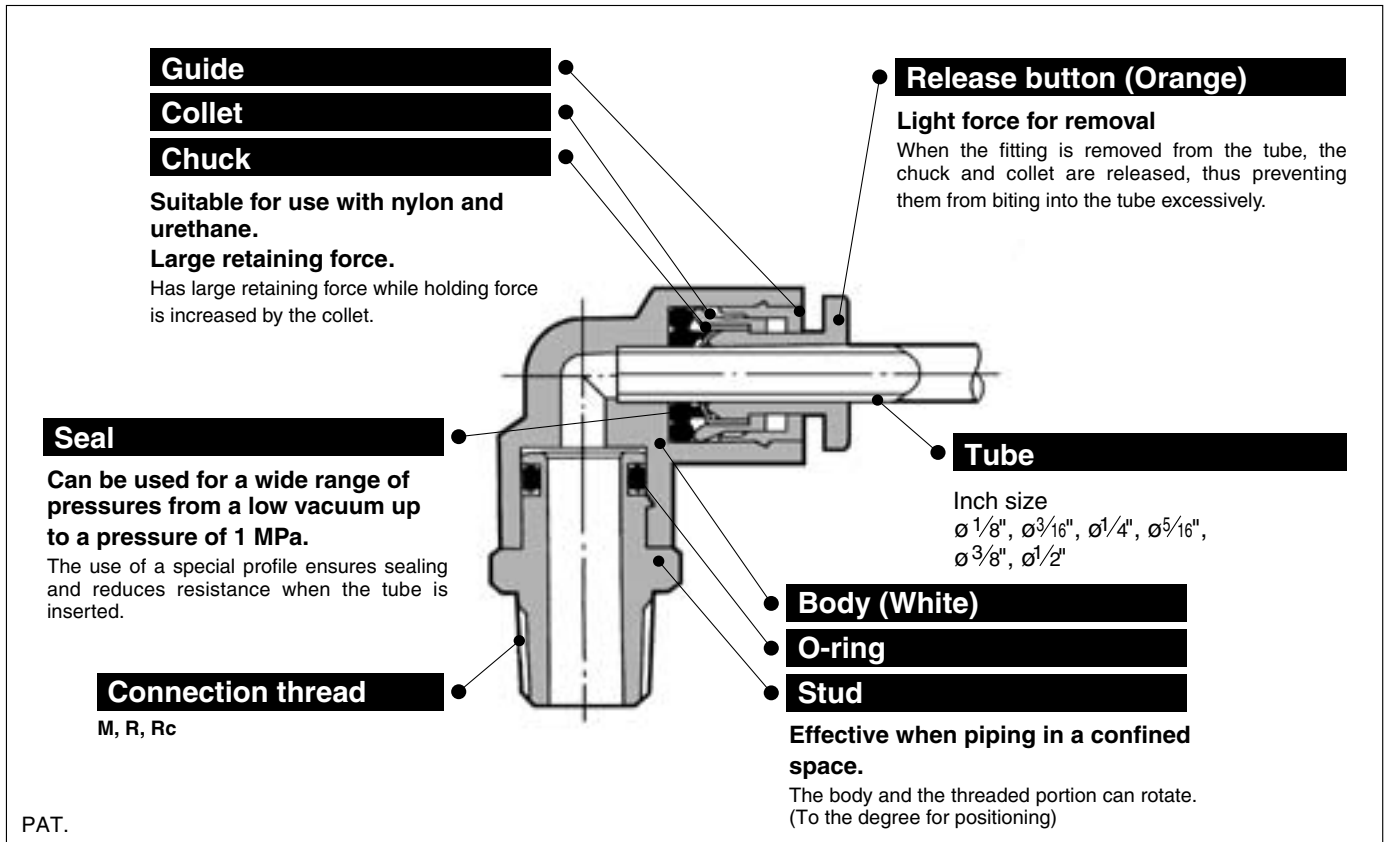


Inch-size One-touch Fittings

Series KQ2

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



Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon ⁽¹⁾ , Polyurethane
Tubing O.D.	$\varnothing 1/8"$, $\varnothing 3/16"$, $\varnothing 1/4"$, $\varnothing 5/16"$, $\varnothing 3/8"$, $\varnothing 1/2"$

Note 1) Soft nylon tubing is not compatible with water.

Specifications

Fluid	Air/Water ⁽²⁾	
Operating pressure range⁽³⁾	-100 kPa to 1 MPa	
Proof pressure	3 MPa	
Ambient and fluid temperature	-5 to 60°C, Water: 0 to 40°C (No freezing)	
Thread	Mounting section	JIS B0203 (Taper thread for piping)
	Nut section	JIS B0205 (Metric fine thread)
Seal on the threads	With sealant or none	

Note 2) The surge pressure must be under the maximum operating pressure.

