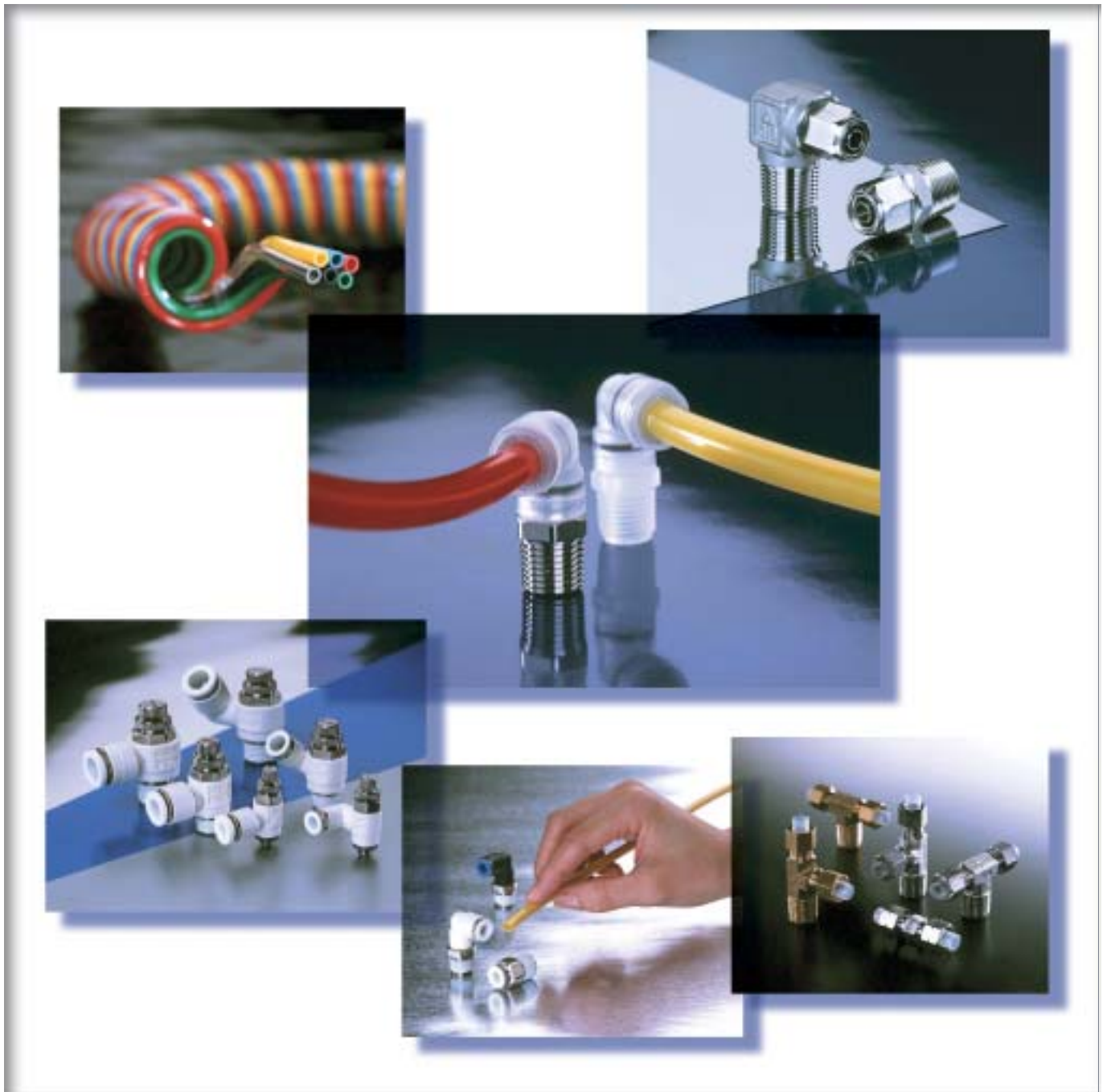


General Catalog of Pneumatic/ Fluid Transport Tube, Tube Fitting and **CHEMIFIT**®



B-TU-10E



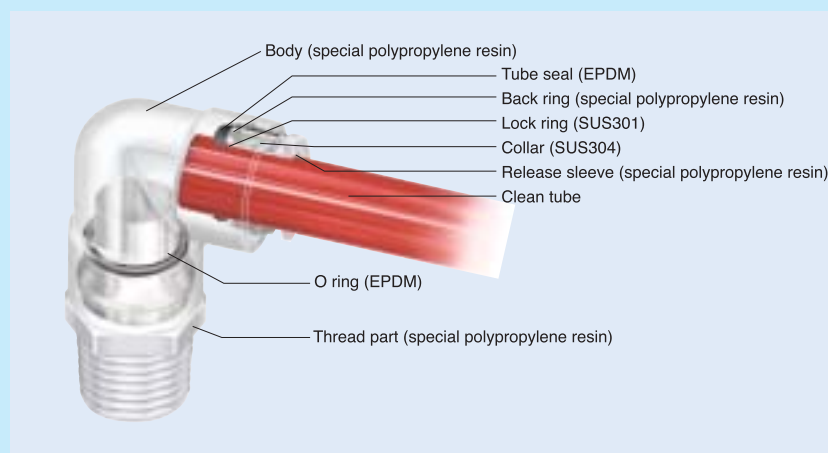
Chemifit® C1 Series

PushOne® fitting for clean air, pure water and chemical liquids

Features

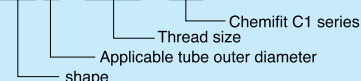
- **No-oil processed**
Assembled after cleaning each part in a clean room. No oil or fat is used in the sealing materials.
- **PushOne® connection of tube**
The tubes can be connected without using a jig or tools.
- **Nonmetal liquid-contact surface**
No contact of liquid and metal, preventing the metal ions from dissolving.
- **High dust-free, uncontaminated performance**
Made of special polypropylene resin.
- **Highly smooth inner surface**
Smooth inner surface due to ejection forming.
- **Double clean package**
Each fitting is packed in a clean room and put in a zipper sealed bag.
- **Easy directional setting of tube**
The body can rotate freely even after tightening up the thread part. Good for piping of Elbow and Tee.
- **Compliant with the MHLW Ministerial Notification No.201(2006), MHW Ministerial Notification No.370(1959), Japan**

Cross-sectional structure diagram



Product number example

EL 6 - R1/8 - C1



Distinction of millimeter/inch sizes

- The tube size is shown on the release sleeve.



