

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.

Thread connection	Tubing (Rod) connection	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

K□
M□
H□
D□
MS
T□
VMG

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
	Male branch tee
T	Union tee
	Different dia. tee *
TW	Cross union
Y	Male run tee *
	Branch "Y"
U	Union "Y"
	Plug-in "Y"
	Different dia. union "Y" *
X	Different dia. plug-in "Y" *
R	Plug-in reducer
E	Bulkhead union
	Bulkhead connector
LE	Bulkhead union elbow *



* Available only for KQ2 (White color body).

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

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).

PAT.



Product's Color

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

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.

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		
Hex. socket head male connector		
KQ2S P. 13		Internal hex. allows thread connection by using an allen wrench for confined spaces.
Universal male elbow		
KQ2V P. 15		Universal male elbow allows thread connection by using a socket wrench for confined spaces.
45° male elbow		
KQ2K P. 15		Use to pipe in 45° angle direction from female thread. Model in-between of male connector and male elbow.
Extended male elbow		
KQ2W P. 19		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.
Bulkhead union		
KQ2E P. 22		Use to connect tubes through a panel.
Bulkhead connector		
KQ2E P. 23		Use to connect male thread and tube through a panel.
Nipple		
KQ2N P. 23		Use to connect One-touch fittings.
Reducer nipple		
KQ2N P. 23		Use to connect One-touch fittings that are different tubing O.Ds.
Male connector		
KQ2H P. 13		Use to pipe in the same direction from female thread. Most general style.
Hexagon socket head universal male elbow		
KQ2VS P. 15		Hex. on the top allows thread connection by using an allen wrench for confined spaces.
Branch universal male elbow		
KQ2Z P. 17		Hexagonal head allows thread connection by using a box wrench. Use for branch connection.
Female connector		
KQ2F P. 13		Use to pipe from male thread such as pressure gauge.
Universal female elbow		
KQ2VF P. 16		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. 17		Use to four-branch line at right angles from female thread. Two individual parts rotate 360°.
Straight union		
KQ2H P. 14		Use to connect tubes in the same direction.
Female elbow		
KQ2LF P. 16		Use to pipe at right angles to male thread.
Triple branch universal male elbow		
KQ2ZT P. 18		Use to six-branch line at right angles from female thread. Three individual parts rotate 360°.
Different diameter straight		
KQ2H P. 14		Use to connect different sized tubes.
Double universal male elbow		
KQ2VD P. 16		Use to branch line at right angles to female thread. Two individual parts rotate 360°.
Union elbow		
KQ2L P. 18		Use to connect tubes at right angles.
Male elbow		
KQ2L P. 14		Use to pipe at right angles to female thread. Most general style.
Triple universal male elbow		
KQ2VT P. 17		Use to three-branch line at right angles from female thread. Three individual parts rotate 360°.
Plug-in elbow		
KQ2L P. 18		Use to change by 90° in a tube fetching direction from One-touch fittings and to size down.

K□

M□

H□

D□

MS

T□

VMG

Series KQ2

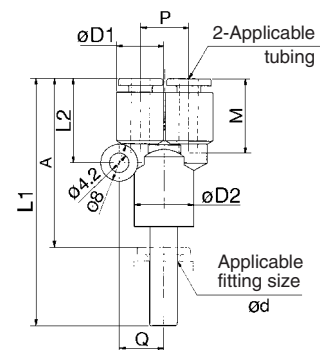
Different Diameter Plug-in “Y”: KQ2X



Applicable tubing O.D. (inch)	Applicable fitting size ϕd	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



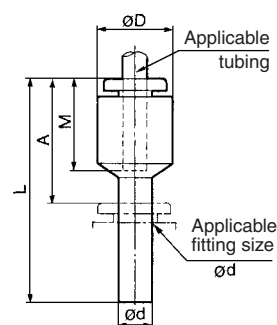
Plug-in Reducer: KQ2R



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			7
	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				9
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			14
1/4	5/16	KQ2R07-09	13.2	37	18.5	17	4.6	17
	3/8	KQ2R07-11		40	19.5			19
5/16	3/8	KQ2R09-11	14	40	19	18.5	6	24
	1/2	KQ2R09-13		41				32
3/8	1/2	KQ2R11-13	17.9	44	22	21	7	32



