



Clean One-touch Fittings and Tubing
Clean One-touch Fittings **Series KP/KPQ/KPG**
Clean Tubing **Series TPH/TPS**



Series KPQ/KPG for drive system air piping added to clean One-touch fitting series KP



One-touch fittings and tubing for clean room blowing systems and drive air systems

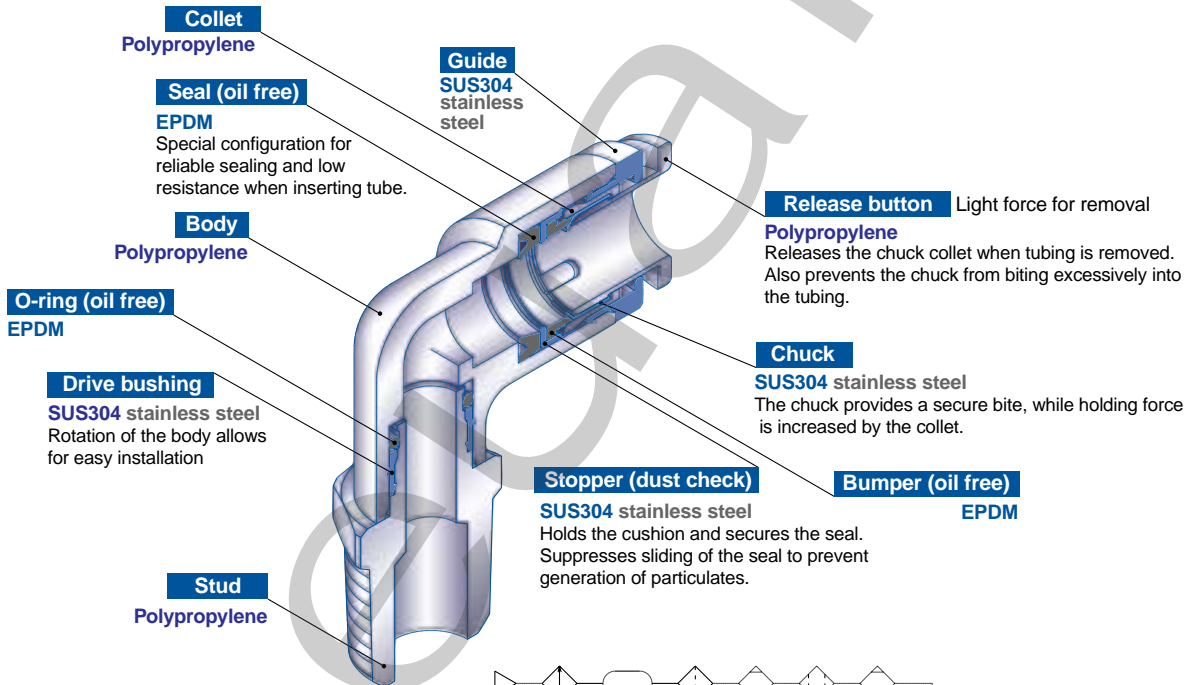


One-touch fittings (for blowing)

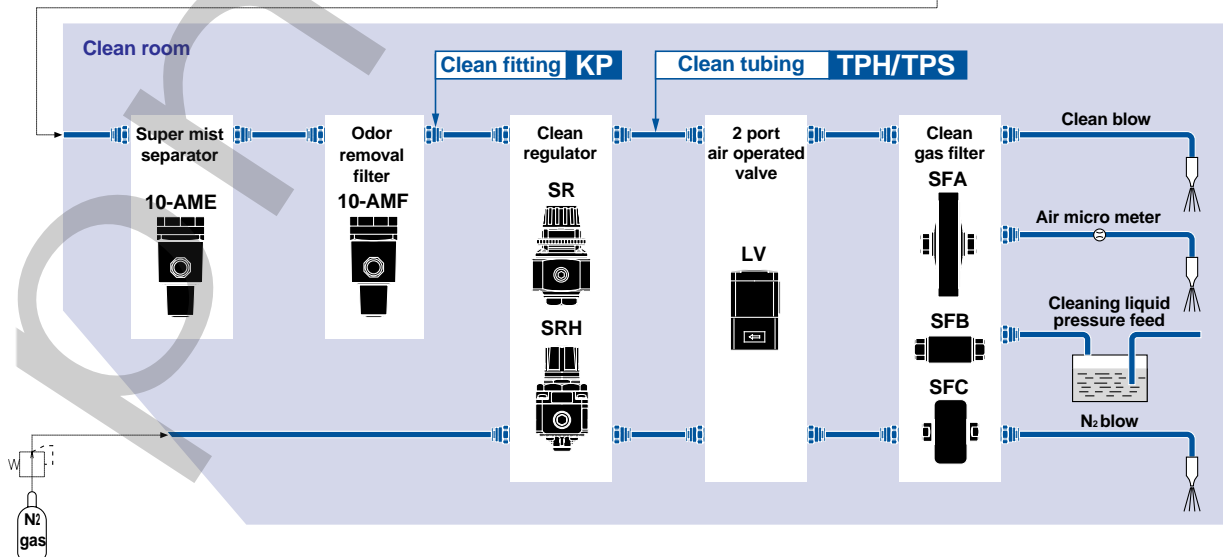
Series KP

- Completely oil free
- Liquid-contact areas are non-metallic
- Parts cleaning, assembly and double packaging in a clean room
- Can be used for vacuum (-100kPa)

Series KP



■ Clean blowing system





Low particulate generation

Clean performance



KPQ
Resin: PP
Metal: Brass (electroless nickel plated)



KPG
Resin: PP
Metal: Stainless steel (SUS304)



KP
Resin: PP
Metal: Stainless steel (SUS304)
★ Completely oil free/Liquid-contact parts resin



10-KQ2
Resin: PBT, POM
Metal: Brass (electroless nickel plated)



10-KG
Resin: PBT, POM
Metal: Stainless steel (SUS303)

Excellent

Environmental resistance

New

One-touch fittings (for drive system air piping)

Series KPQ/KPG

Brass (electroless nickel plated)

