

Miniature One-touch Fittings

One-touch Mini

Series KJ



Applicable Tubing: $\varnothing 3.2$, $\varnothing 4$, $\varnothing 6$
 Connection Thread: M3, M5, R 1/8

Guide 1

Guide 2

Chuck
 Suitable for use with nylon, soft nylon and urethane.
 Large retaining force.
 Has large retaining force.

Seal
 Can be used for a wide range of pressures from a low vacuum up to a pressure of 1.0 MPa
 The use of a special profile ensures sealing and reduces resistance when the tube is inserted.

Gasket

Release button (Light gray)
Light force for removal
 When the fitting is removed from the tubing, the chuck and collet are released, thus preventing them from biting into the tube to an unnecessary degree. Unique shape allows easy tube release.

Tube

Body (White)

O-ring

Stud
Effective when piping in a confined space.

- The body and the threaded portion can rotate (for positioning to some extent).
- Stud is electroless nickel plated.
- Standard with preapplied thread seal 1/8

PAT.PEND

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

Optimum piping in less space with 20% reduction of the outside diameter

Thread seal is standard.

Copper-free specifications (With electroless nickel plated.)

Possible to use in vacuum to -100 kPa



Applicable Tubing

Tubing material	Nylon, Soft nylon, Polyurethane
Tubing O.D.	$\varnothing 3.2$, $\varnothing 4$, $\varnothing 6$


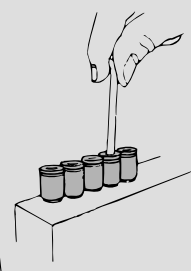

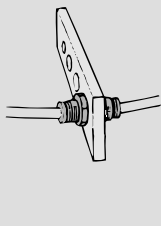

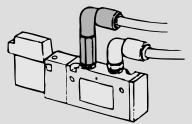


















Specifications

Fluid	Air/Water ^{Note)}	
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)
Thread seal (Standard)	With thread seal	
Copper-free (Standard)	Brass parts are all electroless nickel plated.	

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	Stainless steel 303, C3604BD, PBT
Stud	C3604BD (Thread portion)
Chuck, Guide 2	Stainless steel 304
Release button, Guide 1	POM
Seal, O-ring	NBR
Gasket	Stainless steel 304, NBR

Model			
Hex. socket head male connector KJS P. 4		Internal hex. allows thread connection by using an allen wrench for confined spaces.	
Bulkhead union KJE P. 9		Use to connect tubes through a panel.	
Extended male elbow KJW P. 6		Universal male elbow allows thread connection by using a socket wrench for confined spaces.	
Male connector KJH P. 4		Use to pipe in the same direction from female thread. Most general style.	
Female connector KJF P. 4		Use to pipe from male thread such as pressure gauge.	
Straight union KJH P. 4		Use to connect tubes in the same direction.	
Different diameter straight KJH P. 5		Use to connect different sized tubes.	
Male elbow KJL P. 5		Use to pipe at right angles to female thread. Most general style.	
Union elbow KJL P. 5		Use to connect tubes at right angles.	
Plug-in elbow KJL P. 5		Use to change by 90° in a tube fetching direction from One-touch fittings.	
Reducer elbow KJL P. 6		Use to change by 90° in a tube fetching direction from One-touch fittings and to size down.	
Male branch tee KJT P. 6		Use to branch line from female thread in both 90° directions.	
Union tee KJT P. 7		Use to connect tubes in both 90° directions.	
Different diameter tee KJT P. 7		Use to connect tubes with size down in both 90° directions.	
Male run tee KJY P. 7		Use to branch line in the same direction from female thread and in 90° direction.	
Union "Y" KJU P. 8		Use to branch line in the same direction.	
Different dia. union "Y" KJU P. 8		Use to branch line with size down in the same direction.	
Plug-in "Y" KJU P. 8		Use to branch line in the same direction from One-touch fittings.	
Different diameter plug-in "Y" KJX P. 8		Use to branch line with size down in the same direction from One-touch fittings.	
Branch "Y" KJU P. 9		Use to branch line in the same direction from female thread.	
Plug-in reducer KJR P. 9		Use to change size of One-touch fittings.	

- K
- M
- H
- D
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- T
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Gasket/Seal for M5 thread

Part no.: M-5G2

Material: Stainless steel 304, NBR

⚠ Precautions

Be sure to read before handling.
Refer to pages 15-18-3 to 15-18-4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 15-1-10 to 15-1-11 for Precautions on every series.

Interchangeability of Series KJ and KQ

⚠ Caution

- Do not use the plug-in KQ Series with the KJ Series, it will not hold.
- For combinations other than the plug-in KQs, they are interchangeable.

Installation and Removal of One-touch Mini Fittings

⚠ Caution

Installing of tube

- Cut the tube perpendicularly, using caution not to damage its surface. (Use tube cutter TK-1, 2 or 3. Do not cut the tube with cutting pliers, nippers, scissors, etc.)
- Grasp the tube, then slowly push it until it comes to a stop.
- Then, pull it back gently to make sure that it does not come out.

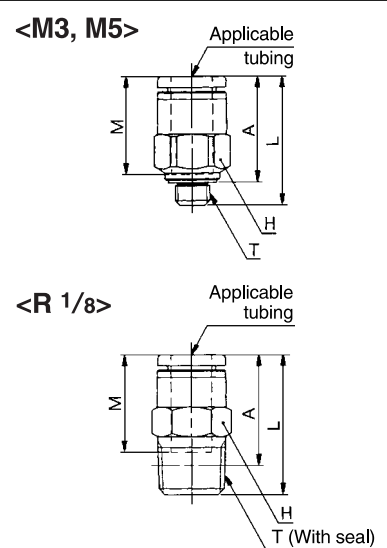
Removing of tube

- (Use one hand for removal.)
- Hold the release button with the thumb and forefinger.
 - Grasp the tube with the remaining three fingers and palm.
 - Then, pull out the tube with three fingers and palm while pushing in the release button with the thumb and the forefinger.
 - To reuse the released tube, cut off the damaged portion of the tube.

Series KJ

Male Connector: KJH

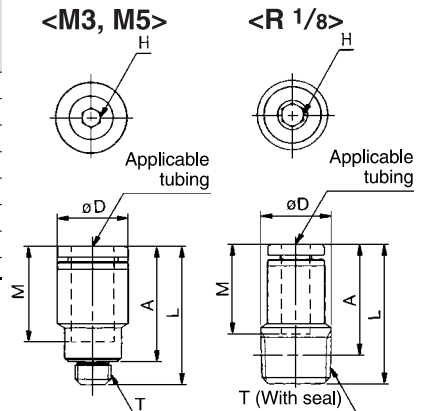
<M3, M5>	Applicable tubing O.D. (mm)	Connection thread T	Model	H (width across flats)	L	A	M	Effective area (mm ²)		Weight (g)
								Nylon	Urethane	
<R 1/8>	3.2	M3 x 0.5	KJH23-M3	7	16.3	13.7	12.7	0.9	0.9	1.6
		M5 x 0.8	KJH23-M5		16.7	13.6		2		
		R 1/8	KJH23-01S	10	13.8	9.8*	3	2.5	4.7	
<R 1/8>	4	M3 x 0.5	KJH04-M3	8	16.3	13.7	12.7	0.9	0.9	1.9
		M5 x 0.8	KJH04-M5		17	13.9		4	4	2.4
		R 1/8	KJH04-01S	10	14.8	10.8*	4	4	4.6	
<R 1/8>	6	M5 x 0.8	KJH06-M5	10	17.8	14.7	13.5	4	4	3.3
		R 1/8	KJH06-01S		19.4	15.4*		10	10	5.2



* Reference dimensions after R thread installation.

Hexagon Socket Head Male Connector: KJS

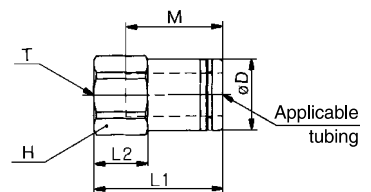
<M3, M5>	Applicable tubing O.D. (mm)	Connection thread T	Model	H (width across flats)	Note) ϕD	L	A	M	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
<R 1/8>	3.2	M3 x 0.5	KJS23-M3	1.5	7	16.3	13.7	12.7	1.4	1.4	1.3
		M5 x 0.8	KJS23-M5	2		19.7	16.6		2.5	2.5	2.8
<R 1/8>	4	M3 x 0.5	KJS04-M3	1.5	8	16.3	13.7	12.7	1.4	1.4	1.6
		M5 x 0.8	KJS04-M5	2.5		18.7	15.6		4	4	2.7
		R 1/8	KJS04-01S	3	9.8	19.7	15.7*	4	4	5.4	
<R 1/8>	6	M5 x 0.8	KJS06-M5	2.5	10	19.5	16.4	13.5	4	4	3.3
		R 1/8	KJS06-01S	4		20	16*		10	10	5.2



* Reference dimensions after R thread installation.
Note) ϕD : Max. diameter

Female Connector: KJF

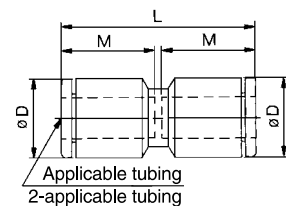
<M3, M5>	Applicable tubing O.D. (mm)	Connection thread T	Model	H (width across flats)	Note) ϕD	L1	L2	M	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
<R 1/8>	3.2	M3 x 0.5	KJF23-M3	7	7	16.5	6.8	12.7	3	2.5	2.6
		M5 x 0.8	KJF23-M5			18.8	7.9		2.8		
<R 1/8>	4	M3 x 0.5	KJF04-M3	8	8	16.1	6.4	12.7	4	4	3.2
		M5 x 0.8	KJF04-M5			18.7	7.8		3.8		
<R 1/8>	6	M5 x 0.8	KJF06-M5	10	10	18	7.5	13.5	10	10	5.3



Note) ϕD : Max. diameter


Straight Union: KJH

<M3, M5>	Applicable tubing O.D. (mm)	Model	Note) ϕD	L	M	Effective area (mm ²)		Weight (g)
						Nylon	Urethane	
<R 1/8>	3.2	KJH23-00	8.4	26.3	12.7	3	2.5	1.4
<R 1/8>	4	KJH04-00	9.3	26.3	12.7	4	4	1.7
<R 1/8>	6	KJH06-00	11.6	28	13.5	10	10	2.5



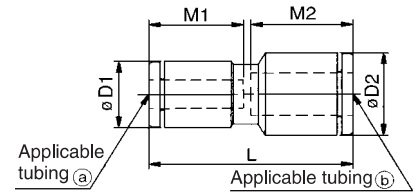
Note) ϕD : Max. diameter

Different Diameter Straight: KJH



Applicable tubing O.D. (mm)		Model	Note) $\phi D1$	Note) $\phi D2$	L	M1	M2	Effective area (mm ²)		Weight (g)
①	②							Nylon	Urethane	
3.2	4	KJH23-04	8.4	9.3	26.3	12.7	12.7	3	2.5	1.6
	6	KJH23-06		11.6			27.2			13.5
4	6	KJH04-06	9.3	11.6	27.2	12.7	13.5	4	4	2.2

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



Male Elbow: KJL

<M3, M5>



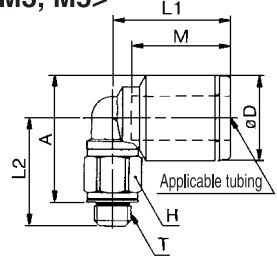
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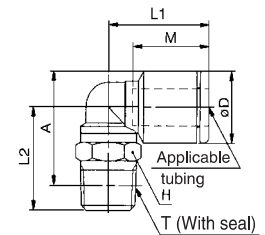
Applicable tubing O.D. (mm)	Connection threads T	Model	H (width across flats)	Note) ϕD	L1	L2	A	M	Effective area (mm ²)		Weight (g)			
									Nylon	Urethane				
3.2	M3 x 0.5	KJL23-M3	7	8.4	15.3	12.5	14.1	12.7	0.8	0.8	2.1			
	M5 x 0.8	KJL23-M5							2.6	2.2	6.7			
	R 1/8	KJL23-01S							15.2	15.4*	2.5			
4	M3 x 0.5	KJL04-M3	7	9.3	15.6	13	15.1	12.7	0.8	0.8	2.2			
	M5 x 0.8	KJL04-M5							3.5	3.5	2.7			
	R 1/8	KJL04-01S							15.7	16.4*	6.8			
6	M5 x 0.8	KJL06-M5	7	11.6	16.1	14.7	17.4	13.5	3.5	3.5	3.2			
	R 1/8	KJL06-01S							17.8	16.7	18.5*	9	9	6.4

* Reference dimensions after R thread installation.
Note) ϕD : Max. diameter

<M3, M5>



<R 1/8>

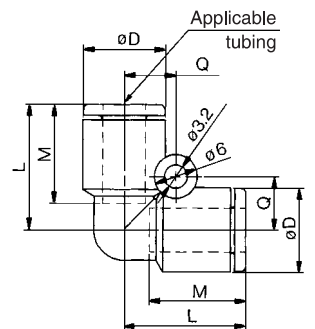


Union Elbow: KJL



Applicable tubing O.D. (mm)	Model	Note) ϕD	L	Q	M	Effective area (mm ²)		Weight (g)
						Nylon	Urethane	
3.2	KJL23-00	8.4	15	5.8	12.7	2.6	2.2	1.6
4	KJL04-00	9.3	15.8	6.3	12.7	3.5	3.5	2
6	KJL06-00	11.6	17.1	7.3	13.5	9	9	3.1

Note) ϕD : Max. diameter

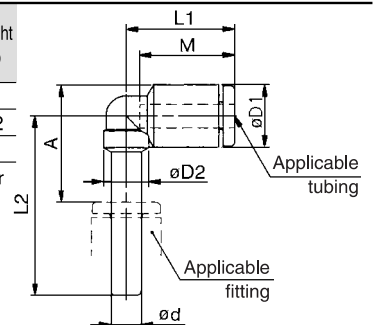


Plug-in Elbow: KJL



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	Note) $\phi D1$	Note) $\phi D2$	L1	L2	A	M	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
3.2	3.2	KJL23-99	8.4	6	14.5	23.8	15.3	12.7	2.6	2.2	1
4	4	KJL04-99	9.3	6	15.6	24.7	16.7	12.7	3.5	3.5	1.2
6	6	KJL06-99	11.6	7	16.3	26.8	19.1	13.5	9	9	2

Note) $\phi D1$: Max. diameter



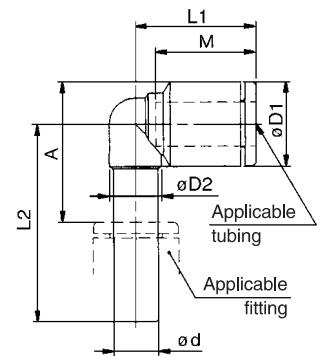
Series KJ

Reducer Elbow: KJL



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	(Note) $\phi D1$	$\phi D2$	L1	L2	A	M	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
3.2	4	KJL23-04	8.4	6	14.5	24.3	15.8	12.7	2.6	2.2	1.1
	6	KJL23-06				25.3	16				
4	6	KJL04-06	9.3	6	15.6	25.7	16.9	12.7	3.5	3.5	1.4

Note) $\phi D1$: Max. diameter



Extended Male Elbow: KJW

<M3, M5>



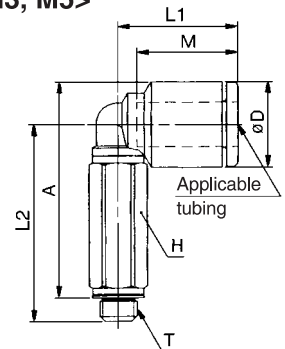
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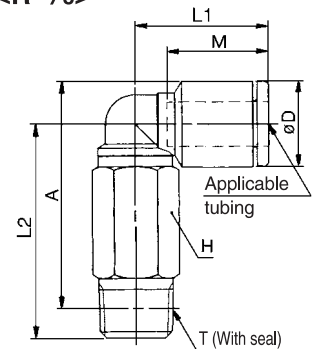
Applicable tubing O.D. (mm)	Connection thread T	Model	H (width across flats)	(Note) ϕD	L1	L2	A	M	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
3.2	M3 x 0.5	KJW23-M3	7	8.4	15.3	22.5	24.1	12.7	0.8	0.8	5
	M5 x 0.8	KJW23-M5	10			25.2	26.3		2.6	2.2	6.2
	R 1/8	KJW23-01S	10			25.4*	25.4*		13.4		
4	M3 x 0.5	KJW04-M3	7	9.3	15.6	23	25.1	12.7	0.8	0.8	5.1
	M5 x 0.8	KJW04-M5	10			25.7	27.3		3.5	3.5	6.4
	R 1/8	KJW04-01S	10			26.4*	26.4*		13.6		
6	M5 x 0.8	KJW06-M5	7	11.6	16.1	26.7	29.4	13.5	3.5	3.5	6.9
	R 1/8	KJW06-01S	10			17.8	28.7		30.5*	9	9

* Reference dimensions after R thread installation.
Note) ϕD : Max. diameter

<M3, M5>



<R 1/8>



Male Branch Tee: KJT

<M3, M5>

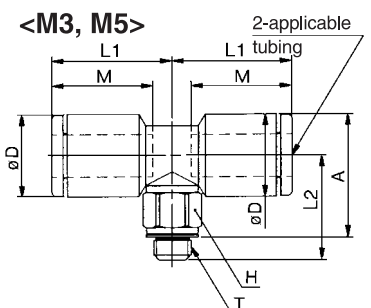


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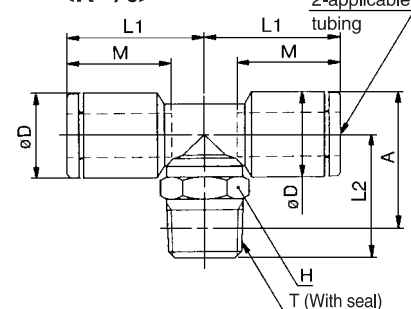


Applicable tubing O.D. (mm)	Connection thread T	Model	H (width across flats)	(Note) ϕD	L1	L2	A	M	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
3.2	M3 x 0.5	KJT23-M3	7	8.4	15.3	12.5	14.1	12.7	0.9	0.9	2.8
	M5 x 0.8	KJT23-M5	10			13.2	14.3		3.2	2.7	3.2
	R 1/8	KJT23-01S	10			15.2	15.4*		7.4		
4	M3 x 0.5	KJT04-M3	7	9.3	15.6	13	15.1	12.7	0.9	0.9	3.1
	M5 x 0.8	KJT04-M5	10			13.7	15.3		4.5	4.5	3.5
	R 1/8	KJT04-01S	10			15.7	16.4*		7.7		
6	M5 x 0.8	KJT06-M5	7	11.6	16.1	14.7	17.4	13.5	4.5	4.5	4.4
	R 1/8	KJT06-01S	10			17.8	18.5*		11	11	7.6

