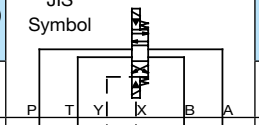
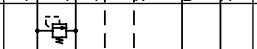
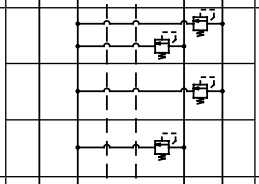
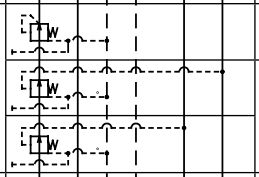
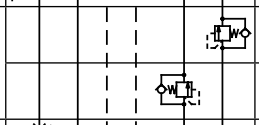
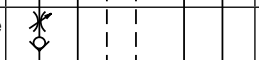
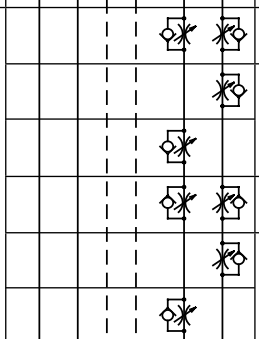
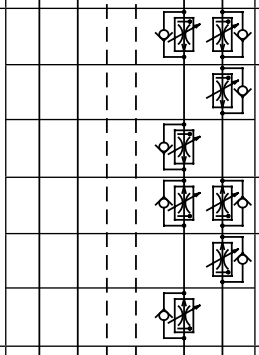
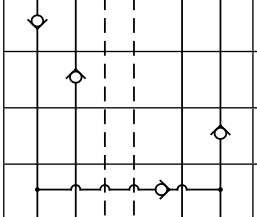
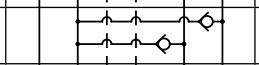
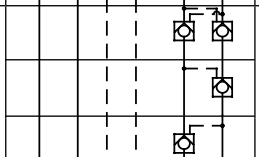
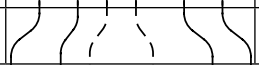
G04 Modular Valve Series

Type	Name	Valve Model Number	Maximum Working Pressure	Maximum Flow Rate ℓ/min	Pressure Adjustment Range (Check Valve Cracking Pressure) MPa{kgf/cm²}	JIS Symbol	Weight kg	Catalog Page
Solenoid Valves	Solenoid Control Valves	DSS-G04-****-R-**-22	35MPa {357 kgf/cm²}	300			15.0	E-13
Pressure Control Valve	Relief valve	ORH-G04-P$\frac{1}{3}_{5}$-10	35MPa {357kgf/cm²}	300	1:0.8 to 7{8.2 to 71.4} 3:3.5 to 25{35.7 to 255}		7.0	D-13
	Direct Relief Valves	ORH-G04-DW-$\frac{1}{3}_{5}$-10		50	1:0.8 to 7 {8.2 to 71.4} 3:3.5 to 25 {35.7 to 255} 5:7 to 35 {71.4 to 357}		6.5	D-23
		ORH-G04-DA$\frac{1}{3}_{5}$-10						
		ORH-G04-DB$\frac{1}{3}_{5}$-10						
	Reducing valve	OGH-G04-P$\frac{1}{3}$-(B)-10		300	1:0.8 to 7 {8.2 to 71.4} 3:3.5 to 25 {35.7 to 255} (Auxiliary Symbol) B: External drain		8.0	D-28
		OGH-G04-A$\frac{1}{3}$-(B)-10					8.0	D-37
		OGH-G04-B$\frac{1}{3}$-(B)-10						
	Counter Balance Valves	OQH-G04-A1$\frac{A}{E}$-10		300	A:0.25 to 0.85{2.5 to 8.7} C:0.50 to 3.5{5.1 to 35.7} E:2 to 14{20.4 to 143}		8.0	D-50
		OQH-G04-B1$\frac{A}{E}$-10					8.0	
Flow Control Valve	Flow Regulator Valves	OYH-G04-P-10		300	Check Valve Cracking Pressure 0.04{0.4}		4.7	D-58
	Meter-in Flow Regulator Valve	OYH-G04-W-X-10		300	Check Valve Cracking Pressure 0.1{1.0}		6.5	D-58
		OYH-G04-A-X-10					6.3	
		OYH-G04-B-X-10						
	Meter-Out Flow Regulator Valves	OYH-G04-W-Y-10					6.5	
		OYH-G04-A-Y-10					6.3	
		OYH-G04-B-Y-10						
	Meter-in Flow Control Valves	OFH-G04-W200-X-10	35MPa {357kgf/cm²}	200	Check Valve Cracking Pressure 0.1{1.0}		11.1	D-66
		OFH-G04-A200-X-10					10.2	
		OFH-G04-B200-X-10						
	Meter-out Flow Control Valves	OFH-G04-W200-Y-10					11.1	
		OFH-G04-A200-Y-10					10.2	
		OFH-G04-B200-Y-10						
Direction Control Valve	Check Valves	OCH-G04-P$\frac{1}{2}_{3}$-10		300	1:0.04{0.4} 2:0.35{3.6} 3:0.50{5.1}		4.5	D-72
		OCH-G04-T$\frac{1}{2}_{3}$-10					6.5	
		OCH-G04-A$\frac{1}{2}_{3}$-10					4.5	
		OCH-G04-AP$\frac{1}{2}_{3}$-10					4.5	
	Vacuum Check Valves	OVH-G04-W-10		300	0.01{0.1}		6.5	D-72
	Pilot Check Valves	OPH-G04-W$\frac{1}{2}$-(D)-10		300	1:0.20{2.0} 2:0.50{5.1} (Auxiliary Symbol) Open Valve Ratio Standard : Child Valve 7% Parent Valve 50% D : Parent Valve 50%		6.8	D-79
		OPH-G04-A$\frac{1}{2}$-(D)-10						
		OPH-G04-B$\frac{1}{2}$-(D)-10						
Others	Conversion plate (for 06/04 conversion)	MOB-G06-AA-5411A		300	G04 G06		10.0	D-89

