

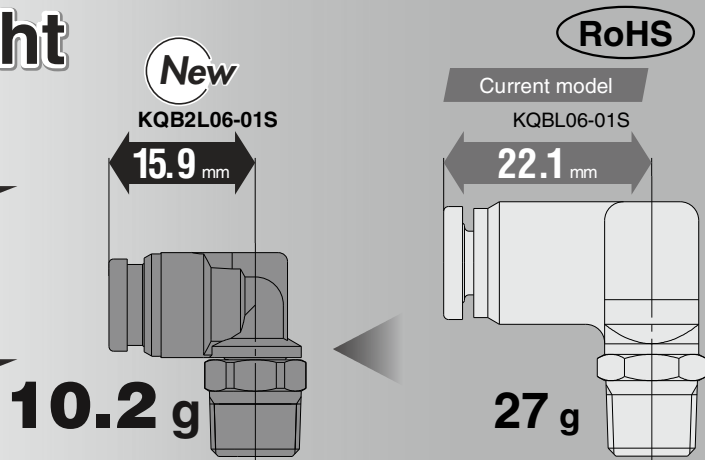
# Metal One-touch Fittings

## KQB2 Series

### Compact and Light

Dimensions **Approx. 30%** Shorter  
\* Comparison with KQBL06-01S

Weight **Approx. 62%** Lighter  
\* Comparison with KQBL06-01S



Fluid temperature **-5 to 150°C**

Connection thread M, R, Rc, UNF, NPT, G

Applicable tubing material FEP • PFA • Nylon • Soft nylon  
Polyurethane • Polyolefin

Electroless nickel plated (Brass parts)

Grease-free

#### Variations

		Applicable tubing O.D. (mm)						
		ø3.2	ø4	ø6	ø8	ø10	ø12	ø16
Connection thread	M5	●	●	●				
	R1/8	●	●	●	●	●		
	G1/8		●	●	●	●	●	
	R1/4	●	●	●	●	●	●	
	G1/4		●	●	●	●	●	●
	R3/8			●	●	●	●	●
	G3/8			●	●	●	●	●
	R1/2				●	●	●	●
	G1/2				●	●	●	●
	No thread	●	●	●	●	●	●	●

		Applicable tubing O.D. (inch)					
		ø1/8"	ø5/32"	ø1/4"	ø5/16"	ø3/8"	ø1/2"
Connection thread	10-32 UNF	●	●	●			
	NPT1/8	●	●	●	●	●	
	NPT1/4	●	●	●	●	●	●
	NPT3/8			●	●	●	●
	NPT1/2				●	●	●
	No thread	●	●	●	●	●	●



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

# Metal One-touch Fittings

## KQB2 Series

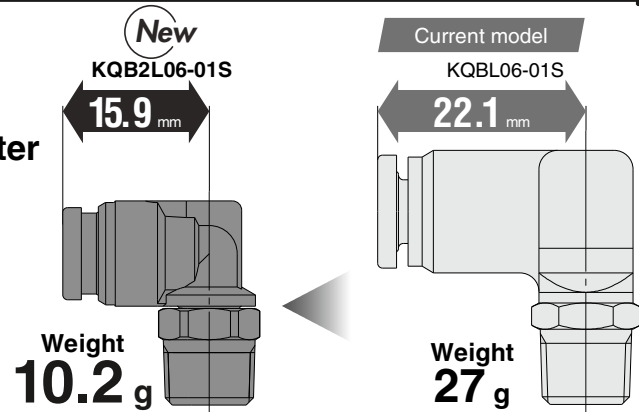
### Compact and light

Dimensions: Approx. **30%** shorter

\* Comparison with KQBL06-01S

Weight: Approx. **62%** lighter

\* Comparison with KQBL06-01S



○ Inch size x UNF/NPT thread,  
Metric size x G thread

○ Applicable tubing size

ø3.2 to ø16, ø1/8" to ø1/2"

