



### Counter Balance Modular Valve

40 to 300 ℓ /min  
25,35MPa

#### Features

- ① This modular valve is used to control actuator back pressure and for other pressure control valve applications.
- ② Pressure adjustment is possible across a wide range, from 0.25 to 14MPa {2.5 to 143kgf/cm<sup>2</sup>}.
- ③ Maximum Operating Pressure: 25, 35MPa {255, 357kgf/cm<sup>2</sup>}

#### Specifications

Model No.	Nominal Diameter (Size)	Maximum Working Pressure MPa(kgf/cm <sup>2</sup> )	Maximum Flow Rate ℓ /min	Pressure Adjustment Range MPa(kgf/cm <sup>2</sup> )	Weight kg	Gasket Surface Dimensions
OCQ-G01-A11-20 A12	1/8	25{255}	40	0.8 to 7{ 8.2 to 71.4}	1.1	ISO 4401-03-02-0-94
OCQ-G01-B11-20 B12				3.5 to 14{35.7 to 143}		
OCQ-G03-A1A-J50 A1C A1E	3/8	25{255}	80	0.25 to 0.85{ 2.5 to 8.7}	3.5	ISO 4401-05-04-0-94
OCQ-G03-B1A-J50 B1C B1E				0.85 to 3.5{ 8.7 to 35.7}		
OCQ-G03-B1A-J50 B1C B1E	1/2	35{357}	300	0.25 to 0.85{ 2.5 to 8.7}	8.0	ISO 4401-07-06-0-94
OQH-G04-A1A-10 A1C A1E				0.5 to 3.5{ 5.1 to 35.7}		
OQH-G04-B1A-10 B1C B1E				2.0 to 14{20.4 to 143}	8.0	

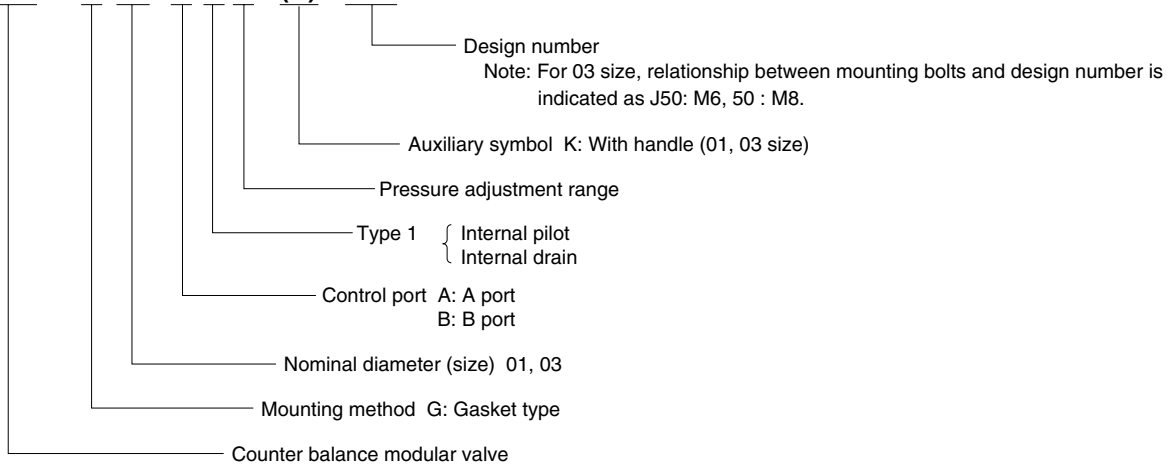
#### ● Handling

- ① The pressure adjustment range is expressed in terms of cracking pressure.
- ② Run tank port piping directly to the tank, and ensure that back pressure is as small as possible.
- ③ Note that a sub plate and installation bolts are not included. See pages D-90 through D-95 if these items are required.
- ④ 04 series modular valves do not have an L (DR<sub>2</sub>) drain port, so they cannot be used in combination with pressure center type solenoid valves (D).