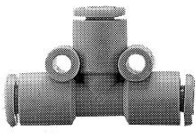
* Reference dimensions after R thread installation.
Note) ϕD : Max. diameter



<R 1/8>

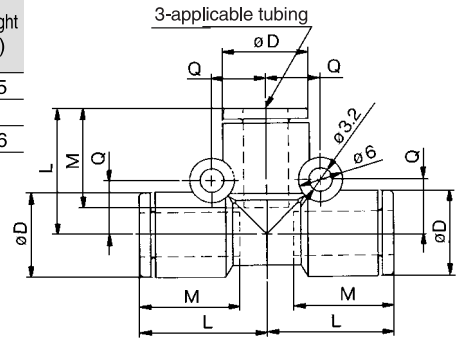


Union Tee: KJT

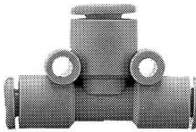


Applicable tubing O.D. (mm)	Model	Note) ϕD	L	Q	M	Effective area (mm ²)		Weight (g)
						Nylon	Urethane	
3.2	KJT23-00	8.4	15	5.8	12.7	3.2	2.7	2.5
4	KJT04-00	9.3	15.8	6.3	12.7	4.5	4.5	3
6	KJT06-00	11.6	17.1	7.3	13.5	11	11	4.6

Note) ϕD : Max. diameter

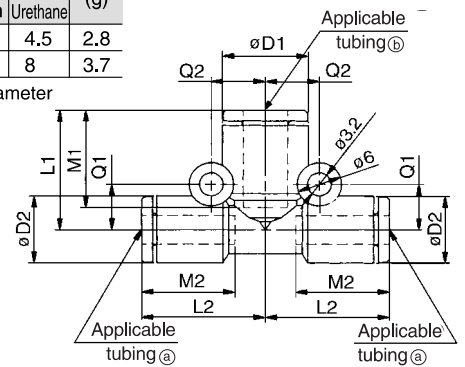


Different Diameter Tee: KJT



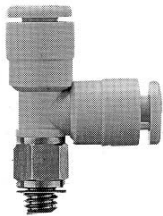
Applicable tubing O.D. (mm)		Model	Note) $\phi D1$	Note) $\phi D2$	L1	L2	Q1	Q2	M1	M2	Effective area (mm ²)		Weight (g)
a	b										Nylon	Urethane	
3.2	4	KJT23-04	9.3	8.4	15.3	15.8	5.8	6.3	12.7	12.7	4.5	4.5	2.8
4	6	KJT04-06	11.6	9.3	16.6	16.8	6.3	7.3	13.5	12.7	8	8	3.7

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

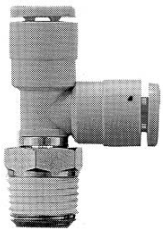


Male Run Tee: KJY

<M3, M5>



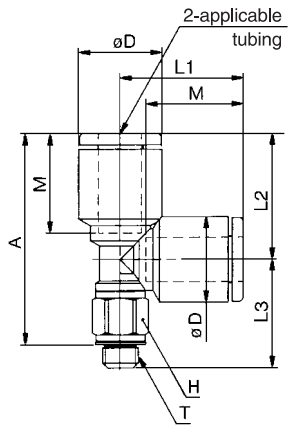
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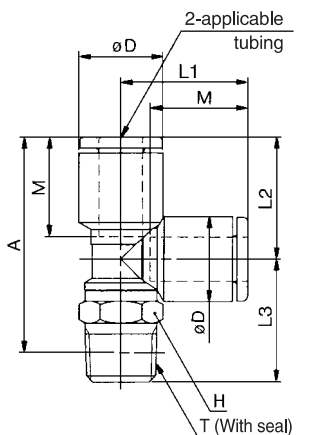
Applicable tubing O.D. (mm)	Connection thread T	Model	H (width across flats)	Note) ϕD	L1	L2	L3	A	M	Effective area (mm ²)		Weight (g)
										Nylon	Urethane	
3.2	M3 x 0.5	KJY23-M3	7	8.4	15.4	14.8	12.5	24.7	12.7	0.9	0.9	2.8
	M5 x 0.8	KJY23-M5								3.2	2.7	3.2
	R 1/8	KJY23-01S								10	15.2	26*
4	M3 x 0.5	KJY04-M3	7	9.3	15.6	14.8	13	25.2	12.7	0.9	0.9	3.1
	M5 x 0.8	KJY04-M5								4.5	4.5	3.5
	R 1/8	KJY04-01S								10	15.7	26.5*
6	M5 x 0.8	KJY06-M5	7	11.6	17.1	17.1	14.7	28.7	13.5	4.5	4.5	4.5
	R 1/8	KJY06-01S			10	17.5	16.6	16.7		29.3*	11	11

* Reference dimensions after R thread installation.
Note) ϕD : Max. diameter

<M3, M5>

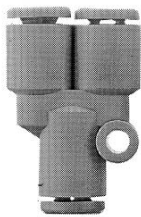


<R 1/8>



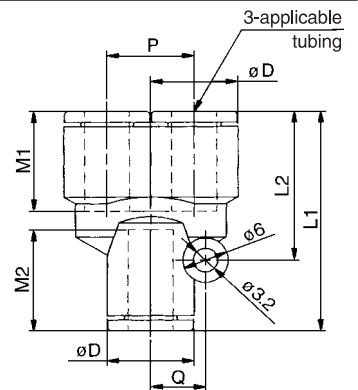
Series KJ

Union "Y": KJU

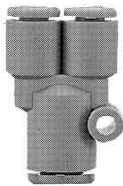


Applicable tubing O.D. (mm)	Model	Note) øD	L1	L2	P	Q	M1	M2	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
3.2	KJU23-00	8.4	28.5	19	8.4	5.8	12.7	12.9	3.2	2.7	2.6
4	KJU04-00	9.3	27.9	18.3	9.3	6.3	12.7	12.9	4.5	4.5	3
6	KJU06-00	11.6	31.2	21.6	11.6	7.3	13.5	13.7	11	11	4.7

Note) øD: Max. diameter

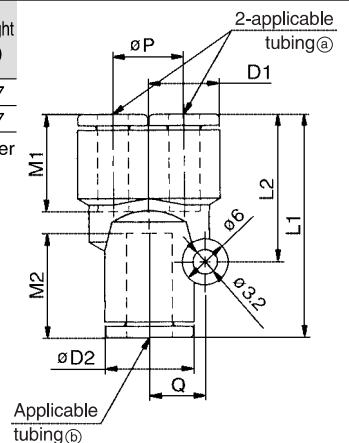


Different Diameter Union "Y": KJU

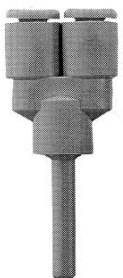


Applicable tubing O.D. (mm)		Model	Note) øD1	Note) øD2	L1	L2	P	Q	M1	M2	Effective area (mm ²)		Weight (g)
a	b										Nylon	Urethane	
3.2	4	KJU23-04	8.4	9.3	27.5	18.3	8.4	6.3	12.7	12.9	4.5	4.5	2.7
4	6	KJU04-06	9.3	11.6	29.2	19.3	9.3	7.3	12.7	13.7	8	8	3.7

Note) øD1, øD2: Max. diameter

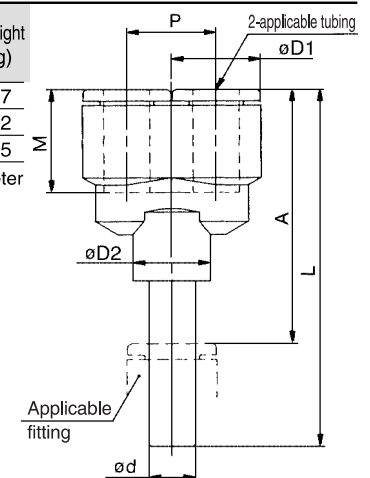


Plug-in "Y": KJU

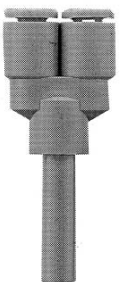


Applicable tubing O.D. (mm)	Applicable fitting size ød	Model	Note) øD1	øD2	L	P	A	M	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
3.2	3.2	KJU23-99	8.4	10	43.5	8.4	34.1	12.7	3.2	2.7	2.7
4	4	KJU04-99	9.3	10	44.7	9.3	35.3	12.7	4.5	4.5	3.2
6	6	KJU06-99	11.6	10	47.8	11.6	37.6	13.5	11	11	4.5

Note) øD1: Max. diameter

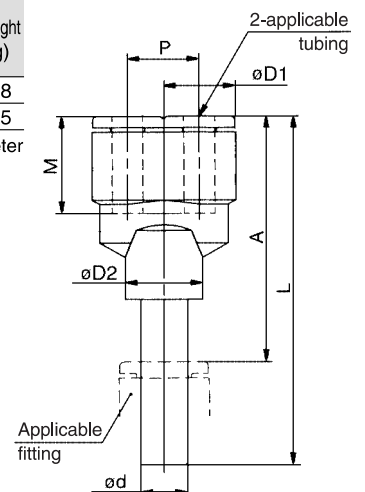


Different Diameter Plug-in "Y": KJX



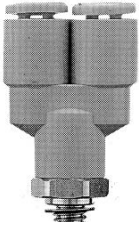
Applicable tubing O.D. (mm)	Applicable fitting size ød	Model	Note) øD1	øD2	L	P	A	M	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
3.2	4	KJX23-04	8.4	10	44	8.4	34.6	12.7	4.5	4.5	2.8
4	6	KJX04-06	9.3	10	45.7	9.3	35.5	12.7	8	8	3.5

Note) øD1: Max. diameter

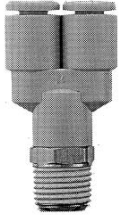


Branch: KJU

<M5>



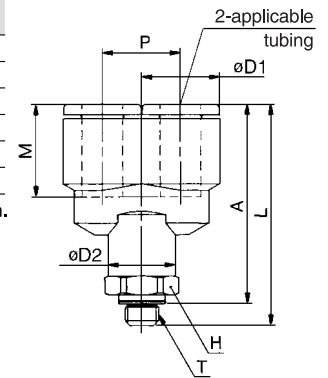
<R 1/8>



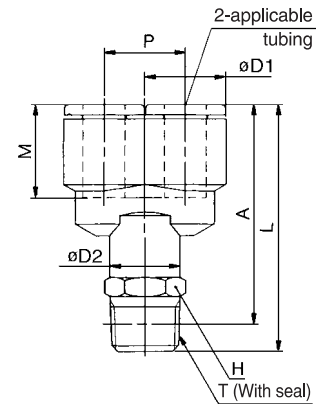
Applicable tubing O.D. (mm)	Connection thread T	Model	H (width across flats)	Note) $\phi D1$	$\phi D2$	L	P	A	M	Effective area (mm ²)		Weight (g)
										Nylon	Urethane	
3.2	M5 x 0.8	KJU23-M5	10	8.4	10	30.6	8.4	27.5	12.7	2.2	2.2	5.9
	R 1/8	KJU23-01S								30.1*	3.2	2.7
4	M5 x 0.8	KJU04-M5	10	9.3	10	31.3	9.3	28.2	12.7	2.2	2.2	6.4
	R 1/8	KJU04-01S								30.8*	4.5	4.5
6	M5 x 0.8	KJU06-M5	10	11.6	10	33.4	11.6	30.3	13.5	2.2	2.2	7.4
	R 1/8	KJU06-01S								32.9*	11	11

* Reference dimensions after R thread installation.
Note) ϕD : Max. diameter

<M5>



<R 1/8>



K□

M□

H□

D□

MS

T□

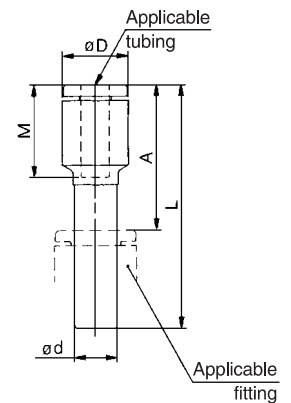
VMG

Plug-in Reducer: KJR



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	Note) ϕD	L	A	M	Effective area (mm ²)		Weight (g)
							Nylon	Urethane	
3.2	4	KJR23-04	8.4	32	19.3	12.7	3	2.5	0.9
	6	KJR23-06		33	19.5		1.1		
4	6	KJR04-06	9.3	33.5	20	12.7	4	4	1.3

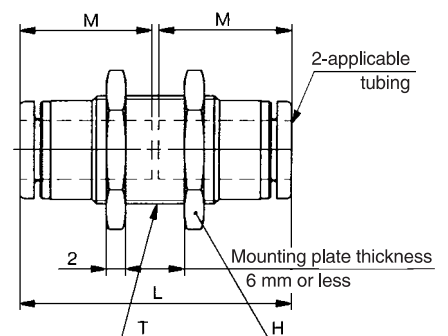
Note) ϕD : Max. diameter



Bulkhead Union: KJE



Applicable tubing O.D. (mm)	Model	T	H (width across flats)	L	Mounting hole	M	Effective area (mm ²)		Weight (g)
							Nylon	Urethane	
3.2	KJE23-00	M8 x 0.75	10	26	9	12.7	3	2.5	4.6
4	KJE04-00	M9 x 0.75	11	26	10	12.7	4	4	5.6
6	KJE06-00	M11 x 0.75	14	27.7	12	13.5	10	10	8.5



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

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

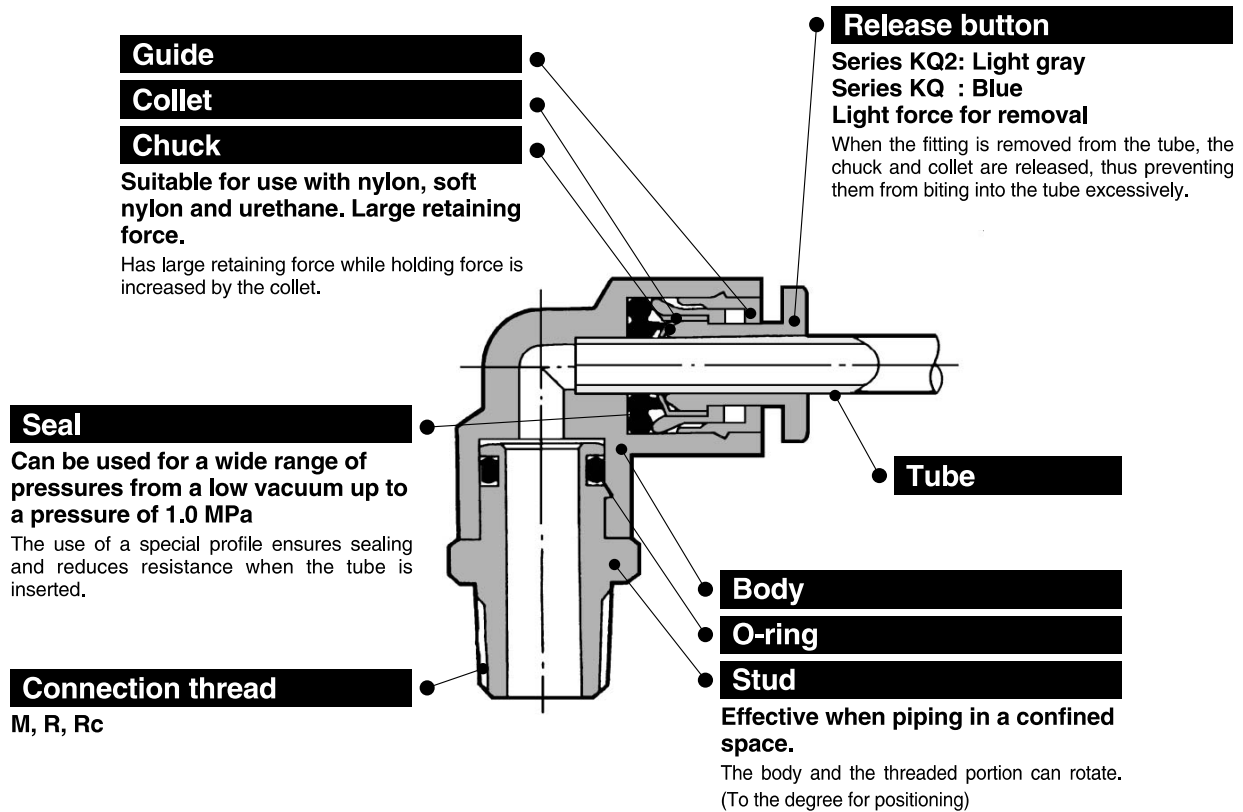
Accessory

Symbol	Name
KQ2N	Nipple
	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

Tubing material	Nylon, Soft nylon, Polyurethane
Tubing 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 ^{Note)}	
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.


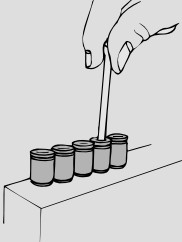

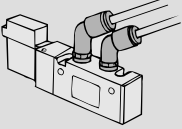

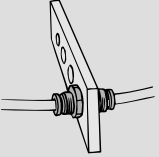

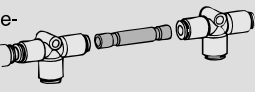






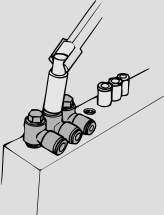

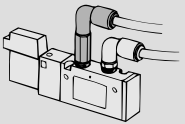

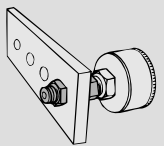

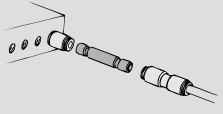










Principal Parts Material

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



P. 15-2-30

Series KQ2

Model	
Hex. socket head male connector KQ2S P. 14 	 <p>Internal hex. allows thread connection by using an allen wrench for confined spaces.</p>
45° male elbow KQ2K P. 16 	 <p>Use to pipe in 45° direction from female thread. Model in-between of male connector and male elbow.</p>
Bulkhead union KQ2E P. 28 	 <p>Use to connect tubes through a panel.</p>
Nipple KQ2N P. 29 	 <p>Use to connect One-touch fittings.</p>
Male connector KQ2H P. 14 	<p>Use to pipe in the same direction from female thread. Most general style.</p>
Female connector KQ2F P. 14 	<p>Use to pipe from male thread such as pressure gauge.</p>
Straight union KQ2H P. 15 	<p>Use to connect tubes in the same direction.</p>
Different diameter straight KQ2H P. 15 	<p>Use to connect different sized tubes.</p>
Cross KQ2TW P. 23 	<p>Use to four-branch line.</p>
Universal male elbow KQ2V P. 17 	 <p>Universal male elbow allows thread connection by using a socket wrench for confined spaces.</p>
Extended male elbow KQ2W P. 22 	 <p>Basically, it is used together with male elbow. Different point is that it is used for with fittings to avoid from interfering with each other by making the piping two-level.</p>
Bulkhead connector KQ2E P. 28 	 <p>Use to connect male thread and tube through a panel.</p>
Reducer nipple KQ2N P. 29 	 <p>Use to connect One-touch fittings that are different tubing O.D.s.</p>
Male elbow KQ2L P. 15 	<p>Use to pipe at right angles to female thread. Most general style.</p>
Union elbow KQ2L P. 20 	<p>Use to connect tubes at right angles.</p>
Plug-in elbow KQ2L P. 21 	<p>Use to change by 90° in a tube fetching from One-touch direction fittings.</p>
Reducer elbow KQ2L P. 21 	<p>Use to change by 90° in a tube fetching direction from One touch fittings and to size down.</p>
Different diameter cross KQ2TX P. 23 	<p>Use to connect tubes with size down in all 90° directions.</p>
Male branch tee KQ2T P. 22 	<p>Use to branch line from female thread in both 90° directions.</p>
Union tee KQ2T P. 23 	<p>Use to connect tubes in both 90° directions.</p>
Different diameter tee KQ2T P. 23 	<p>Use to connect tubes with size down in both 90° directions.</p>
Different diameter tee KQ2T P. 23 	<p>Use to branch line with size down in both side 90° direction.</p>
Different diameter cross KQ2TY P. 24 	<p>Use to branch line with size down in three directions.</p>

Hexagon socket head universal male elbow

KQ2VS P. 17



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

Male branch connector

KQ2LU P. 16



Use to branch piping at right angles to female thread.

