

Contact Details

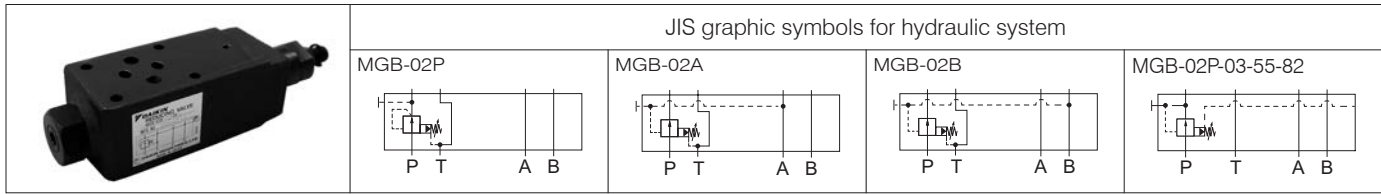
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Internet

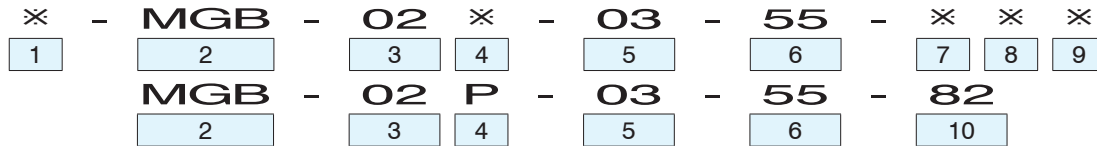
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O2 Series Stacking Type Low-pressure Reducing Valves



Nomenclature



1 Applicable fluid code

No designation: Petroleum-based hydraulic fluid,
water-glycol hydraulic fluid
F: Phosphate ester hydraulic fluid

2 Model No.

MGB: Modular stacking type low-pressure reducing valve

3 Nominal diameter

O2: 1/4

4 Control port

P: Port P A: Port A B: Port B

5 Pressure adjustment range

O3: 0.15 to 3.5 MPa {1.5 to 35 kgf/cm²}
: 0.5 to 7 MPa {5 to 70 kgf/cm²}
(applicable only to control No. 82)

6 Design No.

(The design No. is subject to change)

7 Drainage code

No designation: Internal drain type
E: External drain type

8 Pressure adjusting screw position

No designation: Adjusted at port B side
G: Adjusted at port A side

9 Option code

No designation: Pressure adjusting screw type
T: Pressure adjusting handle type

10 Control No.

82: With port for remote control (not equipped with pressure adjusting screw)

Specifications

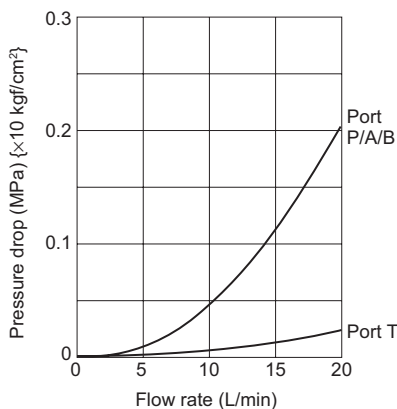
Model code	Maximum operating pressure MPa {kgf/cm ² }	Maximum flow rate L/min	Pressure adjustment range MPa {kgf/cm ² }	Mass kg	Pressure change MPa {kgf/cm ² } per screw revolution
MGB-02×-03-55	7 {70}	20	0.15 to 3.5 {1.5 to 35}	1.4	0.89 {8.9}/revolution
MGB-02P-03-55-82			0.5 to 7 {5 to 70}	1.3	-

Handling

- To ensure good pressure reducing performance, set a difference of 0.4 MPa {4 kgf/cm²} minimum between the primary side main circuit pressure and the secondary pressure reducing circuit pressure.
- Directly connect the tank piping of the valve to the tank without merging it with other tank piping.
- When pressure control from the low pressure range is required, use the external drain type to reduce the influence of back pressure on the tank port.
- The external drain connection block MGB-02E-55 is provided with the external drain type (drainage code: E).
- When changing the drain setting of the valve from the internal drain type to the external drain type, order the external drain connection block MGB-02E-55 separately.

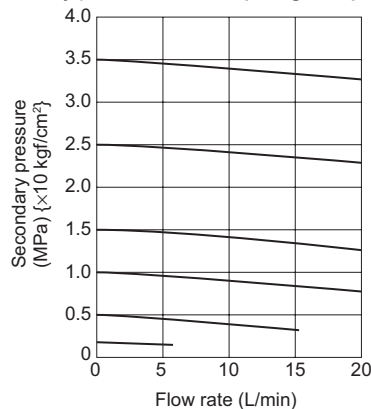
Performance curves (viscosity: 32 mm²/s {cSt})

Pressure drop characteristics

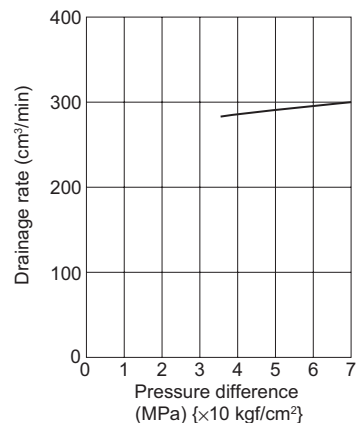


Pressure - Flow rate characteristics (tank port: vent to atmosphere)

MGB-02P-03-55
Primary pressure: 7 MPa {70 kgf/cm²}



Drainage volume characteristics



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Drain type setting guide

Either the internal or external drain type can be set by fitting/removing plugs.

