

# Clean One-touch Fittings For Driving Air Piping

RoHS

# KPQ/KPG Series



## KPQ Series

Brass (electroless nickel plated)  
Release button: Light gray



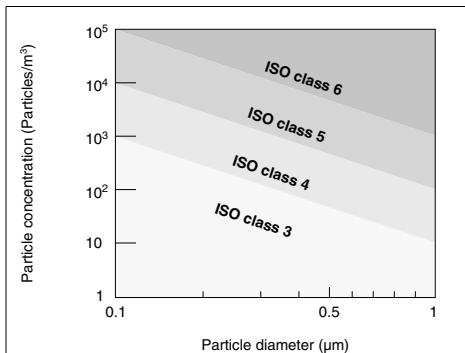
## KPG Series

Stainless steel 304  
Release button: Light blue



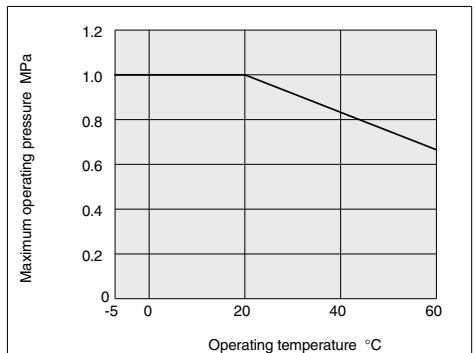
**Made to Order**  
(Refer to page 357 for details.)

## Particulate Generation Classifications



Note) Refer to "SMC Pneumatic Clean Series" (CAT.E02-23) for details.

## Relation between Operating Temperature and Maximum Operating Pressure



## Applicable Tubing

Tubing material	PFA, Polyurethane
Tubing O.D.	ø4, ø6, ø8, ø10, ø12

FEP, nylon and soft nylon tubing, and tubing not compatible with the clean series can also be used. However, the degree of clean performance will be reduced.

## Specifications

Cleanliness class (ISO class)	Class 3 <sup>Note 1)</sup>
Fluid	Air
Maximum operating pressure (20°C)	1 MPa <sup>Note 2)</sup>
Operating vacuum pressure	-100 kPa
Proof pressure (20°C)	3 MPa
Ambient and fluid temperature	-5°C to 60°C
Threads	JIS B0203 (Taper thread for piping)
Oil	Fluorine-based grease

Note 1) Refer to particle generation classifications

This falls outside of the grade because fluorine 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.

Note 3) Do not use the fittings with a leak tester or for vacuum retention because they are not guaranteed for zero leakage.

## How to Order

**Clean One-touch fittings**

**Specifications**

Symbol	Specifications (metal part materials)
<b>Q</b>	Brass (electroless nickel plated)
<b>G</b>	Stainless steel 304

**Model**

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

**Applicable tubing O.D.**

<b>04</b>	ø4
<b>06</b>	ø6
<b>08</b>	ø8
<b>10</b>	ø10
<b>12</b>	ø12

**Made to Order**

<b>X53</b>	With pipe tape Grease-free
<b>X193</b> (Note 1)	Rubber material: EPDM (Fluorine-coated) Gasket: M-5G3 (Stainless steel 316, Special FK(M) (Note 2)) With release bushing, Guide color: Natural

Note 1) KPG series: Compatible with products with threads only  
Note 2) M5 thread

**Port size/Applicable tubing O.D.**

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

Different dia. tubing (plug-in reducer)

