

# Series 10-KG Stainless One-touch Fittings

RoHS

## Construction

**Guide**  
**Collet**  
**Chuck**

### Large retaining force

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

### Seal

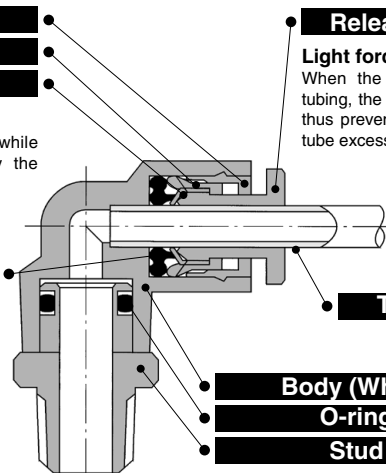
Can be used for a wide range of pressures from a low vacuum up to a pressure of 1.0 MPa

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

### Release Button (White)

#### Light force for removal

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



### Tubing

### Body (White)

### O-ring

### Stud

Effective when piping in a confined space

The body and threaded portion can rotate.

Stainless specifications applicable to corrosive environments

Stainless steel 303 adopted for metal elements

Suitable for use in CRT production lines where contact with copper must be avoided, food processing machines where water or salt water splashes and clean room where discoloration of copper material and corrosion must be avoided.

## Applicable Tubing

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

## Specifications

Fluid	Air, Water <sup>Note 1, 2)</sup>	
Maximum operating pressure	1.0 MPa	
Operating vacuum pressure	-100 kPa	
Proof pressure	3.0 MPa	
Ambient and fluid temperature	-5 to 60°C, Water: 0 to 40°C (No freezing)	
Thread	Mounting section	JIS B0203 (Taper thread for piping)
	Nut section	JIS B0211 Class 2 (Metric fine thread)
Seal (Thread portion)	With seal or none <sup>Note 3)</sup>	
Grease	Fluorine grease	
Cleanliness class (ISO class)	Class 5	

Note 1) Applicable for general industrial water. Please consult with SMC if using for other kinds of fluid.

Also, the surge pressure must be under the maximum operating pressure.

Note 2) Deionized water is not recommended for use as it may affect the material used in the fittings.

In addition, it is known to degrade the water quality.

Note 3) Suffix "S" to the part number, if w/ seal is desired.

## Principal Parts Material

Body	Stainless steel 303, PBT
Stud	Stainless steel 303 (Thread portion)
Chuck	Stainless steel 304
Guide	Stainless steel 304, POM
Collet, Release button	POM
Seal, O-ring	NBR



Directional Control Valves

Air Cylinders

Rotary Actuators

Air Grippers

Air Preparation Equipment

Modular F. R.


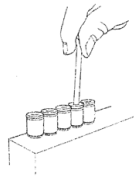

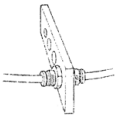

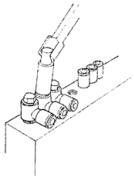

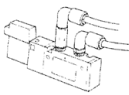


















Pressure Control Equipment

Fittings & Tubing

Flow Control Equipment

Pressure Switches/ Pressure Sensors

**Model**

<p><b>Hex. socket head male connector</b> 10-KGS</p> 	<p>Internal hex. allows thread connection by using an allen wrench for confined spaces.</p> 	<p><b>Bulkhead union</b> 10-KGE</p> 	<p>Use to connect tubes through a panel.</p> 		
<p><b>Universal male elbow</b> 10-KGV</p> 	<p>Universal male elbow allows thread connection by using a socket wrench for confined spaces.</p> 	<p><b>Extended male elbow</b> 10-KGW</p> 	<p>Basically, it is used together with male elbow. Different point is that it is used for fittings to avoid from interfering with each other by making the piping two-level.</p> 		
<p><b>Male connector</b> 10-KGH</p> 	<p>Use to pipe in the same direction from female thread. Most general model.</p>	<p><b>Male elbow</b> 10-KGL</p> 	<p>Use to pipe at right angles to female thread. Most general model.</p>	<p><b>Male branch tee</b> 10-KGT</p> 	<p>Use to branch line from female thread in both 90° directions.</p>
<p><b>Female connector</b> 10-KGF</p> 	<p>Use to pipe from male thread such as pressure gauge.</p>	<p><b>Union elbow</b> 10-KGL</p> 	<p>Use to connect tubes at right angles.</p>	<p><b>Union tee</b> 10-KGT</p> 	<p>Use to connect tubes in both 90° directions.</p>
<p><b>Straight union</b> 10-KGH</p> 	<p>Use to connect tubes in the same direction.</p>	<p><b>Plug-in elbow</b> 10-KGL</p> 	<p>Use to change by 90° in a tube fetching direction from One-touch fittings.</p>	<p><b>Different diameter tee</b> 10-KGT</p> 	<p>Use to connect tubes with size down in both 90° directions.</p>
<p><b>Different diameter straight</b> 10-KGH</p> 	<p>Use to connect different size tubes.</p>	<p><b>Male delta union</b> 10-KGD</p> 	<p>Use to branch line in 90° direction from female thread.</p>	<p><b>Male run tee</b> 10-KGY</p> 	<p>Use to branch line in the same direction from female thread and in 90° direction.</p>
<p><b>Male branch connector</b> 10-KGLU</p> 	<p>Use to branch line at right angles to female thread.</p>	<p><b>Delta union</b> 10-KGD</p> 	<p>Use to branch line in triple 90° direction.</p>	<p><b>Different diameter double union "Y"</b> 10-KGUD</p> 	<p>Use to four-branch line in the same direction.</p>
<p><b>Branch union elbow</b> 10-KGLU</p> 	<p>Use to branch line at right angles.</p>	<p><b>Double branch "Y"</b> 10-KGUD</p> 	<p>Use to four-branch line in the same direction from female thread.</p>	<p><b>Union "Y"</b> 10-KGU</p> 	<p>Use to branch line in the same direction.</p>

**Model**

Different diameter union "Y"

10-KGU



Use to connect tubes in the same direction, reducing the size of tubes.

