

One-touch Fittings

Series KQ2

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

How to Order

KQ 2 H 06 01 S

One-touch fittings

Product's color

Symbol	Body	Release button
2	White	Light gray
Nil	Black	Blue

Applicable tubing O.D.

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

Port size/Applicable tubing O.D.

Thread connection	Symbol	Port size
Thread connection	M5	M5 x 0.8
	M6	M6 x 1.0
	01	R 1/8, Rc 1/8
	02	R 1/4, Rc 1/4
	03	R 3/8, Rc 3/8
Tubing (Rod) connection	04	R 1/2, Rc 1/2
	00	Same dia. tubing
	04	ø4
	06	ø6
	08	ø8
	10	ø10
	12	ø12
	16	ø16
	99	Same dia. rod

With thread seal

Symbol	With thread seal
Nil	None
S	With thread seal

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

Model

H	Male connector	T	Male branch tee
	Straight union		Union tee
	Different diameter straight		Different diameter tee * Note)
S	Hex. socket head male connector	TW	Cross*
F	Female connector	TX	Different diameter cross*
L	Male elbow	TY	Different diameter cross*
	Union elbow	Y	Male run tee
	Plug-in elbow	D	Male delta union
	Reducer elbow		Delta union
LU	Male branch connector	U	Branch
	Branch union elbow		Union "Y"
K	45° male elbow		Different dia. union "Y"
V	Universal male elbow		Plug-in "Y"
VS	Hexagon socket head universal male elbow	UD	Delta branch
VF	Universal female elbow		Different dia. double union "Y"
LF	Female elbow	XD	Double plug-in "Y"
VD	Double universal male elbow	X	Different diameter plug-in "Y"
VT	Triple universal male elbow	R	Plug-in reducer
Z	Branch universal male elbow	E	Bulkhead union
ZF	Branch universal female elbow		Bulkhead connector
ZD	Double branch universal male elbow	LE	Bulkhead male elbow
ZT	Triple branch universal male elbow		
W	Extended plug-in elbow		
	Extended male elbow		

Accessory	
Symbol	Name
KQ2N	Nipple
	Reducer nipple
	Adaptor
KQ2C	Tube cap
KQ2C	Color cap
KQ2P	Plug (White)
KQP	Plug (Blue)

Use the below part number to order the gasket for M5 and M6 threads.
Gasket for M5 thread: M-5G2
Gasket for M6 thread: M-6G

* Available only for white color body.
Note) KQT06-04, KQT08-06, KQT10-08, and KQT12-10 are available as made to order.

Series KQ2: White body
Series KQ : Black body



PAT.

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

• **Applications for metric size tubing**

• **Applicable tubing material—Nylon, Soft nylon, Polyurethane**

Applicable Tubing

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

Product's Color

Series	Body	Release button
Series KQ2	White	Light gray
Series KQ	Black	Blue

Specifications

Fluid	Air/Water ^{Note)}	
Maximum operating pressure	1.0 MPa	
Operating vacuum pressure	-100 kPa	
Proof pressure	3.0 MPa	
Ambient and fluid temperature	-5 to 60°C, Water: 0 to 40°C (No freezing)	
Thread	Mounting section	JIS B 0203 (Taper thread for piping) JIS B 0209 Class 2 (Metric coarse thread)
	Nut section	JIS B 0211 Class 2 (Metric fine thread)
Seal (Thread portion)		With seal or none

Note) Applicable for general industrial water. Please consult with SMC if using for other kinds of fluid. Also, the surge pressure must be under the maximum operating pressure.