The G04 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).

Explanation of model No.

04 size

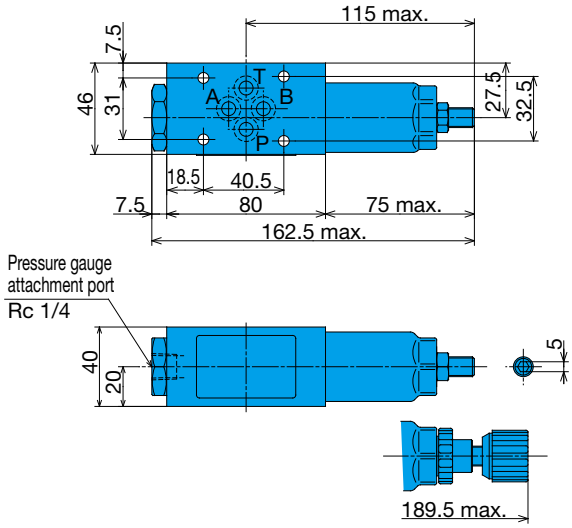
OGH – G 04 – P 1 – (B) – 10

- 10 — Design number
- (B) — Auxiliary symbol B: See note 3 under "Handling."
- 1 — Pressure adjustment range 1, 3
- P — Control port P: P port
- 04 — Nominal diameter (size) 04
- G — Mounting method G: Gasket type
- OGH — M35 Series reducing modular valve

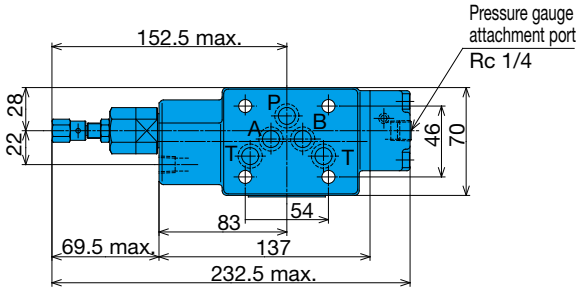
Installation Dimension Drawings

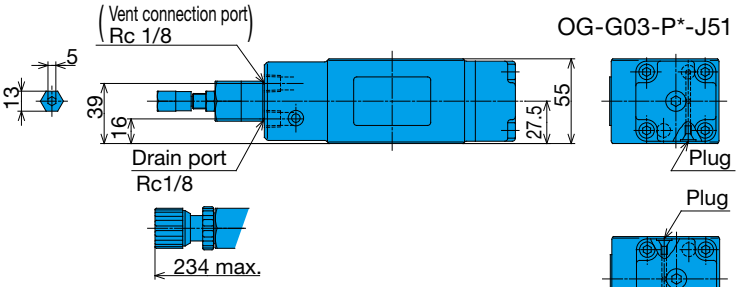
Note) Pressure is increased by clockwise (rightward) rotation of the adjusting screw (bolt), and decreased by counterclockwise (leftward) rotation.

