

Contact Details

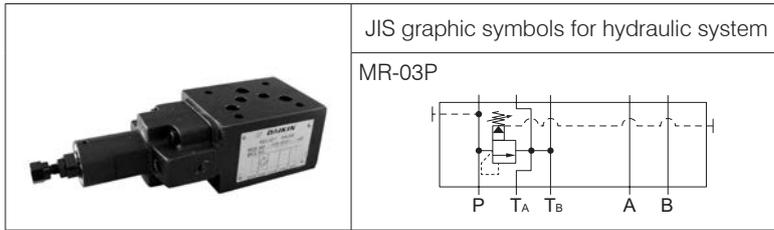
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03 Series Stacking Type Port P Relief Valves



Nomenclature

× - **MR** - **03** **P** - × × - **40** - ×
1 2 3 4 5 6 7 8

1 Acceptable fluid code

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

2 Model No.

MR: Modular stacking type relief valve

3 Nominal diameter

03: 3/8

4 Control port

P: Port P

5 Pressure adjustment range

1: Up to 7 MPa { 7 to 70 kgf/cm² }
 3: 3.5 to 25 MPa {35 to 250 kgf/cm² }

6 Vent type code

No designation: Low-vent type
 V: High-vent type

7 Design No.

(The design No. is subject to change)

8 Option code

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

Specifications

Model code	Maximum operating pressure MPa {kgf/cm ² }	Maximum flow rate L/min	Pressure adjustment range *1 MPa {kgf/cm ² }	Mass kg	Pressure change MPa {kgf/cm ² } per screw revolution
MR-03P-1×-40	25 {250}	80	Up to 7 { 7 to 70 }	3.4	2.5 {25}/revolution
MR-03P-3×-40			3.5 to 25 {35 to 250}		7.9 {79}/revolution

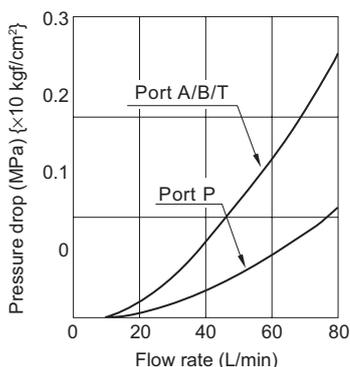
Note: *1 The minimum adjustment pressure varies depending on the flow rate. See the minimum adjustment pressure characteristics for details.

Handling

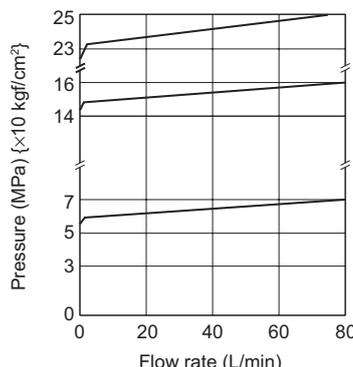
- Maintain the back pressure of the tank port at no greater than 0.5 MPa {5 kgf/cm²}.
- When using the valve in combination with a direct operated relief valve for remote control, connect the remote control valve to the vent port. Since excessive internal volume of the pilot piping may lead to vibration, use steel pipes with an inner diameter of 4 mm maximum and with thick walls for this piping.
- When using the valve as a safety valve, set the pressure 1 to 1.5 MPa {10 to 15 kgf/cm²} higher than the pressure set for the hydraulic circuit.
- The time required to switch from the unload to on-load state can be reduced by using the high-vent type.

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

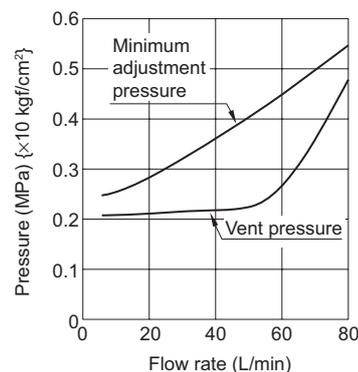
Pressure drop characteristics



Pressure - Flow rate characteristics
MR-03P-3-40



Vent unloading pressure characteristics
Minimum adjustment pressure characteristics
MR-03P-1×-40