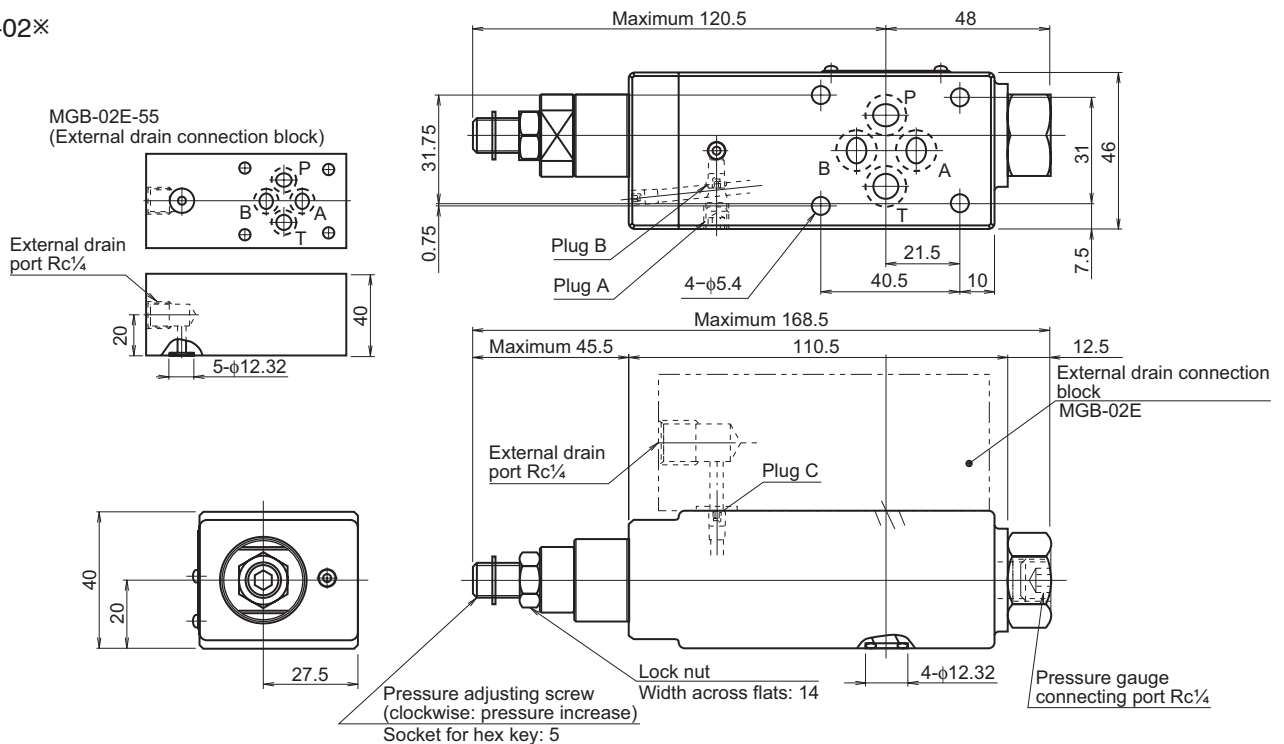
When the drain setting of the valve is changed from the internal drain type to the external drain type, stack the external drain connection block MGB-02E-55 on top of MGB-02P(A)(B).

When the valve is set as external drain type, connect the piping directly from the external drain port (Rc $\frac{1}{4}$) of the MGB-02E-55 to the tank.

	Internal drain type	External drain type	Hexagon socket taper thread plug	Tightening torque N·m {kgf·cm}
Plug B	Not provided	Provided	NPTF $\frac{1}{32}$	0.9 to 1.2 { 9 to 12}
Plug C	Provided	Not provided	NPTF $\frac{1}{32}$ <MGB-02P(B)> NPTF $\frac{1}{16}$ <MGB-02A >	
Plug A	Provided	Provided	NPTF $\frac{1}{16}$	6 to 7.5 {60 to 75}

