

# 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

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.

Thread connection	Port size/Applicable tubing O.D.
M5	M5 x 0.8
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
06	ø6
08	ø8
10	ø10
12	ø12
16	ø16
99	Same dia. rod

Tubing (Rod) connection (Reducer) Different dia. tubing

With thread seal

Nil	None
S	With thread seal

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

#### Model

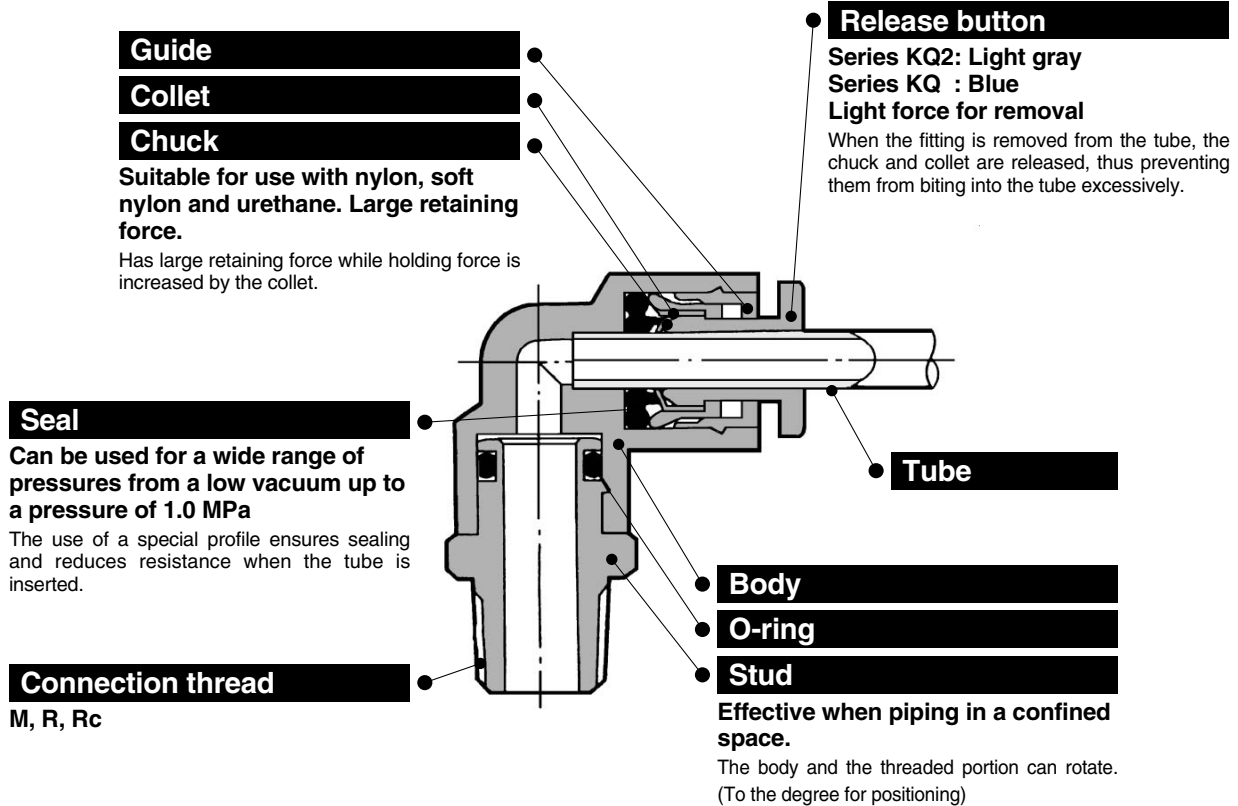
H	Male connector	T	Male branch tee
	Straight union		Union tee
S	Different diameter straight	TW	Different diameter tee * Note)
	Hex. socket head male connector		Cross*
F	Female connector	TX	Different diameter cross*
L	Male elbow	TY	Different diameter cross*
	Union elbow	Y	Male run tee
	Plug-in elbow	D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

Accessory	
Symbol	Name
	Nipple
KQ2N	Reducer nipple
	Adaptor
KQ2C	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

\* Available only for white color body.  
Note) KQT06-04, KQT08-06, KQT10-08, and KQT12-10 are available as made to order.

Series KQ2: White body  
Series KQ : Black body



PAT.

