

Series 10-KQ One-touch fittings

Construction

Guide
Collet
Chuck

Large retaining force

Has large retaining force while holding force is increased by the collet.

Seal

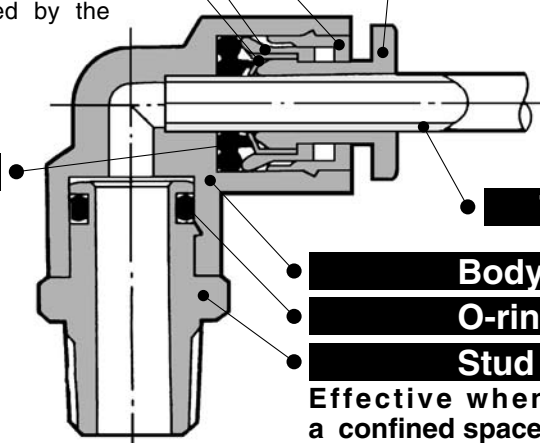
Can be used for a wide range of pressures from a low vacuum up to a pressure of 1.0 MPa

The use of a special profile ensures sealing and reduces resistance when the tube is inserted.

Release button (White)

Light force for removal

When the fitting is removed from the tube, the chuck and collet are released, thus preventing them from biting into the tube excessively.



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).

One-touch connection and removal Can be used for vacuum (–100 kPa)

•Applicable metric size tubing

•Tubing material Polyurethane



Applicable tubing

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

Product's color

Series	Body	Release button
Series 10-KQ	White	White

Specifications

Fluid	Air, Water ^{Note 1)}	
Maximum operating pressure	1.0MPa	
Operating vacuum pressure	–100 kPa	
Proof pressure	3.0MPa	
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 B0209, Class 2 (Metric coarse thread)
	Nut section	JIS B0211, Class 2 (Metric fine thread)
Seal (Thread portion)	With seal or none	
Grease	Fluorine grease	
Particle generation grade (Refer to front matter pages 13 to 22 for details.)	Grade 3	

Note 1) 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	C3604B with electroless nickel plated, PBT, PP
Stud	C3604BD (Thread portion) with electroless nickel plated
Chuck	Stainless steel 304
Guide	Stainless steel 304, C3604BD with electroless nickel plated, POM
Collet, Release button	POM
Seal, O-ring	NBR
Gasket	Stainless steel 304, NBR

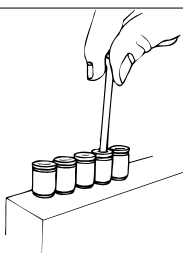
Model

Hex. socket head male connector

10-KQS



Internal hex. allows thread connection by using an allen wrench for confined spaces.

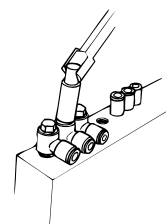


Universal male elbow

10-KQV



Universal male elbow allows thread connection by using a socket wrench for confined spaces.

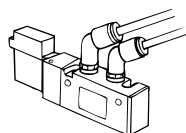


45° male elbow

10-KQK



Use to pipe in 45° angle direction from female thread. Model in-between of male connector and male elbow.

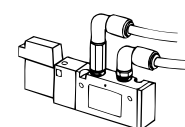


Extended male elbow

10-KQW



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.

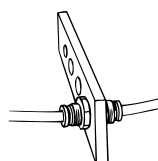


Bulkhead union

10-KQE



Use to connect male thread and tube through a panel.

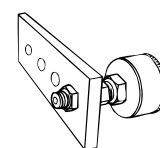


Bulkhead connector

10-KQE



Use to connect tubes through a panel.

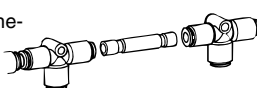


Nipple

10-KQN



Use to connect One-touch fittings.

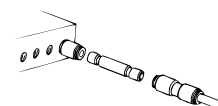


Reducer nipple

10-KQN



Use to connect One-touch fittings that are different tubing O. D. s.



Male connector

10-KQH



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

Male elbow

10-KQL



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

Male Branch Tee

10-KQT



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

Female connector

10-KQF



Use to pipe from male thread such as pressure gauge.

Union elbow

10-KQL



Use to connect tube at right angles.

Union tee

10-KQT



Use to connect tube in both 90° directions.

Straight union

10-KQH



Use to connect tube in the same direction.

Plug-in elbow

10-KQL



Use to change by 90° in a tube fetching direction from One-touch fittings and to size down.

Different diameter tee

10-KQT



Use to connect tube with size down in both 90° directions.

Different diameter straight

10-KQH



Use to connect different sized tube.

Reducer elbow

10-KQL



Use to change by 90° in tube fetching direction from One-touch fittings and to size down.

Different diameter tee

10-KQT



Use to connect tube with size down in both 90° directions.

Cross

10-KQTW



Use to four-branch line.

Different diameter cross

10-KQTX



Use to connect tube with size down in all 90° directions.

Different diameter cross

10-KQTY



Use to branch line with size down in three directions.

Air cylinder

Rotary actuator

Air gripper

Directional control valve

Flow control equipment

Filter, Pressure control equipment

Fittings & Tubing

Air preparation equipment

Pressure switch

Clean gas filter

Model

Hexagon socket head universal male elbow

10-KQVS



Hex. on the top allows thread connection by using an allen wrench for confined spaces.

Male branch connector

10-KQLU



Use to branch piping at right angles to female thread.

Universal female elbow

10-KQVF



Use to branch line in the same direction or at the right angles from male or female thread. Multiplex connection possible.

Female elbow

10-KQLF



Use to pipe at right angles to male thread.

Double universal male elbow

10-KQVD



Use to branch line at right angles to female thread. Two individual parts rotate 360°.

Triple universal male elbow

10-KQVT



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

Branch universal male elbow

10-KQZ



Hexagonal head allows thread connection by using a box wrench. Use for branch connection.

Branch universal female elbow

10-KQZF



Use to branch line in the same direction or at right angles from male or female thread. Multiplex connection possible.

Double branch universal male elbow

10-KQZD



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

Male run tee

10-KQY



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

Triple branch universal male elbow

10-KQZT



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

Branch union elbow

10-KQLU



Use to branch line at right angles.

Extended plug-in elbow

10-KQW



When the elbow extends over a standard elbow for ease of connection / disconnection of tube.

Male delta union

10-KQD



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

Delta union

10-KQD



Use to branch in triple 90° direction.

Double branch

10-KQUD



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

Different diameter double union "Y"

10-KQUD



Use to four-branch line in the same direction with size down.

Different diameter plug-in "Y"

10-KQX



Use to branch line from One-touch fitting with size down.

Double plug-in "Y"

10-KQXD



Use to four-branch line from One-touch fitting.

Union "Y"

10-KQU



Use to branch line in the same direction.

Different diameter union "Y"

10-KQU



Use to branch line with size down in the same direction.

Plug-in "Y"

10-KQU



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

Branch "Y"

10-KQU



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

Plug-in reducer

10-KQR



Use to change size of One-touch fittings.

Bulkhead male elbow

10-KQLE



Use to connect tube through a panel, changing by 90° in a tube fetching direction.

Adaptor

10-KQN



Use to connect fitting and R female thread.

Tube cap

10-KQC



Use to plug unused tube.

Color cap

10-KQC



Mounted on the release button corresponding to its applications. Distinguished by color.

Plug

10-KQP



Use to plug unused One-touch fittings.

Male connector: 10-KQH

M5, M6



R



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note 1) ϕD	L	A *	M	Effective area (mm ²) Urethane	Weight (g)
3.2	M5 x 0.8	10-KQH23-M5	7	7	16.7	13.6	12.7	2.5	2.1
	1/8	10-KQH23-01S	10	—	22	18	15.5	2.9	9
	1/4	10-KQH23-02S	14	—	19.5	13.5	15.5	2.9	16
4	M5 x 0.8	10-KQH04-M5	8	8	17	13.9	12.7	4	2.4
	M6 x 1.0	10-KQH04-M6	8	8	18	13.9	12.7	4	2.5
	1/8	10-KQH04-01S	10	—	22	18	16	4	9
6	1/4	10-KQH04-02S	14	—	19.5	13.5	16	4	16
	M5 x 0.8	10-KQH06-M5	10	10	17.8	14.7	13.5	4	3.3
	M6 x 1.0	10-KQH06-M6	10	10	19	14.9	13.5	4	3.4
8	1/8	10-KQH06-01S	12	—	22.5	18.5	17	10.4	16
	1/4	10-KQH06-02S	14	—	23	17	17	10.4	14
	3/8	10-KQH06-03S	17	—	22	15.5	17	10.4	27
10	1/8	10-KQH08-01S	14	—	28	24	18.5	18.0	21
	1/4	10-KQH08-02S	17	—	26.5	20.5	18.5	18.0	19
	3/8	10-KQH08-03S	17	—	22	15.5	18.5	18.0	26
12	1/8	10-KQH10-01S	17	—	30	26	21	26.1	19
	1/4	10-KQH10-02S	17	—	33.5	27.5	21	26.1	30
	3/8	10-KQH10-03S	17	—	29	22.5	21	26.1	30
16	1/2	10-KQH10-04S	22	—	27	19	22	46.1	53
	1/4	10-KQH12-02S	19	—	34.5	28.5	22	46.1	42
	3/8	10-KQH12-03S	19	—	30	23.5	22	46.1	34
16	1/2	10-KQH12-04S	22	—	30	22	25	68.0	51
	3/8	10-KQH16-03S	24	25.7	39.5	33	25	68.0	61
	1/2	10-KQH16-04S	24	25.7	35.5	27.5	25	80.6	47

* Reference dimensions after R thread installation.

Note 1) ϕD indicates the maximum diameter.

Hexagon socket head male connector: 10-KQS

M5, M6



R



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note 1) ϕD_1	ϕD_2	L	A *	M	Effective area (mm ²) Urethane	Weight (g)
4	M5 x 0.8	10-KQS04-M5	2.5	8	—	18.7	15.6	12.7	4	2.7
	M6 x 1.0	10-KQS04-M6	3	8	—	18.2	14.1	12.7	4	2.8
	1/8	10-KQS04-01S	3	9.8	—	23	19	16	3.6	8
6	M5 x 0.8	10-KQS06-M5	2.5	10	—	19.5	16.4	13.5	4	3.3
	M6 x 1.0	10-KQS06-M6	3	10	—	19.1	15	13.5	4	3.4
	1/8	10-KQS06-01S	4	11.8	—	24	20	17	9.9	9
8	1/4	10-KQS06-02S	4	13.8	—	24	18	17	10.0	15
	1/8	10-KQS08-01S	5	14	—	28	24	18.5	16.2	12
	1/4	10-KQS08-02S	6	14	—	25.5	19.5	18.5	16.2	11
10	3/8	10-KQS08-03S	5	17	—	27.5	21	21	26.6	24
	1/8	10-KQS10-01S	5	17	—	30	26	21	26.6	18
	1/4	10-KQS10-02S	8	17	—	27.5	21.5	21	26.6	12
12	3/8	10-KQS10-03S	8	19	—	28	20	22	44.5	19
	1/2	10-KQS10-04S	10	22	—	28	20	22	44.5	35
16	1/4	10-KQS12-02S	8	19	—	33.5	27.5	22	44.5	23
	3/8	10-KQS12-03S	10	22	—	29	22.5	22	44.5	18
	1/2	10-KQS12-04S	10	22	—	28	20	22	44.5	30
16	3/8	10-KQS16-03S	10	25.7	24	39	32.5	25	68.0	42
	1/2	10-KQS16-04S	12	25.7	24	35	27	25	80.6	34

* Reference dimensions after R thread installation.

Note 1) ϕD_1 indicates the maximum diameter.