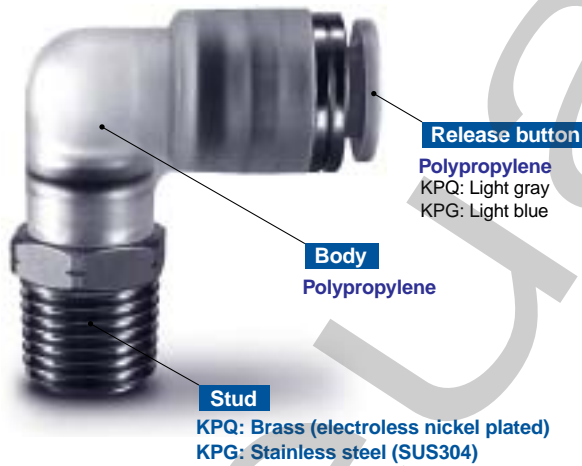
Stainless steel (SUS304)

- M5 size standardized
- Resin parts are P.P. (polypropylene)

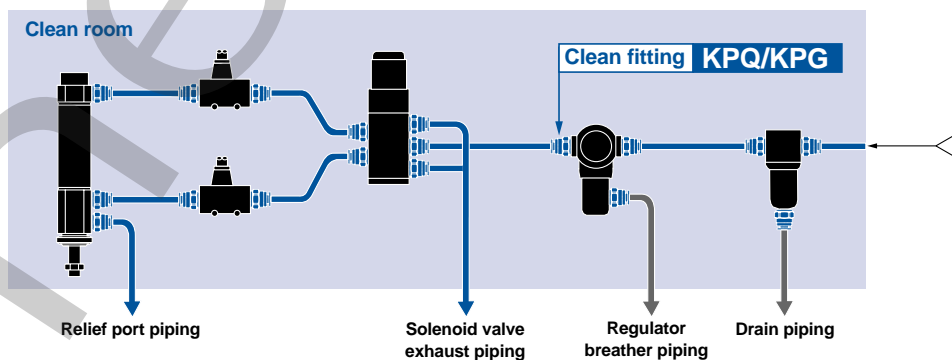


Series KPQ

Series KPG



■ Drive air piping system



Polyolefin Tubing
Series TPH/TPS



Series	Material	Tubing O.D. mm					Color	Tubing length m
		4	6	8	10	12		
TPH	Polyolefin	●	●	●	●	●	White, Black Red, Blue	20
TPS	Soft Polyolefin	●	●	●	●	●	Yellow, Green	100

Clean
One-touch
Fittings

For Blowing Series **KP**



⚠ Caution

Series KP is a line of special One-touch fittings for use in clean room blowing and washing lines. Consult P/A regarding other types of applications.

Seal material: The durability of EPDM with respect to mineral oils is inferior, which makes it unsuitable for piping in general pneumatic equipment.

Recommended Applicable Tubing

Tubing material	Polyolefin: Series TPH Soft polyolefin: Series TPS
Tubing O.D.	ø4, ø6, ø8, ø10, ø12

Note 1) Polyurethane tubing: Series TU, Nylon tubing: Series T, and Soft nylon tubing: Series TS can also be used. However, the degree of clean performance will be reduced.

Note 2) Due to the softness of polyurethane tubing, it may fold when being inserted. Hold the end of the tubing and insert it all the way in. Refer to "Installation and Removal of Tubing" on page 15.)

Specifications

Particulate generation grade	Grade 1 Note 1)
Fluid	Air, Nitrogen gas, Water (pure water) Note 2)
Maximum operating pressure (20°C)	1MPa Note 3)
Operating vacuum pressure	-100kPa
Proof pressure (20°C)	3MPa
Ambient and fluid temperature	- 20°C to 80°C
Threads	JIS B0203 (taper threads for piping)

Note 1) Refer to particulate generation grade classifications.

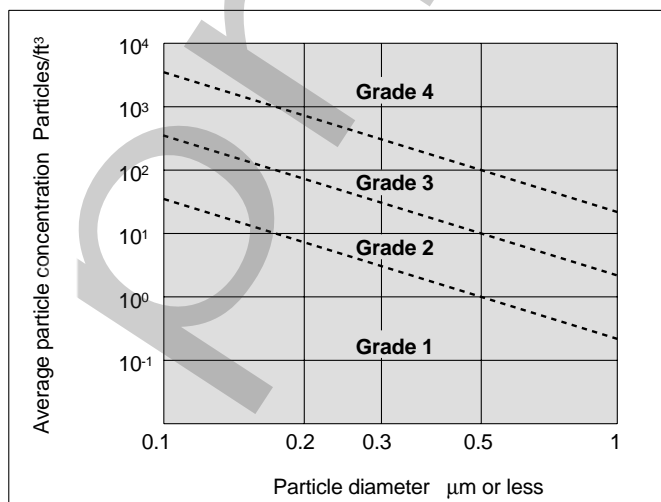
Note 2) Consult P/A regarding other fluids.

Note 3) The maximum operating pressure is the value at 20°C. Refer to the operating pressure curve for other temperatures.

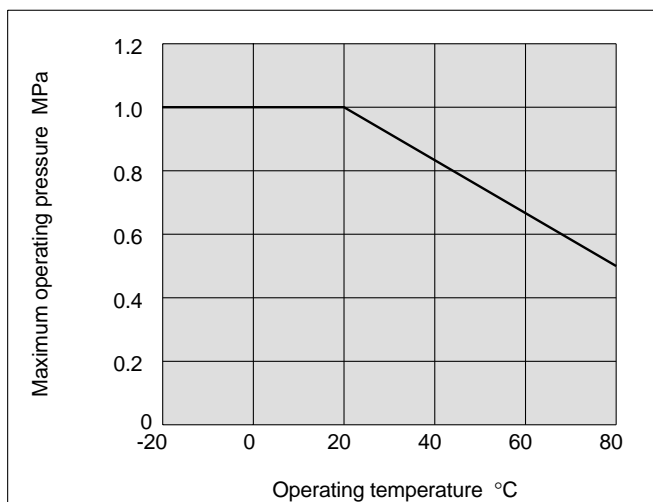
Principal Part Materials

Body	Polypropylene resin
Stud	Polypropylene resin
Chuck	SUS304 stainless steel
Guide, Stopper, Drive bushing	SUS304 stainless steel
Collet, Release button	Polypropylene resin
Seal, O-ring, Bumper	EPDM

Particulate Generation Grade Classifications



Relationship of Operating Temperature and Maximum Operating Pressure



How to Order

KP H 06-01

Clean One-touch fitting (for blowing)

Model

H	Male connector, Straight union
L	Union elbow, Male elbow
T	Male branch tee, Union tee
Y	Male run tee
U	Male branch, Union "Y"
R	Plug-in reducer

Port size/Applicable tubing O.D.

