

# PISCO P-set Series

## Tamper Proof Preset Products



The P-set Series is designed to deliver secure, durable, and reliable components for fluid handling and pneumatic systems.

This series emphasizes tamper resistance and long-term performance, ensuring optimal functionality and longevity in demanding applications.

### P-Set Product Lineup



**Pre-Set Pressure  
Regulators**



**Constant Flow  
Speed Controllers**



**Slot-Head Speed  
Controllers**



**Fixed Orifice  
Fittings**



**Lockout for  
Ball Valves**

The pressure of downstream is preset, cannot be changed and saves the procedures for adjusting/setting pressure

## Preset pressure regulator

**NEW!**

**Tamper proof**



**Compact and Light-weighted / 2.5in. 1oz.**

Length from 2.34 to 3 inches  
Weight from 0.85 to 1.2 oz.

Example) Suitable for supplying constant air pressure to vacuum generators

**Step 1** Tubing connection

**Push-in**

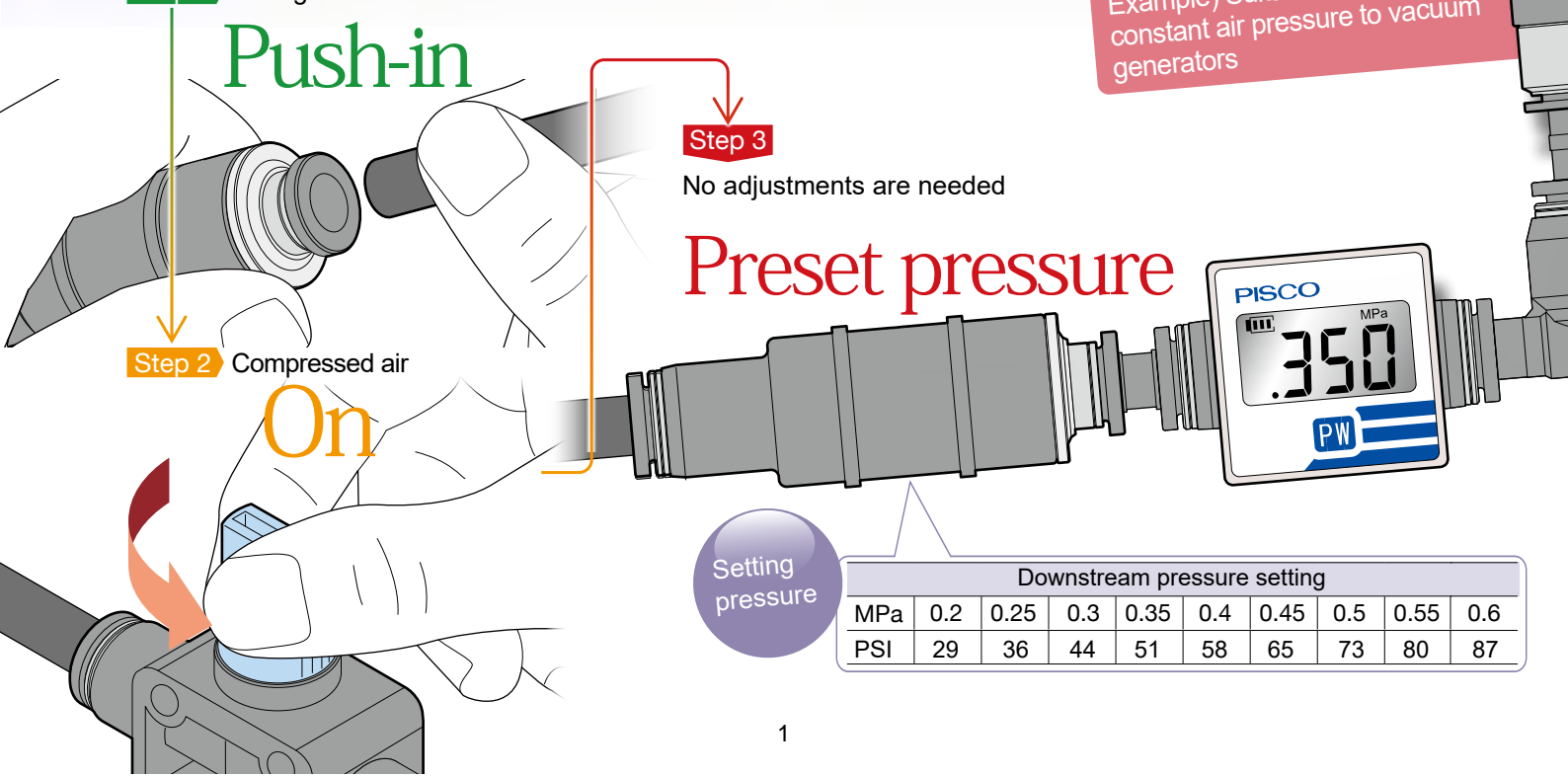
**Step 2** Compressed air

**On**

**Step 3**

No adjustments are needed

**Preset pressure**

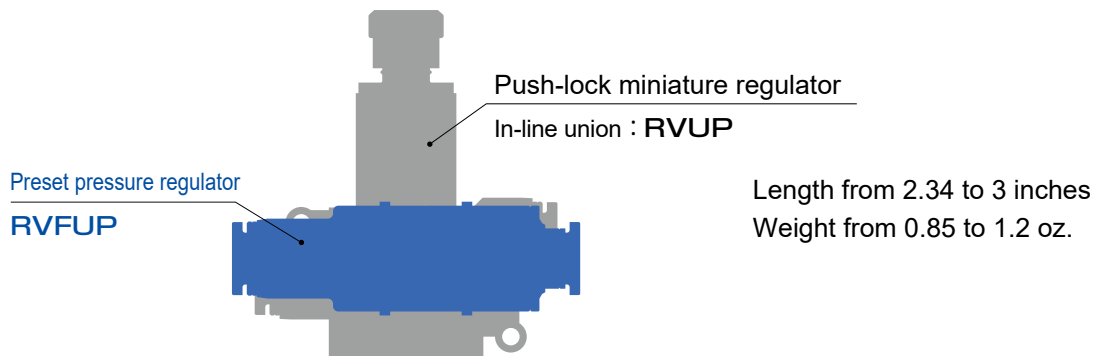


Setting pressure

		Downstream pressure setting									
MPa		0.2	0.25	0.3	0.35	0.4	0.45	0.5	0.55	0.6	
PSI		29	36	44	51	58	65	73	80	87	

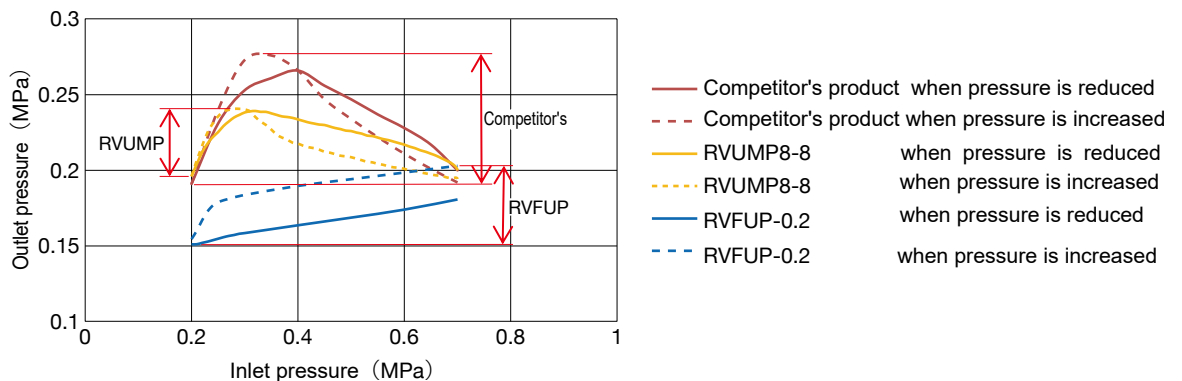
Features

- Time saving for OEM products assemblies  
No need to adjust the secondary pressure due to pressure pre-set
- Tamper proof  
Preset - No adjusting knob nor screw
- In-line type regulator - Standard bracket is provided as option
- Compact body - 67% volume reduced (compared with RVUP type)



