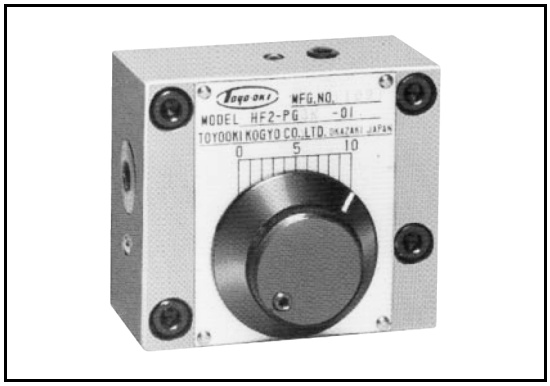
FLOW CONTROL VALVE (HF) (WITH PRESSURE COMPENSATION) SIZE 01



This valve controls flow by changing the cross-sectional area through which fluid flows. Since it incorporates a pressure compensation mechanism, the flow is kept constant even if the pressure varies at the IN and/or OUT port.

When equipped with a check valve, this valve allows reverse flow of compressed fluid.

- To achieve good pressure compensation performance, the pressure difference between the IN and OUT ports must be maintained at 0.6 MPa or larger.
- If subplate SHF01-02T1 and/or a flange is necessary, please order one separately.
- When the valve is provided with a check valve, the check valve cracking pressure is 0.04 MPa.
- Option

  Anti-jumping mechanism ... This option restricts jumping or pop-out of the actuator at the start of movement. Please specify "-301" at the end of the model designation.

MODEL DESIGNATION

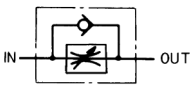
HF 2 - P G 2 (K) - 01 - (301)

- Flow control valve
- Max. operating pressure
  - 2: 14 MPa
- With pressure compensation
- Piping method
  - G: Gasket
- With/without anti-jumping mechanism
  - 301: With the mechanism
  - No code: Without the mechanism
- Nominal size
- With/without check valve
  - K: With check valve
  - No code: Without check valve
- Flow adjustment range

● Without Check Valve

Nominal Size	Max. Operating Pressure (MPa)	Flow Adjustment Range (L/min)	Model
01	14	0.1 to 1	HF2-PG1-01
		0.1 to 2	HF2-PG2-01
		0.2 to 4	HF2-PG4-01

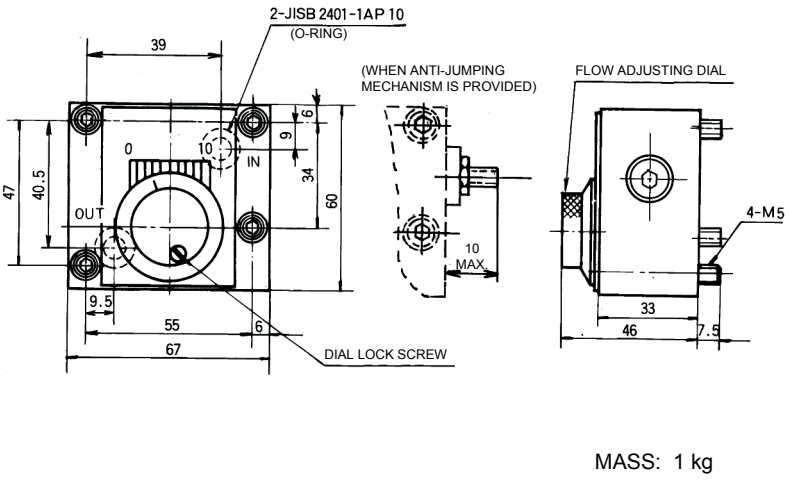
● With Check Valve



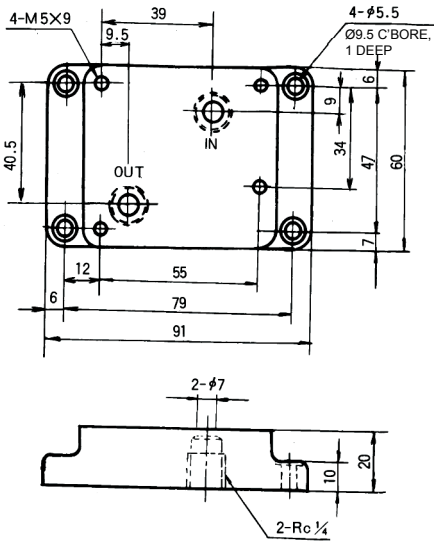
Nominal Size	Max. Operating Pressure (MPa)	Free Flow (L/min)	Flow Adjustment Range (L/min)	Model
01	14	12	0.1 to 1	HF2-PG1K-01
			0.1 to 2	HF2-PG2K-01
			0.1 to 4	HF2-PG4K-01

