Features

1. With a very compact, lightweight configuration, the intelligent design of this valve makes it a low-cost option.
2. Minute flow rate control from 30 cm³.
3. Stable control of each setting flow rate, even as pressure and oil temperature are fluctuating.
4. Dial markings are proportional to flow rate for simple and accurate control flow rate adjustment.

Specifications

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Nominal Diameter (Size)</th>
<th>Volume Control Flow Rate ℓ/min</th>
<th>Maximum Working Pressure MPa(kgf/cm²)</th>
<th>Reverse Flow Rate ℓ/min</th>
<th>Cracking pressure MPa(kgf/cm²)</th>
<th>Weight Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>(C)TN-G02-2-11-8-11</td>
<td>1/4</td>
<td>0.03 to 2</td>
<td>10.5(107)</td>
<td>35</td>
<td>0.1(1.0)</td>
<td>2.2</td>
</tr>
</tbody>
</table>

• Handling

1. In the temperature range of 20°C to 60°C, flow rate fluctuation is within ±5% of the standard flow rate at 40°C.
2. In the pressure range of 1.0 to 10.5MPa (10.2 to 107kgf/cm²), flow rate fluctuation is within ±5% of the setting flow rate.
3. Note that flow rate fluctuation exceeds the rated flow rate fluctuation amount slightly in the vicinity of the minimum control flow rate, due to changes in operating temperature and hydraulic fluid viscosity.
4. When controlling flow rates that are less than 0.2ℓ/min, use with a filter that does not exceed 10μm.
5. Make sure that the pressure differential between the inlet port and outlet is at least 0.6MPa (6.1kgf/cm²) at 4ℓ/min or less, and at least 1.0MPa (10.2kgf/cm²) at 4ℓ/min or greater.
6. The control flow rate is increased by clockwise (rightward) rotation of the adjustment handle.

7. For connection to piping, normally connect to the sub plate. Valve mounting is gasket type, using an O-ring. When a screw in connection is required, seal the gasket surface, remove the side plug, and create a screw in connection directly to the valve unit. In this case, remove all seal material affixed to the plug.

8. Use the following table for specification when a sub plate is required.

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Pipe Diameter</th>
<th>Recommended Flow Rate ℓ/min</th>
<th>Weight Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTL-03-10</td>
<td>3/8</td>
<td>35</td>
<td>1.3</td>
</tr>
</tbody>
</table>

9. Bundled Accessories: Hex Socket Bolts M8 x 60ℓ, (four)

Note: 1. For mounting bolts, use bolts of 12.9 strength classification or equivalent.
2. Tightening torque is 20 to 25N·m (205 to 255kgf·cm).

Explanation of model No.

(C) TN – G02 – 2 – (F) – 11

- Design number
- Anti-jumping mechanism (option)
- Maximum control flow rate
- Nominal diameter (size)
- Mounting method: G: Gasket type
- Flow control valve
- Flow control and check valve
Installation Dimension Drawings

(C)TN-G02-**-11

Sub Plate MTL-03-10

Performance Curves

Hydraulic Operating Fluid Kinematic Viscosity 32mm²/s

Oil Temperature — Control Flow Rate Characteristics

Pressure — Control Flow Rate Characteristics

Scale — Control Flow Rate Characteristics

Pressure Loss Characteristics
Cross-sectional Drawings

CTN-G02-^-11

Flow Control Valve

Seal Part List (Kit Model Number FNS-G02(C))

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Part Name</th>
<th>Part No.</th>
<th>Part Name</th>
<th>Part No.</th>
<th>Part Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>O-ring</td>
<td>27</td>
<td>NBR-70-1 P9</td>
<td>4 NBR-70-1 P9</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>O-ring</td>
<td>28</td>
<td>NBR-70-1 P14</td>
<td>2 NBR-70-1 P14</td>
<td>3</td>
</tr>
<tr>
<td>29</td>
<td>O-ring</td>
<td>29</td>
<td>NBR-70-1 P16</td>
<td>2 NBR-70-1 P16</td>
<td>2</td>
</tr>
</tbody>
</table>

Note) Specify C at the end of the model number for the CTN kit.
Note) The materials and hardness of the O-ring conforms with JIS B2401.

Anti-jumping mechanism
(C)TN-G02-^-F-11

Seal Part List

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Part Name</th>
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<th>Part No.</th>
<th>Part Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>O-ring</td>
<td>8</td>
<td>O-ring</td>
<td>7</td>
<td>O-ring</td>
</tr>
<tr>
<td></td>
<td>NBR-70-1 P9</td>
<td>NBR-70-1 P3</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NBR-70-1 P9</td>
<td>NBR-70-1 P3</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note) Part number 7 O-ring and part number 27 O-ring are interchangeable.