#### Understanding Model Numbers

01, 03 size

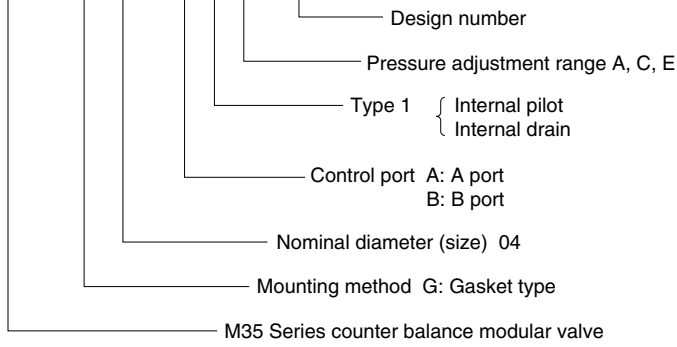
**OCQ - G 03 - B 1 A - (K) - J50**



# Understanding Model Numbers

04 size

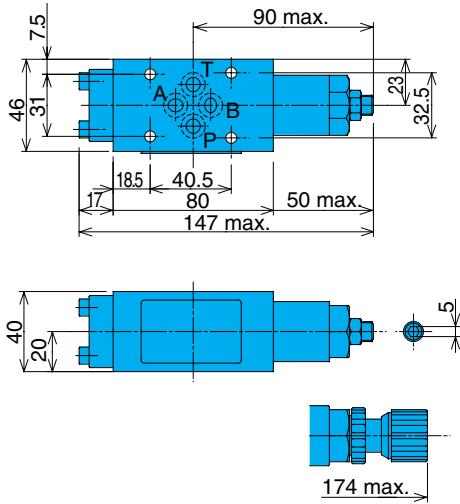
**OQH - G 04 - B 1 A - 10**



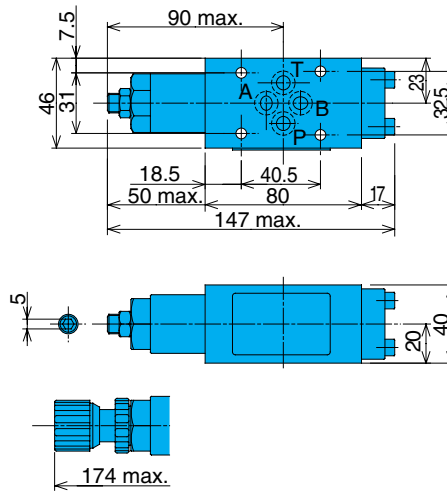
# Installation Dimension Drawings

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

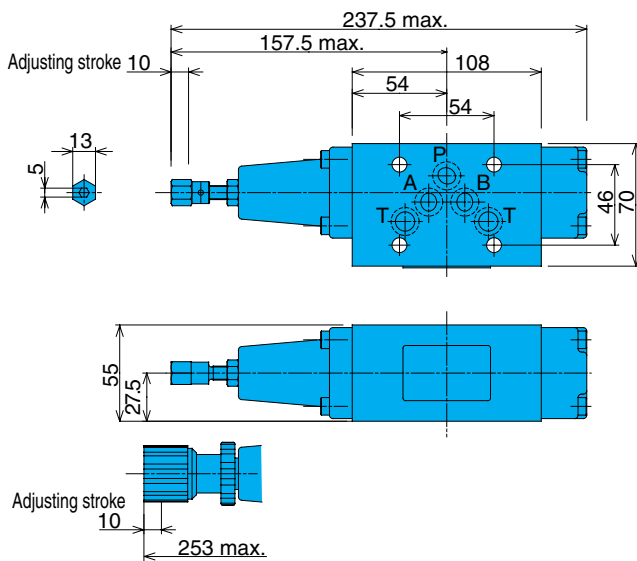
OCQ-G01-A1\*-20



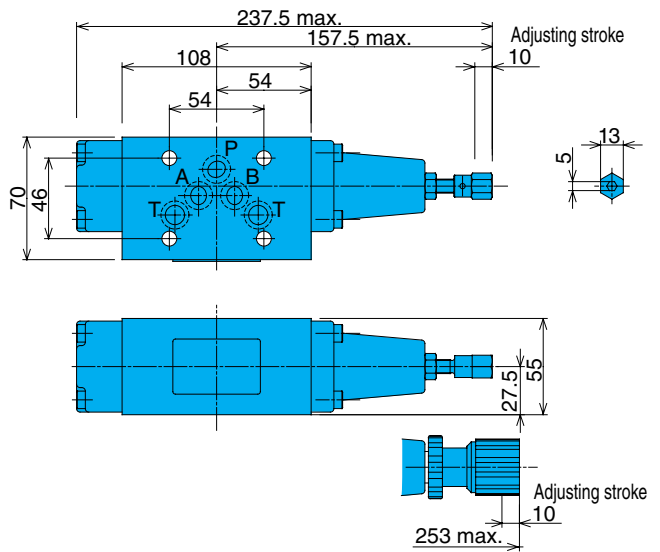
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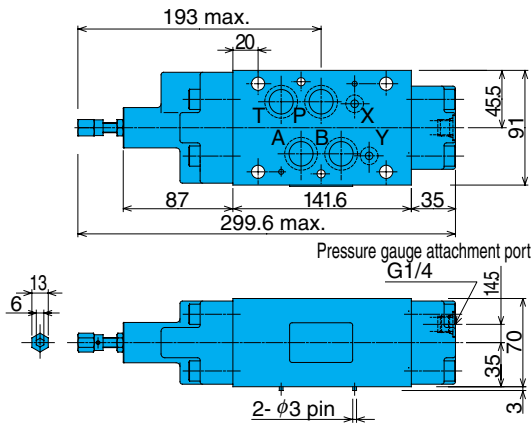
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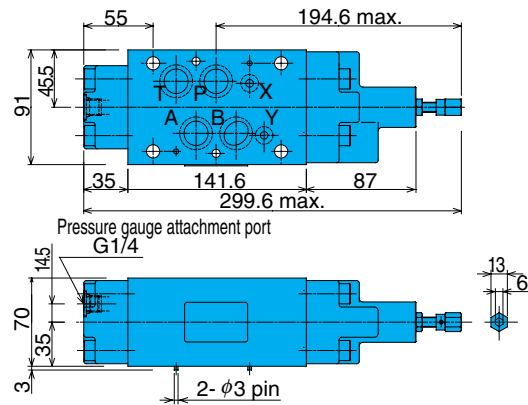
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OQH-G04-A1\*-10



