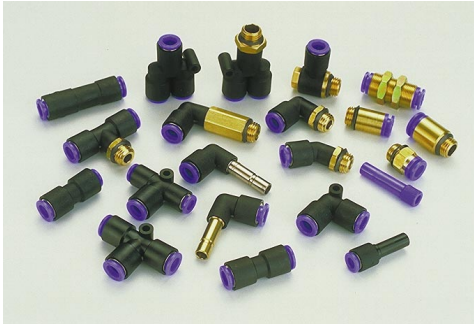


SERIES KQ BLACK FITTINGS AND SERIES KQ2 WHITE FITTINGS



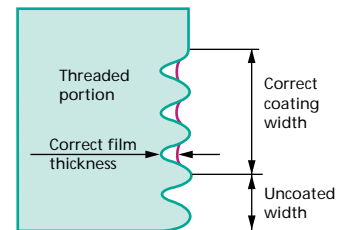
- ✓ Wide range of pressures – Low vacuum (10Torr) to 10 Bar (1.0MPa) pressure
- ✓ Wide range of tube systems (3.2mm – 16mm OD tube)
- ✓ Minimised resistance to air flow
- ✓ Widest range of configurations available to the market
- ✓ Choice of body colour to suit customer application



AVAILABLE IN BOTH COLOURS WITH SEALANT COATED TAPERED THREADS



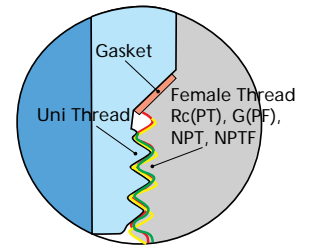
- ✓ Constant sealing capability
- ✓ Reduced possible contamination
- ✓ Reduced piping man-hours
- ✓ Market specified
- ✓ Thread: M5•1/8"•1/4"•3/8"•1/2" R(PT)



ALSO AVAILABLE IN BOTH COLOURS WITH UNI THREAD



- ✓ Applicable to various female thread types on flat or curved surfaces
- ✓ No sealant/tape required
- ✓ Low flush fitting to save space
- ✓ Constant mounting height gives improved appearance and reduced assembly time (cuts fastening time by over 60%)
- ✓ Thread: 1/8"•1/4"•1/2" R(PT), G(PF), NPT, NPTF



TECHNICAL SPECIFICATIONS

Guide
Collet
Chuck

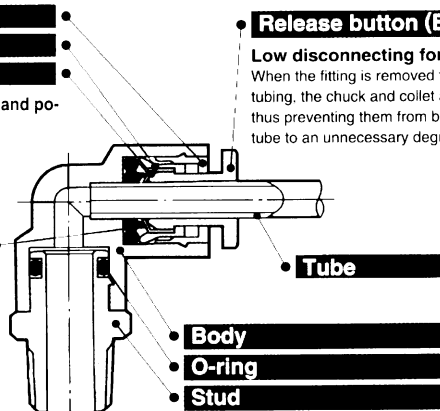
Accepts nylon, soft nylon and polyurethane tubes.
Has large retaining force.

Release button (Blue)

Low disconnecting force.
When the fitting is removed from the tubing, the chuck and collet are released, thus preventing them from biting into the tube to an unnecessary degree.

Packing

Can be used for a wide range of pressure from a low vacuum up to a pressure of 1.0MPa {10.2kgf/cm²}
The use of a special profile ensures positive sealing and reduced resistance when the tube is being inserted.



Body
O-ring
Stud

Effective when piping in a confined space.
The body and threaded portion can turn independently.

APPLICABLE TUBE

Tube material	Nylon, Soft nylon, Polyurethane
Tube O. D.	Ø3.2, Ø4, Ø6, Ø8, Ø10, Ø12, Ø16

SPECIFICATIONS

Operating fluid	Air, Water ^{Note1)}
Max. operating pressure	1.0MPa (10.2kgf/cm ²)
Max. operating vacuum pressure	-100kPa (10Torr)
Proof pressure	3.0MPa (30.6kgf/cm ²)
Ambient and fluid temperature	0 to 60°C (Water: 5 to 40°C)
Note1) Applicable for general industry water. Consult SMC if using for other kinds of fluid. Surge pressure must be under the max. operating pressure.	

PRINCIPAL ELEMENT MATERIAL

Body	C3604BD, PBT, PP
Stud	C3604BD (Thread portion)
Chuck	Stainless steel (SUS304)
Guide	SUS304, C3604BD, Polyacetal (POM)
Collet, Release button	Polyacetal (POM)
Packing, O-ring	NBR



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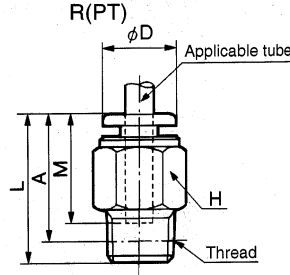
PRODUCT SELECTOR

EXAMPLE OF ORDERING

KQH04-M5 Black Body
KQ2H04-M5 White Body

MALE CONNECTOR: KQH (KQ2H)

Use to pipe in the same direction from female threaded portion.



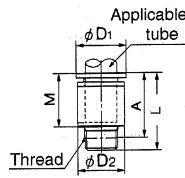
Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	øD	L	A*	M	Effective orifice(mm ²)		Weight (g)
								Nylon	Urethane	
3.2	M5×0.8	KQH23-M5	7	7	16.7	13.6	12.7	3.4	2.9	2
	1/8	KQH23-01S	10	—	22	18	9			
	1/4	KQH23-02S	14	—	19.5	13.5	16			
4	M5×0.8	KQH04-M5	8	8	17	13.9	12.7	4	4	2.4
	M6×1.0	KQH04-M6	8	—	18	—	2.5			
	1/8	KQH04-01S	10	—	22	18	9			
6	1/4	KQH04-02S	14	—	19.5	13.5	16	5.6	5.6	16
	M5×0.8	KQH06-M5	10	10	17.8	14.7				3.3
	M6×1.0	KQH06-M6	10	—	19	14.9				3.4
8	1/8	KQH06-01S	12	—	22.5	18.5	17	13.1	13.1	16
	1/4	KQH06-02S	14	—	23	17				14
	3/8	KQH06-03S	17	—	22	15.5				27
10	1/8	KQH08-01S	14	—	28	24	18.5	26.1	18.0	21
	1/4	KQH08-02S	17	—	26.5	20.5				19
	3/8	KQH08-03S	22	—	22	15.5				26
12	1/8	KQH10-01S	17	—	30	26	21	26.1	26.1	19
	1/4	KQH10-02S	19	—	33.5	27.5				30
	3/8	KQH10-03S	22	—	29	22.5				30
16	1/2	KQH10-04S	22	—	27	19	22	58.3	46.1	53
	1/4	KQH12-02S	19	—	34.5	28.5				42
	3/8	KQH12-03S	22	—	30	22				31
16	1/2	KQH12-04S	24	—	39.5	33	25	81	(81)	61
	3/8	KQH16-03S	24	25.7	35.5	27.5				113
	1/2	KQH16-04S	24	25.7	35.5	27.5				(96)

*Reference dimensions after R(PT) thread installation.
Note) (): Values for soft nylon, øD: max. diameter

PRODUCT SELECTOR

HEXAGON SOCKET HEAD MALE CONNECTOR: KQS (KQ2S)

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



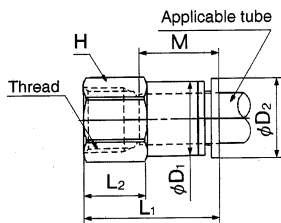
Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	øD ₁	øD ₂	L	A*	M	Effective orifice(mm ²)		Weight (g)
									Nylon	Urethane	
4	M5×0.8	KQS04-M5	2.5	8	—	18.7	15.6	12.7	2.7	2.7	2.7
	M6×1.0	KQS04-M6	3	—	18.2	14.1	—	—	—	—	2.8
	1/8	KQS04-01S	3	9.8	—	23	19	16	4.1	3.6	8
6	M5×0.8	KQS06-M5	2.5	10	—	19.5	16.4	13.5	2.7	2.7	3.3
	M6×1.0	KQS06-M6	3	—	19.1	15	—	—	—	—	3.4
	1/8	KQS06-01S	4	11.8	—	24	20	17	10.0	9.9	9
8	1/4	KQS06-02S	4	13.8	—	24	20	—	10.7	10.0	15
	1/8	KQS08-01S	5	—	28	24	—	—	17.2	—	12
	1/4	KQS08-02S	5	14	—	25.5	19.5	18.5	23.3	16.2	11
10	3/8	KQS08-03S	6	17	—	27.5	21	—	—	—	24
	1/8	KQS10-01S	5	—	30	26	—	—	17.2	10.0	18
	1/4	KQS10-02S	8	17	—	27.5	21.5	21	39.0	26.6	12
12	3/8	KQS10-03S	8	—	33.5	27.5	—	—	46.0	—	18
	1/2	KQS10-04S	10	22	—	28	20	—	60.0	—	23
	1/4	KQS12-02S	8	19	—	29	22.5	22	—	—	19
16	3/8	KQS12-03S	10	22	—	28	20	—	—	—	30
	1/2	KQS12-04S	10	22	—	28	20	—	—	—	30
	3/8	KQS16-03S	10	25.7	24	39	32.5	25	81	(81)	42
1/2	KQS16-04S	12	25.7	24	35	27	—	113	(96)	34	

*Reference dimensions after R(PT) thread installation.
Note) (): Values for soft nylon, øD₁: max. diameter

PRODUCT SELECTOR

FEMALE UNION: KQF (KQ2F)

Use to pipe from male thread portion such as pressure gauge.



Applicable tube O.D. (mm)	Thread Rc(PT)	Part No.	H (Hex.)	øD ₁	øD ₂	L ₁	L ₂	M	Effective orifice(mm ²)		Weight (g)
									Nylon	Urethane	
4	1/8	KQF04-01	14	—	10	27	11	16	5.6	5.6	15
	1/4	KQF04-02	17	—	31	14	23				
6	1/8	KQF06-01	14	—	12	27.5	11	17	13.1	13.1	15
	1/4	KQF06-02	17	—	31	13	22				
	3/8	KQF06-03	19	—	33.5	15	25				
8	1/8	KQF08-01	14	—	14	29	11	18.5	26.1	18.0	17
	1/4	KQF08-02	17	—	32.5	13	24				
	3/8	KQF08-03	19	—	33.5	14	24				
10	1/4	KQF10-02	17	—	17	34.5	14	21	41.5	18.0	27
	3/8	KQF10-03	19	—	36.5	15	30				
	1/2	KQF10-04	24	—	41	18	36				
12	1/4	KQF12-02	19	—	19	35	14	22	58.3	46.1	31
	3/8	KQF12-03	24	—	37	15	52				
	1/2	KQF12-04	24	—	41	18	52				
16	3/8	KQF16-03	24	24	25.7	38	15	25	81	(81)	59
	1/2	KQF16-04	24	24	43	19	58				

Note) (): Values for soft nylon, øD₂: max. diameter



SERIES KQ, KQ2 SEALANT COATED THREAD

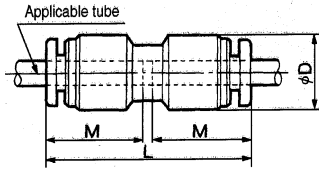
PRODUCT
SELECTOR

EXAMPLE OF ORDERING

KQH04-00 Black Body
KQ2H04-00 White Body

STRAIGHT UNION: KQH (KQ2H)

Use to connect tubes in the same direction.



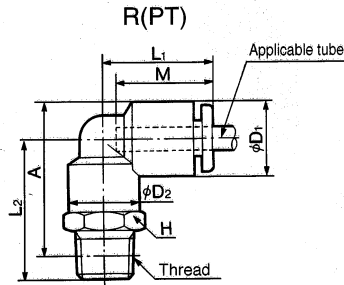
Applicable tube O.D. (mm)	Part No.	øD	L	M	Effective orifice(mm ²)		Weight (g)
					Nylon	Urethane	
3.2	KQH23-00	9.6	31.5	15.5	3.4	2.9	3
4	KQH04-00	10.4	32.5	16	5.6	5.6	3
6	KQH06-00	12.8	34.5	17	13.1	13.1	5
8	KQH08-00	15.2	38.5	18.5	26.1	18.0	7
10	KQH10-00	18.5	42.5	21	41.5	29.5	11
12	KQH12-00	20.9	44.5	22	58.3	46.1	14
16	KQH16-00	26.5	51	25	113	(96)	24

Note) (): Values for soft nylon.
øD: max. diameter

PRODUCT
SELECTOR

MALE ELBOW: KQL (KQ2L)

Use to pipe in right angle to female threaded portion. Most general type.



