

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

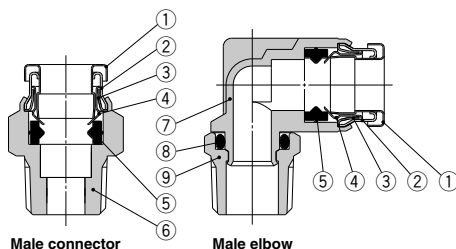
Description	Tubing O.D.	Part no.	Material
Gasket	—	M-5G3	Stainless steel 316, Special FKM
Bulkhead nut	ø3.2, ø4	KQG223-P01	Stainless steel 316
	ø6	KQG206-P01	
	ø8	KQG208-P01	
	ø10	KQG210-P01	
	ø12	KQG212-P01	
	ø16	KQG216-P01	

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

Extended Male Elbow: KQG2W



Applicable tubing 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	KQG2W23-M5	8	8.3	13.1	31.2	32.4	12	2.8	13
	1/8	KQG2W23-01S	10		13.6	31.3	32.3			14.7
	1/4	KQG2W23-02S	14		13.7	31.6	33.2			33.1
$\phi 4$	M5 x 0.8	KQG2W04-M5	8	9.1	13.7	31.6	33.2	12.6	3	13.6
	1/8	KQG2W04-01S	10		14.4	31.7	33.1			15.6
	1/4	KQG2W04-02S	14		14.7	32.7	35.4			33.9
$\phi 6$	M5 x 0.8	KQG2W06-M5	8	11.4	14.7	32.7	35.4	13.6	3	15.5
	1/8	KQG2W06-01S	10		15.9	36.6	37.6			17.2
	1/4	KQG2W06-02S	14		17.3	38.6	38.6			35.5
$\phi 8$	1/8	KQG2W08-01S	12	13.7	18.6	37	40.7	16.1	20.5	28
	1/4	KQG2W08-02S	14		19.1	40.2	42.3			37.7
	3/8	KQG2W08-03S	17		21	41.6	43.3			60.9
$\phi 10$	1/4	KQG2W10-02S	14	16.6	21	46.6	50.2	17	33.5	40.7
	3/8	KQG2W10-03S	17		21	45.9	49.1			61.9
	1/2	KQG2W10-04S	22		22.6	50.1	52			117.3
$\phi 12$	1/4	KQG2W12-02S	14	18.7	22.6	47.7	52.3	18.6	47.7	44.6
	3/8	KQG2W12-03S	17		23.6	49	53.2			56.3
	1/2	KQG2W12-04S	22		27.3	53.2	56.1			112.9
$\phi 16$	3/8	KQG2W16-03S	19	24.6	26.3	57.6	64.1	20.8	71	86.6
	1/2	KQG2W16-04S	22		27.3	61.4	66.6			111.8

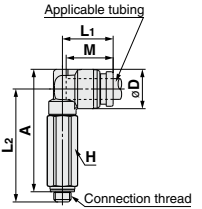
* Reference dimensions after installation for R thread

Note 1) For the $\phi 16$, this dimension refers to the O.D. of the release button.

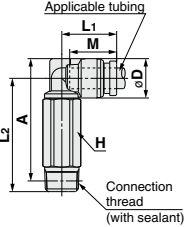
Note 2) Value of FEP tubing.

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

(M5)



(R)



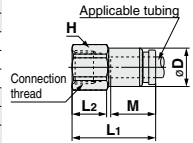
Female Connector: KQG2F



Applicable tubing O.D. (mm)	Connection thread Rc	Model	H (Width across flat)	Note 1) ϕD	L1	L2	M	Note 2) Effective area (mm ²)	Weight (g)
$\phi 3.2$	1/8	KQG2F23-01	12	8	23.3	9.8	12	3.4	8.9
	1/8	KQG2F04-01	12		23.7	9.8			9.2
$\phi 4$	1/4	KQG2F04-02	17	8.7	28.7	13.2	12.6	5.6	21.6
	1/8	KQG2F06-01	12		24.2	10			10.5
$\phi 6$	1/4	KQG2F06-02	17	11.1	29.2	13.4	13.6	13.1	23.1
	3/8	KQG2F06-03	19		30.6	14.2			24.5
	1/8	KQG2F08-01	14		26.3	9.6			16.3
$\phi 8$	1/4	KQG2F08-02	17	13.4	31.3	13.7	16.1	26.1	25.5
	3/8	KQG2F08-03	19		32.7	14.4			27
	1/4	KQG2F10-02	17		31.6	13.9			28.8
$\phi 10$	3/8	KQG2F10-03	19	16.4	33	14.7	17	41.5	30.4
	1/4	KQG2F12-02	19		32.6	13.3			37.5
	3/8	KQG2F12-03	19		34	14.7			32.3
$\phi 12$	1/2	KQG2F12-04	24	18.5	39.3	18.4	18.6	58.3	50.2
	3/8	KQG2F16-03	24		35.3	13.5			59.7
	1/2	KQG2F16-04	24		40.6	18.8			113

Note 1) For the $\phi 10$, $\phi 12$, and $\phi 16$, this dimension refers to the O.D. of the release button.

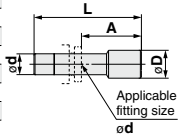
Note 2) Value of FEP tubing.
Value of nylon tubing for $\phi 16$ only.



Plug: KQG2P



Applicable fitting size ϕd	Model	ϕD	L	A	Weight (g)
$\phi 3.2$	KQG2P-23	5	28.9	16.9	2.7
$\phi 4$	KQG2P-04	6	29.6	17	4.1
$\phi 6$	KQG2P-06	8	30.8	17.2	8.5
$\phi 8$	KQG2P-08	10	33.7	17.6	15.5
$\phi 10$	KQG2P-10	12	34.6	17.6	24.1
$\phi 12$	KQG2P-12	14	36.5	17.9	35.8
$\phi 16$	KQG2P-16	18	38.6	17.8	65.5



Related Equipment



Spatter cover

(Applicable tubing: FR soft nylon, FR double layer, FR three-layer)

Applicable tubing O.D. (mm)	Model
$\phi 6$	KQB2-06C-X1124
$\phi 8$	KQB2-08C-X1124
$\phi 10$	KQB2-10C-X1124

* Since the spatter cover is designed for multi-layer (double layer, three-layer) tubing, sufficient effects cannot be obtained in foreign matter flow-in or followability for singlelayer tubing.

* The cover can be attached regardless of the single-layer/multi-layer tubing.

* Cannot be used for union "Y" (KQG2U) 2-port side.