OQH-G04-B1\*-10

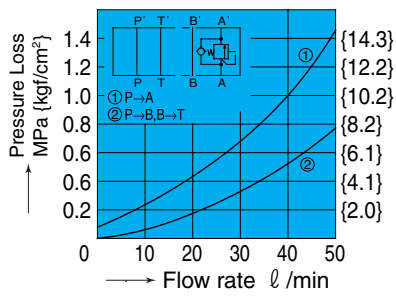


**Performance Curves**

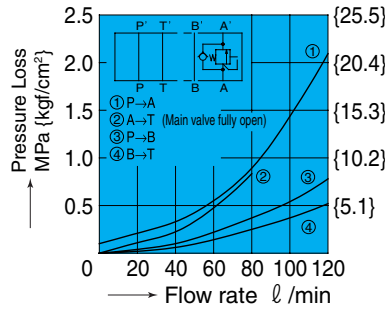
Hydraulic Operating Fluid  
Viscosity 32mm<sup>2</sup>/s

Pressure Loss Characteristics

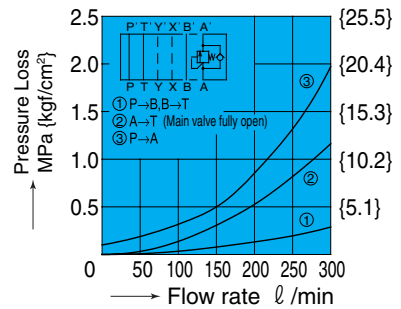
OCQ-G01-A1\*-20



OCQ-G03-A1A-J50

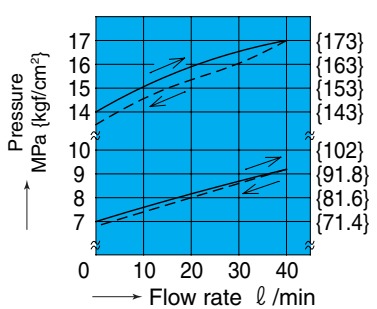


OQH-G04-B1A-10

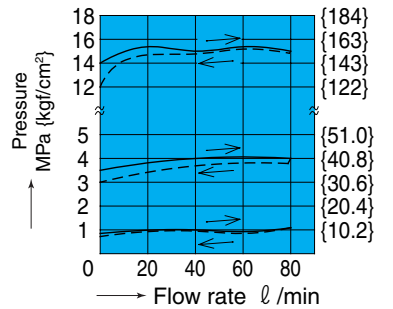


Pressure — Flow Rate Characteristics

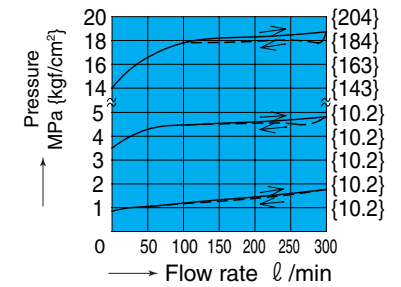