Operating fluid, working temperature range

Operating fluid	Working temperature range
Air (clean air)	-20°C~+80°C
Water (pure water)	0°C~+80°C

☞ Contact us for various chemical liquids.

☞ See "Combination List of Tube and Fitting" on page 8.

Pressure condition

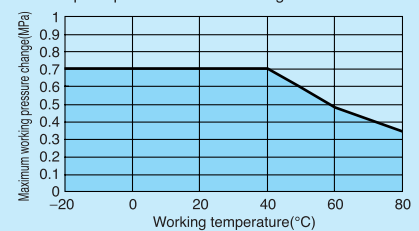
Maximum working pressure: 0.7MPa(at20°C)

Negative pressure performance:

-99.975kPa

Relation between the working temperature and the maximum working pressure

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

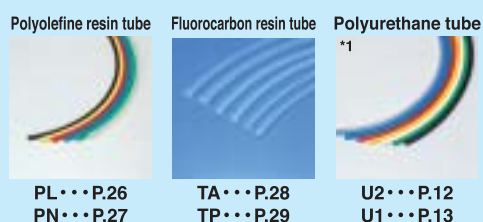


Handling instructions

- ⚠ **Caution** When the working conditions of tubes and fittings differ, use them under the lower specified conditions.
- ⚠ **Caution** Stress relaxation occurs more readily with resin thread than with metal thread. The relaxation is prominent at a high temperature. Tighten the thread periodically.
- ⚠ **Caution** When water is used as the operating fluid, confirm that there is no water leakage damage to equipment and instruments due to construction failure.
- ⚠ **Caution** When water is used as the operating fluid, do not allow it to freeze.
- ⚠ **Caution** Do not bend the pipe sharply near the tube insertion port (sleeve end) of the fitting. Keep the tube straight for twice as long as the tube diameter from the insertion port.

☞ See page34 for the common handling instructions for tube fittings.

Applicable tube



PL...P.26
PN...P.27

TA...P.28
TP...P.29

U2...P.12
U1...P.13

Allied products and product introduction



P.146

P.169

Reference

Instruction manual.....P.182
Chemical resistance specification table.....P.207
Effective cross-sectional areaP.176
Negative-pressure performance list.....P.177

(*1) Combinatory use of U2 or U1 tube and Chemifit C1 series mixes general and clean type performances. When using them in a clean environment, pay attention to the clean level that could be lowered.

Chemifit® C1 Series

Shape list



Tube

Clean tube

Processed tube

PushOne fitting

QuickSeal fitting

Clean fitting/ Chemifit

Bamboo-shoot fitting

Control switch/ Detachable series

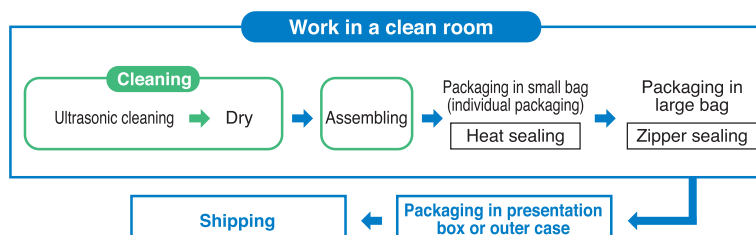
Jig/Tool/ Accessory

Technical information

Reference

No-oil processing, Clean wrapping and packaging

- Ultrasonic cleaning with no oil or fat used for assembling in a clean room



- High-barrier sheet packaging available

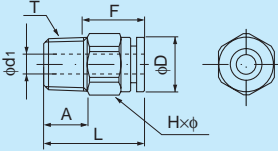
What is high-barrier sheet packaging?

In order to maintain the cleanliness of our products, no space for oxygen, water, or corrosive gas is allowed inside the package so a packaging bag with a high gas barrier is needed for protecting the content from these gases. To meet this requirement, Nitta provides high-barrier bags with a high gas barrier performance also for nitrogen sealing or atmospheric sealing.



- The packaging bags that Nitta uses have the highest gas barrier performance among clear bags.
- The bags do not contain halogen, etc, for safe burning.

Connector



●Millimeter size type

Product number	Applicable tube outer diameter (mm)	T Thread size (R)	L (mm)	A (mm)	F Tube insertion length (mm)	H×φ Width across flat (mm)	D (mm)	d ₁ (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EC4-R1/8-C1	4	R1/8	21.9	9.0	14	12.0×13.0	9.7	2.5	4.0	2.0
EC4-R1/4-C1	4	R1/4	24.9	12.0	14	14.0×15.4	9.7	2.5	4.0	2.0
EC6-R1/8-C1	6	R1/8	23.6	9.0	15	14.0×15.4	12.5	4.0	10.5	2.0
EC6-R1/4-C1	6	R1/4	26.6	12.0	15	14.0×15.4	12.5	4.0	10.5	3.0
EC8-R1/8-C1	8	R1/8	28.6	9.0	16	17.0×18.5	14.5	6.0	20.0	4.0
EC8-R1/4-C1	8	R1/4	27.6	12.0	16	17.0×18.5	14.5	6.0	25.0	4.0
EC10-R1/4-C1	10	R1/4	32.4	12.0	19	19.0×21.0	17.5	8.0	40.0	7.0
EC10-R3/8-C1	10	R3/8	33.2	14.0	19	19.0×21.0	17.5	8.0	40.0	7.0
EC10-R1/2-C1	10	R1/2	35.4	16.0	19	22.0×24.5	17.5	8.0	—	—
EC12-R3/8-C1	12	R3/8	33.4	14.0	20	22.0×24.5	21.0	10.0	50.0	9.0
EC12-R1/2-C1	12	R1/2	35.4	16.0	20	22.0×24.5	21.0	10.0	50.0	11.0

