

Metal One-touch Fittings

Applicable Tubing: Metric Size, Connection Thread: G*

* Conforming to ISO16030

KQB2 Series

RoHS



Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon, Polyurethane, Polyolefin
Tubing O.D.	ø4, ø6, ø8, ø10, ø12, ø16

Specifications

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

Note 1) Avoid using in a vacuum holding application such as a leak tester, since there is leakage.

Note 2) Deionized water is not recommended for use as it may affect the material used in the fittings.

In addition, it is known to degrade the water quality.

Note 3) Check the operating pressure range and operating temperature range of the tubing.

Note 4) 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 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
Bulkhead nut	ø4	KQB223-P01	C3604 (Electroless nickel plated)
	ø6	KQB206-P01	
	ø8	KQB208-P01	
	ø10	KQB210-P01	
	ø12	KQB212-P01	
	ø16	KQB216-P01	

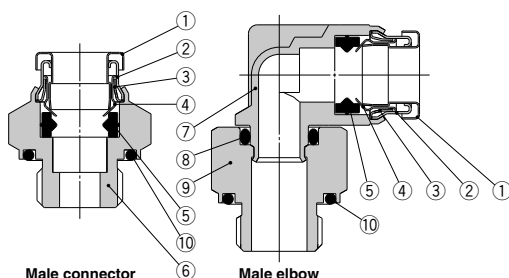
Description	Thread size	Part no.	Material
G thread O-ring	G1/8	KQB2-G01	Special FKM (Fluoro coated)
	G1/4	KQB2-G02	
	G3/8	KQB2-G03	
	G1/2	KQB2-G04	

Cross Reference Table of the Inner Sleeve

Tubing O.D.	Tubing material			Applicable inner sleeve	
	TUS (Soft polyurethane)	TH/THI (FEP)	TL/TIL (Super PFA)	Part no.	Length
ø4	—	TH0402	—	TJ-0402	18
	TUS0425	TH0425	—	TJ-0425	18
	—	—	TL0403	TJ-0403	18
ø6	TUS0604	TH0604	TL0604	TJ-0604	19
	TUS0805	—	—	TJ-0805	20.5
	—	TH0806	TL0806	TJ-0806	20.5
ø8	TUS1065	—	—	TJ-1065	23
	—	TH1075	—	TJ-1075	23
	—	TH1008	TL1008	TJ-1008	23
	TUS1208	—	—	TJ-1008	24
ø12	—	TH1209	—	TJ-1209	24
	—	TH1210	TL1210	TJ-1210	24

* C2700 + Electroless nickel plated is used for the TJ series.

Construction



Component Parts

No.	Description	Material
1	Release button	Stainless steel 304
2	Guide 1	Stainless steel 304
3	Guide 2	Stainless steel 304
4	Chuck	Stainless steel 304
5	Seal	Special FKM (Fluoro coated)
6	Male connector body	C3604 (Electroless nickel plated)
7	Male elbow body	Stainless steel 316
8	O-ring	Special FKM (Fluoro coated)
9	Stud	C3604 (Electroless nickel plated)
10	G thread O-ring	Special FKM (Fluoro coated)

KQB2 Series

Applicable Tubing: Metric Size, Connection Thread: G

Dimensions

Male Connector: KQB2H

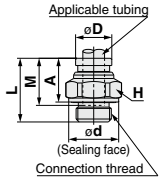


Applicable tubing O.D. (mm)	Connection thread G	Model	H (Width across flat)	Note 1) øD	ød	L	A	M	Note 2) Effective area (mm ²)	Weight (g)
ø4	1/8	KQB2H04-G01	14	8.7	13.8	16.6	11.1	12.6	5.6	9.2
	1/4	KQB2H04-G02	19		17.8	20.6	14.1			23.6
ø6	1/8	KQB2H06-G01	14	11.1	13.8	17.6	12.1	13.6	13.1	8.9
	1/4	KQB2H06-G02	19		17.8	20.5	14			21.6
	3/8	KQB2H06-G03	22		21.8	23.4	15.9			38.3
ø8	1/8	KQB2H08-G01	14	13.4	13.8	23.9	18.4	16.1	26.1	13.2
	1/4	KQB2H08-G02	19		17.8	21.2	14.7			19.1
	3/8	KQB2H08-G03	22		21.8	24	16.5			35.2
ø10	1/8	KQB2H10-G01	17	16.4	13.8	25.1	19.6	17	41.5	19.9
	1/4	KQB2H10-G02	19		17.8	24.9	18.4			24.8
	3/8	KQB2H10-G03	22		21.8	23.3	15.8			30.9
	1/2	KQB2H10-G04	27		26.5	27.7	18.7			64.4
	1/4	KQB2H12-G02	19		17.8	27.7	21.2			26.3
ø12	3/8	KQB2H12-G03	22	18.5	21.8	23.5	16	18.6	58.3	25.5
	1/2	KQB2H12-G04	27		26.5	27.9	18.9			58
	3/8	KQB2H16-G03	24	24.6	21.8	31.3	23.8	20.8	81	44.5
ø16	1/2	KQB2H16-G04	27		26.5	27.3	18.3			113
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Note 1) øD is maximum diameter.

