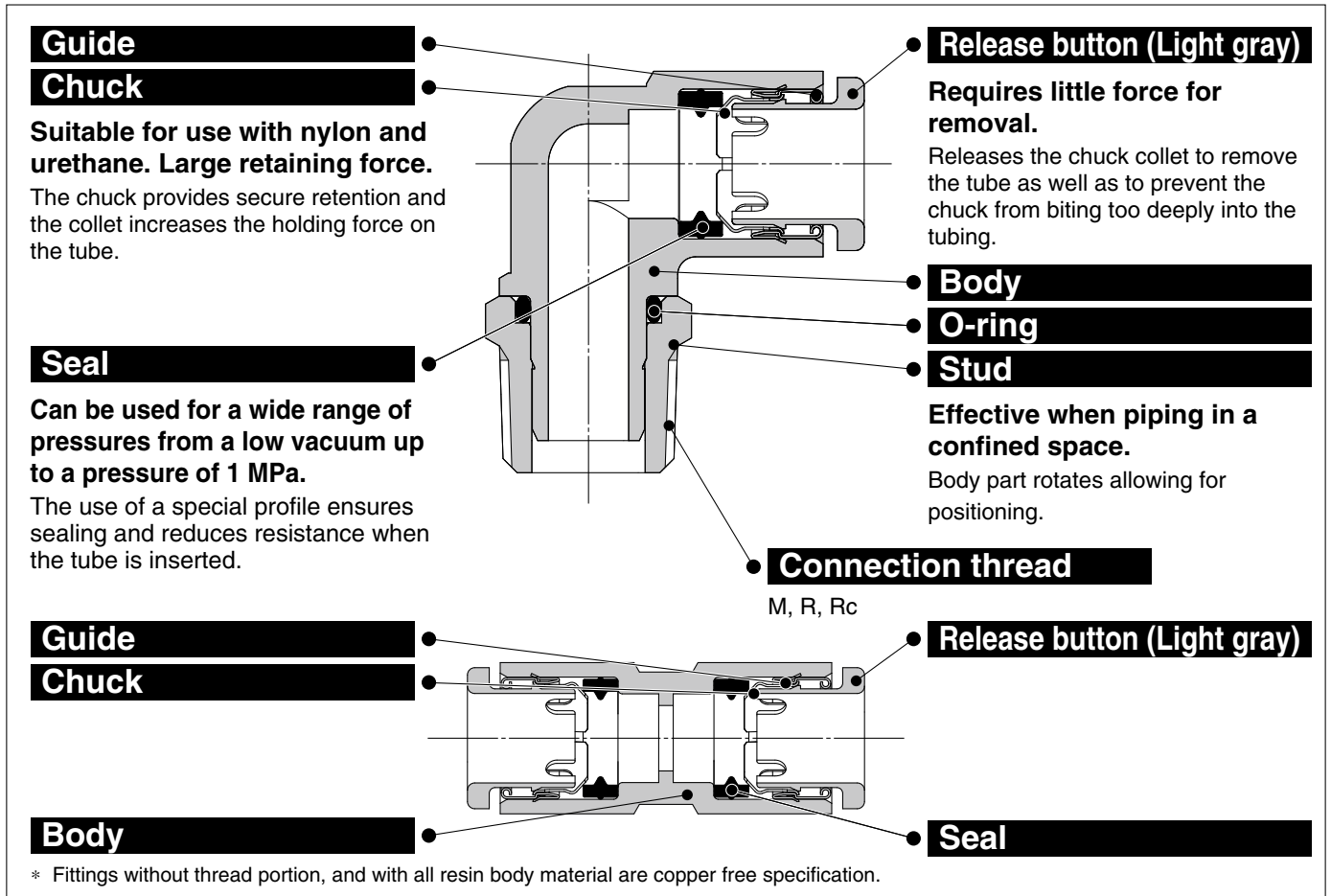


# Metric Size One-touch Fittings

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

## KQ2 Series



**One-touch IN/OUT connection.**  
**Possible to use in vacuum to -100 kPa.**



**Made to Order**  
(Refer to page 131 for details.)

### Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon, Polyurethane
Tubing O.D.	ø2, ø3.2, ø4, ø6, ø8, ø10, ø12, ø16

### Specifications

<b>Fluid</b>		Air, Water*1
<b>Operating pressure range*2</b>		-100 kPa to 1 MPa
<b>Proof pressure (at 23°C)</b>		3 MPa
<b>Ambient and fluid temperature</b>		-5 to 60°C, Water: 0 to 40°C (No freezing)
<b>Thread</b>	<b>Mounting section</b>	JIS B0203 (Taper thread for piping) JIS B0205 (Metric coarse thread)
	<b>Nut section</b>	JIS B0205 (Metric fine thread)
<b>Seal on the threads</b>		With sealant

\*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, PP, Stainless steel 303
Stud	C3604 (Thread portion), Stainless steel 303 (Thread portion)
Chuck	Stainless steel 304
Guide	Stainless steel 304
Release button	POM
Seal, O-ring	NBR
Gasket	Stainless steel 304, NBR

## How to Order

### Threaded Type

**KQ2 H 06 - 01 A S**

One-touch fittings

Model

Symbol	Model
H	Male connector
S	Hexagon socket head male connector
F	Female connector
L	Male elbow
LU	Branch male 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	Triple universal male elbow
Z	Branch universal male elbow
ZF	Branch universal female elbow
ZD	Double branch universal male elbow
ZT	Triple branch universal male elbow
W	Extended male elbow
T	Male branch tee
Y	Male run tee
D	Male delta union
U	Branch "Y"
UD	Double branch "Y"
E	Bulkhead union
	Bulkhead connector
LE	Bulkhead male elbow
N	Adapter

Male thread seal method

Symbol	Seal method
Nil	None
S	With thread sealant

Thread material/Surface treatment

Symbol	Thread material/Surface treatment
A	Brass
N	Brass + Electroless nickel plating
G	Stainless steel 303 (Connection thread: Only male thread and M3)
Bulkhead union	<input type="checkbox"/> J Interchangeable with KJE

\* : A, N

Port size/Applicable tubing O.D.

Symbol	Size
Tubing connection	00*1 Same dia. tubing
Thread connection	M3 M3 x 0.5
	M5 M5 x 0.8
	M6 M6 x 1.0
	01 R1/8, Rc1/8
	02 R1/4, Rc1/4
	03 R3/8, Rc3/8
04 R1/2, Rc1/2	

\*1 Only for "Bulkhead union" and "Bulkhead male elbow".

Applicable tubing O.D.

Symbol	Size
02	ø2
23	ø3.2
04	ø4
06	ø6
08	ø8
10	ø10
12	ø12
16	ø16

### Spare Parts

Use the part number below to order the gasket for M3, M5, and M6 threads.

Gasket for M3 thread: M-3G2  
Gasket for M5 thread: M-5G2  
Gasket for M6 thread: M-6G

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

### Tube - Tube Type

**KQ2 H 06 - 00 A**

One-touch fittings

Model

Symbol	Model
H	Straight union
	Different diameter straight
L	Union elbow
	Plug-in elbow
	Reducer elbow
LU	Branch union elbow
W	Extended plug-in elbow
T	Union tee
	Different diameter tee
TW	Cross
TX	Different diameter cross
TY	Different diameter cross
D	Delta union
	Union "Y"
U	Plug-in "Y"
	Different diameter union "Y"
	Different diameter double union "Y"
X	Different diameter plug-in "Y"
R	Plug-in reducer
XD	Double plug-in "Y"

Port size/Applicable tubing O.D.

Symbol	Size	
Tubing (Rod) connection	00 Same diameter tubing	
	99 Same diameter rod	
	Different dia. tubing (Reducer)	23 ø3.2
		04 ø4
		06 ø6
		08 ø8
		10 ø10
		12 ø12
		16 ø16

Applicable tubing O.D.

Symbol	Size
02	ø2
23	ø3.2
04	ø4
06	ø6
08	ø8
10	ø10
12	ø12
16	ø16

### Accessories

Symbol	Name
KQ2N	Nipple
	Reducer nipple
KQ2C	Tube cap
KQ2P	Plug

Round Type



Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Face Seal

Metric Size R, Rc

Inch Size NPT

Inch Size R

Gasket Seal

Metric Size Uni

Inch Size Uni

# Metric Size One-touch Fittings

## Round Type Variations

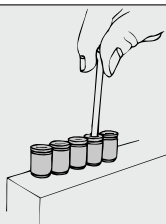
### Hexagon socket head male connector

KQ2S

P.107



Internal hexagon socket allows tightening with a hexagon wrench in confined spaces.



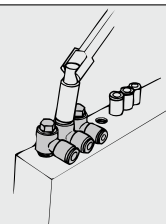
### Universal male elbow

KQ2V

P.112



Hexagon head of the body allows tightening with a box wrench in confined spaces.



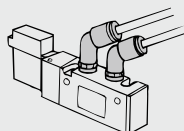
### 45° male elbow

KQ2K

P.111



Use to pipe a female thread at a 45° angle. Its direction is in-between that of the male connector and male elbow.



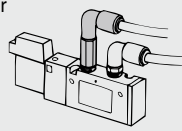
### Extended male elbow

KQ2W

P.118



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



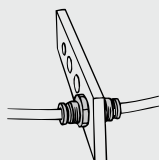
### Bulkhead union

KQ2E

P.128



Use to connect tubing through a panel, etc.



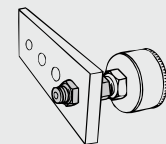
### Bulkhead connector

KQ2E

P.128



Use to connect a male thread and tubing through a panel, etc.



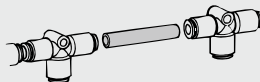
### Nipple

KQ2N

P.130



Use to connect One-touch fittings.



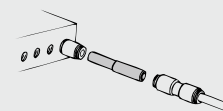
### Reducer nipple

KQ2N

P.130



Use to connect One-touch fittings of different sizes.



### Universal female elbow

KQ2VF

P.113



Use to branch a male or female thread in the same direction and at a 90° angle. Multiple connections possible.

### Branch universal female elbow

KQ2ZF

P.115



Use to two-branch a male or female thread in the same direction and at a 90° angle. Multiple connections possible.

### Male connector

KQ2H

P.105



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

### Cross

KQ2TW

P.121



Use to four-branch a line.

### Reducer elbow

KQ2L

P.109



Use to change the tube direction of One-touch fittings by 90° and connect tubing of reduced size.

### Female connector

KQ2F

P.106



Use to pipe a male thread of a pressure gauge, etc.

### Male elbow

KQ2L

P.108



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

### Different diameter cross

KQ2TX

P.121



Use to four-branch a line and connect tubing of reduced size at both 90° angles.

### Straight union

KQ2H

P.105



Use to connect tubing in the same direction.

### Union elbow

KQ2L

P.109



Use to connect tubing at right angles.

### Male branch tee

KQ2T

P.119



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

### Different diameter straight

KQ2H

P.106



Use to connect tubing of different sizes.

### Plug-in elbow

KQ2L

P.109



Use to change the tube direction of One-touch fittings by 90°.

### Union tee

KQ2T

P.120



Use to branch tubing at both 90° angles.

**Different diameter tee**

**KQ2T** P.120



Use to connect tubing of reduced size for branching at both 90° angles.

**Different diameter tee**

**KQ2T** P.120



Use to connect tubing of reduced size for branching at a 90° angle from two pipes running in the same direction.

**Different diameter cross**

**KQ2TY** P.121



Use to connect tubing of reduced size for branching in three directions.

**Hexagon socket head universal male elbow**

**KQ2VS** P.112



Hexagon socket on the top allows tightening with a hexagon wrench in confined spaces.

**Branch male elbow**

**KQ2LU** P.110



Use to two-branch a female thread at right angles.

**Female elbow**

**KQ2LF** P.117



Use to pipe a male thread at right angles.

**Double universal male elbow**

**KQ2VD** P.114



Use to two-branch a female thread at right angles. Two individual parts rotate 360°.

**Triple universal male elbow**

**KQ2VT** P.114



Use to three-branch a female thread at right angles. Three individual parts rotate 360°.

**Branch universal male elbow**

**KQ2Z** P.115



Hexagon head of the body allows tightening with a box wrench. Use for branch connections.

**Double branch universal male elbow**

**KQ2ZD** P.116



Use to four-branch a female thread at right angles. Two individual parts rotate 360°.

**Male run tee**

**KQ2Y** P.122



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

**Triple branch universal male elbow**

**KQ2ZT** P.116



Use to six-branch a female thread at right angles. Three individual parts rotate 360°.

**Branch union elbow**

**KQ2LU** P.109



Use to branch tubing at right angles.

**Extended plug-in elbow**

**KQ2W** P.117



Use to change the tube direction of One-touch fittings by 90°. Multi-leveled piping is also possible with the plug-in elbow.

**Male delta union**

**KQ2D** P.123



Use to branch a female thread at two right angles.

**Delta union**

**KQ2D** P.124



Use to branch tubing at three right angles.

**Double branch "Y"**

**KQ2UD** P.126



Use to four-branch a female thread.

**Different diameter double union "Y"**

**KQ2UD** P.126



Use to connect tubing of reduced size for four-branching in the same direction.

**Different diameter plug-in "Y"**

**KQ2X** P.127



Use to branch One-touch fittings and connect tubing of reduced size in the same direction.

**Double plug-in "Y"**

**KQ2XD** P.127



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

**Union "Y"**

**KQ2U** P.125



Use to branch tubing in the same direction.

**Different diameter union "Y"**

**KQ2U** P.125



Use to connect tubing of reduced size for branching in the same direction.

**Plug-in "Y"**

**KQ2U** P.125



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

**Branch "Y"**

**KQ2U** P.124



Use to branch a female thread in the same direction.

**Plug-in reducer**

**KQ2R** P.128



Use to change size of One-touch fittings.

**Bulkhead male elbow**

**KQ2LE** P.129



Use to connect tubing through a panel, etc. and to change the tube direction by 90°.

**Adapter**

**KQ2N** P.129



Use to connect One-touch fittings and R female threads.

**Tube cap**

**KQ2C** P.130



Use to plug unused tubing.

**Color cap**

**KQ2C** P.130



Mount onto the release button and use different colors for piping according to applications.

**Plug**

**KQ2P** P.129



Use to plug unused One-touch fittings.

Round Type



Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Face Seal

Metric Size R, Rc

Inch Size NPT

Inch Size R

Gasket Seal

Metric Size Uni

Inch Size Uni

# KQ2 Series

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

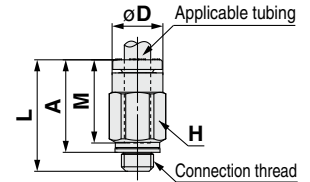
## Dimensions

### Male Connector: KQ2H (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	øD	L	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
								Nylon	Urethane		
ø2	M3 x 0.5	KQ2H02-M3G	5.5	5.5	15.6	13	11.9	—	0.9	1.2	1.5
	M5 x 0.8	KQ2H02-M5□	7	5.5	13.8	10.8	11.9	—	0.9	1.4	2
ø3.2	M3 x 0.5	KQ2H23-M3G	7	6.7	17	14.4	13.3	0.9	0.9	1.2	2.4
	M5 x 0.8	KQ2H23-M5□	7	6.7	17.3	14.3	13.3	3	2.5	2.5	2.7
ø4	M3 x 0.5	KQ2H04-M3G	8	7.7	17.1	14.5	13.3	0.9	0.9	1.2	2.9
	M5 x 0.8	KQ2H04-M5□	8	7.7	17.7	14.7	13.3	4	4	2.5	3.3
	M6 x 1.0	KQ2H04-M6□	8	7.7	18.7	14.7	13.3	5.6	4	3	3.6
ø6	M5 x 0.8	KQ2H06-M5□	10	9.7	17.7	14.7	13.3	4	4	2.5	4.1
	M6 x 1.0	KQ2H06-M6□	10	9.7	18.8	14.8	13.3	5.6	5.6	3	4.4

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



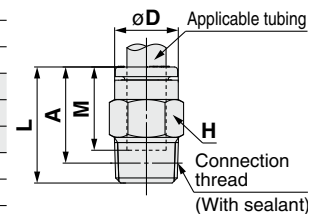
### Male Connector: KQ2H (Sealant)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	øD	L	A*1	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
								Nylon	Urethane		
ø3.2	1/8	KQ2H23-01□S	10	6.7	14	10.9	13.3	3.4	2.9	2.5	6
	1/4	KQ2H23-02□S	14	6.7	16.7	12	13.3	3.4	2.9	2.5	15.3
ø4	1/8	KQ2H04-01□S	10	7.7	14.3	11.2	13.3	4.8	3.4	3	5.6
	1/4	KQ2H04-02□S	14	7.7	16.7	12	13.3	4.8	3.4	3	14.6
ø6	1/8	KQ2H06-01□S	10	9.7	18.4	15.3	13.3	13.1	10.4	4.5	5.8
	1/4	KQ2H06-02□S	14	9.7	16.7	12	13.3	13.1	10.4	4.5	12.5
	3/8	KQ2H06-03□S	17	9.7	18.1	13	13.3	13.1	10.4	4.5	24.5
ø8	1/8	KQ2H08-01□S	14	13	22.5	19.4	14.2	26.1	18	6	11.9
	1/4	KQ2H08-02□S	14	13	22	17.3	14.2	26.1	18	6	13.9
	3/8	KQ2H08-03□S	17	13	18.1	13	14.2	26.1	18	6	21
ø10	1/8	KQ2H10-01□S	17	15.6	23.8	20.7	15.6	26.1	26.1	6	16.9
	1/4	KQ2H10-02□S	17	15.6	27.3	22.6	15.6	41.5	29.5	7.5	22.1
	3/8	KQ2H10-03□S	17	15.6	23.5	18.4	15.6	41.5	29.5	7.5	22.5
ø12	1/2	KQ2H10-04□S	22	15.6	22.3	15.9	15.6	41.5	29.5	7.5	44.7
	1/4	KQ2H12-02□S	19	18.2	28.7	24	17	58.3	46.1	9	24.3
	3/8	KQ2H12-03□S	19	18.2	25.9	20.8	17	58.3	46.1	9	25.2
ø16	1/2	KQ2H12-04□S	22	18.2	22.3	15.9	17	58.3	46.1	9	37.7
	1/4	KQ2H16-02□S	24	23.6	32.5	27.8	20.6	58.3	58.3	9	37.4
	3/8	KQ2H16-03□S	24	23.6	33.1	28	20.6	81	67	11	42.4
ø16	1/2	KQ2H16-04□S	24	23.6	32.1	25.7	20.6	113	67	13	44.6

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

\*1 Reference dimensions after installation of R thread

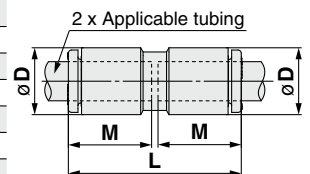


### Straight Union: KQ2H



Applicable tubing O.D. [mm]	Model	øD*1	L	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
					Nylon	Urethane		
ø2	KQ2H02-00A	5.8	24.8	11.9	—	0.9	1.4	0.8
ø3.2	KQ2H23-00A	7.1	27.6	13.3	3.4	2.9	2.5	1.4
ø4	KQ2H04-00A	8.2	27.6	13.3	5.6	4	3	1.6
ø6	KQ2H06-00A	10.4	27.6	13.3	13.1	10.4	4.5	2.1
ø8	KQ2H08-00A	13.2	29.4	14.2	26.1	18	6	3.7
ø10	KQ2H10-00A	15.9	32.2	15.6	41.5	29.5	7.5	5.5
ø12	KQ2H12-00A	18.5	35	17	58.3	46.1	9	8.2
ø16	KQ2H16-00A	23.8	42.2	20.6	113	67	13	15.2

\*1 øD is maximum diameter.



# Metric Size One-touch Fittings **KQ2 Series**

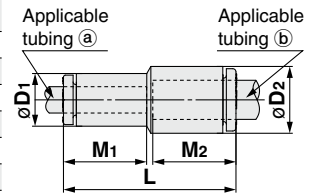
Applicable Tubing: Metric Size, Connection Thread: M, R, Rc

## Dimensions

### Different Diameter Straight: KQ2H



Applicable tubing O.D. [mm]		Model	*1 øD1	*1 øD2	L	M1	M2	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
(a)	(b)							Nylon	Urethane		
ø2	ø3.2	KQ2H02-23A	5.8	7.1	26.2	11.9	13.3	—	0.9	1.4	1.1
ø2	ø4	KQ2H02-04A	5.8	8.2	26.2	11.9	13.3	—	0.9	1.4	1.2
ø3.2	ø4	KQ2H23-04A	7.1	8.2	27.6	13.3	13.3	3.4	2.9	2.5	1.5
ø3.2	ø6	KQ2H23-06A	7.1	10.4	27.6	13.3	13.3	3.4	2.9	2.5	1.8
ø4	ø6	KQ2H04-06A	8.2	10.4	27.6	13.3	13.3	5.6	5.6	3	2
ø6	ø8	KQ2H06-08A	10.4	13.2	28.5	13.3	14.2	13.1	10.4	4.5	2.9
ø8	ø10	KQ2H08-10A	13.2	15.9	30.8	14.2	15.6	26.1	18	6	4.9
ø10	ø12	KQ2H10-12A	15.9	18.5	33.6	15.6	17	41.5	29.5	7.5	7.2
ø12	ø16	KQ2H12-16A	18.5	23.8	38.6	17	20.6	58.3	46.1	9	12.4

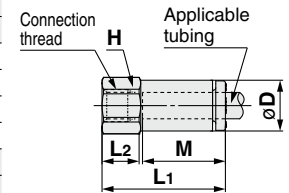


\*1 øD1, øD2 are maximum diameters.

### Female Connector: KQ2F



Applicable tubing O.D. [mm]	Connection thread Rc	Model	H (Width across flats)	*1 øD	L1	L2	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
								Nylon	Urethane		
ø3.2	M3 x 0.5	KQ2F23-M3□	7	6.9	17.3	5.7	13.3	3	2.5	2.5	3.1
	M5 x 0.8	KQ2F23-M5□	7	6.9	19.7	5.7	13.3	3	2.5	2.5	3.3
ø4	M3 x 0.5	KQ2F04-M3□	8	7.9	16.5	5.7	13.3	4	4	2.5	4.1
	M5 x 0.8	KQ2F04-M5□	8	7.9	19.6	5.7	13.3	4	4	3	4.5
	1/8	KQ2F04-01□	14	7.9	24.1	8.5	13.3	5.6	4	3	12
	1/4	KQ2F04-02□	17	7.9	29	12.9	13.3	5.6	4	3	21.5
ø6	M5 x 0.8	KQ2F06-M5□	10	9.9	17.6	5.7	13.3	10	10	4.1	5.5
	1/8	KQ2F06-01□	14	9.9	23.6	8.5	13.3	13.1	10.4	4.5	12.2
	1/4	KQ2F06-02□	17	9.9	28.5	12.9	13.3	13.1	10.4	4.5	21.6
	3/8	KQ2F06-03□	19	9.9	29.9	13.4	13.3	13.1	10.4	4.5	22.7
ø8	1/8	KQ2F08-01□	14	13	24.1	8.5	14.2	26.1	18	6	12.9
	1/4	KQ2F08-02□	17	13	29	12.2	14.2	26.1	18	6	22.1
ø10	3/8	KQ2F08-03□	19	13	30.4	13.4	14.2	26.1	18	6	30.7
	1/4	KQ2F10-02□	17	15.6	30	12.9	15.6	41.5	29.5	7.5	24.2
ø12	3/8	KQ2F10-03□	19	15.6	31.3	13.3	15.6	41.5	29.5	7.5	25.5
	1/4	KQ2F12-02□	19	18.2	30.9	12.1	17	58.3	46.1	9	32.6
	3/8	KQ2F12-03□	19	18.2	32.3	13.3	17	58.3	46.1	9	27.6
ø16	1/2	KQ2F12-04□	24	18.2	36.3	15.9	17	58.3	46.1	9	46.3
	3/8	KQ2F16-03□	24	23.6	34.7	12.6	20.6	81	67	13	53.8
	1/2	KQ2F16-04□	24	23.6	38.7	15.9	20.6	113	67	13	51.6



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

\*1 øD is maximum diameter.

Round Type

Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Face Seal

Metric Size R, Rc

Inch Size NPT

Inch Size R

Gasket Seal

Metric Size Uni

Inch Size Uni

# KQ2 Series

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

## Dimensions

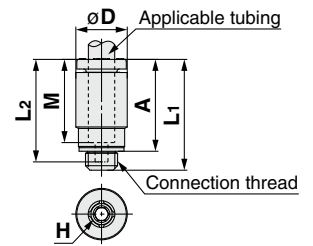
### Hexagon Socket Head Male Connector: KQ2S (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	*1 $\phi D$	L1	L2	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
									Nylon	Urethane		
$\phi 2$	M3 x 0.5	KQ2S02-M3G	1.5	5.5	15.7	14.7	13.1	11.9	—	0.9	1.5	1.7
$\phi 3.2$	M3 x 0.5	KQ2S23-M3G	1.5	7	17.1	16.1	14.5	13.3	1.4	1.4	1.5	2.2
	M5 x 0.8	KQ2S23-M5□	2	7	17.5	16.3	14.5	13.3	2.5	2.5	2	2.6
$\phi 4$	M3 x 0.5	KQ2S04-M3G	1.5	8	17.1	16.1	14.5	13.3	1.4	1.4	1.5	2.3
	M5 x 0.8	KQ2S04-M5□	2.5	8	18.6	17.8	15.6	13.3	4	4	2.5	3
	M6 x 1.0	KQ2S04-M6□	3	8	18.5	17.8	14.5	13.3	4	4	3.1	4.1
$\phi 6$	M5 x 0.8	KQ2S06-M5□	2.5	10	19.5	17.8	16.5	13.3	4	4	2.5	3.5
	M6 x 1.0	KQ2S06-M6□	3	10	19.1	18.1	15.1	13.3	4	4	3.1	5.1

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

\*1  $\phi D$  is maximum diameter.



### Hexagon Socket Head Male Connector: KQ2S (Sealant)

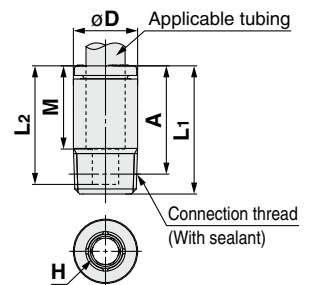


Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D$	L1	L2	A*2	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
									Nylon	Urethane		
$\phi 4$	1/8	KQ2S04-01□S	3	9.8	19.7	18.8	16.6	13.3	4.1	3.6	3.1	8.1
$\phi 6$	1/8	KQ2S06-01□S	4	10	20	18.8	16.9	13.3	10	9.9	4.1	6.5
	1/4	KQ2S06-02□S	4	13.8	19.8	18.8	15.1	13.3	10.7	10	4.1	13.4
$\phi 8$	1/8	KQ2S08-01□S	5	13	22.9	19.7	19.8	14.2	17.2	16.2	5.1	10.2
	1/4	KQ2S08-02□S	6	14	23.2	19.5	18.5	14.2	23.3	16.2	6.1	14.3
	3/8	KQ2S08-03□S	6	17	20.7	19.7	15.6	14.2	23.3	16.2	6.1	21.1
$\phi 10$	1/8	KQ2S10-01□S	5	15.6	24.3	21.1	21.2	15.6	17.2	16.2	5.1	12
	1/4	KQ2S10-02□S	8	15.6	24.6	20.1	19.9	15.6	39	26.6	8.1	12.4
	3/8	KQ2S10-03□S	8	17	25.1	20.1	20	15.6	39	26.6	8.1	23.2
	1/2	KQ2S10-04□S	8	22	21.1	20.1	14.7	15.6	39	26.6	8.1	37.4
$\phi 12$	1/4	KQ2S12-02□S	8	18.2	29	21.5	24.3	17	46	44.5	8.1	21
	3/8	KQ2S12-03□S	10	18.2	26.4	21.8	21.3	17	60	44.5	10.1	21.2
	1/2	KQ2S12-04□S	10	22	22.8	21.8	16.4	17	60	44.5	10.1	30.5
$\phi 16$	1/4	KQ2S16-02□S	8	23.6	32.5	25.1	27.8	20.6	46	46	8.1	25.7
	3/8	KQ2S16-03□S	10	23.6	33.5	25.4	28.4	20.6	81	67	10.1	38.3
	1/2	KQ2S16-04□S	12	23.6	33.4	26.1	27	20.6	113	67	12.1	43.5

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

\*1  $\phi D$  is maximum diameter.

\*2 Reference dimensions after installation of R thread



# Metric Size One-touch Fittings **KQ2 Series**

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

## Dimensions

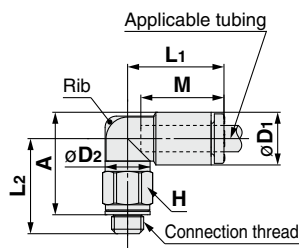
### Male Elbow: KQ2L (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	With a rib
										Nylon	Urethane			
$\phi 2$	M3 x 0.5	KQ2L02-M3G	5.5	5.8	5.5	12.6	12.5	12.8	11.9	—	0.8	1.2	1.6	●
	M5 x 0.8	KQ2L02-M5□	7	5.8	5.5	12.6	13	12.9	11.9	—	0.8	1.4	2.7	●
$\phi 3.2$	M3 x 0.5	KQ2L23-M3G	7	7.1	7	15.3	13.8	14.8	13.3	0.8	0.8	1.2	2.7	●
	M5 x 0.8	KQ2L23-M5□	7	7.1	7	15.3	14.3	14.9	13.3	2.6	2.2	2.5	3.1	●
$\phi 4$	M3 x 0.5	KQ2L04-M3G	7	8.2	7	15.4	14.3	15.8	13.3	0.8	0.8	1.2	2.7	●
	M5 x 0.8	KQ2L04-M5□	7	8.2	7	15.4	14.8	15.9	13.3	3.5	3.5	2.5	3.1	●
	M6 x 1.0	KQ2L04-M6□	8	8.2	7	15.4	15.8	15.9	13.3	3.5	3.5	2.5	4.2	●
$\phi 6$	M5 x 0.8	KQ2L06-M5□	7	10.4	7	14.5	16.5	18.7	13.3	3.5	3.5	2.5	3.2	●
	M6 x 1.0	KQ2L06-M6□	8	10.4	7	14.5	17.5	18.7	13.3	3.5	3.5	2.5	4.3	●

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

\*1  $\phi D_1$  is maximum diameter.



