

One-touch Fittings

Series KQ2

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

RoHS

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

• Made to Order
Refer to page 58 for details.

• With thread sealant (Male thread only)

Nil	None
S	With thread sealant

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

• Applicable tubing O.D.

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

• Port size/Applicable tubing O.D.

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

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

• Model

H	Male connector	T	Male branch tee
	Straight union		Union tee
	Different diameter straight		Different diameter tee*
S	Hex. socket head male connector	TW	Cross*
F	Female connector	TX	Different diameter cross*
L	Male elbow	TY	Different diameter cross*
	Union elbow	Y	Male run tee
	Plug-in elbow	D	Male delta union
	Reducer elbow		Delta union
LU	Male branch connector	U	Branch "Y"
	Branch union elbow		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		
	Extended plug-in elbow		
W	Extended male elbow		

Accessory

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

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

Gasket for M5 thread: M-5G2

Gasket for M6 thread: M-6G

* Available only for white color body.

Series KQ2: White body
Series KQ : Black body

Guide

Collet

Chuck

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

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

Seal

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

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

Connection thread

M, R, Rc

Release button

Series KQ2: Light gray

Series KQ : Blue

Light force for removal

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

Tube

Body

O-ring

Stud

Effective when piping in a confined space.

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

PAT.

K ☐

M ☐

H ☐

KK ☐

D ☐

MS ☐

LQ ☐

MQR ☐

T ☐

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



Applicable Tubing

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

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

Product's Color

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

Specifications

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



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

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

Principal Parts Material

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



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

Series KQ2

Model

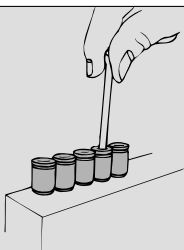
Hex. socket head male connector

KQ2S

P. 42



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



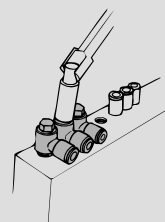
Universal male elbow

KQ2V

P. 45



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



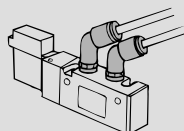
45° male elbow

KQ2K

P. 44



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



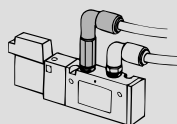
Extended male elbow

KQ2W

P. 50



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.



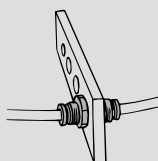
Bulkhead union

KQ2E

P. 56



Use to connect tubes through a panel.



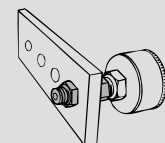
Bulkhead connector

KQ2E

P. 56



Use to connect male thread and tube through a panel.



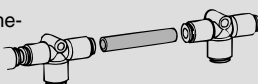
Nipple

KQ2N

P. 57



Use to connect One-touch fittings.



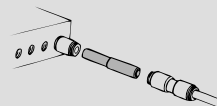
Reducer nipple

KQ2N

P. 57



Use to connect One-touch fittings that are different tubing O.D.s.



Male connector

KQ2H

P. 42



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

Male elbow

KQ2L

P. 43



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

Male branch tee

KQ2T

P. 50



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

Female connector

KQ2F

P. 42



Use to pipe from male thread such as pressure gauge.

Union elbow

KQ2L

P. 48



Use to connect tubes at right angles.

Union tee

KQ2T

P. 51



Use to connect tubes in both 90° directions.

Straight union

KQ2H

P. 43



Use to connect tubes in the same direction.

Plug-in elbow

KQ2L

P. 49



Use to change by 90° in a tube fetching direction from One-touch fittings.

Different diameter tee

KQ2T

P. 51



Use to connect tubes with size down in both 90° directions.

Different diameter straight

KQ2H

P. 43



Use to connect different sized tubes.

Reducer elbow

KQ2L

P. 49



Use to change by 90° in a tube fetching direction from One-touch fittings and to size down.

Different diameter tee

KQ2T

P. 51



Use to branch line with size down in both side 90° direction.

Cross

KQ2TW

P. 51



Use to four-branch line.

Different diameter cross

KQ2TX

P. 51



Use to connect tubes with size down in all 90° directions.

Different diameter cross

KQ2TY

P. 52



Use to branch line with size down in three directions.

Hexagon socket head universal male elbow

KQ2VS P. 45



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

Male branch connector

KQ2LU P. 44



Use to branch piping at right angles to female thread.

Universal female elbow

KQ2VF P. 46



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. 46



Use to pipe at right angles to male thread.

Double universal male elbow

KQ2VD P. 46



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

Triple universal male elbow

KQ2VT P. 47



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

Branch universal male elbow

KQ2Z P. 47



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

Branch universal female elbow

KQ2ZF P. 47



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. 48



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

Male run tee

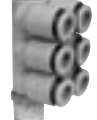
KQ2Y P. 52



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

Triple branch universal male elbow

KQ2ZT P. 48



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

Branch union elbow

KQ2LU P. 49



Use to branch line at right angles.

Extended plug-in elbow

KQ2W P. 49



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

Male delta union

KQ2D P. 53



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

Delta union

KQ2D P. 53



Use to branch in tripple 90° direction.

Delta branch

KQ2UD P. 54



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

Different dia. double union "Y"

KQ2UD P. 54



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

Different diameter plug-in "Y"

KQ2X P. 55



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

Double plug-in "Y"

KQ2XD P. 55



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

Union "Y"

KQ2U P. 54



Use to branch line in the same direction.

Different dia. union "Y"

KQ2U P. 54



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

Plug-in "Y"

KQ2U P. 55



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

Branch "Y"

KQ2U P. 53



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

Plug-in reducer

KQ2R P. 56



Use to change size of One-touch fittings.

Bulkhead male elbow

KQ2LE P. 56



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

Adaptor

KQ2N P. 57



Use to connect fitting and R female thread.

Tube cap

KQ2C P. 57



Use to plug unused tube.

Color cap

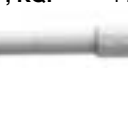
KQ2C P. 57



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

Plug

KQ2P, KQP P. 57



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

K ☐

M ☐

H ☐

KK ☐

D ☐

MS ☐

LQ ☐

MQR ☐

T ☐

Series KQ2

Male Connector: KQ2H

<M5, M6>

<R>

Applicable tubing O.D. (mm)	Connection thread R M	Model	H (width across flats)	$\phi D^{(1)}$	L	A*	M	Effective area ⁽²⁾ (mm ²)		Mass (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	—	21.1	18	15.5	3.4	2.9	9
	1/4	KQ2H23-02S	14	—	19	13.5	12.7	4	4	16
4	M5 x 0.8	KQ2H04-M5	8	8	17	13.9	12.7	4	4	2.4
	M6 x 1.0	KQ2H04-M6	8	—	18	13.9	16	5.6	4	2.5
	1/8	KQ2H04-01S	10	—	21.1	18	12.7	4	4	9
6	1/4	KQ2H04-02S	14	—	19	13.5	16	5.6	4	16
	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	13.5	4	4	3.4
8	1/8	KQ2H06-01S	12	—	21.6	18.5	17	13.1	10.4	16
	1/4	KQ2H06-02S	14	—	22.5	17	17	13.1	10.4	14
	3/8	KQ2H06-03S	17	—	20.9	15.5	18.5	26.1	18.0	27
10	1/8	KQ2H08-01S	14	—	27.1	24	18.5	26.1	18.0	21
	1/4	KQ2H08-02S	17	—	26	20.5	21	41.5	29.5	19
	3/8	KQ2H08-03S	17	—	20.9	15.5	21	41.5	29.5	26
12	1/8	KQ2H10-01S	17	—	29.1	26	22	58.3	46.1	19
	1/4	KQ2H10-02S	17	—	33	27.5	25	81	(81)	30
	3/8	KQ2H10-03S	17	—	27.9	22.5	25	113	(96)	30
16	1/2	KQ2H10-04S	22	—	26.1	19	25	113	(96)	53
	1/4	KQ2H12-02S	19	—	34	28.5	22	58.3	46.1	42
	3/8	KQ2H12-03S	19	—	28.9	23.5	22	58.3	46.1	34
16	1/2	KQ2H12-04S	22	—	29.1	22	25	81	(81)	51
	3/8	KQ2H16-03S	24	25.7	38.4	33	25	81	(81)	61
	1/2	KQ2H16-04S	24	25.7	34.6	27.5	25	113	(96)	47

* Reference dimensions after R thread installation.



Note 1) ϕD : Max. diameter

Note 2) (): Values for soft nylon.

Hexagon Socket Head Male Connector: KQ2S

<M5, M6>

<R>

Applicable tubing O.D. (mm)	Connection thread R M	Model	H (width across flats)	$\phi D1^{(1)}$	$\phi D2$	L	A*	M	Effective area ⁽²⁾ (mm ²)		Mass (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	9.8	—	18.2	14.1	12.7	4	4	2.8
	1/8	KQ2S04-01S	3	9.8	—	23	19	16	4.1	3.6	8
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	11.8	—	19.1	15	13.5	4	4	3.4
	1/8	KQ2S06-01S	4	13.8	—	24	20	17	10.0	9.9	9
8	1/4	KQ2S06-02S	4	13.8	—	24	18	17	10.7	10.0	15
	1/8	KQ2S08-01S	5	14	—	28	24	18.5	17.2	16.2	12
	1/4	KQ2S08-02S	6	17	—	25.5	19.5	18.5	23.3	16.2	11
10	3/8	KQ2S08-03S	6	17	—	27.5	21	18.5	23.3	16.2	24
	1/8	KQ2S10-01S	5	17	—	30	26	21	17.2	16.2	18
	1/4	KQ2S10-02S	8	19	—	27.5	21.5	21	39.0	26.6	12
12	3/8	KQ2S10-03S	8	22	—	28	20	21	39.0	26.6	19
	1/2	KQ2S10-04S	10	22	—	28	20	21	39.0	26.6	35
16	1/4	KQ2S12-02S	8	19	—	34	28	22	46.0	44.5	23
	3/8	KQ2S12-03S	10	22	—	29	22.5	22	60.0	44.5	18
	1/2	KQ2S12-04S	10	22	—	28	20	22	60.0	44.5	30
16	3/8	KQ2S16-03S	12	25.7	24	39	32.5	25	81	(81)	42
	1/2	KQ2S16-04S	12	25.7	24	35	27	25	113	(96)	34

* Reference dimensions after R thread installation.