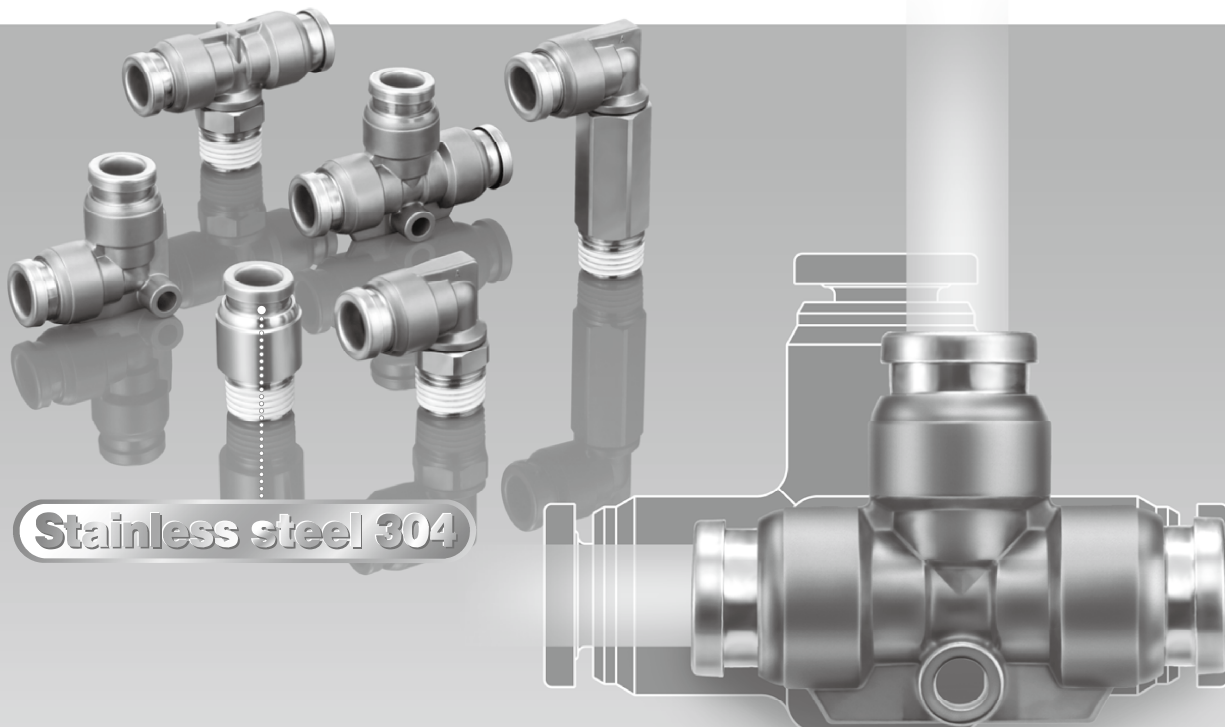
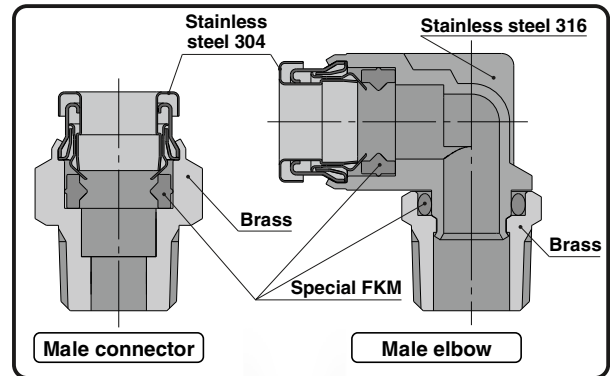
○ Connection thread: M, R, Rc, UNF, NPT, G

○ Fluid temperature: **-5 to 150°C**

○ Grease-free

○ Applicable tubing material  
FEP • PFA • Nylon • Soft nylon  
Polyurethane • Polyolefin

○ Electroless nickel plated  
(Brass parts)



## Variations

### Male Connector **KQB2H**



Metric  
R thread ... P. 143  
G thread ... P. 156  
Inch ... P. 150

### Hexagon Socket Head Male Connector **KQB2S**



Metric  
R thread ... P. 143  
G thread ... P. 156  
Inch ... P. 150

### Straight Union **KQB2H**



Metric ... P. 143  
Inch ... P. 150

### Male Elbow **KQB2L**



Metric  
R thread ... P. 144  
G thread ... P. 157  
Inch ... P. 151

### Male Branch Tee **KQB2T**



Metric  
R thread ... P. 144  
G thread ... P. 157  
Inch ... P. 151

### Union Elbow **KQB2L**



Metric ... P. 145  
Inch ... P. 151

### Bulkhead Union **KQB2E**



Metric ... P. 145  
Inch ... P. 152

### Union Tee **KQB2T**



Metric ... P. 145  
Inch ... P. 152

### Union "Y" **KQB2U**



Metric ... P. 145  
Inch ... P. 152

### Different Diameter Tee **KQB2T**



Metric ... P. 146  
Inch ... P. 152

### Plug-in Reducer **KQB2R**



Metric ... P. 146  
Inch ... P. 152

### Different Diameter Straight **KQB2H**



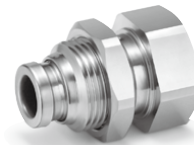
Metric ... P. 146  
Inch ... P. 153

### Different Diameter Union "Y" **KQB2U**



Metric ... P. 146  
Inch ... P. 153

### Bulkhead Connector **KQB2E**



Metric  
Rc thread ... P. 147  
G thread ... P. 158  
Inch ... P. 153

### Extended Male Elbow **KQB2W**



Metric  
R thread ... P. 147  
G thread ... P. 158  
Inch ... P. 153

### Female Connector **KQB2F**



Metric  
Rc thread ... P. 148  
G thread ... P. 158  
Inch ... P. 154

### Plug **KQB2P**



Metric ... P. 148  
Inch ... P. 154

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

# Metal One-touch Fittings

Applicable Tubing: Inch Size, Connection Thread: UNF, NPT

# KQB2 Series

RoHS



## Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon, Polyurethane, Polyolefin
Tubing O.D.	ø1/8", ø5/32", ø1/4", ø5/16", ø3/8", ø1/2"

## Specifications

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

- 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 (Except ø1/8"):
- 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

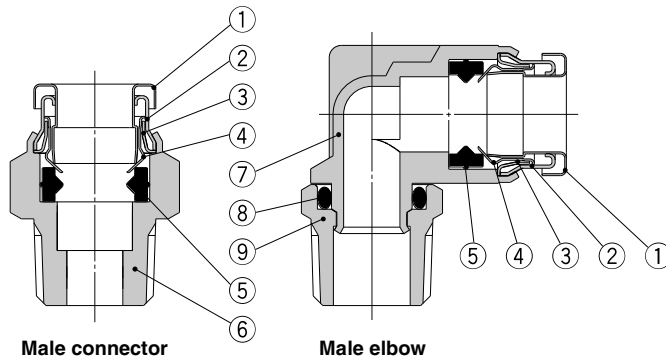
Description	Tubing O.D.	Part no.	Material
Gasket	—	<b>M-5G3</b>	Stainless steel 316, Special FKM
Bulkhead nut	ø1/8" ø5/32"	<b>KQB201-P01</b>	C3604 (Electroless nickel plated)
	ø1/4"	<b>KQB207-P01</b>	
	ø5/16"	<b>KQB209-P01</b>	
	ø3/8"	<b>KQB211-P01</b>	
	ø1/2"	<b>KQB213-P01</b>	