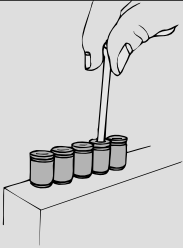
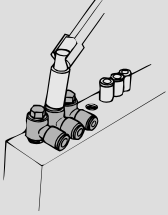
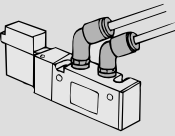
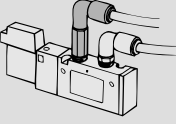
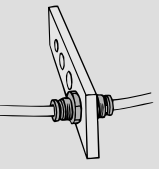
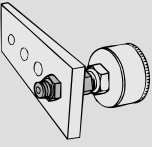
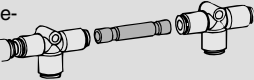
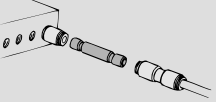
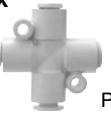
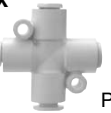
Principal Parts Material

Body	C3604BD, PBT, PP
Stud	C3604BD (Thread portion)
Chuck	Stainless steel 304
Guide	Stainless steel 304, C3604BD, POM
Collet, Release button	POM
Seal, O-ring	NBR
Gasket	Stainless steel 304, NBR



P. 15-2-30

Series KQ2

Model			
Hex. socket head male connector			
KQ2S	P. 14	Internal hex. allows thread connection by using an allen wrench for confined spaces.	
			
Universal male elbow			
KQ2V	P. 17	Universal male elbow allows thread connection by using a socket wrench for confined spaces.	
			
45° male elbow			
KQ2K	P. 16	Use to pipe in 45° direction from female thread. Model in-between of male connector and male elbow.	
			
Extended male elbow			
KQ2W	P. 22	Basically, it is used together with male elbow. Different point is that it is used for with fittings to avoid from interfering with each other by making the piping two-level.	
			
Bulkhead union			
KQ2E	P. 28	Use to connect tubes through a panel.	
			
Bulkhead connector			
KQ2E	P. 28	Use to connect male thread and tube through a panel.	
			
Nipple			
KQ2N	P. 29	Use to connect One-touch fittings.	
			
Reducer nipple			
KQ2N	P. 29	Use to connect One-touch fittings that are different tubing O.D.s.	
			
Male connector			
KQ2H	P. 14	Use to pipe in the same direction from female thread. Most general style.	
			
Male elbow			
KQ2L	P. 15	Use to pipe at right angles to female thread. Most general style.	
			
Male branch tee			
KQ2T	P. 22	Use to branch line from female thread in both 90° directions.	
			
Female connector			
KQ2F	P. 14	Use to pipe from male thread such as pressure gauge.	
			
Union elbow			
KQ2L	P. 20	Use to connect tubes at right angles.	
			
Union tee			
KQ2T	P. 23	Use to connect tubes in both 90° directions.	
			
Straight union			
KQ2H	P. 15	Use to connect tubes in the same direction.	
			
Plug-in elbow			
KQ2L	P. 21	Use to change by 90° in a tube fetching from One-touch direction fittings.	
			
Different diameter tee			
KQ2T	P. 23	Use to connect tubes with size down in both 90° directions.	
			
Different diameter straight			
KQ2H	P. 15	Use to connect different sized tubes.	
			
Reducer elbow			
KQ2L	P. 21	Use to change by 90° in a tube fetching direction from One touch fittings and to size down.	
			
Different diameter tee			
KQ2T	P. 23	Use to branch line with size down in both side 90° direction.	
			
Cross			
KQ2TW	P. 23	Use to four-branch line.	
			
Different diameter cross			
KQ2TX	P. 23	Use to connect tubes with size down in all 90° directions.	
			
Different diameter cross			
KQ2TY	P. 24	Use to branch line with size down in three directions.	
			

