

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	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
	Male branch tee
T	Union tee
	Different dia. tee *
TW	Cross union
Y	Male run tee *
	Branch "Y"
	Union "Y"
U	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).

- 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.

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.

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

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 (NTP 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

Series KQ2

Reducer elbow

KQ2L



P. 18

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

Male branch tee

KQ2T



P. 19

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

Union tee

KQ2T



P. 19

Use to connect tubes in both 90° directions.

Different diameter tee

KQ2T



P. 20

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

Cross

KQ2TW



P. 20

Use to four-branch line.

Male run tee

KQ2Y



P. 20

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

Branch "Y"

KQ2U



P. 21

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

Union "Y"

KQ2U



P. 21

Use to branch line in the same direction.

Different dia. union "Y"

KQ2U



P. 21

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

Plug-in "Y"

KQ2U



P. 21

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

Different diameter plug-in "Y"

KQ2X



P. 22

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

Plug-in reducer

KQ2R

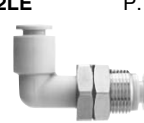


P. 22

Use to change size of One-touch fittings.

Bulkhead male elbow

KQ2LE



P. 22

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

Tube cap

KQ2C



P. 23

Use to plug unused tube.

Plug

KQ2P, KQP



P. 23

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

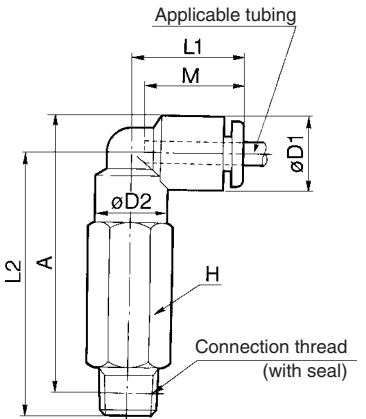
Gasket/10-32 UNF seal on thread

Part no.: M-10/32G

Material: Stainless steel 304, NBR

Extended Male Elbow: KQ2W

Applicable tubing O.D. (inch)	Connection thread NPT	Model	H (Width across flats)	(Note) $\phi D1$	$\phi D2$	L1	L2	A *	M	Min. port size	Weight (g)
1/8	1/8	KQ2W01-34S	11.11	9.6	10	17.5	37	38	15.5	2.5	19
	1/4	KQ2W01-35S	14.29				43	42			41
5/32	1/8	KQ2W03-34S	11.11	10.4	10	18	37.5	38.5	16	3	19
	1/4	KQ2W03-35S	14.29				43.5	42.5			41
3/16	1/8	KQ2W05-34S	11.11	11.4	10	19.5	38	40	16.5	3.5	41
	1/4	KQ2W05-35S	14.29				44	43.5			19
1/4	1/8	KQ2W07-34S	11.11	13.2	10	20.5	40.5	43	17	4.6	20
	1/4	KQ2W07-35S	14.29				46.5	47			42
	3/8	KQ2W07-36S	17.46				48.5	49			69
5/16	1/8	KQ2W09-34S	12.7	15.2	12	23.5	43.5	47	18.5	6	30
	1/4	KQ2W09-35S	14.29				49.5	51			47
	3/8	KQ2W09-36S	17.46				51.5	53			74
3/8	1/4	KQ2W11-35S	17.46	17.9	17	25.5	56	59	21	7	69
	3/8	KQ2W11-36S	17.46				58	61			76
	1/2	KQ2W11-37S	22.23				64.5	65.5			147
1/2	1/4	KQ2W13-35S	17.46	21.7	17	28	58	63	22	9	72
	3/8	KQ2W13-36S	17.46				60	64.5			78
	1/2	KQ2W13-37S	22.23				66.5	69			149

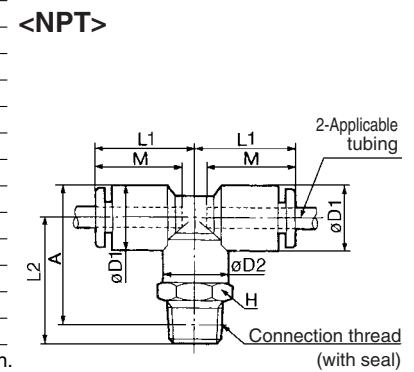
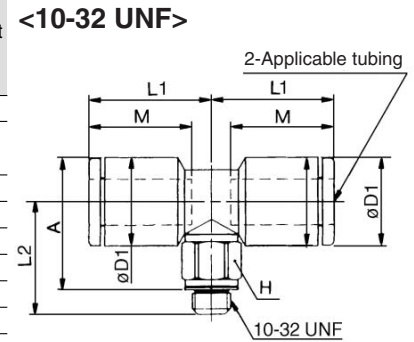