Note 1) $\phi D1$: Max. diameter

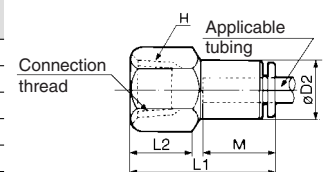
Note 2) (): Values for soft nylon.

Female Connector: KQ2F

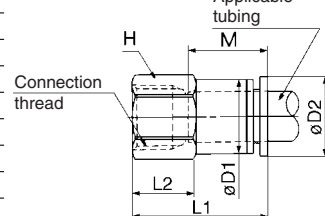


Applicable tubing O.D. (mm)	Connection thread Rc	Model	H (width across flats)	$\phi D1^{(1)}$	$\phi D2$	L1	L2	M	Effective area ⁽²⁾ (mm ²)		Mass (g)
									Nylon	Urethane	
4	1/8	KQ2F04-01	14	—	10	27	11	16	5.6	4	15
	1/4	KQ2F04-02	17	—	10	31	14	16	5.6	4	23
	1/8	KQ2F06-01	14	—	12	27.5	11	17	13.1	10.4	15
6	1/4	KQ2F06-02	17	—	12	31	13	17	13.1	10.4	22
	3/8	KQ2F06-03	19	—	12	33.5	15	17	13.1	10.4	25
8	1/8	KQ2F08-01	14	—	14	29	11	18.5	26.1	18.0	17
	1/4	KQ2F08-02	17	—	14	32.5	13	18.5	26.1	18.0	24
	3/8	KQ2F08-03	19	—	14	33.5	14	18.5	26.1	18.0	24
10	1/4	KQ2F10-02	17	—	17	34.5	14	21	41.5	29.5	27
	3/8	KQ2F10-03	19	—	17	36.5	15	21	41.5	29.5	30
12	1/4	KQ2F12-02	19	—	19	35	14	22	58.3	46.1	36
	3/8	KQ2F12-03	19	—	19	37	14	22	58.3	46.1	31
	1/2	KQ2F12-04	24	—	19	41	18	22	58.3	46.1	52
16	3/8	KQ2F16-03	24	24	25.7	38	15	25	81	(81)	59
	1/2	KQ2F16-04	24	24	25.7	43	19	25	113	(96)	58

KQ2F04 to 12



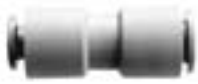
KQ2F16



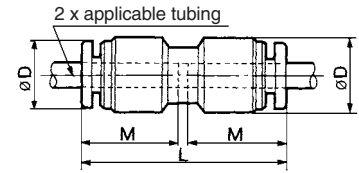
Note 1) $\phi D2$: Max. diameter

Note 2) (): Values for soft nylon

Straight Union: KQ2H

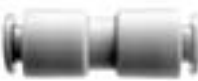


Applicable tubing O.D. (mm)	Model	øD ⁽¹⁾	L	M	Effective area ⁽²⁾ (mm ²)		Mass (g)
					Nylon	Urethane	
3.2	KQ2H23-00	9.6	31.5	15.5	3.4	2.9	3
4	KQ2H04-00	10.4	32.5	16	5.6	4	3
6	KQ2H06-00	12.8	34.5	17	13.1	10.4	4
8	KQ2H08-00	15.2	38.5	18.5	26.1	18.0	6
10	KQ2H10-00	18.5	42.5	21	41.5	29.5	11
12	KQ2H12-00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

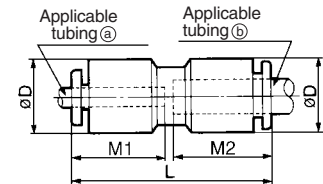


Note 1) øD: Max. diameter
Note 2) (): Values for soft nylon.

Different Diameter Straight: KQ2H



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



Note) øD: Max. diameter

Male Elbow: KQ2L

<M5>



<M6>



<R>



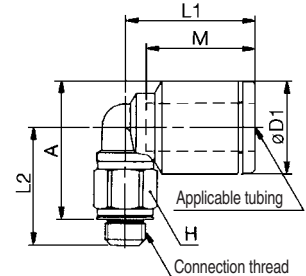
Applicable tubing O.D. (mm)	Connection thread R M	Model	H (width across flats)	øD ⁽¹⁾	øD2	L1	L2	A*	M	Effective area ⁽²⁾ (mm ²)		Mass (g)
										Nylon	Urethane	
3.2	M5 x 0.8	KQ2L23-M5	7	8.5	—	15.3	13.2	14.3	12.7	2.6	2.2	2.5
	1/8	KQ2L23-01S	10	9.6	10	17.5	20.6	22.5	15.5	3	2.5	8
	1/4	KQ2L23-02S	14	—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

* Reference dimensions after R thread installation.

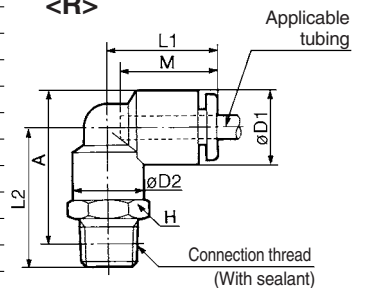
Note 1) øD1: Max. diameter
Note 2) (): Values for soft nylon.



<M5, M6>



<R>



Series KQ2

Male Branch Connector: KQ2LU

<M5, M6>



<R>



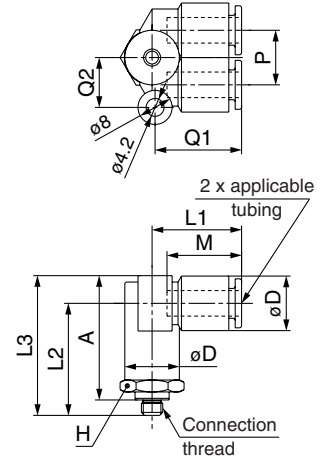
Applicable tubing O.D. (mm)	Connection thread R M	Model	H (width across flats)	Note) øD	L1	L2	L3	A*	M	P	Q1	Q2	Effective area (mm²)		Mass (g)
													Nylon	Urethane	
4	M5 x 0.8	KQ2LU04-M5	11	10.4	18.5	24	29.5	25.5	16	10.4	18.5	10	4.3	4.1	10
	M6 x 1.0	KQ2LU04-M6				24.5	30								
	1/8	KQ2LU04-01S	25.6			31.1	27.5	6.0					4.1	12	
	1/4	KQ2LU04-02S	30			35.5	30								
6	M5 x 0.8	KQ2LU06-M5	13	12.8	21	26.5	33	29.5	17	12.8	20.5	12	4.3	4.3	13
	M6 x 1.0	KQ2LU06-M6				27	33.5								
	1/8	KQ2LU06-01S	28.6			35.1	32	13.9					11.0	15	
	1/4	KQ2LU06-02S	32.5			39	33.5								
	3/8	KQ2LU06-03S	33.9			40.4	35								
	1/2	KQ2LU06-04S	35.3			42.9	37.5								
8	1/8	KQ2LU08-01S	17	15.2	24	33.1	40.6	38	18.5	15.2	24.5	14	26.3	18.2	27
	1/4	KQ2LU08-02S				36.5	44	38.5							
	3/8	KQ2LU08-03S				36.9	44.4	39							
	1/2	KQ2LU08-04S				39.5	49	43.5							
10	1/8	KQ2LU10-01S	19	18.5	27	39.9	49.4	44	21	18.5	28	16	40.8	29.0	41
	1/4	KQ2LU10-02S				43.6	53.1	45.5							
	3/8	KQ2LU10-03S				42	52.5	47							
	1/2	KQ2LU10-04S				42.4	52.9	47.5							
12	1/4	KQ2LU12-02S	22	20.9	29	45.6	56.1	49	22	20.9	30	18	57.2	45.2	57
	3/8	KQ2LU12-03S				47.5	58.5	50							
	1/2	KQ2LU12-04S				49.5	60.5	52							

* Reference dimensions after R thread installation.

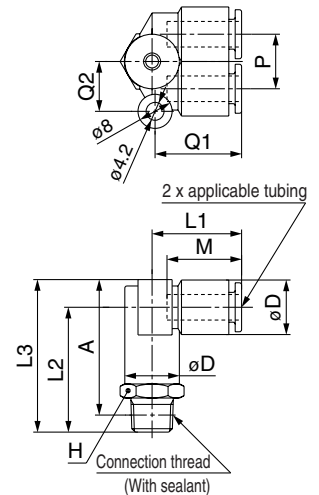
Note) øD: Max. diameter



<M5, M6>



<R>



45° Male Elbow: KQ2K

<M5, M6>



<R>



Applicable tubing O.D. (mm)	Connection thread R M	Model	H (width across flats)	⁽¹⁾ øD1	øD2	L1	L2	A*	M	Effective area ⁽²⁾ (mm ²)		Mass (g)						
										Nylon	Urethane							
4	M5 x 0.8	KQ2K04-M5	8	10.4	8	17	14.5	26	16	3.4	3.4	4						
	M6 x 1.0	KQ2K04-M6	15				5											
	1/8	KQ2K04-01S	10		19.6		32	10										
	1/4	KQ2K04-02S	14		24		34	19										
6	M5 x 0.8	KQ2K06-M5	8	12.8	8	18	14.5	27.5	17	3.4	3.4	6						
	M6 x 1.0	KQ2K06-M6	18.5			15	5											
	1/8	KQ2K06-01S	10		10	19.6	33	12										
	1/4	KQ2K06-02S	14			24	35	10										
	3/8	KQ2K06-03S	17			25.4	36.5	33										
8	1/8	KQ2K08-01S	12	15.2	12	20.5	21.1	37	18.5	19.7	19.7	13						
	1/4	KQ2K08-02S	14				25.5	39				21						
	3/8	KQ2K08-03S	17				26.9	41				35						
10	1/8	KQ2K10-01S	17	18.5	17	24	23.1	42	21	30.9	23.2	25						
	1/4	KQ2K10-02S					26.5	43.5				26						
	3/8	KQ2K10-03S					27.9	45				36						
	1/2	KQ2K10-04S	22				32.1	47.5				63						
	1/4	KQ2K12-02S	17				20.9	17				25	27	45.5	22	44.5	35.1	28
3/8	KQ2K12-03S	28.4		47.5	38													
1/2	KQ2K12-04S	22		32.6	49.5	65												
16	3/8	KQ2K16-03S	22	26.5	20.9	30			30.9	55	25		65.8	(65.8)				52
	1/2	KQ2K16-04S							34.1	56.5			91.9	(78.3)				58

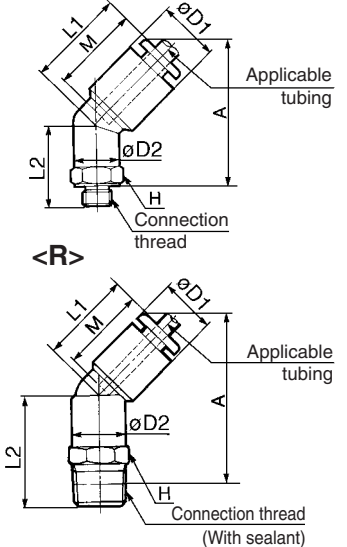
* Reference dimensions after R thread installation.