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.

Female elbow

KQ2LF P. 18



Use to pipe at right angles to male thread.

Double universal male elbow

KQ2VD P. 18



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

Triple universal male elbow

KQ2VT P. 19



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

Branch universal male elbow

KQ2Z P. 19



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

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.

Double branch universal male elbow

KQ2ZD P. 20



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

Male run tee

KQ2Y P. 24



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

Triple branch universal male elbow

KQ2ZT P. 20



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

Branch union elbow

KQ2LU P. 21



Use to branch line at right angles.

Extended plug-in elbow

KQ2W P. 21



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

Male delta union

KQ2D P. 25



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

Delta union

KQ2D P. 25



Use to branch in tripple 90° direction.

Delta branch

KQ2UD P. 26



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

Different dia. double union "Y"

KQ2UD P. 26



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

Different diameter plug-in "Y"

KQ2X P. 27



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

Double plug-in "Y"

KQ2XD P. 27



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

Gasket/Seal for M5 and M6 thread

Part no.: M-5G2 (For M5 thread)
M-6G (For M6 thread)
Material: Stainless steel 304, NBR

Union "Y"

KQ2U P. 26



Use to branch line in the same direction.

Different dia. union "Y"

KQ2U P. 26



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

Plug-in "Y"

KQ2U P. 27



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

Branch "Y"

KQ2U P. 25



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

Plug-in reducer

KQ2R P. 28



Use to change size of One-touch fittings.

Bulkhead male elbow

KQ2LE P. 28



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

Adaptor

KQ2N P. 28



Use to connect fitting and R female thread.

Tube cap

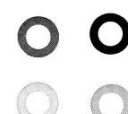
KQ2C P. 29



Use to plug unused tube.

Color cap

KQ2C P. 29



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

Plug

KQ2P, KQP P. 29



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

K

M

H

D

MS

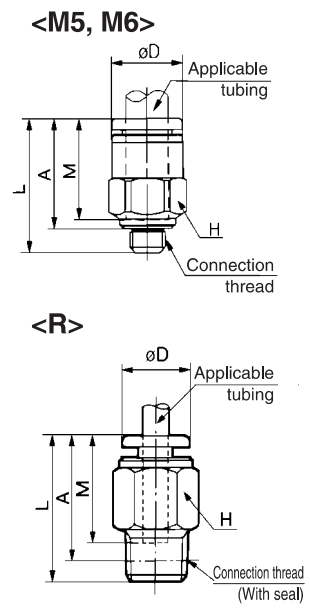
T

VMG

Series KQ2

Male Connector: KQ2H

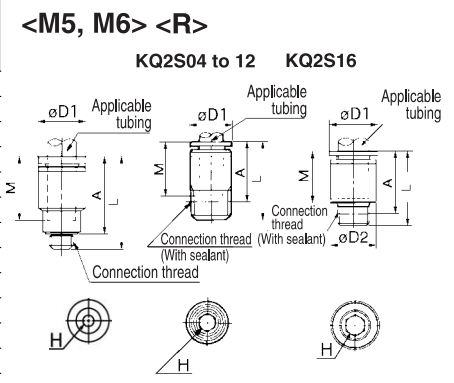
<M5, M6>	Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	⁽¹⁾ ϕ D	L	A*	M	Effective area ⁽²⁾ (mm ²)		Weight (g)
									Nylon	Urethane	
	3.2	M5 x 0.8	KQ2H23-M5	7	7	16.7	13.6	12.7	3	2.5	2.1
		1/8	KQ2H23-01S	10	—	22	18	15.5	3.4	2.9	9
		1/4	KQ2H23-02S	14	—	19.5	13.5		4	4	2.4
	4	M5 x 0.8	KQ2H04-M5	8	8	17	13.9	12.7	4	4	2.5
		M6 x 1.0	KQ2H04-M6	8		18					9
		1/8	KQ2H04-01S	10		—	22	18	16	5.6	4
	6	M5 x 0.8	KQ2H06-M5	10	10	17.8	14.7	13.5	4	4	3.3
		M6 x 1.0	KQ2H06-M6	10		19					14.9
		1/8	KQ2H06-01S	12		—	22.5	18.5	17	13.1	10.4
	8	1/4	KQ2H06-02S	14	—	23	17	18.5	26.1	18.0	14
		3/8	KQ2H06-03S	17	—	22	15.5				27
		1/8	KQ2H08-01S	14	—	28	24				21
	10	1/4	KQ2H08-02S	17	—	26.5	20.5	21	26.1	26.1	19
		3/8	KQ2H08-03S	17	—	22	15.5				26
		1/8	KQ2H10-01S	17	—	30	26				19
	12	1/4	KQ2H10-02S	17	—	33.5	27.5	21	41.5	29.5	30
		3/8	KQ2H10-03S	17	—	29	22.5				30
		1/2	KQ2H10-04S	22	—	27	19				53
	16	1/4	KQ2H12-02S	19	—	34.5	28.5	22	58.3	46.1	42
		3/8	KQ2H12-03S	19	—	23.5	22				34
		1/2	KQ2H12-04S	22	—	30	22				51
	16	3/8	KQ2H16-03S	24	25.7	39.5	33	25	81	(81)	61
		1/2	KQ2H16-04S	24		35.5	27.5				113



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

Hexagon Socket Head Male Connector: KQ2S

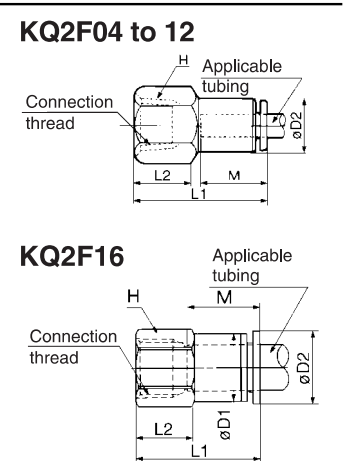
<M5, M6>	Applicable tubing O.D. (mm)	Connection thread P	Model	H (width across flats)	⁽¹⁾ ϕ D1	ϕ D2	L	A*	M	Effective area ⁽²⁾ (mm ²)		Weight (g)
										Nylon	Urethane	
	4	M5 x 0.8	KQ2S04-M5	2.5	8	—	18.7	15.6	12.7	4	4	2.7
		M6 x 1.0	KQ2S04-M6	3			18.2	14.1		4.1	3.6	2.8
		1/8	KQ2S04-01S	3			23	19		16	4	4
	6	M5 x 0.8	KQ2S06-M5	2.5	10	—	19.5	16.4	13.5	4	4	3.3
		M6 x 1.0	KQ2S06-M6	3			19.1	15		4	4	3.4
		1/8	KQ2S06-01S	4			24	20		17	10.0	9.9
	8	1/4	KQ2S06-02S	4	13.8	14	24	18	18.5	10.7	10.0	15
		3/8	KQ2S08-01S	5	28		24	17.2		16.2	12	
		1/8	KQ2S08-02S	6	25.5		19.5	23.3		11		
	10	1/8	KQ2S08-03S	6	17	27.5	21	21	17.2	16.2	24	
		1/4	KQ2S10-01S	5	30	26	12					
		3/8	KQ2S10-02S	8	27.5	21.5	39.0				26.6	19
	12	1/2	KQ2S10-03S	8	22	28	20	22	46.0	44.5	35	
		1/4	KQ2S12-02S	8	33.5	27.5	23					
		3/8	KQ2S12-03S	10	29	22.5	60.0				18	
	16	1/2	KQ2S12-04S	10	22	28	20	25	81	(81)	30	
		3/8	KQ2S16-03S	10	39	32.5	81				42	
		1/2	KQ2S16-04S	12	35	27	113				(96)	34



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

Female Connector: KQ2F

	Applicable tubing O.D. (mm)	Connection thread Rc	Model	H (width across flats)	⁽¹⁾ ϕ D1	ϕ D2	L1	L2	M	Effective area ⁽²⁾ (mm ²)		Weight (g)
										Nylon	Urethane	
4		1/8	KQ2F04-01	14	—	10	27	11	16	5.6	4	15
		1/4	KQ2F04-02	17			31	14		23		
6		1/8	KQ2F06-01	14	—	12	27.5	11	17	13.1	10.4	15
		1/4	KQ2F06-02	17			31	13				22
		3/8	KQ2F06-03	19			33.5	15				25
8		1/8	KQ2F08-01	14	—	14	29	11	18.5	26.1	18.0	17
		1/4	KQ2F08-02	17			32.5	13				24
		3/8	KQ2F08-03	19			33.5	14				24
10		1/4	KQ2F10-02	17	—	17	34.5	14	21	41.5	29.5	27
		3/8	KQ2F10-03	19			36.5	15				30
12		1/4	KQ2F12-02	19	—	19	35	14	22	58.3	46.1	36
		3/8	KQ2F12-03	19			37	14				31
		1/2	KQ2F12-04	24			41	18				52
16		3/8	KQ2F16-03	24	24	25.7	38	15	25	81	(81)	59
		1/2	KQ2F16-04	24			43	19				113

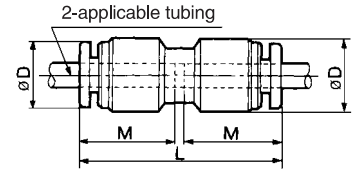


Note 1) ϕ D2: Max. diameter
 Note 2) (): Values for soft nylon

Straight Union: KQ2H



Applicable tubing O.D. (mm)	Model	øD ⁽¹⁾	L	M	Effective area ⁽²⁾ (mm ²)		Weight (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

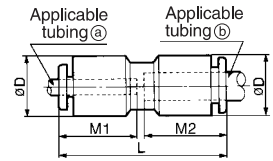


Note 1) øD: Max. diameter
 Note 2) (): Values for soft nylon.

Different Diameter Straight: KQ2H



Applicable tubing O.D. (mm)		Model	Note) øD	L	M1	M2	Effective area (mm ²)		Weight (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>

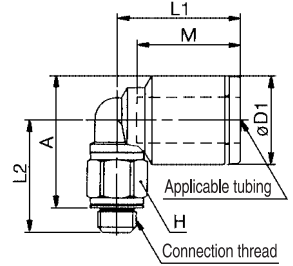


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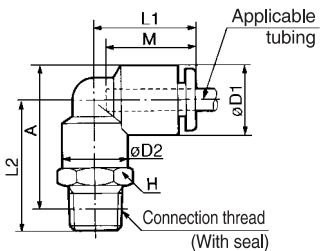


Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note 1) øD		L1	L2	A*	M	Effective area ⁽²⁾ (mm ²)		Weight (g)
				øD1	øD2					Nylon	Urethane	
3.2	M5 x 0.8	KQ2L23-M5	7	8.5	—	15.3	13.2	14.3	12.7	2.6	2.2	2.5
	1/8	KQ2L23-01S	10	9.6	10	17.5	21.5	22.5	15.5	3	2.5	8
	1/4	KQ2L23-02S	14	—	—	—	25.5	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	22	23	16	4.2	4.2	10
6	1/4	KQ2L04-02S	14	—	—	—	26	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	—	—	—	23	25.5	—	—	—	12
	1/4	KQ2L06-02S	14	12.8	10	20	27	27.5	17	11.4	9.0	22
	3/8	KQ2L06-03S	17	—	—	—	29	29	—	—	—	33
10	1/8	KQ2L08-01S	12	—	—	—	24.5	28	—	—	—	13
	1/4	KQ2L08-02S	14	15.2	12	23	28.5	30	18.5	21.6	14.9	21
	3/8	KQ2L08-03S	17	—	—	—	30.5	31.5	—	—	—	35
12	1/8	KQ2L10-01S	17	18.5	17	26.5	27	32	21	21.6	14.9	25
	1/4	KQ2L10-02S	—	—	—	—	30	33	—	—	—	26
	3/8	KQ2L10-03S	—	—	—	—	32	34.5	—	35.2	25.0	36
16	1/2	KQ2L10-04S	22	—	—	—	36	37	—	—	—	63
	1/4	KQ2L12-02S	—	—	—	—	31	35.5	—	—	—	28
	3/8	KQ2L12-03S	17	20.9	17	28.5	33	37	22	50.2	39.7	38
16	1/2	KQ2L12-04S	22	—	—	—	37	39.5	—	—	—	65
	3/8	KQ2L16-03S	—	—	—	—	38	44.5	—	71	(71)	101
	1/2	KQ2L16-04S	—	—	—	—	41	46	—	100	(84)	105

<M5, M6>



<R>



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

Series KQ2

Male Branch Connector: KQ2LU

<M5, M6>



<R>

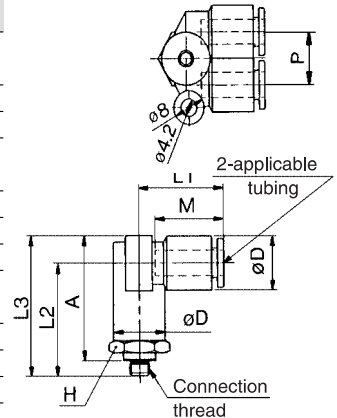


Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) ϕD	L1	L2	L3	A*	M	P	Effective area (mm ²)		Weight (g)	
											Nylon	Urethane		
4	M5 x 0.8	KQ2LU04-M5	11	10.4	18.5	24	29.5	25.5	16	10.4	4.3	4.1	10	
	M6 x 1.0	KQ2LU04-M6				24.5	30							
	1/8	KQ2LU04-01S	26.5			32	27.5	6.0			4.1	12		
	1/4	KQ2LU04-02S	30.5			36	30						21	
6	M5 x 0.8	KQ2LU06-M5	13	12.8	21	26.5	33	29.5	17	12.8	4.3	4.3	13	
	M6 x 1.0	KQ2LU06-M6				27	33.5							
	1/8	KQ2LU06-01S	29.5			36	32	13.9			11.0	15		
	1/4	KQ2LU06-02S	33			39.5	33.5						22	
8	3/8	KQ2LU06-03S	17			35	41.5	35					35	
	1/8	KQ2LU08-01S	17	15.2	24	34	41.5	38	18.5	15.2	26.3	18.2	27	
	1/4	KQ2LU08-02S				37	44.5	38.5						35
3/8	KQ2LU08-03S	38				45.5	39	35						
10	1/4	KQ2LU10-02S	19	18.5	27	40	49.5	43.5	21	18.5	40.8	29.0	41	
	3/8	KQ2LU10-03S				41	50.5	44						42
	1/2	KQ2LU10-04S				22	44.5	54						45.5
12	1/4	KQ2LU12-02S	22	20.9	29	42.5	53	47	22	20.9	57.2	45.2	57	
	3/8	KQ2LU12-03S				43.5	54	47.5						58
	1/2	KQ2LU12-04S				22	46.5	57						49

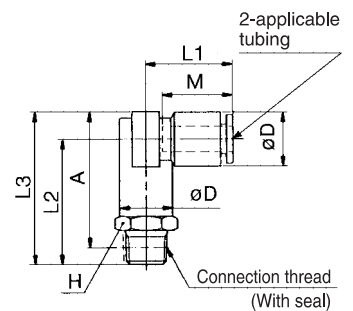
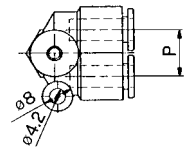


* Reference dimensions after R thread installation.
Note) ϕD : Max. diameter

<M5, M6>



<R>



45° Male Elbow: KQ2K

<M5, M6>



<R>

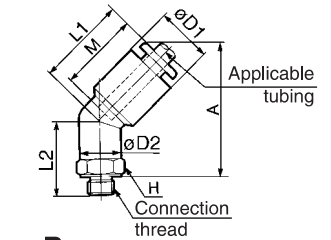


Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note 1) $\phi D1$	$\phi D2$	L1	L2	A*	M	P	Effective area (mm ²)		Weight (g)
											Nylon	Urethane	
4	M5 x 0.8	KQ2K04-M5	8	10.4	8	17	14.5	26	16	10.4	3.4	3.4	4
	M6 x 1.0	KQ2K04-M6											
	1/8	KQ2K04-01S	10					20.5			32	10	
	1/4	KQ2K04-02S	14					24.5			34		19
6	M5 x 0.8	KQ2K06-M5	8	12.8	8	18	14.5	27.5	17	12.8	3.4	3.4	6
	M6 x 1.0	KQ2K06-M6											
	1/8	KQ2K06-01S	10				20.5	33			12		
	1/4	KQ2K06-02S	14				24.5	35				10	
8	3/8	KQ2K06-03S	17			26.5	36.5						33
	1/8	KQ2K08-01S	12	15.2	12	20.5	26	39	18.5	19.7	19.7	21	
	1/4	KQ2K08-02S											28
3/8	KQ2K08-03S	17					28	41					35
10	1/8	KQ2K10-01S	17	18.5	17	24	24	42	21	18.5	30.9	23.2	25
	1/4	KQ2K10-02S											
	3/8	KQ2K10-03S					29	45					36
	1/2	KQ2K10-04S					22	33					47.5
12	1/4	KQ2K12-02S	17	20.9	17	25	27.5	45.5	22	20.9	44.5	35.1	28
	3/8	KQ2K12-03S											
	1/2	KQ2K12-04S					22	33.5					49.5
16	3/8	KQ2K16-03S	22	26.5	20.9	30	32	55	25	26.5	65.8	(65.8)	52
	1/2	KQ2K16-04S											

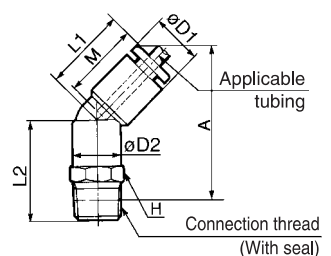


* Reference dimensions after R thread installation.
Note 1) $\phi D1$: Max. diameter
Note 2) (): Values for soft nylon.







