

# One-touch Fittings Manifold

## KM Series



Compact piping possible.  
Manifold piping possible.  
Many varieties (40 types)  
are available.  
One-touch fittings give the  
most efficient operation.



### Model

Model	Porting		No. of Port A	Port B size	Port A size		
	Port A	Port B			ø4	ø6	ø8
KM11	One-touch fitting	One-touch fitting	6, 10	ø8	●	●	
				ø10		●	
				ø12			●
KM12	One-touch fitting	Rc female thread	6, 10	Rc 1/4	●	●	
				Rc 3/8			●
KM13	One-touch fitting	One-touch fitting	3	ø6	●		
				ø8	●		
				ø10		●	●
KM14	One-touch fitting	One-touch fitting R male thread	3	ø6, R 1/8	●		
				ø6, R 1/4	●		
				ø6, R 3/8	●		
				ø8, R 1/8	●	●	
				ø8, R 1/4	●	●	
				ø8, R 3/8	●	●	
				ø10, R 1/4		●	●
				ø10, R 3/8		●	●
KM15	One-touch fitting	One-touch fitting Rod	3	ø6	●		
				ø8	●	●	
				ø10		●	●
KM16	One-touch fitting	One-touch fitting	3	ø4	●		
				ø6	●	●	

### Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon <sup>(1)</sup> , Polyurethane
Tubing O.D.	ø4, ø6, ø8, ø10, ø12

Note 1) Soft nylon tubing is not compatible with water.

**Made to Order**  
(Refer to page 171 for details.)

### Specifications

Model	KM11	KM12	KM13	KM14	KM15	KM16
Fluid	Air/Water (2, 3)					
Operating pressure range	-100 kPa to 1 MPa					
Proof pressure	3 MPa					
Ambient and fluid temperature	-5 to 60°C, Water: 0 to 40°C (No freezing)					
Thread	—	JIS B 0203 (Taper thread for piping)	—	JIS B 0203 (Taper thread for piping)	—	—
Accessory	None	Hexagon socket head blank plug with seal: 1 pc.	None	None	None	None

Note 2) The surge pressure must be under the maximum operating pressure.

Note 3) 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.

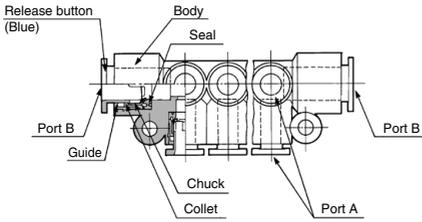
### Principal Parts Material

Model	KM11	KM12	KM13	KM14	KM15	KM16
Body	PBT					
Stud	—	C3604	—	C3604	C3604-PBT	—
Chuck	Stainless steel 304					
Guide	Stainless steel 304					
Collet, Release button	POM					
Seal, O-ring	NBR					

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

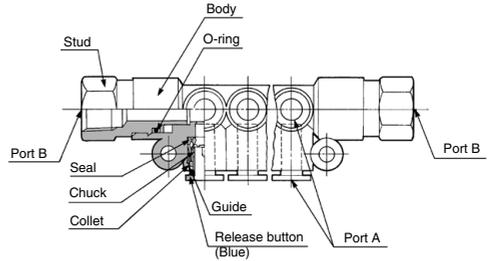
## Construction

### KM11



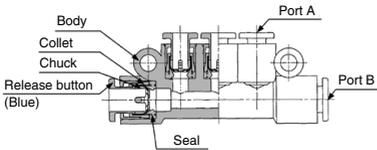
Port A: One-touch fitting  
Port B: One-touch fitting

### KM12



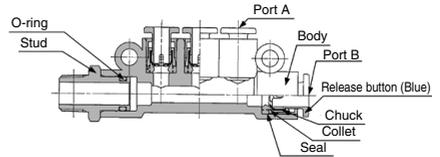
Port A: One-touch fitting  
Port B: Rc female thread

### KM13



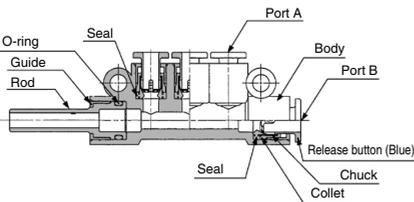
Port A: One-touch fitting  
Port B: One-touch fitting