Note 1) øD1: Max. diameter

Note 2) (): Values for soft nylon.



<M5, M6>



Universal Male Elbow: KQ2V

<M5>



<R>



Applicable tubing O.D. (mm)	Connection thread R M	Model	H (width across flats)	(1) $\phi D1$	$\phi D2$	L1	L2	L3	A*	M	Effective area (2) (mm ²)		Mass (g)
											Nylon	Urethane	
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	13.6	25.6	22.5				14
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	13.6	25.6	22.5				15
	1/4	KQ2V06-02S	10		15.4	23.5	18	30.5	25		7.5	5.9	26
8	1/8	KQ2V08-01S	12	15.2	17.6	28.5	14.6	27.6	24.5	18.5	16	11.2	24
	1/4	KQ2V08-02S			18	31	25.5						30
	3/8	KQ2V08-03S	14		20.6	27.5	19.4	35.4	30		20.5	14.3	47
10	1/4	KQ2V10-02S	14	18.5	20.6	31	19	35	29.5	21	27	20.3	40
	3/8	KQ2V10-03S			19.4	35.4	30						49
12	3/8	KQ2V12-03S	17	20.9	25.2	34	20.9	37.4	32	22	39	30.8	63
	1/2	KQ2V12-04S			24.1	40.6	33.5						80
16	3/8	KQ2V16-03S	21	26.5	32.3	39	25.4	45.4	40.5	25	55	(55)	103
	1/2	KQ2V16-04S			28.6	48.6	41.5				78	(65)	110

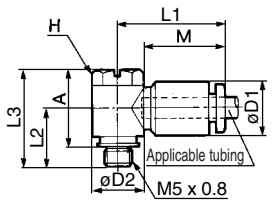
* Reference dimensions after R thread installation.

Note 1) $\phi D1$: Max. diameter

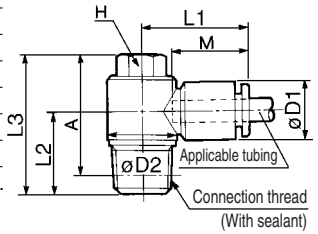
Note 2) (): Values for soft nylon.



<M5>



<R>



K

M

H

KK

D

MS

LQ

MQR

T

Hexagon Socket Head Universal Male Elbow: KQ2VS

<M5>



<R>



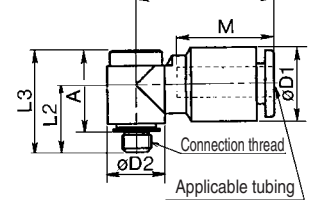
Applicable tubing O.D. (mm)	Connection thread R M	Model	H (width across flats)	Note) $\phi D1$	$\phi D2$	L1	L2	L3	A*	M	Effective area (mm ²)		Mass (g)
											Nylon	Urethane	
4	M5 x 0.8	KQ2VS04-M5	4	10.4	9.8	20.5	10.5	18	15	16	2.9	2.9	6
	1/8	KQ2VS04-01S	6		13.4	22	13.6	25.6	22.5				14
6	M5 x 0.8	KQ2VS06-M5	4	12.8	9.8	23.5	12	18	15	17	3.8	3.8	7
	1/8	KQ2VS06-01S	6		13.4	24	13.6	25.6	22.5				15
	1/4	KQ2VS06-02S	6		15.3	23.5	18	26.5	21		7.5	5.9	22
8	1/8	KQ2VS08-01S	8	15.2	17.6	28.5	14.6	26.1	23	18.5	16	11.2	24
	1/4	KQ2VS08-02S			18	29.5	24						30
	3/8	KQ2VS08-03S	8		20.6	27.5	19.4	31.4	26		20.5	14.3	47
10	1/4	KQ2VS10-02S	8	18.5	20.6	31	19	31	25	21	27	20.3	32
	3/8	KQ2VS10-03S			19.4	31.4	26						39
12	3/8	KQ2VS12-03S	10	20.9	25.2	34	20.9	34.9	30	22	39	30.8	48
	1/2	KQ2VS12-04S			24.1	38.1	31						67

* Reference dimensions after R thread installation.

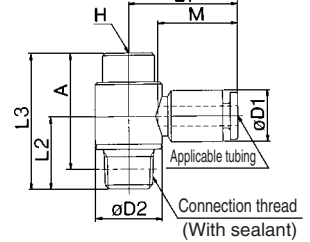
Note) $\phi D1$: Max. diameter



<M5>



<R>



Series KQ2

Universal Female Elbow: KQ2VF

<M5>



<R>

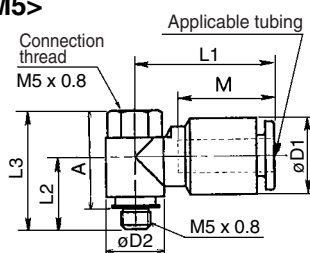


Applicable tubing O.D. (mm)	Connection thread Rc R	Model	H (width across flats)	Note) øD1	øD2	L1	L2	L3	A*	M	Mass (g)
4	M5 x 0.8	KQ2VF04-M5	8	10.4	9.8	20.5	11	20	16	16	6
	1/8	KQ2VF04-01S	14		13.4	22	14.6	28.6	25.5		19
6	M5 x 0.8	KQ2VF06-M5	8	12.8	9.8	23.5	12.5	20	16	17	7
	1/8	KQ2VF06-01S	14		13.4	24.5	14.6	28.6	25.5		19
	1/4	KQ2VF06-02S	17		17.6	25	19.5	38	32.5		36
8	1/8	KQ2VF08-01S	17	15.2	17.6	28.5	16.1	30.1	27	18.5	29
	1/4	KQ2VF08-02S	22		19.5	38	32.5	39	37		66
	3/8	KQ2VF08-03S	22		25.2	29.5	24.4	44.4	39		66
10	1/4	KQ2VF10-02S	19	18.5	20.6	31.5	21.5	40.5	35	21	48
	3/8	KQ2VF10-03S	22		25.2	34	23.4	44.4	39		68
12	3/8	KQ2VF12-03S	22	20.9	25.2	34	23.4	44.4	39	22	70
	1/2	KQ2VF12-04S	24		27	35	24.6	49.1	42		93

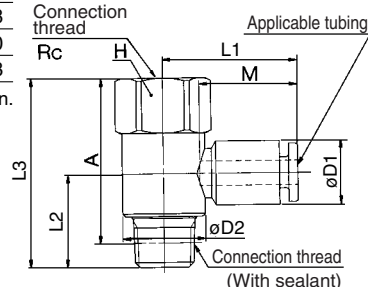
* Reference dimensions after R thread installation.

Note) øD1: Max. diameter

<M5>



<R>



Female Elbow: KQ2LF

<M5, M6>



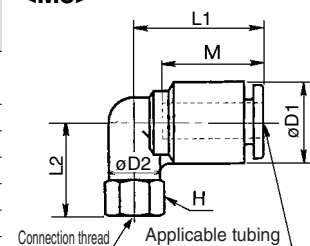
<Rc>



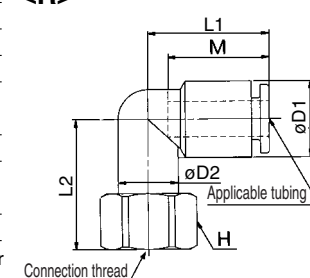
Applicable tubing O.D. (mm)	Connection thread Rc	Model	H (width across flats)	(Note) øD1	øD2	L1	L2	M	Effective area (mm²)		Mass (g)
									Nylon	Urethane	
4	M5 x 0.8	KQ2LF04-M5	8	10.4	8	18.5	14.5	16	3.5	3.5	5
	M6 x 1.0	KQ2LF04-M6	14		15.5		4.2		4.2	13	
	1/8	KQ2LF04-01	14		21					20	
	1/4	KQ2LF04-02	17		24.5					20	
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	14		16		11.4		9.0	6	
	1/8	KQ2LF06-01	14		22					13	
	1/4	KQ2LF06-02	17		25.5					20	
	3/8	KQ2LF06-03	19		26					20	
8	1/8	KQ2LF08-01	14	15.2	12	23.5	23	18.5	21.6	14.9	16
	1/4	KQ2LF08-02	17				26.5				22
	3/8	KQ2LF08-03	19				27				23
10	1/4	KQ2LF10-02	17	18.5	17	26.5	28	21	21.6	14.9	27
	3/8	KQ2LF10-03	19				28.5		35.2	25.0	46
	1/2	KQ2LF10-04	24				32.5				
12	1/4	KQ2LF12-02	17	20.9	17	28.5	29.5	22	50.2	39.7	29
	3/8	KQ2LF12-03	19				30				48
	1/2	KQ2LF12-04	24				34				