### Male Elbow: KQ2L (Sealant)



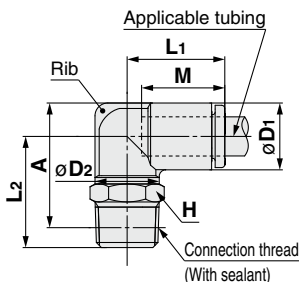
Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	A*2	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	With a rib
										Nylon	Urethane			
$\phi 3.2$	1/8	KQ2L23-01□S	10	7.1	10	14.5	16.7	17.2	13.3	3	2.5	2.5	4.6	—
	1/4	KQ2L23-02□S	14	7.1	10	14.5	21.2	20.1	13.3	3	2.5	2.5	14.1	—
$\phi 4$	1/8	KQ2L04-01□S	10	8.2	10	14.8	16.2	17.2	13.3	4.6	3.3	3	4.8	●
	1/4	KQ2L04-02□S	14	8.2	10	14.8	21.7	21.1	13.3	4.6	3.3	3	14.3	●
$\phi 6$	1/8	KQ2L06-01□S	10	10.4	10	15.5	17.3	19.4	13.3	11.4	9	4.5	5.2	—
	1/4	KQ2L06-02□S	14	10.4	10	15.5	22.8	23.3	13.3	11.4	9	4.5	14.7	—
$\phi 6$	3/8	KQ2L06-03□S	17	10.4	10	15.5	24.1	24.2	13.3	11.4	9	4.5	26.5	—
	1/8	KQ2L08-01□S	10	13.2	10	16.4	18.7	22.2	14.2	11.4	11.4	4.5	6.1	●
$\phi 8$	1/8	KQ2L08-01□S	12	13.2	12	17.2	23.5	27.0	14.2	21.6	14.9	6	9.3	●
	1/4	KQ2L08-02□S	14	13.2	12	17.2	25.4	27.3	14.2	21.6	14.9	6	17.7	●
	3/8	KQ2L08-03□S	17	13.2	12	17.2	25.5	27.0	14.2	21.6	14.9	6	24.7	●
$\phi 10$	1/8	KQ2L10-01□S	12	15.9	12	18.6	23.6	28.4	15.6	21.6	14.9	6	11.1	●
	1/4	KQ2L10-02□S	17	15.9	17	19.3	28.7	31.9	15.6	35.2	25	7.5	21.7	●
	3/8	KQ2L10-03□S	17	15.9	17	19.3	29.6	32.4	15.6	35.2	25	7.5	22.2	●
$\phi 12$	1/2	KQ2L10-04□S	22	15.9	17	19.3	33.6	35.1	15.6	35.2	25	7.5	44.6	●
	1/4	KQ2L12-02□S	17	18.5	17	21.5	30.0	34.5	17	50.2	39.7	9	23.5	●
	3/8	KQ2L12-03□S	17	18.5	17	21.5	30.9	35.0	17	50.2	39.7	9	24.1	●
$\phi 16$	1/2	KQ2L12-04□S	22	18.5	17	21.5	34.9	37.7	17	50.2	39.7	9	46.5	●
	1/4	KQ2L16-02□S	17	23.8	17	25.1	32.6	39.8	20.6	50.2	50.2	9	27.8	●
	3/8	KQ2L16-03□S	22	23.8	21	27.1	35.4	42.2	20.6	71	58.9	11	40.8	—
$\phi 16$	1/2	KQ2L16-04□S	22	23.8	21	27.1	34.1	39.6	20.6	100	58.9	13	44.5	—

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

\*1  $\phi D_1$  is maximum diameter.

\*2 Reference dimensions after installation of R thread

\*3 For details, refer to page 131.



Round 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

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

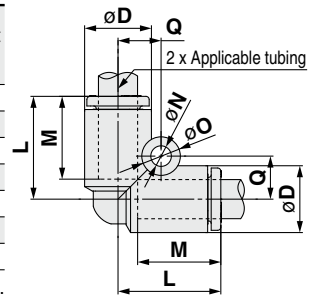
## Dimensions

### Union Elbow: KQ2L



Applicable tubing O.D. [mm]	Model	*1 $\phi D$	L	Q	M	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
								Nylon	Urethane		
$\phi 3.2$	KQ2L23-00A	7.1	14.9	5.4	13.3	6	3.2	3	2.5	2.5	1.6
$\phi 4$	KQ2L04-00A	8.2	15.3	5.7	13.3	6	3.2	4.2	4.2	3	1.9
$\phi 6$	KQ2L06-00A	10.4	16.3	6.8	13.3	6	3.2	11.4	9	4.5	2.7
$\phi 8$	KQ2L08-00A	13.2	18.2	8.4	14.2	8	4.2	21.6	14.9	6	4.7
$\phi 10$	KQ2L10-00A	15.9	20.6	9.6	15.6	8	4.2	35.2	25	7.5	7.1
$\phi 12$	KQ2L12-00A	18.5	23	10.7	17	8	4.2	50.2	39.7	9	10.3
$\phi 16$	KQ2L16-00A	23.8	28.6	13.4	20.6	8	4.2	100	58.9	13	19.7

\*1  $\phi D$  is maximum diameter.

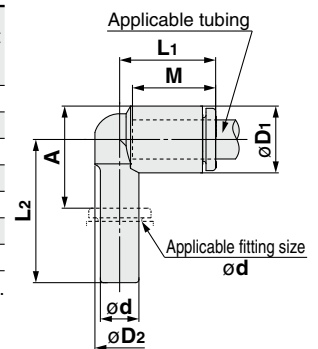


### Plug-in Elbow: KQ2L



Applicable tubing O.D. [mm]	Applicable fitting size $\phi d$	Model	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
									Nylon	Urethane		
$\phi 3.2$	$\phi 3.2$	KQ2L23-99A	7.1	6.4	14.4	20.9	11.1	13.3	3	2.5	2.2	0.9
$\phi 4$	$\phi 4$	KQ2L04-99A	8.2	7.2	14.5	21.1	11.9	13.3	4.2	4.2	2.5	1.2
$\phi 6$	$\phi 6$	KQ2L06-99A	10.4	8	15.3	22.3	14.2	13.3	9	9	4	1.8
$\phi 8$	$\phi 8$	KQ2L08-99A	13.2	10	17.2	26.2	18.6	14.2	21.6	14.9	6	3
$\phi 10$	$\phi 10$	KQ2L10-99A	15.9	12	19.3	28.2	20.5	15.6	35.2	25	7.5	4.7
$\phi 12$	$\phi 12$	KQ2L12-99A	18.5	14	21.5	31	23.2	17	50.2	39.7	9	7
$\phi 16$	$\phi 16$	KQ2L16-99A	23.8	20	27.1	36.8	28.1	20.6	100	58.9	13	13.7

\*1  $\phi D_1$  is maximum diameter.

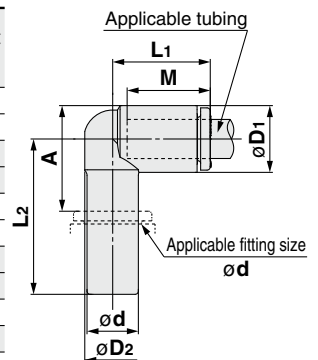


### Reducer Elbow: KQ2L



Applicable tubing O.D. [mm]	Applicable fitting size $\phi d$	Model	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
									Nylon	Urethane		
$\phi 3.2$	$\phi 4$	KQ2L23-04A	7.1	6.4	14.5	23.9	14.1	13.3	3	2.5	2.5	1.1
	$\phi 6$	KQ2L23-06A	7.1	6.4	14.5	24.1	14.3	13.3	3	2.5	2.5	1.3
$\phi 4$	$\phi 6$	KQ2L04-06A	8.2	7.2	14.8	24.6	15.4	13.3	4.2	4.2	3	1.5
	$\phi 8$	KQ2L04-08A	8.2	7.2	14.8	29.5	19.4	13.3	4.2	4.2	3	1.8
$\phi 6$	$\phi 8$	KQ2L06-08A	10.4	9	15.5	24.2	15.2	13.3	11.4	9	4.5	2.1
	$\phi 10$	KQ2L06-10A	10.4	9	15.5	31.6	21.2	13.3	11.4	9	4.5	2.7
$\phi 8$	$\phi 10$	KQ2L08-10A	13.2	10	18.8	27.1	18.1	14.2	21.6	14.9	6	3.5
	$\phi 12$	KQ2L08-12A	13.2	10	18.8	34	23.6	14.2	21.6	14.9	6	4.9
$\phi 10$	$\phi 12$	KQ2L10-12A	15.9	12	19.3	35.6	26.5	15.6	35.2	25	7.5	5.6
$\phi 12$	$\phi 16$	KQ2L12-16A	18.5	14	21.5	42.6	31.2	17	50.2	39.7	9	8.7

\*1  $\phi D_1$  is maximum diameter.

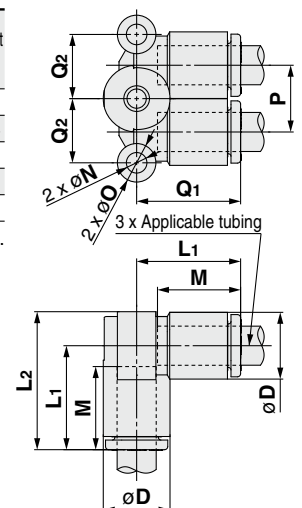


### Branch Union Elbow: KQ2LU



Applicable tubing O.D. [mm]	Model	*1 $\phi D$	L <sub>1</sub>	L <sub>2</sub>	Q <sub>1</sub>	Q <sub>2</sub>	M	P	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
$\phi 4$	KQ2LU04-00A	8.2	15.8	19.9	15.8	7.9	13.3	8.2	6	3.2	6	4.1	3	3.1
$\phi 6$	KQ2LU06-00A	10.4	16.5	21.7	16.5	10	13.3	10.4	6	3.2	13.9	11	4.5	4.4
$\phi 8$	KQ2LU08-00A	13.2	18.2	24.8	18.2	13.1	14.2	13.2	8	4.2	26.3	18.2	6	8
$\phi 10$	KQ2LU10-00A	15.9	20.3	28.3	20.3	15.9	15.6	15.9	8	4.2	40.8	29	7.5	12.2
$\phi 12$	KQ2LU12-00A	18.5	22.5	31.7	22.5	17.9	17	18.5	8	4.2	57.2	45.2	9	18.1

\*1  $\phi D$  is maximum diameter.



# Metric Size One-touch Fittings **KQ2 Series**

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

## Dimensions

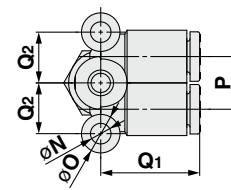
### Branch Male Elbow: KQ2LU (Gasket seal)



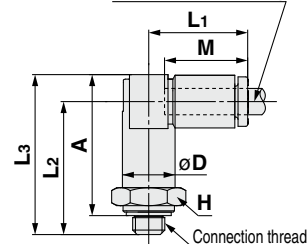
Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	*1 $\phi D$	L1	L2	L3	A	M	P	$\phi O$	$\phi N$	Q1	Q2	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
															Nylon	Urethane		
$\phi 4$	M5 x 0.8	KQ2LU04-M5□	10	8.2	15.8	20.7	24.8	21.8	13.3	8.2	6	3.2	15.8	7.9	4.3	4.1	1.8	6.9
	M6 x 1.0	KQ2LU04-M6□	10	8.2	15.8	21.7	25.8	21.8	13.3	8.2	6	3.2	15.8	7.9	4.3	4.1	3	6.8
$\phi 6$	M5 x 0.8	KQ2LU06-M5□	12	10.4	16.5	21.4	26.6	23.6	13.3	10.4	6	3.2	16.5	10	4.3	4.3	1.8	10.3
	M6 x 1.0	KQ2LU06-M6□	12	10.4	16.5	22.4	27.6	23.6	13.3	10.4	6	3.2	16.5	10	4.3	4.3	3	10.3

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

\*1  $\phi D$  is maximum diameter.



2 x Applicable tubing



### Branch Male Elbow: KQ2LU (Sealant)

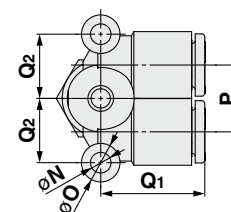


Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D$	L1	L2	L3	A*2	M	P	$\phi O$	$\phi N$	Q1	Q2	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
															Nylon	Urethane		
$\phi 4$	1/8	KQ2LU04-01□S	10	8.2	15.8	23.3	27.4	24.3	13.3	8.2	6	3.2	15.8	7.9	6	4.1	3	9.5
	1/4	KQ2LU04-02□S	14	8.2	15.8	27.7	31.8	27.1	13.3	8.2	6	3.2	15.8	7.9	6	4.1	3	19.3
$\phi 6$	1/8	KQ2LU06-01□S	12	10.4	16.5	24	29.2	26.1	13.3	10.4	6	3.2	16.5	10	13.9	11	4.5	10.6
	1/4	KQ2LU06-02□S	14	10.4	16.5	28.4	33.6	28.9	13.3	10.4	6	3.2	16.5	10	13.9	11	4.5	19.5
	3/8	KQ2LU06-03□S	17	10.4	16.5	29.8	35	29.9	13.3	10.4	6	3.2	16.5	10	13.9	11	4.5	31.5
$\phi 8$	1/8	KQ2LU08-01□S	14	13.2	18.2	25.7	32.3	29.2	14.2	13.2	8	4.2	18.2	13.1	26.3	18.2	6	16.4
	1/4	KQ2LU08-02□S	14	13.2	18.2	30.1	36.7	32	14.2	13.2	8	4.2	18.2	13.1	26.3	18.2	6	21.5
$\phi 10$	3/8	KQ2LU08-03□S	17	13.2	18.2	31.5	38.1	33	14.2	13.2	8	4.2	18.2	13.1	26.3	18.2	6	33.3
	1/4	KQ2LU10-02□S	17	15.9	20.3	32.2	40.2	35.5	15.6	15.9	8	4.2	20.3	15.9	40.8	29	7.5	26.6
$\phi 12$	3/8	KQ2LU10-03□S	17	15.9	20.3	33.6	41.6	36.5	15.6	15.9	8	4.2	20.3	15.9	40.8	29	7.5	34.4
	1/2	KQ2LU10-04□S	22	15.9	20.3	37.8	45.8	39.4	15.6	15.9	8	4.2	20.3	15.9	40.8	29	7.5	62.3
$\phi 12$	1/4	KQ2LU12-02□S	19	18.5	22.5	34.4	43.6	38.9	17	18.5	8	4.2	22.5	17.9	57.2	45.2	9	37.7
	3/8	KQ2LU12-03□S	19	18.5	22.5	35.8	45	39.9	17	18.5	8	4.2	22.5	17.9	57.2	45.2	9	40.6
	1/2	KQ2LU12-04□S	22	18.5	22.5	40	49.2	42.8	17	18.5	8	4.2	22.5	17.9	57.2	45.2	9	62.7

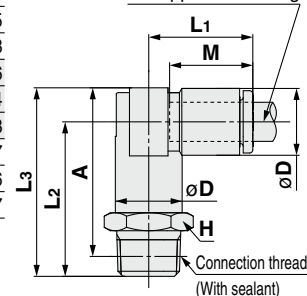
□: A (Brass), N (Brass + Electroless nickel plating)

\*1  $\phi D$  is maximum diameter.

\*2 Reference dimensions after installation of R thread



2 x Applicable tubing



Round Type

Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Metric Size R, Rc

Metric Size R, Rc

Face Seal

Inch Size NPT

Inch Size R

Inch Size Uni

Metric Size Uni

Gasket Seal

Inch Size Uni

# KQ2 Series

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

## Dimensions

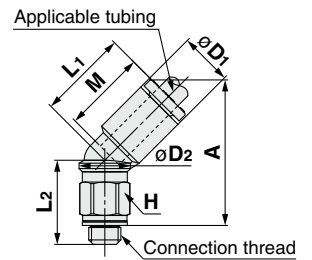
### 45° Male Elbow: KQ2K (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
										Nylon	Urethane		
$\phi 4$	M5 x 0.8	KQ2K04-M5□	7	8.2	8	14.4	13.1	22.8	13.3	3.4	3.4	2.5	3
	M6 x 1.0	KQ2K04-M6□	8	8.2	8	14.4	14.1	22.8	13.3	3.4	3.4	2.5	4.1
$\phi 6$	M5 x 0.8	KQ2K06-M5□	7	10.4	8	14.4	17	27.4	13.3	3.4	3.4	2.5	3.5
	M6 x 1.0	KQ2K06-M6□	8	10.4	8	14.4	18	27.4	13.3	3.4	3.4	2.5	4.5

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

\*1  $\phi D_1$  is maximum diameter.



### 45° Male Elbow: KQ2K (Sealant)



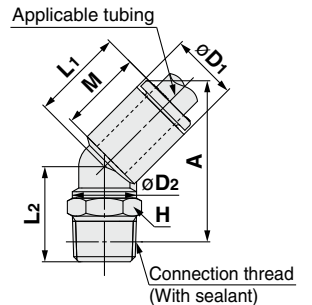
Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	A*2	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
										Nylon	Urethane		
$\phi 4$	1/8	KQ2K04-01□S	10	8.2	10	14.4	12.7	22.3	13.3	4.8	3.4	3	4.6
	1/4	KQ2K04-02□S	14	8.2	10	14.4	17.2	25.2	13.3	4.8	3.4	3	14.1
$\phi 6$	1/8	KQ2K06-01□S	10	10.4	10	14.7	14.8	25.3	13.3	8.7	6.9	4.5	5
	1/4	KQ2K06-02□S	14	10.4	10	14.7	19.3	28.2	13.3	8.7	6.9	4.5	14.5
	3/8	KQ2K06-03□S	17	10.4	10	14.7	20.6	29.1	13.3	8.7	6.9	4.5	26.2
$\phi 8$	1/8	KQ2K08-01□S	10	13.2	10	16	15.7	28	14.2	8.7	8.7	4.5	6
		KQ2L08-01□QS <sup>*3</sup>	12	13.2	12	16	20.5	32.8	14.2	19.7	19.7	6	9.1
	1/4	KQ2K08-02□S	14	13.2	12	16	22.4	33.1	14.2	19.7	19.7	6	17.5
	3/8	KQ2K08-03□S	17	13.2	12	16	22.5	32.8	14.2	19.7	19.7	6	24.5
$\phi 10$	1/8	KQ2K10-01□S	12	15.9	12	18.2	21.5	36.2	15.6	30.9	23.2	6	11.1
	1/4	KQ2K10-02□S	17	15.9	17	17.6	29.1	41.8	15.6	30.9	23.2	7.5	21.8
	3/8	KQ2K10-03□S	17	15.9	17	17.6	24.3	36.6	15.6	30.9	23.2	7.5	21.7
	1/2	KQ2K10-04□S	22	15.9	17	17.6	28.3	39.3	15.6	30.9	23.2	7.5	44.1
$\phi 12$	1/4	KQ2K12-02□S	17	18.5	17	19.4	29	43.8	17	44.5	35.1	9	23.3
	3/8	KQ2K12-03□S	17	18.5	17	19.4	24.2	38.6	17	44.5	35.1	9	23.2
	1/2	KQ2K12-04□S	22	18.5	17	19.4	28.2	41.3	17	44.5	35.1	9	45.7
$\phi 16$	1/4	KQ2K16-02□S	17	23.8	17	24.3	29.6	49.2	20.6	44.5	44.5	9	27.7
	3/8	KQ2K16-03□S	22	23.8	21	23.8	31.4	50.2	20.6	65.8	58	11	39.2
	1/2	KQ2K16-04□S	22	23.8	21	23.8	30.1	47.6	20.6	91.9	58	13	42.9

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

\*1  $\phi D_1$  is maximum diameter.

\*2 Reference dimensions after installation of R thread

\*3 For details, refer to page 131.



# Metric Size One-touch Fittings **KQ2 Series**

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

## Dimensions

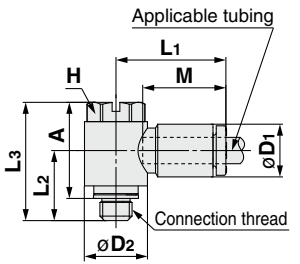
### Universal Male Elbow: KQ2V (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
$\phi 4$	M5 x 0.8	KQ2V04-M5□	8	8.2	9.8	17.5	10.9	18.4	14.9	13.3	2.9	2.9	2.5	5.4
$\phi 6$	M5 x 0.8	KQ2V06-M5□	8	10.4	9.8	18.3	10.9	18.4	15.4	13.3	3.8	3.8	2.5	5.7

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

\*1  $\phi D_1$  is maximum diameter.



### Universal Male Elbow: KQ2V (Sealant)

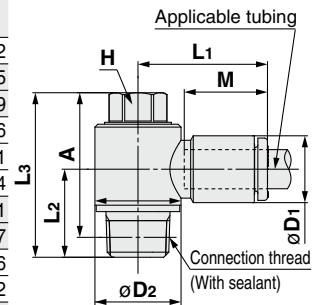


Applicable tubing O.D. [mm]	Connection thread	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A*2	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
$\phi 4$	1/8	KQ2V04-01□S	8	8.2	13.4	19.3	13.7	25.6	22.5	13.3	2.9	2.9	3	13.2
$\phi 6$	1/8	KQ2V06-01□S	8	10.4	13.4	20.5	13.7	25.6	22.5	13.3	7.5	5.9	4.5	13.5
	1/4	KQ2V06-02□S	10	10.4	15.3	19.9	17.9	30.5	25.8	13.3	7.5	5.9	4.5	24.9
$\phi 8$	1/8	KQ2V08-01□S	12	13.2	17.6	23.5	15.1	27.6	24.5	14.2	16	11.2	6	22.6
	1/4	KQ2V08-02□S	12	13.2	17.6	23.5	18.5	31	26.3	14.2	16	11.2	6	29.1
	3/8	KQ2V08-03□S	14	13.2	20.6	23.1	19.5	35.3	30.2	14.2	16	11.2	6	44.4
$\phi 10$	1/4	KQ2V10-02□S	14	15.9	20.6	25.9	19.9	34.9	30.2	15.6	27	20.3	7.5	38.1
	3/8	KQ2V10-03□S	14	15.9	20.6	25.9	20.3	35.3	30.2	15.6	27	20.3	7.5	45.7
$\phi 12$	3/8	KQ2V12-03□S	17	18.5	25.2	28.5	21.4	37.6	32.5	17	39	30.8	9	59.6
	1/2	KQ2V12-04□S	17	18.5	25.2	28.5	24.6	40.8	34.4	17	39	30.8	9	78.2
$\phi 16$	3/8	KQ2V16-03□S	21	23.8	32.3	34.2	25.1	45.4	40.3	20.6	55	46	11	99.5
	1/2	KQ2V16-04□S	21	23.8	32.3	34.2	28.3	48.6	42.2	20.6	78	46	13	107.9

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

\*1  $\phi D_1$  is maximum diameter.

\*2 Reference dimensions after installation of R thread



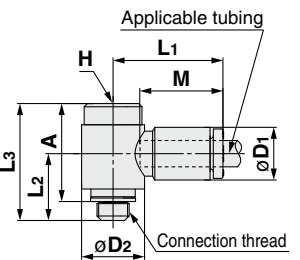
### Hexagon Socket Head Universal Male Elbow: KQ2VS (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
$\phi 4$	M5 x 0.8	KQ2VS04-M5□	4	8.2	9.8	17.5	10.4	18.2	15.2	13.3	2.9	2.9	2.5	5.3
$\phi 6$	M5 x 0.8	KQ2VS06-M5□	4	10.4	9.8	18.3	10.4	18.2	15.2	13.3	3.8	3.8	2.5	5.6

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

\*1  $\phi D_1$  is maximum diameter.



### Hexagon Socket Head Universal Male Elbow: KQ2VS (Sealant)

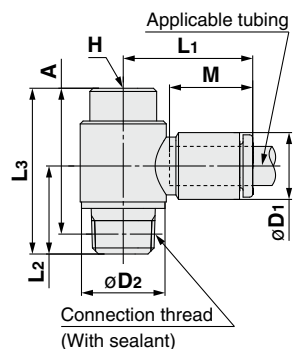


Applicable tubing O.D. [mm]	Connection thread	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A*2	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
$\phi 4$	1/8	KQ2VS04-01□S	6	8.2	13.4	19.3	13.7	25.8	22.7	13.3	2.9	2.9	3	13.2
$\phi 6$	1/8	KQ2VS06-01□S	6	10.4	13.4	20.5	13.7	25.8	22.7	13.3	7.5	5.9	4.5	13.5
	1/4	KQ2VS06-02□S	6	10.4	15.3	19.9	17.9	26.5	21.8	13.3	7.5	5.9	4.5	20.8
$\phi 8$	1/8	KQ2VS08-01□S	8	13.2	17.6	23.5	15.1	26	22.9	14.2	16	11.2	6	19.2
	1/4	KQ2VS08-02□S	8	13.2	17.6	23.5	18.5	29.5	24.8	14.2	16	11.2	6	25.7
	3/8	KQ2VS08-03□S	8	13.2	20.6	23.1	19.5	31.4	26.3	14.2	16	11.2	6	37
$\phi 10$	1/4	KQ2VS10-02□S	8	15.9	20.6	25.9	19.7	30.8	26.1	15.6	27	20.3	7.5	30.4
	3/8	KQ2VS10-03□S	8	15.9	20.6	25.9	20.3	31.4	26.3	15.6	27	20.3	7.5	38.3
$\phi 12$	3/8	KQ2VS12-03□S	10	18.5	25.2	28.5	21.4	35.1	30	17	39	30.8	9	51.4
	1/2	KQ2VS12-04□S	10	18.5	25.2	28.5	24.6	38.3	31.9	17	39	30.8	9	70

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

\*1  $\phi D_1$  is maximum diameter.

\*2 Reference dimensions after installation of R thread



Round 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

# KQ2 Series

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

## Dimensions

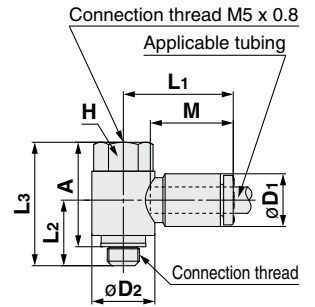
### Universal Female Elbow: KQ2VF (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
$\phi 4$	M5 x 0.8	KQ2VF04-M5□	8	8.2	9.8	17.5	10.2	19.2	16.2	13.3	2.9	2.9	2.5	5.5
$\phi 6$	M5 x 0.8	KQ2VF06-M5□	8	10.4	9.8	18.3	10.2	19.2	16.2	13.3	3.8	3.8	2.5	5.8

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

\*1  $\phi D_1$  is maximum diameter.



### Universal Female Elbow: KQ2VF (Sealant)

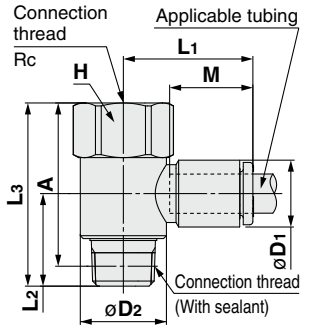


Applicable tubing O.D. [mm]	Connection thread R, Rc	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A *2	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
$\phi 4$	1/8	KQ2VF04-01□S	14	8.2	13.4	19.3	14.4	28.5	25.4	13.3	2.9	2.9	3	17.3
$\phi 6$	1/8	KQ2VF06-01□S	14	10.4	13.4	20.5	14.4	28.5	25.4	13.3	7.5	5.9	4.5	17.6
	1/4	KQ2VF06-02□S	17	10.4	17.6	21.2	19.4	37.9	33.2	13.3	7.5	5.9	4.5	37
$\phi 8$	1/8	KQ2VF08-01□S	17	13.2	17.6	23.5	15.5	30	26.9	14.2	16	11.2	6	27.5
	1/4	KQ2VF08-02□S	17	13.2	17.6	23.5	18.9	37.9	33.2	14.2	16	11.2	6	38.1
	3/8	KQ2VF08-03□S	22	13.2	25.2	24.9	24	44	38.9	14.2	16	11.2	6	64.5
$\phi 10$	1/4	KQ2VF10-02□S	19	15.9	20.6	25.9	20.4	40.3	35.6	15.6	27	20.3	7.5	46.4
	3/8	KQ2VF10-03□S	22	15.9	25.2	26.3	23.2	44	38.9	15.6	27	20.3	7.5	65.3
$\phi 12$	3/8	KQ2VF12-03□S	22	18.5	25.2	28.5	22.5	44	38.9	17	39	30.8	9	67.2
	1/2	KQ2VF12-04□S	24	18.5	27	29.9	24.4	48.9	42.5	17	39	30.8	9	95.6

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

\*1  $\phi D_1$  is maximum diameter.

\*2 Reference dimensions after installation of R thread



# Metric Size One-touch Fittings **KQ2 Series**

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

## Dimensions

### Triple Universal Male Elbow: KQ2VT (Sealant)

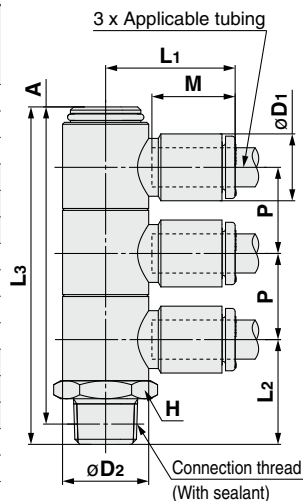


Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D1$	$\phi D2$	L1	L2	L3	A*2	M	P	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	
												Nylon	Urethane			
$\phi 4$	1/8	KQ2VT04-01□S	14	8.2	13.4	19.3	16.3	52.5	49.4	13.3	13.4	2.9	2.9	3	25.3	
	1/4	KQ2VT04-02□S	14	8.2	13.4	19.3	20.7	56.9	52.2	13.3	13.4	2.9	2.9	3	32.9	
	3/8	KQ2VT04-03□S	17	8.2	13.4	19.3	22.1	58.3	53.2	13.3	13.4	2.9	2.9	3	44.8	
$\phi 6$	1/8	KQ2VT06-01□S	14	10.4	13.4	20.5	16.3	52.5	49.4	13.3	13.4	7.5	5.9	4.5	26.2	
	1/4	KQ2VT06-02□S	14	10.4	13.4	20.5	20.7	56.9	52.2	13.3	13.4	7.5	5.9	4.5	33.9	
	3/8	KQ2VT06-03□S	17	10.4	13.4	20.5	22.1	58.3	53.2	13.3	13.4	7.5	5.9	4.5	45.8	
$\phi 8$	1/8	KQ2VT08-01□S	19	13.2	17.6	23.7	19	61.8	58.7	14.2	15.9	16	11.2	6	59.6	
	1/4	KQ2VT08-02□S	19	13.2	17.6	23.7	22.4	65.2	60.5	14.2	15.9	16	11.2	6	56.8	
	3/8	KQ2VT08-03□S	19	13.2	17.6	23.7	23	65.8	60.7	14.2	15.9	16	11.2	6	64.9	
$\phi 10$	1/2	KQ2VT08-04□S	22	13.2	17.6	23.7	27.2	70	63.6	14.2	15.9	16	11.2	6	91.5	
	1/4	KQ2VT10-02□S	21	15.9	20.6	25.7	24.3	75.5	70.8	15.6	19.2	27	20.3	7.5	82	
	3/8	KQ2VT10-03□S	21	15.9	20.6	25.7	24.7	75.9	70.8	15.6	19.2	27	20.3	7.5	81.9	
$\phi 12$	1/2	KQ2VT10-04□S	22	15.9	20.6	25.7	28.7	79.9	73.5	15.6	19.2	27	20.3	7.5	103.9	
	1/4	KQ2VT12-02□S	26	18.5	25.2	28.9	26.5	84.1	79.4	17	21.6	39	30.8	9	139.3	
	3/8	KQ2VT12-03□S	26	18.5	25.2	28.9	26.9	84.5	79.4	17	21.6	39	30.8	9	129.7	
		1/2	KQ2VT12-04□S	26	18.5	25.2	28.9	30.1	87.7	81.3	17	21.6	39	30.8	9	142.2

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

\*1  $\phi D1$  is maximum diameter.

