

Self-align Fittings

Series H, DL, L, LL

Flared ridge ferrule

Prevents accidental loss of ferrule when inserting tubing into the fitting body.

Hardened ridge ferrule

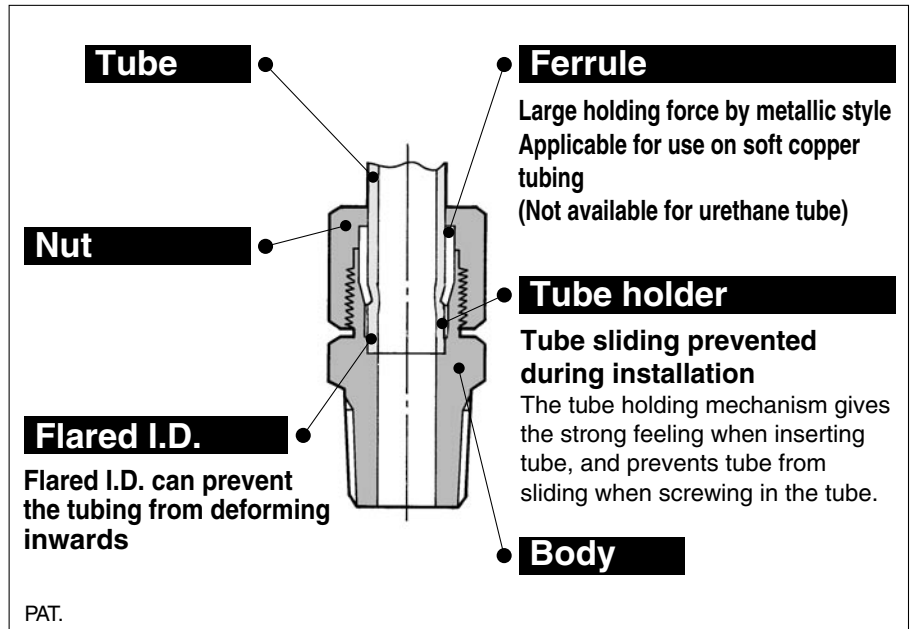
Prevents breakage of ferrule when tightening nut.

Flared I.D.

Provides low flow resistance inside the fitting.

Wide variety of styles and sizes

Ten styles and five tube O.D's provide a wide range of fittings that will fit any application.



Specifications

Applicable tube material	Nylon tube, Soft nylon tube, Soft copper tube (C1220T-0)	
Applicable tube O.D.	ø4, ø6, ø8, ø10, ø12	
Max.operating pressure	1.0MPa	
Proof pressure	10MPa	
Operating fluid	Air	
Thread	Thread portion	JIS B0203 (Taper pipe thread)
	Nut	JIS B0211 Class 2 (Metric fine thread)
Sealant (Thread portion) ⁽¹⁾	None or with sealant	











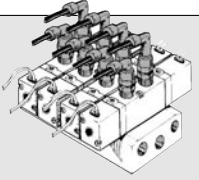

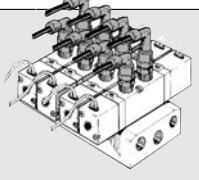


Note1) Male elbow, Branch tee, Male run tee with sealant are manufactured upon receipt of order.

Component Materials

Body	C36004BD, C3771BE
Nut	C3604BD
Ferrule	C2700T

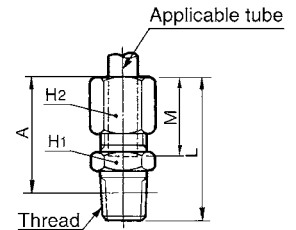
Self-align Fittings *Series H, DL, L, LL*

Model	
<p>Male connector</p> <p>H P.7-61</p>  <p>Used to pipe in the same direction from female threaded portion. Most common style.</p>	<p>Male run tee</p> <p>DY P.7-62</p>  <p>Used for a branch line in the same direction from female thread and in 90° directions.</p>
<p>Male elbow</p> <p>DL P.7-61</p>  <p>Used to pipe in right angle to female threaded portion. Most common style.</p>	<p>Bulkhead union</p> <p>DE P.7-62</p>  <p>Used for junction connection of two tubes for installation of a panel.</p>
<p>Union tee</p> <p>DT P.7-61</p>  <p>Used to branch connect tubes in both 90° directions.</p>	<p>Bulkhead connector</p> <p>DEF P.7-62</p>  <p>Used for transit connection of a tube and a male screw of a panel.</p>
<p>Female connector</p> <p>DHF P.7-61</p>  <p>Used to pipe from the male threaded portion such as pressure gauge.</p>	<p>Plug</p> <p>DP P.7-63</p>  <p>Used to plug unused fitting</p>
<p>Branch tee</p> <p>DT P.7-62</p>  <p>Used to branch line from female thread in both 90° directions.</p>	
<p>Swivel elbow</p> <p>L P.7-63</p>  <p>Used to pipe at right angles to female thread portions. Swivelled at any direction.</p>	
<p>Swivel long elbow</p> <p>LL P.7-63</p>  <p>Used to pipe at right angles to female thread portions. Swivelled at any direction. Solid piece moves fittings up from workpiece.</p>	