Plug-in reducer

10-KGR



Use to change size of One-touch fittings.

Tube cap

10-KGC



Use to plug unused tubing.

Branch "Y"

10-KGU

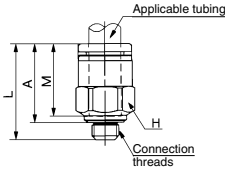


Use to branch line in the same direction from the female thread.

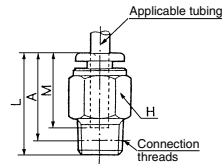


**Male Connector: 10-KGH**

M5



R

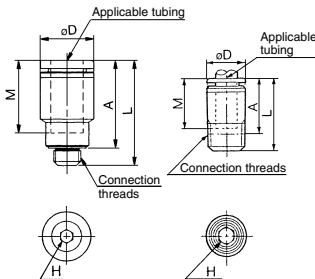


Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	L	A *	M	Effective area (mm <sup>2</sup> )		Weight (g)
							Urethane		
4	M5 x 0.8	10-KGH04-M5	8	17	13.9	12.7	4	2.4	
	1/8	10-KGH04-01	10	21.1	18	16	4	9	
	1/4	10-KGH04-02	14	19	13.5		16		
6	M5 x 0.8	10-KGH06-M5	10	17.8	14.7	13.5	4	3.4	
	1/8	10-KGH06-01	12	21.6	18.5	17	10.4	16	
	1/4	10-KGH06-02	14	22.5	17		16		
	3/8	10-KGH06-03	17	20.9	15.5		27		
1/2	10-KGH06-04	22	21.1	19	21				
8	1/8	10-KGH08-01	14	27.1	24	18.5	18.0	19	
	1/4	10-KGH08-02	17	26	20.5		19		
	3/8	10-KGH08-03	17	20.9	15.5		26		
10	1/8	10-KGH10-01	14	29.1	26	21	29.5	19	
	1/4	10-KGH10-02	17	33	27.5		30		
	3/8	10-KGH10-03	17	27.9	22.5		30		
	1/2	10-KGH10-04	22	26.1	19		53		
12	1/4	10-KGH12-02	19	34	28.5	22	46.1	42	
	3/8	10-KGH12-03	19	28.9	23.5		34		
	1/2	10-KGH12-04	22	29.1	22		51		
16	3/8	10-KGH16-03	24	38.4	33	25	68	61	
	1/2	10-KGH16-04	24	34.6	27.5		80.6	47	

\* Reference dimensions after R thread installation.

**Hexagon Socket Head Male Connector: 10-KGS**

M5



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD	L	A *	M	Effective area (mm <sup>2</sup> )		Weight (g)
								Urethane		
4	M5 x 0.8	10-KGS04-M5	2.5	8	18.7	15.6	12.7	4	2.6	
	1/8	10-KGS04-01	3	9.8	23	19	16	3.6	8	
6	M5 x 0.8	10-KGS06-M5	2.5	10	19.5	16.4	13.5	4	3.2	
	1/8	10-KGS06-01	4	11.8	24	20	17	9.9	9	
	1/4	10-KGS06-02	4	13.8	18	10.0		15		
8	1/8	10-KGS08-01	5	14	28	24	18.5	16.2	12	
	1/4	10-KGS08-02	6	25.5	19.5	11				
	3/8	10-KGS08-03	6	27.5	21.5	24				
10	1/8	10-KGS10-01	5	17	30	26	21	16.2	18	
	1/4	10-KGS10-02	8	27.5	21	12				
	3/8	10-KGS10-03	8	27.5	21.5	19				
	1/2	10-KGS10-04	8	22	28	20		35		
12	1/4	10-KGS12-02	8	19	33.5	27.5	22	44.5	23	
	3/8	10-KGS12-03	10	29	22.5	18				
	1/2	10-KGS12-04	10	22	28	20		30		

\* Reference dimensions after R thread installation.

Directional Control Valves

Air Cylinders

Rotary Actuators

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Modular F. R.

