

Check Valve

Push-in fitting type Non-return 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) Check Valve

(2) Appearance spec. (Material of valve element)

Code	No code	P
Specifications	Metal type	Resin type

* Resin type (Only available for CVC, CVU type with tube size 4, 6, 8 mm, 1/4, 5/16, 5/32 inch size and CVF with thread size R1/8, R1/4, NPT1/8.)

(3) Type

Code	C	U	G	F
Type	Straight	Union Straight	Unequal Union Straight	Bush

(4) Tube dia. (øD)

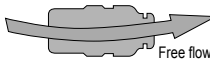
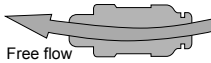
Code	mm size (mm)					inch size (inch)				
	4	6	8	10	12	5/32	1/4	5/16	3/8	1/2
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø5/32	ø1/4	ø5/16	ø3/8	ø1/2

(5) Thread size(R)

Code	Metric thread		Taper pipe thread				Unified fine thread	National pipe thread tapered			
	M5	M6	01	02	03	04	U10	N1	N2	N3	N4
Thread size	M5×0.8	M6×1	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2

* For Union type, please choose tube dia. from (4).

(6) Control direction (No code entry for Union Straight type)

Code	A	B
Control direction	Input on male side	Output on male side
		

(7) Wrench size specification

Code	No code	U
Wrench size specification	mm spec.	inch spec. (Only available for CVC and CVF type)

Characteristics

Keep the output pressure at a constant level.

The Check Valve permits the air flow in one direction but checks the flow in the opposite direction.

The Check Valve can be used for vacuum retention and piping under low pressure.

2 selections of valve element are available, Metal type (aluminum) and Resin type (POM).

Specifications

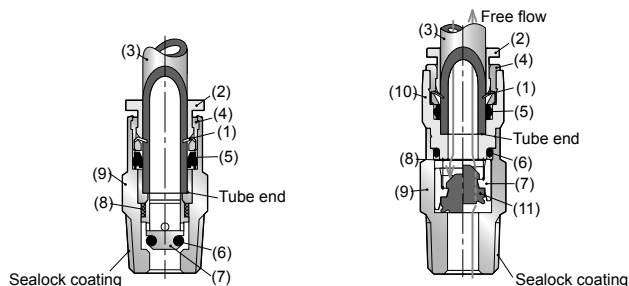
Type	Metal type	Resin type
Fluid medium	Air	
Max. operating pressure	0.9 MPa	
Max. vacuum	-100 kPa	
Min. opening differential pressure (*)	10 kPa	
Operating temp. range	0 to 60°C (No freezing)	
Min. checking differential pressure	0.02 MPa	0.04 MPa

* Min. opening differential pressure is the pressure when the valve begins to open, but not the pressure when the valve is fully open.

Sectional drawing

Straight Metallic type: CVC

Straight Resin type: CVPC



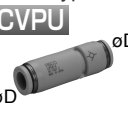
No.	Parts	Material	
		Metal type	Resin type
(1)	Lock claws	Stainless steel	
(2)	Release-ring	POM	
(3)	Tube	Polyurethane, Nylon, etc.	
(4)	Guide ring	Nickel-plated brass	
(5)	Elastic sleeve	NBR	
(6)	O-ring	NBR	
(7)	Valve element	Aluminum	POM
(8)	Spring	Stainless steel	
(9)	Metallic body	Nickel-plated brass	
(10)	Resin body	-	PBT
(11)	Valve packing	-	FKM (*2)

*1 Gasket (SUS304+NBR or SPCC+NBR) for metric thread and UNF thread.

*2 NBR for Tube dia. ø8mm, except CVPC8-01 □.

