

Rectangular Multi-connector

KDM Series

No. of Connecting Tubes: 10, 20

RoHS

Multi-connector is effective in saving labor for separate transportation of the panel and the machine, and for exchanging units due to failure.

Substantial reduction in mounting space

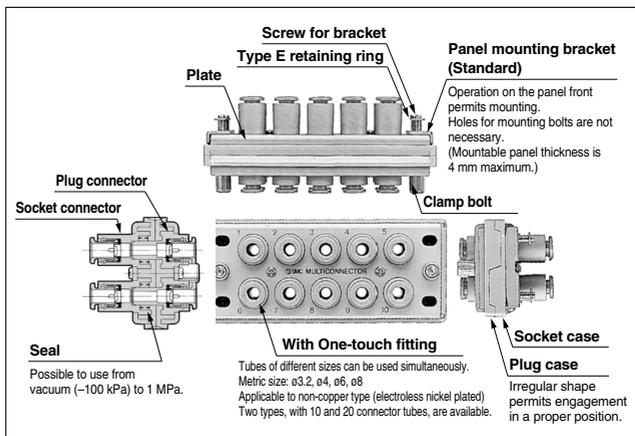
In comparison with a model requiring many union joints for panels and partitions, this model needs only a small space.

One-touch connection/disconnection of connector

Multiple pipes can be connected/disconnected in one-touch operation without connection error. Thus man-hours for connection/disconnection are cut down substantially.

One-touch tube connection

One-touch fittings substantially cuts down man-hours for piping.



Model

No. of connecting tubes	Tubing O.D.	Model	Weight (g)	Color of release button
10	$\phi 3.2$	KDM10-23	300	Blue
	$\phi 4$	KDM10-04		
	$\phi 6$	KDM10-06	520	
	$\phi 8$	KDM10-08		
20	$\phi 3.2$	KDM20-23	520	
	$\phi 4$	KDM20-04		
	$\phi 6$	KDM20-06	950	
	$\phi 8$	KDM20-08		

Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon, Polyurethane
Tubing O.D.	$\phi 3.2$, $\phi 4$, $\phi 6$, $\phi 8$

Specifications

Fluid	Air
Operating pressure range ^(Note)	-100 kPa to 1 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)

(Note) Please avoid using in a vacuum holding application such as a leak tester, since there is leakage.

Caution

Be sure to read this before handling the products.
Refer to page 11 for safety instructions and pages 14 to 18 for fittings and tubing precautions.

Made to Order
(Refer to page 364 for details.)



KDM Series

Principal Parts Material

Plug case, Socket case		POM
Plate, Bracket		SPCC (Gray semi-gloss baking finish after zinc chromate plating)
Plug connector, Socket connector	Body	PBT, C3604 Electroless nickel plated (ø8)
	Chuck	Stainless steel 304
	Guide	Stainless steel 304, PBT (ø8)
	Collet, Release button	POM
	Seal	NBR
Clamp bolt, Screw for bracket, Cross-recessed head machine screw		Steel (Nickel plated)
Type E retaining ring		Stainless steel 304

Model

No. of connection tubes	Tubing O.D.	Model		Color of release button
		Plug	Socket	
10	ø3.2	KDM10P-23	KDM10S-23	Blue
	ø4	KDM10P-04	KDM10S-04	
	ø6	KDM10P-06	KDM10S-06	
	ø8	KDM10P-08	KDM10S-08	
20	ø3.2	KDM20P-23	KDM20S-23	
	ø4	KDM20P-04	KDM20S-04	
	ø6	KDM20P-06	KDM20S-06	
	ø8	KDM20P-08	KDM20S-08	

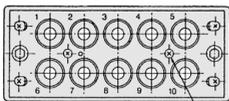
Mixed Sizes of Plug Connectors and Socket Connectors

The rectangular multi-connector permits connector exchange in any desired position, thus allowing use of different sizes of tubes.