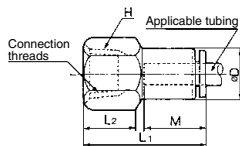
Pressure Control Equipment

Fittings & Tubing

Flow Control Equipment

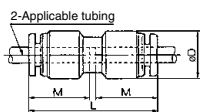
Pressure Switches/Pressure Sensors

**Female Connector: 10-KGF**



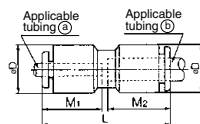
Applicable tubing O.D. (mm)	Connection thread Rc	Model	H (width across flats)	øD	L1	L2	M	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)
	1/4	10-KGF04-02	17	31	14	23			
6	1/8	10-KGF06-01	14	12	27.5	11	17	10.4	15
	1/4	10-KGF06-02	17		31	13			22
	3/8	10-KGF06-03	19		33.5	15			25
8	1/8	10-KGF08-01	14	14	29	11	18.5	18.0	17
	1/4	10-KGF08-02	17		32.5	13			24
	3/8	10-KGF08-03	19		33.5	14			24
10	1/4	10-KGF10-02	17	17	34.5	14	21	29.5	27
	3/8	10-KGF10-03	19		36.5	15			30
	1/2	10-KGF10-04	22		37	14			31
12	1/4	10-KGF12-02	19	19	35	14	22	46.1	36
	3/8	10-KGF12-03	19		37	14			31
	1/2	10-KGF12-04	24		41	18			52

**Straight Union: 10-KGH**



Applicable tubing O.D. (mm)	Model	øD	L	M	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)
4	10-KGH04-00	10.4	32.5	16	4	3
6	10-KGH06-00	12.8	34.5	17	10.4	4
8	10-KGH08-00	15.2	38.5	18.5	18.0	6
10	10-KGH10-00	18.5	42.5	21	29.5	11
12	10-KGH12-00	20.9	44.5	22	46.1	14

**Different Diameter Straight: 10-KGH**

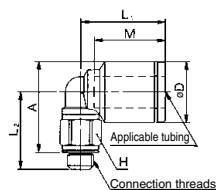


Applicable tubing O.D. (mm)		Model	øD	L	M <sub>1</sub>	M <sub>2</sub>	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)
Ⓐ	Ⓑ							
4	6	10-KGH04-06	12.8	34.5	16	17	4	5
6	8	10-KGH06-08	15.2	38.5	17	18.5	10.4	6
8	10	10-KGH08-10	18.5	42	18.5	21	18.0	11
10	12	10-KGH10-12	20.9	44.5	21	22	29.5	14

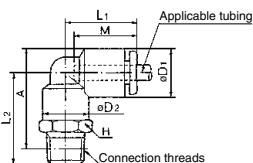
**Male Elbow: 10-KGL**



M5



R



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD <sup>1)</sup>	øD <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	A *	M	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)	
												4
4	1/8	10-KGL04-01	10	10.4	10	18	21.1	23	16	4.2	10	
	1/4	10-KGL04-02	14				25.5	25				19
	M5 x 0.8	10-KGL06-M5	7				11.6	-				16.1
6	1/8	10-KGL06-01	10	12.8	10	20	22.1	25.5	17	9.0	12	
	1/4	10-KGL06-02	14				26.5	27.5				10
	3/8	10-KGL06-03	17				27.9	29				33
8	1/8	10-KGL08-01	12	15.2	12	23	23.6	28	18.5	14.9	13	
	1/4	10-KGL08-02	14				28	30				21
	3/8	10-KGL08-03	17				29.4	31.5				35
10	1/8	10-KGL10-01	17	18.5	17	26.5	26.1	32	21	25.0	25	
	1/4	10-KGL10-02	17				29.5	33				26
	3/8	10-KGL10-03	17				30.9	34.5				36
	1/2	10-KGL10-04	22				35.1	37				63
	1/4	10-KGL12-02	17				30.5	35.5				28
12	1/4	10-KGL12-03	17	20.9	17	28.5	31.9	37	22	39.7	38	
	3/8	10-KGL12-03	17				36.1	39.5				65
	1/2	10-KGL12-04	22				36.9	44.5				101
16	3/8	10-KGL16-03	22	26.5	20.9	34	36.9	44.5	25	59.6	101	
	1/2	10-KGL16-04	22				40.1	46				70.6

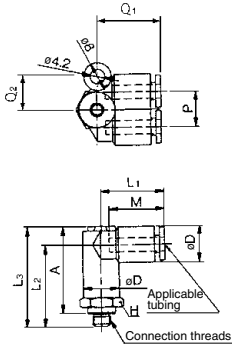
\* Reference dimensions after R thread installation.

Note 1) For the ø16, this dimension refers to the O.D. of the release button.



**Male Branch Connector: 10-KGLU**

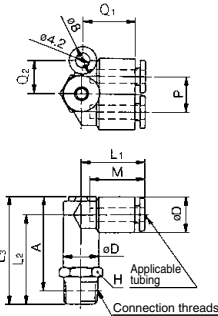
**M5**



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD	L1	L2	L3	A *	M	P	Q1	Q2	Effective area (mm <sup>2</sup> )	Weight (g)
													Urethane	
4	M5 x 0.8	10-KGLU04-M5	11	10.4	18.5	24	28.5	25.5	16	10.4	18.5	10	4.1	10
	1/8	10-KGLU04-01				25.6	31.1	27.5					4.1	12
	1/4	10-KGLU04-02	30	35.5	30	4.1	21							
6	M5 x 0.8	10-KGLU06-M5	13	12.8	21	26.5	33	29.5	17	12.8	20.5	12	4.3	13
	1/8	10-KGLU06-01				28.6	35.1	32						
	1/4	10-KGLU06-02	32.5	39	33.5	11.0	22							
	3/8	10-KGLU06-03	33.9	40.4	35	35								
8	1/8	10-KGLU08-01	17	15.2	24	33.1	40.6	38	18.5	15.2	24.5	14	18.2	27
	1/4	10-KGLU08-02				36.5	44	38.5						35
	3/8	10-KGLU08-03	36.9	44.4	39	35								
10	1/4	10-KGLU10-02	19	18.5	27	39.5	49	43.5	21	18.5	28	16	29.0	41
	3/8	10-KGLU10-03				39.9	49.4	44						42
	1/2	10-KGLU10-04	22	43.6	53.1	45.5	64							
12	1/4	10-KGLU12-02	22	20.9	29	42	52.5	47	22	20.9	30	18	45.2	57
	3/8	10-KGLU12-03				42.4	52.9	47.5						58
	1/2	10-KGLU12-04	45.6	56.1	49	65								

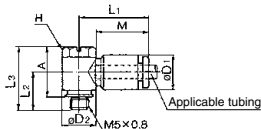
\* Reference dimensions after R thread installation.

