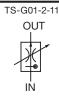
# TS Type Flow Control (and Check) Valve

(Fine Adjustment Type With Pressure and Temperature Compensation)









### **Features**

- ①Original compact, lightweight configuration.
- ②High-precision control up to minute flow rates of 10cm<sup>3</sup>.
- ③Design allows large 20l/min reverse flow rate relative to control flow rate,
- which means there is no need to include an extra valve in the quick return circuit.
- 4 Stable control of each setting flow rate, even as pressure and oil temperature are fluctuating.

## **Specifications**

Model No.	Nominal Diameter (Size)	Volume control flow rate $\ell/min$	Maximum Working Pressure MPa{kgf/cm²}	Reverse Flow Rate ℓ/min	Cracking pressure MPa{kgf/cm²}	Weight kg
(C)TS-G01-2-11	1/8	0.01 to 2	10.5{107}	20	0.08{0.8}	0.9

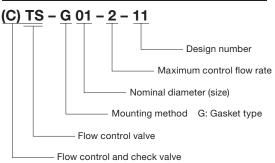
#### Handling

- In the temperature range of 20°C to 60°C, flow rate fluctuation is within ±5% of the standard flow rate at 40°C.
- 2In the pressure range of 0.6 to 10.5MPa {6.1 to 107kgf/cm²}, flow rate fluctuation is within ±5% of the setting flow rate.
- 3 Note that flow rate fluctuation exceeds the rated fluctuation amount slightly in the vicinity of the minimum control flow rate, due to changes in operating temperature and hydraulic fluid viscosity.
- ⚠When controlling flow rates that are less than 0.2ℓ/min, use with a line filter no greater than 10 
  µm.
- 5 For flow rate control, make sure that the pressure differential between the input port and output port is at least 0.6MPa {6.1kgf/cm²}.
- 6The control flow rate is increased by clockwise (rightward) rotation of the control handle.
- 3 Use the table to the right for specification when a sub plate is required.

Model No.	Pipe Diameter	Recommended Flow Rate ℓ/min	Weight kg
MTS-01Y-10	3/8	20	0.8

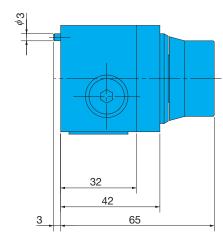
- 8 Bundled Accessories: Hex Socket Bolts: M4 x 35ℓ (four)
- Note) 1. For mounting bolts, use bolts of 12.9 strength classification or equivalent.
  - 2. Tightening torque is 2.6 to 3.3N·m {27 to 255kgf·cm}.

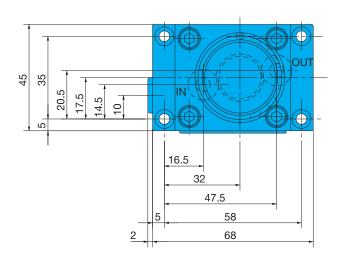
## **Explanation of model No.**



## **Installation Dimension Drawings**

(C)TS-G01-2-11





Flow Control Valve

{14.2}

{10.2}

{ 6.1}

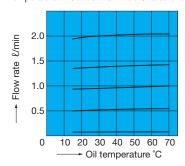
{ 2.0}

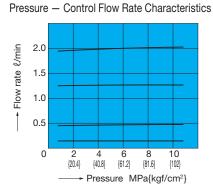
## Sub Plate MTS-01Y-10 89 68 2- \$\phi\$11x6.5 counterbore 58 φ3.3x5 15.5 $\phi$ 6.6 holes 15.5 $2 - \phi 6.5$ 2- Rc 3/8

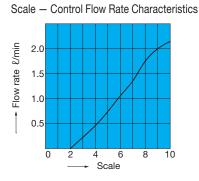
#### **Performance Curves**

#### Hydraulic Operating Fluid Kinematic Viscosity 32mm²/s

Oil Temperature — Control Flow Rate Characteristics





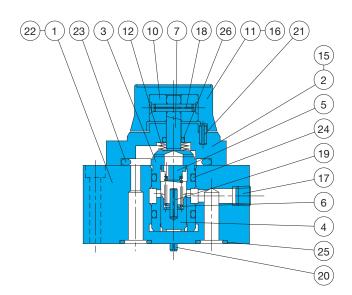


Pressure Loss Characteristics

Flow rate ℓ/min

# **Cross-sectional Drawing**

CTS-G01-2-11



Part No.	Part Name	Part No.	Part Name
1	Body	14	O-ring
2	Cover	15	Screw
3	Sleeve	16	Screw
4	Piston	17	Plug
5	Guide	18	Spring pin
6	Spring	19	Spring pin
7	Throttle	20	Spring pin
8	Poppet	21	Spring pin
9	Spring	22	Spring pin
10	Spacer	23	O-ring
11	Knob	24	O-ring
12	Spring	25	O-ring
13	Plug	26	O-ring
		27	Nameplate

Pressure Loss MPa {kgf/cm²}

1.4

1.0

0.6

0.2

0

#### Seal Part List (Kit Model Number FKS-G01(C))

Part	Dort Name	TS-G01-2	-11	CTS-G01-2-11				
No.	ran Name	Part Number	Q'ty	Part Number	Q'ty			
14	O-ring			NBR-90 P8	1			
23	O-ring	NBR-90 P31	1	NBR-90 P31	1			
24	O-ring	NBR-90 P14	2	NBR-90 P14	2			
25	O-ring	NBR-90 P10	2	NBR-90 P10	2			
26	O-ring	NBR-90 P6	1	NBR-90 P6	1			
	No. 14 23 24 25	No. Part Name  14 O-ring  23 O-ring  24 O-ring  25 O-ring	No.         Part Name         Part Number           14         O-ring         —           23         O-ring         NBR-90 P31           24         O-ring         NBR-90 P14           25         O-ring         NBR-90 P10	No.         Part Name         Part Number         Q'ty           14         O-ring         —         —           23         O-ring         NBR-90 P31         1           24         O-ring         NBR-90 P14         2           25         O-ring         NBR-90 P10         2	No.         Part Name         Part Number         Q'ty         Part Number           14         O-ring         —         NBR-90 P8           23         O-ring         NBR-90 P31         1         NBR-90 P31           24         O-ring         NBR-90 P14         2         NBR-90 P14           25         O-ring         NBR-90 P10         2         NBR-90 P10			

Note) The materials and hardness of the O-ring conforms with JIS B2401. Specify C at the end of the model number for the CTS kit.