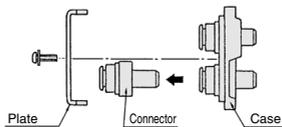
Model

Connector	Tubing O.D.	Model	Color of release button
Plug connector	ø3.2	KDMP-23	Blue
	ø4	KDMP-04	
	ø6	KDMP-06	
	ø8	KDMP-08	
Socket connector (with seal)	ø3.2	KDMS-23	
	ø4	KDMS-04	
	ø6	KDMS-06	
	ø8	KDMS-08	

1. Loosen the cross-recessed head machine screw by using a Phillips screwdriver to remove the plate from the case.



2. After exchanging connectors in desired places, fix the plate to the case by using a Phillips screwdriver.

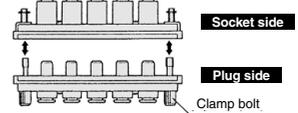


How to Use

⚠ Caution

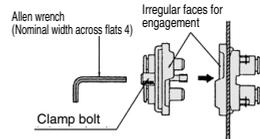
Separation

Loosen the clamp bolt to separate the plug side from the socket side.



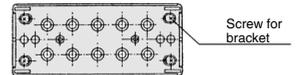
Connection

Put together the irregular faces for engagement and connect the plug case to the socket. After tightening the clamp bolt by hand, tighten it further with allen wrench (nominal width across flats: 4).

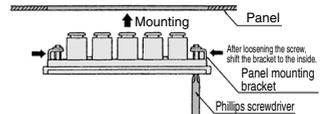


Panel mounting

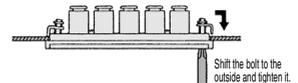
1. Loosen (4) screws for bracket on the socket side using a Phillips screwdriver (JIS nominal No. 2) until the bracket touches the stop ring.



2. Shift the panel mounting bracket to the inside (Move the screw for bracket in the longitudinal direction of the slot) and put the connector in the panel mounting hole. (Panel-mounting hole: See Dimensions.)



3. After shifting the bolt for bracket to the outside, tighten the bolt by a Phillips screwdriver to fix the socket case.

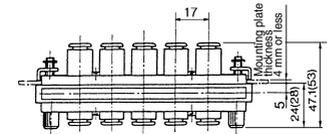


4. Loosen the screw for bracket until the bracket touches the stop ring and shift the bracket to the inside to remove the connector from the panel.

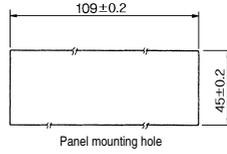
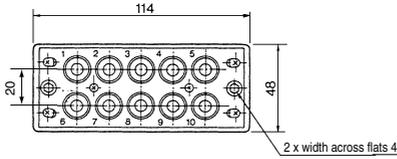
Dimensions



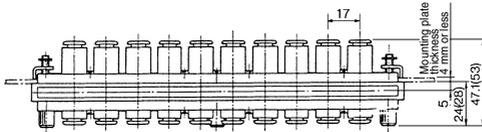
KDM10



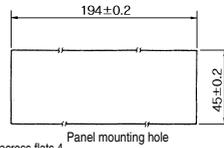
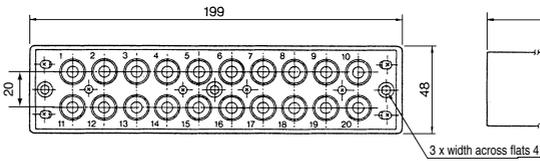
(): Dimensions for KDM10-08



KDM20



(): Dimensions for KDM20-08



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

Please contact SMC for detailed dimensions, specifications and lead times.

1 Grease-free Specifications

Symbol	Specifications
X17	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue
X39	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue Clean (Copper-free, air blow, double package)

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

Example) **KDM10-04-X17**

2 Other Specifications

Symbol	Specifications
X12	Lubricant: White Vaseline Release button color: White
X1526	Non-standard mounting panel thickness (4 to 5 mm)

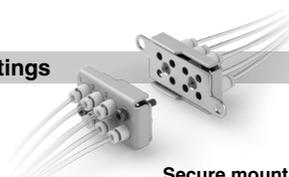
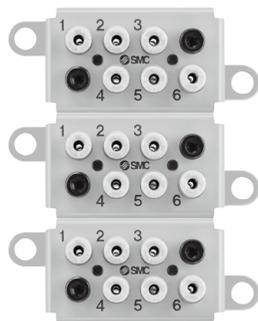
3 Mixed Tubing Size Type

Tubes of different sizes can be used simultaneously.