Female connector: 10-KQF

M5, M6



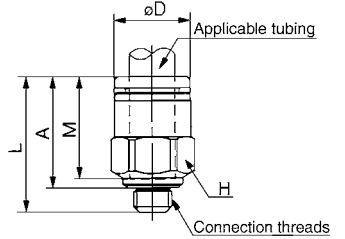
R



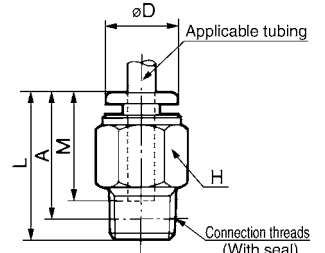
Applicable tubing O.D. (mm)	Connection thread Rc	Model	H (width across flats)	Note 1) ϕD_1	ϕD_2	L ₁	L ₂	M	Effective area (mm ²) Urethane	Weight (g)
4	1/8	10-KQF04-01	14	—	10	27	11	16	4	15
	1/4	10-KQF04-02	17	—	10	31	14	16	4	23
	1/8	10-KQF06-01	14	—	12	27.5	11	17	10.4	15
6	1/4	10-KQF06-02	17	—	12	31	13	17	10.4	22
	3/8	10-KQF06-03	19	—	12	33.5	15	17	10.4	25
8	1/8	10-KQF08-01	14	—	14	29	11	18.5	18.0	17
	1/4	10-KQF08-02	17	—	14	32.5	13	18.5	18.0	24
	3/8	10-KQF08-03	19	—	14	33.5	14	18.5	18.0	24
10	1/4	10-KQF10-02	17	—	17	34.5	14	21	29.5	27
	3/8	10-KQF10-03	19	—	17	36.5	15	21	29.5	30
12	1/4	10-KQF12-02	19	—	19	35	14	22	46.1	36
	3/8	10-KQF12-03	19	—	19	37	14	22	46.1	31
	1/2	10-KQF12-04	24	—	19	41	18	22	46.1	52
16	3/8	10-KQF16-03	24	24	25.7	38	15	25	68.0	59
	1/2	10-KQF16-04	24	24	25.7	43	19	25	80.6	58

Note 1) ϕD_2 indicates the maximum diameter.

M5, M6

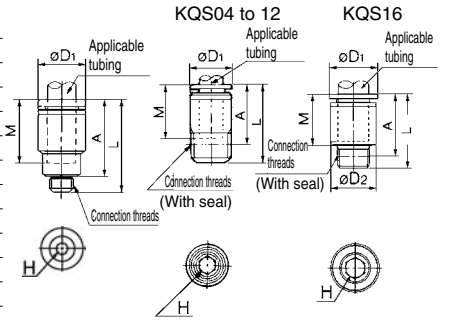


R

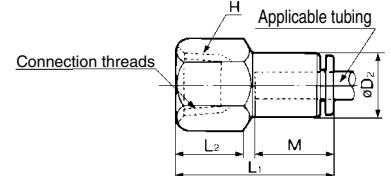


M5, M6

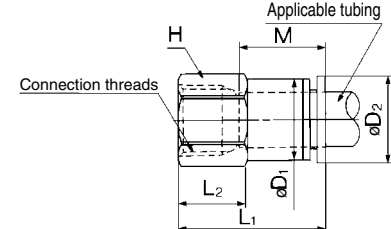
R



KQF04 to 12



KQF16



One-touch fittings 10-KQ

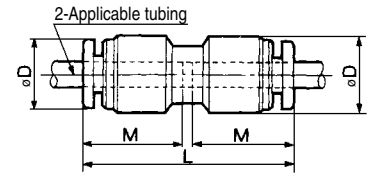
Straight union: 10-KQH



Applicable tubing O.D. (mm)	Model	Note 1) ϕD	L	M	Effective area (mm ²)	Weight (g)
					Urethane	
3.2	10-KQH23-00	9.6	31.5	15.5	2.9	3
4	10-KQH04-00	10.4	32.5	16	4	3
6	10-KQH06-00	12.8	34.5	17	10.4	4
8	10-KQH08-00	15.2	38.5	18.5	18.0	6
10	10-KQH10-00	18.5	42.5	21	29.5	11
12	10-KQH12-00	20.9	44.5	22	46.1	14
16	10-KQH16-00	26.5	51	25	81.1	24



Note 1) ϕD indicates the maximum diameter.



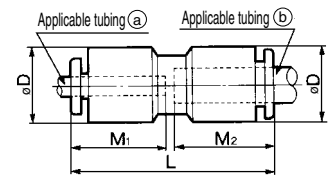
Different diameter straight: 10-KQH



Applicable tubing O.D. (mm)		Model	Note) ϕD	L	M ₁	M ₂	Effective area (mm ²)	Weight (g)
@	①						Urethane	
3.2	4	10-KQH23-04	10.4	32.5	15.5	16	2.9	3
4	6	10-KQH04-06	12.8	34.5	16	17	5.6	5
6	8	10-KQH06-08	15.2	38.5	17	18.5	10.4	6
8	10	10-KQH08-10	18.5	42	18.5	21	18.0	11
10	12	10-KQH10-12	20.9	44.5	21	22	29.5	14
12	16	10-KQH12-16	26.5	56.5	22	25	46.1	47



Note) ϕD indicates the maximum diameter.



Male elbow: 10-KQL

M5



M6



R



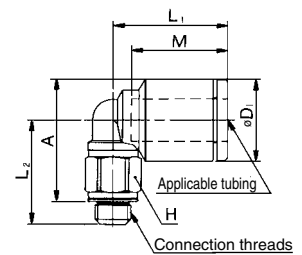
Applicable tubing O.D. mm	Connection thread R	Model	H (width across flats)	Note 1) øD ₁	øD ₂	L ₁	L ₂	A *	M	Effective area (mm ²)	Weight (g)
										Urethane	
3.2	M5 x 0.8	10-KQL23-M5	7	8.5	—	15.3	13.2	14.3	12.7	2.2	2.5
	1/8	10-KQL23-01S	10	9.6	10	17.5	21.5	22.5	15.5	2.5	8
	1/4	10-KQL23-02S	14				25.5	24.5			
4	M5 x 0.8	10-KQL04-M5	7	9.3	—	15.6	13.7	15.3	12.7	3.5	2.7
	M6 x 1.0	10-KQL04-M6	8				14.7	14.7			
	1/8	10-KQL04-01S	10	10.4	10	18	22	23	16	4.2	10
	1/4	10-KQL04-02S	14				26	25			
6	M5 x 0.8	10-KQL06-M5	7	11.6	—	16.1	14.7	17.4	13.5	3.5	3.2
	M6 x 1.0	10-KQL06-M6	8				15.7	15.7			
	1/8	10-KQL06-01S	10	12.8	10	20	23	25.5	17	9.0	12
	1/4	10-KQL06-02S	14				27	27.5			
8	3/8	10-KQL06-03S	17	15.2	12	23	29	29	18.5	14.9	13
	1/8	10-KQL08-01S	12				24.5	28			
	1/4	10-KQL08-02S	14				28.5	30			
	3/8	10-KQL08-03S	17				30.5	31.5			
10	1/8	10-KQL10-01S	12	18.5	17	26.5	27	32	21	14.9	25
	1/4	10-KQL10-02S	17				30	33			
	3/8	10-KQL10-03S	22				32	34.5			
	1/2	10-KQL10-04S	22				36	37			
12	1/4	10-KQL12-02S	17	20.9	17	28.5	31	35.5	22	39.7	28
	3/8	10-KQL12-03S	22				33	37			
	1/2	10-KQL12-04S	22				37	39.5			
16	3/8	10-KQL16-03S	22	26.5	20.9	34	38	44.5	25	59.9	101
	1/2	10-KQL16-04S	22				41	46		70.9	105



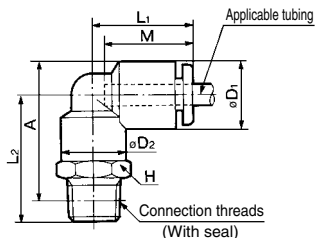
* Reference dimensions after R thread installation.

Note 1) ϕD_1 indicates the maximum diameter.

M5, M6



R



Male branch connector: 10-KQLU

M5, M6

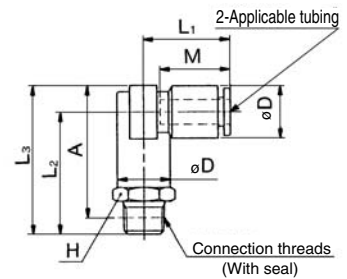
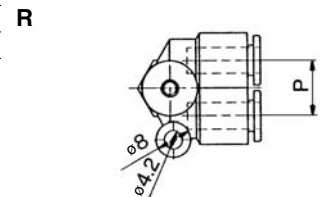
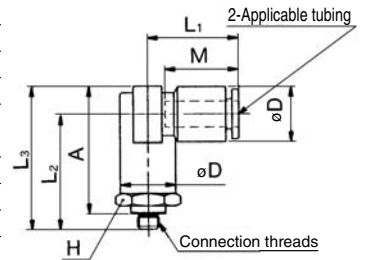
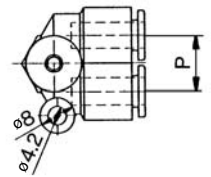
R


Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	(Note) øD	L ₁	L ₂	L ₃	A *	M	P	Effective area (mm ²)	Weight (g)		
											Urethane			
4	M5 x 0.8	10-KQLU04-M5	11	10.4	18.5	24	29.5	25.5	16	10.4	4.1	10		
	M6 x 1.0	10-KQLU04-M6				24.5	30							
	1/8	10-KQLU04-01S	14			26.5	32	27.5			4.1	12		
	1/4	10-KQLU04-02S				30.5	36	30				21		
6	M5 x 0.8	10-KQLU06-M5	13	12.8	21	26.5	33	29.5	17	12.8	4.3	13		
	M6 x 1.0	10-KQLU06-M6				27	33.5							
	1/8	10-KQLU06-01S	14			29.5	36	32			11.0	15		
	1/4	10-KQLU06-02S				33	39.5	33.5				22		
	3/8	10-KQLU06-03S	17			35	41.5	35				35		
8	1/8	10-KQLU08-01S	17	15.2	24	34	41.5	38	18.5	15.2	18.2	27		
	1/4	10-KQLU08-02S				37	44.5	38.5						
	3/8	10-KQLU08-03S				19					38	45.5	39	
10	1/4	10-KQLU10-02S	18.5	27	40				49.5	43.5	21	18.5	29.0	41
	3/8	10-KQLU10-03S			41	50.5	44		42					
	1/2	10-KQLU10-04S			22	44.5	54	45.5		64				
12	1/4	10-KQLU12-02S	22	20.9	29	42.5	53	47	22	20.9	45.2	57		
	3/8	10-KQLU12-03S				43.5	54	47.5				58		
	1/2	10-KQLU12-04S				46.5	57	49				65		



* Reference dimensions after R thread installation.

Note) ϕD indicates the maximum diameter.