<M5, M6>



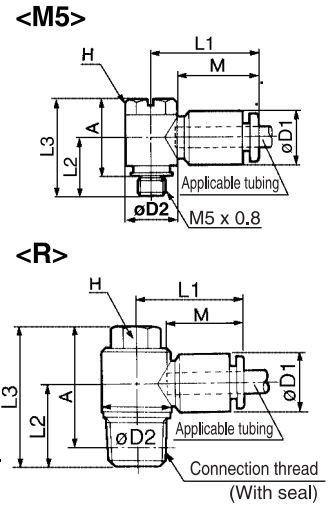
<R>



Universal Male Elbow: KQ2V






	Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	(1) $\phi D1$	$\phi D2$	L1	L2	L3	A*	M	Effective area (2) (mm ²)		Weight (g)
												Nylon	Urethane	
<M5> 	4	M5 x 0.8	KQ2V04-M5	8	10.4	9.8	20.5	11	18.5	15	16	2.9	2.9	6
		1/8	KQ2V04-01S			13.4	22	14.5	26.5	22.5		14		
<R> 	6	M5 x 0.8	KQ2V06-M5	8	12.8	9.8	23.5	12	18.5	15	17	3.8	3.8	7
		1/8	KQ2V06-01S			13.4	24	14.5	26.5	22.5		15		
		1/4	KQ2V06-02S			15.4	23.5	18.5	31	25		26		
		1/8	KQ2V08-01S			12	15.2	17.6	28.5	15.5		28.5	24.5	18.5
<R> 	8	1/4	KQ2V08-02S	14	15.2	20.6	27.5	20.5	36.5	30	21	20.5	14.3	47
		3/8	KQ2V08-03S			18.5	20.6	31	19.5	35.5		29.5	27	20.3
<R> 	10	1/4	KQ2V10-02S	14	18.5	20.6	31	20.5	36.5	30	21	27	20.3	49
		3/8	KQ2V10-03S			17	20.9	25.2	34	22		38.5	32	39
<R> 	12	3/8	KQ2V12-03S	17	20.9	25.2	34	25	41.5	33.5	22	39	30.8	80
		1/2	KQ2V12-04S					26.5	46.5	40.5		55	(55)	103
<R> 	16	3/8	KQ2V16-03S	21	26.5	32.3	39	29.5	49.5	41.5	25	78	(65)	110
		1/2	KQ2V16-04S											

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

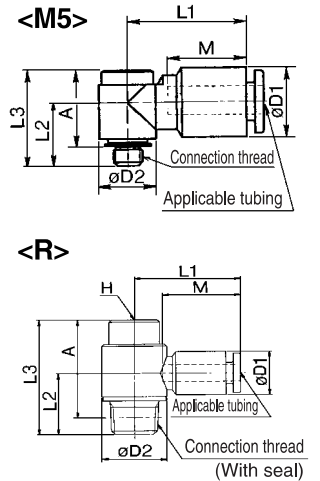


- K
- M
- H
- D
- MS
- T
- VMG

Hexagon Socket Head Universal Male Elbow: KQ2VS

	Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) $\phi D1$	$\phi D2$	L1	L2	L3	A*	M	Effective area (mm ²)		Weight (g)
												Nylon	Urethane	
<M5> 	4	M5	KQ2VS04-M5	4	10.4	9.8	20.5	10.5	18	15	16	2.9	2.9	6
		1/8	KQ2VS04-01S			13.4	22	14.5	26.5	22.5		14		
<R> 	6	M5	KQ2VS06-M5	4	12.8	9.8	23.5	12	18	15	17	3.8	3.8	7
		1/8	KQ2VS06-01S			13.4	24	14.5	26.5	22.5		15		
		1/4	KQ2VS06-02S			15.3	23.5	18.5	27	21		22		
		1/8	KQ2VS08-01S			8	15.2	17.6	28.5	15.5		27	23	18.5
<R> 	8	1/4	KQ2VS08-02S	8	15.2	20.6	27.5	20.5	32.5	26	21	20.5	14.3	47
		3/8	KQ2VS08-03S			18.5	20.6	31	19.5	31.5		25	27	20.3
<R> 	10	1/4	KQ2VS10-02S	8	18.5	20.6	31	20.5	32.5	26	21	27	20.3	39
		3/8	KQ2VS10-03S			10	20.9	25.2	34	22		36	30	39
<R> 	12	3/8	KQ2VS12-03S	10	20.9	25.2	34	25	39	31	22	39	30.8	67
		1/2	KQ2VS12-04S											

* Reference dimensions after R thread installation.
 Note) ϕD : Max. diameter



Series KQ2

Universal Female Elbow: KQ2VF

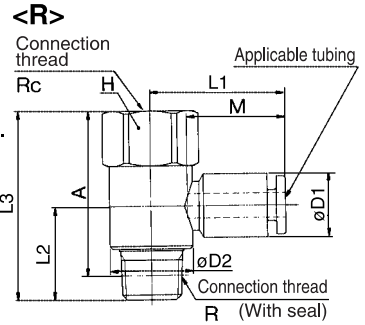
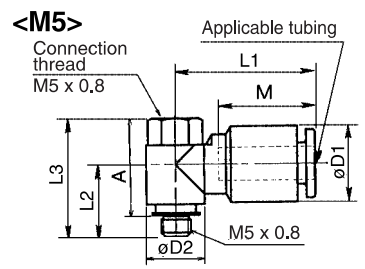
<M5>



<R>



Applicable tubing O.D. (mm)	Connection thread Rc R	Model	H (width across flats)	Note) øD1	øD2	L1	L2	L3	A	M*	Weight (g)
	1/8	KQ2VF04-01S	14	13.4	22	15.5	29.5	25.5	19		
	M5 x 0.8	KQ2VF06-M5	8	12.8	9.8	23.5	12.5	20	16	17	7
6	1/8	KQ2VF06-01S	14		13.4	24.5	15.5	29.5	25.5		19
	1/4	KQ2VF06-02S	17		17.6	25	20	38.5	32.5		36
8	1/8	KQ2VF08-01S	17	15.2	17.6	28.5	17	31	27	18.5	29
	1/4	KQ2VF08-02S	17		20	38.5	32.5	37			
	3/8	KQ2VF08-03S	22		25.2	29.5	25.5	45.5	39		66
10	1/4	KQ2VF10-02S	19	18.5	20.6	31.5	22	41	35	21	48
	3/8	KQ2VF10-03S	22		25.2	34	24.5	45.5	39		68
12	3/8	KQ2VF12-03S	22	20.9	25.2	34	24.5	45.5	39	22	70
	1/2	KQ2VF12-04S	24		27	35	25.5	50	42		93



* Reference dimensions after R thread installation.
Note) øD1: Max. diameter

Female Elbow: KQ2LF

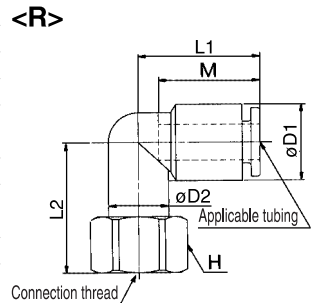
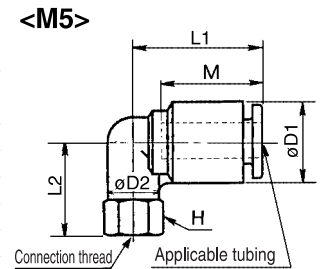
<M5, M6>



<Rc>



Applicable tubing O.D. (mm)	Connection thread Rc	Model	H (width across flats)	Note) øD1	øD2	L1	L2	M	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
4	M5 x 0.8	KQ2LF04-M5	8	10.4	8	18.5	14.5	16	3.5	3.5	5
	M6 x 1.0	KQ2LF04-M6					15.5				
	1/8	KQ2LF04-01					21				
	1/4	KQ2LF04-02					24.5				
6	M5 x 0.8	KQ2LF06-M5	8	12.8	8	20.5	15	17	3.5	3.5	5
	M6 x 1.0	KQ2LF06-M6					16				
	1/8	KQ2LF06-01					22				
	1/4	KQ2LF06-02					25.5				
	3/8	KQ2LF06-03					26				
	1/2	KQ2LF06-04					26				
8	1/8	KQ2LF08-01	14	15.2	12	23.5	23	18.5	21.6	14.9	16
	1/4	KQ2LF08-02					26.5				
	3/8	KQ2LF08-03					27				
	1/2	KQ2LF08-04					27				
10	1/4	KQ2LF10-02	17	18.5	17	26.5	28	21	21.6	14.9	22
	3/8	KQ2LF10-03					28.5				
	1/2	KQ2LF10-04					32.5				
	1/4	KQ2LF12-02					29.5				
12	3/8	KQ2LF12-03	19	20.9	17	28.5	30	22	50.2	39.7	27
	1/2	KQ2LF12-04					34				
	1/2	KQ2LF12-04					34				

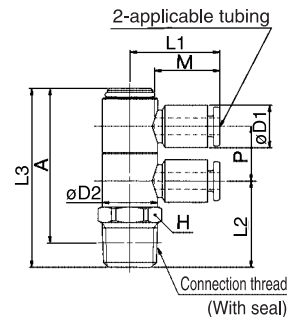


Note) øD1: Max. diameter

Double Universal Male Elbow: KQ2VD



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) øD1	øD2	L1	L2	L3	A*	M	P	Weight (g)
	1/4	KQ2VD04-02S	14	21.5	44	38	29					
	3/8	KQ2VD04-03S	17	23.5	46	40	42					
6	1/8	KQ2VD06-01S	14	12.8	13.4	24.5	18.5	41	37	17	13.4	24
	1/4	KQ2VD06-02S	14				21.5	44	38			30
	3/8	KQ2VD06-03S	17				23.5	46	40			42
8	1/8	KQ2VD08-01S	14	15.2	17.6	28.5	21	48	44	18.5	15.9	53
	1/4	KQ2VD08-02S	19				24	51	45			51
	3/8	KQ2VD08-03S	22				25	52	45.5			60
	1/2	KQ2VD08-04S	21				28.5	55.5	47.5			82
10	1/4	KQ2VD10-02S	19	18.5	20.6	31.5	26.5	58	52	21	19.2	71
	3/8	KQ2VD10-03S	21				27.5	59	53			74
	1/2	KQ2VD10-04S	21				30.5	62	54			91
12	1/4	KQ2VD12-02S	19	20.9	25.2	34	28.5	64.5	58.5	22	21.6	118
	3/8	KQ2VD12-03S	26				29.5	65.5	59			113
	1/2	KQ2VD12-04S	26				32.5	68.5	60			125

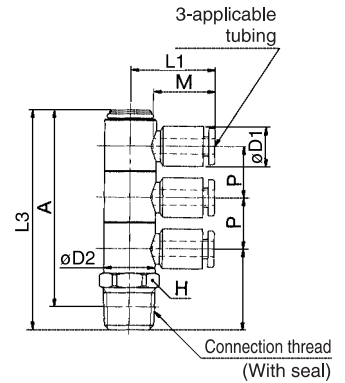


* Reference dimensions after R thread installation.
Note) øD1: Max. diameter

Triple Universal Male Elbow: KQ2VT



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) øD1	øD2	L1	L2	L3	A*	M	P	Weight (g)
4	1/8	KQ2VT04-01S	14	10.4	13.4	22	18.5	54.5	50.5	16	13.4	29
	1/4	KQ2VT04-02S					21.5	57.5	51.5			34
	3/8	KQ2VT04-03S					23.5	59.5	53.5			48
6	1/8	KQ2VT06-01S	14	12.8	13.4	24.5	18.5	54.5	50.5	17	13.4	31
	1/4	KQ2VT06-02S					21.5	57.5	51.5			37
	3/8	KQ2VT06-03S					23.5	59.5	53.5			50
8	1/8	KQ2VT08-01S	19	15.2	17.6	28.5	21	64	60	18.5	15.9	71
	1/4	KQ2VT08-02S					24	67	61			66
	3/8	KQ2VT08-03S					25	68	61.5			75
	1/2	KQ2VT08-04S					28.5	71.5	63.5			96
10	1/4	KQ2VT10-02S	21	18.5	20.6	31.5	26.5	77.5	71.5	21	19.2	94
	3/8	KQ2VT10-03S					27.5	78.5	72			111
	1/2	KQ2VT10-04S					30.5	81.5	73.5			
12	1/4	KQ2VT12-02S	26	20.9	25.2	34	28.5	86	80	22	21.6	153
	3/8	KQ2VT12-03S					29.5	87	80.5			142
	1/2	KQ2VT12-04S					32.5	90	82			154



* Reference dimensions after R thread installation.
Note) øD1: Max. diameter

- K□
- M□
- H□
- D□
- MS
- T□
- VMG

Branch Universal Male Elbow: KQ2Z

<M5>

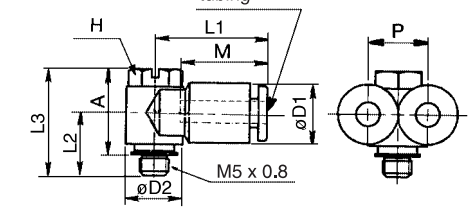


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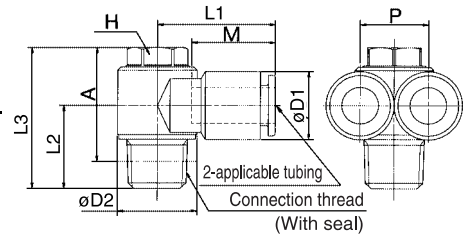


Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) øD1	øD2	L1	L2	L3	A*	M	P	Effective area (mm ²)		Weight (g)			
												Nylon	Urethane				
4	M5 x 0.8	KQ2Z04-M5	8	10.4	9.8	19.5	11	18.5	15	16	10.4	3.4	3.4	8			
	1/8	KQ2Z04-01S										4.7	4.7	16			
6	1/8	KQ2Z06-01S	8	12.8	13.4	22	14.5	26.5	22.5	17	12.8	10.8	8.6	17			
	1/4	KQ2Z06-02S												19.5	35.5	29.5	39
	3/8	KQ2Z06-03S												20.5	36.5	30	47
8	1/8	KQ2Z08-01S	12	15.2	17.6	26	15.5	28.5	24.5	18.5	15.2	20.5	14.2	27			
	1/4	KQ2Z08-02S												18.5	31.5	25.5	33
	3/8	KQ2Z08-03S												20.5	36.5	30	49
10	1/4	KQ2Z10-02S	14	18.5	20.6	29	19.5	35.5	29.5	21	18.5	31.8	22.6	46			
	3/8	KQ2Z10-03S												20.5	36.5	30	54
	1/2	KQ2Z10-04S												22	39	32.5	71
12	3/8	KQ2Z12-03S	17	20.9	25.2	32.5	22	39	32.5	22	20.9	44.6	35.3	71			
	1/2	KQ2Z12-04S												25	42	34	88

<M5>



<R>



* Reference dimensions after R thread installation.
Note) øD1: Max. diameter

Branch Universal Female Elbow: KQ2ZF

<M5>

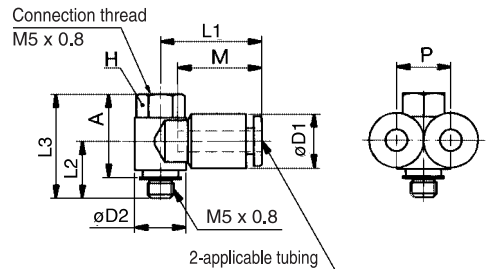


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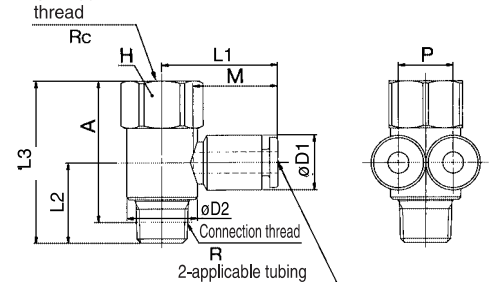


Applicable tubing O.D. (mm)	Connection thread R Rc	Model	H (width across flats)	Note) øD1	øD2	L1	L2	L3	A*	M	P	Weight (g)
1/8	KQ2ZF04-01S	13.4	21	15.5	29.5	25.5	21					
6	1/8	KQ2ZF06-01S	14	12.8	13.4	22	15.5	29.5	25.5	17	12.8	21
	1/4	KQ2ZF06-02S										20.6
8	1/8	KQ2ZF08-01S	17	15.2	17.6	25.5	17	31	27	18.5	15.2	32
	1/4	KQ2ZF08-02S										20.6
10	1/4	KQ2ZF10-02S	19	18.5	20.6	29	22	41	35	21	18.5	54
	3/8	KQ2ZF10-03S										25.2
12	3/8	KQ2ZF12-03S	22	20.9	25.2	32.5	24.5	45.5	39	22	20.9	77
	1/2	KQ2ZF12-04S										27

<M5>



<R>



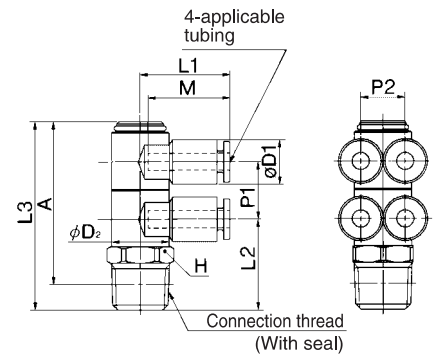
* Reference dimensions after R thread installation.
Note) øD1: Max. diameter

Series KQ2

Double Branch Universal Male Elbow: KQ2ZD



Applicable tubing O.D. (mm)	Connection threads R	Model	H (width across flats)	Note)			A*	M	P1	P2	Weight (g)		
				øD1	øD2	L1							
4	1/8	KQ2ZD04-01S	14	10.4	13.4	21	18.5	41	37	16	13.4	10.4	34
	1/4	KQ2ZD04-02S	14				21.5	44	38				40
	3/8	KQ2ZD04-03S	17				23.5	46	40				53
6	1/8	KQ2ZD06-01S	14	12.8	13.4	22	18.5	41	37	17	13.4	12.8	38
	1/4	KQ2ZD06-02S	14				21.5	44	38				43
	3/8	KQ2ZD06-03S	17				23.5	46	40				57
8	1/8	KQ2ZD08-01S	14	15.2	17.6	26	21	48	44	18.5	15.9	15.2	76
	1/4	KQ2ZD08-02S	19				24	51	45				72
	3/8	KQ2ZD08-03S	19				25	52	45.5				81
	1/2	KQ2ZD08-04S	21				28.5	55.5	47.5				102
10	1/4	KQ2ZD10-02S	21	18.5	20.6	29	26.5	58	52	21	19.2	18.5	111
	3/8	KQ2ZD10-03S	21				27.5	59	53				128
	1/2	KQ2ZD10-04S	21				30.5	62	54				128
12	1/4	KQ2ZD12-02S	26	20.9	25.2	32	28.5	64.5	58.5	22	21.6	20.9	178
	3/8	KQ2ZD12-03S	26				29.5	65.5	59				167
	1/2	KQ2ZD12-04S	26				32.5	68.5	60				179

