

Metal One-touch Fittings

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

KQB2-F Series

RoHS



Applicable Tubing

Tubing material*1	FEP, PFA, Nylon, Soft nylon, Polyurethane, Polyolefin
Tubing O.D.	Ø 3.2, Ø 4, Ø 6, Ø 8, Ø 10, Ø 12, Ø 16

*1 Considering the product application, FDA-compliant products are recommended.

Specifications

Fluid	Air, Water*1
Operating pressure range*2	-100 kPa to 1 MPa*3
Proof pressure	3.0 MPa
Ambient and fluid temperatures*4	-5 to 150°C (No freezing)*3
Lubricant	NSF H1 grease
Seal on the threads	Without sealant

*1 Deionised 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.

*2 Do not use the fittings with a leak tester or for vacuum retention because they are not guaranteed for zero leakage.

*3 Check the operating pressure range and operating temperature range of the tubing.

*4 It is recommended that you use the inner sleeve in the following conditions. (Except Ø 3.2)

- 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
O-ring	—	M-5-F	FDA compliant FKM
Bulkhead nut	Ø 3.2	KQB223-P01-F	C3604 (Electroless nickel plating)
	Ø 4		
	Ø 6	KQB206-P01-F	
	Ø 8	KQB208-P01-F	
	Ø 10	KQB210-P01-F	
	Ø 12	KQB212-P01-F	
	Ø 16	KQB216-P01-F	

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
Ø 4	—	TH0402	—	TJG-0402	18
	TUS0425	TH0425	—	TJG-0425	18
	—	—	TL0403	TJG-0403	18
Ø 6	TUS0604	TH0604	TL0604	TJG-0604	19
	TUS0805	—	—	TJG-0805	20.5
	—	TH0806	TL0806	TJG-0806	20.5
Ø 10	TUS1065	—	—	TJG-1065	23
	—	TH1075	—	TJG-1075	23
	—	TH1008	TL1008	TJG-1008	24
Ø 12	TUS1208	—	—	TJG-1208	24
	—	TH1209	—	TJG-1209	24
	—	TH1210	TL1210	TJG-1210	24

* Stainless steel 316 is used for the TJG series.

Metal One-touch Fittings **KQB2-F Series**

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

Dimensions

Male Elbow: KQB2L



Applicable tubing O.D. (mm)	Connection thread R, M	Model	H (Width across flats)	Ø D ^{*1}	Ø d	L ₁	L ₂	A ^{*2}	M	Effective area ^{*3} [mm ²]	Weight [g]
Ø 3.2	M5 x 0.8	KQB2L23-M5-F	8	8.3	8	13.1	15.9	16.1	12	2.6	6.7
	1/8	KQB2L23-01-F	10		—	13.6	14.9	17.2		3	8
	1/4	KQB2L23-02-F	14		—	—	18.7	19.4		—	16.6
Ø 4	M5 x 0.8	KQB2L04-M5-F	8	9.1	8	13.7	16.3	16.9	12.6	3.5	7.2
	1/8	KQB2L04-01-F	10		—	14.4	15.3	18		4.2	8.6
	1/4	KQB2L04-02-F	14		—	—	19.1	20.2		—	17.5
Ø 6	M5 x 0.8	KQB2L06-M5-F	8	11.4	8	14.7	17.4	19.1	13.6	3.5	9.2
	1/8	KQB2L06-01-F	10		—	—	16.4	20.3		11.4	10.2
	1/4	KQB2L06-02-F	14		—	15.9	20.2	22.5			19.1
	3/8	KQB2L06-03-F	17		—	—	21.6	23.5			31.2
Ø 8	1/8	KQB2L08-01-F	12	13.7	—	18.6	18.3	23.3	16.1	21.6	14.8
	1/4	KQB2L08-02-F	14		—	—	21.5	24.9			20.8
	3/8	KQB2L08-03-F	17		—	19.1	22.9	25.9			32.8
Ø 10	1/8	KQB2L10-01-F	12	16.6	—	20	19.7	26.2	17	21.6	20.4
	1/4	KQB2L10-02-F	14		—	—	22.9	27.8		35.2	23.7
	3/8	KQB2L10-03-F	17		—	21	24.3	28.8			34.5
	1/2	KQB2L10-04-F	22		—	—	28.5	31.7			62.6
Ø 12	1/4	KQB2L12-02-F	14	18.7	—	22.6	24	29.9	18.6	50.2	27.4
	3/8	KQB2L12-03-F	17		—	23.6	25.3	30.8			34.3
	1/2	KQB2L12-04-F	22		—	—	29.5	33.7			60.8
Ø 16	3/8	KQB2L16-03-F	19	24.6	—	26.3	28	35.8	20.8	71	47
	1/2	KQB2L16-04-F	22		—	27.3	31.8	38.3		100	62.6

*1 For the Ø 16, this dimension refers to the O.D. of the release button.