Thread connection	01	R 1/8
	02	R 1/4
	03	R 3/8
	04	R 1/2
Tubing (rod) connection	00	Same dia. tubing
	04	ø4
	06	ø6
	08	ø8
	10	ø10
	12	ø12

Applicable tubing O.D.

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

KP P 08

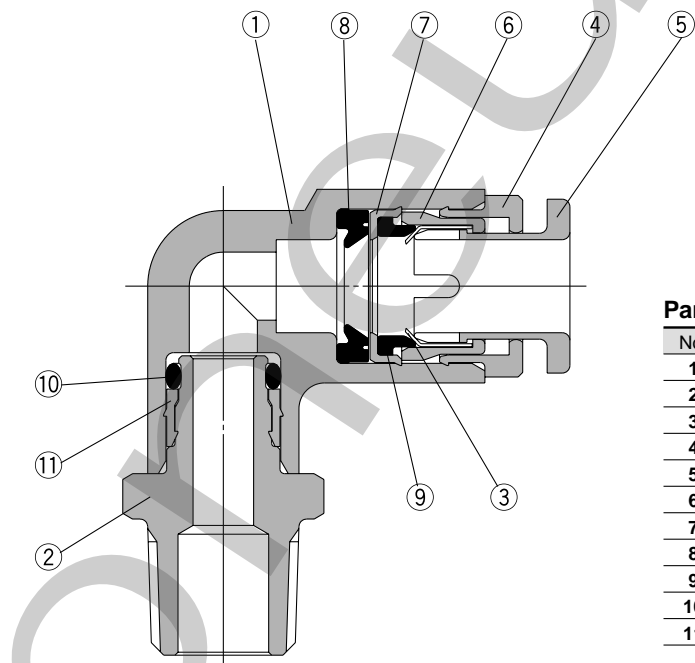
Applicable fitting size

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

Plug

Clean One-touch fitting

Construction



Parts list

No.	Description	Material
1	Body	Polypropylene resin
2	Stud	Polypropylene resin
3	Chuck	SUS304 stainless steel
4	Guide	SUS304 stainless steel
5	Release button	Polypropylene resin (color: light green)
6	Collet	Polypropylene resin
7	Stopper	SUS304 stainless steel
8	Seal	EPDM
9	Bumper	EPDM
10	O-ring	EPDM
11	Drive bushing	SUS304 stainless steel

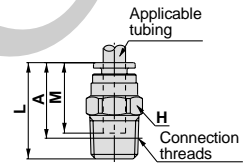
Series KP

Dimensions

Male Connector: KPH



Applicable tubing O.D. mm	Connection threads R	Model	H (width across flats)	L	A*	M	Effective area mm ²		Weight g
							TPH	TPS	
4	1/8	KPH04-01	12	25.4	21.5	18	4	4	3
	1/4	KPH04-02							
6	1/8	KPH06-01	14	25.9	22	19.5	10	10	4
	1/4	KPH06-02							
8	1/8	KPH08-01	17	32.3	28.5	21.5	26	18	6
	1/4	KPH08-02							
10	1/4	KPH10-02	19	37.5	32	24	41	29	10
	3/8	KPH10-03							
12	3/8	KPH12-03	22	34	28	25	58	46	12
	1/2	KPH12-04							

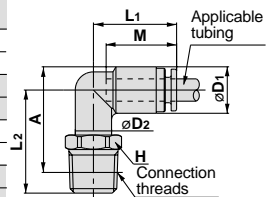


* Reference dimension for R threads after installation

Male Elbow: KPL



Applicable tubing O.D. mm	Connection threads R	Model	H (width across flats)	Note 1) ϕD_1	ϕD_2	L ₁	L ₂	A*	M	Effective area mm ²		Weight g
										TPH	TPS	
4	1/8	KPL04-01	12	10.4	10	20.7	23.2	24.5	18	3.5	3.5	4
	1/4	KPL04-02										
6	1/8	KPL06-01	12	12.8	10	22.8	24.4	27	19.5	9	9	5
	1/4	KPL06-02										
8	1/8	KPL08-01	14	15.2	12	26.3	26.6	30	21.5	22	15	8
	1/4	KPL08-02										
10	1/4	KPL10-02	17	18.5	17	29.4	32.1	35.5	24	35	25	13
	3/8	KPL10-03										
12	3/8	KPL12-03	22	20.9	22	31.4	34.3	38.5	25	50	40	15
	1/2	KPL12-04										

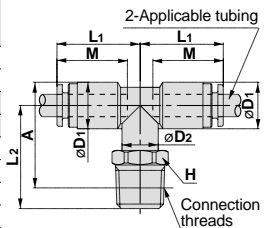


* Reference dimension for R threads after installation Note 1) ϕD_1 indicates the maximum diameter.

Male Branch Tee: KPT



Applicable tubing O.D. mm	Connection threads R	Model	H (width across flats)	Note 1) ϕD_1	ϕD_2	L ₁	L ₂	A*	M	Effective area mm ²		Weight g
										TPH	TPS	
4	1/8	KPT04-01	12	10.4	10	20.7	23.2	24.5	18	4.1	4.1	6
	1/4	KPT04-02										
6	1/8	KPT06-01	12	12.8	10	22.8	24.4	27	19.5	11	11	8
	1/4	KPT06-02										
8	1/8	KPT08-01	14	15.2	12	26.3	26.6	30	21.5	26.3	18.2	12
	1/4	KPT08-02										
10	1/4	KPT10-02	17	18.5	17	29.4	32.1	35.5	24	40.8	29	20
	3/8	KPT10-03										
12	3/8	KPT12-03	22	20.9	22	31.4	34.3	38.5	25	57.2	45.2	24
	1/2	KPT12-04										

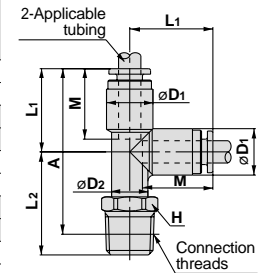


* Reference dimension for R threads after installation Note 1) ϕD_1 indicates the maximum diameter.