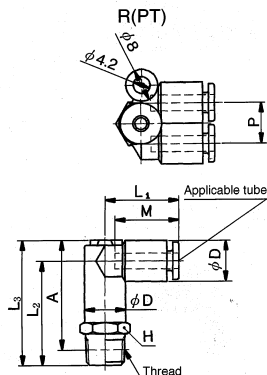
Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	øD ₁	øD ₂	L ₁	L ₂	A*	M	Effective orifice(mm ²)		Weight (g)			
										Nylon	Urethane				
3.2	M5×0.8	KQL23-M5	7	8.4	—	15.3	13.2	14.3	12.7	3	2.5	8			
	1/8	KQL23-01S	10	9.6	10	17.5	21.5	22.5	15.5				2.5	18	
	1/4	KQL23-02S	14	—	—	—	25.5	24.5	—						
4	M5×0.8	KQL04-M5	7	9.3	—	15.6	13.7	15.3	12.7	3.5	3.5	2.7			
	M6×1.0	KQL04-M6	8	—	8	—	16	17	—				4.2	4.2	10
	1/8	KQL04-01S	10	10.4	10	18	22	23	16						
1/4	KQL04-02S	14	—	—	—	26	25	—	—						
6	M5×0.8	KQL06-M5	7	11.6	—	16.1	14.7	17.4	13.5	3.5	3.5	3.2			
	M6×1.0	KQL06-M6	8	—	8	—	16.5	18.5	—				11.4	11.4	12
	1/8	KQL06-01S	10	12.8	10	20	23	25.5	17						
1/4	KQL06-02S	14	—	—	—	27	27.5	—	—	33					
3/8	KQL06-03S	17	—	—	—	29	29	—	—						
8	1/8	KQL08-01S	12	—	—	—	24.5	28	—	18.5	21.6	14.9			
	1/4	KQL08-02S	14	15.2	12	23	28.5	30	—				25		
	3/8	KQL08-03S	17	—	—	—	30.5	31.5	—						
10	1/8	KQL10-01S	12	—	—	—	27	32	—	21	21.6	14.9			
	1/4	KQL10-02S	17	18.5	17	26.5	30	33	—				35.2	25.0	36
	3/8	KQL10-03S	17	—	—	—	32	34.5	—						
1/2	KQL10-04S	22	—	—	—	36	37	—	—	28					
1/4	KQL12-02S	17	—	—	—	31	35.5	—	—						
12	3/8	KQL12-03S	17	20.9	17	28.5	33	37	—	22	50.2	39.7			
	1/2	KQL12-04S	22	—	—	—	37	39.5	—				65		
	3/8	KQL16-03S	22	26.5	20.9	34	38	44.5	—					71	(71)
1/2	KQL16-04S	22	—	—	—	41	46	—	100	(84)	105				

*Reference dimensions after R(PT) thread installation.
Note) (): Values for soft nylon.
øD₁: max. diameter

PRODUCT
SELECTOR

BRANCH UNION: KQLU (KQ2LU)

Used for branch connection at right angle from the female thread.



Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	øD	L ₁	L ₂	L ₃	A*	M	P	Effective orifice(mm ²)		Weight (g)			
											Nylon	Urethane				
4	M5×0.8	KQLU04-M5	11	10.4	18.5	24	29.5	25.5	16	10.4	4.3	4.3	10			
	M6×1.0	KQLU04-M6												24.5	30	
	1/8	KQLU04-01S												26.5	32	27.5
	1/4	KQLU04-02S												30.5	36	30
6	M5×0.8	KQLU06-M5	13	12.8	21	26.5	33	29.5	17	12.8	4.3	4.3	14			
	M6×1.0	KQLU06-M6												27	33.5	
	1/8	KQLU06-01S												29.5	36	32
	1/4	KQLU06-02S												33	39.5	33.5
3/8	KQLU06-03S	17	—	—	35	41.5	35	—	—	13.9	13.9	23				
1/8	KQLU08-01S	17	15.2	24	34	41.5	38	—	26.3				18.2	28		
1/4	KQLU08-02S	17	—	—	37	44.5	38.5	18.5		36						
3/8	KQLU08-03S	17	—	—	38	45.5	39	—	41							
1/4	KQLU10-02S	19	18.5	27	40	49.5	43.5	—		18.5	40.8	29.0	42			
3/8	KQLU10-03S	19	—	—	41	50.5	44	—	64							
1/2	KQLU10-04S	22	—	—	44.5	54	45.5	—		57						
1/4	KQLU12-02S	17	—	—	42.5	53	47	—	57.2		45.2	58				
3/8	KQLU12-03S	22	20.9	29	43.5	54	47.5	—		65						
1/2	KQLU12-04S	22	—	—	46.5	57	49	—	—							

* Reference dimensions after R(PT) thread installation.
Note) øD: max. diameter



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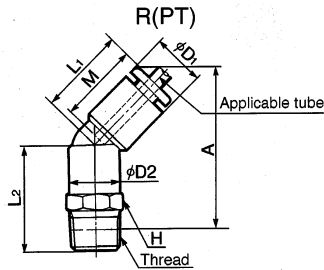
PRODUCT SELECTOR

EXAMPLE OF ORDERING

KQK04-M6 Black Body
KQ2K04-M6 White Body

45° MALE ELBOW: KQK (KQ2K)

Used in applications where a 45° elbow or male connector stresses the tubing.



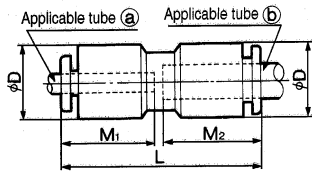
Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	φD ₁	φD ₂	L ₁	L ₂	L ₃	A*	M	Effective orifice(mm ²)		Weight (g)
											Nylon	Urethane	
4	M5 × 0.8	KQK04-M5	8	10.4	8	17	14.5	26	16	3.4	3.4	4	
	M6 × 1.0	KQK04-M6										5	
	1/8	KQK04-01S	10	10	20.5	32	10						
	1/4	KQK04-02S						19					
6	M5 × 0.8	KQK06-M5	8	12.8	8	18	14.5	27.5	17	3.4	3.4	6	
	M6 × 1.0	KQK06-M6										5	
	1/8	KQK06-01S	10	18	20.5	33	8.7	8.7					
	1/4	KQK06-02S							12				
8	3/8	KQK06-03S	14	15.2	12	20.5	26	39	18.5	19.7	19.7	12	
	1/2	KQK06-04S										13	
	1/8	KQK08-01S	17	17	24	22	37	21	30.9	23.2			
	1/4	KQK08-02S									21		
10	3/8	KQK08-03S	22	20.9	17	25	29.5	47.5	22	44.5	35.1	21	
	1/2	KQK08-04S										26	
	1/8	KQK10-01S	17	18.5	17	24	27	43.5	21	30.9	23.2		
	1/4	KQK10-02S										26	
12	3/8	KQK10-03S	22	20.9	17	25	33	47.5	22	44.5	35.1	36	
	1/2	KQK10-04S										63	
	1/8	KQK12-01S	17	20.9	17	25	27.5	45.5	22	44.5	35.1		
	1/4	KQK12-02S										28	
16	3/8	KQK12-03S	22	26.5	20.9	30	32	55	25	65.8	(65.8)	38	
	1/2	KQK12-04S										65	
	3/8	KQK16-03S	22	26.5	20.9	30	35	56.5	25	91.9	(78.3)		
	1/2	KQK16-04S										58	

* Reference dimensions after R(PT) thread installation.
Note) (): Values for soft nylon.
φD₁: max. diameter

PRODUCT SELECTOR

DIFFERENT DIA. STRAIGHT: KQH (KQ2H)

Use to connect different size tubes.



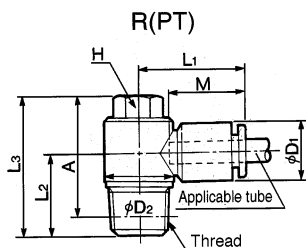
Applicable tube O.D. (mm)	Part No.	φD	L	M ₁	M ₂	Effective orifice(mm ²)		Weight (g)	
						Nylon	Urethane		
3.2	4	KQH23-04	10.4	32.5	15.5	16	3.2	2.7	3
4	6	KQH04-06	12.8	34.5	16	17	4.2	4.2	5
6	8	KQH06-08	15.2	38.5	17	18.5	10.7	10.7	7
8	10	KQH08-10	18.5	42	18.5	21	24.1	16.7	11
10	12	KQH10-12	20.9	44.5	21	22	37.6	28.2	14
12	16	KQH12-16	26.5	56.5	22	25	58.3	46.1	47

Note) φD: max. diameter

PRODUCT SELECTOR

UNIVERSAL MALE ELBOW: KQV (KQ2V)

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



Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	φD ₁	φD ₂	L ₁	L ₂	L ₃	A*	M	Effective orifice(mm ²)		Weight (g)
											Nylon	Urethane	
4	M5 × 0.8	KQV04-M5	8	10.4	9.8	20.5	11	18.5	15	16	2.9	2.9	6
	1/8	KQV04-01S											14
6	M5 × 0.8	KQV06-M5	8	12.8	9.8	23.5	12	18.5	15	17	3.8	3.8	7
	1/8	KQV06-01S											15
	1/4	KQV06-02S	10	15.4	23.5	18.5	31	25	7.5	7.5	26		
8	1/8	KQV08-01S	12	15.2	17.6	28.5	15.5	28.5	24.5	18.5	16	11.2	24
	1/4	KQV08-02S											30
	3/8	KQV08-03S	14	20.6	27.5	20.5	36.5	30	20.5	14.3	47		
10	1/4	KQV10-02S	14	18.5	20.6	31	19.5	35.5	29.5	21	27	20.3	40
	3/8	KQV10-03S											49
	1/2	KQV10-04S	17	20.9	25.2	34	25	41.5	33.5	39	30.8	63	
12	3/8	KQV12-03S	17	20.9	25.2	34	26.5	46.5	40.5	22	39	30.8	80
	1/2	KQV12-04S											80
	3/8	KQV16-03S	21	26.5	32.3	39	29.5	49.5	41.5	25	55	(55)	103
1/2	KQV16-04S	21	26.5	32.3	39	29.5	49.5	41.5	25	78	(65)	110	

* Reference dimensions after R(PT) thread installation.
Note) (): Values for soft nylon.
φD₁: max. diameter



FOR FURTHER TECHNICAL
DETAILS ON THIS
PRODUCT REQUEST
CATALOGUE REFERENCE
E501-B

SERIES KQ, KQ2 SEALANT COATED THREAD

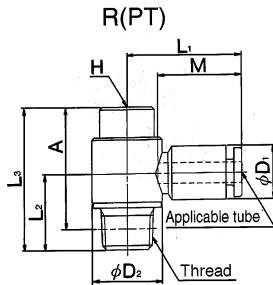
PRODUCT SELECTOR

EXAMPLE OF ORDERING

KQVS04-015 Black Body
KQ2VS04-015 White Body

HEXAGON SOCKET HEAD UNIVERSAL MALE ELBOW: KQVS (KQ2VS)

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



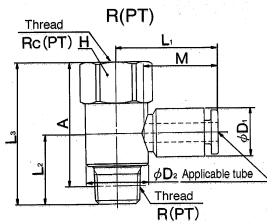
Applicable tube O.D. (mm)	Thread Rc(PT)	Part No.	H (Hex.)	φD ₁	φD ₂	L ₁	L ₂	L ₃	A*	M	Effective orifice (mm ²)		Weight (g)
											Nylon	Urethane	
4	M5	KQVS04-M5	4	10.4	9.8	20.5	10.5	18	15	16	2.9	2.9	6
	1/8	KQVS04-01S	6		13.4	22	14.5	26.5	22.5		3.8	3.8	14
6	M5	KQVS06-M5	4		9.8	23.5	12	18	15		7.5	7.5	7
	1/8	KQVS06-01S	6	12.8	13.4	24	14.5	26.5	22.5	17	7.5	7.5	15
8	1/4	KQVS06-02S	6		15.3	23.5	18.5	27	21		16	11.2	22
	1/8	KQVS08-01S	8	15.2	17.6	28.5	15.5	27	23	18.5	16	11.2	24
10	1/4	KQVS08-02S	8		18.5	30	24	26	26		20.5	14.3	30
	3/8	KQVS08-03S	8	18.5	20.6	31	19.5	31.5	25	21	27	20.3	32
12	3/8	KQVS10-03S	8		20.9	25.2	34	22	36	30	39	30.8	39
	1/2	KQVS12-04S	10	20.9	25.2	34	25	39	31	22	39	30.8	48
													67

* Reference dimensions after R(PT) thread installation.
Note) φD₁: max. diameter

PRODUCT SELECTOR

UNIVERSAL FEMALE ELBOW: KQVF (KQ2VF)

Used for branch line in the same direction or in right angle from the male or female thread. Multiplex connections possible.



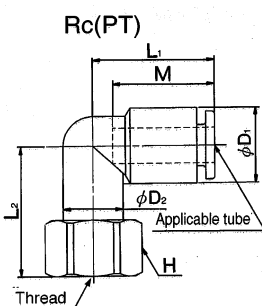
Applicable tube O.D. (mm)	Thread Rc(PT)	Part No.	H (Hex.)	φD ₁	φD ₂	L ₁	L ₂	L ₃	A*	M	Effective orifice (mm ²)		Weight (g)
											Nylon	Urethane	
4	M5 × 0.8	KQVF04-M5	8	10.4	9.8	20.5	11	20	16	16	3.5	3.5	6
	1/8	KQVF04-01S	14		13.4	22	15.5	29.5	25.5		4.2	4.2	19
6	M5 × 0.8	KQVF06-M5	8		9.8	23.5	12.5	20	16		7	7	7
	1/8	KQVF06-01S	14	12.8	13.4	24.5	15.5	29.5	25.5	17	7.5	7.5	19
8	1/4	KQVF06-02S	17		17.6	25	20	38.5	32.5		16	11.2	36
	1/8	KQVF08-01S	17	15.2	17.6	28.5	17	31	27	18.5	16	11.2	29
10	1/4	KQVF08-02S	22		20	38.5	32.5	25.5	18.5		20.5	14.3	37
	3/8	KQVF08-03S	22	18.5	25.2	29.5	25.5	45.5	39	21	27	20.3	66
12	1/4	KQVF10-02S	19		20.6	31.5	22	41	35	21	27	20.3	48
	3/8	KQVF10-03S	22	18.5	25.2	34	24.5	45.5	39	21	27	20.3	68
12	3/8	KQVF12-03S	22	20.9	25.2	34	24.5	45.5	39	22	39	30.8	70
	1/2	KQVF12-04S	24	20.9	25.2	34	27	35	25.5	22	39	30.8	93

* Reference dimensions after R(PT) thread installation.
Note) φD₁: max. diameter

PRODUCT SELECTOR

FEMALE ELBOW: KQLF (KQ2LF)

Used to pipe the tube at right angle to the male thread.



