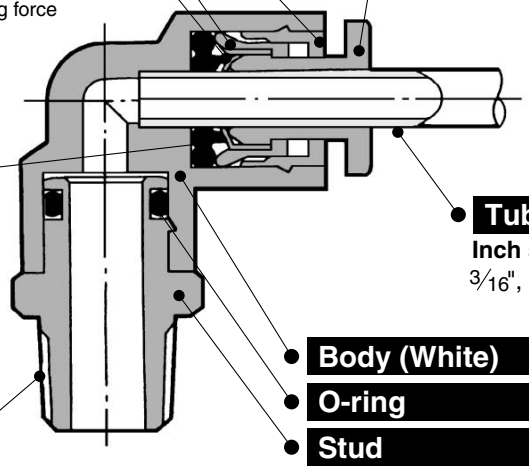
Inch-size One-touch Fittings

Series KQ2

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



Guide

Collet

Chuck

Suitable for use with nylon, soft nylon and urethane.

Large retaining force.

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

Release button (Orange)

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.

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.

Tube

Inch size

3/16", 1/4", 5/16", 3/8", 1/2"

Connection thread

M, R, Rc

Body (White)

O-ring

Stud

Effective when piping in a confined space.

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

PAT.

Applicable Tubing

Tubing material	Nylon, Soft nylon, Polyurethane
Tubing O.D. (inch)	ø3/16, ø1/4, ø5/16, ø3/8, ø1/2

Specifications

Fluid		Air/Water Note)
Maximum operating pressure		1.0 MPa
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)
	Nut section	JIS B 0211, Class 2 (Metric fine thread)
Thread seal		With seal

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	POM
Release button	POM
Seal, O-ring	NBR
Gasket	Stainless steel 304, NBR

Model

Male connector
KQ2H P. 26

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

Straight union
KQ2H P. 26

Use to connect tubes in the same direction.

Male elbow
KQ2L P. 26

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

Union elbow
KQ2L P. 26

Use to connect tubes at the right angles.

Plug-in elbow
KQ2L P. 27

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

Reducer elbow
KQ2L P. 27

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

Extended male elbow
KQ2W P. 27

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

Male branch tee
KQ2T P. 27

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

Union tee
KQ2T P. 28

Use to connect tubes in both 90° directions.

Male run tee
KQ2Y P. 28

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

Plug-in reducer
KQ2R P. 28

Use to size down One-touch fittings.

Union "Y"
KQ2U P. 28

Use to branch line in the same direction.

Plug-in "Y"
KQ2U P. 29

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

Branch "Y"
KQ2U P. 29

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

Bulkhead union
KQ2E P. 29

Use to connect male thead and tube through a panel.

Bulkhead connector
KQ2E P. 29

Use to connect male thead and tube through a panel.

Gasket/Seal for M5 thread

Part no. M-5G2
Material Stainless steel 304, NBR

How to Order

KQ2 H 05 — 02 S

One-touch fittings

Model

H	Male connecter *
	Straight union
L	Male elbow *
	Union elbow
	Plug-in elbow
	Reducer elbow
W	Extended male elbow *
T	Male branch tee *
	Union tee
Y	Male run tee *
U	Union "Y"
	Plug-in "Y"
	Branch "Y" *
R	Plug-in reducer
E	Bulkhead union
	Bulkhead connector

*mark: With seal is available.

Applicable tubing O.D.

01	1/8
05	3/16
07	1/4
09	5/16
11	3/8
13	1/2

Port size

M5	M5 x 0.8
01	1/8
02	1/4
03	3/8
04	1/2
00	Same dia. tubing
99	Same dia. rod

With thread seal

Nil	Without seal
S	With thread seal

Male Connector: KQ2H

KQ2H01-M5
KQ2H07-M5

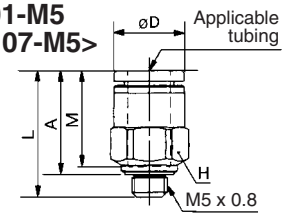
<KQ2H05-M5>

<R>

Applicable tubing O.D. (inch)	Connection thread M R	Model	H (Width across flats)	Note) øD	L	A *	M	Min. port size	Weight (g)
1/8	M5 x 0.8	**KQ2H01-M5**	7	—	16.7	13.6	12.7	2.5	2
	1/8	**KQ2H01-01S**	10	—	22	18	15.5		9
	1/4	**KQ2H01-02S**	14	—	19.5	13.5			16
3/16	M5 x 0.8	**KQ2H05-M5**	10.7	—	24	20.5	16.5	2.5	6
	1/8	**KQ2H05-01S**	11	—	22	18		3.5	11
	1/4	**KQ2H05-02S**	14	—	21	15			12
1/4	M5 x 0.8	**KQ2H07-M5**	11	10.3	18.4	15.3	13.6	2.5	3.3
	1/8	**KQ2H07-01S**	14	—	22.5	18.5	17	4.6	10
	1/4	**KQ2H07-02S**		—	23	17			15
	3/8	**KQ2H07-03S**	17	—	23	16.5			27
5/16	1/8	**KQ2H09-01S**	14	—	28	24	18.5	6	15
	1/4	**KQ2H09-02S**		—	26.5	20.5			16
	3/8	**KQ2H09-03S**	17	—	22.5	15.5			24
3/8	1/4	**KQ2H11-02S**	17	—	33.5	27.5	21	7	31
	3/8	**KQ2H11-03S**		—	29	22.5			29
	1/2	**KQ2H11-04S**	22	—	27	19			46
1/2	1/4	**KQ2H13-02S**	22	—	34.5	28.5	22	9	44
	3/8	**KQ2H13-03S**		—	33.5	27		9.6	
	1/2	**KQ2H13-04S**		—	30	22			