EXTERNAL DIMENSIONS

● HF2-PG*(K)-01



● SHF01-02T1



MASS: 1 kg

FLOW CONTROL VALVE (HF) (WITH PRESSURE COMPENSATION) SIZE 02

This valve controls flow by changing the cross-sectional area through which fluid flows. Since it incorporates a pressure compensation mechanism, the flow is kept constant even if the pressure varies at the IN and/or OUT port.

When equipped with a check valve, this valve allows reverse flow of compressed fluid.

- To achieve good pressure compensation performance, the pressure difference between the IN and OUT ports must be maintained at 0.6 MPa or larger.
- If subplate SHF02-03T1 and/or a flange is necessary, please order one separately.
- The flow is controlled almost in direct proportion to the division on the flow adjusting dial.
- When the valve is provided with a check valve, the check valve cracking pressure is 0.04 MPa.
- Option

  Anti-jumping mechanism ... This option restricts jumping or pop-out of the actuator at the start of movement. Please specify "-301" at the end of the model designation.

MODEL DESIGNATION

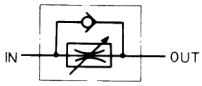
HF 2 - P G 2 (K) - 02 A - (301)

- Flow control valve
- Max. operating pressure
  - 2: 14 MPa
- With pressure compensation
- Piping method
  - G: Gasket
- Flow adjustment range
- With / without check valve
  - K: With check valve
  - No code: Without check valve
- Nominal size
- Design code
- With/without anti-jumping mechanism
  - 301: With the mechanism
  - No code: Without the mechanism

● Without Check Valve

Nominal Size	Max. Operating Pressure (MPa)	Flow Adjustment Range (L/min)	Model
02	14	0.1 to 1	HF2-PG 1-01A
		0.1 to 2	HF2-PG 2-01A
		0.2 to 8	HF2-PG 8-02A
		0.3 to 16	HF2-PG16-02A

