

## Miniature Fittings

### Series **M**

#### Features

- ➔ **Compact piping space.**  
The hose nipple has a large holding force, allowing easy connection and removal.
- ➔ **A wide variety of models is available.**  
Piping in the same direction is possible at different heights.
- ➔ **Hose nipple, Hose elbow.**  
Hose nipples and hose elbow accept nylon, soft nylon and polyurethane tubing.



■ Applicable tubing O.D.: Metric Size  
■ Connecting thread : M3, M5, R1/8

#### Specifications

| Applicable tubing material       |         | Nylon                                                                  | Soft nylon  |                  | Polyurethane                   |
|----------------------------------|---------|------------------------------------------------------------------------|-------------|------------------|--------------------------------|
| Applicable tubing                | M3      | —                                                                      | ø3.18/ø2.18 | ø4/ø2.5          | ø2, ø3.18/ø2, ø4/ø2.5          |
|                                  | M5-R1/8 | ø4/ø2.5<br>ø6/ø4                                                       |             | ø4/ø2.5<br>ø6/ø4 | ø2, ø3.18/ø2<br>ø4/ø2.5, ø6/ø4 |
| Max. operating pressure (at 20C) |         | 1.5MPa                                                                 | 1.0MPa      |                  | 0.8MPa                         |
| Connection size                  |         | M3, M5, R1/8                                                           |             |                  |                                |
| Thread                           |         | JIS B0209 Class 2 (Metric thread), JIS B0203 (Taper thread for piping) |             |                  |                                |



ø2 Miniature Fittings  
Series M

#### Hose Nipple

##### Barb fittings

The tube allows easy tubing insertion as well as secure tubing holding.

##### Body

With electroless nickel plated

##### Gasket

Small tightening torque.  
Secure sealing.

##### Tubing

Hose nipples and hose elbow accept nylon, soft nylon and polyurethane tubing.

##### Cap nut

Secure holding is achieved by manual tightening.  
Easy disconnection of tubing by loosening.  
Electroless nickel plated.

#### Barb Fittings

##### Barb fittings

The tube allows easy tubing insertion as well as secure tubing holding.

##### Body

With electroless nickel plated

##### Tubing

##### Gasket

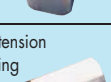
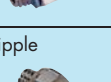
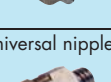
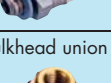
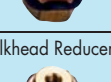
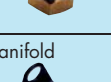
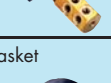
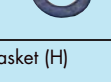
Small tightening torque.  
Secure sealing.

PAT.

