

CHECK VALVES

Application

- Check Valves permit airflow in one direction.
- Used for maintaining the output pressure at a constant level.

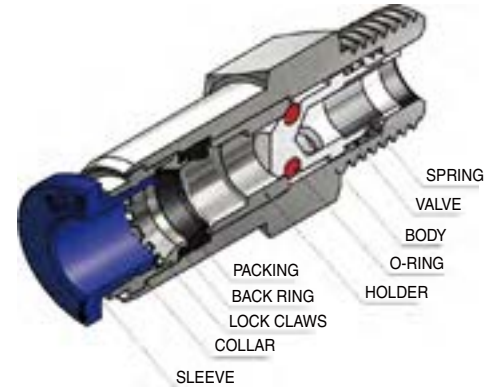
Feature

- The check valves permit the airflow in one direction but stops in the reverse direction.
- The check valves works at the pressure of 0.1kgf/cm², keeps 1.42 PSI in vacuum and connects at a low preasure.

Specification

Fluid	Air(No other gases or liquids)	
Working Pressure Range	0~284PSI	0~20Kgf/cm ² (0~1960kPa)
Negative Pressure	-29.5 in Hg	-750mmHg(10Torr)
Temperature Range	32~176°F	0~80°C
Applicable Tube Material	Polyurethane and Nylon	

Structural Diagram



Product Code System

GPCVC 06 - 01 0

① ② ③ ④

- ① Type
- ② Tube Dia(∅D)

Code	04	06	08	10	12
Dia	∅4	∅6	∅8	∅10	∅12

- ③ Thread Size(T)

	Metric size		Taper Pipe Thread			
Code	M5	M6	01	02	03	04
Size	M5X0.8	M6X1.0	R1/8	R1/4	R3/8	R1/2

- ④ Control Method

Type	Meter IN	Meter OUT
Air Flow	Thread to Tube	Tube to Thread
PCVC		
PCVF		
PCVF		In case of PCVU model, you should pipe according to signal of the body.

⚠ CAUTION

- Be sure to read the "Common Precautions" and "Using Precautions of Fitting Series" (P14) before using.
- Be sure to confirm the direction of the stop instrument. Reverse direction will not allow airflow.

⚠ WARNING

- Be careful of a scald by the heat generation on the body for the high frequency of stop circulation effect.

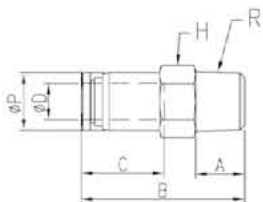
GPCVC

Straight

ØD



R



MODEL [ØD-T] Tube(Metric)-Thread(R) (mm)

MODEL	ØD	R	H	C	ØP	B	A	W.G(g)	Q'ty/ Inbox
GPCVC 04M5	4	M5	9	14.5	8.8	31.3	5.4	9.7	100
GPCVC 04M6	4	M6	9	14.5	8.8	32.3	6.4	10.1	100
GPCVC 0401	4	R1/8	10	14.5	8.8	25.9	8	10.8	100
GPCVC 0601	6	R1/8	12	15.5	11	32.25	8	13.6	100
GPCVC 0602	6	R1/4	14	15.5	11	32.25	11	22	50
GPCVC 0801	8	R1/8	14	17.8	13	32.6	8	18.1	50
GPCVC 0802	8	R1/4	14	17.8	13	36.6	11	21.6	50
GPCVC 1003	10	R3/8	24	19.4	25	60.7	12	43	20
GPCVC 1004	10	R1/2	27	19.4	28	66.5	15	54.2	20
GPCVC 1203	12	R3/8	24	22.4	25	63.5	12	48.1	20
GPCVC 1204	12	R1/2	27	22.4	28	69.5	15	61.1	20

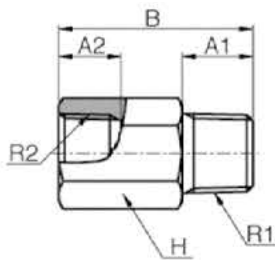
PCVF

Bush



R

Rc

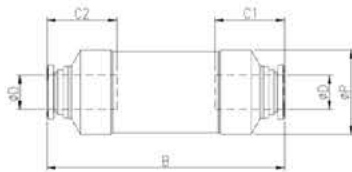


MODEL [ØD-T] Tube(Metric)-Thread(R) (mm)

MODEL	R1	R2	H	A1	A2	B	W.G(g)	Q'ty/ Inbox
PCVF 01-01	R1/8	Rc1/8	14	6	9	22.8	21.2	100
PCVF 02-02	R1/4	Rc1/4	17	8	11	28.5	37.8	50
PCVF 03-03	R3/8	Rc3/8	24	10	13	54.3	53	25
PCVF 04-04	R1/2	Rc1/2	27	12	16	63.1	61.3	25