### KM14



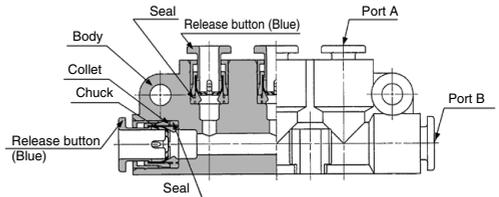
Port A: One-touch fitting  
Port B: One-touch fitting, R male thread

### KM15



Port A: One-touch fitting  
Port B: One-touch fitting  
Stud

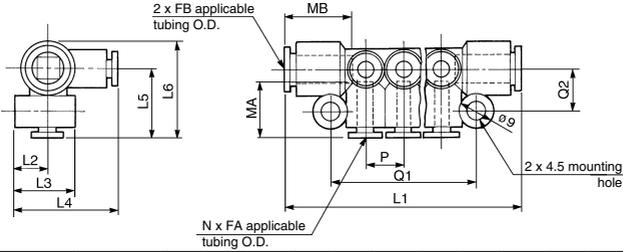
### KM16



Port A: One-touch fitting  
Port B: One-touch fitting

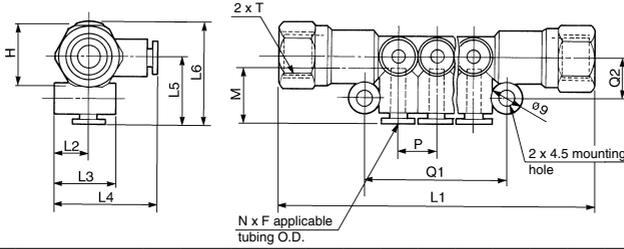
**Dimensions**

**KM11**



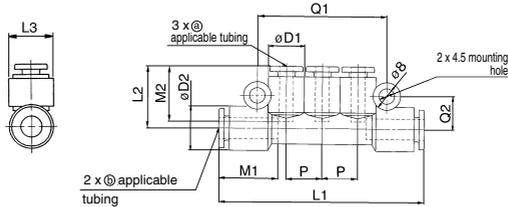
Applicable tubing O.D. (mm)		Model	N	L1	L2	L3	L4	L5	L6	P	Q1	Q2	MA	MB	Port B Min. port size	Weight (g)
FA	FB															
4	8	KM11-04-08-6	6	65	10	18	29.5	19.5	27	10.6	40	12	16	18.5	6	19
		KM11-04-08-10	10	86												26
6	10	KM11-06-10-6	6	76	10	19.5	31.5	21.5	31	13	47	13.5	17	21	7.5	29
		KM11-06-10-10	10	102												39
8	12	KM11-08-12-6	6	85	11.5	22.5	35.5	24	34.5	15.5	55	14.7	18.5	22	9	41
		KM11-08-12-10	10	116												57

**KM12**



Applicable tubing O.D. F (mm)	Connection thread Fc T	Model	N	H (Wg across flats)	L1	L2	L3	L4	L5	L6	P	Q1	Q2	M	Port B Min. port size	Weight (g)
		KM12-04-02-10	10	110	72											
6	1/4	KM12-06-02-6	6	99	10	19.5	31.5	21.5	31	13	47	13.5	17	7.5	81	
				KM12-06-02-10											10	125
8	3/8	KM12-08-03-6	6	108	11.5	22.5	35.5	24	34.5	15.5	55	14.7	18.5	9	97	
				KM12-08-03-10											10	139

**KM13**



Applicable tubing O.D. (mm)		Model	øD1	øD2	L1	L2	L3	P	Q1	Q2	M1	M2	Port B Min. port size	Weight (g)
(a)	(b)													
4	6	KM13-04-06-3	10.4	12.8	60	18	13	10.4	38.2	9.9	17	16	4.5	11
		8												KM13-04-08-3
6	8	KM13-06-08-3	12.8	15.2	70.5	20	15.5	12.8	45.4	11.1	18.5	17	6	16
		10												KM13-06-10-3
8	10	KM13-08-10-3	15.2	18.5	81.5	22.5	19	15.2	52.6	12.8	21	18.5	7.5	26

