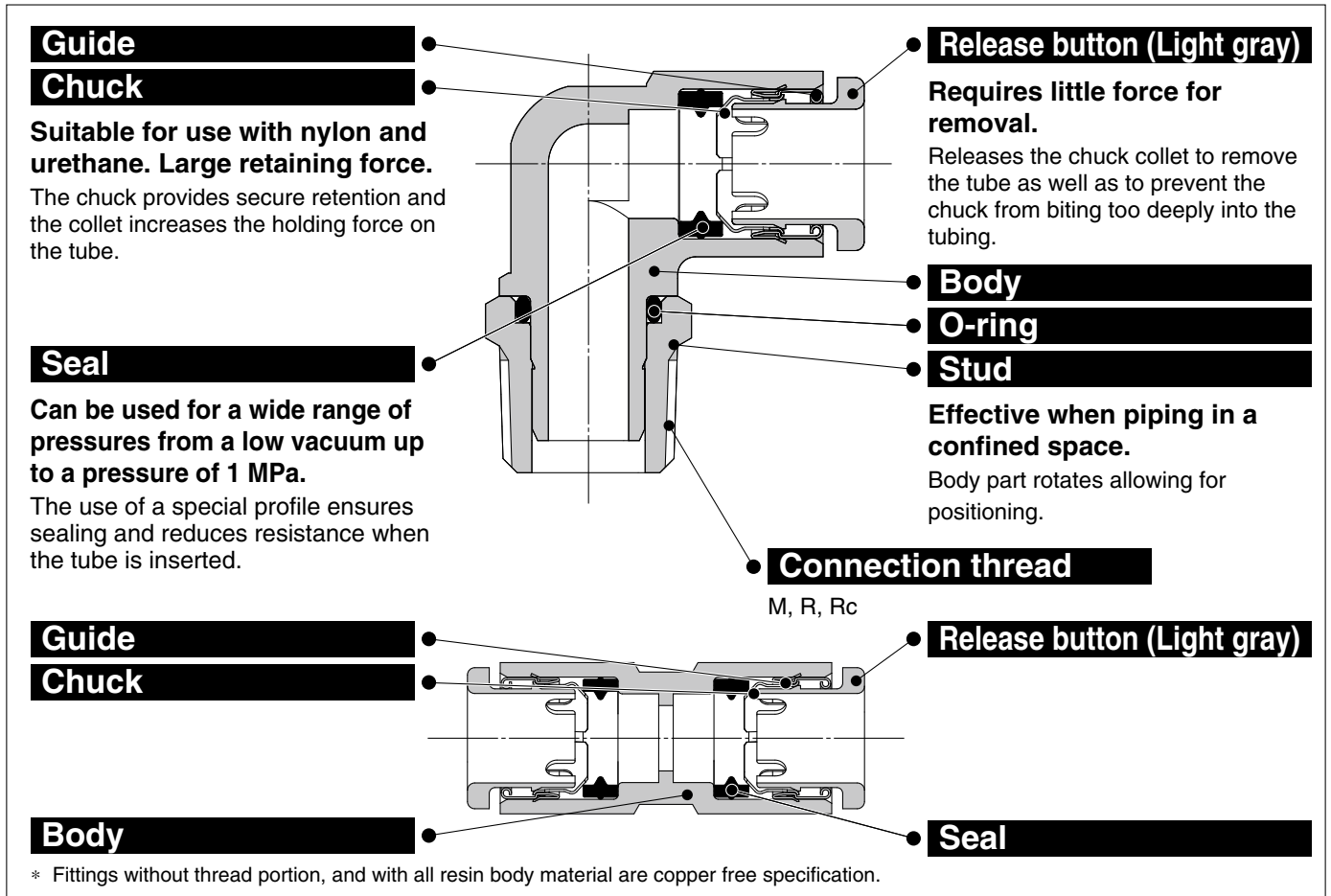


Metric Size One-touch Fittings

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

Fluid		Air, Water*1 *2
Operating pressure range*3		-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	JIS B0203 (Taper thread for piping) JIS B0205 (Metric coarse thread)
	Nut section	JIS B0205 (Metric fine thread)
Seal on the threads		With sealant

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

*2 Deionized water is not recommended for use as it may affect the material used in the fittings. In addition, it is known to degrade the water quality.

*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, 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 **KQ2 Series**

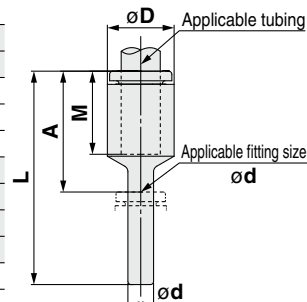
Applicable Tubing: Metric Size, Connection Thread: M, R, Rc

Dimensions

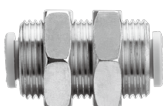
Plug-in Reducer: KQ2R



Applicable tubing O.D. [mm]	Applicable fitting size ϕd	Model	ϕD	L	A	M	Effective area [mm ²]		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

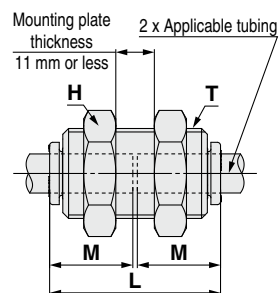


Bulkhead Union: KQ2E (Interchangeable with KQ)

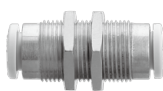


Applicable tubing O.D. [mm]	Model	T (M)	H (Width across flats)	L	Mounting hole	M	Effective area [mm ²]		Min. port size	Weight [g]
							Nylon	Urethane		
$\phi 3.2$	KQ2E23-00□	M12 x 1	14	27.3	13	13.3	3.4	2.9	2.5	24.1
$\phi 4$	KQ2E04-00□	M12 x 1	14	27.3	13	13.3	5.6	4	3	22.9
$\phi 6$	KQ2E06-00□	M14 x 1	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)

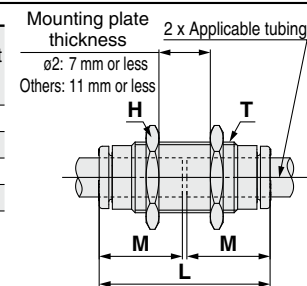


Bulkhead Union: KQ2E (Interchangeable with KJ)

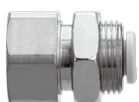


Applicable tubing O.D. [mm]	Model	T (M)	H (Width across flats)	L	Mounting hole	M	Effective area [mm ²]		Min. port size	Weight [g]
							Nylon	Urethane		
$\phi 2$	KQ2E02-00□J	M7 x 0.75	9	24.5	8	11.9	—	0.9	1.4	5.2
$\phi 3.2$	KQ2E23-00□J	M8 x 0.75	10	27.3	9	13.3	3	2.5	2.5	6.9
$\phi 4$	KQ2E04-00□J	M9 x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

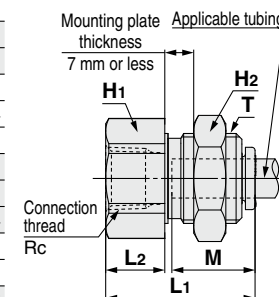


Bulkhead Connector: KQ2E



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 ²]		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

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