Male Run Tee: KPY



Applicable tubing O.D. mm	Connection threads R	Model	H (width across flats)	Note 1) ϕD_1	ϕD_2	L ₁	L ₂	A*	M	Effective area mm ²		Weight g
										TPH	TPS	
4	1/8	KPY04-01	12	10.4	10	20.7	23.2	40	18	7.5	7.5	6
	1/4	KPY04-02										
6	1/8	KPY06-01	12	12.8	10	22.8	24.4	43	19.5	11	11	8
	1/4	KPY06-02										
8	1/8	KPY08-01	14	15.2	12	26.3	26.6	49	21.5	21	21	12
	1/4	KPY08-02										
10	1/4	KPY10-02	17	18.5	17	29.4	32.1	56	24	45	45	19
	3/8	KPY10-03										
12	3/8	KPY12-03	22	20.9	22	31.4	34.3	59.5	25	57	57	21
	1/2	KPY12-04										

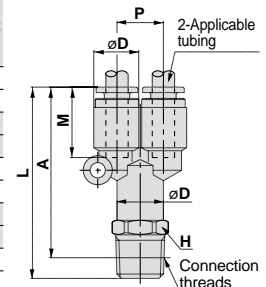


* Reference dimension for R threads after installation Note 1) ϕD_1 indicates the maximum diameter.

Male Branch "Y": KPU



Applicable tubing O.D. mm	Connection threads R	Model	H (width across flats)	Note 1) ϕD	L	P	A*	M	Effective area mm ²		Weight g
									TPH	TPS	
4	1/8	KPU04-01	12	10.4	45.4	10.4	41.5	18	7.5	7.5	7
	1/4	KPU04-02									
6	1/8	KPU06-01	14	12.8	49.6	12.8	45.5	19.5	18	18	9
	1/4	KPU06-02									
8	1/8	KPU08-01	17	15.2	56.7	15.2	52.5	21.5	26	26	15
	1/4	KPU08-02									
10	1/4	KPU10-02	19	18.5	64.5	18.5	59	24	45	45	23
	3/8	KPU10-03									
12	3/8	KPU12-03	22	20.9	69.7	20.9	63.5	25	70	70	29
	1/2	KPU12-04									



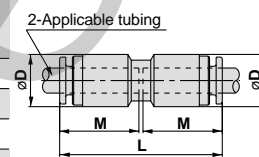
* Reference dimension for R threads after installation Note 1) ϕD indicates the maximum diameter.

Dimensions

Straight Union: KPH



Applicable tubing O.D. mm	Model	Note 1) $\varnothing D$	L	M	Effective area mm ²		Weight g
					TPH	TPS	
4	KPH04-00	10.4	37.4	18	4	4	4
6	KPH06-00	12.8	39.6	19.5	10	10	6
8	KPH08-00	15.2	44.4	21.5	26	18	10
10	KPH10-00	18.5	48.6	24	41	29	15
12	KPH12-00	20.9	50.6	25	58	46	18

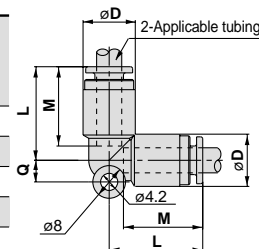


Note 1) $\varnothing D$ indicates the maximum diameter.

Elbow: KPL



Applicable tubing O.D. mm	Model	Note 1) $\varnothing D$	L	Q	M	Effective area mm ²		Weight g
						TPH	TPS	
4	KPL04-00	10.4	20.7	4.5	18	3.5	3.5	3
6	KPL06-00	12.8	22.8	5.3	19.5	9	9	7
8	KPL08-00	15.2	26.3	6	21.5	22	15	11
10	KPL10-00	18.5	29.4	6.8	24	35	25	16
12	KPL12-00	20.9	31.4	7.5	25	50	40	20

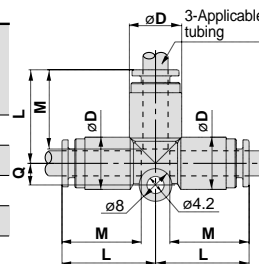


Note 1) $\varnothing D$ indicates the maximum diameter.

Union Tee: KPT



Applicable tubing O.D. mm	Model	Note 1) $\varnothing D$	L	Q	M	Effective area mm ²		Weight g
						TPH	TPS	
4	KPT04-00	10.4	20.7	4.5	18	4	4	7
6	KPT06-00	12.8	22.8	5.3	19.5	10	10	9
8	KPT08-00	15.2	26.3	6	21.5	26	18	16
10	KPT10-00	18.5	29.4	6.8	24	41	29	25
12	KPT12-00	20.9	31.4	7.5	25	58	46	29

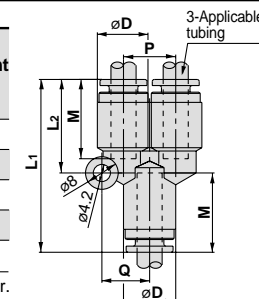


Note 1) $\varnothing D$ indicates the maximum diameter.

Union "Y": KPU



Applicable tubing O.D. mm	Model	Note 1) $\varnothing D$	L1	L2	P	Q	M	Effective area mm ²		Weight g
								TPH	TPS	
4	KPU04-00	10.4	38.8	20.6	10.4	9.7	18	4	4	7
6	KPU06-00	12.8	42.1	22.8	12.8	11.7	19.5	10	10	10
8	KPU08-00	15.2	48.7	27.5	15.2	13.7	21.5	26	18	17
10	KPU10-00	18.5	54	30.7	18.5	16.1	24	41	29	26
12	KPU12-00	20.9	57.2	32.9	20.9	18.1	25	58	46	32

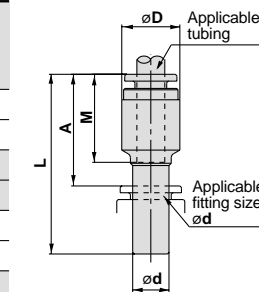


Note 1) $\varnothing D$ indicates the maximum diameter.

