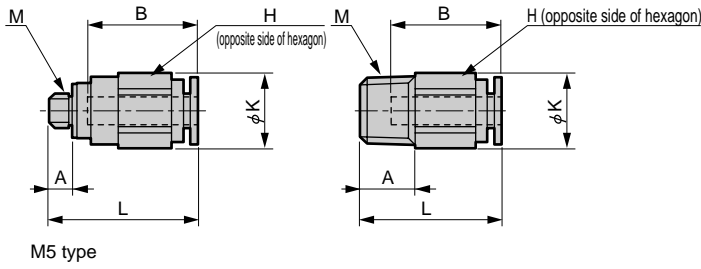


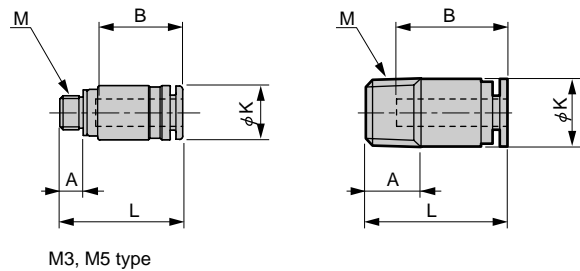


Dimensions: Single straight / single straight (round) / female straight / bulk head female

Single straight ● GWS*-*



Single straight (round) ● GWS*-*-S

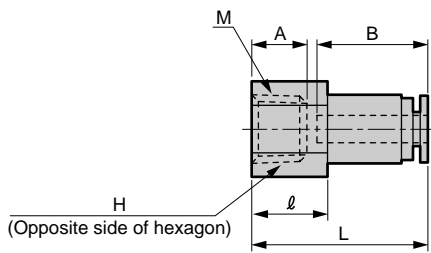


Model no.	Applicable tube O.D. φ	M	H	K	L	A	B	Min. bore size	Effective sectional area mm ²
GWS 4-M5	4	M5 x 0.8	10	11	21.5	3.4	16	2.5	4
GWS 4-6		R1/8	10	11	20.5	8	16	2.5	4
GWS 4-8		R1/4	14	15.8	19.5	11	16	2.5	4
GWS 6-M5	6	M5 x 0.8	12	13.5	23	3.4	17.5	2.5	4.4
GWS 6-6		R1/8	12	13.5	23	8	17.5	4	10.3
GWS 6-8		R1/4	14	15.8	23.5	11	17.5	4	10.3
GWS 6-10	8	R3/8	17	19.1	21.5	12	17.5	4	10.3
GWS 8-6		R1/8	14	15.8	28	8	19	5	17.5
GWS 8-8		R1/4	14	15.8	27	11	19	6	22.4
GWS 8-10	10	R3/8	17	19.1	22.5	12	19	6	22.4
GWS10-6		R1/8	17	19.1	31	8	21.5	5	17.5
GWS10-8		R1/4	17	19.1	32.5	11	21.5	8	30.5
GWS10-10	12	R3/8	17	19.1	28.5	12	21.5	8	30.5
GWS10-15		R1/2	22	24	26.5	15	21.5	8	30.5
GWS12-8		R1/4	19	21.4	35.5	11	23	8	35.5
GWS12-10	16	R3/8	19	21.4	30.5	12	23	10	40
GWS12-15		R1/2	22	24	29.5	15	23	10	40
GWS16-10		R3/8	24	26.5	42	12	28	12	90
GWS16-15	16	R1/2	24	26.5	37.5	15	28	13	90

M3, M5 type

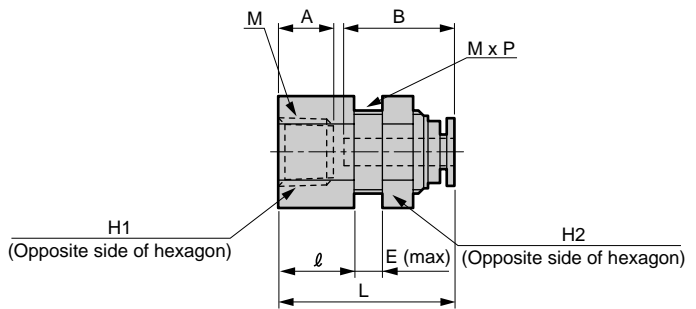
Model no.	Applicable tube O.D. φ	M	K	L	A	B	Hexagon head hole diameter	Effective sectional area mm ²
GWS 3-M3-S	3.2	M3 x 0.5	6.9	15.7	2.4	11.7	1.5	1.4
GWS 3-M5-S		M5 x 0.8	6.9	16.7	3.4	11.7	2	2.7
GWS 4-M3-S	4	M3 x 0.5	7.9	16.9	2.4	12.9	1.5	1.6
GWS 4-M5-S		M5 x 0.8	7.9	17.9	3.4	12.9	2	2.7
GWS 4-6-S	6	R1/8	9.8	20.5	8	16	2.5	4.1
GWS 6-M5-S		M5 x 0.8	9.9	19.2	3.4	14.2	2.5	4.4
GWS 6-6-S		R1/8	11.8	23	8	17.5	4	10.6
GWS 6-8-S	8	R1/4	13.8	23	11	17.5	4	10.6
GWS 8-6-S		R1/8	14	28	8	19	5	20.4
GWS 8-8-S	10	R1/4	14	27	11	19	6	22
GWS 8-10-S		R3/8	17	22.5	12	19	6	22
GWS10-6-S	12	R1/8	17.5	30.5	8	21.5	5	20.1
GWS10-8-S		R1/4	17.5	28.5	11	21.5	6	26.3
GWS10-10-S		R3/8	17.5	28.5	12	21.5	8	30.1
GWS10-15-S	16	R1/2	22	26.5	15	21.5	8	30.1
GWS12-8-S		R1/4	19.5	34	11	23	6	26.3
GWS12-10-S	12	R3/8	19.5	29.5	12	23	8	37.9
GWS12-15-S		R1/2	22	28.5	15	23	8	37.9

Female straight ● GWS*-*-M



Model no.	Applicable tube O.D. φ	M	H	L	φ	A	B	Min. bore size	Effective sectional area mm ²
GWS 4-6-M	4	Rc1/8	12	25.5	11	8	16	2.5	4
GWS 4-8-M		Rc1/4	17	28.5	14	11	16	2.5	4
GWS 6-6-M	6	Rc1/8	14	27	11	8	17.5	4	10.3
GWS 6-8-M		Rc1/4	17	30	14	11	17.5	4	10.3
GWS 6-10-M		Rc3/8	19	31	15	12	17.5	4	10.3
GWS 8-6-M	8	Rc1/8	17	28.5	11	8	19	6	22.4
GWS 8-8-M		Rc1/4	17	31.5	14	11	19	6	22.4
GWS 8-10-M		Rc3/8	19	32.5	15	12	19	6	22.4
GWS10-8-M	10	Rc1/4	19	34.5	14	11	21.5	8	30.5
GWS10-10-M		Rc3/8	19	35.5	15	12	21.5	8	30.5
GWS12-8-M	12	Rc1/4	22	36	14	11	23	10	35.5
GWS12-10-M		Rc3/8	22	37	15	12	23	10	35.5
GWS12-15-M		Rc1/2	24	40	18	15	23	10	35.5

Bulk head female ● GWS*-*-E



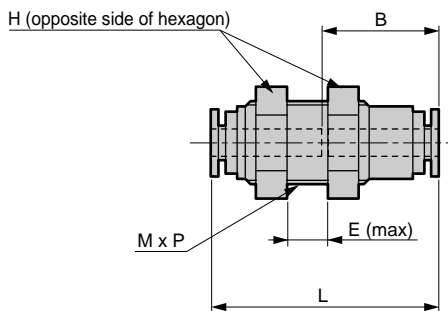
Model no.	Applicable tube O.D. φ	M	H ₁	H ₂	L	φ	A	B	E	M x P	Installation hole dia.	Min. hole dia.	Effective sectional area mm ²
GWS 4-6-E	4	Rc1/8	14	14	25.5	11	8	16	5	M12 x 1	13	2.5	4
GWS 4-8-E		Rc1/4	17	14	28.5	14	11	16	5	M12 x 1	13	2.5	4
GWS 6-6-E	6	Rc1/8	17	17	27	11	8	17.5	5	M14 x 1	15	4	10.3
GWS 6-8-E		Rc1/4	17	17	30	14	11	17.5	5	M14 x 1	15	4	10.3
GWS 6-10-E		Rc3/8	19	17	31.5	15	12	17.5	5	M14 x 1	15	4	10.3
GWS 8-6-E	8	Rc1/8	19	19	28.5	11	8	19	6	M16 x 1	17	6	22.4
GWS 8-8-E		Rc1/4	19	19	31.5	14	11	19	6	M16 x 1	17	6	22.4
GWS 8-10-E		Rc3/8	19	19	32.5	15	12	19	6	M16 x 1	17	6	22.4
GWS10-8-E	10	Rc1/4	22	23	34.5	14	11	21.5	9	M20 x 1	21	8	30.5
GWS10-10-E		Rc3/8	22	23	35.5	15	12	21.5	9	M20 x 1	21	8	30.5
GWS12-10-E	12	Rc3/8	24	26	37.5	15	12	23	10	M22 x 1	23	9	35.5
GWS12-15-E		Rc1/2	24	26	40.5	18	15	23	10	M22 x 1	23	9	35.5

