

One-touch Fittings

Series KQ2

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

How to Order

KQ 2 H 06 - 01 S -

• **One-touch fittings**

• **Product's color**

Symbol	Body	Release button
2	White	Light gray
Nil	Black	Blue

• **With thread sealant (Male thread only)**

Nil	None
S	With thread sealant

Note) Port size with sealant: Only
R 1/8
R 1/4
R 3/8
R 1/2

• **Applicable tubing O.D.**

23	ø3.2
04	ø4
06	ø6
08	ø8
10	ø10
12	ø12
16	ø16

• **Port size/Applicable tubing O.D.**

Tubing (Rod) connection	Thread connection	Applicable tubing O.D.
M5	M5	M5 x 0.8
M6	M6	M6 x 1.0
01	R 1/8, Rc 1/8	
02	R 1/4, Rc 1/4	
03	R 3/8, Rc 3/8	
04	R 1/2, Rc 1/2	
00	Same dia. tubing	
04	ø4	(Reducer) Different dia. tubing
06	ø6	
08	ø8	
10	ø10	
12	ø12	
16	ø16	
99	Same dia. rod	

• **Made to Order**
Refer to page 58 for details.

• **Model**

H	Male connector	T	Male branch tee
	Straight union		Union tee
	Different diameter straight		Different diameter tee*
S	Hex. socket head male connector	TW	Cross*
F	Female connector	TX	Different diameter cross*
		TY	Different diameter cross*
		Y	Male run tee
L	Male elbow	D	Male delta union
	Union elbow		Delta union
	Plug-in elbow		Branch "Y"
LU	Male branch connector	U	Union "Y"
	Branch union elbow		Different dia. union "Y"
	K		45° male elbow
V	Universal male elbow	UD	Delta branch
VS	Hexagon socket head universal male elbow		Different dia. double union "Y"
VF	Universal female elbow		Double plug-in "Y"
LF	Female elbow	X	Different diameter plug-in "Y"
VD	Double universal male elbow	R	Plug-in reducer
VT	Triple universal male elbow		Bulkhead union
Z	Branch universal male elbow		Bulkhead connector
ZF	Branch universal female elbow	E	Bulkhead male elbow
ZD	Double branch universal male elbow		
ZT	Triple branch universal male elbow		
W	Extended plug-in elbow		
	Extended male elbow		

* Available only for white color body.

Accessory

Symbol	Name
KQ2N	Nipple
	Reducer nipple
KQ2C	Adaptor
	Tube cap
KQ2C	Color cap
KQ2P	Plug (White)
KQP	Plug (Blue)

Use the below part number to order the gasket for M5 and M6 threads.

Gasket for M5 thread: M-5G2

Gasket for M6 thread: M-6G

Series KQ2: White body
Series KQ : Black body

Guide

Collet

Chuck

Suitable for use with nylon and urethane. Large retaining force.

Has large retaining force while holding force is increased by the collet.

Seal

Can be used for a wide range of pressures from a low vacuum up to a pressure of 1 MPa.

The use of a special profile ensures sealing and reduces resistance when the tube is inserted.

Connection thread

M, R, Rc

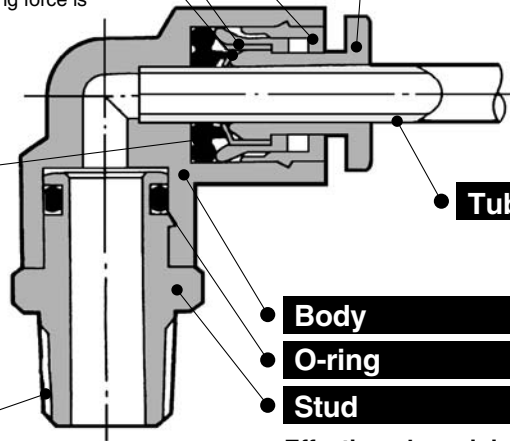
Release button

Series KQ2: Light gray

Series KQ : Blue

Light force for removal

When the fitting is removed from the tube, the chuck and collet are released, thus preventing them from biting into the tube excessively.



Tube

Body

O-ring

Stud

Effective when piping in a confined space.

The body and the threaded portion can rotate. (To the degree for positioning)

PAT.