Plug-in Reducer: KPR



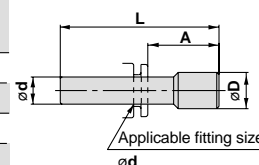
Applicable tubing O.D. mm	Applicable fitting size $\varnothing d$	Model	Note 1) $\varnothing D$	L	A	M	Effective area mm ²		Weight g
							TPH	TPS	
4	6	KPR04-06	10.4	39.4	20.1	18	4	4	3
	8	KPR04-08		41.9	20.2				4
6	8	KPR06-08	12.8	42.5	20.8	19.5	10	10	4
		KPR06-10		45	21.2				5
8	10	KPR08-10	15.2	47	23.2	21.5	26	18	5
		KPR08-12		48	23.2				6
10	12	KPR10-12	18.5	50.5	25.7	24	41	29	9



Note 1) $\varnothing D$ indicates the maximum diameter.

Plug: KPP

Applicable fitting size $\varnothing d$	Model	$\varnothing D$	L	A	Weight g
4	KPP-04	6	32	13.8	0.4
6	KPP-06	8	35	15.7	0.7
8	KPP-08	10	39	17.3	1.1
10	KPP-10	12	43	19.2	1.7
12	KPP-12	14	45.5	20.7	2.5



Clean
One-touch
Fittings

For Drive System Air Piping

Series **KPQ/KPG**



Series KPQ

Brass (electroless nickel plated)
Release button: Light gray



Series KPG

Stainless steel (SUS304)
Release button: Light blue

Recommended Applicable Tubing

Tubing material	Polyurethane: 10-series
Tubing O.D.	ø4, ø6, ø8, ø10, ø12

Polyurethane tubing: Series TU, Nylon tubing: Series T, and Soft nylon tubing: Series TS can also be used. However, the degree of clean performance will be reduced.

Specifications

Particulate generation grade	Grade 1 Note 1)
Fluid	Air
Maximum operating pressure (20°C)	1MPa Note 2)
Operating vacuum pressure	-100kPa
Proof pressure (20°C)	3MPa
Ambient and fluid temperature	-5°C to 60°C
Threads	JIS B0203 (taper threads for piping)

Note 1) Refer to particulate generation grade classifications

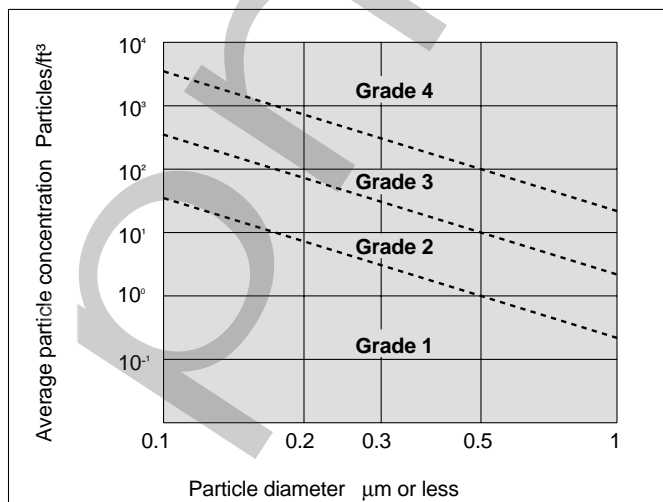
This falls outside of the grade because grease is applied to the internal seal materials.

Note 2) The maximum operating pressure is the value at 20°C. Refer to the operating pressure curve for other temperatures.

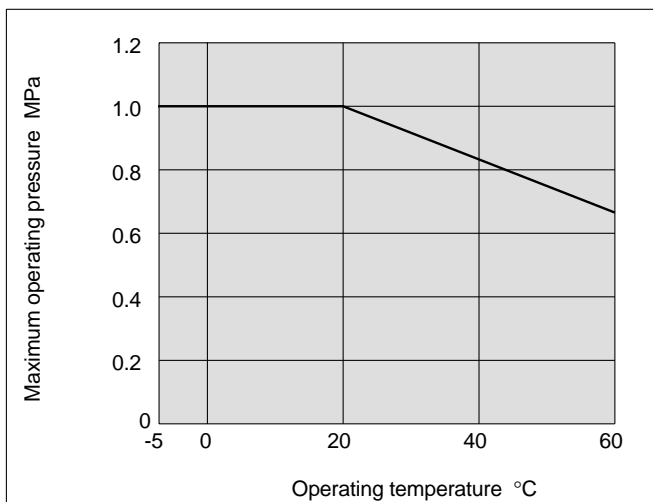
Principal Part Materials

Model	Series KPQ	Series KPG
Body	Polypropylene resin	
Stud	Brass (electroless nickel plated)	SUS304 stainless steel
Chuck	SUS304 stainless steel	
Guide, Stopper	Brass (electroless nickel plated)	SUS304 stainless steel
Collet, Release button	Polypropylene resin	
Seal, O-ring, Bumper	NBR	

Particulate Generation Grade Classifications



Relationship of Operating Temperature and Maximum Operating Pressure



How to Order

Clean One-touch fitting

Specifications

Symbol	Specifications (metal part materials)
Q	Brass (electroless nickel plated)
G	Stainless steel (SUS304)

Model

H	Male connector, Straight union
L	Union elbow, Male elbow
T	Male branch tee, Union tee
Y	Male run tee
U	Male branch, Union "Y"
R	Plug-in reducer

Port size/Applicable tubing O.D.

Thread connection	M5	M5 x 0.8
01	R 1/8	
02	R 1/4	
03	R 3/8	
04	R 1/2	
Tubing (rod) connection	00	Same dia. tubing
04	ø4	Different dia. tubing (plug-in reducer)
06	ø6	
08	ø8	
10	ø10	
12	ø12	

Applicable tubing O.D.