- Fluctuation of the outlet pressure is minimized even the inlet pressure changes

Pressure characteristic (comparison table) (ex.: in case of 0.2MPa as the outlet setting pressure)

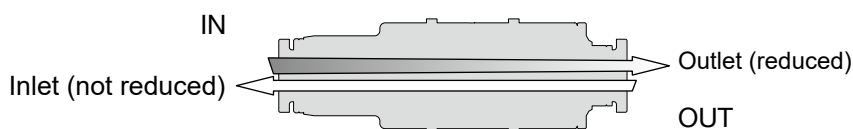


※1) Inlet pressure: 0.7MPa / Outlet pressure: 0.2MPa (setting) → Shift the pressure from 0.7MPa to 0.2MPa then back to 0.7MPa  
 ※2) Pressure characteristic is measured by the method leaking the outlet air through ø0.1mm bore orifice.

- Free reverse flow function

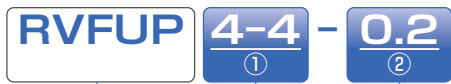
Can be used as a check regulator by installing it between solenoid valve and actuator.

※) In case the pressure of inlet side is lower than outlet side, air flows to inlet side. (No relief function though)



- Implementing the regulator on each actuator to save air consumption by appropriate compressed air being supplied.

### Model Designation (Example)



Preset pressure regulator

②. Outlet pressure pre-setting

Code	0.2	0.25	0.3	0.35	0.4	0.45	0.5	0.55	0.6
Outlet pressure MPa	0.2	0.25	0.3	0.35	0.4	0.45	0.5	0.55	0.6
psi	29	36	44	51	58	65	73	80	87

①. Port size (Tubing O.D.)

Code	Imperial size (in.)				Metric size (mm)			
	5/32-5/32	1/4-1/4	5/16-5/16	3/8-3/8	4-4	6-6	8-8	10-10
Tubing O.D.	ø5/32	ø1/4	ø5/16	ø3/8	ø4	ø6	ø8	ø10

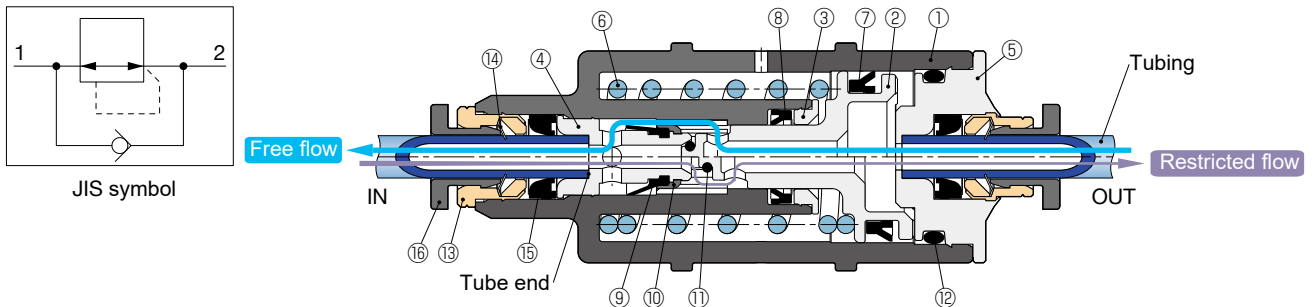
### Bracket Model Designation



### Specification

Fluid medium	Air
Service pressure range	Preset pressure ~ 145psi (1.0MPa)
Service temperature range	32~140°F ( 0 ~ 60°C ) ( No freezing )
Pressure tolerance	±3.6psi (±0.025MPa) (When preset pressure+0.3MPa is supplied)

### Construction



No.	Parts	Material
①	Resin body	PBT
②	Piston	POM
③	Seal retainer	Brass, electroless nickel-plating
④	Valve retainer	Aluminum
⑤	Fitting body	Aluminum
⑥	Spring	Stainless steel
⑦	Y shape seal	NBR
⑧	Rod seal	NBR

No.	Parts	Material
⑨	Y shape seal	HNBR
⑩	Check valve retainer	PBT
⑪	O-ring	HNBR
⑫	O-ring	NBR
⑬	Guide ring	Brass, electroless nickel-plating
⑭	Lock claws	Stainless steel
⑮	Elastic sleeve	NBR
⑯	Release ring	POM

### Precautions

#### ⚠Warning

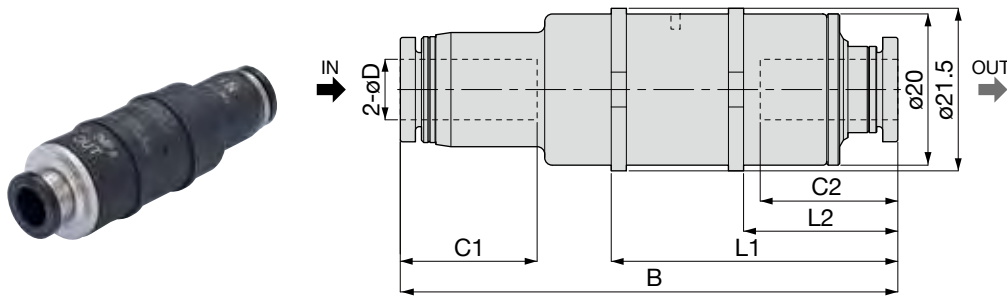
1. The product does not have a relief function. It can cause malfunction in the system if there is possibility the pressure of outlet side becomes higher than the inlet pressure.

#### ⚠Caution

1. Do not use the products where the accuracies are required.
2. Rattling noise of chattering may occur depending on the pressure level and flow rate.