## Cross Reference Table of the Inner Sleeve

Tubing O.D.	Tubing material		Applicable inner sleeve	
	TH/THI (FEP)	TL/TIL (Super PFA)	Part no.	Length
ø5/32"	TH0402	—	<b>TJ-0402</b>	18
	TH0425	—	<b>TJ-0425</b>	18
ø1/4"	—	TL0403	<b>TJ-0403</b>	18
	TIHB07	TIL07	<b>TJ-0604</b>	19
	TIHA07	—	<b>TJ-0746</b>	19
ø5/16"	TH0806	TL0806	<b>TJ-0806</b>	20.5
	TIHB11	TIL11	<b>TJ-1065</b>	23
ø3/8"	TIHA11	—	<b>TJ-1107</b>	23
	TIH13	TIL13	<b>TJ-1395</b>	24

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

## Construction



## Component Parts

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

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: Inch Size, Connection Thread: UNF, NPT

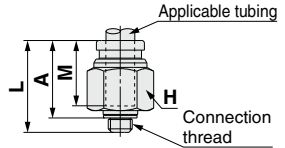
## Dimensions

### Male Connector: KQB2H

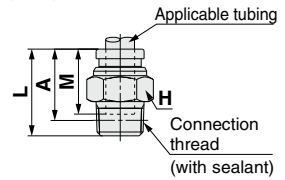


Applicable tubing O.D. (inch)	Connection thread UNF, NPT	Model	H (Width across flat)	L	A*	M	Note) Effective area (mm <sup>2</sup> )	Weight (g)			
ø1/8"	10-32UNF	KQB2H01-32	8	16.5	13.5	12	3	3.5			
	1/8	KQB2H01-N01S	11.11	17.1	13.9				3.4	7.9	
	1/4	KQB2H01-N02S	14.29	20.9	16.5						
ø5/32"	10-32UNF	KQB2H03-32	11.11	17.1	14.1	12.6	4	6.5			
	1/8	KQB2H03-N01S		17	13.8				5.6	7.4	
	1/4	KQB2H03-N02S		14.29	20.9						16.5
ø1/4"	10-32UNF	KQB2H07-32	12.7	19	16	13.5	4	9			
	1/8	KQB2H07-N01S		20	16.8				13.1	15.1	
	1/4	KQB2H07-N02S		14.29	20.6						16.2
	3/8	KQB2H07-N03S		17.46	23.8						19.1
ø5/16"	1/8	KQB2H09-N01S	14.29	24.2	21	16.1	26.1	13.8			
	1/4	KQB2H09-N02S		23.1	18.7				26.1	14.9	
	3/8	KQB2H09-N03S		17.46	24.6						19.9
ø3/8"	1/8	KQB2H11-N01S	17.46	25	21.8	16.6	26.1	21.5			
	1/4	KQB2H11-N02S		26.3	21.9				41.5	22.3	
	3/8	KQB2H11-N03S		23.6	18.9						24.4
	1/2	KQB2H11-N04S		22.23	28.3						
ø1/2"	1/4	KQB2H13-N02S	22.23	30.5	26.1	18.5	58.3	39.4			
	3/8	KQB2H13-N03S		28.4	23.7				36.8		
	1/2	KQB2H13-N04S		22	22					46.1	

(10-32UNF)



(NPT)



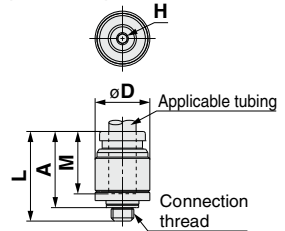
\* Reference dimensions after installation for NPT thread  
Note) Value of FEP tubing.

### Hexagon Socket Head Male Connector: KQB2S

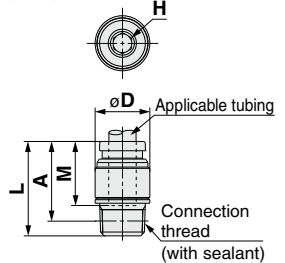


Applicable tubing O.D. (inch)	Connection thread UNF, NPT	Model	H (Width across flat)	øD	L	A*	M	Note) Effective area (mm <sup>2</sup> )	Weight (g)			
ø1/8"	10-32UNF	KQB2S01-32	2	9	16.5	13.5	12	3	3.9			
ø5/32"	10-32UNF	KQB2S03-32	2	9	17.1	14.1	12.6	4	3.9			
	1/8	KQB2S03-N01S	2.78	11	21.4	18.2				4.1	8.9	
ø1/4"	10-32UNF	KQB2S07-32	2	12	19.5	16.5	13.5	4	7.5			
	1/8	KQB2S07-N01S			20.5	17.3				10.7	14.1	
	1/4	KQB2S07-N02S		4.76	14	16.1						23.8
	3/8	KQB2S07-N03S		18	21.5	16.8						
ø5/16"	1/8	KQB2S09-N01S	5.56	14	24.7	21.5	16.1	17.2	12.6			
	1/4	KQB2S09-N02S	6.35	18	23.1	18.7				23.3	13.4	
	3/8	KQB2S09-N03S	6.35	18	23.1	18.4						24.7
ø3/8"	1/8	KQB2S11-N01S	5.56	17	25.2	22	16.6	17.2	18.7			
	1/4	KQB2S11-N02S	6.35	18	27.1	22.7				39	22.2	
	3/8	KQB2S11-N03S	6.35	18	23.6	18.9						25
	1/2	KQB2S11-N04S	22	23.6	17.2	40.6						
ø1/2"	1/4	KQB2S13-N02S	8	20	30.5	26.1	18.5	46	27.9			
	3/8	KQB2S13-N03S	9.53	20	29.4	24.7				60	30.4	
	1/2	KQB2S13-N04S	9.53	22	25.5	19.1						36.5

(10-32UNF)



(NPT)

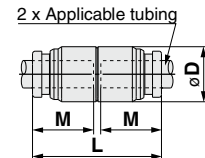


\* Reference dimensions after installation for NPT thread  
Note) Value of FEP tubing.