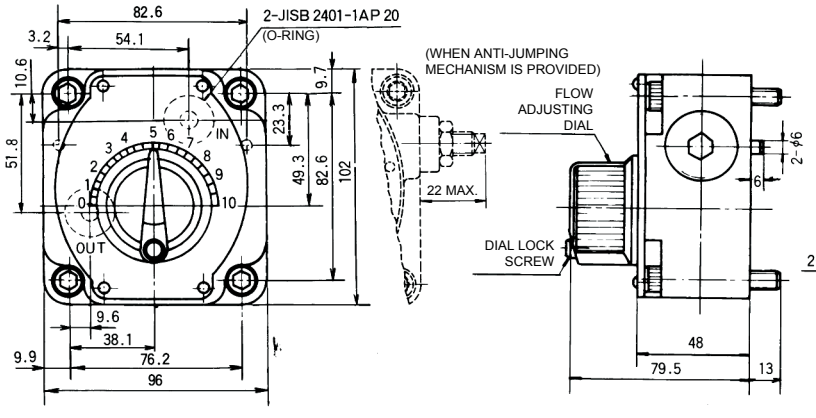
● With Check Valve



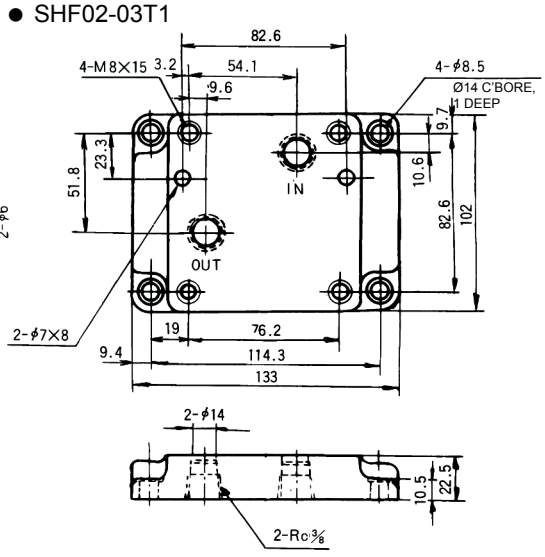
Nominal Size	Max. Operating Pressure (MPa)	Free Flow (L/min)	Flow Adjustment Range (L/min)	Model
02	14	30	0.1 to 1	HF2-PG 1K-02A
			0.1 to 2	HF2-PG 2K-02A
			0.2 to 8	HF2-PG 8K-02A
			0.3 to 16	HF2-PG16K-02A

EXTERNAL DIMENSIONS

● HF2-PG*(K)-02A

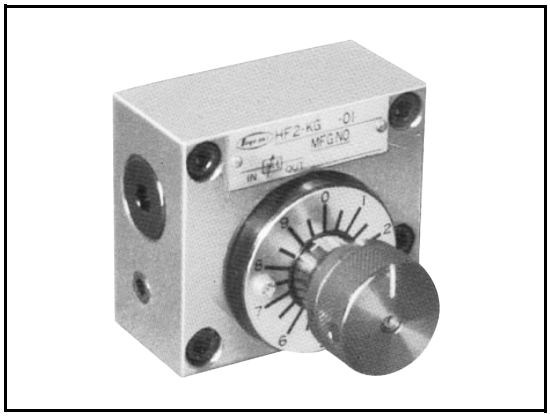


● SHF02-03T1



MASS: 3.5 kg

FLOW CONTROL VALVE (HF) (WITH PRESSURE AND TEMPERATURE COMPENSATION) SIZE 01



This valve controls flow by changing the cross-sectional area through which fluid flows. Since it incorporates a pressure compensation mechanism and temperature compensation mechanism, the controlled flow is kept constant regardless of the pressure variation at the IN and/or OUT port and the viscosity variation due to temperature change.

When equipped with a check valve, this valve allows reverse flow of compressed fluid.

- To achieve good pressure compensation performance, the pressure difference between the IN and OUT ports must be maintained at 0.6 MPa or larger.
- The flow is controlled almost in direct proportion to the division on the flow adjusting dial, and since the dial can be rotated five turns, fine flow adjustment is possible.
- If subplate SHF01-02T1 and/or a flange is necessary, please order one separately.
- When the valve is provided with a check valve, the check valve cracking pressure is 0.04 MPa.
- Option

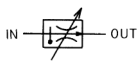
  Anti-jumping mechanism ... This option restricts jumping or pop-out of the actuator at the start of movement. Please specify “-301” at the end of the model designation.

MODEL DESIGNATION

HF 2 - K G 2 (K) - 01 - (301)

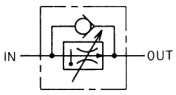
- Flow control valve
- Max. operating pressure
  - 2: 14 MPa
- With pressure and temperature compensation
- Piping method
  - G: Gasket
- With/without anti-jumping mechanism
  - 301: With the mechanism
  - No code: Without the mechanism
- Nominal size
- With/without check valve
  - K: With check valve
  - No code: Without check valve
- Flow adjustment range

● Without Check Valve



Nominal Size	Max. Operating Pressure (MPa)	Flow Adjustment Range (L/min)	Model
01	14	0.01 to 1	HF2-KG1-01
		0.1 to 2	HF2-KG2-01
		0.1 to 6	HF2-KG6-01
		0.1 to 12	HF2-KG12-01

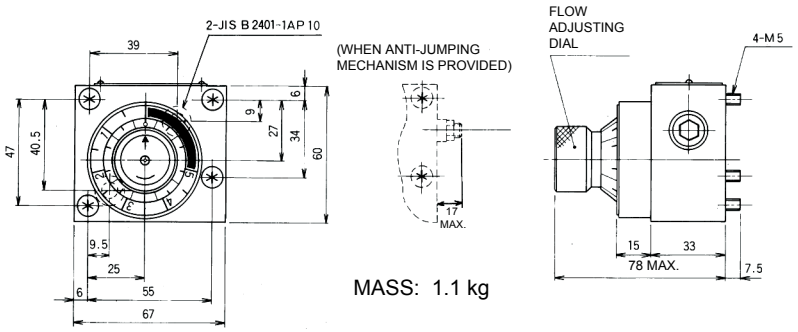
● With Check Valve



Nominal Size	Max. Operating Pressure (MPa)	Free Flow (L/min)	Flow Adjustment Range (L/min)	Model
01	14	12	0.01 to 1	HF2-KG1K-01
			0.1 to 2	HF2-KG2K-01
			0.1 to 6	HF2-KG6K-01
			0.1 to 12	HF2-KG12K-01