Note) øD1: Max. diameter

<M5>



<R>



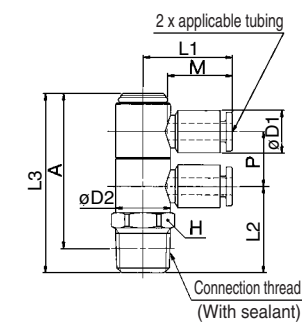
Double Universal Male Elbow: KQ2VD



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) øD1	øD2	L1	L2	L3	A*	M	P	Mass (g)
4	1/8	KQ2VD04-01S	14	10.4	13.4	22	18.5	40.1	37	16	13.4	23
	1/4	KQ2VD04-02S	17				21.5	43.5	38			29
	3/8	KQ2VD04-03S	17				23.5	44.9	40			42
6	1/8	KQ2VD06-01S	14	12.8	13.4	24.5	18.5	40.1	37	17	13.4	24
	1/4	KQ2VD06-02S	17				21.5	43.5	38			30
	3/8	KQ2VD06-03S	17				23.5	44.9	40			42
8	1/8	KQ2VD08-01S	19	15.2	17.6	28.5	21	47.1	44	18.5	15.9	53
	1/4	KQ2VD08-02S	21				24	50.5	45			51
	3/8	KQ2VD08-03S	21				25	50.9	45.5			60
	1/2	KQ2VD08-04S	21				28.5	54.6	47.5			82
10	1/4	KQ2VD10-02S	21	18.5	20.6	31.5	26.5	57.5	52	21	19.2	71
	3/8	KQ2VD10-03S	21				27.5	57.9	53			74
	1/2	KQ2VD10-04S	21				30.5	61.1	54			91
12	1/4	KQ2VD12-02S	26	20.9	25.2	34	28.5	64	58.5	22	21.6	118
	3/8	KQ2VD12-03S	26				29.5	64.4	59			113
	1/2	KQ2VD12-04S	26				32.5	67.6	60			125

* Reference dimensions after R thread installation.

Note) øD1: Max. diameter



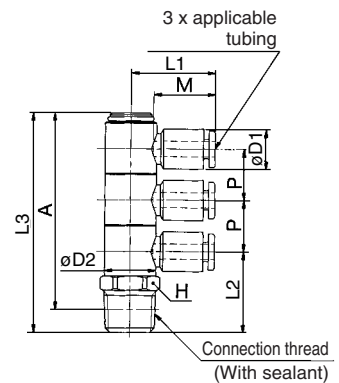
Triple Universal Male Elbow: KQ2VT



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) $\phi D1$	$\phi D2$	L1	L2	L3	A*	M	P	Mass (g)
4	1/8	KQ2VT04-01S	14	10.4	13.4	22	17.6	53.6	50.5	16	13.4	29
	1/4	KQ2VT04-02S	14				21	57	51.5			34
	3/8	KQ2VT04-03S	17				22.4	58.4	53.5			48
6	1/8	KQ2VT06-01S	14	12.8	13.4	24.5	17.5	53.6	50.5	17	13.4	31
	1/4	KQ2VT06-02S	14				21	57	51.5			37
	3/8	KQ2VT06-03S	17				21.9	58.4	53.5			50
8	1/8	KQ2VT08-01S	19	15.2	17.6	28.5	20.1	63.1	60	18.5	15.9	71
	1/4	KQ2VT08-02S					23.5	66.5	61			66
	3/8	KQ2VT08-03S					23.9	66.9	61.5			75
	1/2	KQ2VT08-04S	21				27.6	70.6	63.5			96
10	1/4	KQ2VT10-02S	21	18.5	20.6	31.5	26	77	71.5	21	19.2	94
	3/8	KQ2VT10-03S					26.4	77.4	72			111
	1/2	KQ2VT10-04S					29.6	80.6	73.5			111
12	1/4	KQ2VT12-02S	26	20.9	25.2	34	28.4	85.9	80	22	21.6	153
	3/8	KQ2VT12-03S					31.6	89.1	80.5			142
	1/2	KQ2VT12-04S					31.6	89.1	82			154

* Reference dimensions after R thread installation.

Note) $\phi D1$: Max. diameter



Branch Universal Male Elbow: KQ2Z

<M5>



<R>



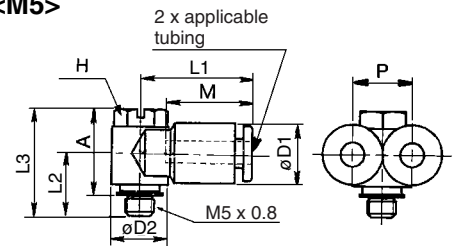
Applicable tubing O.D. (mm)	Connection thread R M Rc	Model	H (width across flats)	Note) $\phi D1$	$\phi D2$	L1	L2	L3	A*	M	P	Effective area (mm ²)	Mass (g)
4	M5 x 0.8	KQ2Z04-M5	8	10.4	9.8	19.5	11	18.5	15	16	10.4	3.4	8
	1/8	KQ2Z04-01S	8		13.4	21	13.6	25.6	22.5			4.7	16
6	1/8	KQ2Z06-01S	8	12.8	13.4	22	13.6	25.6	22.5	17	12.8	10.8	17
	1/4	KQ2Z06-02S	14		20.6	25.5	19	35	29.5			8.6	39
	3/8	KQ2Z06-03S	14		19.4	35.4	30						47
8	1/8	KQ2Z08-01S	12	15.2	14.6	27.6	24.5			18.5	15.2	20.5	27
	1/4	KQ2Z08-02S	14		18	31	25.5					14.2	33
	3/8	KQ2Z08-03S	14		20.6	27	19.4	35.4	30				49
10	1/4	KQ2Z10-02S	14	18.5	19	35	29.5			21	18.5	31.8	46
	3/8	KQ2Z10-03S	14		19.4	35.4	30						54
	1/2	KQ2Z10-04S	17		20.9	37.9	32.5						71
12	3/8	KQ2Z12-03S	17	20.9	25.2	32.5	24.1	41.1	34	22	20.9	44.6	35.3
	1/2	KQ2Z12-04S											88

* Reference dimensions after R thread installation.

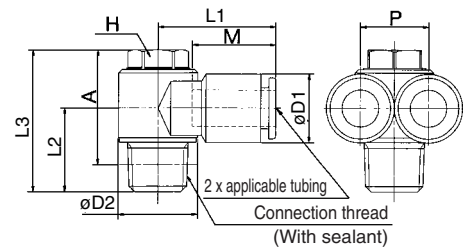
Note) $\phi D1$: Max. diameter



<M5>



<R>



Branch Universal Female Elbow: KQ2ZF

<M5>



<R>



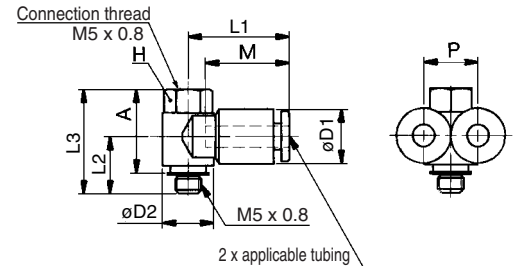
Applicable tubing O.D. (mm)	Connection thread R M Rc	Model	H (width across flats)	Note) $\phi D1$	$\phi D2$	L1	L2	L3	A*	M	P	Mass (g)
4	M5 x 0.8	KQ2ZF04-M5	8	10.4	9.8	19.5	11	20	16.5	16	10.4	8
	1/8	KQ2ZF04-01S	14		13.4	21	14.6	28.6	25.5			21
6	1/8	KQ2ZF06-01S	14	12.8	13.4	22	14.6	28.6	25.5	17	12.8	21
	1/4	KQ2ZF06-02S	19		20.6	25.5	21.5	40.5	35			47
8	1/8	KQ2ZF08-01S	17	15.2	17.6	25.5	16.1	30.1	27	18.5	15.2	32
	1/4	KQ2ZF08-02S	19		20.6	27	21.5	40.5	35			49
10	1/4	KQ2ZF10-02S	19	18.5	20.6	29	21.5	40.5	35	21	18.5	54
	3/8	KQ2ZF10-03S	22		25.2	31.5	23.4	44.4	39			74
12	3/8	KQ2ZF12-03S	22	20.9	25.2	32.5	23.4	44.4	39	22	20.9	77
	1/2	KQ2ZF12-04S	24		27	33	24.1	49.1	42			101

* Reference dimensions after R thread installation.

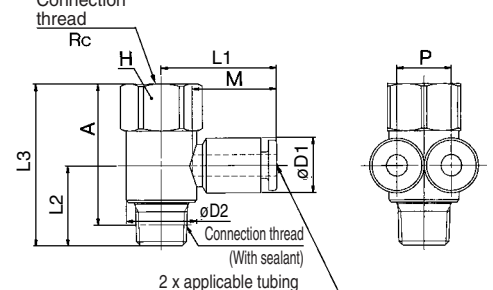
Note) $\phi D1$: Max. diameter



<M5>



<R>



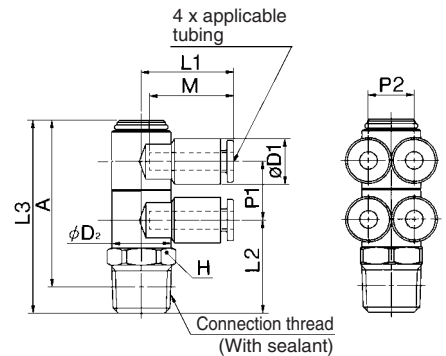
Series KQ2

Double Branch Universal Male Elbow: KQ2ZD



Applicable tubing O.D. (mm)	Connection threads R	Model	H (width across flats)	Note) øD1	øD2	L1	L2	L3	A*	M	P1	P2	Mass (g)
4	1/8	KQ2ZD04-01S	14	10.4	13.4	21	17.6	40.1	37	16	13.4	10.4	25
	1/4	KQ2ZD04-02S	14				21	43.5	38				31
	3/8	KQ2ZD04-03S	17				22.4	44.9	40				44
6	1/8	KQ2ZD06-01S	14	12.8	13.4	22	17.6	40.1	37	17	13.4	12.8	27
	1/4	KQ2ZD06-02S	14				21	43.5	38				33
	3/8	KQ2ZD06-03S	17				22.4	44.9	40				46
8	1/8	KQ2ZD08-01S	19	15.2	17.6	26	20.1	47.1	44	18.5	15.9	15.2	56
	1/4	KQ2ZD08-02S	19				23.5	50.5	45				54
	3/8	KQ2ZD08-03S	21				23.5	50.9	45.5				62
	1/2	KQ2ZD08-04S	21				27.6	54.6	47.5				85
10	1/4	KQ2ZD10-02S	21	18.5	20.6	29	26	57.5	52	21	19.2	18.5	83
	3/8	KQ2ZD10-03S	21				26.4	57.9	53				85
	1/2	KQ2ZD10-04S	21				29.6	61.1	54				102
12	1/4	KQ2ZD12-02S	26	20.9	25.2	32	28	64	58.5	22	21.6	20.9	134
	3/8	KQ2ZD12-03S	26				28.5	64.4	59				130
	1/2	KQ2ZD12-04S	26				31.6	67.6	60				141