OCQ-G01-A1\*-B1\*-20



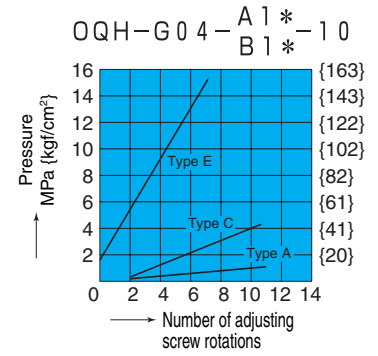
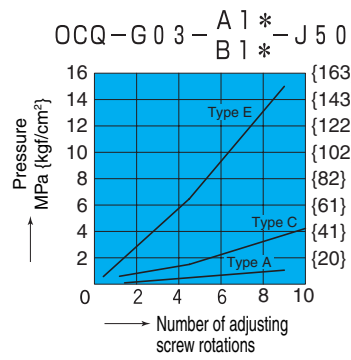
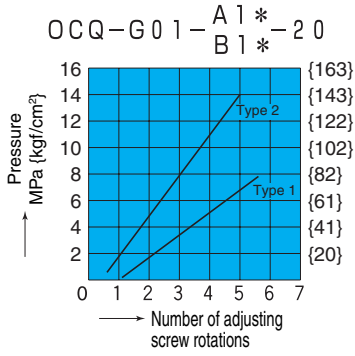
OCQ-G03-A1\*-J50



OQH-G04-A1\*-B1\*-10

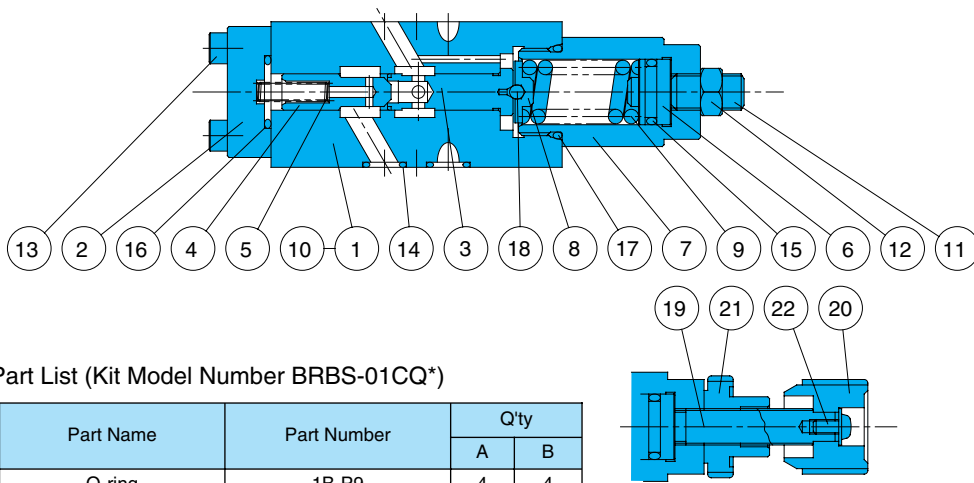


### Number of Adjusting Screw Rotations — Pressure Characteristics



## Cross-sectional Drawing

OCQ-G01-A1\*-20



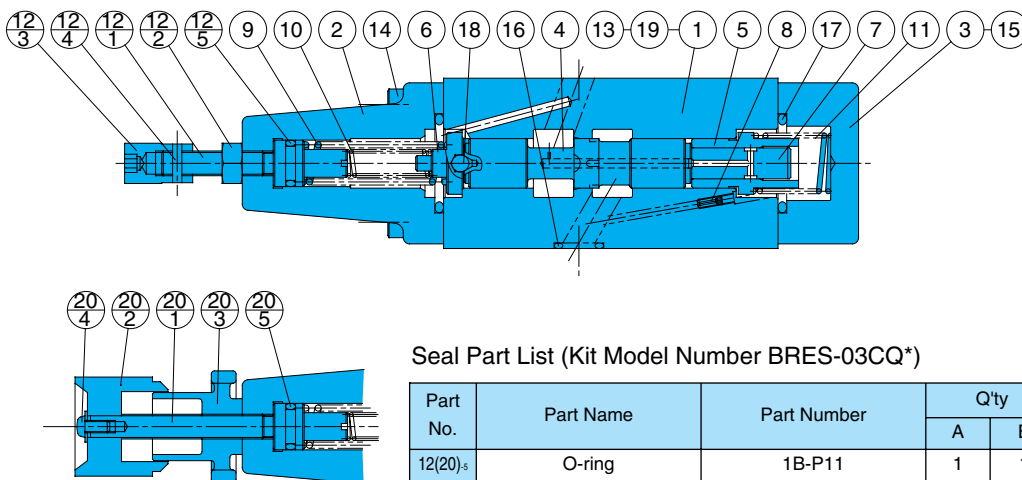
Seal Part List (Kit Model Number BRBS-01CQ\*)