Note 3) 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
Stud	C3604 (Thread portion)
Chuck	Stainless steel 304
Guide	Stainless steel 304, C3604, PBT
Collet	POM
Release button	POM
Seal, O-ring	NBR
Gasket	Stainless steel 304, NBR



Made to Order
(Refer to page 82 for details.)

Model

Male connector

KQ2H

P. 78



Use to pipe in the same direction from female thread. Most general style.

Extended male elbow

KQ2W

P. 79



Basically, it is used together with male elbow. Different point is that it is used for fittings to avoid from interfering with each other by making the piping two-level.

Branch "Y"

KQ2U

P. 81



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

Male elbow

KQ2L

P. 78



Use to pipe at right angles to female thread. Most general style.

Male branch tee

KQ2T

P. 79



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

Bulkhead union

KQ2E

P. 81



Use to connect male thread and tube through a panel.

Male run tee

KQ2Y

P. 80



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

Bulkhead connector

KQ2E

P. 81



Use to connect male thread and tube through a panel.

- K
- M
- H
- KK
- D
- MS
- LQ
- MQR
- T

How to Order

KQ2 H 05 - 02 S -

One-touch fittings

Model

H	Male connector *
L	Male elbow *
W	Extended male elbow *
T	Male branch tee *
Y	Male run tee *
U	Branch "Y" *
E	Bulkhead union
	Bulkhead connector

*mark: With sealant is available.

Made to Order

Refer to page 82 for details.

With thread sealant

Nil	Without sealant
S	With thread sealant

Port size

M5	M5 x 0.8
01	1/8
02	1/4
03	3/8
04	1/2
00	Same dia. tubing



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

Applicable tubing O.D.

01	ø 1/8"
05	ø 3/16"
07	ø 1/4"
09	ø 5/16"
11	ø 3/8"
13	ø 1/2"

Series KQ2

Male Connector: KQ2H

KQ2H01-M5
KQ2H07-M5



<KQ2H05-M5>



<R>

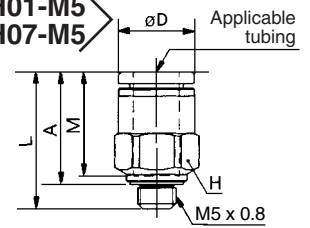


Applicable tubing O.D. (inch)	Connection thread R M	Model	H (Width across flats)	Note) ϕD	L	A*	M	Min. port size	Mass (g)	
1/8	M5 x 0.8	KQ2H01-M5	7	—	16.7	13.6	12.7	2.5	2	
	1/8	KQ2H01-01S	10	—	21.1	18	15.5		9	
	1/4	KQ2H01-02S	14	—	19	13.5			16	
3/16	M5 x 0.8	KQ2H05-M5	8	10.7	24	20.5	16.5	2.5	6	
	1/8	KQ2H05-01S	11	—	21.1	18			11	
	1/4	KQ2H05-02S	14	—	20.5	15			12	
1/4	M5 x 0.8	KQ2H07-M5	11	10.3	18.4	15.3	13.6	2.5	3.3	
	1/8	KQ2H07-01S	13	—	21.6	18.5			17	10
	1/4	KQ2H07-02S	14	—	22.5	17				15
5/16	1/8	KQ2H09-01S	14	—	27.1	24	18.5	6		15
	1/4	KQ2H09-02S	—	—	26	20.5			16	
	3/8	KQ2H09-03S	17	—	21.4	15.5			24	
3/8	1/4	KQ2H11-02S	17	—	33	27.5	21	7	31	
	3/8	KQ2H11-03S	—	—	27.9	22.5			29	
	1/2	KQ2H11-04S	22	—	26.1	19			46	
1/2	1/4	KQ2H13-02S	—	—	34	28.5	22	9	44	
	3/8	KQ2H13-03S	—	—	32.4	27			9.6	
	1/2	KQ2H13-04S	—	—	29.1	22			44	

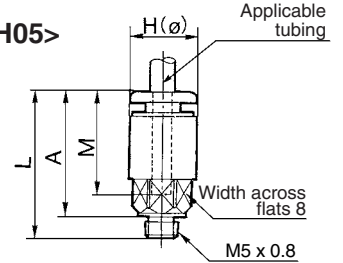
* Reference dimensions after R thread installation.
Note) ϕD : Max. diameter



