

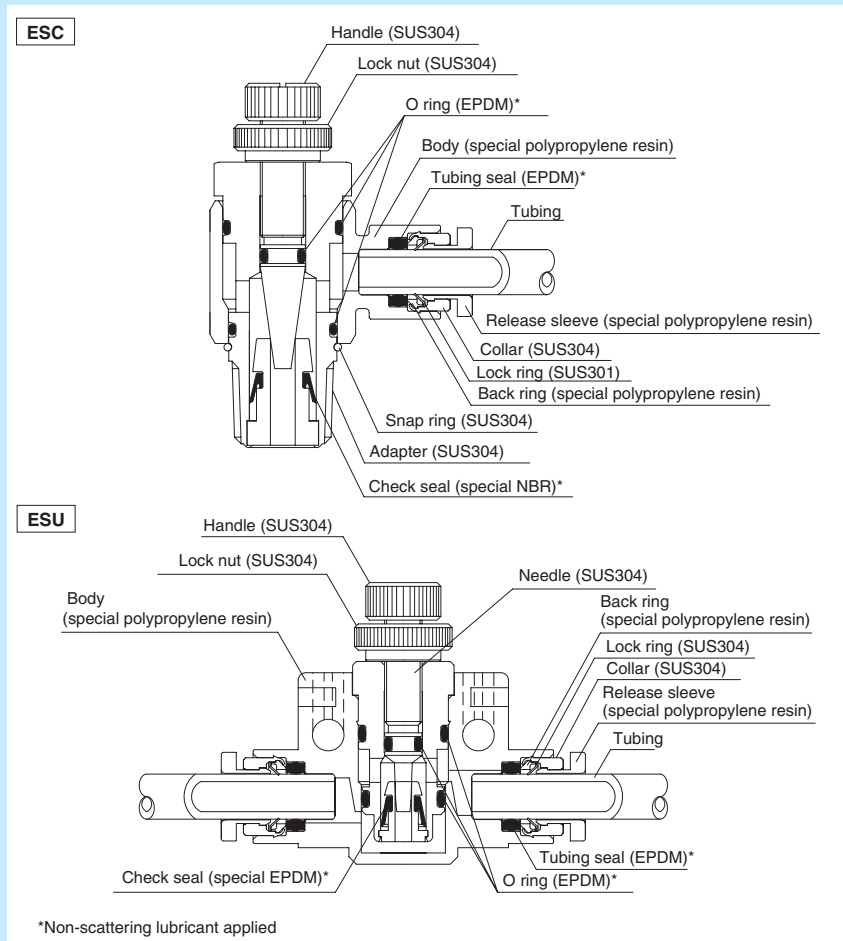
Chemifit™ C1 Speed Controller

PushOne™ Type

Features

- Suitable for environment (atmosphere) that requires chemical resistance
Mostly made of special polypropylene resin and SUS304. Special EPDM is used for sealing material.
- PushOne connection of tubing
Jig and tool not required for connecting the tubes.
- Inline type (ESU) allows central control on a pipe line
Various kinds of piping are possible by fixing with connector pins and brackets.

Cross-sectional structure diagram



Operating fluid, working temperature range

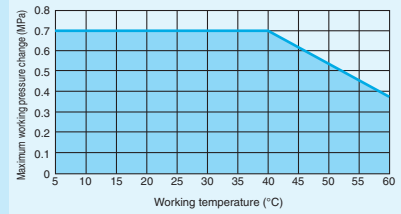
Operating fluid	Working temperature range
Air	+5°C~+60°C

Pressure condition

Maximum working pressure:
0.7MPa(at20°C)

Relation between the working temperature and the maximum working pressure

Maximum working pressure varies with working temperature (environmental temperature). For use at an abnormal temperature, always check the maximum working pressure change in the graph below and keep pressure within the range.

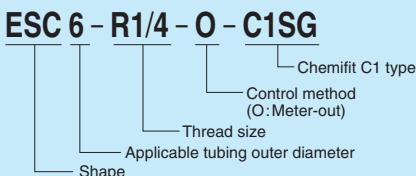


Handling instructions

- ⚠ **Caution:** When the working conditions of tubes and fittings differ, use them under the lower specified conditions.
- ⚠ **Caution:** Tighten the lock nut and handle by hand, not by using a spanner.
- ⚠ **Caution:** The needle part stops when fully opened. Forced rotation could cause damage.
- ⚠ **Caution:** Cannot be used at a negative pressure.
- ⚠ **Caution:** Non-scattering lubricant is applied to some parts. Contact us for details.
- ⚠ **Caution:** Be sure to check the air flow direction when attaching a speed controller to equipment.
- ⚠ **Caution:** Do not bend the pipe sharply near the tubing insertion port (sleeve end) of the fitting. Keep the tubing straight for twice as long as the tubing diameter from the insertion port.
- ⚠ **Caution:** Cannot be used for sealing purposes.

➔ See page 134 for the common handling instructions for control, switch and detachable series products.

Product number example

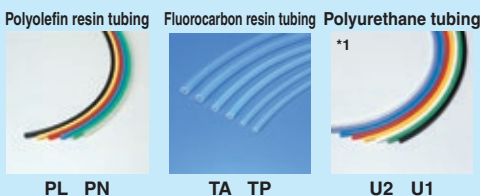


Inline type connection



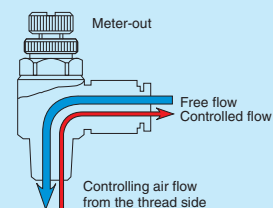
Inline type controllers can be connected with a connector pin.