Applicable tube O.D. (mm)	Thread Rc(PT)	Part No.	H (Hex.)	φD ₁	φD ₂	L ₁	L ₂	M	Effective orifice (mm ²)		Weight (g)
									Nylon	Urethane	
4	M5 × 0.8	KQLF04-M5	8	10.4	8	18.5	14.5	16	3.5	3.5	5
	M6 × 1.0	KQLF04-M6	15.5								
	1/8	KQLF04-01	21								
6	1/4	KQLF04-02	17				24.5	17	11.4	11.4	20
	M5 × 0.8	KQLF06-M5	8	12.8	20.5	15					
	M6 × 1.0	KQLF06-M6	16								
1/8	KQLF06-01	14	22								
8	1/4	KQLF06-02	17				25.5	18.5	21.6	14.9	22
	3/8	KQLF06-03	19	26							
	1/8	KQLF08-01	14	23							
10	1/4	KQLF08-02	17	15.2	12	23.5	26.5	21	35.2	25.0	27
	3/8	KQLF08-03	19	27							
	1/2	KQLF10-04	24	32.5							
12	1/4	KQLF10-02	17				28	22	50.2	39.7	29
	3/8	KQLF10-03	19	18.5	17	26.5	28.5				
	1/2	KQLF10-04	24	32.5							
12	3/8	KQLF12-03	19	20.9	17	28.5	30	22	50.2	39.7	48
	1/2	KQLF12-04	24	34							

Note) φD₁: max. diameter



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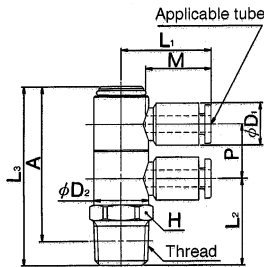
PRODUCT SELECTOR

EXAMPLE OF ORDERING

KQVD04-015 Black Body
KQ2VD04-015 White Body

DOUBLE UNIVERSAL MALE ELBOW: KQVD (KQ2VD)

Use for branch piping in the right angle from the male thread.



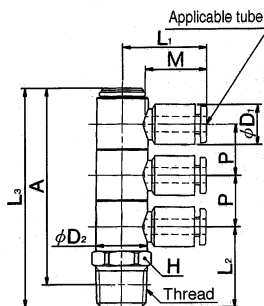
Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex)	ϕD_1	ϕD_2	L ₁	L ₂	L ₃	A*	M	P	Weight (g)		
4	1/8	KQVD04-01S	14	10.4	13.4	22	18.5	41	37	16	13.4	23		
	1/4	KQVD04-02S					21.5	44	38			29		
	3/8	KQVD04-03S	17				23.5	46	40			42		
6	1/8	KQVD06-01S	14	12.8	13.4	24.5	18.5	41	37	17	13.4	25		
	1/4	KQVD06-02S					21.5	44	38			31		
	3/8	KQVD06-03S	17				23.5	46	40			43		
8	1/8	KQVD08-01S	19	15.2	17.6	28.5	21	48	44	18.5	15.9	54		
	1/4	KQVD08-02S							24			51	45	52
	3/8	KQVD08-03S	21						25			52	45.5	61
10	1/2	KQVD08-04S	21				28.5	55.5	47.5	21	19.2	83		
	1/4	KQVD10-02S					26.5	58	52			71		
	3/8	KQVD10-03S	21	18.5	20.6	31.5	27.5	59	53			74		
12	1/2	KQVD10-04S	21				30.5	62	54	22	21.6	91		
	1/4	KQVD12-02S					28.5	64.5	58.5			118		
	3/8	KQVD12-03S	26	20.9	25.2	34	29.5	65.5	59			113		
	1/2	KQVD12-04S	26				32.5	68.5	60			125		

* Reference dimensions after R(PT) thread installation.
Note) ϕD_1 : max. diameter

PRODUCT SELECTOR

TRIPLE UNIVERSAL MALE ELBOW: KQVT (KQ2VT)

Used for branch piping in the right angle from the female thread. Three individual parts rotate 360°.



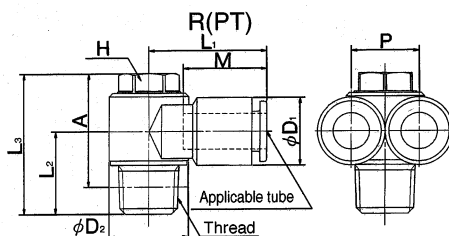
Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex)	ϕD_1	ϕD_2	L ₁	L ₂	L ₃	A*	M	P	Weight (g)		
4	1/8	KQVT04-01S	14	10.4	13.4	22	18.5	54.5	50.5	16	13.4	30		
	1/4	KQVT04-02S					21.5	57.5	51.5			35		
	3/8	KQVT04-03S	17				23.5	59.5	53.5			49		
6	1/8	KQVT06-01S	14	12.8	13.4	24.5	18.5	54.5	50.5	17	13.4	32		
	1/4	KQVT06-02S					21.5	57.5	51.5			38		
	3/8	KQVT06-03S	17				23.5	59.5	53.5			51		
8	1/8	KQVT08-01S	19	15.2	17.6	28.5	21	64	60	18.5	15.9	72		
	1/4	KQVT08-02S							24			67	61	67
	3/8	KQVT08-03S	21						25			68	61.5	76
10	1/2	KQVT08-04S	21				28.5	71.5	63.5	21	19.2	97		
	1/4	KQVT10-02S					26.5	77.5	71.5			111		
	3/8	KQVT10-03S	21	18.5	20.6	31.5	27.5	78.5	72			94		
12	1/2	KQVT10-04S	21				30.5	81.5	73.5	22	21.6	142		
	1/4	KQVT12-02S					28.5	86	80			153		
	3/8	KQVT12-03S	26	20.9	25.2	34	29.5	87	80.5			142		
	1/2	KQVT12-04S	26				32.5	90	82			154		

* Reference dimensions after R(PT) thread installation.
Note) ϕD_1 : max. diameter

PRODUCT SELECTOR

BRANCH UNIVERSAL MALE ELBOW: KQZ (KQ2Z)

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



Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex)	ϕD_1	ϕD_2	L ₁	L ₂	L ₃	A*	M	P	Effective orifice (mm ²) Nylon (Urethane)	Weight (g)		
4	M5×0.8	KQZ04-M5	8	10.4	9.8	19.5	11	18.5	15	16	10.4	3.4	3.4		
	1/8	KQZ04-01S			13.4	21	14.5	26.5	22.5			4.7	4.7	8	
6	1/8	KQZ06-01S	8	12.8	20.6	25.5	13.4	22	14.5	26.5	22.5	17	12.8	10.8	
	1/4	KQZ06-02S						19.5	35.5	29.5	40				
	3/8	KQZ06-03S	14						20.5	36.5	30				48
8	1/8	KQZ08-01S	12	15.2	17.6	26	15.5	28.5	24.5	18.5	15.2	20.5	14.2		
	1/4	KQZ08-02S						18.5	31.5					25.5	34
	3/8	KQZ08-03S	14						20.5					36.5	30
10	1/4	KQZ10-02S	14	18.5	20.6	29	19.5	35.5	29.5	21	18.5	31.8	22.6		
	3/8	KQZ10-03S						20.5	36.5					30	54
	3/8	KQZ12-03S	17						22					39	32.5
12	1/2	KQZ12-04S	17	20.9	25.2	32.5	25	42	34	22	20.9	44.6	35.3		
													88		

* Reference dimensions after R(PT) thread installation.
Note) ϕD_1 : max. diameter



FOR FURTHER TECHNICAL
DETAILS ON THIS
PRODUCT REQUEST
CATALOGUE REFERENCE
E501-B

SERIES KQ, KQ2 SEALANT COATED THREAD

PRODUCT SELECTOR

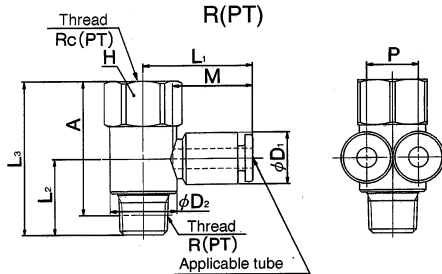
EXAMPLE OF ORDERING

KQZF04-M5 Black Body

KQZF04-M5 White Body

BRANCH UNIVERSAL FEMALE ELBOW: KQZF (KQZF)

Used for branch line in the same direction or at right angle to the male or female thread. Multiplex connection possible.



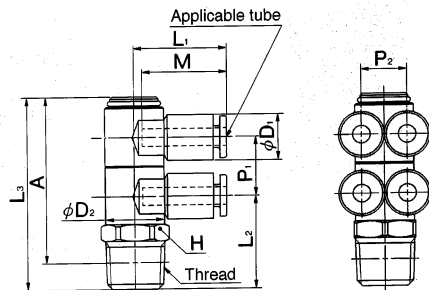
Applicable tube O.D. (mm)	Thread R(PT) Rc(PT)	Part No.	H (Hex)	øD ₁	øD ₂	L ₁	L ₂	L ₃	A*	M	P	Weight (g)
4	M5×0.8	KQZF04-M5	8	10.4	9.8	19.5	11	20	16.5	16	10.4	8
	1/8	KQZF04-01S	14	10.4	13.4	21	15.5	29.5	25.5	17	12.8	22
6	1/8	KQZF06-01S	14	12.8	13.4	22	15.5	29.5	25.5	17	12.8	48
	1/4	KQZF06-02S	19	12.8	20.6	25.5	22	41	35	17	12.8	33
8	1/8	KQZF08-01S	17	15.2	17.6	25.5	17	31	27	18.5	15.2	50
	1/4	KQZF08-02S	19	15.2	20.6	27	22	41	35	18.5	15.2	54
10	3/8	KQZF10-03S	22	18.5	25.2	31.5	24.5	45.5	39	21	18.5	74
	1/2	KQZF10-04S	24	20.9	25.2	32.5	24.5	45.5	39	22	20.9	77
12	3/8	KQZF12-03S	22	20.9	27	33	25	50	42	22	20.9	101
	1/2	KQZF12-04S	24	20.9	27	33	25	50	42	22	20.9	101

*Reference dimensions after R(PT) thread installation.
Note) øD₁: max. diameter

PRODUCT SELECTOR

DOUBLE BRANCH UNIVERSAL MALE ELBOW: KQZD (KQZD)

Used for four branch connection at right angle to the female thread. Two individual parts rotate 360°.



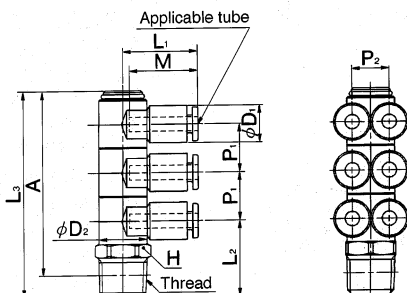
Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex)	øD ₁	øD ₂	L ₁	L ₂	L ₃	A*	M	P ₁	P ₂	Weight (g)
4	1/8	KQZD04-01S	14	10.4	13.4	21	18.5	41	37	16	13.4	10.4	35
	1/4	KQZD04-02S	17	10.4	13.4	21	21.5	44	38	16	13.4	10.4	41
	3/8	KQZD04-03S	17	10.4	13.4	21	23.5	46	40	16	13.4	10.4	54
6	1/8	KQZD06-01S	14	12.8	13.4	22	18.5	41	37	17	13.4	12.8	40
	1/4	KQZD06-02S	19	12.8	13.4	22	21.5	44	38	17	13.4	12.8	45
	3/8	KQZD06-03S	17	12.8	13.4	22	23.5	46	40	17	13.4	12.8	59
8	1/8	KQZD08-01S	17	15.2	17.6	26	21	48	44	18.5	15.9	15.2	78
	1/4	KQZD08-02S	19	15.2	17.6	26	24	51	45	18.5	15.9	15.2	74
	3/8	KQZD08-03S	19	15.2	17.6	26	25	52	45.5	18.5	15.9	15.2	83
10	1/2	KQZD08-04S	21	15.2	17.6	26	28.5	55.5	47.5	18.5	15.9	15.2	104
	1/4	KQZD10-02S	19	18.5	20.6	29	26.5	58	52	21	19.2	18.5	111
	3/8	KQZD10-03S	21	18.5	20.6	29	27.5	59	53	21	19.2	18.5	128
12	1/2	KQZD10-04S	21	18.5	20.6	29	30.5	62	54	21	19.2	18.5	128
	1/4	KQZD12-02S	26	20.9	25.2	32	28.5	64.5	58.5	22	21.6	20.9	178
	3/8	KQZD12-03S	26	20.9	25.2	32	29.5	65.5	59	22	21.6	20.9	167
12	1/2	KQZD12-04S	24	20.9	25.2	32	32.5	68.5	60	22	21.6	20.9	179

*Reference dimensions after R(PT) thread installation.
Note) øD₁: max. diameter

PRODUCT SELECTOR

TRIPLE BRANCH UNIVERSAL MALE ELBOW: KQZT (KQZT)

Used for six branch piping at right angle to the female thread. Three individual parts rotate 360°.



Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex)	øD ₁	øD ₂	L ₁	L ₂	L ₃	A*	M	P ₁	P ₂	Weight (g)
4	1/8	KQZT04-01S	14	10.4	13.4	21	18.5	54.5	50.5	16	13.4	10.4	27
	1/4	KQZT04-02S	17	10.4	13.4	21	21.5	57.5	51.5	16	13.4	10.4	33
	3/8	KQZT04-03S	17	10.4	13.4	21	23.5	59.5	53.5	16	13.4	10.4	46
6	1/8	KQZT06-01S	14	12.8	13.4	22	18.5	54.5	50.5	17	13.4	12.8	30
	1/4	KQZT06-02S	19	12.8	13.4	22	21.5	57.5	51.5	17	13.4	12.8	36
	3/8	KQZT06-03S	17	12.8	13.4	22	23.5	59.5	53.5	17	13.4	12.8	49
8	1/8	KQZT08-01S	17	15.2	17.6	26	21	64	60	18.5	15.9	15.2	59
	1/4	KQZT08-02S	19	15.2	17.6	26	24	67	61	18.5	15.9	15.2	57
	3/8	KQZT08-03S	19	15.2	17.6	26	25	68	61.5	18.5	15.9	15.2	65
10	1/2	KQZT08-04S	21	15.2	17.6	26	28.5	71.5	63.5	18.5	15.9	15.2	88
	1/4	KQZT10-02S	19	18.5	20.6	29	26.5	77.5	71.5	21	19.2	18.5	83
	3/8	KQZT10-03S	21	18.5	20.6	29	27.5	78.5	72	21	19.2	18.5	85
12	1/2	KQZT10-04S	21	18.5	20.6	29	30.5	81.5	73.5	21	19.2	18.5	102
	1/4	KQZT12-02S	26	20.9	25.2	32	28.5	86	80	22	21.6	20.9	134
	3/8	KQZT12-03S	26	20.9	25.2	32	29.5	87	80.5	22	21.6	20.9	130
12	1/2	KQZT12-04S	24	20.9	25.2	32	32.5	90	82	22	21.6	20.9	141

*Reference dimensions after R(PT) thread installation.
Note) øD₁: max. diameter



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FOR FURTHER TECHNICAL DETAILS ON THIS PRODUCT REQUEST CATALOGUE REFERENCE E501-B

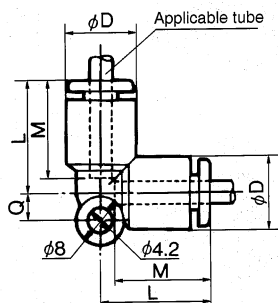
PRODUCT SELECTOR

UNION ELBOW: KQL (KQ2L)
Use to connect tubes at right angle.



EXAMPLE OF ORDERING

KQL23-00 Black Body
KQZL23-00 White Body

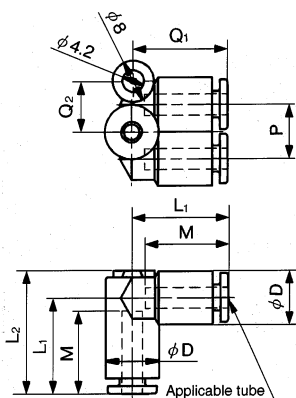


Applicable tube O.D. (mm)	Part No.	øD	L	Q	M	Effective orifice(mm ²)		Weight (g)
						Nylon	Urethane	
3.2	KQL23-00	9.6	17.5	4.3	15.5	3	2.5	3
4	KQL04-00	10.4	18	4.5	16	4.2	4.2	6
6	KQL06-00	12.8	20	5.3	17	11.4	11.4	7
8	KQL08-00	15.2	23	6	18.5	21.6	14.9	11
10	KQL10-00	18.5	26.5	6.8	21	35.2	25.0	17
12	KQL12-00	20.9	28.5	7.5	22	50.2	39.7	21
16	KQL16-00	26.5	34	10	25	100	(84)	29

Note) (): Values for soft nylon.
øD: max. diameter

PRODUCT SELECTOR

BRANCH UNION ELBOW: KQLU (KQ2LU)
Used for branch connection of tubes in right angle.

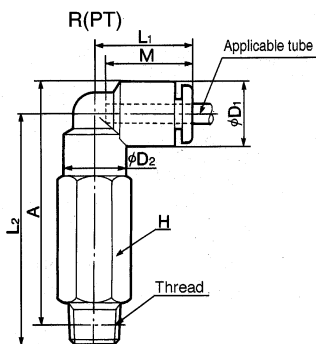


Applicable tube O.D. (mm)	Part No.	øD	L ₁	L ₂	Q ₁	Q ₂	M	P	Effective orifice(mm ²)		Weight (g)
									Nylon	Urethane	
4	KQLU04-00	10.4	18.5	24	18.5	10	16	10.4	6.0	6.0	7
6	KQLU06-00	12.8	21	27.5	20.5	12	17	12.8	13.9	13.9	9
8	KQLU08-00	15.2	24	32	24.5	14	18.5	15.2	26.3	18.2	16
10	KQLU10-00	18.5	27	36.5	28	16	21	18.5	40.8	29.0	25
12	KQLU12-00	20.9	29	40	30	18	22	20.9	57.2	45.2	32

Note) øD: max. diameter

PRODUCT SELECTOR

EXTENDED MALE ELBOW: KQW (KQ2W)
The most appropriate use is when the elbow extends over a standard elbow for ease of connection/ disconnection of tubing.



Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	øD ₁	øD ₂	L ₁	L ₂	A*	M	Effective orifice(mm ²)		Weight (g)			
										Nylon	Urethane				
3.2	M5×0.8	KQW23-M5	8	9.6	8	17.5	30	31	15.5	2.8	2.4	10			
	1/8	KQW23-01S	10										37	38	19
	1/4	KQW23-02S	14										43	42	41
4	M5×0.8	KQW04-M5	8	10.4	8	18	30	32	16	4.0	4.0	11			
	1/8	KQW04-01S	10										37.5	38.5	23
	1/4	KQW04-02S	14										43.5	42.5	38
6	M5×0.8	KQW06-M5	8	12.8	8	20	30.5	33.5	17	10.9	10.9	11			
	1/8	KQW06-01S	10										40	42.5	26
	1/4	KQW06-02S	14										46	46.5	41
8	3/8	KQW06-03S	17	15.2	12	23	48	48	18.5	20.5	14.2	11			
	1/8	KQW08-01S	12										43.5	47	30
	1/4	KQW08-02S	14										49.5	51	47
10	3/8	KQW08-03S	17	18.5	17	26.5	51.5	52.5	21	33.5	23.8	12			
	1/8	KQW10-01S	12										48	48	67
	1/4	KQW10-02S	17										56.5	59.5	66
12	3/8	KQW10-03S	17	20.9	17	28.5	58.5	61	22	47.7	37.7	13			
	1/8	KQW12-01S	12										48	48	67
	1/4	KQW12-02S	17										57.5	62	68
16	3/8	KQW12-03S	22	26.5	20.9	34	66	68.5	25	71	(71)	101			
	1/8	KQW16-01S	12										48	48	67
	1/4	KQW16-04S	22										69.5	76	147
							75	80		100	(84)	105			

* Reference dimensions after R(PT) thread installation.

Note) (): Values for soft nylon.
øD: max. diameter



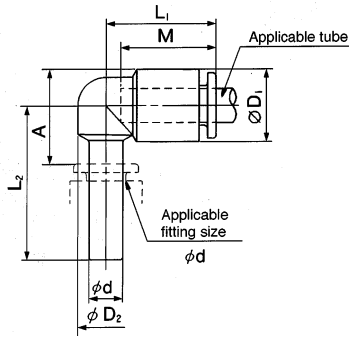
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DETAILS ON THIS
PRODUCT REQUEST
CATALOGUE REFERENCE
E501-B

PRODUCT
SELECTOR

EXAMPLE OF ORDERING
KQL04-99 Black Body
KQ2L04-99 White Body

PLUG-IN ELBOW: KQL (KQ2L)

Use to direct tube at 90° from one-touch fitting of same size.



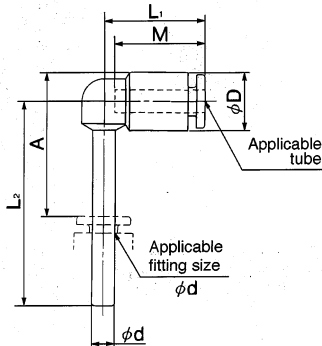
Applicable tube O.D. (mm)	Applicable fitting size ød	Part No.	øD ₁	øD ₂	L ₁	L ₂	A	M	Effective orifice(mm ²)		Weight (g)
									Nylon	Urethane	
3.2	3.2	KQL23-99	9.6	7	17	24.5	14	15.5	3	2.5	2
4	4	KQL04-99	10.4	8	18	25	14.5	16	4.2	4.2	3
6	6	KQL06-99	12.8	10	20	27.5	17	17	11.4	11.4	3
8	8	KQL08-99	15.2	12	22.5	31.5	21	18.5	21.6	14.9	5
10	10	KQL10-99	18.5	14	25.5	35.5	23.5	21	35.2	25.0	9
12	12	KQL12-99	20.9	16	27	37.5	26	22	50.2	39.7	10
16	16	KQL16-99	26.5	20.9	34	53	41	25	100	(84)	42

Note) (): Values for soft nylon.
øD₁: max. diameter

PRODUCT
SELECTOR

EXTENDED PLUG-IN ELBOW: KQW (KQ2W)

The most appropriate use is when the elbow extends over a standard elbow for ease of connection/disconnection of tubing.



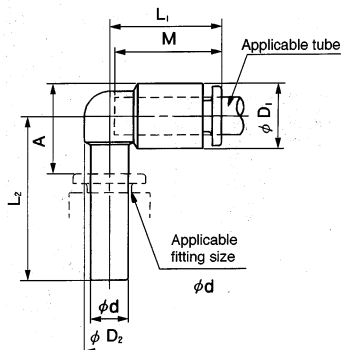
Applicable tube O.D. (mm)	Applicable fitting size ød	Part No.	øD	L ₁	L ₂	A	M	Effective orifice(mm ²)		Weight (g)
								Nylon	Urethane	
3.2	3.2	KQW23-99	9.6	17.5	35	24.5	15.5	3	2.5	2
4	4	KQW04-99	10.4	18	37	26	16	4.2	4.2	3
6	6	KQW06-99	12.8	20	41.5	31	17	11.4	11.4	4
8	8	KQW08-99	15.2	22.5	48	37	18.5	21.6	14.9	6
10	10	KQW10-99	18.5	25.5	55	43.5	21	35.2	25.0	9
12	12	KQW12-99	20.9	27	58.5	48	22	50.2	39.7	13

Note) øD: max. diameter

PRODUCT
SELECTOR

REDUCER ELBOW: KQL (KQ2L)

Use to direct smaller size tubing at 90° from one touch fitting.



Applicable tube O.D. (mm)	Applicable fitting size ød	Part No.	øD ₁	øD ₂	L ₁	L ₂	A	M	Effective orifice(mm ²)		Weight (g)
									Nylon	Urethane	
3.2	4	KQL23-04	9.6	7	17	25	13.5	15.5	3	2.5	2
4	6	KQL04-06	10.4	8	18	26	14.5	16	4.2	4.2	3
	8	KQL04-08									
6	8	KQL06-08	12.8	10	20	36.5	24.5	17	11.4	11.4	12
	10	KQL06-10									
8	10	KQL08-10	15.2	12	23	39.5	26	18.5	21.6	14.9	20
	12	KQL08-12									
10	12	KQL10-12	18.5	17	26.5	42	30	21	35.2	25.0	29
12	16	KQL12-16	20.9	17	28.5	49.5	34.5	22	50.2	39.7	53

Note) øD₁: max. diameter



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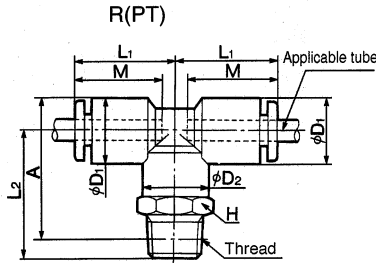
PRODUCT SELECTOR

EXAMPLE OF ORDERING

KQT23-M5 Black Body
KQ2T23-M5 White Body

BRANCH TEE: KQT (KQ2T)

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



Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	øD ₁	øD ₂	L ₁	L ₂	A*	M	Effective orifice(mm ²)		Weight (g)
										Nylon	Urethane	
3.2	M5×0.8	KQT23-M5	7	8.4	—	15.3	13.2	14.3	12.7	3.4	2.9	3.2
	1/8	KQT23-01S	10	9.6	10	17.5	21.5	22.5	15.5			10
	1/4	KQT23-02S	14	—	—	—	25.5	24.5	—			20
4	M5×0.8	KQT04-M5	7	9.3	—	15.6	13.7	15.3	12.7	6.0	6.0	3.5
	M6×1.0	KQT04-M6	8	—	8	—	16	17	—			6
	1/8	KQT04-01S	10	10.4	10	18	22	23	16			13
	1/4	KQT04-02S	14	—	—	—	26	25	—			19
6	M5×0.8	KQT06-M5	7	11.6	—	16.1	14.7	17.4	13.5	13.9	13.9	4.4
	M6×1.0	KQT06-M6	8	12.8	8	20	16.5	18.5	—			8
	1/8	KQT06-01S	10	—	—	—	23	25.5	17			13
	1/4	KQT06-02S	14	12.8	10	20	27	27.5	—			21
	3/8	KQT06-03S	17	—	—	—	29	29	—			35
8	1/8	KQT08-01S	12	—	—	—	24.5	28	—	15		
	1/4	KQT08-02S	14	15.2	12	23	28.5	30	18.5	26.3	18.2	23
	3/8	KQT08-03S	17	—	—	—	30.5	31.5	—	37		
10	1/8	KQT10-01S	—	—	—	—	27	32	—	31		
	1/4	KQT10-02S	17	18.5	17	26.5	30	33	21	40.8	29.0	29
	3/8	KQT10-03S	—	—	—	—	32	34.5	—	39		
	1/2	KQT10-04S	22	—	—	—	36	37	—	66		
12	1/4	KQT12-02S	17	—	—	—	31	35.5	—	31		
	3/8	KQT12-03S	—	20.9	17	28.5	33	37	22	57.2	45.2	41
16	1/2	KQT12-04S	22	—	—	—	37	39.5	—	68		
	3/8	KQT16-03S	—	26.5	20.9	34	38	44.5	25	71	(71)	112
	1/2	KQT16-04S	—	—	—	—	40.5	46	—	100	(100)	116

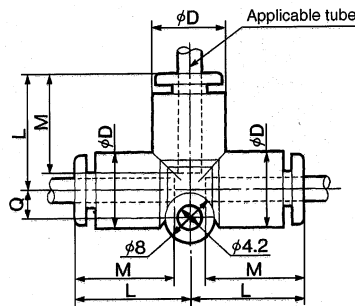
* Reference dimensions after R(PT) thread installation.
Note) () : Values for soft nylon.
øD₁: max. diameter

Fittings & Tubing

PRODUCT SELECTOR

UNION TEE: KQT (KQ2T)

Use to branch connect tube to three 90° directions.