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

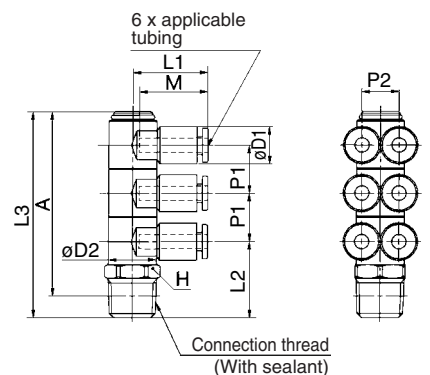


Triple Branch Universal Male Elbow: KQ2ZT



Applicable tubing O.D. (mm)	Connection threads R	Model	H (width across flats)	Note) øD1	øD2	L1	L2	L3	A*	M	P1	P2	Mass (g)
4	1/8	KQ2ZT04-01S	14	10.4	13.4	21	16.7	53.6	50.5	16	13.4	10.4	34
	1/4	KQ2ZT04-02S	14				20.5	57	51.5				40
	3/8	KQ2ZT04-03S	17				22.4	58.4	53.5				53
6	1/8	KQ2ZT06-01S	14	12.8	13.4	22	17.6	53.6	50.5	17	13.4	12.8	38
	1/4	KQ2ZT06-02S	14				21	57	51.5				43
	3/8	KQ2ZT06-03S	17				22.4	58.4	53.5				57
8	1/8	KQ2ZT08-01S	19	15.2	17.6	26	20.1	63.1	60	18.5	15.9	15.2	76
	1/4	KQ2ZT08-02S	19				23.5	66.5	61				72
	3/8	KQ2ZT08-03S	21				23.5	66.9	61.5				81
	1/2	KQ2ZT08-04S	21				27.6	70.6	63.5				102
10	1/4	KQ2ZT10-02S	21	18.5	20.6	29	26	77	71.5	21	19.2	18.5	111
	3/8	KQ2ZT10-03S	21				26.4	77.4	72				128
	1/2	KQ2ZT10-04S	21				29.6	80.6	73.5				178
12	1/4	KQ2ZT12-02S	26	20.9	25.2	32	28	85.5	80	22	21.6	20.9	167
	3/8	KQ2ZT12-03S	26				28.5	85.9	80.5				179
	1/2	KQ2ZT12-04S	26				31.6	89.1	82				179

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

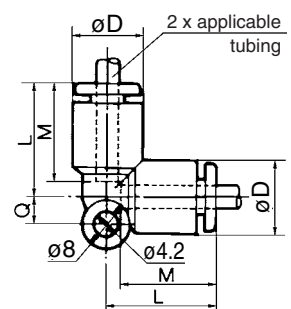


Union Elbow: KQ2L



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

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



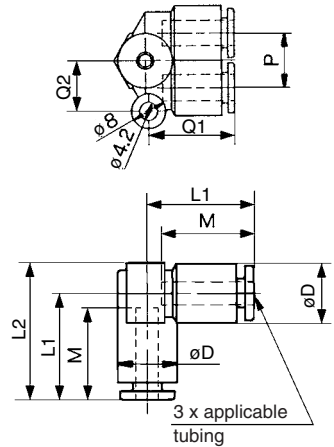
Branch Union Elbow: KQ2LU



Applicable tubing O.D. (mm)	Model	Note) ϕD	L1	L2	Q1	Q2	M	P	Effective area (mm ²)		Mass (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

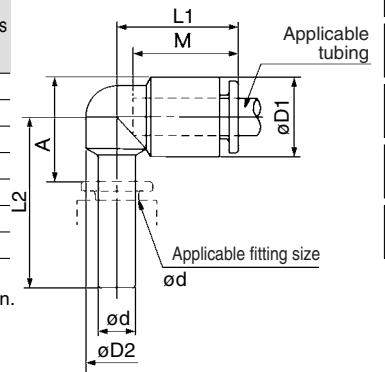


Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	(1) $\phi D1$	$\phi D2$	L1	L2	A	M	Effective area (mm ²) (2)		Mass (g)
									Nylon	Urethane	
3.2	3.2	KQ2L23-99	9.6	7	17	24.5	14	15.5	3	2.5	2
4	4	KQ2L04-99	10.4	8	18	25	14.5	16	4.2	4.2	3
6	6	KQ2L06-99	12.8	10	20	27.5	17	17	11.4	9.0	3
8	8	KQ2L08-99	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.



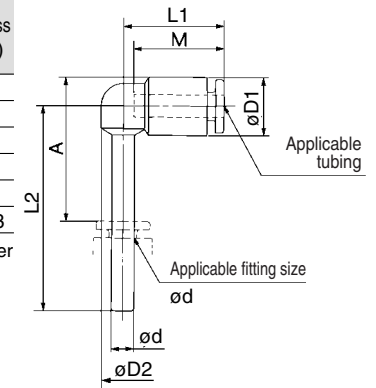
Extended Plug-in Elbow: KQ2W



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	Note) $\phi D1$	$\phi D2$	L1	L2	A	M	Effective area (mm ²)		Mass (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) $\phi D1$: Max. diameter



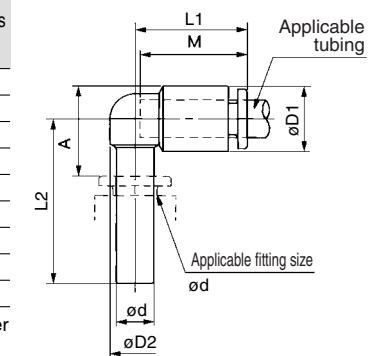
Reducer Elbow: KQ2L



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	Note) $\phi D1$	$\phi D2$	L1	L2	A	M	Effective area (mm ²)		Mass (g)
									Nylon	Urethane	
3.2	4	KQ2L23-04	9.6	7	17	25	13.5	15.5	3	2.5	2
	6	KQ2L04-06	10.4	8	18	26	14.5	16	4.2	4.2	3
4	8	KQ2L04-08		10	35	22	22				
6	8	KQ2L06-08	12.8	10	19.5	30.5	18	17	11.4	9.0	12
	10	KQ2L06-10			20	38.5	24				
8	10	KQ2L08-10	15.2	12	22.5	33.5	20.5	18.5	21.6	14.9	20
	12	KQ2L08-12			23	40.5	26				
10	12	KQ2L10-12	18.5	17	26.5	42	29.5	21	35.2	25.0	29
12	16	KQ2L12-16	20.9	17	28.5	49.5	34.5	22	50.2	39.7	53



Note) $\phi D1$: Max. diameter



Series KQ2

Extended Male Elbow: KQ2W

<M5>



<R>



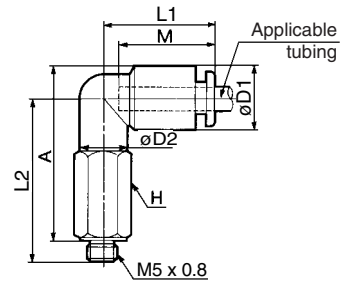
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	ØD1 ⁽¹⁾	ØD2	L1	L2	A*	M	Effective area ⁽²⁾ (mm ²)		Mass (g)
										Nylon	Urethane	
3.2	M5 x 0.8	KQ2W23-M5	8	9.6	8	17.5	30	31	15.5	2.8	2.4	10
	1/8	KQ2W23-01S	10		10		37	38		4.0	4.0	19
	1/4	KQ2W23-02S	14				43	42				41
4	M5 x 0.8	KQ2W04-M5	8	10.4	8	18	30	32	16	3.0	3.0	11
	1/8	KQ2W04-01S	10		10		36.6	38.5		4.0	4.0	23
	1/4	KQ2W04-02S	14				43	42.5				38
6	M5 x 0.8	KQ2W06-M5	8	12.8	8	20	30.5	33.5	17	3	3	11
	1/8	KQ2W06-01S	10		10		39.1	42.5		10.9	8.6	26
	1/4	KQ2W06-02S	14				45.5	46.5				41
	3/8	KQ2W06-03S	17				46.9	48				67
8	1/8	KQ2W08-01S	12	15.2	12	23	42.6	47	18.5	20.5	14.2	30
	1/4	KQ2W08-02S	14				49	51				47
	3/8	KQ2W08-03S	17				50.4	52.5				74
10	1/4	KQ2W10-02S	17	18.5	17	26.5	56	59.5	21	33.5	23.8	66
	3/8	KQ2W10-03S	17				57.4	61				76
	1/2	KQ2W10-04S	22				64.1	66				145
12	1/4	KQ2W12-02S	17	20.9	17	28.5	57	62	22	47.7	37.7	68
	3/8	KQ2W12-03S	17				58.4	63.5				78
	1/2	KQ2W12-04S	22				65.1	68.5				147
16	3/8	KQ2W16-03S	22	26.5	20.9	34	68.4	76	25	71	(71)	101
	1/2	KQ2W16-04S					72.1	78		100	(84)	105

* Reference dimensions after R thread installation.