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

Metal type								
Type	Model code CVCøD-R[6]	Model code CVCøD-R[6]U	Type	Model code CVUøD-øD		Type	Model code CVGøD ₁ -øD ₂ [6]	
Straight CVC 	CVC4-M5[6]	CVC ^{5/32} -U10[6]U	Union Straight CVU 	CVU4-4 * ¹		Unequal Union Straight CVG 	CVG12-10[6] * ¹	
	CVC4-M6[6]	CVC ^{5/32} -N1[6]U		CVU6-6 * ¹				
	CVC4-01[6]	CVC ^{1/4} -N1[6]U		CVU8-8 * ¹				
	CVC6-01[6]	CVC ^{1/4} -N2[6]U		CVU10-10 * ¹				
	CVC6-02[6]	CVC ^{3/16} -N1[6]U		CVU12-12 * ¹				
	CVC8-01[6]	CVC ^{5/16} -N2[6]U		CVU ^{5/32-5/32} * ¹				
	CVC8-02[6]	CVC ^{3/8} -N3[6]U		CVU ^{1/4-1/4} * ¹				
	CVC10-03[6] * ¹	CVC ^{3/8} -N4[6]U		CVU ^{5/16-5/16} * ¹				
	CVC10-04[6] * ¹			CVU ^{3/8-3/8} * ¹				
	CVC12-03[6] * ¹			CVU ^{1/2-1/2} * ¹				
	CVC12-04[6] * ¹							
	CVC ^{3/8} -03[6]							
			* Color of metallic body of tube dia. 10 mm, 12 mm, 3/8" and 1/2" is silver.					
								
Type	Model code CVF R-Rc[6]	Model code CVF R-Rc[6]U						
Bush CVF 	CVF01-01[6]	CVFN1-N1[6]U						
	CVF02-02[6]	CVFN2-N2[6]U						
	CVF03-03[6] * ¹	CVFN3-N3[6]U *						
	CVF04-04[6] * ¹	CVFN4-N4[6]U *						

Resin type								
Type	Model code CVPCøD-R[6]		Type	Model code CVPUøD-øD		Type	Model code CVPF R-Rc[6]	
Straight Resin type CVPC 	CVPC4-M5[6]	CVPC ^{5/32} -U10[6]	Union Straight Resin type CVPU 	CVPU4-4		Bush (poppet: resin) CVPF 	CVFP01-01[6]	CVFPN1-N1[6]
	CVPC4-M6[6]	CVPC ^{5/32} -N1[6]		CVPU6-6			CVFP02-02[6]	
	CVPC4-01[6]	CVPC ^{1/4} -N1[6]		CVPU8-8				
	CVPC6-01[6]	CVPC ^{1/4} -N2[6]						
	CVPC6-02[6]	CVPC ^{5/16} -N1[6]						
	CVPC8-01[6]							
	CVPC8-02[6]							

Notes

- *1. Material for metallic body is aluminum.
- *2. For [6] in model code of Straight and Bush type, please select "A" for Inlet on male thread, "B" for Outlet on male thread.
- *3. For Unequal Union Straight type, please select flow direction referring to below.
CVG12-10A: Air flow direction: dia.12 → dia.10
CVG12-10B: Air flow direction: dia.10 → dia.12
- *4. Release-ring color is white for inch-size products.



CAD data is available
at PISCO website



Packaging specifications
1 pc. /bag



Non-standard options (Refer to page 893 for details)

- Seal rubber options (FKM, EPDM)
- Copper free spec.
- Release ring color change (Red)
 - ▶ The above options are not available for CVU4-4, 6-6, 8-8, 5/32-5/32, 1/4-1/4 and 5/16-5/16.
 - ▶ Contact us for the price.



Make to Order Production

Order Production Index

Based on the standard products, "Special specification option" on parts for matching operating environment or "Special appearance option" for matching a color for operating environment can be selected and ordered by just adding prearranged extension code of options.

*PISCO welcomes an inquiry of custom-made product, which is not listed in this catalog.
Please feel free to contact nearest PISCO office.

PISCO flexibly corresponds to non standard products that meet the needs of our customers.



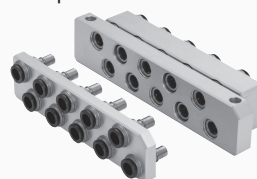
Visit PISCO web site for video about Non-standard products.
<https://www.pisco.co.jp/en/product/special/>



Tube penetration type
Tube Fitting



Tube Fitting unequal
port combinations



Multiple Coupling



Bulk Packaging (Tube Fitting,
Control, Vacuum Pad)

G thread spec.



