

Inch-size One-touch Fittings

Series KQ2

Applicable Tubing: Inch Size
Connection Thread: UNF, NPT

How to Order

KQ **2** **H** **05** — **34** **S**

One-touch
fittings

Product's color

Symbol	Body	Release button
2	White	Orange
Nil	Black	Red

Applicable tubing O.D.	
01	1/8
03	5/32
05	3/16
07	1/4
09	5/16
11	3/8
13	1/2

● Port size/Applicable tubing O.D.

Port size	Applicable tubing O.D.
32	10-32 UNF
33	NPT 1/16
34	NPT 1/8
35	NPT 1/4
36	NPT 3/8
37	NPT 1/2
00	Same dia. tubing
99	Same dia. rod
01	1/8 tubing
03	5/32 tubing
05	3/16 tubing
07	1/4 tubing
09	5/16 tubing
11	3/8 tubing
13	1/2 tubing

● With thread seal

Nil	None
S	With thread seal

Note) Port size with seal: Only
NPT 1/16
NPT 1/8
NPT 1/4
NPT 3/8
NPT 1/2

● Model

H	Male connector
	Straight
	Different dia. straight *
S	Hexagon socket head male connector *
F	Female union *
L	Male elbow
	Elbow
	Plug-in elbow
	Reducer elbow
K	45° male elbow *
V	Universal male elbow *
VS	Hexagon socket head universal male elbow *
VF	Universal female elbow *
LF	Female elbow *
VD	Double universal male elbow *
VT	Tripple universal male elbow *
Z	Branch universal male elbow *
ZD	Double branch universal male elbow *
ZT	Triple branch universal male elbow *
W	Extended male elbow
T	Male branch tee
	Union tee
	Different dia. tee *
TW	Cross union
Y	Male run tee *
U	Branch "Y"
	Union "Y"
	Plug-in "Y"
	Different dia. union "Y" *
X	Different dia. plug-in "Y" *
R	Plug-in reducer
E	Bulkhead union
LE	Bulkhead connector
	Bulkhead union elbow *

* Available only for KQ2 (White color body).

K□

M□

H□

D□

MS

T□

VMG

Accessory

Symbol	Name
KQ2N	Nipple
	Reducer nipple
KQ2C	Tube cap
KQ2P (KQP)	Plug (Orange)

Use the below part number to order the gasket for sealing 10-32 UNF thread.

Gasket for 10-32 UNF: M-10/32G

Series KQ2

Series KQ2: White body
Series KQ: Black body

- 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.

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.

Connection thread

UNF, NPT

PAT.

Release button

KQ2: Orange

KQ : Red

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

Inch size

1/8", 5/32", 3/16", 1/4", 5/16", 3/8", 1/2"

Body

O-ring

Stud

Effective when piping in a confined space.

The body and the threaded portion can rotate (for positioning to some extent).

Applicable Tubing

Tubing material	Nylon, Soft nylon, Polyurethane
Tubing O.D. (inch)	ø1/8, ø5/32, ø3/16, ø1/4, ø5/16, ø3/8, ø1/2

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 ANSI/ASME B1.20.1-1983 (NPT thread) JIS B 0212 2A, Class 2B (UNF thread)
	Nut section JIS B 0212 2A, Class 2B (UNF thread)
Seal (Thread portion)	With thread 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.



Product's Color

Series	Body	Release button
Series KQ2	White	Orange
Series KQ	Black	Red

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

Series KQ2

Reducer elbow KQ2L		Use to change by 90° in tube fetching direction from One-touch fittings and to size down. P. 18
Male branch tee KQ2T		Use to branch line from female thread in both 90° directions. P. 19
Union tee KQ2T		Use to connect tubes in both 90° directions. P. 19
Different diameter tee KQ2T		Use to connect tubes with size down in both 90° directions. P. 20
Cross KQ2TW		Use to four-branch line. P. 20
Male run tee KQ2Y		Use to branch line in the same direction from female thread and in 90° direction. P. 20
Branch "Y" KQ2U		Use to branch line in the same direction from female thread. P. 21
Union "Y" KQ2U		Use to branch line in the same direction. P. 21
Different dia. union "Y" KQ2U		Use to branch line with size down in the same direction. P. 21
Plug-in "Y" KQ2U		Use to branch line in the same direction from One-touch fittings. P. 21
Different diameter plug-in "Y" KQ2X		Use to four-branch line from One-touch fitting with size down. P. 22
Plug-in reducer KQ2R		Use to change size of One-touch fittings. P. 22
Bulkhead male elbow KQ2LE		Use to connect tubes through a panel, changing by 90° in a tube fetching direction. P. 22
Tube cap KQ2C		Use to plug unused tube. P. 23
Plug KQ2P, KQP		Use to plug unused One-touch fittings. KQP (Orange) KQ2P (Orange) P. 23