**R**



**Universal Male Elbow: 10-KGV**

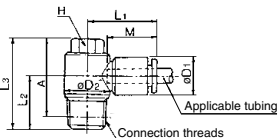
**M5**



Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD1	øD2	L1	L2	L3	A *	M	P	Q1	Q2	Effective area (mm <sup>2</sup> )	Weight (g)
														Urethane	
4	M5 x 0.8	10-KGV04-M5	8	10.4	9.8	20.5	11	18.5	15	16	10.4	18.5	10	6	6
	1/8	10-KGV04-01												13.4	
6	M5 x 0.8	10-KGV06-M5	8	12.8	9.8	23.5	12	18.5	15	17	12.8	20.5	12	3.8	7
	1/8	10-KGV06-01												13.4	
	1/4	10-KGV06-02	10	15.3	23.5	18	30.5	25	24						
8	1/8	10-KGV08-01	12	15.2	17.6	28.5	14.6	27.6	24.5	18.5	15.2	24.5	14	11.2	24
	1/4	10-KGV08-02												18	
	3/8	10-KGV08-03	14	20.6	27.5	19.4	35.4	30	14.3	47					
10	1/4	10-KGV10-02	14	18.5	20.6	31	19	35	29.5	21	18.5	28	16	20.3	40
	3/8	10-KGV10-03												19.4	
12	3/8	10-KGV12-03	17	20.9	25.2	34	20.9	37.4	32	22	20.9	30	18	63	80
	1/2	10-KGV12-04												24.1	

\* Reference dimensions after R thread installation.

**R**



Directional Control Valves

Air Cylinders

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Air Grippers

Air Preparation Equipment

Modular F. R.

Pressure Control Equipment

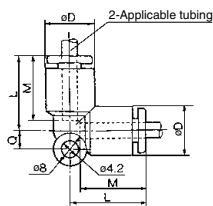
Fittings & Tubing

Flow Control Equipment

Pressure Switches/ Pressure Sensors



### Union Elbow: 10-KGL

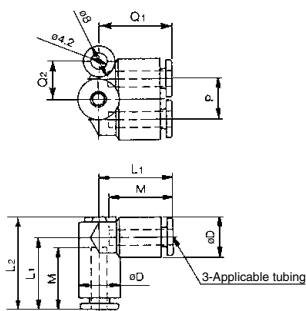


Applicable tubing O.D. (mm)	Model	$\phi D$ <sup>Note 1)</sup>	L	Q	M2	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)
4	10-KGL04-00	10.4	18	4.5	16	4.2	6
6	10-KGL06-00	12.8	20	5.3	17	9.0	6
8	10-KGL08-00	15.2	23	6	18.5	14.9	10
10	10-KGL10-00	18.2	26.5	6.8	21	25.0	17
12	10-KGL12-00	20.9	28.5	7.5	22	39.7	21
16	10-KGL16-00	26.5	34	10	25	70.6	29

Note 1) For the  $\phi 16$ , this dimension refers to the O.D. of the release button.



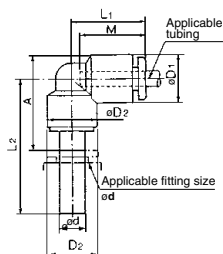
### Branch Union Elbow: 10-KGLU



Applicable tubing O.D. (mm)	Model	$\phi D$	L1	L2	Q1	Q2	M	P	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)
4	10-KGLU04-00	10.4	18.5	24	18.5	10	16	10.4	4.1	6
6	10-KGLU06-00	12.8	21	27.5	20.5	12	17	12.8	11.0	8
8	10-KGLU08-00	15.2	24	32	24.5	14	18.5	15.2	18.2	15
10	10-KGLU10-00	18.5	27	36.5	28	16	21	18.5	29.0	25
12	10-KGLU12-00	20.9	29	40	30	18	22	20.9	45.2	32



### Plug-in Elbow: 10-KGL

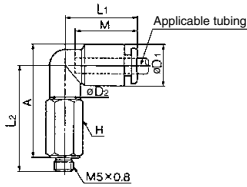


Applicable tubing O.D. (mm)	Applicable fitting size $\phi d$	Model	$\phi D_1$	$\phi D_2$	L1	L2	A	M	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)
4	4	10-KGL04-99	10.4	8	18	25	14.5	16	4.2	8
6	6	10-KGL06-99	12.8	10	20	27.5	17	17	9.0	10
8	8	10-KGL08-99	15.2	12	22.5	31.5	21	18.5	14.9	14
10	10	10-KGL10-99	18.5	14	25.5	35.5	23.5	21	25.0	25
12	12	10-KGL12-99	20.9	16	27	37.5	26	22	39.7	28