Dimensions: Bulk head / bulk head female connector / straight / different diameter straight



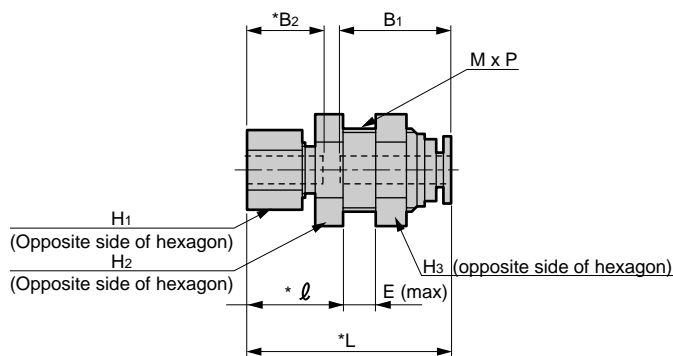
Bulk head

- GWS*-*-X



Bulk head female connector

- GWM*-*-X



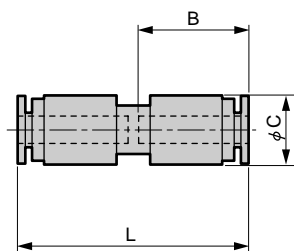
Note: An insert ring (MJU) is required for urethane tube on tightening joint side.
* dimension shows a rough dimension before tightening a nut.

Model no.	Applicable tube O.D. φ	H	L	B	E	M x P	Installation hole diametr.	Min. bore size	Effective sectional area mm ²
GWS 4-0-X	4	14	33	16	7.5	M12 x 1	13	2.5	4
GWS 6-0-X	6	17	36	17.5	9.5	M14 x 1	15	4	10
GWS 8-0-X	8	19	39	19	12.5	M16 x 1	17	6	22
GWS10-0-X	10	23	44.5	21.5	18	M20 x 1	21	8	30
GWS12-0-X	12	26	47	23	20.5	M22 x 1	23	9	35

Model no.	Applicable tube O.D. φ	H ₁	H ₂	H ₃	L	ℓ	B ₁	B ₂	E	M x P	Installation hole dia.	Min. hole dia.	Effective sectional area mm ²
GWM 4-0-X	4	10	14	14	29.5	15	16	11	5	M12 x 1	13	2.5	4
GWM 6-0-X	6	12	17	17	33	16	17.5	11.5	5	M14 x 1	15	4	10
GWM 8-0-X	8	14	19	19	35	17.5	19	13	6	M16 x 1	17	6	22
GWM10-0-X	10	17	22	23	40	19.5	21.5	14.5	9	M20 x 1	21	8	30
GWM12-0-X	12	19	24	26	43.5	21	23	16	10	M22 x 1	23	9	35

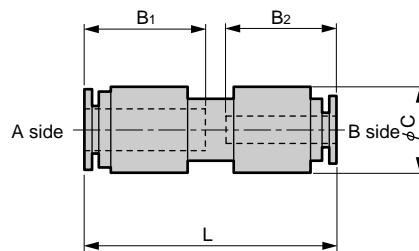
Straight

- GWS*-0



Different diameter straight

- GWS*-0



Model no.	Applicable tube O.D. φ	L	B	C	Min. bore size	Effective sectional area mm ²
GWS 4-0	4	33.5	16	10	2.5	4
GWS 6-0	6	36.5	17.5	12.5	4	10
GWS 8-0	8	39.5	19	14.5	6	22
GWS10-0	10	45	21.5	17.5	8	30
GWS12-0	12	47.5	23	20	10	35
GWS16-0	16	58	28	26.5	13.2	90

Model no.	Applicable tube O.D. φ		L	B ₁	B ₂	C	Min. bore size	Effective sectional area mm ²
	A side	B side						
GWS 46-0	6	4	36.5	17.5	16	12.5	2.5	4
GWS 68-0	8	6	39.5	19	17.5	14.5	4	10
GWS 810-0	10	8	45	21.5	19	17.5	6	22
GWS1012-0	12	10	47.5	23	21.5	20	8	30

Refrigerating type dryer
Desiccant type dryer
High polymer membrane dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)

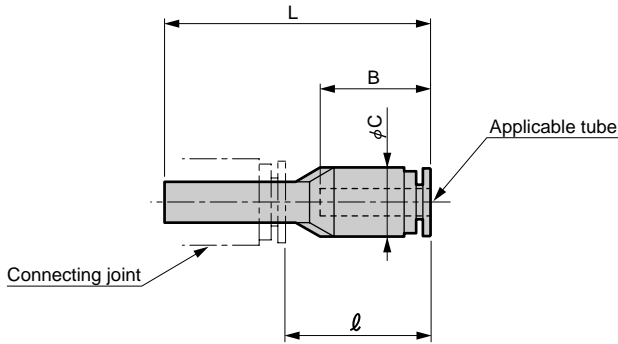
Ending

Joint
Joint/tube



Dimensions: Plug reducer / plug / plug reducer / single elbow

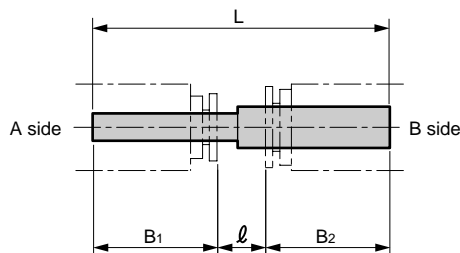
Plug reducer ● GWS*-*-P



Model no.	Applicable tube O.D. ϕ	Connecting joint dia. ϕ	L	l^*	B	C	Min. bore size	Effective sectional area mm^2
GWS 4- 6P	4	6	38.5	21	16	10	2.3	3.5
GWS 6- 4P	6	4	42	26	17.5	12.5	2.3	3.5
GWS 6- 8P		8	41	22	17.5	12.5	4	10
GWS 6-10P		10	42	20	17.5	12.5	4	10
GWS 8-10P	8	10	44.5	22.5	19	14.5	6	22
GWS 8-12P		12	44	21	19	14.5	6	22
GWS10-12P	10	12	48	25	21.5	17.5	8	30

* For connecting joint, dimension of CKD (GW Series) are shown.

Plug reducer ● GWP*-*-0

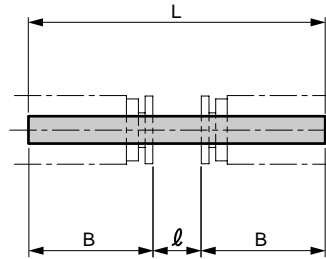


Material: Polyamide resin

Model no.	Joint port size ϕ		L	l^*	B_1^*	B_2^*	Min. bore size	Effective sectional area mm^2
	A side	B side						
GWP 46-0	4	6	43	9.5	16	17.5	2.3	4
GWP 68-0	6	8	45	8.5	17.5	19	4	10.3
GWP 810-0	8	10	50.5	10	19	21.5	6	22.4
GWP1012-0	10	12	58	13.5	21.5	23	7.5	30

* For connecting joint, dimension of CKD (GW Series) are shown.

Plug ● GWP*-*-0

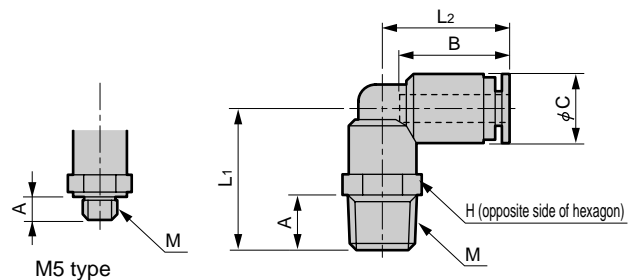


Material: Polyamide resin

Model no.	Connecting joint diameter ϕ	L	B^*	l^*	Min. hole diameter	Effective sectional area mm^2
GWP 4-0	4	43	16	11	2.5	4
GWP 6-0	6	43	17.5	8	4	10.3
GWP 8-0	8	47	19	9	6	22.4
GWP10-0	10	56	21.5	13	7.5	30
GWP12-0	12	61	23	15	9.2	35.5

* For connecting joint, dimension of CKD (GW Series) are shown.