\*2 Reference dimensions after installation of R thread



### Double Universal Male Elbow: KQ2VD (Sealant)

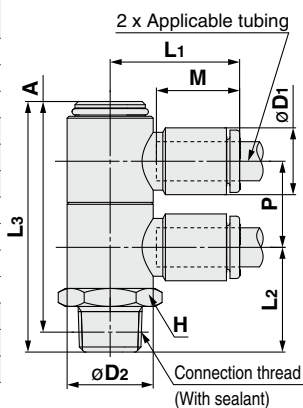


Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D1$	$\phi D2$	L1	L2	L3	A*2	M	P	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	
												Nylon	Urethane			
$\phi 4$	1/8	KQ2VD04-01□S	14	8.2	13.4	19.3	16.3	39	35.9	13.3	13.4	2.9	2.9	3	19.7	
	1/4	KQ2VD04-02□S	14	8.2	13.4	19.3	20.7	43.4	38.7	13.3	13.4	2.9	2.9	3	27.4	
	3/8	KQ2VD04-03□S	17	8.2	13.4	19.3	22.1	44.8	39.7	13.3	13.4	2.9	2.9	3	39.3	
$\phi 6$	1/8	KQ2VD06-01□S	14	10.4	13.4	20.5	16.3	39	35.9	13.3	13.4	7.5	5.9	4.5	20.3	
	1/4	KQ2VD06-02□S	14	10.4	13.4	20.5	20.7	43.4	38.7	13.3	13.4	7.5	5.9	4.5	28	
	3/8	KQ2VD06-03□S	17	10.4	13.4	20.5	22.1	44.8	39.7	13.3	13.4	7.5	5.9	4.5	39.9	
$\phi 8$	1/8	KQ2VD08-01□S	19	13.2	17.6	23.7	19	45.8	42.7	14.2	15.9	16	11.2	6	45.1	
	1/4	KQ2VD08-02□S	19	13.2	17.6	23.7	22.4	49.2	44.5	14.2	15.9	16	11.2	6	44.3	
	3/8	KQ2VD08-03□S	19	13.2	17.6	23.7	23	49.8	44.7	14.2	15.9	16	11.2	6	52.3	
$\phi 10$	1/2	KQ2VD08-04□S	22	13.2	17.6	23.7	27.2	54	47.6	14.2	15.9	16	11.2	6	78.4	
	1/4	KQ2VD10-02□S	21	15.9	20.6	25.7	24.3	56.2	51.5	15.6	19.2	27	20.3	7.5	63.1	
	3/8	KQ2VD10-03□S	21	15.9	20.6	25.7	24.7	56.6	51.5	15.6	19.2	27	20.3	7.5	65.1	
$\phi 12$	1/2	KQ2VD10-04□S	22	15.9	20.6	25.7	28.7	60.6	54.2	15.6	19.2	27	20.3	7.5	87	
	1/4	KQ2VD12-02□S	26	18.5	25.2	28.9	26.5	62.4	57.7	17	21.6	39	30.8	9	107	
	3/8	KQ2VD12-03□S	26	18.5	25.2	28.9	26.9	62.8	57.7	17	21.6	39	30.8	9	102.1	
		1/2	KQ2VD12-04□S	26	18.5	25.2	28.9	30.1	66	59.6	17	21.6	39	30.8	9	116.1

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

\*1  $\phi D1$  is maximum diameter.

\*2 Reference dimensions after installation of R thread



Round Type

Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Metric Size R, Rc

Face Seal

Inch Size NPT

Inch Size R

Gasket Seal

Metric Size Uni

Inch Size Uni

# KQ2 Series

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

## Dimensions

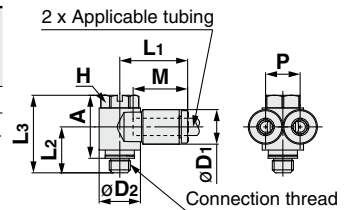
### Branch Universal Male Elbow: KQ2Z (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L1	L2	L3	A	M	P	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
$\phi 4$	M5 x 0.8	KQ2Z04-M5	8	8.2	9.8	16.5	11.4	18.4	14.9	13.3	8.2	3.4	3.4	2.5	6.2

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

\*1  $\phi D_1$  is maximum diameter.



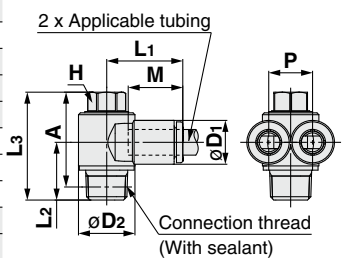
### Branch Universal Male Elbow: KQ2Z (Sealant)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L1	L2	L3	A*2	M	P	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
$\phi 4$	1/8	KQ2Z04-01	8	8.2	13.4	18.5	13.7	25.6	22.5	13.3	8.2	4.7	4.7	3	14
	1/8	KQ2Z06-01	8	10.4	13.4	18.4	13.7	25.6	22.5	13.3	10.4	10.8	8.6	4.5	14.6
$\phi 6$	1/4	KQ2Z06-02	14	10.4	20.6	21.5	19.1	34.9	30.2	13.3	10.4	10.8	8.6	4.5	37
	3/8	KQ2Z06-03	14	10.4	20.6	21.5	19.5	35.3	30.2	13.3	10.4	10.8	8.6	4.5	44.6
$\phi 8$	1/8	KQ2Z08-01	12	13.2	17.6	21.2	15.1	27.6	24.5	14.2	13.2	20.5	14.2	6	24.3
	1/4	KQ2Z08-02	12	13.2	17.6	21.2	18.5	31	26.3	14.2	13.2	20.5	14.2	6	30.8
$\phi 8$	3/8	KQ2Z08-03	14	13.2	20.6	22.3	19.5	35.3	30.2	14.2	13.2	20.5	14.2	6	46.3
	1/4	KQ2Z10-02	14	15.9	21.6	23.6	19.9	34.9	30.2	15.6	15.9	31.8	22.6	7.5	41.7
$\phi 10$	3/8	KQ2Z10-03	14	15.9	21.6	23.6	20.3	35.3	30.2	15.6	15.9	31.8	22.6	7.5	49.3
	3/8	KQ2Z12-03	17	18.5	24.1	26.9	21.2	37.6	32.5	17	18.5	44.6	35.3	9	63.4
$\phi 12$	1/2	KQ2Z12-04	17	18.5	24.1	26.9	24.4	40.8	34.4	17	18.5	44.6	35.3	9	82

□: A (Brass), N (Brass + Electroless nickel plating) \*1  $\phi D_1$  is maximum diameter.

\*2 Reference dimensions after installation of R thread



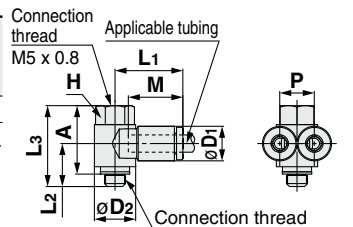
### Branch Universal Female Elbow: KQ2ZF (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L1	L2	L3	A	M	P	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
$\phi 4$	M5 x 0.8	KQ2ZF04-M5	8	8.2	9.8	16.5	10.2	19.2	16.2	13.3	8.2	3.4	3.4	2.5	6.3

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

\*1  $\phi D_1$  is maximum diameter.



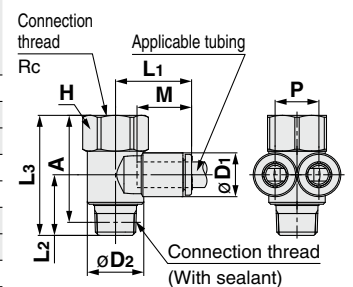
### Branch Universal Female Elbow: KQ2ZF (Sealant)



Applicable tubing O.D. [mm]	Connection thread R, Rc	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L1	L2	L3	A*2	M	P	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
$\phi 4$	1/8	KQ2ZF04-01	14	8.2	13.4	18.5	14.4	28.5	25.4	13.3	8.2	4.7	4.7	3	18.1
$\phi 6$	1/8	KQ2ZF06-01	14	10.4	13.4	18.4	14.4	28.5	25.4	13.3	10.4	10.8	8.6	4.5	18.7
	1/4	KQ2ZF06-02	19	10.4	20.6	21.5	21.2	40.3	35.6	13.3	10.4	10.8	8.6	4.5	45.3
$\phi 8$	1/8	KQ2ZF08-01	17	13.2	17.6	21.2	15.5	30	26.9	14.2	13.2	20.5	14.2	6	29.3
	1/4	KQ2ZF08-02	19	13.2	20.6	22.3	21.2	40.3	35.6	14.2	13.2	20.5	14.2	6	47
$\phi 10$	1/4	KQ2ZF10-02	19	15.9	21.6	23.6	20.4	40.3	35.6	15.6	15.9	31.8	22.6	7.5	49.9
	3/8	KQ2ZF10-03	22	15.9	25.2	25.5	23.2	44	38.9	15.6	15.9	31.8	22.6	7.5	68.4
$\phi 12$	3/8	KQ2ZF12-03	22	18.5	24.1	26.9	22.7	44	38.9	17	18.5	44.6	35.3	9	71
	1/2	KQ2ZF12-04	24	18.5	27	29.9	24.4	48.9	42.5	17	18.5	44.6	35.3	9	100.5

□: A (Brass), N (Brass + Electroless nickel plating) \*1  $\phi D_1$  is maximum diameter.

\*2 Reference dimensions after installation of R thread



# Metric Size One-touch Fittings **KQ2 Series**

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

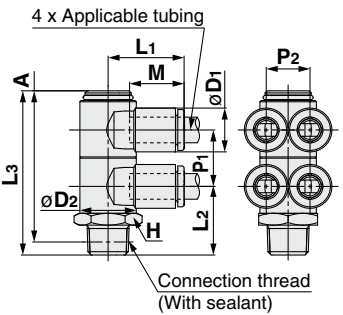
## Dimensions

### Double Branch Universal Male Elbow: KQ2ZD (Sealant)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L1	L2	L3	A*2	M	P1	P2	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
													Nylon	Urethane		
$\phi 4$	1/8	KQ2ZD04-01□S	14	8.2	13.4	18.5	16.3	39	35.9	13.3	13.4	8.2	4.7	4.7	3	21.3
	1/4	KQ2ZD04-02□S	14	8.2	13.4	18.5	20.7	43.4	38.7	13.3	13.4	8.2	4.7	4.7	3	29
$\phi 6$	3/8	KQ2ZD04-03□S	17	8.2	13.4	18.5	22.1	44.8	39.7	13.3	13.4	8.2	4.7	4.7	3	40.9
	1/8	KQ2ZD06-01□S	14	10.4	13.4	18.4	16.3	39	35.9	13.3	13.4	10.4	10.8	8.6	4.5	22.5
$\phi 8$	1/4	KQ2ZD06-02□S	14	10.4	13.4	18.4	20.7	43.4	38.7	13.3	13.4	10.4	10.8	8.6	4.5	30.2
	3/8	KQ2ZD06-03□S	17	10.4	13.4	18.4	22.1	44.8	39.7	13.3	13.4	10.4	10.8	8.6	4.5	42.1
$\phi 10$	1/8	KQ2ZD08-01□S	19	13.2	17.6	21.2	19	45.8	42.7	14.2	15.9	13.2	20.5	14.2	6	48.7
	1/4	KQ2ZD08-02□S	19	13.2	17.6	21.2	22.4	49.2	44.5	14.2	15.9	13.2	20.5	14.2	6	48
$\phi 12$	3/8	KQ2ZD08-03□S	19	13.2	17.6	21.2	23	49.8	44.7	14.2	15.9	13.2	20.5	14.2	6	55.9
	1/2	KQ2ZD08-04□S	22	13.2	17.6	21.2	27.2	54	47.6	14.2	15.9	13.2	20.5	14.2	6	82.1
$\phi 10$	1/4	KQ2ZD10-02□S	21	15.9	20.6	23.6	24.3	56.2	51.5	15.6	19.2	15.9	31.8	21.6	7.5	69
	3/8	KQ2ZD10-03□S	21	15.9	20.6	23.6	24.7	56.6	51.5	15.6	19.2	15.9	31.8	21.6	7.5	71
$\phi 12$	1/2	KQ2ZD10-04□S	22	15.9	20.6	23.6	28.7	60	53.6	15.6	19.2	15.9	31.8	21.6	7.5	92.9
	1/4	KQ2ZD12-02□S	26	18.5	25.2	26.8	26.5	62.4	57.7	17	21.6	18.5	44.6	35.3	9	116.6
$\phi 12$	3/8	KQ2ZD12-03□S	26	18.5	25.2	26.8	26.9	62.8	57.7	17	21.6	18.5	44.6	35.3	9	110.7
	1/2	KQ2ZD12-04□S	26	18.5	25.2	26.8	30.1	66	59.6	17	21.6	18.5	44.6	35.3	9	124.7

□: A (Brass), N (Brass + Electroless nickel plating) \*1  $\phi D_1$  is maximum diameter.  
\*2 Reference dimensions after installation of R thread

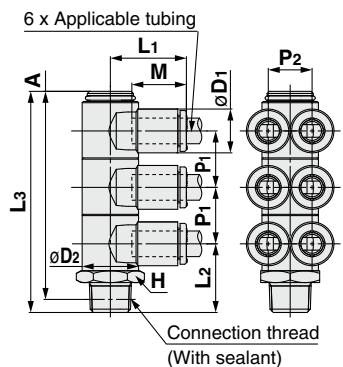


### Triple Branch Universal Male Elbow: KQ2ZT (Sealant)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L1	L2	L3	A*2	M	P1	P2	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
													Nylon	Urethane		
$\phi 4$	1/8	KQ2ZT04-01□S	14	8.2	13.4	18.5	16.3	52.5	49.4	13.3	13.4	8.2	4.7	4.7	3	27.7
	1/4	KQ2ZT04-02□S	14	8.2	13.4	18.5	20.7	56.9	52.2	13.3	13.4	8.2	4.7	4.7	3	35.3
$\phi 6$	3/8	KQ2ZT04-03□S	17	8.2	13.4	18.5	22.1	58.3	53.2	13.3	13.4	8.2	4.7	4.7	3	47.2
	1/8	KQ2ZT06-01□S	14	10.4	13.4	18.4	16.3	52.5	49.4	13.3	13.4	10.4	10.8	8.6	4.5	29.5
$\phi 8$	1/4	KQ2ZT06-02□S	14	10.4	13.4	18.4	20.7	56.9	52.2	13.3	13.4	10.4	10.8	8.6	4.5	37.2
	3/8	KQ2ZT06-03□S	17	10.4	13.4	18.4	22.1	58.3	53.2	13.3	13.4	10.4	10.8	8.6	4.5	49.1
$\phi 10$	1/8	KQ2ZT08-01□S	19	13.2	17.6	21.2	19	61.8	58.7	14.2	15.9	13.2	20.5	14.2	6	65.1
	1/4	KQ2ZT08-02□S	19	13.2	17.6	21.2	22.4	65.2	60.5	14.2	15.9	13.2	20.5	14.2	6	62.3
$\phi 12$	3/8	KQ2ZT08-03□S	19	13.2	17.6	21.2	23	65.8	60.7	14.2	15.9	13.2	20.5	14.2	6	70.4
	1/2	KQ2ZT08-04□S	22	13.2	17.6	21.2	27.2	70	63.6	14.2	15.9	13.2	20.5	14.2	6	97
$\phi 10$	1/4	KQ2ZT10-02□S	21	15.9	20.6	23.6	24.3	75.5	70.8	15.6	19.2	15.9	31.8	21.6	7.5	90.9
	3/8	KQ2ZT10-03□S	21	15.9	20.6	23.6	24.7	75.9	70.8	15.6	19.2	15.9	31.8	21.6	7.5	90.7
$\phi 12$	1/2	KQ2ZT10-04□S	22	15.9	20.6	23.6	28.7	79.9	73.5	15.6	19.2	15.9	31.8	21.6	7.5	112.7
	1/4	KQ2ZT12-02□S	26	18.5	25.2	26.8	26.5	84.1	79.4	17	21.6	18.5	44.6	35.3	9	152.2
$\phi 12$	3/8	KQ2ZT12-03□S	26	18.5	25.2	26.8	26.9	84.5	79.4	17	21.6	18.5	44.6	35.3	9	142.6
	1/2	KQ2ZT12-04□S	26	18.5	25.2	26.8	30.1	87.7	81.3	17	21.6	18.5	44.6	35.3	9	155.1

□: A (Brass), N (Brass + Electroless nickel plating) \*1  $\phi D_1$  is maximum diameter.  
\*2 Reference dimensions after installation of R thread



Round Type

Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Face Seal

Metric Size R, Rc

Inch Size NPT

Inch Size R

Gasket Seal

Metric Size Uni

Inch Size Uni



# KQ2 Series

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

## Dimensions

### Female Elbow: KQ2LF

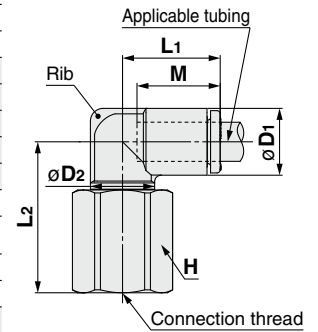


Applicable tubing O.D. [mm]	Connection thread M, Rc	Model	H (Width across flats)	*1 $\phi D1$	$\phi D2$	L1	L2	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	With a rib
									Nylon	Urethane			
$\phi 4$	M5 x 0.8	KQ2LF04-M5□	8	8.2	7	15.4	15.3	13.3	3.5	3.5	2.5	4.7	●
	M6 x 1.0	KQ2LF04-M6□	8	8.2	7	15.4	16.1	13.3	3.5	3.5	2.5	4.6	●
	1/8	KQ2LF04-01□	14	8.2	10	14.8	22.4	13.3	4.2	4.2	3	17.6	●
	1/4	KQ2LF04-02□	17	8.2	10	14.8	26.9	13.3	4.2	4.2	3	29.6	●
$\phi 6$	M5 x 0.8	KQ2LF06-M5□	8	10.4	7	14.5	17	13.3	3.5	3.5	2.5	4.8	●
	M6 x 1.0	KQ2LF06-M6□	8	10.4	7	14.5	17.8	13.3	3.5	3.5	2.5	4.7	●
	1/8	KQ2LF06-01□	14	10.4	10	15.5	23.5	13.3	11.4	9	4.5	18	—
	1/4	KQ2LF06-02□	17	10.4	10	15.5	28	13.3	11.4	9	4.5	30.1	—
$\phi 8$	3/8	KQ2LF06-03□	19	10.4	10	15.5	28.5	13.3	11.4	9	4.5	34	—
	1/8	KQ2LF08-01□	14	13.2	10	16.4	24.9	14.2	11.4	11.4	4.5	18.8	●
		KQ2LF08-01□*2	14	13.2	12	17.2	23	14.2	21.6	14.9	6	14.6	●
	1/4	KQ2LF08-02□	17	13.2	12	17.2	28.8	14.2	21.6	14.9	6	28.7	●
$\phi 10$	3/8	KQ2LF08-03□	19	13.2	12	17.2	29.3	14.2	21.6	14.9	6	32.3	●
	1/4	KQ2LF10-02□	17	15.9	17	19.3	27.4	15.6	21.6	14.9	7.5	26.4	●
	3/8	KQ2LF10-03□	19	15.9	17	19.3	33.5	15.6	35.2	25	7.5	31	●
	1/2	KQ2LF10-04□	24	15.9	17	19.3	36.5	15.6	35.2	25	7.5	57.6	●
$\phi 12$	1/4	KQ2LF12-02□	17	18.5	17	21.5	28.7	17	50.2	39.7	9	28.2	●
	3/8	KQ2LF12-03□	19	18.5	17	21.5	34.8	17	50.2	39.7	9	32.9	●
	1/2	KQ2LF12-04□	24	18.5	17	21.5	37.8	17	50.2	39.7	9	59.5	●

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

\*1  $\phi D1$  is maximum diameter.

\*2 For details, refer to page 131.

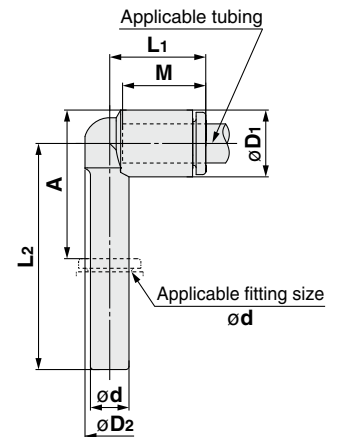


### Extended Plug-in Elbow: KQ2W



Applicable tubing O.D. [mm]	Applicable fitting size $\phi d$	Model	*1 $\phi D1$	$\phi D2$	L1	L2	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
									Nylon	Urethane		
$\phi 3.2$	$\phi 3.2$	KQ2W23-99A	7.1	6.4	14.4	30.5	20.8	13.3	3	2.5	2.5	1
$\phi 4$	$\phi 4$	KQ2W04-99A	8.2	7.2	14.5	31.8	22.6	13.3	4.2	4.2	3	1.3
$\phi 6$	$\phi 6$	KQ2W06-99A	10.4	8	15.3	35.2	27.1	13.3	9	9	4	2
$\phi 8$	$\phi 8$	KQ2W08-99A	13.2	10	17.2	41.9	34.3	14.2	21.6	14.9	6	3.5
$\phi 10$	$\phi 10$	KQ2W10-99A	15.9	12	19.3	46.6	38.9	15.6	35.2	25	7.5	5.5
$\phi 12$	$\phi 12$	KQ2W12-99A	18.5	14	21.5	52	44.2	17	50.2	39.7	9	8.4

\*1  $\phi D1$  is maximum diameter.



# Metric Size One-touch Fittings **KQ2 Series**

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

## Dimensions

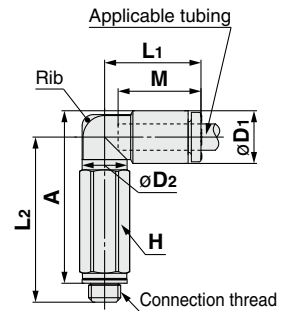
### Extended Male Elbow: KQ2W (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L1	L2	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	With a rib
										Nylon	Urethane			
$\phi 2$	M3 x 0.5	KQ2W02-M3G	5.5	5.8	5.5	12.6	18.8	19.1	11.9	—	0.8	1.2	2.6	●
	M5 x 0.8	KQ2W02-M5□	7	5.8	5.5	12.6	19.3	19.2	11.9	—	0.8	1.2	4.6	●
$\phi 3.2$	M3 x 0.5	KQ2W23-M3G	7	7.1	7	15.3	22.5	23.4	13.3	0.8	0.8	1.2	4.8	●
	M5 x 0.8	KQ2W23-M5□	7	7.1	7	15.3	25.2	25.7	13.3	2.8	2.4	2.5	5.8	●
$\phi 4$	M3 x 0.5	KQ2W04-M3G	7	8.2	7	15.4	23	24.5	13.3	0.8	0.8	1.2	4.9	●
	M5 x 0.8	KQ2W04-M5□	7	8.2	7	15.4	25.7	26.8	13.3	3	3	2.5	5.8	●
$\phi 6$	M5 x 0.8	KQ2W06-M5□	7	10.4	7	14.5	27.4	29.6	13.3	3	3	2.5	5.9	●

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

\*1  $\phi D_1$  is maximum diameter.



### Extended Male Elbow: KQ2W (Sealant)



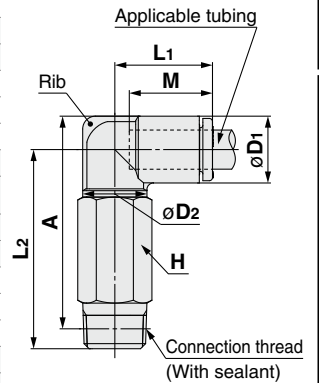
Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L1	L2	A*2	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	With a rib
										Nylon	Urethane			
$\phi 3.2$	1/8	KQ2W23-01□S	10	7.1	10	14.5	30.3	30.8	13.3	2.8	2.4	2.5	10.8	—
	1/4	KQ2W23-02□S	14	7.1	10	14.5	32.8	31.7	13.3	2.8	2.4	2.5	27.3	—
$\phi 4$	1/8	KQ2W04-01□S	10	8.2	10	14.8	29.9	30.9	13.3	4	4	3	11	●
	1/4	KQ2W04-02□S	14	8.2	10	14.8	33.3	32.7	13.3	4	4	3	27.5	●
$\phi 6$	1/8	KQ2W06-01□S	10	10.4	10	15.5	31	33.1	13.3	10.9	8.6	4.5	11.4	—
	1/4	KQ2W06-02□S	14	10.4	10	15.5	34.4	34.9	13.3	10.9	8.6	4.5	28	—
	3/8	KQ2W06-03□S	17	10.4	10	15.5	35.7	35.8	13.3	10.9	8.6	4.5	47.4	—
$\phi 8$	1/8	KQ2W08-01□S	10	13.2	10	16.4	32.4	35.9	14.2	10.9	10.9	4.5	12.2	●
	1/4	KQ2W08-01□QS*3	12	13.2	12	17.2	42.4	45.9	14.2	20.5	14.2	6	23.7	●
	1/4	KQ2W08-02□S	14	13.2	12	17.2	39.1	41	14.2	20.5	14.2	6	40	●
$\phi 10$	3/8	KQ2W08-03□S	17	13.2	12	17.2	39.2	40.7	14.2	20.5	14.2	6	47	●
	1/4	KQ2W10-02□S	17	15.9	17	19.3	52.9	56.2	15.6	33.5	23.8	7.5	59	●
	1/2	KQ2W10-04□S	22	15.9	17	19.3	52.5	54.1	15.6	33.5	23.8	7.5	92	●
$\phi 12$	1/4	KQ2W10-03□S	17	15.9	17	19.3	48.5	51.4	15.6	33.5	23.8	7.5	51.3	●
	1/4	KQ2W12-02□S	17	18.5	17	21.5	54.2	58.8	17	47.7	37.7	9	60.7	●
	3/8	KQ2W12-03□S	17	18.5	17	21.5	49.8	54	17	47.7	37.7	9	53.2	●
$\phi 16$	1/2	KQ2W12-04□S	22	18.5	17	21.5	53.8	56.7	17	47.7	37.7	9	93.9	●
	1/4	KQ2W16-02□S	17	23.8	17	25.1	56.9	64.1	20.6	47.7	47.7	9	67.4	●
	3/8	KQ2W16-03□S	22	23.8	21	27.1	59.7	66.5	20.6	71	58.9	11	105.5	—
	1/2	KQ2W16-04□S	22	23.8	21	27.1	58.4	63.9	20.6	100	58.9	13	101.7	—

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

\*1  $\phi D_1$  is maximum diameter.

\*2 Reference dimensions after installation of R thread

\*3 For details, refer to page 131.



Round Type

Metric Size M, R, Rc

Sealant/Gasket Seal

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

# KQ2 Series

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

## Dimensions

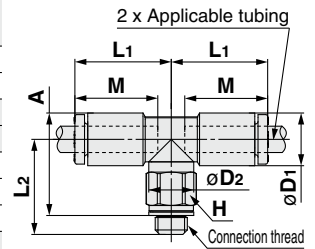
### Male Branch Tee: KQ2T (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
										Nylon	Urethane		
$\phi 2$	M3 x 0.5	KQ2T02-M3G	5.5	5.8	5.5	12.6	12.5	12.8	11.9	—	0.9	1.2	1.9
	M5 x 0.8	KQ2T02-M5□	7	5.8	5.5	12.6	13	12.9	11.9	—	0.9	1.4	3
$\phi 3.2$	M3 x 0.5	KQ2T23-M3G	7	7.1	7	15.3	13.8	14.7	13.3	0.9	0.9	1.2	3.1
	M5 x 0.8	KQ2T23-M5□	7	7.1	7	15.3	14.3	14.8	13.3	3.2	2.7	2.5	3.5
$\phi 4$	M3 x 0.5	KQ2T04-M3G	7	8.2	7	15.4	14.3	15.8	13.3	0.9	0.9	1.2	3.4
	M5 x 0.8	KQ2T04-M5□	7	8.2	7	15.4	14.8	15.9	13.3	4.5	4.5	2.5	3.9
	M6 x 1.0	KQ2T04-M6□	8	8.2	7	15.4	15.8	15.9	13.3	4.5	4.5	2.5	4.9
$\phi 6$	M5 x 0.8	KQ2T06-M5□	7	10.4	7	14.5	16.5	18.7	13.3	4.5	4.5	2.5	4.4
	M6 x 1.0	KQ2T06-M6□	8	10.4	7	14.5	17.5	18.7	13.3	4.5	4.5	2.5	5.4

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

\*1  $\phi D_1$  is maximum diameter.



### Male Branch Tee: KQ2T (Sealant)



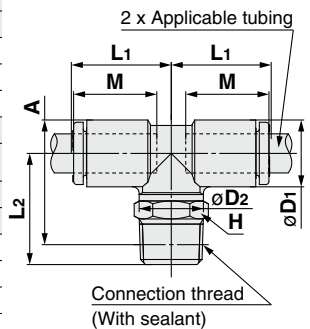
Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	A*2	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
										Nylon	Urethane		
$\phi 3.2$	1/8	KQ2T23-01□S	10	7.1	10	14.5	16.6	17.1	13.3	3.4	2.9	2.5	5.2
	1/4	KQ2T23-02□S	14	7.1	10	14.5	21.1	20	13.3	3.4	2.9	2.5	14.7
$\phi 4$	1/8	KQ2T04-01□S	10	8.2	10	14.8	16.2	17.2	13.3	6	4.1	3	5.5
	1/4	KQ2T04-02□S	14	8.2	10	14.8	21.7	21.1	13.3	6	4.1	3	15
$\phi 6$	1/8	KQ2T06-01□S	10	10.4	10	15.5	17.3	19.4	13.3	13.9	11	4.5	6.1
	1/4	KQ2T06-02□S	14	10.4	10	15.5	22.8	23.3	13.3	13.9	11	4.5	15.6
	3/8	KQ2T06-03□S	17	10.4	10	15.5	24.1	24.2	13.3	13.9	11	4.5	27.4
$\phi 8$	1/8	KQ2T08-01□S	10	13.2	10	16.4	18.7	22.2	14.2	14	14	4.5	7.9
	1/4	KQ2T08-02□S	14	13.2	12	17.2	23.5	27	14.2	26.3	18.2	6	11.0
	3/8	KQ2T08-03□S	17	13.2	12	17.2	25.5	27	14.2	26.3	18.2	6	26.5
$\phi 10$	1/8	KQ2T10-01□S	12	15.9	12	18.6	23.5	28.4	15.6	21.6	14.9	6	13.9
	1/4	KQ2T10-02□S	17	15.9	17	19.3	28.6	31.9	15.6	35.2	25	7.5	24.3
	3/8	KQ2T10-03□S	17	15.9	17	19.3	29.5	32.4	15.6	35.2	25	7.5	24.8
	1/2	KQ2T10-04□S	22	15.9	17	19.3	33.5	35.1	15.6	35.2	25	7.5	47.3
$\phi 12$	1/4	KQ2T12-02□S	17	18.5	17	21.5	29.9	34.5	17	57.2	45.2	9	27.3
	3/8	KQ2T12-03□S	17	18.5	17	21.5	30.8	35	17	57.2	45.2	9	28
$\phi 12$	1/2	KQ2T12-04□S	22	18.5	17	21.5	34.8	37.7	17	57.2	45.2	9	50.4
	1/4	KQ2T16-02□S	17	23.8	17	25.1	32.6	39.8	20.6	57.2	57.2	9	35.5
$\phi 16$	3/8	KQ2T16-03□S	22	23.8	21	27.1	35.4	42.2	20.6	71	58.9	11	47.7
	1/2	KQ2T16-04□S	22	23.8	21	27.1	34.1	39.6	20.6	100	58.9	13	51.4

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

\*1  $\phi D_1$  is maximum diameter.