M5, M6


45° male elbow: 10-KQK

M5, M6

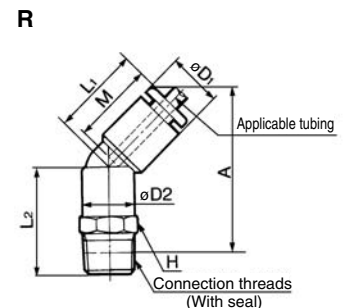
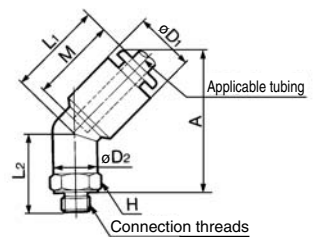
R


Applicable tubing O.D. mm	Connection thread R	Model	H (width across flats)	Note 1) øD ₁	øD ₂	L ₁	L ₂	A *	M	Effective area (mm ²)	Weight (g)
										Urethane	
4	M5 x 0.8	10-KQK04-M5	8	10.4	8	17	14.5	26	16	3.4	4
	M6 x 1.0	10-KQK04-M6	15				5				
	1/8	10-KQK04-01S	10		20.5		32				10
	1/4	10-KQK04-02S	14		24.5		34				19
6	M5 x 0.8	10-KQK06-M5	8	12.8	8	18	14.5	17	3.4	6	
	M6 x 1.0	10-KQK06-M6	18.5			15	27.5			5	
	1/8	10-KQK06-01S	10		20.5	33	6.9		12		
	1/4	10-KQK06-02S	14		24.5	35			10		
	3/8	10-KQK06-03S	17		26.5	36.5			33		
8	1/8	10-KQK08-01S	12	15.2	12	20.5	22	37	18.5	19.7	13
	1/4	10-KQK08-02S	14				26	39		21	
	3/8	10-KQK08-03S	17				28	41		35	
10	1/8	10-KQK10-01S	17	18.5	17	24	24	42	21	23.2	25
	1/4	10-KQK10-02S					27	43.5			26
	3/8	10-KQK10-03S					29	45			36
	1/2	10-KQK10-04S	22				33	47.5			63
	1/4	10-KQK12-02S	17				20.9	17			25
3/8	10-KQK12-03S	29.5		47.5	38						
1/2	10-KQK12-04S	22		33.5	49.5	65					
16	3/8	10-KQK16-03S	22	26.5	20.9	30	32	55	25	55.6	52
	1/2	10-KQK16-04S					35	56.5		66.1	58



* Reference dimensions after R thread installation.

Note 1) ϕD_1 indicates the maximum diameter.

M5, M6


Air cylinder

Rotary actuator

Air gripper

Directional control valve

Flow control equipment

Filter, Pressure control equipment

Fittings & Tubing

Air preparation equipment

Pressure switch

Clean gas filter

Universal male elbow: 10-KQV

M5



R



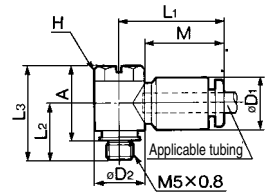
Applicable tubing O.D. (mm)	Connection thread R	Model	H (Width across flats)	Note 1) ϕD_1	ϕD_2	L ₁	L ₂	L ₃	A *	M	Effective area (mm ²) Urethane	Weight (g)
4	M5 x 0.8	10-KQV04-M5	8	10.4	9.8	20.5	11	18.5	15	16	2.9	6
	1/8	10-KQV04-01S			13.4	22	14.5	26.5	22.5			14
6	M5 x 0.8	10-KQV06-M5	8	12.8	9.8	23.5	12	18.5	15	17	3.8	7
	1/8	10-KQV06-01S			13.4	24	14.5	26.5	22.5			15
	1/4	10-KQV06-02S	10		15.4	23.5	18.5	31	25		5.9	26
8	1/8	10-KQV08-01S	12	15.2	17.6	28.5	15.5	28.5	24.5	18.5	11.2	24
	1/4	10-KQV08-02S			18.5	31.5	25.5	30				30
	3/8	10-KQV08-03S	14		20.6	27.5	20.5	36.5	30		14.3	47
10	1/4	10-KQV10-02S	14	18.5	20.6	31	19.5	35.5	29.5	21	20.3	40
	3/8	10-KQV10-03S					20.5	36.5	30			49
12	3/8	10-KQV12-03S	17	20.9	25.2	34	22	38.5	32	22	30.8	63
	1/2	10-KQV12-04S					25	41.5	33.5			80
16	3/8	10-KQV16-03S	21	26.5	32.5	39	26.5	46.5	40.5	25	46.4	103
	1/2	10-KQV16-04S					29.5	49.5	41.5		54.9	110



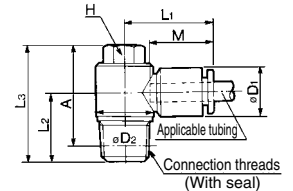
* Reference dimensions after R thread installation.

Note 1) ϕD_1 indicates the maximum diameter.

M5



R



Hexagon socket head universal male elbow: 10-KQVS

M5



R



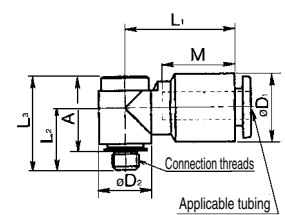
Applicable tubing O.D. mm	Connection thread R	Model	H (width across flats)	Note 1) ϕD_1	ϕD_2	L ₁	L ₂	L ₃	A *	M	Effective area (mm ²) Urethane	Weight (g)
4	M5	10-KQVS04-M5	4	10.4	9.8	20.5	10.5	18	15	16	2.9	6
	1/8	10-KQVS04-01S	6		13.4	22	14.5	26.5	22.5			14
6	M5	10-KQVS06-M5	4	12.8	9.8	23.5	12	18	15	17	3.8	7
	1/8	10-KQVS06-01S			13.4	24	14.5	26.5	22.5			15
	1/4	10-KQVS06-02S	6		15.3	23.5	18.5	27	21		5.9	22
8	1/8	10-KQVS08-01S	8	15.2	17.6	28.5	15.5	27	23	18.5	11.2	24
	1/4	10-KQVS08-02S			18.5	30	24					30
	3/8	10-KQVS08-03S			20.6	27.5	20.5	32.5	26		14.3	47
10	1/4	10-KQVS10-02S	8	18.5	20.6	31	19.5	31.5	25	21	20.3	32
	3/8	10-KQVS10-03S					20.5	32.5	26			39
12	3/8	10-KQVS12-03S	10	20.9	25.2	34	22	36	30	22	30.8	48
	1/2	10-KQVS12-04S					25	39	31			67



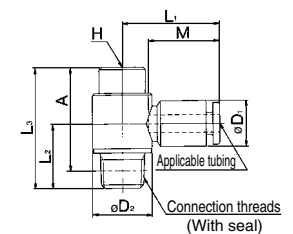
* Reference dimensions after R thread installation.

Note 1) ϕD_1 indicates the maximum diameter.

M5



R



Universal female elbow: 10-KQVF

M5

R

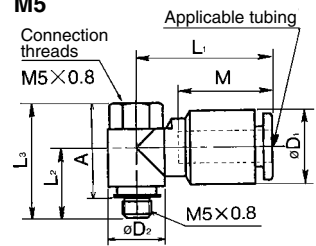


Applicable tubing O.D. (mm)	Connection thread Rc R	Model	H (width across flats)	Note) ϕD_1	ϕD_2	L ₁	L ₂	L ₃	A *	M	Weight (g)
4	M5 x 0.8	10-KQVF04-M5	8	10.4	9.8	20.5	11	20	16	16	6
	1/8	10-KQVF04-01S	14		13.4	22	15.5	29.5	25.5	16	19
	1/8	10-KQVF06-M5	8		9.8	23.5	12.5	20	16	17	7
6	1/8	10-KQVF06-01S	14	12.8	13.4	24.5	15.5	29.5	25.5	17	19
	1/4	10-KQVF06-02S	17		17.6	25	20	38.5	32.5	18.5	36
	1/8	10-KQVF08-01S	17		17.6	28.5	17	31	27	18.5	29
8	1/4	10-KQVF08-02S	19	15.2	25.2	29.5	25.5	45.5	39	21	66
	3/8	10-KQVF08-03S	22		20.6	31.5	22	41	35	21	48
	1/4	10-KQVF10-02S	19		25.2	34	24.5	45.5	39	22	70
10	3/8	10-KQVF10-03S	22	18.5	25.2	34	24.5	45.5	39	22	70
	1/2	10-KQVF12-04S	24		27	35	25.5	50	42	22	93
	3/8	10-KQVF12-03S	22		25.2	34	24.5	45.5	39	22	70

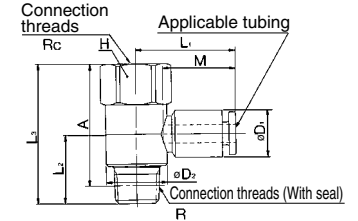


* Reference dimensions after R thread installation.
Note) ϕD_1 indicates the maximum diameter.

M5



R



Female elbow: 10-KQLF

M5

R

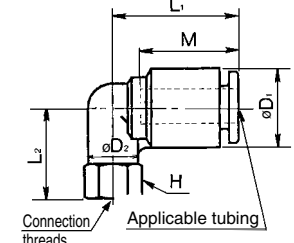


Applicable tubing O.D. (mm)	Connection thread Rc	Model	H (width across flats)	Note) ϕD_1	ϕD_2	L ₁	L ₂	M	Effective area (mm ²) Urethane	Weight (g)
4	M5 x 0.8	10-KQLF04-M5	8	10.4	8	14.5	15.5	16	3.5	5
	1/8	10-KQLF04-M6	14		10	21	21	16	4.2	13
	1/4	10-KQLF04-02	17		10	24.5	21	16	4.2	20
6	M5 x 0.8	10-KQLF06-M5	8	12.8	8	15	16	17	3.5	5
	1/8	10-KQLF06-01	14		10	22	25.5	17	9.0	13
	1/4	10-KQLF06-02	17		10	26	26	17	9.0	20
8	1/8	10-KQLF08-01	14	15.2	12	23	26.5	18.5	14.9	16
	1/4	10-KQLF08-02	17		12	27	27	18.5	14.9	22
	3/8	10-KQLF08-03	19		12	28	28	21	25.0	23
10	1/4	10-KQLF10-02	17	18.5	17	28.5	32.5	21	25.0	27
	3/8	10-KQLF10-03	19		17	30	30	22	39.7	46
	1/2	10-KQLF10-04	24		17	34	34	22	39.7	48
12	1/4	10-KQLF12-02	17	20.9	17	29.5	30	22	39.7	29
	3/8	10-KQLF12-03	19		17	30	30	22	39.7	48
	1/2	10-KQLF12-04	24		17	34	34	22	39.7	48

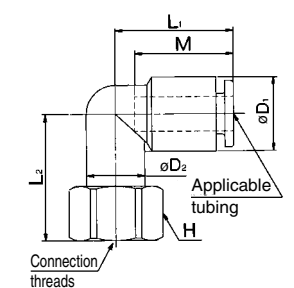


Note) ϕD_1 indicates the maximum diameter.

M5



R



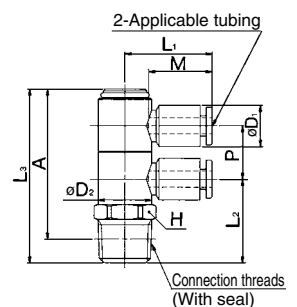
Double universal male elbow: 10-KQVD



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) ϕD_1	ϕD_2	L ₁	L ₂	L ₃	A *	M	P	Weight (g)
4	1/8	10-KQVD04-01S	14	10.4	13.4	22	18.5	41	37	16	13.4	23
	1/4	10-KQVD04-02S	17		13.4	24.5	21.5	44	38	16	13.4	29
	3/8	10-KQVD04-03S	19		13.4	24.5	23.5	46	40	16	13.4	42
6	1/8	10-KQVD06-01S	14	12.8	13.4	24.5	18.5	41	37	17	13.4	24
	1/4	10-KQVD06-02S	17		13.4	24.5	21.5	44	38	17	13.4	30
	3/8	10-KQVD06-03S	19		13.4	24.5	23.5	46	40	17	13.4	42
8	1/8	10-KQVD08-01S	14	15.2	17.6	28.5	21	48	44	18.5	15.9	53
	1/4	10-KQVD08-02S	17		17.6	28.5	24	51	45	18.5	15.9	51
	3/8	10-KQVD08-03S	19		17.6	28.5	25	52	45.5	18.5	15.9	60
10	1/2	10-KQVD08-04S	21	18.5	20.6	31.5	28.5	55.5	47.5	21	19.2	82
	1/4	10-KQVD10-02S	19		20.6	31.5	26.5	58	52	21	19.2	71
	3/8	10-KQVD10-03S	21		20.6	31.5	27.5	59	53	21	19.2	74
12	1/2	10-KQVD10-04S	23	20.9	25.2	34	30.5	62	54	22	21.6	91
	1/4	10-KQVD12-02S	21		25.2	34	28.5	64.5	58.5	22	21.6	118
	3/8	10-KQVD12-03S	23		25.2	34	29.5	65.5	59	22	21.6	113
	1/2	10-KQVD12-04S	26		25.2	34	32.5	68.5	60	22	21.6	125



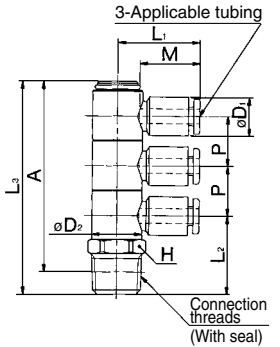
* Reference dimensions after R thread installation.
Note) ϕD_1 indicates the maximum diameter.