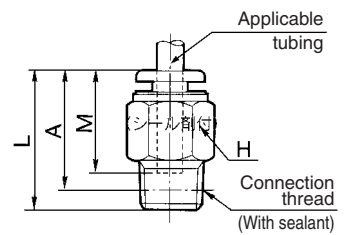
KQ2H01-M5
KQ2H07-M5



<KQ2H05>



<R>



Male Elbow: KQ2L

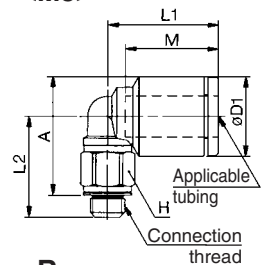


Applicable tubing O.D. (inch)	Connection thread R M	Model	H (Width across flats)	Note) $\phi D1$	$\phi D2$	L1	L2	A*	M	Min. port size	Mass (g)			
1/8	M5 x 0.8	KQ2L01-M5	7	8.4	—	15.3	13.2	14.3	12.7	2.3	2.5			
3/16	1/8	KQ2L05-01S	10	11.4	10	19.5	21.6	24	16.5	3.5	10			
	1/4	KQ2L05-02S	14								26	26	19	
1/4	M5 x 0.8	KQ2L07-M5	7	12	—	16.1	15.1	18	13.6	2.3	3.2			
	1/8	KQ2L07-01S	10								22.6	26	10	
	1/4	KQ2L07-02S	14								27	28	17	4.6
5/16	1/8	KQ2L09-01S	12	15.2	12	23.5	23.6	28	18.5	6	12			
	1/4	KQ2L09-02S	14								28	30	20	
	3/8	KQ2L09-03S	17								29.4	31.5	28	
3/8	1/4	KQ2L11-02S	17	17.9	17	25.5	30.4	34	21	7	33			
	3/8	KQ2L11-03S	—								—	34.6	36.5	59
	1/2	KQ2L11-04S	22								31	36.5	28	
1/2	1/4	KQ2L13-02S	17	21.7	17	28	32.4	38.5	22	9	28			
	3/8	KQ2L13-03S	—								—	32.4	38.5	36
	1/2	KQ2L13-04S	22								36.6	40	62	

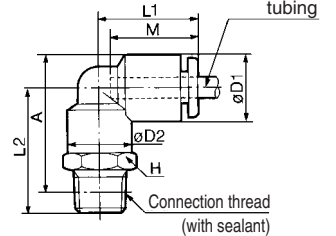
* Reference dimensions after R thread installation.
Note) $\phi D1$: Max. diameter



<M5>



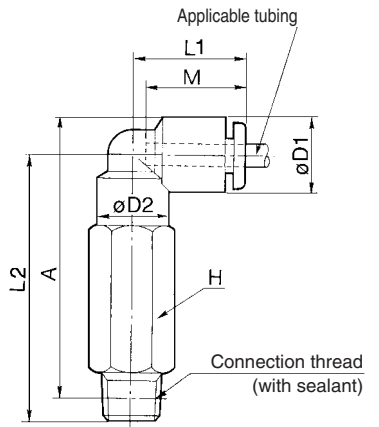
<R>



Extended Male Elbow: KQ2W



Applicable tubing O.D. (inch)	Connection thread R	Model	H (Width across flats)	Note) $\phi D1$	$\phi D2$	L1	L2	A*	M	Min. port size	Mass (g)
3/16	1/8	KQ2W05-01S	10	11.4	10	19.5	37.1	40	16.5	3.5	19
	1/4	KQ2W05-02S	14				43.5	43.5			41
1/4	1/8	KQ2W07-01S	10	13.2	10	20.5	39.6	43	17	4.6	20
	1/4	KQ2W07-02S	14				46	47			45
	3/8	KQ2W07-03S	17				47.4	49			69
5/16	1/8	KQ2W09-01S	12	15.2	12	23.5	42.6	47	18.5	6	30
	1/4	KQ2W09-02S	14				49	51			47
	3/8	KQ2W09-03S	17				50.4	53			74
3/8	1/4	KQ2W11-02S	17	17.9	17	25.5	55.5	59	21	7	69
	3/8	KQ2W11-03S					56.9	61			76
	1/2	KQ2W11-04S					22	63.6			65.5
1/2	1/4	KQ2W13-02S	17	21.7	17	28	57.5	63	22	9.6	72
	3/8	KQ2W13-03S					58.9	64.5			78
	1/2	KQ2W13-04S					22	65.6			69