\*2 Reference dimensions after installation of R thread

\*3 For details, refer to page 131.



# Metric Size One-touch Fittings **KQ2 Series**

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

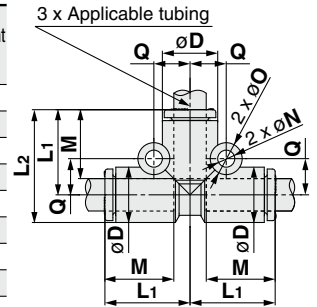
## Dimensions

### Union Tee: KQ2T



Applicable tubing O.D. [mm]	Model	*1 $\phi D$	L1	L2	M	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
									Nylon	Urethane		
$\phi 2$	KQ2T02-00A	5.8	12.9	15.8	11.9	4.5	6	3.2	—	0.9	1.4	1.4
$\phi 3.2$	KQ2T23-00A	7.1	14.9	18.5	13.3	5.4	6	3.2	3.4	2.9	2.5	2.3
$\phi 4$	KQ2T04-00A	8.2	15.3	19.4	13.3	5.7	6	3.2	6.4	4.4	3	2.8
$\phi 6$	KQ2T06-00A	10.4	16.3	21.5	13.3	6.8	6	3.2	13.4	10.6	4.5	3.8
$\phi 8$	KQ2T08-00A	13.2	18.2	24.8	14.2	8.4	8	4.2	25.6	17.7	6	7
$\phi 10$	KQ2T10-00A	15.9	20.6	28.6	15.6	9.6	8	4.2	40	28.4	7.5	11
$\phi 12$	KQ2T12-00A	18.5	23	32.3	17	10.7	8	4.2	57.4	45.4	9	15.7
$\phi 16$	KQ2T16-00A	23.8	28.6	40.5	20.6	13.4	8	4.2	100	58.9	13	29.8

\*1  $\phi D$  is maximum diameter.

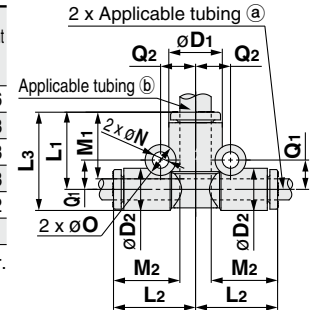


### Different Diameter Tee: KQ2T



Applicable tubing O.D. [mm]		Model	*1 $\phi D1$	$\phi D2$	L1	L2	L3	M1	M2	Q1	Q2	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
a	b													Nylon	Urethane		
$\phi 3.2$	$\phi 4$	KQ2T23-04A	8.2	7.1	14.9	15.3	18.5	13.3	13.3	5.4	5.8	6	3.2	3.8	3.5	2.5	2.6
$\phi 4$	$\phi 6$	KQ2T04-06A	10.4	8.2	15.3	16.3	19.4	13.3	13.3	5.7	6.8	6	3.2	7.1	6.6	3	3.3
$\phi 6$	$\phi 8$	KQ2T06-08A	13.2	10.4	17.2	17.3	22.4	14.2	13.3	7.3	8.4	8	4.2	16.4	16.4	4.5	5.3
$\phi 8$	$\phi 10$	KQ2T08-10A	15.9	13.2	19.6	19.2	26.2	15.6	14.2	8.4	9.6	8	4.2	36	27.2	6	8.3
$\phi 10$	$\phi 12$	KQ2T10-12A	18.5	15.9	22	21.6	30	17	15.6	9.6	10.7	8	4.2	56	44.5	7.5	12.2
$\phi 12$	$\phi 16$	KQ2T12-16A	23.8	18.5	26.6	25	35.9	20.6	17	10.7	13.4	8	4.2	108.5	74	9	20.1

\*1  $\phi D1$  is maximum diameter.

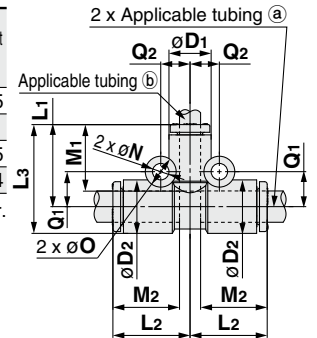


### Different Diameter Tee: KQ2T



Applicable tubing O.D. [mm]		Model	*1 $\phi D1$	$\phi D2$	L1	L2	L3	M1	M2	Q1	Q2	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
a	b													Nylon	Urethane		
$\phi 6$	$\phi 4$	KQ2T06-04A	8.2	10.4	16.3	15.3	21.5	13.3	13.3	6.8	5.7	6	3.2	6.4	4.4	3	3.5
$\phi 8$	$\phi 6$	KQ2T08-06A	10.4	13.2	17.3	17.2	23.9	13.3	14.2	8.4	7.3	8	4.2	13.4	10.6	4.5	6
$\phi 10$	$\phi 8$	KQ2T10-08A	13.2	15.9	19.2	19.6	27.2	14.2	15.6	9.6	8.4	8	4.2	25.6	17.7	6	9.5
$\phi 12$	$\phi 10$	KQ2T12-10A	15.9	18.5	21.6	22	30.9	15.6	17	10.7	9.6	8	4.2	40	28.4	7.5	13.4

\*1  $\phi D1$  is maximum diameter.



Round Type

Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Metric Size R, Rc

Face Seal

Inch Size NPT

Inch Size R

Metric Size Uni

Gasket Seal

Inch Size Uni

# KQ2 Series

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

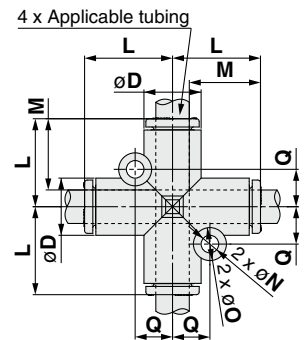
## Dimensions

### Cross: KQ2TW

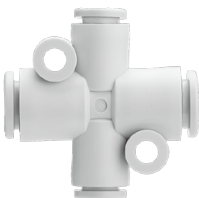


Applicable tubing O.D. [mm]	Model	*1 $\phi D$	L	Q	M	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
								Nylon	Urethane		
$\phi 4$	KQ2TW04-00A	8.2	15.3	5.7	13.3	6	3.2	6.4	4.4	3	3.5
$\phi 6$	KQ2TW06-00A	10.4	16.3	6.8	13.3	6	3.2	13.4	10.6	4.5	4.9
$\phi 8$	KQ2TW08-00A	13.2	18.2	8.4	14.2	8	4.2	25.6	17.7	6	8.5
$\phi 10$	KQ2TW10-00A	15.9	20.6	9.6	15.6	8	4.2	40	28.4	7.5	12.7
$\phi 12$	KQ2TW12-00A	18.5	23	10.7	17	8	4.2	57.4	45.4	9	18.4

\*1  $\phi D$  is maximum diameter.

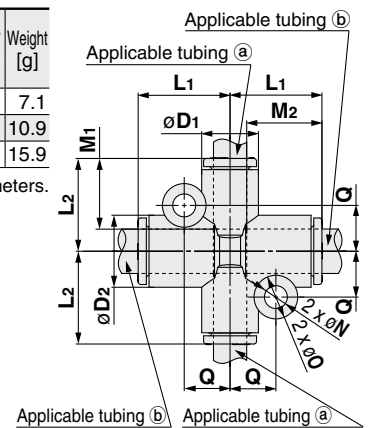


### Different Diameter Cross: KQ2TX



Applicable tubing O.D. [mm]		Model	*1 $\phi D_1$	*1 $\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	Q	M <sub>1</sub>	M <sub>2</sub>	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
(a)	(b)											Nylon	Urethane		
$\phi 6$	$\phi 8$	KQ2TX06-08A	10.4	13.2	17.2	17.3	8.4	13.3	14.2	8	4.2	13.4	10.6	4.5	7.1
$\phi 8$	$\phi 10$	KQ2TX08-10A	13.2	15.9	19.6	19.2	9.6	14.2	15.6	8	4.2	25.6	17.7	6	10.9
$\phi 10$	$\phi 12$	KQ2TX10-12A	15.9	18.5	22	21.6	10.7	15.6	17	8	4.2	40	28.4	7.5	15.9

\*1  $\phi D_1, \phi D_2$  are maximum diameters.

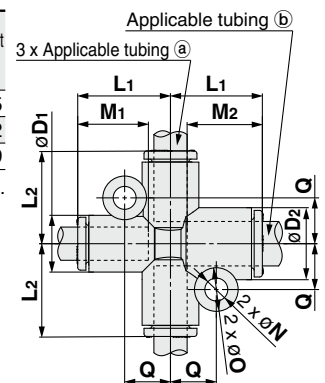


### Different Diameter Cross: KQ2TY



Applicable tubing O.D. [mm]		Model	*1 $\phi D_1$	*1 $\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	Q	M <sub>1</sub>	M <sub>2</sub>	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
(a)	(b)											Nylon	Urethane		
$\phi 6$	$\phi 8$	KQ2TY06-08A	10.4	13.2	17.3	17.2	8.4	13.3	14.2	8	4.2	13.4	10.6	4.5	6.5
$\phi 8$	$\phi 10$	KQ2TY08-10A	13.2	15.9	19.2	19.6	9.6	14.2	15.6	8	4.2	25.6	17.7	6	10.2
$\phi 10$	$\phi 12$	KQ2TY10-12A	15.9	18.5	21.6	22	10.7	15.6	17	8	4.2	40	28.4	7.5	14.9

\*1  $\phi D_1, \phi D_2$  are maximum diameters.



# Metric Size One-touch Fittings **KQ2 Series**

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

## Dimensions

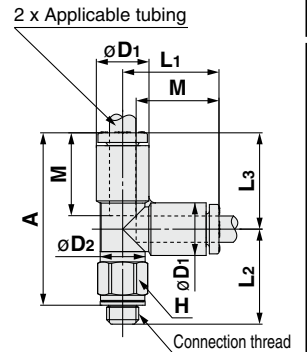
### Male Run Tee: KQ2Y (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L1	L2	L3	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
$\phi 2$	M3 x 0.5	KQ2Y02-M3G	5.5	5.8	5.5	12.9	12.5	12.9	22.8	11.9	—	0.9	1.2	2
	M5 x 0.8	KQ2Y02-M5□	7	5.8	5.5	12.9	13	12.9	22.9	11.9	—	0.9	1.4	3.1
$\phi 3.2$	M3 x 0.5	KQ2Y23-M3G	7	7.1	7	15.3	13.8	15.3	26.5	13.3	0.9	0.9	1.2	3.1
	M5 x 0.8	KQ2Y23-M5□	7	7.1	7	15.3	14.3	15.3	26.6	13.3	3.2	2.7	2.5	3.5
$\phi 4$	M3 x 0.5	KQ2Y04-M3G	7	8.2	7	15.4	14.3	15.4	27.1	13.3	0.9	0.9	1.2	3.4
	M5 x 0.8	KQ2Y04-M5□	7	8.2	7	15.4	14.8	15.4	27.2	13.3	4.5	4.5	2.5	3.9
$\phi 6$	M6 x 1.0	KQ2Y04-M6□	8	8.2	7	15.4	15.8	15.4	27.2	13.3	4.5	4.5	2.5	4.9
	M5 x 0.8	KQ2Y06-M5□	7	10.4	7	16.3	16.5	16.3	29.8	13.3	4.5	4.5	2.5	4.6
	M6 x 1.0	KQ2Y06-M6□	8	10.4	7	16.3	17.5	16.3	29.8	13.3	4.5	4.5	2.5	5.7

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

\*1  $\phi D_1$  is maximum diameter.



### Male Run Tee: KQ2Y (Sealant)



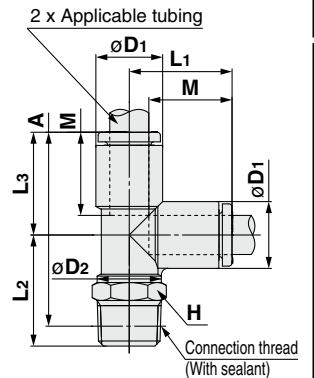
Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L1	L2	L3	A*2	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
$\phi 3.2$	1/8	KQ2Y23-01□S	10	7.1	10	14.9	16.6	14.9	28.5	13.3	3.4	2.9	2.5	5.3
	1/4	KQ2Y23-02□S	14	7.1	10	14.9	21.1	14.9	31.4	13.3	3.4	2.9	2.5	14.7
$\phi 4$	1/8	KQ2Y04-01□S	10	8.2	10	15.3	16.2	15.3	28.4	13.3	6.4	4.4	3	5.6
	1/4	KQ2Y04-02□S	14	8.2	10	15.3	21.7	15.3	32.3	13.3	6.4	4.4	3	15
$\phi 6$	1/8	KQ2Y06-01□S	10	10.4	10	16.3	17.3	16.3	30.5	13.3	13.4	10.6	4.5	6.2
	1/4	KQ2Y06-02□S	14	10.4	10	16.3	22.8	16.3	34.4	13.3	13.4	10.6	4.5	15.8
	3/8	KQ2Y06-03□S	17	10.4	10	16.3	24.1	16.3	35.3	13.3	13.4	10.6	4.5	27.5
$\phi 8$	1/8	KQ2Y08-01□S	10	13.2	10	18.2	18.7	18.2	33.8	14.2	13.4	13.4	4.5	8
		KQ2Y08-01□*3S	12	13.2	12	18.2	23.5	18.2	38.7	14.2	25.6	17.7	6	11.1
	1/4	KQ2Y08-02□S	14	13.2	12	18.2	25.4	18.2	38.9	14.2	25.6	17.7	6	19.5
$\phi 10$	3/8	KQ2Y08-03□S	17	13.2	12	18.2	25.5	18.2	38.6	14.2	25.6	17.7	6	26.5
	1/8	KQ2Y10-01□S	12	15.9	12	20.6	23.5	20.6	41.1	15.6	40	28.4	6	14
	1/4	KQ2Y10-02□S	17	15.9	17	20.6	28.6	20.6	44.6	15.6	40	28.4	7.5	24.5
$\phi 12$	3/8	KQ2Y10-03□S	17	15.9	17	20.6	29.5	20.6	45.1	15.6	40	28.4	7.5	25
	1/2	KQ2Y10-04□S	22	15.9	17	20.6	33.5	20.6	47.8	15.6	40	28.4	7.5	47.4
	1/4	KQ2Y12-02□S	17	18.5	17	23	29.9	23	48.3	17	57.4	45.4	9	27.6
$\phi 16$	3/8	KQ2Y12-03□S	17	18.5	17	23	30.8	23	48.8	17	57.4	45.4	9	28.2
	1/2	KQ2Y12-04□S	22	18.5	17	23	34.8	23	51.5	17	57.4	45.4	9	50.7
$\phi 16$	1/4	KQ2Y16-02□S	17	23.8	17	28.6	32.6	28.6	56.5	20.6	57.4	45.4	9	36
	3/8	KQ2Y16-03□S	22	23.8	21	28.6	35.4	28.6	58.9	20.6	81	60	11	48.3
	1/2	KQ2Y16-04□S	22	23.8	21	28.6	34.1	28.6	56.3	20.6	113	60	13	52

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

\*1  $\phi D_1$  is maximum diameter.

\*2 Reference dimensions after installation of R thread

\*3 For details, refer to page 131.



Round 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

Face Seal

Sealant/Gasket Seal

# KQ2 Series

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

## Dimensions

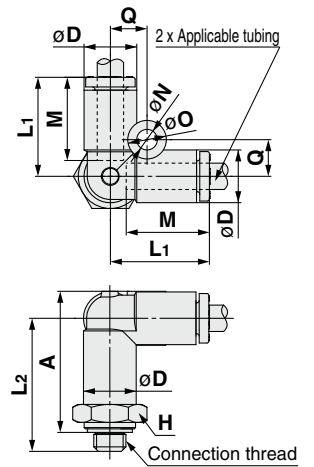
### Male Delta Union: KQ2D (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	*1 $\phi D$	L1	L2	A	M	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
$\phi 4$	M5 x 0.8	KQ2D04-M5□	10	8.2	15.8	20.7	21.8	13.3	5.7	6	3.2	2.2	2.2	1.8	6.6
	M6 x 1.0	KQ2D04-M6□	10	8.2	15.8	21.7	21.8	13.3	5.7	6	3.2	4.3	4.3	3	6.4
$\phi 6$	M5 x 0.8	KQ2D06-M5□	12	10.4	16.8	21.7	23.9	13.3	6.7	6	3.2	4.3	4.3	1.8	9.8
	M6 x 1.0	KQ2D06-M6□	12	10.4	16.8	22.7	23.9	13.3	6.7	6	3.2	4.3	4.3	3	9.7

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

\*1  $\phi D$  is maximum diameter.



### Male Delta Union: KQ2D (Sealant)

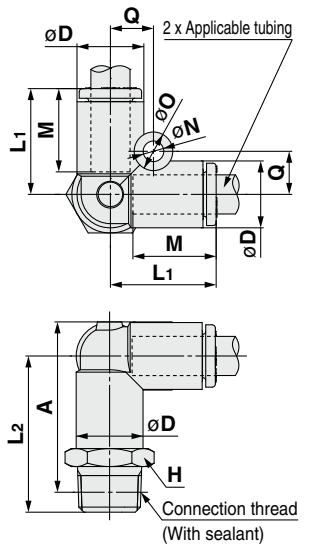


Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D$	L1	L2	A*2	M	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
$\phi 4$	1/8	KQ2D04-01□S	10	8.2	15.8	23.3	24.3	13.3	5.7	6	3.2	6	6	3.6	9.2
	1/4	KQ2D04-02□S	14	8.2	15.8	27.7	27.1	13.3	5.7	6	3.2	6	6	3.6	19
$\phi 6$	1/8	KQ2D06-01□S	12	10.4	16.8	24.3	26.4	13.3	6.7	6	3.2	13.9	11	5.4	10.2
	1/4	KQ2D06-02□S	14	10.4	16.8	28.7	29.2	13.3	6.7	6	3.2	13.9	11	5.4	19.1
	3/8	KQ2D06-03□S	17	10.4	16.8	30.1	30.2	13.3	6.7	6	3.2	13.9	11	5.4	31
$\phi 8$	1/8	KQ2D08-01□S	14	13.2	18.8	26.3	29.8	14.2	8.4	8	4.2	26.3	18.2	6	15.3
	1/4	KQ2D08-02□S	14	13.2	18.8	30.7	32.6	14.2	8.4	8	4.2	26.3	18.2	7.3	20.4
	3/8	KQ2D08-03□S	17	13.2	18.8	32.1	33.6	14.2	8.4	8	4.2	26.3	18.2	7.3	32.1
$\phi 10$	1/4	KQ2D10-02□S	17	15.9	21.2	33.1	36.3	15.6	9.6	8	4.2	40.8	29	9	24.9
	3/8	KQ2D10-03□S	17	15.9	21.2	34.5	37.3	15.6	9.6	8	4.2	40.8	29	9.4	32.7
	1/2	KQ2D10-04□S	22	15.9	21.2	38.7	40.2	15.6	9.6	8	4.2	40.8	29	9.4	60.6
$\phi 12$	1/4	KQ2D12-02□S	19	18.5	23.6	35.5	40	17	10.7	8	4.2	57.2	45.2	9	35
	3/8	KQ2D12-03□S	19	18.5	23.6	36.9	41	17	10.7	8	4.2	57.2	45.2	11	38
	1/2	KQ2D12-04□S	22	18.5	23.6	41.1	43.9	17	10.7	8	4.2	57.2	45.2	11.6	60

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

\*1  $\phi D$  is maximum diameter.

\*2 Reference dimensions after installation of R thread



# Metric Size One-touch Fittings **KQ2 Series**

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

## Dimensions

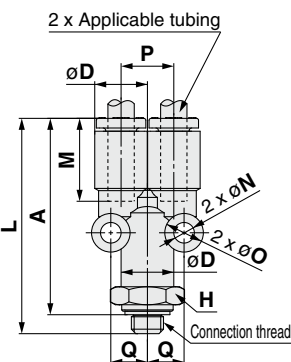
### Branch "Y": KQ2U (Gasket seal)



Applicable tubing O.D. [mm]	Connection thread M	Model	H (Width across flats)	*1 $\phi D$	L	A	M	P	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
$\phi 3.2$	M5 x 0.8	KQ2U23-M5□	10	7.1	33.8	30.8	13.3	7.1	5.2	6	3.2	2.2	2.2	1.8	5.8
$\phi 4$	M5 x 0.8	KQ2U04-M5□	10	8.2	33.9	30.9	13.3	8.2	5.7	6	3.2	2.2	2.2	1.8	6.7
	M6 x 1.0	KQ2U04-M6□	10	8.2	34.9	30.9	13.3	8.2	5.7	6	3.2	2.2	2.2	3	6.6
$\phi 6$	M5 x 0.8	KQ2U06-M5□	12	10.4	35	32	13.3	10.4	6.8	6	3.2	2.2	2.2	1.8	10
	M6 x 1.0	KQ2U06-M6□	12	10.4	36	32	13.3	10.4	6.8	6	3.2	2.2	2.2	3	9.8

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

\*1  $\phi D$  is maximum diameter.



### Branch "Y": KQ2U (Sealant)

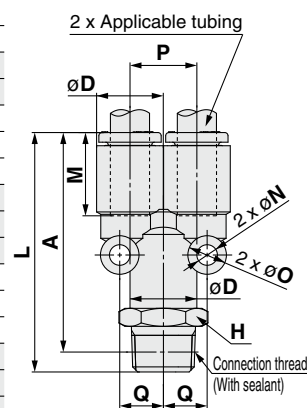


Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D$	L	A*2	M	P	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
$\phi 3.2$	1/8	KQ2U23-01□S	10	7.1	36.4	33.3	13.3	7.1	5.2	6	3.2	3.4	2.9	2.7	8.6
	1/4	KQ2U23-02□S	14	7.1	40.8	36.1	13.3	7.1	5.2	6	3.2	3.4	2.9	2.7	19
$\phi 4$	1/8	KQ2U04-01□S	10	8.2	36.5	33.4	13.3	8.2	5.7	6	3.2	4.2	4.2	3.6	9.3
	1/4	KQ2U04-02□S	14	8.2	40.9	36.2	13.3	8.2	5.7	6	3.2	4.2	4.2	3.6	19.1
$\phi 6$	1/8	KQ2U06-01□S	12	10.4	37.6	34.5	13.3	10.4	6.8	6	3.2	13.4	10.6	5.4	10.3
	1/4	KQ2U06-02□S	14	10.4	42	37.3	13.3	10.4	6.8	6	3.2	13.4	10.6	5.4	19.2
	3/8	KQ2U06-03□S	17	10.4	43.4	38.3	13.3	10.4	6.8	6	3.2	13.4	10.6	5.4	31.2
$\phi 8$	1/8	KQ2U08-01□S	14	13.2	40.7	37.6	14.2	13.2	8.7	8	4.2	25.6	17.7	6	15.8
	1/4	KQ2U08-02□S	14	13.2	45.1	40.4	14.2	13.2	8.7	8	4.2	25.6	17.7	7.3	20.9
	3/8	KQ2U08-03□S	17	13.2	46.5	41.4	14.2	13.2	8.7	8	4.2	25.6	17.7	7.3	32.7
$\phi 10$	1/4	KQ2U10-02□S	17	15.9	49	44.3	15.6	15.9	10.1	8	4.2	40	28.4	9	25.6
	3/8	KQ2U10-03□S	17	15.9	50.4	45.3	15.6	15.9	10.1	8	4.2	40	28.4	9.4	33.4
	1/2	KQ2U10-04□S	22	15.9	54.6	48.2	15.6	15.9	10.1	8	4.2	40	28.4	9.4	61.3
$\phi 12$	1/4	KQ2U12-02□S	19	18.5	53	48.3	17	18.5	11.4	8	4.2	57.4	45.4	9	36
	3/8	KQ2U12-03□S	19	18.5	54.4	49.3	17	18.5	11.4	8	4.2	57.4	45.4	11	38.9
	1/2	KQ2U12-04□S	22	18.5	58.6	52.2	17	18.5	11.4	8	4.2	57.4	45.4	11.6	61
$\phi 16$	1/4	KQ2U16-02□S	24	23.8	62.4	57.7	20.6	23.8	14	8	4.2	57.4	45.4	9	67.6
	3/8	KQ2U16-03□S	24	23.8	63.8	58.7	20.6	23.8	14	8	4.2	81	60	11	71.5
	1/2	KQ2U16-04□S	24	23.8	68	61.6	20.6	23.8	14	8	4.2	113	60	13	82.6

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

\*1  $\phi D$  is maximum diameter.

\*2 Reference dimensions after installation of R thread

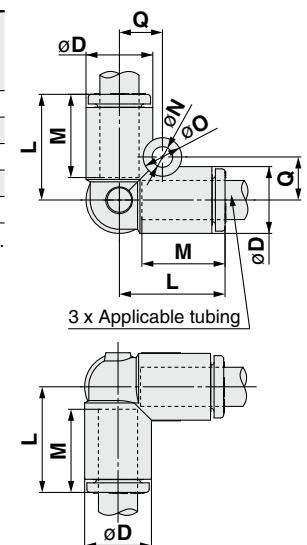


### Delta Union: KQ2D



Applicable tubing O.D. [mm]	Model	*1 $\phi D$	L	M	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
								Nylon	Urethane		
$\phi 4$	KQ2D04-00A	8.2	15.8	13.3	5.7	6	3.2	6	4.1	3	2.7
$\phi 6$	KQ2D06-00A	10.4	16.8	13.3	6.7	6	3.2	13.9	11	4.5	3.8
$\phi 8$	KQ2D08-00A	13.2	18.8	14.2	8.4	8	4.2	26.3	18.2	6	6.8
$\phi 10$	KQ2D10-00A	15.9	21.2	15.6	9.6	8	4.2	40.8	29	7.5	10.3
$\phi 12$	KQ2D12-00A	18.5	23.6	17	10.7	8	4.2	57.2	45.2	9	15.2

\*1  $\phi D$  is maximum diameter.





# KQ2 Series

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

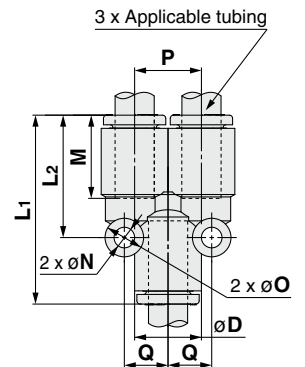
## Dimensions

### Union "Y": KQ2U



Applicable tubing O.D. [mm]	Model	*1 $\phi D$	L1	L2	P	M	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
										Nylon	Urethane		
$\phi 2$	KQ2U02-00A	5.8	25.8	16.1	5.8	11.9	4.5	6	3.2	—	0.9	1.2	1.6
$\phi 3.2$	KQ2U23-00A	7.1	28.9	18	7.1	13.3	5.2	6	3.2	3.4	2.9	2.5	2.4
$\phi 4$	KQ2U04-00A	8.2	29	18.2	8.2	13.3	5.7	6	3.2	4.2	4.2	3	2.9
$\phi 6$	KQ2U06-00A	10.4	30.1	19.4	10.4	13.3	6.8	6	3.2	13.4	10.6	4.5	4.1
$\phi 8$	KQ2U08-00A	13.2	33.2	22.3	13.2	14.2	8.7	8	4.2	25.6	17.7	6	7.4
$\phi 10$	KQ2U10-00A	15.9	37.1	25	15.9	15.6	10.1	8	4.2	40	28.4	7.5	11.2
$\phi 12$	KQ2U12-00A	18.5	41.1	27.8	18.5	17	11.4	8	4.2	57.4	45.4	9	16.4
$\phi 16$	KQ2U16-00A	23.8	51.5	35	23.8	20.6	14	8	4.2	113	60	13	30.6

\*1  $\phi D$  is maximum diameter.

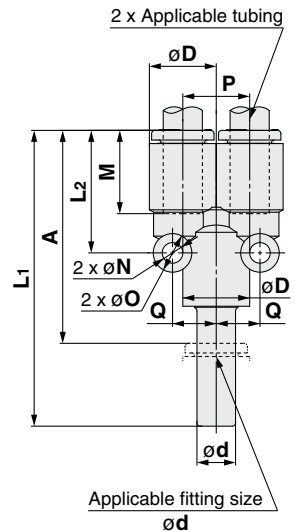


### Plug-in "Y": KQ2U



Applicable tubing O.D. [mm]	Applicable fitting size $\phi d$	Model	*1 $\phi D$	L1	L2	P	A	M	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
$\phi 3.2$	$\phi 3.2$	KQ2U23-99A	7.1	45.1	18	7.1	31.8	13.3	5.2	6	3.2	3.4	2.9	2	2.5
$\phi 4$	$\phi 4$	KQ2U04-99A	8.2	44.8	18.2	8.2	31.5	13.3	5.7	6	3.2	4.2	4.2	2.5	3.1
$\phi 6$	$\phi 6$	KQ2U06-99A	10.4	46.3	19.4	10.4	33	13.3	6.8	6	3.2	13.4	10.6	4	4.5
$\phi 8$	$\phi 8$	KQ2U08-99A	13.2	52.1	22.3	13.2	37.9	14.2	8.7	8	4.2	25.6	17.7	6	8
$\phi 10$	$\phi 10$	KQ2U10-99A	15.9	57.3	25	15.9	41.7	15.6	10.1	8	4.2	40	28.4	7.5	12.3
$\phi 12$	$\phi 12$	KQ2U12-99A	18.5	63	27.8	18.5	46	17	11.4	8	4.2	57.4	45.4	9	18.3
$\phi 16$	$\phi 16$	KQ2U16-99A	23.8	75.9	35	23.8	55.3	20.6	14	8	4.2	113	60	13	33.5

\*1  $\phi D$  is maximum diameter.

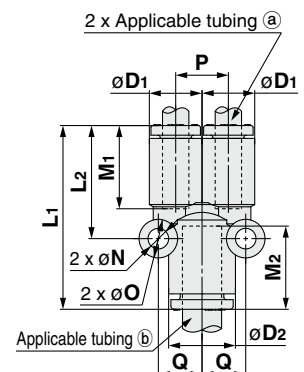


### Different Diameter Union "Y": KQ2U



Applicable tubing O.D. [mm]		Model	*1 $\phi D_1$	*1 $\phi D_2$	L1	L2	P	M1	M2	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
(a)	(b)												Nylon	Urethane		
$\phi 2$	$\phi 3.2$	KQ2U02-23A	5.8	7.1	28.2	16.6	5.8	11.9	13.3	5.2	6	3.2	—	0.9	1.2	1.9
$\phi 2$	$\phi 4$	KQ2U02-04A	5.8	8.2	27.6	15.7	5.8	11.9	13.3	5.7	6	3.2	—	0.9	1.2	2.1
$\phi 3.2$	$\phi 4$	KQ2U23-04A	7.1	8.2	28.9	18	7.1	13.3	13.3	5.7	6	3.2	3.2	2.7	2.5	2.7
$\phi 4$	$\phi 6$	KQ2U04-06A	8.2	10.4	29	18	8.2	13.3	13.3	6.8	6	3.2	4.2	4.2	3	3.3
$\phi 6$	$\phi 8$	KQ2U06-08A	10.4	13.2	31	19.3	10.4	13.3	14.2	8.2	6	3.2	13.4	10.6	4.5	5
$\phi 8$	$\phi 10$	KQ2U08-10A	13.2	15.9	34.6	22.3	13.2	14.2	15.6	10.1	8	4.2	25.6	17.7	6	8.6
$\phi 10$	$\phi 12$	KQ2U10-12A	15.9	18.5	38.5	25	15.9	15.6	17	11.4	8	4.2	40	28.4	7.5	12.7
$\phi 12$	$\phi 16$	KQ2U12-16A	18.5	23.8	47.9	31	18.5	17	20.6	14	8	4.2	57.4	45.4	9	21.2

\*1  $\phi D_1$ ,  $\phi D_2$  are maximum diameters.