# In-line pre-set pressure reducing valve

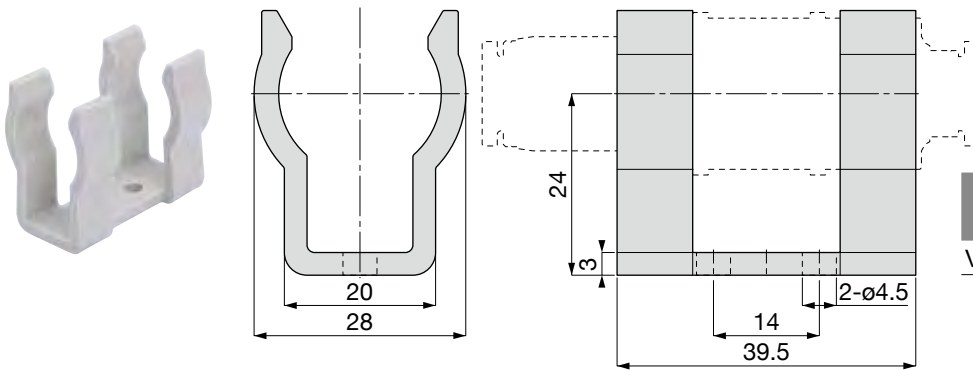
## Dimensions



Unit : mm

Model	Tubing O.D. øD	B	L1	L2	Tube End C1	Tube End C2	Weight (g) (② (Outlet presetting pressure))								Price (\$)	CAD File name	
							0.2	0.25	0.3	0.35	0.4	0.45	0.5	0.55			0.6
RVFUP5/32-5/32-②	5/32in.	59.4	36.7	19.2	14.9	14.9	24	24	25	25	25	25	25	26	26	26.18	RVFUP5'32-5'32_
RVFUP1/4-1/4-②	1/4in.	62.4	37.7	20.2	17	17	26	26	26	26	27	27	27	28	28	28.00	RVFUP1'4-1'4_
RVFUP5/16-5/16-②	5/16in.	65.8	37.9	20.4	18.1	18.2	27	27	28	28	28	28	28	29	29	32.27	RVFUP5'16-5'16_
RVFUP3/8-3/8-②	3/8in.	76.1	46.1	28.6	20.2	20.7	33	33	33	33	34	34	34	34	34	38.18	RVFUP3'8-3'8_
RVFUP4-4-②	4	59.4	36.7	19.2	14.9	14.9	24	24	25	25	25	25	25	26	26	26.18	RVFUP4-4_
RVFUP6-6-②	6	62.4	37.7	20.2	17	17	26	26	27	27	27	27	27	28	28	28.00	RVFUP6-6_
RVFUP8-8-②	8	65.8	37.9	20.4	18.1	18.2	27	27	28	28	28	28	28	29	29	32.27	RVFUP8-8_
RVFUP10-10-②	10	76.1	46.1	28.6	20.2	20.7	32	32	33	33	33	34	34	34	34	38.18	RVFUP10-10_

## Dimensions of Bracket

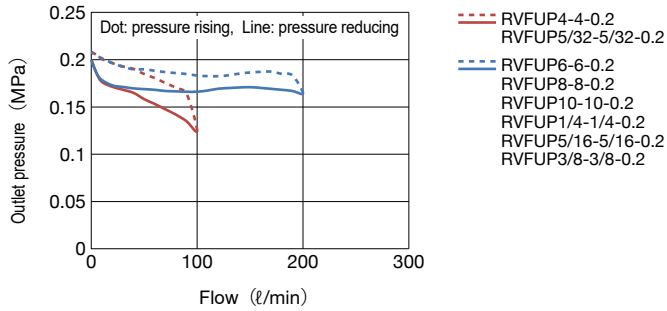


Unit : mm

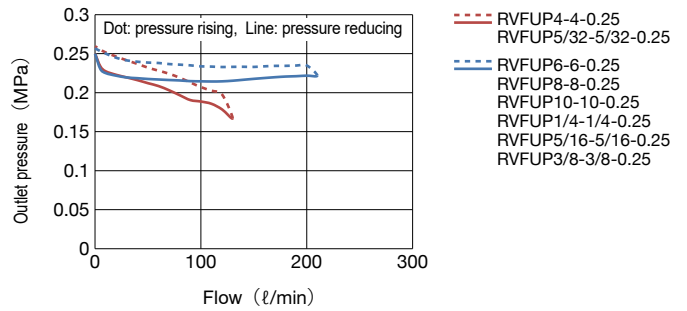
Model	Weight (g)	Price (\$)	CAD File name
VFUH3	7.8	1.36	VFUH3

## Characteristics

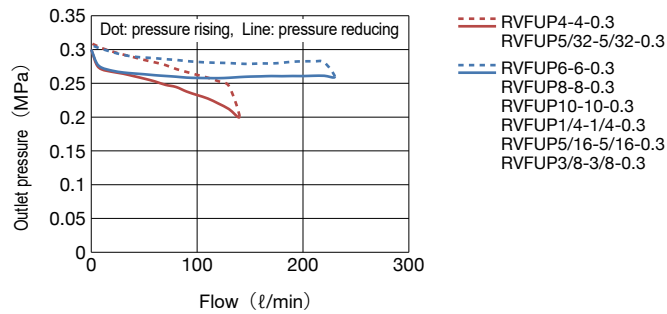
0.2MPa preset models (Rated pressure: 0.5MPa)



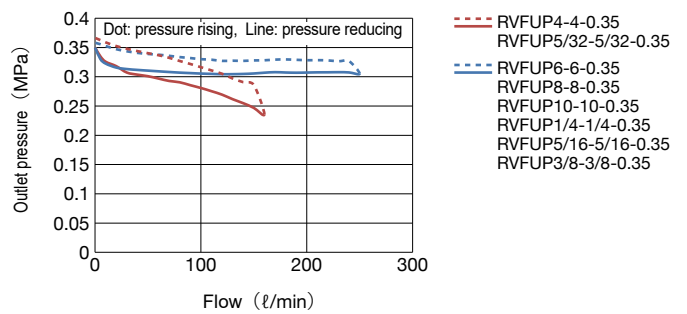
0.25MPa preset models (Rated pressure: 0.55MPa)



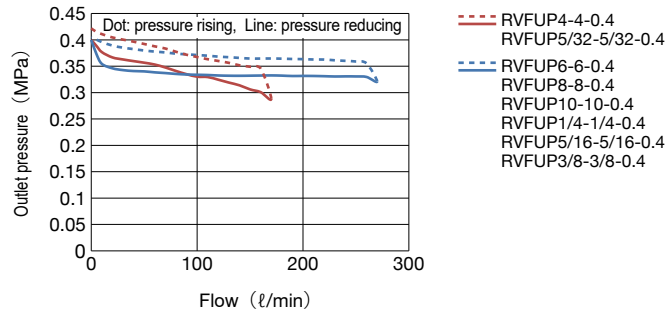
0.3MPa preset models (Rated pressure: 0.6MPa)



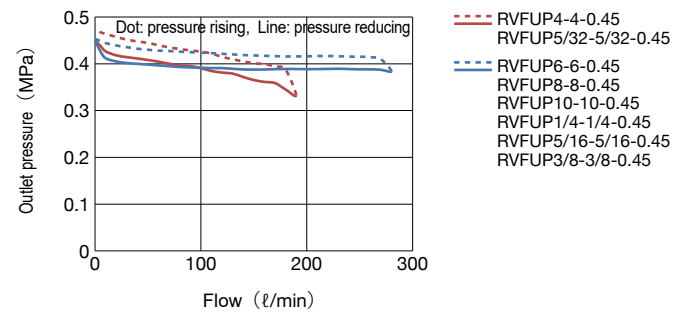
0.35MPa preset models (Rated pressure: 0.65MPa)



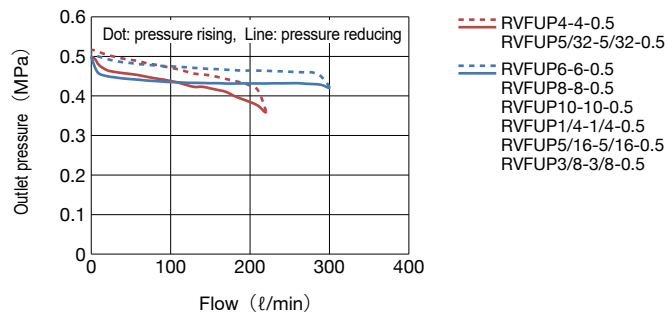
0.4MPa preset models (Rated pressure: 0.7MPa)