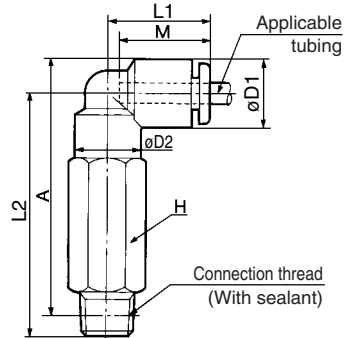
Note 1) $\phi D1$: Max. diameter

Note 2) (): Values for soft nylon

<M5>



<R>



Male Branch Tee: KQ2T

<M5>



<M6>



<R>



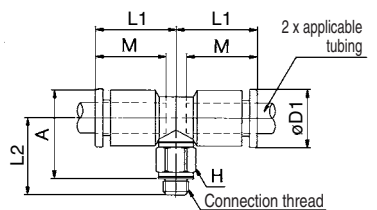
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	$\phi D1^{(1)}$	$\phi D2$	L1	L2	A*	M	Effective area ⁽²⁾ (mm ²)		Mass (g)
										Nylon	Urethane	
3.2	M5 x 0.8	KQ2T23-M5	7	8.4	—	15.3	13.2	14.3	12.7	3.2	2.7	3.2
	1/8	KQ2T23-01S	10	9.6	10	17.5	20.6	22.5	15.5	3.4	2.9	10
	1/4	KQ2T23-02S	14				25	24.5		6.0	4.1	20
4	M5 x 0.8	KQ2T04-M5	7				13.7	15.3		4.5	4.5	3.5
	M6 x 1.0	KQ2T04-M6	8	10.4	10	18	14.7	17.4	16	6.0	4.1	4.4
	1/8	KQ2T04-01S	10				21.1	23				13
6	1/4	KQ2T04-02S	14				25.5	25				19
	M5 x 0.8	KQ2T06-M5	7	11.6	—	16.1	14.7	17.4	13.5	4.5	4.5	4.4
	M6 x 1.0	KQ2T06-M6	8				15.7	17.4				5.3
8	1/8	KQ2T06-01S	10		12.8	10	22.1	25.5	17	13.9	11.0	12
	1/4	KQ2T06-02S	14				26.5	27.5				20
	3/8	KQ2T06-03S	17				27.9	29				34
10	1/8	KQ2T08-01S	12	15.2	12	24	23.6	28	18.5	26.3	18.2	14
	1/4	KQ2T08-02S	14				28	30				22
	3/8	KQ2T08-03S	17				29.4	31.5				36
12	1/8	KQ2T10-01S	17	18.5	17	26.5	26.1	32	21	21.6	14.9	31
	1/4	KQ2T10-02S	17				29.5	33				29
	3/8	KQ2T10-03S	17				30.9	34.5				39
16	1/2	KQ2T10-04S	22	20.9	17	28.5	35.1	37	22	57.2	45.2	66
	1/4	KQ2T12-02S	17		17	28.5	30.5	35.5				31
	3/8	KQ2T12-03S	17				31.9	37				41
16	1/2	KQ2T12-04S	22	26.5	20.9	34	36.1	39.5	25	71	(71)	68
	3/8	KQ2T16-03S	22		20.9	34	36.9	44.5				112
	1/2	KQ2T16-04S	22				39.6	46				116

* Reference dimensions after R thread installation.

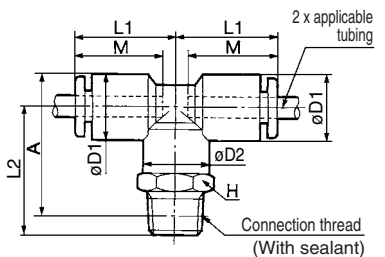
Note 1) $\phi D1$: Max. diameter

Note 2) (): Values for soft nylon.

<M5, M6>



<R>



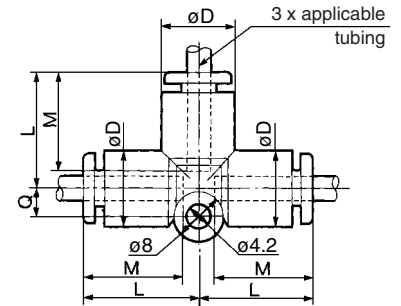
Union Tee: KQ2T



Applicable tubing O.D. (mm)	Model	⁽¹⁾ øD	L	Q	M	Effective area ⁽²⁾ (mm ²)		Mass (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	21	5.3	17	13.4	10.6	10
8	KQ2T08-00	15.2	24	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.



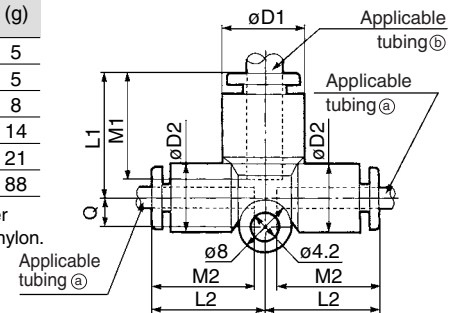
Different Diameter Tee: KQ2T



Applicable tubing O.D. (mm)		Model	⁽¹⁾ øD1 øD2		L1	L2	Q	M1	M2	Effective area ⁽²⁾ (mm ²)		Mass (g)
(a)	(b)									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	21	5.3	18.5	17	16.4	16.4	8
8	10	KQ2T08-10	18.5	15.2	26.5	24	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.



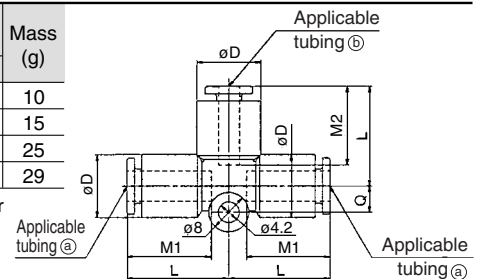
Different Diameter Tee: KQ2T



Applicable tubing O.D. (mm)		Model	^{Note)} øD	L	Q	M1	M2	Effective area (mm ²)		Mass (g)
(a)	(b)							Nylon	Urethane	
6	4	KQ2T06-04	12.8	21	5.3	17	16	6.4	4.4	10
8	6	KQ2T08-06	15.2	24	6	18.5	17	13.4	10.6	15
10	8	KQ2T10-08	18.5	26.5	6.8	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



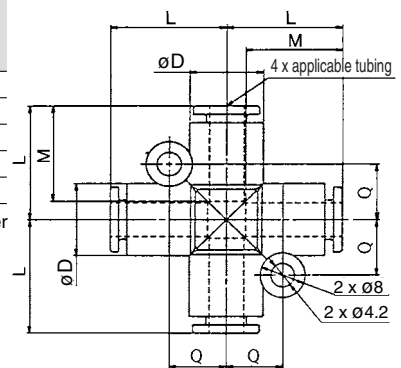
Cross: KQ2TW



Applicable tubing O.D. (mm)		Model	^{Note)} øD	L	Q	M	Effective area (mm ²)		Mass (g)
(a)	(b)						Nylon	Urethane	
4		KQ2TW04-00	10.4	18	8.7	16	6.4	4.4	9
6		KQ2TW06-00	12.8	21	9.9	17	13.4	10.6	13
8		KQ2TW08-00	15.2	24	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



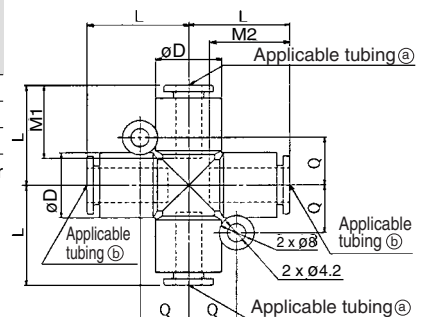
Different Diameter Cross: KQ2TX



Applicable tubing O.D. (mm)		Model	^{Note)} øD	L	Q	M1	M2	Effective area (mm ²)		Mass (g)
(a)	(b)							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



Series KQ2

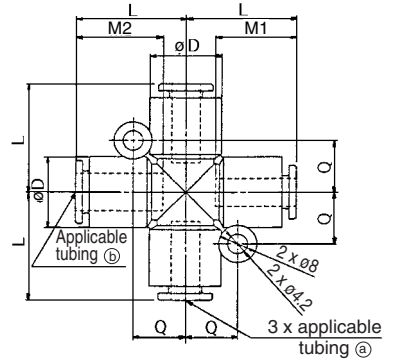
Different Diameter Cross: KQ2TY



Applicable tubing O.D. (mm)		Model	Note) øD	L	Q	M1	M2	Effective area (mm ²)		Mass (g)
①	②							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) øD: max. diameter



Male Run Tee: KQ2Y

<M5>



<M6>



<R>



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD ⁽¹⁾	øD2	L1	L2	L3	A*	M	Effective area ⁽²⁾ (mm ²)		Mass (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	20.6	—	35	15.5	3.4	2.9	10
	1/4	KQ2Y23-02S	14	—	—	—	25	—	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	21.1	—	36	16	6.4	4.4	13
6	1/4	KQ2Y04-02S	14	—	—	—	25.5	—	38	—	—	—	19
	M5 x 0.8	KQ2Y06-M5	7	11.6	—	17.1	14.7	17.1	28.7	13.5	4.5	4.5	4.5
	M6 x 1.0	KQ2Y06-M6	8	—	—	—	15.7	—	—	—	—	—	7
8	1/8	KQ2Y06-01S	10	12.8	10	20	22.1	—	39	17	13.4	10.6	12
	1/4	KQ2Y06-02S	14	—	—	—	26.5	—	41	—	—	—	20
	3/8	KQ2Y06-03S	17	—	—	—	27.9	—	42.5	—	—	—	34
10	1/8	KQ2Y08-01S	12	15.2	12	23	23.6	—	43.5	18.5	25.6	17.7	14
	1/4	KQ2Y08-02S	14	—	—	—	28	—	45.5	—	—	—	22
	3/8	KQ2Y08-03S	17	—	—	—	29.4	—	47	—	—	—	36
12	1/8	KQ2Y10-01S	17	18.5	17	26.5	26.1	—	49.5	21	40.0	28.4	31
	1/4	KQ2Y10-02S	—	—	—	—	29.5	—	50.5	—	—	—	29
	3/8	KQ2Y10-03S	—	—	—	—	30.9	—	52	—	—	—	39
16	1/2	KQ2Y10-04S	22	—	—	—	35.1	—	54.5	—	—	—	66
	1/4	KQ2Y12-02S	17	20.9	17	28.5	30.5	—	53.5	22	57.4	45.4	31
	3/8	KQ2Y12-03S	—	—	—	—	31.9	—	55	—	—	—	41
	1/2	KQ2Y12-04S	22	—	—	—	36.1	—	57.5	—	—	—	68
16	3/8	KQ2Y16-03S	—	—	—	—	36.9	—	65.5	25	81	(81)	112
	1/2	KQ2Y16-04S	—	—	—	—	40.1	—	67	—	113	(113)	116

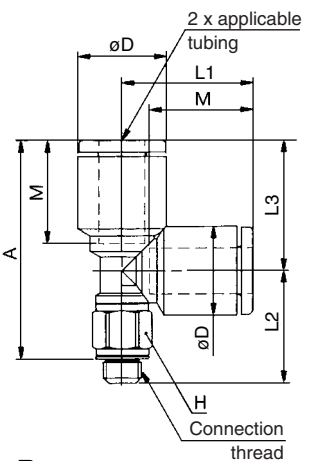


* Reference dimensions after R thread installation.