# Metric Size One-touch Fittings **KQ2 Series**

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

## Dimensions

### Double Branch "Y": KQ2UD (Sealant)

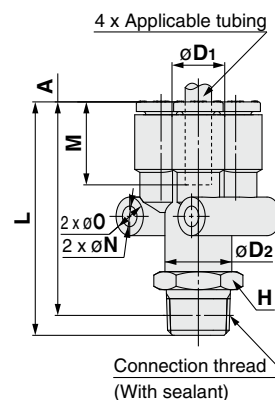
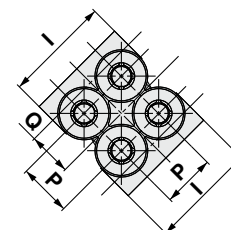


Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L	I	A*2	M	P	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
														Nylon	Urethane		
$\phi 4$	1/8	KQ2UD04-01□S	12	8.2	10.4	36.7	16.6	33.6	13.3	8.2	6.8	6	3.2	4.2	4.2	5.4	11.7
	1/4	KQ2UD04-02□S	14	8.2	10.4	41.1	16.6	36.4	13.3	8.2	6.8	6	3.2	4.2	4.2	5.4	20.6
$\phi 6$	1/8	KQ2UD06-01□S	14	10.4	13.2	39.5	21	36.4	13.3	10.4	8.2	6	3.2	13.4	10.6	6	16.4
	1/4	KQ2UD06-02□S	14	10.4	13.2	43.9	21	39.2	13.3	10.4	8.2	6	3.2	13.4	10.6	7.3	21.6

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

\*1  $\phi D_1$  is maximum diameter.

\*2 Reference dimensions after installation of R thread

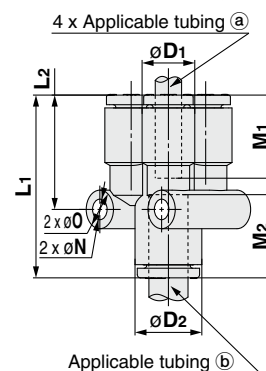
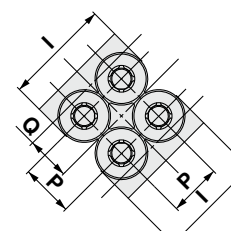


### Different Diameter Double Union "Y": KQ2UD



Applicable tubing O.D. [mm]		Model	*1 $\phi D_1$	*1 $\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	P	I	M <sub>1</sub>	M <sub>2</sub>	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
a	b													Nylon	Urethane		
$\phi 4$	$\phi 6$	KQ2UD04-06A	8.2	10.4	29.2	18.2	8.2	16.6	13.3	13.3	6.8	6	3.2	4.2	4.2	3	5.4
$\phi 6$	$\phi 8$	KQ2UD06-08A	10.4	13.2	32	20.5	10.4	21	13.3	14.2	8.2	6	3.2	13.4	10.6	4.5	8.1

\*1  $\phi D_1$ ,  $\phi D_2$  are maximum diameters.



Round Type

Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Face Seal

Metric Size R, Rc

Inch Size NPT

Inch Size R

Metric Size Uni

Inch Size Uni

Gasket Seal

# KQ2 Series

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

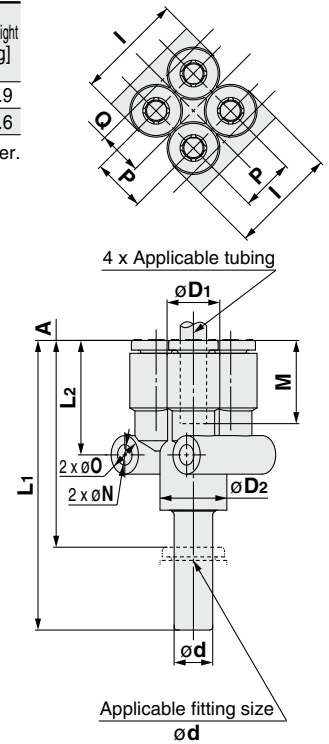
## Dimensions

### Double Plug-in “Y”: KQ2XD



Applicable tubing O.D. [mm]	Applicable fitting size $\phi d$	Model	*1 $\phi D1$	$\phi D2$	L1	L2	A	I	P	M	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
														Nylon	Urethane		
$\phi 4$	$\phi 6$	KQ2XD04-06A	8.2	10.4	45.4	18.2	32.1	16.6	8.2	13.3	6.8	6	3.2	4.2	4.2	3	5.9
$\phi 6$	$\phi 8$	KQ2XD06-08A	10.4	13.2	50.9	20.5	36.7	21	10.4	13.3	8.2	6	3.2	13.4	10.6	4.5	8.6

\*1  $\phi D1$  is maximum diameter.

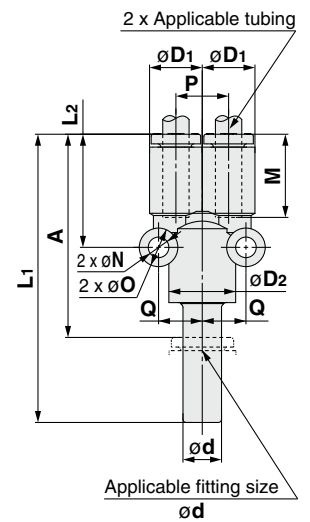


### Different Diameter Plug-in “Y”: KQ2X



Applicable tubing O.D. [mm]	Applicable fitting size $\phi d$	Model	*1 $\phi D1$	*1 $\phi D2$	L1	L2	A	P	M	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
													Nylon	Urethane		
$\phi 3.2$	$\phi 4$	KQ2X23-04A	7.1	8.2	44.7	18	31.4	7.1	13.3	5.7	6	3.2	3.2	2.7	2.5	2.8
$\phi 4$	$\phi 6$	KQ2X04-06A	8.2	10.4	45.2	18	31.9	8.2	13.3	6.8	6	3.2	4.2	4.2	3	3.8
$\phi 6$	$\phi 8$	KQ2X06-08A	10.4	13.2	49.9	19.3	35.7	10.4	13.3	8.2	6	3.2	13.4	10.6	4.5	5.5
$\phi 8$	$\phi 10$	KQ2X08-10A	13.2	15.9	54.8	22.3	39.2	13.2	14.2	10.1	8	4.2	25.6	17.7	6	9.8
$\phi 10$	$\phi 12$	KQ2X10-12A	15.9	18.5	60.4	25	43.4	15.9	15.6	11.4	8	4.2	40	28.4	7.5	14.6

\*1  $\phi D1$ ,  $\phi D2$  are maximum diameters.



# Metric Size One-touch Fittings **KQ2 Series**

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

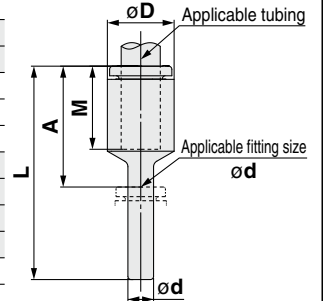
## Dimensions

### Plug-in Reducer: KQ2R

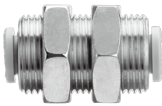


Applicable tubing O.D. [mm]	Applicable fitting size $\phi d$	Model	$\phi D^{*1}$	L	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
							Nylon	Urethane		
$\phi 2$	$\phi 4$	KQ2R02-04A	5.8	27.8	14.5	11.9	—	0.9	1.4	0.6
$\phi 3.2$	$\phi 4$	KQ2R23-04A	7.1	28.6	15.3	13.3	3.4	2.9	2.5	0.8
	$\phi 6$	KQ2R23-06A	7.1	29.1	15.8	13.3	3.4	2.9	2.5	1
$\phi 4$	$\phi 6$	KQ2R04-06A	8.2	28.6	15.3	13.3	5.6	4	3	1.1
	$\phi 8$	KQ2R04-08A	8.2	29.6	15.4	13.3	5.6	4	3	1.3
	$\phi 10$	KQ2R04-10A	10.4	31.7	16.1	13.3	5.6	4	3	2.2
$\phi 6$	$\phi 4$	KQ2R06-04A	10.4	33.6	20.3	13.3	4	4	2.5	1.4
	$\phi 8$	KQ2R06-08A	10.4	31.6	17.4	13.3	13.1	10.4	4.5	1.7
	$\phi 10$	KQ2R06-10A	10.4	33.9	18.3	13.3	13.1	10.4	4.5	2.1
$\phi 8$	$\phi 12$	KQ2R06-12A	12	35.7	18.7	13.3	13.1	10.4	4.5	3.2
	$\phi 10$	KQ2R08-10A	13.2	35.1	19.5	14.2	26.1	18	6	2.9
$\phi 10$	$\phi 12$	KQ2R08-12A	13.2	36.5	19.5	14.2	26.1	18	6	3.4
	$\phi 12$	KQ2R10-12A	15.9	39.2	22.2	15.6	41.5	32.8	7.5	4.5
$\phi 12$	$\phi 16$	KQ2R10-16A	16	44.7	24.1	15.6	41.5	32.8	7.5	6
	$\phi 16$	KQ2R12-16A	18.5	45.7	25.1	17	58.3	46.1	9	7

\*1  $\phi D$  is maximum diameter.

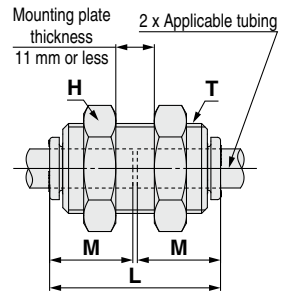


### Bulkhead Union: KQ2E (Interchangeable with KQ)



Applicable tubing O.D. [mm]	Model	T (M)	H (Width across flats)	L	Mounting hole	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
							Nylon	Urethane		
$\phi 3.2$	KQ2E23-00□	M12 x 1	14	27.3	13	13.3	3.4	2.9	2.5	24.1
$\phi 4$	KQ2E04-00□	M12 x 1	14	27.3	13	13.3	5.6	4	3	22.9
$\phi 6$	KQ2E06-00□	M14 x 1	17	27.3	15	13.3	13.1	10.4	4.5	28
$\phi 8$	KQ2E08-00□	M16 x 1	19	29.1	17	14.2	26.1	18	6	34
$\phi 10$	KQ2E10-00□	M20 x 1	24	31.9	21	15.6	41.5	29.5	7.5	64.4
$\phi 12$	KQ2E12-00□	M22 x 1	27	34.7	23	17	58.3	46.1	9	63.8
$\phi 16$	KQ2E16-00□	M28 x 1.5	32	41.9	29	20.6	113	67	13	120.1

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

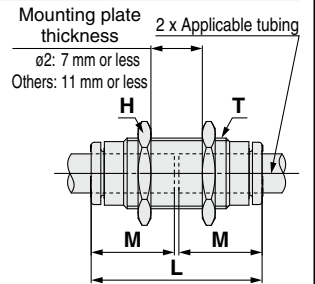


### Bulkhead Union: KQ2E (Interchangeable with KJ)

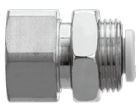


Applicable tubing O.D. [mm]	Model	T (M)	H (Width across flats)	L	Mounting hole	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
							Nylon	Urethane		
$\phi 2$	KQ2E02-00□J	M7 x 0.75	9	24.5	8	11.9	—	0.9	1.4	5.2
$\phi 3.2$	KQ2E23-00□J	M8 x 0.75	10	27.3	9	13.3	3	2.5	2.5	6.9
$\phi 4$	KQ2E04-00□J	M9 x 0.75	11	27.3	10	13.3	4	4	3	8.3
$\phi 6$	KQ2E06-00□J	M11 x 0.75	14	27.3	12	13.3	10	10	4.5	11.2

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

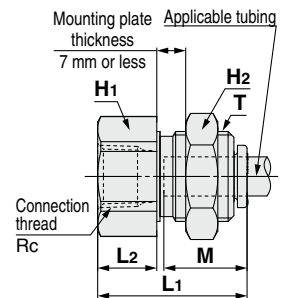


### Bulkhead Connector: KQ2E



Applicable tubing O.D. [mm]	Connection thread Rc	Model	T (M)	H1 (Width across flats)	H2 (Width across flats)	L1	L2	Mounting hole	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
										Nylon	Urethane		
$\phi 3.2$	1/4	KQ2E23-02□	M12 x 1	17	14	28.7	14.3	13	13.3	3.4	2.9	2.5	31.2
	1/8	KQ2E04-01□	M12 x 1	14	14	24.4	10	13	13.3	5.6	4	3	21.2
$\phi 4$	1/4	KQ2E04-02□	M12 x 1	17	14	29	14.6	13	13.3	5.6	4	3	30.9
	1/8	KQ2E06-01□	M14 x 1	17	17	23.6	9.2	15	13.3	13.1	10.4	4.5	28.9
$\phi 6$	1/4	KQ2E06-02□	M14 x 1	17	17	28.4	14	15	13.3	13.1	10.4	4.5	32.4
	3/8	KQ2E06-03□	M14 x 1	19	17	30.7	16.3	15	13.3	13.1	10.4	4.5	35.9
$\phi 8$	1/8	KQ2E08-01□	M16 x 1	17	19	24.1	6.7	17	14.2	26.1	18	6	30.5
	1/4	KQ2E08-02□	M16 x 1	17	19	28.4	11	17	14.2	26.1	18	6	33.1
$\phi 8$	3/8	KQ2E08-03□	M16 x 1	19	19	31.7	14.3	17	14.2	26.1	18	6	37.4
	1/4	KQ2E10-02□	M20 x 1	22	24	29.3	9.9	21	15.6	41.5	29.5	7.5	63.8
$\phi 10$	3/8	KQ2E10-03□	M20 x 1	22	24	31.4	12	21	15.6	41.5	29.5	7.5	71.6
	1/2	KQ2E12-04□	M22 x 1	24	27	32.3	11.9	23	17	58.3	46.1	9	69.3
$\phi 12$	1/2	KQ2E12-04□	M22 x 1	24	27	37.7	17.3	23	17	58.3	46.1	9	72.7
	3/8	KQ2E16-03□	M28 x 1.5	30	32	34.4	11.5	29	20.6	96	67	13	122.2
$\phi 16$	1/2	KQ2E16-04□	M28 x 1.5	30	32	38.8	15.9	29	20.6	113	67	13	132.1

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



Round Type

Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Metric Size R, Rc

Face Seal

Inch Size NPT

Inch Size R

Gasket Seal

Metric Size Uni

Inch Size Uni

# KQ2 Series

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

## Dimensions

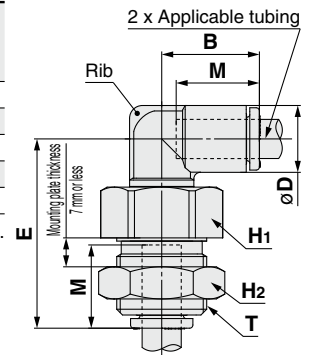
### Bulkhead Male Elbow: KQ2LE



Applicable tubing O.D. [mm]	Model	T (M)	H <sub>1</sub> (Width across flats)	H <sub>2</sub> (Width across flats)	B	E	*1 øD	Mounting hole	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	With a rib
										Nylon	Urethane			
ø4	KQ2LE04-00□	M12 x 1	14	14	14.8	28.5	8.2	13	13.3	4.2	4.2	3	21.2	●
ø6	KQ2LE06-00□	M14 x 1	17	17	15.5	29.6	10.4	15	13.3	11.4	9	4.5	29.4	—
ø8	KQ2LE08-00□	M16 x 1	17	19	17.2	32.3	13.2	17	14.2	21.6	14.9	6	30.4	●
ø10	KQ2LE10-00□	M20 x 1	22	24	19.3	37.9	15.9	21	15.6	35.2	25	7.5	53.5	●
ø12	KQ2LE12-00□	M22 x 1	24	27	21.5	40.8	18.5	23	17	50.2	39.7	9	61	●

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

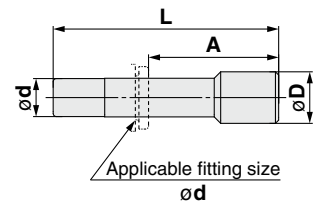
\*1 øD is maximum diameter.



### Plug: KQ2P



Applicable fitting size ød	Model	øD	L	A	Weight [g]
ø2	KJP-02	3	17	5.1	0.1
ø3.2	KQ2P-23	5	31.5	18.2	1
ø4	KQ2P-04	6	32	18.7	1
ø6	KQ2P-06	8	35	21.7	1
ø8	KQ2P-08	10	39	24.8	2
ø10	KQ2P-10	12	43	27.4	3.5
ø12	KQ2P-12	14	45.5	28.5	5
ø16	KQ2P-16	20.9	47	26.4	8

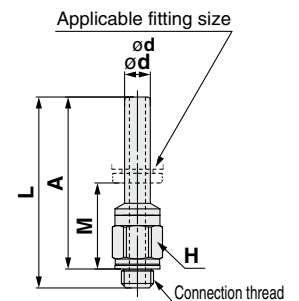


### Adapter: KQ2N (Gasket seal)



Applicable fitting size ød	Connection thread M	Model	H (Width across flats)	L	A	M	Min. port size	Weight [g]
ø4	M5 x 0.8	KQ2N04-M5□	7	29.7	26.7	13.4	2.5	2.4
ø6	M5 x 0.8	KQ2N06-M5□	7	29.7	26.7	13.4	2.5	2.6

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



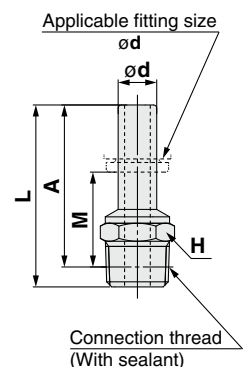
### Adapter: KQ2N (Sealant)



Applicable fitting size ød	Connection thread R	Model	H (Width across flats)	L	A*1	M	Min. port size	Weight [g]
ø4	1/8	KQ2N04-01□S	10	28.3	25.2	11.9	2.5	4
	1/4	KQ2N04-02□S	10	28.3	25.2	11.9	4	4.1
ø6	1/4	KQ2N06-01□S	14	32.8	28.1	14.8	4	13.6
	3/8	KQ2N06-02□S	14	35.9	31.2	17	6	15.7
ø8	1/2	KQ2N08-01□S	17	36	30.9	16.7	6	22.7
	3/4	KQ2N08-02□S	17	40.6	35.5	19.9	7.5	19.1

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

\*1 Reference dimensions after installation of R thread



# Metric Size One-touch Fittings **KQ2 Series**

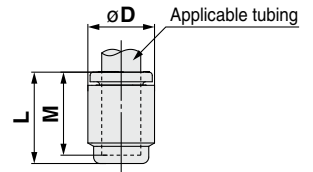
Applicable Tubing: Metric Size, Connection Thread: M, R, Rc

## Dimensions

### Tube Cap: KQ2C



Applicable tubing O.D. [mm]	Model	øD*1	L	M	Weight [g]
ø4	KQ2C04-00A	8.2	14.5	13.3	0.8
ø6	KQ2C06-00A	10.4	14.6	13.3	1.1
ø8	KQ2C08-00A	13.2	15.7	14.2	2
ø10	KQ2C10-00A	15.9	17.3	15.6	2.9
ø12	KQ2C12-00A	18.5	18.9	17	4.5
ø16	KQ2C16-00A	23.8	23	20.6	8.4

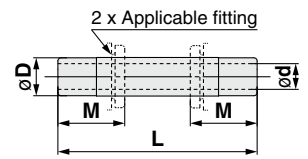


\*1 øD is maximum diameter.

### Nipple: KQ2N



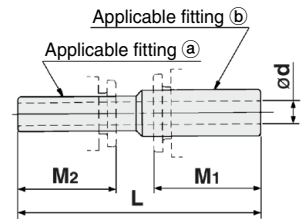
Applicable fitting øD	Model	L	M	ød	Min. port size	Weight [g]
ø4	KQ2N04-99	37	13.3	2.5	2.5	1
ø6	KQ2N06-99	39	13.3	4	4	2
ø8	KQ2N08-99	43	14.2	6	6	2
ø10	KQ2N10-99	49	15.6	7.5	7.5	4
ø12	KQ2N12-99	52	17	9	9	3.3
ø16	KQ2N16-99	57	20.6	13	13	4.8



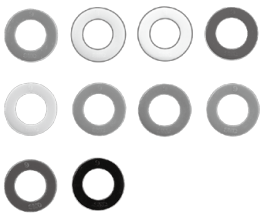
### Reducer Nipple: KQ2N



Applicable fitting		Model	L	M1	M2	ød Min. port size	Weight [g]
(a)	(b)						
ø4	ø6	KQ2N04-06	38	13.3	13.3	2.5	2
ø6	ø8	KQ2N06-08	42	14.2	13.3	4	2
ø8	ø10	KQ2N08-10	47	15.6	14.2	6	2
ø10	ø12	KQ2N10-12	51	17	15.6	7.5	3.1
ø12	ø16	KQ2N12-16	55	20.6	17	9	4.9

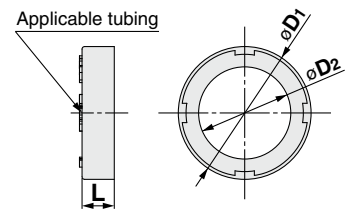


### Color Cap: KQ2C



Applicable tubing O.D. [mm]		Model	øD1	øD2	L	Weight [g]	Note
(a)	(b)						
ø2		KQ2C-02□A	6.1	3.2	2.6	0.1	Applicable for products with enlarged outside diameter of release button
ø3.2		KQ2C-23□A	7.3	4.3	2.6	0.1	
ø4		KQ2C-04□A	8.3	5.2	2.6	0.1	
ø6		KQ2C-06□A	10.3	7.2	2.6	0.1	
ø8		KQ2C-08□B	13.6	9.2	2.6	0.1	
ø10		KQ2C-10□B	16.2	11.2	2.7	0.1	
ø12		KQ2C-12□B	18.8	13.2	2.7	0.2	
ø16		KQ2C-16□B	24.2	17.2	3.2	0.3	

□: B (Black), R (Red), YR (Orange), BR (Brown), Y (Yellow), G (Green), CB (Sky blue), GR (Gray), W (White), BU (Blue)



In order to improve operability, the outside diameter of the release button has been enlarged for the new KQ2 series. Therefore, the usable color caps will differ between pre-change and post-change products. Refer to page 221 for details.

Round Type

Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Metric Size R, Rc

Face Seal

Inch Size NPT

Inch Size R

Gasket Seal

Metric Size Uni

Inch Size Uni

# 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: Light gray
<b>X41</b>	With fixed orifice*2
<b>KQ2□08-01□□</b>	Effective area is interchangeable with the current product (KQ series). Applicable model: Male elbow, 45° male elbow, Female elbow, Extended male elbow, Male branch tee, Male run tee Applicable tubing O.D./Port size: ø8/R1/8 Thread material/Surface treatment: Brass, Brass + Electroless nickel plating Example) <b>KQ2L08-01AQS</b>

\*1 The following models are not available as made-to-order: Hexagon socket head male connector/KQ2S, Bulkhead union/KQ2E, Bulkhead connector/KQ2E, Nipple/KQ2N, Reducer nipple/KQ2N, Male connector/KQ2H, Female connector/KQ2F, Color cap/KQ2C, Plug/KQ2P

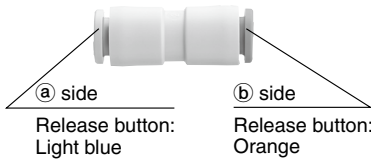
\*2 Please contact SMC for availability.

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>X34</b>	Rubber material: FKM
<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)
<b>X94</b>	Grease-free Rubber material: FKM (With fluorine coating) Release button color: Light blue

## 2 Metric/Inch Conversion Fittings

Allows for the metric ↔ inch conversion of tubing



Applicable tubing O.D. [mm]		Model
(a)	(b)	
ø6	ø1/4"	<b>KQ2H06-07A-X562</b>
ø10	ø3/8"	<b>KQ2H10-11A-X562</b>
ø12	ø1/2"	<b>KQ2H12-13A-X562</b>

### Variations

		Inch size						
		ø1/8 (Metric nominal size: ø3.2)	ø5/32 (Metric nominal size: ø4)	ø3/16	ø1/4	ø5/16 (Metric nominal size: ø8)	ø3/8	ø1/2
Metric size	ø2	KQ2H02-23A	KQ2H02-04A					
	ø3.2 (Inch nominal size: ø1/8)	Straight type (KQ2H23-00A/ KQ2H01-00A)	KQ2H01-03A KQ2H23-04A		KQ2H01-07A			
	ø4 (Inch nominal size: ø5/32)	KQ2H01-03A KQ2H23-04A	Straight type (KQ2H04-00A/ KQ2H03-00A)	KQ2H03-05A	KQ2H03-07A			
	ø6	KQ2H23-06A	KQ2H04-06A		KQ2H06-07A-X562 (Made to Order)	KQ2H06-08A		
	ø8 (Inch nominal size: ø5/16)				KQ2H07-09A	Straight type (KQ2H08-00A/ KQ2H09-00A)	KQ2H09-11A	KQ2H09-13A
	ø10					KQ2H08-10A	KQ2H10-11A-X562 (Made to Order)	
	ø12							KQ2H12-13A-X562 (Made to Order)

## 3 Clean Series

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-KQ2H06-02NS** (With thread)

**10-KQ2H06-00A** (Without thread)

## 4 Spare Parts

Description	Part no.	Applicable thread
Gasket	<b>M-3G2</b>	M3
	<b>M-5G2</b>	M5
	<b>M-6G</b>	M6

### Brass

Description	Part no.	Applicable model
Pipe nut	<b>KQ02-P01AJ</b>	KQ2E02-00AJ
	<b>KQ23-P01AJ</b>	KQ2E23-00AJ
	<b>KQ04-P01AJ</b>	KQ2E04-00AJ
	<b>KQ06-P01AJ</b>	KQ2E06-00AJ
	<b>KQ04-P01A</b>	KQ2E23-00A, KQ2E04-00A, KQ2E23-02A KQ2E04-01A, KQ2E04-02A, KQ2LE04-00A
	<b>KQ06-P01A</b>	KQ2E06-00A, KQ2E06-01A, KQ2E06-02A KQ2E06-03A, KQ2LE06-00A
	<b>KQ08-P01A</b>	KQ2E08-00A, KQ2E08-01A, KQ2E08-02A KQ2E08-03A, KQ2LE08-00A
	<b>KQ10-P01A</b>	KQ2E10-00A, KQ2E10-02A, KQ2E10-03A KQ2LE10-00A
	<b>KQ12-P01A</b>	KQ2E12-00A, KQ2E12-03A, KQ2E12-04A KQ2LE12-00A
	<b>KQ16-P01A</b>	KQ2E16-00A KQ2E16-03A, KQ2E16-04A

### Brass + Electroless nickel plating

Description	Part no.	Applicable model
Pipe nut	<b>KQ02-P01NJ</b>	KQ2E02-00NJ
	<b>KQ23-P01NJ</b>	KQ2E23-00NJ
	<b>KQ04-P01NJ</b>	KQ2E04-00NJ
	<b>KQ06-P01NJ</b>	KQ2E06-00NJ
	<b>KQ04-P01N</b>	KQ2E23-00N, KQ2E04-00N, KQ2E23-02N KQ2E04-01N, KQ2E04-02N, KQ2LE04-00N
	<b>KQ06-P01N</b>	KQ2E06-00N, KQ2E06-01N, KQ2E06-02N KQ2E06-03N, KQ2LE06-00N
	<b>KQ08-P01N</b>	KQ2E08-00N, KQ2E08-01N, KQ2E08-02N KQ2E08-03N, KQ2LE08-00N
	<b>KQ10-P01N</b>	KQ2E10-00N, KQ2E10-02N, KQ2E10-03N KQ2LE10-00N
	<b>KQ12-P01N</b>	KQ2E12-00N, KQ2E12-03N, KQ2E12-04N KQ2LE12-00N
	<b>KQ16-P01N</b>	KQ2E16-00N KQ2E16-03N, KQ2E16-04N

### Color Cap

Applicable tubing O.D. [mm]	Model	øD1	øD2	L	Weight [g]	Note
ø8	<b>KQ2C-08□A</b>	12.8	9.2	2.6	0.1	Applicable for products before enlargement of outside diameter of release button
ø10	<b>KQ2C-10□A</b>	15.2	11.2	2.7	0.1	
ø12	<b>KQ2C-12□A</b>	17.6	13.2	2.7	0.1	
ø16	<b>KQ2C-16□A</b>	22.4	17.2	3.2	0.2	

□: B (Black), R (Red), YR (Orange), BR (Brown), Y (Yellow), G (Green), CB (Sky blue), GR (Gray), W (White), BU (Blue)

Round Type



Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Face Seal

Metric Size R, Rc

Inch Size NPT

Inch Size R

Gasket Seal

Metric Size Uni

Inch Size Uni



# Metric Size One-touch Fittings

Applicable Tubing: Metric Size, Connection Thread: G

## KQ2 Series

**Guide**

**Chuck**  
Suitable for use with nylon and urethane. Large retaining force.  
The chuck provides secure retention and the collet increases the holding force on the tube.

**Seal**  
Can be used for a wide range of pressures from a low vacuum up to a pressure of 1 MPa.  
The use of a special profile ensures sealing and reduces resistance when the tube is inserted.

**Face seal method**

**Seal ring**  
Piping installability is improved by changing to the face seal structure.

**Release button**  
Requires little force for removal.  
Releases the chuck collet to remove the tube as well as to prevent the chuck from biting too deeply into the tubing.

**Body**

**O-ring**

**Stud**  
Effective when piping in a confined space.  
The body and the threaded portion can rotate (for positioning to some extent).

**G thread**

Applicable to parallel pipe thread (G).

Drastically reduces screw-in time with the face seal method.



### Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon, Polyurethane
Tubing O.D.	ø4, ø6, ø8, ø10, ø12, ø16

### 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)
Thread	Mounting section	ISO 16030 (Parallel pipe thread)
	Nut section	JIS B0205 (Metric fine thread)
Sealant on the threads		Seal ring

\*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, Seal ring	NBR

## How to Order

### Threaded Type

**KQ2 H 06 - G01 A**

One-touch fittings

Model

Symbol	Model
<b>H</b>	Male connector
<b>S</b>	Hexagon socket head male connector
<b>F</b>	Female connector
<b>L</b>	Male elbow
<b>V</b>	Universal male elbow
<b>W</b>	Extended male elbow
<b>T</b>	Male branch tee
<b>Y</b>	Male run tee
<b>E</b>	Bulkhead connector

Thread material/Surface treatment

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

Port size

Symbol		Size
Thread connection	<b>G01</b>	G1/8
	<b>G02</b>	G1/4
	<b>G03</b>	G3/8
	<b>G04</b>	G1/2

Applicable tubing O.D.