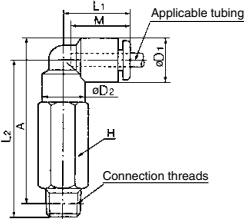


**Extended Male Elbow: 10-KGW**

M5



R

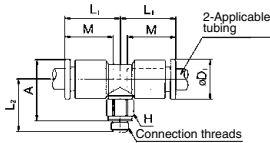


Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD <sub>1</sub>	øD <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	A *	M	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)	
4	M5 x 0.8	10-KGW04-M5	8	10.4	8	18	30	32	16	3.0	11	
	1/8	10-KGW04-01	10				36.6	38.5		4.0	23	
	1/4	10-KGW04-02	14				43	42.5		3.0	11	
6	M5 x 0.8	10-KGW06-M5	8	12.8	8	20	30.5	33.5	17	8.6	26	
	1/8	10-KGW06-01	10				39.1	42.5				41
	1/4	10-KGW06-02	14				45.5	46.5				67
8	1/8	10-KGW08-01	12	15.2	12	23	42.6	47	18.5	14.2	30	
	1/4	10-KGW08-02	14				49	51			47	
	3/8	10-KGW08-03	17				50.4	52.5			74	
10	1/4	10-KGW10-02	17	18.5	17	26.5	56	59.5	21	23.8	66	
	3/8	10-KGW10-03	17				57.4	61			76	
	1/2	10-KGW10-04	22				64.1	66			145	
12	1/4	10-KGW12-02	17	20.9	17	28.5	57	62	22	37.7	68	
	3/8	10-KGW12-03	17				58.4	63.5			78	
	1/2	10-KGW12-04	22				65.1	68.5			147	

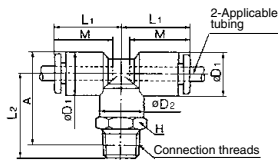
\* Reference dimensions after R thread installation.

**Male Branch Tee: 10-KGT**

M5



R

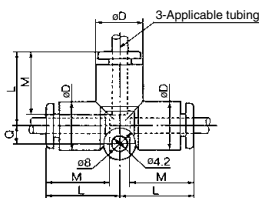


Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD <sub>1</sub> <sup>Note 1)</sup>	øD <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	A *	M	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)
4	M5 x 0.8	10-KGT04-M5	7	9.3	—	15.6	13.7	15.3	12.7	4.5	3.5
	1/8	10-KGT04-01	10	10.4	10	18	21.1	23	16	4.1	13
	1/4	10-KGT04-02	14	—	—	—	25.5	25	—	—	19
6	M5 x 0.8	10-KGT06-M5	7	11.6	—	16.1	14.7	17.4	13.5	4.5	4.4
	1/8	10-KGT06-01	10	12.8	10	20	22.1	25.5	17	11.0	12
	1/4	10-KGT06-02	14	—	—	—	26.5	27.5	—	—	20
8	1/8	10-KGT08-01	12	15.2	12	23	27.9	29	18.5	18.2	34
	1/4	10-KGT08-02	14				23.6	28			14
	3/8	10-KGT08-03	17				29.4	31.5			22
10	1/8	10-KGT10-01	12	18.5	17	26.5	26.1	32	21	29.0	31
	1/4	10-KGT10-02	17				29.5	33			29
	3/8	10-KGT10-03	17				30.9	34.5			39
12	1/4	10-KGT10-04	22	20.9	17	28.5	35.1	37	22	45.2	66
	3/8	10-KGT12-03	17				30.5	35.5			31
	1/2	10-KGT12-04	22				31.9	37			41
16	3/8	10-KGT16-03	22	26.5	20.9	34	36.9	44.5	25	59.6	112
	1/2	10-KGT16-04	22				39.6	46		84	116

\* Reference dimensions after R thread installation.

Note 1) For the ø16, this dimension refers to the O.D. of the release button.

**Union Tee: 10-KGT**



Applicable tubing O.D. (mm)	Model	øD <sup>Note 1)</sup>	L	Q	M	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)
4	10-KGT04-00	10.4	18	4.5	16	4.4	7
6	10-KGT06-00	12.8	20	5.3	17	10.6	10
8	10-KGT08-00	15.2	23	6	18.5	17.7	15
10	10-KGT10-00	18.5	26.5	6.8	21	28.4	25
12	10-KGT12-00	20.9	28.5	7.5	22	45.4	29
16	10-KGT16-00	26.5	34	10	25	70.6	40

Note 1) For the ø16, this dimension refers to the O.D. of the release button.

Directional Control Valves

Air Cylinders

Rotary Actuators

Air Grippers

Air Preparation Equipment

Modular F. R.

