

Stainless Steel 316 One-touch Fittings

Applicable Tube: Metric Size, Connection Thread: M, R, Rc

Series *KQG2*

RoHS



Applicable Tube

Tube material	FEP, PFA, Nylon, Soft nylon ^{Note 1)} , Polyurethane, Polyolefin
Tube O.D.	ø3.2, ø4, ø6, ø8, ø10, ø12, ø16

Specifications

Fluid	Air, Water, Steam ^{Note 2)}
Operating pressure range ^{Note 3)}	–100 kPa to 1 MPa ^{Note 4)}
Proof pressure	3.0 MPa
Ambient and fluid temperature ^{Note 5)}	–5 to 150°C (No freezing) ^{Note 4)}
Lubricant	Grease-free specification
Seal on the threads	With sealant

Note 1) For soft nylon tube, water cannot be used.

Note 2) Consult with SMC regarding applicable tube separately.

Note 3) Avoid using in a vacuum holding application such as a leak tester, since there is leakage.

Note 4) Check the operating pressure range and operating temperature range of the tube.

Note 5) It is recommended that you use the inner sleeve in the following conditions (Except ø3.2):

- When using in an environment where the fluid temperature changes drastically.
- When using at a high temperature.

* Temperature Condition of Mounting the Inner Sleeve

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

Spare Parts

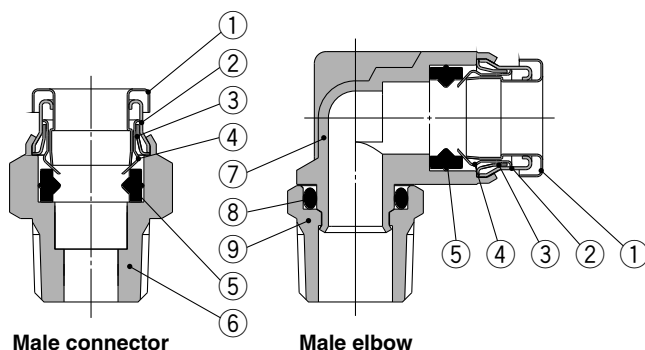
Description	Tube O.D.	Part no.	Material
Gasket	—	M-5G3	Stainless steel 316, Special FKM
Bulkhead nut	ø3.2, ø4	KQG223-P01	Stainless steel 316
	ø6	KQG206-P01	
	ø8	KQG208-P01	
	ø10	KQG210-P01	
	ø12	KQG212-P01	
	ø16	KQG216-P01	

Cross Reference Table of the Inner Sleeve

Tube O.D.	Tube material			Applicable inner sleeve	
	TUS (Soft polyurethane)	TH/THI (FEP)	TL/TIL (PFA)	Part no.	Length
ø4	—	TH0402	—	TJG-0402	18
	TUS0425	TH0425	—	TJG-0425	18
	—	—	TL0403	TJG-0403	18
ø6	TUS0604	TH0604	TL0604	TJG-0604	19
	TUS0805	—	—	TJG-0805	20.5
	—	TH0806	TL0806	TJG-0806	20.5
ø10	TUS1065	—	—	TJG-1065	23
	—	TH1075	—	TJG-1075	23
	—	TH1008	TL1008	TJG-1008	23
ø12	TUS1208	—	—	TJG-1208	24
	—	TH1209	—	TJG-1209	24
	—	TH1210	TL1210	TJG-1210	24

* Stainless steel 316 is used for the TJG series.

Construction



Component Parts

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

Dimensions

Male Elbow: KQG2L

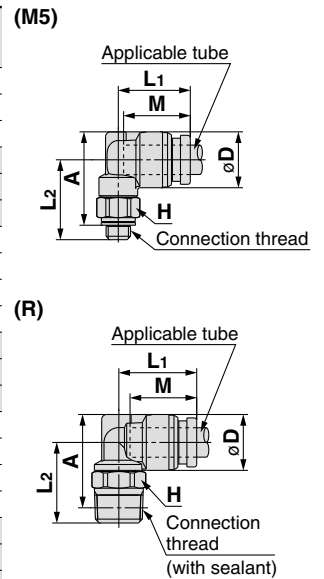
Applicable tube O.D. (mm)	Connection thread R, M	Model	H (Width across flat)	Note 1) ϕD	L1	L2	A*	M	Note 2) Effective area (mm ²)	Weight (g)
$\phi 3.2$	M5 x 0.8	KQG2L23-M5	8	8.3	13.1	14.8	16	12	2.6	6.3
	1/8	KQG2L23-01S	10		13.6	14.9	15.9		3	7.6
	1/4	KQG2L23-02S	14			18.7	18.1			16
$\phi 4$	M5 x 0.8	KQG2L04-M5	8	9.1	13.7	15.2	16.8	12.6	3.5	6.9
	1/8	KQG2L04-01S	10		14.4	15.3	16.7		4.2	8.5
	1/4	KQG2L04-02S	14			19.1	18.9			16.8
$\phi 6$	M5 x 0.8	KQG2L06-M5	8	11.4	14.7	16.3	19	13.6	3.5	8.8
	1/8	KQG2L06-01S	10			16.4				10.1
	1/4	KQG2L06-02S	14		15.9	20.2	21.2		11.4	18.4
	3/8	KQG2L06-03S	17			21.6	22.2			29.9
$\phi 8$	1/8	KQG2L08-01S	12	13.7	18.6	18.3	22	16.1		14.6
	1/4	KQG2L08-02S	14		19.1	21.5	23.6		21.6	20.3
	3/8	KQG2L08-03S	17			22.9	24.6			31.6
$\phi 10$	1/8	KQG2L10-01S	12	16.6	20	19.7	24.9	17	21.6	20.2
	1/4	KQG2L10-02S	14			22.9	26.5			23.3
	3/8	KQG2L10-03S	17		21	24.3	27.5		35.2	33.6
	1/2	KQG2L10-04S	22			28.5	30.4			60.1
$\phi 12$	1/4	KQG2L12-02S	14	18.7	22.6	24	28.6	18.6		27.1
	3/8	KQG2L12-03S	17		23.6	25.3	29.5		50.2	33.7
	1/2	KQG2L12-04S	22			29.5	32.4			58.7
$\phi 16$	3/8	KQG2L16-03S	19	24.6	26.3	28	34.5	20.8	71	46.3
	1/2	KQG2L16-04S	22		27.3	31.8	37		100	61.3