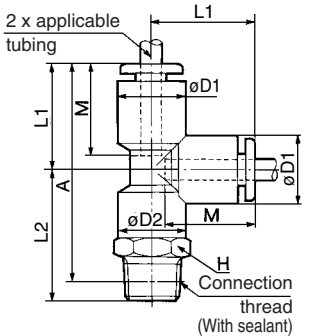
Note 1) øD1: Max. diameter

Note 2) (): Values for soft nylon

<M5, M6>



<R>



Male Delta Union: KQ2D

<M5, M6>



<R>



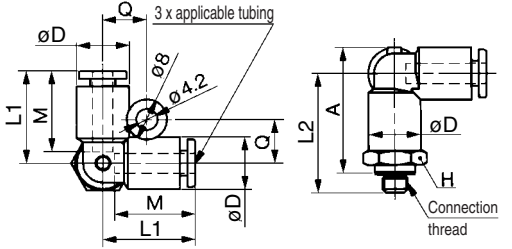
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) ØD	L1	L2	A * mm	M	Q	Effective area (mm²)		Mass (g)		
										Nylon	Urethane			
4	M5 x 0.8	KQ2D04-M5	11	10.4	18.5	24	25.5	16	8.7	2.2	2.2	10		
	M6 x 1.0	KQ2D04-M6				24.5				4.3	4.3			
	1/8	KQ2D04-01S	14			25.6	27.5			6.0	6.0	12		
	1/4	KQ2D04-02S				30	29.5					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	14			28.1	31.5			13.9	11.0	14		
	1/4	KQ2D06-02S				32	33					21		
	3/8	KQ2D06-03S	17			33.4	34.5					34		
8	1/8	KQ2D08-01S	17	15.2	23.5	32.6	37	18.5	11.1	26.3	18.2	26		
	1/4	KQ2D08-02S				36	38							
	3/8	KQ2D08-03S				36.4	38.5							35
10	1/4	KQ2D10-02S	19	18.5	26.5	39	43	21	12.8	40.8	29.0	39		
	3/8	KQ2D10-03S				39.4	43.5							40
	1/2	KQ2D10-04S	22			43.1	45							62
12	1/4	KQ2D12-02S	22	20.9	28.5	41.5	46.5	22	13.9	57.2	45.2	55		
	3/8	KQ2D12-03S				41.9	47							56
	1/2	KQ2D12-04S				45.1	48.5							63

* Reference dimensions after R thread installation.

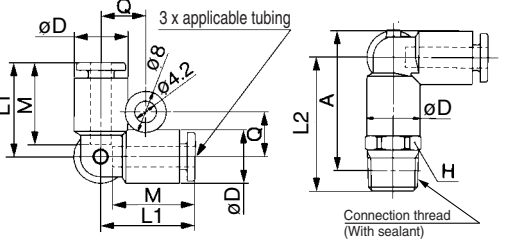
Note) øD: Max. diameter



<M5, M6>



<R>

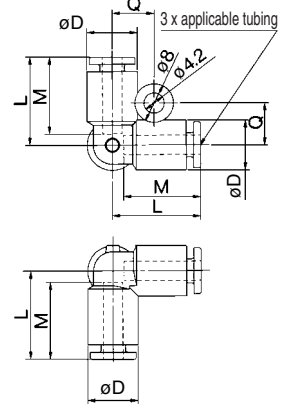


Delta Union: KQ2D



Applicable tubing O.D. (mm)	Model	Note) øD	L	Q	M	Effective area (mm ²)		Mass (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) øD: Max. diameter



Branch "Y": KQ2U

<M5, M6>



<R>



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	(1) øD	L	P	A*	M	Effective area (2) (mm²)		Mass (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		40.1		37		3.4	2.9	14	
	1/4	KQ2U23-02S	14		43.5		38					
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		36				10	
	1/8	KQ2U04-01S	14		41.1		38		4.2	4.2	11	
	1/4	KQ2U04-02S	14		45.5		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							
	1/8	KQ2U06-01S	14		44.6		41.5		13.4	10.6	11	
	1/4	KQ2U06-02S	14		48.5		43				21	
	3/8	KQ2U06-03S	17		49.9		44.5				34	
8	1/8	KQ2U08-01S	17	15.2	51.6	15.2	48.5	18.5	25.6	17.7	15	
	1/4	KQ2U08-02S			55		49.5				23	
	3/8	KQ2U08-03S			55.4		50				35	
10	1/4	KQ2U10-02S	19	18.5	60.5	18.5	55	21	40	28.4	30	
	3/8	KQ2U10-03S			60.9		55.5				40	
	1/2	KQ2U10-04S	22		64.1		57				65	
	1/4	KQ2U12-02S	22		20.9		64		58.5	22	57.4	45.4
3/8	KQ2U12-03S	64.4		59				40				
1/2	KQ2U12-04S	67.6		60.5				65				
12	3/8	KQ2U16-03S	27	26.5		74.9	26.5	69.5	25		81	(81)
	1/2	KQ2U16-04S			78.1	71		113		(96)	111	

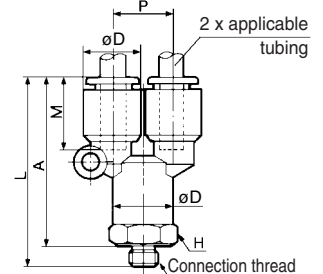
* Reference dimensions after R thread installation.

Note 1) øD: Max. diameter

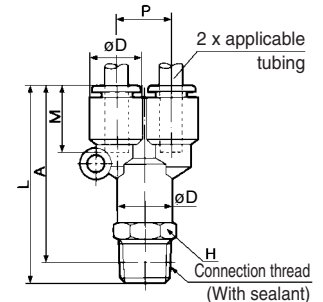
Note 2) (): Values for soft nylon



<M5, M6>



<R>



Series KQ2

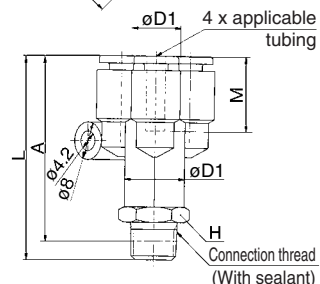
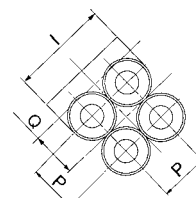
Delta Branch: KQ2UD



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	(Note) $\phi D1$	$\phi D2$	L	I	A*	Q	M	P	Effective area (mm ²)		Mass (g)
												Nylon	Urethane	
4	1/8	KQ2UD04-01S	13	10.4	12.8	42.6	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	49.6	26	46.5	11.7	17	12.8	13.4	10.6	29
	1/4	KQ2UD06-02S	17											

* Reference dimensions after R thread installation.

Note) $\phi D1$: Max. diameter



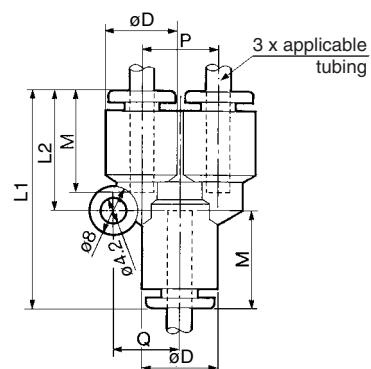
Union "Y": KQ2U



Applicable tubing O.D. (mm)	Model	ϕD (1)	L1	L2	P	Q	M	Effective area (mm ²) (2)		Mass (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.

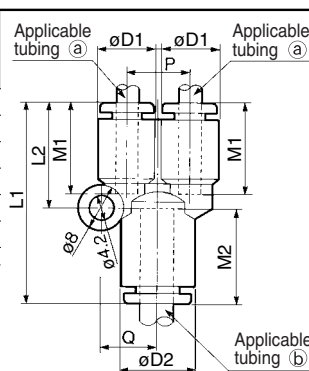


Different Diameter Union "Y": KQ2U



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

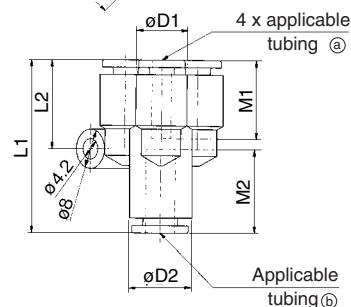
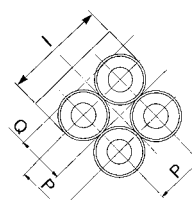


Different Diameter Double Union "Y": KQ2UD



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

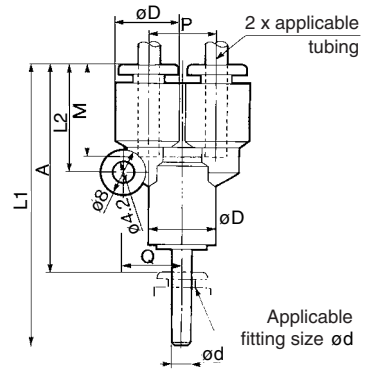
Note) $\phi D1$, $\phi D2$: Max. diameter



Plug-in “Y”: KQ2U



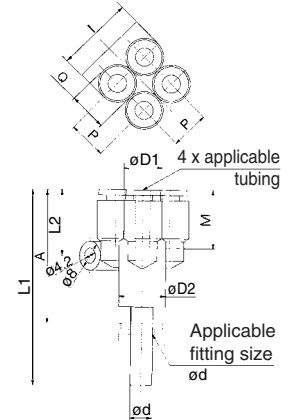
Applicable tubing O.D. (mm)	Applicable fitting size ød	Model	(1) øD	L1	L2	P	Q	A	M	Effective area (2) (mm ²)		Mass (g)
										Nylon	Urethane	
3.2	3.2	KQ2U23-99	9.6	50	17.5	9.6	9	35	15.5	3.4	2.9	6
4	4	KQ2U04-99	10.4	51.5	18	10.4	9.7	35.5	16	4.2	4.2	12
6	6	KQ2U06-99	12.8	55.5	20	12.8	11.7	38.5	17	13.4	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



