# Rectangular Multi-connector Series KDM 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/dis-connection are cut down substantially.

#### **One-touch tube connection**

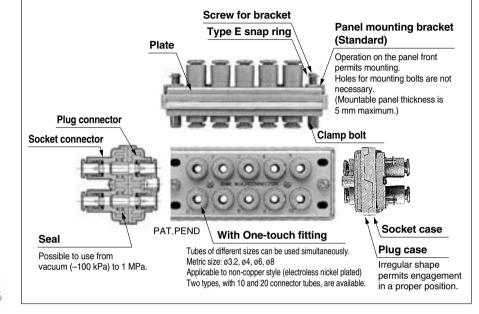
One-touch fittings substantially cuts down man-hours for piping.







Made to Order (Refer to page 197 for details.)



#### Model

| modol                   |              |          |          |                         |
|-------------------------|--------------|----------|----------|-------------------------|
| No. of connecting tubes | Tubing O.D.  | Model    | Mass (g) | Color of release button |
| 10                      | ø <b>3.2</b> | KDM10-23 |          |                         |
|                         | ø <b>4</b>   | KDM10-04 | 300      |                         |
|                         | ø <b>6</b>   | KDM10-06 |          |                         |
|                         | ø <b>8</b>   | KDM10-08 | 520      | Bhus                    |
| 20                      | ø <b>3.2</b> | KDM20-23 |          | Blue                    |
|                         | ø <b>4</b>   | KDM20-04 | 520      |                         |
|                         | ø <b>6</b>   | KDM20-06 |          |                         |
|                         | ø <b>8</b>   | KDM20-08 | 950      |                         |
|                         |              |          |          |                         |

#### Applicable Tubing

| Tubing material | FEP, PFA, Nylon, Soft nylon, Polyurethane |
|-----------------|---|
| Tubing O.D.     | ø3.2, ø4, ø6, ø8                          |

#### **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 before handling.                               |  |  |  |
|--|--|--|--|
| Refer to front matters 58 and 59                               |  |  |  |
| for Safety Instructions and<br>pages 13 to 16 for Fittings and |  |  |  |
| pages 13 to 16 for Fittings and                                |  |  |  |
| Tubing Precautions.  |  |  |  |
|  |  |  |  |

#### **Principal Parts Material**

| Plug case, Socket case  |                           | POM   |
|---|---------------------------|---|
| Plate, Bracket  |                           | SPCC plated   |
|   | Body                      | PBT, C3604 Electroless nickel plated (ø8)                         |
|   | Chuck                     | Stainless steel 304   |
| Plug connector,<br>Socket connector                                 | Guide                     | Stainless steel 304, C3604<br>Electroless nickel plated, PBT (ø8) |
| Socker connector  | Collet,<br>Release button | РОМ   |
|   | Seal                      | NBR   |
| Clamp bolt, Screw for bracket,<br>Cross-recessed head machine screw |                           | SWRM (Nickel plated)  |
| Type E snap ring  |                           | Stainless steel 304   |

#### Model

| No. of connection | Tubing       | Model     |           | Color of       |
|-------------------|--------------|-----------|-----------|----------------|
| tubes             | O.D.         | Plug      | Socket    | release button |
| 10                | ø <b>3.2</b> | KDM10P-23 | KDM10S-23 |                |
|                   | ø <b>4</b>   | KDM10P-04 | KDM10S-04 |                |
|                   | ø <b>6</b>   | KDM10P-06 | KDM10S-06 |                |
|                   | ø <b>8</b>   | KDM10P-08 | KDM10S-08 | Blue           |
| 20                | ø <b>3.2</b> | KDM20P-23 | KDM20S-23 | Dide           |
|                   | ø <b>4</b>   | KDM20P-04 | KDM20S-04 |                |
|                   | ø <b>6</b>   | KDM20P-06 | KDM20S-06 |                |
|                   | ø <b>8</b>   | KDM20P-08 | KDM20S-08 |                |

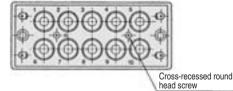
#### Mixed Sizes of Plug Connectors and Socket Connectors