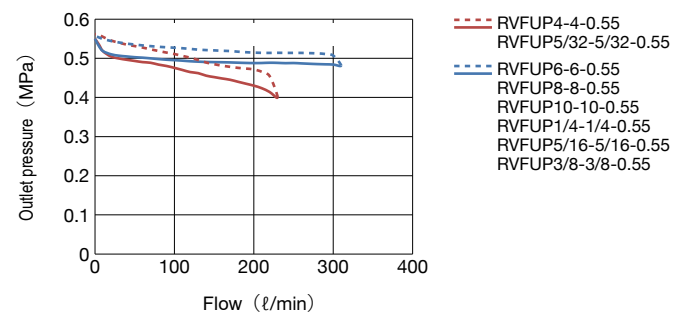
0.45MPa preset models (Rated pressure: 0.75MPa)



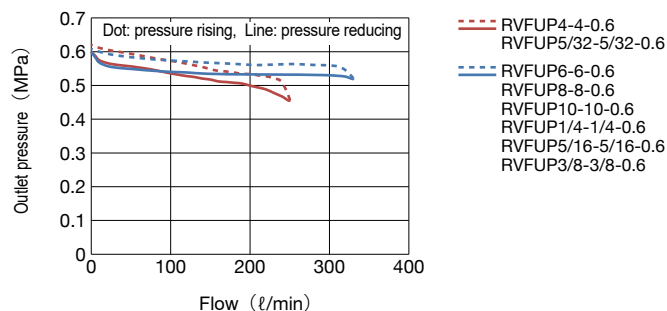
0.5MPa preset models (Rated pressure: 0.8MPa)



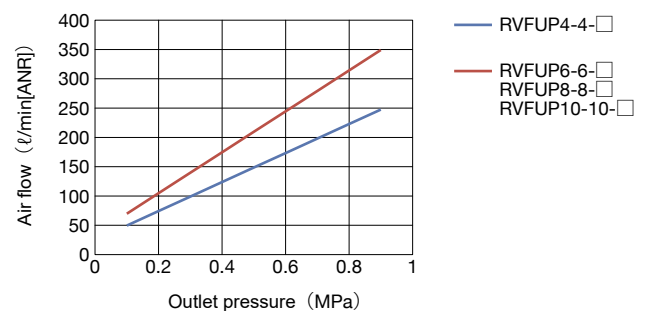
0.55MPa preset models (Rated pressure: 0.85MPa)



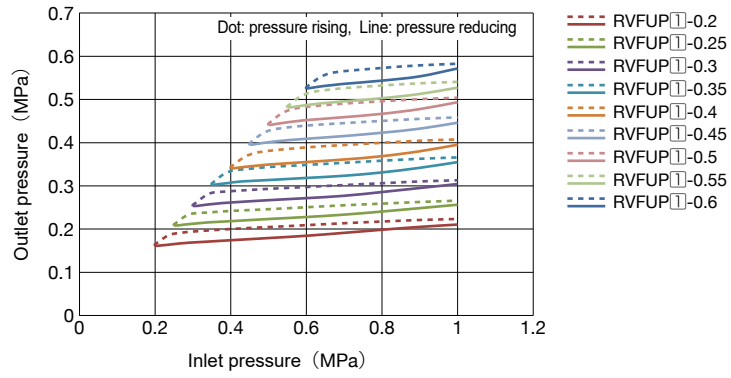
0.6MPa preset models (Rated pressure: 0.9MPa)



## Free flow characteristics



## Pressure characteristics



※ Inlet pressure changes : from **1.0MPa** to Designated pressure, then back to **1.0MPa**

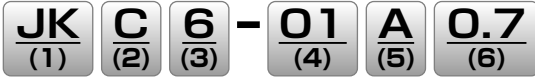


# Orifice Flow Speed Controller

Push-in fitting type fixed-orifice flow control valve

**⚠ Safety instructions for this product**  
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

## Model Designation (Example)



(1) Orifice Flow Speed Controller (2) Type

Code	C	L
Type	Straight	Elbow

(3) Tube dia. (øD)

Code	mm size (mm)			inch size (inch)	
	4	6	8	5/32	1/4
Tube O.D.	ø4	ø6	ø8	ø5/32	ø1/4

(4) Thread size (R)

Code	Taper pipe thread		UNF Thread	NPT Thread	
	01	02	U10U	N1U	N2U
Thread size	R1/8	R1/4	10-32UNF	NPT1/8	NPT1/4

\*Only R1/8 is available for tube dia. ø4mm.

(5) Control direction

Code	A	B
Control direction	Meter-out control  Free flow Air from thread side is controlled. Air from tube side is not controlled and flows out from thread side.	Meter-in control  Free flow Air from tube side is controlled. Air from thread side is not controlled and flows out from tube side.
	Identification	Marking on metallic body : B

(6) Orifice bore (○: Available)

Code (Orifice bore (mm))	0.1*	0.2*	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
U10	○	○	○	○	○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	-
01(N1)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	-	-	-	-	-
02(N2)	-	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

\*Orifice bore 0.1 and 0.2mm are selectable only for tube dia. ø4mm and 5/32".

## Characteristics

### No variable mechanism of control flow rate.

For the first purchase, please contact us. Orifice samples are available and suitable orifice bore is selectable. Please note that it is not possible to change the flow rate after purchasing.

### Various line-up

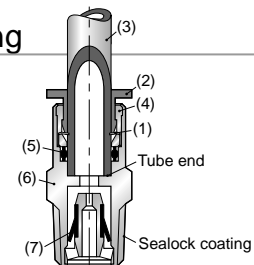
Orifice bore 0.1 and 0.2mm are prepared only for tube dia. ø4mm and 5/32".

## Specifications

Fluid medium	Air
Operating pressure range	0.1 to 0.9 MPa
Check valve opening pressure	0.05 MPa
Operating temp. range	0 to 60°C (No freezing)

## Sectional drawing

Straight type: JKC ø4,ø6mm



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Metallic body	Nickel-plated brass
(7)	Diaphragm	HNBR

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code JKCøD-R[5][6]	Model code JKCøD-R[5]U[6]	Type	Model code JKLøD-R[5][6]	Model code JKLøD-R[5]U[6]
Straight <b>JKC</b> øD 	JKC4-01[5]0.1	JKC5/32-U10[5]U[6]	Elbow <b>JKL</b> øD 	JKL4-01[5]0.1	JKL5/32-U10[5]U[6]
	JKC4-01[5]0.2	JKC5/32-N1[5]U0.1		JKL4-01[5]0.2	JKL5/32-N1[5]U0.1
	JKC4-01[5][6]	JKC5/32-N1[5]U0.2		JKL4-01[5][6]	JKL5/32-N1[5]U0.2
	JKC6-01[5][6]	JKC5/32-N1[5]U[6]		JKL6-01[5][6]	JKL5/32-N1[5]U[6]
	JKC6-02[5][6]	JKC1/4-N1[5]U[6]		JKL6-02[5][6]	JKL1/4-N1[5]U[6]
	JKC8-01[5][6]	JKC1/4-N2[5]U[6]		JKL8-01[5][6]	JKL1/4-N2[5]U[6]
	JKC8-02[5][6]			JKL8-02[5][6]	

### Notes

\*For [5] in model code, please select a control direction code, for [6], at the end of model code, please select a orifice bore code.