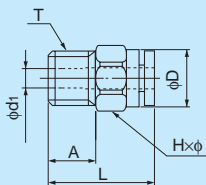
EC6-N1/8-C1	6	NPT1/8	23.6	9.0	15	14.0×15.4	12.5	4.0	10.5	2.0
EC6-N1/4-C1	6	NPT1/4	26.6	12.0	15	14.0×15.4	12.5	4.0	10.5	3.0
EC10-N1/4-C1	10	NPT1/4	32.4	12.0	19	19.0×21.0	17.5	8.0	40.0	7.0

●Inch size type

Product number	Applicable tube outer diameter (inch)	T Thread size (R)	L (mm)	A (mm)	F Tube insertion length (mm)	H×φ Width across flat (mm)	D (mm)	d ₁ (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EC1/4-R1/8-C1	1/4	R1/8	24.6	9.0	16	14.0×15.4	12.5	4.0	12.0	2.0
EC1/4-R1/4-C1	1/4	R1/4	27.6	12.0	16	14.0×15.4	12.5	4.0	12.0	3.0
EC3/8-R1/4-C1	3/8	R1/4	33.2	12.0	20	19.0×21.0	17.5	8.0	35.0	7.0
EC3/8-R3/8-C1	3/8	R3/8	34.0	14.0	20	19.0×21.0	17.5	8.0	35.0	7.0
EC1/2-R3/8-C1	1/2	R3/8	26.1	14.0	23	22.0×24.5	21.0	10.0	66.5	9.0
EC1/2-R1/2-C1	1/2	R1/2	29.1	16.0	23	22.0×24.5	21.0	10.0	66.5	10.0

Through connector A tube can be inserted completely through the connector.

●Millimeter size type



Product number	Applicable tube outer diameter (mm)	T Thread size (R)	L (mm)	A (mm)	H×φ Width across flat (mm)	D (mm)	d ₁ (mm)	Weight (g)
ETC4-R1/8-C1	4	R1/8	21.9	9.0	12.0×13.0	9.7	4.2	2.0
ETC4-R1/4-C1	4	R1/4	24.9	12.0	14.0×15.4	9.7	4.2	2.0
ETC6-R1/4-C1	6	R1/4	26.6	12.0	14.0×15.4	12.5	6.6	3.0
ETC8-R1/4-C1	8	R1/4	27.6	12.0	17.0×18.5	14.5	8.2	4.0
ETC10-R3/8-C1	10	R3/8	33.2	14.0	19.0×21.0	17.5	10.2	7.0
ETC12-R1/2-C1	12	R1/2	35.4	16.0	22.0×24.5	21.0	12.3	10.0

Tube

Clean tube

Processed tube

PushOne fitting

QuickSeal fitting

Clean fitting/ Chemifit

Bamboo-shoot fitting

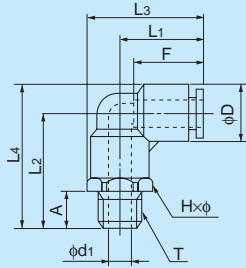
Control switch/ Detachable series

Jig/Tool/ Accessory

Technical information

Reference

90 degree elbow



●Millimeter size type

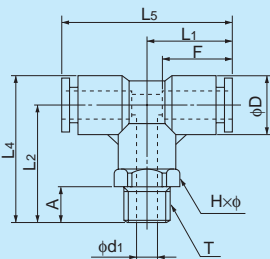
Product number	Applicable tube outer diameter (mm)	T Thread size (R)	L ₁ (mm)	L ₂ (mm)	L ₃ (mm)	L ₄ (mm)	A (mm)	F Tube insertion length (mm)	H×φ Width across flat (mm)	D (mm)	d ₁ (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EL4-R1/8-C1	4	R1/8	17.7	23.7	23.2	28.6	9.0	14	10.0×11.0	10.0	5.0	3.0	4.0	2.0
EL4-R1/4-C1	4	R1/4	17.7	27.7	25.4	32.6	12.0	14	14.0×15.4	10.0	7.0	3.0	4.0	3.0
EL6-R1/8-C1	6	R1/8	18.9	26.2	25.4	32.5	9.0	15	12.0×13.0	13.0	4.5	4.5	12.0	4.0
EL6-R1/4-C1	6	R1/4	18.9	30.2	26.6	36.5	12.0	15	14.0×15.4	13.0	7.0	4.5	12.0	4.0
EL8-R1/8-C1	8	R1/8	21.1	29.2	28.8	36.5	9.0	16	14.0×15.4	15.0	6.0	6.0	18.5	5.0
EL8-R1/4-C1	8	R1/4	21.1	31.2	28.8	38.5	12.0	16	14.0×15.4	15.0	6.5	6.5	23.0	6.0
EL10-R1/4-C1	10	R1/4	25.0	37.2	34.3	46.0	12.0	19	17.0×18.5	18.0	8.0	8.0	34.5	9.0
EL10-R3/8-C1	10	R3/8	25.0	37.2	34.3	46.0	14.0	19	17.0×18.5	18.0	9.0	8.0	37.0	11.0
EL12-R3/8-C1	12	R3/8	26.7	38.7	37.2	48.8	14.0	20	19.0×21.0	20.5	10.0	10.0	43.0	13.0
EL12-R1/2-C1	12	R1/2	26.7	41.7	38.7	51.8	16.0	20	22.0×24.0	20.5	12.0	9.5	43.0	15.0

EL6-N1/8-C1	6	NPT1/8	18.9	26.2	25.4	32.5	9.0	15	12.0×13.0	13.0	4.5	4.5	12.0	4.0
EL6-N1/4-C1	6	NPT1/4	18.9	30.2	26.6	36.5	12.0	15	14.0×15.4	13.0	7.0	4.5	12.0	4.0