* Reference dimensions after NPT thread installation.
 (Note) $\phi D1$: Max. diameter

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

Male Branch Tee: KQ2T

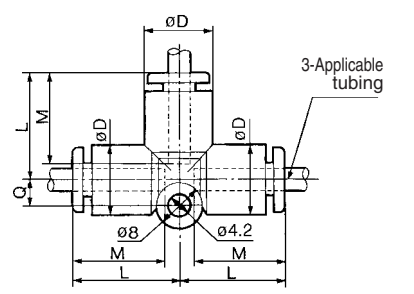
Applicable tubing O.D. (inch)	Connection thread UNF NPT	Model	H (Width across flats)	(Note) $\phi D1$	$\phi D2$	L1	L2	A	M	Min. port size	Weight (g)	
<10-32 UNF>	10-32 UNF	KQ2T01-32	7	8.4	—	15.3	13.2	14.4	12.7	2.3	3.2	
	1/8	1/16	KQ2T01-33S	11.11	9.6	10	17.5	21.5	22.5*	15.5	2.5	10
	1/8	1/8	KQ2T01-34S	11.11				25.5	24.5*			20
	1/4	KQ2T01-35S	14.29	25.5				24.5*	20			
5/32	10-32 UNF	KQ2T03-32	7	9.3	—	15.6	13.7	15.4	12.7	2.3	3.5	
	1/8	1/16	KQ2T03-33S	11.11	10.4	10	18	22	23*	16	3	10
	1/8	1/8	KQ2T03-34S	11.11				26	25*			11
	1/4	KQ2T03-35S	14.29	26				25*	20			
3/16	1/8	KQ2T05-34S	11.11	11.4	10	19.5	22.5	24*	16.5	3.5	12	
	1/4	KQ2T05-35S	14.29				26.5	26*			21	
1/4	10-32 UNF	KQ2T07-32	7	12	—	16.1	15.1	18.1	13.6	2.3	4.4	
	1/8	1/8	KQ2T07-34S	11.11	13.2	10	20.5	23.5	26*	17	4.6	11
	1/4	KQ2T07-35S	14.29	27.5				28*	21			
	3/8	KQ2T07-36S	17.46	29.5				30*	34			
5/16	1/8	KQ2T09-34S	12.7	15.2	12	23	24.5	28*	18.5	6	15	
	1/4	KQ2T09-35S	14.29				28.5	30*			23	
	3/8	KQ2T09-36S	17.46				30.5	31.5*			35	
3/8	1/8	KQ2T11-34S	17.46	17.9	17	25.5	26.5	31.5*	21	7	31	
	1/4	KQ2T11-35S	17.46				29.5	32.5*			29	
	3/8	KQ2T11-36S	17.46				31.5	34.5*			38	
	1/2	KQ2T11-37S	22.23				35.5	36.5*			64	
1/2	1/4	KQ2T13-35S	17.46	21.7	17	28	31.5	36.5*	22	9	34	
	3/8	KQ2T13-36S	17.46				33.5	38.5*			43	
	1/2	KQ2T13-37S	22.23				37.5	40*			69	



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

Union Tee: KQ2T

Applicable tubing O.D. (inch)	Model	(Note) ϕD	L	Q	M	Min. port size	Weight (g)
1/8	KQ2T01-00	9.6	17.5	4.3	15.5	2.5	5
5/32	KQ2T03-00	10.4	18	4.5	16	3	4
3/16	KQ2T05-00	11.4	19.5	4.8	16.5	3.5	7
1/4	KQ2T07-00	13.2	20.5	5.3	17	4.6	8
5/16	KQ2T09-00	15.2	23	6	18.5	6	11
3/8	KQ2T11-00	17.9	26	6.6	21	7	18
1/2	KQ2T13-00	21.7	29	7.8	22	9.6	26



(Note) ϕD : Max. diameter