Series KQ2

Male Connector: KQ2H

<M5, M6>

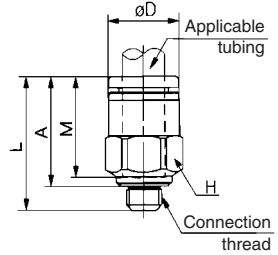


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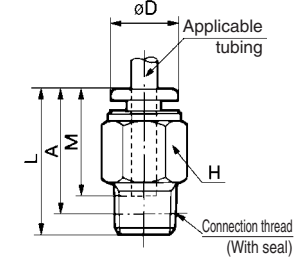


Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	(1) øD	L	A*	M	Effective area (2) (mm ²)		Weight (g)
								Nylon	Urethane	
3.2	M5 x 0.8	KQ2H23-M5	7	7	16.7	13.6	12.7	3	2.5	2.1
	1/8	KQ2H23-01S	10	—	22	18	15.5	3.4	2.9	9
	1/4	KQ2H23-02S	14	—	19.5	13.5	15.5	3.4	2.9	16
4	M5 x 0.8	KQ2H04-M5	8	8	17	13.9	12.7	4	4	2.4
	M6 x 1.0	KQ2H04-M6	8	—	18	13.9	12.7	4	4	2.5
	1/8	KQ2H04-01S	10	—	22	18	16	5.6	4	9
6	1/4	KQ2H04-02S	14	—	19.5	13.5	16	5.6	4	16
	M5 x 0.8	KQ2H06-M5	10	10	17.8	14.7	13.5	4	4	3.3
	M6 x 1.0	KQ2H06-M6	10	—	19	14.9	13.5	4	4	3.4
8	1/8	KQ2H06-01S	12	—	22.5	18.5	17	13.1	10.4	16
	1/4	KQ2H06-02S	14	—	23	17	17	13.1	10.4	14
	3/8	KQ2H06-03S	17	—	22	15.5	17	13.1	10.4	27
10	1/8	KQ2H08-01S	14	—	28	24	18.5	26.1	18.0	21
	1/4	KQ2H08-02S	17	—	26.5	20.5	18.5	26.1	18.0	19
	3/8	KQ2H08-03S	17	—	22	15.5	18.5	26.1	18.0	26
12	1/8	KQ2H10-01S	17	—	30	26	21	26.1	26.1	19
	1/4	KQ2H10-02S	17	—	33.5	27.5	21	41.5	29.5	30
	3/8	KQ2H10-03S	17	—	29	22.5	21	41.5	29.5	30
16	1/2	KQ2H10-04S	22	—	27	19	21	41.5	29.5	53
	1/4	KQ2H12-02S	19	—	34.5	28.5	22	58.3	46.1	42
	3/8	KQ2H12-03S	19	—	23.5	22	22	58.3	46.1	34
16	1/2	KQ2H12-04S	22	—	30	22	22	58.3	46.1	51
	3/8	KQ2H16-03S	24	25.7	39.5	33	25	81	(81)	61
	1/2	KQ2H16-04S	24	25.7	35.5	27.5	25	113	(96)	47

<M5, M6>



<R>



* Reference dimensions after R thread installation.

Note 1) D: Max. diameter Note 2) (): Values for soft nylon.