### Straight Union: KQB2H



Applicable tubing O.D. (inch)	Model	øD	L	M	Note) Effective area (mm <sup>2</sup> )	Weight (g)
ø1/8"	KQB2H01-00	9	25	12	3.4	6.8
ø5/32"	KQB2H03-00	9	26.2	12.6	5.6	6.8
ø1/4"	KQB2H07-00	12	28	13.5	13.1	11.5
ø5/16"	KQB2H09-00	14	33.2	16.1	26.1	17.4
ø3/8"	KQB2H11-00	16	34.2	16.6	41.5	23.7
ø1/2"	KQB2H13-00	20	38	18.5	58.3	37



Note) Value of FEP tubing.

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

Applicable Tubing: Inch Size, Connection Thread: UNF, NPT

## Dimensions

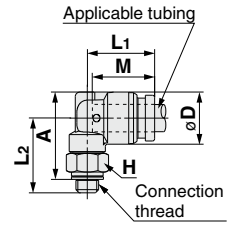
### Male Elbow: KQB2L



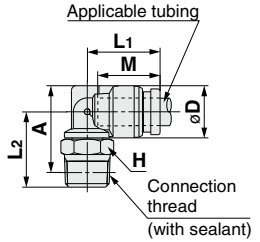
Applicable tubing O.D. (inch)	Connection thread UNF, NPT	Model	H (Width across flat)	øD	L1	L2	A*	M	Note) Effective area (mm <sup>2</sup> )	Weight (g)
ø1/8"	10-32UNF	KQB2L01-32	8	8.3	13.1	14.8	16	12	2.6	6.5
	1/8	KQB2L01-N01S	11.11		13.6	14.9	15.8		3	8.8
	1/4	KQB2L01-N02S	14.29		18.7	18.4	17.7			
ø5/32"	10-32UNF	KQB2L03-32	8	9.1	13.7	15.2	16.8	12.6	3.5	7
	1/8	KQB2L03-N01S	11.11		14.4	15.3	16.6		4.2	9.7
	1/4	KQB2L03-N02S	14.29		19.1	19.2	18.5			
ø1/4"	10-32UNF	KQB2L07-32	8	11.7	14.7	16.5	19.3	13.5	3.5	9.1
	1/8	KQB2L07-N01S	11.11		15.9	16.6	19.2		11.4	11.4
	1/4	KQB2L07-N02S	14.29		20.4	21.8	20.3		33.7	20.3
	3/8	KQB2L07-N03S	17.46		22.2	23.3	23.3		15.8	15.8
	1/2	KQB2L07-N04S	22.23		28.2	29.8	29.8		21.6	21.6
ø5/16"	10-32UNF	KQB2L09-32	8	13.7	18.6	18.3	21.9	16.1	21.6	20.5
	1/8	KQB2L09-N01S	11.11		19.1	21.5	23.9		35.2	21.9
	1/4	KQB2L09-N02S	14.29		23.3	25.4	25.4		35	21.9
ø3/8"	10-32UNF	KQB2L11-32	8	16	20	19.4	24.2	16.6	21.6	20.5
	1/8	KQB2L11-N01S	11.11		21	22.6	26.2		35.2	23.9
	1/4	KQB2L11-N02S	14.29		24.4	27.7	27.7		63.1	35.8
	3/8	KQB2L11-N03S	17.46		28.2	29.8	29.8		30.1	30.1
	1/2	KQB2L11-N04S	22.23		33.3	33.3	33.3		50.2	30.1
ø1/2"	10-32UNF	KQB2L13-32	8	19.6	22.7	24.4	29.8	18.5	50.2	37.9
	1/4	KQB2L13-N02S	14.29		23.7	26.1	31.2		63.8	37.9
	3/8	KQB2L13-N03S	17.46		29.9	29.9	29.9		63.8	63.8

\* Reference dimensions after installation for NPT thread  
Note) Value of FEP tubing.

(10-32UNF)



(NPT)