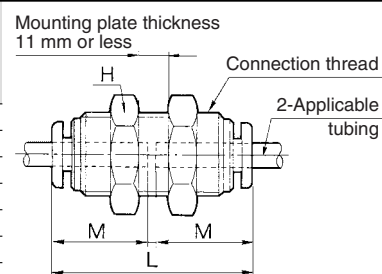
Note) ϕD : Max. diameter



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



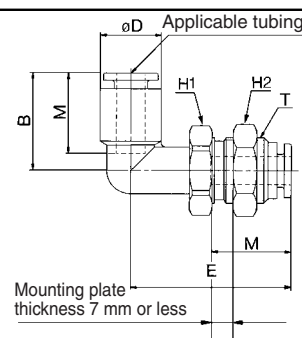
Bulkhead Male Elbow: KQ2LE



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



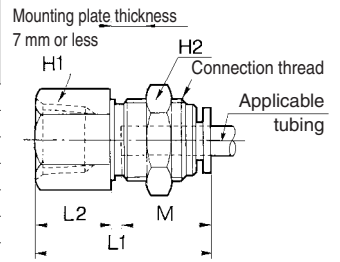
Note) ϕD : Max. diameter



Bulkhead Connector: KQ2E



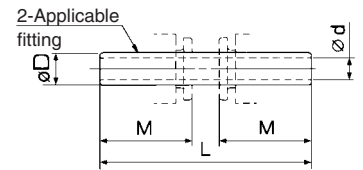
Applicable tubing O.D. (inch)	Connection thread NPT	Model	Connection thread UNF	H1 (Width across flats)	H2 (Width across flats)	L1	L2	M	Min. port size	Mounting hole	Weight (g)
1/8	1/4	KQ2E01-35	1/2 -20	17.46	17.46	31	15	15.5	2.5	13.5	36
5/32	1/4	KQ2E03-35	1/2 -20	17.46	17.46	31	15	16	3	13.5	36
3/16	1/8	KQ2E05-34	9/16-18	17.46	17.46	28	10	16.5	3.5	15	34
1/4	1/4	KQ2E07-35	9/16-18	17.46	17.46	32.5	14.5	17	4.6	15	34
5/16	3/8	KQ2E09-36	3/4 -16	22.23	22.23	35	15	18.5	6	20	52
3/8	3/8	KQ2E11-36	7/8 -14	25.4	25.4	37	14.5	21	7	23	96
1/2	3/8	KQ2E13-36	1-12	28.6	28.6	37	14	22	9.6	26	125
	1/2	KQ2E13-37	1-12			41.5	18				128



Nipple: KQ2N



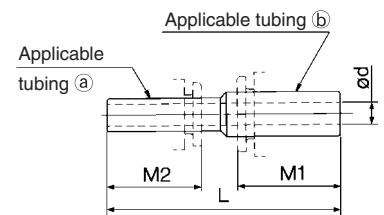
Applicable fitting øD	Model	L	M	ød	Weight (g)
1/8	KQ2N01-99	36	15.5	2.2	0.2
3/16	KQ2N05-99	38	16.5	3.5	0.4
1/4	KQ2N07-99	39	17	4.6	1
3/8	KQ2N11-99	49	21	7.5	10
1/2	KQ2N13-99	51	22	10	15



Reducer Nipple: KQ2N



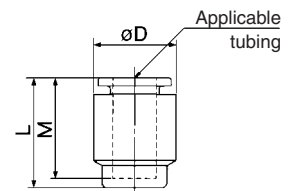
Applicable tubing O.D. (inch)		Model	L	M1	M2	ød	Weight (g)
(a)	(b)						
1/8	5/32	KQ2N01-03	36.5	16	15.5	2.2	0.2
	3/16	KQ2N01-05	37	16.5			0.4
5/32	3/16	KQ2N03-05	37.5	16.5	16	2.5	0.4
	1/4	KQ2N03-07	38	17			0.6
3/16	1/4	KQ2N05-07	38.5	17	16.5	3.5	0.6
	5/16	KQ2N05-09	41	18.5			1
1/4	5/16	KQ2N07-09	41.5	18.5	17	4.6	1
	3/8	KQ2N07-11	45	21			1
5/16	3/8	KQ2N09-11	46.5	21	18.5	6	11
	1/2	KQ2N09-13	47.5	22			22
3/8	1/2	KQ2N11-13	50	22	21	7	24



Tube Cap: KQ2C



Applicable tubing O.D. (inch)	Model	øD1	L	M	Weight (g)
5/32	KQ2C03-00	10.4	17	16	1
1/4	KQ2C07-00	13.2	18	17	2
5/16	KQ2C09-00	15.2	20.5	18.5	3
3/8	KQ2C11-00	17.9	22.5	21	6



Plug: KQ2P, KQP



Applicable fitting size ød (inch)	Model	øD	L	A	Weight (g)
1/8	KQ2P-01 KQP-01	5	31.5	16	1
5/32	KQ2P-03 KQP-03	6	32	16	1
3/16	KQ2P-05 KQP-05	6.8	34	17.5	1
1/4	KQ2P-07 KQP-07	8.5	35	18	1
5/16	KQ2P-09 KQP-09	10	39	20.5	2
3/8	KQ2P-11 KQP-11	11.5	43	22	3.5
1/2	KQ2P-13 KQP-13	15	46	24	5