Male connector: H



Tube O.D. (mm)	Thread R (PT)	Part No.	H ₁ (Hex.)	H ₂ (Hex.)	L	M	A*	Effective area (mm ²)	Weight (g)
4	1/8	H04-01	10	10	24.2	15	21.1	4	10
	1/4	H04-02	14	10	28.6		23.1		17
6	1/8	H06-01	10	12	24.2	16	21.1	11	12
	1/4	H06-02	14	12	28.6		23.1		19
	3/8	H06-03	17	12	30		24.8		31
8	1/8	H08-01	12	14	24.2	16	21.1	20	16
	1/4	H08-02	14	14	28.6		23.1		21
	3/8	H08-03	17	14	30		24.8		30
10	1/4	H10-02	14	17	28.6	17	23.1	34	28
	3/8	H10-03	17	17	30		24.8		37
	1/2	H10-04	22	17	33.2		25.9		53
12	1/4	H12-02	17	19	29.6	17	24.1	51	30
	3/8	H12-03	17	19	30		24.8		39
	1/2	H12-04	22	19	33.2		25.9		59

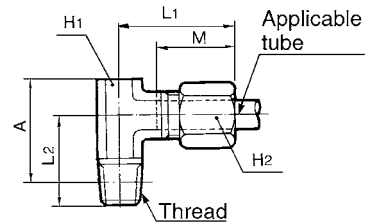


*Reference dimensions after R(PT) thread installation.

Male elbow: DL



Tube O.D. (mm)	Thread R (PT)	Part No.	H ₁ (Hex.)	H ₂ (Hex.)	L ₁	L ₂	M	A*	Effective area (mm ²)	Weight (g)
4	1/8	DL04-01	10	10	23.5	16.1	15	19.6	3.5	23
	1/4	DL04-02				18.5				30
6	1/8	DL06-01	10	12	23.5	16.1	16	19.6	9	25
	1/4	DL06-02				18.5				31
	3/8	DL06-03	14	26.5	20.9	24.5				53
8	1/8	DL08-01	12	14	24.5	17.1	16	21.6	19	32
	1/4	DL08-02				20.5				38
	3/8	DL08-03	14	26.5	20.9	24.5				54
10	1/4	DL10-02	14	17	26.5	22.5	17	25.8	31	51
	3/8	DL10-03				20.9				57
	1/2	DL10-04	17	28.5	26.1	29.4				100
12	1/4	DL12-02	17	19	28.5	24.5	17	29.6	43	76
	3/8	DL12-03				24.9				85
	1/2	DL12-04	26.1	29.4	91					

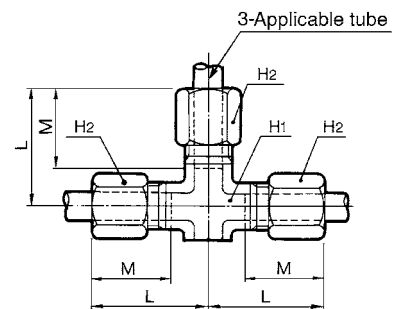


*Reference dimensions after R(PT) thread installation.

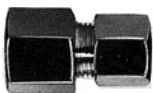
Union tee: DT



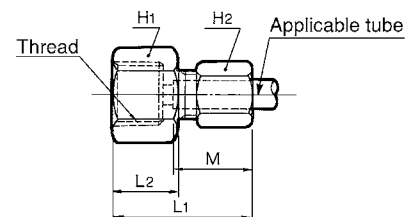
Tube O.D. (mm)	Part No.	H ₁ (Hex.)	H ₂ (Hex.)	L	M	Effective area (mm ²)	Weight (g)
4	DT04-00	10	10	23.5	15	5.7	32
6	DT06-00	10	12	23.5	16	14	36
8	DT08-00	12	14	24.5	16	25	47
10	DT10-00	14	17	26.5	17	49	70
12	DT12-00	17	19	28.5	17	55	70