- K
- M
- H
- D
- MS
- T
- VMG

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

- Applications for metric size tubing
- Applicable tubing material—Nylon, Soft nylon, Polyurethane

### Applicable Tubing

Tube material	Nylon, Soft nylon, Polyurethane
Tube O.D.	ø3.2, ø4, ø6, ø8, ø10, ø12, ø16

### Product's Color

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

### Specifications

Fluid	Air/Water <sup>(Note)</sup>	
Maximum operating pressure	1.0 MPa	
Operating vacuum pressure	-100 kPa	
Proof pressure	3.0 MPa	
Ambient and fluid temperature	-5 to 60°C, Water: 0 to 40°C (No freezing)	
Thread	Mounting section	JIS B 0203 (Taper thread for piping) JIS B 0209 Class 2 (Metric coarse thread)
	Nut section	JIS B 0211 Class 2 (Metric fine thread)
Seal (Thread portion)	With seal or none	

Note) Applicable for general industrial water. Please consult with SMC if using for other kinds of fluid. Also, the surge pressure must be under the maximum operating pressure.

### Principal Parts Material

Body	C3604BD, PBT, PP
Stud	C3604BD (Thread portion)
Chuck	Stainless steel 304
Guide	Stainless steel 304, C3604BD, POM
Collet, Release button	POM
Seal, O-ring	NBR
Gasket	Stainless steel 304, NBR



**Made to Order** P. 15-2-30

## Hexagon socket head universal male elbow

KQ2VS P. 17



Hex. on the top allows thread connection by using an allen wrench for confined spaces.

## Triple branch universal male elbow

KQ2ZT P. 20



Use to six-branch line at right angles from female thread. Three individual parts rotate 360°.

## Union "Y"

KQ2U P. 26



Use to branch line in the same direction.

## Male branch connector

KQ2LU P. 16



Use to branch piping at right angles to female thread.

## Branch union elbow

KQ2LU P. 21



Use to branch line at right angles.

## Different dia. union "Y"

KQ2U P. 26



Use to branch line with size down in the same direction.

## Universal female elbow

KQ2VF P. 18



Use to branch line in the same direction or at the right angles from male or female thread. Multiplex connection possible.

## Extended plug-in elbow

KQ2W P. 21



When the elbow extends over a standard elbow for ease of connection/disconnection of tube.

## Plug-in "Y"

KQ2U P. 27



Use to branch line in the same direction from One-touch fittings.

## Female elbow

KQ2LF P. 18



Use to pipe at right angles to male thread.

## Male delta union

KQ2D P. 25



Use to branch line in 90° direction from female thread.

## Branch "Y"

KQ2U P. 25



Use to branch line in the same direction from female thread.

## Double universal male elbow

KQ2VD P. 18



Use to branch line at right angles to female thread. Two individual parts rotate 360°.

## Delta union

KQ2D P. 25



Use to branch in tripple 90° direction.

## Plug-in reducer

KQ2R P. 28



Use to change size of One-touch fittings.

## Triple universal male elbow

KQ2VT P. 19



Use to three-branch line at right angles from female thread. Three individual parts rotate 360°.

## Delta branch

KQ2UD P. 26



Use to four-branch line in the same direction from female thread.

## Bulkhead male elbow

KQ2LE P. 28



Use to connect tubes through a panel, changing by 90° in a tube fetching direction.

## Branch universal male elbow

KQ2Z P. 19



Hexagonal head allows thread connection by using a box wrench. Use for branch connection.

## Different dia. double union "Y"

KQ2UD P. 26



Use to four-branch line in the same direction with size down.

## Adaptor

KQ2N P. 28



Use to connect fitting and R female thread.

## Branch universal female elbow

KQ2ZF P. 19



Use to branch line in the same direction or at right angles from male or female thread. Multiplex connection possible.

## Different diameter plug-in "Y"

KQ2X P. 27



Use to branch line from One-touch fitting with size down.

## Tube cap

KQ2C P. 29



Use to plug unused tube.

## Double branch universal male elbow

KQ2ZD P. 20



Use to four-branch line at right angles from female thread. Two individual parts rotate 360°.

## Double plug-in "Y"

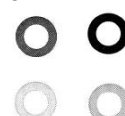
KQ2XD P. 27



Use to four-branch line from One-touch fitting.

## Color cap

KQ2C P. 29



Mounted on the release button corresponding to its applications. Distinguished by color.

## Male run tee

KQ2Y P. 24



Use to branch line in the same direction from female thread and in 90° direction.