Single elbow ● GWL*-*-*



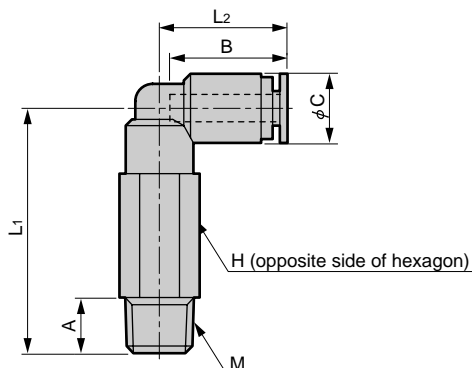
Model no.	Applicable tube O.D. ϕ	M	H	L_1	L_2	A	B	C	Min. bore size	Effective sectional area mm^2
GWL 4-M5	4	M5 x 0.8	8	15	18	3.4	16	10	2.5	3.2
GWL 4- 6		R1/8	10	20.5	18.5	8	16	10	2.5	3.2
GWL 4- 8		R1/4	14	24	18.5	11	16	10	2.5	3.2
GWL 6-M5	6	M5 x 0.8	10	15	20	3.4	17.5	12.5	2.5	4.2
GWL 6- 6		R1/8	12	24	21	8	17.5	12.5	4	8
GWL 6- 8		R1/4	14	27.5	21	11	17.5	12.5	4	8
GWL 6-10	8	R3/8	17	29	21	12	17.5	12.5	4	8
GWL 8- 6		R1/8	14	25.5	23.5	8	19	14.5	6	18
GWL 8- 8		R1/4	14	28.5	23.5	11	19	14.5	6	18
GWL 8-10	10	R3/8	17	30	23.5	12	19	14.5	6	18
GWL10- 6		R1/8	17	28	27	8	21.5	17.5	6.5	24.3
GWL10- 8		R1/4	17	31	27	11	21.5	17.5	8	27
GWL10-10	12	R3/8	17	32.5	27	12	21.5	17.5	8	27
GWL10-15		R1/2	22	35.5	27	15	21.5	17.5	8	27
GWL12- 8		R1/4	19	33	29.5	11	23	20	8.5	33
GWL12-10	16	R3/8	19	34.5	29.5	12	23	20	9	35
GWL12-15		R1/2	22	37.5	29.5	15	23	20	9	35.5
GWL16-10		R3/8	22	41	35.5	12	28	26.5	12	80
GWL16-15	16	R1/2	22	44	35.5	15	28	26.5	12	80



Dimensions: Long elbow / single 45° elbow / turn elbow / elbow

Long elbow

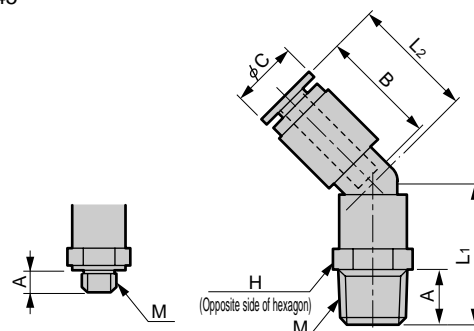
- GWL*-*-L



Model no.	Applicable tube O.D. φ	M	H	L ₁	L ₂	A	B	C	Min. bore size	Effective sectional area mm ²
GWL 4- 6-L	4	R1/8	10	35.5	18.5	8	16	10	2.5	3.2
GWL 4- 8-L	4	R1/4	14	39	18.5	11	16	10	2.5	3.2
GWL 6- 6-L	6	R1/8	12	40	21	8	17.5	12.5	4	8
GWL 6- 8-L	6	R1/4	14	43.5	21	11	17.5	12.5	4	8
GWL 8- 6-L	8	R1/8	14	44.5	23.5	8	19	14.5	6	18
GWL 8- 8-L	8	R1/4	14	47.5	23.5	11	19	14.5	6	18
GWL 8-10-L	8	R3/8	17	49	23.5	12	19	14.5	6	18
GWL10- 8-L	10	R1/4	17	56	27	11	21.5	17.5	8	27
GWL10-10-L	10	R3/8	17	57.5	27	12	21.5	17.5	8	27
GWL10-15-L	10	R1/2	22	60.5	27	15	21.5	17.5	8	27
GWL12- 8-L	12	R1/4	19	60	29.5	11	23	20	8.5	33
GWL12-10-L	12	R3/8	19	61.5	29.5	12	23	20	9	34.5
GWL12-15-L	12	R1/2	22	64.5	29.5	15	23	20	9	34.5

Single 45° elbow

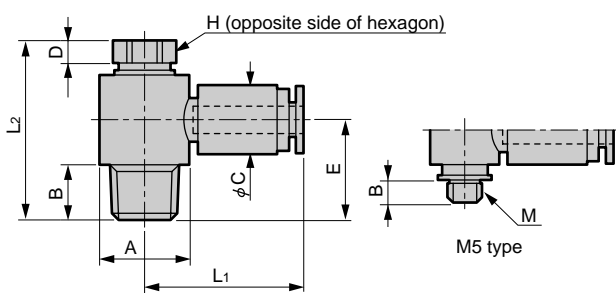
- GWL*-*-45



Model no.	Applicable tube O.D. φ	M	H	L ₁	L ₂	A	B	C	Min. hole dia.	Effective sectional area mm ²
GWL 4-M5-45	4	M5 x 0.8	8	14.5	18	3.4	16	10	2.5	3.6
GWL 4- 6-45	4	R1/8	10	20.5	18	8	16	10	2.5	3.6
GWL 4- 8-45	4	R1/4	14	24	18	11	16	10	2.5	3.6
GWL 6-M5-45	6	M5 x 0.8	10	15	18.5	3.4	17.5	12.5	2.5	4.3
GWL 6- 6-45	6	R1/8	12	23.5	20	8	17.5	12.5	4	9.2
GWL 6- 8-45	6	R1/4	14	27	20	11	17.5	12.5	4	9.2
GWL 6-10-45	6	R3/8	17	28.5	20	12	17.5	12.5	4	9.2
GWL 8- 6-45	8	R1/8	14	25	22	8	19	14.5	6	20
GWL 8- 8-45	8	R1/4	14	28	22	11	19	14.5	6	20
GWL 8-10-45	8	R3/8	17	29.5	22	12	19	14.5	6	20
GWL10- 6-45	10	R1/8	17	26	25	8	21.5	17.5	6.5	25.5
GWL10- 8-45	10	R1/4	17	29	25	11	21.5	17.5	8	29
GWL10-10-45	10	R3/8	17	30.5	25	12	21.5	17.5	8	29
GWL10-15-45	10	R1/2	22	33.5	25	15	21.5	17.5	8	29
GWL12- 8-45	12	R1/4	19	30.5	27	11	23	20	8.5	35.5
GWL12-10-45	12	R3/8	19	32	27	12	23	20	9	39
GWL12-15-45	12	R1/2	22	35	27	15	23	20	9	39

Turn elbow

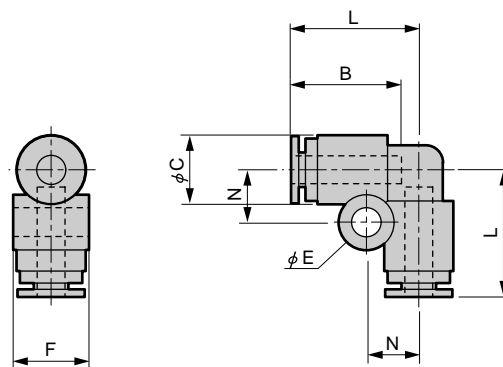
- GWL*-*-T



Model no.	Applicable tube O.D. φ	M	H	L ₁	L ₂	A	B	C	D	E	Effective sectional area mm ²
GWL 4-M5-T	4	M5 x 0.8	8	21.5	18.5	10	3.4	10	3	10.5	2.8
GWL 4- 6-T	4	R1/8	8	23	26	13	8	10	3	15	3.7
GWL 4- 8-T	4	R1/4	10	24	30	15	11	10	3.5	18	3.7
GWL 6-M5-T	6	M5 x 0.8	8	22.5	18.5	10	3.4	12.5	3	10.5	3.4
GWL 6- 6-T	6	R1/8	8	24	26	13	8	12.5	3	15	7.5
GWL 6- 8-T	6	R1/4	10	25	30	15	11	12.5	3.5	18	8
GWL 6-10-T	6	R3/8	14	27.5	36.5	20	12	12.5	4	21.5	9
GWL 8- 6-T	8	R1/8	10	26.5	29	15	8	14.5	4	16	16.5
GWL 8- 8-T	8	R1/4	12	28	32	17.6	11	14.5	4	19	17
GWL 8-10-T	8	R3/8	14	29	36.5	20	12	14.5	4	21.5	19
GWL10- 8-T	10	R1/4	14	31.5	35.5	20	11	17.5	4	20.5	24
GWL10-10-T	10	R3/8	14	31.5	36.5	20	12	17.5	4	21.5	24
GWL10-15-T	10	R1/2	17	34	42.5	25	15	17.5	4	25.7	27
GWL12- 8-T	12	R1/4	17	35.5	38.5	25	11	20	4	21.7	32
GWL12-10-T	12	R3/8	17	35.5	39.5	25	12	20	4	22.7	32
GWL12-15-T	12	R1/2	17	35.5	42.5	25	15	20	4	25.7	32