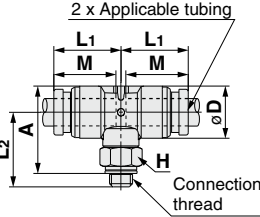
### Male Branch Tee: KQB2T



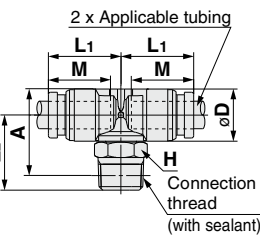
Applicable tubing O.D. (inch)	Connection thread UNF, NPT	Model	H (Width across flat)	øD	L1	L2	A*	M	Note) Effective area (mm <sup>2</sup> )	Weight (g)
ø1/8"	10-32UNF	KQB2T01-32	8	8.3	13.1	14.8	16	12	3.2	8.2
	1/8	KQB2T01-N01S	11.11		13.6	14.9	15.8		3.4	10.6
	1/4	KQB2T01-N02S	14.29		18.7	18.4	19.5			
ø5/32"	10-32UNF	KQB2T03-32	8	9.1	13.7	15.2	16.8	12.6	4.5	9.1
	1/8	KQB2T03-N01S	11.11		14.4	15.3	16.6		6	11.6
	1/4	KQB2T03-N02S	14.29		19.1	19.2	20.5			
ø1/4"	10-32UNF	KQB2T07-32	8	11.7	14.7	16.5	19.3	13.5	4.5	12.3
	1/8	KQB2T07-N01S	11.11		15.9	16.6	19.2		13.9	14.9
	1/4	KQB2T07-N02S	14.29		20.4	21.8	21.8		37.1	23.8
	3/8	KQB2T07-N03S	17.46		22.2	23.3	23.3		40.8	37.1
	1/2	KQB2T07-N04S	22.23		28.2	29.8	29.8		57.2	40.8
ø5/16"	10-32UNF	KQB2T09-32	8	13.7	18.6	18.3	21.9	16.1	26.3	21.2
	1/8	KQB2T09-N01S	11.11		19.1	21.5	23.9		40.8	27.1
	1/4	KQB2T09-N02S	14.29		23.3	25.4	25.4		70.4	40.3
ø3/8"	10-32UNF	KQB2T11-32	8	16	20	19.4	24.2	16.6	40.8	28.1
	1/8	KQB2T11-N01S	11.11		21	22.6	26.2		40.8	31.1
	1/4	KQB2T11-N02S	14.29		24.4	27.7	27.7		70.4	43.1
	3/8	KQB2T11-N03S	17.46		28.2	29.8	29.8		70.4	43.1
	1/2	KQB2T11-N04S	22.23		33.3	33.3	33.3		70.4	70.4
ø1/2"	10-32UNF	KQB2T13-32	8	19.6	22.7	24.4	29.8	18.5	57.2	41.8
	1/4	KQB2T13-N02S	14.29		23.7	26.1	31.2		79.9	49
	3/8	KQB2T13-N03S	17.46		29.9	29.9	29.9		79.9	49

\* Reference dimensions after installation for NPT thread  
Note) Value of FEP tubing.

(10-32UNF)



(NPT)

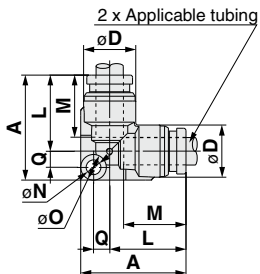


### Union Elbow: KQB2L



Applicable tubing O.D. (inch)	Model	øD	L	A	Q	M	øN	øO	Note) Effective area (mm <sup>2</sup> )	Weight (g)
ø1/8"	KQB2L01-00	8.3	13.6	19.3	2.9	12	3.2	5.6	3	6.3
ø5/32"	KQB2L03-00	9.1	14.6	20.5	3.1	12.6	3.2	5.6	4.2	7.4
ø1/4"	KQB2L07-00	11.7	16.7	23.2	3.7	13.5	3.2	5.6	11.4	11.5
ø5/16"	KQB2L09-00	13.7	20.1	29.1	5	16.1	4.2	8	21.6	20.2
ø3/8"	KQB2L11-00	16	21.4	31.1	5.7	16.6	4.2	8	35.2	28.2
ø1/2"	KQB2L13-00	19.6	24.9	35.3	6.4	18.5	4.2	8	50.2	41.7

Note) Value of FEP tubing.



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: Inch Size, Connection Thread: UNF, NPT

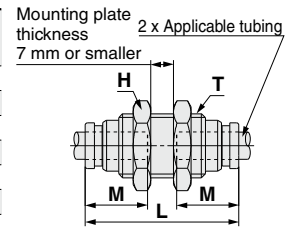
## Dimensions

### Bulkhead Union: KQB2E



Applicable tubing O.D. (inch)	Model	T (UNF)	H (Width across flat)	L	Mounting hole	M	Note) Effective area (mm <sup>2</sup> )	Weight (g)
ø1/8"	KQB2E01-00	7/16-20UNF	14.29	34.2	12.5	12	3.4	21.8
ø5/32"	KQB2E03-00	7/16-20UNF	14.29	34.4	12.5	12.6	5.6	21.6
ø1/4"	KQB2E07-00	1/2-20UNF	17.46	36.2	14	13.5	13.1	30.2
ø5/16"	KQB2E09-00	5/8-18UNF	22.23	41.2	17	16.1	26.1	43.9
ø3/8"	KQB2E11-00	3/4-16UNF	22.23	42.4	20.5	16.6	41.5	64.2
ø1/2"	KQB2E13-00	7/8-14UNF	25.4	47	23.5	18.5	58.3	94.2

Note) Value of FEP tubing.

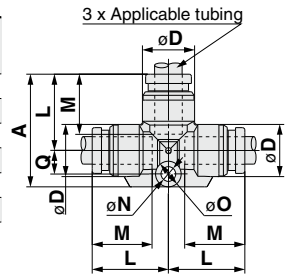


### Union Tee: KQB2T



Applicable tubing O.D. (inch)	Model	øD	L	A	Q	M	øN	øO	Note) Effective area (mm <sup>2</sup> )	Weight (g)
ø1/8"	KQB2T01-00	8.3	13.6	20.5	4.1	12	3.2	5.6	3.4	7.9
ø5/32"	KQB2T03-00	9.1	14.6	21.8	4.4	12.6	3.2	5.6	6.4	9.5
ø1/4"	KQB2T07-00	11.7	16.7	24.7	5.2	13.5	3.2	5.6	13.4	14.7
ø5/16"	KQB2T09-00	13.7	20.1	31.1	7	16.1	4.2	8	25.6	24.4
ø3/8"	KQB2T11-00	16	21.4	33.4	8	16.6	4.2	8	40	34.7
ø1/2"	KQB2T13-00	19.6	24.9	37.9	9	18.5	4.2	8	57.4	52.3

Note) Value of FEP tubing.