Fittings with mm size tube diameter and parallel pipe thread are available.
Contact us for inquiry.

● Applicable model

Fitting Tube Fitting, Tube Fitting Mini



Inch NPT spec.

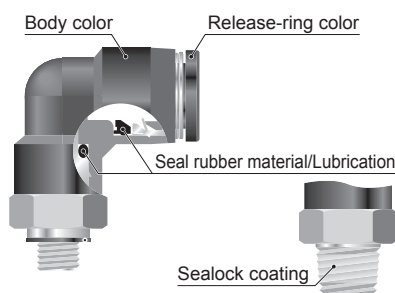


● Applicable model

Fitting	Tube Fitting, Tube Fitting Mini, Die Temperature Control Fitting, Rotary Joint, High Rotary Joint, Connector, Light Coupling
Control	Speed Controller, Speed Controller Large-flow type, Orifice Flow Speed Controller, Throttle (Needle) Valve, Quick Exhaust Valve, Orifice Fitting, Pressure Regulator Push-lock type, Pressure Controller, Check Valve, Pressure Gauge
Valve	Change Valve, Hand Valve, Ball Valve, Mechanical Valve



Special options



- ▶ Color option
Light-gray color option for resin body and release-ring.
- ▶ Seal rubber material option
Seal Rubber Selection: FKM, EPDM or HNBR.
- ▶ Oil-free option
Assembled without intentional use of oil, oil contamination into fluid medium can be prevented.
- ▶ ~~Non-purple option~~
~~Restraining generation of Cu ion or F ion from the product.~~
~~With this option, Check Valve and Stop Fitting, etc. do not have marking on the body parts. Please refer to the piping.~~
- ▶ Release-ring color option
Changeable to Red Color

Non-purple spec. option will no longer be available after March 31, 2025. Please see "Discontinuation notice of Non-purple spec. option" on the last page.

Model Designation (Example)

PL6-01 (1) **W** (2) **-F** (3) **-D** (4) (5)

(1) Model code (See the next page for available products.)

(2) Body color (Resin body color)

Code	W	No code
Color	Light gray	Standard

*When light-gray (W) is selected for body color, the metric (mm) size release-ring color is light-gray even for combination with any other options (except when red release-ring is specified).
The color of release-ring of inch tube dia. is always white.

(3) Seal rubber material

Code	-F	-E	-HN	No code
Material	FKM	EPDM (Oil-free)	HNBR	Standard seal rubber

*1. For FKM (-F) specification, the color of metric (mm) size release-ring is brown, while inch tube dia. is white. FKM (-F) specification is not available with non-purple (-P) specification.
*2. For EPDM (-E) specification, the product is assembled as oil-free specification. The color of metric (mm) release-ring is yellow.
*3. EPDM (-E) specification can not be selected for the products with M3 or M6 threads or with inch tube dia.

(4) Lubrication

Code	-D	-P	No code
Option	Oil-free	Non-purple	Standard

*1. The metric (mm) size release-ring color of oil-free (-D) specification is yellow, while inch tube dia. is white.
*2. The product with oil-free (-D) specification is assembled without intentional use of lubrication in standard process. Therefore the problem of reducing airtightness or increasing frictions of rubber parts may be resulted.
*3. ~~Non-purple (-P) option is not available with seal rubber material FKM. Also Seal lock type is not available for Non-purple option.~~

Non-purple spec. option will no longer be available after March 31, 2025. Please see "Discontinuation notice of Non-purple spec. option" on the last page.