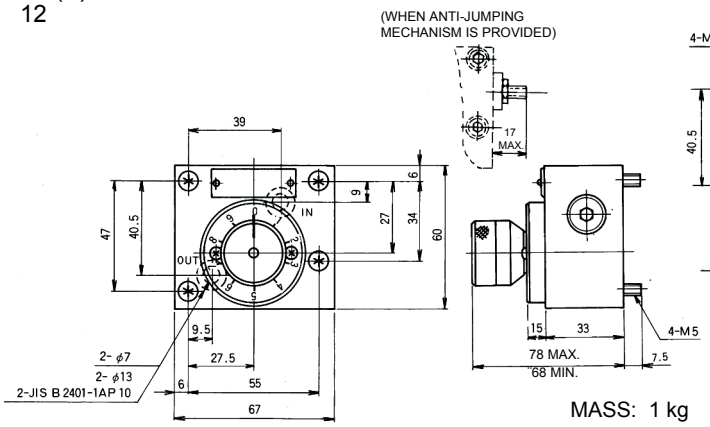
EXTERNAL DIMENSIONS

● HF2-KG1(K)-01



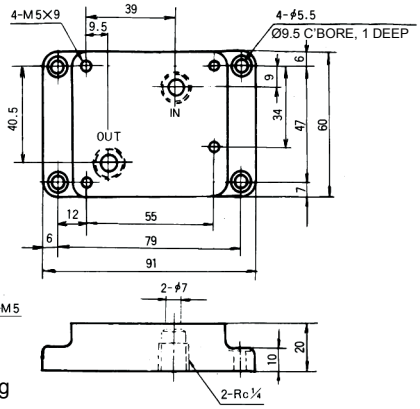
MASS: 1.1 kg

● HF2-KG $\begin{matrix}2\\6\\12\end{matrix}$ (K)-01

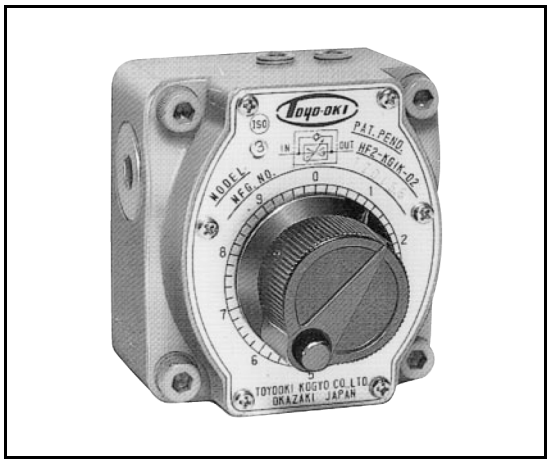


MASS: 1 kg

● SHF01-02T1



SMALL FLOW CONTROL VALVE (HF) (WITH PRESSURE AND TEMPERATURE COMPENSATION) SIZE 02



This valve controls flow by changing the cross-sectional area through which fluid flows. Since it incorporates pressure compensation mechanism and temperature compensation mechanism, the flow is kept constant regardless of the pressure variation at the IN and/or OUT port and the viscosity variation due to temperature change.

Flow control is possible from the rate of 30 cm^3/min by devising the throttle mechanism.

- To achieve good pressure compensation performance, the pressure difference between the IN and OUT ports must be maintained at 0.6 MPa or larger.
- The flow is controlled almost in direct proportion to the division on the flow adjusting dial and since the dial can be rotated three turns, fine flow adjustment is possible.
- If subplate SHF02-03T1 and/or a flange is necessary, please order one separately.
- Install a filter with a filtering accuracy of approx. 10 μm since the valve controls very small rates of flow.
- When the valve is provided with a check valve, the check valve cracking pressure is 0.04 MPa.
- Option

  Anti-jumping mechanism ... This option restricts jumping or pop-out of the actuator at the start of movement. Please specify "-301" at the end of the model designation.