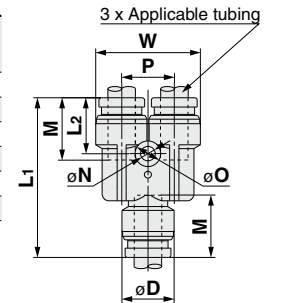


### Union "Y": KQB2U



Applicable tubing O.D. (inch)	Model	øD	W	L <sub>1</sub>	L <sub>2</sub>	P	M	øN	øO	Note) Effective area (mm <sup>2</sup> )	Weight (g)
ø1/8"	KQB2U01-00	8.3	16.4	29	11	8.1	12	3.2	5.6	3.4	9.2
ø5/32"	KQB2U03-00	9.1	18.2	30.4	11.3	9.1	12.6	3.2	5.6	4.2	11.1
ø1/4"	KQB2U07-00	11.7	23.9	34.5	12.1	12.2	13.5	3.2	5.6	13.4	19.6
ø5/16"	KQB2U09-00	13.7	28.3	40.1	14.1	14.6	16.1	4.2	8	25.6	29.7
ø3/8"	KQB2U11-00	16	33.2	42.2	14	17.2	16.6	4.2	8	40	43.1
ø1/2"	KQB2U13-00	19.6	40.2	47.3	15.8	20.6	18.5	4.2	8	57.4	66.4

Note) Value of FEP tubing.

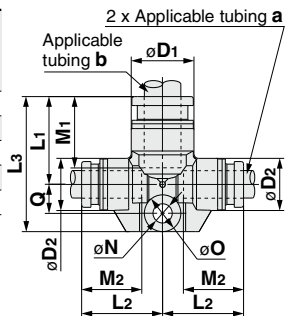


### Different Diameter Tee: KQB2T



Applicable tubing O.D. (inch)	Model	øD <sub>1</sub>	øD <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	Q	M <sub>1</sub>	M <sub>2</sub>	øN	øO	Note) Effective area (mm <sup>2</sup> )	Weight (g)
ø1/8" ø5/32"	KQB2T01-03	9.1	8.3	14.2	14.1	21.1	4.1	12.6	12	3.2	5.6	3.8	8.5
ø5/32" ø1/4"	KQB2T03-07	11.7	9.1	15.5	15.9	22.7	4.4	13.5	12.6	3.2	5.6	7.1	11.7
ø1/4" ø5/16"	KQB2T07-09	13.7	11.7	19.3	17.6	29.6	6.3	16.1	13.5	4.2	8	16.4	20.2
ø5/16" ø3/8"	KQB2T09-11	16	13.7	20.6	21	31.7	7.1	16.6	16.1	4.2	8	36	28.9
ø3/8" ø1/2"	KQB2T11-13	19.6	16	23.3	23	35.4	8.1	18.5	16.6	4.2	8	56	41.8

Note) Value of FEP tubing.

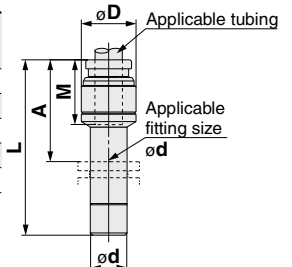


### Plug-in Reducer: KQB2R



Applicable tubing O.D. (inch)	Applicable fitting size ød	Model	øD	L	A	M	Note) Effective area (mm <sup>2</sup> )	Weight (g)
ø1/8"	ø5/32"	KQB2R01-03	9	32.9	20.3	12	3.4	4.9
ø5/32"	ø1/4"	KQB2R03-07	9	33.7	20.2	12.6	5.6	7.4
ø1/4"	ø5/16"	KQB2R07-09	12	38.4	22.3	13.5	13.1	12.5
ø5/16"	ø3/8"	KQB2R09-11	14	41.6	25	16.1	26.1	17.7
ø3/8"	ø1/2"	KQB2R11-13	17	39.8	21.3	16.6	41.5	24.7

Note) Value of FEP tubing.



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

Applicable Tubing: Inch Size, Connection Thread: UNF, NPT

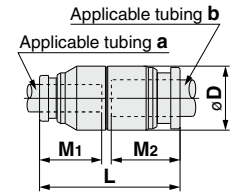
## Dimensions

### Different Diameter Straight: KQB2H



Applicable tubing O.D. (inch)		Model	øD	L	M1	M2	Note) Effective area (mm <sup>2</sup> )	Weight (g)
a	b							
ø1/8"	ø5/32"	KQB2H01-03	9	25.6	12	12.6	3.4	6.8
ø5/32"	ø1/4"	KQB2H03-07	12	27.1	12.6	13.5	5.6	11.9
ø1/4"	ø5/16"	KQB2H07-09	14	30.6	13.5	16.1	13.1	16.8
ø5/16"	ø3/8"	KQB2H09-11	16	33.7	16.1	16.6	26.1	23.9
ø3/8"	ø1/2"	KQB2H11-13	20	36.1	16.6	18.5	41.5	38.8

Note) Value of FEP tubing.