CAD data is available at PISCO website.

Packaging specifications  
1 pc. /bag



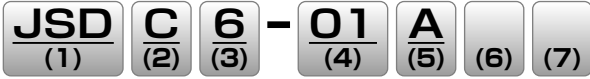
# Slot-head Speed Controller

Flow control valve with recessed adjustment screw for tamper-proof.

## ⚠ Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

## Model Designation (Example)



### (1) Slot-head Speed Controller

#### (2) Type

Code	<b>C</b>	<b>S</b>
Type	Elbow	Free

#### (3) Tube dia. (øD)

Code	mm size (mm)						inch size (inch)			
	<b>3</b>	<b>4</b>	<b>6</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>1/8</b>	<b>1/4</b>	<b>5/16</b>	<b>3/8</b>
Tube O.D.	ø3	ø4	ø6	ø8	ø10	ø12	ø1/8	ø1/4	ø5/16	ø3/8

#### (4) Thread size (R)

Code	Metric thread		Taper pipe thread				Unified fine thread	Inch NPT			
	<b>M3</b>	<b>M5</b>	<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>U10</b>	<b>N1</b>	<b>N2</b>	<b>N3</b>	<b>N4</b>
Thread size	M3x0.5	M5x0.8	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2

#### (5) Control direction

Code	<b>A</b>	<b>B</b>
	<b>Meter-out control</b>	<b>Meter-in control</b>
Control direction	<p>Air from thread side is controlled. Air from tube side is not controlled and flows out from thread side.</p>	<p>Air from tube side is controlled. Air from thread side is not controlled and flows out from tube side.</p>
Identification	Grooved markings on three points on its upper plug, and a JIS symbol on its resin body.	
	<p>No marking</p>	<p>Grooved markings (Three points)</p>
	<p>JIS symbol</p>	<p>JIS symbol</p>
	A or B marking on its upper plug and a JIS symbol on its resin body.	
Taper pipe male thread	<p>Marking (A)</p>	<p>Marking (B)</p>
	<p>JIS symbol</p>	<p>JIS symbol</p>

#### (6) Body color + Clean-room packaging specifications (Optional)

Code	No code	<b>-C</b>	<b>W</b>	<b>W-C</b>
Specifications	Standard	Clean-room package	Light-gray	Light-gray + Clean-room package
Appearance spec.				
Release-ring color*	Black	Light-blue	Light-gray	Light-gray
Resin body color	Black	Light-gray		

\*1. Release-ring color for inch type : White for all the specifications

\*2. There is no option "W-C" for inch-size product since it is the same product as "-C".

Code: **No code** (Inch)

Code: **-C, W** (Inch)



#### (7) Wrench size specification

Code	<b>No code</b>	<b>U</b>
Wrench size spe.	mm spec.	inch spec.

# Slot-head Speed Controller

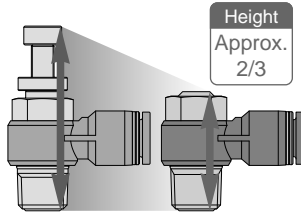
## Characteristics

It prevents unnecessary manual adjustments during the operations.

Design without an external needle for flow adjustment.  
Use a slot screwdriver to adjust the needle. (Flow adjustment)

## Miniaturized.

Approx. 2/3 height of the Needle type.

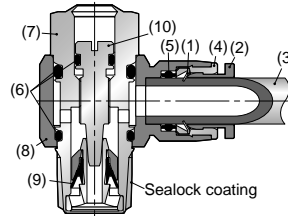


## Specifications

Fluid medium	Air
Operating pressure range	0.1 to 0.9 MPa
Check valve opening pressure	0.05 MPa
Operating temp. range	0 to 60°C (No freezing)

## Sectional drawing



Elbow type: JSDC



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Metallic body (*1)	Nickel-plated brass
(8)	Resin body	PBT
(9)	Diaphragm	HNBR
(10)	Needle	Nickel-plated brass

\*1. Metallic body with M3 thread is made of special stainless steel (Austenite or ferritic stainless steel).  
\*2. Gasket for metric or UNF thread : SUS304+NBR or SPCC+NBR for standard spec. POM for clean-room packaging.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code JSDCøD-R[5][6]	Applicable cylinder tube I.D. (mm)	Model code JSDCøD-R[5]U	Applicable cylinder tube I.D. (mm)	Type	Model code JSDSøD-R[5][6]	Applicable cylinder tube I.D. (mm)	Model code JSDSøD-R[5]U	Applicable cylinder tube I.D. (mm)
Elbow <b>JSDC</b> 	JSDC3-M3[5][6]	ø16	JSDC <sup>1</sup> / <sub>8</sub> -U10[5]U	max. ø20	Free <b>JSDS</b> 	JSDS3-M3[5][6]	ø16	JSDS <sup>1</sup> / <sub>8</sub> -U10[5]U	max. ø20
	JSDC3-M5[5][6]	ø20	JSDC <sup>5</sup> / <sub>32</sub> -U10[5]U	max. ø20		JSDS3-M5[5][6]	ø20	JSDS <sup>5</sup> / <sub>32</sub> -U10[5]U	max. ø20
	JSDC4-M3[5][6]	ø16	JSDC <sup>5</sup> / <sub>32</sub> -N1[5]U	max. ø32		JSDS4-M3[5][6]	ø16	JSDS <sup>5</sup> / <sub>32</sub> -N1[5]U	max. ø25
	JSDC4-M5[5][6]	ø20	JSDC <sup>1</sup> / <sub>4</sub> -U10[5]U	max. ø20		JSDS4-M5[5][6]	ø20	JSDS <sup>1</sup> / <sub>4</sub> -U10[5]U	max. ø20
	JSDC4-01[5][6]	ø32	JSDC <sup>1</sup> / <sub>4</sub> -N1[5]U	max. ø32		JSDS4-01[5][6]	ø25	JSDS <sup>1</sup> / <sub>4</sub> -N1[5]U	max. ø32
	JSDC6-M5[5][6]	ø20	JSDC <sup>1</sup> / <sub>4</sub> -N2[5]U	max. ø40		JSDS6-M5[5][6]	ø20	JSDS <sup>1</sup> / <sub>4</sub> -N2[5]U	max. ø40
	JSDC6-01[5][6]	ø32	JSDC <sup>1</sup> / <sub>4</sub> -N3[5]U	max. ø63		JSDS6-01[5][6]	ø32	JSDS <sup>1</sup> / <sub>4</sub> -N3[5]U	max. ø63
	JSDC6-02[5][6]	ø40	JSDC <sup>5</sup> / <sub>16</sub> -N1[5]U	max. ø32		JSDS6-02[5][6]	ø40	JSDS <sup>5</sup> / <sub>16</sub> -N1[5]U	max. ø32
	JSDC6-03[5][6]	ø63	JSDC <sup>5</sup> / <sub>16</sub> -N2[5]U	max. ø40		JSDS8-01[5][6]	ø32	JSDS <sup>5</sup> / <sub>16</sub> -N2[5]U	max. ø40
	JSDC8-01[5][6]	ø32	JSDC <sup>5</sup> / <sub>16</sub> -N3[5]U	max. ø63		JSDS8-02[5][6]	ø40	JSDS <sup>5</sup> / <sub>16</sub> -N3[5]U	max. ø63
	JSDC8-02[5][6]	ø40	JSDC <sup>5</sup> / <sub>16</sub> -N4[5]U	max. ø80		JSDS8-03[5][6]	ø63	JSDS <sup>5</sup> / <sub>16</sub> -N4[5]U	max. ø80
	JSDC8-03[5][6]	ø63	JSDC <sup>3</sup> / <sub>8</sub> -N2[5]U	max. ø40		JSDS10-02[5][6]	ø40	JSDS <sup>3</sup> / <sub>8</sub> -N2[5]U	max. ø42
	JSDC8-04[5][6]	ø80	JSDC <sup>3</sup> / <sub>8</sub> -N3[5]U	max. ø63		JSDS10-03[5][6]	ø63	JSDS <sup>3</sup> / <sub>8</sub> -N3[5]U	max. ø63
	JSDC10-02[5][6]	ø40	JSDC <sup>3</sup> / <sub>8</sub> -N4[5]U	max. ø100		JSDS12-03[5][6]	ø63	JSDS <sup>3</sup> / <sub>8</sub> -N4[5]U	max. ø100
	JSDC10-03[5][6]	ø63	JSDC <sup>1</sup> / <sub>2</sub> -N3[5]U	max. ø63		JSDS12-04[5][6]	ø100	JSDS <sup>1</sup> / <sub>2</sub> -N3[5]U	max. ø63
	JSDC10-04[5][6]	ø100	JSDC <sup>1</sup> / <sub>2</sub> -N4[5]U	max. ø100		JSDS <sup>1</sup> / <sub>8</sub> -M3[5][6]	ø16	JSDS <sup>1</sup> / <sub>2</sub> -N4[5]U	max. ø100
	JSDC12-03[5][6]	ø63				JSDS <sup>1</sup> / <sub>8</sub> -M5[5][6]	ø20		
	JSDC12-04[5][6]	ø100				JSDS <sup>1</sup> / <sub>4</sub> -M5[5]	ø20		
	JSDC <sup>1</sup> / <sub>8</sub> -M3[5][6]	ø16				JSDS <sup>1</sup> / <sub>4</sub> -01[5][6]	ø32		
	JSDC <sup>1</sup> / <sub>8</sub> -M5[5][6]	ø20				JSDS <sup>1</sup> / <sub>4</sub> -02[5][6]	ø40		
JSDC <sup>1</sup> / <sub>4</sub> -M5[5][6]	ø20			JSDS <sup>5</sup> / <sub>16</sub> -01[5][6]	ø32				
JSDC <sup>1</sup> / <sub>4</sub> -01[5][6]	ø32			JSDS <sup>5</sup> / <sub>16</sub> -02[5][6]	ø40				
JSDC <sup>1</sup> / <sub>4</sub> -02[5][6]	ø40			JSDS <sup>5</sup> / <sub>16</sub> -03[5][6]	ø63				
JSDC <sup>5</sup> / <sub>16</sub> -01[5][6]	ø32			JSDS <sup>3</sup> / <sub>8</sub> -02[5][6]	ø40				
JSDC <sup>5</sup> / <sub>16</sub> -02[5][6]	ø40			JSDS <sup>3</sup> / <sub>8</sub> -03[5][6]	ø63				
JSDC <sup>5</sup> / <sub>16</sub> -03[5][6]	ø63								
JSDC <sup>3</sup> / <sub>8</sub> -02[5][6]	ø40								
JSDC <sup>3</sup> / <sub>8</sub> -03[5][6]	ø63								