(5) Release-ring color

Code	-RR	No code
Color	Red	Standard

Reference Chart of Special Options

○: Available, ×: Not available

Product series	Standard specification						Special specification						
	Body color and Packaging/ Cleaning option	Resin body color	Release-ring color	Seal rubber material	Lubrication	Thread sealing	(1)	(2)			(3)		(4)
							Body color	Seal rubber material			Lubrication		Release-ring color
							Light gray W ^{*1}	FKM -F ^{*2}	EPDM -E ^{*3}	HNBR -HN	Oil-free option -D ^{*4}	Non-purple ^{*5} -P ^{*2}	Red -RR
Tube fitting	Standard	Black	Black	NBR	Turbin oil	Sealock coating	×	○ ^{*5}	○	○	○	○	○
	Light gray	Light gray	Light gray		Standard spec.		○	○ ^{*6}	○		○		
	Clean-room pkg.	Light gray	Light blue		×		○	○ ^{*6}	○		×		
	Light gray + Clean-room pkg.	Light gray	Light gray		Standard spec.		○	○	○		×		
	Clean wash + Clean-room pkg.	Light gray	Light blue		×		×	○ ^{*6}	Standard spec.		○		
Tube fitting Mini	Standard	Black	Black	NBR	Turbin oil	Sealock coating	×	○ ^{*5,*10}	○ ^{*10}	○ ^{*10}	○	○	○
	Light gray	Light gray	Light gray		Standard spec.		○ ^{*10}	○ ^{*6,*10}	○ ^{*6}		×		
	Clean-room pkg.	Light gray	Light blue		×		○ ^{*10}	○ ^{*6,*10}	○		×		
	Light gray + Clean-room pkg.	Light gray	Light gray		Standard spec.		○ ^{*10}	○ ^{*10}	○		×		
Tube Fitting SUS304	Standard	Black	Dark blue	FKM	Turbin oil	Sealock coating	×	Standard spec.	○ ^{*7}	○	○ ^{*7}	×	△ ^{*17}
Tube Fitting Stainless SUS303 equivalent corrosivity	Standard	Black	Dark blue	HNBR	Turbin oil	Sealock coating	○	○	○ ^{*7,*15}	Standard spec.	○ ^{*7}	○	○
	Clean wash + Clean-room pkg.	Black	Dark blue		Oil-free option	×	×	○ ^{*7,*15}	Standard spec.	Standard spec.	×	○	
Tube Fitting Anti-static	Standard	Black	Black	NBR	Turbin oil	Sealock coating	×	○	○ ^{*8}	○	○ ^{*8}	○	△ ^{*17}
Tube fitting Brass	Standard	—	—	HNBR FKM	Turbin oil	Sealock coating	×	— Standard spec.	×	Standard spec. —	○	○	×
Tube fitting Long	Standard	—	Black	NBR	Turbin oil	Sealock coating	×	○ ^{*5}	○	○	○	○	○
Main block	Standard	Black	Black	NBR	Turbin oil	Sealock coating	×	○ ^{*5}	○	○	△ ^{*17}	×	○
	Light gray	Light gray	Light gray		Standard spec.	○	○	○	△ ^{*17}	×	○		
Connector	Standard	Black	Black	NBR	Turbin oil	—	×	○ ^{*5}	○	○	○	×	○
Speed controller ^{*14}	Standard	Black	Black	NBR	Turbin oil	Sealock coating	×	○ ^{*13}	○ ^{*10}	○ ^{*10,*11}	△ ^{*17}	○	○
	Light gray	Light gray	Light gray		Standard spec.		○	○ ^{*6,*10}	○			○	
	Clean-room pkg.	Light gray	Light blue		×		^{*10,*11,*12}	○ ^{*6,*10}	○			×	
	Light gray + Clean-room pkg.	Light gray	Light gray		Standard spec.		○ ^{*10}	○ ^{*10}	○			×	
Speed controller SUS303 equivalent corrosivity	Standard	Black	Dark blue	HNBR	Turbin oil	Sealock coating	○	○ ^{*11,*12}	○ ^{*7}	Standard spec.	△ ^{*17}	○	○
Needle valve	Standard	Black	Black	NBR	Turbin oil	Sealock coating	×	○ ^{*5,*12}	○	○	△ ^{*17}	○	○
	Light gray	Light gray	Light gray		Standard spec.		○ ^{*12}	○ ^{*6}	○			○	
	Clean-room pkg.	Light gray	Light blue		×		○ ^{*12}	○ ^{*6}	○			×	
	Light gray + Clean-room pkg.	Light gray	Light gray		Standard spec.		○	○	○			×	
Orifice fitting	Standard	Black	Black	NBR	Turbin oil	Sealock coating	○	○	○	○	○	○ ^{*16}	○ ^{*9}
Check valve (Metal type)	Standard	—	Black	NBR	Turbin oil	Sealock coating	×	○	×	×	△ ^{*17}	○	○
Check valve (Resin type)		Light gray	Light gray		Standard spec.	○	×	×	△ ^{*17}	○	○		
Check Valve for Low Operating Pressure	Standard	Light gray	Light gray	HNBR (Elastic sleeve)	Turbin oil	—	Standard spec.	○ (Elastic sleeve)	○ (Elastic sleeve)	Standard spec.	○	×	○
				FKM (Valve packing)				Standard spec.	×	×			

