## **Control Series**

# **Miniature Valve**

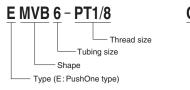
# PushOne<sup>™</sup> Type and QuickSeal Type

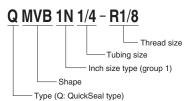
#### Features

- Easy flow rate control
   Easy operation with large handle.
- Fine control of flow rate
  Fine thread is used for valve system.
- PushOne connection for millimeter size type
   Jigs and tools are not required for connecting the tubes.



### Product number example





#### Operating fluid, working temperature range

| Operating fluid | Working temperature range |
|-----------------|---------------------------|
| Air             | -20°C~+80°C               |
| Water           | 0°C~+40°C                 |

#### **Pressure condition**

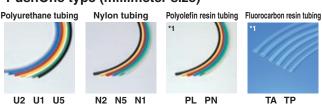
Maximum working pressure:1.0MPa Negative pressure performance: -98.642kPa

#### Handling instructions

- Caution: When the working conditions of tubes and fittings differ, use them under the lower specified conditions.
- Caution: When water is used as the operating fluid, do not allow it to freeze.
- Caution:Do not bend the pipe sharply near the tubing insertion port (sleeve end) of the fitting. Keep the tubing straight for twice as long as the tubing diameter from the insertion port.
- ▲ Caution: The miniature valve has a determined flow direction, which is indicated on the side body. Flow fluid in the correct direction to control the flow rate.
- See page 134 for the common handling instructions for control, switch and detachable series products.

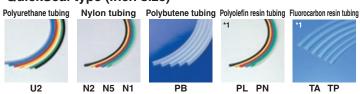
### Applicable tubing

### PushOne type (millimeter size)



(\*1) Combinatory use of PL, PN, TA or TP tubing and miniature valve mixes general and clean type performances. When using them together in a clean environment, be aware of how this could lower the cleanliness level.

#### QuickSeal type (Inch size)



(\*1) Combinatory use of PL, PN, TA or TP tubing and miniature valve mixes general and clean type performances. When using them together in a clean environment, be aware of how this could lower the cleanliness level.

### Reference

Negative-pressure performance list······P.169

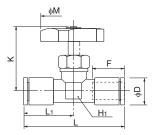
# Inline type



Miniature Valve (PushOne™ type)

#### ●Millimeter size type

| Product number | Applicable tubing outer diameter (mm) | L<br>(mm) | L <sub>1</sub> (mm) | Full open (mm) | Full closed (mm) | M<br>(mm) | F<br>Tubing<br>insertion<br>length<br>(mm) | H <sub>1</sub><br>Width<br>across flat<br>(mm) | D<br>(mm) | Weight (g) | Effective<br>sectional<br>area<br>(mm²) |
|----------------|---------------------------------------|-----------|---------------------|----------------|------------------|-----------|--|--|-----------|------------|---|
| EMVA6          | 6                                     | 50.6      | 25.3                | 39.9           | 35.9             | 40.0      | 15   | 15.0   | 15.0      | _          | _                                       |
| EMVA8          | 8                                     | 51.6      | 25.8                | 39.9           | 35.9             | 40.0      | 16   | 15.0   | 15.0      | 86.0       | 2.5                                     |

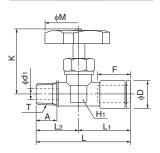


# Straight type



### ●Millimeter size type

| Product number | Applicable tubing outer diameter (mm) | T<br>Thread<br>size<br>(R) | L<br>(mm) | L <sub>1</sub> | L <sub>2</sub> | A<br>(mm) | Full open<br>(mm) |      | M<br>(mm) | F<br>Tubing<br>insertion<br>length<br>(mm) | H <sub>1</sub><br>Width<br>across flat<br>(mm) | dı<br>(mm) | D<br>(mm) | Weight | Effective<br>sectional<br>area<br>(mm²) |
|----------------|---------------------------------------|----------------------------|-----------|----------------|----------------|-----------|-------------------|------|-----------|--|--|------------|-----------|--------|---|
| EMVB6-PT1/8    | 6                                     | R1/8                       | 46.8      | 25.3           | 21.5           | 10.0      | 39.9              | 35.9 | 40.0      | 15   | 15.0   | 5.0        | 15.0      | 81.0   | 3.5                                     |
| EMVB6-PT1/4    | 6                                     | R1/4                       | 49.8      | 25.3           | 24.5           | 13.0      | 39.9              | 35.9 | 40.0      | 15   | 15.0   | 7.0        | 15.0      | 84.5   | 3.5                                     |
| EMVB8-PT1/4    | 8                                     | R1/4                       | 50.3      | 25.8           | 24.5           | 13.0      | 39.9              | 35.9 | 40.0      | 16   | 15.0   | 7.0        | 15.0      | _      | _                                       |

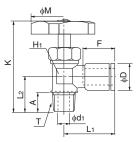


# Angled type



### ●Millimeter size type

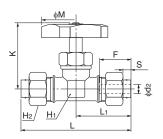
| Product number | Applicable tubing outer diameter (mm) | T<br>Thread<br>size<br>(R) | L <sub>1</sub> (mm) | L <sub>2</sub> (mm) | A<br>(mm) |      | Full closed (mm) | M<br>(mm) | F<br>Tubing<br>insertion<br>length<br>(mm) | H <sub>1</sub><br>Width<br>across flat<br>(mm) | d <sub>1</sub><br>(mm) | D<br>(mm) | Weight (g) | Effective<br>sectional<br>area<br>(mm²) |
|----------------|---------------------------------------|----------------------------|---------------------|---------------------|-----------|------|------------------|-----------|--|--|------------------------|-----------|------------|---|
| EMVC6-PT1/8    | 6                                     | R1/8                       | 25.3                | 23.0                | 12.0      | 57.9 | 53.9             | 40.0      | 15   | 15.0   | 5.0                    | 15.0      | 76.5       | 7.0                                     |
| EMVC6-PT1/4    | 6                                     | R1/4                       | 25.3                | 23.0                | 12.0      | 57.9 | 53.9             | 40.0      | 15   | 15.0   | 7.0                    | 15.0      | _          | _                                       |
| EMVC8-PT1/4    | 8                                     | R1/4                       | 24.8                | 23.0                | 12.0      | 57.9 | 53.9             | 40.0      | 16   | 15.0   | 7.0                    | 15.0      | 78.0       | 7.0                                     |