Gasket/10-32 UNF seal on thread

Part no.: M-10/32G

Material: Stainless steel 304, NBR

Series KQ2

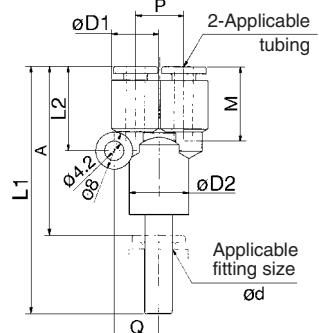
Different Diameter Plug-in "Y": KQ2X



Applicable tubing O.D. (inch)	Applicable fitting size ϕd (inch)	Model	Note) ϕD	L1	L2	A	P	Q	M	Min. port size	Weight (g)
1/8	5/32	KQ2X01-03	10.4	51.5	18	35.5	10.4	9.7	15.5	2.5	5
5/32	3/16	KQ2X03-05	11.4	56	20.5	39.5	11.4	10.6	16	3.5	10
3/16	1/4	KQ2X05-07	13.2	56.5	21.5	39.5	13.2	12	16.5	4.6	9
1/4	5/16	KQ2X07-09	15.2	64.5	24.5	46	15.2	13.7	17	6	21



Note) ϕD : Max. diameter



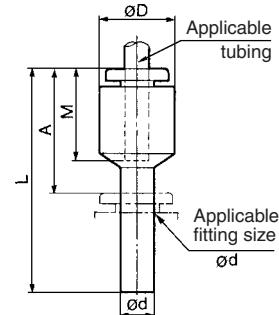
Plug-in Reducer: KQ2R



Applicable tubing O.D. (inch)	Applicable fitting size ϕd (inch)	Model	Note) ϕD	L	A	M	Min. port size	Weight (g)
1/8	5/32	KQ2R01-03	9.6	34.5	18.5	15.5	2.5	2
	3/16	KQ2R01-05	9.2	34	17.5			
	1/4	KQ2R01-07			17			9
5/32	3/16	KQ2R03-05	10	34	17.5	16	3	8
	1/4	KQ2R03-07	10.4	34.5				
3/16	1/4	KQ2R05-07	11.4	34.5	18.5	16.5	3.5	4
	5/16	KQ2R05-09	10.7	36.5	18			
1/4	5/16	KQ2R07-09	13.2	37	18.5	17	4.6	17
	3/8	KQ2R07-11		40	19.5			
5/16	3/8	KQ2R09-11	14	40	19	18.5	6	24
	1/2	KQ2R09-13		41				
3/8	1/2	KQ2R11-13	17.9	44	22	21	7	32



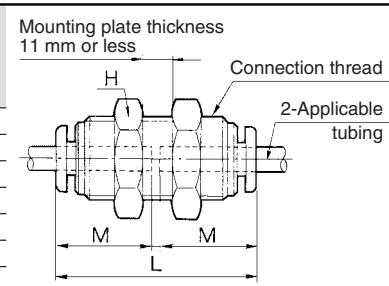
Note) ϕD : Max. diameter



Bulkhead Union: KQ2E



Applicable tubing O.D. (inch)	Model	Connection thread UNF	H (Width across flats)	L	Mounting hole	M	Min. port size	Weight (g)
1/8	KQ2E01-00	1/2-20	17.46	32.5	13.5	15.5	2.5	26
5/32	KQ2E03-00	1/2-20	17.46	32.5	13.5	16	3	26
3/16	KQ2E05-00	9/16-18	17.46	34	15	16.5	3.5	33
1/4	KQ2E07-00	9/16-18	17.46	34.5	15	17	4.6	33
5/16	KQ2E09-00	3/4-16	22.23	38	20	18.5	6	52
3/8	KQ2E11-00	7/8-14	25.4	42.5	23	21	7	70
1/2	KQ2E13-00	1-12	28.6	44.5	26	22	9.6	97



Bulkhead Male Elbow: KQ2LE



Applicable tubing O.D. (inch)	Model	T	H1 (Width across flats)	H2 (Width across flats)	B	E	Note) ϕD	Mounting hole	M	Min. port size	Weight (g)
1/8	KQ2LE01-00	1/2-20 UNF	17.46	17.46	17.5	31	9.6	13.5	15.5	2.5	27
5/32	KQ2LE03-00	1/2-20 UNF	17.46	17.46	18	31	10.4	13.5	16	3	26
3/16	KQ2LE05-00	9/16-18 UNF	17.46	17.46	19.5	34.5	11.4	15	16.5	3.5	32
1/4	KQ2LE07-00	9/16-18 UNF	17.46	17.46	20.5	35	13.2	15	17	4.6	29
5/16	KQ2LE09-00	3/4-16 UNF	22.23	22.23	23.5	38.5	15.2	20	18.5	6	53
3/8	KQ2LE11-00	7/8-14 UNF	25.4	25.4	25.5	43	17.9	23	21	7	85
1/2	KQ2LE13-00	1-12 UNF	28.6	28.6	28	46	21.7	26	22	9.6	105



Note) ϕD : Max. diameter