### Notes

- \*1. For [5] in model code, please select a control direction code, "A" for Meter-out and "B" for Meter-in control.
- \*2. Applicable cylinder tube I.D. is based on the supply air pressure at 0.5MPa and cylinder speed at 500mm/sec.

CAD data is available at PISCO website.

Packaging specifications  
1 pc. /bag

### Options

Code	[6] : -C	[6] : W	[6] : W-C
Specifications	Clean-room package	Light-gray	Light-gray + Clean-room package

# Orifice Fitting

Push-in fitting with fixed flow rate orifice

**⚠ Safety instructions for this product**  
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

## Model Designation (Example)



### (1) Tube Fitting

### (2) Type

Code	C	L
Type	Straight	Elbow

### (4) Thread size (R)

Code	Metric thread	Taper pipe thread	Unified fine thread	NPT
	<b>M5M</b>	<b>O1</b>	<b>U10M</b>	<b>N1</b>
Thread size	M5x0.8	R1/8	10-32UNF	NPT1/8

\* M5M and U10M are only for mini type (Tube O.D.: 4, 6mm, 5/32" or 1/4"), and O1 and N1 are only for standard type.

### (6) Orifice bore

Code (Orifice bore (mm))	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
Effective sectional area (mm <sup>2</sup> )	0.006	0.02	0.05	0.1	0.15	0.2	0.25	0.35	0.4	0.5	0.7	0.85	1.0	1.15	1.45	1.65	1.85	2.1	2.3	2.5

\* Orifice bore of mini type is available only up to dia. 1.0 mm. Dia. 8 mm O.D. tube fitting cannot select dia. 0.1 or dia.0.2mm orifice bores.

### (3) Tube dia. (øD)

Code	mm size (mm)			inch size (inch)	
	4	6	8	5/32	1/4
Tube O.D.	ø4	ø6	ø8	ø5/32	ø1/4

### (5) Wrench size specification

Code	No code	U
Wrench size spec.	mm spec.	inch spec.

## Characteristics

### Lower price than needle valve.

Compact design makes it possible to be installed in a small space.

### Orifice bore: ø 0.1 and ø 0.2 mm are also available.

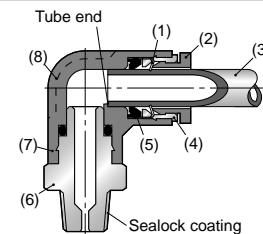
20 types of Orifice bore is selectable. (Min. ø0.1 to Max. ø2.0 mm in increment of 0.1 mm.)

### Installable in tight space.

M5 thread and UNF thread in mini type fitting is best suitable for compact piping.

## Sectional drawing

Elbow: PL



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc.
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Metallic body	Nickel-plated brass
(7)	O-ring	NBR
(8)	Resin body	PBT

\* The gasket material of M5 or UNF thread is SUS304 + NBR.

## Specifications

Fluid medium	Air
Max. operating pressure	1.0 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (No freezing)

RoHS2 (2011/65/EU+EU2015/863) compliant

### Metric thread type (Mini type)

Type	Model code	Type	Model code
	PCøD-RM- <b>6</b>		PLøD-RM- <b>6</b>
Straight	PC4-M5M- <b>6</b>	Elbow	PL4-M5M- <b>6</b>
<b>PC</b>	PC6-M5M- <b>6</b>	<b>PL</b>	PL6-M5M- <b>6</b>
øD		øD	

### Unified thread type (Mini type)

Type	Model code	Type	Model code
	PCøD-RM- <b>6</b>		PLøD-RM- <b>6</b>
Straight	PC <sup>5/32</sup> -U10M- <b>6</b>	Elbow	PL <sup>5/32</sup> -U10M- <b>6</b>
<b>PC</b>	PC <sup>1/4</sup> -U10M- <b>6</b>	<b>PL</b>	PL <sup>1/4</sup> -U10M- <b>6</b>
øD		øD	

### Taper pipe thread type

Type	Model code	Model code	Type	Model code	Model code
	PCøD-R- <b>6</b>	PCøD-RU- <b>6</b>		PLøD-R- <b>6</b>	PCøD-RU- <b>6</b>
Straight	PC4-01- <b>6</b>	PC <sup>5/32</sup> -N1U- <b>6</b>	Elbow	PL4-01- <b>6</b>	PL <sup>5/32</sup> -N1U- <b>6</b>
<b>PC</b>	PC6-01- <b>6</b>	PC <sup>1/4</sup> -N1U- <b>6</b>	<b>PL</b>	PL6-01- <b>6</b>	PL <sup>1/4</sup> -N1U- <b>6</b>
øD	PC8-01- <b>6</b>			PL8-01- <b>6</b>	
			øD		

**i** Notes  
\* For **6** in model code, please select a orifice bore code.

**CAD** CAD data is available at PISCO website.

**Package** Packaging specifications  
10 pcs. /bag

**Order** Non-standard options (Refer to page 893 for details)  
 · Body color option (Light gray)  
 · Seal rubber options (FKM, EPDM, HNBR)  
 · Oil-free specification  
 · Copper free spec.  
 · Release ring color change (Red)  
 ▶ Contact us for the price.