Pressure Control Equipment

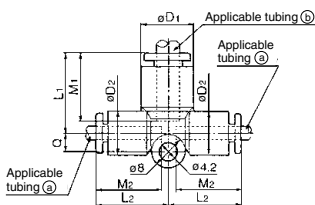
Fittings & Tubing

Flow Control Equipment

Pressure Switches/ Pressure Sensors



**Different Diameter Tee: 10-KGT**

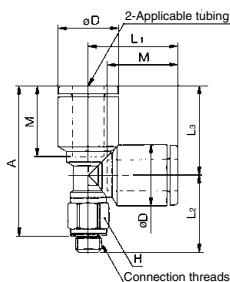


Applicable tubing O.D. (mm)		Model	øD1	øD2	L1	L2	Q	M1	M2	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)
(A)	(B)										
4	6	10-KGT04-06	12.8	10.4	19.5	18	4.5	17	16	6.5	5
6	8	10-KGT06-08	15.2	12.8	22.5	20	5.3	18.5	17	16.4	8
8	10	10-KGT08-10	18.5	15.2	26.5	23	6	21	18.5	27.2	14
10	12	10-KGT10-12	20.9	18.5	28.5	26.5	6.8	22	21	44.5	21

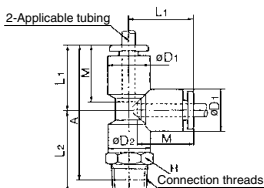


**Male Run Tee: 10-KGY**

M5



R



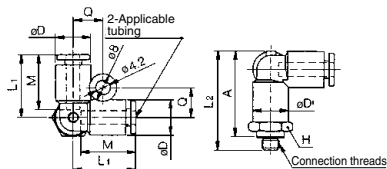
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD1 <sup>M5</sup>	øD2	L1	L2	L3	A*	M	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)
4	M5 x 0.8	10-KGY04-M5	7	9.3	—	15.6	13.7	14.8	25.4	12.7	4.5	3.5
	1/8	10-KGY04-01	10	10.4	10	18	21.1	—	36	16	4.4	13
	1/4	10-KGY04-02	14	—	—	25.5	—	38	—	—	—	19
6	M5 x 0.8	10-KGY06-M5	7	11.6	—	17.1	14.7	17.1	28.7	13.5	4.5	4.3
	1/8	10-KGY06-01	10	—	—	22.1	—	39	—	—	—	12
	1/4	10-KGY06-02	14	12.8	10	20	26.5	—	41	17	10.6	20
8	1/8	10-KGY08-01	17	—	—	27.9	—	42.5	—	—	—	34
	3/8	10-KGY08-03	17	—	—	29.4	—	47	—	—	—	36
	1/2	10-KGY08-02	14	15.2	12	23	28	—	43.5	17	10.6	14
10	3/8	10-KGY10-01	12	—	—	29.4	—	47	—	—	—	36
	1/2	10-KGY10-02	17	18.5	17	26.5	—	50.5	—	—	—	31
	3/4	10-KGY10-03	17	—	—	35.1	—	52	—	21	28.4	29
12	1/2	10-KGY10-04	22	—	—	35.1	—	54.5	—	—	—	39
	3/4	10-KGY12-02	17	—	—	30.5	—	53.5	—	—	—	31
	1/2	10-KGY12-03	17	20.9	17	28.5	31.9	—	55	22	45.4	41
16	3/4	10-KGY12-04	22	—	—	36.1	—	57.5	—	—	—	68
	1/2	10-KGY16-03	22	26.5	20.9	34	36.9	—	65.5	—	68	112
	3/4	10-KGY16-04	22	—	—	40.1	—	67	—	25	94.9	116

\* Reference dimensions after R thread installation.  
Note 1) For the ø16, this dimension refers to the O.D. of the release button.

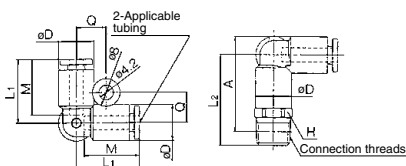


**Male Delta Union: 10-KGD**

M5



R



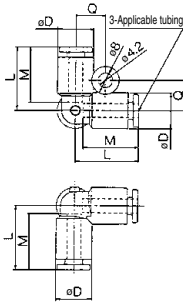
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD	L1	L2	A*	M	Q	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)
4	M5 x 0.8	10-KGD04-M5	11	—	—	24	25.5	—	—	—	4.3
	1/8	10-KGD04-01	14	10.4	18.5	25.6	27.5	16	8.7	—	6.0
	1/4	10-KGD04-02	14	—	—	30	30	—	—	—	21
6	M5 x 0.8	10-KGD06-M5	13	—	—	26	28.5	—	—	—	4.3
	1/8	10-KGD06-01	14	12.8	20.5	28.1	31	17	9.9	—	14
	1/4	10-KGD06-02	14	—	—	32	33.5	—	—	—	21
8	3/8	10-KGD06-03	17	—	—	33.4	34.5	—	—	—	34
	1/2	10-KGD08-01	17	15.2	23.5	32.6	37	—	—	—	26
	3/4	10-KGD08-02	17	—	—	36	38	18.5	11.1	18.2	—
10	1/2	10-KGD08-03	17	—	—	36.4	38.5	—	—	—	35
	3/4	10-KGD10-02	19	—	—	39	43	—	—	—	39
	1/2	10-KGD10-03	19	18.5	26.5	39.4	43.5	21	12.8	29.0	40
12	3/4	10-KGD10-04	22	—	—	43.1	45	—	—	—	62
	1/2	10-KGD12-02	22	20.9	28.5	41.5	46.5	—	—	—	55
	3/4	10-KGD12-03	22	—	—	41.9	47	22	13.9	45.2	56
1/2	10-KGD12-04	22	—	—	45.1	48.5	—	—	—	63	

\* Reference dimensions after R thread installation.