Elbow

- GWL*-0



Model no.	Applicable tube O.D. φ	L	B	C	N	E	F	Min. bore size	Effective sectional area mm ²
GWL 4-0	4	18.5	16	10	7.5	4.2	11	2.5	3
GWL 6-0	6	21	17.5	12.5	8.5	4.2	13.5	4	7.5
GWL 8-0	8	23.5	19	14.5	9.5	4.2	15.5	6	17
GWL10-0	10	27	21.5	17.5	11	4.2	18.5	8	25.5
GWL12-0	12	29.5	23	20	12	4.2	21	10	34
GWL16-0	16	37	28	26.5	12.5	4.2	28	13.2	80

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane dryer
- Air filter
- Auto. drain / others
- F.R.L. (Module unit)
- F.R.L. (Separate)
- Compact F.R.
- Precise regulator
- F.R.L. (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum filter
- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact cont. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)

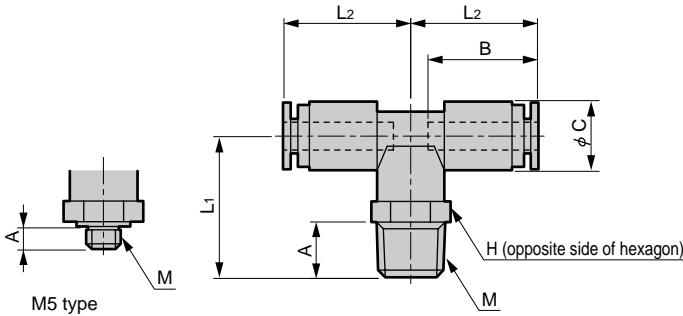
Joint
Joint/tube



Dimensions: Both push-in branch / D tee union / tee union / Y types tee union

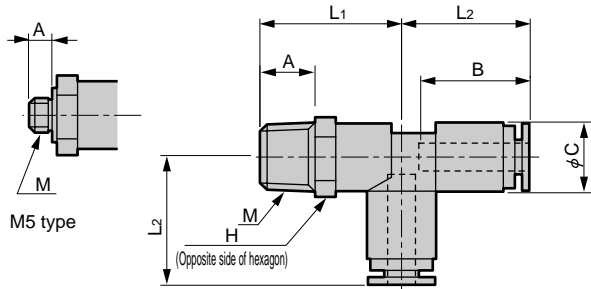
Both push-in branch

● GWT*-*



D type tee union

● GWT*-*-D

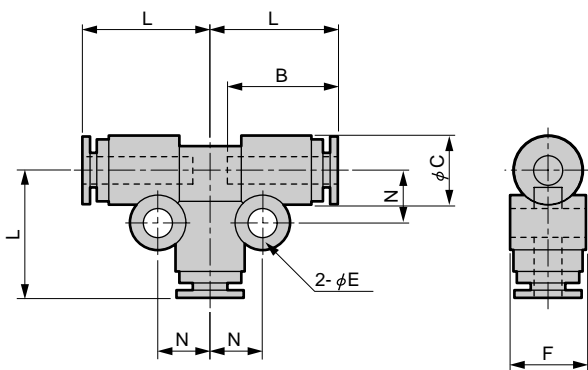


Model no.	Applicable tube O.D. ϕ	M	H	L ₁	L ₂	A	B	C	Min. bore size	Effective sectional area mm ²
GWT 4-M5	M5 x 0.8	10	16.5	18.5	3.4	16	10	2.5	2.5	4.3
GWT 4-6	R1/8	10	20.5	18.5	8	16	10	2.5	2.5	4.3
GWT 4-8	R1/4	14	24	18.5	11	16	10	2.5	2.5	4.3
GWT 6-M5	M5 x 0.8	12	20	21	3.4	17.5	12.5	2.5	2.5	4.3
GWT 6-6	R1/8	12	24	21	8	17.5	12.5	4	4	10.5
GWT 6-8	R1/4	14	27.5	21	11	17.5	12.5	4	4	10.5
GWT 6-10	R3/8	17	29	21	12	17.5	12.5	4	4	10.5
GWT 8-6	R1/8	14	25.5	23.5	8	19	14.5	6	6	23.5
GWT 8-8	R1/4	14	28.5	23.5	11	19	14.5	6	6	23.5
GWT 8-10	R3/8	17	30	23.5	12	19	14.5	6	6	23.5
GWT10-8	R1/4	17	31	27	11	21.5	17.5	8	8	33.5
GWT10-10	R3/8	17	32.5	27	12	21.5	17.5	8	8	33.5
GWT10-15	R1/2	22	35.5	27	15	21.5	17.5	8	8	33.5
GWT12-8	R1/4	19	33	29.5	11	23	20	8.5	8.5	37
GWT12-10	R3/8	19	34.5	29.5	12	23	20	9	9	41
GWT12-15	R1/2	22	37.5	29.5	15	23	20	9	9	41

Model no.	Applicable tube O.D. ϕ	M	H	L ₁	L ₂	A	B	C	Min. hole dia.	Effective sect. area mm ²
GWT 4-M5-D	M5 x 0.8	10	16.5	18.5	3.4	16	10	2.5	2.5	4.3
GWT 4-6-D	R1/8	10	20.5	18.5	8	16	10	2.5	2.5	4.3
GWT 4-8-D	R1/4	14	24	18.5	11	16	10	2.5	2.5	4.3
GWT 6-M5-D	M5 x 0.8	12	19.5	21	3.4	17.5	12.5	2.5	2.5	4.3
GWT 6-6-D	R1/8	12	24	21	8	17.5	12.5	4	4	10.5
GWT 6-8-D	R1/4	14	27.5	21	11	17.5	12.5	4	4	10.5
GWT 6-10-D	R3/8	17	29	21	12	17.5	12.5	4	4	10.5
GWT 8-6-D	R1/8	14	25.5	23.5	8	19	14.5	6	6	23.5
GWT 8-8-D	R1/4	14	28.5	23.5	11	19	14.5	6	6	23.5
GWT 8-10-D	R3/8	17	30	23.5	12	19	14.5	6	6	23.5
GWT10-8-D	R1/4	17	31	27	11	21.5	17.5	8	8	33.5
GWT10-10-D	R3/8	17	32.5	27	12	21.5	17.5	8	8	33.5
GWT10-15-D	R1/2	22	35.5	27	15	21.5	17.5	8	8	33.5
GWT12-8-D	R1/4	19	33	29.5	11	23	20	8.5	8.5	37
GWT12-10-D	R3/8	19	34.5	29.5	12	23	20	9	9	41
GWT12-15-D	R1/2	22	37.5	29.5	15	23	20	9	9	41

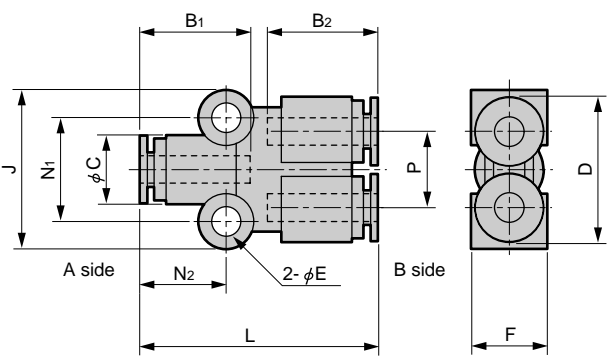
Tee union

● GWT*-0



Y type tee union

● GWY*-0



Model no.	Applicable tube O.D. ϕ	L	B	C	E	F	N	Min. bore size	Effective sectional area mm ²
GWT 4-0	4	18.5	16	10	4.2	11	7.5	2.5	3.6
GWT 6-0	6	21	17.5	12.5	4.2	13.5	8.5	4	9.7
GWT 8-0	8	23.5	19	14.5	4.2	15.5	9.5	6	22
GWT10-0	10	27	21.5	17.5	4.2	18.5	11	8	30
GWT12-0	12	29.5	23	20	4.2	21	12	10	35.5