Note 2) Value of FEP tubing.

Value of nylon tubing for ø16 only.



Hexagon Socket Head Male Connector: KQB2S

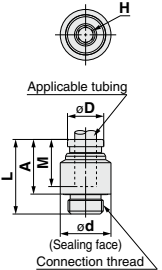


Applicable tubing O.D. (mm)	Connection thread G	Model	H (Width across flat)	Note 1) øD	ød	L	A	M	Note 2) Effective area (mm ²)	Weight (g)
ø4	1/8	KQB2S04-G01	3	14	14	20.4	14.9	12.6	4.1	13.5
	1/4	KQB2S06-G01	4	14	14	20.6	15.1	13.6	10	12.1
ø6	1/4	KQB2S06-G02	18	18	18		14.1		10.7	19.9
	1/8	KQB2S08-G01	5	14	14	23.9	18.4	16.1	17.2	12.5
	1/4	KQB2S08-G02	6	18	18	22.9	16.4		23.3	20.1
ø8	3/8	KQB2S08-G03	22	22	23.1	15.6			10.7	31.1
	1/8	KQB2S10-G01	5	17	14	25.1	19.6	17	17.2	18.5
	1/4	KQB2S10-G02	18	18	24.9	18.4			20.4	20.4
	3/8	KQB2S10-G03	8	22	22		16.5		39	31.2
	1/2	KQB2S10-G04	27	26.5		24	15		45.3	45.3
ø10	1/4	KQB2S12-G02	8	19	18	27.7	21.2	18.6	46	23.6
	3/8	KQB2S12-G03	10	22	22	24.9	17.4		60	27.4
	1/2	KQB2S12-G04	27	26.5			15.9		42.6	42.6
ø16	3/8	KQB2S16-G03	10	24.6	22	31.3	23.8	20.8	81	41
	1/2	KQB2S16-G04	12	27	26.5	27.8	18.8		113	42.9

Note 1) øD is maximum diameter.

Note 2) Value of FEP tubing.

Value of nylon tubing for ø16 only.



Dimensions

Male Elbow: KQB2L

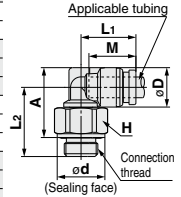


Applicable tubing O.D. (mm)	Connection thread G	Model	H (With across flange)	Note 1) øD	ød	L ₁	L ₂	A	M	Note 2) Effective area (mm ²)	Weight (g)
ø4	1/8	KQB2L04-G01	14	9.1	13.8	14.4	18.9	17.9	12.6	4.2	15.6
	1/4	KQB2L04-G02	19		17.8		22.3	20.3			33
ø6	1/8	KQB2L06-G01	14	11.4	13.8		20	20.2	13.6		17.2
	1/4	KQB2L06-G02	19		17.8	15.9	23.4	22.6		11.4	34.6
	3/8	KQB2L06-G03	22		21.8		25.9	24.1			54.5
ø8	1/8	KQB2L08-G01	14	13.7	13.8	18.6	21.3	22.6	16.1	21.6	20.2
	1/4	KQB2L08-G02	19		17.8	19.1	24.7	25			36
	3/8	KQB2L08-G03	22		21.8		27.2	26.5			55.6
ø10	1/8	KQB2L10-G01	14	16.6	13.8	20	22.7	25.5	17	21.6	25.7
	1/4	KQB2L10-G02	19		17.8		26.1	27.9			38.2
	3/8	KQB2L10-G03	22		21.8	21	28.6	29.4		35.2	56.2
	1/2	KQB2L10-G04	27		26.5		32.6	31.9			97.9
ø12	1/4	KQB2L12-G02	19	18.7	17.8	22.6	27.2	30	18.6	50.2	41.9
	3/8	KQB2L12-G03	22		21.8	23.6	29.6	31.4			54.3
	1/2	KQB2L12-G04	27		26.5		33.6	33.9			94.6
ø16	3/8	KQB2L16-G03	22	24.6	21.8	26.3	32.4	36.5	20.8	71	64.7
	1/2	KQB2L16-G04	27		26.5	27.3	36.4	39		100	95.7

Note 1) øD is maximum diameter.