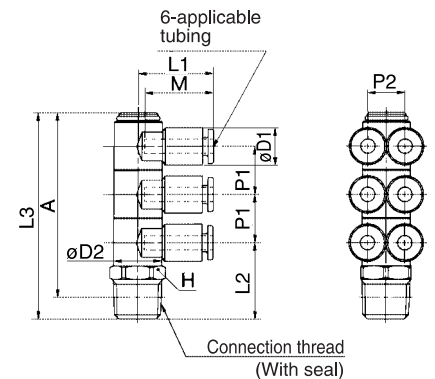


* Reference dimensions after R thread installation.
Note) øD1: Max. diameter

Triple Branch Universal Male Elbow: KQ2ZT



Applicable tubing O.D. (mm)	Connection threads R	Model	H (width across flats)	Note)			A*	M	P1	P2	Weight (g)		
				øD1	øD2	L1							
4	1/8	KQ2ZT04-01S	14	10.4	13.4	21	18.5	54.5	50.5	16	13.4	10.4	25
	1/4	KQ2ZT04-02S	14				21.5	57.5	51.5				31
	3/8	KQ2ZT04-03S	17				23.5	59.5	53.5				44
6	1/8	KQ2ZT06-01S	14	12.8	13.4	22	18.5	54.5	50.5	17	13.4	12.8	27
	1/4	KQ2ZT06-02S	14				21.5	57.5	51.5				33
	3/8	KQ2ZT06-03S	17				23.5	59.5	53.5				46
8	1/8	KQ2ZT08-01S	14	15.2	17.6	26	21	64	60	18.5	15.9	15.2	56
	1/4	KQ2ZT08-02S	19				24	67	61				54
	3/8	KQ2ZT08-03S	19				25	68	61.5				62
	1/2	KQ2ZT08-04S	21				28.5	71.5	63.5				85
10	1/4	KQ2ZT10-02S	21	18.5	20.6	29	26.5	77.5	71.5	21	19.2	18.5	83
	3/8	KQ2ZT10-03S	21				27.5	78.5	72				85
	1/2	KQ2ZT10-04S	21				30.5	81.5	73.5				102
12	1/4	KQ2ZT12-02S	26	20.9	25.2	32	28.5	86	80	22	21.6	20.9	134
	3/8	KQ2ZT12-03S	26				29.5	87	80.5				130
	1/2	KQ2ZT12-04S	26				32.5	90	82				141

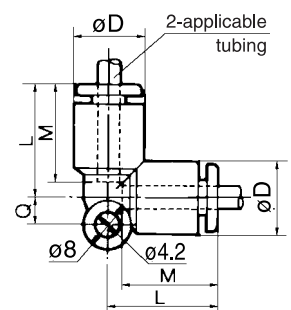


* Reference dimensions after R thread installation.
Note) øD1: Max. diameter

Union Elbow: KQ2L



Applicable tubing O.D. (mm)	Model	øD ⁽¹⁾	L	Q	M	Effective area ⁽²⁾ (mm ²)		Weight (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



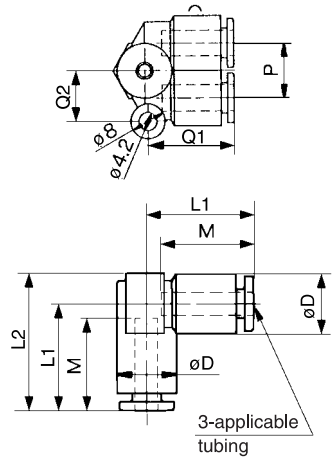
Note 1) øD: Max. diameter
Note 2) (): Valves for soft nylon.

Branch Union Elbow: KQ2LU



Applicable tubing O.D. (mm)	Model	Note) ϕD	L1	L2	Q1	Q2	M	P	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
4	KQ2LU04-00	10.4	18.5	24	18.5	10	16	10.4	6.0	4.1	6
6	KQ2LU06-00	12.8	21	27.5	20.5	12	17	12.8	13.9	11.0	8
8	KQ2LU08-00	15.2	24	32	24.5	14	18.5	15.2	26.3	18.2	15
10	KQ2LU10-00	18.5	27	36.5	28	16	21	18.5	40.8	29.0	25
12	KQ2LU12-00	20.9	29	40	30	18	22	20.9	57.2	45.2	32

Note) ϕD : Max. diameter

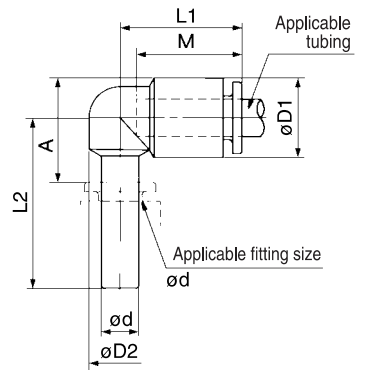


Plug-in Elbow: KQ2L



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	Note) $\phi D1$	$\phi D2$	L1	L2	A	M	Effective area ⁽²⁾ (mm ²)		Weight (g)
									Nylon	Urethane	
3.2	3.2	KQ2L23-99	9.6	7	17	24.5	14	15.5	3	2.5	2
4	4	KQ2L04-99	10.4	8	18	25	14.5	16	4.2	4.2	3
6	6	KQ2L06-99	12.8	10	20	27.5	17	17	11.4	9.0	3
8	8	KQ2L08-99	15.2	12	22.5	31.5	21	18.5	21.6	14.9	5
10	10	KQ2L10-99	18.5	14	25.5	35.5	23.5	21	35.2	25.0	9
12	12	KQ2L12-99	20.9	16	27	37.5	26	22	50.2	39.7	10
16	16	KQ2L16-99	26.5	20.9	34	53	41	25	100	(84)	42

Note 1) $\phi D1$: Max. diameter
Note 2) (): Values for soft nylon.

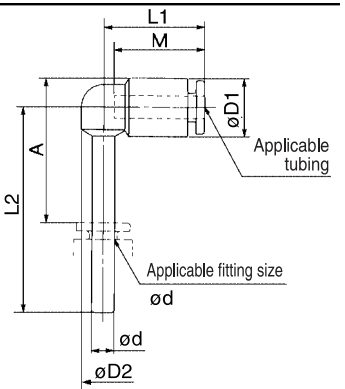


Extended Plug-in Elbow: KQ2W



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	Note) $\phi D1$	$\phi D2$	L1	L2	A	M	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
3.2	3.2	KQ2W23-99	9.6	7	17.5	35	24.5	15.5	3	2.5	2
4	4	KQ2W04-99	10.4	8	18	37	26	16	4.2	4.2	3
6	6	KQ2W06-99	12.8	10	20	41.5	31	17	11.4	9.0	4
8	8	KQ2W08-99	15.2	10	22.5	48	37	18.5	21.6	14.9	6
10	10	KQ2W10-99	18.5	14	25.5	55	43.5	21	35.2	25.0	9
12	12	KQ2W12-99	20.9	16	27	59.5	48	22	50.2	39.7	13

Note) ϕD : Max. diameter

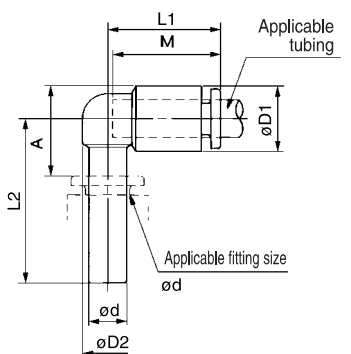


Reducer Elbow: KQ2L



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	Note) $\phi D1$	$\phi D2$	L1	L2	A	M	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
3.2	4	KQ2L23-04	9.6	7	17	25	13.5	15.5	3	2.5	2
	6	KQ2L04-06									
4	8	KQ2L04-08	12.8	10	19.5	30.5	18	17	11.4	9.0	12
	6	KQ2L06-08									
6	10	KQ2L06-10	15.2	12	22.5	33.5	20.5	18.5	21.6	14.9	27
	8	KQ2L08-12									
8	12	KQ2L08-12	20.9	17	28.5	49.5	34.5	22	50.2	39.7	53
10	16	KQ2L10-12									
12	16	KQ2L12-16	20.9	17	28.5	49.5	34.5	22	50.2	39.7	53


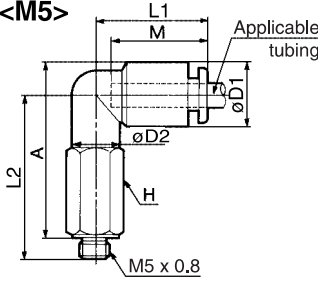

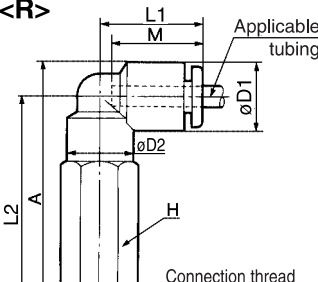
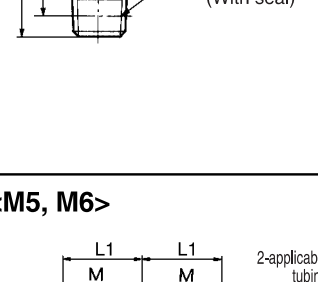

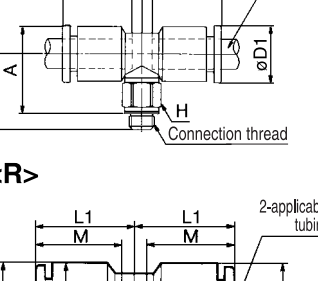

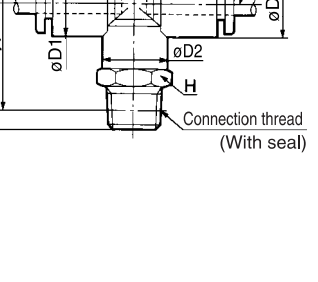




Note) $\phi D1$: Max. diameter



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


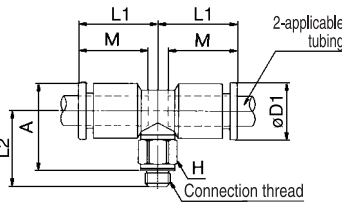

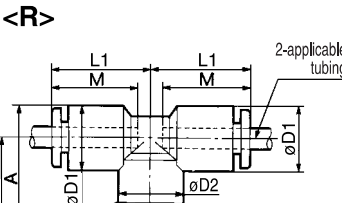
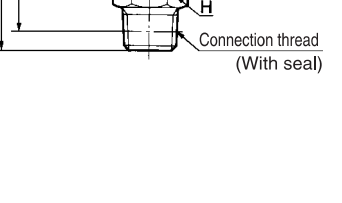






Series KQ2

Extended Male Elbow: KQ2W

<M5>	Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	⁽¹⁾		L1	L2	A*	M	Effective area ⁽²⁾ (mm ²)		Weight (g)	<M5>
					øD1	øD2					Nylon	Urethane		
	3.2	M5 x 0.8	KQ2W23-M5	8	9.6	10	17.5	30	31	15.5	2.8	2.4	10	
		1/8	KQ2W23-01S	10				37	38				19	
		1/4	KQ2W23-02S	14				43	42				41	
	4	M5 x 0.8	KQ2W04-M5	8	10.4	10	18	30	32	16	3.0	3.0	11	
		1/8	KQ2W04-01S	10				37.5	38.5				23	
		1/4	KQ2W04-02S	14				43.5	42.5				38	
<R>	6	M5 x 0.8	KQ2W06-M5	8	12.8	10	20	40	42.5	17	10.9	8.6	26	
		1/8	KQ2W06-01S	10				46	46.5				41	
		3/8	KQ2W06-03S	17				48	48				67	
	8	1/8	KQ2W08-01S	12	15.2	12	23	43.5	47	18.5	20.5	14.2	30	
		1/4	KQ2W08-02S	14				49.5	51				47	
		3/8	KQ2W08-03S	17				51.5	52.5				74	
	10	1/4	KQ2W10-02S	17	18.5	17	26.5	56.5	59.5	21	33.5	23.8	66	
		3/8	KQ2W10-03S	17				58.5	61				76	
		1/2	KQ2W10-04S	22				65	66				145	
	12	1/4	KQ2W12-02S	17	20.9	17	28.5	57.5	62	22	47.7	37.7	68	
		3/8	KQ2W12-03S	17				59.5	63.5				78	
		1/2	KQ2W12-04S	22				66	68.5				147	
	16	3/8	KQ2W16-03S	22	26.5	20.9	34	69.5	76	25	71	(71)	101	
		1/2	KQ2W16-04S	22				75	80				105	

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

Male Branch Tee: KQ2T

<M5>	Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	⁽¹⁾		L1	L2	A*	M	Effective area ⁽²⁾ (mm ²)		Weight (g)	<M5, M6>
					øD1	øD2					Nylon	Urethane		
	3.2	M5 x 0.8	KQ2T23-M5	7	8.4	—	15.3	13.2	14.3	12.7	3.2	2.7	3.2	
		1/8	KQ2T23-01S	10	9.6	10	17.5	21.5	22.5	15.5	3.4	2.9	10	
		1/4	KQ2T23-02S	14				25.5	24.5				20	
	4	M5 x 0.8	KQ2T04-M5	7	9.3	—	15.6	13.7	15.3	12.7	4.5	4.5	3.5	
		M6 x 1.0	KQ2T04-M6	8				14.7	—				4.4	
		1/8	KQ2T04-01S	10				22	23				13	
<M6>	6	1/4	KQ2T04-02S	14	10.4	10	18	26	25	16	6.0	4.1	19	
		M5 x 0.8	KQ2T06-M5	7				14.7	17.4				4.4	
		M6 x 1.0	KQ2T06-M6	8				15.7	—				5.3	
	6	1/8	KQ2T06-01S	10	11.6	—	16.1	23	25.5	13.5	4.5	4.5	12	
		1/4	KQ2T06-02S	14				27	27.5				20	
		3/8	KQ2T06-03S	17				29	29				34	
	8	1/8	KQ2T08-01S	12	15.2	12	23	24.5	28	18.5	26.3	18.2	14	
		1/4	KQ2T08-02S	14				28.5	30				22	
		3/8	KQ2T08-03S	17				30.5	31.5				36	
	10	1/8	KQ2T10-01S	12	18.5	17	26.5	27	32	21	40.8	29.0	31	
		1/4	KQ2T10-02S	17				30	33				29	
		3/8	KQ2T10-03S	17				32	34.5				39	
<R>	12	1/2	KQ2T10-04S	22	20.9	17	28.5	36	37	22	57.2	45.2	66	
		1/4	KQ2T12-02S	17				31	35.5				31	
		3/8	KQ2T12-03S	17				33	37				41	
	12	1/2	KQ2T12-04S	22	20.9	17	28.5	37	39.5	22	57.2	45.2	68	
		3/8	KQ2T16-03S	22				38	44.5				112	
		1/2	KQ2T16-04S	22				40.5	46				116	

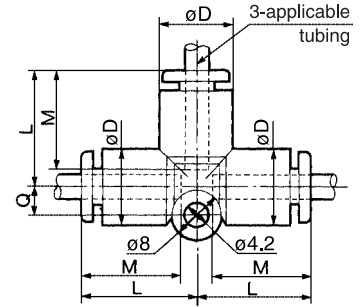
* Reference dimensions after R thread installation.
 Note 1) øD1: Max. diameter
 Note 2) (): Values for soft nylon

Union Tee: KQ2T



Applicable tubing O.D. (mm)	Model	øD ⁽¹⁾	L	Q	M	Effective area ⁽²⁾ (mm ²)		Weight (g)
						Nylon	Urethane	
3.2	KQ2T23-00	9.6	17.5	4.3	15.5	3.4	2.9	5
4	KQ2T04-00	10.4	18	4.5	16	6.4	4.4	7
6	KQ2T06-00	12.8	20	5.3	17	13.4	10.6	10
8	KQ2T08-00	15.2	23	6	18.5	25.6	17.7	15
10	KQ2T10-00	18.5	26.5	6.8	21	40	28.4	25
12	KQ2T12-00	20.9	28.5	7.5	22	57.4	45.4	29
16	KQ2T16-00	26.5	34	10	25	100	(84)	40

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

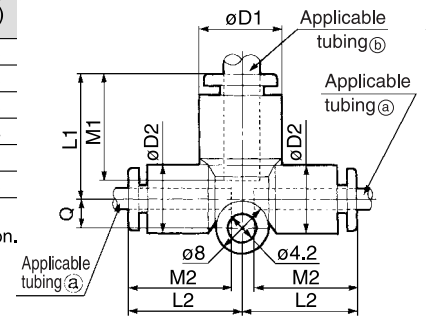


Different Diameter Tee: KQ2T



Applicable tubing O.D. (mm)		Model	øD ⁽¹⁾	øD2	L1	L2	Q	M1	M2	Effective area ⁽²⁾ (mm ²)		Weight (g)
Ⓐ	Ⓑ									Nylon	Urethane	
3.2	4	KQ2T23-04	10.4	9.6	18	17.5	4.3	16	15.5	3.8	3.5	5
4	6	KQ2T04-06	12.8	10.4	19.5	18	4.5	17	16	7.1	6.5	5
6	8	KQ2T06-08	15.2	12.8	22.5	20	5.3	18.5	17	16.4	16.4	8
8	10	KQ2T08-10	18.5	15.2	26.5	23	6	21	18.5	36	27.2	14
10	12	KQ2T10-12	20.9	18.5	28.5	26.5	6.8	22	21	56	44.5	21
12	16	KQ2T12-16	26.5	26.5	34	39	10	25	22	108.5	(92.2)	88

Note 1) øD1: Max. diameter
Note 2) (): Values for soft nylon.