- K
- M
- H
- KK
- D
- MS
- LQ
- MQR
- T

One-touch IN/OUT connection.
Possible to use in vacuum
to **-100 kPa**



Applicable Tubing

Tube material	FEP, PFA, Nylon, Soft nylon ⁽¹⁾ , Polyurethane
Tube O.D.	ø3.2, ø4, ø6, ø8, ø10, ø12, ø16

Note 1) Soft nylon tubing is not compatible with water.

Product's Color

Series	Body	Release button
Series KQ2	White	Light gray
Series KQ	Black	Blue

Specifications

Fluid		Air/Water ⁽²⁾
Operating pressure range ⁽³⁾		-100 kPa to 1 MPa
Proof pressure		3 MPa
Ambient and fluid temperature		-5 to 60°C, Water: 0 to 40°C (No freezing)
Thread	Mounting section	JIS B0203 (Taper thread for piping) JIS B0205 (Metric coarse thread)
	Nut section	JIS B0205 (Metric fine thread)
Seal on the threads		With sealant or none



Note 2) The surge pressure must be under the maximum operating pressure.

Note 3) Do not use the fittings with a leak tester or for vacuum retention because they are not guaranteed for zero leakage.

Principal Parts Material

Body	C3604, PBT, PP
Stud	C3604 (Thread portion)
Chuck	Stainless steel 304
Guide	Stainless steel 304, C3604, PBT
Collet, Release button	POM
Seal, O-ring	NBR
Gasket	Stainless steel 304, NBR

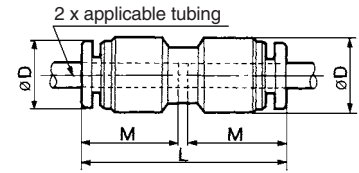


Made to Order
(Refer to page 58 for details.)

Straight Union: KQ2H



Applicable tubing O.D. (mm)	Model	øD ⁽¹⁾	L	M	Effective area ⁽²⁾ (mm ²)		Mass (g)
					Nylon	Urethane	
3.2	KQ2H23-00	9.6	31.5	15.5	3.4	2.9	3
4	KQ2H04-00	10.4	32.5	16	5.6	4	3
6	KQ2H06-00	12.8	34.5	17	13.1	10.4	4
8	KQ2H08-00	15.2	38.5	18.5	26.1	18.0	6
10	KQ2H10-00	18.5	42.5	21	41.5	29.5	11
12	KQ2H12-00	20.9	44.5	22	58.3	46.1	14
16	KQ2H16-00	26.5	51	25	113	(96)	24

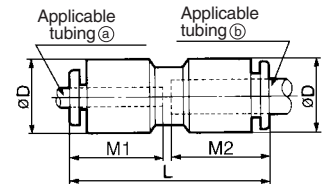


Note 1) øD: Max. diameter
Note 2) (): Values for soft nylon.

Different Diameter Straight: KQ2H



Applicable tubing O.D. (mm)		Model	Note) øD	L	M1	M2	Effective area (mm ²)		Mass (g)
(a)	(b)						Nylon	Urethane	
3.2	4	KQ2H23-04	10.4	32.5	15.5	16	3.4	2.9	3
4	6	KQ2H04-06	12.8	34.5	16	17	5.6	5.6	5
6	8	KQ2H06-08	15.2	38.5	17	18.5	13.1	10.4	6
8	10	KQ2H08-10	18.5	42	18.5	21	26.1	18.0	11
10	12	KQ2H10-12	20.9	44.5	21	22	41.5	29.5	14
12	16	KQ2H12-16	26.5	56.5	22	25	58.3	46.1	47