# Inline type



| ●Inch size t   | Dinch size type         |      |                |                |                  |       |      |                          |                         |                |                |        |               |  |  |
|----------------|-------------------------|------|----------------|----------------|------------------|-------|------|--------------------------|-------------------------|----------------|----------------|--------|---------------|--|--|
| Product number | Applicable tubing outer | L    | L <sub>1</sub> | К              |                  | М     | s    | F<br>Tubing<br>insertion | H <sub>1</sub><br>Width | H <sub>2</sub> | d <sub>2</sub> | Weight | Effective     |  |  |
| Product number | diameter<br>(inch)      | (mm) | (mm)           | Full open (mm) | Full closed (mm) | (mm)  | (mm) | length<br>(mm)           | across flat<br>(mm)     | (mm)           | (mm)           | (g)    | area<br>(mm²) |  |  |
| QMVA1N1/4      | 1/4                     | 54.2 | 27.1           | 37.4           | 33.4             | ф40.0 | 4.6  | 15                       | 14.0                    | 12.0           | 3.4            | 80.0   | 5.0           |  |  |
| QMVA1N3/8      | 3/8                     | 62.6 | 31.3           | 38.9           | 34.9             | ф40.0 | 4.6  | 17                       | 17.0                    | 17.0           | 5.7            | 117.0  | 6.0           |  |  |

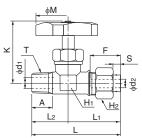


# Straight type

### ●Inch size type



| Product number | Applicable tubing outer diameter (inch) | T<br>Thread<br>size<br>(R) | L<br>(mm) | L <sub>1</sub> (mm) | L <sub>2</sub> | A<br>(mm) | Full open<br>(mm) | Full closed (mm) | M (mm) | S<br>(mm) | F<br>Tubing<br>insertion<br>length<br>(mm) | H <sub>1</sub><br>Width<br>across flat<br>(mm) | H <sub>2</sub> (mm) | dı<br>(mm) | d <sub>2</sub><br>(mm) | _     | Effective<br>sectional<br>area<br>(mm²) |
|----------------|---|----------------------------|-----------|---------------------|----------------|-----------|-------------------|------------------|--------|-----------|--|--|---------------------|------------|------------------------|-------|---|
| QMVB1N1/4-R1/8 | 1/4                                     | R1/8                       | 46.6      | 27.1                | 19.5           | 10.0      | 37.4              | 33.4             | φ40.0  | 4.6       | 15   | 14.0   | 12.0                | 5.0        | 3.4                    | 76.0  | 5.0                                     |
| QMVB1N1/4-R1/4 | 1/4                                     | R1/4                       | 48.6      | 27.1                | 21.5           | 12.0      | 37.4              | 33.4             | φ40.0  | 4.6       | 15   | 14.0   | 12.0                | 7.0        | 3.4                    | 95.0  | 5.5                                     |
| QMVB1N3/8-R1/4 | 3/8                                     | R1/4                       | 56.3      | 31.3                | 25.0           | 12.0      | 38.9              | 34.9             | ф40.0  | 4.6       | 17   | 17.0   | 17.0                | 7.0        | 5.7                    | 113.0 | 6.0                                     |



# Angled type

#### ●Inch size type



| • III 011 512C t | ypc                                     |                            |                     |                |           |                   |                  |           |           |  |  |                |            |                        |        |   |
|------------------|---|----------------------------|---------------------|----------------|-----------|-------------------|------------------|-----------|-----------|--|--|----------------|------------|------------------------|--------|---|
| Product number   | Applicable tubing outer diameter (inch) | T<br>Thread<br>size<br>(R) | L <sub>1</sub> (mm) | L <sub>2</sub> | A<br>(mm) | Full open<br>(mm) | Full closed (mm) | M<br>(mm) | S<br>(mm) | F<br>Tubing<br>insertion<br>length<br>(mm) | H <sub>1</sub><br>Width<br>across flat<br>(mm) | H <sub>2</sub> | dı<br>(mm) | d <sub>2</sub><br>(mm) | Weight | Effective<br>sectional<br>area<br>(mm²) |
| QMVC1N1/4-R1/8   | 1/4                                     | R1/8                       | 27.1                | 20.0           | 10.0      | 54.9              | 50.9             | ф40.0     | 4.6       | 15   | 14.0   | 12.0           | 5.0        | 3.4                    | 75.0   | _                                       |
| QMVC1N1/4-R1/4   | 1/4                                     | R1/4                       | 27.1                | 22.0           | 12.0      | 56.9              | 50.9             | ф40.0     | 4.6       | 15   | 14.0   | 12.0           | 7.0        | 3.4                    | 92.0   | 7.0                                     |
| QMVC1N3/8-R1/4   | 3/8                                     | R1/4                       | 28.3                | 23.0           | 12.0      | 59.9              | 55.9             | ф40.0     | 4.6       | 17   | 17.0   | 17.0           | 7.0        | 5.7                    | 104.0  | 7.0                                     |