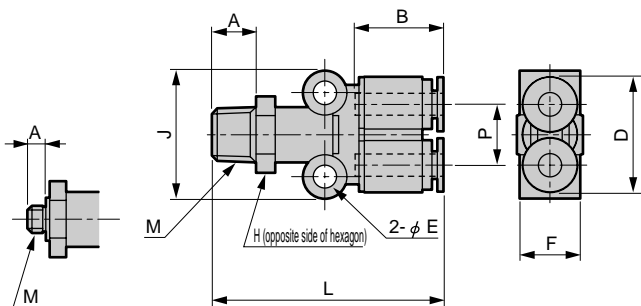
Model no.	Applicable tube O.D. ϕ		L	B ₁	B ₂	C	D	E	F	J	N ₁	N ₂	P	Effective sect. area mm ²
	A side	B side												
GWY 44-0	4	4	34.5	16	16	10	21	4.2	11	23	15	12.5	11	3.6
GWY 66-0	6	6	37.5	17.5	17.5	12.5	26	4.2	13.5	25.5	17.5	14	13.5	10.5
GWY 88-0	8	8	40.5	19	19	14.5	30	4.2	15.5	27	19	15	15.5	23
GWY1010-0	10	10	48	21.5	21.5	17.5	36	4.2	18.5	30	22	18	18.5	38
GWY1212-0	12	12	53	23	23	20	41	4.2	21	32	24	19.5	21	50
GWY 64-0	6	4	37.5	17.5	16	12.5	26	4.2	13.5	25.5	17.5	14	13.5	5.4
GWY 86-0	8	6	40.5	19	17.5	14.5	30	4.2	15.5	27	19	15	15.5	14.3
GWY 108-0	10	8	48	21.5	19	17.5	36	4.2	18.5	30	22	18	18.5	21.1
GWY1210-0	12	10	53	23	21.5	20	41	4.2	21	32	24	19.5	21	35.5



Dimensions: Both ports Y tee union / cross shaped / 2 port turn elbow / tetrapod shaped (with R)

Both ports Y tee union

● GWY*-*

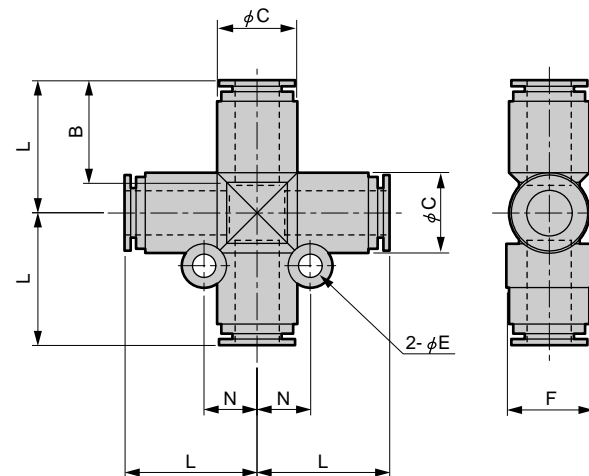


M5 type

Model no.	Applicable tube O.D. φ	M	H	L	A	B	D	E	F	J	P	Effective sect. area mm ²
GWY 4-M5	M5 x 0.8	12	38	3.4	16	21	4.2	11	23	11	4.5	
GWY 4-6	R1/8	12	42	8	16	21	4.2	11	23	11	5.5	
GWY 4-8	R1/4	14	45.5	11	16	21	4.2	11	23	11	5.5	
GWY 6-M5	M5 x 0.8	14	41	3.4	17.5	26	4.2	13.5	25.5	13.5	4.5	
GWY 6-6	R1/8	14	46	8	17.5	26	4.2	13.5	25.5	13.5	17.5	
GWY 6-8	R1/4	14	49	11	17.5	26	4.2	13.5	25.5	13.5	17.5	
GWY 6-10	R3/8	17	50.5	12	17.5	26	4.2	13.5	25.5	13.5	17.5	
GWY 8-6	R1/8	17	49	8	19	30	4.2	15.5	27	15.5	25.5	
GWY 8-8	R1/4	17	52	11	19	30	4.2	15.5	27	15.5	25.5	
GWY 8-10	R3/8	17	53.5	12	19	30	4.2	15.5	27	15.5	25.5	
GWY10-8	R1/4	19	59.5	11	21.5	36	4.2	18.5	30	18.5	35	
GWY10-10	R3/8	19	61	12	21.5	36	4.2	18.5	30	18.5	38.5	
GWY10-15	R1/2	22	64	15	21.5	36	4.2	18.5	30	18.5	38	
GWY12-8	R1/4	22	64.5	11	23	41	4.2	21	32	21	37	
GWY12-10	R3/8	22	66	12	23	41	4.2	21	32	21	37	
GWY12-15	R1/2	22	69	15	23	41	4.2	21	32	21	40.5	

Cross shaped

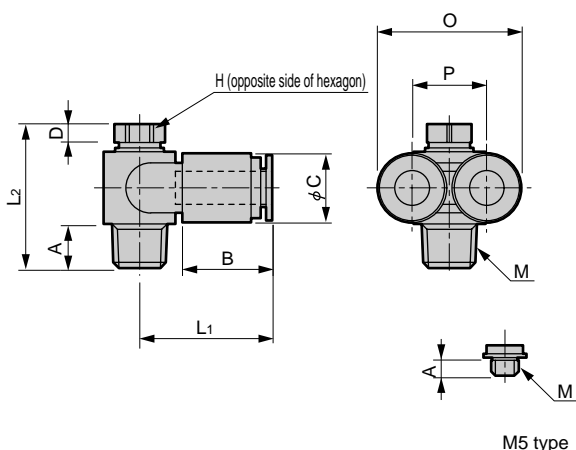
● GWCR*-*0



Model no.	Applicable tube O.D. φ	L	B	C	E	F	N	Min. bore size	Effective sectional area mm ²
GWCR 8-0	8	24	19	14.5	4.2	15.5	9.5	6	22
GWCR10-0	10	27.5	21.5	17.5	4.2	18.5	11	8	30.5
GWCR12-0	12	30	23	20	4.2	21	12	10	35.9

2 port turn elbow

● GWL*-*2T

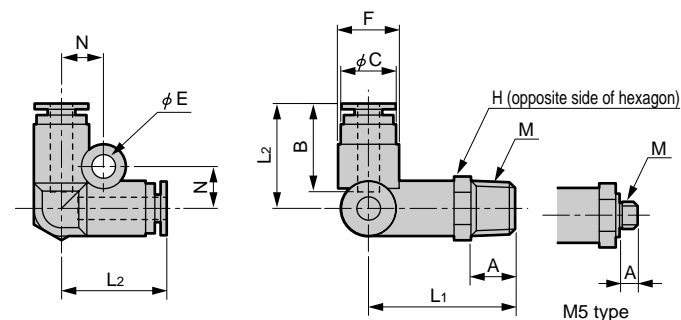


M5 type

Model no.	Applicable tube O.D. φ	M	H	L ₁	L ₂	A	B	C	D	O	P	Effective sect. area mm ²
GWL 4-M5-2T	M5 x 0.8	8	21.5	18.5	3.4	16	10	3	21	11	3.6	
GWL 6-6-2T	R1/8	8	24	26	8	17.5	12.5	3	26	13.5	8.5	
GWL 8-8-2T	R1/4	12	28	32	11	19	14.5	4	30	15.5	19	
GWL10-10-2T	R3/8	14	31.5	36.5	12	21.5	17.5	4	36	18.5	26	
GWL12-15-2T	R1/2	17	35.5	42.5	15	23	20	4	41	21	34	

Tetrapod shaped (with R)

● GWTR*-*



M5 type

Model no.	Applicable tube O.D. φ	M	H	L ₁	L ₂	A	B	C	E	F	N	Min. hole dia.	Effective sect. area mm ²
GWTR 4-M5	M5 x 0.8	10	22.5	19	3.4	16	10	4.2	11	7.5	2.5	4.3	
GWTR 4-6	R1/8	10	26.5	19	8	16	10	4.2	11	7.5	2.5	4.5	
GWTR 4-8	R1/4	14	30	19	11	16	10	4.2	11	7.5	2.5	4.5	
GWTR 6-M5	M5 x 0.8	14	25	21.5	3.4	17.5	12.5	4.2	13.5	8.5	2.5	4.3	
GWTR 6-6	R1/8	14	30	21.5	8	17.5	12.5	4.2	13.5	8.5	4	10.5	
GWTR 6-8	R1/4	14	33	21.5	11	17.5	12.5	4.2	13.5	8.5	4	10.5	
GWTR 6-10	R3/8	17	34.5	21.5	12	17.5	12.5	4.2	13.5	8.5	4	10.5	
GWTR 8-6	R1/8	17	32.5	24	8	19	14.5	4.2	15.5	9.5	6	23.5	
GWTR 8-8	R1/4	17	35.5	24	11	19	14.5	4.2	15.5	9.5	6	23.5	
GWTR 8-10	R3/8	17	37	24	12	19	14.5	4.2	15.5	9.5	6	23.5	
GWTR10-8	R1/4	19	39.5	27.5	11	21.5	17.5	4.2	18.5	13	8	35.5	
GWTR10-10	R3/8	19	41	27.5	12	21.5	17.5	4.2	18.5	13	8	35.5	
GWTR10-15	R1/2	22	44	27.5	15	21.5	17.5	4.2	18.5	13	8	35.5	
GWTR12-8	R1/4	22	41.5	30	11	23	20	4.2	21	14	8.5	37.5	
GWTR12-10	R3/8	22	43	30	12	23	20	4.2	21	14	8.5	37.5	
GWTR12-15	R1/2	22	46	30	15	23	20	4.2	21	14	8.5	37.5	

- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane dryer
- Air filter
- Auto. drain / others
- F.R.L. (Module unit)
- F.R.L. (Separate)
- Compact F.R.
- Precise regulator
- F.R.L. (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
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- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact cont. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)

Ending

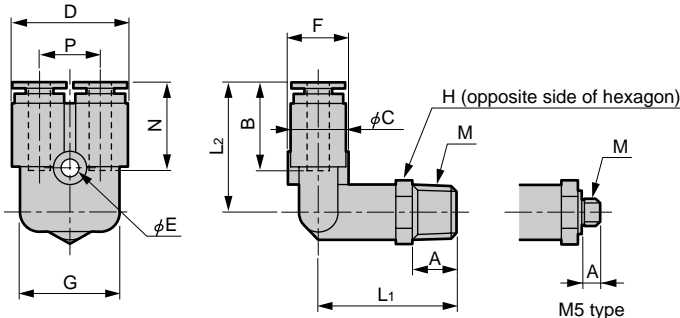
Joint
Joint/tube



Dimensions: FY type (with R) / double Y type (with R) / terapod shaped / FY type

FY type (with R)

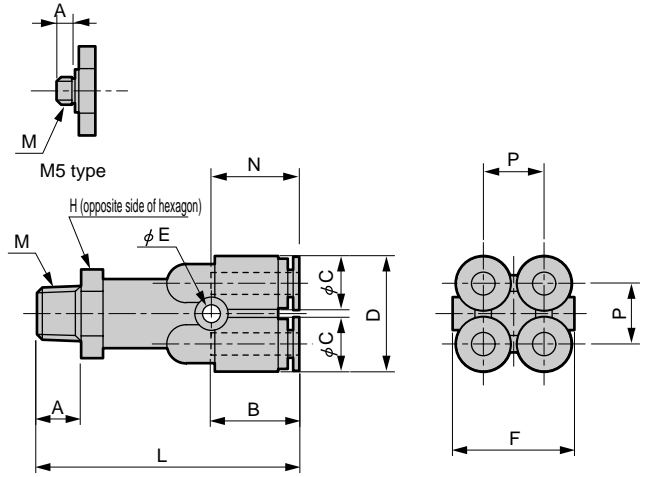
- GWFY*-*



Model no.	Applicable tube O.D. ϕ	M	H	L ₁	L ₂	A	B	C	D	E	F	G	N	P	Min. hole dia.	Effective sect. area mm ²
GWFY 4-M5	M5 x 0.8	10	21	23.5	3.4	16	10	21	3.2	11	18	15.5	11	2.5	4.5	
GWFY 4-6	R1/8	10	25	23.5	8	16	10	21	3.2	11	18	15.5	11	2.5	4.6	
GWFY 4-8	R1/4	14	28.5	23.5	11	16	10	21	3.2	11	18	15.5	11	2.5	4.6	
GWFY 6-M5	M5 x 0.8	14	23	27	3.4	17.5	12.5	26	4.2	13.5	22.5	17	13.5	2.5	4.5	
GWFY 6-6	R1/8	14	28	27	8	17.5	12.5	26	4.2	13.5	22.5	17	13.5	4	10.5	
GWFY 6-8	R1/4	14	31	27	11	17.5	12.5	26	4.2	13.5	22.5	17	13.5	4	10.5	
GWFY 6-10	R3/8	17	32.5	27	12	17.5	12.5	26	4.2	13.5	22.5	17	13.5	4	10.5	
GWFY 8-6	R1/8	17	30.5	29	8	19	14.5	30	4.2	15.5	26.5	18	15.5	6	23	
GWFY 8-8	R1/4	17	33.5	29	11	19	14.5	30	4.2	15.5	26.5	18	15.5	6	23	
GWFY 8-10	R3/8	17	35	29	12	19	14.5	30	4.2	15.5	26.5	18	15.5	6	23	
GWFY10-8	R1/4	19	37.5	33	11	21.5	17.5	36	4.2	18.5	31.5	20	18.5	8	34.4	
GWFY10-10	R3/8	19	39	33	12	21.5	17.5	36	4.2	18.5	31.5	20	18.5	8	34.4	
GWFY10-15	R1/2	22	42	33	15	21.5	17.5	36	4.2	18.5	32.5	20	18.5	8	34.4	
GWFY12-8	R1/4	22	39.5	35.5	11	23	20	41	4.2	21	37	21.5	21	8.5	37.5	
GWFY12-10	R3/8	22	41	35.5	12	23	20	41	4.2	21	37	21.5	21	8.5	37.5	
GWFY12-15	R1/2	22	44	35.5	15	23	20	41	4.2	21	37	21.5	21	8.5	37.5	

Double Y type (with R)

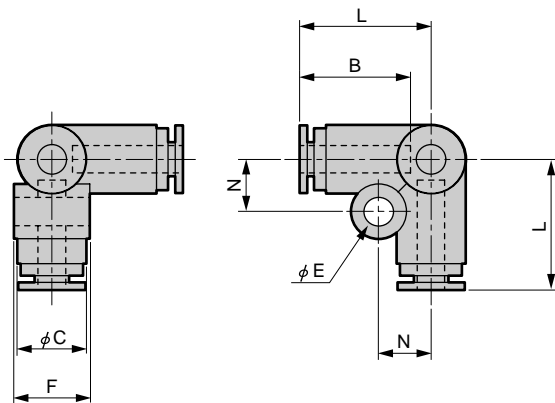
- GWWY*-*



Model no.	Applicable tube O.D. ϕ	M	H	L	A	B	C	D	E	F	N	P	Effective sect. area mm ²
GWWY4-M5	M5 x 0.8	14	42.5	3.4	16	10	21	3.2	22	15.5	11	4.3	
GWWY4-6	R1/8	14	47.5	8	16	10	21	3.2	22	15.5	11	9.7	
GWWY4-8	R1/4	14	50.5	11	16	10	21	3.2	22	15.5	11	9.7	
GWWY6-M5	M5 x 0.8	17	46.5	3.4	17.5	12.5	26	3.2	27	17	13.5	4.3	
GWWY6-6	R1/8	17	51.5	8	17.5	12.5	26	3.2	27	17	13.5	23	
GWWY6-8	R1/4	17	54.5	11	17.5	12.5	26	3.2	27	17	13.5	23	
GWWY6-10	R3/8	17	56	12	17.5	12.5	26	3.2	27	17	13.5	23	

Tetrapod shaped

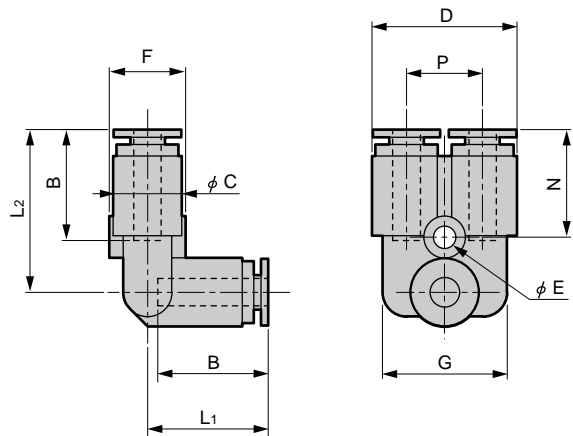
- GWTR*-0



Model no.	Applicable tube O.D. ϕ	L	B	C	E	F	N	Min. bore size	Effective sectional area mm ²
GWTR 4-0	4	19	16	10	4.2	11	7.5	2.5	4
GWTR 6-0	6	21.5	17.5	12.5	4.2	13.5	8.5	4	9.5
GWTR 8-0	8	24	19	14.5	4.2	15.5	9.5	6	12.5
GWTR10-0	10	27.5	21.5	17.5	4.2	18.5	13	8	29.5
GWTR12-0	12	30	23	20	4.2	21	14	10	35.5