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

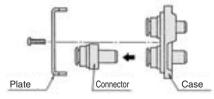
#### Model

| Connector                          | Tubing<br>O.D. | Model   | Color of<br>release button |
|------------------------------------|----------------|---------|----------------------------|
|                                    | ø <b>3.2</b>   | KDMP-23 |                            |
| Plug                               | ø <b>4</b>     | KDMP-04 |                            |
| connector                          | ø <b>6</b>     | KDMP-06 |                            |
|                                    | ø <b>8</b>     | KDMP-08 | Blue                       |
| Socket<br>connector<br>(with seal) | ø <b>3.2</b>   | KDMS-23 | Diue                       |
|                                    | ø <b>4</b>     | KDMS-04 |                            |
|                                    | ø <b>6</b>     | KDMS-06 |                            |
|                                    | ø <b>8</b>     | 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.

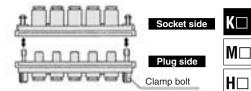


#### How to Use

### **▲**Caution

#### Separation

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



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MS

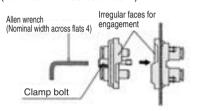
LQ

MOR

TΠ

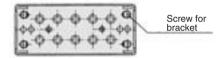
#### Connection

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).

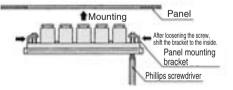


#### Panel mounting

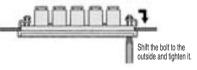
 Loosen (4) screws for bracket on the socket side using a Phillips screwdriver (JIS nominal No. 2) until the bracket touches the stop ring.



 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.)

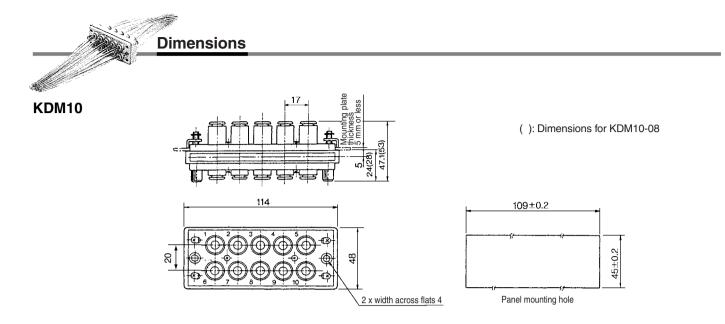


**3.** After shifting the bolt for bracket to the outside, tighten the bolt by a Phillips screwdriver to fix the socket case.

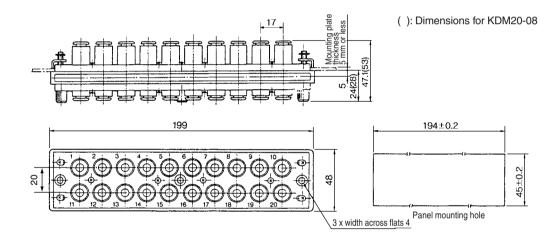


4. Loosen the screw for bracket until the bracket touches the stop ring and shift the bracket to the inside to remove the connector from the panel.

## Series KDM



KDM20



# Series KDM Made to Order Specifications



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Please contact SMC for detailed dimensions, specifications, and delivery.

## 1 Grease-free Specifications

| Symbol | Specifications   |  |  |
|--------|--|--|--|
| X17    | Grease-free<br>Rubber material: NBR (With fluorine coating)<br>Release button color: Light blue  |  |  |
| X29    | Grease-free<br>Rubber material: NBR (With fluorine coating)<br>Release button color: Light blue<br>Copper-free (With electroless nickel plated)  |  |  |
| X39    | Grease-free<br>Rubber material: NBR (With fluorine coating)<br>Release button color: Light blue<br>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<br>Release button color: White |  |

## **3** Mixed Tubing Size Type and Other Tubing Size

#### Mixed Tubing Size Type

Mixed tubing size manifolds are available to meet your individual requirements. Please consult with SMC for availability.

#### Other Tubing Size

| Tubing size<br>O.D. | Connection no. | Part no.  |
|---------------------|----------------|-----------|
| ø <b>10</b>         | 6              | IN-254-52 |
| ø <b>12</b>         | 6              | IN-254-53 |