

PILOT SPEED CONTROLLERS

Application

- Integrated pilot check valve and speed controller

Feature

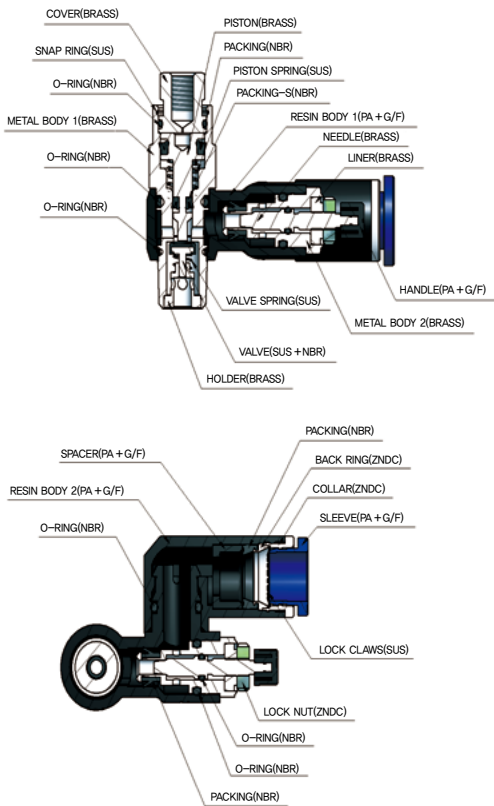
- Realization of a temporary intermediate stop of cylinder
- Speed control of cylinders is possible.
- 360° freedom for tube mounting direction

Specification

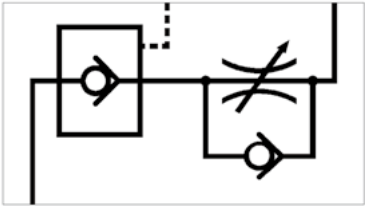
Fluid	AIR(No other gases or liquids)	
Working Pressure range	0~284PSI	0~20Kgf/cm ² (0~1960kPa)
Negative pressure	-29.5inHg	-750mmHg(10Torr)
Temperature range	-4~176 ° F	-20~80℃
Applicable tube material	Polyurethane and Nylon	



Structural Diagram



Indication Signal



CAUTION

- Since the air is the compressible fluid, when the pilot check valve is closed by intermediate stop signal, it is not available accurate and precise intermediate stop because the actuator is moved by the position when the pressure is balanced.
- It is not assured for zero air leakage, therefore do not use for maintaining the stop position for a long time.
- Please consider If there is residual pressure when maintaining, since the actuator can be moved by the residual pressure.
- When there is moisture in the pipe connector, it can be the cause of the cover corrosion and the malfunction of the fitting.

Product Code System

GNSP 08 02

① ② ③

① Type

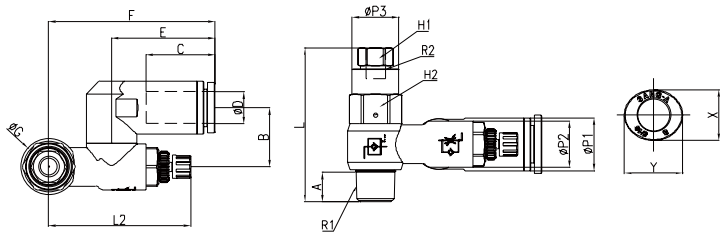
② Tube Dia(ØD)

CODE	06	08	10	12
DIA	Ø06	Ø08	Ø10	Ø12

③ Thread Size R(PT) Thread

	TAPER PIPE THREAD			
CODE	01	02	03	04
SIZE	R1/8	R1/4	R3/8	R1/2

GNSP



(mm)