Triple universal male elbow: 10-KQVT



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) ϕD_1	ϕD_2	L_1	L_2	L_3	A^*	M	P	Weight (g)
4	1/8	10-KQVT04-01S	14	10.4	13.4	22	18.5	54.5	50.5	16	13.4	29
	1/4	10-KQVT04-02S	14				21.5	57.5	51.5			34
	3/8	10-KQVT04-03S	17				23.5	59.5	53.5			48
6	1/8	10-KQVT06-01S	14	12.8	13.4	24.5	18.5	54.5	50.5	17	13.4	31
	1/4	10-KQVT06-02S	14				21.5	57.5	51.5			37
	3/8	10-KQVT06-03S	17				23.5	59.5	53.5			50
8	1/8	10-KQVT08-01S	19	15.2	17.6	28.5	21	64	60	18.5	15.9	71
	1/4	10-KQVT08-02S	19				24	67	61			66
	3/8	10-KQVT08-03S	21				25	68	61.5			75
	1/2	10-KQVT08-04S	21				28.5	71.5	63.5			96
10	1/4	10-KQVT10-02S	21	18.5	20.6	31.5	26.5	77.5	71.5	21	19.2	94
	3/8	10-KQVT10-03S	21				27.5	78.5	72			111
	1/2	10-KQVT10-04S	21				30.5	81.5	73.5			153
12	1/4	10-KQVT12-02S	26	20.9	25.2	34	28.5	86	80	22	21.6	142
	3/8	10-KQVT12-03S	26				29.5	87	80.5			154
	1/2	10-KQVT12-04S	26				32.5	90	82			154



* Reference dimensions after R thread installation.
Note) ϕD_1 indicates the maximum diameter.

Branch universal elbow: 10-KQZ

M5



R

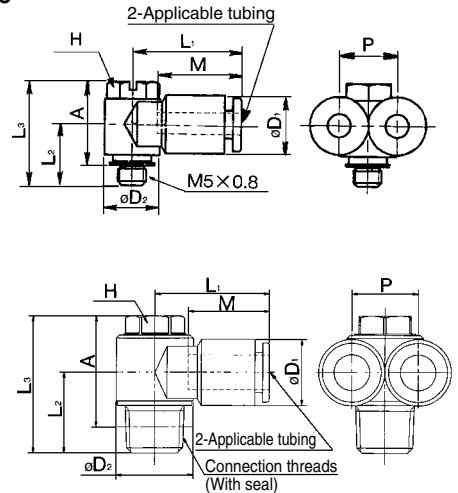


Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) ϕD_1	ϕD_2	L_1	L_2	L_3	A^*	M	P	Effective area (mm ²)	Weight (g)
4	M5 x 0.8	10-KQZ04-M5	8	10.4	9.8	19.5	11	18.5	15	16	10.4	Urethane	8
	1/8	10-KQZ04-01S	8									4.7	16
	1/4	10-KQZ04-02S	8									4.7	16
6	1/8	10-KQZ06-01S	8	12.8	13.4	22	14.5	26.5	22.5	17	12.8	8.6	17
	1/4	10-KQZ06-02S	14										39
	3/8	10-KQZ06-03S	14										47
8	1/8	10-KQZ08-01S	12	15.2	17.6	26	15.5	28.5	24.5	18.5	15.2	14.2	27
	1/4	10-KQZ08-02S	14										33
	3/8	10-KQZ08-03S	14										49
10	1/4	10-KQZ10-02S	14	18.5	20.6	29	19.5	35.5	29.5	21	18.5	22.6	46
	3/8	10-KQZ10-03S	14										54
	1/2	10-KQZ10-04S	17										71
12	3/8	10-KQZ12-03S	17	20.9	25.2	32.5	22	39	32.5	22	20.9	35.3	88
	1/2	10-KQZ12-04S	17										88



* Reference dimensions after R thread installation.
Note) ϕD_1 indicates the maximum diameter.

M5



Branch universal male elbow: 10-KQZF

M5



R

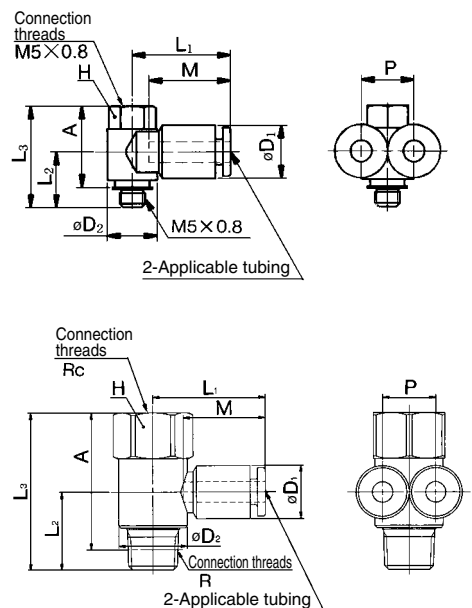


Applicable tubing O.D. (mm)	Connection thread Rc R	Model	H (width across flats)	Note) ϕD_1	ϕD_2	L_1	L_2	L_3	A^*	M	P	Weight (g)
4	M5 x 0.8	10-KQZF04-M5	8	10.4	9.8	19.5	11	20	16.5	16	10.4	8
	1/8	10-KQZF04-01S	14									21
	1/4	10-KQZF04-02S	14									21
6	1/8	10-KQZF06-01S	14	12.8	13.4	22	15.5	29.5	25.5	17	12.8	47
	1/4	10-KQZF06-02S	19									32
	3/8	10-KQZF06-03S	19									49
8	1/8	10-KQZF08-01S	17	15.2	17.6	25.5	17	31	27	18.5	15.2	32
	1/4	10-KQZF08-02S	19									49
	3/8	10-KQZF08-03S	19									54
10	1/4	10-KQZF10-02S	19	18.5	20.6	29	22	41	35	21	18.5	74
	3/8	10-KQZF10-03S	22									77
	1/2	10-KQZF10-04S	22									101



* Reference dimensions after R thread installation.
Note) ϕD_1 indicates the maximum diameter.

M5



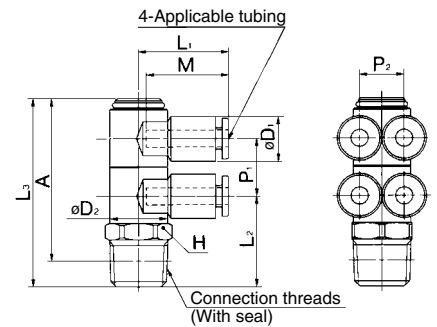
Double branch universal male elbow: 10-KQZD



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note	øD ₁	øD ₂	L ₁	L ₂	L ₃	A*	M	P ₁	P ₂	Weight (g)
4	1/8	10-KQZD04-01S	14		10.4	13.4	21	18.5	41	37	16	13.4	10.4	34
	1/4	10-KQZD04-02S	17					21.5	44	38				40
	3/8	10-KQZD04-03S	17					23.5	46	40				53
6	1/8	10-KQZD06-01S	14		12.8	13.4	22	18.5	41	37	17	13.4	12.8	38
	1/4	10-KQZD06-02S	17					21.5	44	38				43
	3/8	10-KQZD06-03S	17					23.5	46	40				57
8	1/8	10-KQZD08-01S	19		15.2	17.6	26	21	48	44	18.5	15.9	15.2	76
	1/4	10-KQZD08-02S	21					24	51	45				72
	3/8	10-KQZD08-03S	21					25	52	45.5				81
10	1/4	10-KQZD10-02S	21		18.5	20.6	29	26.5	58	52	21	19.2	18.5	111
	3/8	10-KQZD10-03S	21					27.5	59	53				128
	1/2	10-KQZD10-04S	21					30.5	62	54				128
12	1/4	10-KQZD12-02S	26		20.9	25.2	32	28.5	64.5	58.5	22	21.6	20.9	178
	3/8	10-KQZD12-03S	26					29.5	65.5	59				167
	1/2	10-KQZD12-04S	26					32.5	68.5	60				179



* Reference dimensions after R thread installation.
Note) øD₁ indicates the maximum diameter.



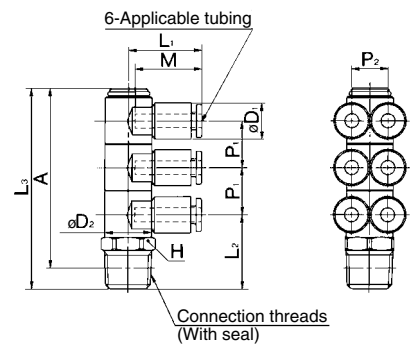
Triple branch universal male elbow: 10-KQZT



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note	øD ₁	øD ₂	L ₁	L ₂	L ₃	A*	M	P ₁	P ₂	Weight (g)
4	1/8	10-KQZT04-01S	14		10.4	13.4	21	18.5	54.5	50.5	16	13.4	10.4	25
	1/4	10-KQZT04-02S	17					21.5	57.5	51.5				31
	3/8	10-KQZT04-03S	17					23.5	59.5	53.5				44
6	1/8	10-KQZT06-01S	14		12.8	13.4	22	18.5	54.5	50.5	17	13.4	12.8	27
	1/4	10-KQZT06-02S	17					21.5	57.5	51.5				33
	3/8	10-KQZT06-03S	17					23.5	59.5	53.5				46
8	1/8	10-KQZT08-01S	19		15.2	17.6	26	21	64	60	18.5	15.9	15.2	56
	1/4	10-KQZT08-02S	21					24	67	61				54
	3/8	10-KQZT08-03S	21					25	68	61.5				62
10	1/4	10-KQZT10-02S	21		18.5	20.6	29	26.5	77.5	71.5	21	19.2	18.5	83
	3/8	10-KQZT10-03S	21					27.5	78.5	72				85
	1/2	10-KQZT10-04S	21					30.5	81.5	73.5				102
12	1/4	10-KQZT12-02S	26		20.9	25.2	32	28.5	86	80	22	21.6	20.9	134
	3/8	10-KQZT12-03S	26					29.5	87	80.5				130
	1/2	10-KQZT12-04S	26					32.5	90	82				141



* Reference dimensions after R thread installation.
Note) øD₁ indicates the maximum diameter.



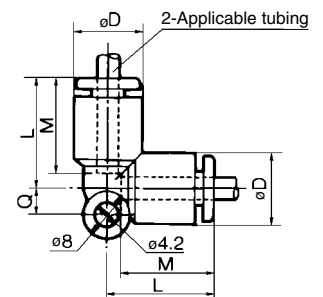
Union elbow: 10-KQL



Applicable tubing O.D. (mm)	Model	Note 1)	L	Q	M	Effective area (mm ²)	Weight (g)
3.2	10-KQL23-00	9.6	17.5	4.3	15.5	Urethane	3
4	10-KQL04-00	10.4	18	4.5	16		6
6	10-KQL06-00	12.8	20	5.3	17		6
8	10-KQL08-00	15.2	23	6	18.5		10
10	10-KQL10-00	18.5	26.5	6.8	21		17
12	10-KQL12-00	20.9	28.5	7.5	22		21
16	10-KQL16-00	26.5	34	10	25		29



Note 1) øD indicates the maximum diameter.



