Check Valve PP Series For Low Operating Pressure

Characteristics

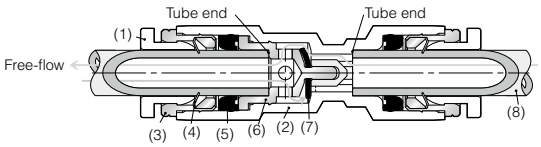
- PP (Polypropylene) is applied for the body material to adapt to clean environment.
- Clear (semitransparent) color used for the resin body males it possible to check visually the fluid (liquid) inside. Clear (semitransparent) color contributes to check sanitary condition.
- Best suitable for the applications in which no "copper alloy", "low level ozone resistance" and "oil free" specification is are required.SUS304 is used for the metal parts. FKM is used for valve packing. EPDM is used for elastic sleeve (FKM and NBR are optional).
- Opening pressure is 5kPa (0.005MPa).Securing of air flow at low pressure becomes possible.
- 2 types of package is prepared. Standard package and Clean-room package, which item is washed by clean air and packed in ISO class 6 clean-room, are available.

Specifications

Fluid medium	**Air, Water, Other chemical (conditional)**
Operating pressure range	**-14.5 ~ 145**psi (**-0.1 ~ 1.0**MPa)
Opening pressure	**0.725**psi (**0.005**MPa)
Operating temp. range	**32 ~ 176**°F (**0 ~ 80**°C) (No freezing)
Min. opening differential pressure	**1.45**psi (**0.01**Mpa)

⚠Warning
* When the fluid medium is water or other chemicals, surge pressure must be controlled lower than max. operating pressure.
* When the fluid medium is water or other chemicals, make sure to use Insert Ring together with.
* Depending on the kind of chemicals, solvent, or mixed gases used as fluid medium, the specification above may not be applied. Contact us when necessary.
*If operating temp. exceeds 20 , refer to the following chart "Relation of Operating Temp. & Max. Operating Pressure".
*Entering of foreign substances in the product may cause leakage at check valve. Please make sure to place a filter at upstream side.
*When the fluid is water, water stain may adhere to the product inside and cause leakage at check valve depending on water quality, usage environment, usage frequency and other conditions. Ultrasonic washing can improve leakage to some extent in some cases, but when leakage continues even after ultrasonic washing, replacement of the products will be necessary.

Construction



No	Parts	Material
(1)	Release ring	PP
(2)	Resin body	PP
(3)	Guide ring	SUS304
(4)	Lock claws	Stainless steel
(5)	Elastic sleeve	EPDM
(6)	Valve fastening	SUS304
(7)	Valve packing	FKM
(8)	Tube	Fluororesin, Polyamide, Clean-room packaging tube

Model Designation (Example)

PCV	L	U	4-4		
(1)	(2)	(3)	(4)	(5)	(6)

(1) Resin check valve

(2) Body specification

L: Low operating pressure type

(3) Type

U: Union

(4) Tube dia. (øD)

	mm size (mm)				
Code	**4-4**	**6-6**	**8-8**	**10-10**	**12-12**
Dia.	ø4	ø6	ø8	ø10	ø12

(5) Rubber material

Code	**No code**	**-F**	**-N**
Material	EPDM	FKM	NBR

(6) Packaging option

-C: Clean-room package

No code: Standard package

RoHS The products listed in this page are ECO-friendly products.
* Please refer to page 4 for the details of ECO-friendly products.

PCVLU Union Straight	Model code
øD	PCVLUøD-øD 5 6
	PCVLUø4-4 5 6
	PCVLUø6-6 5 6
	PCVLUø8-8 5 6
øD	PCVLUø10-10 5 6
	PCVLUø12-12 5 6

Caution
* For 5, please select a rubber material.
* For 6, please enter "-C" for clean-room package.
* The model with low sales average may be build to order production. For details, please contact Pisco sales office or sales representative.
* See page 123 for Special Options.

Package specification
1 pc. in a bag

Detailed Safety Instructions

Before using the PISCO products, be sure to read the "Safety Instructions", "Common Safety Instructions for Products in This Catalog" on page 13 to 16 and "Common Safety Instructions for Controllers" on page 18.

⚠Warning:
1. Frequent switching may generate heat and cause a danger of getting burnt. Contact us in case of using Check Valve with frequent switching.
2. When the fluid medium is liquid, make sure to use Insert Ring together with. There is a risk of tube coming-off or leakage without Insert Ring.
3. When fluid medium is chemicals or mixed gases, please check chemical resistance before actual use. Some conditions can cause damage of Push-in fitting, tube coming off or leakage.
4. Do not use this series under the condition with vibration or physical impact. These may cause damage to the products, the escape of tubes and a fluid leakage.
5. Resin can be deteriorated by being exposed to direct sunlight or ultraviolet rays.
6. Max. operating pressure for this product differs according to operating temperature range. Please make sure to check the chart "Relation of Operating Temp. & Max. Operating Pressure" and use the product within the specification range.

⚠Caution :
1. In case the pressure difference between the primary pressure and the secondary pressure is extremely large, it may cause damage to the poppet during operation. The fragment of broken poppet may flow into the secondary side in the worst case.
2. Abnormal noise by chattering poppet may occur, depending on an operation pressure or flow rate.
3. The seal rubber material EPDM is not suitable for general air piping, due to its inferior durability against mineral oil.
4. If there is a possibility of fire by a fluid leakage, implement specific counter measures such as using a protective cover in order to protect machines / facilities from damages or fire.
5. Tube insertion into Throttle (Needle) Valve PP Series is tighter than that of Throttle (Needle) Valves due to its oil-free specification. Make sure to insert tube up to tube end. When inserting a tube, put a liquid like water on the tube, which does not affect the product and the tube. It will improve the smoothness of tube insertion.
6. For Low Operating Pressure Type, min. checking differential pressure should be above 10kPa. Use with checking differential pressure under 10kPa may cause leakage.
7. When pressure is applied consecutively in the checking direction on Low Operating Pressure Type, opening pressure may be higher than the catalog specification depending on ambient temperature, pressure applying time and other conditions.
8. Corrosiveness and dusting characteristics differs depending on environment. When negative effect is expected on machines or apparatus, please conduct evaluation considering the environment before the actual use at user's side.