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

KQ2H01-M5
<KQ2H07-M5>



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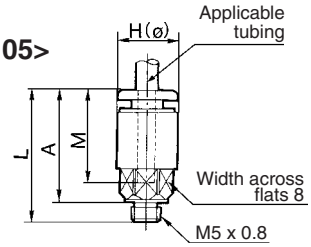

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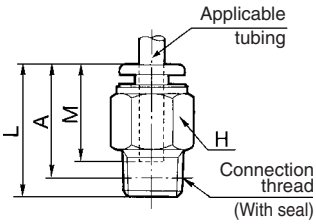
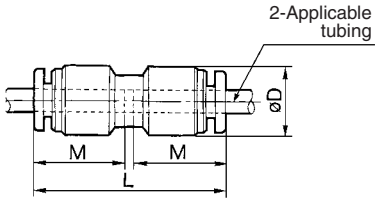


Straight Union: KQ2H

Applicable tubing O.D. (inch)	Model	Note) øD	L	M	Min. port size	Weight (g)
3/16	**KQ2H05-00**	11.4	34	16.5	3.5	4
1/4	**KQ2H07-00**	13.2	34.5	17	4.6	4
5/16	**KQ2H09-00**	15.2	38.5	18.5	6	6
3/8	**KQ2H11-00**	17.9	42.5	21	7	11
1/2	**KQ2H13-00**	21.7	44.5	22	9.6	16

Note) øD: Max. diameter

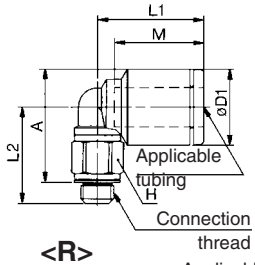


Male Elbow: KQ2L

Applicable tubing O.D. (inch)	Connection thread R	Model	H (Width across flats)	Note) øD1	øD2	L1	L2	A *	M	Min. port size	Weight (g)
1/8	M5 x 0.8	**KQ2L01-M5**	7	8.4	—	15.3	13.2	14.3	12.7	2.3	2.5
3/16	1/8	**KQ2L05-01S**	10	11.4	10	19.5	22.5	24	16.5	3.5	10
	1/4	**KQ2L05-02S**	14				26.5	26			19
1/4	M5 x 0.8	**KQ2L07-M5**	7	12	—	16.1	15.1	18	13.6	2.3	3.2
	1/8	**KQ2L07-01S**	10	13.2	10	20.5	23.5	26	17	4.6	10
	1/4	**KQ2L07-02S**	14				27.5	28			20
	3/8	**KQ2L07-03S**	17				29.5	29.5			32
5/16	1/8	**KQ2L09-01S**	12	15.2	12	23.5	24.5	28	18.5	6	12
	1/4	**KQ2L09-02S**	14				28.5	30			20
	3/8	**KQ2L09-03S**	17				30.5	31.5			28
3/8	1/4	**KQ2L11-02S**	17	17.9	17	25.5	29.5	32.5	21	7	23
	3/8	**KQ2L11-03S**					31.5	34			33
	1/2	**KQ2L11-04S**	22				35.5	36.5			59
1/2	1/4	**KQ2L13-02S**	17	21.7	17	28	31.5	36.5	22	9	28
	3/8	**KQ2L13-03S**					33.5	38.5		9.6	36
	1/2	**KQ2L13-04S**	22				37.5	40			62

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

<M5>



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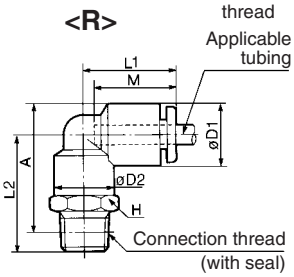
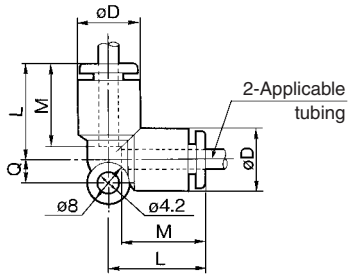


Union Elbow: KQ2L

Applicable tubing O.D. (inch)	Model	Note) øD	L	Q	M	Min. port size	Weight (g)
3/16	**KQ2L05-00**	11.4	19.5	4.8	16.5	3.5	5
1/4	**KQ2L07-00**	13.2	20.5	5.3	17	4.6	5
5/16	**KQ2L09-00**	15.2	23	6	18.5	6	7
3/8	**KQ2L11-00**	17.9	26	6.6	21	7	13
1/2	**KQ2L13-00**	21.7	29	7.8	22	9.6	18

Note) øD: Max. diameter