**Delta Union: 10-KGD**

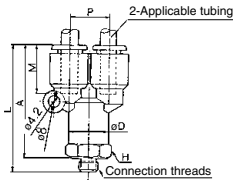


Applicable tubing O.D. (mm)	Model	øD	L	Q	M	Effective area (mm <sup>2</sup> )		Weight (g)
						Urethane		
4	10-KGD04-00	10.4	18.5	8.7	16	4.1	5	
6	10-KGD06-00	12.8	20.5	9.9	17	11.0	7	
8	10-KGD08-00	15.2	23.5	11.1	18.5	18.2	11	
10	10-KGD10-00	18.5	26.5	12.8	21	29.0	19	
12	10-KGD12-00	20.9	28.5	13.9	22	45.2	24	

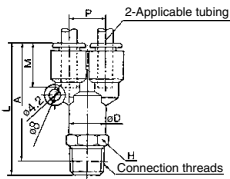


**Branch "Y": 10-KGU**

M5



R

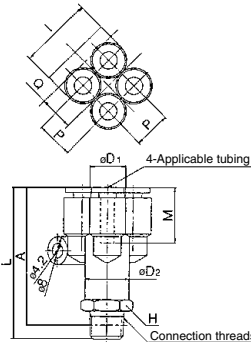


Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD	L	P	A *	M	Effective area (mm <sup>2</sup> )		Weight (g)	
									Urethane			
4	M5 x 0.8	10-KGU04-M5	11	10.4	11.1	10.4	36	16	2.2	4	11	
	1/8	10-KGU04-01	14						45.5	40		20
	1/4	10-KGU04-02	14						42.5	39		
6	M5 x 0.8	10-KGU06-M5	13	12.8	12.8	41.5	17	10.6	2.2	12	11	
	1/8	10-KGU06-01	17						44.6	43		21
	1/4	10-KGU06-02	17						48.5	44.5		
8	3/8	10-KGU06-03	17	15.2	15.2	49.5	18.5	17.7	34	15	23	
	1/2	10-KGU08-01	17						51.6	48.5		35
	3/8	10-KGU08-03	17						55.4	50		
10	1/4	10-KGU10-02	19	18.5	18.5	55.5	21	28.4	30	40	65	
	3/8	10-KGU10-03	19						60.5	55		
	1/2	10-KGU10-04	22						64.1	57		
12	1/4	10-KGU12-02	22	20.9	20.9	64	22	45.4	32	40	65	
	3/8	10-KGU12-03	22						64.4	59		
	1/2	10-KGU12-04	22						67.6	60.5		

\* Reference dimensions after R thread installation.



**Double Branch "Y": 10-KGUD**



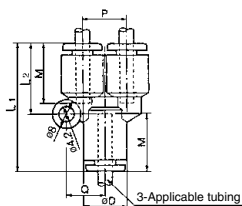
Applicable tubing O.D. (mm)	Connection thread R	Model	H (width across flats)	øD1	øD2	L	I	A *	Q	M	P	Effective area (mm <sup>2</sup> )		Weight (g)
												Urethane		
4	1/8	10-KGUD04-01	13	10.4	12.8	42.6	21	39.5	9.7	16	10.4	4.2	17	25
	1/4	10-KGUD04-02	14									46.5	41	
6	1/8	10-KGUD06-01	17	12.8	15.2	49.6	26	46.5	11.7	17	12.8	10.6	29	29
	1/4	10-KGUD06-02	17									53	47.5	

\* Reference dimensions after R thread installation.

Directional Control Valves  
Air Cylinders  
Rotary Actuators  
Air Grippers  
Air Preparation Equipment  
Modular F. R.  
Pressure Control Equipment  
Fittings & Tubing  
Flow Control Equipment  
Pressure Switches/ Pressure Sensors



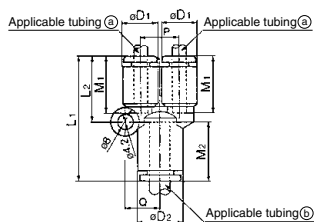
### Union "Y": 10-KGU



Applicable tubing O.D. (mm)	Model	øD	L <sub>1</sub>	L <sub>2</sub>	P	Q	M	Effective area (mm <sup>2</sup> )		Weight (g)
								Urethane		
4	10-KGU04-00	10.4	34	18	10.4	9.7	16		4.2	7
6	10-KGU06-00	12.8	37	20	12.8	11.7	17		10.6	9
8	10-KGU08-00	15.2	42.5	24.5	15.2	13.7	18.5		17.7	11
10	10-KGU10-00	18.5	48	27.5	18.5	16.1	21		28.4	16
12	10-KGU12-00	20.9	51	30	20.9	18.1	22		45.4	23



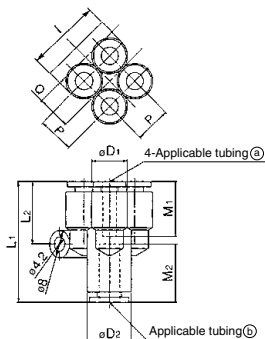
### Different Diameter Union "Y": 10-KGU



Applicable tubing O.D. (mm)	Model	øD <sub>1</sub>	øD <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	P	Q	M <sub>1</sub>	M <sub>2</sub>	Effective area (mm <sup>2</sup> )		Weight (g)
										Urethane		
4 (a) 6 (b)	10-KGU04-06	10.4	12.8	35	18	10.4	9.7	16	17		4.2	6
6 8	10-KGU06-08	12.8	15.2	39.5	20	12.8	11.7	17	18.5		10.6	11
8 10	10-KGU08-10	15.2	18.5	45	24.5	15.2	13.7	18.5	21		17.7	18
10 12	10-KGU10-12	18.5	20.9	49	27.5	18.5	16.1	21	22		28.4	27