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

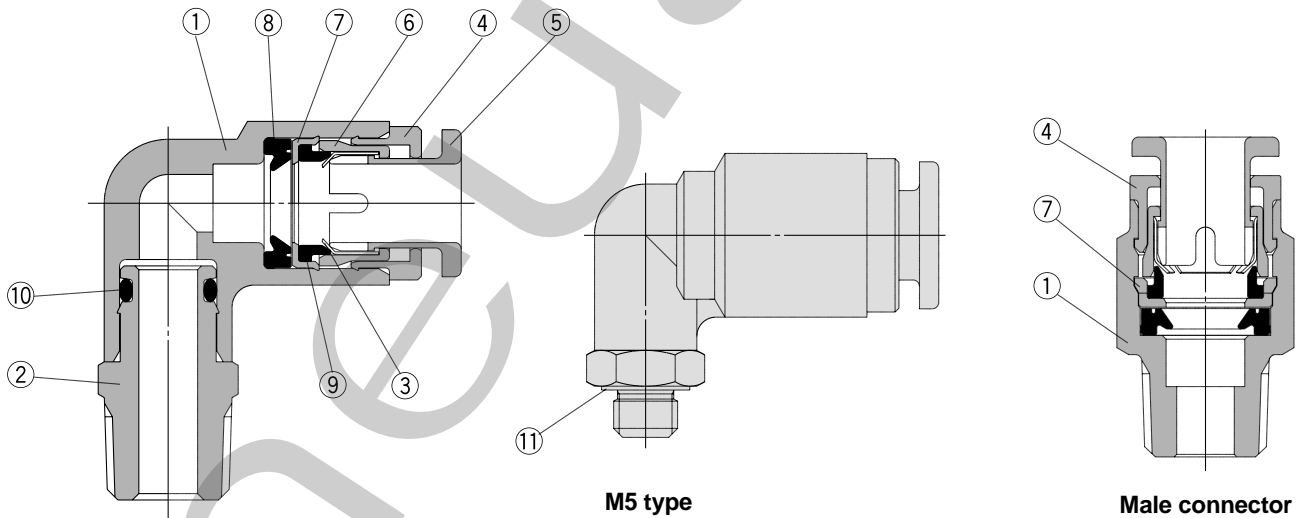
Applicable fitting size

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

Plug

Clean One-touch fitting

Construction



Parts list


No.	Description	Material	
		Series KPQ	Series KPG
1	Body	Polypropylene resin	
		With male connector	Brass (electroless nickel plated)
2	Stud	Brass (electroless nickel plated)	SUS304 stainless steel
3	Chuck	SUS304 stainless steel	
4	Guide	Brass (electroless nickel plated)	SUS304 stainless steel
		With male connector	Polypropylene resin
5	Release button	Polypropylene resin (color: light gray)	Polypropylene resin (color: light blue)
6	Collet	Polypropylene resin	
7	Stopper	SUS304 stainless steel	
7	With male connector	Polypropylene resin	
8	Seal	NBR	
9	Bumper	NBR	
10	O-ring	NBR	
11	Gasket	SUS304 stainless steel + NBR	

Series KPQ/KPG

Dimensions

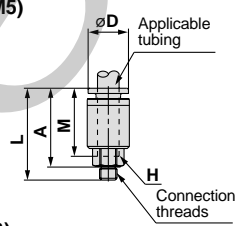
Male Connector: KPQH, KPGH

(M5)

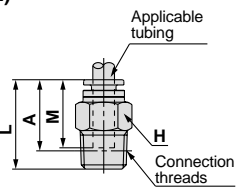


Applicable tubing O.D. mm	Connection threads R	Model		H (width across flats)	øD	L	A*	M	Effective area mm ²		Weight g
									TPH	TPS	
4	M5	KPQH04-M5	—	8	10	25.4	22.5	18	4	4	4
		—	KPGH04-M5			25.9					
	1/8	KPQH04-01	KPGH04-01	10	—	25.4	19.5				
	1/4	KPQH04-02	KPGH04-02	14	—	22.9	17				
6	M5	KPQH06-M5	—	8	12	26.3	23	19.5	10	10	5
		—	KPGH06-M5			26.8					
	1/8	KPQH06-01	KPGH06-01	12	—	25.6	19.5				
	1/4	KPQH06-02	KPGH06-02	14	—	26.1	20				
8	1/8	KPQH08-01	KPGH08-01	14	—	32.6	26.5	21.5	26	18	14
	1/4	KPQH08-02	KPGH08-02			30.6	24.5				13
10	1/4	KPQH10-02	KPGH10-02	17	—	37.6	31.5	24	41	29	24
	3/8	KPQH10-03	KPGH10-03			33	26.5				23
12	3/8	KPQH12-03	KPGH12-03	19	—	34.1	27.5	25	58	46	23
	1/2	KPQH12-04	KPGH12-04			34.1	26				46

(M5)




(R)



* Reference dimension for R threads after installation

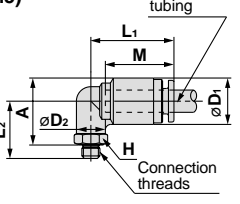
Male Elbow: KPQL, KPGL

(M5)

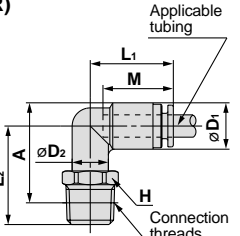


Applicable tubing O.D. mm	Connection threads R	Model		H (width across flats)	Note 1) øD ₁	øD ₂	L ₁	L ₂	A*	M	Effective area mm ²		Weight g				
											TPH	TPS					
4	M5	KPQL04-M5	KPGL04-M5	8	10.4	8	20.7	22	21	18	4	4	4				
	1/8	KPQL04-01	KPGL04-01	10										10	26	25	19
	1/4	KPQL04-02	KPGL04-02	14										—	26	25	19
6	M5	KPQL06-M5	KPGL06-M5	8	12.8	8	22.8	15.8	18.5	19.5	10	10	6				
	1/8	KPQL06-01	KPGL06-01	10										10	23.2	23.5	12
	1/4	KPQL06-02	KPGL06-02	14										—	27.2	27.5	20
8	1/8	KPQL08-01	KPGL08-01	12	15.2	12	26.3	24.4	26	21.5	26	18	13				
	1/4	KPQL08-02	KPGL08-02	14				28.4	30				21				
10	1/4	KPQL10-02	KPGL10-02	17	18.5	17	29.4	29.9	33	24	41	29	26				
	3/8	KPQL10-03	KPGL10-03					31.9	34.5				36				
12	3/8	KPQL12-03	KPGL12-03	22	20.9	17	31.4	33.1	37	25	58	46	38				
	1/2	KPQL12-04	KPGL12-04					37.1	39.5				65				

(M5)




(R)



* Reference dimension for R threads after installation Note 1) øD₁ indicates the maximum diameter.