*1. When light-gray (-W) is selected for body color, the release-ring color of metric (mm) tube dia. is light-gray even for combination with any other options, except when Red color (-RR) is selected. The color of release-ring of inch tube dia. is always white.

*2. Non-purple spec. option is not available with seal rubber material FKM.

*3. For EPDM (-E) specification of sealing material, the product is assembled as oil-free specification. The color of release-ring of metric (mm) tube size is yellow, except the combination with light-gray specification, which has light-gray release-ring. EPDM (-E) specification is not available for the products with M3 or M6 threads or inch tube dia.

*4. Release-ring color: Yellow (When with light-gray specification, the release-ring color is light-gray.)

*5. Release-ring color: Brown

*6. Release-ring color: Light-blue

*7. Release-ring color: Dark-blue

*8. Release-ring color: Black

*9. Release-ring color: Red is not available with body color Light-gray.

*10. Not available for Tube dia. ø1.8 mm and ø2 mm.

*11. Not available for Low cracking pressure type.

*12. Not available for the products with M3 thread.

*13. See *5, *10, *11 and *12.

*14. Applicable types: JSC, JSS and JSM for Standard series, JSC-H for High Flow series, JSC-L and JSS-L for Low Flow series, JKC and JKL for Constant Flow series.

*15. Gasket material for Metric thread : PPS

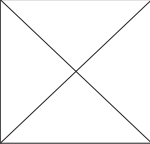
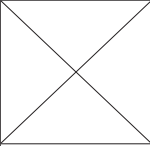
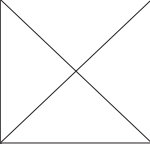
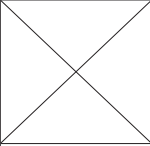
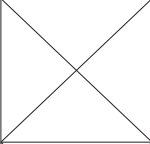
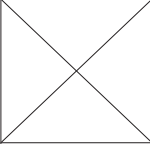
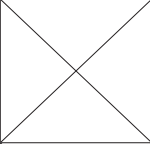
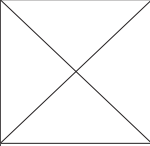
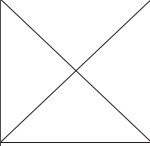
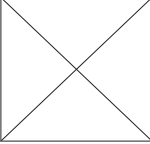
*16. Orifice bore 0.1 mm and 0.2 mm is not available.

*17. Contact us for inquiry.

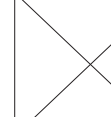
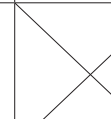
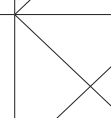
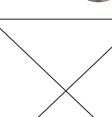
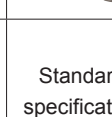
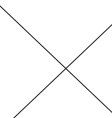
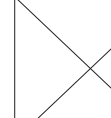
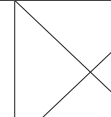
Non-purple spec. option will no longer be available after March 31, 2025. Please see "Discontinuation notice of Non-purple spec. option" on the last page.

*Consult PISCO for any inquiry of special-made product, which is not listed in this catalog.