GPCVU

Union Straight



MODEL [ØD-T] Tube(Metric)-Thread(R) (mm)

MODEL	ØD	C1	C2	ØP	B	W.G(g)	Qty/ Inbox
GPCVU 04	4	16	16	10.5	40.4	4.9	100
GPCVU 06	6	17	17	12.5	47.7	7.5	50
GPCVU 08	8	18.5	18.5	15	50.4	11.7	50
GPCVU 10	10	21	21	25	71.5	56	25
GPCVU 12	12	22	22	25	77	63	25

More than Ø10 : Made by ALUMINIUM

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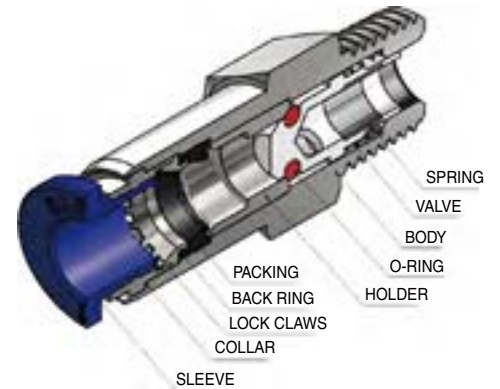
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Applicable Tube Material	Polyurethane and Nylon	

Structural Diagram



Product Code System

GPCVC 06 - G01 0

① ② ③ ④

- ① Type
- ② Tube Dia(∅D)

Code	04	06	08	10	12
Dia	∅4	∅6	∅8	∅10	∅12

- ③ Thread Size(T)

	Metric size		Taper Pipe Thread			
Code	M5	M6	G01	G02	G03	G04
Size	M5X0.8	M6X1.0	G1/8	G1/4	G3/8	G1/2

- ④ Control Method

Type	Meter IN	Meter OUT
Air Flow	Thread to Tube	Tube to Thread
PCVC		
PCVF		
PCVU		In case of PCVU model, you should pipe accoring to signal of the body.

⚠ CAUTION

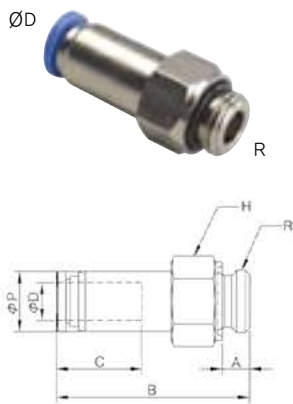
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- Be sure to confirm the direction of the stop instrument. Reverse direction will not allow airflow.

⚠ WARNING

- Be careful of a scald by the heat generation on the body for the high frequency of stop circulation effect.

GPCVC-G

Straight



MODEL [ØD-T] Tube(Metric)–Thread(G) (mm)

MODEL	ØD	R	H	C	ØP	B	A	W.G(g)	Qty/ Inbox
GPCVC 04G01	4	G1/8	14	14.5	8.8	25.9	5	15.5	100
GPCVC 06G01	6	G1/8	14	15.5	11	36.05	5	19.2	100
GPCVC 06G02	6	G1/4	17	15.5	11	32.25	6	28.1	50
GPCVC 08G01	8	G1/8	14	17.8	13	36.4	5	23.2	50
GPCVC 08G02	8	G1/4	17	17.8	13	41.9	6	32.8	50
GPCVC 10G03	10	G3/8	24	19.4	25	57.7	7	43	20
GPCVC 10G04	10	G1/2	27	19.4	28	63	8.5	54.2	20
GPCVC 12G03	12	G3/8	24	22.4	25	60.5	7	48.1	20
GPCVC 12G04	12	G1/2	27	22.4	28	66	8.5	61.1	20

PCVF-G

Bush



MODEL [ØD-T] Tube(Metric)–Thread(G) (mm)

MODEL	R1	Rc	H	A1	A2	B	W.G(g)	Qty/ Inbox
PCVF G01-G01	G1/8	G1/8	14	6	9	22.8	22	100
PCVF G02-G02	G1/4	G1/4	17	8	11	28.5	40.5	50
PCVF G03-G03	G3/8	G3/8	24	10	13	54.3	60	25
PCVF G04-G04	G1/2	G1/2	27	12	16	63.1	80.4	25



Classification of Warning Indication



DANGER Risk of death or serious injury.
(The most dangerous condition.)



WARNING Potential risk of danger, death or serious injury.
(Potential danger)



CAUTION Potential risk of danger and of financial damage.

Common Precautions



DANGER ▶ Never use for the following:

- ① As equipment for the purpose of the maintenance and management of human life.
- ② As equipment for the purpose of movement of human transportation.
- ③ As equipment requiring essential safety.