OG-G01-P*-21



OG-G03-P*-(V)-J51

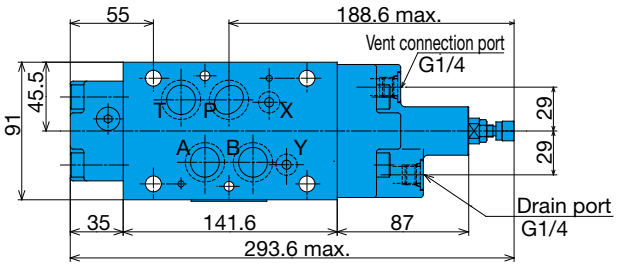


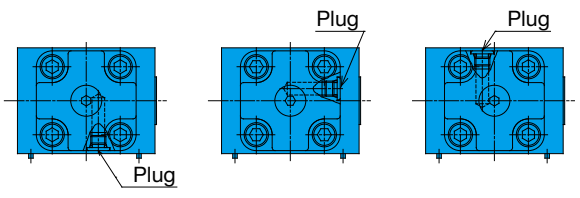


Note) 1. Conversion to B port control is possible by changing the back cover. Port control is determined by plug orientation.
2. When replacing the back cover, be sure also to change the nameplate to the applicable model type.
3. The tightening torque of the back cover bolts is: (M6) 10 to 13Nm (102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

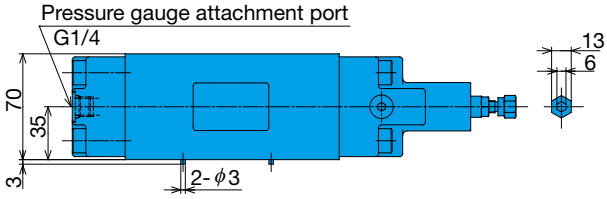
OGH-G04-P*-10

Note) 1. Conversion to A, 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).





OGH-G04-B*-10 OGH-G04-A*-10 OGH-G04-P*-10



01 Balanced Piston Type Pressure Reducing Modular Valve

40ℓ/min
0.15 to 25MPa

Features

①This modular valve makes the pressure in part of the circuit lower than the main circuit.
②Even when pressure changes in the primary main circuit, the reduced secondary pressure is maintained at a constant level.
③Compared with the direct type, this type of valve has outstanding Pressure-Flow Rate Characteristics, and a superior flow rate in the low pressure control range.
④Maximum operating pressure: 25MPa {255kgf/cm²}

Specifications

Model No.	Nominal Diameter (Size)	Maximum Working Pressure MPa{kgf/cm²}	Maximum Flow Rate ℓ/min	Pressure Adjustment Range MPa{kgf/cm²}	Weight kg	Gasket Surface Dimensions
OGB-G01-PC-20 P1 P3	1/8	25 {255}	40	0.15 to 3.5{ 1.5 to 35.7} 0.8 to 7 { 8.2 to 71.4} 3.5 to 21 {35.7 to 214}	1.9	ISO 4401-03-02-0-94
OGB-G01-AC-20 A1 A3				0.15 to 3.5{ 1.5 to 35.7} 0.8 to 7 { 8.2 to 71.4} 3.5 to 21 {35.7 to 214}	1.9	
OGB-G01-BC-20 B1 B3				0.15 to 3.5{ 1.5 to 35.7} 0.8 to 7 { 8.2 to 71.4} 3.5 to 21 {35.7 to 214}	1.9	

Explanation of model No.

OGB – G 01 – P 1 – (K) – 20

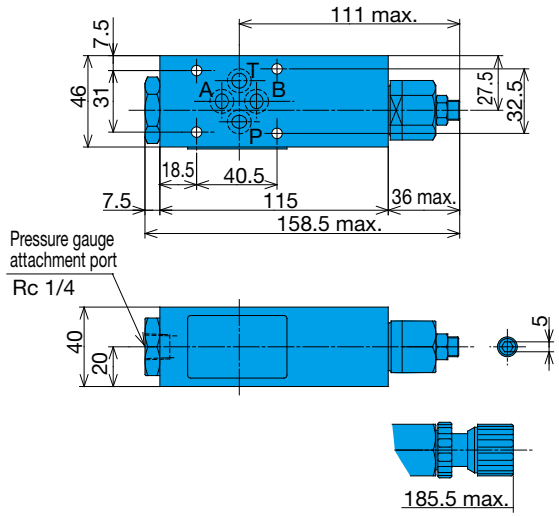
- 20: Design number
- (K): Auxiliary symbol K: With handle
- 1: Pressure adjustment range C, 1, 3
- P: Control port P: P port A: A port B: B port
- 01: Nominal diameter (size) 01
- G: Mounting method G: Gasket type
- OGB: Balanced piston type pressure reducing modular valve

●Handling
1 See the Pressure-Flow Rate Characteristics for information about how the flow rate is controlled at low pressures.
2 Note that a change in tank port back pressure causes a change in setting pressure.
3 Vent piping is not possible.
4 Note that a sub plate and installation bolts are not included. See pages D-90 through D-95 if these items are required.