●Inch size type

Product number	Applicable tube outer diameter (inch)	T Thread size (R)	L ₁ (mm)	L ₂ (mm)	L ₃ (mm)	L ₄ (mm)	A (mm)	F Tube insertion length (mm)	H×φ Width across flat (mm)	D (mm)	d ₁ (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EL1/4-R1/8-C1	1/4	R1/8	19.9	26.2	26.4	32.5	9.0	16	12.0×13.0	13.0	4.5	4.5	13.0	4.0
EL1/4-R1/4-C1	1/4	R1/4	19.9	30.2	27.6	36.5	12.0	16	14.0×15.4	13.0	7.0	4.5	13.0	4.0
EL3/8-R1/4-C1	3/8	R1/4	25.8	37.2	35.1	46.0	12.0	20	17.0×18.5	18.0	8.0	8.0	30.0	9.0
EL3/8-R3/8-C1	3/8	R3/8	25.8	37.2	35.1	46.0	14.0	20	17.0×18.5	18.0	9.0	8.0	32.0	11.0
EL1/2-R3/8-C1	1/2	R3/8	28.7	39.0	39.2	49.6	14.0	23	19.0×21.0	21.5	10.0	10.0	53.0	13.0
EL1/2-R1/2-C1	1/2	R1/2	28.7	42.0	40.7	52.6	16.0	23	22.0×24.0	21.5	12.0	9.5	55.5	15.0

Tee



●Millimeter size type

Product number	Applicable tube outer diameter (mm)	T Thread size (R)	L ₁ (mm)	L ₂ (mm)	L ₄ (mm)	L ₅ (mm)	A (mm)	F Tube insertion length (mm)	H×φ Width across flat (mm)	D (mm)	d ₁ (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
ET4-R1/8-C1	4	R1/8	17.7	23.7	28.6	35.3	9.0	14	10.0×11.0	10.0	5.0	3.0	4.0	3.0
ET4-R1/4-C1	4	R1/4	17.7	27.7	32.6	35.3	12.0	14	14.0×15.4	10.0	7.0	3.0	4.0	4.0
ET6-R1/8-C1	6	R1/8	18.9	26.2	32.5	37.9	9.0	15	12.0×13.0	13.0	4.5	4.5	12.0	5.0
ET6-R1/4-C1	6	R1/4	18.9	30.2	36.5	37.9	12.0	15	14.0×15.4	13.0	7.0	4.5	12.0	6.0
ET8-R1/8-C1	8	R1/8	21.1	29.2	36.5	42.2	9.0	16	14.0×15.4	15.0	6.0	6.0	18.5	7.0
ET8-R1/4-C1	8	R1/4	21.1	31.2	38.5	42.2	12.0	16	14.0×15.4	15.0	6.5	6.5	23.0	8.0
ET10-R1/4-C1	10	R1/4	25.0	37.2	46.0	50.0	12.0	19	17.0×18.5	18.0	8.0	8.0	34.5	14.0
ET10-R3/8-C1	10	R3/8	25.0	37.2	46.0	50.0	14.0	19	17.0×18.5	18.0	9.0	8.0	37.0	16.0
ET12-R3/8-C1	12	R3/8	26.7	38.7	48.8	53.4	14.0	20	19.0×21.0	20.5	10.0	10.0	43.0	19.0
ET12-R1/2-C1	12	R1/2	26.7	41.7	51.8	53.4	16.0	20	22.0×24.0	20.5	12.0	9.5	43.0	21.0

ET6-N1/8-C1	6	NPT1/8	18.9	26.2	32.5	37.9	9.0	15	12.0×13.0	13.0	4.5	4.5	12.0	5.0
ET6-N1/4-C1	6	NPT1/4	18.9	30.2	36.5	37.9	12.0	15	14.0×15.4	13.0	7.0	4.5	12.0	6.0

●Inch size type

Product number	Applicable tube outer diameter (inch)	T Thread size (R)	L ₁ (mm)	L ₂ (mm)	L ₄ (mm)	L ₅ (mm)	A (mm)	F Tube insertion length (mm)	H×φ Width across flat (mm)	D (mm)	d ₁ (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
ET1/4-R1/8-C1	1/4	R1/8	19.9	26.2	32.5	39.8	9.0	16	12.0×13.0	13.0	4.5	4.5	13.0	5.0
ET1/4-R1/4-C1	1/4	R1/4	19.9	30.2	36.5	39.8	12.0	16	14.0×15.4	13.0	7.0	4.5	13.0	6.0
ET3/8-R1/4-C1	3/8	R1/4	25.8	37.2	46.0	51.6	12.0	20	17.0×18.5	18.0	8.0	8.0	30.0	14.0
ET3/8-R3/8-C1	3/8	R3/8	25.8	37.2	46.0	51.6	14.0	20	17.0×18.5	18.0	9.0	8.0	32.0	16.0
ET1/2-R3/8-C1	1/2	R3/8	28.7	39.0	49.6	57.5	14.0	23	19.0×21.0	21.5	10.0	10.0	53.0	19.0
ET1/2-R1/2-C1	1/2	R1/2	28.7	42.0	52.6	57.5	16.0	23	22.0×24.0	21.5	12.0	9.5	55.5	21.0