**Applicable fitting size**

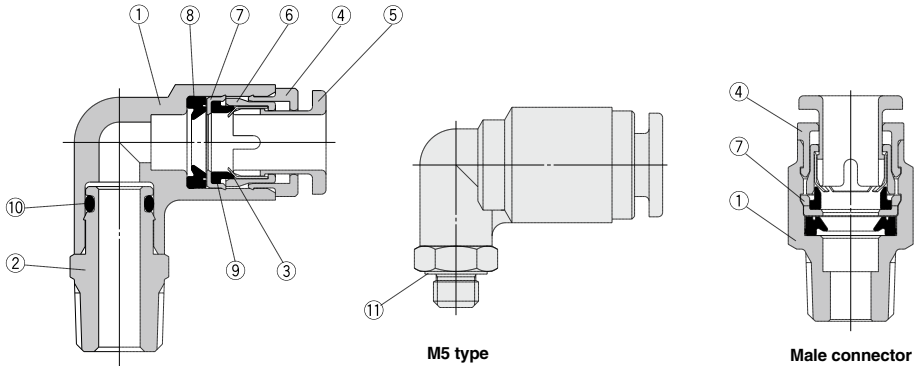
<b>04</b>	ø4
<b>06</b>	ø6
<b>08</b>	ø8
<b>10</b>	ø10
<b>12</b>	ø12

**Plug**

**Clean One-touch fittings**

**For details on applicable tubing O.D. and port size combinations for each model, refer to the charts on the Dimensions page.**

## Construction



## Component Parts

No.	Description	Material	
		KPQ Series	KPG Series
1	<b>Body</b> With male connector	C3604 (electroless nickel plated)	Stainless steel 304
2	<b>Stud</b>	C3604 (electroless nickel plated)	Stainless steel 304
3	<b>Chuck</b>	Stainless steel 304	
4	<b>Guide</b> With male connector	C3604 (electroless nickel plated)	Stainless steel 304
5	<b>Release button</b>	PP (color: light gray)	PP (color: light blue)
6	<b>Collet</b>	PP	
7	<b>Stopper</b> With male connector	Stainless steel 304	
8	<b>Seal</b>	PP	
9	<b>Bumper</b>	NBR	
10	<b>O-ring</b>	NBR	
11	<b>Gasket</b>	Stainless steel 304, NBR	

- KQ2
- KQB2
- KS
- KX
- KM
- KF
- M
- H/DL
- L/L
- KC
- KK
- KK130
- DM
- KDM
- KB
- KR
- KA
- KQG2
- KG
- KFG2
- MS
- KKA
- KP
- LQ
- MQR
- T
- IDK

# KPQ/KPG Series

## Dimensions

### Male Connector: KPQH, KPGH

(M5)	Applicable tubing O.D. mm	Connection thread R M	Model		H (width across flats)	øD	L	A*	M	Effective area mm <sup>2</sup>		Weight g	(M5)					
										TPH	TPS							
	M5 x 0.8		KPQH04-M5	—	8	10	24.4	21.5	17	4	4	4						
			—	KPGH04-M5			—							24.9				
			1/8 KPQH04-01	KPGH04-01	10	—	23.5	18.5						7				
			1/4 KPQH04-02	KPGH04-02	14	—	21.4	16						12				
(R)	M5 x 0.8		KPQH06-M5	—	8	12	25.3	22	18.5	10	10	5						
			—	KPGH06-M5			—							25.8				
			1/8 KPQH06-01	KPGH06-01	12	—	23.7	18.5						7				
			1/4 KPQH06-02	KPGH06-02	14	—	24.6	19						14				
	M5 x 0.8		KPQH08-01	KPGH08-01	14	—	30.7	25.5	20.5	26	18	14						
			—	KPGH08-01			—							29.1	23.5			
			1/8 KPQH08-01	KPGH08-01	—	—	30.7	25.5						10				
			1/4 KPQH08-02	KPGH08-02	—	—	29.1	23.5						13				
	M5 x 0.8		KPQH10-02	KPGH10-02	17	—	36.1	30.5	23	41	29	24						
			—	KPGH10-02			—							30.9	25.5			
			1/4 KPQH10-03	KPGH10-03	—	—	30.9	25.5						23				
			3/8 KPQH10-03	KPGH10-03	—	—	32	26.5						23				
	M5 x 0.8		KPQH12-03	KPGH12-03	19	—	32	26.5	24	58	46	23						
			—	KPGH12-03			—							32.2	25			
(R)	M5 x 0.8		KPQH12-04	KPGH12-04	22	—	32.2	25						24	58	46	23	
			—	KPGH12-04			—											