Note) øD: Max. diameter

Male Elbow: KQ2L

<M5>



<M6>



<R>

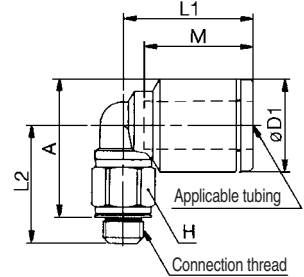


Applicable tubing O.D. (mm)	Connection thread R M	Model	H (width across flats)	Note 1) øD ⁽¹⁾		L1	L2	A*	M	Effective area ⁽²⁾ (mm ²)		Mass (g)	
				øD1	øD2					Nylon	Urethane		
3.2	M5 x 0.8	KQ2L23-M5	7	8.5	—	15.3	13.2	14.3	12.7	2.6	2.2	2.5	
	1/8	KQ2L23-01S	10	9.6	10	17.5	20.6	22.5	15.5	3	2.5	8	
	1/4	KQ2L23-02S	14	—	—	—	25	24.5	—	—	—	18	
4	M5 x 0.8	KQ2L04-M5	7	9.3	—	15.6	13.7	15.3	12.7	3.5	3.5	2.7	
	M6 x 1.0	KQ2L04-M6	8	—	—	—	14.7	—	—	—	—	3.6	
	1/8	KQ2L04-01S	10	10.4	10	18	21.1	23	16	4.2	4.2	10	
6	1/4	KQ2L04-02S	14	—	—	—	25.5	25	—	—	—	19	
	M5 x 0.8	KQ2L06-M5	7	11.6	—	16.1	14.7	17.4	13.5	3.5	3.5	3.2	
	M6 x 1.0	KQ2L06-M6	8	—	—	—	15.7	—	—	—	—	4.1	
8	1/8	KQ2L06-01S	10	12.8	10	20	22.1	25.5	17	11.4	9.0	12	
	1/4	KQ2L06-02S	14	—	—	—	26.5	27.5	—	—	—	22	
	3/8	KQ2L06-03S	17	—	—	—	27.9	29	—	—	—	33	
10	1/8	KQ2L08-01S	12	15.2	12	23	23.6	28	18.5	21.6	14.9	13	
	1/4	KQ2L08-02S	14	—	—	—	28	30	—	—	—	21	
	3/8	KQ2L08-03S	17	—	—	—	29.4	31.5	—	—	—	35	
12	1/8	KQ2L10-01S	17	18.5	17	26.5	26.1	32	21	21.6	14.9	25	
	1/4	KQ2L10-02S	—	—	—	—	29.5	33	—	—	—	26	
	3/8	KQ2L10-03S	—	—	—	—	30.9	34.5	—	—	—	36	
16	1/2	KQ2L10-04S	22	—	—	—	35.1	37	—	—	—	63	
	3/8	KQ2L12-02S	17	20.9	17	28.5	30.5	35.5	22	50.2	39.7	28	
	1/2	KQ2L12-04S	22	—	—	—	31.9	37	—	—	—	38	
16	3/8	KQ2L16-03S	—	—	—	—	36.1	39.5	—	—	—	65	
	1/2	KQ2L16-04S	—	—	—	—	36.9	44.5	—	—	—	101	
	—	—	—	—	—	—	40.1	46	25	71	(71)	101	
—	—	—	—	—	—	—	—	—	—	—	100	(84)	105

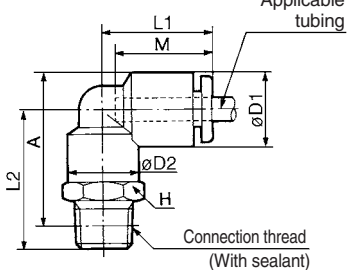


* Reference dimensions after R thread installation.
Note 1) øD1: Max. diameter
Note 2) (): Values for soft nylon.

<M5, M6>



<R>

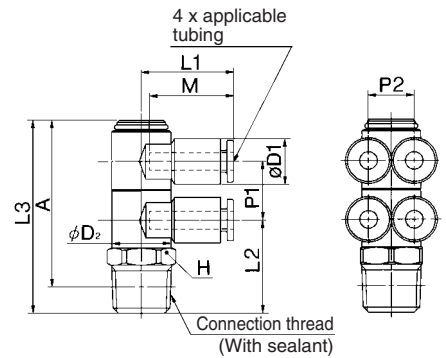


Series KQ2

Double Branch Universal Male Elbow: KQ2ZD



Applicable tubing O.D. (mm)	Connection threads R	Model	H (width across flats)	Note) $\phi D1$	$\phi D2$	L1	L2	L3	A*	M	P1	P2	Mass (g)
4	1/8	KQ2ZD04-01S	14	10.4	13.4	21	17.6	40.1	37	16	13.4	10.4	25
	1/4	KQ2ZD04-02S					21	43.5	38				31
	3/8	KQ2ZD04-03S					17	22.4	44.9				40
6	1/8	KQ2ZD06-01S	14	12.8	13.4	22	17.6	40.1	37	17	13.4	12.8	27
	1/4	KQ2ZD06-02S					21	43.5	38				33
	3/8	KQ2ZD06-03S					17	22.4	44.9				40
8	1/8	KQ2ZD08-01S	19	15.2	17.6	26	20.1	47.1	44	18.5	15.9	15.2	56
	1/4	KQ2ZD08-02S					23.5	50.5	45				54
	3/8	KQ2ZD08-03S					23.5	50.9	45.5				62
	1/2	KQ2ZD08-04S					21	27.6	54.6				47.5
10	1/4	KQ2ZD10-02S	21	18.5	20.6	29	26	57.5	52	21	19.2	18.5	83
	3/8	KQ2ZD10-03S					26.4	57.9	53				85
	1/2	KQ2ZD10-04S					29.6	61.1	54				102
12	1/4	KQ2ZD12-02S	26	20.9	25.2	32	28	64	58.5	22	21.6	20.9	134
	3/8	KQ2ZD12-03S					28.5	64.4	59				130
	1/2	KQ2ZD12-04S					31.6	67.6	60				141