Tube

Clean tube

Processed tube

PushOne fitting

QuickSeal fitting

Clean fitting/ Chemifit

Bamboo-shoot fitting

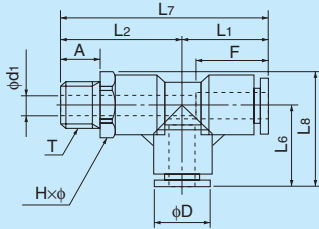
Control switch/ Detachable series

Jig/Tool/ Accessory

Technical information

Reference

Service tee



●Millimeter size type

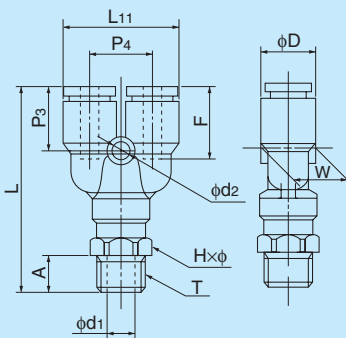
Product number	Applicable tube outer diameter (mm)	T Thread size (R)	L ₁ (mm)	L ₂ (mm)	L ₈ (mm)	L ₇ (mm)	L ₈ (mm)	A (mm)	F Tube insertion length (mm)	H×φ Width across flat (mm)	D (mm)	d ₁ (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EST4-R1/8-C1	4	R1/8	17.7	23.7	17.7	41.4	23.2	9.0	13	10.0×11.0	10.0	5.0	3.0	4.0	3.0
EST4-R1/4-C1	4	R1/4	17.7	27.7	17.7	45.4	25.4	12.0	13	14.0×15.4	10.0	7.0	3.0	4.0	4.0
EST6-R1/8-C1	6	R1/8	18.9	26.2	18.9	45.1	25.4	9.0	15	12.0×13.0	13.0	4.5	4.5	12.0	5.0
EST6-R1/4-C1	6	R1/4	18.9	30.2	18.9	49.1	26.6	12.0	15	14.0×15.4	13.0	7.0	4.5	12.0	6.0
EST8-R1/8-C1	8	R1/8	21.1	29.2	21.1	50.3	28.8	9.0	16	14.0×15.4	15.0	6.0	6.0	18.5	7.0
EST8-R1/4-C1	8	R1/4	21.1	31.2	21.1	52.3	28.8	12.0	16	14.0×15.4	15.0	6.5	6.5	23.0	8.0
EST10-R1/4-C1	10	R1/4	25.0	37.2	25.0	62.2	34.3	12.0	19	17.0×18.5	18.0	8.0	8.0	34.5	14.0
EST10-R3/8-C1	10	R3/8	25.0	37.2	25.0	62.2	34.3	14.0	19	17.0×18.5	18.0	9.0	8.0	37.0	16.0
EST12-R3/8-C1	12	R3/8	26.7	38.7	26.7	65.4	37.2	14.0	20	19.0×21.0	20.5	10.0	10.0	43.0	19.0
EST12-R1/2-C1	12	R1/2	26.7	41.7	26.7	68.4	38.7	16.0	20	22.0×24.0	20.5	12.0	9.5	43.0	21.0

EST6-N1/8-C1	6	NPT1/8	18.9	26.2	18.9	45.1	25.4	9.0	15	12.0×13.0	13.0	4.5	4.5	12.0	5.0
EST6-N1/4-C1	6	NPT1/4	18.9	30.2	18.9	49.1	26.6	12.0	15	14.0×15.4	13.0	7.0	4.5	12.0	6.0

●Inch size type

Product number	Applicable tube outer diameter (inch)	T Thread size (R)	L ₁ (mm)	L ₂ (mm)	L ₈ (mm)	L ₇ (mm)	L ₈ (mm)	A (mm)	F Tube insertion length (mm)	H×φ Width across flat (mm)	D (mm)	d ₁ (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EST1/4-R1/8-C1	1/4	R1/8	19.9	26.2	19.9	46.1	26.4	9.0	16	12.0×13.0	13.0	4.5	4.5	13.0	5.0
EST1/4-R1/4-C1	1/4	R1/4	19.9	30.2	19.9	50.1	27.6	12.0	16	14.0×15.4	13.0	7.0	4.5	13.0	6.0
EST3/8-R1/4-C1	3/8	R1/4	25.8	37.2	25.8	63.0	35.1	12.0	19	17.0×18.5	18.0	8.0	8.0	30.0	14.0
EST3/8-R3/8-C1	3/8	R3/8	25.8	37.2	25.8	63.0	35.1	14.0	19	17.0×18.5	18.0	9.0	8.0	32.0	16.0
EST1/2-R3/8-C1	1/2	R3/8	29.7	39.0	29.7	68.4	40.2	14.0	21	19.0×21.0	21.5	10.0	10.0	53.0	19.0
EST1/2-R1/2-C1	1/2	R1/2	29.7	42.0	29.7	71.4	41.7	16.0	21	22.0×24.0	21.5	12.0	9.5	55.5	21.0

Y joint



●Millimeter size type

Product number	Applicable tube outer diameter (mm)	T Thread size (R)	L (mm)	L ₁₁ (mm)	A (mm)	F Tube insertion length (mm)	H×φ Width across flat (mm)	P ₃ (mm)	P ₄ (mm)	W (mm)	D (mm)	d ₁ (mm)	d ₂ (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EY4-R1/8-C1	4	R1/8	41.9	20.7	9.0	14	10.0×11.0	13.9	11.0	9.7	10.0	5.0	3.2	3.0	3.5	4.0
EY4-R1/4-C1	4	R1/4	45.9	20.7	12.0	14	14.0×15.4	13.9	11.0	9.7	10.0	7.0	3.2	3.0	3.5	5.0
EY6-R1/8-C1	6	R1/8	45.2	24.7	9.0	15	12.0×13.0	15.2	12.2	12.5	13.0	4.5	4.2	4.5	9.0	6.0
EY6-R1/4-C1	6	R1/4	49.2	24.7	12.0	15	14.0×15.4	15.2	12.2	12.5	13.0	7.0	4.2	4.5	9.0	7.0
EY8-R1/8-C1	8	R1/8	50.3	28.7	9.0	16	14.0×15.4	16.8	14.2	14.5	15.0	6.0	4.2	6.0	17.5	8.0
EY8-R1/4-C1	8	R1/4	52.3	28.7	12.0	16	14.0×15.4	16.8	14.2	14.5	15.0	6.5	4.2	6.5	20.0	9.0
EY10-R1/4-C1	10	R1/4	60.2	35.0	12.0	19	17.0×18.5	18.7	17.5	17.5	18.0	8.0	4.2	8.0	27.5	15.0
EY10-R3/8-C1	10	R3/8	60.2	35.0	14.0	19	17.0×18.5	18.7	17.5	17.5	18.0	9.0	4.2	8.0	28.0	16.0
EY12-R3/8-C1	12	R3/8	64.2	40.0	14.0	20	19.0×21.0	20.7	20.0	20.0	20.5	10.0	4.2	10.0	40.0	22.0
EY12-R1/2-C1	12	R1/2	67.2	40.0	16.0	20	22.0×24.0	20.7	20.0	20.0	20.5	12.0	4.2	9.5	40.0	23.0

