.7	24	20.7	37.8	24	41	134	

Part Number	Type	D	Nom.	R	A	B	L ₁	L ₂	P	C	E ₁	E ₂	Opp. Side H	Effective Sectional Area (mm ²)	Mass (g)
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	17	17	37	27	17	11.5	60	
	8	1	1/8	8	54.2	50.2	28	17	18.2	37.7	27.7	17	18.5	54	
		2	1/4	11	57.2	51.2	29	24	20.7	44.7	32.7	24	35.5	134	
		3	3/8	12	69.7	63.4	38.2	24	20.7	44.7	32.7	24	36	136	
		4	1/2	15	81.7	75.4	44.2	24	20.7	44.7	32.7	24	36	136	

Part Number Example
Part Number - Nominal
BVUS6 - 2
BVCSB6 - 2

Application Example

Structure Diagram



No.	Name of Parts	Material
(1)	Lock Pawl	Stainless Steel
(2)	Release Ring	POM Polyoxymethylene / Polyacetal
(3)	Tube	Polyurethane or Nylon
(4)	Guide Ring	Brass (Electroless Nickel Plating)
(5)	Elastic Sleeve	NBR Nitrile Rubber / Nitrile Rubber
(6)	O-Ring	NBR Nitrile Rubber / Nitrile Rubber
(7)	Ball Seal	Teflon Resin
(8)	Resin Body	Single Handle Type: PBT Polybutylene Terephthalate / 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 Polyoxymethylene / 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.

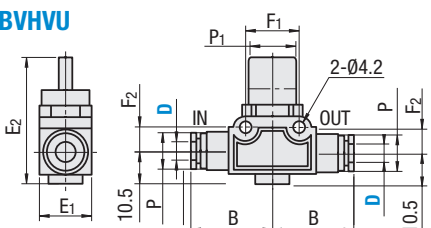
Specifications	Single Handle	Double Handle
Applicable Fluid	Air	Air / Water (*)
Operating Temp. Range	0-60°C	0-60°C
Max. Operating Pressure	0-0.7 MPa	0-0.9 MPa
Operating Vacuum Level	-100 kPa	-100 kPa

*Observe following conditions when water is the applicable fluid.
1. Operating Pressure: 0-0.3 MPa
2. No water hammer (impulsive flow)
3. Attach insert for soft tube (P.3477) to plumbing tube.

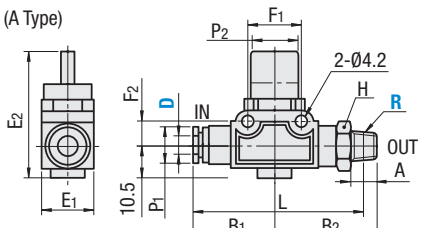
Hand Valves with One-Touch Couplings

Hand Valves with One-Touch Couplings

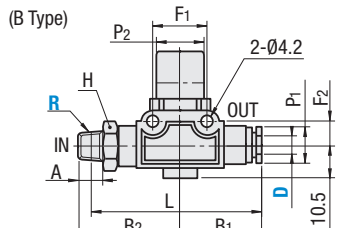
BVHVV



BVHV (A Type)



BVHV (B Type)



Flow Direction (One-Touch Coupling Side, IN) →

Flow Direction (Thread Side IN) →

Part Number	Type	Tube Outer Dia. (mm)	2-Way / 3-Way	Handle Color	E ₁	E ₂	P	P ₁	B	F ₁	F ₂	Effective Sectional Area (mm ²)	Mass (g)
BVHVV	2-Way Valve	4	2	Not Specified (Blue)	17	40.5	10	16.5	25.8	18	8	3.4	24
		6	2	R (Red)	17	40.5	12.5	16.5	26.4	18	8	7.2	25
	3-Way Valve	8	3		17	40.5	15	16.5	27.7	18	8	8.7	28
		10	3		21.7	41	17.5	19.5	32.2	24	11	17.4	45
		12	3		21.7	41	21	19.5	34.9	24	11	18.1	51

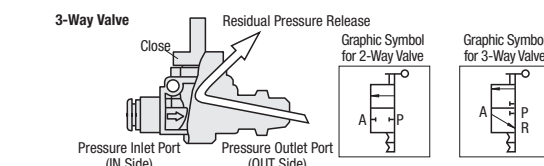
Part Number	Type	Tube Outer Dia. (mm)	R (PT)	2-Way / 3-Way	Flow Direction	A	E ₁	E ₂	L	P ₁	P ₂	B ₁	B ₂	H (Wrench Flats)	F ₁	F ₂	Effective Sectional Area (mm ²)	Mass (g)				
																		A Type	B Type			
BVHV	2-Way Valve	6	1 (R1/8)	A	A	8	11	17	40.5	56.8	12.5	16.5	26.4	36.5	14	18	8	7.5	8.3	34		
						12	12	17	40.5	58.3	15	16.5	27.7	38.3	17	18	8	7.7	8.5	40		
						15	15	17	40.5	59.7	15	16.5	27.7	38.3	17	18	8	7.5	8.2	53		
		8	2 (R1/4)			2-Way Valve	A	8	11	17	40.5	57.2	15	16.5	27.7	36.5	14	18	8	8.7	8.9	35
								12	12	17	40.5	58.2	15	16.5	27.7	36.5	14	18	8	8.9	8.9	41
								15	15	17	40.5	59.7	15	16.5	27.7	38.3	17	18	8	8.6	8.9	54
	10	3 (R3/8)	3-Way Valve	B	11	11	17	40.5	68.7	17.5	19.5	32.2	42.5	17	24	11	16.2	16.6	62			
					12	12	17	40.5	69.4	17.5	19.5	32.2	43.5	17	24	11	16	16.9	71			
					15	15	17	40.5	70.5	17.5	19.5	32.2	46.5	21	24	11	15.7	16.5	93			
	12	4 (R1/2)	3-Way Valve	B	11	11	17	40.5	71.4	21	19.5	34.9	42.5	17	24	11	16.3	17	66			
					12	12	17	40.5	72.1	21	19.5	34.9	43.5	17	24	11	16.3	17.1	74			
					15	15	17	40.5	73.2	21	19.5	34.9	46.5	21	24	11	16.1	16.8	96			

Part Number Example
Part Number - 2-Way/3-Way - Flow Direction
BVHVV6 - 3 - R

Application Example

Features

- Capable of opening and closing air pressure inlet to equipment.
- 3-Way Valve exhausts residual pressure from outlet side (equipment).
- 2-Way Valve has no function to exhaust residual pressure.
- 3-Way Valve & 2-Way Valve



- 3-Way valve releases residual pressure from outlet side (equipment) when air is shut off to ensure 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.

Specifications

Applicable Fluid	Air
Operating Pressure Range	0-0.9 MPa
Operating Vacuum Level	-100 kPa
Operating Temperature Range	0-60°C

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