Hexagon Socket Head Male Connector: KQ2S

<M5, M6>



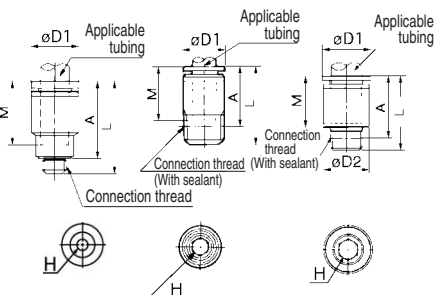
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Applicable tubing O.D. (mm)	Connection thread P	Model	H (width across flats)	(1) øD1	øD2	L	A*	M	Effective area (2) (mm ²)		Weight (g)
									Nylon	Urethane	
4	M5 x 0.8	KQ2S04-M5	2.5	8	—	18.7	15.6	12.7	4	4	2.7
	M6 x 1.0	KQ2S04-M6	3	—	—	18.2	14.1	12.7	4	4	2.8
	1/8	KQ2S04-01S	3	9.8	—	23	19	16	4.1	3.6	8
6	M5 x 0.8	KQ2S06-M5	2.5	10	—	19.5	16.4	13.5	4	4	3.3
	M6 x 1.0	KQ2S06-M6	3	—	—	19.1	15	13.5	4	4	3.4
	1/8	KQ2S06-01S	4	11.8	—	24	20	17	10.0	9.9	9
8	1/4	KQ2S06-02S	4	13.8	—	24	18	17	10.7	10.0	15
	1/8	KQ2S08-01S	5	14	—	28	24	18.5	17.2	16.2	12
	1/4	KQ2S08-02S	6	17	—	25.5	19.5	18.5	17.2	16.2	11
10	3/8	KQ2S08-03S	6	17	—	27.5	21	18.5	23.3	24	24
	1/8	KQ2S10-01S	5	17	—	30	26	21	17.2	16.2	18
	1/4	KQ2S10-02S	8	19	—	27.5	21.5	21	39.0	26.6	12
12	3/8	KQ2S10-03S	8	19	—	27.5	21	21	39.0	26.6	19
	1/2	KQ2S10-04S	10	22	—	28	20	21	39.0	26.6	35
16	1/4	KQ2S12-02S	8	19	—	33.5	27.5	22	46.0	44.5	23
	3/8	KQ2S12-03S	10	22	—	29	22.5	22	60.0	44.5	18
	1/2	KQ2S12-04S	10	22	—	28	20	22	60.0	44.5	30
16	3/8	KQ2S16-03S	10	25.7	24	39	32.5	25	81	(81)	42
	1/2	KQ2S16-04S	12	25.7	24	35	27	25	113	(96)	34

<M5, M6> <R>

KQ2S04 to 12 KQ2S16



* Reference dimensions after R thread installation.

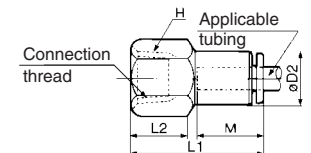
Note 1) øD: Max. diameter

Note 2) (): Values for soft nylon.

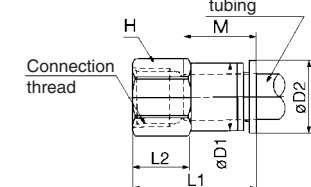
Female Connector: KQ2F

Applicable tubing O.D. (mm)	Connection thread Rc	Model	H (width across flats)	(1) øD1	øD2	L1	L2	M	Effective area (2) (mm ²)		Weight (g)
									Nylon	Urethane	
4	1/8	KQ2F04-01	14	—	10	27	11	16	5.6	4	15
	1/4	KQ2F04-02	17	—	10	31	14	16	5.6	4	23
6	1/8	KQ2F06-01	14	—	12	27.5	11	17	13.1	10.4	15
	1/4	KQ2F06-02	17	—	12	31	13	17	13.1	10.4	22
	3/8	KQ2F06-03	19	—	12	33.5	15	17	13.1	10.4	25
8	1/8	KQ2F08-01	14	—	14	29	11	18.5	26.1	18.0	17
	1/4	KQ2F08-02	17	—	14	32.5	13	18.5	26.1	18.0	24
	3/8	KQ2F08-03	19	—	14	33.5	14	18.5	26.1	18.0	24
10	1/4	KQ2F10-02	17	—	17	34.5	14	21	41.5	29.5	27
	3/8	KQ2F10-03	19	—	17	36.5	15	21	41.5	29.5	30
12	1/4	KQ2F12-02	19	—	19	35	14	22	58.3	46.1	36
	3/8	KQ2F12-03	19	—	19	37	14	22	58.3	46.1	31
	1/2	KQ2F12-04	24	—	19	41	18	22	58.3	46.1	52
16	3/8	KQ2F16-03	24	24	25.7	38	15	25	81	(81)	59
	1/2	KQ2F16-04	24	24	25.7	43	19	25	113	(96)	58

KQ2F04 to 12



KQ2F16



Note 1) øD2: Max. diameter

Note 2) (): Values for soft nylon