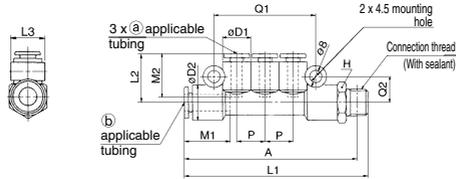
[Click here for applicable color caps.](#)

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

# KM Series

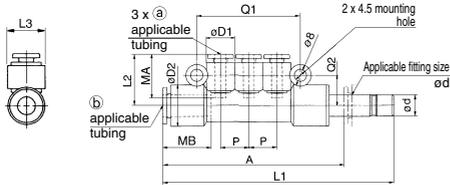
## Dimensions

### KM14



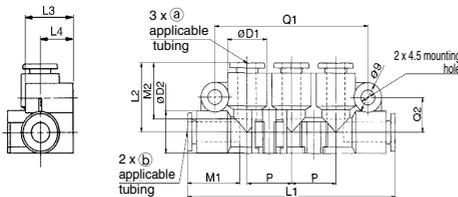
Applicable tubing O.D. (mm)		Connection thread R	Model	H (With across flats)	øD1	øD2	L1	L2	L3	P	A	Q1	Q2	M1	M2	Port B Min. port size	Weight (g)
(a)	(b)																
4	6	1/8	KM14-04-06-01S-3	13	10.4	12.8	67.1	18	13	10.4	64	38.2	9.9	17	16	4.5	18
		1/4	KM14-04-06-02S-3	14			71				65.5						25
		3/8	KM14-04-06-03S-3	17			72.4				67.5						38
4	8	1/8	KM14-04-08-01S-3	17	10.4	15.2	72.6	19	15.5	10.4	70.5	38.2	11.1	18.5	16	6	30
		1/4	KM14-04-08-02S-3				76				77						38
		3/8	KM14-04-08-03S-3				76.4				71						38
6	8	1/8	KM14-06-08-01S-3	17	12.8	15.2	79.1	20	15.5	12.8	77	45.4	11.1	18.5	17	6	31
		1/4	KM14-06-08-02S-3				82.5				78						39
		3/8	KM14-06-08-03S-3				82.9				77						39
6	10	1/4	KM14-06-10-02S-3	19	12.8	18.5	87	21	19	12.8	81.5	45.4	12.8	21	17	7.5	43
		3/8	KM14-06-10-03S-3				87.4				82						44
		1/2	KM14-06-10-04S-3				91.1				84						66
8	10	1/4	KM14-08-10-01S-3	19	15.2	18.5	93.5	22.5	19	15.2	88	52.6	12.8	21	18.5	7.5	47
		3/8	KM14-08-10-02S-3				93.9				89						70
		1/2	KM14-08-10-04S-3				97.6				90.5						70

### KM15



Applicable tubing O.D. (mm)		Applicable fitting size ød	Model	øD1	øD2	L1	L2	L3	P	Q1	Q2	A	MA	MB	Port B min. port size	Weight (g)
(a)	(b)															
4	6	6	KM15-04-06-3	10.4	12.8	78.5	18	13	10.4	38.2	9.9	61.5	16	17	4.5	12
	8	8	KM15-04-08-3											15.2	85.5	19
6	8	8	KM15-06-08-3	12.8	15.2	92.5	20	15.5	12.8	45.4	11.1	74	17	18.5	6	25
	10	10	KM15-06-10-3											18.5	98	21
8	10	10	KM15-08-10-3	15.2	18.5	105	22.5	19	15.2	52.6	12.8	85	18.5	21	7.5	41

### KM16



Applicable tubing O.D. (mm)		Model	øD1	øD2	L1	L2	L3	L4	P	Q1	Q2	M1	M2	Port B Min. port size	Weight (g)
(a)	(b)														
4	4	KM16-04-04-3	12.8	12.8	68	20.9	16	11	14.5	50	10.5	16	16	3	18
4	4	KM16-04-06-3										17	16	4.5	16
6	6	KM16-06-06-3										17	17	4.5	15

## Handling of One-touch Fittings

### ⚠ Caution

1. Refer to pages 13 to 17 for "Fittings & Tubing Precautions" for the details of installation/removal of One-touch fittings.