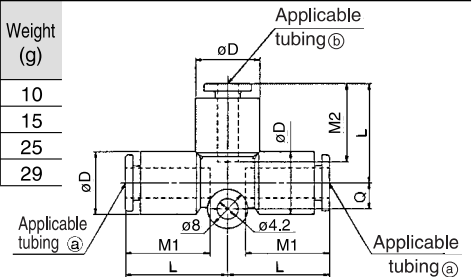


Different Diameter Tee: KQ2T



Applicable tubing O.D. (mm)		Model	Note) øD	L	Q	M1	M2	Effective area (mm ²)		Weight (g)
Ⓐ	Ⓑ							Nylon	Urethane	
6	4	KQ2T06-04	12.8	20	5.3	17	16	6.4	4.4	10
8	6	KQ2T08-06	15.2	23	6	18.5	17	13.4	10.6	15
10	8	KQ2T10-08	18.5	26.5	7.5	21	18.5	25.6	17.7	25
12	10	KQ2T12-10	20.9	28.5	7.5	22	21	40	28.4	29

Note) øD: Max. diameter

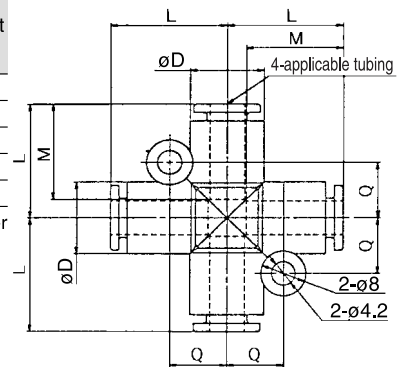


Cross: KQ2TW



Applicable tubing O.D. (mm)		Model	Note) øD	L	Q	M	Effective area (mm ²)		Weight (g)
Ⓐ	Ⓑ						Nylon	Urethane	
4		KQ2TW04-00	10.4	18	8.7	16	6.4	4.4	9
6		KQ2TW06-00	12.8	20	9.9	17	13.4	10.6	13
8		KQ2TW08-00	15.2	23	11.1	18.5	25.6	17.7	20
10		KQ2TW10-00	18.5	26.5	12.8	21	40	28.4	33
12		KQ2TW12-00	20.9	28.5	13.9	22	57.4	45.4	39

Note) øD: Max. diameter

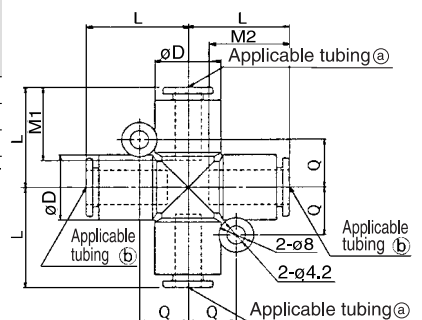


Different Diameter Cross: KQ2TX



Applicable tubing O.D. (mm)		Model	Note) øD	L	Q	M1	M2	Effective area (mm ²)		Weight (g)
Ⓐ	Ⓑ							Nylon	Urethane	
6	8	KQ2TX06-08	15.2	23	11.1	18.5	17	13.4	10.6	13
8	10	KQ2TX08-10	18.5	26.5	12.8	21	18.5	25.6	17.7	27
10	12	KQ2TX10-12	20.9	28.5	13.9	22	21	40	28.4	36

Note) øD: Max. diameter



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

Series KQ2

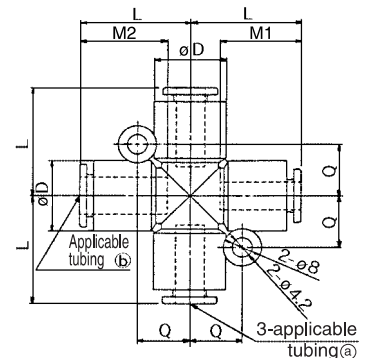
Different Diameter Cross: KQ2TY



Applicable tubing O.D. (mm)		Model	Note) ϕD	L	Q	M1	M2	Effective area (mm ²)		Weight (g)
Ⓐ	Ⓑ							Nylon	Urethane	
6	8	KQ2TY06-08	15.2	23	11.1	17	18.5	13.4	10.6	15
8	10	KQ2TY08-10	18.5	26.5	12.8	18.5	21	25.6	17.7	23
10	12	KQ2TY10-12	20.9	28.5	13.9	21	22	40	28.4	35



Note) ϕD : max. diameter



Male Run Tee: KQ2Y

<M5>



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	$\phi D1$ ⁽¹⁾	$\phi D2$	L1	L2	L3	A*	M	Effective area ⁽²⁾ (mm ²)		Weight (g)
											Nylon	Urethane	
3.2	M5 x 0.8	KQ2Y23-M5	7	8.4	—	15.4	13.2	14.8	24.9	12.7	3.2	2.7	3.2
	1/8	KQ2Y23-01S	10	9.6	10	17.5	21.5	—	35	15.5	3.4	2.9	10
	1/4	KQ2Y23-02S	14				25.5	37	20				
4	M5 x 0.8	KQ2Y04-M5	7	9.3	—	15.6	13.7	14.8	25.4	12.7	4.5	4.5	3.5
	M6 x 1.0	KQ2Y04-M6	8				14.7						6
	1/8	KQ2Y04-01S	10	10.4	10	18	22	—	36	16	6.4	4.4	13
	1/4	KQ2Y04-02S	14				26		38				19
	M5 x 0.8	KQ2Y06-M5	7				11.6		—				17.1
M6 x 1.0	KQ2Y06-M6	8	15.7	7									
6	1/8	KQ2Y06-01S	10	12.8	10	20	23	—	39	17	13.4	10.6	12
	1/4	KQ2Y06-02S	14				27		41				20
	3/8	KQ2Y06-03S	17				29		42.5				34
	1/8	KQ2Y08-01S	12	15.2	12	23	24.5	—	43.5	18.5	25.6	17.7	14
	1/4	KQ2Y08-02S	14				28.5		45.5				22
3/8	KQ2Y08-03S	17	30.5				47		36				
10	1/8	KQ2Y10-01S	17	18.5	17	26.5	27	—	49.5	21	40.0	28.4	31
	1/4	KQ2Y10-02S	17				30		50.5				29
	3/8	KQ2Y10-03S	17				32		52				39
	1/2	KQ2Y10-04S	22				36		54.5				66
12	1/4	KQ2Y12-02S	17	20.9	17	28.5	31	—	53.5	22	57.4	45.4	31
	3/8	KQ2Y12-03S	17				33		55				41
	1/2	KQ2Y12-04S	22				37		57.5				68
	3/8	KQ2Y16-03S	22				38		65.5				112
16	1/2	KQ2Y16-04S	22	26.5	20.9	34	41	—	67	25	81	(81)	116
	1/2	KQ2Y16-04S	22				113		(113)				116

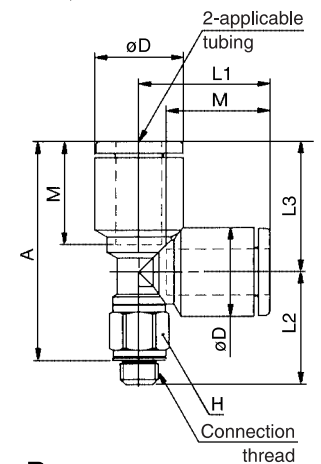


* Reference dimensions after R thread installation.

Note 1) ϕD : Max. diameter

Note 2) (): Values for soft nylon

<M5, M6>



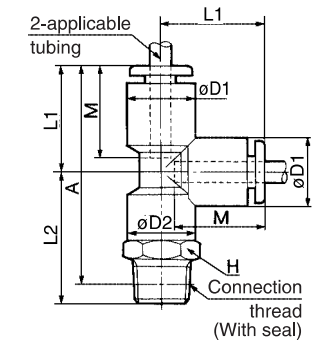
<M6>



<R>



<R>



Male Delta Union: KQ2D

<M5, M6>



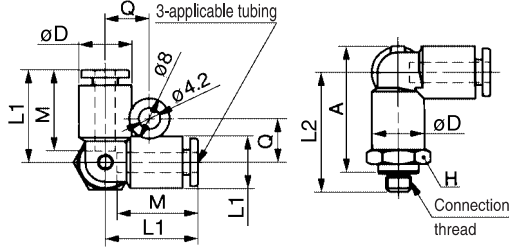
<R>



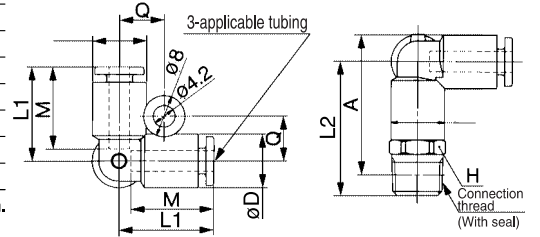
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) ϕD	L1	L2	A*	M	Q	Effective area (mm ²)		Weight (g)
										Nylon	Urethane	
4	M5 x 0.8	KQ2D04-M5	11	10.4	18.5	24	25.5	16	8.7	2.2	2.2	10
	M6 x 1.0	KQ2D04-M6				24.5						
	1/8	KQ2D04-01S	26.5			27.5	6.0			6.0	12	
	1/4	KQ2D04-02S	30.5			29.5	21			21		
6	M5 x 0.8	KQ2D06-M5	13	12.8	20.5	26	28.5	17	9.9	4.3	4.3	12
	M6 x 1.0	KQ2D06-M6				26.5						
	1/8	KQ2D06-01S	29			31.5	13.9			11.0	21	
	1/4	KQ2D06-02S	32.5			33	34			34		
8	1/8	KQ2D08-01S	17	15.2	23.5	33.5	37	18.5	11.1	26.3	18.2	26
	1/4	KQ2D08-02S				36.5						
	3/8	KQ2D08-03S	37.5			38.5	39			39		
	1/2	KQ2D08-04S	39.5			43	40			40		
10	1/4	KQ2D10-02S	19	18.5	26.5	40.5	43.5	21	12.8	40.8	29.0	40
	3/8	KQ2D10-03S				44						
	1/2	KQ2D10-04S	42			46.5	55			55		
	3/8	KQ2D12-03S	43			47	56			56		
12	1/2	KQ2D12-04S	22	20.9	28.5	46	48.5	22	13.9	57.2	45.2	63

* Reference dimensions after R thread installation.
Note) ϕD : Max. diameter

<M5, M6>



<R>



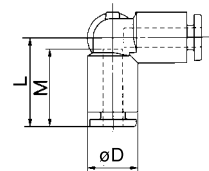
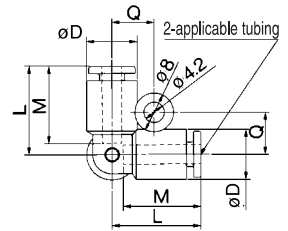
- K
- M
- H
- D
- MS
- T
- VMG

Delta Union: KQ2D



Applicable tubing O.D. (mm)	Model	Note) ϕD	L	Q	M	Effective area (mm ²)		Weight (g)
						Nylon	Urethane	
4	KQ2D04-00	10.4	18.5	8.7	16	6.0	4.1	5
6	KQ2D06-00	12.8	20.5	9.9	17	13.9	11.0	7
8	KQ2D08-00	15.2	23.5	11.1	18.5	26.3	18.2	11
10	KQ2D10-00	18.5	26.5	12.8	21	40.8	29.0	19
12	KQ2D12-00	20.9	28.5	13.9	22	57.2	45.2	24

Note) ϕD : Max. diameter



Branch "Y": KQ2U

<M5, M6>



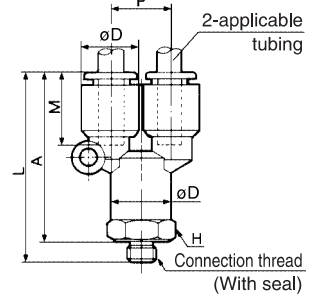
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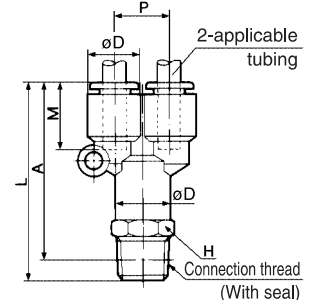
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	ϕD (1)	L	P	A*	M	Effective area (2) (mm ²)		Weight (g)
									Nylon	Urethane	
3.2	M5 x 0.8	KQ2U23-M5	10	9.6	38	9.6	34.5	15.5	2.2	2.2	9
	1/8	KQ2U23-01S	11		41		37		3.4	2.9	14
	1/4	KQ2U23-02S	14		44		38		11	11	
4	M5 x 0.8	KQ2U04-M5	11	10.4	39.5	10.4	36	16	2.2	2.2	4
	M6 x 1.0	KQ2U04-M6			40		38		10		
	1/8	KQ2U04-01S	42		40	11					
	1/4	KQ2U04-02S	46		40	20					
6	M5 x 0.8	KQ2U06-M5	13	12.8	42.5	12.8	39	17	2.2	2.2	12
	M6 x 1.0	KQ2U06-M6			43		41.5		11		
	1/8	KQ2U06-01S	45.5		43	21					
	1/4	KQ2U06-02S	49		43	34					
8	1/8	KQ2U06-03S	17	51	44.5	35					
	1/8	KQ2U08-01S	17	15.2	52.5	15.2	48.5	18.5	25.6	17.7	15
	1/4	KQ2U08-02S			55.5		50		23		
3/8	KQ2U08-03S	56.5	50		35						
10	1/4	KQ2U10-02S	19	18.5	61	18.5	55	21	40	28.4	30
	3/8	KQ2U10-03S			62		55.5		40		
	1/2	KQ2U10-04S	65		57		65				
12	1/4	KQ2U12-02S	22	20.9	64.5	20.9	58.5	22	57.4	45.4	32
	3/8	KQ2U12-03S			65.5		59		40		
	1/2	KQ2U12-04S	68.5		60.5		65				
16	3/8	KQ2U16-03S	27	26.5	76	26.5	69.5	25	81	(81)	106
	1/2	KQ2U16-04S			79		71		113	(96)	111

* Reference dimensions after R thread installation.
Note 1) $\phi D1$: Max. diameter
Note 2) (): Values for soft nylon

<M5, M6>



<R>



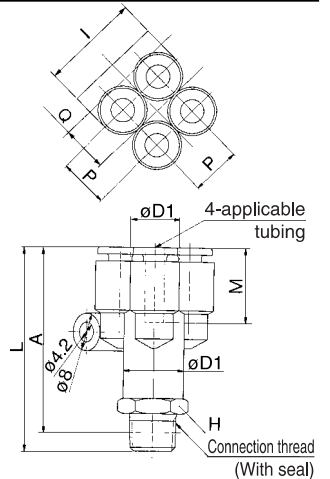
Series KQ2

Delta Branch: KQ2UD



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) $\phi D1$	Note) $\phi D2$	L	I	A*	Q	M	P	Effective area (mm ²)		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											
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												

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

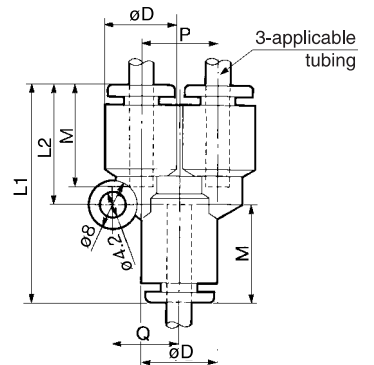


Union "Y": KQ2U



Applicable tubing O.D. (mm)	Model	$\phi D^{(1)}$	L1	L2	P	Q	M	Effective area (mm ²) ⁽²⁾		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) ϕD : Max. diameter
 Note 2) (): Values for soft nylon.

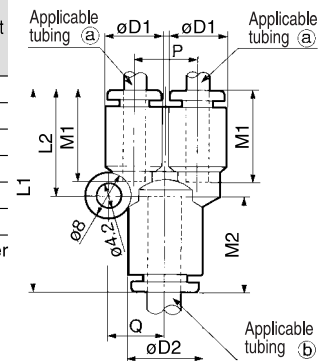


Different Diameter Union "Y": KQ2U



Applicable tubing O.D. (mm)		Model	Note) $\phi D1$	Note) $\phi D2$	L1	L2	P	Q	M1	M2	Effective area (mm ²)		Weight (g)
(a)	(b)										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

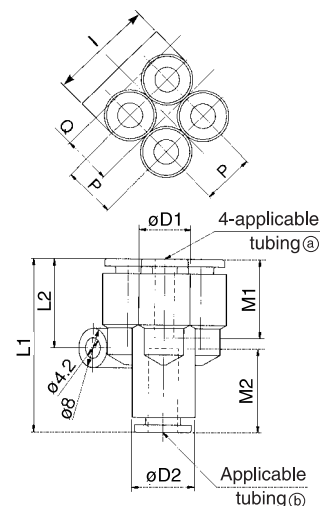


Different Diameter Double Union "Y": KQ2UD



Applicable tubing O.D. (mm)		Model	Note) $\phi D1$	Note) $\phi D2$	L1	L2	P	I	Q	M1	M2	Effective area (mm ²)		Weight (g)
(a)	(b)											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

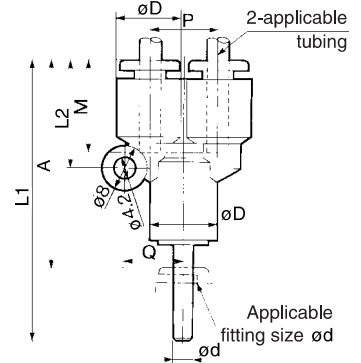


Plug-in "Y": KQ2U



Applicable tubing O.D. (mm)	Application fitting ϕd	Model	Note 1)		L1	L2	P	Q	A	M	Effective area (mm ²)		Weight (g)
			ϕD								Nylon	Urethane	
3,2	3,2	KQ2U23-99	9,6	50	17,5	9,6	9	35	15,5		3,4	2,9	6
4	4	KQ2U04-99	10,4	51,5	18	10,4	9,7	35,5	16		4,2	4,2	12
6	6	KQ2U06-99	12,8	55,5	20	12,8	11,7	38,5	17		13,4	10,6	18
8	8	KQ2U08-99	15,2	64,5	24,5	15,2	13,7	46	18,5		25,6	17,7	21
10	10	KQ2U10-99	18,5	71,5	27,5	18,5	16,1	50,5	21		40	28,4	26
12	12	KQ2U12-99	20,9	75,5	30	20,9	18,1	53,5	22		57,4	45,4	32
16	16	KQ2U16-99	26,5	90	36,5	26,5	23	65	25		113	(96)	78

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

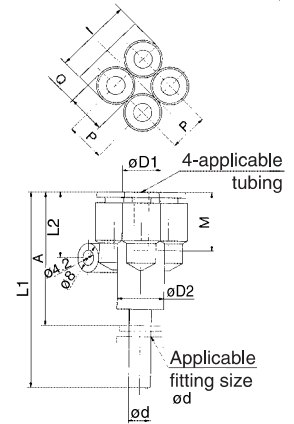


Double Plug-in "Y": KQ2XD



Applicable tubing O.D. (mm)	Application fitting Fitting size ϕd	Model	Note)		L1	L2	I	Q	A	P	M	Effective area (mm ²)		Weight (g)
			$\phi D1$	$\phi D2$								Nylon	Urethane	
4	6	KQ2XD04-06	10,4	12,8	54	18,2	21	9,7	37	10,4	16	4,2	4,2	10
6	8	KQ2XD06-08	12,8	15,2	62,5	20,3	26	11,7	44	12,8	17	13,4	10,6	23