Symbol	Size
<b>04</b>	ø4
<b>06</b>	ø6
<b>08</b>	ø8
<b>10</b>	ø10
<b>12</b>	ø12
<b>16</b>	ø16

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

Round Type



Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Face Seal

Metric Size R, Rc

Inch Size NPT

Inch Size R

Gasket Seal

Metric Size Uni

Inch Size Uni

# Metric Size One-touch Fittings

## Round Type Variations

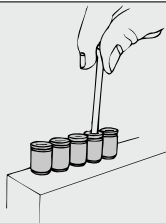
### Hexagon socket head male connector

**KQ2S**

P.168



Internal hexagon socket allows tightening with a hexagon wrench in confined spaces.



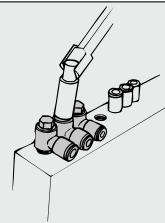
### Universal male elbow

**KQ2V**

P.169



Hexagon head of the body allows tightening with a box wrench in confined spaces.



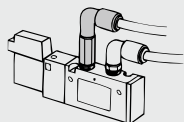
### Extended male elbow

**KQ2W**

P.170



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



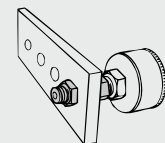
### Bulkhead connector

**KQ2E**

P.171



Use to connect a male thread and tubing through a panel, etc.



### Male connector

**KQ2H**

P.168



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

### Male elbow

**KQ2L**

P.169



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

### Male run tee

**KQ2Y**

P.171



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

### Female connector

**KQ2F**

P.168



Use to pipe a male thread of a pressure gauge, etc.

### Male branch tee

**KQ2T**

P.170



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 103 and after for details.

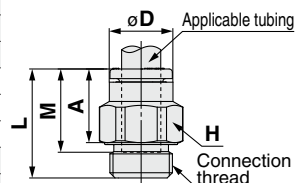
## Dimensions

### Male Connector: KQ2H (Face seal)



Applicable tubing O.D. [mm]	Connection thread G	Model	H (Width across flats)	øD	L	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
								Nylon	Urethane		
ø4	1/8	KQ2H04-G01□	12	7.7	17.1	11.6	13.3	4.8	3.4	3	7.7
	1/4	KQ2H04-G02□	17	7.7	15.4	8.9	13.3	4.8	3.4	3	16.8
ø6	1/8	KQ2H06-G01□	12	9.7	17.3	11.8	13.3	13.1	10.4	4.5	6.6
	1/4	KQ2H06-G02□	17	9.7	15.4	8.9	13.3	13.1	10.4	4.5	14.8
ø6	3/8	KQ2H06-G03□	21	9.7	16.4	8.9	13.3	13.1	10.4	4.5	27.1
	1/8	KQ2H08-G01□	14	13	21.4	15.9	14.2	26.1	18	6	7.5
ø8	1/4	KQ2H08-G02□	17	13	19.9	13.4	14.2	26.1	18	6	15.5
	3/8	KQ2H08-G03□	21	13	16.4	8.9	14.2	26.1	18	6	23.8
ø10	1/8	KQ2H10-G01□	17	15.6	23.2	17.7	15.6	26.1	26.1	6	15.7
	1/4	KQ2H10-G02□	17	15.6	22.8	16.3	15.6	41.5	29.5	7.5	16.8
	3/8	KQ2H10-G03□	21	15.6	21.8	14.3	15.6	41.5	29.5	7.5	26.1
ø10	1/2	KQ2H10-G04□	27	15.6	17.9	8.9	15.6	41.5	29.5	7.5	39.9
	1/4	KQ2H12-G02□	19	18.2	25.3	18.8	17	58.3	46.1	9	15.1
	3/8	KQ2H12-G03□	21	18.2	23.6	16.1	17	58.3	46.1	9	25.6
ø12	1/2	KQ2H12-G04□	27	18.2	24.8	15.8	17	58.3	46.1	9	46.9
	3/8	KQ2H16-G03□	27	23.6	30.5	23	20.6	81	67	11	47.1
ø16	1/2	KQ2H16-G04□	27	23.6	29.7	20.7	20.6	113	67	13	48.8

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



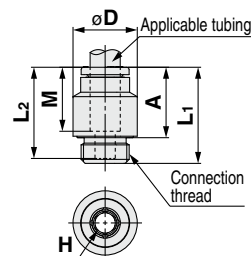
### Hexagon Socket Head Male Connector: KQ2S (Face seal)



Applicable tubing O.D. [mm]	Connection thread G	Model	H (Width across flats)	*1 øD	L1	L2	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
									Nylon	Urethane		
ø4	1/8	KQ2S04-G01□	3	13	20.6	19.6	15.1	13.3	4.1	3.6	3.1	11.6
ø6	1/8	KQ2S06-G01□	4	13	19.8	18.8	14.3	13.3	10	9.9	4.1	9.7
	1/4	KQ2S06-G02□	4	18	19.8	18.8	13.3	13.3	10.7	10	4.1	18
ø6	1/8	KQ2S08-G01□	5	13	21.7	19.7	16.2	14.2	17.2	16.2	5.1	9.5
	1/4	KQ2S08-G02□	6	18	20.5	19.5	14	14.2	23.3	16.2	6.1	17.2
ø6	3/8	KQ2S08-G03□	6	22	20.7	19.7	13.2	14.2	23.3	16.2	6.1	27.1
	1/8	KQ2S10-G01□	5	15.6	23	21.1	17.5	15.6	17.2	16.2	5.1	10.9
ø10	1/4	KQ2S10-G02□	8	18	24.1	20.1	17.6	15.6	39	26.6	8.1	19.2
	3/8	KQ2S10-G03□	8	22	21.4	20.1	13.9	15.6	39	26.6	8.1	25
	1/2	KQ2S10-G04□	8	26	21.1	20.1	12.1	15.6	39	26.6	8.1	34.1
ø12	1/4	KQ2S12-G02□	8	18.2	25.6	21.5	19.1	17	46	44.5	8.1	18.3
	3/8	KQ2S12-G03□	10	22	23.8	21.8	16.3	17	60	44.5	10.1	25.7
	1/2	KQ2S12-G04□	10	26	22.8	21.8	13.8	17	60	44.5	10.1	35.6
ø16	3/8	KQ2S16-G03□	10	23.6	30.8	25.4	23.3	20.6	81	67	10.1	29.2
	1/2	KQ2S16-G04□	12	26	30.3	26.1	21.3	20.6	113	67	12.1	45.8

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

\*1 øD is maximum diameter.



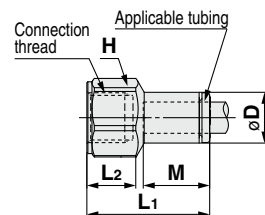
### Female Connector: KQ2F



Applicable tubing O.D. [mm]	Connection thread G	Model	H (Width across flats)	*1 øD	L1	L2	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
								Nylon	Urethane		
ø4	1/8	KQ2F04-G01□	14	7.9	24.7	9.5	13.3	5.6	4	3	12.4
	1/4	KQ2F04-G02□	17	7.9	30.1	13.9	13.3	5.6	4	3	21.3
ø6	1/8	KQ2F06-G01□	14	9.9	24.3	9.5	13.3	13.1	10.4	4.5	12.6
	1/4	KQ2F06-G02□	17	9.9	29.6	13.9	13.3	13.1	10.4	4.5	21.4
ø6	3/8	KQ2F06-G03□	21	9.9	31.1	13.7	13.3	13.1	10.4	4.5	29.6
	1/8	KQ2F08-G01□	14	13	24.7	9.5	14.2	26.1	18	6	15.1
ø8	1/4	KQ2F08-G02□	17	13	30.1	13.9	14.2	26.1	18	6	24
	3/8	KQ2F08-G03□	21	13	31.6	13.7	14.2	26.1	18	6	32.3
ø10	1/4	KQ2F10-G02□	17	15.6	31.1	13.9	15.6	41.5	29.5	7.5	24.1
	3/8	KQ2F10-G03□	21	15.6	32.6	13.7	15.6	41.5	29.5	7.5	32.6
ø12	1/4	KQ2F12-G02□	19	18.2	32	13.8	17	58.3	46.1	9	33
	3/8	KQ2F12-G03□	21	18.2	33.5	13.7	17	58.3	46.1	9	34.1
	1/2	KQ2F12-G04□	27	18.2	38.6	16.9	17	58.3	46.1	9	64.9
ø16	3/8	KQ2F16-G03□	24	23.6	36	14.4	20.6	81	67	13	55.7
	1/2	KQ2F16-G04□	27	23.6	41.1	16.9	20.6	113	67	13	71.7

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

\*1 øD is maximum diameter.



Round 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

# KQ2 Series

Applicable Tubing: Metric Size, Connection Thread: G

## Dimensions

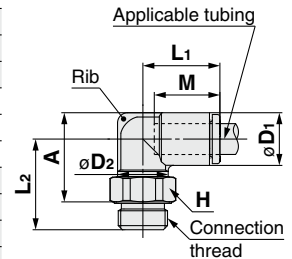
### Male Elbow: KQ2L (Face seal)



Applicable tubing O.D. [mm]	Connection thread G	Model	H (Width across flats)	*1 $\phi D1$	$\phi D2$	L1	L2	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	With a rib
										Nylon	Urethane			
$\phi 4$	1/8	KQ2L04-G01	12	8.2	10	14.8	16.8	15.4	13.3	4.6	3.3	3	6.3	●
	1/4	KQ2L04-G02	17	8.2	10	14.8	20.3	17.9	13.3	4.6	3.3	3	16.7	●
$\phi 6$	1/8	KQ2L06-G01	12	10.4	10	15.5	17.9	17.6	13.3	11.4	9	4.5	6.7	—
	1/4	KQ2L06-G02	17	10.4	10	15.5	21.4	20.1	13.3	11.4	9	4.5	17.2	—
	3/8	KQ2L06-G03	21	10.4	10	15.5	22.4	20.1	13.3	11.4	9	4.5	28.9	—
$\phi 8$	1/8	KQ2L08-G01	12	13.2	10	16.4	19.3	20.4	14.2	11.4	11.4	4.5	7.6	●
	1/4	KQ2L08-G02	17	13.2	12	17.2	22.8	22.9	14.2	21.6	14.9	6	15.9	●
	3/8	KQ2L08-G03	21	13.2	12	17.2	23.8	22.9	14.2	21.6	14.9	6	27.9	●
$\phi 10$	1/8	KQ2L10-G01	12	15.9	12	18.6	22.5	24.9	15.6	21.6	14.9	6	10.3	●
	1/4	KQ2L10-G02	17	15.9	17	19.3	24.6	26.0	15.6	35.2	25	7.5	17.5	●
	3/8	KQ2L10-G03	21	15.9	17	19.3	27.7	28.1	15.6	35.2	25	7.5	22.6	●
	1/2	KQ2L10-G04	27	15.9	17	19.3	29.2	28.1	15.6	35.2	25	7.5	42.5	●
$\phi 12$	1/4	KQ2L12-G02	17	18.5	17	21.5	25.9	28.6	17	50.2	39.7	9	19.3	●
	3/8	KQ2L12-G03	21	18.5	17	21.5	29.0	30.7	17	50.2	39.7	9	24.5	●
	1/2	KQ2L12-G04	27	18.5	17	21.5	30.5	30.7	17	50.2	39.7	9	44.4	●
$\phi 16$	3/8	KQ2L16-G03	21	23.8	21	27.1	33.1	37.5	20.6	71	58.9	11	35.2	—
	1/2	KQ2L16-G04	27	23.8	21	27.1	33.8	36.7	20.6	100	58.9	13	58.7	—

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

\*1  $\phi D1$  is maximum diameter.



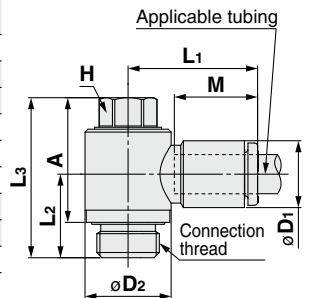
### Universal Male Elbow: KQ2V (Face seal)



Applicable tubing O.D. [mm]	Connection thread G	Model	H (Width across flats)	*1 $\phi D1$	$\phi D2$	L1	L2	L3	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
$\phi 4$	1/8	KQ2V04-G01	8	8.2	13.4	19.3	13	24.9	19.4	13.3	2.9	2.9	3	12.9
$\phi 6$	1/8	KQ2V06-G01	8	10.4	13.4	20.5	13	24.9	19.4	13.3	7.5	5.9	4.5	13.2
	1/4	KQ2V06-G02	10	10.4	18	19.9	15	27.6	21.1	13.3	7.5	5.9	4.5	22.7
$\phi 8$	1/8	KQ2V08-G01	12	13.2	17.6	23.5	15	27.5	22	14.2	16	11.2	5	24.5
	1/4	KQ2V08-G02	12	13.2	18	23.5	15.6	28.1	21.6	14.2	16	11.2	6	26.8
	3/8	KQ2V08-G03	14	13.2	22	23.1	17.3	33.1	25.6	14.2	16	11.2	7.5	42.1
$\phi 10$	1/4	KQ2V10-G02	14	15.9	20.6	25.9	17.9	32.9	26.4	15.6	27	20.3	7.5	37.5
	3/8	KQ2V10-G03	14	15.9	22	25.9	18.1	33.1	25.6	15.6	27	20.3	7.5	43.4
$\phi 12$	3/8	KQ2V12-G03	17	18.5	25.2	28.5	20.5	36.7	29.2	17	39	30.8	9	60.5
	1/2	KQ2V12-G04	17	18.5	26	28.5	21.1	37.3	28.3	17	39	30.8	9	71
$\phi 16$	3/8	KQ2V16-G03	21	23.8	32.3	34.2	24.2	44.5	37	20.6	55	46	11	101.7
	1/2	KQ2V16-G04	21	23.8	32.3	34.2	26.2	46.5	37.5	20.6	78	46	13	106.6

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

\*1  $\phi D1$  is maximum diameter.



# Metric Size One-touch Fittings **KQ2 Series**

Applicable Tubing: Metric Size, Connection Thread: G

## Dimensions

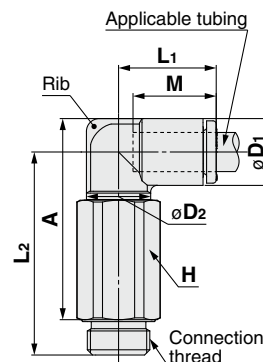
### Extended Male Elbow: KQ2W (Face seal)



Applicable tubing O.D. [mm]	Connection thread G	Model	H (Width across flats)	*1 $\phi D1$	$\phi D2$	L1	L2	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	With a rib
										Nylon	Urethane			
$\phi 4$	1/8	KQ2W04-G01	12	8.2	10	14.8	30.5	29.1	13.3	4	4	3	16.5	●
	1/4	KQ2W04-G02	17	8.2	10	14.8	31.2	28.8	13.3	4	4	3	35.8	●
$\phi 6$	1/8	KQ2W06-G01	12	10.4	10	15.5	31.6	31.3	13.3	10.9	8.6	4.5	17	—
	1/4	KQ2W06-G02	17	10.4	10	15.5	32.3	31	13.3	10.9	8.6	4.5	36.2	—
$\phi 8$	3/8	KQ2W06-G03	21	10.4	10	15.5	33.3	31	13.3	10.9	8.6	4.5	59.4	—
	1/8	KQ2W08-G01	12	13.2	10	16.4	33	34.1	14.2	10.9	10.9	4.5	17.8	●
$\phi 10$	1/4	KQ2W08-G02	17	13.2	12	17.2	36.5	36.6	14.2	20.5	14.2	6	37.5	●
	3/8	KQ2W08-G03	21	13.2	12	17.2	37.5	36.6	14.2	20.5	14.2	6	63.9	●
$\phi 12$	1/4	KQ2W10-G02	17	15.9	17	19.3	48.8	50.3	15.6	33.5	23.8	7.5	45.1	●
	3/8	KQ2W10-G03	21	15.9	17	19.3	46.6	47.1	15.6	33.5	23.8	7.5	62.6	●
$\phi 16$	1/2	KQ2W10-G04	27	15.9	17	19.3	48.1	47.1	15.6	33.5	23.8	7.5	120.2	●
	1/4	KQ2W12-G02	17	18.5	17	21.5	50.1	52.9	17	47.7	37.7	9	46.9	●
$\phi 12$	3/8	KQ2W12-G03	21	18.5	17	21.5	47.9	49.7	17	47.7	37.7	9	64.5	●
	1/2	KQ2W12-G04	27	18.5	17	21.5	49.4	49.7	17	47.7	37.7	9	122.1	●
$\phi 16$	3/8	KQ2W16-G03	21	23.8	21	27.1	57.4	61.8	20.6	71	58.9	11	71.7	—
	1/2	KQ2W16-G04	27	23.8	21	27.1	58.1	61	20.6	100	58.9	13	144.1	—

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

\*1  $\phi D1$  is maximum diameter.



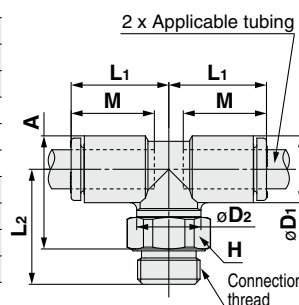
### Male Branch Tee: KQ2T (Face seal)



Applicable tubing O.D. [mm]	Connection thread G	Model	H (Width across flats)	*1 $\phi D1$	$\phi D2$	L1	L2	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
										Nylon	Urethane		
$\phi 4$	1/8	KQ2T04-G01	12	8.2	10	14.8	16.8	15.4	13.3	6	4.1	3	7
	1/4	KQ2T04-G02	17	8.2	10	14.8	20.3	17.9	13.3	6	4.1	3	17.4
$\phi 6$	1/8	KQ2T06-G01	12	10.4	10	15.5	17.9	17.6	13.3	13.9	11	4.5	7.6
	1/4	KQ2T06-G02	17	10.4	10	15.5	21.4	20.1	13.3	13.9	11	4.5	18.1
$\phi 8$	3/8	KQ2T06-G03	21	10.4	10	15.5	22.4	20.1	13.3	13.9	11	4.5	29.8
	1/8	KQ2T08-G01	12	13.2	10	16.4	19.3	20.4	14.2	14	14	4.5	9.4
$\phi 10$	1/4	KQ2T08-G02	17	13.2	12	17.2	22.8	22.9	14.2	26.3	18.2	6	17.6
	3/8	KQ2T08-G03	21	13.2	12	17.2	23.8	22.9	14.2	26.3	18.2	6	29.6
$\phi 12$	1/8	KQ2T10-G01	12	15.9	12	18.6	22.4	24.9	15.6	21.6	14.9	6	13.1
	1/4	KQ2T10-G02	17	15.9	17	19.3	24.5	26	15.6	35.2	25	7.5	20.1
$\phi 16$	3/8	KQ2T10-G03	21	15.9	17	19.3	27.6	28.1	15.6	35.2	25	7.5	25.3
	1/2	KQ2T10-G04	27	15.9	17	19.3	29.1	28.1	15.6	35.2	25	7.5	45.2
$\phi 12$	1/4	KQ2T12-G02	17	18.5	17	21.5	25.8	28.6	17	57.2	45.2	9	23.1
	3/8	KQ2T12-G03	21	18.5	17	21.5	28.9	30.7	17	57.2	45.2	9	28.4
$\phi 16$	1/2	KQ2T12-G04	27	18.5	17	21.5	30.4	30.7	17	57.2	45.2	9	48.3
	3/8	KQ2T16-G03	21	23.8	21	27.1	33.1	37.5	20.6	71	58.9	11	42.1
$\phi 16$	1/2	KQ2T16-G04	27	23.8	21	27.1	33.8	36.7	20.6	100	58.9	13	65.7

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

\*1  $\phi D1$  is maximum diameter.



Round 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

# KQ2 Series

Applicable Tubing: Metric Size, Connection Thread: G

## Dimensions

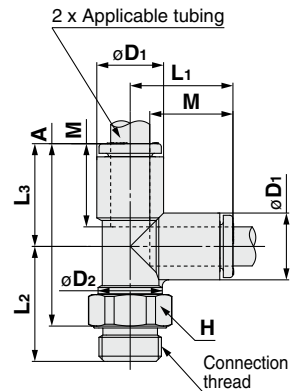
### Male Run Tee: KQ2Y (Face seal)



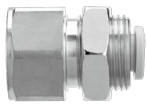
Applicable tubing O.D. [mm]	Connection thread G	Model	H (Width across flats)	*1 $\phi D1$	$\phi D2$	L1	L2	L3	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
$\phi 4$	1/8	KQ2Y04-G01	12	8.2	10	15.3	16.8	15.3	26.6	13.3	6.4	4.4	3	7
	1/4	KQ2Y04-G02	17	8.2	10	15.3	20.3	15.3	29.1	13.3	6.4	4.4	3	17.5
$\phi 6$	1/8	KQ2Y06-G01	12	10.4	10	16.3	17.9	16.3	28.7	13.3	13.4	10.6	4.5	7.7
	1/4	KQ2Y06-G02	17	10.4	10	16.3	21.4	16.3	31.2	13.3	13.4	10.6	4.5	18.2
	3/8	KQ2Y06-G03	21	10.4	10	16.3	22.4	16.3	31.2	13.3	13.4	10.6	4.5	29.9
$\phi 8$	1/8	KQ2Y08-G01	12	13.2	10	18.2	19.3	18.2	32	14.2	13.4	13.4	4.5	9.5
	1/4	KQ2Y08-G02	17	13.2	12	18.2	22.8	18.2	34.5	14.2	25.6	17.7	6	17.7
	3/8	KQ2Y08-G03	21	13.2	12	18.2	23.8	18.2	34.5	14.2	25.6	17.7	6	29.7
$\phi 10$	1/8	KQ2Y10-G01	12	15.9	12	20.6	22.5	20.6	37.5	15.6	40	28.4	6	13.2
	1/4	KQ2Y10-G02	17	15.9	17	20.6	24.6	20.6	38.6	15.6	40	28.4	7.5	20.3
	3/8	KQ2Y10-G03	21	15.9	17	20.6	27.7	20.6	40.7	15.6	40	28.4	7.5	25.4
$\phi 12$	1/4	KQ2Y12-G02	17	18.5	17	23	25.9	23	42.3	17	57.4	45.4	9	23.4
	3/8	KQ2Y12-G03	21	18.5	17	23	29	23	44.4	17	57.4	45.4	9	28.6
	1/2	KQ2Y12-G04	27	18.5	17	23	30.4	23	44.4	17	57.4	45.4	9	48.5
$\phi 16$	3/8	KQ2Y16-G03	21	23.8	21	28.6	33.1	28.6	54.2	20.6	81	60	11	42.7
	1/2	KQ2Y16-G04	27	23.8	21	28.6	33.8	28.6	53.4	20.6	113	60	13	66.2

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

\*1  $\phi D1$  is maximum diameter.

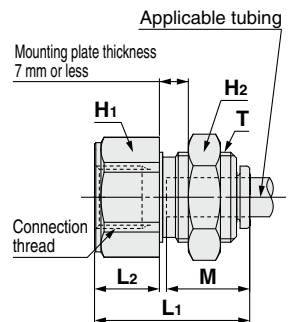


### Bulkhead Connector: KQ2E



Applicable tubing O.D. [mm]	Connection thread G	Model	T (M)	H1 (Width across flats)	H2 (Width across flats)	L1	L2	Mounting hole	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
										Nylon	Urethane		
$\phi 4$	1/8	KQ2E04-G01	M12 x 1	14	14	25.1	10.7	13	13.3	5.6	4	3	21.3
	1/4	KQ2E04-G02	M12 x 1	17	14	30.7	16.3	13	13.3	5.6	4	3	31.5
$\phi 6$	1/8	KQ2E06-G01	M14 x 1	17	17	24.5	10.1	15	13.3	13.1	10.4	4.5	29.8
	1/4	KQ2E06-G02	M14 x 1	17	17	30	15.6	15	13.3	13.1	10.4	4.5	32.8
	3/8	KQ2E06-G03	M14 x 1	21	17	32	17.6	15	13.3	13.1	10.4	4.5	45.5
$\phi 8$	1/8	KQ2E08-G01	M16 x 1	17	19	24.7	7.3	17	14.2	26.1	18	6	30.9
	1/4	KQ2E08-G02	M16 x 1	17	19	30	12.6	17	14.2	26.1	18	6	33.5
	3/8	KQ2E08-G03	M16 x 1	21	19	33.1	15.7	17	14.2	26.1	18	6	46.1
$\phi 10$	1/4	KQ2E10-G02	M20 x 1	22	24	31	11.6	21	15.6	41.5	29.5	7.5	66.7
	3/8	KQ2E10-G03	M20 x 1	22	24	32.5	13.1	21	15.6	41.5	29.5	7.5	61.6
$\phi 12$	3/8	KQ2E12-G03	M22 x 1	24	27	33.5	13.1	23	17	58.3	46.1	9	70.4
	1/2	KQ2E12-G04	M22 x 1	27	27	39.9	19.5	23	17	58.3	46.1	9	94
$\phi 16$	3/8	KQ2E16-G03	M28 x 1.5	30	32	35.9	13	29	20.6	96	67	13	127.6
	1/2	KQ2E16-G04	M28 x 1.5	30	32	41	18.1	29	20.6	113	67	13	137.2

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



# KQ2 Series Spare Parts

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

## 1 Spare Parts

### Brass

Description	Part no.	Applicable model
Pipe nut	<b>KQ04-P01A</b>	KQ2E04-G01A, KQ2E04-G02A
	<b>KQ06-P01A</b>	KQ2E06-G01A, KQ2E06-G02A, KQ2E06-G03A
	<b>KQ08-P01A</b>	KQ2E08-G01A, KQ2E08-G02A, KQ2E08-G03A
	<b>KQ10-P01A</b>	KQ2E10-G02A, KQ2E10-G03A
	<b>KQ12-P01A</b>	KQ2E12-G03A, KQ2E12-G04A
	<b>KQ16-P01A</b>	KQ2E16-G03A, KQ2E16-G04A

### Brass + Electroless nickel plating

Description	Part no.	Applicable model
Pipe nut	<b>KQ04-P01N</b>	KQ2E04-G01N, KQ2E04-G02N
	<b>KQ06-P01N</b>	KQ2E06-G01N, KQ2E06-G02N, KQ2E06-G03N
	<b>KQ08-P01N</b>	KQ2E08-G01N, KQ2E08-G02N, KQ2E08-G03N
	<b>KQ10-P01N</b>	KQ2E10-G02N, KQ2E10-G03N
	<b>KQ12-P01N</b>	KQ2E12-G03N, KQ2E12-G04N
	<b>KQ16-P01N</b>	KQ2E16-G03N, KQ2E16-G04N

Round  
Type



Sealant/Gasket Seal  
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

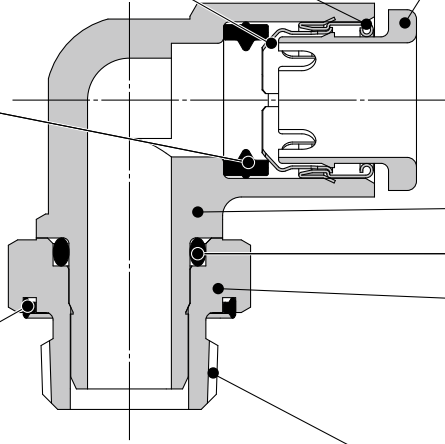
Inch Size Uni



# Metric Size One-touch Fittings

Applicable Tubing: Metric Size, Connection Thread: R, Rc

## KQ2 Series



**Guide**

**Chuck**

Suitable for use with nylon and urethane. Large retaining force. The chuck provides secure retention and the collet increases the holding force on the tube.

**Seal**

Can be used for a wide range of pressures from a low vacuum up to a pressure of 1 MPa. The use of a special profile ensures sealing and reduces resistance when the tube is inserted.

**Face seal method**

**Seal ring**

Piping installability is improved by changing to the face seal structure.

**Release button**

Requires little force for removal. Releases the chuck collet to remove the tube as well as to prevent the chuck from biting too deeply into the tubing.

**Body**

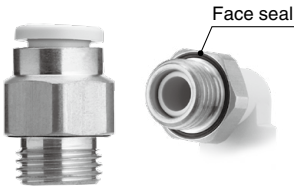
**O-ring**

**Stud**

Effective when piping in a confined space. Body part rotates allowing for positioning.

**Connection thread**

R, Rc



**One-touch IN/OUT connection.**  
Possible to use in vacuum to -100 kPa.

**Drastically reduces screw-in time with the face seal method.**



### Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon, Polyurethane
Tubing O.D.	ø3.2, ø4, ø6, ø8, ø10, ø12, ø16

### Specifications

<b>Fluid</b>		Air, Water*1
<b>Operating pressure range*2</b>		-100 kPa to 1 MPa
<b>Proof pressure (at 23°C)</b>		3 MPa
<b>Ambient and fluid temperature</b>		-5 to 60°C, Water: 0 to 40°C (No freezing)
<b>Thread</b>	<b>Mounting section</b>	JIS B0203 (Taper thread for piping) JIS B0205 (Metric coarse thread)
	<b>Nut section</b>	JIS B0205 (Metric fine thread)
<b>Sealant on the threads</b>		Seal ring

\*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, Seal ring	NBR

# Metric Size One-touch Fittings **KQ2 Series**

Applicable Tubing: Metric Size, Connection Thread: R, Rc

## How to Order

### Threaded Type

**KQ2 H 06 - 01 A P**

One-touch fittings

Face seal

Model

Symbol	Model
H	Male connector
S	Hexagon socket head male connector
L	Male elbow
LU	Branch male elbow
K	45° male elbow
V	Universal male elbow
VS	Hexagon socket head universal male elbow
VF	Universal female elbow
VD	Double universal male elbow
VT	Triple universal male elbow
Z	Branch universal male elbow
ZF	Branch universal female elbow
ZD	Double branch universal male elbow
ZT	Triple branch universal male elbow
W	Extended male elbow
T	Male branch tee
Y	Male run tee
D	Male delta union
U	Branch "Y"
UD	Double branch "Y"
N	Adapter

Thread material/Surface treatment

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

Port size/Applicable tubing O.D.

Symbol	Size	
Thread connection	01	R1/8, Rc1/8
	02	R1/4, Rc1/4
	03	R3/8, Rc3/8
	04	R1/2, Rc1/2

Applicable tubing O.D.

Symbol	Size
23	ø3.2
04	ø4
06	ø6
08	ø8
10	ø10
12	ø12
16	ø16

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

Round Type



Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Metric Size R, Rc

Face Seal

Inch Size NPT

Inch Size R

Metric Size Uni

Inch Size Uni

Gasket Seal

# Metric Size One-touch Fittings

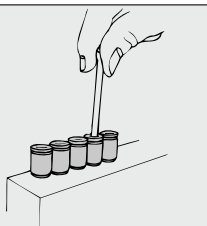
## Round Type Variations

### Hexagon socket head male connector

**KQ2S** P.176



Internal hexagon socket allows tightening with a hexagon wrench in confined spaces.

