Applicable tubing: Metric size/Connection thread: M, R

Male Connector

Applicable tubing O.D. (mm)	Connection thread	Model
ø4	M5	KQGH04-M5
	R1/8	KQGH04-01S
ø6	M5	KQGH06-M5
	R1/8	KQGH06-01S
	R1/4	KQGH06-02S
ø8	R1/8	KQGH08-01S
	R1/4	KQGH08-02S
	R3/8	KQGH08-03S
ø10	R1/4	KQGH10-02S
	R3/8	KQGH10-03S
ø12	R3/8	KQGH12-03S
	R1/2	KQGH12-04S

Hexagon Socket Head Male Connector

Applicable tubing O.D. (mm)	Connection thread	Model
ø4	M5	KQGS04-M5
	R1/8	KQGS04-01S
ø6	M5	KQGS06-M5
	R1/8	KQGS06-01S
	R1/4	KQGS06-02S
ø8	R1/8	KQGS08-01S
	R1/4	KQGS08-02S
	R3/8	KQGS08-03S
ø10	R1/4	KQGS10-02S
	R3/8	KQGS10-03S
ø12	R3/8	KQGS12-03S
	R1/2	KQGS12-04S

Straight Union

Applicable tubing O.D. (mm)	Model
ø4	KQGH04-00
ø6	KQGH06-00
ø8	KQGH08-00
ø10	KQGH10-00
ø12	KQGH12-00

Male Elbow

Applicable tubing O.D. (mm)	Connection thread	Model
ø4	M5	KQGL04-M5
	R1/8	KQGL04-01S
ø6	M5	KQGL06-M5
	R1/8	KQGL06-01S
	R1/4	KQGL06-02S
ø8	R1/8	KQGL08-01S
	R1/4	KQGL08-02S
	R3/8	KQGL08-03S
ø10	R1/4	KQGL10-02S
	R3/8	KQGL10-03S
ø12	R3/8	KQGL12-03S
	R1/2	KQGL12-04S

Union Elbow

Applicable tubing O.D. (mm)	Model
ø4	KQGL04-00
ø6	KQGL06-00
ø8	KQGL08-00
ø10	KQGL10-00
ø12	KQGL12-00

Male Branch Tee

Applicable tubing O.D. (mm)	Connection thread	Model
ø4	M5	KQGT04-M5
	R1/8	KQGT04-01S
ø6	M5	KQGT06-M5
	R1/8	KQGT06-01S
	R1/4	KQGT06-02S
ø8	R1/8	KQGT08-01S
	R1/4	KQGT08-02S
	R3/8	KQGT08-03S
ø10	R1/4	KQGT10-02S
	R3/8	KQGT10-03S
ø12	R3/8	KQGT12-03S
	R1/2	KQGT12-04S

Union Tee

Applicable tubing O.D. (mm)	Model
ø4	KQGT04-00
ø6	KQGT06-00
ø8	KQGT08-00
ø10	KQGT10-00
ø12	KQGT12-00

Union “Y”

Applicable tubing O.D. (mm)	Model
ø4	KQGU04-00
ø6	KQGU06-00
ø8	KQGU08-00
ø10	KQGU10-00
ø12	KQGU12-00

Bulkhead Union

Applicable tubing O.D. (mm)	Model
ø4	KQGE04-00
ø6	KQGE06-00
ø8	KQGE08-00
ø10	KQGE10-00
ø12	KQGE12-00

Stainless Steel 316 One-touch Fittings

Applicable tubing: Metric size/Connection thread: M, R

Series KQG

Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon Note 1), Polyurethane Note 2) Note 3), Polyolefin
Tubing O.D.	ø4, ø6, ø8, ø10, ø12

Specifications

Fluid	Air, Water, Steam Note 3) Note 4)
Operating pressure range Note 5)	–100 kPa to 1 MPa
Proof pressure	3.0 MPa
Ambient and fluid temperature Note 6)	–5 to 150°C (No freezing)
Lubricant	Grease-free specification
Seal on the threads	With sealant

Note 1) For soft nylon tubing, water cannot be used.
Note 2) The pulling strength of polyurethane tube is as follows. The pulling load of the tube used for verifying the mounting of the tube within the fitting should be the values as shown or less in the table below. As reference, the thrust force occurring between the tube and the fitting at 0.8 MPa is shown on the table below.