Note) $\phi D1$: Max. diameter

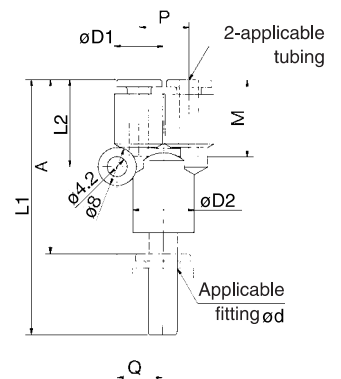


Different Diameter Plug-in "Y": KQ2X



Applicable tubing O.D. (mm)	Application fitting Fitting size ϕd	Model	Note)		L1	L2	A	P	Q	M	Effective area (mm ²)		Weight (g)
			$\phi D1$	$\phi D2$							Nylon	Urethane	
4	6	KQ2X04-06	10,4	12,8	53,5	18,5	36,5	10,4	9,7	16	4,2	4,2	7
6	8	KQ2X06-08	12,8	15,2	61,5	20,5	43	12,8	11,7	17	13,4	10,6	18
8	10	KQ2X08-10	15,2	18,5	68,5	24,5	47,5	15,2	13,7	18,5	25,6	17,7	28
10	12	KQ2X10-12	18,5	20,9	73,5	27,5	51,5	18,5	16,1	21	40	28,4	42

Note) $\phi D1$: Max. diameter



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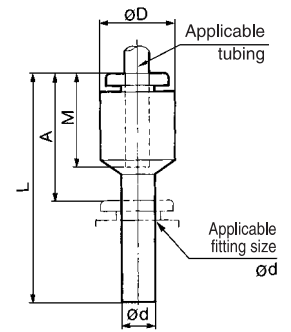
VMG

Series KQ2

Plug-in Reducer: KQ2R



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	$\phi D^{(1)}$	L	A	M	Effective area ⁽²⁾ (mm ²)		Weight (g)		
							Nylon	Urethane			
3.2	4	KQ2R23-04	9.6	33.5	18.5	15.5	3.4	2.9	2		
	6	KQ2R04-06	10.4	34.5	17.5	16	5.6	4	1.8		
4	8	KQ2R04-08		36.5	18				2.0		
		10	KQ2R04-10	12.8	39.5	18.5	17	4	4	3.3	
6	4	KQ2R06-04	12.8	37	21	4				2.5	
	8	KQ2R06-08	12.8	37	18.5	13.1				10.4	2.5
	10	KQ2R06-10		39.5	18.5						3
	12	KQ2R06-12	15.2	42	20	13.1	10.4	4.7			
8	10	KQ2R08-10	15.2	41	20	18.5	26.1	18.0	4.0		
	12	KQ2R08-12	42	4.6							
10	12	KQ2R10-12	18.5	44.5	23	21	41.5	32.8	33		
	16	KQ2R10-16	20.9	50.5	25.5				(29.5)	42	
12	16	KQ2R12-16	20.9	50.5	25.5	22	58.3	(46.1)	37		

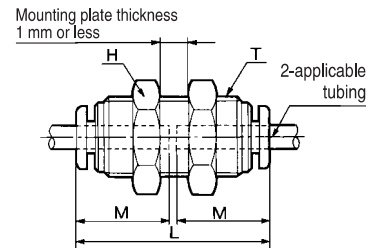


Note 1) ϕD : Max. diameter
Note 2) (): Values for soft nylon.

Bulkhead Union: KQ2E



Applicable tubing O.D. (mm)	Model	T (M)	H (width across flats)	L	Mounting hole	M	Effective area ^{Note} (mm ²)		Weight (g)
							Nylon	Urethane	
3.2	KQ2E23-00	M12 x 1	14	31.5	13	15.5	3.4	2.9	26
4	KQ2E04-00	M12 x 1	14	32.5	13	16	5.6	4	26
6	KQ2E06-00	M14 x 1	17	34.5	15	17	13.1	10.4	33
8	KQ2E08-00	M16 x 1	19	38	17	18.5	26.1	18.0	52
10	KQ2E10-00	M20 x 1	24	42.5	21	21	41.5	29.5	70
12	KQ2E12-00	M22 x 1	27	44	23	22	58.3	46.1	90
16	KQ2E16-00	M28 x 1.5	32	51	29	25	113	(96)	115

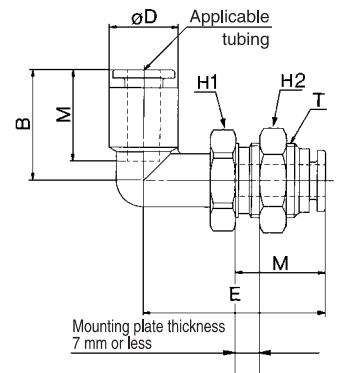


Note (): Values for soft nylon.

Bulkhead Male Elbow: KQ2LE



Applicable tubing O.D. (mm)	Model	T	H1 (Hex. across flats)	H2 (Hex. across flats)	B	E	Note) ϕD	Mounting hole	M	Effective area ^{Note} (mm ²)		Weight (g)
										Nylon	Urethane	
4	KQ2LE04-00	M12 x 1	14	14	18.5	31	10.4	13	16	4.2	4.2	18
6	KQ2LE06-00	M14 x 1	17	17	20.5	34	12.8	15	17	11.4	9.0	25
8	KQ2LE08-00	M16 x 1	17	19	23.5	38.5	15.2	17	18.5	21.6	14.9	33
10	KQ2LE10-00	M20 x 1	22	24	26.5	43.5	18.5	21	21	35.2	25.0	63
12	KQ2LE12-00	M22 x 1	24	27	28.5	45.5	20.9	23	22	50.2	39.7	77

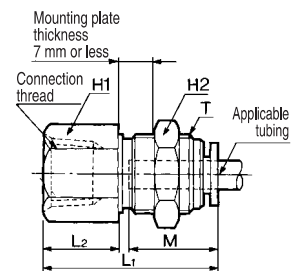


Note) ϕD : Max. diameter

Bulkhead Connector: KQ2E



Applicable tubing O.D. (mm)	Connection thread Rc	Model	T (M)	H1 (Hex. across flats)	H2 (Hex. across flats)	L1	L2	Mounting hole	M	Effective area ^{Note} (mm ²)		Weight (g)		
										Nylon	Urethane			
3.2	1/4	KQ2E23-02	M12 x 1	17	14	31.5	15	13	15.5	3.4	2.9	13		
4	1/8	KQ2E04-01	M12 x 1	14	14	27.5	11	13	16	5.6	4	16		
	1/4	KQ2E04-02										31	15	35
6	1/8	KQ2E06-01	M14 x 1	17	17	28	11	15	17	13.1	10.4	25		
	1/4	KQ2E06-02										31.5	15	40
	3/8	KQ2E06-03										33.5	17	29
8	1/8	KQ2E08-01	M16 x 1	17	19	27.5	7.5	17	18.5	26.1	18.0	28		
	1/4	KQ2E08-02										33	13	27
	3/8	KQ2E08-03										35	15	48
10	1/4	KQ2E10-02	M20 x 1	22	24	34.5	12.5	21	21	41.5	29.5	53		
	3/8	KQ2E10-03										36.5	15	67
12	3/8	KQ2E12-03	M22 x 1	24	27	37	14	23	22	58.3	46.1	92		
	1/2	KQ2E12-04										41	18	59
16	3/8	KQ2E16-03	M28 x 1.5	30	32	40	14	29	25	96	(96)	127		
	1/2	KQ2E16-04										44	18	113

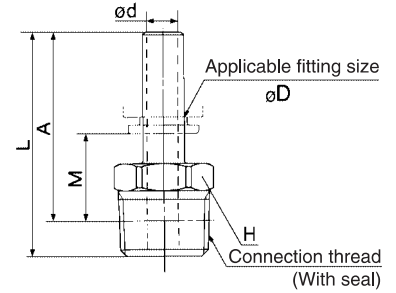


Note (): Values for soft nylon.

Adaptor: KQ2N



Applicable fitting size ϕd	Connection thread R	Model	H (width across flats)	L	A*	M	ϕd	Weight (g)
4	M5 x 0.8	KQ2N04-M5	7	32	29	13	2.5	2
	1/8	KQ2N04-01S	10	34	30	14		6
6	M5 x 0.8	KQ2N06-M5	7	33	30	13	2.5	2
	1/8	KQ2N06-01S	10	35	31	14		5
	1/4	KQ2N06-02S	14	37.5	31.5	14.5	14	
8	1/4	KQ2N08-02S	14	39	33	14.5	6	17
	3/8	KQ2N08-03S	17	41	34.5	16		30
10	3/8	KQ2N10-03S	17	46	39.5	18.5	7.5	31

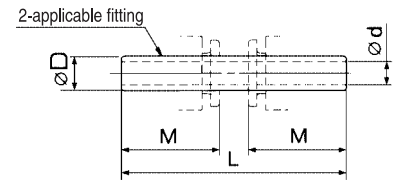


Nipple: KQ2N

* Reference dimensions after R thread is screwed in.



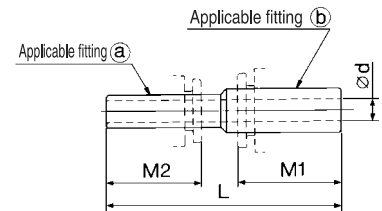
Applicable fitting ϕD	Model	L	M	ϕd	Weight (g)
4	KQ2N04-99	37	16	2.5	1
6	KQ2N06-99	39	17	4	2
8	KQ2N08-99	43	18.5	6	2
10	KQ2N10-99	49	21	7.5	4
12	KQ2N12-99	52	22	9	20.6
16	KQ2N16-99	57	25	13	31



Reducer Nipple: KQ2N



Applicable fitting		Model	L	M1	M2	ϕd	Weight (g)
(a)	(b)						
4	6	KQ2N04-06	38	17	16	2.5	2
6	8	KQ2N06-08	42	18.5	17	4	2
8	10	KQ2N08-10	47	21	18.5	6	13.2
10	12	KQ2N10-12	51	22	21	8	18.2
12	16	KQ2N12-16	55	25	22	9	29

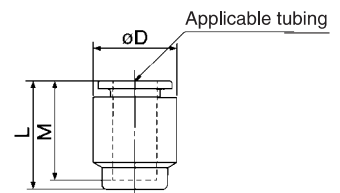


Tube Cap: KQ2C

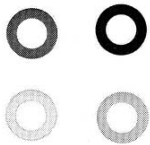


Applicable tubing O.D. (mm)	Model	Note) ϕD	L	M	Weight (g)
4	KQ2C04-00	10.4	17	16	3
6	KQ2C06-00	12.8	18.5	17	3
8	KQ2C08-00	15.2	20.5	18.5	4
10	KQ2C10-00	18.5	23	21	6
12	KQ2C12-00	20.9	24	22	8
16	KQ2C16-00	26.5	28	25	13

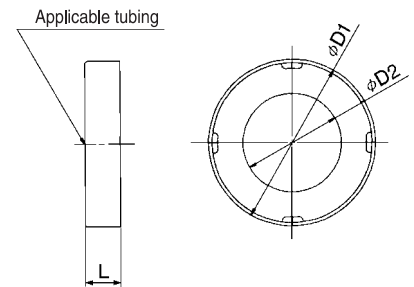
Note) ϕD : Max. diameter



Color Cap: KQ2C



Applicable tubing O.D. (mm)	Model	$\phi D1$	$\phi D2$	L	Weight (g)	Application
4	KQ2C-04 □	10.1	5.2	2.9	0.1	
4	KQ2C-04A- □	8.5	5	2.2	0.1	KQH, KQ2H04-M5, M6 KQS, KQ2S04-M5, M6
4	KQ2C-04B- □	9.7	5	2.2	0.1	KQL, KQ2L04-M5, M6 KQT, KQ2T04-M5, M6 KQY, KQ2Y04-M5, M6
6	KQ2C-06 □	12.1	7.2	2.9	0.1	
6	KQ2C-06A- □	10.5	7	2.2	0.1	KQH, KQ2H06-M5, M6 KQS, KQ2S06-M5, M6
6	KQ2C-06B- □	12.0	7	2.2	0.1	KQL, KQ2L06-M5, M6 KQT, KQ2T06-M5, M6 KQY, KQ2Y06-M5, M6
8	KQ2C-08 □	14.1	9.2	2.9	0.1	
10	KQ2C-10 □	17.1	11.2		0.2	
12	KQ2C-12 □	19.1	13.2		0.2	
16	KQ2C-16 □	26.3	17.2	3.9	0.3	



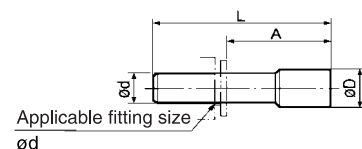
□ → B (Black), R (Red), YR (Orange), BR (Brown), Y (Yellow), G (Green), CB (Sky blue), GR (Gray), W (White), BU (Blue)

Plug: KQ2P, KQP



Applicable fitting size ϕd	Model (Note)		ϕD	L	A	Weight (g)
3.2	KQ2P-23	KQP-23	5	31.5	16	1
4	KQ2P-04	KQP-04	6	32	16	1
6	KQ2P-06	KQP-06	8	35	18	1
8	KQ2P-08	KQP-08	10	39	20.5	2
10	KQ2P-10	KQP-10	12	43	22	3.5
12	KQ2P-12	KQP-12	14	45.5	24	5
16	KQ2P-16	KQP-16	20.9	47	22	8

Note) KQ2P (White), KQP (Blue)



Series KQ2

Made to Order Specifications:

Please consult with SMC for detailed specifications, dimensions and delivery.

1. Oil-free applications using Vaseline®

For use in oil-free applications, for example, paint air lines.

Specifications Same as Series KQ2.

Dimensions Same as Series KQ2.

How to Order Add "-X12" at the end of the standard part number.
(Example: KQ2H06-02-**X12**)

2. Stainless One-touch fittings

For use in highly corrosive atmospheres where brass is not acceptable.

Specifications Same as Series KQ2.

Dimensions Same as Series KQ2. (Some may be different,
please consult with SMC)

Materials
in each part

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

* Every one of Stainless steel 303, Stainless steel 304 and Stainless steel 316 is possible to use.

How to Order Please consult with SMC.



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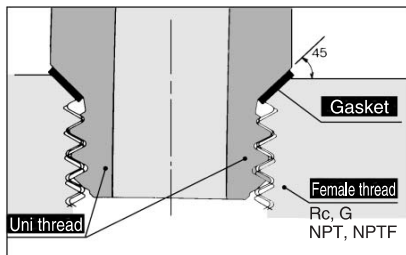
Uni One-touch Fittings

Series KQ2

Applicable Tubing: Metric Size

Connection Thread: Rc, G, NPT, NPTF

New-stand male thread for piping that reduces the screw-in time by 1/3.

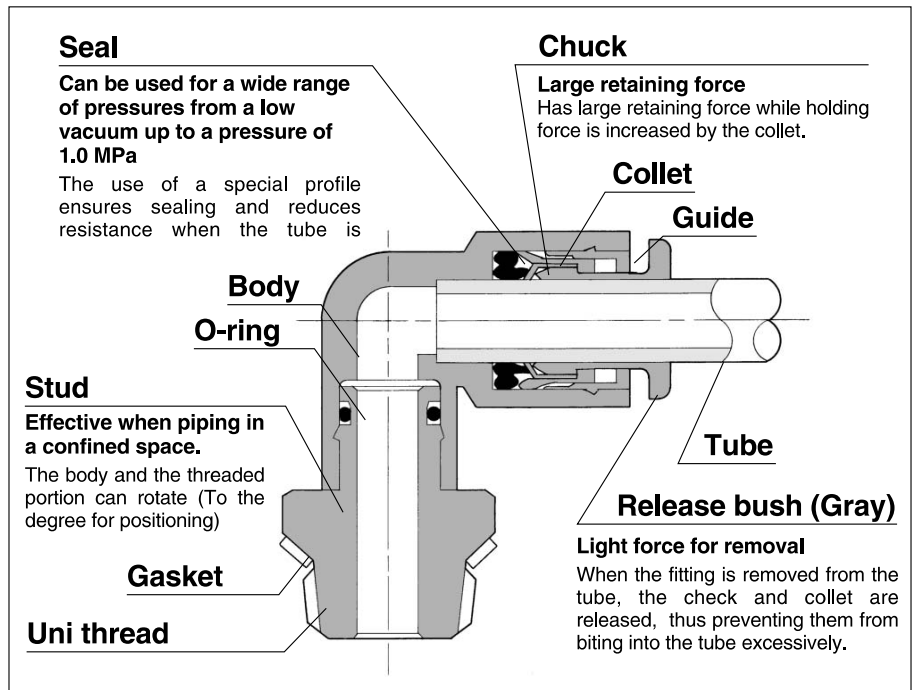


Uni thread ridge shape

A gasket made of a stainless sheet covered with laminated NBR on both sides is seated on the chamfer of a female thread for a perfect sealing construction irrespective of the difference in thread diameters due to the difference in the types of female threads, variation in tolerance, or difference in the size of chamfer. (It is applicable to any female thread with an ordinary chamfer.)

A ridge shape has been created as a Uni thread for common applications for Rc, G, NPT and NPTF.

The male thread for piping drastically cuts piping man-hours.



Applicable Tubing

Tubing material	Nylon, Soft nylon, Polyurethane
Tubing O.D.	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 ^{Note)}
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)

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
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

Model

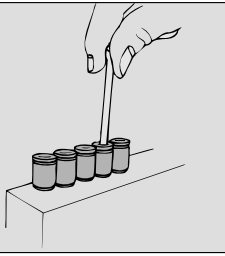
Hex. socket head male connector

KQ2S

P. 36



Internal hex, allows thread connection by using an allen wrench for confined spaces.



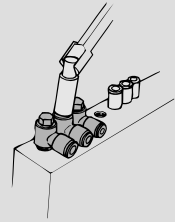
Universal male elbow

KQ2V

P. 36



Universal male elbow allows thread connection by using a socket wrench for confined spaces.



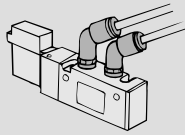
45° male elbow

KQ2K

P. 36



Use to pipe in 45° direction from female thread. Model in-between of male connector and male elbow.



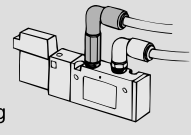
Extended male elbow

KQ2W

P. 36



Basically, it is used together with male elbow. Different point is that it is used for fittings to avoid with interfering with each other by making the piping two-level.



Male connector

KQ2H

P. 34



Use to pipe in the same direction from female thread. Most general style.

Male elbow

KQ2L

P. 34



Use to pipe at right angles to female thread. Most general style.

Male branch tee

KQ2T

P. 34



Use to branch line from female thread in both 90° directions.