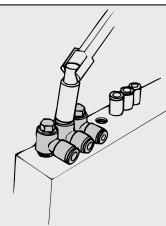


### Universal male elbow

**KQ2V** P.178



Hexagon head of the body allows tightening with a box wrench in confined spaces.

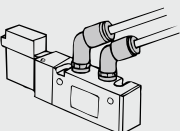


### 45° male elbow

**KQ2K** P.178



Use to pipe a female thread at a 45° angle. Its direction is in-between that of the male connector and male elbow.

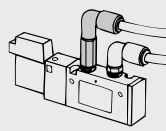


### Extended male elbow

**KQ2W** P.181



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

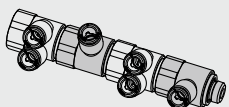


### Universal female elbow

**KQ2VF** P.179



Use to branch a male or female thread in the same direction and at a 90° angle. Multiple connections possible.

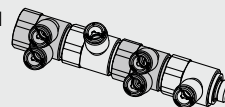


### Branch universal female elbow

**KQ2ZF** P.180



Use to two-branch a male or female thread in the same direction and at a 90° angle. Multiple connections possible.



### Male connector

**KQ2H** P.176



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

### Double universal male elbow

**KQ2VD** P.179



Use to two-branch a female thread at right angles. Two individual parts rotate 360°.

### Male elbow

**KQ2L** P.177



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

### Triple universal male elbow

**KQ2VT** P.179



Use to three-branch a female thread at right angles. Three individual parts rotate 360°.

### Male branch tee

**KQ2T** P.182



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

### Branch universal male elbow

**KQ2Z** P.180



Hexagon head of the body allows tightening with a box wrench. Use for branch connections.

### Hexagon socket head universal male elbow

**KQ2VS** P.178



Hexagon socket on the top allows tightening with a hexagon wrench in confined spaces.

### Double branch universal male elbow

**KQ2ZD** P.180



Use to four-branch a female thread at right angles. Two individual parts rotate 360°.

### Branch male elbow

**KQ2LU** P.177



Use to two-branch a female thread at right angles.

### Male run tee

**KQ2Y** P.182



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

### Adapter

**KQ2N** P.184



Use to connect One-touch fittings and R female threads.

Tubing One-touch fittings  
Plug-in reducer/Plug-in elbow etc.

Tubing Union elbow/Union tee/Straight union etc.

Accessory  
Nipple/Plug etc.

Refer to page 103 and after for details.

# Metric Size One-touch Fittings **KQ2 Series**

Applicable Tubing: Metric Size, Connection Thread: R, Rc

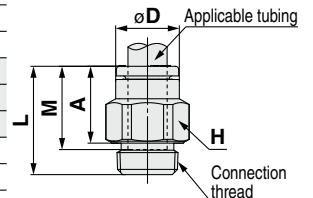
## Dimensions

### Male Connector: KQ2H (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	øD	L	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
								Nylon	Urethane		
ø3.2	1/8	KQ2H23-01□P	12	6.7	14.1	8.9	13.3	3.4	2.9	2.5	6.3
	1/4	KQ2H23-02□P	17	6.7	15	7.4	13.3	3.4	2.9	2.5	15.1
ø4	1/8	KQ2H04-01□P	12	7.7	16.4	11.2	13.3	4.8	3.4	3	6.9
	1/4	KQ2H04-02□P	17	7.7	15	7.4	13.3	4.8	3.4	3	14.5
ø6	1/8	KQ2H06-01□P	12	9.7	17.2	12	13.3	13.1	10.4	4.5	6.5
	1/4	KQ2H06-02□P	17	9.7	14	6.4	13.3	13.1	10.4	4.5	10.6
	3/8	KQ2H06-03□P	21	9.7	15.2	7.6	13.3	13.1	10.4	4.5	22.8
ø8	1/8	KQ2H08-01□P	14	13	21.1	15.9	14.2	26.1	18	6	11.8
	1/4	KQ2H08-02□P	17	13	19.9	12.3	14.2	26.1	18	6	13.9
	3/8	KQ2H08-03□P	21	13	15.2	7.6	14.2	26.1	18	6	19.6
ø10	1/8	KQ2H10-01□P	17	15.6	22.9	17.7	15.6	26.1	26.1	6	16.3
	1/4	KQ2H10-02□P	17	15.6	24.4	16.8	15.6	41.5	29.5	7.5	17.9
	3/8	KQ2H10-03□P	21	15.6	21.2	13.6	15.6	41.5	29.5	7.5	23.7
	1/2	KQ2H10-04□P	27	15.6	18.8	8.4	15.6	41.5	29.5	7.5	40.9
ø12	1/4	KQ2H12-02□P	19	18.2	26.6	19	17	58.3	46.1	9	22
	3/8	KQ2H12-03□P	21	18.2	25.1	17.5	17	58.3	46.1	9	28.6
	1/2	KQ2H12-04□P	27	18.2	25.1	14.7	17	58.3	46.1	9	45
ø16	1/4	KQ2H16-02□P	24	23.6	30.6	23	20.6	58.3	58.3	9	42.5
	3/8	KQ2H16-03□P	24	23.6	30.6	23	20.6	81	67	11	39.2
	1/2	KQ2H16-04□P	27	23.6	32.1	21.7	20.6	113	67	13	55

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



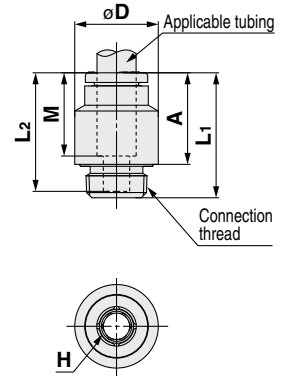
### Hexagon Socket Head Male Connector: KQ2S (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 øD	L1	L2	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
									Nylon	Urethane		
ø4	1/8	KQ2S04-01□P	3	13	20.6	19.6	15.4	13.3	4.1	3.6	3.1	11.6
ø6	1/8	KQ2S06-01□P	4	13	19.8	18.8	14.6	13.3	10	10	4	9.6
	1/4	KQ2S06-02□P	4	18	19.8	18.8	12.2	13.3	10.7	10	4.1	16.3
ø8	1/8	KQ2S08-01□P	5	13	21.2	19.7	16	14.2	17.2	16.2	5.1	9
	1/4	KQ2S08-02□P	6	18	20.4	19.5	12.8	14.2	23.3	16.2	6.1	15.5
	3/8	KQ2S08-03□P	6	22	20.7	19.7	13.1	14.2	23.3	16.2	6.1	26.3
ø10	1/8	KQ2S10-01□P	5	18	23	21.1	17.8	15.6	17.2	16.2	5.1	17.8
	1/4	KQ2S10-02□P	8	18	28.8	20.1	21.2	15.6	39	26.6	8.1	19.2
	3/8	KQ2S10-03□P	8	22	21.1	20.1	13.5	15.6	39	26.6	8.1	23.4
	1/2	KQ2S10-04□P	8	26	21.1	20.1	10.7	15.6	39	26.6	8.1	40.6
ø12	1/4	KQ2S12-02□P	8	18.2	30.2	21.5	22.6	17	46	44.5	8.1	24.3
	3/8	KQ2S12-03□P	10	22	25.1	21.8	17.5	17	60	44.5	10.1	28.2
	1/2	KQ2S12-04□P	10	26	25.2	21.8	14.8	17	60	44.5	10.1	40.7
ø16	1/4	KQ2S16-02□P	8	23.6	30.6	25.1	23	20.6	46	46	8.1	35.1
	3/8	KQ2S16-03□P	10	23.6	30.6	25.4	23	20.6	81	67	10.1	27.9
	1/2	KQ2S16-04□P	12	26	32.1	26.1	21.7	20.6	113	67	12.1	48.2

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

\*1 øD is maximum diameter.



Round 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

# KQ2 Series

Applicable Tubing: Metric Size, Connection Thread: R, Rc

## Dimensions

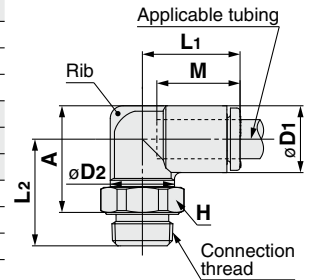
### Male Elbow: KQ2L (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	With a rib
										Nylon	Urethane			
$\phi 3.2$	1/8	KQ2L23-01□P	12	7.1	10	14.5	16	14.3	13.3	3	2.5	2.5	5.1	—
	1/4	KQ2L23-02□P	17	7.1	10	14.5	19.4	15.3	13.3	3	2.5	2.5	14.3	—
$\phi 4$	1/8	KQ2L04-01□P	12	8.2	10	14.8	15.5	14.4	13.3	4.6	3.3	3	5.2	●
	1/4	KQ2L04-02□P	17	8.2	10	14.8	19.9	16.4	13.3	4.6	3.3	3	14.5	●
$\phi 6$	1/8	KQ2L06-01□P	12	10.4	10	15.5	16.6	16.6	13.3	11.4	9	4.5	5.7	—
	1/4	KQ2L06-02□P	17	10.4	10	15.5	21	18.6	13.3	11.4	9	4.5	15	—
	3/8	KQ2L06-03□P	21	10.4	10	15.5	23	20.6	13.3	11.4	9	4.5	30.2	—
$\phi 8$	1/8	KQ2L08-01□P	12	13.2	10	16.4	18	19.4	14.2	11.4	11.4	4.5	6.5	●
	1/4	KQ2L08-02□P	17	13.2	12	17.2	22.4	21.4	14.2	21.6	14.9	6	13.7	●
	3/8	KQ2L08-03□P	21	13.2	12	17.2	24.4	23.4	14.2	21.6	14.9	6	28.7	●
$\phi 10$	1/8	KQ2L10-01□P	12	15.9	12	18.6	22.2	24.9	15.6	21.6	14.9	6	10.1	●
	1/4	KQ2L10-02□P	17	15.9	17	19.3	25.7	26.0	15.6	35.2	25	7.5	17.9	●
	3/8	KQ2L10-03□P	21	15.9	17	19.3	25.8	26.1	15.6	35.2	25	7.5	17.8	●
$\phi 12$	1/4	KQ2L12-02□P	17	18.5	17	19.3	30.6	28.1	15.6	35.2	25	7.5	45.1	●
	3/8	KQ2L12-03□P	21	18.5	17	21.5	27	28.6	17	50.2	39.7	9	19.6	●
	1/2	KQ2L12-04□P	27	18.5	17	21.5	31.9	30.7	17	50.2	39.7	9	47	●
$\phi 16$	1/4	KQ2L16-02□P	17	23.8	17	25.1	29.6	33.9	20.6	50.2	50.2	9	24	●
	3/8	KQ2L16-03□P	21	23.8	21	27.1	32.7	37.0	20.6	71	58.9	11	33.8	—
	1/2	KQ2L16-04□P	27	23.8	21	27.1	34.7	36.2	20.6	100	58.9	13	59.9	—

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

\*1  $\phi D_1$  is maximum diameter.



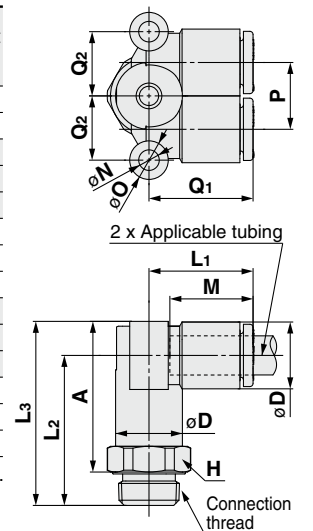
### Branch Male Elbow: KQ2LU (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	P	O	N	Q <sub>1</sub>	Q <sub>2</sub>	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
															Nylon	Urethane		
$\phi 4$	1/8	KQ2LU04-01□P	12	8.2	15.8	22.6	26.7	21.5	13.3	8.2	6	3.2	15.8	7.9	6	4.1	3	9.5
	1/4	KQ2LU04-02□P	17	8.2	15.8	26	30.1	22.5	13.3	8.2	6	3.2	15.8	7.9	6	4.1	3	19.4
$\phi 6$	1/8	KQ2LU06-01□P	12	10.4	16.5	23.3	28.5	23.3	13.3	10.4	6	3.2	16.5	10	13.9	11	4.5	10.2
	1/4	KQ2LU06-02□P	17	10.4	16.5	26.7	31.9	24.3	13.3	10.4	6	3.2	16.5	10	13.9	11	4.5	19.8
$\phi 6$	3/8	KQ2LU06-03□P	21	10.4	16.5	26.2	31.4	23.8	13.3	10.4	6	3.2	16.5	10	13.9	11	4.5	28.1
	1/8	KQ2LU08-01□P	14	13.2	18.2	25	31.6	26.4	14.2	13.2	8	4.2	18.2	13.1	26.3	18.2	6	16.4
$\phi 8$	1/4	KQ2LU08-02□P	17	13.2	18.2	28.4	35	27.4	14.2	13.2	8	4.2	18.2	13.1	26.3	18.2	6	22
	3/8	KQ2LU08-03□P	21	13.2	18.2	27.9	34.5	26.9	14.2	13.2	8	4.2	18.2	13.1	26.3	18.2	6	30.4
$\phi 10$	1/4	KQ2LU10-02□P	17	15.9	20.3	30.5	38.5	30.9	15.6	15.9	8	4.2	20.3	15.9	40.8	29	7.5	24.9
	3/8	KQ2LU10-03□P	21	15.9	20.3	30	38	30.4	15.6	15.9	8	4.2	20.3	15.9	40.8	29	7.5	32.4
$\phi 10$	1/2	KQ2LU10-04□P	27	15.9	20.3	32.3	40.3	29.9	15.6	15.9	8	4.2	20.3	15.9	40.8	29	7.5	50.5
	1/4	KQ2LU12-02□P	21	18.5	22.5	32.7	41.9	34.3	17	18.5	8	4.2	22.5	17.9	57.2	45.2	9	39.3
$\phi 12$	3/8	KQ2LU12-03□P	21	18.5	22.5	32.2	41.4	33.8	17	18.5	8	4.2	22.5	17.9	57.2	45.2	9	37
	1/2	KQ2LU12-04□P	27	18.5	22.5	34.5	43.7	33.3	17	18.5	8	4.2	22.5	17.9	57.2	45.2	9	52.5

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

\*1  $\phi D$  is maximum diameter.



# Metric Size One-touch Fittings **KQ2 Series**

Applicable Tubing: Metric Size, Connection Thread: R, Rc

## Dimensions

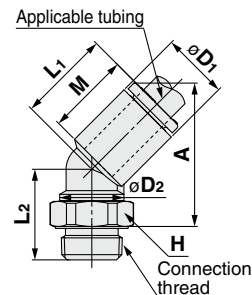
### 45° Male Elbow: KQ2K (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
										Nylon	Urethane		
ø4	1/8	KQ2K04-01□P	12	8.2	10	14.4	12	19.5	13.3	4.8	3.4	3	5.1
	1/4	KQ2K04-02□P	17	8.2	10	14.4	15.4	20.5	13.3	4.8	3.4	3	14.3
ø6	1/8	KQ2K06-01□P	12	10.4	10	14.7	14.1	22.5	13.3	8.7	6.9	4.5	5.5
	1/4	KQ2K06-02□P	17	10.4	10	14.7	17.5	23.5	13.3	8.7	6.9	4.5	14.7
	3/8	KQ2K06-03□P	21	10.4	10	14.7	19.5	25.5	13.3	8.7	6.9	4.5	29.9
ø8	1/8	KQ2K08-01□P	12	13.2	10	16	15	25.2	14.2	8.7	8.7	4.5	6.4
	1/4	KQ2K08-02□P	17	13.2	12	16	19.4	27.2	14.2	19.7	19.7	6	13.5
	3/8	KQ2K08-03□P	21	13.2	12	16	21.4	29.2	14.2	19.7	19.7	6	28.5
ø10	1/8	KQ2K10-01□P	12	15.9	12	18.2	20.1	32.7	15.6	30.9	23.2	6	10.1
	1/4	KQ2K10-02□P	17	15.9	17	17.6	26.1	35.9	15.6	30.9	23.2	7.5	18
	3/8	KQ2K10-03□P	21	15.9	17	17.6	20.5	30.3	15.6	30.9	23.2	7.5	17.3
ø12	1/2	KQ2K10-04□P	27	15.9	17	17.6	25.3	32.3	15.6	30.9	23.2	7.5	44.6
	1/4	KQ2K12-02□P	17	18.5	17	19.4	26	37.9	17	44.5	35.1	9	19.5
	3/8	KQ2K12-03□P	21	18.5	17	19.4	20.4	32.3	17	44.5	35.1	9	18.8
ø16	1/2	KQ2K12-04□P	27	18.5	17	19.4	25.2	34.3	17	44.5	35.1	9	46.1
	1/4	KQ2K16-02□P	17	23.8	17	24.3	26.6	43.3	20.6	44.5	44.5	9	23.9
	3/8	KQ2K16-03□P	21	23.8	21	23.8	28.7	45	20.6	65.8	58	11	32.2
ø16	1/2	KQ2K16-04□P	27	23.8	21	23.8	30.7	44.2	20.6	91.9	58	13	58.3

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

\*1  $\phi D_1$  is maximum diameter.



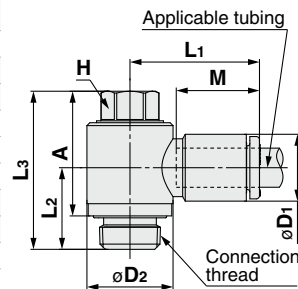
### Universal Male Elbow: KQ2V (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
ø4	1/8	KQ2V04-01□P	8	8.2	13.4	19.3	12.7	24.6	19.4	13.3	2.9	2.9	3	12.6
ø6	1/8	KQ2V06-01□P	8	10.4	13.4	20.5	12.7	24.6	19.4	13.3	7.5	5.9	4.5	12.9
	1/4	KQ2V06-02□P	10	10.4	18	19.9	16.1	28.7	21.1	13.3	7.5	5.9	4.5	23.2
ø8	1/8	KQ2V08-01□P	12	13.2	17.6	23.5	14.1	26.6	21.4	14.2	16	11.2	6	22.7
	1/4	KQ2V08-02□P	12	13.2	18	23.5	16.7	29.2	21.6	14.2	16	11.2	6	27.2
	3/8	KQ2V08-03□P	14	13.2	22	23.1	17.4	33.2	25.6	14.2	16	11.2	6	42.1
ø10	1/4	KQ2V10-02□P	14	15.9	20.6	25.9	18.1	33.1	25.5	15.6	27	20.3	7.5	36.5
	3/8	KQ2V10-03□P	14	15.9	22	25.9	18.2	33.2	25.6	15.6	27	20.3	7.5	43.4
ø12	3/8	KQ2V12-03□P	17	18.5	25.2	28.5	19.3	35.5	27.9	17	39	30.8	9	56.7
	1/2	KQ2V12-04□P	17	18.5	26	28.5	22.6	38.8	28.4	17	39	30.8	9	72.2
ø16	3/8	KQ2V16-03□P	21	23.8	32.3	34.2	23	43.3	35.7	20.6	55	46	11	99.9
	1/2	KQ2V16-04□P	21	23.8	32.3	34.2	26.3	46.6	36.2	20.6	78	46	13	113

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

\*1  $\phi D_1$  is maximum diameter.



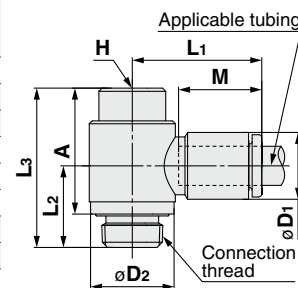
### Hexagon Socket Head Universal Male Elbow: KQ2VS (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
ø4	1/8	KQ2VS04-01□P	6	8.2	13.4	19.3	12.7	24.8	19.6	13.3	2.9	2.9	3	12.6
ø6	1/8	KQ2VS06-01□P	6	10.4	13.4	20.5	12.7	24.8	19.6	13.3	7.5	5.9	4.5	12.9
	1/4	KQ2VS06-02□P	6	10.4	18	19.9	16.1	24.7	17.1	13.3	7.5	5.9	4.5	19.2
ø8	1/8	KQ2VS08-01□P	8	13.2	17.6	23.5	14.1	25	19.8	14.2	16	11.2	6	19.3
	1/4	KQ2VS08-02□P	8	13.2	18	23.5	16.7	27.7	20.1	14.2	16	11.2	6	23.8
	3/8	KQ2VS08-03□P	8	13.2	22	23.1	17.4	29.3	21.7	14.2	16	11.2	6	34.4
ø10	1/4	KQ2VS10-02□P	8	15.9	20.6	25.9	18.1	29.2	21.6	15.6	27	20.3	7.5	29.2
	3/8	KQ2VS10-03□P	8	15.9	22	25.9	18.2	29.3	21.7	15.6	27	20.3	7.5	35.6
ø12	3/8	KQ2VS12-03□P	10	18.5	25.2	28.5	19.3	33	25.4	17	39	30.8	9	48.6
	1/2	KQ2VS12-04□P	10	18.5	26	28.5	22.6	36.3	25.9	17	39	30.8	9	64.1

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

\*1  $\phi D_1$  is maximum diameter.



Round 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

# KQ2 Series

Applicable Tubing: Metric Size, Connection Thread: R, Rc

## Dimensions

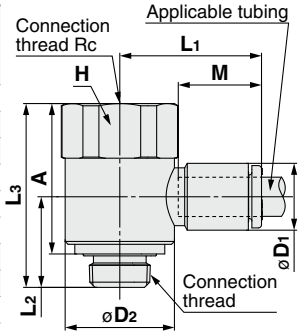
### Universal Female Elbow: KQ2VF (Face seal)



Applicable tubing O.D. [mm]	Connection thread R, Rc	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
											$\phi 4$	1/8		
$\phi 6$	1/8	KQ2VF06-01□P	17	10.4	17	22.4	14.1	28.6	23.4	13.3	7.5	5.9	4.5	28.9
	1/4	KQ2VF06-02□P	22	10.4	21.7	23.2	17.6	36.4	28.8	13.3	7.5	5.9	4.5	60.3
$\phi 8$	1/8	KQ2VF08-01□P	17	13.2	17.6	23.5	14.8	29.3	24.1	14.2	16	11.2	6	27.2
	1/4	KQ2VF08-02□P	22	13.2	21.6	25.1	17.8	36.4	28.8	14.2	16	11.2	6	61.2
	3/8	KQ2VF08-03□P	27	13.2	27.7	26.2	22.2	42.2	34.6	14.2	16	11.2	6	90.2
$\phi 10$	1/4	KQ2VF10-02□P	22	15.9	22.6	26.9	18.8	38.7	31.1	15.6	27	20.3	7.5	61
	3/8	KQ2VF10-03□P	27	15.9	26.6	27.6	21.4	42.2	34.6	15.6	27	20.3	7.5	90
$\phi 12$	3/8	KQ2VF12-03□P	27	18.5	26.6	29.9	20.9	42.2	34.6	17	39	30.8	9	91.6
	1/2	KQ2VF12-04□P	30	18.5	31.6	32.1	22.3	47.2	36.8	17	39	30.8	9	144.1

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

\*1  $\phi D_1$  is maximum diameter.



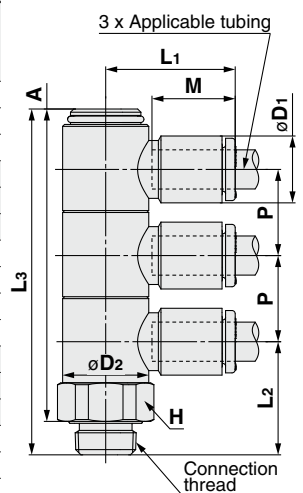
### Triple Universal Male Elbow: KQ2VT (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	P	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
												$\phi 4$	1/8		
1/4	KQ2VT04-02□P	17	8.2	13.4	19.3	21	57.2	49.6	13.3	13.4	2.9		2.9	3	36.8
3/8	KQ2VT04-03□P	21	8.2	13.4	19.3	23	59.2	51.6	13.3	13.4	2.9		2.9	3	54.4
$\phi 6$	1/8	KQ2VT06-01□P	14	10.4	13.4	20.5	17.6	53.8	48.6	13.3	13.4	7.5	5.9	4.5	28.5
	1/4	KQ2VT06-02□P	17	10.4	13.4	20.5	21	57.2	49.6	13.3	13.4	7.5	5.9	4.5	37.8
	3/8	KQ2VT06-03□P	21	10.4	13.4	20.5	23	59.2	51.6	13.3	13.4	7.5	5.9	4.5	55.4
$\phi 8$	1/8	KQ2VT08-01□P	19	13.2	17.6	23.7	21	63.8	58.6	14.2	15.9	16	11.2	6	67
	1/4	KQ2VT08-02□P	19	13.2	17.6	23.7	23.4	66.2	58.6	14.2	15.9	16	11.2	6	60.8
	3/8	KQ2VT08-03□P	21	13.2	17.6	23.7	24.4	67.2	59.6	14.2	15.9	16	11.2	6	72.7
	1/2	KQ2VT08-04□P	27	13.2	17.6	23.7	29.2	72	61.6	14.2	15.9	16	11.2	6	112.8
$\phi 10$	1/4	KQ2VT10-02□P	21	15.9	20.6	25.7	25.8	77	69.4	15.6	19.2	27	20.3	7.5	89.7
	3/8	KQ2VT10-03□P	21	15.9	20.6	25.7	25.8	77	69.4	15.6	19.2	27	20.3	7.5	86.5
	1/2	KQ2VT10-04□P	27	15.9	20.6	25.7	30.6	81.8	71.4	15.6	19.2	27	20.3	7.5	125.5
$\phi 12$	1/4	KQ2VT12-02□P	26	18.5	25.2	28.9	29.1	86.7	79.1	17	21.6	39	30.8	9	158.6
	3/8	KQ2VT12-03□P	26	18.5	25.2	28.9	29.1	86.7	79.1	17	21.6	39	30.8	9	145.4
	1/2	KQ2VT12-04□P	27	18.5	25.2	28.9	31.9	89.5	79.1	17	21.6	39	30.8	9	155.4

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

\*1  $\phi D_1$  is maximum diameter.



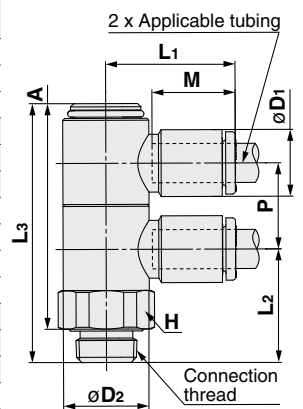
### Double Universal Male Elbow: KQ2VD (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	P	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
												$\phi 4$	1/8		
1/4	KQ2VD04-02□P	17	8.2	13.4	19.3	21	43.7	36.1	13.3	13.4	2.9		2.9	3	31.2
3/8	KQ2VD04-03□P	21	8.2	13.4	19.3	23	45.7	38.1	13.3	13.4	2.9		2.9	3	48.7
$\phi 6$	1/8	KQ2VD06-01□P	14	10.4	13.4	20.5	17.6	40.3	35.1	13.3	13.4	7.5	5.9	4.5	22.6
	1/4	KQ2VD06-02□P	17	10.4	13.4	20.5	21	43.7	36.1	13.3	13.4	7.5	5.9	4.5	31.8
	3/8	KQ2VD06-03□P	21	10.4	13.4	20.5	23	45.7	38.1	13.3	13.4	7.5	5.9	4.5	49.3
$\phi 8$	1/8	KQ2VD08-01□P	19	13.2	17.6	23.7	21	47.8	42.6	14.2	15.9	16	11.2	6	52.4
	1/4	KQ2VD08-02□P	19	13.2	17.6	23.7	23.4	50.2	42.6	14.2	15.9	16	11.2	6	48.6
	3/8	KQ2VD08-03□P	21	13.2	17.6	23.7	24.4	51.2	43.6	14.2	15.9	16	11.2	6	60.4
	1/2	KQ2VD08-04□P	27	13.2	17.6	23.7	29.2	56	45.6	14.2	15.9	16	11.2	6	100.4
$\phi 10$	1/4	KQ2VD10-02□P	21	15.9	20.6	25.7	25.8	57.7	50.1	15.6	19.2	27	20.3	7.5	70.6
	3/8	KQ2VD10-03□P	21	15.9	20.6	25.7	25.8	57.7	50.1	15.6	19.2	27	20.3	7.5	69.5
	1/2	KQ2VD10-04□P	27	15.9	20.6	25.7	30.6	62.5	52.1	15.6	19.2	27	20.3	7.5	108.2
$\phi 12$	1/4	KQ2VD12-02□P	26	18.5	25.2	28.9	29.1	65	57.4	17	21.6	39	30.8	9	125.8
	3/8	KQ2VD12-03□P	26	18.5	25.2	28.9	29.1	65	57.4	17	21.6	39	30.8	9	117.4
	1/2	KQ2VD12-04□P	27	18.5	25.2	28.9	31.9	67.8	57.4	17	21.6	39	30.8	9	128.8

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

\*1  $\phi D_1$  is maximum diameter.



# Metric Size One-touch Fittings *KQ2 Series*

Applicable Tubing: Metric Size, Connection Thread: R, Rc

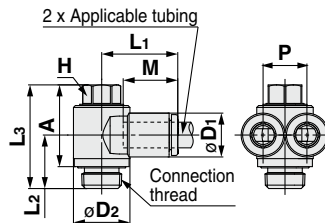
## Dimensions

### Branch Universal Male Elbow: KQ2Z (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	P	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
ø4	1/8	KQ2Z04-01□P	8	8.2	13.4	18.5	12.7	24.6	19.4	13.3	8.2	4.7	4.7	3	13.4
	1/8	KQ2Z06-01□P	8	10.4	13.4	18.4	12.7	24.6	19.4	13.3	10.4	10.8	8.6	4.5	14
	1/4	KQ2Z06-02□P	14	10.4	20.6	21.5	17.3	33.1	25.5	13.3	10.4	10.8	8.6	4.5	35.4
ø6	3/8	KQ2Z06-03□P	14	10.4	22	21.5	17.4	33.2	25.6	13.3	10.4	10.8	8.6	4.5	42.3
	1/8	KQ2Z08-01□P	12	13.2	17.6	21.2	14.1	26.6	21.4	14.2	13.2	20.5	14.2	6	24.5
	1/4	KQ2Z08-02□P	12	13.2	18	21.2	16.7	29.2	21.6	14.2	13.2	20.5	14.2	6	28.9
ø8	3/8	KQ2Z08-03□P	14	13.2	22	22.3	17.4	33.2	25.6	14.2	13.2	20.5	14.2	6	44
	1/4	KQ2Z10-02□P	14	15.9	21.6	23.6	18.1	33.1	25.5	15.6	15.9	31.8	22.6	7.5	40
	3/8	KQ2Z10-03□P	14	15.9	22	23.6	18.2	33.2	25.6	15.6	15.9	31.8	22.6	7.5	46.9
ø10	3/8	KQ2Z12-03□P	17	18.5	24.1	26.9	19.1	35.5	27.9	17	18.5	44.6	35.3	9	60.5
	1/2	KQ2Z12-04□P	17	18.5	26	26.9	22.4	38.8	28.4	17	18.5	44.6	35.3	9	76

□: A (Brass), N (Brass + Electroless nickel plating) \*1  $\phi D_1$  is maximum diameter.