* Reference dimensions after installation of R thread

Note 1) ϕD is maximum diameter.

Note 2) Value of FEP tube.

Value of nylon tube for $\phi 16$ only.



Male Branch Tee: KQG2T

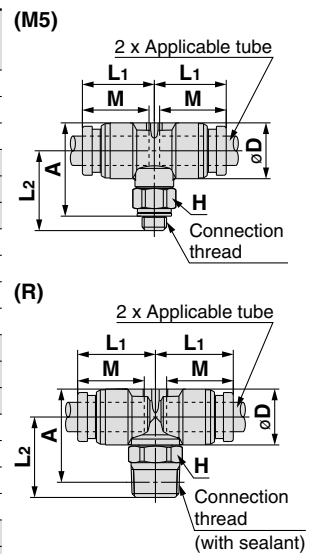
Applicable tube O.D. (mm)	Connection thread R, M	Model	H (Width across flat)	Note 1) ϕD	L1	L2	A*	M	Note 2) Effective area (mm ²)	Weight (g)
$\phi 3.2$	M5 x 0.8	KQG2T23-M5	8	8.3	13.1	14.8	16	12	3.2	8.1
	1/8	KQG2T23-01S	10		13.6	14.9	15.9		3.4	9.4
	1/4	KQG2T23-02S	14			18.7	18.1			17.7
$\phi 4$	M5 x 0.8	KQG2T04-M5	8	9.1	13.7	15.2	16.8	12.6	4.5	9
	1/8	KQG2T04-01S	10		14.4	15.3	16.7		6	10.4
	1/4	KQG2T04-02S	14			19.1	18.9			18.8
$\phi 6$	M5 x 0.8	KQG2T06-M5	8	11.4	14.7	16.3	19	13.6	4.5	11.9
	1/8	KQG2T06-01S	10			16.4				13.4
	1/4	KQG2T06-02S	14		15.9	20.2	21.2		13.9	21.8
	3/8	KQG2T06-03S	17			21.6	22.2			33.3
$\phi 8$	1/8	KQG2T08-01S	12	13.7	18.6	18.3	22	16.1		20
	1/4	KQG2T08-02S	14		19.1	21.5	23.6		26.3	25.5
	3/8	KQG2T08-03S	17			22.9	24.6			36.8
$\phi 10$	1/8	KQG2T10-01S	12	16.6	20	19.7	24.9	17		28.4
	1/4	KQG2T10-02S	14			22.9	26.5			31.1
	3/8	KQG2T10-03S	17		21	24.3	27.5		40.8	41.4
	1/2	KQG2T10-04S	22			28.5	30.4			68
$\phi 12$	1/4	KQG2T12-02S	14	18.7	22.6	24	28.6	18.6		37.8
	3/8	KQG2T12-03S	17		23.6	25.3	29.5		57.2	39.3
	1/2	KQG2T12-04S	22			29.5	32.4			68.8
$\phi 16$	3/8	KQG2T16-03S	19	24.6	26.3	28	34.5	20.8	71	63.7
	1/2	KQG2T16-04S	22		27.3	31.8	37		100	77.6

* Reference dimensions after installation of R thread

Note 1) ϕD is maximum diameter.

Note 2) Value of FEP tube.

Value of nylon tube for $\phi 16$ only.



Union Elbow: KQG2L

Applicable tube O.D. (mm)	Model	Note 1) ϕD	L	A	Q	M	ϕN	ϕO	Note 2) Effective area (mm ²)	Weight (g)
$\phi 3.2$	KQG2L23-00	8.3	13.6	19.3	2.9	12	3.2	5.6	3	6.3
$\phi 4$	KQG2L04-00	9.1	14.6	20.5	3.1	12.6	3.2	5.6	4.2	7.4
$\phi 6$	KQG2L06-00	11.4	16.6	23	3.6	13.6	3.2	5.6	11.4	11
$\phi 8$	KQG2L08-00	13.7	20.1	29.1	5	16.1	4.2	8	21.6	20.2
$\phi 10$	KQG2L10-00	16.6	22	31.7	5.7	17	4.2	8	35.2	29.6
$\phi 12$	KQG2L12-00	18.7	24.6	35	6.4	18.6	4.2	8	50.2	37.1
$\phi 16$	KQG2L16-00	24.6	28.8	40.5	7.7	20.8	4.2	8	100	59.7

Note 1) ϕD is maximum diameter.

Note 2) Value of FEP tube.

Value of nylon tube for $\phi 16$ only.