Double Plug-in “Y”: KQ2XD



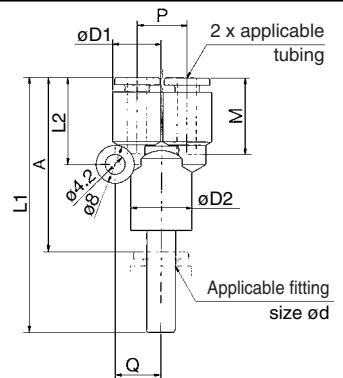
Applicable tubing O.D. (mm)	Applicable fitting size ød	Model	Note)	øD2	L1	L2	I	Q	A	P	M	Effective area (mm ²)		Mass (g)
			øD1									Nylon	Urethane	
4	6	KQ2XD04-06	10.4	12.8	54	18.2	21	9.7	37	10.4	16	4.2	4.2	10
6	8	KQ2XD06-08	12.8	15.2	62.5	20.3	26	11.7	44	12.8	17	13.4	10.6	23



Different Diameter Plug-in “Y”: KQ2X



Applicable tubing O.D. (mm)	Applicable fitting size ød	Model	Note)	øD1	øD2	L1	L2	A	P	Q	M	Effective area (mm ²)		Mass (g)	
			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		

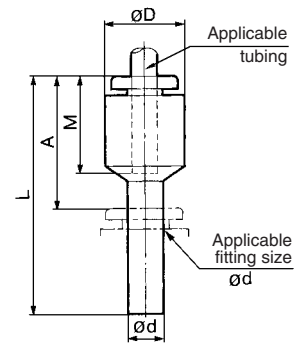


Series KQ2

Plug-in Reducer: KQ2R



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	⁽¹⁾ ϕD	L	A	M	Effective area ⁽²⁾ (mm ²)		Mass (g)
							Nylon	Urethane	
3.2	4	KQ2R23-04	9.6	33.5	18.5	15.5	3.4	2.9	2
4	6	KQ2R04-06	10.4	34.5	17.5	16	5.6	4	1.8
	8	KQ2R04-08		36.5	18				2.0
	10	KQ2R04-10	12.8	39.5	18.5				3.3
6	4	KQ2R06-04	12.8	37	21	17	4	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
8	12	KQ2R06-12	15.2	42	20				4.7
	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



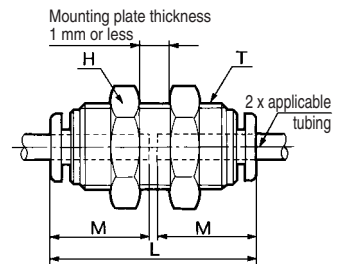
Note 1) ϕD : Max. diameter

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)		Mass (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

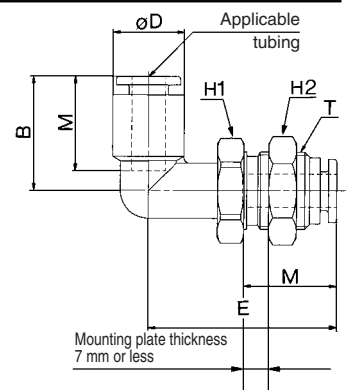


Note) (): Values for soft nylon.

Bulkhead Male Elbow: KQ2LE



Applicable tubing O.D. (mm)	Model	T (M)	H1 (width across flats)	H2 (width across flats)	B	E	^{Note)} ϕD	Mounting hole	M	Effective area ^{Note)} (mm ²)		Mass (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

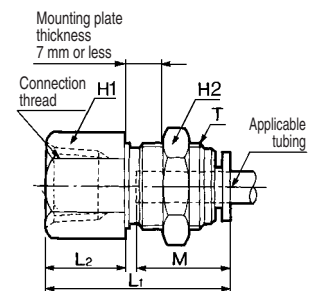


Note) ϕD : Max. diameter

Bulkhead Connector: KQ2E



Applicable tubing O.D. (mm)	Connection thread Rc	Model	T (M)	H1 (width across flats)	H2 (width across flats)	L1	L2	Mounting hole	M	Effective area ^{Note)} (mm ²)		Mass (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		17		31	15					35
6	1/8	KQ2E06-01	M14 x 1	17	17	28	11	15	17	13.1	10.4	30
	1/4	KQ2E06-02				31.5	15					30
	3/8	KQ2E06-03				33.5	17					34
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					33
	3/8	KQ2E08-03				35	15					34
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	14					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	(96)	132



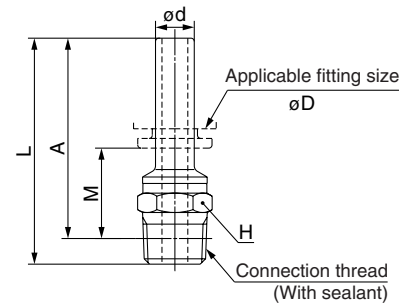
Note) (): Values for soft nylon.

Adaptor: KQ2N



Applicable fitting size øD	Connection thread R	Model	H (width across flats)	L	A*	M	ød	Mass (g)
4	M5 x 0.8	KQ2N04-M5	7	32	29	13	2.5	2
	1/8	KQ2N04-01S	10	33.1	30	14	2.5	6
6	M5 x 0.8	KQ2N06-M5	7	33	30	13	2.5	2
	1/8	KQ2N06-01S	10	34.1	31	14	4.5	5
	1/4	KQ2N06-02S	14	37	31.5	14.5	4.5	14
8	1/4	KQ2N08-02S	14	38.5	33	14.5	6	17
	3/8	KQ2N08-03S	17	39.9	34.5	16	6	30
10	3/8	KQ2N10-03S	17	44.9	39.5	18.5	7.5	31

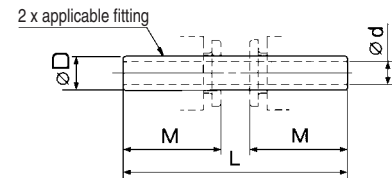
* Reference dimensions after R thread is screwed in.



Nipple: KQ2N



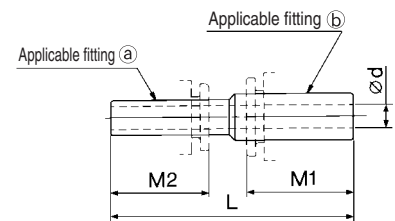
Applicable fitting øD	Model	L	M	ød	Mass (g)
4	KQ2N04-99	37	16	2.5	1
6	KQ2N06-99	39	17	4	2
8	KQ2N08-99	43	18.5	6	2
10	KQ2N10-99	49	21	7.5	4
12	KQ2N12-99	52	22	9	20.6
16	KQ2N16-99	57	25	13	31



Reducer Nipple: KQ2N



Applicable fitting		Model	L	M1	M2	ød	Mass (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	2
10	12	KQ2N10-12	51	22	21	8	18.2
12	16	KQ2N12-16	55	25	22	9	29

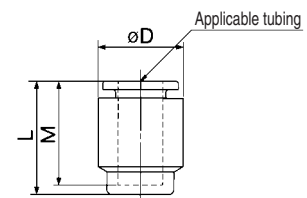


Tube Cap: KQ2C



Applicable tubing O.D. (mm)	Model	Note) øD	L	M	Mass (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) øD: Max. diameter

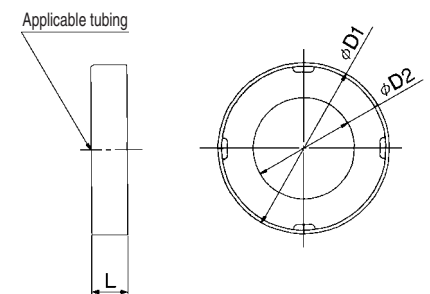


Color Cap: KQ2C



Applicable tubing O.D. (mm)	Model	øD1	øD2	L	Mass (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		0.3	

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

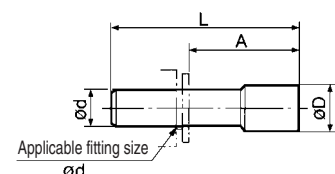


Plug: KQ2P, KQP



Applicable fitting size ød	Model (Note)		øD	L	A	Mass (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)





1 Grease-free Specifications

Symbol	Specifications
X17	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue
X29	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue Copper-free (Electroless nickel plated)
X39	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue Clean (Copper-free, air blow, double package, resin body: white)
X94	Grease-free Rubber material: FKM (With fluorine coating) Release button color: Light blue

2 Other Specifications

Symbol	Specifications
X2	Copper-free (With electroless nickel plated)
X12	Lubricant: White Vaseline Release button color: White
X34	Rubber material: FKM
X41	With fixed throttle ^{Note)}

Note) Compatible with male connector and male elbow only
Consult SMC separately for the available fixed throttle diameters.

Spare Parts

Description	Part no.	Applicable thread	Material	Applicable model
Gasket	M-5G2	M5	Stainless steel 304, NBR	—
	M-6G	M6		—
Pipe nut	KQ04-P01	—	—	KQ2E23-00, KQ2E04-00, KQ2E23-02 KQ2E04-01, KQ2E04-02, KQ2LE04-00
	KQ06-P01	—	—	KQ2E06-00, KQ2E06-01 KQ2E06-02, KQ2E06-03, KQ2LE06-00
	KQ08-P01	—	—	KQ2E08-00, KQ2E08-01 KQ2E08-02, KQ2E08-03, KQ2LE08-00
	KQ10-P01	—	—	KQ2E10-00, KQ2E10-02 KQ2E10-03, KQ2LE10-00
	KQ12-P01	—	—	KQ2E12-00, KQ2E12-03 KQ2E12-04, KQ2LE12-00
	KQ16-P01	—	—	KQ2E16-00 KQ2E16-03, KQ2E16-04