Female connector: DHF



Tube O.D. (mm)	Thread Rc (PT)	Part No.	H ₁ (Hex.)	H ₂ (Hex.)	L ₁	L ₂	M	Effective area (mm ²)	Weight (g)
4	1/4	DHF04-02	17	10	30.3	16	15	4	27
6	1/4	DHF06-02	17	12	30.8	16.5	16	11	28
	3/8	DHF06-03	19	12	32.8	18.5			31
8	1/4	DHF08-02	17	14	29.8	15.5	16	20	30
10	1/4	DHF10-02	17	17	30.8	16.5	17	34	37
12	1/4	DHF12-02	17	19	30.8	16.5	17	51	40

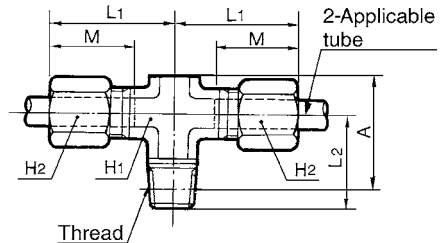


Self-align Fittings *Series H, DL, L, LL*

Male branch tee: DT



Tube O.D. (mm)	Thread R (PT)	Part No.	H1 (Hex.)	H2 (Hex.)	L1	L2	M	A*	Effective area (mm ²)	Weight (g)
4	1/8	DT04-01	10	10	23.5	16.1	15	19.6	5.7	33
	1/4	DT04-02				18.5				40
6	1/8	DT06-01	10	12	23.5	16.1	16	19.6	14	35
	1/4	DT06-02				18.5				44
	3/8	DT06-03				26.5				20.9
8	1/8	DT08-01	12	14	24.5	17.1	16	21.6	25	45
	1/4	DT08-02				20.5				52
	3/8	DT08-03				26.5				20.9
10	1/4	DT10-02	14	17	26.5	22.5	17	25.8	49	72
	3/8	DT10-03				20.9				78
	1/2	DT10-04				28.5				26.1
12	1/4	DT12-02	17	19	28.5	24.5	17	29.6	55	106
	3/8	DT12-03				24.9				111
	1/2	DT12-04				26.1				120

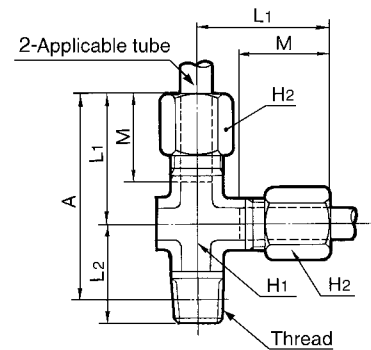


*Reference dimensions after R(PT) thread installation.

Male run tee: DY



Tube O.D. (mm)	Thread R (PT)	Part No.	H1 (Hex.)	H2 (Hex.)	L1	L2	M	A*	Effective area (mm ²)	Weight (g)
4	1/8	DY04-01	10	10	23.5	16.1	15	36.5	6.9	32
	1/4	DY04-02				18.5				40
6	1/8	DY06-01	10	12	23.5	16.1	16	36.5	16	36
	1/4	DY06-02				18.5				42
	3/8	DY06-03				26.5				20.9
8	1/8	DY08-01	12	14	24.5	17.1	16	38.5	32	44
	1/4	DY08-02				20.5				51
	3/8	DY08-03				26.5				20.9
10	1/4	DY10-02	14	17	26.5	22.5	17	43.5	56	70
	3/8	DY10-03				20.9				77
	1/2	DY10-04				28.5				26.1
12	1/4	DY12-02	17	19	28.5	24.5	17	47.5	62	106
	3/8	DY12-03				24.9				112
	1/2	DY12-04				26.1				119

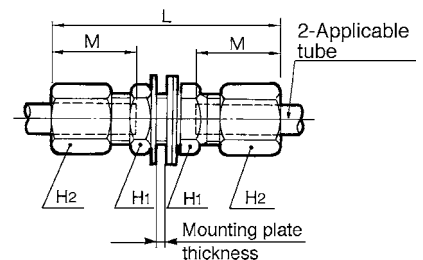


*Reference dimensions after R(PT) thread installation.