# Ball Valve

Push-In Fitting Type Shut-off Valve (2 port valve)

**⚠ Safety instructions for this product**  
 Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

## Model Designation (Example)



### (1) Ball Valve

### (2) Type

Code	C	LC	U	LU	G	LG	M	LM
Type	Straight	Elbow	Union Straight	Union Elbow	Unequal dia. Union Straight	Unequal dia. Union Elbow	Bulkhead Union Straight	Bulkhead Union Elbow

### (3) Effective sectional area (Series)

Code	No code	20	60
Effective sectional area (mm <sup>2</sup> )	10	20	60

### (4) Port 1 size (øD, øD<sub>1</sub>, R)

■ Tube dia.

Code	mm size (mm)						inch size (inch)					
	3	4	6	8	10	12	1/8	5/32	1/4	5/16	3/8	1/2
10 Series												
20 and 60 series			06	08	10	12			1/4	5/16	3/8	1/2
Tube O.D.	ø3	ø4	ø6	ø8	ø10	ø12	ø1/8	ø5/32	ø1/4	ø5/16	ø3/8	ø1/2

■ Thread size

Code	Taper pipe thread				National pipe thread tapered			
	01	02	03	04	N1	N2	N3	N4
Thread size	R1/8	R1/4	R3/8	R1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2

### (5) Port 2 size (øD<sub>2</sub>, R)

■ See (4) for the Tube dia. and thread size.

\* For 10 series and inch size, please enter a hyphen "-" before Port 2 size.

### (6) Wrench size specification

Code	No code	U
Wrench size spec.	mm size	inch size

## Model Designation of accessories for 20 and 60 Series



### (1) Ball Valve

### (2) Type

Code	UH	LCP	LO
Type	mounting bracket for Union type	Co-rotating stopper for Elbow type	Lockout

### (3) Applicable series (No entry for Lockout.)

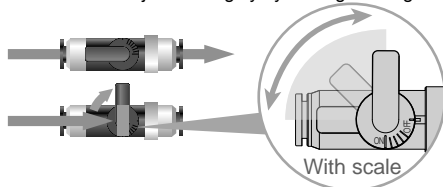
Code	20	60
Series	20 Series	60 Series

## Characteristics

### ● Mini (10) series

■ Lever with scale allows for rough flow rate adjustment.

The flow rate can be adjusted roughly by turning the angle of the lever.

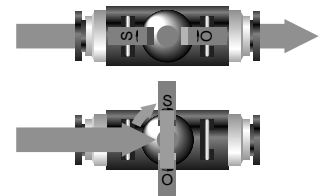


### ● 20 and 60 series

■ Possible to use with water.

PPS used for the body resin.

■ It provides a large effective sectional area commensurate with the connecting tube size.



■ There is only little flow loss thanks to the large orifice diameter.

### ● Optional for 20 and 60 Series

■ Adding optional items will make it even more convenient.

Environmentally friendly recycled materials are used.

#### ● Mounting bracket for Union type

The valve is fixed to improve the stability of handle operation.

Piping is stable and work efficiency is improved.



#### ● Co-rotating stopper for Elbow type

Prevents co-rotation when the body rotates in conjunction with the handle.

Piping position can be adjusted every 15°



#### ● Lockout

Prevents erroneous operations by workers. It can be installed on the valve handle regardless of the handle position.

The handle position can be visually recognized through semi-transparent lockout cover.



Lock with a padlock or cable ties (\*).

\* Please prepare by yourself. Padlock shackle diameter: 4.5 mm or less.

# Ball Valve

## Specifications

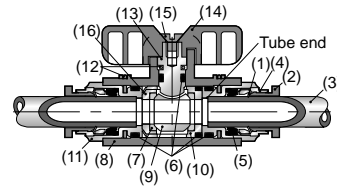
Series	10	20	60
Fluid medium	Air	Air, water (conditional*)	
Max. operating pressure	0.7 MPa	0.9 MPa	
Max. vacuum	-100 kPa		
Operating temp. range	0 to 60°C (No freezing)		
Effective sectional area	10 mm <sup>2</sup>	20 mm <sup>2</sup>	60 mm <sup>2</sup>

**△ Warning:**

- \* Make sure to follow the instructions below when the fluid medium is water.
- 1. Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.
- 2. Tap water in Japan, which is soft water (low mineral content) can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
- 3. Be sure to place Insert ring (WR) into the tube edge when using water as a fluid medium.

## Sectional drawing










20 and 60 series  
 Union straight:  
 BVU (Handle: Opened)




No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release ring	POM
(3)	Tube	Polyurethane or nylon, etc.
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Ball seal	PTFE
(8)	Resin body	10 Series: PBT 20 and 60 series: Glass fiber reinforced PPS
(9)	Ball	Nickel-plated brass
(10)	Ball support	Nickel-plated brass
(11)	Metallic body	Nickel-plated brass
(12)	Lock pin	Stainless steel
(13)	Stem	Nickel-plated brass
(14)	Cock	POM
(15)	Machine screw	Steel
(16)	Ball holder	Nickel-plated brass