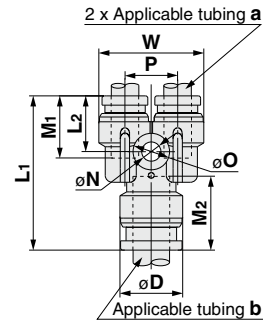


### Different Diameter Union "Y": KQB2U



Applicable tubing O.D. (inch)		Model	øD	L1	L2	P	W	M1	M2	øN	øO	Note) Effective area (mm <sup>2</sup> )	Weight (g)
a	b												
ø1/8"	ø5/32"	KQB2U01-03	9.1	27	10.8	8.1	16.4	12	12.6	3.2	5.6	3.2	8.5
ø5/32"	ø1/4"	KQB2U03-07	11.7	28.8	11.4	9.1	18.2	12.6	13.5	3.2	5.6	4.2	11.8
ø1/4"	ø5/16"	KQB2U07-09	13.7	33.8	12	12.2	23.9	13.5	16.1	4.2	8	13.4	20
ø5/16"	ø3/8"	KQB2U09-11	16	38.3	13.8	14.6	28.3	16.1	16.6	4.2	8	25.6	31
ø3/8"	ø1/2"	KQB2U11-13	19.6	40.5	13.7	17.2	33.2	16.6	18.5	4.2	8	40	45

Note) Value of FEP tubing.

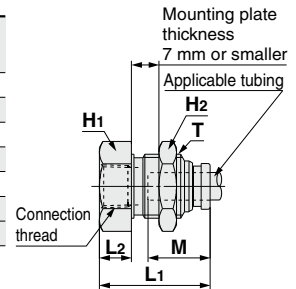


### Bulkhead Connector: KQB2E



Applicable tubing O.D. (inch)	Connection thread NPT	Model	T (UNF)	Width across flat		L1	L2	Mounting hole	M	Note) Effective area (mm <sup>2</sup> )	Weight (g)
				H1	H2						
ø1/8"	1/4	KQB2E01-N02	7/16-20UNF	17.46	14.29	32.8	15.3	12.5	12	3.4	34.1
ø5/32"	1/4	KQB2E03-N02	7/16-20UNF	17.46	14.29	32.6	15.3	12.5	12.6	5.6	33.5
ø1/4"	1/4	KQB2E07-N02	1/2-20UNF	17.46	17.46	33.1	14.8	14	13.5	13.1	36.5
ø5/16"	3/8	KQB2E09-N03	5/8-18UNF	22.23	22.23	35.8	15.1	17	16.1	26.1	56.1
ø3/8"	3/8	KQB2E11-N03	3/4-16UNF	22.23	22.23	35.2	13.7	20.5	16.6	41.5	62.9
ø1/2"	3/8	KQB2E13-N03				34.6	11				76.6
	1/2	KQB2E13-N04	7/8-14UNF	23.81	25.4	42.2	18.6	23.5	18.5	58.3	80.2

Note) Value of FEP tubing.

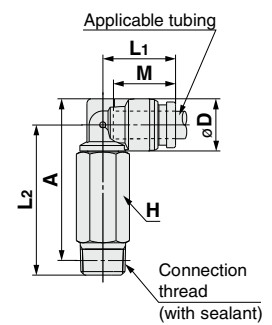


### Extended Male Elbow: KQB2W



Applicable tubing O.D. (inch)	Connection thread NPT	Model	H (Width across flat)	øD	L1	L2	A*	M	Note) Effective area (mm <sup>2</sup> )	Weight (g)
	1/4	KQB2W01-N02S	14.29	35.4	35.1	37.3				
ø5/32"	1/8	KQB2W03-N01S	11.11	9.1	14.4	32	33.3	12.6	4	20.3
		1/4	KQB2W03-N02S			14.29	35.8			35.9
ø1/4"	1/8	KQB2W07-N01S	11.11	11.7	15.9	33.3	35.9	13.5	10.9	22.1
		1/4	KQB2W07-N02S			14.29	37.1			38.5
ø5/16"	3/8	KQB2W07-N03S	17.46	13.7	19.1	38.9	40	16.1	20.5	65.6
		1/8	KQB2W09-N01S			12.7	18.6			34.7
ø3/8"	1/4	KQB2W09-N02S	14.29	13.7	19.1	40.2	42.6	16.1	20.5	41.6
		3/8	KQB2W09-N03S			17.46	42			44.1
ø1/2"	1/4	KQB2W11-N02S	14.29	19.6	23.7	47.2	50.8	18.5	47.7	44.9
		3/8	KQB2W11-N03S			17.46	45.4			48.7
	1/2	KQB2W11-N04S	22.23			49.2	50.8			124.2
ø1/2"	1/4	KQB2W13-N02S	14.29	19.6	23.7	22.7	54.4	18.5	47.7	51.1
		3/8	KQB2W13-N03S			17.46	50.7			55.8
	1/2	KQB2W13-N04S	22.23			54.5	57.9			125.9

\* Reference dimensions after installation of NPT thread  
Note) Value of FEP tubing.