- Tubing size: $\phi 3.2$, $\phi 4$, $\phi 6$, $\phi 8$
- Number of connecting tubes: 10, 20

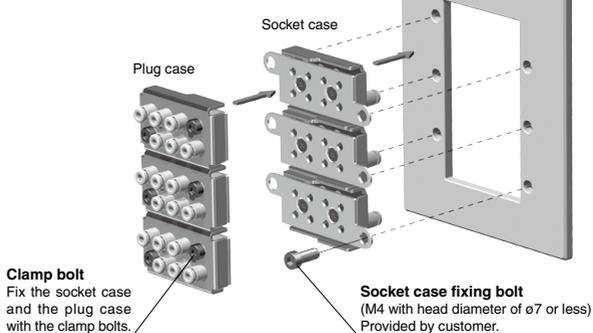
4 With $\phi 2$ One-touch Fittings

● Mounting example



Secure mounting

A single panel side opening for full access.



4 With $\phi 2$ One-touch Fittings

Model

No. of connecting tubes	Tubing O.D.	Model	Weight	Release button color
6	$\phi 2$	KDM6-02-X955-1	42.6 g	Light gray

Applicable Tubing

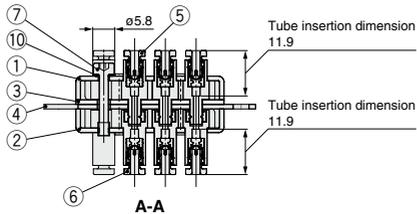
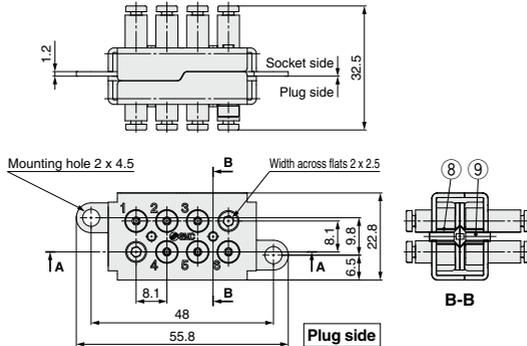
Tubing material	Nylon, Soft nylon, Polyurethane
Tubing O.D.	$\phi 2$

Specifications

Fluid	Air
Operating pressure range ^{Note)}	-100 kPa to 1 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)

Note) Please avoid using in a vacuum holding application such as a leak tester, since there is leakage.

Dimensions/Construction



Component Parts

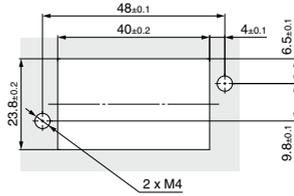
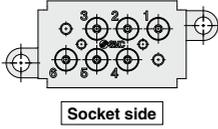
No.	Description	Material	Q'ty	Note
1	Case (A)	SPCC	1	Gray semi-gloss baking finish after zinc chromate plating
2	Case (B)	SPCC	1	Gray semi-gloss baking finish after zinc chromate plating
3	Plate (A)	Stainless steel 304	1	
4	Plate (B)	Stainless steel 304	1	
5	Plug connector $\phi 2$		6	Release button: Light gray
6	Socket connector $\phi 2$		6	Release button: Light gray
7	Hexagon socket head cap screw	SCM435	2	Black zinc chromated
8	Spacer	C2700T	4	Electroless nickel plating
9	Cross recessed countersunk head screw	Steel	4	M2.5 x 8, Black zinc chromated
10	Gasket	PVC	2	

4 With $\varnothing 2$ One-touch Fittings

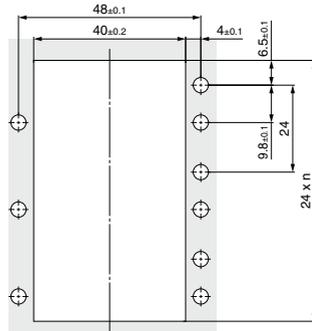
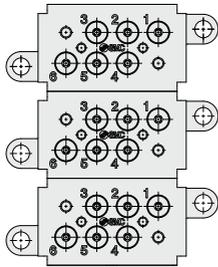
Dimensions/Construction

Panel fitting dimensions

1 pc. Mounting



Multiple (2 pcs. or more) secure mounting



Inch-size Rectangular Multi-connector

KDM Series

No. of Connecting Tubes: 10, 20

Multi-connector is effective in saving labor for separate transportation of the panel and the machine, and for exchanging units due to failure.