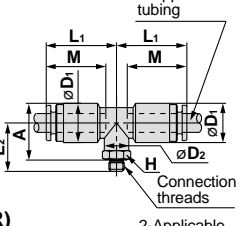
Union Tee: KPQT, KPQT

(M5)

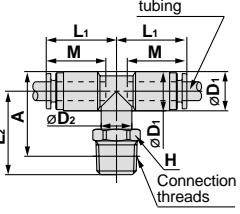


Applicable tubing O.D. mm	Connection threads R	Model		H (width across flats)	Note 1) øD ₁	øD ₂	L ₁	L ₂	A*	M	Effective area mm ²		Weight g				
											TPH	TPS					
4	M5	KPQT04-M5	KPGT04-M5	8	10.4	8	20.7	22	21	18	4	4	6				
		1/8	KPQT04-01	KPGT04-01										10	10	26	25
	1/4	KPQT04-02	KPGT04-02	14										—	26	25	19
6	M5	KPQT06-M5	KPGT06-M5	8	12.8	8	22.8	15.8	18.5	19.5	10	10	7				
		1/8	KPQT06-01	KPGT06-01										10	10	23.2	23.5
	1/4	KPQT06-02	KPGT06-02	14										—	27.2	27.5	20
8	1/8	KPQT08-01	KPGT08-01	12	15.2	12	26.3	24.4	26	21.5	26	18	14				
	1/4	KPQT08-02	KPGT08-02	14				28.4	30				22				
10	1/4	KPQT10-02	KPGT10-02	17	18.5	17	29.4	29.9	33	24	41	29	29				
	3/8	KPQT10-03	KPGT10-03					31.9	34.5				39				
12	3/8	KPQT12-03	KPGT12-03	22	20.9	17	31.4	33.1	37	25	58	46	41				
	1/2	KPQT12-04	KPGT12-04					37.1	39.5				38				

(M5)



(R)



* Reference dimension for R threads after installation Note 1) øD₁ indicates the maximum diameter.

Dimensions

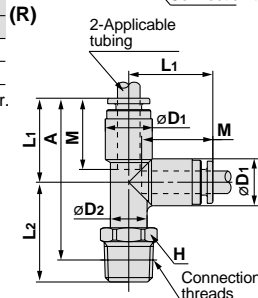
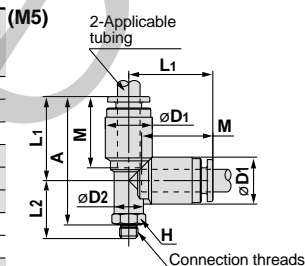
Male Run Tee: KPQY, KPGY

(M5)



Applicable tubing O.D. mm	Connection threads R	Model		H (width across flats)	Note 1) $\varnothing D_1$	$\varnothing D_2$	L1	L2	A*	M	Effective area mm ²		Weight g
		TPH	TPS										
4	M5	KPQY04-M5	KPGY04-M5	8	10.4	8	20.7	22	32.5	18	4	4	6
	1/8	KPQY04-01	KPGY04-01	10									13
	1/4	KPQY04-02	KPGY04-02	14									19
6	M5	KPQY06-M5	KPGY06-M5	8	12.8	8	22.8	23.2	40	19.5	10	10	7
	1/8	KPQY06-01	KPGY06-01	10									14
	1/4	KPQY06-02	KPGY06-02	14									20
8	1/8	KPQY08-01	KPGY08-01	12	15.2	12	26.3	24.4	44.5	21.5	26	18	14
	1/4	KPQY08-02	KPGY08-02	14									22
10	1/4	KPQY10-02	KPGY10-02	17	18.5	17	29.4	29.9	53.5	24	41	29	29
	3/8	KPQY10-03	KPGY10-03										39
	3/8	KPQY12-03	KPGY12-03										41
12	3/8	KPQY12-03	KPGY12-03	22	20.9	17	31.4	33.1	58	25	58	46	41
	1/2	KPQY12-04	KPGY12-04										68

* Reference dimension for R threads after installation Note 1) $\varnothing D_1$ indicates the maximum diameter.



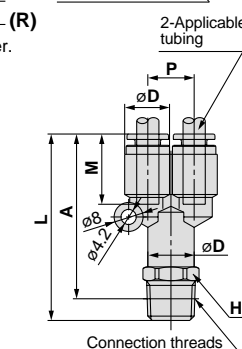
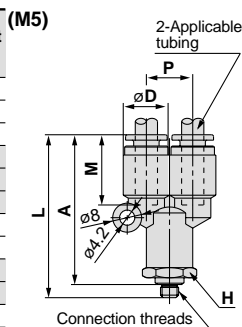
Male Branch: KPQU, KPGU

(M5)



Applicable tubing O.D. mm	Connection threads R	Model		H (width across flats)	Note 1) $\varnothing D$	L	P	A*	M	Effective area mm ²		Weight g		
		TPH	TPS											
4	M5	KPQU04-M5	KPGU04-M5	11	10.4	41.7	10.4	38	18	4	4	10		
	1/8	KPQU04-01	KPGU04-01									44.2	38	11
	1/4	KPQU04-02	KPGU04-02									48.2	42	20
6	M5	KPQU06-M5	KPGU06-M5	13	12.8	44.9	12.8	41.5	19.5	10	10	12		
	1/8	KPQU06-01	KPGU06-01									47.4	41.5	11
	1/4	KPQU06-02	KPGU06-02									51.4	45.5	21
8	1/8	KPQU08-01	KPGU08-01	17	15.2	55.5	15.2	49.5	21.5	26	18	15		
	1/4	KPQU08-02	KPGU08-02									60.6	54.5	23
10	1/4	KPQU10-02	KPGU10-02	19	18.5	63.8	18.5	58	24	41	29	30		
	3/8	KPQU10-03	KPGU10-03									61.3	55	40
	3/8	KPQU12-03	KPGU12-03									67	60.5	40
12	3/8	KPQU12-03	KPGU12-03	22	20.9	71.4	20.9	60.5	25	58	46	40		
	1/2	KPQU12-04	KPGU12-04									65		

* Reference dimension for R threads after installation Note 1) $\varnothing D$ indicates the maximum diameter.