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

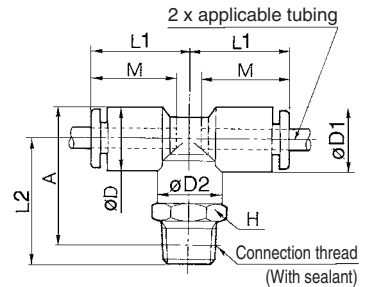


- K
- M
- H
- KK
- D
- MS
- LQ
- MQR
- T

Male Branch Tee: KQ2T



Applicable tubing O.D. (inch)	Connection thread R	Model	H (Width across flats)	Note) $\phi D1$	$\phi D2$	L1	L2	A*	M	Min. port size	Mass (g)
3/16	1/8	KQ2T05-01S	10	11.4	10	19.5	21.6	24	16.5	3.5	12
	1/4	KQ2T05-02S	14				26	26			21
1/4	1/8	KQ2T07-01S	10	13.2	10	20.5	22.6	26	17	4.6	11
	1/4	KQ2T07-02S	14				27	28			21
	3/8	KQ2T07-03S	17				28.4	30			34
5/16	1/8	KQ2T09-01S	12	15.2	12	23	23.6	28	18.5	6	15
	1/4	KQ2T09-02S	14				28	30			23
	3/8	KQ2T09-03S	17				29.4	31.5			35
3/8	1/4	KQ2T11-02S	17	17.9	17	25.5	29	32.5	21	7	29
	3/8	KQ2T11-03S					30.4	34.5			38
	1/2	KQ2T11-04S					22	34.6			36.5
1/2	1/4	KQ2T13-02S	17	21.7	17	28	31	36.5	22	9.6	34
	3/8	KQ2T13-03S					32.4	38.5			43
	1/2	KQ2T13-04S					22	36.6			40



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

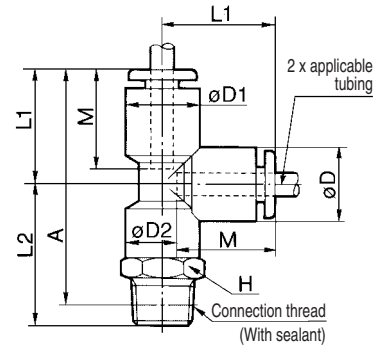


Series KQ2

Male Run Tee: KQ2Y



Applicable tubing O.D. (inch)	Connection thread R	Model	H (Width across flats)	Note) $\phi D1$	$\phi D2$	L1	L2	A*	M	Min. port size	Mass (g)
3/16	1/8	KQ2Y05-01S	10	11.4	10	19.5	21.6	38	16.5	3.5	12
	1/4	KQ2Y05-02S	14				26	40			21
1/4	1/8	KQ2Y07-01S	10	13.2	10	20.5	22.6	40	17	4.6	11
	1/4	KQ2Y07-02S	14				27	42			21
	3/8	KQ2Y07-03S	17				28.4	44			34
5/16	1/8	KQ2Y09-01S	12	15.2	12	23.5	23.6	40	18.5	6	15
	1/4	KQ2Y09-02S	14				28	40			23
	3/8	KQ2Y09-03S	17				29.4	48			35
3/8	1/4	KQ2Y11-02S	17	17.9	17	25.5	29	49	21	7	29
	3/8	KQ2Y11-03S	17				30.4	51			38
	1/2	KQ2Y11-04S	22				34.6	53			64
1/2	1/4	KQ2Y13-02S	17	21.7	17	28	31	53.5	22	9.5	9
	3/8	KQ2Y13-03S	17				32.4	55.5			43
	1/2	KQ2Y13-04S	22				36.6	57			69

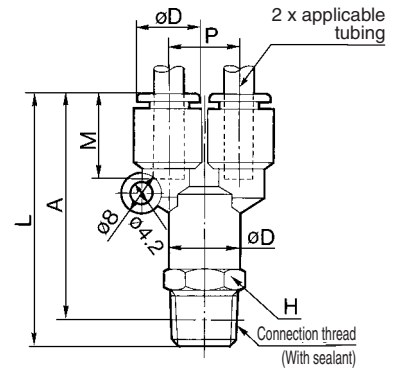


* Reference dimensions after R thread installation.
Note) $\phi D1$: Max. diameter

