

Stainless Steel 316 One-touch Fittings

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

KQG2 Series

RoHS



Applicable Tubing

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

Specifications

Fluid	Air, N ₂ , 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 tubing, 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 tubing.

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

Tubing	Temperature
FEP tubing/TH Series	80°C or more
Super PFA tubing/TL Series	120°C or more

Spare Parts

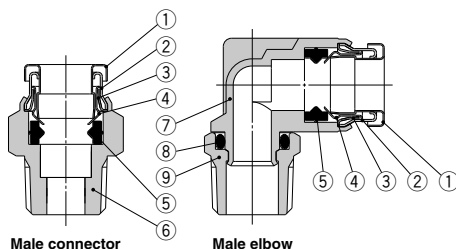
Description	Tubing O.D.	Part no.	Material
Gasket	—	M-5G3	Stainless steel 316, Special FKM
Bulkhead nut	ø3.2, ø4	KQG223-P01	Stainless steel 316
	ø6	KQG206-P01	
	ø8	KQG208-P01	
	ø10	KQG210-P01	
	ø12	KQG212-P01	
	ø16	KQG216-P01	

Cross Reference Table of the Inner Sleeve

Tubing O.D.	Tubing material			Applicable inner sleeve	
	TUS (Soft polyurethane)	TH/TH (FEP)	TL/TIL (Super 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
	TUS1208	—	—	TJG-1208	24
ø12	—	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 Connector: KQG2H



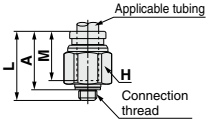
Applicable tubing O.D. (mm)	Connection thread R, M	Model	H (Width across flat)	øD	L	A*	M	Note 1) Effective area (mm ²)	Weight (g)
ø3.2	M5 x 0.8	KQG2H23-M5	8	—	16.5	13.5	12	3	3.3
	1/8	KQG2H23-01S	10		15.4	12.3		3.4	5.7
	1/4	KQG2H23-02S	14		21	16.3		4	16.9
ø4	M5 x 0.8	KQG2H04-M5	10	—	17.1	14.1	12.6	4	5
	1/8	KQG2H04-01S			15.3	12.2		5.6	4.7
	1/4	KQG2H04-02S			20.9	16.2		4	15.8
ø6	M5 x 0.8	KQG2H06-M5	12	—	19.1	16.1	13.6	4	7.7
	1/8	KQG2H06-01S	12		18.1	15		7	14.5
	1/4	KQG2H06-02S	14		20.8	16.1		13.1	27.3
	3/8	KQG2H06-03S	17		23	17.9		26.1	12.8
ø8	1/8	KQG2H08-01S	14	—	24.5	21.4	16.1	26.1	12.9
	1/4	KQG2H08-02S			22.3	17.6		24.7	20.6
	3/8	KQG2H08-03S			23.7	18.6		41.5	51.1
ø10	1/8	KQG2H10-01S	17	—	25.5	22.4	17	26.1	18.9
	1/4	KQG2H10-02S			27.9	23.2		21.6	20.6
	3/8	KQG2H10-03S			23	17.9		21.6	20.6
	1/2	KQG2H10-04S			28.6	22.2		51.1	27.4
ø12	1/4	KQG2H12-02S	19	—	30.5	25.8	18.6	58.3	20.5
	3/8	KQG2H12-03S			24.7	19.6		44.6	46.6
	1/2	KQG2H12-04S			28.7	22.3		81	46
ø16	3/8	KQG2H16-03S	24	24.6	33.6	28.5	20.8	113	37.4
	1/2	KQG2H16-04S			29.5	23.1			

* Reference dimensions after installation for R thread

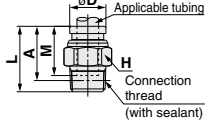
Note 1) Value of FEP tubing.

Value of nylon tubing for ø16 only.

(M5)



(R)



Hexagon Socket Head Male Connector: KQG2S



Applicable tubing O.D. (mm)	Connection thread R, M	Model	H (Width across flat)	Note 1) øD	L	A*	M	Note 2) Effective area (mm ²)	Weight (g)
ø3.2	M5 x 0.8	KQG2S23-M5	2	9	16.5	13.5	12	3	3.8
ø4	M5 x 0.8	KQG2S04-M5	2	9	17.1	14.1	12.6	4	3.7
	1/8	KQG2S04-01S	3	10	19.6	16.5		4.1	7.6
ø6	M5 x 0.8	KQG2S06-M5	2	12	19.6	16.6	13.6	4	7.4
	1/8	KQG2S06-01S	4	14	20.6	17.5		10	8.7
	1/4	KQG2S06-02S	4	14	20.6	15.9		10.7	14
ø8	1/8	KQG2S08-01S	5	14	24.7	21.6	16.1	17.2	12.3
	1/4	KQG2S08-02S	6	17	22.9	18.2		23.3	12.8
	3/8	KQG2S08-03S	6	17	23.1	18		22.8	22.8
ø10	1/8	KQG2S10-01S	5	17	25.6	22.5	17	17.2	17.7
	1/4	KQG2S10-02S	8	22	27.5	22.8		39	19.1
	3/8	KQG2S10-03S	8	22	24	18.9		37.2	20.9
	1/2	KQG2S10-04S	8	22	24	17.6		46	24.8
ø12	1/4	KQG2S12-02S	8	19	30.6	25.9	18.6	60	19.3
	3/8	KQG2S12-03S	10	22	24.9	19.8		33.6	41.6
	1/2	KQG2S12-04S	10	22	24.9	18.5		113	38.4
ø16	3/8	KQG2S16-03S	10	24.6	33.2	28.1	20.8	81	41.6
	1/2	KQG2S16-04S	12	24.6	29.4	23		113	38.4

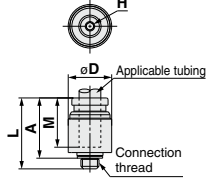
* Reference dimensions after installation for R thread

Note 1) For the ø16, this dimension refers to the O.D. of the release button.

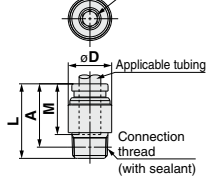
Note 2) Value of FEP tubing.

Value of nylon tubing for ø16 only.

(M5)



(R)



Straight Union: KQG2H



Applicable tubing O.D. (mm)	Model	øD Note 1)	L	M	Note 2) Effective area (mm ²)	Weight (g)
ø3.2	KQG2H23-00	9	25	12	3.4	6.5
ø4	KQG2H04-00	9	26.2	12.6	5.6	6.5
ø6	KQG2H06-00	12	28.2	13.6	13.1	11.5
ø8	KQG2H08-00	14	33.2	16.1	26.1	16.6
ø10	KQG2H10-00	17	35	17	41.5	26
ø12	KQG2H12-00	19	38.2	18.6	58.3	32.2
ø16	KQG2H16-00	24.6	42.6	20.8	113	53.7

Note 1) For the ø16, this dimension refers to the O.D. of the release button.

Note 2) Value of FEP tubing.

Value of nylon tubing for ø16 only.