Note 2) Value of FEP tubing.

Value of nylon tubing for ø16 only.



Male Branch Tee: KQB2T

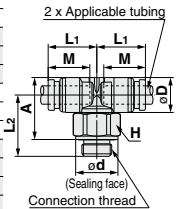


Applicable tubing O.D. (mm)	Connection thread G	Model	H (With across flange)	Note 1) øD	ød	L ₁	L ₂	A	M	Note 2) Effective area (mm ²)	Weight (g)
ø4	1/8	KQB2T04-G01	14	9.1	13.8	14.4	18.9	17.9	12.6	6	17.5
	1/4	KQB2T04-G02	19		17.8		22.3	20.3			34.9
ø6	1/8	KQB2T06-G01	14	11.4	13.8		20	20.2	13.6	13.9	21
	1/4	KQB2T06-G02	19		17.8	15.9	23.4	22.6			38
	3/8	KQB2T06-G03	22		21.8		25.9	24.1			57.9
ø8	1/8	KQB2T08-G01	14	13.7	13.8	18.6	21.3	22.6	16.1	26.3	25.6
	1/4	KQB2T08-G02	19		17.8	19.1	24.7	25			41.2
	3/8	KQB2T08-G03	22		21.8		27.2	26.5			60.8
ø10	1/8	KQB2T10-G01	14	16.6	13.8	20	22.7	25.5	17	40.8	34
	1/4	KQB2T10-G02	19		17.8		26.1	27.9			46
	3/8	KQB2T10-G03	22		21.8	21	28.6	29.4		71	64
	1/2	KQB2T10-G04	27		26.5		32.6	31.9			105.8
ø12	1/4	KQB2T12-G02	19	18.7	17.8	22.6	27.2	30	18.6	57.2	53
	3/8	KQB2T12-G03	22		21.8	23.6	29.6	31.4			54.3
	1/2	KQB2T12-G04	27		26.5		33.6	33.9			105
ø16	3/8	KQB2T16-G03	22	24.6	21.8	26.3	32.4	36.5	20.8	71	82.2
	1/2	KQB2T16-G04	27		26.5	27.3	36.4	39		100	112.1

Note 1) øD is maximum diameter.

Note 2) Value of FEP tubing.

Value of nylon tubing for ø16 only.



KQ2

KQB2

KS

KX

KM

KF

M

H/DL

L/LL

KC

KK

KK130

DM

KDM

KB

KR

KA

KQG2

KG

KFG2

MS

KKA

KP

LQ

MQR

T

IDK

KQB2 Series

Applicable Tubing: Metric Size, Connection Thread: G

Tubing  One-touch fittings
Plug-in reducer/Plug

Tubing   Tubing
Union elbow/Union tee/Straight union etc.

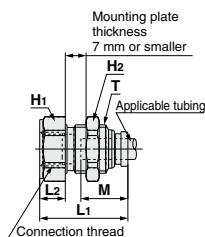
Refer to page 141 and after for details.

Dimensions

Bulkhead Connector: KQB2E



Applicable tubing O.D. (mm)	Connection thread G	Model	T (M)	Width across flat		L1	L2	Mounting hole	M	Note) Effective area (mm ²)	Weight (g)
				H1	H2						
ø4	1/8	KQB2E04-G01	M10 x 1	17	12	27.1	11	11	12.6	5.6	25.1
	1/4	KQB2E04-G02		19		32.7	16.6				36.9
ø6	1/8	KQB2E06-G01	M14 x 1	17		25.5	7.4	15	13.6	13.1	26.8
	1/4	KQB2E06-G02		19	17	33.5	15.4				42.7
ø8	3/8	KQB2E08-G03	M15 x 1	24		35	16.9	16	16.1	26.1	62
	1/2	KQB2E08-G01		17		27.6	8.2				30.4
	3/8	KQB2E08-G02		19	19	34.5	15.1				43.9
	1/2	KQB2E08-G03		24		36	16.6				66.2
ø10	1/4	KQB2E10-G02	M18 x 1	19		33.5	13.5	19	17	41.5	46.8
	3/8	KQB2E10-G03		24		35.6	15.6				65.4
ø12	3/8	KQB2E12-G03	M20 x 1	24		35.9	14.7	21	18.6	58.3	119.2
	1/2	KQB2E12-G04		27		42.2	21				91.9
	3/8	KQB2E16-G03		24		37.2	13.1	28	20.8	96	118.2
ø16	1/2	KQB2E16-G04	M27 x 1	29	30	43.1	19				128.7

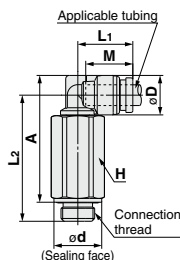


Note) Value of FEP tubing.
Value of nylon tubing for ø16 only.