Substantial reduction in mounting space

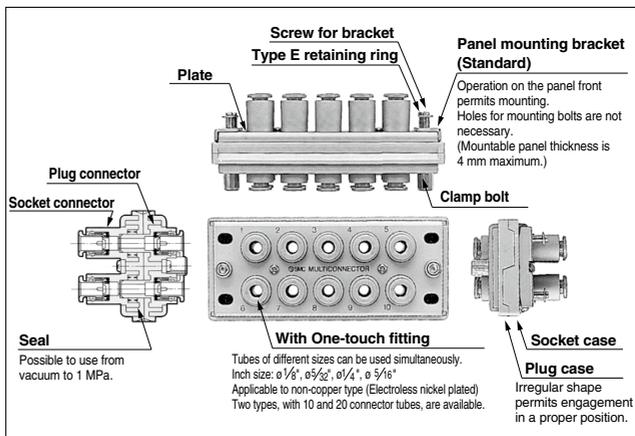
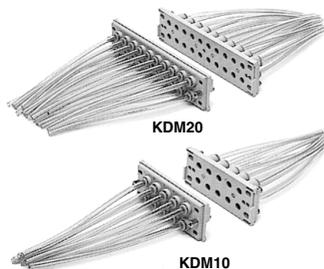
In comparison with a model requiring many union joints for panels and partitions, this model needs only a small space.

One-touch connection/disconnection of connector

Multiple pipes can be connected/disconnected in one-touch operation without connection error. Thus man-hours for connection/disconnection are cut down substantially.

One-touch tube connection

One-touch fittings substantially cuts down man-hours for piping.



Model

No. of connecting tubes	Tubing O.D.	Model	Weight (g)	Color of release button
10	ø 1/8"	KDM10-01	300	Red
	ø 5/32"	KDM10-03		
	ø 1/4"	KDM10-07		
	ø 5/16"	KDM10-09		
20	ø 1/8"	KDM20-01	520	
	ø 5/32"	KDM20-03		
	ø 1/4"	KDM20-07		
	ø 5/16"	KDM20-09		
			950	

Applicable Tubing

Tubing material	FEP, PFA, Nylon, Soft nylon, Polyurethane
Tubing O.D.	ø 1/8", ø 5/32", ø 1/4", ø 5/16"

Specifications

Fluid	Air
Operating pressure range ^(Note)	-100 kPa to 1 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)

(Note) Please avoid using in a vacuum holding application such as a leak tester, since there is leakage.



Made to Order

(Refer to page 370 for details.)

KDM Series

Principal Parts Material

Plug case, Socket case		POM
Plate, Bracket		SPCC (Gray semi-gloss baking finish after zinc chromate plating)
Plug connector, Socket connector	Body	PBT, C3604 (Electroless nickel plated (ø5/16))
	Chuck	Stainless steel 304
	Guide	Stainless steel 304, PBT (ø5/16)
	Collet,	
	Release button	POM
	Seal	NBR
Clamp bolt, Screw for bracket, Cross-recessed head machine screw		Steel (Nickel plated)
Type E retaining ring		Stainless steel 304

Model

No. of connection tubes	Tubing O.D.	Model		Color of release button
		Plug	Socket	
10	ø 1/8"	KDM10P-01	KDM10S-01	Red
	ø 5/32"	KDM10P-03	KDM10S-03	
	ø 1/4"	KDM10P-07	KDM10S-07	
	ø 5/16"	KDM10P-09	KDM10S-09	
20	ø 1/8"	KDM20P-01	KDM20S-01	Red
	ø 5/32"	KDM20P-03	KDM20S-03	
	ø 1/4"	KDM20P-07	KDM20S-07	
	ø 5/16"	KDM20P-09	KDM20S-09	

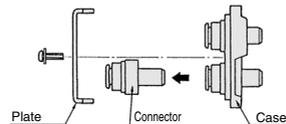
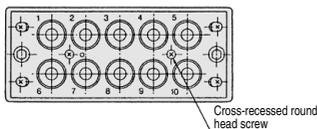
Mixed Sizes of Plug Connectors and Socket Connectors

The rectangular multi-connector permits connector exchange in any desired position, thus allowing use of different sizes of tubes.