MODEL	ØD	ØP1	ØP2	ØP3	A	B	C	E	F	ØG	H1	H2	R1	R2	L1	L2		X	Y	W.G(g)	Q'ty/In - Box
																MAX	MIN				
GNSP 0601	6	11.2	11.9	12.0	7.6	13.9	15.5	23.0	39.2	14.4	8.0	12.0	R1/8	M5x0.8	39.6	39.5	36.7	11.0	13.0	33.3	
GNSP 0602	6	11.2	14.8	17.0	11.2	15.9	15.5	23.0	41.5	18.4	12.0	17.0	R1/4	Rc1/8	48.7	45.7	40.8	11.0	13.0	70.8	
GNSP 0801	8	13.6	11.9	12.0	7.6	15.2	17.8	26.6	42.8	14.4	8.0	12.0	R1/8	M5x0.8	39.6	39.5	36.7	13.0	15.0	35.0	
GNSP 0802	8	13.6	14.8	17.0	11.2	17.1	17.8	26.6	45.1	18.4	12.0	17.0	R1/4	Rc1/8	48.7	45.7	40.8	13.0	15.0	72.5	
GNSP 0803	8	13.6	19.7	19.0	12.2	19.2	17.8	26.6	48.8	22.0	12.0	19.0	R3/8	Rc1/8	56.4	51.7	46.9	13.0	15.0	109.2	
GNSP 1003	10	16.4	19.7	19.0	12.2	21.0	19.4	29.5	51.7	22.0	12.0	19.0	R3/8	Rc1/8	56.4	51.7	46.9	16.0	18.5	112.5	
GNSP 1004	10	16.4	25.2	24.0	15.3	24.2	19.4	29.5	59.0	28.0	17.0	24.0	R1/2	Rc1/4	69.4	62.5	57.7	16.0	18.5	218.7	
GNSP 1204	12	19.8	25.2	24.0	15.3	25.9	22.4	33.4	62.9	28.0	17.0	24.0	R1/2	Rc1/4	70.4	62.5	57.7	19.5	22.5	222.5	

Pilot Speed Controllers

PILOT SPEED CONTROLLERS

Application

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Feature

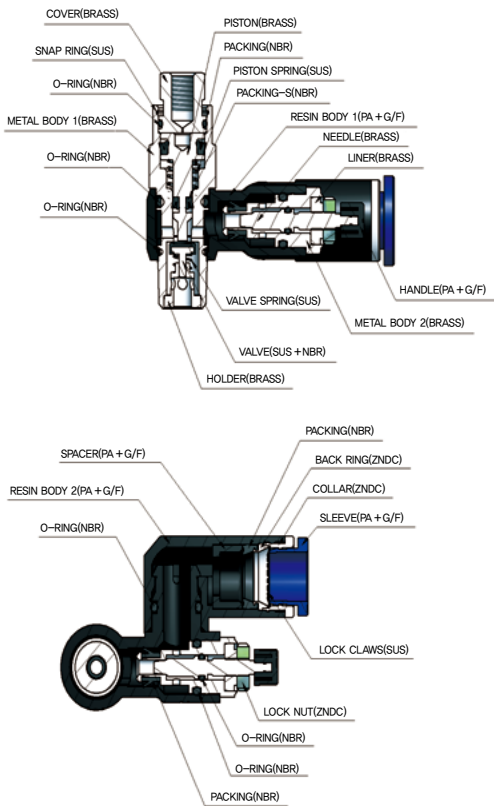
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- 360° freedom for tube mounting direction

Specification

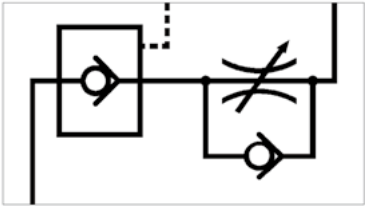
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- It is not assured for zero air leakage, therefore do not use for maintaining the stop position for a long time.
- Please consider If there is residual pressure when maintaining, since the actuator can be moved by the residual pressure.
- When there is moisture in the pipe connector, it can be the cause of the cover corrosion and the malfunction of the fitting.