Pulling Strength

Model	TU0425	TU0604	TU0805	TU1065	TU1208
Without inner sleeve	50 N	80 N	110 N	140 N	140 N
With inner sleeve	160 N	180 N	250 N	450 N	500 N

Reference: Thrust Force Occurring at 0.8 MPa

Model	TU0425	TU0604	TU0805	TU1065	TU1208
Load	10 N	25 N	40 N	65 N	90 N

Note 3) Please consult with SMC regarding applicable tube separately.
Note 4) Special FKM that is resistant even when steam is used.
Note 5) Please avoid using in a vacuum holding application such as a leak tester, since there is leakage.
Note 6) It is recommended that you use the inner sleeve in the following conditions:
- When using in an environment where the fluid temperature changes drastically.
- When using at a high temperature.

Temperature Conditions

Operating tube	Temperature
FEP tubing/TH series	80°C or more
PFA tubing/TL series	120°C or more

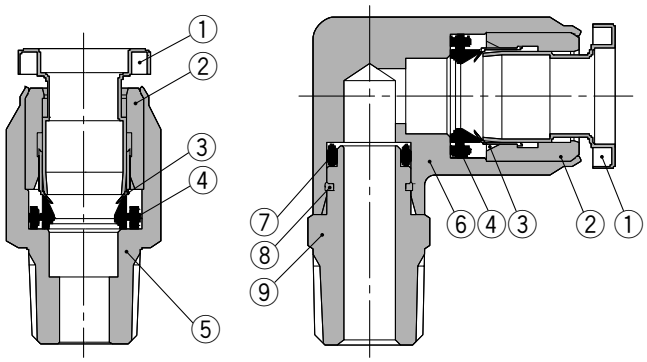
Tube size		Tubing model (Material)				Applicable inner sleeve	
O.D.	Model	**TU** (Polyurethane)	**TUS** (Soft polyurethane)	**TH** (FEP)	**TL** (PFA)	Model	Length (mm)
ø4	0402	—	—	●	—	**TJG-0402**	18
	0425	●	●	●	—	**TJG-0425**	18
	0403	—	—	—	●	**TJG-0403**	18
ø6	0604	●	●	●	●	**TJG-0604**	19
ø8	0805	●	●	—	—	**TJG-0805**	20.5
	0806	—	—	●	●	**TJG-0806**	20.5
ø10	1065	●	●	—	—	**TJG-1065**	23
	1075	—	—	●	—	**TJG-1075**	23
	1008	—	—	●	●	**TJG-1008**	23
ø12	1208	●	●	—	—	**TJG-1208**	24
	1209	—	—	●	—	**TJG-1209**	24
	1210	—	—	●	●	**TJG-1210**	24

∗ Material for the TJG series is stainless steel 316.

Spare Parts

Description	Model	Material
Gasket	**M-5G3**	Stainless steel 316, Special FKM
Bulkhead nut	**KQG04-P01**	Stainless steel 316
	KQG06-P01	
	KQG08-P01	
	KQG10-P01	
	KQG12-P01	

Construction



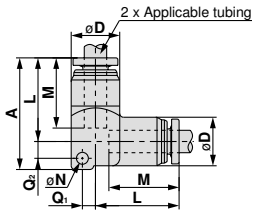
No.	Description	Material
1	**Release bushing**	Stainless steel 316
2	**Guide**	Stainless steel 316
3	**Chuck**	Stainless steel 316
4	**Seal**	Special FKM (Fluoro coated)
5	**Male connector body**	Stainless steel 316
6	**Male elbow body**	Stainless steel 316
7	**O-ring**	Special FKM (Fluoro coated)
8	**Stopper ring**	Stainless steel 316
9	**Stud**	Stainless steel 316

Dimensions

Union Elbow: KQGL

Applicable tubing O.D. (mm)	Model	Note 1) øD	L	A	Q_1	Q_2	M	øN	Effective area Note 2) (mm^2)	Weight (g)
ø4	KQGL04-00	10.6	20.6	27.3	2.3	3.7	18	3.2	4.2	21
ø6	KQGL06-00	13	22.4	28.9	3.5	3.5	18.8		9	32
ø8	KQGL08-00	15	25.5	35.1		5.6	20.9		21.6	49
ø10	KQGL10-00	18	28.6	38.2	5		23	4.2	35.2	76
ø12	KQGL12-00	20.8	31.4	41.8	6.4	6.4	24.8		50.2	108