2. **Connecting products with metal rods**  
Products with metal rods cannot be connected to KQ2 series One-touch fittings. If connected, the metal rod cannot be retained by the chuck of the One-touch fitting and products with metal rods may project during pressurization, causing serious personal injury or accident. When mounting tubes, resin plugs, reducers etc., do not press the release button. Also, do not press the release button unnecessarily before mounting them. This may cause those parts to come off.

After attaching products with attached metal rods, to the One-touch fitting, do not use tubes, resin plugs, or reducers, etc. This may cause releasing.

For details about One-touch fittings that can connect KM15 model, contact SMC.

[Click here for applicable color caps.](#)



## 1 Grease-free Specifications

Symbol	Specifications
<b>X17</b>	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue
<b>X29</b>	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue Copper-free (With electroless nickel plated)
<b>X94</b>	Grease-free Rubber material: FKM (With fluorine coating) Release button color: Light blue

Suffix "-X17" to the end of part number.

Example) **KM11-04-08-10-X17**

## 2 Other Specifications

Symbol	Specifications
<b>X2</b>	Copper-free (With electroless nickel plated)
<b>X12</b>	Lubricant: White Vaseline Release button color: White
<b>X34</b>	Rubber material: FKM

Suffix "-X2" to the end of part number.

Example) **KM12-04-02-6-X2**

**KQ2**

**KQB2**

**KS**  
**KX**

**KM**

**KF**

**M**

**H/DL**  
**L/LL**

**KC**

**KK**

**KK130**

**DM**

**KDM**

**KB**

**KR**

**KA**

**KQG2**

**KG**

**KFG2**

**MS**

**KKA**

**KP**

**LQ**

**MQR**

**T**

**IDK**

# Inch size One-touch Fittings Manifold

## KM Series

Applicable Tubing: Inch size

Compact piping possible.  
Manifold piping possible.  
Many varieties (12 types) are available.  
One-touch fittings give the most efficient operation.



### Model

Model	Porting		No. of Port A	Port B size	Port A size		
	Port A	Port B			$\phi 5/32"$	$\phi 1/4"$	$\phi 5/16"$
KM11	One-touch fitting	One-touch fitting	6, 10	$\phi 5/16"$	●		
				$\phi 3/8"$		●	
				$\phi 1/2"$			●
KM12	One-touch fitting	NPT thread	6, 10	NPT 1/4	●	●	
				NPT 3/8			●
							●

### Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon <sup>(1)</sup> , Polyurethane
Tubing O.D.	$\phi 5/32"$ , $\phi 1/4"$ , $\phi 5/16"$ , $\phi 3/8"$ , $\phi 1/2"$

Note 1) Soft nylon tubing is not compatible with water.

### Specifications

Model	KM11	KM12
Fluid	Air/Water <sup>(2,3)</sup>	
Maximum operating pressure	1 MPa	
Proof pressure	3 MPa	
Ambient and fluid temperature	-5 to 60°C, Water: 0 to 40°C (No freezing)	
Thread	—	ANSI/ASME B1.20, 1-1983 (NPT thread)

Note 2) The surge pressure must be under the maximum operating pressure.

Note 3) 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.



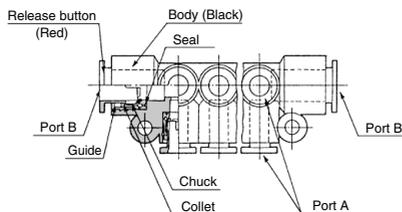
**Made to Order**  
(Refer to page 174 for details.)