Branch "Y": KQ2U



Applicable tubing O.D. (inch)	Connection thread R	Model	H (Width across flats)	Note) ϕD	L	P	A*	M	Min. port size	Mass (g)	
3/16	1/8	KQ2U05-01S	12	11.4	43.1	11.4	40	16.5	3.5	18	
	1/4	KQ2U05-02S	14		48		42.5			18	
1/4	1/8	KQ2U07-01S	14	13.2	45.6	13.2	42.5	17	4.6	19	
	1/4	KQ2U07-02S	14		49					45	19
	3/8	KQ2U07-03S	17		50.4					45	19
5/16	1/8	KQ2U09-01S	17	15.2	51.6	15.2	48.5	18.5	6	21	
	1/4	KQ2U09-02S	17		55					50	22
	3/8	KQ2U09-03S	17		55.4					50	35
3/8	1/4	KQ2U11-02S	19	17.9	59.5	17.9	54	21	7	42	
	3/8	KQ2U11-03S	19		59.9					54.5	43
	1/2	KQ2U11-04S	22		63.6					56.5	56
1/2	1/4	KQ2U13-02S	19	21.7	64	21.7	58.5	22	9.5	31	
	3/8	KQ2U13-03S	19		64.4					59	41
	1/2	KQ2U13-04S	22		67.6					60.5	68

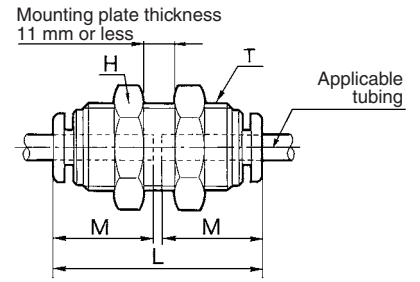


* Reference dimensions after R thread installation.
Note) ϕD : Max. diameter

Bulkhead Union: KQ2E



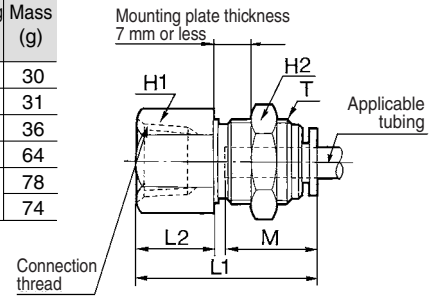
Applicable tubing O.D. (inch)	Model	T (M)	H (Width across flats)	L	Mounting hole	M	Min. port size	Mass (g)
3/16	KQ2E05-00M	M14 x 1	17	34	15	16.5	3.5	30
1/4	KQ2E07-00M	M14 x 1	17	34.5	15	17	4.6	30
5/16	KQ2E09-00M	M16 x 1	19	38	17	18.5	6	48
3/8	KQ2E11-00M	M20 x 1	24	42.5	21	21	7	62
1/2	KQ2E13-00M	M22 x 1	27	44.5	23	22	9.6	85



Bulkhead Connector: KQ2E



Applicable tubing O.D. (inch)	Connection thread Rc	Model	T (M)	H1 (Width across flats)	H2 (Width across flats)	L1	L2	M	Min. port size	Mounting hole	Mass (g)
3/16	1/8	KQ2E05-01	M14 x 1	17	17	28	11.5	16.5	3.5	15	30
1/4	1/4	KQ2E07-02	M14 x 1	17	17	32.5	14.5	17	4.6	15	31
5/16	3/8	KQ2E09-03	M16 x 1	19	19	35	15	18.5	6	17	36
3/8	3/8	KQ2E11-03	M20 x 1	22	24	35	14.5	21	7	21	64
		KQ2E13-03	M22 x 1	24	27	37	14.5	22	9.6	23	78
1/2	1/2	KQ2E13-04	M22 x 1	24	27	41.5	18.5	22	9.6	23	74



- K**
- M**
- H**
- KK**
- D**
- MS**
- LQ**
- MQR**
- T**



Please contact SMC for detailed dimensions, specifications, and delivery.

1 Grease-free Specifications

Symbol	Specifications
X17	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue
X29	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue Copper-free (With electroless nickel plated)
X39	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue Clean (Copper-free, air blow, double package, resin body: white)
X94	Grease-free Rubber material: FKM (With fluorine coating) Release button color: Light blue

2 Other Specifications

Symbol	Specifications
X2	Copper-free (With electroless nickel plated)
X12	Lubricant: White Vaseline Release button color: White
X34	Rubber material: FKM
X41	With fixed throttle ^{Note)}

Note) Compatible with male connector and male elbow only
Consult SMC separately for the available fixed throttle diameters.

Spare Parts

Description	Part no.	Applicable thread	Material	Applicable model
Gasket	M-5G2	M5	Stainless steel 304, NBR	—
Pipe nut	KQ06-P01	—	—	KQ2E05-01, KQ2E07-02 KQ2E05-00M, KQ2E07-00M
	KQ08-P01	—	—	KQ2E09-03, KQ2E09-00M
	KQ10-P01	—	—	KQ2E11-03, KQ2E11-00M
	KQ12-P01	—	—	KQ2E13-03, KQ2E11-04, KQ2E13-00M