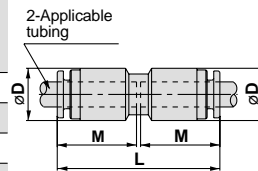


Straight Union: KPQH, KPGH



Applicable tubing O.D. mm	Model		Note 1) $\varnothing D$	L	M	Effective area mm ²		Weight g
	TPH	TPS						
4	KPQH04-00	KPGH04-00	10.4	37.4	18	4	4	4
6	KPQH06-00	KPGH06-00	12.8	39.6	19.5	10	10	6
8	KPQH08-00	KPGH08-00	15.2	44.4	21.5	26	18	10
10	KPQH10-00	KPGH10-00	18.5	48.6	24	41	29	15
12	KPQH12-00	KPGH12-00	20.9	50.6	25	58	46	18

Note 1) $\varnothing D$ indicates the maximum diameter.



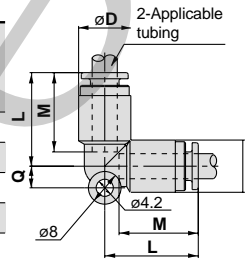
Series KPQ/KPG

Elbow: KPQL, KPGL



Applicable tubing O.D. mm	Model		Note 1) $\varnothing D$	L	Q	M	Effective area mm ²		Weight g
							TPH	TPS	
4	KPQL04-00	KPGL04-00	10.4	20.7	4.5	18	3.5	3.5	3
6	KPQL06-00	KPGL06-00	12.8	22.8	5.3	19.5	9	9	7
8	KPQL08-00	KPGL08-00	15.2	26.3	6	21.5	22	15	11
10	KPQL10-00	KPGL10-00	18.5	29.4	6.8	24	35	25	16
12	KPQL12-00	KPGL12-00	20.9	31.4	7.5	25	50	40	20

Note 1) $\varnothing D$ indicates the maximum diameter.

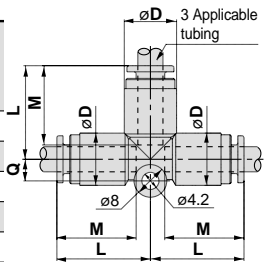


Union Tee: KPQT, KPGT



Applicable tubing O.D. mm	Model		Note 1) $\varnothing D$	L	Q	M	Effective area mm ²		Weight g
							TPH	TPS	
4	KPQT04-00	KPGT04-00	10.4	20.7	4.5	18	4	4	7
6	KPQT06-00	KPGT06-00	12.8	22.8	5.3	19.5	10	10	9
8	KPQT08-00	KPGT08-00	15.2	26.3	6	21.5	26	18	16
10	KPQT10-00	KPGT10-00	18.5	29.4	6.8	24	41	29	25
12	KPQT12-00	KPGT12-00	20.9	31.4	7.5	25	58	46	29

Note 1) $\varnothing D$ indicates the maximum diameter.

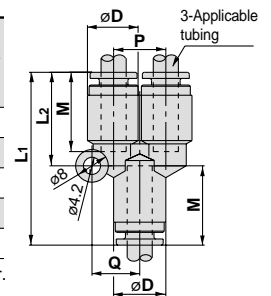


Union "Y": KPQU, KPGU



Applicable tubing O.D. mm	Model		Note 1) $\varnothing D$	L ₁	L ₂	P	Q	M	Effective area mm ²		Weight g
									TPH	TPS	
4	KPQU04-00	KPGU04-00	10.4	38.8	20.6	10.4	9.7	18	4	4	7
6	KPQU06-00	KPGU06-00	12.8	42.1	22.8	12.8	11.7	19.5	10	10	10
8	KPQU08-00	KPGU08-00	15.2	48.7	27.5	15.2	13.7	21.5	26	18	17
10	KPQU10-00	KPGU10-00	18.5	54	30.7	18.5	16.1	24	41	29	26
12	KPQU12-00	KPGU12-00	20.9	57.2	32.9	20.9	18.1	25	58	46	32

Note 1) $\varnothing D$ indicates the maximum diameter.

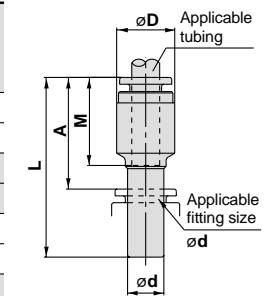


Plug-in Reducer: KPQR, KPGR



Applicable tubing O.D. mm	Applicable fitting size $\varnothing d$	Model		Note 1) $\varnothing D$	L	A	M	Effective area mm ²		Weight g
								TPH	TPS	
4	6	KPQR04-06	KPGR04-06	10.4	39.4	20.1	18	4	4	3
		KPQR04-08	KPGR04-08		41.9	20.2				
6	8	KPQR06-08	KPGR06-08	12.8	42.5	20.8	19.5	10	10	4
		KPQR06-10	KPGR06-10		45	21.2				
8	10	KPQR08-10	KPGR08-10	15.2	47	23.2	21.5	26	18	5
		KPQR08-12	KPGR08-12		48	23.2				
10	12	KPQR10-12	KPGR10-12	18.5	50.5	25.7	24	41	29	9

Note 1) $\varnothing D$ indicates the maximum diameter.



Plug: KPP



Applicable fitting size $\varnothing d$	Model	$\varnothing D$	L	A	Weight g
4	KPP-04	6	32	13.8	0.4
6	KPP-06	8	35	15.7	0.7
8	KPP-08	10	39	17.3	1.1
10	KPP-10	12	43	19.2	1.7
12	KPP-12	14	45.5	20.7	2.5

* The plug is common for series KPQ, KPG and KP.