EY6-N1/8-C1	6	NPT1/8	45.2	24.7	9.0	15	12.0×13.0	15.2	12.2	12.5	13.0	4.5	4.2	4.5	9.0	6.0
EY6-N1/4-C1	6	NPT1/4	49.2	24.7	12.0	15	14.0×15.4	15.2	12.2	12.5	13.0	7.0	4.2	4.5	9.0	7.0

●Inch size type

Product number	Applicable tube outer diameter (inch)	T Thread size (R)	L (mm)	L ₁₁ (mm)	A (mm)	F Tube insertion length (mm)	H×φ Width across flat (mm)	P ₃ (mm)	P ₄ (mm)	W (mm)	D (mm)	d ₁ (mm)	d ₂ (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EY1/4-R1/8-C1	1/4	R1/8	46.2	24.7	9.0	16	12.0×13.0	16.2	12.2	12.5	13.0	4.5	4.2	4.5	10.5	6.0
EY1/4-R1/4-C1	1/4	R1/4	50.2	24.7	12.0	16	14.0×15.4	16.2	12.2	12.5	13.0	7.0	4.2	4.5	10.5	7.0
EY3/8-R1/4-C1	3/8	R1/4	61.0	35.0	12.0	20	17.0×18.5	19.5	17.5	17.5	18.0	8.0	4.2	8.0	26.0	15.0
EY3/8-R3/8-C1	3/8	R3/8	61.0	35.0	14.0	20	17.0×18.5	19.5	17.5	17.5	18.0	9.0	4.2	8.0	26.0	16.0
EY1/2-R3/8-C1	1/2	R3/8	67.7	42.0	14.0	23	19.0×21.0	22.7	21.0	21.0	21.5	10.0	4.2	10.0	48.0	22.0
EY1/2-R1/2-C1	1/2	R1/2	70.7	42.0	16.0	23	22.0×24.0	22.7	21.0	21.0	21.5	12.0	4.2	9.5	48.0	23.0

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

Union connector



●Millimeter size type

Product number	d1 Applicable tube outer diameter (mm)	d2 Applicable tube outer diameter (mm)	L	L1	P1	F1 Tube insertion length (mm)	F2 Tube insertion length (mm)	d3	D1	D2	W	Min. inner diameter (mm)	Effective cross- sectional area (mm ²)	Weight (g)
EUC3-C1	3	3	23.2	11.6	3.6	11	11	3.2	6.3	6.3	6.0	2.0	2.5	—
EUC4-C1	4	4	32.7	16.4	5.0	14	13	4.2	10.0	10.0	9.7	3.0	3.5	2.0
EUC6-C1	6	6	34.5	17.2	6.0	15	15	4.2	13.0	13.0	12.5	5.0	12.5	4.0
EUC8-C1	8	8	36.6	18.3	7.0	16	16	4.2	15.0	15.0	14.5	7.0	28.0	5.0
EUC10-C1	10	10	42.4	21.2	8.5	19	19	4.2	18.0	18.0	17.5	9.0	45.0	10.0
EUC12-C1	12	12	44.4	22.2	9.8	20	20	4.2	20.5	20.5	20.0	11.0	67.0	14.0

●Inch size type

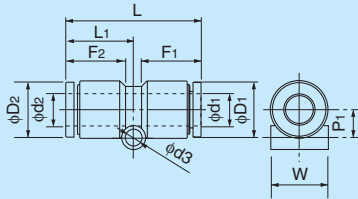
Product number	d1 Applicable tube outer diameter (inch)	d2 Applicable tube outer diameter (inch)	L	L1	P1	F1 Tube insertion length (mm)	F2 Tube insertion length (mm)	d3	D1	D2	W	Min. inner diameter (mm)	Effective cross- sectional area (mm ²)	Weight (g)
EUC1/8-C1	1/8	1/8	25.0	12.5	4.5	11	11	3.2	8.0	8.0	8.0	3.0	—	—
EUC1/4-C1	1/4	1/4	36.4	18.2	6.0	16	16	4.2	13.0	13.0	12.5	5.0	12.5	4.0
EUC3/8-C1	3/8	3/8	44.0	22.0	8.5	20	16	4.2	18.0	18.0	17.5	9.0	28.0	10.0
EUC1/2-C1	1/2	1/2	48.5	24.2	10.3	23	23	4.2	21.5	21.5	21.0	11.0	35.0	19.0

●Inch size type (different diameter connection)

Product number	d1 Applicable tube outer diameter (inch)	d2 Applicable tube outer diameter (inch)	L	L1	P1	F1 Tube insertion length (mm)	F2 Tube insertion length (mm)	d3	D1	D2	W	Min. inner diameter (mm)	Effective cross- sectional area (mm ²)	Weight (g)
EUC1/8-1/4-C1	1/8	1/4	36.1	20.1	6.0	11	16	3.2	8.0	13.0	12.5	2.5	—	—
EUC1/4-3/8-C1	1/4	3/8	40.7	22.0	8.5	16	20	4.2	13.0	18.0	17.5	5.0	—	—
EUC3/8-1/2-C1	3/8	1/2	46.2	24.2	9.8	20	23	4.2	18.0	21.5	20.0	9.0	—	—

●Inch size — millimeter size connection

Product number	d1 Applicable tube outer diameter (inch)	d2 Applicable tube outer diameter (mm)	L	L1	P1	F1 Tube insertion length (mm)	F2 Tube insertion length (mm)	d3	D1	D2	W	Min. inner diameter (mm)	Effective cross- sectional area (mm ²)	Weight (g)
EUC1/4-6-C1	1/4	6	35.4	17.2	6.0	16	15	4.2	13.0	13.0	12.5	5.0	12.5	4.0
EUC3/8-10-C1	3/8	10	43.2	21.2	8.5	20	19	4.2	18.0	18.0	17.5	9.0	45.0	10.0