One-touch fittings 10-KQ

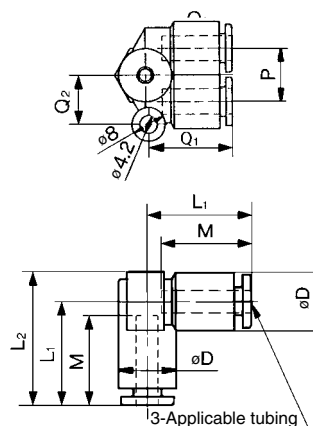
Branch union elbow: 10-KQLU



Applicable tubing O.D. (mm)	Model	Note)		L ₁	L ₂	Q ₁	Q ₂	M	P	Effective area (mm ²)	Weight (g)
		øD	øD ₁							Urethane	
4	10-KQLU04-00	10.4	18.5	24	18.5	10	16	10.4		4.1	6
6	10-KQLU06-00	12.8	21	27.5	20.5	12	17	12.8		11.0	8
8	10-KQLU08-00	15.2	24	32	24.5	14	18.5	15.2		18.2	15
10	10-KQLU10-00	18.5	27	36.5	28	16	21	18.5		29.0	25
12	10-KQLU12-00	20.9	29	40	30	18	22	20.9		45.2	32



Note) øD indicates the maximum diameter.



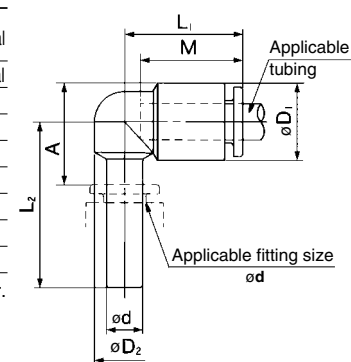
Plug-in elbow: 10-KQL



Applicable tubing O.D. (mm)	Applicable fitting size ød	Model	Note 1)		L ₁	L ₂	A	M	Effective area (mm ²)	Weight (g)	Rod material	
			øD ₁	øD ₂					Urethane		Resin	Metal
3.2	3.2	10-KQL23-99	9.6	7	17	24.5	14	15.5	2.5	2	○	
4	4	10-KQL04-99	10.4	8	18	25	14.5	16	4.2	3	○	
6	6	10-KQL06-99	12.8	10	20	27.5	17	17	9.0	3	○	
8	8	10-KQL08-99	15.2	12	22.5	31.5	21	18.5	14.9	5	○	
10	10	10-KQL10-99	18.5	14	25.5	35.5	23.5	21	25.0	9	○	
12	12	10-KQL12-99	20.9	16	27	37.5	26	22	39.7	10	○	
16	16	10-KQL16-99	26.5	20.9	34	53	41	25	70.9	42		○



Note 1) øD indicates the maximum diameter.



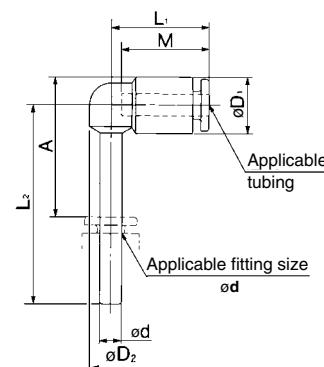
Extended plug-in elbow: 10-KQW



Applicable tubing O.D. (mm)	Applicable fitting size ød	Model	Note)		L ₁	L ₂	A	M	Effective area (mm ²)	Weight (g)
			øD ₁	øD ₂					Urethane	
3.2	3.2	10-KQW23-99	9.6	7	17.5	35	24.5	15.5	2.5	2
4	4	10-KQW04-99	10.4	8	18	37	26	16	4.2	3
6	6	10-KQW06-99	12.8	10	20	41.5	31	17	9.0	4
8	8	10-KQW08-99	15.2	10	22.5	48	37	18.5	14.9	6
10	10	10-KQW10-99	18.5	14	25.5	55	43.5	21	25.0	9
12	12	10-KQW12-99	20.9	16	27	59.5	48	22	39.7	13



Note) øD indicates the maximum diameter.



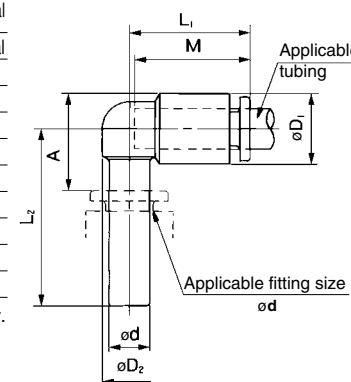
Reducer elbow: 10-KQL



Applicable tubing O.D. (mm)	Applicable fitting size ød	Model	Note)		L ₁	L ₂	A	M	Effective area (mm ²)	Weight (g)	Rod material	
			øD ₁	øD ₂					Urethane		Resin	Metal
3.2	4	10-KQL23-04	9.6	7	17	25	13.5	15.5	2.5	2	○	
4	6	10-KQL04-06	10.4	8	18	26	14.5	16	4.2	3	○	
	8	10-KQL04-08		10	18	35	22					
6	8	10-KQL06-08	12.8	10	19.5	30.5	18	17	9.0	12	○	
	10	10-KQL06-10			20	38.5	24					
8	10	10-KQL08-10	15.2	12	22.5	33.5	20.5	18.5	14.9	20	○	
	12	10-KQL08-12			23	40.5	26					
10	12	10-KQL10-12	18.5	17	26.5	42	29.5	21	25.0	29	○	
12	16	10-KQL12-16	20.9	17	28.5	49.5	34.5	22	39.7	53	○	



Note) øD₁ indicates the maximum diameter.



Extended male elbow: 10-KQW

M5

R



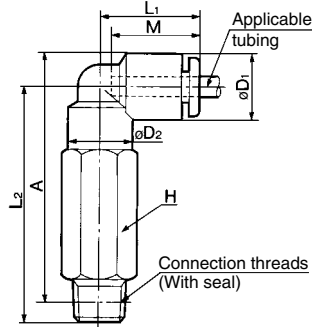
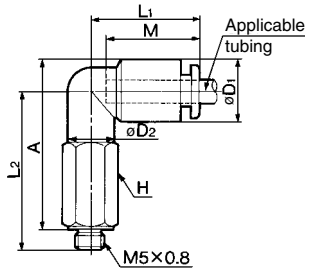
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note 1) ϕD_1	ϕD_2	L_1	L_2	A *	M	Effective area (mm ²) Urethane	Weight (g)
3.2	M5 x 0.8	10-KQW23-M5	8	9.6	8	17.5	30	31	15.5	2.4	10
	1/8	10-KQW23-01S	10				37	38			19
	1/4	10-KQW23-02S	14				43	42			41
4	M5 x 0.8	10-KQW04-M5	8	10.4	8	18	30	32	16	3.0	11
	1/8	10-KQW04-01S	10				37.5	38.5		4.0	23
	1/4	10-KQW04-02S	14				43.5	42.5			38
6	M5 x 0.8	10-KQW06-M5	8	12.8	8	20	30.5	33.5	17	3.0	11
	1/8	10-KQW06-01S	10				40	42.5		8.6	26
	1/4	10-KQW06-02S	14				46	46.5			41
	3/8	10-KQW06-03S	17				48	48			67
8	1/8	10-KQW08-01S	12	15.2	12	23	43.5	47	18.5	14.2	30
	1/4	10-KQW08-02S	14				49.5	51			47
	3/8	10-KQW08-03S	17				51.5	52.5			74
10	1/4	10-KQW10-02S	17	18.5	17	26.5	56.5	59.5	21	23.8	66
	3/8	10-KQW10-03S	17				58.5	61			76
	1/2	10-KQW10-04S	22				65	66			145
12	1/4	10-KQW12-02S	17	20.9	17	28.5	57.5	62	22	37.7	68
	3/8	10-KQW12-03S	17				59.5	63.5			78
	1/2	10-KQW12-04S	22				66	68.5			147
16	3/8	10-KQW16-03S	22	26.5	20.9	34	69.5	76	25	59.9	101
	1/2	10-KQW16-04S	22				75	80		70.9	105



* Reference dimensions after R thread installation.
Note) ϕD_1 indicates the maximum diameter.

M5

R



Male branch tee: 10-KQT

M5

M6

R



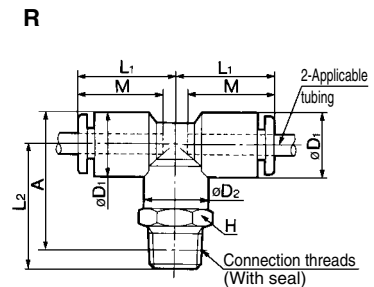
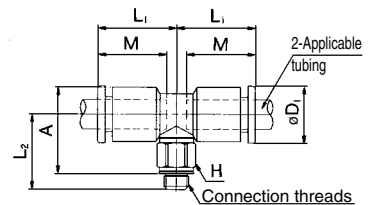
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note 1) ϕD_1	ϕD_2	L_1	L_2	A *	M	Effective area (mm ²) Urethane	Weight (g)
3.2	M5 x 0.8	10-KQT23-M5	7	8.4	—	15.3	13.2	14.3	12.7	2.7	3.2
	1/8	10-KQT23-01S	10	9.6	10	17.5	21.5	22.5	15.5	2.9	10
	1/4	10-KQT23-02S	14				25.5	24.5			20
4	M5 x 0.8	10-KQT04-M5	7	9.3	—	15.6	13.7	15.3	12.7	4.5	3.5
	M6 x 1.0	10-KQT04-M6	8				14.7				4.4
	1/8	10-KQT04-01S	10	10.4	10	18	22	23	16	4.1	13
6	1/4	10-KQT04-02S	14				26	25			19
	M5 x 0.8	10-KQT06-M5	7	11.6	—	16.1	14.7	17.4	13.5	4.5	4.4
	M6 x 1.0	10-KQT06-M6	8				15.7				5.3
8	1/8	10-KQT06-01S	10	12.8	10	20	23	25.5	17	11.0	12
	1/4	10-KQT06-02S	14				27	27.5			20
	3/8	10-KQT06-03S	17				29	29			34
10	1/8	10-KQT08-01S	12	15.2	12	23	24.5	28	18.5	18.2	14
	1/4	10-KQT08-02S	14				28.5	30			22
	3/8	10-KQT08-03S	17				30.5	31.5			36
12	1/8	10-KQT10-01S	17	18.5	17	26.5	27	32	21	14.9	31
	1/4	10-KQT10-02S	17				30	33			29
	3/8	10-KQT10-03S	17				32	34.5			39
16	1/2	10-KQT10-04S	22				36	37			66
	1/4	10-KQT12-02S	17	20.9	17	28.5	31	35.5	22	45.2	31
	3/8	10-KQT12-03S	17				33	37			41
16	1/2	10-KQT12-04S	22				37	39.5			68
	3/8	10-KQT16-03S	22	26.5	20.9	34	38	44.5	25	59.9	112
	1/2	10-KQT16-04S	22				40.5	46		84.5	116



* Reference dimensions after R thread installation.
Note) ϕD_1 indicates the maximum diameter.

M5, M6

R



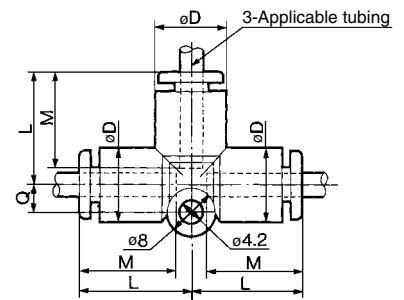
Union tee: 10-KQT



Applicable tubing O.D. (mm)	Model	Note 1) øD	L	Q	M	Effective area	Weight (g)
						(mm ²) Urethane	
3.2	10-KQT23-00	9.6	17.5	4.3	15.5	2.9	5
4	10-KQT04-00	10.4	18	4.5	16	4.4	7
6	10-KQT06-00	12.8	20	5.3	17	10.6	10
8	10-KQT08-00	15.2	23	6	18.5	17.7	15
10	10-KQT10-00	18.5	26.5	6.8	21	28.4	25
12	10-KQT12-00	20.9	28.5	7.5	22	45.4	29
16	10-KQT16-00	26.5	34	10	25	70.9	40



Note 1) øD indicates the maximum diameter.