\* Reference dimension for R threads after installation

### Male Elbow: KPQL, KPGL

(M5)	Applicable tubing O.D. mm	Connection thread R M	Model		H (width across flats)	øD1	øD2	L1	L2	A*	M	Effective area mm <sup>2</sup>		Weight g	(M5)	
												TPH	TPS			
	M5 x 0.8		KPQL04-M5	KPGL04-M5	8	10.4	8	15.3	17	21.1	21	17	4	4	10	
			—	KPGL04-01				—	21.1							
			1/4 KPQL04-02	KPGL04-02	14	—	25.5	25	19							
(R)	M5 x 0.8		KPQL06-M5	KPGL06-M5	8	12.8	10	15.8	18.5	22.3	23.5	18.5	10	10	12	
			—	KPGL06-01				—	22.3							
			1/4 KPQL06-02	KPGL06-02	14	—	26.7	27.5	20							
	M5 x 0.8		KPQL08-01	KPGL08-01	12	15.2	12	23.5	26	29.4	30	20.5	26	18	21	
			—	KPGL08-01				—	27.9							
			1/4 KPQL08-02	KPGL08-02	14	—	29.4	30	13							
	M5 x 0.8		KPQL10-02	KPGL10-02	17	18.5	17	29.4	33	30.8	34.5	23	41	29	26	
			—	KPGL10-03				—	30.8							
			3/8 KPQL10-03	KPGL10-03	—	—	32	37	36							
	M5 x 0.8		KPQL12-03	KPGL12-03	22	20.9	—	32	37	36.2	39.5	24	58	46	35	
			—	KPGL12-04				—	36.2							
(R)	M5 x 0.8		KPQL12-04	KPGL12-04	22	20.9	—	30.4	37	36.2	39.5	24	58	46	65	

\* Reference dimension for R threads after installation

### Union Tee: KPQT, KPGT

(M5)	Applicable tubing O.D. mm	Connection thread R M	Model		H (width across flats)	øD1	øD2	L1	L2	A*	M	Effective area mm <sup>2</sup>		Weight g	(M5)	
												TPH	TPS			
	M5 x 0.8		KPQT04-M5	KPGT04-M5	8	10.4	8	15.3	17	21.1	21	17	4	4	6	
			—	KPGT04-01				—	21.1							
			1/4 KPQT04-02	KPGT04-02	14	—	25.5	25	19							
(R)	M5 x 0.8		KPQT06-M5	KPGT06-M5	8	12.8	10	15.8	18.5	22.3	23.5	18.5	10	10	14	
			—	KPGT06-01				—	22.3							
			1/4 KPQT06-02	KPGT06-02	14	—	26.7	27.5	20							
	M5 x 0.8		KPQT08-01	KPGT08-01	12	15.2	12	23.5	26	29.4	30	20.5	26	18	14	
			—	KPGT08-01				—	27.9							
			1/4 KPQT08-02	KPGT08-02	14	—	29.4	30	22							
	M5 x 0.8		KPQT10-02	KPGT10-02	17	18.5	17	29.4	33	30.8	34.5	23	41	29	29	
			—	KPGT10-03				—	30.8							
			3/8 KPQT10-03	KPGT10-03	—	—	32	37	39							
	M5 x 0.8		KPQT12-03	KPGT12-03	22	20.9	—	32	37	36.2	39.5	24	58	46	31	
			—	KPGT12-04				—	36.2							
(R)	M5 x 0.8		KPQT12-04	KPGT12-04	22	20.9	—	30.4	37	36.2	39.5	24	58	46	38	

\* Reference dimension for R threads after installation