90 degree union elbow

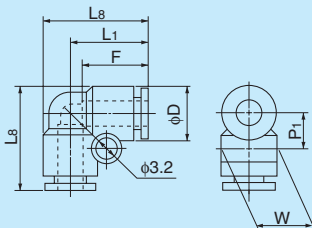


●Millimeter size type

Product number	Applicable tube outer diameter (mm)	L1	L8	P1	F Tube insertion length (mm)	D	W	Min. inner diameter (mm)	Effective cross- sectional area (mm ²)	Weight (g)
EUL3-C1	3	12.6	15.8	4.1	11	6.3	6	2.0	2.0	—
EUL4-C1	4	17.7	22.6	6.9	14	10.0	9.7	3.0	3.5	3.0
EUL6-C1	6	18.9	25.2	8.3	15	13.0	12.5	5.0	9.5	4.0
EUL8-C1	8	21.1	28.5	9.3	16	15.0	14.5	7.0	19.5	6.0
EUL10-C1	10	25.0	32.8	10.8	19	18.0	17.5	9.0	32.5	12.0
EUL12-C1	12	26.7	36.8	12.1	20	20.5	20.0	11.0	45.5	16.0

●Inch size type

Product number	Applicable tube outer diameter (inch)	L1	L8	P1	F Tube insertion length (mm)	D	W	Min. inner diameter (mm)	Effective cross- sectional area (mm ²)	Weight (g)
EUL1/8-C1	1/8	15.0	19.0	5.0	11	8.0	8.0	2.5	—	—
EUL1/4-C1	1/4	19.9	26.2	8.3	16	13.0	12.5	5.0	12.0	4.0
EUL3/8-C1	3/8	25.8	34.6	10.8	20	18.0	17.5	9.0	27.0	12.0
EUL1/2-C1	1/2	29.7	40.2	12.6	23	21.5	21.0	11.0	54.5	20.0



Tube

Clean tube

Processed tube

PushOne fitting

QuickSeal fitting

Clean fitting/
Chemifit

Bamboo-
shoot fitting

Control switch/
Detachable series

Jig/Tool/
Accessory

Technical information

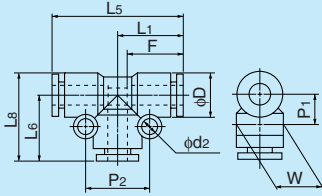
Reference

Union tee

●Millimeter size type



Product number	Applicable tube outer diameter (mm)	L ₁ (mm)	L ₅ (mm)	L ₆ (mm)	L ₈ (mm)	P ₁ (mm)	P ₂ (mm)	F Tube insertion length (mm)	D (mm)	d ₂ (mm)	W (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EUT3-C1	3	12.6	25.1	12.6	15.8	4.1	8.3	11	6.3	3.1	6	2.0	2.0	1.5
EUT4-C1	4	17.7	35.3	17.7	22.6	6.9	14.0	13	10.0	4.2	9.7	3.0	3.5	4.0
EUT6-C1	6	18.9	37.9	18.9	25.2	8.3	17.0	15	13.0	4.2	12.5	5.0	9.5	7.0
EUT8-C1	8	21.1	42.2	21.1	28.5	9.3	19.0	16	15.0	4.2	14.5	7.0	19.5	9.0
EUT10-C1	10	25.0	50.0	25.0	33.8	10.8	22.0	19	18.0	4.2	17.5	9.0	32.5	17.0
EUT12-C1	12	26.7	53.4	26.7	36.8	12.1	24.0	20	20.5	4.2	20.0	11.0	45.5	23.0



●Inch size type

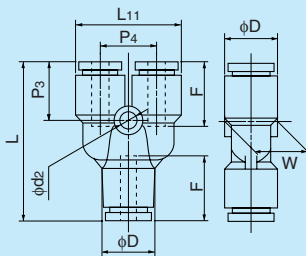
Product number	Applicable tube outer diameter (inch)	L ₁ (mm)	L ₅ (mm)	L ₆ (mm)	L ₈ (mm)	P ₁ (mm)	P ₂ (mm)	F Tube insertion length (mm)	D (mm)	d ₂ (mm)	W (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EUT1/8-C1	1/8	15.0	30.0	15.0	19.0	5.0	10.0	11	8.0	3.2	8.0	2.5	—	—
EUT1/4-C1	1/4	19.9	39.8	19.9	26.2	8.3	17.0	15	13.0	4.2	12.5	5.0	12.0	7.0
EUT3/8-C1	3/8	25.8	51.6	25.8	34.6	10.8	22.0	19	18.0	4.2	17.5	9.0	27.0	17.0
EUT1/2-C1	1/2	29.7	59.5	29.7	40.2	12.6	25.0	21	21.5	4.2	21.0	11.0	54.5	29.0

Y union

●Millimeter size type



Product number	Applicable tube outer diameter (mm)	L (mm)	L ₁₁ (mm)	F Tube insertion length (mm)	P ₃ (mm)	P ₄ (mm)	W (mm)	D (mm)	d ₂ (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EYB3-C1	3	25.7	13.0	11	10.9	7.0	6.0	6.3	2.0	2.0	2	—
EYB4-C1	4	34.7	20.7	14	13.9	11.0	9.7	10.0	3.2	3.0	3.0	4.0
EYB6-C1	6	38.4	24.7	15	15.2	12.2	12.5	13.0	4.2	5.0	8.0	6.0
EYB8-C1	8	43.7	28.7	16	16.8	14.2	14.5	15.0	4.2	7.0	18.0	9.0
EYB10-C1	10	49.0	35.0	19	18.7	17.5	17.5	18.0	4.2	9.0	27.0	17.0
EYB12-C1	12	54.8	40.0	20	20.7	20.0	20.0	20.5	4.2	11.0	38.5	24.0