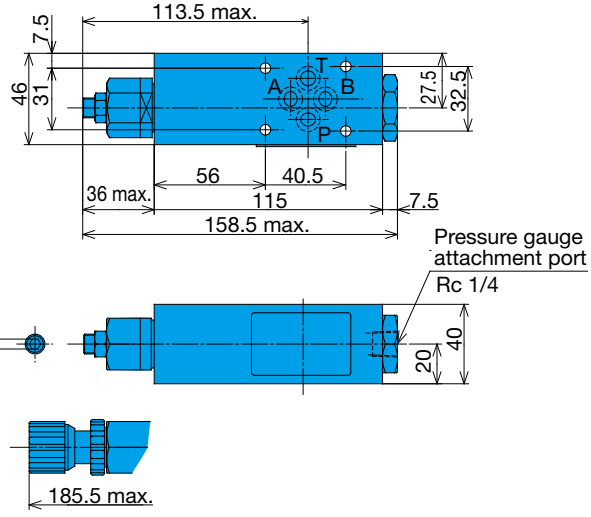
Installation Dimension Drawings

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

OGB-G01-$^{P}_{A}$*-20

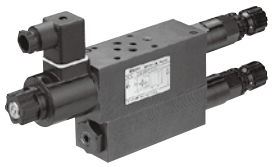


OGB-G01-B*-20



Two-Pressure Reducing Modular Valve

40ℓ/min
0.2 to 14MPa



Features

①When the pressure in part of the circuit is lower than the main circuit, this modular valve controls pressure by switching the low pressure to secondary pressure (high pressure, low pressure).
②Even when pressure changes in the primary main circuit, the reduced secondary pressure is maintained at a constant level.
③Maximum Operating Pressure: 7, 25MPa {71.4, 255kgf/cm²}

Specifications

Model No.	Nominal Diameter (Size)	Maximum Working Pressure MPa{kgf/cm²}	Maximum Flow Rate ℓ/min	Pressure Adjustment Range MPa{kgf/cm²}		Weight kg	Gasket Surface Dimensions
				Low pressure side	High pressure side		
OGS-G01-PCC-K-**-22 P1C	1/8	7{71.4}	40	0.2 to 3.5 {2.0 to 35.7}	0.2 to 3.5{ 2.0 to 35.7}	4.8	ISO 4401-03-02-0-94
					0.8 to 7{ 8.2 to 71.4}		
P21		25{255}		0.8 to 7 {8.2 to 71.4}	3.5 to 14{35.7 to 143}		

Solenoid Specifications

Model No.	Rated Voltage	Starting Current	Holding Current	Holding Power
OGS-G01-P**-K- C1-22	AC100V 50/60HZ	2.2/2.0A	0.52/0.38A	25/22W
C2	AC200V 50/60HZ	1.1/1.0A	0.26/0.19A	25/22W
D1	DC12V	2.2A		26W
D2	DC24V	1.1A		26W

Explanation of model No.

OGS – G 01 – P 1 C – K(R) – C1 – 22

- 22: Design number
- C1 : AC100V, C2 : AC200V, D1 : DC12V, D2 : DC24V: Power supply
- K: With handle (standard), R: With indicator light (optional), GR: With surgeless type indicator light (Option): Auxiliary symbol
- C, 1: Low pressure side pressure adjustment range
- C, 1, 2: High pressure side pressure adjustment range
- There is no 11, 2C combination.
- P: P port: Control port
- 01: Nominal diameter (size)
- G: Gasket type: Mounting method
- OGS: Pressure reducing modular valve for two-press setting

●Handling
1 See the Pressure-Flow Rate Characteristics for information about how the flow rate is controlled at low pressures.
2 Note that a change in tank port back pressure causes a change in setting pressure.
3 Instability occurs when there is a small setting pressure differential between the high pressure and low pressure, so be sure to maintain at least the minimum pressure differentials described below.
C Type:
At least 0.3MPa {3.1 kgf/cm²}
1, 2 Type:
At least 0.5MPa {5.1 kgf/cm²}
4 Vent piping is not possible.
5 Note that a sub plate and installation bolts are not included. See pages D-90 through D-95 if these items are required.
6 Low pressure is attained when the solenoid is on.
7 The coil surface temperature increases if this valve is kept continuously energized. Install the valve so there is no chance of it being touched directly by hand.
8 The wiring in the connector is the same as the SA series wet type solenoid valve. (See page E-19)