MODEL DESIGNATION

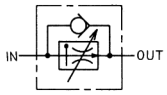
HF 2 - K G 1 (K) - 02 - (301)

- Flow control valve
- Max. operating pressure
  - 2: 14 MPa
- With pressure and temperature compensation
- Piping method
  - G: Gasket
- With/without anti-jumping mechanism
  - 301: With the mechanism
  - No code: Without the mechanism
- Nominal size
- With/without check valve
  - K: With check valve
  - No code: Without check valve
- Flow adjustment range

● Without Check Valve

Nominal Size	Max. Operating Pressure (MPa)	Flow Adjustment Range (L/min)	Model
02	14	0.03 to 1	HF2-KG1-02

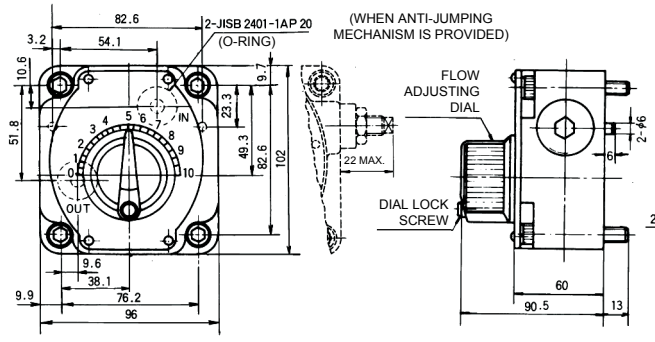
● With Check Valve



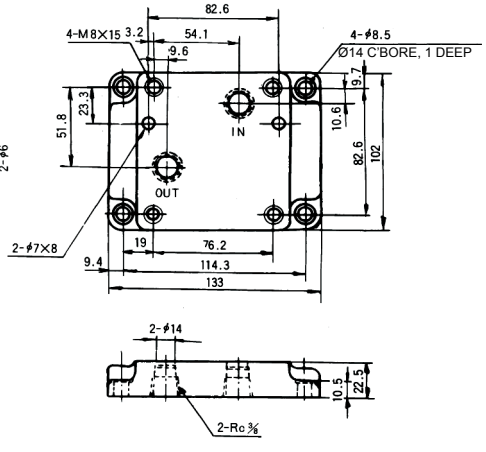
Nominal Size	Max. Operating Pressure (MPa)	Free Flow (L/min)	Flow Adjustment Range (L/min)	Model
02	14	30	0.03 to 1	HF2-KG1K-02

EXTERNAL DIMENSIONS

● HF2-KG1(K)-02

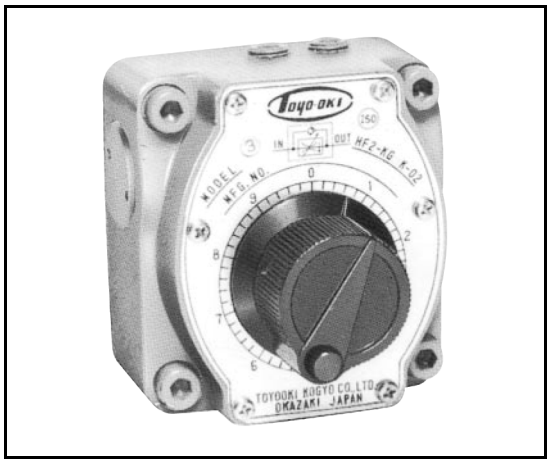


● SHF02-03T1



MASS: 4 kg

FLOW CONTROL VALVE (HF) (WITH PRESSURE AND TEMPERATURE COMPENSATION) SIZE 02



This valve controls flow by changing the cross-sectional area through which fluid flows. Since it incorporates pressure compensation mechanism and temperature compensation mechanism, the flow is kept constant regardless of the pressure variation at the IN and/or OUT port and the viscosity variation due to temperature change.

Therefore, this valve is especially appropriate for accurate speed control.