Product Code System

GNSP 08 - G02

①

②

③

① Type

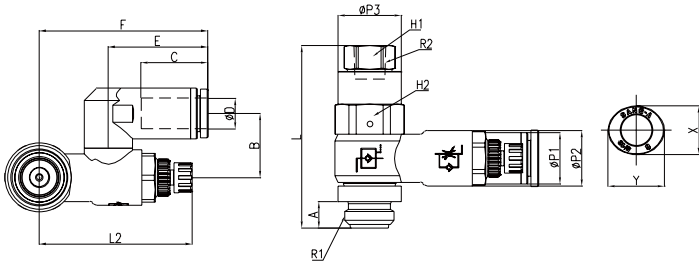
② Tube Dia(ØD)

CODE	06	08	10	12
DIA	Ø06	Ø08	Ø10	Ø12

③ Thread Size G(PF) Thread

	TAPER PIPE THREAD			
CODE	G01	G02	G03	G04
SIZE	G1/8	G1/4	G3/8	G1/2

GNSP-G



(mm)

MODEL	ØD	ØP1	ØP2	ØP3	A	B	C	E	F	ØG	H1	H2	R1	R2	L1	L2		X	Y	W.G(g)	Q'ty/ln - Box
																MAX	MIN				
GNSP 06G01	6	11.2	11.9	12.0	5.7	13.9	15.5	23.0	39.2	14.4	8.0	12.0	G1/8	M5x0.8	40.2	39.5	36.7	11.0	13.0	34.4	
GNSP 06G02	6	11.2	14.8	17.0	7.0	15.9	15.5	23.0	41.5	18.4	12.0	17.0	G1/4	Rc1/8	48.7	45.7	40.8	11.0	13.0	72.9	
GNSP 08G01	8	13.6	11.9	12.0	5.7	15.2	17.8	26.6	42.8	14.4	8.0	12.0	G1/8	M5x0.8	39.6	39.5	36.7	13.0	15.0	36.1	
GNSP 08G02	8	13.6	14.8	17.0	7.0	17.1	17.8	26.6	45.1	18.4	12.0	17.0	G1/4	Rc1/8	48.7	45.7	40.8	13.0	15.0	74.6	
GNSP 08G03	8	13.6	19.7	19.0	7.7	19.2	17.8	26.6	48.8	22.0	12.0	19.0	G3/8	Rc1/8	56.4	51.7	46.9	13.0	15.0	114.3	
GNSP 10G03	10	16.4	19.7	19.0	7.7	21.0	19.4	29.5	51.7	22.0	12.0	19.0	G3/8	Rc1/8	56.4	51.7	46.9	16.0	18.5	117.5	
GNSP 10G04	10	16.4	25.2	24.0	9.5	24.2	19.4	29.5	59.0	28.0	17.0	24.0	G1/2	Rc1/4	69.4	62.5	57.7	16.0	18.5	224.4	
GNSP 12G04	12	19.8	25.2	24.0	9.5	25.9	22.4	33.4	62.9	28.0	17.0	24.0	G1/2	Rc1/4	70.4	62.5	57.7	19.5	22.5	228.2	



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.



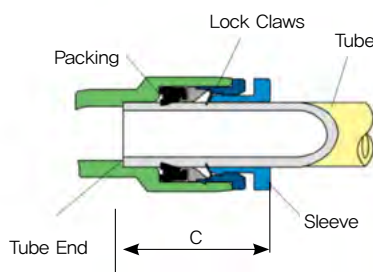
CAUTION

- 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
C	General Specifications(mm)	Ø1/8	Ø5/32	Ø3/16	Ø1/4	Ø5/16	Ø3/8	Ø1/2	
	Compact Specifications(mm)		10X12	11X13	12X14	14X16	17X19	21X23	24X27
			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
C	General Specifications(mm)	Ø1/8	Ø5/32, 3/16	Ø1/4	Ø5/16	Ø3/8	Ø1/2	
	Compact Specifications(mm)	9.5	11.5	12.5				

- 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.