RoHS2 (2011/65/EU+EU2015/863) compliant

### Mini (10) series




Type	Model code BVU $\phi$ D <sub>1</sub> - $\phi$ D <sub>2</sub>	Type	Model code BVG $\phi$ D <sub>1</sub> - $\phi$ D <sub>2</sub>	Type	Model code BVM $\phi$ D <sub>1</sub> - $\phi$ D <sub>2</sub>			
Union <b>BVU</b> 	BVU3-3 BVU4-4 BVU6-6 BVU <sup>1</sup> / <sub>8</sub> - <sup>1</sup> / <sub>8</sub> BVU <sup>5</sup> / <sub>32</sub> - <sup>5</sup> / <sub>32</sub>	Unequal Dia. Union Straight <b>BVG</b> 	BVG4-3 BVG6-4	Bulkhead Union Straight <b>BVM</b> 	BVM6-4 BVM6-6			
Type	Model code BVC R- $\phi$ D	Model code BVC R- $\phi$ DU	Type	Model code BVLC R- $\phi$ D	Model code BVLC R- $\phi$ DU	Type	Model code BVLC $\phi$ D-R	Model code BVLC $\phi$ D-RU
Straight <b>BVC</b> 	BVC01-3 BVC01-4 BVC01-6	BVCN1- <sup>1</sup> / <sub>8</sub> U BVCN1- <sup>5</sup> / <sub>32</sub> U	Elbow A <b>BVLC</b> 	BVLC01-3 BVLC01-4 BVLC01-6	BVLCN1- <sup>1</sup> / <sub>8</sub> U BVLCN1- <sup>5</sup> / <sub>32</sub> U	Elbow B <b>BVLC</b> 	BVLC3-01 BVLC4-01 BVLC6-01	BVLC <sup>1</sup> / <sub>8</sub> -N1U BVLC <sup>5</sup> / <sub>32</sub> -N1U
Type	Model code BVLU $\phi$ D <sub>1</sub> - $\phi$ D <sub>2</sub>	Type	Model code BVLG $\phi$ D <sub>1</sub> - $\phi$ D <sub>2</sub>	Type	Model code BVL M $\phi$ D <sub>1</sub> - $\phi$ D <sub>2</sub>			
Union Elbow <b>BVLU</b> 	BVLU3-3 BVLU4-4 BVLU6-6 BVLU <sup>1</sup> / <sub>8</sub> - <sup>1</sup> / <sub>8</sub> BVLU <sup>5</sup> / <sub>32</sub> - <sup>5</sup> / <sub>32</sub>	Unequal dia. Union Elbow <b>BVLG</b> 	BVLG3-4 BVLG4-3 BVLG4-6 BVLG6-4	Bulkhead Union Elbow <b>BVL M</b> 	BVL M6-4 BVL M6-6			



**i** Notes  
 \*1. Release ring color : White for inch type 




**CAD** CAD data is available at PISCO website.

**Package** Packaging specifications  
 1 pc. /bag




20 and 60 series

Type	Model code BVU[3]-øD <sub>1</sub> øD <sub>2</sub>	Type	Model code BVG[3]-øD <sub>1</sub> øD <sub>2</sub>	Type	Model code BVM[3]-øD <sub>1</sub> øD <sub>2</sub>	Model code BVM[3]-øD <sub>1</sub> øD <sub>2</sub> U
<b>Union</b> <b>BVU</b> 	BVU20-0606	Unequal Dia. Union Straight <b>BVG</b> 	BVG20-0806	Bulkhead Union Straight <b>BVM</b> 	BVM20-0806	BVM20-5/16-1/4U
	BVU20-0808		BVG60-1210		BVM20-0808	BVM20-5/16-5/16U
	BVU60-1010		BVG20-5/16-1/4		BVM60-1210	BVM60-1/2-3/8U
	BVU60-1212		BVG60-1/2-3/8		BVM60-1212	BVM60-1/2-1/2U
	BVU20-1/4-1/4					BVM20-1/4-1/4U
	BVU20-5/16-5/16					
	BVU60-3/8-3/8					
BVU60-1/2-1/2						

Type	Model code BVC[3]-øD R	Model code BVC[3]-øD-RU	Type	Model code BVLC[3]-øD R	Model code BVLC[3]-øD-RU
<b>Straight</b> <b>BVC</b> 	BVC20-0601	BVC20-1/4-N1U	<b>Elbow</b> <b>BVLC</b> 	BVLC20-0601	BVLC20-1/4-N1U
	BVC20-0602	BVC20-1/4-N2U		BVLC20-0602	BVLC20-1/4-N2U
	BVC20-0603	BVC20-1/4-N3U		BVLC20-0603	BVLC20-1/4-N3U
	BVC20-0801	BVC20-5/16-N1U		BVLC20-0801	BVLC20-5/16-N1U
	BVC20-0802	BVC20-5/16-N2U		BVLC20-0802	BVLC20-5/16-N2U
	BVC20-0803	BVC20-5/16-N3U		BVLC20-0803	BVLC20-5/16-N3U
	BVC60-1002	BVC60-3/8-N2U		BVLC60-1002	BVLC60-3/8-N2U
	BVC60-1003	BVC60-3/8-N3U		BVLC60-1003	BVLC60-3/8-N3U
	BVC60-1004	BVC60-3/8-N4U		BVLC60-1004	BVLC60-3/8-N4U
	BVC60-1202	BVC60-1/2-N2U		BVLC60-1202	BVLC60-1/2-N2U
	BVC60-1203	BVC60-1/2-N3U		BVLC60-1203	BVLC60-1/2-N3U
	BVC60-1204	BVC60-1/2-N4U		BVLC60-1204	BVLC60-1/2-N4U

Type	Model code BVLU[3]-øD <sub>1</sub> øD <sub>2</sub>	Type	Model code BVLG[3]-øD <sub>1</sub> øD <sub>2</sub>	Type	Model code BVL[3]-øD <sub>1</sub> øD <sub>2</sub> U	Model code BVL[3]-øD <sub>1</sub> øD <sub>2</sub> U
<b>Union Elbow</b> <b>BVLU</b> 	BVLU20-0606	Unequal dia. Union Elbow <b>BVLG</b> 	BVLG20-0608	Bulkhead Union Elbow <b>BVLM</b> 	BVLM20-0806	BVLM20-1/4-1/4U
	BVLU20-0808		BVLG20-0806		BVLM20-0808	BVLM20-5/16-1/4U
	BVLU60-1010		BVLG60-1012		BVLM60-1210	BVLM20-5/16-5/16U
	BVLU60-1212		BVLG60-1210		BVLM60-1212	BVLM60-1/2-3/8U
	BVLU20-1/4-1/4		BVLG20-1/4-5/16			BVLM60-1/2-1/2U
	BVLU20-5/16-5/16		BVLG20-5/16-1/4			
	BVLU60-3/8-3/8		BVLG60-3/8-1/2			
	BVLU60-1/2-1/2		BVLG60-1/2-3/8			

Accessories

Type	Model code	Type	Model code	Type	Model code
<b>Mounting bracket for Union type</b> <b>BVUH</b> 	BVUH20	<b>Elbow type co-rotating stopper</b> <b>BVLCP</b> 	BVLCP20	<b>Lockout</b> <b>BVLO</b> 	
	BVUH60		BVLCP60		



Notes

- \*1. Release ring color : White for inch type
- \*2. The material of the union type mounting bracket and the elbow type co-rotating stopper is PBT, and the material of the lockout is PP.

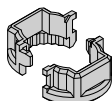


CAD data is available at PISCO website.



Packaging specifications

- 1 pc. /bag
- 1 set (2 pieces)/ bag: Elbow type stopper
- The elbow type co-rotating stopper is a set of 2 parts.



# FREE SAMPLE GIVEAWAY



The P-Set Series is designed and engineered with a tamper-proof design that prohibits unauthorized adjustments to pressure settings, thereby ensuring optimal safety and reliability.

Their compact construction facilitates installation in confined spaces, making them particularly suitable for challenging environments.

The fixed pressure and constant flow configuration guarantees consistent performance while significantly reducing the risk of user error, ultimately enhancing operational safety and eliminating downtime.

## Pre-set Pressure Regulator



The pressure setting is factory set and cannot be changed or adjusted, which provides operators a safe and continuous performance.

## Constant Flow Speed Controller



Perfect for mass-produced specialty machinery, as it enables speed control without adjustments. Selectable orifice size from  $\phi 0.1$  mm to  $\phi 2.0$  mm.

## Fixed Orifice Joint (Tamper-Proof)



Push-in fitting type fixed orifice joint to control air flow. Selectable orifice size from 0.1 to 2.0 mm.

## Slot-head Speed Controller



Prevents unintended manual adjustments. Use a screwdriver adjustment for applications that need occasional speed adjustments.

Sample Request Form 



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