Model

Connector	Tubing O.D.	Model	Color of release button
Plug connector	ø 1/8"	KDMP-01	Red
	ø 5/32"	KDMP-03	
	ø 1/4"	KDMP-07	
	ø 5/16"	KDMP-09	
Socket connector (with seal)	ø 1/8"	KDMS-01	Red
	ø 5/32"	KDMS-03	
	ø 1/4"	KDMS-07	
	ø 5/16"	KDMS-09	

1. Loosen the cross-recessed head machine screw by using a Phillips screwdriver to remove the plate from the case.
2. After exchanging connectors in desired places, fix the plate to the case by using a Phillips screwdriver.

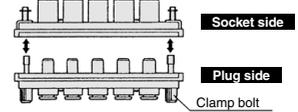


How to Use

⚠ Caution

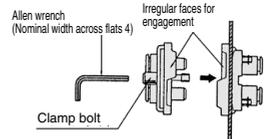
Separation

Loosen the clamp bolt to separate the plug side from the socket side.



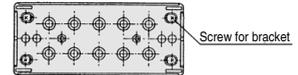
Connection

Put together the irregular faces for engagement and connect the plug case to the socket. After tightening the clamp bolt by hand, tighten it further with allen wrench (nominal width across flats: 4).

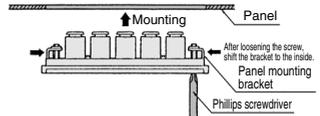


Panel mounting

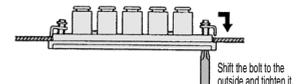
1. Loosen (4) screws for bracket on the socket side using a Phillips screwdriver (JIS nominal No. 2) until the bracket touches the stop ring.



2. Shift the panel mounting bracket to the inside (Move the screw for bracket in the longitudinal direction of the slot) and put the connector in the panel mounting hole. (Panel-mounting hole: See Dimensions.)



3. After shifting the bolt for bracket to the outside, tighten the bolt by a Phillips screwdriver to fix the socket case.

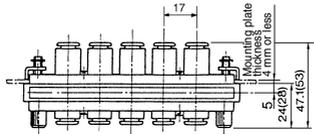


4. Loosen the screw for bracket until the bracket touches the stop ring and shift the bracket to the inside to remove the connector from the panel.

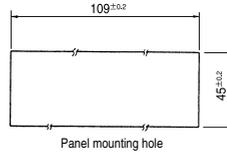
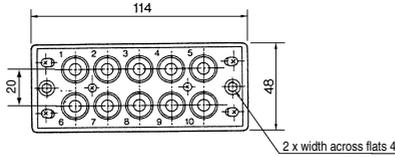


Dimensions

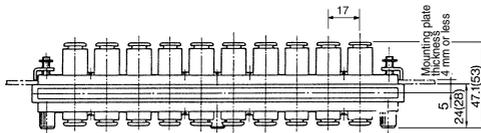
KDM10



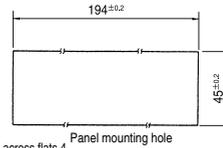
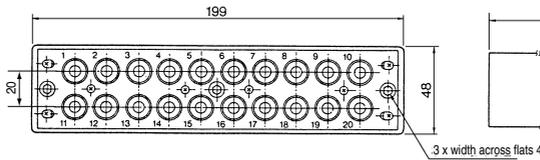
(): Dimensions for KDM10-09



KDM20



(): Dimensions for KDM20-09



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

Handling of One-touch Fittings

⚠ Caution

Refer to "Fittings & Tubing Precautions" for the details of installation/removal of One-touch fittings on the pages 14 to 18.



1 Grease-free Specifications

Symbol	Specifications
X17	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue
X39	Grease-free Rubber material: NBR (With fluorine coating) Release button color: Light blue Clean (Copper-free, air blow, double package)

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

Example) **KDM10-03-X17**

2 Other Specifications

Symbol	Specifications
X12	Lubricant: White Vaseline Release button color: White
X1526	Non-standard mounting panel thickness (4 to 5 mm)

3 Mixed Tubing Size Type

Tubes of different sizes can be used simultaneously.

- Tubing size: $\phi 1/8"$, $\phi 5/32"$, $\phi 1/4"$, $\phi 5/16"$
- Number of connecting tubes: 10, 20