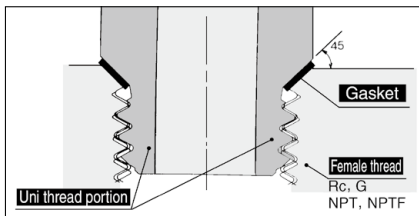
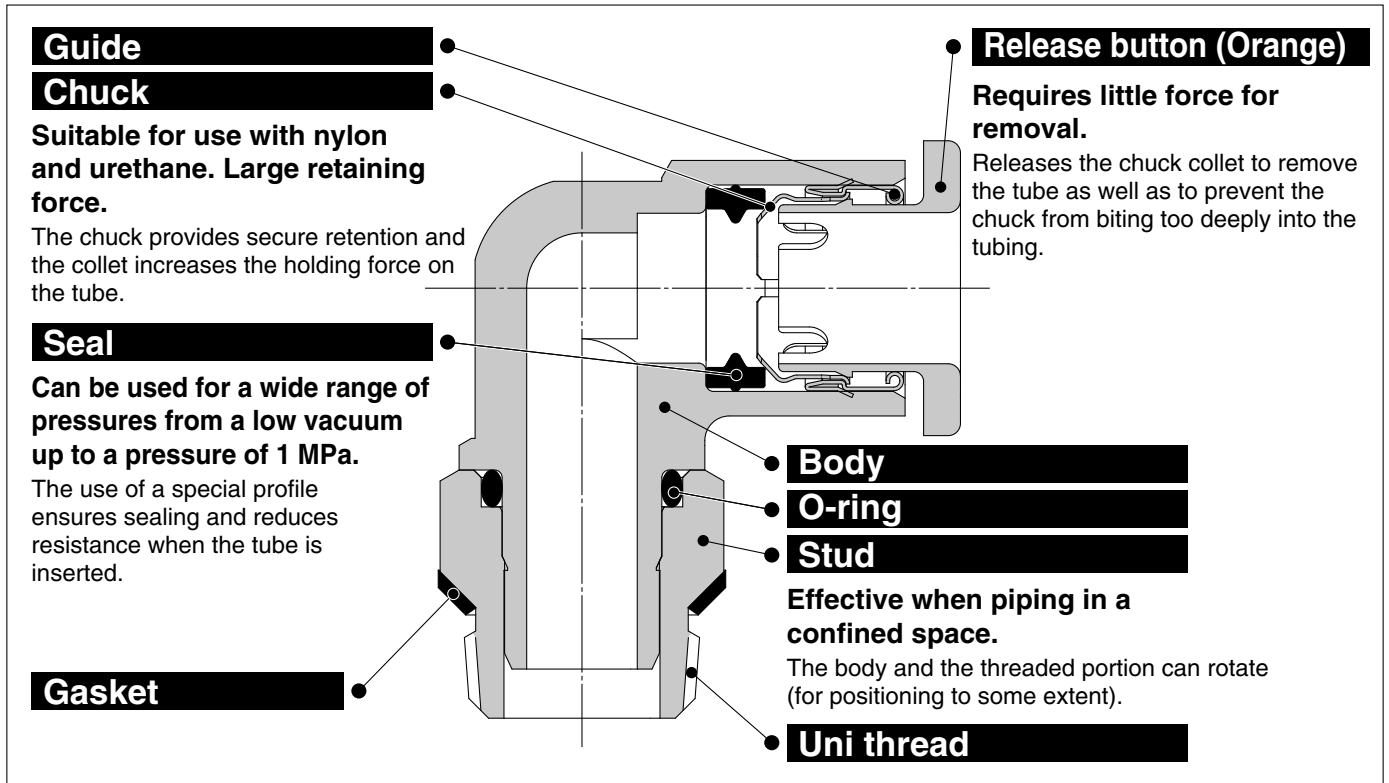


# Oval Type Inch Size Uni One-touch Fittings

Applicable Tubing: Inch Size, Connection Thread: Rc, G, NPT, NPTF

## KQ2 Series



### Uni thread ridge shape

A gasket made of a stainless sheet covered with laminated NBR on both sides is seated on the chamfer of a female thread for a perfect sealing construction irrespective of the difference in thread diameters due to the difference in the types of female threads, variation in tolerance, or difference in the size of chamfer. (It is applicable to any female thread with an ordinary chamfer.)

A ridge shape has been created as a Uni thread for common applications for Rc, G, NPT and NPTF.

Drastically cuts piping work-hours with the gasket seal method.



### Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon, Polyurethane
Tubing O.D.	ø1/8", ø5/32", ø3/16"

### Specifications

Fluid	Air, Water*1
Operating pressure range*2	-100 kPa to 1 MPa
Proof pressure (at 23°C)	3 MPa
Ambient and fluid temperature	-5 to 60°C, Water: 0 to 40°C (No freezing)

\*1 The surge pressure must be under the maximum operating pressure.

\*2 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
Stud	C3604 (Thread portion)
Chuck	Stainless steel 304
Guide	Stainless steel 304
Release button	POM
Seal, O-ring	NBR
Gasket	Stainless steel 304, NBR



**Made to Order**  
(Refer to page 100 for details.)

## How to Order

### Threaded Type

**KQ2 H 05 - U01 A 1**

One-touch fittings

Model

Symbol	Model
<b>H</b>	Male connector
<b>L</b>	Male elbow
<b>T</b>	Male branch tee
<b>W</b>	Extended male elbow
<b>Y</b>	Male run tee

Applicable tubing O.D.

Symbol	Size
<b>01</b>	ø1/8"
<b>03</b>	ø5/32"
<b>05</b>	ø3/16"

For details on applicable tubing O.D. and port size combinations for each model, refer to the charts on the Dimensions page.

Oval type release button

Thread material/Surface treatment

Symbol	Thread material/Surface treatment
<b>A</b>	Brass
<b>N</b>	Brass + Electroless nickel plating

Port size

Symbol	Size
<b>U01</b>	Uni1/8
<b>U02</b>	Uni1/4

### Spare Parts

#### How to Order Gasket

**KQG - U01**

Gasket for Uni One-touch fittings

Applicable port size

Symbol	Size
<b>U01</b>	Uni1/8
<b>U02</b>	Uni1/4

# Inch Size Uni One-touch Fittings

## Oval Type Variations

### Male connector

**KQ2H**

P.98



Use to pipe a female thread in the same direction. Most general model.

### Male elbow

**KQ2L**

P.98



Use to pipe a female thread at right angles. Most general model.

### Extended male elbow

**KQ2W**

P.98



Basically, it is used together with a male elbow. Its extended height allows for multi-leveled piping and prevents interference among fittings.

### Male run tee

**KQ2Y**

P.99



Use to branch a female thread in the same direction and at a 90° angle.

### Male branch tee

**KQ2T**

P.99



Use to branch a female thread at both 90° angles.

Tubing  One-touch fittings

Plug-in reducer/Plug-in elbow etc.

Tubing  Tubing

Union elbow/Union tee/Straight union etc.

Accessory

Nipple/Plug etc.

Refer to page 31 and after for details.


This model does not support oval type release buttons. Refer to the round type (from page 209).

### Branch "Y"

**KQ2U**

P.213



 Box wrenches and socket wrenches may interfere with oval type release buttons. Refer to page 217 for details.

# Inch Size Uni One-touch Fittings **KQ2 Series**

**Oval Type**

Applicable Tubing: Inch Size, Connection Thread: Rc, G, NPT, NPTF

## Dimensions

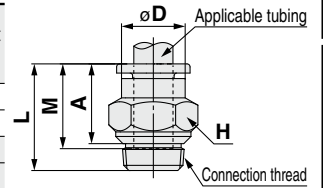
### Male Connector: KQ2H (Gasket seal)



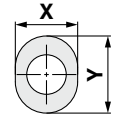
Applicable tubing O.D. [inch]	Connection thread Uni	Model	H (Width across flats)	øD	Release button dimensions		L	A*1	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
					X	Y				Nylon	Urethane		
ø1/8	1/8	KQ2H01-U01□	11.11	—	6.7	9.5	15.2	10.4	13.3	3.4	2.9	2.5	7.9
	1/4	KQ2H01-U02□	14.29	—	6.7	9.5	15.3	8.9	13.3	3.4	2.9	2.5	13.7
ø5/32	1/8	KQ2H03-U01□	11.11	—	7.7	10	15.7	10.9	13.3	4.8	3.4	3	7.7
	1/4	KQ2H03-U02□	14.29	—	7.7	10	15.3	8.9	13.3	4.8	3.4	3	13
ø3/16	1/8	KQ2H05-U01□	12.7	8.55	8.4	11	16	11.2	13.3	6.8	5.6	3.5	7.7
	1/4	KQ2H05-U02□	14.29	—	8.4	11	15.3	8.9	13.3	6.8	5.6	3.5	12.4

□: A (Brass), N (Brass + Electroless nickel plating)