Reference Chart of Appearance Color Combination with Special Options (Fitting with Metal body)

Product series	Resin color or Option	Tube dia. size		Seal rubber material		Lubrication	Release-ring color
				-F	-E	-D	-RR
				FKM	EPDM	Oil-free option	Red
Tube fitting Tube fitting Mini	—	mm size					
		inch size					
	Light gray	mm size					
	Clean-room pkg.	mm size					
		inch size					
	Light gray + Clean-room pkg.	mm size					
Tube fitting	Clean wash + Clean-room pkg.	mm size				Standard specification	
		inch size				Standard specification	
Tube Fitting SUS304	—	mm size		Standard specification			
Tube Fitting Stainless SUS303 equivalent corrosivity	—	mm size					
	Light gray	mm size					
	Clean wash + Clean-room pkg.	mm size				Standard specification	

Reference Chart of Appearance Color Combination with Special Options (Fitting with Resin body)

Product series	Resin color or Option	Tube dia. size		Seal rubber material		Lubrication	Release-ring color	
				-F	-E	-D	-RR	
				FKM	EPDM	Oil-free option	Red	
Tube fitting Tube fitting Mini	—	mm size						
		inch size						
	Light gray	mm size						
		inch size						
	Clean-room pkg.	mm size						
		inch size						
	Light gray + Clean-room pkg.	mm size						
		inch size						
	Tube fitting	Clean wash + Clean-room pkg.	mm size				Standard specification	
			inch size				Standard specification	
	Tube Fitting SUS304	—	mm size		Standard specification			
	Tube Fitting Stainless SUS303 equivalent corrosivity	—	mm size					
Light gray		mm size						
Clean wash + Clean-room pkg.		mm size				Standard specification		

Reference Chart of Appearance Color Combination with Special Options (Controllers)

Product series	Resin color or Option	Tube dia. size		Seal rubber material		Release-ring color
				-F	-E	-RR
				FKM	EPDM	Red
Speed controller Throttle (needle) valve	—	mm size				
		inch size				
	Light gray	mm size				
		inch size				
	Clean-room pkg.	mm size				
		inch size				
	Light gray + Clean-room pkg.	mm size				
		mm size				
		mm size				
		mm size				

To: PISCO Distributors
Attn: To Whom It May Concern
Date: September 2024

Discontinuation notice of Non-purple spec. option

We would like to express our sincere gratitude for your continued patronage.
We would like to inform you that the Non-purple spec., which was available as Special specification option, is discontinued, and its manufacturing and sales will be terminated as of the end of March, 2025.
Thank you for your understanding.

Details

1. Discontinued option Make-to-order option, Special specification: Non-purple spec.
Model code (Ex.): PL6-01-**P**
*"P" at the end of the model code

Non-purple spec: For the Non-purple spec., fluorine ions and copper ions, which were undesirable in the manufacturing line of cathode ray tube televisions, are suppressed by not applying Sealock (fluorine-based thread sealant) to the products. Thus, Non-purple spec. is equivalent to No-Sealock spec.

- | | |
|-----------|--|
| 2. Reason | To update and expand applicable products by reviewing specifications to match the current situation. |
|-----------|--|

3. Discontinuation Date
- March 31, 2025**

4. Replacement Make-to-order option, Special specification: No-Sealock spec.
Model code (Ex.): PL6-01-**NS**
**"-NS" at the end of the model code
*The list price remains the same.

		Thread sealant (Sealock)	Rubber material (Std. NBR)	Gasket material (Std. NBR)	Lubrication (Std. Turbine oil)	Marking	Applicable products
Discontinued	-P: Non-purple	Not applied	Fluorine materials are not selectable.			Not available	Some models of Tube Fitting
Replacement	-NS: No-Sealock	Not applied	Fluorine materials are selectable			Available	Tube Fitting, Speed Controller, Needle Valve, Check Valve, etc.

Please make inquiries to the following sales office.

Overseas Sales Department
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E-mail: intl@pisco.co.jp URL: <https://pisco.co.jp/en/>