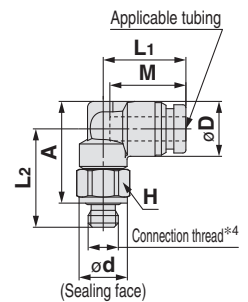
*2 Reference dimensions after installation for R thread

*3 Value of FEP tubing

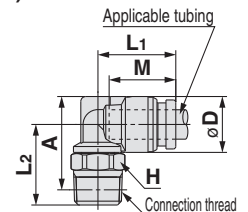
Value of nylon tubing for Ø 16 only

*4 In the case of M5, the screw length ($\text{Ø } D/2 + L_2 - A$) is longer than that of the KQB2 series.

(M5)



(R)



Male Branch Tee: KQB2T



Applicable tubing O.D. (mm)	Connection thread R, M	Model	H (Width across flats)	Ø D ^{*1}	Ø d	L ₁	L ₂	A ^{*2}	M	Effective area ^{*3} [mm ²]	Weight [g]
Ø 3.2	M5 x 0.8	KQB2T23-M5-F	8	8.3	8	13.1	15.9	16.1	12	3.2	8.4
	1/8	KQB2T23-01-F	10		—	13.6	14.9	17.2		3.4	9.6
	1/4	KQB2T23-02-F	14		—	—	18.7	19.4		—	18.4
Ø 4	M5 x 0.8	KQB2T04-M5-F	8	9.1	8	13.7	16.3	16.9	12.6	4.5	9.3
	1/8	KQB2T04-01-F	10		—	14.4	15.3	18		6	10.6
	1/4	KQB2T04-02-F	14		—	—	19.1	20.2		—	19.4
Ø 6	M5 x 0.8	KQB2T06-M5-F	8	11.4	8	14.7	17.4	19.1	13.6	4.5	12.3
	1/8	KQB2T06-01-F	10		—	—	16.4	20.3		13.9	13.6
	1/4	KQB2T06-02-F	14		—	15.9	20.2	22.5			22.5
	3/8	KQB2T06-03-F	17		—	—	21.6	23.5			35
Ø 8	1/8	KQB2T08-01-F	12	13.7	—	18.6	18.3	23.3	16.1	26.3	20
	1/4	KQB2T08-02-F	14		—	—	21.5	24.9			26.1
	3/8	KQB2T08-03-F	17		—	19.1	22.9	25.9			38
Ø 10	1/8	KQB2T10-01-F	12	16.6	—	20	19.7	26.2	17	40.8	28.6
	1/4	KQB2T10-02-F	14		—	—	22.9	27.8			31.5
	3/8	KQB2T10-03-F	17		—	21	24.3	28.8			42.4
	1/2	KQB2T10-04-F	22		—	—	28.5	31.7			70.4
Ø 12	1/4	KQB2T12-02-F	14	18.7	—	22.6	24	29.9	18.6	57.2	38.1
	3/8	KQB2T12-03-F	17		—	23.6	25.3	30.8			39.7
	1/2	KQB2T12-04-F	22		—	—	29.5	33.7			70.8
Ø 16	3/8	KQB2T16-03-F	19	24.6	—	26.3	28	35.8	20.8	71	64.4
	1/2	KQB2T16-04-F	22		—	27.3	31.8	38.3		100	79

*1 For the Ø 16, this dimension refers to the O.D. of the release button.

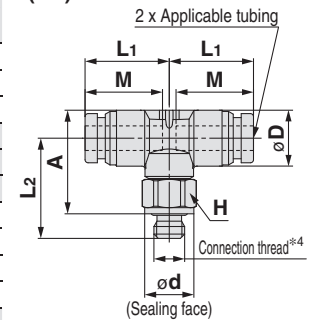
*2 Reference dimensions after installation for R thread

*3 Value of FEP tubing

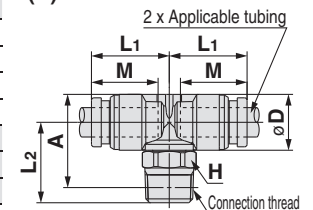
Value of nylon tubing for Ø 16 only

*4 In the case of M5, the screw length ($\text{Ø } D/2 + L_2 - A$) is longer than that of the KQB2 series.

(M5)



(R)

EHEDG
CompliantMetric M, G
KFG2H□-EClean
DesignMetric M, G
KFG2H□-CFDA
CompliantMetric M, R, Rc
KQG2-FInch UNF, NPT
KQG2-FMetric G
KQG2-FMetric M, R, Rc
KQB2-FInch UNF, NPT
KQB2-FMetric G
KQB2-FMetric R, Rc
KFG2-FInch NPT
KFG2-FMetric G
KFG2-F

Precautions