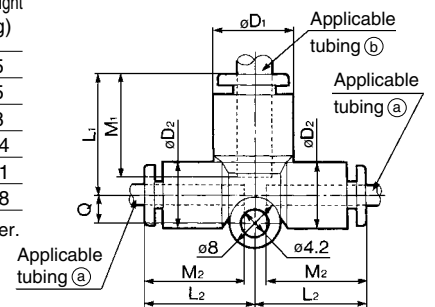
Different diameter tee: 10-KQT



Applicable tubing O.D. (mm)		Model	Note 1) øD ₁	øD ₂	L ₁	L ₂	Q	M ₁	M ₂	Effective area	Weight (g)
①	②									(mm ²) Urethane	
3.2	4	10-KQT23-04	10.4	9.6	18	17.5	4.3	16	15.5	3.5	5
4	6	10-KQT04-06	12.8	10.4	19.5	18	4.5	17	16	6.5	5
6	8	10-KQT06-08	15.2	12.8	22.5	20	5.3	18.5	17	16.4	8
8	10	10-KQT08-10	18.5	15.2	26.5	23	6	21	18.5	27.2	14
10	12	10-KQT10-12	20.9	18.5	28.5	26.5	6.8	22	21	44.5	21
12	16	10-KQT12-16	26.5	26.5	34	39	10	25	22	77.5	88



Note 1) øD₁ indicates the maximum diameter.



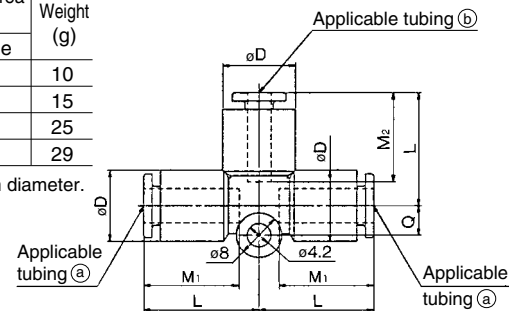
Different diameter tee: 10-KQT



Applicable tubing O.D. (mm)		Model	Note) øD	L	Q	M ₁	M ₂	Effective area	Weight (g)
①	②							(mm ²) Urethane	
6	4	10-KQT06-04	12.8	20	5.3	17	16	4.4	10
8	6	10-KQT08-06	15.2	23	6	18.5	17	10.6	15
10	8	10-KQT10-08	18.5	26.5	7.5	21	18.5	17.7	25
12	10	10-KQT12-10	20.9	28.5	7.5	22	21	28.4	29



Note) øD indicates the maximum diameter.



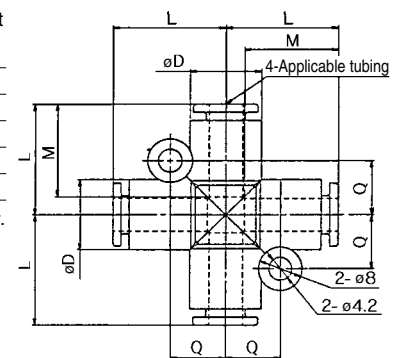
Cross: 10-KQTW



Applicable tubing O.D. (mm)	Model	Note) øD	L	Q	M	Effective area	Weight (g)
						(mm ²) Urethane	
4	10-KQTW04-00	10.4	18	8.7	16	4.4	9
6	10-KQTW06-00	12.8	20	9.9	17	10.6	13
8	10-KQTW08-00	15.2	23	11.1	18.5	17.7	20
10	10-KQTW10-00	18.5	26.5	12.8	21	28.4	33
12	10-KQTW12-00	20.9	28.5	13.9	22	45.4	39



Note) øD indicates the maximum diameter.



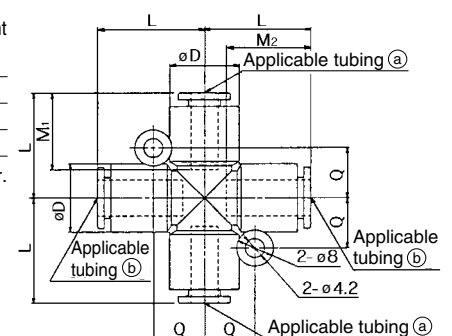
Different diameter cross: 10-KQTX



Applicable tubing O.D. (mm)		Model	Note) øD	L	Q	M ₁	M ₂	Effective area	Weight (g)
①	②							(mm ²) Urethane	
6	8	10-KQTX06-08	15.2	23	11.1	18.5	17	10.6	13
8	10	10-KQTX08-10	18.5	26.5	12.8	21	18.5	17.7	27
10	12	10-KQTX10-12	20.9	28.5	13.9	22	21	28.4	36



Note) øD indicates the maximum diameter.



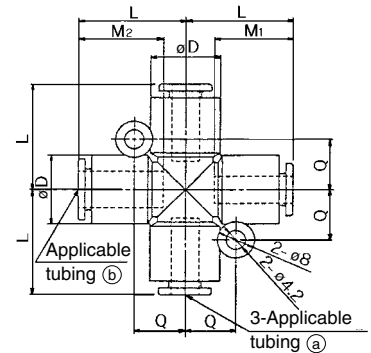
Different diameter cross: 10-KQTY



Applicable tubing O.D. (mm)		Model	øD ^{Note)}	L	Q	M ₁	M ₂	Effective area (mm ²) Urethane	Weight (g)
⑥	⑧								
6	8	10-KQTY06-08	15.2	23	11.1	17	18.5	10.6	15
8	10	10-KQTY08-10	18.5	26.5	12.8	18.5	21	17.7	23
10	12	10-KQTY10-12	20.9	28.5	13.9	21	22	28.4	35



Note) øD indicates the maximum diameter.



Male run tee: 10-KQY

M5



M6



R



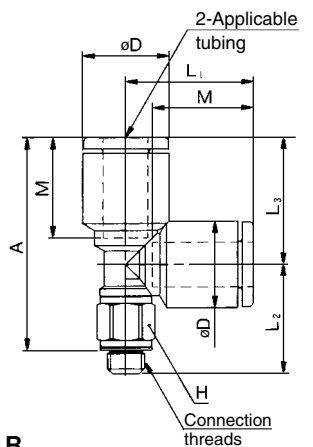
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note 1) øD ₁	øD ₂	L ₁	L ₂	L ₃	A*	M	Effective area (mm ²) Urethane	Weight (g)
3.2	M5 x 0.8	10-KQY23-M5	7	8.4	—	15.4	13.2	14.8	24.9	12.7	2.7	3.2
	1/8	10-KQY23-01S	10	9.6	10	17.5	21.5	—	35	15.5	2.9	10
	1/4	10-KQY23-02S	14	—	—	—	25.5	—	37	—	—	20
4	M5 x 0.8	10-KQY04-M5	7	9.3	—	15.6	13.7	14.8	25.4	12.7	4.5	3.5
	M6 x 1.0	10-KQY04-M6	8	—	—	—	14.7	—	—	—	—	6
	1/8	10-KQY04-01S	10	10.4	10	18	22	—	36	16	4.4	13
6	1/4	10-KQY04-02S	14	—	—	—	26	—	38	—	—	19
	M5 x 0.8	10-KQY06-M5	7	11.6	—	17.1	14.7	17.1	28.7	13.5	4.5	4.5
	M6 x 1.0	10-KQY06-M6	8	—	—	—	15.7	—	—	—	—	7
6	1/8	10-KQY06-01S	10	12.8	10	20	23	—	39	17	10.6	12
	1/4	10-KQY06-02S	14	—	—	—	27	—	41	—	—	20
	3/8	10-KQY06-03S	17	—	—	—	29	—	42.5	—	—	34
8	1/8	10-KQY08-01S	12	15.2	12	23	24.5	—	43.5	18.5	17.7	14
	1/4	10-KQY08-02S	14	—	—	—	28.5	—	45.5	—	—	22
	3/8	10-KQY08-03S	17	—	—	—	30.5	—	47	—	—	36
10	1/8	10-KQY10-01S	17	18.5	17	26.5	27	—	49.5	21	28.4	31
	1/4	10-KQY10-02S	—	—	—	—	30	—	50.5	—	—	29
	3/8	10-KQY10-03S	—	—	—	—	32	—	52	—	—	39
12	1/2	10-KQY10-04S	22	—	—	—	36	—	54.5	—	—	66
	1/4	10-KQY12-02S	17	20.9	17	28.5	31	—	53.5	22	45.4	31
	3/8	10-KQY12-03S	—	—	—	—	33	—	55	—	—	41
16	1/2	10-KQY12-04S	22	—	—	—	37	—	57.5	—	—	68
	3/8	10-KQY16-03S	22	26.5	20.9	34	38	—	65.5	25	68.4	112
	1/2	10-KQY16-04S	—	—	—	—	41	—	67	—	95.4	116



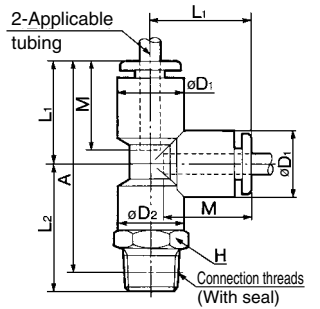
* Reference dimensions after R thread installation.

Note 1) øD₁ indicates the maximum diameter.

M5, M6



R



Air cylinder

Rotary actuator

Air gripper

Directional control valve

Flow control equipment

Filter, Pressure control equipment

Fittings & Tubing

Air preparation equipment

Pressure switch

Clean gas filter

One-touch fittings 10-KQ

Male delta union: 10-KQD

M5, M6



R

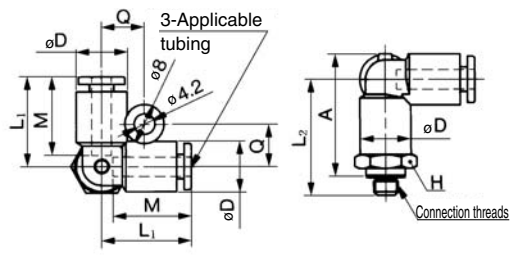


Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note)	øD	L ₁	L ₂	A*	M	Q	Effective area (mm ²) Urethane	Weight (g)
4	M5 x 0.8	10-KQD04-M5	11	10.4	18.5		24	25.5	16	8.7	2.2	10
	M6 x 1.0	10-KQD04-M6					24.5				4.3	
	1/8	10-KQD04-01S					26.5	27.5			6.0	
	1/4	10-KQD04-02S					30.5	29.5				
6	M5 x 0.8	10-KQD06-M5	13	12.8	20.5		26	28.5	17	9.9	4.3	12
	M6 x 1.0	10-KQD06-M6					26.5					
	1/8	10-KQD06-01S					29	31.5			11.0	
	1/4	10-KQD06-02S					32.5	33				
8	3/8	10-KQD06-03S	17				34.5	34.5				34
	1/8	10-KQD08-01S					33.5	37				
	1/4	10-KQD08-02S					36.5	38			18.2	
	3/8	10-KQD08-03S					37.5	38.5				
10	1/4	10-KQD10-02S	19	18.5	26.5		39.5	43	21	12.8	29.0	40
	3/8	10-KQD10-03S					40.5	43.5				
	1/2	10-KQD10-04S					44	45				
	1/4	10-KQD12-02S	22	20.9	28.5		42	46.5	22	13.9	45.2	56
12	3/8	10-KQD12-03S					43	47				
	1/2	10-KQD12-04S					46	48.5				

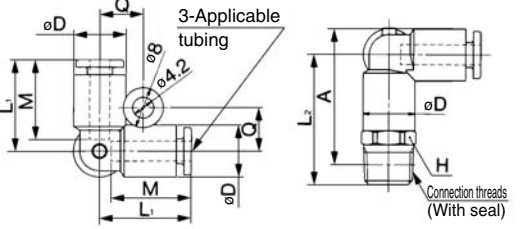
* Reference dimensions after R thread installation.