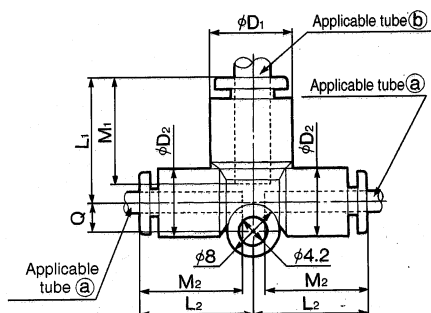
Applicable tube O.D. (mm)	Part No.	øD	L	Q	M	Effective orifice(mm ²)		Weight (g)
						Nylon	Urethane	
3.2	KQT23-00	9.6	17.5	4.3	15.5	3.4	2.9	5
4	KQT04-00	10.4	18	4.5	16	6.4	6.4	8
6	KQT06-00	12.8	20	5.3	17	13.4	13.4	11
8	KQT08-00	15.2	23	6	18.5	25.6	17.7	16
10	KQT10-00	18.5	26.5	6.8	21	40	28.4	25
12	KQT12-00	20.9	28.5	7.5	22	57.4	45.4	29
16	KQT16-00	26.5	34	10	25	100	(84)	40

Note) () : Values for soft nylon.
øD: max. diameter

PRODUCT SELECTOR

DIFFERENT DIA. TEE: KQT (KQ2T)

Use to branch connect tubes with smaller tubes at 90° to larger dimension tube.



Applicable tube O.D. (mm)	Part No.	øD ₁	øD ₂	L ₁	L ₂	Q	M ₁	M ₂	Effective orifice(mm ²)		Weight (g)
									Nylon	Urethane	
3.2	4 KQT23-04	10.4	9.6	18	17.5	4.3	16	15.5	3.8	3.5	5
4	6 KQT04-06	12.8	10.4	19.5	18	4.5	17	16	7.1	6.5	6
6	8 KQT06-08	15.2	12.8	22.5	20	5.3	18.5	17	16.4	16.4	9
8	10 KQT08-10	18.5	15.2	26.5	23	6	21	18.5	36	27.2	14
10	12 KQT10-12	20.9	18.5	28.5	26.5	6.8	22	21	56	44.5	21
12	16 KQT12-16	26.5	26.5	34	39	10	25	22	108.5	92.2	88

Note) øD₁: max. diameter



FOR FURTHER TECHNICAL DETAILS ON THIS PRODUCT REQUEST CATALOGUE REFERENCE E501-B

SERIES KQ, KQ2 SEALANT COATED THREAD

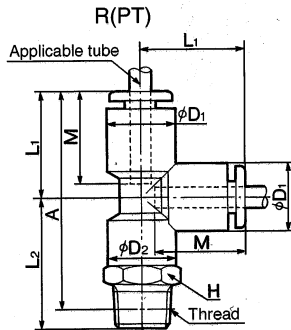
PRODUCT SELECTOR

EXAMPLE OF ORDERING

KQY04-M5 Black Body
KQ2Y04-M5 White Body

MALE RUN TEE: KQY (KQ2Y)

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



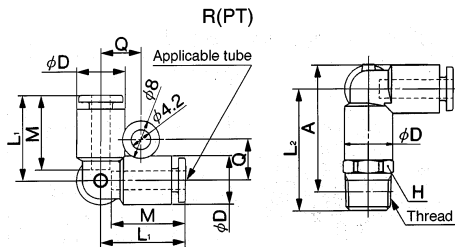
Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	øD ₁	øD ₂	L ₁	L ₂	L ₃	A*	M	Effective orifice (mm ²)		Weight (g)
											Nylon	Urethane	
3.2	M5×0.8	KQY23-M5	7	8.4	—	15.4	13.2	14.8	24.9	12.7	—	—	3.2
	1/4	KQY23-01S	10	9.6	10	17.5	21.5	—	35	15.5	3.4	2.9	10
4	M5×0.8	KQY04-M5	7	9.3	—	15.6	13.7	14.8	25.4	12.7	—	—	3.5
	1/4	KQY04-01S	10	10.4	8	18.5	16	—	30	16	6.4	6.4	13
6	M5×0.8	KQY06-M5	7	11.6	—	17.1	14.7	17.1	28.7	13.5	—	—	4.5
	1/4	KQY06-01S	10	12.8	10	20	23	—	39	17	13.4	13.4	13
8	M5×0.8	KQY08-M5	7	11.6	—	17.1	14.7	17.1	28.7	13.5	—	—	4.5
	1/4	KQY08-01S	10	12.8	10	20	23	—	39	17	13.4	13.4	13
10	M5×0.8	KQY10-M5	7	11.6	—	17.1	14.7	17.1	28.7	13.5	—	—	4.5
	1/4	KQY10-01S	10	12.8	10	20	23	—	39	17	13.4	13.4	13
12	M5×0.8	KQY12-M5	7	11.6	—	17.1	14.7	17.1	28.7	13.5	—	—	4.5
	1/4	KQY12-01S	10	12.8	10	20	23	—	39	17	13.4	13.4	13
16	M5×0.8	KQY16-M5	7	11.6	—	17.1	14.7	17.1	28.7	13.5	—	—	4.5
	1/4	KQY16-01S	10	12.8	10	20	23	—	39	17	13.4	13.4	13

*Reference dimensions after R(PT) thread installation.
Note) () : Values for soft nylon.
øD₁: max. diameter

PRODUCT SELECTOR

DELTA UNION: KQD (KQ2D)

Used for two branch piping in the right angle from the female/thread.



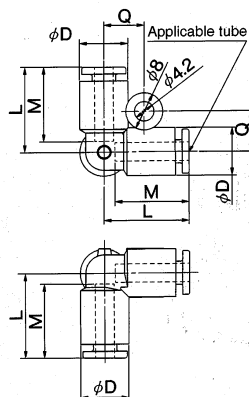
Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	øD	L ₁	L ₂	A*	M	Q	Effective orifice (mm ²)		Weight (g)
										Nylon	Urethane	
4	M5×0.8	KQD04-M5	7	10.4	18.5	24	25.5	—	—	2.2	2.2	10
	1/4	KQD04-01S	10	10.4	18.5	24.5	26.5	—	—	4.3	4.3	12
6	M5×0.8	KQD06-M5	7	11.6	20.5	26.5	27.5	—	—	6.0	6.0	13
	1/4	KQD06-01S	10	11.6	20.5	26.5	27.5	—	—	13.9	13.9	15
8	M5×0.8	KQD08-M5	7	11.6	20.5	26.5	27.5	—	—	13.9	13.9	15
	1/4	KQD08-01S	10	11.6	20.5	26.5	27.5	—	—	13.9	13.9	15
10	M5×0.8	KQD10-M5	7	11.6	20.5	26.5	27.5	—	—	13.9	13.9	15
	1/4	KQD10-01S	10	11.6	20.5	26.5	27.5	—	—	13.9	13.9	15
12	M5×0.8	KQD12-M5	7	11.6	20.5	26.5	27.5	—	—	13.9	13.9	15
	1/4	KQD12-01S	10	11.6	20.5	26.5	27.5	—	—	13.9	13.9	15

*Reference dimensions after R(PT) thread installation.
Note) øD: max. diameter

PRODUCT SELECTOR

DELTA: KQD (KQ2D)

Used for three branch connection of tubes in the right angle.



Applicable tube O.D. (mm)	Part No.	øD	L	Q	M	Effective orifice (mm ²)		Weight (g)
						Nylon	Urethane	
4	KQD04-00	10.4	18.5	8.7	16	6.0	6.0	6
6	KQD06-00	12.8	20.5	9.9	17	13.9	13.9	8
8	KQD08-00	15.2	23.5	11.1	18.5	26.3	18.2	12
10	KQD10-00	18.5	26.5	12.8	21	40.8	29.0	19
12	KQD12-00	20.9	28.5	13.9	22	57.2	45.2	24

Note) øD: max. diameter



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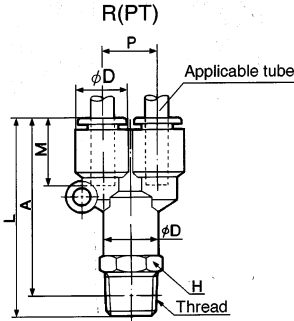
PRODUCT
 SELECTOR

EXAMPLE OF ORDERING

KQU04-M5 Black Body
 KQ2U04-M5 White Body

BRANCH "Y": KQU (KQ2U)

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



Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	øD	L	P	A*	M	Effective orifice (mm ²)		Weight (g)
									Nylon	Urethane	
3.2	M5×0.8	KQU23-M5	10	9.6	38	9.6	34.5	15.5	2.2	2.2	9
	1/8	KQU23-01S	11		41		37		3.4	2.9	14
	1/4	KQU23-02S	14		44		38				
4	M5×0.8	KQU04-M5	11	10.4	39.5	10.4	36	16	2.2	2.2	4
	1/8	KQU04-M6			40		38		4.2	4.2	11
	1/4	KQU04-01S			42		38				
	1/4	KQU04-02S			46		40				
6	M5×0.8	KQU06-M5	13	12.8	42.5	12.8	39	17	2.2	2.2	13
	M6×1.0	KQU06-M6			43		41.5				
	1/8	KQU06-01S			45.5		43		13.4	13.4	22
	1/4	KQU06-02S			49		43				
	3/8	KQU06-03S			51		44.5				
8	1/8	KQU08-01S	17	15.2	52.5	15.2	48.5	18.5	25.6	17.7	16
	1/4	KQU08-02S			55.5		49.5		24		
	3/8	KQU08-03S			56.5		50		36		
	1/2	KQU08-04S			61		55		30		
10	3/8	KQU10-02S	19	18.5	62	18.5	55.5	21	40	28.4	40
	1/2	KQU10-03S			65		57		65		
	3/4	KQU10-04S			65		57		65		
12	1/2	KQU12-02S	22	20.9	64.5	20.9	58.5	22	57.4	45.4	32
	3/4	KQU12-03S			65.5		60.5		40		
	1	KQU12-04S			68.5		60.5		65		
16	3/4	KQU16-03S	27	26.5	76	26.5	69.5	25	81	(81)	106
	1	KQU16-04S			79		71		113	(113)	111

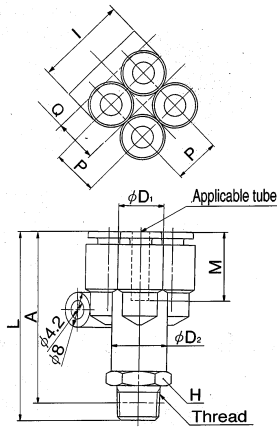
* Reference dimensions after R(PT) thread installation.
 Note () : Values for soft nylon.
 øD: max. diameter

Fittings & Tubing

PRODUCT
 SELECTOR

DELTA BRANCH: KQUD (KQ2UD)

Used for four branch piping in the same direction from the female thread.



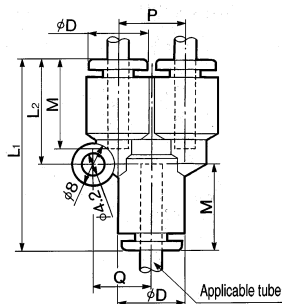
Applicable tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	øD ₁	øD ₂	L	I	A*	Q	M	P	Effective orifice (mm ²)		Weight (g)
												Nylon	Urethane	
4	1/8	KQUD04-01S	13	10.4	12.8	43.5	21	39.5	9.7	16	10.4	4.2	4.2	18
	1/4	KQUD04-02S	14			47		41						26
6	1/8	KQUD06-01S	17	12.8	15.2	50.5	26	46.5	11.7	17	12.8	13.4	13.4	31
	1/4	KQUD06-02S				53.5		47.5						

* Reference dimensions after R(PT) thread installation.
 Note) øD: max. diameter

PRODUCT
 SELECTOR

UNION "Y": KQU (KQ2U)

Use to branch connect tubes in the same direction.



Applicable tube O.D. (mm)	Part No.	øD	L ₁	L ₂	P	Q	M	Effective orifice (mm ²)		Weight (g)
								Nylon	Urethane	
3.2	KQU23-00	9.6	33	17.5	9.6	9	15.5	3.4	2.9	5
4	KQU04-00	10.4	34	18	10.4	9.7	16	4.2	4.2	8
6	KQU06-00	12.8	37	20	12.8	11.7	17	13.4	13.4	10
8	KQU08-00	15.2	42.5	24.5	15.2	13.7	18.5	25.6	17.7	12
10	KQU10-00	18.5	48	27.5	18.5	16.1	21	40	28.4	16
12	KQU12-00	20.9	51	30	20.9	18.1	22	57.4	45.4	23
16	KQU16-00	26.5	61.5	36.5	26.5	23	25	113	(113)	54

Note) () : Values for soft nylon.
 øD: max. diameter



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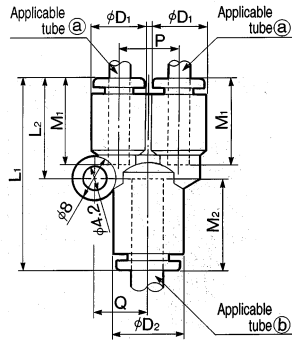
PRODUCT
SELECTOR

EXAMPLE OF ORDERING

KQU04-06 Black Body
KQ2U04-06 White Body

DIFFERENT DIA. UNION "Y": KQU (KQ2U)

Use to branch connect tubes with size down in the same direction.