Note 1) øD is maximum diameter.
Note 2) Figures shown when using FEP tubing

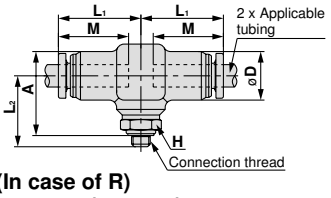


Male Branch Tee: KQGT

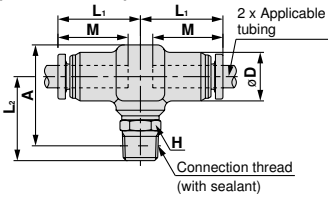
Applicable tubing O.D. (mm)	Connection thread R	Model	H (Width across flats)	Note 1) øD	L_1	L_2	A*	M	Effective area Note 2) (mm^2)	Weight (g)
ø4	M5 x 0.8	KQGT04-M5	10	10.6	20.5	18	23.1	18	4.5	26
	1/8	KQGT04-01S				21.5	25.6		6	27
ø6	M5 x 0.8	KQGT06-M5		13	22.1	19	25	18.8	4.5	39
	1/8	KQGT06-01S				22.5	27.5		11	41
	1/4	KQGT06-02S	14			26.5	29.5			50
ø8	1/8	KQGT08-01S	12	15	24.9	23.9	30.7	20.9	26.3	61
	1/4	KQGT08-02S	14			27.9	32.7			70
	3/8	KQGT08-03S				29.9	34.4			83
ø10	1/4	KQGT10-02S	17	18	27.8	29.7	35.7	23	40.8	97
	3/8	KQGT10-03S				31.7	37.4			101
ø12	3/8	KQGT12-03S		20.8	31.3	32.7	39.5	24.8	57.2	133
	1/2	KQGT12-04S	22			36.7	41.6			159

∗ Reference dimensions after installation of R thread
Note 1) øD is maximum diameter.
Note 2) Figures shown when using FEP tubing

(In case of M5)



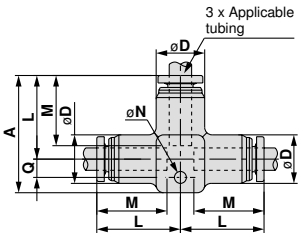
(In case of R)



Union Tee: KQGT

Applicable tubing O.D. (mm)	Model	Note 1) øD	L	A	Q	M	øN	Effective area Note 2) (mm^2)	Weight (g)
ø4	KQGT04-00	10.6	20.6	28.7	4.1	18	3.2	6.4	28
ø6	KQGT06-00	13	22.4	31.4	4.9	18.8		10.6	42
ø8	KQGT08-00	15	25.5	36.3	6.1	20.9		25.6	57
ø10	KQGT10-00	18	28.6	40.6	7.1	23	4.2	40	95
ø12	KQGT12-00	20.8	31.4	44.5	8.1	24.8		57.4	129

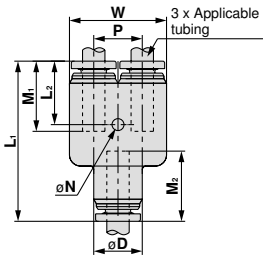
Note 1) øD is maximum diameter.
Note 2) Figures shown when using FEP tubing



Union "Y": KQGU

Applicable tubing O.D. (mm)	Model	Note 1) øD	W	L_1	L_2	P	M_1	M_2	Effective area Note 2) (mm^2)	Weight (g)
ø4	KQGU04-00	10.6	21.2	41	16.8	10.6	18	17	4.2	35
ø6	KQGU06-00	13	26	42.9	17	13	18.8	17.8	10.6	54
ø8	KQGU08-00	15	30	47.7	18.7	15	20.9	19.9	25.6	75
ø10	KQGU10-00	18	36	52.8	20.5	18	23	22	40	114
ø12	KQGU12-00	20.8	41.6	57.8	21.9	21	24.8	23.8	57.4	175

Note 1) øD is maximum diameter.
Note 2) Figures shown when using FEP tubing



Bulkhead Union: KQGE

Applicable tubing O.D. (mm)	Model	T (M)	H (Width across flats)	L	Mounting hole	M	Effective area Note) (mm^2)	Weight (g)
ø4	KQGE04-00	M12X1	14	37	13	18	5.6	21
ø6	KQGE06-00	M14X1	17	38	15	18.5	10.4	29
ø8	KQGE08-00	M16X1	19	42.8	17	20.9	26.1	40
ø10	KQGE10-00	M20X1	24	47	21	23	41.5	71
ø12	KQGE12-00	M22X1	27	50.6	23	24.8	58.3	95

Note) Figures shown when using FEP tubing