\*1 Reference dimensions after installation of Uni thread



Release button dimensions



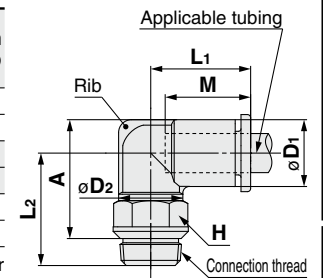
### Male Elbow: KQ2L (Gasket seal)



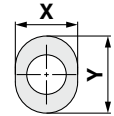
Applicable tubing O.D. [inch]	Connection thread Uni	Model	H (Width across flats)	øD1	Release button dimensions		øD2	L1	L2	A*1	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	With a rib
					X	Y						Nylon	Urethane			
ø1/8	1/8	KQ2L01-U01□	11.11	7.1	6.7	9.5	10	14.5	17.9	16.7	13.3	3	2.5	2.5	6	—
	1/4	KQ2L01-U02□	14.29	7.1	6.7	9.5	10	14.5	19.2	16.4	13.3	3	2.5	2.5	12.1	—
ø5/32	1/8	KQ2L03-U01□	11.11	8.2	7.7	10	10	14.8	17.4	16.7	13.3	4.6	3.3	3	6.2	●
	1/4	KQ2L03-U02□	14.29	8.2	7.7	10	10	14.8	19.7	17.4	13.3	4.6	3.3	3	12.3	●
ø3/16	1/8	KQ2L05-U01□	11.11	9.1	8.4	11	10	15	17.9	17.7	13.3	6.8	5.6	3.5	6.4	—
	1/4	KQ2L05-U02□	14.29	9.1	8.4	11	10	15	20.2	18.4	13.3	6.8	5.6	3.5	12.5	—

□: A (Brass), N (Brass + Electroless nickel plating)

\*1 Reference dimensions after installation of Uni thread



Release button dimensions



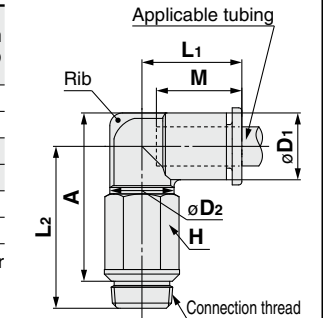
### Extended Male Elbow: KQ2W (Gasket seal)



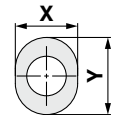
Applicable tubing O.D. [inch]	Connection thread Uni	Model	H (Width across flats)	øD1	Release button dimensions		øD2	L1	L2	A*1	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	With a rib
					X	Y						Nylon	Urethane			
ø1/8	1/8	KQ2W01-U01□	11.11	7.1	6.7	9.5	10	14.5	31.5	30.3	13.3	2.8	2.4	2.5	14.5	—
	1/4	KQ2W01-U02□	14.29	7.1	6.7	9.5	10	14.5	30.8	28	13.3	2.8	2.4	2.5	26	—
ø5/32	1/8	KQ2W03-U01□	11.11	8.2	7.7	10	10	14.8	31.1	30.4	13.3	4	4	3	14.6	●
	1/4	KQ2W03-U02□	14.29	8.2	7.7	10	10	14.8	31.3	29	13.3	4	4	3	26.2	●
ø3/16	1/8	KQ2W05-U01□	11.11	9.1	8.4	11	10	15	31.6	31.3	13.3	6.8	5.6	3.5	14.8	—
	1/4	KQ2W05-U02□	14.29	9.1	8.4	11	10	15	31.8	30	13.3	6.8	5.6	3.5	26.4	—

□: A (Brass), N (Brass + Electroless nickel plating)

\*1 Reference dimensions after installation of Uni thread



Release button dimensions



Oval Type

Metric Size M, R, Rc

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Metric Size R, Rc

Inch Size NPT

Inch Size R

Metric Size Uni

Inch Size Uni

Gasket Seal

# KQ2 Series

Oval Type Applicable Tubing: Inch Size, Connection Thread: Rc, G, NPT, NPTF

## Dimensions

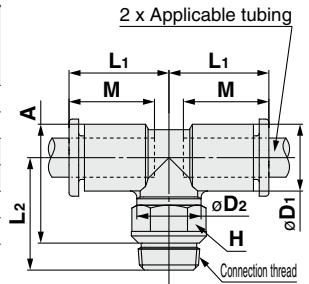
### Male Branch Tee: KQ2T (Gasket seal)