WARNING ▶ Never use on the following environment:

- ① Using for applications other than originally intended.
- ② Place of excessive vibration, shock, rotation and curve.
- ③ Place consisting of corrosive gas, inflammable/flammable gas, chemicals, sea water, water and vapor.

- ▶ Never disassemble or remodel the equipment; this may cause malfunction or leakage.
- ▶ When repairing or checking equipment, remove air pressure first.
- ▶ Never tamper with the sleeve of fitting when pressure is on.



CAUTION ▶ Never assemble with parts from other manufacturers; this may cause leakage or damage to the equipment.

Sang-A Pneumatic Co., Ltd. is not responsible for damage or injury that may occur due to interchanging of parts outside of the Sang-A Pneumatic brand.

Using Precautions of Fitting Series

Never fail to check the following



- WARNING**
1. Never use for fluids other than air and water (Water: available in case of special order only)
 2. Never use at the place of spatter to avoid fire.
 3. Be sure to use with Rotary Joint to prevent damage or leakage at the place of rotation.
 4. Never use with water hotter than 60°C. This causes breakage of resin due to hydrolysis or heat.
 5. Be sure to use after checking static electricity prevention requirements.
 6. Avoid external impact such as bending, twisting and drawing on fittings.



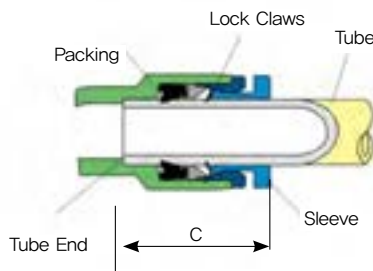
CAUTION

① **Be sure to meet the following conditions for the tube, otherwise it may cause leakage of air or inferiority of the application.**

SIZE	POLYURETHANE TUBE	NYLON TUBE	SIZE	POLYURETHANE TUBE	NYLON TUBE
Ø 3mm	± 0.10	± 0.08	Ø 1/8	± 0.10	± 0.08
Ø 4mm	± 0.10	± 0.08	Ø 5/32	± 0.10	± 0.08
Ø 6mm	± 0.12	± 0.10	Ø 3/16	± 0.12	± 0.10
Ø 8mm	± 0.12	± 0.10	Ø 1/4	± 0.12	± 0.10
Ø 10mm	± 0.15	± 0.12	Ø 5/16	± 0.15	± 0.12
Ø 12mm	± 0.15	± 0.12	Ø 3/8	± 0.15	± 0.12
Ø 16mm	± 0.15	± 0.15	Ø 1/2	± 0.15	± 0.15

② **Cautions in the application of tube:**

- Be sure to confirm that the section of tube is cut at a right angle. Make sure that there is no indication of damage to the outside of the tube.
- Be sure to refer to the following for application and removal of the tube.
Sang-A Pneumatic equipment is made to follow a 2-step insertion of tubing into the fitting.
The 1st step goes past the Lock Claws, and the 2nd step goes into the Packing.
Make sure that the second step has been acquired.
- The elliptical design of the sleeve makes for a simple and easy application.
(Please order the round sleeve if there are restrictions)



▶ **The size of Sleeve**

SLEEVE SIZE	Ø3	Ø4	Ø6	Ø8	Ø10	Ø12	Ø16	
		Ø1/8	Ø5/32	Ø3/16	Ø1/4	Ø5/16	Ø3/8	Ø1/2
C	General Specifications(mm)	10X12	11X13	12X14	14X16	17X19	21X23	24X27
	Compact Specifications(mm)	7X6	10X8	12X10				

- Minimum insertion part of tube is as follows and be sure to use leaving as much as the following size as margin.

SLEEVE SIZE	Ø3	Ø4	Ø6	Ø8	Ø10	Ø12	Ø16
		Ø1/8	Ø5/32, 3/16	Ø1/4	Ø5/16	Ø3/8	Ø1/2
C	General Specifications(mm)	16	17	18.5	21	22	25
	Compact Specifications(mm)	9.5	11.5	12.5	Ø3/16(N/A)		

③ **Cautions on disconnecting tube:**

- Before disconnecting tube, be sure to confirm that the pressure inside the tube is at zero.
- Before disconnecting tube, pull it out after pressing the sleeve equally on both sides.
Unequal pressing strength will make scratch on tube by insufficient open of lock claws, this will cause air leakage.
- Be sure not to shake or make 360 degree rotation when disconnecting the tube.
The scratch made by the misuses will cause air leakage.

④ **Cautions on treatment of the equipment body:**

- When fastening the body onto the six-angle part of the inside and outside of the fitting, choose the correct tool and size.
- When fastening the thread, please refer to the "Torque Recommended"(P13)
If torque is higher than the recommended, this may cause damage or air leakage.
If torque is lower than the recommended, this may cause air leakage.
- After fastening the thread, most of Sang-A equipment allows control of the direction of the pipe.