Branch "Y"

KQ2U

P. 35



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

Male run tee

KQ2Y

P. 35



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

Gasket

KQG

P. 36



Thread seal

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

How to Order

KQ 2 H 06 U01

- One-touch fittings**
- Product's color**

Symbol	Body	Release button
2	White	Light gray
Nil	Black	Blue
- Applicable tubing O.D.**

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12
16	ø16
- Port size**

Thread connection	U01	Uni 1/8
U02	Uni 1/4	
U03	Uni 3/8	
U04	Uni 1/2	
- Model**

H	Male connector	T	Male branch tee
S	Hex. socket head male connector	Y	Male run tee
L	Male elbow	U	Branch
K	45° male elbow		
V	Universal male elbow		
W	Extended male elbow		

How to Order Gasket

KQG U01

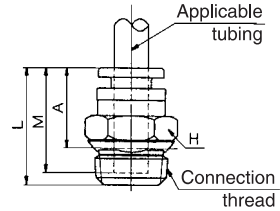
- Gasket for Uni One-touch fittings**
- Applicable port size**

U01	Uni 1/8
U02	Uni 1/4
U03	Uni 3/8
U04	Uni 1/2

Series KQ2

<Metric size> Male Connector: KQ2H

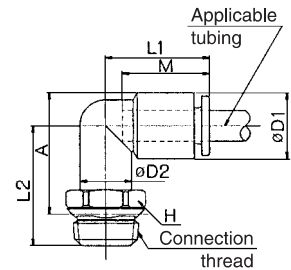
Applicable tubing O.D. (mm)	Connection thread Uni One-touch fittings	Model	H (width across flats)	L	A*	M	Effective area (mm ²)		Weight (g)
							Nylon	Urethane	
4	1/8	KQ2H04-U01	10	18.5	13.5	16	5.6	5.6	5
	1/4	KQ2H04-U02	14	16.5	10.5				10
6	1/8	KQ2H06-U01	12	19.5	14.5	17	13.1	13.1	5
	1/4	KQ2H06-U02	14		13				10
	3/8	KQ2H06-U03	17	17.5	11.5				16
8	1/8	KQ2H08-U01	14	25	20.5	18.5	26.1	18.0	11
	1/4	KQ2H08-U02		21.5	15.5				27
	3/8	KQ2H08-U03	17	19.5	13.5				33
10	1/8	KQ2H10-U01	17	28	23	21	41.5	29.5	17
	1/4	KQ2H10-U02		22	17				
	3/8	KQ2H10-U03	24	18	14				
	1/2	KQ2H10-U04	22	22	14				28
12	1/4	KQ2H12-U02	19	30.5	24.5	22	58.3	46.1	22
	3/8	KQ2H12-U03		25.5	19.5				16
	1/2	KQ2H12-U04	22	24.5	16.5				28
16	3/8	KQ2H16-U03	24	33.5	27.5	24	81	(81)	39
	1/2	KQ2H16-U04		28.5	20.5				113



* Reference dimensions after Uni thread installation. Note) Dimensions in () are the case of soft nylon tubing.

<Metric size> Male Elbow: KQ2L

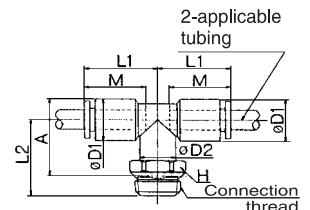
Applicable tubing O.D. (mm)	Connection thread Uni One-touch fittings	Model	H (width across flats)	øD1	øD2	L1	L2	A*	M	Effective area (mm ²)		Weight (g)
										Nylon	Urethane	
4	1/8	KQ2L04-U01	10	10.4	10	18	20	20.5	16	4.2	4.2	8
	1/4	KQ2L04-U02	14				22	21.5				14
6	1/8	KQ2L06-U01	10	12.8	10	20	21.5	23.5	17	11.4	11.4	9
	1/4	KQ2L06-U02	14				23	15				
	3/8	KQ2L06-U03	17				24	24.5				23
8	1/8	KQ2L08-U01	12	15.2	12	23	22.5	25.5	18.5	21.6	14.9	11
	1/4	KQ2L08-U02	14				24.5	26				16
	3/8	KQ2L08-U03	17				25.5	27				24
10	1/8	KQ2L10-U01	17	18.5	17	26.5	25	29.5	21	35.2	25.0	24
	1/4	KQ2L10-U02					26.5	30				21
	3/8	KQ2L10-U03	27				30.5	25				
	1/2	KQ2L10-U04	22				30	31.5				45
12	1/4	KQ2L12-U02	17	20.9	17	28.5	27	31.5	22	50.2	39.7	23
	3/8	KQ2L12-U03					28	32.5				27
	1/2	KQ2L12-U04	22				31	33.5				48
16	3/8	KQ2L16-U03	22	26.5	21	33	33	35	24	71	(71)	49
	1/2	KQ2L16-U04					40.5	35				100



* Reference dimensions after Uni thread installation. Note) Dimensions in () are the case of soft nylon tubing.

<Metric size> Male Branch Tee: KQ2T

Applicable tubing O.D. (mm)	Connection thread Uni One-touch fittings	Model	H (width across flats)	øD1	øD2	L1	L2	A*	M	Effective area (mm ²)		Weight (g)
										Nylon	Urethane	
4	1/8	KQ2T04-U01	10	10.4	10	18	20	21.5	16	6.0	6.0	9
	1/4	KQ2T04-U02	14				22	15				
6	1/8	KQ2T06-U01	10	12.8	10	20	21.5	23.5	17	13.9	13.9	11
	1/4	KQ2T06-U02	14				23	17				
	3/8	KQ2T06-U03	17				24	24.5				26
8	1/8	KQ2T08-U01	12	15.2	12	23	22.5	26	18.5	26.3	18.2	15
	1/4	KQ2T08-U02	14				24.5	27				20
	3/8	KQ2T08-U03	17				25.5	27				28
10	1/8	KQ2T10-U01	17	18.5	17	26.5	25	29.5	21	40.8	29.0	30
	1/4	KQ2T10-U02					26.5	30				27
	3/8	KQ2T10-U03	27				30.5	31				
	1/2	KQ2T10-U04	22				30	31.5				51
12	1/4	KQ2T12-U02	17	20.9	17	28.5	27	31.5	22	57.2	45.2	31
	3/8	KQ2T12-U03					28	32.5				34
	1/2	KQ2T12-U04	22				31	33.5				54
16	3/8	KQ2T16-U03	22	26.9	21	33	33	35	24	71	(71)	62
	1/2	KQ2T16-U04					40.5	35				100

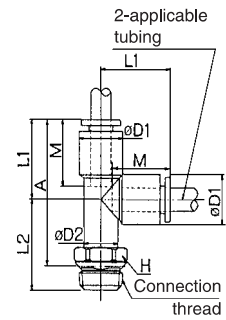


* Reference dimensions after Uni thread installation. Note) Dimensions in () are the case of soft nylon tubing.

<Metric size> Male Run Tee: KQ2Y



Applicable tubing O.D. (mm)	Connection thread Uni One-touch fittings	Model	H (width across flats)	øD1	øD2	L1	L2	A	M	Effective area (mm ²)		Weight (g)
										Nylon	Urethane	
4	1/8	KQ2Y04-U01	10	10.4	10	18	20	34	16	6.4	6.4	9
	1/4	KQ2Y04-U02	14				22	34.5				15
6	1/8	KQ2Y06-U01	10	12.8	10	20	21.5	37.5	17	13.4	13.4	11
	1/4	KQ2Y06-U02	14				23	37				17
	3/8	KQ2Y06-U03	17				24	38				26
8	1/8	KQ2Y08-U01	12	15.2	12	23	22.5	41.5	18.5	25.6	17.7	15
	1/4	KQ2Y08-U02	14				24.5	41.5				19
	3/8	KQ2Y08-U03	17				25.5	42.5				28
10	1/8	KQ2Y10-U01	17	18.5	17	26.5	25	46.5	21	40.0	28.4	30
	1/4	KQ2Y10-U02					26.5	47.5				27
	3/8	KQ2Y10-U03					27	48				31
	1/2	KQ2Y10-U04					22	30				49
12	1/4	KQ2Y12-U02	17	20.9	17	28.5	27	49.5	22	57.4	45.4	31
	3/8	KQ2Y12-U03					28	50.5				35
	1/2	KQ2Y12-U04					22	31				51.5
16	3/8	KQ2Y16-U03	22	26.5	21	33	40.5	66	24	81	(81)	61
	1/2	KQ2Y16-U04					63	113				(113)

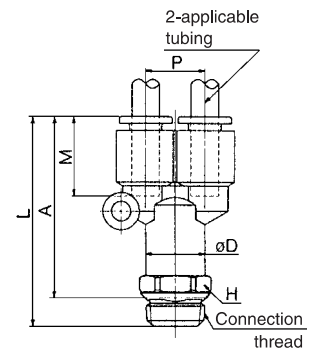


* Reference dimensions after Uni thread installation. Note) Dimensions in () are the case of soft nylon tubing.

<Metric size> Branch: KQ2U



Applicable tubing O.D. (mm)	Connection thread Uni One-touch fittings	Model	H (width across flats)	øD	L	P	A*	M	Effective area (mm ²)		Weight (g)
									Nylon	Urethane	
4	1/8	KQ2U04-U01	11	10.4	40	10.4	36	16	4.2	4.2	11
	1/4	KQ2U04-U02	14		42		16				
6	1/8	KQ2U06-U01	13	12.8	43.5	12.8	39.5	17	13.4	13.4	14
	1/4	KQ2U06-U02	14		45		39				18
	3/8	KQ2U06-U03	17		46		40				26
8	1/8	KQ2U08-U01	17	15.2	50.5	15.2	46.5	18.5	25.6	17.7	27
	1/4	KQ2U08-U02			52		46				25
	3/8	KQ2U08-U03			51.5		45.5				28
10	1/4	KQ2U10-U02	19	18.5	57.5	18.5	51.5	21	40	28.4	38
	3/8	KQ2U10-U03			59		51				36
	1/2	KQ2U10-U04			22		51				51
12	1/4	KQ2U12-U02	22	20.9	61	20.9	55	22	57.4	45.4	53
	3/8	KQ2U12-U03			62.5		54.5				52
	1/2	KQ2U12-U04			52		52				52

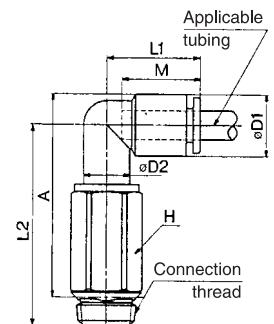


* Reference dimensions after Uni thread installation.

<Metric size> Extended Male Elbow: KQ2W



Applicable tubing O.D. (mm)	Connection thread Uni One-touch fittings	Model	H (width across flats)	øD1	øD2	L1	L2	A*	M	Effective area (mm ²)		Weight (g)
										Nylon	Urethane	
4	1/8	KQ2W04-U01	10	10.4	10	18	34.5	35.5	16	4.0	4.0	16
	1/4	KQ2W04-U02	14				37	38.5				26
6	1/8	KQ2W06-U01	10	12.8	10	20	38.5	41	17	10.9	10.9	18
	1/4	KQ2W06-U02	14				40.5	42				29
	3/8	KQ2W06-U03	17				41.5	42				40
8	1/8	KQ2W08-U01	12	15.2	12	23	43.5	46.5	18	20.5	14.2	28
	1/4	KQ2W08-U02	14				45.5	47				35
	3/8	KQ2W08-U03	17				46	48				46
10	1/4	KQ2W10-U02	17	18.5	17	26.5	52.5	56	21	33.5	23.8	67
	3/8	KQ2W10-U03					54.5	56				57
	1/2	KQ2W10-U04					22	54.5				56
12	1/4	KQ2W12-U02	17	20.9	17	28.5	54	58.5	22	47.7	37.7	69
	3/8	KQ2W12-U03					56	58.5				59
	1/2	KQ2W12-U04					22	56				58.5



* Reference dimensions after Uni thread installation.

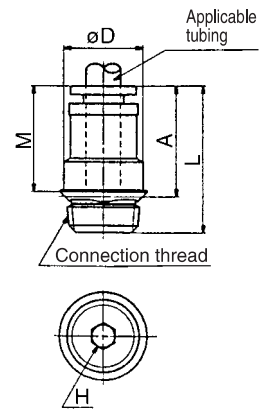
- K
- M
- H
- D
- MS
- T
- VMG

Series KQ2

<Metric size> Hexagon Socket Head Male Connector: KQ2S



Applicable tubing O.D. (mm)	Connection thread Uni One-touch fittings	Model	H (width across flats)	øD	L	A*	M	Effective area (mm ²)		Weight (g)
								Nylon	Urethane	
4	1/8	KQ2S04-U01	3	10	23.5	18.5	16	4.1	3.6	7
6	1/8	KQ2S06-U01	4	11.8	24	19	17	10.0	9.9	9
	1/4	KQ2S06-U02		13.5		18		10.7	10.0	12
8	1/8	KQ2S08-U01	5	14	27.5	22.5	18.5	17.2	16.2	12
	1/4	KQ2S08-U02	6		28	22		23.3		14
	3/8	KQ2S08-U03			17	27.5		21.5		24
10	1/8	KQ2S10-U01	5	17	30	25	21	17.2	10.0	18
	1/4	KQ2S10-U02	8		29	23		39.0		17
	3/8	KQ2S10-U03			28.5	22.5		19		
	1/2	KQ2S10-U04			21	29		21		36
12	1/4	KQ2S12-U02	8	19	30.5	25	22	46.0	44.5	20
	3/8	KQ2S12-U03	9		31	20.5		60.0		22
	1/2	KQ2S12-U04			21	28.5		20.5		30

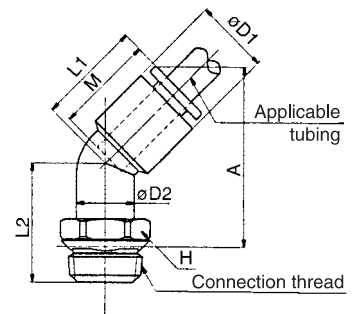


* Reference dimensions after Uni thread installation.

<Metric size> 45° Male Elbow: KQ2K



Applicable tubing O.D. (mm)	Connection thread Uni One-touch fittings	Model	H (width across flats)	øD1	øD2	L1	L2	A*	M	Effective area (mm ²)		Weight (g)		
										Nylon	Urethane			
4	1/8	KQ2K04-U01	10	10.4	10	17	18.5	30	16	3.4	3.4	6		
	1/4	KQ2K04-U02	14				20.5	30.5				13		
6	1/8	KQ2K06-U01	10	12.8	10	18	18.5	31	17	8.7	8.7	7		
	1/4	KQ2K06-U02	14				20.5	32				13		
	3/8	KQ2K06-U03	17				21.5	32				23		
8	1/8	KQ2K08-U01	12	15.2	12	20.5	20	35	18.5	19.7	13.6	11		
	1/4	KQ2K08-U02	14				22	36				15		
	3/8	KQ2K08-U03	17				23	36				24		
10	1/8	KQ2K10-U01	17	18.5	17	24	22	38	21	21.6	14.9	24		
	1/4	KQ2K10-U02					23.5	40.5				21		
	3/8	KQ2K10-U03					24	41				30.9	23.2	25
	1/2	KQ2K10-U04					22	27				42	45	
12	1/4	KQ2K12-U02	17	20.9	17	25	24	42	22	44.5	35.1	23		
	3/8	KQ2K12-U03					24.5	42.5				27		
	1/2	KQ2K12-U04					22	27.5				43.5	46	

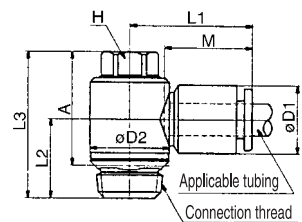


* Reference dimensions after Uni thread installation.

<Metric size> Universal Male Elbow: KQ2V



Applicable tubing O.D. (mm)	Connection thread Uni One-touch fittings	Model	H (width across flats)	øD1	øD2	L1	L2	L3	A*	M	Effective area (mm ²)		Weight (g)
											Nylon	Urethane	
4	1/8	KQ2V04-U01	8	10.4	13.4	22	13.5	25.5	20.5	16	2.9	2.9	12
6	1/8	KQ2V06-U01	8	12.8	13.4	24	13.5	25.5	20.5	17	7.5	7.5	13
	1/4	KQ2V06-U02	10		15.4	23.5	15.5	28	22				21
8	1/8	KQ2V08-U01	12	15.2	17.6	28.5	14.5	27.5	22.5	18.5	11.2	24	22
	1/4	KQ2V08-U02	14		16.5	29.5	23.5	30	25				
	3/8	KQ2V08-U03	14		20.6	27.5	18.5	34	28				36
10	1/4	KQ2V10-U02	14	18.5	20.6	31	18.5	34	28	21	27	20.3	35
	3/8	KQ2V10-U03											38
12	3/8	KQ2V12-U03	17	20.9	25.2	34	20	36.5	30.5	22	39	30.8	52
	1/2	KQ2V12-U04					22.5	39.5	31.5				62

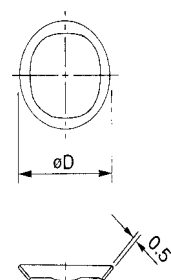


* Reference dimensions after Uni thread installation.

<Metric size> Gasket: KQG



Connection thread Uni One-touch fittings	Model	øD	Weight (g)
1/8	KQG-U01	11.8	0.12
1/4	KQG-U02	15.3	0.19
3/8	KQG-U03	18.7	0.23
1/2	KQG-U04	23.4	0.34



⚠ Precautions

Be sure to read before handling.
Refer to pages 15-18-3 to 15-18-4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 15-1-10 to 15-1-11 for Precautions on every series.

Handling and Precautions

⚠ Caution

1. First tighten by hand, then use a proper wrench, which could be suitable for the hexagon across flats on the body to tighten with the proper tightening torque given below.

Connecting Female Thread: Rc, NPT, NPTF

Nominal size of Uni thread	Recommended tightening torque (N·m)	Approx. spanner tightening angle after tightened by hand
1/8	5 to 7	30 to 60
1/4	11 to 13	30 to 60
3/8	14 to 16	15 to 45
1/2	20 to 22	15 to 30

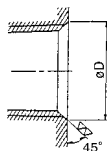
Connecting Female Thread: G

Nominal size of Uni thread	Recommended tightening torque (N·m)	Approx. spanner tightening angle after tightened by hand
1/8	3 to 4	30 to 45
1/4	4 to 5	15 to 30
3/8	8 to 9	15 to 30
1/2	14 to 15	15 to 30

2. Gasket can be recycled 6 to 10 times. It can be replaced easily when it has sustained damage. A broken gasket can be removed by holding and then turning in the same direction of loosening the thread. If it is difficult to remove, cut it with nippers, etc. In such a case, use caution not to scratch seat face because the seat face of 45° gasket of fitting is the sealing face.
3. Please consult with SMC if using for other fluids than air.
4. Other precautions on handling, etc. are the same as those of One-touch fittings.

Chamfered area for female thread (Recommended value)

By chamfering as shown in the following table, machining of threads is easier and effective for burr prevention, too.



Female thread size	Chamfered port size $\varnothing D$ (Recommended value)	
	Rc, G	NPT, NPTF
1/8	10.2 to 11.8	10.5 to 11.8
1/4	13.6 to 15.8	14.1 to 15.8
3/8	17.1 to 19.4	17.4 to 19.4
1/2	21.4 to 25.1	21.7 to 25.1

K□

M□

H□

D□

MS

T□

VMG