## Miniature Fittings

### Series M5

| Description                                                                                                            | Remark(s)        | Model     | Application                                                                                                                                                    |                                          |
|------------------------------------------------------------------------------------------------------------------------|------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| Barb fittings for nylon tubing<br>    | ø4/2.5 X M5      | M-5AN-4   | To pipe nylon tubing.                                                                                                                                          |                                          |
|                                                                                                                        | ø6/4 X M5        | M-5AN-6   |                                                                                                                                                                |                                          |
| Barb fittings for soft tubing<br>     | ø2/1.2 X M5      | M-5AU-2   | To pipe polyurethane tubing.                                                                                                                                   |                                          |
|                                                                                                                        | ø3.18/2.18 X M5  | M-5AU-3   | To pipe soft nylon tubing.                                                                                                                                     |                                          |
|                                                                                                                        | ø3.18/2 X M5     |           | To pipe polyurethane tubing.                                                                                                                                   |                                          |
|                                                                                                                        | ø4/2.5 X M5      | M-5AU-4   | To pipe soft nylon, polyurethane tubing.                                                                                                                       |                                          |
|                                                                                                                        | ø6/4 X M5        | M-5AU-6   |                                                                                                                                                                |                                          |
| Barb elbow for nylon tubing<br>       | ø4/2.5 X M5      | M-5ALN-4  | <ul style="list-style-type: none"> <li>To pipe nylon tubing</li> <li>Body rotates 360° around the stud axis. Position can be fixed after alignment.</li> </ul> |                                          |
|                                                                                                                        | ø6/4 X M5        | M-5ALN-6  |                                                                                                                                                                |                                          |
| Barb elbow for soft tubing<br>      | ø2/1.2 X M5      | M-5ALU-2  |                                                                                                                                                                | To pipe polyurethane tubing.             |
|                                                                                                                        | ø3.18/2.18 X M5  | M-5ALU-3  |                                                                                                                                                                | To pipe soft nylon tubing.               |
|                                                                                                                        | ø3.18/2 X M5     |           | Body rotates 360° around the stud axis. Position can be fixed after alignment.                                                                                 | To pipe polyurethane tubing.             |
|                                                                                                                        | ø4/2.5 X M5      | M-5ALU-4  |                                                                                                                                                                | To pipe soft nylon, polyurethane tubing. |
|                                                                                                                        | ø6/4 X M5        | M-5ALU-6  |                                                                                                                                                                |                                          |
| Barb elbow for nylon tubing (H)<br> | ø4/2.5 X M5      | M-5ALHN-4 | <ul style="list-style-type: none"> <li>To pipe nylon tubing</li> <li>Body rotates 360° around the stud axis. Position can be fixed after alignment.</li> </ul> |                                          |
|                                                                                                                        | ø6/4 X M5        | M-5ALHN-6 |                                                                                                                                                                |                                          |
| Barb elbow for soft tubing (H)<br>  | ø3.18/2.18 X M5  | M-5ALHU-3 |                                                                                                                                                                | To pipe soft nylon tubing.               |
|                                                                                                                        | ø3.18/2 X M5     |           | Body rotates 360° around the stud axis. Position can be fixed after alignment.                                                                                 | To pipe polyurethane tubing.             |
|                                                                                                                        | ø4/2.5 X M5      | M-5ALHU-4 |                                                                                                                                                                | To pipe soft nylon, polyurethane tubing. |
|                                                                                                                        | ø6/4 X M5        | M-5ALHU-6 |                                                                                                                                                                |                                          |
| Bushing<br>                         | R1/8 X M5 female | M-5B      | Connection from R1/8 piping to M5 fittings.                                                                                                                    |                                          |
| Plug<br>                            |                  | M-5P      | To plug unused M5 port.                                                                                                                                        |                                          |

| Description                                                                                              | Remark(s)                         | Model    | Application                                                                                                                                                                               |  |
|----------------------------------------------------------------------------------------------------------|-----------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Hose nipple<br>         | ø4/2.5 X M5                       | M-5H-4   | To pipe nylon, soft nylon, polyurethane tubing.                                                                                                                                           |  |
|                                                                                                          | ø6/4 X M5                         | M-5H-6   |                                                                                                                                                                                           |  |
| Hose elbow<br>          | ø4/2.5 X M5                       | M-5HL-4  | <ul style="list-style-type: none"> <li>To pipe nylon, soft nylon, polyurethane tubing.</li> <li>Body rotates 360° around the stud axis. Position can be fixed after alignment.</li> </ul> |  |
|                                                                                                          | ø6/4 X M5                         | M-5HL-6  |                                                                                                                                                                                           |  |
| Hose elbow (H)<br>      | ø4/2.5 X M5                       | M-5HLH-4 |                                                                                                                                                                                           |  |
|                                                                                                          | ø6/4 X M5                         | M-5HLH-6 |                                                                                                                                                                                           |  |
| Elbow<br>               | M5 female X M5 female             | M-5L     | Perpendicular piping.                                                                                                                                                                     |  |
| Tee<br>                 | M5 female X M5 female X M5 female | M-5T     | Perpendicular piping in both directions.                                                                                                                                                  |  |
| Universal elbow<br>    | M5 female X M5 male               | M-5UL    | Body rotates 360° around the stud axis. Position can be fixed after alignment.                                                                                                            |  |
| Universal tee<br>     | M5 female X M5 female X M5 male   | M-5UT    | Body rotates 360° around the stud axis. Position can be fixed after alignment.                                                                                                            |  |
| Extension fitting<br> | M5 male X M5 female               | M-5J     | For 3D piping to prevent interference between fittings.                                                                                                                                   |  |
| Nipple<br>            | M5 male X M5 male                 | M-5N     | To connect fittings and equipment or to connect 2 fittings.                                                                                                                               |  |
| Universal nipple<br>  | M5 male X M5 male PAT.            | M-5UN    | Body rotates 360° around the stud axis.                                                                                                                                                   |  |
| Bulkhead union<br>    | M5 X M5 female – female           | M-5E     | Panel mount connection                                                                                                                                                                    |  |
| Bulkhead Reducer<br>  | Rc1/8 X M5 female                 | M-5ER    | Reduction from Rc1/8 to M5. Panel mounting is possible.                                                                                                                                   |  |
| Manifold<br>          | Rc1/8 X M5 female (9 port)        | M-5M     | Rc1/8 can be diverted in up to nine M5 stations. Panel mounting is possible.                                                                                                              |  |
| Gasket<br>            | Material: SUS 304                 | M-5G1    | M5 thread label                                                                                                                                                                           |  |
| Gasket (H)<br>        | Material: Aluminium               | M-5GH    | M-5ALm-6<br>M-5ALHm-6<br>M-5HL-4, 6<br>M-5HLH-4, 6.                                                                                                                                       |  |

