

Contact Details

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Internet

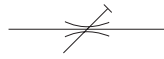
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Throttle Valves (with Temperature Compensation Control)



JIS graphic symbols for hydraulic system



Features

- The temperature compensation control maintains the set flow rate regardless of changes in the fluid temperature.
- Adopts a structure that minimizes fluid leakage in the fully closed state.

Nomenclature

※ - **ST** - **G 02** - ※※ - **10**

1 2 3 4 5 6

1 Applicable fluid code

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

2 Model No.

ST: S series throttle valve

3 Connections

G: Gasket mount type

4 Nominal diameter

02: 1/4

5 Maximum control flow rate

2: 2 L/min (Pressure difference: 2 MPa {20 kgf/cm²})
 10: 10 L/min (Pressure difference: 2 MPa {20 kgf/cm²})

6 Design No.

(The design No. is subject to change)

Specifications

Model code	Nominal diameter	Maximum operating pressure MPa {kgf/cm ² }	Maximum control flow rate*1 L/min	Mass kg
ST-G02- 2-10	1/4	7 {70}	2	0.6
ST-G02-10-10			10	

Note: *1 The maximum control flow rates indicated are the values when the pressure difference between the inlet and outlet ports is 2 MPa {20 kgf/cm²}.

Sub-plate model code

- The sub-plate is not provided with the valve. Order it separately if required by specifying the model code given in the table below.

Model code	Nominal diameter	Connection port diameter	Mass kg
SF-02M	1/4	Rc1/4	0.5

Refer to Page S-8 for the dimensions of the sub-plate.

Accessories

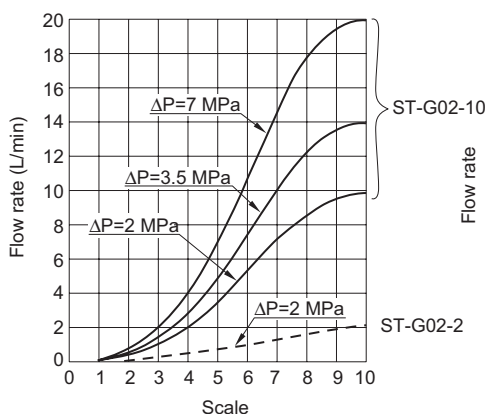
Hexagon socket head cap bolt	Quantity	Tightening torque N·m {kgf·cm}
M6 × 30	2	10 to 12.5 {100 to 125}

Handling

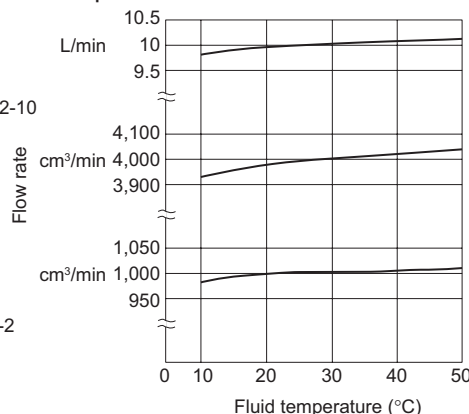
- Use the valve in combination with a line filter with a filtration accuracy of 10 μm or better.
- When a throttle valve with check valve is required, order SMC-02-05-10 on Page F-19 separately and stack it with the valve.

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

Scale - Flow rate characteristics



Fluid temperature - Flow rate characteristics



Conditions for the fluid temperature - Flow rate characteristics curve

Oil usable	ISO VG32 or equivalent
Pressure difference between inlet and outlet ports	3.5 MPa {35 kgf/cm ² }

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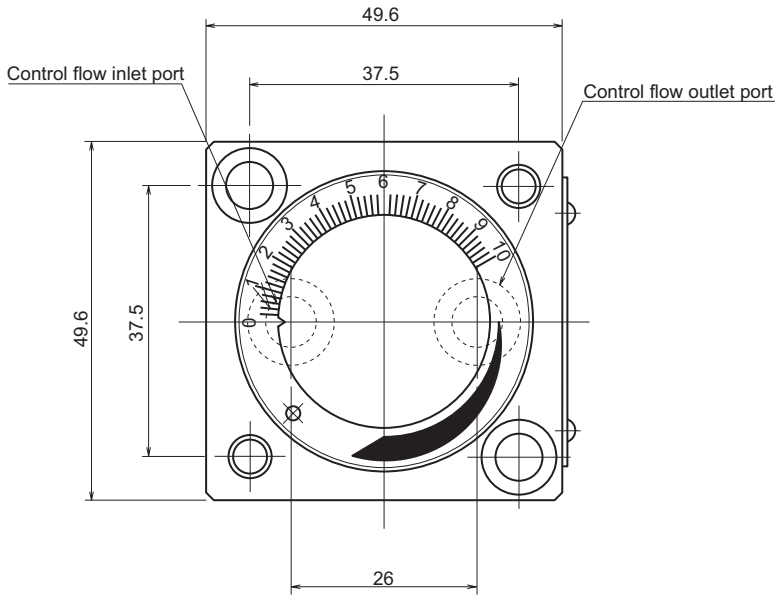
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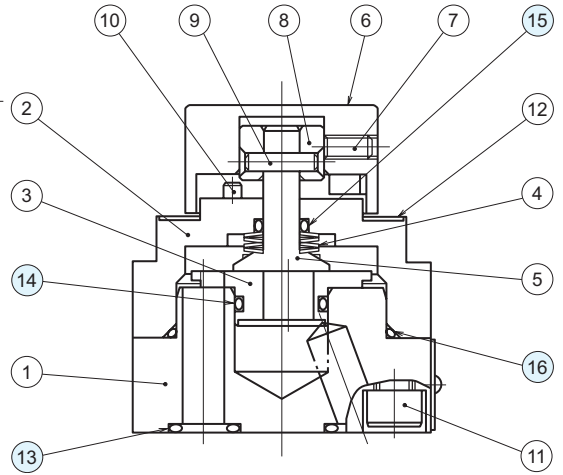
External dimension diagram

ST-G02

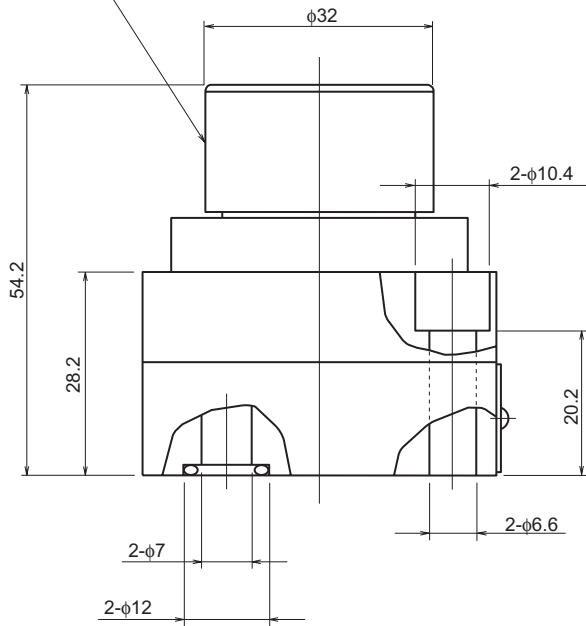


Sectional structural diagram

ST-G02



Flow rate adjusting handle
(Clockwise: flow rate increase)



Sealing part table

Part No.	Name	Quantity	Part specifications
13	O-ring	2	JIS B 2401 1A P9
14	O-ring	1	AS568-014 (NBR,Hs70)
15	O-ring	1	JIS B 2401 1A P6
16	O-ring	1	AS568-028 (NBR,Hs70)