Applicable tubing



(*1) Combinatory use of U2 or U1 tubing and Chemifit C1 speed controller mixes general and clean type performances. When using them together in a clean environment, be aware of how this could lower the cleanliness level.

Control mechanism

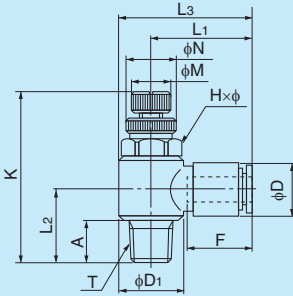


Reference

Flow characteristic graph.....P.165

Tubing
Clean tubing
Processed tubing
PushOne fitting
QuickSeal fitting
Clean fitting/Chemifit
Bamboo-shoot fitting
Control switch/Detachable series
Jig/Tool/Accessory
Technical information
Reference

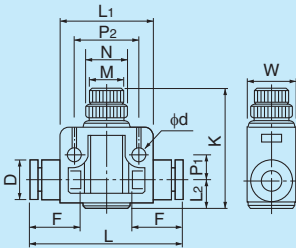
Elbow type



●Millimeter size type

Product number	Applicable tubing outer diameter (mm)	T Thread size (R)	L1 (mm)	L2 (mm)	L3 (mm)	K		A (mm)	F Tubing insertion length (mm)	H×φ Width across flat (mm)	N (mm)	M (mm)	D (mm)	D1 (mm)	Weight (g)
						Full open (mm)	Full closed (mm)								
ESC4-R1/8-O-C1SG	4	R1/8	23.9	17.7	30.6	46.8	42.0	9.7	14	13.0×14.0	13.0	10.0	10.0	13.5	26.0
ESC6-R1/8-O-C1SG	6	R1/8	23.2	17.7	30.0	46.8	42.0	9.7	15	13.0×14.0	13.0	10.0	13.0	13.5	27.0
ESC6-R1/4-O-C1SG	6	R1/4	25.2	23.1	34.9	55.2	48.7	13.6	15	17.0×18.3	13.0	10.0	13.0	19.4	51.0
ESC8-R1/8-O-C1SG	8	R1/8	24.8	17.7	31.6	46.8	42.0	9.7	16	13.0×14.0	13.0	10.0	15.0	13.5	29.0
ESC8-R1/4-O-C1SG	8	R1/4	26.8	23.1	36.5	55.2	48.7	13.6	16	17.0×18.3	13.0	10.0	15.0	19.4	52.0
ESC8-R3/8-O-C1SG	8	R3/8	28.8	24.6	40.8	59.0	51.5	14.1	16	21.0×22.6	16.0	13.0	15.0	24.0	84.0
ESC10-R1/4-O-C1SG	10	R1/4	29.7	23.1	39.4	55.2	48.7	13.6	19	17.0×18.3	13.0	10.0	18.0	19.4	55.0
ESC10-R3/8-O-C1SG	10	R3/8	31.7	24.6	43.7	59.0	51.5	14.1	19	21.0×22.6	16.0	13.0	18.0	24.0	87.0
ESC12-R3/8-O-C1SG	12	R3/8	32.7	24.6	44.7	59.0	51.5	14.1	20	21.0×22.6	16.0	13.0	20.5	24.0	116.0

Inline type



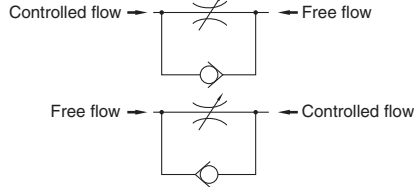
●Millimeter size type

Product number	Applicable tubing outer diameter (mm)	L (mm)	L1 (mm)	L2 (mm)	P1 (mm)	P2 (mm)	K		F Tubing insertion length (mm)	N (mm)	M (mm)	D (mm)	d (mm)	W (mm)	Weight (g)
							Full open (mm)	Full closed (mm)							
ESU4-C1SG	4	42.7	20.0	6.4	6.0	14.0	29.5	26.9	14	8.0	8.0	9.7	3.2	10.6	11.0
ESU6-C1SG	6	48.5	28.0	9.0	8.2	20.0	43.5	39.8	15	13.0	10.0	12.5	4.2	15.0	32.0
ESU8-C1SG	8	56.6	30.0	10.3	9.2	22.0	47.7	42.1	16	13.0	10.0	14.5	4.2	17.6	48.0

JIS symbol mark

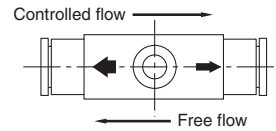
JIS symbols are marked on both sides of the body.

JIS symbol



Control direction mark

Control directions are marked by arrows on the top of the body.



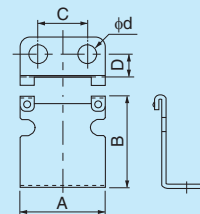
Connector pin (polypropylene resin)



●Connector pin

Product number	Applicable fitting product number
HPN4-C1	ESU4-C1SG
HPN6-C1	ESU6-C1SG
	ESU8-C1SG

Bracket (SUS304)



●Bracket

Product number	Applicable fitting product number	A (mm)	B (mm)	C (mm)	D (mm)	d (mm)
SBRK4	ESU4-C1SG	18.0	18.5	10.0	6.5	5.0
SBRK6	ESU6-C1SG	24.0	26.0	14.0	6.5	5.0
SBRK8	ESU8-C1SG	26.0	30.0	14.0	6.5	5.0

Tubing

Clean tubing

Processed tubing

PushOne fitting

QuickSeal fitting

Clean fitting/Chemifit

Bamboo-shoot fitting

Control switch/Detachable series

Jig/Tool/Accessory

Technical information

Reference