## Specifications

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Nominal Diameter (Size)</th>
<th>Maximum Working Pressure MPa (kgf/cm²)</th>
<th>Maximum Flow Rate ℓ/min</th>
<th>Pressure Adjustment Range MPa (kgf/cm²)</th>
<th>Weight kg</th>
<th>Gasket Surface Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG-G01-AC-21 A1, A2</td>
<td>1/8</td>
<td>25 (255)</td>
<td>50</td>
<td>0.15 to 3.5 [1.5 to 35.7]</td>
<td>1.3</td>
<td>ISO 4401-03-02-0-05</td>
</tr>
<tr>
<td>OG-G01-BC-21 B1, B2</td>
<td>1/8</td>
<td>25 (255)</td>
<td>50</td>
<td>0.15 to 3.5 [1.5 to 35.7]</td>
<td>1.3</td>
<td>ISO 4401-03-02-0-05</td>
</tr>
<tr>
<td>OG-G03-AC-J51 A1, A3</td>
<td>3/8</td>
<td>25 (255)</td>
<td>80</td>
<td>0.25 to 3.5 [2.5 to 35.7]</td>
<td>3.8</td>
<td>ISO 4401-05-04-0-05</td>
</tr>
<tr>
<td>OG-G03-BC-J51 B1, B3</td>
<td>3/8</td>
<td>25 (255)</td>
<td>80</td>
<td>0.25 to 3.5 [2.5 to 35.7]</td>
<td>3.8</td>
<td>ISO 4401-05-04-0-05</td>
</tr>
<tr>
<td>OGH-G04-A1-10 A3</td>
<td>1/2</td>
<td>35 (357)</td>
<td>300</td>
<td>0.8 to 7 [8.2 to 71.4]</td>
<td>8.0</td>
<td>ISO 4401-07-06-0-05</td>
</tr>
<tr>
<td>OGH-G04-B1-10 B3</td>
<td>1/2</td>
<td>35 (357)</td>
<td>300</td>
<td>0.8 to 7 [8.2 to 71.4]</td>
<td>8.0</td>
<td>ISO 4401-07-06-0-05</td>
</tr>
</tbody>
</table>

- **Handling**
  1. When using a remote control valve in a vent circuit, certain vent circuit pipe capacities can cause vibration. Because of this, thick steel pipe with an inside diameter of 4mm that is no longer than three meters is recommended. Vent piping cannot be used with the 01, 03 sizes.
  2. With the 01, 03 sizes, the flow rate is limited at low pressures. See the Pressure-Flow Rate Characteristics on page D-40 and D-41 for more information.
  3. For the 03 size, the drainage can be allowed to escape through the T port. In the case of a valve with the auxiliary symbol B, however, run a return pipe from the drain discharge port directly to the tank.
  4. With the 04 sizes, piping is not required because drainage can be allowed to escape from the gasket side drain port. In the case of a valve with the auxiliary symbol B, however, run a return pipe from the drain discharge port directly to the tank.
  5. Note that a change in drain back pressure causes a change in setting pressure.
  6. Note that a sub plate and installation bolts are not included. See pages D-90 through D-95 if these items are required.
  7. 04 series modular valves do not have an L (DR 2) drain port, so they cannot be used in combination with pressure center type solenoid valves (D).
  8. With the 03, 04 sizes, the control port can be changed by altering the attachment orientation of the back cover. See the installation diagram for more information. After making this change, be sure also to make the other changes as in accordance with the model number indicated on the nameplate.
  9. Use the P port control valve concurrently with the 01 size central all-port-block (C5) solenoid valve if when the valve is in the central position and external pressure may cause the pressure at the control port to exceed the set pressure.