●Inch size type

Product number	Applicable tube outer diameter (inch)	L (mm)	L ₁₁ (mm)	F Tube insertion length (mm)	P ₃ (mm)	P ₄ (mm)	W (mm)	D (mm)	d ₂ (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EYB1/8-C1	1/8	29.0	16.6	11	11.5	9.0	8.0	7.7	3.2	3.0	—	—
EYB1/4-C1	1/4	40.3	24.7	16	16.2	12.2	12.5	13.0	4.2	5.0	10.5	10.0
EYB3/8-C1	3/8	50.6	35.0	20	19.5	17.5	17.5	18.0	4.2	9.0	24.0	24.0
EYB1/2-C1	1/2	60.4	42.0	23	22.7	21.0	21.0	21.5	4.2	11.0	46.5	33.0

Panel touch connector

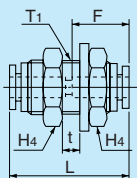
●Millimeter size type



Product number	Applicable tube outer diameter (mm)	L (mm)	F Tube insertion length (mm)	H ₄ (mm)	t Max. panel thickness (mm)	T ₁ Recommended panel hole diameter (mm)	Washer outer diameter (mm)	Washer thickness (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EPC4-C1	4	32.7	14	17.0	7.5	13	24.0	2.5	3.0	3.5	5.0
EPC6-C1	6	34.5	15	19.0	9.5	15	28.0	2.5	5.0	12.5	7.0
EPC8-C1	8	36.6	16	22.0	10.0	17	30.0	3.0	7.0	28.0	9.0
EPC10-C1	10	42.4	19	27.0	14.0	21	37.0	3.0	9.0	45.0	16.0
EPC12-C1	12	44.4	20	30.0	16.0	23	39.0	3.0	11.0	67.0	67.0

●Inch size type

Product number	Applicable tube outer diameter (inch)	L (mm)	F Tube insertion length (mm)	H ₄ (mm)	t Max. panel thickness (mm)	T ₁ Recommended panel hole diameter (mm)	Washer outer diameter (mm)	Washer thickness (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
EPC1/4-C1	1/4	36.4	16	19.0	9.5	15	28.0	2.5	5.0	12.5	7.0
EPC3/8-C1	3/8	44.0	20	27.0	14.0	21	37.0	3.0	9.0	45.0	16.0
EPC1/2-C1	1/2	48.5	23	30.0	16.0	23	39.0	3.0	11.0	67.0	67.0



*Made to order

Tube

Clean tube

Processed tube

PushOne fitting

QuickSeal fitting

Clean fitting/ Chemifit

Bamboo-shoot fitting

Control switch/ Detachable series

Jig/Tool/ Accessory

Technical information

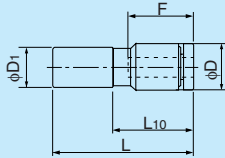
Reference

Reducer



●Millimeter size type

Product number	Applicable tube outer diameter (mm)	D1 Insertion part diameter (mm)	L (mm)	L ₁₀ (mm)	F Tube insertion length (mm)	D (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
ER4-6-C1	4	6	34.5	16.3	14	10.0	3.0	3.5	2.0
ER4-8-C1	4	8	32.0	16.8	14	10.0	3.0	3.5	2.0
ER6-8-C1	6	8	34.7	16.9	15	13.0	5.0	10.5	2.0
ER6-10-C1	6	10	35.6	19.6	15	13.0	5.0	10.5	3.0
ER8-10-C1	8	10	39.4	17.8	16	15.0	7.0	28.0	3.0
ER8-12-C1	8	12	38.3	15.2	16	15.0	7.0	28.0	4.0
ER10-12-C1	10	12	42.8	19.9	19	18.0	9.0	45.0	8.0



●Inch size type

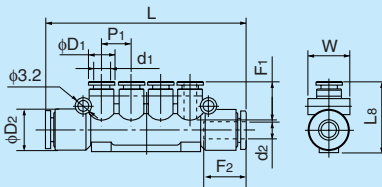
Product number	Applicable tube outer diameter (inch)	D1 Insertion part diameter (inch)	L (mm)	L ₁₀ (mm)	F Tube insertion length (mm)	D (mm)	Min. inner diameter (mm)	Effective cross-sectional area (mm ²)	Weight (g)
ER1/4-3/8-C1	1/4	3/8	35.2	12.5	16	13.0	5.0	12.0	3.0

Manifold



●Inch size type

Product number	d ₁ Applicable tube outer diameter (inch)	d ₂ Applicable tube outer diameter (inch)	L (mm)	P ₁ (mm)	L _s (mm)	F ₁ Tube insertion length (mm)	F ₂ Tube insertion length (mm)	D ₁ (mm)	D ₂ (mm)	W (mm)	Weight (g)
EMA1/8-1/4-4S-C1	1/8	1/4	61.0	9.0	21.5	11	16	8.0	12.5	12.5	—

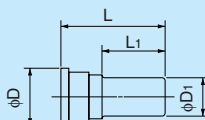


Blank plug



●Millimeter size type

Product number	D1 Insertion part diameter (mm)	L (mm)	L ₁ (mm)	D (mm)	Weight (g)
BC3-C1	3	22.0	11.5	5.0	0.5
BC4-C1	4	28.0	15.5	7.7	0.5
BC6-C1	6	28.0	16.0	9.7	0.8
BC8-C1	8	29.0	16.0	11.7	1.1
BC10-C1	10	32.0	17.7	14.0	1.6
BC12-C1	12	34.0	20.4	16.0	2.4



●Inch size type

Product number	D1 Insertion part diameter (inch)	L (mm)	L ₁ (mm)	D (mm)	Weight (g)
BC1/8-C1	1/8	26.0	13.5	7.7	—
BC1/4-C1	1/4	28.0	16.0	9.7	1.2
BC3/8-C1	3/8	32.0	17.7	14.0	2.5
BC1/2-C1	1/2	34.0	20.4	16.0	3.8

Tube

Clean tube

Processed tube

PushOne fitting

QuickSeal fitting

Clean fitting/ Chemifit

Bamboo-shoot fitting

Control switch/ Detachable series

Jig/Tool/ Accessory

Technical information

Reference