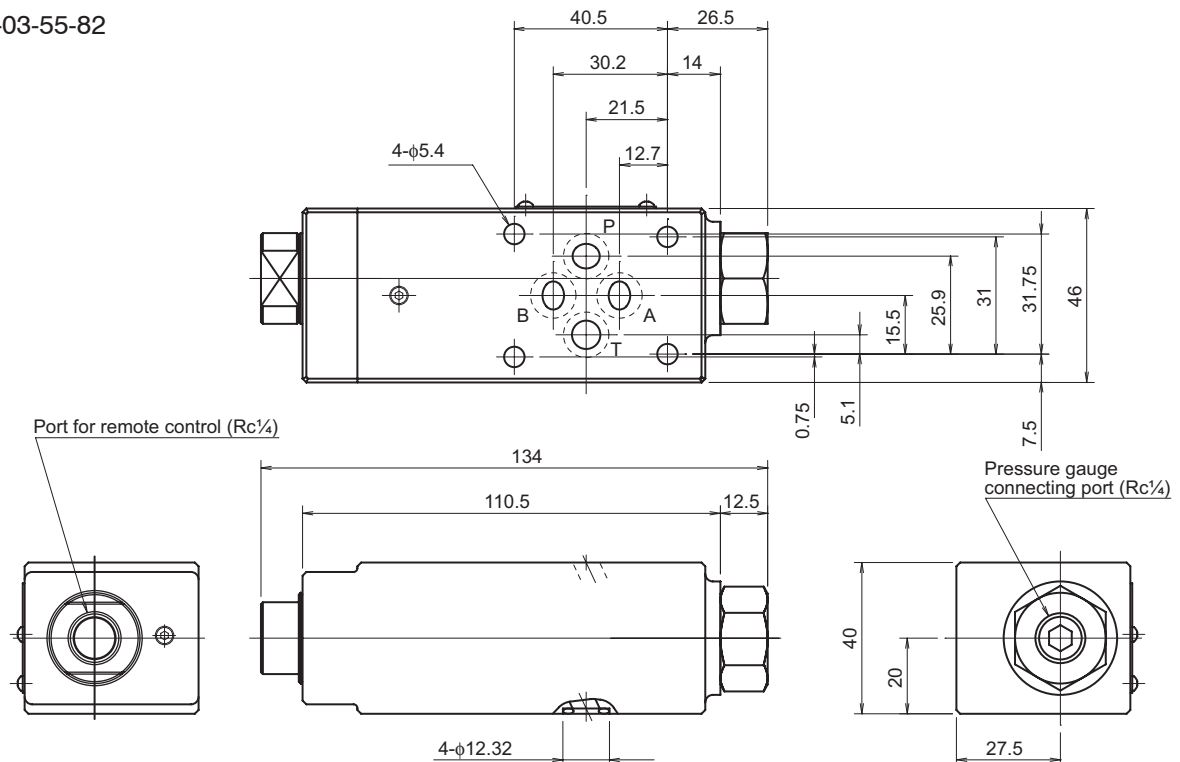
External dimension diagram

MGB-02*



For products with option code G, the pressure adjusting screw is located at the port A side.

MGB-02P-03-55-82



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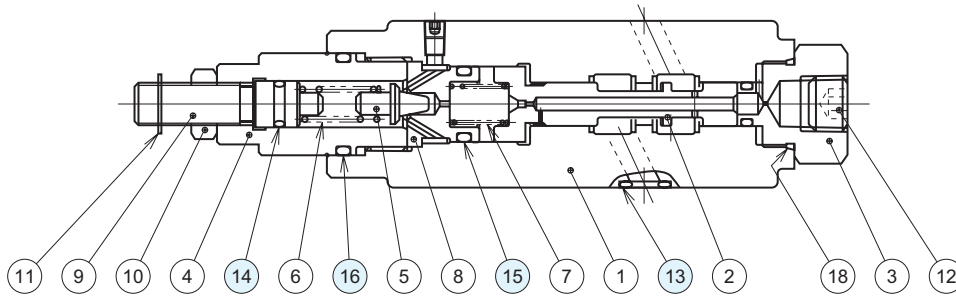
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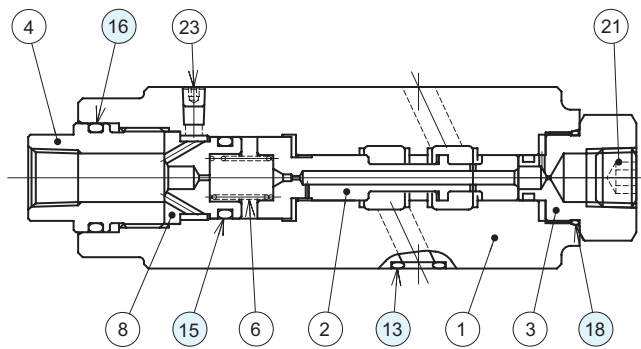
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Sectional structural diagram

MGB-02P



MGB-02P-03-55-82



Sealing part table

Part No.	Name	Quantity	Part specifications
13	O-ring	4	AS568-012 (NBR, Hs90)
14	O-ring	1	JIS B 2401 1A P8
15	O-ring	1	JIS B 2401 1A P14
16	O-ring	1	JIS B 2401 1A P20
18	O-ring	1	AS568-017 (NBR, Hs90)