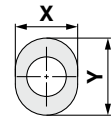
Applicable tubing O.D. [inch]	Connection thread Uni	Model	H (Width across flats)	øD1	Release button dimensions		øD2	L1	L2	A*1	M	Effective area (mm <sup>2</sup> )		Min. port size	Weight [g]
					X	Y						Nylon	Urethane		
					ø1/8	1/8						KQ2T01-U01□	11.11		
	1/4	KQ2T01-U02□	14.29	7.1	6.7	9.5	10	14.5	19.1	16.3	13.3	3.4	2.9	2.5	12.7
ø5/32	1/8	KQ2T03-U01□	11.11	8.2	7.7	10	10	14.8	17.4	16.7	13.3	6	4.1	3	6.9
	1/4	KQ2T03-U02□	14.29	8.2	7.7	10	10	14.8	19.7	17.4	13.3	6	4.1	3	13
ø3/16	1/8	KQ2T05-U01□	11.11	9.1	8.4	11	10	15	17.9	17.6	13.3	6.8	5.6	3.5	7.1
	1/4	KQ2T05-U02□	14.29	9.1	8.4	11	10	15	20.2	18.3	13.3	6.8	5.6	3.5	13.3

□: A (Brass), N (Brass + Electroless nickel plating)

\*1 Reference dimensions after installation of Uni thread



Release button dimensions



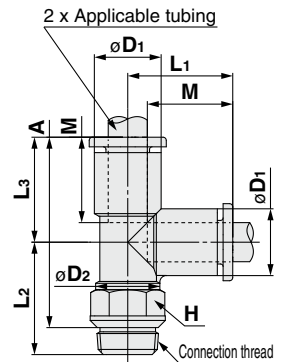
### Male Run Tee: KQ2Y (Gasket seal)



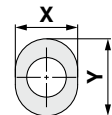
Applicable tubing O.D. [inch]	Connection thread Uni	Model	H (Width across flats)	øD1	Release button dimensions		øD2	L1	L2	L3	A*1	M	Effective area (mm <sup>2</sup> )		Min. port size	Weight [g]
					X	Y							Nylon	Urethane		
					ø1/8	1/8							KQ2Y01-U01□	11.11		
	1/4	KQ2Y01-U02□	14.29	7.1	6.7	9.5	10	14.9	19.1	14.9	27.7	13.3	3.4	2.9	2.5	12.8
ø5/32	1/8	KQ2Y03-U01□	11.11	8.2	7.7	10	10	15.3	17.4	15.3	27.9	13.3	6.4	4.4	3	6.9
	1/4	KQ2Y03-U02□	14.29	8.2	7.7	10	10	15.3	19.7	15.3	28.6	13.3	6.4	4.4	3	13.1
ø3/16	1/8	KQ2Y05-U01□	11.11	9.1	8.4	11	10	15.7	17.9	15.7	28.8	13.3	6.8	5.6	3.5	7.2
	1/4	KQ2Y05-U02□	14.29	9.1	8.4	11	10	15.7	20.2	15.7	29.5	13.3	6.8	5.6	3.5	13.4

□: A (Brass), N (Brass + Electroless nickel plating)

\*1 Reference dimensions after installation of Uni thread



Release button dimensions



# KQ2 Series

# Made to Order/Clean Series/Spare Parts

Please contact SMC for detailed dimensions, specifications, and lead times.

## 1 Made to Order

Symbol	Specifications
<b>X12</b>	Lubricant: White vaseline Release button color: White
<b>X35</b> *1	Body color: Black Release button color: Orange
<b>X41</b>	With fixed orifice*2

\*1 The following model is not available as made-to-order: Male connector/ KQ2H

\*2 Please contact SMC for availability.

The following made-to-order products will be provided based on previous models (KQ2 series). Please contact SMC separately.

Symbol	Specifications
<b>X17</b>	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue
<b>X29</b>	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue Copper-free (With electroless nickel plating)
<b>X39</b>	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue Clean (Copper-free, air blow, double packaging, resin body: white)

## 3 Spare Parts

Description	Part no.	Applicable thread
Gasket	<b>KQG-U01</b>	Uni1/8
	<b>KQG-U02</b>	Uni1/4

## 2 Clean Series

Please consult with SMC separately for applicable models.

Symbol	Specifications
<b>10-</b>	Brass parts: With electroless nickel plating Lubricant: Fluorine grease Air blow in a clean room Double packaging Resin body, Release button color: White

Example) **10-KQ2H05-U01N1**

Oval Type



Metric Size M, R, Rc

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Metric Size R, Rc

Inch Size NPT

Inch Size R

Metric Size Uni

Inch Size Uni

Sealant/Gasket Seal

Face Seal

Gasket Seal