Bulkhead union: DE



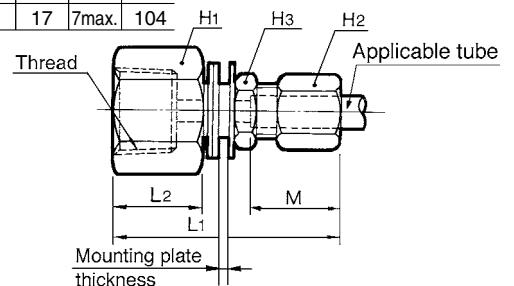
Tube O.D. (mm)	Part No.	H1 (Hex.)	H2 (Hex.)	L	M	Effective area (mm ²)	Mounting hole	Plate thickness	Weight (g)
4	DE04-00	10	10	47.5	15	4	9	4max.	29
6	DE06-00	12	12	50.5	16	11	11	4max.	43
8	DE08-00	14	14	52.5	16	20	13	6max.	62
10	DE10-00	17	17	55.5	17	34	15	7max.	93
12	DE12-00	19	19	56.5	17	51	17	7max.	112



Bulkhead connector: DEF



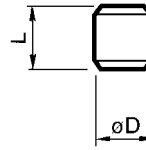
Tube O.D. (mm)	Thread Rc (PT)	Part No.	H1 (Hex.)	H2 (Hex.)	H3 (Hex.)	L1	L2	M	Effective area (mm ²)	Mounting hole	Plate thickness	Weight (g)
6	1/4	DEF06-02	17	12	12	46.5	15	16	11	11	4max.	48
8	3/8	DEF08-03	19	14	14	50.5	17	16	20	13	6max.	66
10	3/8	DEF10-03	19	17	17	53.5	17	17	34	15	7max.	89
12	3/8	DEF12-03	19	19	19	54.5	17	17	51	17	7max.	104



Plug: DP



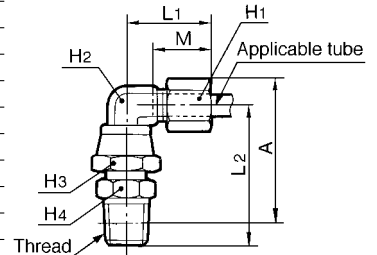
Tube O.D.	Part No.	L	øD	Weight (g)
ø4	DP-04	8	5.6	0.2
ø6	DP-06		7.6	0.5
ø8	DP-08		9.6	0.8
ø10	DP-10		11.6	1.2
ø12	DP-12		13.6	1.6



Swivel elbow: L



Tube O.D. (mm)	Thread R (PT)	Part No.	H1 (Hex.)	H2 (Hex.)	H3 (Hex.)	H4 (Hex.)	L1	L2	M	A*	Effective area (mm ²)	Weight (g)
4	1/8	L04-01	10	10	14	10	21.8	30	15	32.7	3.5	33
	1/4	L04-02				14		34.4		34.7		40
6	1/8	L06-01	12	10	14	10	21.8	30	16	33.8	9	36
	1/4	L06-02				14		34.4		35.8		43
	3/8	L06-03				17		35.8		37.5		55
8	1/8	L08-01	14	12	17	12	23.3	31	16	36	19	46
	1/4	L08-02				14		35.4		38		52
	3/8	L08-03				17		36.8		39.7		61
10	1/4	L10-02	17	14	19	14	23.3	36.4	17	40.7	31	68
	3/8	L10-03				17		37.8		42.4		76
	1/2	L10-04				22		41		43.5		96
12	1/4	L12-02	19	17	22	17	24.3	39.4	17	44.9	43	86
	3/8	L12-03				17		39.8		45.6		94
	1/2	L12-04				22		43		46.7		118

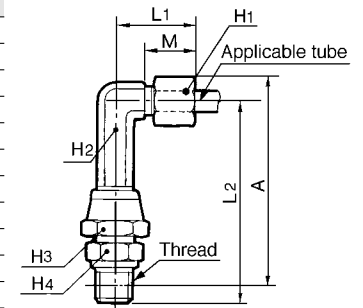


*Reference dimensions after R(PT) thread installation.