Note) øD indicates the maximum diameter.

M5, M6



R

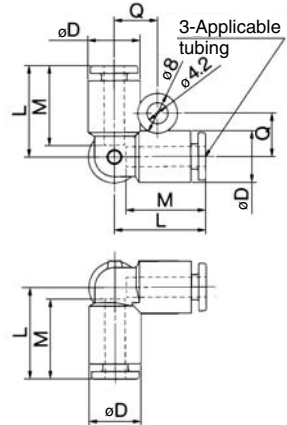


Delta union: 10-KQD



Applicable tubing O.D. (mm)	Model	Note)	øD	L	Q	M	Effective area (mm ²) Urethane	Weight (g)
4	10-KQD04-00	10.4	18.5	8.7	16		4.1	5
6	10-KQD06-00	12.8	20.5	9.9	17		11.0	7
8	10-KQD08-00	15.2	23.5	11.1	18.5		18.2	11
10	10-KQD10-00	18.5	26.5	12.8	21		29.0	19
12	10-KQD12-00	20.9	28.5	13.9	22		45.2	24

Note) øD indicates the maximum diameter.



Branch "Y": 10-KQU

M5, M6



R

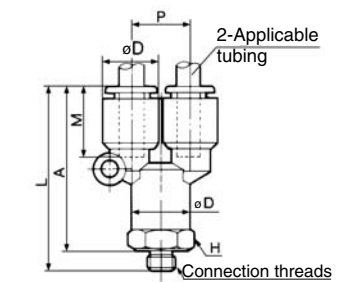


Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note 1)	øD	L	P	A*	M	Effective area (mm ²) Urethane	Weight (g)
3.2	M5 x 0.8	10-KQU23-M5	10	9.6		38	9.6	34.5	15.5	2.2	9
	1/8	10-KQU23-01S	11			41		37			
	1/4	10-KQU23-02S	14			44		38		2.9	
4	M5 x 0.8	10-KQU04-M5	11	10.4		39.5	10.4	36	16	2.2	4
	M6 x 1.0	10-KQU04-M6				40		38			
	1/8	10-KQU04-01S				42		40		4.2	
	1/4	10-KQU04-02S				46		40			
6	M5 x 0.8	10-KQU06-M5	13	12.8		42.5	12.8	39	17	2.2	12
	M6 x 1.0	10-KQU06-M6				43		41.5			
	1/8	10-KQU06-01S				45.5		43		10.6	
	1/4	10-KQU06-02S				49		44.5			
8	3/8	10-KQU06-03S	17			51		50	18.5		34
	1/8	10-KQU08-01S				52.5		48.5			
	1/4	10-KQU08-02S				55.5		49.5		17.7	
	3/8	10-KQU08-03S				56.5		50			
10	1/4	10-KQU10-02S	19	18.5		61	18.5	55	21	28.4	30
	3/8	10-KQU10-03S				62		55.5			
	1/2	10-KQU10-04S				65		57			
	1/4	10-KQU12-02S	22	20.9		64.5	20.9	58.5	22	45.4	32
12	3/8	10-KQU12-03S				65.5		59			
	1/2	10-KQU12-04S				68.5		60.5			
	3/8	10-KQU16-03S	27	26.5		76	26.5	69.5	25	68.4	106
16	1/2	10-KQU16-04S				79		71		81.1	

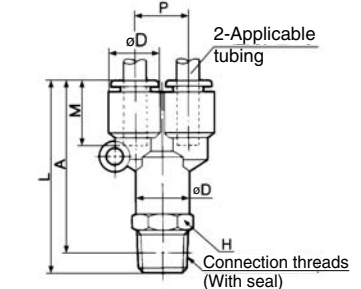
* Reference dimensions after R thread installation.

Note 1) øD indicates the maximum diameter.

M5, M6



R



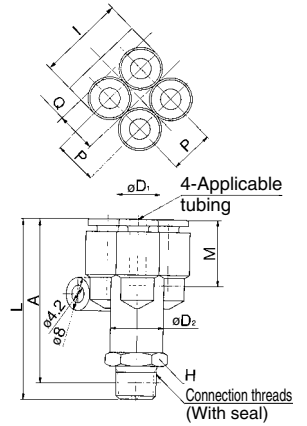
Double branch: 10-KQUD



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	Note) ϕD_1	Note) ϕD_2	L	I	A *	Q	M	P	Effective area (mm ²) Urethane	Weight (g)
4	1/8	10-KQUD04-01S	13	10.4	12.8	43.5	21	39.5	9.7	16	10.4	4.2	17
	1/4	10-KQUD04-02S	14			47		41					25
6	1/8	10-KQUD06-01S	17	12.8	15.2	50.5	26	46.5	11.7	17	12.8	10.6	29
	1/4	10-KQUD06-02S				53.5		47.5					



* Reference dimensions after R thread installation.
Note) ϕD_1 indicates the maximum diameter.



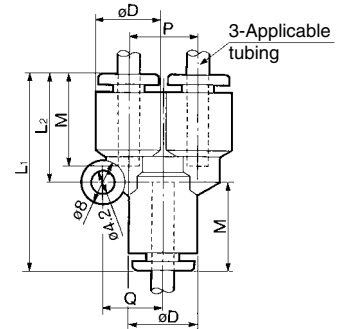
Union "Y": 10-KQU



Applicable tubing O.D. (mm)	Model	Note 1) ϕD	L ₁	L ₂	P	Q	M	Effective area (mm ²) Urethane	Weight (g)
3.2	10-KQU23-00	9.6	33	17.5	9.6	9	15.5	2.9	5
4	10-KQU04-00	10.4	34	18	10.4	9.7	16	4.2	7
6	10-KQU06-00	12.8	37	20	12.8	11.7	17	10.6	9
8	10-KQU08-00	15.2	42.5	24.5	15.2	13.7	18.5	17.7	11
10	10-KQU10-00	18.5	48	27.5	18.5	16.1	21	28.4	16
12	10-KQU12-00	20.9	51	30	20.9	18.1	22	45.4	23
16	10-KQU16-00	26.5	61.5	36.5	26.5	23	25	81.1	54



Note 1) ϕD indicates the maximum diameter.



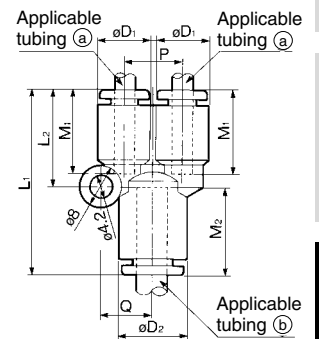
Different diameter union "Y": 10-KQU



Applicable tubing O.D. (mm)		Model	Note) ϕD_1	Note) ϕD_2	L ₁	L ₂	P	Q	M ₁	M ₂	Effective area (mm ²) Urethane	Weight (g)
3.2	4	10-KQU23-04	9.6	10.4	33.5	17.5	9.6	9	15.5	16	2.7	5
4	6	10-KQU04-06	10.4	12.8	35	18	10.4	9.7	16	17	4.2	6
6	8	10-KQU06-08	12.8	15.2	39.5	20	12.8	11.7	17	18.5	10.6	11
8	10	10-KQU08-10	15.2	18.5	45	24.5	15.2	13.7	18.5	21	17.7	18
10	12	10-KQU10-12	18.5	20.9	49	27.5	18.5	16.1	21	22	28.4	27
12	16	10-KQU12-16	26.5	26.5	66.5	41.5	26.5	23	22	25	45.4	100



Note) ϕD_1 , ϕD_2 indicate the maximum diameter.



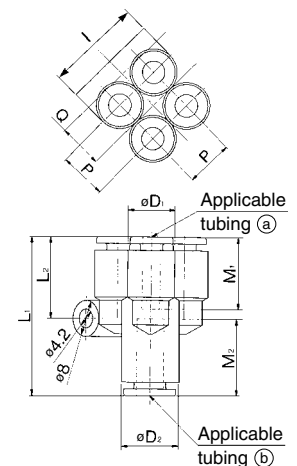
Different diameter double union "Y": 10-KQUD



Applicable tubing O.D. (mm)		Model	Note) ϕD_1	Note) ϕD_2	L ₁	L ₂	P	I	Q	M ₁	M ₂	Effective area (mm ²) Urethane	Weight (g)
4	6	10-KQUD04-06	10.4	12.8	35.5	18.2	10.4	21	9.7	16	17	4.2	10
6	8	10-KQUD06-08	12.8	15.2	40.5	20.3	12.8	26	11.7	17	18.5	10.6	17



Note) ϕD_1 , ϕD_2 indicate the maximum diameter.



One-touch fittings 10-KQ

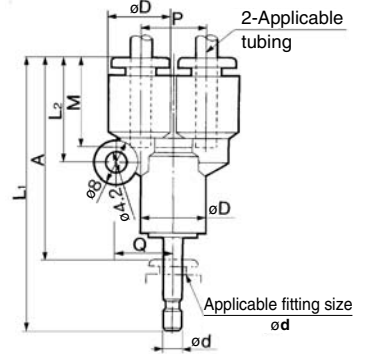
Plug-in "Y": 10-KQU



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	Note 1) ϕD	L_1	L_2	P	Q	A	M	Effective area (mm ²) Urethane	Weight (g)	Material	
												Resin	Metal
3.2	3.2	10-KQU23-99	9.6	50	17.5	9.6	9	35	15.5	2.9	6	○	
4	4	10-KQU04-99	10.4	51.5	18	10.4	9.7	35.5	16	4.2	12	○	
6	6	10-KQU06-99	12.8	55.5	20	12.8	11.7	38.5	17	10.6	18	○	
8	8	10-KQU08-99	15.2	64.5	24.5	15.2	13.7	46	18.5	17.7	21		○
10	10	10-KQU10-99	18.5	71.5	27.5	18.5	16.1	50.5	21	28.4	26		○
12	12	10-KQU12-99	20.9	75.5	30	20.9	18.1	53.5	22	45.4	32		○
16	16	10-KQU16-99	26.5	90	36.5	26.5	23	65	25	81.1	78		○



Note 1) ϕD indicates the maximum diameter.



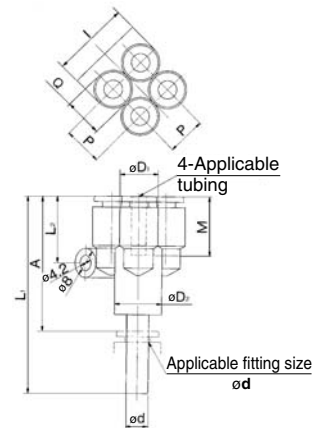
Double plug-in "Y": 10-KQXD



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	Note) ϕD_1	ϕD_2	L_1	L_2	I	Q	A	P	M	Effective area (mm ²) Urethane	Weight (g)	Material	
														Resin	Metal
4	6	10-KQXD04-06	10.4	12.8	54	18.2	21	9.7	37	10.4	16	4.2	10	○	
6	8	10-KQXD06-08	12.8	15.2	62.5	20.3	26	11.7	44	12.8	17	10.6	23		○



Note) ϕD_1 indicates the maximum diameter.



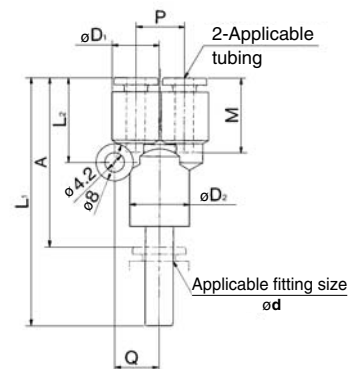
Different diameter plug-in "Y": 10-KQX



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	Note) ϕD_1	ϕD_2	L_1	L_2	A	P	Q	M	Effective area (mm ²) Urethane	Weight (g)	Material	
													Resin	Metal
4	6	10-KQX04-06	10.4	12.8	53.5	18.5	36.5	10.4	9.7	16	4.2	7	○	
6	8	10-KQX06-08	12.8	15.2	61.5	20.5	43	12.8	11.7	17	10.6	18		○
8	10	10-KQX08-10	15.2	18.5	68.5	24.5	47.5	15.2	13.7	18.5	17.7	28		○
10	12	10-KQX10-12	18.5	20.9	73.5	27.5	51.5	18.5	16.1	21	28.4	42		○



Note) ϕD_1 indicates the maximum diameter.