## Explanation of model No. 01, 03 size

- **Design number**
  - Note: For 03 size, relationship between mounting bolts and design number is indicated as J51: M6, 51: M8.
- **Auxiliary symbol**
  - B: See notes 3 and 4 under “Handling.”
  - K: With handle (01, 03 size)
- **Pressure adjustment range C, 1, 2, 3**
- **Control port**
  - A: A port
  - B: B port
- **Nominal diameter (size)**
  - 01, 03
- **Mounting method**
  - G: Gasket type
- **Pressure reducing (and check)**
  - Modular valve
**Explanation of model No.**

OGH – G 04 – A 1 – (B) – 10

- **Design number**
- **Auxiliary symbol** B: See note 4 under “Handling.”
- **Pressure adjustment range** 1, 3
- **Control port** A: A port    B: B port
- **Nominal diameter (size)** 04
- **Mounting method** G: Gasket type
- **M35 Series pressure reducing modular valve**

**Installation Dimension Drawings**

Note) Pressure is increased by clockwise (rightward) rotation of the adjusting screw (bolt), and decreased by counterclockwise (leftward) rotation.

OG-G01-A*-21

OG-G01-B*-21

OG-G03-A*-J51

Pressure gauge attachment port

Rc 1/4

Pressure gauge attachment port

Rc 1/4

Drain port

Rc 1/8

Pressure is increased by clockwise (rightward) rotation of the adjusting screw (bolt), and decreased by counterclockwise (leftward) rotation.
Modular Valve

OG-G03-B*-J51

Pressure gauge attachment port
Rc 1/4

Drain port
Rc 1/8

OG-G03-B*-J51
OG-G03-P*-J51

Note:
1. Conversion to P port control is possible by changing the back cover. Port control is determined by plug orientation.
2. When replacing the back cover, be sure also to change the nameplate to the applicable model type.
3. The tightening torque of the back cover bolts is: (M6) 10 to 13Nm (102 to 133 kgf-cm).

OGH-G04-A*-10

Note:
1. Conversion to P, B port control is possible by changing the back cover. Port control is determined by plug orientation.
2. When replacing the back cover, be sure also to change the nameplate to the applicable model type.
3. The tightening torque of the back cover bolts is: (M10) 45 to 55Nm (460 to 560 kgf-cm).
Performance Curves

Hydraulic Operating Fluid Kinematic Viscosity 32mm²/s

Pressure Loss Curve

OG-G01-B*-21

OG-G03-B*-J51

OGH-G04-**-10

Pressure – Flow Rate Characteristics

OG-G01-B_2^1-21

OG-G01-BC-21
Pressure − Drain Rate Characteristics

Determine it through the maximum value when designing the circuit.

Number of Adjusting Screw Rotations − Pressure Characteristics
Cross-sectional Drawings

OG-G01-A2-21

Seal Part List (Kit Model Number BRBS-01GP-0A)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Part Name</th>
<th>Part Number</th>
<th>Q'ty</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>O-ring</td>
<td>AS68-012(NBR-90)</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>O-ring</td>
<td>NBR-70-1 P18</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>O-ring</td>
<td>NBR-90 P20</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>O-ring</td>
<td>NBR-90 P26</td>
<td>1</td>
</tr>
</tbody>
</table>

Note) The materials and hardness of the O-ring conform with JIS B2401.

OG-G01-AC-21

Seal Part List (Kit Model Number BRBS-01GP-0A)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Part Name</th>
<th>Part Number</th>
<th>Q'ty</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>O-ring</td>
<td>AS68-012(NBR-90)</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>O-ring</td>
<td>NBR-70-1 P18</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>O-ring</td>
<td>NBR-90 P20</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>O-ring</td>
<td>NBR-90 P26</td>
<td>1</td>
</tr>
</tbody>
</table>

Note) The materials and hardness of the O-ring conform with JIS B2401.

OG-G03-B*-J51

Seal Part List (Kit Model Number BRES-03G*-1A)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Part Name</th>
<th>Part Number</th>
<th>Q’ty</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>O-ring</td>
<td>NBR-90 P6</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>21</td>
<td>O-ring</td>
<td>NBR-70-1 P10A</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>O-ring</td>
<td>NBR-90 P12</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>O-ring</td>
<td>AS66-014(NBR-90)</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>24</td>
<td>O-ring</td>
<td>NBR-90 P18</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>25</td>
<td>O-ring</td>
<td>AS68-023(NBR-90)</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Note) The discharge port of the OG-G03-**-J51 has the plug (TPHA-1/8), the "P" plug (TPUA-1/16) is not attached. The OG-G03-**-B-J51 does not have a plug in the drain discharge port with the "P" plug attached, so pipe must be run from the drain discharge port to provide drainage.