Part No.	Part Name	Part Number	Qty	
			A	B
14	O-ring	1B-P9	4	4
15	O-ring	1B-P14	1	1
16	O-ring	1B-P16	1	1
17	O-ring	1B-P22	1	1

Part No.	Part Name
1	Body
2	Cover
3	Spool
4	Poppet
5	Spring
6	Plunger
7	Retainer
8	Guide
9	Spring
10	Plate
11	Screw
12	Nut
13	Screw
14	O-ring
15	O-ring
16	O-ring
17	O-ring
18	Ball
19	Screw
20	Knob
21	Nut
22	Screw

Note) 1. O-ring 1A/B-\*\* refers to JIS B2401-1A/B.  
2. Specify A or B for the asterisk (\*) in the kit model number.

OCQ-G03-A1\*-J50



Seal Part List (Kit Model Number BRES-03CQ\*)

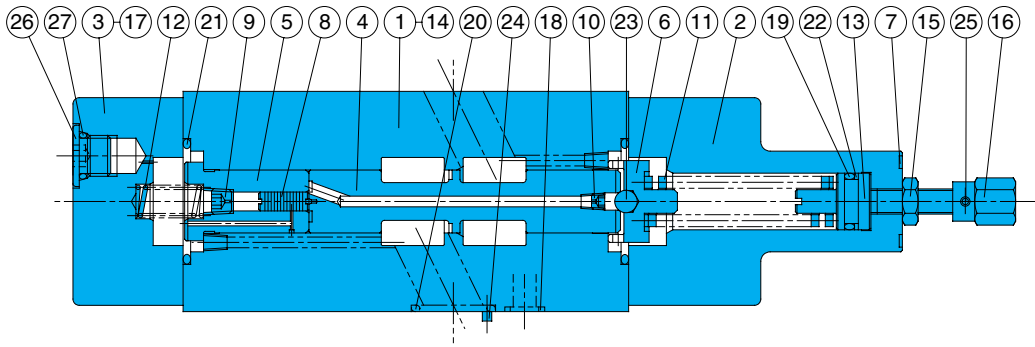
Part No.	Part Name	Part Number	Qty	
			A	B
12(20) <sub>5</sub>	O-ring	1B-P11	1	1
16	O-ring	AS568-014(Hs90)	5	5
17	O-ring	1B-P26	2	2

Part No.	Part Name
1	Body
2	Cover
3	Cover
4	Spool
5	Sleeve
6	Guide
7	Plunger
8	Choke
9	Spring
10	Spring
11	Spring
12	Screw kit
12 <sub>1</sub>	Screw
12 <sub>2</sub>	Nut
12 <sub>3</sub>	Nut
12 <sub>4</sub>	Pin
12 <sub>5</sub>	O-ring
13	Plate
14	Screw
15	Screw
16	O-ring
17	O-ring
18	Ball
19	Pin
20	Handle kit
20 <sub>1</sub>	Screw
20 <sub>2</sub>	Knob
20 <sub>3</sub>	Nut
20 <sub>4</sub>	Screw
20 <sub>5</sub>	O-ring

Note) The 10 spring is not included with pressure adjustment Type A.

Note) 1. O-ring 1A/B-\*\* refers to JIS B2401-1A/B.  
2. Specify A or B for the asterisk (\*) in the kit model number.

OQH-G04-B1\*-10



Part No.	Part Name
1	Body
2	Cover
3	Cover
4	Spool
5	Sleeve
6	Guide
7	Plate
8	Plunger
9	Choke
10	Choke
11	Spring
12	Spring
13	Screw
14	Plate
15	Nut
16	Nut
17	Screw
18	O-ring
19	O-ring
20	O-ring
21	O-ring
22	Backup ring
23	Ball
24	Pin
25	Pin
26	Plug
27	O-ring

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

Part No.	Part Name	Part Number	Q'ty	
			A	B
18	O-ring	AS568-012(Hs90)	2	2
19	O-ring	1B-P14	1	1
20	O-ring	AS568-118(Hs90)	4	4
21	O-ring	1B-G35	2	2
22	Backup ring	T2-P14	1	1
27	O-ring	1B-P11	1	1

Note) The illustration shows the configuration for pressure adjustment ranges Type C and Type E. For Type A, there is no #8 piston or #10 choke.

- Note) 1. O-ring 1A/B-\*\* refers to JIS B2401-1A/B.  
 2. Backup ring indicates JIS 2407-T2-\*\*.  
 3. Specify A or B for the asterisk (\*) in the kit model number.