Extended Male Union: KQB2W



Applicable tubing O.D. (mm)	Connection thread G	Model	H (Width across flat)	Note 1) øD	øD	L1	L2	A	M	Note 2) Effective area (mm ²)	Weight (g)
ø4	1/8	KQB2W04-G01	14	9.1	13.8		35.3	34.3	12.6	4	34.5
	1/4	KQB2W04-G02	19		17.8	14.4	38.7	36.7			70.6
ø6	1/8	KQB2W06-G01	14	11.4	13.8		36.4	36.6	13.6	10.9	36.1
	1/4	KQB2W06-G02	19		17.8	15.9	39.8	39			72.2
ø8	3/8	KQB2W08-G03	22	13.7	21.8		42.3	40.5	16.1	20.5	106.7
	1/4	KQB2W08-G01	14		13.8	18.6	40	41.3			41.3
	1/8	KQB2W08-G02	19		17.8		43.4	43.7			76.7
	3/8	KQB2W08-G03	22		21.8	19.1	45.9	45.2			112.9
ø10	1/4	KQB2W10-G02	19	16.6	17.8		49.8	51.6	17	33.5	84.8
	3/8	KQB2W10-G03	22		21.8	21	50.2	51			116.6
	1/2	KQB2W10-G04	27		26.5		54.2	53.5			196.6
ø12	1/4	KQB2W12-G02	19	18.7	17.8	22.6	50.9	53.7	18.6	47.7	88.7
	3/8	KQB2W12-G03	22		21.8		53.3	55.1			111.6
	1/2	KQB2W12-G04	27		26.5	23.6	57.3	57.6			193.8
ø16	3/8	KQB2W16-G03	22	24.6	21.8	26.3	62	66.1	20.8	71	133.6
	1/2	KQB2W16-G04	27		26.5	27.3	66	68.6		100	201.6

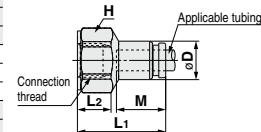


Note 1) øD is maximum diameter.
Note 2) Value of FEP tubing.
Value of nylon tubing for ø16 only.

Female Connector: KQB2F



Applicable tubing O.D. (mm)	Connection thread G	Model	H (Width across flat)	Note 1) øD	L1	L2	M	Note 2) Effective area (mm ²)	Weight (g)
ø4	1/8	KQB2F04-G01	17	8.7	25	9.5	12.6	5.6	21
	1/4	KQB2F04-G02	19		30.6	14.5			32
ø6	1/8	KQB2F06-G01	17	11.1	25.5	9.7	13.6	13.1	22.6
	1/4	KQB2F06-G02	19		31.1	14.7			33
ø8	3/8	KQB2F08-G03	24	13.4	32.6	14.6	16.1	26.1	51.1
	1/8	KQB2F08-G01	17		27.6	10			25.1
ø10	1/4	KQB2F10-G02	19	16.4	33.2	14.9	17	41.5	36.3
	3/8	KQB2F10-G03	24		34.6	14.7			53.8
ø12	1/4	KQB2F12-G02	19	18.5	33.5	15.2	18.6	58.3	39.9
	3/8	KQB2F12-G03	24		34.9	15			57.7
ø16	1/2	KQB2F16-G04	27	24.6	35.9	15	20.8	81	41.8
	3/8	KQB2F16-G03	24		41.8	19.9			59.7
	1/2	KQB2F16-G04	27		37.2	15.4		113	81.6
	3/8	KQB2F16-G03	24		43.1	20.4			66.6



Note 1) øD is maximum diameter.
Note 2) Value of FEP tubing.
Value of nylon tubing for ø16 only.

Related Equipment

Spatter cover

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

Applicable tubing O.D. (mm)	Model
ø6	KQB2-06C-X1124
ø8	KQB2-08C-X1124
ø10	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" (KQB2U) 2-port side.