Part No. Part Name
1 Body
2 Cover
3 Spool
4 Poppet
5 Seat
6 Bushing
7 Retainer
8 Choke
9 Spring
10 Spring
11 Nut
12 Plug
13 O-ring
14 O-ring
15 O-ring
16 O-ring
17 Knob
18 Nut
19 Screw
20 O-ring
21 Plate
22 Screw
23 Nut
24 O-ring
25 O-ring
26 Plug
27 Nut
28 Screw
29 Pin
30 Pin

Note) The materials and hardness of the O-ring conform with JIS B2401.
Part number 8 is used in the case of pressure adjustment range type 2 only.

Note) 1. The materials and hardness of the O-ring conform with JIS B2401.
2. Specify A or B for the asterisk (*) in the kit model number.

D-42 Modular Valve
Note) 1. The materials and hardness of the O-ring conform with JIS B2401.
2. Specify A or B for the asterisk (*) in the kit model number.

Seal Part List (Kit Model Number BRES-03GC*-1A)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Part Name</th>
<th>Part Number</th>
<th>Q'ty</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>O-ring</td>
<td>NBR-90 P6</td>
<td>2</td>
</tr>
<tr>
<td>21</td>
<td>O-ring</td>
<td>NBR-70-1 P10A</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>O-ring</td>
<td>AS568-014(NBR-90)</td>
<td>5</td>
</tr>
<tr>
<td>23</td>
<td>O-ring</td>
<td>AS568-023(NBR-90)</td>
<td>1</td>
</tr>
</tbody>
</table>

Note) 1. The materials and hardness of the O-ring conform with JIS B2401.
2. Specify A or B for the asterisk (*) in the kit model number.

OGH-G04-**-10

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Part Name</th>
<th>Part Number</th>
<th>Q'ty</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>O-ring</td>
<td>NBR-90 P7</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>O-ring</td>
<td>AS568-012(NBR-90)</td>
<td>2</td>
</tr>
<tr>
<td>21</td>
<td>O-ring</td>
<td>AS568-118(NBR-90)</td>
<td>4</td>
</tr>
<tr>
<td>22</td>
<td>O-ring</td>
<td>NBR-90 G25</td>
<td>2</td>
</tr>
<tr>
<td>23</td>
<td>O-ring</td>
<td>NBR-90 P8</td>
<td>4</td>
</tr>
<tr>
<td>24</td>
<td>O-ring</td>
<td>NBR-90 P11</td>
<td>3</td>
</tr>
</tbody>
</table>

Note) 1. The materials and hardness of the O-ring conform with JIS B2401.
2. Specify A (internal drain) or GB (external drain) for the asterisk (*) in the kit model number.

Seal Part List (Kit Model Number BRKS-04**)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Part Name</th>
<th>Part Number</th>
<th>Q'ty</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>O-ring</td>
<td>NBR-90 P7</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>O-ring</td>
<td>AS568-012(NBR-90)</td>
<td>2</td>
</tr>
<tr>
<td>21</td>
<td>O-ring</td>
<td>AS568-118(NBR-90)</td>
<td>4</td>
</tr>
<tr>
<td>22</td>
<td>O-ring</td>
<td>NBR-90 G25</td>
<td>2</td>
</tr>
<tr>
<td>23</td>
<td>O-ring</td>
<td>NBR-90 P8</td>
<td>4</td>
</tr>
<tr>
<td>24</td>
<td>O-ring</td>
<td>NBR-90 P11</td>
<td>3</td>
</tr>
</tbody>
</table>

Note) 1. The materials and hardness of the O-ring conform with JIS B2401.
2. Specify G (internal drain) or GB (external drain) for the asterisk (*) in the kit model number.