

## Manifold Flow Rate Characteristics<sup>\*1</sup> / Manifold Weight

**Valve Seal Type: Rubber Seal**  
**Side Ported (Type 10)**

| Manifold model | Valve model      | Port size        |                | Flow rate characteristics |      |                     |      | Weight: W [g]*2<br>(n: stations) |
|----------------|------------------|------------------|----------------|---------------------------|------|---------------------|------|----------------------------------|
|                |                  | 1, 3/5<br>(P, E) | 4, 2<br>(A, B) | 1 → 4/2 (P → A/B)         |      | 4/2 → 3/5 (A/B → E) |      |                                  |
|                |                  |                  |                | C [dm³/(s·bar)]           | b    | C [dm³/(s·bar)]     | b    |                                  |
| SS5Y3          | SY3100<br>SY3200 | C8               | C6             | 1.4                       | 0.30 | 1.6                 | 0.19 | 28.9 n + 293                     |
|                | SY3300           |                  |                | 1.3                       | 0.28 | 1.2                 | 0.40 |                                  |
|                | SY3400           |                  |                | 1.2                       | 0.27 | 1.6                 | 0.29 |                                  |
|                | SY3500           |                  |                | 1.4                       | 0.31 | 1.1                 | 0.36 |                                  |
|                | SY3A00           |                  |                | 1.3                       | 0.26 | 1.5                 | 0.27 |                                  |
|                | SY3B00           |                  |                | 1.3                       | 0.26 | 1.5                 | 0.27 |                                  |
|                | SY3C00           |                  |                | 1.3                       | 0.26 | 1.5                 | 0.27 |                                  |
| SS5Y5          | SY5100<br>SY5200 | C10              | C8             | 3.3                       | 0.30 | 3.6                 | 0.17 | 74.7 n + 398                     |
|                | SY5300           |                  |                | 3.1                       | 0.32 | 2.9                 | 0.31 |                                  |
|                | SY5400           |                  |                | 3.1                       | 0.32 | 3.7                 | 0.23 |                                  |
|                | SY5500           |                  |                | 3.4                       | 0.32 | 2.9                 | 0.31 |                                  |
|                | SY5A00           |                  |                | 2.9                       | 0.32 | 3.2                 | 0.25 |                                  |
|                | SY5B00           |                  |                | 2.8                       | 0.31 | 2.9                 | 0.26 |                                  |
|                | SY5C00           |                  |                | 2.9                       | 0.32 | 3.1                 | 0.25 |                                  |
| SS5Y7          | SY7100<br>SY7200 | C12              | C12            | 6.2                       | 0.23 | 5.9                 | 0.20 | 106.6 n + 496                    |
|                | SY7300           |                  |                | 4.8                       | 0.25 | 4.4                 | 0.36 |                                  |
|                | SY7400           |                  |                | 4.8                       | 0.25 | 6.6                 | 0.27 |                                  |
|                | SY7500           |                  |                | 7.1                       | 0.25 | 4.4                 | 0.36 |                                  |
|                | SY7A00           |                  |                | 5.4                       | 0.25 | 5.1                 | 0.29 |                                  |
|                | SY7B00           |                  |                | 5.4                       | 0.24 | 5.1                 | 0.31 |                                  |
|                | SY7C00           |                  |                | 5.4                       | 0.25 | 5.1                 | 0.29 |                                  |

**Valve Seal Type: Rubber Seal**  
**Bottom Ported (Type 11)**

| Manifold model | Valve model      | Port size        |                | Flow rate characteristics |      |                     |      | Weight: W[g]*2<br>(n: stations) |
|----------------|------------------|------------------|----------------|---------------------------|------|---------------------|------|---------------------------------|
|                |                  | 1, 3/5<br>(P, E) | 4, 2<br>(A, B) | 1 → 4/2 (P → A/B)         |      | 4/2 → 3/5 (A/B → E) |      |                                 |
|                |                  |                  |                | C [dm³/(s·bar)]           | b    | C [dm³/(s·bar)]     | b    |                                 |
| SS5Y5          | SY5100<br>SY5200 | C10              | C8             | 3.3                       | 0.29 | 4.2                 | 0.26 | 76.8 n + 445                    |
| SS5Y7          | SY7100<br>SY7200 | C12              | C12            | 6.2                       | 0.25 | 6.6                 | 0.21 | 117.9 n + 532                   |

**Valve Seal Type: Rubber Seal**  
**Top Ported (Type 12)**

| Manifold model | Valve model      | Port size        |                | Flow rate characteristics    |      |                              |      | Weight: W [g]* <sup>2</sup><br>(n: stations) |
|----------------|------------------|------------------|----------------|------------------------------|------|------------------------------|------|----------------------------------------------|
|                |                  | 1, 3/5<br>(P, E) | 4, 2<br>(A, B) | 1 → 4/2 (P → A/B)            |      | 4/2 → 3/5 (A/B → E)          |      |                                              |
|                |                  |                  |                | C [dm <sup>3</sup> /(s·bar)] | b    | C [dm <sup>3</sup> /(s·bar)] | b    |                                              |
| SS5Y3          | SY3130<br>SY3230 | C8               | C6             | 1.2                          | 0.29 | 1.3                          | 0.19 | 25.1 n + 314                                 |
| SS5Y5          | SY5130<br>SY5230 | C10              | C8             | 2.8                          | 0.27 | 3.8                          | 0.23 | 66.3 n + 417                                 |
| SS5Y7          | SY7130<br>SY7230 | C12              | C12            | 5.6                          | 0.31 | 5.7                          | 0.24 | 84.1 n + 519                                 |

<sup>\*1</sup> The value is for manifold base with 5 stations and individually operated 2-position type.

<sup>\*2</sup> Weight: W is the value of the internal pilot, and D-sub connector manifold with One-touch fitting straight piping type.

To obtain the weight with valves attached, add the valve weights given on page 17 for the appropriate number of stations.

\* Calculation of effective area S and sonic conductance C:  $S = 5.0 \times C$