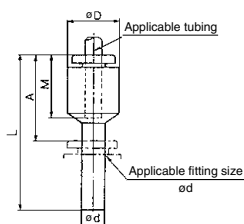
### Different Diameter Double Union "Y": 10-KGUD



Applicable tubing O.D. (mm)	Model	øD <sub>1</sub>	øD <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	P	I	Q	M <sub>1</sub>	M <sub>2</sub>	Effective area (mm <sup>2</sup> )		Weight (g)
											Urethane		
4 (a) 6 (b)	10-KGUD04-06	10.4	12.8	35.5	18.2	10.4	21	9.7	16	17		4.2	10
6 8	10-KGUD06-08	12.8	15.2	40.5	20.3	12.8	26	11.7	17	18.5		10.6	17



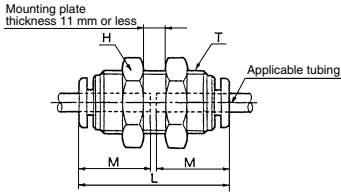
### Plug-in Reducer: 10-KGR



Applicable tubing O.D. (mm)	Applicable fitting size ød	Model	øD	L	A	M	Effective area (mm <sup>2</sup> )		Weight (g)
							Urethane		
4	6	10-KGR04-06	10.4	34.5	17.5	16	4	1.8	
	8	10-KGR04-08						2.0	
	10	10-KGR04-10						3.3	
6	4	10-KGR06-04	12.8	37	21	17	10.4	3	
	8	10-KGR06-08						2.5	
	10	10-KGR06-10						3	
	12	10-KGR06-12						4.7	
8	10	10-KGR08-10	15.2	41	20	18.5	18.0	4.0	
	12	10-KGR08-12						4.6	
	16	10-KGR08-16						20.9	50.5
10	16	10-KGR10-16	20.9	50.5	25.5	22	38.7	24.8	42
	12	10-KGR12-16						20.9	50.5



**Bulkhead Union: 10-KGE**

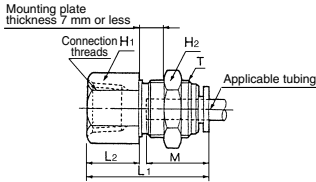


Applicable tubing O.D. (mm)	Model	T (M)	H (width across flats)	L	Mounting hole		Effective area (mm <sup>2</sup> ) Urethane	Weight (g)
					M	M		
4	10-KGE04-00	M12 x 1	14	32.5	13	16	4	26
6	10-KGE06-00	M14 x 1	17	34.5	15	17	10.4	33
8	10-KGE08-00	M16 x 1	19	38	17	18.5	18.0	52
10	10-KGE10-00	M20 x 1	24	42.5	21	21	29.5	70
12	10-KGE12-00	M22 x 1	27	44	23	22	46.1	90
16	10-KGE16-00	M28 x 1.5	32	51	29	25	80.6	115

Directional Control Valves

Air Cylinders

**Bulkhead Connector: 10-KGE**



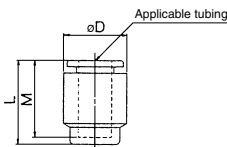
Applicable tubing O.D. (mm)	Connection thread Rc	Model	T (M)	H <sub>1</sub> (width across flat)	H <sub>2</sub> (width across flat)	L <sub>1</sub>	L <sub>2</sub>	Mounting hole	M	Effective area (mm <sup>2</sup> ) Urethane	Weight (g)
4	1/8	10-KGE04-01	M12 x 1	14	27.5	11	13	16	16	4	16
	1/4	10-KGE04-02		17	31	15					
6	1/8	10-KGE06-01	M14 x 1	17	28	11	15	17	17	10.4	30
	1/4	10-KGE06-02			31.5	15					
	3/8	10-KGE06-03			33.5	17					
8	1/8	10-KGE08-01	M16 x 1	17	27.5	7.5	17	18.5	18.0	18.0	28
	1/4	10-KGE08-02			33	13					
	3/8	10-KGE08-03			35	15					
10	1/4	10-KGE10-02	M20 x 1	22	34.5	12.5	21	21	29.5	29.5	53
	3/8	10-KGE10-03			36.5	14					
	1/2	10-KGE10-04			41	18					
12	3/8	10-KGE12-03	M22 x 1	24	37	14	23	22	46.1	46.1	92
	1/2	10-KGE12-04			41	18					
16	3/8	10-KGE16-03	M28 x 1.5	30	40	14	29	25	80.6	80.6	127
	1/2	10-KGE16-04			44	18					

Rotary Actuators

Air Grippers

Air Preparation Equipment

**Tube Cap: 10-KGC**



Applicable tubing O.D. (mm)	Model	(Note) øD	L	M	Weight (g)
4	10-KGC04-00	10.4	17	16	3
6	10-KGC06-00	12.8	18.5	17	3
8	10-KGC08-00	15.2	20.5	18.5	4
10	10-KGC10-00	18.5	23	21	6
12	10-KGC12-00	20.9	24	22	8
16	10-KGC16-00	26.5	28	25	13

Note) For the øD, this dimension refers to the O.D. of the release button.

Modular F. R.

Pressure Control Equipment

Fittings & Tubing

Flow Control Equipment

Pressure Switches/ Pressure Sensors