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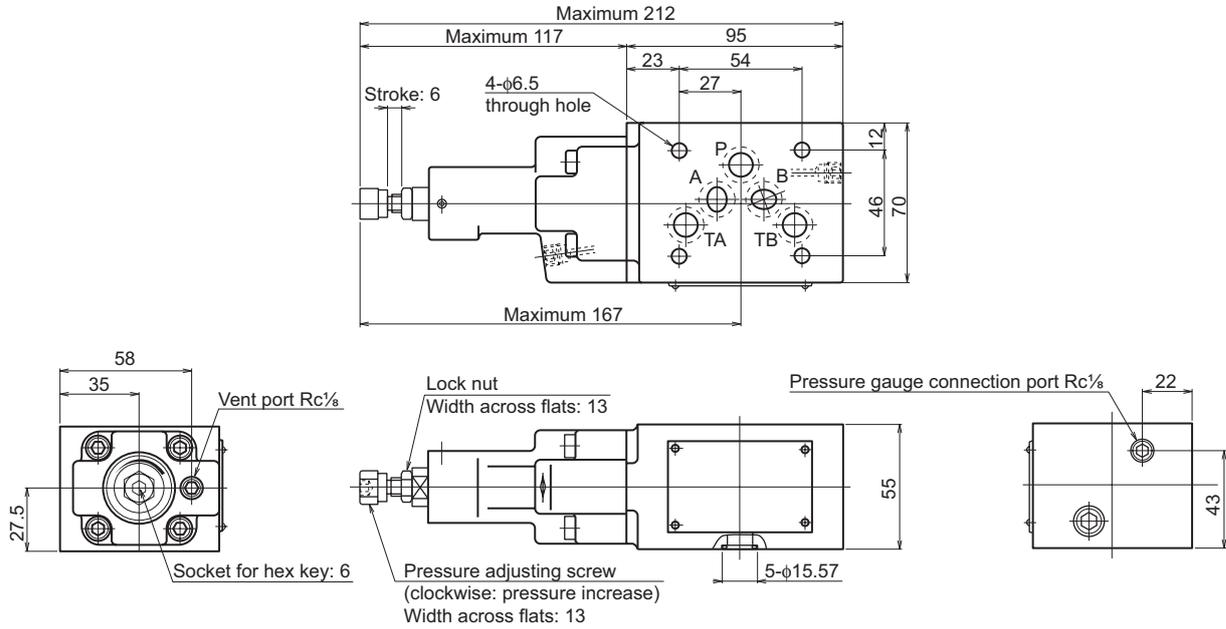
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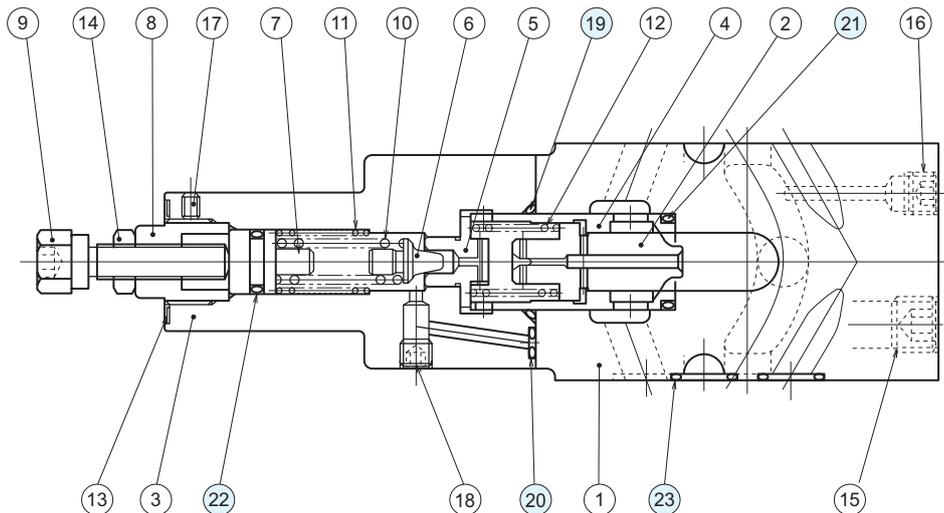
External dimension diagram

MR-03P



Sectional structural diagram

MR-03P



Sealing part table

Part No.	Name	Quantity	Part specifications
19	O-ring	1	JIS B 2401 1BP22
20	O-ring	1	JIS B 2401 1BP4
21	O-ring	1	JIS B 2401 1BP18
22	O-ring	1	JIS B 2401 1AP11
23	O-ring	5	AS568-014 (NBR, Hs90)