FY type

- GWFY*-0

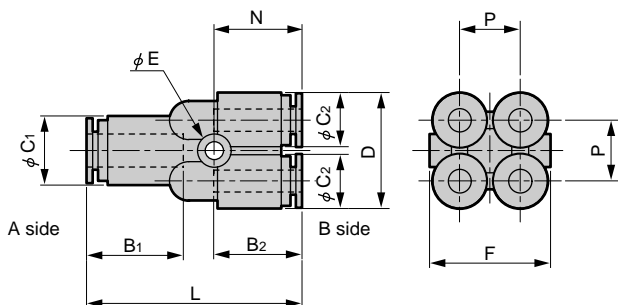


Model no.	Applicable tube O.D. ϕ	L ₁	L ₂	B	C	D	E	F	G	N	P	Min. hole dia.	Effective sect. area mm ²
GWFY 4-0	4	17.5	23.5	16	10	21	3.2	11	18	15.5	11	2.5	4
GWFY 6-0	6	19.5	27	17.5	12.5	26	4.2	13.5	22.5	17	13.5	4	10
GWFY 8-0	8	22	29	19	14.5	30	4.2	15.5	26.5	18	15.5	6	21
GWFY10-0	10	25.5	33	21.5	17.5	36	4.2	18.5	31.5	20	18.5	8	29
GWFY12-0	12	28	35.5	23	20	41	4.2	21	37	21.5	21	10	35.5

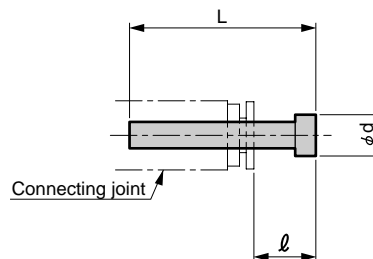


Dimensions: Double Y / blanking plug / L plug / C types plug

Double Y type
● GWWY*-0



Blanking plug
● GWP*-B



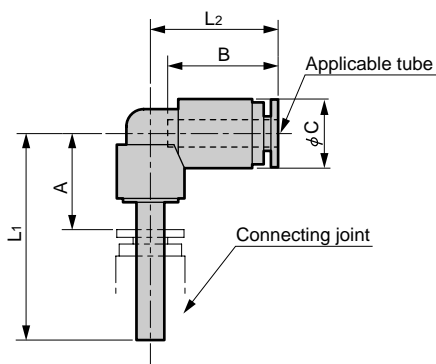
Model no.	Applicable tube O.D. phi		L	B ₁	B ₂	C ₁	C ₂	D	E	F	N	P	Effective sect. area mm ²
	A side	B side											
GWWY64-0	6	4	39	17.5	16	12.5	10	21	3.2	22	15.5	11	9
GWWY86-0	8	6	43	19	17.5	14.5	12.5	26	3.2	27	17	13.5	22

Material: Polyamide resin

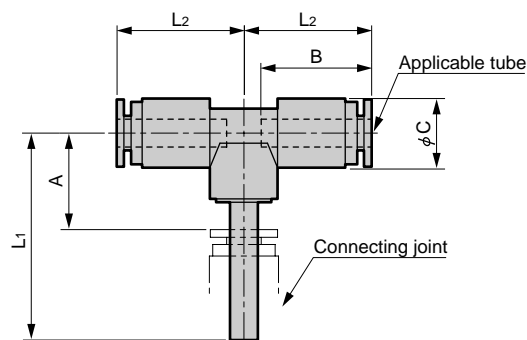
Model no.	Joint port size phi	L	l*	d
GWJP 3-B	3.2	23.5	11	5
GWP 4-B	4	27	11	6
GWP 6-B	6	29	11.5	8
GWP 8-B	8	33	14	10
GWP10-B	10	40	18.5	12
GWP12-B	12	43	20	14
GWP16-B	16	51	23	21

* For connecting joint, dimension of CKD (GW Series) are shown.

L type plug
● GWP*-L



C type plug
● GWP*-C



Model no.	Applicable tube O.D. phi	Joint port size phi	L ₁	L ₂	A*	B	C	Min. bore size	Effective sectional area mm ²
GWP 44-L	4	4	30	18.5	14	16	10	1.7	2.1
GWP 46-L		6	31	18.5	13.5	16	10	1.7	2.1
GWP 48-L		8	32.5	18.5	13.5	16	10	1.7	2.1
GWP 66-L	6	6	34	21	16.5	17.5	12.5	3.4	6.7
GWP 68-L		8	35.5	21	16.5	17.5	12.5	3.4	6.7
GWP 610-L		10	38	21	16.5	17.5	12.5	3.4	6.7
GWP 88-L	8	8	36.5	23.5	17.5	19	14.5	5.4	16.6
GWP 810-L		10	39	23.5	17.5	19	14.5	5.4	16.6
GWP 812-L		12	40	23.5	17	19	14.5	5.4	16.6
GWP1010-L		10	41.5	27	20	21.5	17.5	6.8	24.7
GWP1012-L	10	12	42.5	27	19.5	21.5	17.5	6.8	24.7
GWP1212-L		12	44.5	29.5	21.5	23	20	8.8	34

* For connecting joint, dimension of CKD (GW Series) are shown.

Model no.	Applicable tube O.D. phi	Joint port size phi	L ₁	L ₂	A*	B	C	Min. bore size	Effective sectional area mm ²
GWP 44-C	4	4	30	18.5	14	16	10	1.7	2.4
GWP 46-C		6	31	18.5	13.5	16	10	1.7	2.4
GWP 48-C		8	32.5	18.5	13.5	16	10	1.7	2.4
GWP 66-C	6	6	34	21	16.5	17.5	12.5	3.4	7.3
GWP 68-C		8	35.5	21	16.5	17.5	12.5	3.4	7.3
GWP 610-C		10	38	21	16.5	17.5	12.5	3.4	7.3
GWP 88-C	8	8	36.5	23.5	17.5	19	14.5	5.4	19.3
GWP 810-C		10	39	23.5	17.5	19	14.5	5.4	19.3
GWP 812-C		12	40	23.5	17	19	14.5	5.4	19.3
GWP1010-C		10	41.5	27	20	21.5	17.5	6.8	28.6
GWP1012-C	10	12	42.5	27	19.5	21.5	17.5	6.8	28.6
GWP1212-C		12	44.5	29.5	21.5	23	20	8.8	35.5

* For connecting joint, dimension of CKD (GW Series) are shown.

Refrigerating type dryer
Desiccant type dryer
High polymer membrane dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)

Ending

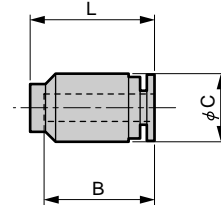
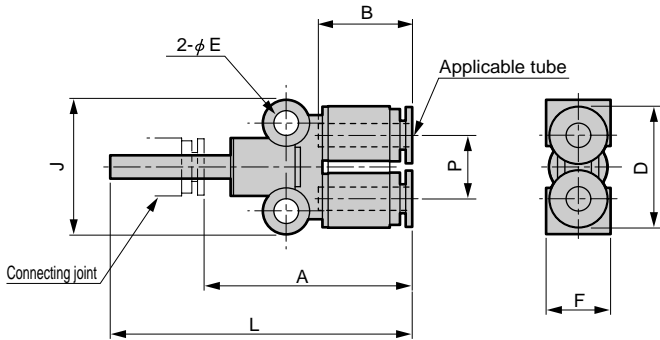
Joint
Joint/tube



Dimensions: Y type plug / cap / manifold (single with R) / manifold (single)

Y type plug
● GWP*-Y

Cap
● GWC*



Model no.	Applicable tube O.D. φ	Joint port size φ	L	A*	B	D	E	F	J	P	Min. bore size	Effective sectional area mm ²
GWP 44-Y	4	4	51.5	35.5	16	21	4.2	11	23	11	1.7	2.1
GWP 46-Y		6	52.5	35	16	21	4.2	11	23	11	2.5	5.8
GWP 48-Y		8	54	35	16	21	4.2	11	23	11	2.5	5.8
GWP 66-Y	6	6	55.5	38	17.5	26	4.2	13.5	25.5	13.5	3.9	9.1
GWP 68-Y		8	57	38	17.5	26	4.2	13.5	25.5	13.5	4	15.9
GWP 610-Y		10	59.5	38	17.5	26	4.2	13.5	25.5	13.5	4	15.9
GWP 88-Y	8	8	60	41	19	30	4.2	15.5	27	15.5	5.9	22.2
GWP 810-Y		10	62.5	41	19	30	4.2	15.5	27	15.5	6	24.9
GWP 812-Y		12	63.5	40.5	19	30	4.2	15.5	27	15.5	6	24.9
GWP1010-Y	10	10	70	48.5	21.5	36	4.2	18.5	30	18.5	6.8	28.2
GWP1012-Y		12	71	48	21.5	36	4.2	18.5	30	18.5	8	35.5
GWP1212-Y		12	76	53	23	41	4.2	21	32	21	8.8	36.3