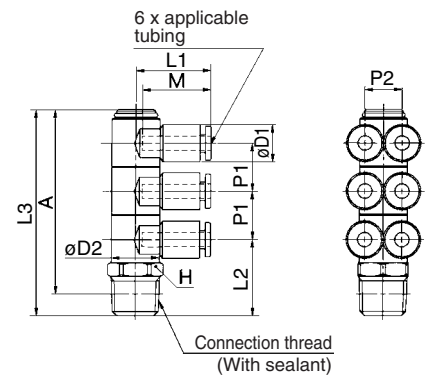
* Reference dimensions after R thread installation.
Note) $\phi D1$: Max. diameter



Triple Branch Universal Male Elbow: KQ2ZT



Applicable tubing O.D. (mm)	Connection threads R	Model	H (width across flats)	Note) $\phi D1$	$\phi D2$	L1	L2	L3	A*	M	P1	P2	Mass (g)
4	1/8	KQ2ZT04-01S	14	10.4	13.4	21	16.7	53.6	50.5	16	13.4	10.4	34
	1/4	KQ2ZT04-02S					20.5	57	51.5				40
	3/8	KQ2ZT04-03S					17	22.4	58.4				53.5
6	1/8	KQ2ZT06-01S	14	12.8	13.4	22	17.6	53.6	50.5	17	13.4	12.8	38
	1/4	KQ2ZT06-02S					21	57	51.5				43
	3/8	KQ2ZT06-03S					17	22.4	58.4				53.5
8	1/8	KQ2ZT08-01S	19	15.2	17.6	26	20.1	63.1	60	18.5	15.9	15.2	76
	1/4	KQ2ZT08-02S					23.5	66.5	61				72
	3/8	KQ2ZT08-03S					23.5	66.9	61.5				81
	1/2	KQ2ZT08-04S					21	27.6	70.6				63.5
10	1/4	KQ2ZT10-02S	21	18.5	20.6	29	26	77	71.5	21	19.2	18.5	111
	3/8	KQ2ZT10-03S					26.4	77.4	72				128
	1/2	KQ2ZT10-04S					29.6	80.6	73.5				128
12	1/4	KQ2ZT12-02S	26	20.9	25.2	32	28	85.5	80	22	21.6	20.9	178
	3/8	KQ2ZT12-03S					28.5	85.9	80.5				167
	1/2	KQ2ZT12-04S					31.6	89.1	82				179



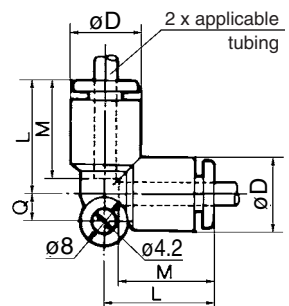
* Reference dimensions after R thread installation.
Note) $\phi D1$: Max. diameter



Union Elbow: KQ2L



Applicable tubing O.D. (mm)	Model	$\phi D^{(1)}$	L	Q	M	Effective area ⁽²⁾ (mm ²)		Mass (g)
						Nylon	Urethane	
3.2	KQ2L23-00	9.6	17.5	4.3	15.5	3	2.5	3
4	KQ2L04-00	10.4	18	4.5	16	4.2	4.2	6
6	KQ2L06-00	12.8	20	5.3	17	11.4	9.0	6
8	KQ2L08-00	15.2	23	6	18.5	21.6	14.9	10
10	KQ2L10-00	18.5	26.5	6.8	21	35.2	25.0	17
12	KQ2L12-00	20.9	28.5	7.5	22	50.2	39.7	21
16	KQ2L16-00	26.5	34	10	25	100	(84)	29



Note 1) ϕD : Max. diameter
Note 2) (): Valves for soft nylon.