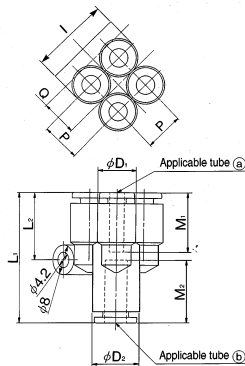
Applicable tube O.D. (mm)		Part No.	øD ₁	øD ₂	L ₁	L ₂	P	Q	M ₁	M ₂	Effective orifice (mm ²)		Weight (g)
(a)	(b)										Nylon	Urethane	
3.2	4	KQU23-04	9.6	10.4	33.5	17.5	9.6	9	15.5	16	3.2	2.7	5
4	6	KQU04-06	10.4	12.8	35	18	10.4	9.7	16	17	4.2	4.2	7
6	8	KQU06-08	12.8	15.2	39.5	20	12.8	11.7	17	18.5	13.4	13.4	12
8	10	KQU08-10	15.2	18.5	45	24.5	15.2	13.7	18.5	21	25.6	17.7	19
10	12	KQU10-12	18.5	20.9	49	27.5	18.5	16.1	21	22	40	28.4	27
12	16	KQU12-16	26.5	26.5	66.5	41.5	26.5	23	22	25	57.4	45.4	100

Note) øD₁, øD₂: max. diameter

PRODUCT
SELECTOR

DIFFERENT DIA. DOUBLE UNION "Y": KQUD (KQ2UD)

Used to four branch connect tubes in the same direction reducing the size of the tubes.



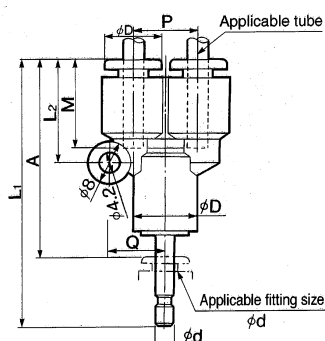
Applicable tube O.D. (mm)		Part No.	øD ₁	øD ₂	L ₁	L ₂	P	I	Q	M ₁	M ₂	Effective orifice (mm ²)		Weight (g)
(a)	(b)											Nylon	Urethane	
4	6	KQUD04-06	10.4	12.8	35.5	18.2	10.4	21	9.7	16	17	4.2	4.2	11
6	8	KQUD06-08	12.8	15.2	40.5	20.3	12.8	26	11.7	17	18.5	13.4	13.4	19

Note) øD₁, øD₂: max. diameter

PRODUCT
SELECTOR

PLUG-IN "Y": KQU (KQ2U)

Use to branch connect tubing in the same direction from a one touch fitting.



Applicable tube O.D. (mm)	Applicable fitting size ød	Part No.	øD	L ₁	L ₂	P	Q	A	M	Effective orifice (mm ²)		Weight (g)
										Nylon	Urethane	
3.2	3.2	KQU23-99	9.6	50	17.5	9.6	9	35	15.5	3.4	2.9	6
4	4	KQU04-99	10.4	51.5	18	10.4	9.7	35.5	16	4.2	4.2	12
6	6	KQU06-99	12.8	55.5	20	12.8	11.7	38.5	17	13.4	13.4	19
8	8	KQU08-99	15.2	64.5	24.5	15.2	13.7	46	18.5	25.6	17.7	22
10	10	KQU10-99	18.5	71.5	27.5	18.5	16.1	50.5	21	40	28.4	26
12	12	KQU12-99	20.9	75.5	30	20.9	18.1	53.5	22	57.4	45.4	32
16	16	KQU16-99	26.5	90	36.5	26.5	23	65	25	113	(113)	78

Note) (): Values for soft nylon.
øD: max. diameter



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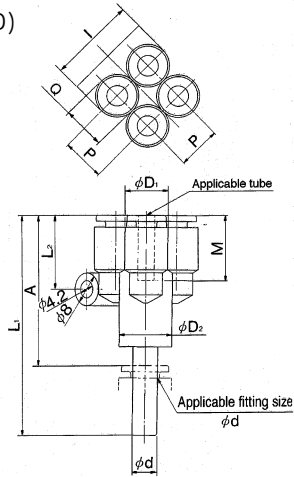
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CATALOGUE REFERENCE
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PRODUCT
SELECTOR

EXAMPLE OF ORDERING

KQXD04-06 Black Body
KQ2XD04-06 White Body

DOUBLE PLUG-IN "Y": KQXD (KQ2XD)
Used for four branch connection from the f fitting.

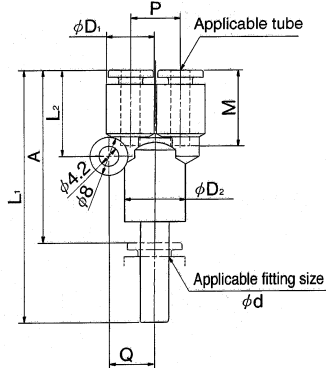


Applicable tube O.D. (mm)	Applicable fitting size ød	Part No.	øD ₁	øD ₂	L ₁	L ₂	I	Q	A	P	M	Effective orifice(mm ²)		Weight (g)
												Nylon	Urethane	
4	6	KQXD04-06	10.4	12.8	54	18.2	21	9.7	37	10.4	16	4.2	4.2	11
6	8	KQXD06-08	12.8	15.2	62.5	20.3	26	11.7	44	12.8	17	13.4	13.4	25

Note) øD₁: max. diameter

PRODUCT
SELECTOR

DIFFERENT DIA. PLUG-IN "Y": KQX (KQ2X)
Used for branch connection from the fitting reducing the size of tubes.

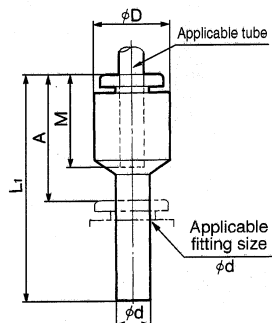


Applicable tube O.D. (mm)	Applicable fitting size ød	Part No.	øD ₁	øD ₂	L ₁	L ₂	A	P	Q	M	Effective orifice(mm ²)		Weight (g)
											Nylon	Urethane	
4	6	KQX04-06	10.4	12.8	53.5	18.5	36.5	10.4	9.7	16	4.2	4.2	7
6	8	KQX06-08	12.8	15.2	61.5	20.5	43	12.8	11.7	17	13.4	13.4	19
8	10	KQX08-10	15.2	18.5	68.5	24.5	47.5	15.2	13.7	18.5	25.6	17.7	29
10	12	KQX10-12	18.5	20.9	73.5	27.5	51.5	18.5	16.1	21	40	28.4	42

Note) øD₁: max. diameter

PRODUCT
SELECTOR

PLUG-IN REDUCER: KQR (KQ2R)
Use to change size of One-touch fittings.



Applicable tube O.D. (mm)	Applicable fitting size ød	Part No.	øD	L	A	M	Effective orifice(mm ²)		Weight (g)
							Nylon	Urethane	
3.2	4	KQR23-04	9.6	33.5	18.5	15.5	3.4	2.9	2
	6	KQR04-06	10.4	34.5	17.5	16	5.6	5.6	2.1
4	8	KQR04-08	12.8	36.5	18	16	5.6	5.6	2.3
	10	KQR04-10	12.8	39.5	18.5	17	13.1	13.1	3.6
	4	KQR06-04	12.8	37	21	17	4	4	3
6	8	KQR06-08	12.8	37	18.5	17	13.1	13.1	3
	10	KQR06-10	12.8	39.5	18.5	17	13.1	13.1	3.5
	12	KQR06-12	15.2	42	20	17	13.1	13.1	5.2
8	10	KQR08-10	15.2	41	20	18.5	26.1	18.0	4.5
	12	KQR08-12	15.2	42	20	18.5	26.1	18.0	5.1
10	12	KQR10-12	17	42	20	21	41.5	32.8	33
	16	KQR10-16	20.9	50.5	25.5	21	41.5	(29.5)	47
12	16	KQR12-16	20.9	50.5	25.5	22	58.3	(46.1)	32

Note) (): Values for soft nylon.
øD: max. diameter



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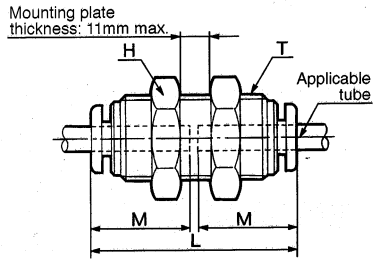
PRODUCT
SELECTOR

EXAMPLE OF ORDERING

KQE04-00 Black Body
KQ2E04-00 White Body

BULKHEAD UNION: KQE (KQ2E)

Used to connect two tubes through a panel.



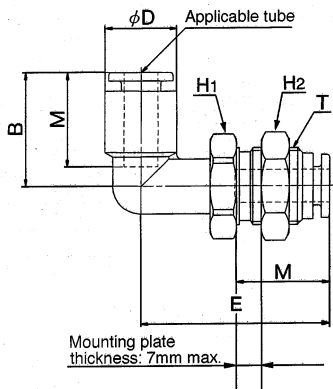
Applicable tube O.D. (mm)	Part No.	T (M)	H (Hex.)	L	Mounting hole	M	Effective orifice(mm ²)		Weight (g)
							Nylon	Urethane	
3.2	KQE23-00	M12×1	14	31.5	13	15.5	3.4	2.9	26
4	KQE04-00	M12×1	14	32.5	13	16	5.6	5.6	26
6	KQE06-00	M14×1	17	34.5	15	17	13.1	13.1	33
8	KQE08-00	M16×1	19	38	17	18.5	26.1	18.0	52
10	KQE10-00	M20×1	24	42.5	21	21	41.5	29.5	70
12	KQE12-00	M22×1	27	44	23	22	58.3	46.1	90
16	KQE16-00	M28×1.5	32	51	29	25	113	(96)	115

Note) (): Values for soft nylon.

PRODUCT
SELECTOR

BULKHEAD MALE ELBOW: KQLE (KQ2LE)

Used to connect two tubes through a panel changing direction of tube by 90°.



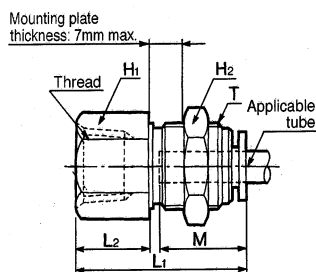
Applicable tube O.D. (mm)	Part No.	T	H ₁ (Hex.)	H ₂ (Hex.)	B	E	øD	Mounting hole	M	Effective orifice(mm ²)		Weight (g)
										Nylon	Urethane	
4	KQLE04-00	M12×1	14	14	18.5	31	10.4	13	16	4.2	4.2	18
6	KQLE06-00	M14×1	17	17	20.5	34	12.8	15	17	11.4	11.4	25
8	KQLE08-00	M16×1	17	19	23.5	38.5	15.2	17	18.5	21.6	14.9	33
10	KQLE10-00	M20×1	22	24	26.5	43.5	18.5	21	21	35.2	25.0	63
12	KQLE12-00	M22×1	24	27	28.5	45.5	20.9	23	22	50.2	39.7	77

Note) øD: max. diameter

PRODUCT
SELECTOR

BULKHEAD CONNECTOR: KQE (KQ2E)

The best use is for connection of a gauge through a panel.



Applicable tube O.D. (mm)	Thread Rc(PT)	Part No.	T (M)	H ₁ (Hex.)	H ₂ (Hex.)	L ₁	L ₂	Mounting hole	M	Effective orifice(mm ²)		Weight (g)
										Nylon	Urethane	
3.2	1/4	KQE23-02	M12×1	17	14	31.5	15	13	15.5	3.4	2.9	13
4	1/8	KQE04-01	M12×1	14	14	27.5	11	13	16	5.6	5.6	16
	1/4	KQE04-02										
6	1/8	KQE06-01	M14×1	17	17	28	11	15	17	13.1	13.1	25
	1/4	KQE06-02										
8	3/8	KQE08-03	M16×1	19	19	33.5	17	17	18.5	26.1	18.0	29
	1/8	KQE08-01										
10	1/4	KQE08-02	M16×1	19	19	33	13	17	18.5	26.1	18.0	27
	3/8	KQE08-03										
12	1/8	KQE10-01	M20×1	22	24	34.5	12.5	21	21	41.5	29.5	53
	3/8	KQE10-03										
16	3/8	KQE12-03	M22×1	24	27	37	14	23	22	58.3	46.1	92
	1/2	KQE12-04										
16	3/8	KQE16-03	M28×1.5	30	32	40	14	29	25	96	(96)	127
	1/2	KQE16-04										

Note) (): Values for soft nylon.



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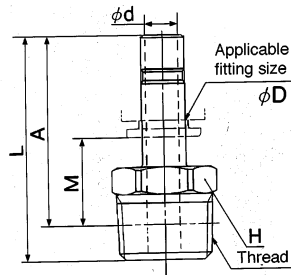
PRODUCT
SELECTOR

EXAMPLE OF ORDERING

KQN04-015 Black Body
KQ2N04-015 White Body

ADAPTOR: KQN (KQ2N)

Used to connect the fitting and R(PT) female thread.