Model no.	Applicable tube O.D. φ	B	φC	L
GWC 4	4	16	10	18
GWC 6	6	17.5	12.5	19.5
GWC 8	8	19	14.5	21
GWC10	10	21.5	17.5	24
GWC12	12	23	20	26

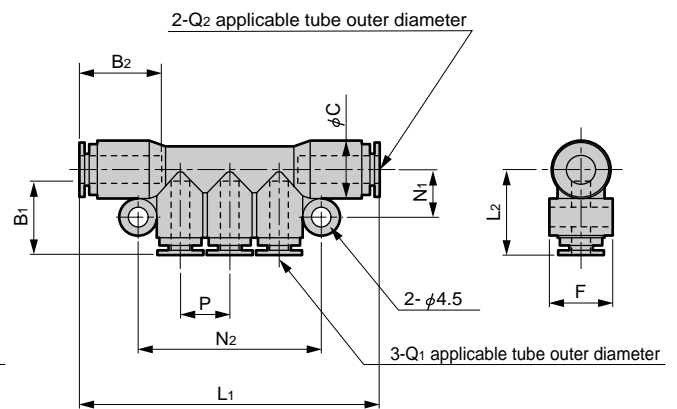
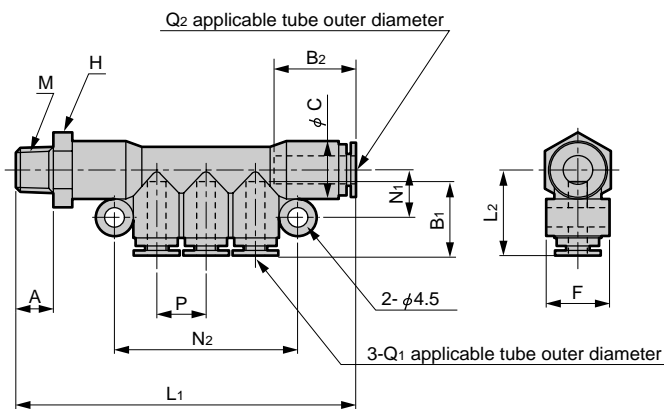
* For connecting joint, dimension of CKD (GW Series) are shown.

Manifold (single with R)

● GWMF*-*

Manifold (single solenoid)

● GWMF*-0



Model no.	*		M	H	L1	L2	A	B1	B2	C	F	N1	N2	P	Effective sect. area mm ²
	Q1	Q2													
GWMF 46- 6	4	6	R1/8	14	72.5	18.5	8	16	17.5	12.5	13.5	10.5	39	10.5	8.3
GWMF 48- 8	4	8	R1/4	17	77.5	19.5	11	16	19	14.5	15.5	11.5	39	10.5	24.2
GWMF 68- 8	6	8	R1/4	17	84.5	21	11	17.5	19	14.5	15.5	11.5	46.5	13	24.2
GWMF610-10	6	10	R3/8	19	91.5	22	12	17.5	21.5	17.5	18.5	13	46.5	13	35.5
GWMF810-10	8	10	R3/8	19	97.5	23.5	12	19	21.5	17.5	18.5	13	52.5	15	35.5

Model no.	*		L1	L2	B1	B2	C	F	N1	N2	P	Effective sect. area mm ²
	Q1	Q2										
GWMF 46-0	4	6	64	18.5	16	18.5	12.5	13.5	10.5	39	10.5	7.9
GWMF 48-0	4	8	66	19.5	16	19.5	14.5	15.5	11.5	39	10.5	22
GWMF 68-0	6	8	73	21	17.5	21	14.5	15.5	11.5	46.5	13	22
GWMF610-0	6	10	78.5	22	17.5	22	17.5	18.5	13	46.5	13	30
GWMF810-0	8	10	84.5	23.5	19	23.5	17.5	18.5	13	52.5	15	30

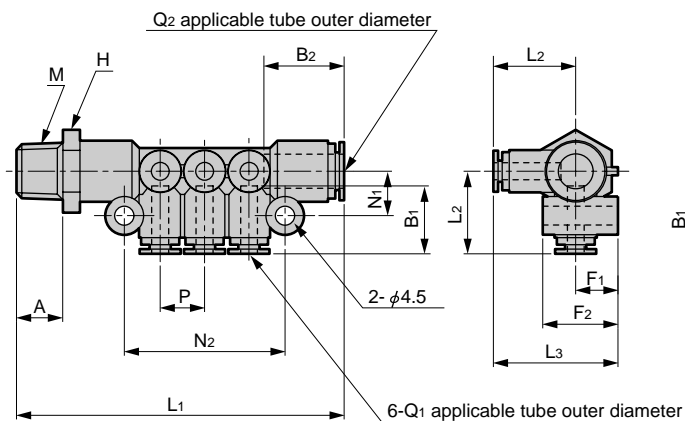
* Applicable tube O.D. φ



Dimensions: Manifold (double with R) / manifold (double) / insert ring

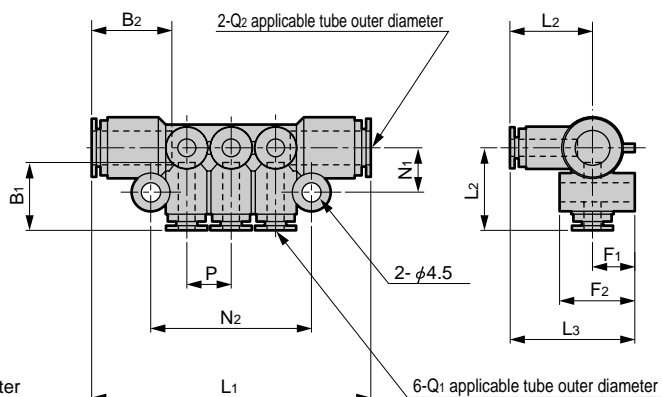
Manifold (double with R)

- GWMF*-*-W



Manifold (double solenoid)

- GWMF*-0-W



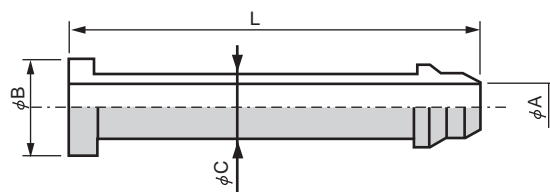
Model no.	Applicable tube O.D. φ		M	H	L ₁	L ₂	L ₃	A	B ₁	B ₂	F ₁	F ₂	N ₁	N ₂	P	Effective sect. area mm ²
	Q ₁	Q ₂														
GWMF 48-8-W	4	8	R1/4	17	77.5	19.5	29.5	11	16	19	10	17.5	10.5	38	10.5	24.3
GWMF 48-10-W	4	8	R3/8	17	79	19.5	29.5	12	16	19	10	17.5	10.5	38	10.5	23.5
GWMF610-10-W	6	10	R3/8	19	91.5	22	32	12	17.5	21.5	10	19.5	12	45	13	35.8
GWMF610-15-W	6	10	R1/2	19	94.5	22	32	15	17.5	21.5	10	19.5	12	45	13	35.8
GWMF812-10-W	8	12	R3/8	22	100	24.5	36	12	19	23	11.5	22	13	51	15	38.2
GWMF812-15-W	8	12	R1/2	22	103	24.5	36	15	19	23	11.5	22	13	51	15	38.2

Model no.	Applicable tube O.D. φ		L ₁	L ₂	L ₃	B ₁	B ₂	F ₁	F ₂	N ₁	N ₂	P	Effective sect. area mm ²
	Q ₁	Q ₂											
GWMF4 8-0-W	4	8	66	19.5	29.5	16	19	10	17.5	10.5	38	10.5	22
GWMF610-0-W	6	10	78.5	22	32	17.5	21.5	10	19.5	12	45	13	30.4
GWMF812-0-W	8	12	87	24.5	36	19	23	11.5	22	13	51	15	36

Insert ring (tube U-92* / U-95*) (custom order)

- INS-U*-1

Material: Brass + electroless nickeling



- Tube U-92* / U-95*

Model no.	φ A	φ B	φ C	L
INS-U32-1	1.1	2.2	1.7	12.7
INS-U04-1	1.1	3	1.8	17
INS-U06-1	3	5	3.8	18
INS-U08-1	4	7	4.8	21
INS-U10-1	5.5	9	6.3	23.5
INS-U12-1	7	11	7.8	25

* Tube NU is a custom order.

* Use insert ring if tube U-92*, U-95* or NU is used for a vacuum circuit.

Refrigerating type dryer
Desiccant type dryer
High polymer membrane dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

Joint / tube