## Gasket/Seal for M5 and M6 thread

Part no.: M-5G2 (For M5 thread)  
M-6G (For M6 thread)

Material: Stainless steel 304, NBR

## Plug

KQ2P, KQP P. 29



Use to plug unused One-touch fittings. KQP (Blue) KQ2P (White)

- K
- M
- H
- D
- MS
- T
- VMG

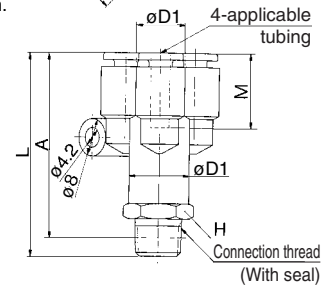
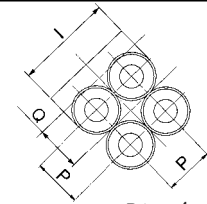
# Series KQ2

## Delta Branch: KQ2UD



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) $\phi D1$	$\phi D2$	L	I	A*	Q	M	P	Effective area (mm <sup>2</sup> )		Weight (g)
												Nylon	Urethane	
4	1/8	KQ2UD04-01S	13	10.4	12.8	43.5	21	39.5	9.7	16	10.4	4.2	4.2	17
	1/4	KQ2UD04-02S	14			47		41				25		
6	1/8	KQ2UD06-01S	17	12.8	15.2	50.5	26	46.5	11.7	17	12.8	13.4	10.6	29
	1/4	KQ2UD06-02S				53.5		47.5						

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

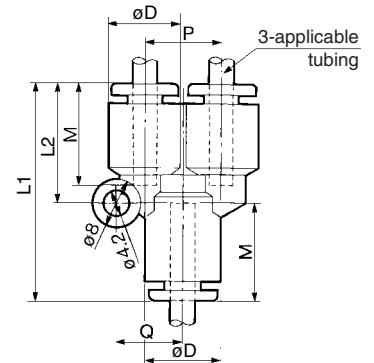


## Union "Y": KQ2U



Applicable tubing O.D. (mm)	Model	$\phi D^{(1)}$	L1	L2	P	Q	M	Effective area (mm <sup>2</sup> ) <sup>(2)</sup>		Weight (g)
								Nylon	Urethane	
3.2	KQ2U23-00	9.6	33	17.5	9.6	9	15.5	3.4	2.9	5
4	KQ2U04-00	10.4	34	18	10.4	9.7	16	4.2	4.2	7
6	KQ2U06-00	12.8	37	20	12.8	11.7	17	13.4	10.6	9
8	KQ2U08-00	15.2	42.5	24.5	15.2	13.7	18.5	25.6	17.7	11
10	KQ2U10-00	18.5	48	27.5	18.5	16.1	21	40	28.4	16
12	KQ2U12-00	20.9	51	30	20.9	18.1	22	57.4	45.4	23
16	KQ2U16-00	26.5	61.5	36.5	26.5	23	25	113	(96)	54

Note 1)  $\phi D$ : Max. diameter  
Note 2) ( ): Values for soft nylon.

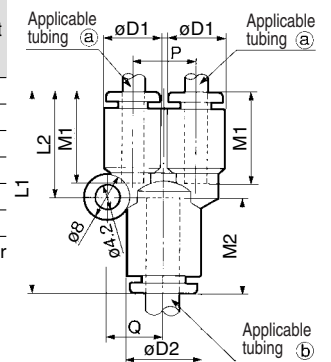


## Different Diameter Union "Y": KQ2U



Applicable tubing O.D. (mm)		Model	Note) $\phi D1$	Note) $\phi D2$	L1	L2	P	Q	M1	M2	Effective area (mm <sup>2</sup> )		Weight (g)
Ⓐ	Ⓑ										Nylon	Urethane	
3.2	4	KQ2U23-04	9.6	10.4	33.5	17.5	9.6	9	15.5	16	3.2	2.7	5
4	6	KQ2U04-06	10.4	12.8	35	18	10.4	9.7	16	17	4.2	4.2	6
6	8	KQ2U06-08	12.8	15.2	39.5	20	12.8	11.7	17	18.5	13.4	10.6	11
8	10	KQ2U08-10	15.2	18.5	45	24.5	15.2	13.7	18.5	21	25.6	17.7	18
10	12	KQ2U10-12	18.5	20.9	49	27.5	18.5	16.1	21	22	40	28.4	27
12	16	KQ2U12-16	26.5	26.5	66.5	41.5	26.5	23	22	25	57.4	45.4	100

Note)  $\phi D1, \phi D2$ : Max. diameter



## Different Diameter Double Union "Y": KQ2UD



Applicable tubing O.D. (mm)		Model	Note) $\phi D1$	Note) $\phi D2$	L1	L2	P	I	Q	M1	M2	Effective area (mm <sup>2</sup> )		Weight (g)
Ⓐ	Ⓑ											Nylon	Urethane	
4	6	KQ2UD04-06	10.4	12.8	35.5	18.2	10.4	21	9.7	16	17	4.2	4.2	10
6	8	KQ2UD06-08	12.8	15.2	40.5	20.3	12.8	26	11.7	17	18.5	13.4	10.6	17

Note)  $\phi D1, \phi D2$ : Max. diameter