Swivel long elbow: LL



Tube O.D. (mm)	Thread R (PT)	Part No.	H1 (Hex.)	H2 (Hex.)	H3 (Hex.)	H4 (Hex.)	L1	L2	M	A*	Effective area (mm ²)	Weight (g)
4	1/8	LL04-01	10	10	14	10	21.8	50	15	52.7	3.5	45
	1/4	LL04-02				14		54.4		54.7		53
6	1/8	LL06-01	12	10	14	10	21.8	51	16	54.8	9	47
	1/4	LL06-02				14		55.4		56.8		44
	3/8	LL06-03				17		56.8		58.5		66
8	1/8	LL08-01	14	12	17	12	23.3	52	16	57	19	63
	1/4	LL08-02				14		56.4		59		68
	3/8	LL08-03				17		57.8		60.7		77
10	1/4	LL10-02	17	14	19	14	23.3	58.4	17	62.7	31	89
	3/8	LL10-03				17		59.8		64.4		98
	1/2	LL10-04				22		63		65.5		117
12	1/4	LL12-02	19	17	22	17	24.3	62.4	17	66.7	43	121
	3/8	LL12-03				17		62.8		67.4		129
	1/2	LL12-04				22		66		71.4		153

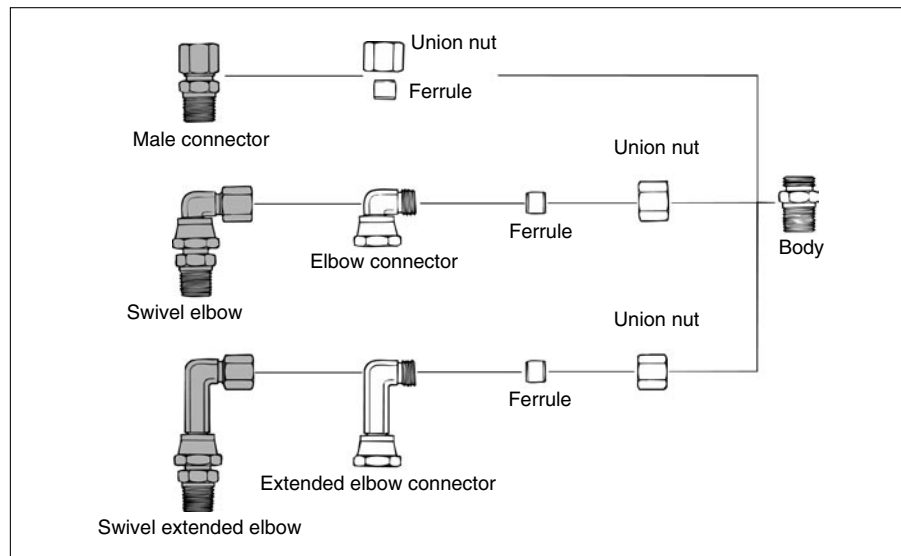


*Reference dimensions after R(PT) thread installation.

Swivel Fittings Part No.

The bodies of elbow connectors and extended elbow connectors are compatible with almost any fitting. (Except "L-04" and "LL-04" which are for the body of $\phi 6$ tube.)

Swivel fittings, elbow (L) and (LL) constitute the combination with a male connector (H) and connector as shown in the diagram.



Union nut: N			Elbow connector: L		Ferrule: S		Extended elbow connector: LL		
Part No.	Tube O.D.	Weight (g)	Part No.	Tube O.D.	Part No.	Tube O.D.	Weight (g)	Part No.	Tube O.D.
N-04	$\phi 4$	5	L-04	$\phi 4$	S-04	$\phi 4$	0.7	LL-04	$\phi 4$
N-06	$\phi 6$	7	L-06	$\phi 6$	S-06	$\phi 6$	1.1	LL-06	$\phi 6$
N-08	$\phi 8$	8	L-08	$\phi 8$	S-08	$\phi 8$	1.4	LL-08	$\phi 8$
N-10	$\phi 10$	13	L-10	$\phi 10$	S-10	$\phi 10$	1.7	LL-10	$\phi 10$
N-12	$\phi 12$	14	L-12	$\phi 12$	S-12	$\phi 12$	2.0	LL-12	$\phi 12$

⚠ Precautions

Installation

⚠ Caution

- ① Cut the tube perpendicular to the tube axis a little longer than the required length. (Use tube cutter TK-1, 2 or 3.)
- ② Then, push the cut tube in until it comes to the flared edge, and tighten the nut by hand.
- ③ Furthermore, give the nut an additional 1.5 turns with appropriate wrench or the like. Leave no space between the screwed-in nut and the tube in-line with the tube axis. If tightened insufficiently, nut may be loosened and it may cause air leakage or may coming off.
- ④ When using soft copper tube, first tighten the nut by hand and then give it an additional one turn with wrench. Use JIS H3300, equivalent to seamless tube C1220T-0, as soft copper tube. If using any other style, it may cause the air leakage or tube coming off.