- 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

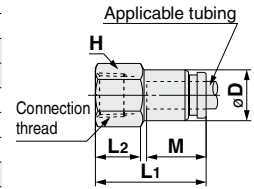
Applicable Tubing: Inch Size, Connection Thread: UNF, NPT

## Dimensions

### Female Connector: KQB2F



Applicable tubing O.D. (inch)	Connection thread NPT	Model	H (Width across flat)	Note 1) $\phi D$	L1	L2	M	Note 2) Effective area (mm <sup>2</sup> )	Weight (g)
$\phi 1/8$ "	1/8	KQB2F01-N01	12.7	8	24.1	10.4	12	3.4	11.3
	1/4	KQB2F01-N02	17.46		29.1	13.7			25.4
$\phi 5/32$ "	1/8	KQB2F03-N01	12.7	8.7	24.6	10.5	12.6	5.6	11.8
	1/4	KQB2F03-N02	17.46		29.6	13.8			25.9
$\phi 1/4$ "	1/8	KQB2F07-N01	12.7	11.2	25	10.7	13.5	13.1	13
	1/4	KQB2F07-N02	17.46		30	14.1			27.5
	3/8	KQB2F07-N03	22.23		31.2	14.6			41.1
$\phi 5/16$ "	1/8	KQB2F09-N01	14.29	13.4	27.2	10.3	16.1	26.1	18.8
	1/4	KQB2F09-N02	17.46		32.2	14.3			30.1
	3/8	KQB2F09-N03	22.23		33.4	14.8			44
$\phi 3/8$ "	1/4	KQB2F11-N02	17.46	16	32.1	14.4	16.6	41.5	32.9
	3/8	KQB2F11-N03	22.23		33.3	14.9			47
	1/2	KQB2F11-N04	23.81		38.6	18.6			50.4
$\phi 1/2$ "	3/8	KQB2F13-N03	22.23	19.3	34.6	14.7	18.5	58.3	51.3
	1/2	KQB2F13-N04	23.81		39.9	18.8			55.1

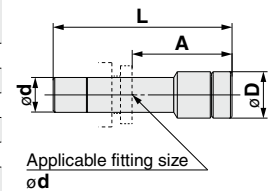


Note 1) For the  $\phi 3/8$ ", this dimension refers to the O.D. of the release button.  
Note 2) Value of FEP tubing.

### Plug: KQB2P



Applicable fitting size $\phi d$	Model	$\phi D$	L	A	Weight (g)
$\phi 1/8$ "	KQB2P-01	5	28.9	16.9	2.8
$\phi 5/32$ "	KQB2P-03	6	29.6	17	4.3
$\phi 1/4$ "	KQB2P-07	8	30.3	16.8	9.4
$\phi 5/16$ "	KQB2P-09	10	33.7	17.6	16.3
$\phi 3/8$ "	KQB2P-11	11	34.1	17.5	22.2
$\phi 1/2$ "	KQB2P-13	14	36.4	17.9	40.7





# KQB2 Series

## Specific Product Precautions

Be sure to read this before handling the products.

Refer to back page 50 for Safety Instructions and pages 13 to 17 for Fittings and Tubing Precautions.

### Selection

#### ⚠ Caution

1. The surge pressure must be under the maximum operating pressure. If the surge pressure exceeds the maximum operating pressure, it will result in damage to fittings and tubing or the tubing may result in being fallen out.
2. If using a fluororesin tubing in an environment where the fluid temperature changes drastically, it is recommended to use an inner sleeve. Otherwise, air leakage may occur or the tube may release from fitting due to deformation of the tubing.
3. The particle generation of the KQB2 series depends on the operating conditions and operating environment. If you are concerned about the effects on machinery and equipment, check the particle generation with your machine before use.

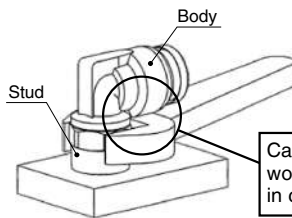
The components of the KQB2 series may slide due to changes in the internal pressure, which may generate particles. When using male elbow, male branch tee, and extended male elbow fittings, particles may be generated by rotation for positioning after connecting.

### Mounting

#### ⚠ Caution

1. When performing the piping work, turn the tightening tool in the horizontal direction to the hex. across flats of the stud so that any moment is not applied to the body.

If the tool is in contact with the body, this may cause the stud to come off.



2. The union elbow, union tee, union "Y", different diameter tee and different diameter union "Y" should be fixed through the mounting hole.

Otherwise, air leakage or breaking can occur due to a pulling force or moment load created by the product's weight.

3. The elbow union, branch tee, and long elbow union can be turned for positioning after connecting, but they cannot be used while turning them.

Doing so may cause worn out metallic particles to enter the fluid or the fitting to break.

4. If the connection tube oscillates or turns, do not use this product.

Doing so may cause the fitting to break. In particular, for the product with the stud, this may cause the stud to come off.

### Installation and Removal of Tubing

#### ⚠ Caution

##### 1. Installation of tubing

- 1) Grease is not used for the KQB2 series, therefore a greater insertion force is required when the tube is installed. In particular, polyurethane tubing may fold when inserted due to its softness. Hold the end of the tubing, and insert it all the way in slowly and securely. Refer to dimension "M" in the dimension drawings for guidance on the insertion depth of tubing.

##### 2. Removal of tubing

- 1) For tubing used at a high temperature or for an extended period of time, there is a possibility that it will not fit into a One-touch fitting again due to an enlarged O.D. Dispose of the tubing and replace it with a new one.

### Proper Tightening Torque of Fittings

#### ⚠ Caution

1. Tighten fittings with sealant using the proper tightening torques in the table below. As a rule, they should be tightened 2 to 3 turns with a tool after first tightening by hand.

If tightened using a torque exceeding the proper torque level, this may cause the fitting to break.

In particular, for the product with the stud, the stud may come off.

#### R thread/NPT thread Proper tightening torque

Connection thread size	Proper tightening torque N·m
NPT, R1/8	3 to 5
NPT, R1/4	8 to 12
NPT, R3/8	15 to 20
NPT, R1/2	20 to 25

#### G thread Proper tightening torque

Connection thread size	Proper tightening torque N·m
G1/8	2.9 to 3.2
G1/4	5.7 to 6.3
G3/8	9.5 to 10.5
G1/2	14.3 to 15.8

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