## Miniature Fittings

### Series M3

| Description                                                                         | Remark(s)                       | Model    | Application                                                                    |
|-------------------------------------------------------------------------------------|---------------------------------|----------|--------------------------------------------------------------------------------|
|    | ø2/1.2 X M3                     | M-3AU-2  | To pipe polyurethane tubing.                                                   |
|                                                                                     | ø3.18/2.18 X M3                 | M-3AU-3  | To pipe soft nylon tubing.                                                     |
|                                                                                     | ø3.18/2 X M3                    |          | To pipe polyurethane tubing.                                                   |
|                                                                                     | ø4/2.5 X M3                     | M-3AU-4  | To pipe soft nylon, polyurethane tubing.                                       |
|    | ø2/1.2 X M3                     | M-3ALU-2 | To pipe polyurethane tubing.                                                   |
|                                                                                     | ø3.18/2.18 X M3                 | M-3ALU-3 | To pipe soft nylon tubing.                                                     |
|                                                                                     | ø3.18/2 X M3                    |          | To pipe polyurethane tubing.                                                   |
|                                                                                     | ø4/2.5 X M3                     | M-3ALU-4 | To pipe soft nylon, polyurethane tubing.                                       |
|  | M3 female X M3 male             | M-3UL    | Body rotates 360° around the stud axis. Position can be fixed after alignment. |
|  | M3 female X M3 female X M3 male | M-3UT    | Body rotates 360° around the stud axis. Position can be fixed after alignment. |
|  | M3 male X M3 male               | M-3N     | To connect fittings and equipment or to connect 2 fittings.                    |
|  |                                 | M-3P     | To plug unused M3 port.                                                        |
|  |                                 | M-3G     | Sealant (Thread portion)                                                       |

### Series R1/8

| Description                                                                         | Remark(s)                 | Model    | Application                                     |
|-------------------------------------------------------------------------------------|---------------------------|----------|-------------------------------------------------|
|    | ø4/2.5 X R1/8             | M-01AN-4 | To pipe nylon tubing.                           |
|                                                                                     | ø6/4 X R1/8               | M-01AN-6 |                                                 |
|    | ø4/2.5 X R1/8             | M-01AU-4 | To pipe soft nylon, polyurethane tubing.        |
|                                                                                     | ø6/4 X R1/8               | M-01AU-6 |                                                 |
|    | ø4/2.5 X R1/8             | M-01H-4  | To pipe nylon, soft nylon, polyurethane tubing. |
|                                                                                     | ø6/4 X R1/8               | M-01H-6  |                                                 |
|  | ø2/1.2 X 3.2 mm one-touch | M-32F-2  | To pipe polyurethane tubing.                    |
|                                                                                     | ø2/1.2 X 4 mm one-touch   | M-04F-2  |                                                 |
|  | ø2/1.2 X 3.2 mm           | M-32R-2  | To pipe polyurethane tubing.                    |
|                                                                                     | ø2/1.2 X 4 mm             | M-04R-2  |                                                 |