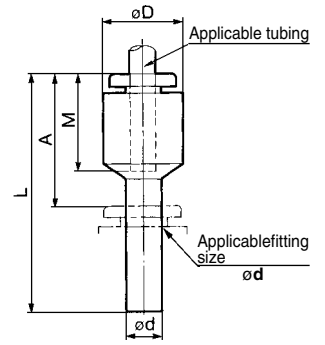
Plug-in reducer: 10-KQR



Applicable tubing O.D. (mm)	Applicable fitting size ϕd	Model	$\phi D^{(Note\ 1)}$	L	A	M	Effective area (mm ²) Urethane	Weight (g)
3.2	4	10-KQR23-04	9.6	33.5	18.5	15.5	2.9	2
4	6	10-KQR04-06	10.4	34.5	17.5	16	4	1.8
	8	10-KQR04-08		36.5	18			2.0
	10	10-KQR04-10	12.8	39.5	18.5			3.3
6	4	10-KQR06-04	12.8	37	21	17	10.4	2.5
	8	10-KQR06-08	12.8	37	18.5			2.5
	10	10-KQR06-10		39.5	18.5			3
	12	10-KQR06-12	15.2	42	20			4.7
8	10	10-KQR08-10	15.2	41	20	18.5	18.0	4.0
	12	10-KQR08-12		42				4.6
10	12	10-KQR10-12	18.5	44.5	23	21	32.8	33
	16	10-KQR10-16	20.9	50.5	25.5			42
12	16	10-KQR12-16	20.9	50.5	25.5	22	38.7	37



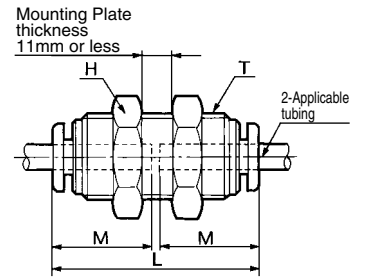
Note 1) ϕD indicates the maximum diameter.



Bulkhead Union: 10-KQE



Applicable tubing O.D. (mm)	Model	T(M)	H (width across flats)	L	Mounting hole	M	Effective area (mm ²) Urethane	Weight (g)
3.2	10-KQE23-00	M12 x 1	14	31.5	13	15.5	2.9	26
4	10-KQE04-00	M12 x 1	14	32.5	13	16	4	26
6	10-KQE06-00	M14 x 1	17	34.5	15	17	10.4	33
8	10-KQE08-00	M16 x 1	19	38	17	18.5	18.0	52
10	10-KQE10-00	M20 x 1	24	42.5	21	21	29.5	70
12	10-KQE12-00	M22 x 1	27	44	23	22	46.1	90
16	10-KQE16-00	M28 x 1.5	32	51	29	25	80.6	115



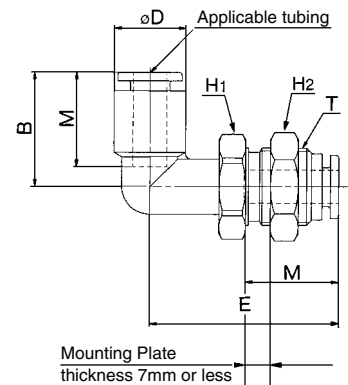
Bulkhead male elbow: 10-KQLE



Applicable tubing O.D. (mm)	Model	T	H ₁ (width across flats)	H ₂ (width across flats)	B	E	$\phi D^{(Note)}$	Mounting hole	M	Effective area (mm ²) Urethane	Weight (g)
4	10-KQLE04-00	M12 x 1	14	14	18.5	31	10.4	13	16	4.2	18
6	10-KQLE06-00	M14 x 1	17	17	20.5	34	12.8	15	17	9.0	25
8	10-KQLE08-00	M16 x 1	17	19	23.5	38.5	15.2	17	18.5	14.9	33
10	10-KQLE10-00	M20 x 1	22	24	26.5	43.5	18.5	21	21	25.0	63
12	10-KQLE12-00	M22 x 1	24	27	28.5	45.5	20.9	23	22	39.7	77



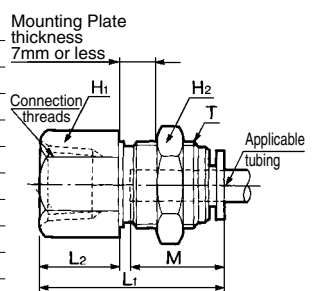
Note) ϕD indicates the maximum diameter.



Bulkhead connector: 10-KQE



Applicable tubing O.D. (mm)	Connection thread Rc	Model	T(M)	H ₁ (width across flats)	H ₂ (width across flats)	L ₁	L ₂	Mounting hole	M	Effective area (mm ²) Urethane	Weight (g)
3.2	1/4	10-KQE23-02	M12 x 1	17	14	31.5	15	13	15.5	2.9	13
4	1/8	10-KQE04-01	M12 x 1	14	14	27.5	11	13	16	4	16
	1/4	10-KQE04-02		17		31	15				35
6	1/8	10-KQE06-01	M14 x 1	17	17	28	11	15	17	10.4	25
	1/4	10-KQE06-02				31.5	15				40
	3/8	10-KQE06-03				33.5	17				29
8	1/8	10-KQE08-01	M16 x 1	17	19	27.5	7.5	17	18.5	18.0	28
	1/4	10-KQE08-02				33	13				27
	3/8	10-KQE08-03				35	15				48
10	1/4	10-KQE10-02	M20 x 1	22	24	34.5	12.5	21	21	29.5	53
	3/8	10-KQE10-03				36.5	15				67
12	3/8	10-KQE12-03	M22 x 1	24	27	37	14	23	22	46.1	92
	1/2	10-KQE12-04				41	18				59
16	3/8	10-KQE16-03	M28 x 1.5	30	32	40	14	29	25	80.6	127
	1/2	10-KQE16-04				44	18				132



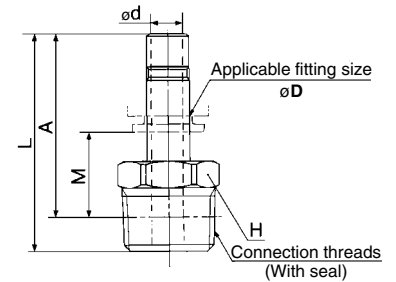
One-touch fittings 10-KQ

Adaptor: 10-KQN



Applicable fitting size ϕD	Connection thread R	Model	H (width across flats)	L	A *	M	ϕd	Weight (g)
4	M5 x 0.8	10-KQN04-M5	7	32	29	13	2.5	2
	1/8	10-KQN04-01S	10	34	30	14	2.5	6
6	M5 x 0.8	10-KQN06-M5	7	33	30	13	2.5	2
	1/8	10-KQN06-01S	10	35	31	14	4.5	5
	1/4	10-KQN06-02S	14	37.5	31.5	14.5	4.5	14
8	1/4	10-KQN08-02S	14	39	33	14.5	6	17
	3/8	10-KQN08-03S	17	41	34.5	16	6	30
10	3/8	10-KQN10-03S	17	46	39.5	18.5	7.5	31

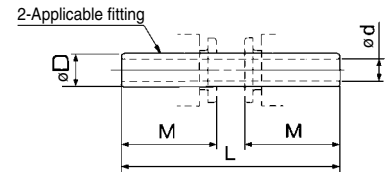
* Reference dimensions after R thread installation.



Nipple: 10-KQN



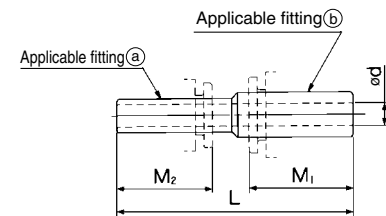
Applicable fitting ϕD	Model	L	M	ϕd	Weight (g)	Material	
						Resin	Metal
4	10-KQN04-99	37	16	2.5	1	○	
6	10-KQN06-99	39	17	4	2	○	
8	10-KQN08-99	43	18.5	6	2	○	
10	10-KQN10-99	49	21	7.5	4	○	
12	10-KQN12-99	52	22	9	20.6		○
16	10-KQN16-99	57	25	13	31		○



Reducer nipple: 10-KQN



Applicable fitting		Model	L	M ₁	M ₂	ϕd	Weight (g)	Material	
(a)	(b)							Resin	Metal
4	6	10-KQN04-06	38	17	16	2.5	2	○	
6	8	10-KQN06-08	42	18.5	17	4	2	○	
8	10	10-KQN08-10	47	21	18.5	6	13.2	○	
10	12	10-KQN10-12	51	22	21	8	18.2		○
12	16	10-KQN12-16	55	25	22	9	29		○

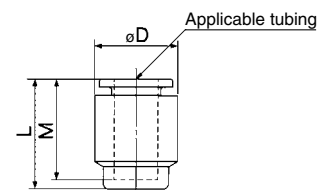


Tube cap: 10-KQC

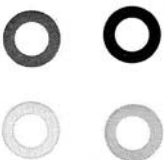


Applicable tubing O.D. (mm)	Model	$\phi D^{(Note)}$	L	M	Weight (g)
4	10-KQC04-00	10.4	17	16	3
6	10-KQC06-00	12.8	18.5	17	3
8	10-KQC08-00	15.2	20.5	18.5	4
10	10-KQC10-00	18.5	23	21	6
12	10-KQC12-00	20.9	24	22	8
16	10-KQC16-00	26.5	28	25	13

Note) ϕD indicates the maximum diameter.

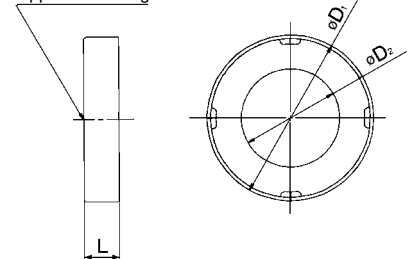


Color cap: 10-KQC



Applicable tubing O.D. (mm)	Model	ϕD_1	ϕD_2	L	Weight (g)	Application
4	10-KQC-04□	10.1	5.2	2.9	0.1	
4	10-KQC-04A-□	8.5	5	2.2	0.1	KQH, KQ2H04-M5, M6 KQS, KQ2S04-M5, M6
4	10-KQC-04B-□	9.7	5	2.2	0.1	KQL, KQ2L04-M5, M6 KQT, KQ2T04-M5, M6 KQY, KQ2Y04-M5, M6
6	10-KQC-06□	12.1	7.2	2.9	0.1	
6	10-KQC-06A-□	10.5	7	2.2	0.1	KQH, KQ2H06-M5, M6 KQS, KQ2S06-M5, M6
6	10-KQC-06B-□	12.0	7	2.2	0.1	KQL, KQ2L06-M5, M6 KQT, KQ2T06-M5, M6 KQY, KQ2Y06-M5, M6
8	10-KQC-08□	14.1	9.2		0.1	
10	10-KQC-10□	17.1	11.2	2.9	0.2	
12	10-KQC-12□	19.1	13.2		0.2	
16	10-KQC-16□	26.3	17.2	3.9	0.3	

Applicable tubing



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

Plug: 10-KQP



Applicable fitting size ϕD	Model	ϕD	L	A	Weight (g)
3.2	10-KQP-23	5	31.5	16	1
4	10-KQP-04	6	32	16	1
6	10-KQP-06	8	35	18	1
8	10-KQP-08	10	39	20.5	2
10	10-KQP-10	12	43	22	3.5
12	10-KQP-12	14	45.5	24	5
16	10-KQP-16	20.9	47	22	8