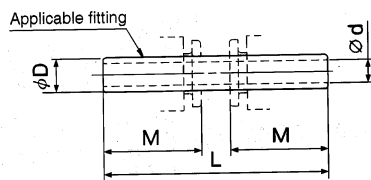


Applicable fitting size øD	Thread R(PT)	Part No.	H (Hex.)	L	A	M	ød	Weight (g)
4	M5 × 0.8	KQN04-M5	7	32	29	13	2.5	2
	1/8	KQN04-01S	10	34	30	14		6
6	M5 × 0.8	KQN06-M5	7	33	30	13	2.5	2
	1/8	KQN06-01S	10	35	31	14		5
	1/4	KQN06-02S	14	37.5	31.5	14.5		14
8	1/4	KQN08-02S	14	39	33	14.5	6	17
	3/8	KQN08-03S	17	41	34.5	16		30
10	3/8	KQN10-03S	17	46	39.5	18.5	7.5	31

PRODUCT
SELECTOR

NIPPLE: KQN (KQ2N)

Used for connection of two One-touch fittings.

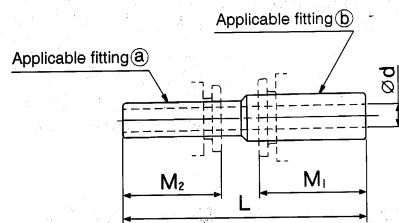


Applicable fitting øD	Part No.	L	M	ød	Weight (g)
4	KQN04-99	37	16	2.5	1
6	KQN06-99	39	17	4	2
8	KQN08-99	43	18.5	6	2
10	KQN10-99	49	21	7.5	4
12	KQN12-99	52	22	9	20.6
16	KQN16-99	57	25	13	31

PRODUCT
SELECTOR

REDUCER NIPPLE: KQN (KQ2N)

Used for connection of two One-touch fitting that are different tube O.D.s.

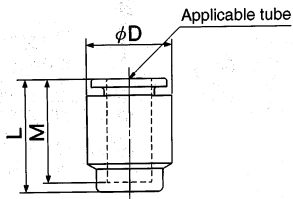


Applicable fitting		Part No.	L	M ₁	M ₂	ød	Weight (g)
①	②						
4	6	KQN04-06	38	17	16	2.5	2
6	8	KQN06-08	42	18.5	17	4	2
8	10	KQN08-10	47	21	18.5	6	13.2
10	12	KQN10-12	51	22	21	8	18.2
12	16	KQN12-16	55	25	22	9	29



PRODUCT
SELECTOR

TUBE CAP: KQC (KQ2C)
Used to plug the unused tube.

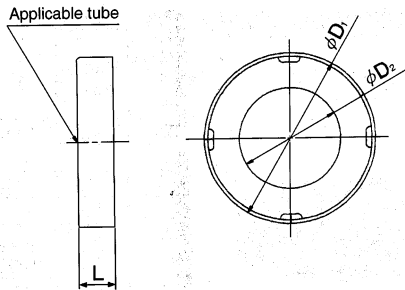


Applicable tube O.D. (mm)	Part No.	øD	L	M	Weight (g)
4	KQC04-00	10.4	17	16	3
6	KQC06-00	12.8	18.5	17	3
8	KQC08-00	15.2	20.5	18.5	4
10	KQC10-00	18.5	23	21	6
12	KQC12-00	20.9	24	22	8
16	KQC16-00	26.5	28	25	13

Note) øD: max. diameter

PRODUCT
SELECTOR

COLOUR CAP: KQC
Mounted on the release button corresponding to its applications. Distinguished by colour.



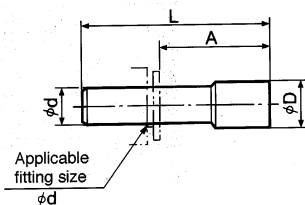
Applicable tube O.D. (mm)	Part No.	øD ₁	øD ₂	L	Weight (g)
4	KQC-04	10.1	5.2	2.9	0.1
6	KQC-06	12.1	7.2		0.1
8	KQC-08	14.1	9.2		0.1
10	KQC-10	17.1	11.2		0.2
12	KQC-12	19.1	13.2		0.2
16	KQC-16	26.3	17.2		3.9

■ → B(black), R(red), YR(orange), BR(brown), Y(yellow), G(green), CB(sky blue), GR(gray), W(white)

NOTE: Colour caps are now also available for KQ fittings of M5 and M6 sizes - contact your SMC Regional Centre for further information.
-ref Prod. Update issue 83.

PRODUCT
SELECTOR

PLUG: KQP (KQ2P)
Use to shut unused One-touch fittings.



Applicable fitting size ød	Part No.	øD	L	A	Weight (g)
3.2	KQP-23	5	31.5	16	1
4	KQP-04	6	32	16	1
6	KQP-06	8	35	18	1
8	KQP-08	10	39	20.5	2
10	KQP-10	12	43	22	3.5
12	KQP-12	14	45.5	24	5
16	KQP-16	20.9	47	22	8



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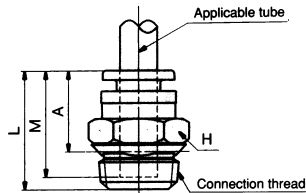
PRODUCT
SELECTOR

EXAMPLE OF ORDERING

- KQH04-U01 Black Body
- KQ2H04-U01 White Body

MALE CONNECTOR : KQH (KQ2H)

Use to pipe in the same direction from female threaded portion. Most general type.

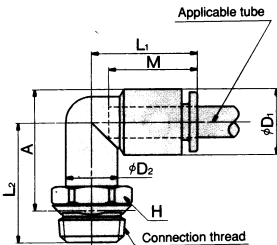


Applicable tube O.D (mm)	Connection thread	Model	H (width across flats)	L	A	M	Effective orifice (mm ²)
4	M5	KQH04-M5	8	17	14	13	4
4	1/8"	KQH04-U01	10	18.5	14.5	16	5.6
4	1/8"	KQH04-U02	14	18	12	16	5.6
6	M5	KQH06-M5	10	18.5	15	14	4
6	1/8"	KQH06-U01	12	19.5	15.5	17	13.1
6	1/8"	KQH06-U02	14	19.5	13	17	13.1
6	1/8"	KQH06-U03	17	18.5	12.5	17	13.1
8	1/8"	KQH08-U01	14	25	21	18.5	26.1
8	1/8"	KQH08-U02	14	21.5	15.5	18.5	26.1
8	1/8"	KQH08-U03	17	21	15	18.5	26.1
10	1/8"	KQH10-U01	17	28	23	21	41.5
10	1/8"	KQH10-U02	17	28	22	21	41.5
10	1/8"	KQH10-U03	17	24	18	21	41.5
10	1/8"	KQH10-U04	22	22	14	21	41.5
12	1/8"	KQH12-U02	19	30.5	24.5	22	58.3
12	1/8"	KQH12-U03	19	25.5	19.5	22	58.3
12	1/8"	KQH12-U04	22	24.5	16.5	22	58.3
16	1/8"	KQH16-U03	24	33.5	27.5	24	81
16	1/8"	KQH16-U04	24	28.5	20.5	24	113

PRODUCT
SELECTOR

MALE ELBOW : KQL (KQ2L)

Use to pipe in right angle to female threaded portion. Most general type.

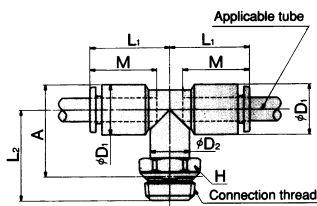


Applicable tube O.Dmm	Connection thread	Model	Dia D1	Dia D2	L1	L2	A	M	Effective orifice (mm ²) Nylon
4	M5x0.8	KQL04-M5	9.5		16	13.5	15	13	3.5
4	1/8"	KQL04-U01	10.4	10	18	20	21.5	16	4.2
4	1/8"	KQL04-U02	10.4	10	18	22	21.5	16	4.2
6	M5x0.8	KQL06-M5	11.5		16	14.5	17	14	3.5
6	1/8"	KQL06-U01	12.8	10	20	21.5	23.5	17	11.4
6	1/8"	KQL06-U02	12.8	10	20	23	23.5	17	11.4
6	1/8"	KQL06-U03	12.8	10	20	24	23.5	17	11.4
8	1/8"	KQL08-U01	15.2	12	23	22.5	26	18.5	21.6
8	1/8"	KQL08-U02	15.2	12	23	24.5	26	18.5	21.6
8	1/8"	KQL08-U03	15.2	12	23	25.5	27	18.5	21.6
10	1/8"	KQL10-U01	18.5	17	26.5	25	29.5	21	21.6
10	1/8"	KQL10-U02	18.5	17	26.5	26.5	30	21	35.2
10	1/8"	KQL10-U03	18.5	17	26.5	27	30.5	21	35.2
10	1/8"	KQL10-U04	18.5	17	26.5	30	31.5	21	35.2
12	1/8"	KQL12-U02	20.9	17	28.5	27	31.5	22	50.2
12	1/8"	KQL12-U03	20.9	17	28.5	28	32.5	22	50.2
12	1/8"	KQL12-U04	20.9	17	28.5	31	33.5	22	50.2
16	1/8"	KQL16-U03	26.5	21	33	40.5	33	24	71
16	1/8"	KQL16-U04	26.5	21	33	40.5	35	24	100

PRODUCT
SELECTOR

BRANCH TEE : KQT (KQ2T)

Use to branch line from female thread to both sides at 90° direction.

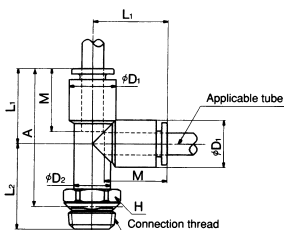


Applicable tube O.Dmm	Connection thread	Model	Dia D1	Dia D2	L1	L2	A	M	Effective orifice (mm ²) Nylon
4	M5x0.8	KQT04-M5	9.5		15.5	14	15.5	13	4.5
4	1/8"	KQT04-U01	10.4	10	18	20	21.5	16	6.0
4	1/8"	KQT04-U02	10.4	10	18	22	21.5	16	6.0
6	M5x0.8	KQT06-M5	11.5		16	15	17.5	14	4.5
6	1/8"	KQT06-U01	12.8	10	20	21.5	23.5	17	13.9
6	1/8"	KQT06-U02	12.8	10	20	23	23.5	17	13.9
6	1/8"	KQT06-U03	12.8	10	20	24	23.5	17	13.9
8	1/8"	KQT08-U01	15.2	12	23	22.5	26	18.5	26.3
8	1/8"	KQT08-U02	15.2	12	23	24.5	26	18.5	26.3
8	1/8"	KQT08-U03	15.2	12	23	25.5	27	18.5	26.3
10	1/8"	KQT10-U01	18.5	17	26.5	25	29.5	21	40.8
10	1/8"	KQT10-U02	18.5	17	26.5	26.5	30	21	40.8
10	1/8"	KQT10-U03	18.5	17	26.5	27	30.5	21	40.8
10	1/8"	KQT10-U04	18.5	17	26.5	30	31.5	21	40.8
12	1/8"	KQT12-U02	20.9	17	28.5	27	31.5	22	57.2
12	1/8"	KQT12-U03	20.9	17	28.5	28	32.5	22	57.2
12	1/8"	KQT12-U04	20.9	17	28.5	31	33.5	22	57.2
16	1/8"	KQT16-U03	26.5	21	33	40.5	33	24	71
16	1/8"	KQT16-U04	26.5	21	33	40.5	35	24	100

PRODUCT
SELECTOR

MALE RUN TEE : KQY (KQ2Y)

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



Applicable tube O.D mm	Connection thread Uni thread	Model	H (Width across flats)	Dia D1	L1	L2	A	M	Effective orifice (mm ²)
4	M5	KQY04-M5	7	9.5	16	13.5	25.5	13	4.5
4	1/8"	KQY04-U01	10	10.4	18	20	34	16	6.4
4	1/8"	KQY04-U02	14	10.4	18	22	34.5	16	6.4
6	M5	KQY06-M5	7	11.5	17.5	14.5	29	14	4.5
6	1/8"	KQY06-U01	10	12.8	20	21.5	37.5	17	13.4
6	1/8"	KQY06-U02	14	12.8	20	23	37	17	13.4
6	1/8"	KQY06-U03	17	12.8	20	24	38	17	13.4
8	1/8"	KQY08-U01	12	15.2	23	22.5	41.5	18.5	25.6
8	1/8"	KQY08-U02	14	15.2	23	24.5	41.5	18.5	25.6
8	1/8"	KQY08-U03	17	15.2	23	25.5	42.5	18.5	25.6
10	1/8"	KQY10-U01	17	18.5	26.5	25	46.5	21	40
10	1/8"	KQY10-U02	17	18.5	26.5	26.5	47.5	21	40
10	1/8"	KQY10-U03	17	18.5	26.5	27	48	21	40
10	1/8"	KQY10-U04	22	18.5	26.5	30	49	21	40
12	1/8"	KQY12-U02	17	20.9	28.5	27	49.5	22	57.4
12	1/8"	KQY12-U03	17	20.9	28.5	28	50.5	22	57.4
12	1/8"	KQY12-U04	22	20.9	28.5	31	51.5	22	57.4
16	1/8"	KQY16-U03	22	26.5	33	40.5	66	24	81
16	1/8"	KQY16-U04	22	26.5	33	40.5	63	24	113



FOR FURTHER TECHNICAL
DETAILS ON THIS
PRODUCT REQUEST
CATALOGUE REFERENCE
E501-B

SERIES KQ, KQ2 UNITHREAD

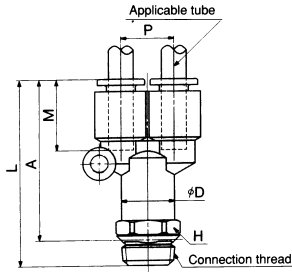
PRODUCT SELECTOR

EXAMPLE OF ORDERING

KQU04-U01 Black Body
KQ2U04-U01 White Body

BRANCH "Y" : KQU (KQ2U)

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

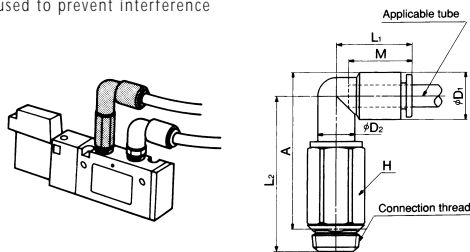


Applicable tube O.D mm	Connection thread Uni Thread	Model	H (Width across flats)	Dia D	L	P	A	M	Effective orifice (mm ²)
4	M5	KQU04-M5	11	9.6	38	10.4	36	16	2.2
4	1/8	KQU04-U01	11	10.4	40	10.4	36	16	4.2
4	1/4	KQU04-U02	14	10.4	42	10.4	36	16	4.2
6	M5	KQU06-M5	13	10.4	39.5	12.8	39	17	2.2
6	1/8	KQU06-U01	13	12.8	43.5	12.8	39.5	17	13.4
6	1/4	KQU06-U02	14	12.8	45	12.8	39	17	13.4
6	3/8	KQU06-U03	17	12.8	46	12.8	40	17	13.4
8	1/8	KQU08-U01	17	15.2	50.5	15.2	46.5	18.5	25.6
8	1/4	KQU08-U02	17	15.2	52	15.2	46	18.5	25.6
8	3/8	KQU08-U03	17	15.2	51.5	15.2	45.5	18.5	25.6
10	1/8	KQU10-U02	19	18.5	57.5	18.5	51.5	21	40
10	1/4	KQU10-U03	19	18.5	57.5	18.5	51.5	21	40
10	3/8	KQU10-U04	22	18.5	59	18.5	51	21	40
12	1/8	KQU12-U02	22	20.9	61	20.9	55	22	57.4
12	1/4	KQU12-U03	22	20.9	61	20.9	55	22	57.4
12	3/8	KQU12-U04	22	20.9	62.5	20.9	54.5	22	57.4

PRODUCT SELECTOR

EXTENDED MALE ELBOW : KQW (KQ2W)

Basically use in the same way as elbow union. Point of difference is that it is used to prevent interference of joints for stereopiping.