### Principal Parts Material

Model	KM11	KM12
Body	PBT	
Stud	—	C3604
Chuck	Stainless steel 304	
Guide	Stainless steel 304, C3604	
Collet, Release button	POM	
Seal, O-ring	NBR	

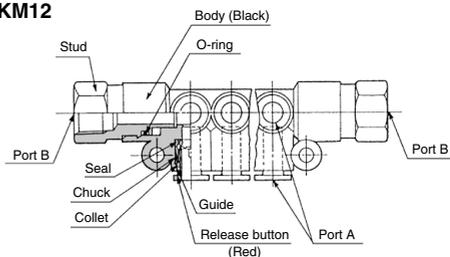
### Construction

#### KM11



Port A: One-touch fitting  
Port B: One-touch fitting

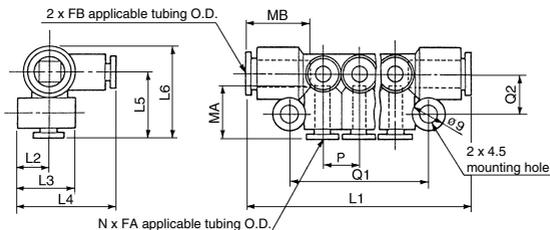
#### KM12



Port A: One-touch fitting  
Port B: NPT female thread

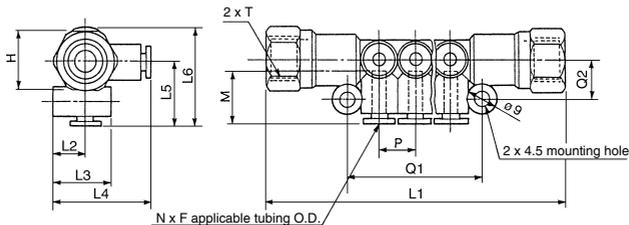
## Dimensions

### KM11



Applicable tubing O.D. (inch)		Model	N	L1	L2	L3	L4	L5	L6	P	Q1	Q2	MA	MB	Port B Min. port size	Weight (g)
FA	FB															
5/32	5/16	KM11-03-09-6	6	65	10	18	29.5	19.5	27	10.6	40	12	16	18.5	6	19
		KM11-03-09-10	10	86												26
1/4	3/8	KM11-07-11-6	6	77.8	10	19.5	31.5	21.5	30.5	13.2	48	13	17	21	7	30
		KM11-07-11-10	10	104												40
5/16	1/2	KM11-09-13-6	6	85	12.7	23.7	37.7	25	35.9	15.2	52.8	15	18.5	22	9.5	41
		KM11-09-13-10	10	115												57

### KM12



Applicable tubing O.D.		T Connection thread NPT	Model	N	H (Width across flats)	L1	L2	L3	L4	L5	L6	P	Q1	Q2	M	Port B Min. port size	Weight (g)
F (inch)																	
5/32	1/4	1/4	KM12-03-35-6	6	17.46	87	10	18	29.5	19.5	29	10.6	40	12	16	6	65
			KM12-03-35-10	10		110											72
1/4	1/4	1/4	KM12-07-35-6	6	17.46	95	10	19.5	31.5	21.5	31.25	13.2	48	13	17	7	82
			KM12-07-35-10	10		121											92
5/16	3/8	3/8	KM12-09-36-6	6	22.22	102	12.7	23.7	36.8	24	36.5	15.2	52.8	15	18.5	9.5	97
			KM12-09-36-10	10		132											112

[Click here for applicable color caps.](#)

### Handling of One-touch Fittings

#### **⚠ Caution**

Refer to pages 13 to 17 for "Fittings & Tubing Precautions" for the details of installation/removal of One-touch fittings.

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



## 1 Grease-free Specifications

Symbol	Specifications
<b>X17</b>	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue
<b>X29</b>	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue Copper-free (With electroless nickel plated)
<b>X94</b>	Grease-free Rubber material: FKM (With fluorine coating) Release button color: Light blue

Suffix "-X17" to the end of part number.

Example) **KM11-03-09-10-X17**

## 2 Other Specifications

Symbol	Specifications
<b>X2</b>	Copper-free (With electroless nickel plated)
<b>X12</b>	Lubricant: White Vaseline Release button color: White
<b>X34</b>	Rubber material: FKM

Suffix "-X2" to the end of part number.

Example) **KM12-03-35-6-X2**