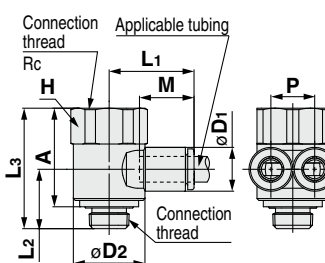


### Branch Universal Female Elbow: KQ2ZF (Face seal)



Applicable tubing O.D. [mm]	Connection thread R, Rc	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	P	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
ø4	1/8	KQ2ZF04-01□P	17	8.2	17	20.5	14.1	28.6	23.4	13.3	8.2	4.7	4.7	3	29.3
	1/8	KQ2ZF06-01□P	17	10.4	17	20.5	14.1	28.6	23.4	13.3	10.4	10.8	8.6	4.5	29.9
ø6	1/4	KQ2ZF06-02□P	22	10.4	21.7	22.5	17.6	36.4	28.8	13.3	10.4	10.8	8.6	4.5	61.3
	1/8	KQ2ZF08-01□P	17	13.2	17.6	21.2	14.8	29.3	24.1	14.2	13.2	20.5	14.2	6	28.9
ø8	1/4	KQ2ZF08-02□P	22	13.2	21.4	23.3	17.8	36.4	28.8	14.2	13.2	20.5	14.2	6	62.8
	1/4	KQ2ZF10-02□P	22	15.9	22.6	24.6	18.8	38.7	31.1	15.6	15.9	31.8	22.6	7.5	63.8
ø10	3/8	KQ2ZF10-03□P	27	15.9	26.6	26.9	21.4	42.2	34.6	15.6	15.9	31.8	22.6	7.5	93
	3/8	KQ2ZF12-03□P	27	18.5	26.6	28.1	20.9	42.2	34.6	17	18.5	44.6	35.3	9	96
ø12	1/2	KQ2ZF12-04□P	30	18.5	31.6	32	22.3	47.2	36.8	17	18.5	44.6	35.3	9	148.8

□: A (Brass), N (Brass + Electroless nickel plating) \*1  $\phi D_1$  is maximum diameter.

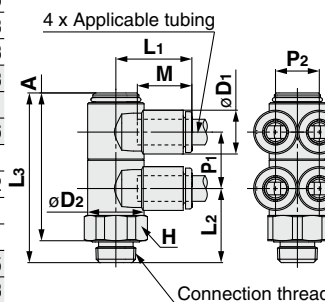


### Double Branch Universal Male Elbow: KQ2ZD (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	P <sub>1</sub>	P <sub>2</sub>	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
													Nylon	Urethane		
ø4	1/8	KQ2ZD04-01□P	14	8.2	13.4	18.5	17.6	40.3	35.1	13.3	13.4	8.2	4.7	4.7	3	23.6
	1/4	KQ2ZD04-02□P	17	8.2	13.4	18.5	21	43.7	36.1	13.3	13.4	8.2	4.7	4.7	3	32.8
	3/8	KQ2ZD04-03□P	21	8.2	13.4	18.5	23	45.7	38.1	13.3	13.4	8.2	4.7	4.7	3	50.3
ø6	1/8	KQ2ZD06-01□P	14	10.4	13.4	18.4	17.6	40.3	35.1	13.3	13.4	10.4	10.8	8.6	4.5	24.8
	1/4	KQ2ZD06-02□P	17	10.4	13.4	18.4	21	43.7	36.1	13.3	13.4	10.4	10.8	8.6	4.5	34
	3/8	KQ2ZD06-03□P	21	10.4	13.4	18.4	23	45.7	38.1	13.3	13.4	10.4	10.8	8.6	4.5	51.6
ø8	1/8	KQ2ZD08-01□P	19	13.2	17.6	21.2	21	47.8	42.6	14.2	15.9	13.2	20.5	14.2	6	56.1
	1/4	KQ2ZD08-02□P	19	13.2	17.6	21.2	23.4	50.2	42.6	14.2	15.9	13.2	20.5	14.2	6	52.2
	3/8	KQ2ZD08-03□P	21	13.2	17.6	21.2	24.4	51.2	43.6	14.2	15.9	13.2	20.5	14.2	6	64.1
ø10	1/2	KQ2ZD08-04□P	27	13.2	17.6	21.2	29.2	56	45.6	14.2	15.9	13.2	20.5	14.2	6	104.1
	1/4	KQ2ZD10-02□P	21	15.9	20.6	23.6	25.8	57.7	50.1	15.6	19.2	15.9	31.8	21.6	7.5	76.5
	3/8	KQ2ZD10-03□P	21	15.9	20.6	23.6	25.8	57.7	50.1	15.6	19.2	15.9	31.8	21.6	7.5	75.3
ø12	1/2	KQ2ZD10-04□P	27	15.9	20.6	23.6	30.6	62.5	52.1	15.6	19.2	15.9	31.8	21.6	7.5	114
	1/4	KQ2ZD12-02□P	26	18.5	25.2	26.8	29.1	65	57.4	17	21.6	18.5	44.6	35.3	9	134.4
	3/8	KQ2ZD12-03□P	26	18.5	25.2	26.8	29.1	65	57.4	17	21.6	18.5	44.6	35.3	9	126
ø12	1/2	KQ2ZD12-04□P	27	18.5	25.2	26.8	31.9	67.8	57.4	17	21.6	18.5	44.6	35.3	9	137.4

□: A (Brass), N (Brass + Electroless nickel plating) \*1  $\phi D_1$  is maximum diameter.



Round Type

Metric Size M, R, Rc

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Metric Size R, Rc

Face Seal

Inch Size NPT

Inch Size R

Gasket Seal

Metric Size Uni

Inch Size Uni



# KQ2 Series

Applicable Tubing: Metric Size, Connection Thread: R, Rc

## Dimensions

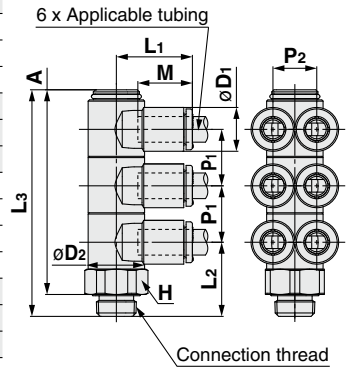
### Triple Branch Universal Male Elbow: KQ2ZT (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	P <sub>1</sub>	P <sub>2</sub>	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
													Nylon	Urethane		
$\phi 4$	1/8	KQ2ZT04-01□P	14	8.2	13.4	18.5	17.6	53.8	48.6	13.3	13.4	8.2	4.7	4.7	3	29.9
	1/4	KQ2ZT04-02□P	17	8.2	13.4	18.5	21	57.2	49.6	13.3	13.4	8.2	4.7	4.7	3	39.2
	3/8	KQ2ZT04-03□P	21	8.2	13.4	18.5	23	59.2	51.6	13.3	13.4	8.2	4.7	4.7	3	56.8
$\phi 6$	1/8	KQ2ZT06-01□P	14	10.4	13.4	18.4	17.6	53.8	48.6	13.3	13.4	10.4	10.8	8.6	4.5	31.8
	1/4	KQ2ZT06-02□P	17	10.4	13.4	18.4	21	57.2	49.6	13.3	13.4	10.4	10.8	8.6	4.5	41.1
	3/8	KQ2ZT06-03□P	21	10.4	13.4	18.4	23	59.2	51.6	13.3	13.4	10.4	10.8	8.6	4.5	58.7
$\phi 8$	1/8	KQ2ZT08-01□P	19	13.2	17.6	21.2	21	63.8	58.6	14.2	15.9	13.2	20.5	14.2	6	72.5
	1/4	KQ2ZT08-02□P	19	13.2	17.6	21.2	23.4	66.2	58.6	14.2	15.9	13.2	20.5	14.2	6	66.3
	3/8	KQ2ZT08-03□P	21	13.2	17.6	21.2	24.4	67.2	59.6	14.2	15.9	13.2	20.5	14.2	6	78.2
$\phi 10$	1/2	KQ2ZT08-04□P	27	13.2	17.6	21.2	29.2	72	61.6	14.2	15.9	13.2	20.5	14.2	6	118.3
	1/4	KQ2ZT10-02□P	21	15.9	20.6	23.6	25.8	77	69.4	15.6	19.2	15.9	31.8	21.6	7.5	98.5
	3/8	KQ2ZT10-03□P	21	15.9	20.6	23.6	25.8	77	69.4	15.6	19.2	15.9	31.8	21.6	7.5	95.3
$\phi 12$	1/2	KQ2ZT10-04□P	27	15.9	20.6	23.6	30.6	81.8	71.4	15.6	19.2	15.9	31.8	21.6	7.5	134.3
	1/4	KQ2ZT12-02□P	26	18.5	25.2	26.8	29.1	86.7	79.1	17	21.6	18.5	44.6	35.3	9	171.5
	3/8	KQ2ZT12-03□P	26	18.5	25.2	26.8	29.1	86.7	79.1	17	21.6	18.5	44.6	35.3	9	158.3
1/2	KQ2ZT12-04□P	27	18.5	25.2	26.8	31.9	89.5	79.1	17	21.6	18.5	44.6	35.3	9	168.3	

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

\*1  $\phi D_1$  is maximum diameter.



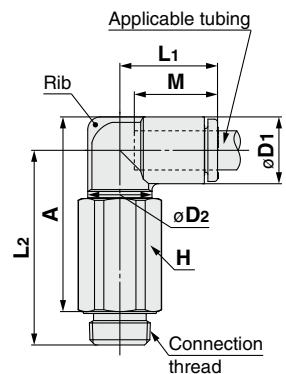
### Extended Male Elbow: KQ2W (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]	With a rib
										Nylon	Urethane			
$\phi 3.2$	1/8	KQ2W23-01□P	12	7.1	10	14.5	29.6	28	13.3	2.8	2.4	2.5	15.3	—
	1/4	KQ2W23-02□P	17	7.1	10	14.5	31	27	13.3	2.8	2.4	2.5	34.6	—
$\phi 4$	1/8	KQ2W04-01□P	12	8.2	10	14.8	29.2	28.1	13.3	4	4	3	15.5	●
	1/4	KQ2W04-02□P	17	8.2	10	14.8	31.5	28	13.3	4	4	3	34.9	●
$\phi 6$	1/8	KQ2W06-01□P	12	10.4	10	15.5	30.3	30.3	13.3	10.9	8.6	4.5	15.9	—
	1/4	KQ2W06-02□P	17	10.4	10	15.5	32.6	30.2	13.3	10.9	8.6	4.5	35.3	—
	3/8	KQ2W06-03□P	21	10.4	10	15.5	34.6	32.2	13.3	10.9	8.6	4.5	62.8	—
$\phi 8$	1/8	KQ2W08-01□P	12	13.2	10	16.4	31.7	33.1	14.2	10.9	10.9	4.5	16.7	●
	1/4	KQ2W08-02□P	17	13.2	12	17.2	36.1	35.1	14.2	20.5	14.2	6	35.4	●
	3/8	KQ2W08-03□P	21	13.2	12	17.2	38.1	37.1	14.2	20.5	14.2	6	64.7	●
$\phi 10$	1/4	KQ2W10-02□P	17	15.9	17	19.3	50.1	50.5	15.6	33.5	23.8	7.5	54.3	●
	3/8	KQ2W10-03□P	21	15.9	17	19.3	44.7	45.1	15.6	33.5	23.8	7.5	57.8	●
	1/2	KQ2W10-04□P	27	15.9	17	19.3	49.5	47.1	15.6	33.5	23.8	7.5	122.8	●
$\phi 12$	1/4	KQ2W12-02□P	17	18.5	17	21.5	51.4	53.1	17	47.7	37.7	9	56	●
	3/8	KQ2W12-03□P	21	18.5	17	21.5	46	47.7	17	47.7	37.7	9	59.7	●
	1/2	KQ2W12-04□P	27	18.5	17	21.5	50.8	49.7	17	47.7	37.7	9	124.6	●
$\phi 16$	1/4	KQ2W16-02□P	17	23.8	17	25.1	54.1	58.4	20.6	47.7	47.7	9	60.4	●
	3/8	KQ2W16-03□P	22	23.8	21	27.1	57	61.3	20.6	71	58.9	11	89.1	—
1/2	KQ2W16-04□P	27	23.8	21	27.1	59	60.5	20.6	100	58.9	13	155.9	—	

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

\*1  $\phi D_1$  is maximum diameter.



# Metric Size One-touch Fittings **KQ2 Series**

Applicable Tubing: Metric Size, Connection Thread: R, Rc

## Dimensions

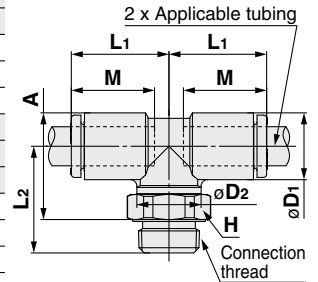
### Male Branch Tee: KQ2T (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
										Nylon	Urethane		
$\phi 3.2$	1/8	KQ2T23-01□P	12	7.1	10	14.5	15.9	14.3	13.3	3.4	2.9	2.5	5.7
	1/4	KQ2T23-02□P	17	7.1	10	14.5	19.3	15.3	13.3	3.4	2.9	2.5	14.9
$\phi 4$	1/8	KQ2T04-01□P	12	8.2	10	14.8	15.5	14.4	13.3	6	4.1	3	5.9
	1/4	KQ2T04-02□P	17	8.2	10	14.8	19.9	16.4	13.3	6	4.1	3	15.2
$\phi 6$	1/8	KQ2T06-01□P	12	10.4	10	15.5	16.6	16.6	13.3	13.9	11	4.5	6.6
	1/4	KQ2T06-02□P	17	10.4	10	15.5	21	18.6	13.3	13.9	11	4.5	15.9
	3/8	KQ2T06-03□P	21	10.4	10	15.5	23	20.6	13.3	13.9	11	4.5	31.1
$\phi 8$	1/8	KQ2T08-01□P	12	13.2	10	16.4	18	19.4	14.2	14	14	4.5	8.3
	1/4	KQ2T08-02□P	17	13.2	12	17.2	22.4	21.4	14.2	26.3	18.2	6	15.5
	3/8	KQ2T08-03□P	21	13.2	12	17.2	24.4	23.4	14.2	26.3	18.2	6	30.4
$\phi 10$	1/8	KQ2T10-01□P	12	15.9	12	18.6	22.1	24.9	15.6	21.6	14.9	6	12.9
	1/4	KQ2T10-02□P	17	15.9	17	19.3	25.6	26	15.6	35.2	25	7.5	20.5
	3/8	KQ2T10-03□P	21	15.9	17	19.3	25.7	26.1	15.6	35.2	25	7.5	20.4
$\phi 12$	1/4	KQ2T12-02□P	17	18.5	17	21.5	26.9	28.6	17	57.2	45.2	9	23.5
	3/8	KQ2T12-03□P	21	18.5	17	21.5	27	28.7	17	57.2	45.2	9	23.6
	1/2	KQ2T12-04□P	27	18.5	17	21.5	31.8	30.7	17	57.2	45.2	9	50.8
$\phi 16$	1/4	KQ2T16-02□P	17	23.8	17	25.1	29.6	33.9	20.6	57.2	57.2	9	31.7
	3/8	KQ2T16-03□P	21	23.8	21	27.1	32.7	37	20.6	71	58.9	11	40.8
	1/2	KQ2T16-04□P	27	23.8	21	27.1	34.7	36.2	20.6	100	58.9	13	66.8

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

\*1  $\phi D_1$  is maximum diameter.



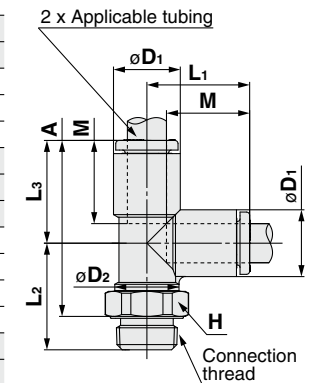
### Male Run Tee: KQ2Y (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	A	M	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
											Nylon	Urethane		
$\phi 3.2$	1/8	KQ2Y23-01□P	12	7.1	10	14.9	15.9	14.9	25.7	13.3	3.4	2.9	2.5	5.7
	1/4	KQ2Y23-02□P	17	7.1	10	14.9	19.3	14.9	26.7	13.3	3.4	2.9	2.5	14.9
$\phi 4$	1/8	KQ2Y04-01□P	12	8.2	10	15.3	15.5	15.3	25.6	13.3	6.4	4.4	3	6
	1/4	KQ2Y04-02□P	17	8.2	10	15.3	19.9	15.3	27.6	13.3	6.4	4.4	3	15.2
$\phi 6$	1/8	KQ2Y06-01□P	12	10.4	10	16.3	16.6	16.3	27.7	13.3	13.4	10.6	4.5	6.7
	1/4	KQ2Y06-02□P	17	10.4	10	16.3	21	16.3	29.7	13.3	13.4	10.6	4.5	16
	3/8	KQ2Y06-03□P	21	10.4	10	16.3	23	16.3	31.7	13.3	13.4	10.6	4.5	31.2
$\phi 8$	1/8	KQ2Y08-01□P	12	13.2	10	18.2	18	18.2	31	14.2	13.4	13.4	4.5	8.4
	1/4	KQ2Y08-02□P	17	13.2	12	18.2	22.4	18.2	33	14.2	25.6	17.7	6	15.6
	3/8	KQ2Y08-03□P	21	13.2	12	18.2	24.4	18.2	35	14.2	25.6	17.7	6	30.5
$\phi 10$	1/8	KQ2Y10-01□P	12	15.9	12	20.6	22.1	20.6	37.6	15.6	40	28.4	6	13
	1/4	KQ2Y10-02□P	17	15.9	17	20.6	25.6	20.6	38.7	15.6	40	28.4	7.5	20.7
	3/8	KQ2Y10-03□P	21	15.9	17	20.6	25.7	20.6	38.8	15.6	40	28.4	7.5	20.6
$\phi 12$	1/4	KQ2Y12-02□P	17	18.5	17	23	26.9	23	42.4	17	57.4	45.4	9	23.8
	3/8	KQ2Y12-03□P	21	18.5	17	23	27	23	42.5	17	57.4	45.4	9	23.8
	1/2	KQ2Y12-04□P	27	18.5	17	23	31.8	23	44.5	17	57.4	45.4	9	51.1
$\phi 16$	1/4	KQ2Y16-02□P	17	23.8	17	28.6	29.6	28.6	50.6	20.6	57.4	45.4	9	32.2
	3/8	KQ2Y16-03□P	21	23.8	21	28.6	32.7	28.6	53.7	20.6	81	60	11	41.3
	1/2	KQ2Y16-04□P	27	23.8	21	28.6	34.7	28.6	52.9	20.6	113	60	13	67.3

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

\*1  $\phi D_1$  is maximum diameter.



Round Type

Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

Metric Size G

Face Seal

Metric Size R, Rc

Inch Size NPT

Inch Size R

Gasket Seal

Metric Size Uni

Inch Size Uni

# KQ2 Series

Applicable Tubing: Metric Size, Connection Thread: R, Rc

## Dimensions

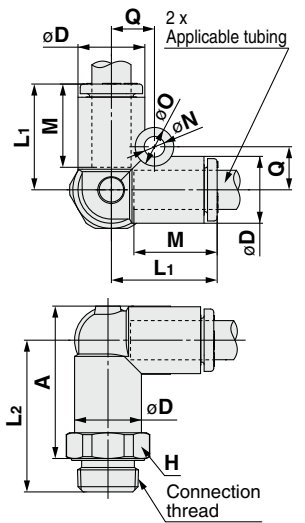
### Male Delta Union: KQ2D (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D$	L <sub>1</sub>	L <sub>2</sub>	A	M	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
$\phi 4$	1/8	KQ2D04-01□P	12	8.2	15.8	22.6	21.5	13.3	5.7	6	3.2	6	6	3.6	9.1
	1/4	KQ2D04-02□P	17	8.2	15.8	26	22.5	13.3	5.7	6	3.2	6	6	3.6	19
$\phi 6$	1/8	KQ2D06-01□P	12	10.4	16.8	23.6	13.3	6.7	6	3.2	13.9	11	5.4	9.7	
	1/4	KQ2D06-02□P	17	10.4	16.8	26.5	13.3	6.7	6	3.2	13.9	11	5.4	19.3	
$\phi 8$	3/8	KQ2D06-03□P	21	10.4	16.8	24.1	13.3	6.7	6	3.2	13.9	11	5.4	27.6	
	1/8	KQ2D08-01□P	14	13.2	18.8	25.6	14.2	8.4	8	4.2	26.3	18.2	6	15.2	
$\phi 10$	1/4	KQ2D08-02□P	17	13.2	18.8	29	14.2	8.4	8	4.2	26.3	18.2	7.3	20.9	
	3/8	KQ2D08-03□P	21	13.2	18.8	28.5	14.2	8.4	8	4.2	26.3	18.2	7.3	29.3	
$\phi 12$	1/4	KQ2D10-02□P	17	15.9	21.2	31.4	15.6	9.6	8	4.2	40.8	29	9	23.2	
	3/8	KQ2D10-03□P	21	15.9	21.2	30.9	15.6	9.6	8	4.2	40.8	29	9.4	30.7	
$\phi 12$	1/2	KQ2D10-04□P	27	15.9	21.2	33.2	15.6	9.6	8	4.2	40.8	29	9.4	48.8	
	1/4	KQ2D12-02□P	21	18.5	23.6	33.8	17	10.7	8	4.2	57.2	45.2	9	36.6	
$\phi 12$	3/8	KQ2D12-03□P	21	18.5	23.6	33.3	17	10.7	8	4.2	57.2	45.2	11	34.3	
	1/2	KQ2D12-04□P	27	18.5	23.6	35.6	17	10.7	8	4.2	57.2	45.2	11.6	49.8	

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

\*1  $\phi D$  is maximum diameter.



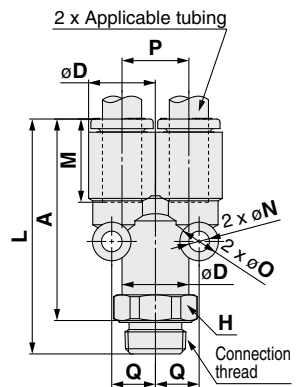
### Branch "Y": KQ2U (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D$	L	A	M	P	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
												Nylon	Urethane		
$\phi 3.2$	1/8	KQ2U23-01□P	12	7.1	35.7	30.5	13.3	7.1	5.2	6	3.2	3.4	2.9	2.7	9
	1/4	KQ2U23-02□P	17	7.1	39.1	31.5	13.3	7.1	5.2	6	3.2	3.4	2.9	2.7	19
$\phi 4$	1/8	KQ2U04-01□P	12	8.2	35.8	30.6	13.3	8.2	5.7	6	3.2	4.2	4.2	3.6	9.3
	1/4	KQ2U04-02□P	17	8.2	39.2	31.6	13.3	8.2	5.7	6	3.2	4.2	4.2	3.6	19.2
$\phi 6$	1/8	KQ2U06-01□P	12	10.4	36.9	31.7	13.3	10.4	6.8	6	3.2	13.4	10.6	5.4	9.9
	1/4	KQ2U06-02□P	17	10.4	40.3	32.7	13.3	10.4	6.8	6	3.2	13.4	10.6	5.4	19.5
$\phi 8$	3/8	KQ2U06-03□P	21	10.4	39.8	32.2	13.3	10.4	6.8	6	3.2	13.4	10.6	5.4	27.8
	1/8	KQ2U08-01□P	14	13.2	40	34.8	14.2	13.2	8.7	8	4.2	25.6	17.7	6	15.8
$\phi 10$	1/4	KQ2U08-02□P	17	13.2	43.4	35.8	14.2	13.2	8.7	8	4.2	25.6	17.7	7.3	21.4
	3/8	KQ2U08-03□P	21	13.2	42.9	35.3	14.2	13.2	8.7	8	4.2	25.6	17.7	7.3	29.8
$\phi 12$	1/4	KQ2U10-02□P	17	15.9	47.3	39.7	15.6	15.9	10.1	8	4.2	40	28.4	9	23.9
	3/8	KQ2U10-03□P	21	15.9	46.8	39.2	15.6	15.9	10.1	8	4.2	40	28.4	9.4	31.4
$\phi 12$	1/2	KQ2U10-04□P	27	15.9	49.1	38.7	15.6	15.9	10.1	8	4.2	40	28.4	9.4	49.5
	1/4	KQ2U12-02□P	21	18.5	51.3	43.7	17	18.5	11.4	8	4.2	57.4	45.4	9	37.6
$\phi 16$	3/8	KQ2U12-03□P	21	18.5	50.8	43.2	17	18.5	11.4	8	4.2	57.4	45.4	11	35.2
	1/2	KQ2U12-04□P	27	18.5	53.1	42.7	17	18.5	11.4	8	4.2	57.4	45.4	11.6	50.8
$\phi 16$	1/4	KQ2U16-02□P	24	23.8	60.7	53.1	20.6	23.8	14	8	4.2	57.4	45.4	9	68.2
	3/8	KQ2U16-03□P	24	23.8	60.2	52.6	20.6	23.8	14	8	4.2	81	60	11	64.7
$\phi 16$	1/2	KQ2U16-04□P	27	23.8	62.5	52.1	20.6	23.8	14	8	4.2	113	60	13	70

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

\*1  $\phi D$  is maximum diameter.



# Metric Size One-touch Fittings **KQ2 Series**

Applicable Tubing: Metric Size, Connection Thread: R, Rc

## Dimensions

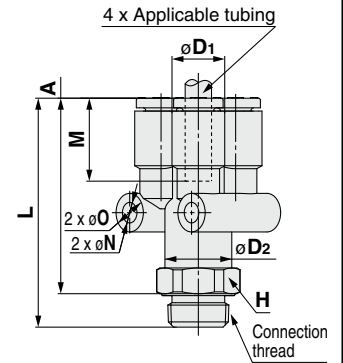
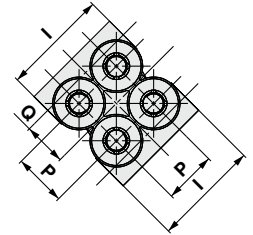
### Double Branch "Y": KQ2UD (Face seal)



Applicable tubing O.D. [mm]	Connection thread R	Model	H (Width across flats)	*1 $\phi D_1$	$\phi D_2$	L	I	A	M	P	Q	$\phi O$	$\phi N$	Effective area [mm <sup>2</sup> ]		Min. port size	Weight [g]
														Nylon	Urethane		
$\phi 4$	1/8	KQ2UD04-01□P	12	8.2	10.4	36	16.6	30.8	13.3	8.2	6.8	6	3.2	4.2	4.2	5.4	11.3
	1/4	KQ2UD04-02□P	17	8.2	10.4	39.4	16.6	31.8	13.3	8.2	6.8	6	3.2	4.2	4.2	5.4	20.8
$\phi 6$	1/8	KQ2UD06-01□P	14	10.4	13.2	38.8	21	33.6	13.3	10.4	8.2	6	3.2	13.4	10.6	6	16.4
	1/4	KQ2UD06-02□P	17	10.4	13.2	42.2	21	34.6	13.3	10.4	8.2	6	3.2	13.4	10.6	7.3	22.1

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

\*1  $\phi D_1$  is maximum diameter.

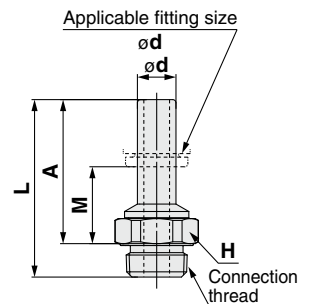


### Adapter: KQ2N (Face seal)



Applicable fitting size $\phi d$	Connection thread R	Model	H (Width across flats)	L	A	M	Min. port size	Weight [g]
$\phi 4$	1/8	KQ2N04-01□P	12	27.6	22.4	9.1	2.5	4.4
$\phi 6$	1/8	KQ2N06-01□P	12	27.6	22.4	9.1	4	4.6
	1/4	KQ2N06-02□P	17	31	23.4	10.1	4	13.8
$\phi 8$	1/4	KQ2N08-02□P	17	32.9	25.3	11.1	6	11.8
	3/8	KQ2N08-03□P	21	34.9	27.3	13.1	6	26.7
$\phi 10$	3/8	KQ2N10-03□P	21	36.8	29.2	13.6	7.5	14.7

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



Round Type

Metric Size M, R, Rc

Sealant/Gasket Seal

Inch Size UNF, NPT

Inch Size M, R, Rc

### Adapter: KQ2N (Face seal)

Face Seal

Metric Size G

Metric Size R, Rc

Face Seal

Inch Size NPT

Inch Size R

Gasket Seal

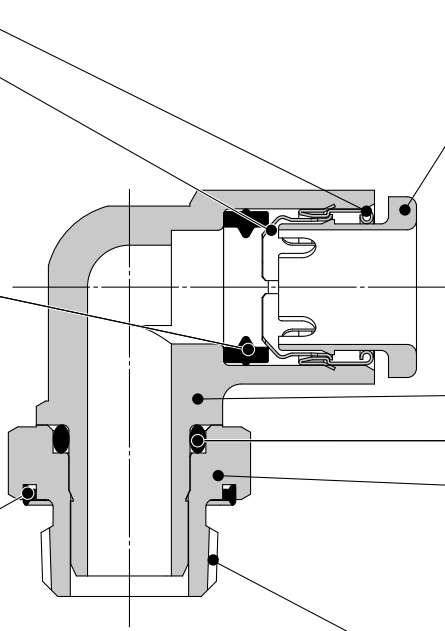
Metric Size Uni

Inch Size Uni

# Inch Size One-touch Fittings

Applicable Tubing: Inch Size, Connection Thread: NPT

## KQ2 Series



**Guide**

**Chuck**

Suitable for use with nylon and urethane. Large retaining force. The chuck provides secure retention and the collet increases the holding force on the tube.

**Seal**

Can be used for a wide range of pressures from a low vacuum up to a pressure of 1 MPa. The use of a special profile ensures sealing and reduces resistance when the tube is inserted.

**Face seal method**

**Seal ring**

Piping installability is improved by changing to the face seal structure.

**Release button**

Requires little force for removal. Releases the chuck collet to remove the tube as well as to prevent the chuck from biting too deeply into the tubing.

**Body**

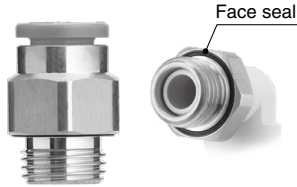
**O-ring**

**Stud**

Effective when piping in a confined space. Body part rotates allowing for positioning.

**Connection thread**

NPT



**One-touch IN/OUT connection.**  
Possible to use in vacuum to -100 kPa.

**Drastically reduces screw-in time with the face seal method.**



### Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon, Polyurethane
Tubing O.D.	ø1/8", ø5/32", ø3/16", ø1/4", ø5/16", ø3/8", ø1/2"

### Specifications

<b>Fluid</b>		Air, Water*1
<b>Operating pressure range*2</b>		-100 kPa to 1 MPa
<b>Proof pressure (at 23°C)</b>		3 MPa
<b>Ambient and fluid temperature</b>		-5 to 60°C, Water: 0 to 40°C (No freezing)
<b>Thread</b>	<b>Mounting section</b>	ANSI/ASME1.20.1 (NPT thread) JIS B0208 (UNF thread)
	<b>Nut section</b>	JIS B0208 (UNF thread)
<b>Sealant on the threads</b>		Seal ring

\*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, Seal ring	NBR