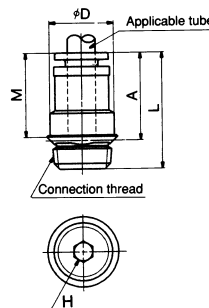
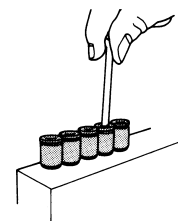


Applicable tube O.D mm	Connection Thread Uni thread	Model	H (width across flats)	Dia D1	Dia D2	L1	L2	A	M	Effective orifice (mm ²)
4	M5	KQW04-M5	8	9.6	8	17.5	30	31	15.5	2.8
4	1/8	KQW04-U01	10	10.4	10	18	34.5	35.5	16	4
4	1/4	KQW04-U02	14	10.4	10	18	37	38.5	16	4
6	M5	KQW06-M5	8	10.4	8	18	30	32	16	3
6	1/8	KQW06-U01	10	12.8	10	20	38.5	41	17	10.9
6	1/4	KQW06-U02	14	12.8	10	20	40.5	41	17	10.9
6	3/8	KQW06-U03	17	12.8	10	20	41.5	42	17	10.9
8	1/8	KQW08-U01	12	15.2	12	23	43.5	47.5	18	20.5
8	1/4	KQW08-U02	14	15.2	12	23	45.5	47	18	20.5
8	3/8	KQW08-U03	17	15.2	12	23	46.5	48	18	20.5
10	1/8	KQW10-U02	17	18.5	17	26.5	52.5	56	21	33.5
10	1/4	KQW10-U03	17	18.5	17	26.5	52.5	56	21	33.5
10	3/8	KQW10-U04	22	18.5	17	26.5	54.5	56	21	33.5
12	1/8	KQW12-U02	17	20.9	17	28.5	54	58.5	22	47.7
12	1/4	KQW12-U03	17	20.9	17	28.5	54	58.5	22	47.7
12	3/8	KQW12-U04	22	20.9	17	28.5	56	58.5	22	47.7

PRODUCT SELECTOR

HEXAGON SOCKET HEAD MALE CONNECTOR : KQS (KQ2S)

Male connector for narrow space to tighten hexagon socket head in body by hexagon wrench.



Applicable tube O.D mm	Connection thread Uni thread	Model	H (width across flats)	dia D	L	A	M	Effective orifice (mm ²)
4	M5	KQS04-M5	2.5	9.5	19	15.5	13	4
4	1/8	KQS04-U01	3	10	23	18	16	4.1
6	M5	KQS06-M5	2.5	11.5	20	16.5	14	4
6	1/8	KQS06-U01	4	11.8	24	19	17	10
6	1/4	KQS06-U02	4	13.5	25	18.5	17	10.7
8	1/8	KQS08-U01	5	14	29	22	18.5	17.2
8	1/4	KQS08-U02	6	14	28	21.5	18.5	23.3
8	3/8	KQS08-U03	6	17	26.5	20	18.5	23.3
10	1/8	KQS10-U01	5	17	31.5	24.5	21	17.2
10	1/4	KQS10-U02	8	17	28.5	22	21	39
10	3/8	KQS10-U03	8	17	26.5	20	21	39
10	1/2	KQS10-U04	8	21	27	19	21	39
12	1/8	KQS12-U02	8	19	35	25.5	22	46
12	1/4	KQS12-U03	9	19	28	19	22	60
12	3/8	KQS12-U04	9	21	27	19	22	60



SEE INSIDE FRONT COVER FOR DETAILS OF YOUR LOCAL SALES OFFICE



FOR FURTHER TECHNICAL DETAILS ON THIS PRODUCT REQUEST CATALOGUE REFERENCE E501-B

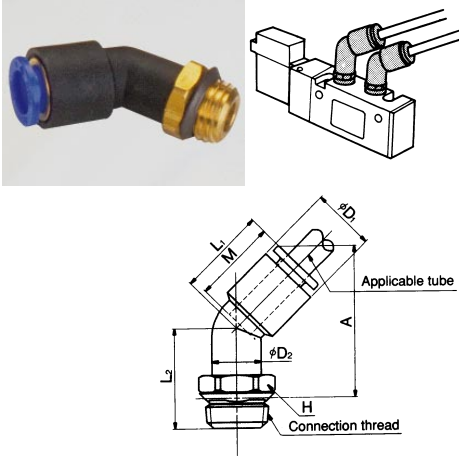
PRODUCT
SELECTOR

EXAMPLE OF ORDERING

- KQK04-M5 Black Body
- KQ2K04-M5 White Body

45° MALE ELBOW : KQK (KQ2K)

Use to connect tubing at 45° from the thread part.
Intermediate type between the male connector and the male elbow.

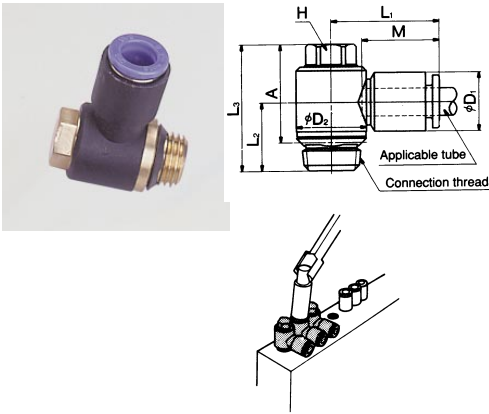


Applicable tube O.D mm	Connection thread Uni thread	Model	H (width across flats)	Dia D1	Dia D2	L1	L2	A	M	Effective orifice (mm ²)
4	M5	KQK04-M5	8	10.4	8	17	14.5	26	16	3.4
4	1/8	KQK04-U01	10	10.4	10	17	18.5	30	16	3.4
4	1/8	KQK04-U02	14	10.4	10	17	20.5	30.5	16	3.4
6	M5	KQK06-M5	8	12.8	8	18	14.5	26	17	3.4
6	1/8	KQK06-U01	10	12.8	10	18	18.5	31	17	8.7
6	1/8	KQK06-U02	14	12.8	10	18	20.5	31	17	8.7
6	1/8	KQK06-U03	17	12.8	10	18	21.5	32	17	8.7
8	1/8	KQK08-U01	12	15.2	12	20.5	20	35	18.5	19.7
8	1/8	KQK08-U02	14	15.2	12	20.5	22	35	18.5	19.7
8	1/8	KQK08-U03	17	15.2	12	20.5	23	36	18.5	19.7
10	1/8	KQK10-U01	17	18.5	17	24	22	38	21	30.9
10	1/8	KQK10-U02	17	18.5	17	24	23.5	40.5	21	30.9
10	1/8	KQK10-U03	17	18.5	17	24	24	41	21	30.9
10	1/8	KQK10-U04	22	18.5	17	24	27	42	21	30.9
12	1/8	KQK12-U02	17	20.9	17	25	24	42	22	44.5
12	1/8	KQK12-U03	17	20.9	17	25	24.5	42.5	22	44.5
12	1/8	KQK12-U04	22	20.9	17	25	27.5	43.5	22	44.5

PRODUCT
SELECTOR

UNIVERSAL MALE ELBOW : KQV (KQ2V)

Elbow union for a narrow space to clamp the hexagon head of body with box wrench.



Applicable tube O.D mm	Connection thread Uni thread	Model	H (width across flats)	Dia D1	Dia D2	L1	L2	L3	A	M	Effective orifice (mm ²)
4	M5	KQV04-M5	8	10.4	9.8	20.5	11	18.5	15	16	2.9
4	1/8	KQV04-U01	8	10.4	13.4	22	13.5	25.5	21.5	16	2.9
6	M5	KQV06-M5	8	12.8	9.8	23.5	12	18.5	15	17	3.8
6	1/8	KQV06-U01	8	12.8	13.4	24	13.5	25.5	21.5	17	7.5
6	1/8	KQV06-U02	10	12.8	15.4	23.5	15.5	28	22	17	7.5
8	1/8	KQV08-U01	12	15.2	17.6	28.5	14.5	27.5	23.5	18.5	11.2
8	1/8	KQV08-U02	12	15.2	17.6	28.5	16.5	29.5	23.5	18.5	11.2
8	1/8	KQV08-U03	14	15.2	20.6	27.5	18.5	34	28	18.5	14.3
10	1/8	KQV10-U02	14	18.5	20.6	31	18.5	34	28	21	27
10	1/8	KQV10-U03	14	18.5	20.6	31	18.5	34	28	21	27
12	1/8	KQV12-U03	17	20.9	25.2	34	20	36.5	30.5	22	39
12	1/8	KQV12-U04	17	20.9	25.2	34	22.5	39.5	31.5	22	39



How To
ORDER
KQ(2)

KQ

COLOUR SPECIFICATION

Symbol	Body	Bush
NIL	Black	Blue
2	White	Light Grey

SEAL

SStandard: with sealant
-Optional: Without seal
Note 1) With gasket for all M5 & M6 sizes
Note 2) Without seal for female thread
Note 3) Does not apply to uni thread

MODEL

- HMale Connector/straight union
 - SHexagon Socket head male connector
 - FFemale Union
 - LMale Elbow/Union Elbow
 - LU*Branch Elbow
 - K45°Elbow
 - VUniversal Male Elbow
 - VS*Hexagon Socket Head Universal Male Elbow
 - VF*Universal Female Elbow
 - LFFemale Elbow
 - VD*Double Universal Elbow
 - VT*Triple Universal Elbow
 - Z*Branch Universal Elbow
 - ZF*Branch Universal Female Elbow
 - ZD*Double Branch Universal Elbow
 - ZT*Triple Branch Universal Elbow
 - WLong Elbow Union/Long Elbow Union
 - TTee/Union Tee
 - YMale Run Tee
 - D*Dia Union/Delta
 - UBranch/Union "Y"
 - UD*Double Branch
 - XDDouble Branch
 - XDifferent Dia. Branch Union "Y"
 - RPlug-in Reducer
 - EBulkhead Male Union/Bulkhead Female Union
 - LEBulkhead Elbow
 - N*Nipple Adapter
 - CTubing Cap
 - PPlug
- *Not available as Uni Thread

CONNECTION

- M5M5 x 0.8
 - M6M6X1.0
 - 01R(PT), Rc(PT)1/8
 - 02R(PT), Rc(PT)1/4
 - 03R(PT), Rc(PT)3/8
 - 04R(PT), Rc(PT)1/2
- Thread: R(PT)
- 00 ...Same dia. tubing
 - 99 ...Same dia tubing/fitting
 - 04 ...Ø4mm
 - 06 ...Ø6
 - 08 ...Ø8
 - 10 ...Ø10
 - 12 ...Ø12
 - 16 ...Ø16
- Tubing
- U01 ...1/8
 - U02 ...1/4
 - U03 ...3/8
 - U04 ...1/2
- Thread: Uni-

TUBE O.D.

- 23 ...Ø3.2mm (Not uni thread)
- 04 ...Ø4mm
- 06 ...Ø6mm
- 08 ...Ø8mm
- 10 ...Ø10mm
- 12 ...Ø12mm
- 16 ...Ø16mm

Fittings & Tubing

ACCESSORIES

GASKETS FOR METRIC & UNI THREAD
ONE TOUCH FITTINGS

Applicable Metric & Uni Thread	Model
M5	M-5G2
M6	M-6G
1/8	KQG-U01
1/4	KQG-U02
3/8	KQG-U03
1/2	KQG-U04

OTHER OPTIONS

SPECIAL TYPES OF ONE TOUCH
FITTINGS ALSO AVAILABLE

for inch tube/R(PT) threads	Series IQ black/KQ2 white*
for inch tube/inch NPT threads	Series KQ black/KQ2 white*
for copper free environments	-X2*
for clean rooms	10-*
(oil free) with vaseline	ADD* -X12* *
for anti-static applications	Series KA □
For flame resistant	Series KR ■

- * Contact SMC
- See page 4-34
- See page 4-69



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