- To achieve good pressure compensation performance, the pressure difference between the IN and OUT ports must be maintained at 0.6 MPa or larger.
- The flow is controlled almost in direct proportion to the division on the flow adjusting dial, and since the dial can be rotated three turns, fine flow adjustment is possible.
- If subplate SHF02-03T1 and/or a flange is necessary, please order one separately.
- When the valve is provided with a check valve, the check valve cracking pressure is 0.04 MPa.
- Option

  Anti-jumping mechanism ... This option restricts jumping or pop-out of the actuator at the start of movement. Please specify "-301" at the end of the model designation.

MODEL DESIGNATION

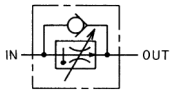
HF 2 - K G 2 (K) - 02 - (301)

- Flow control valve
- Max. operating pressure
  - 2: 14 MPa
  - 3: 21 MPa
- With pressure and temperature compensation
- Piping method
  - G: Gasket
- Flow adjustment range
- Nominal size
- With/without check valve
  - K: With check valve
  - No code: Without check valve
- With/without anti-jumping mechanism
  - 301: With the mechanism
  - No code: Without the mechanism

● Without Check Valve

Nominal Size	Max. Operating Pressure (MPa)	Flow Adjustment Range (L/min)	Model
02	21	0.1 to 2	HF3-KG2-02
		0.5 to 16	HF3-KG16-02
		0.5 to 30	HF3-KG30-02
	14	0.1 to 2	HF2-KG2-02
		0.5 to 16	HF2-KG16-02
		0.5 to 30	HF2-KG30-02

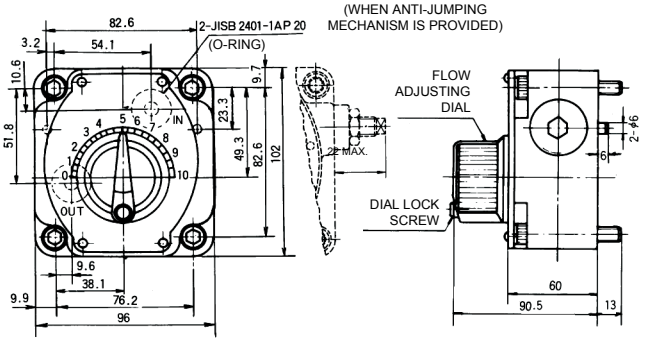
● With Check Valve



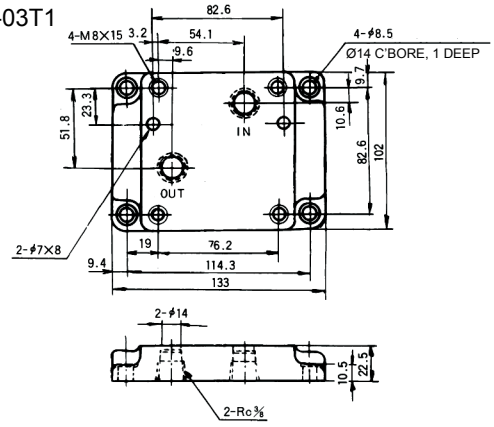
Nominal Size	Max. Operating Pressure (MPa)	Free Flow (L/min)	Flow Adjustment Range (L/min)	Model
02	21	30	0.1 to 2	HF3-KG2K-02
			0.5 to 16	HF3-KG16K-02
			0.5 to 30	HF3-KG30K-02
	14		0.1 to 2	HF2-KG2K-02
			0.5 to 16	HF2-KG16K-02
			0.5 to 30	HF2-KG30K-02

EXTERNAL DIMENSIONS

● HF $\frac{2}{3}$-KG*(K)-02



● SHF02-03T1



FLOW CONTROL VALVE (HF) (WITH PRESSURE AND TEMPERATURE COMPENSATION) SIZE 03 / 06

This valve controls flow by changing the cross-sectional area through which fluid flows. Since it incorporates pressure compensation mechanism and temperature compensation mechanism, the flow is kept constant regardless of the pressure variation at the IN and/or OUT port and the viscosity variation due to temperature change.

Therefore, this valve is especially appropriate for accurate speed control.

- To achieve good pressure compensation performance, the pressure difference between the IN and OUT ports must be maintained at 1 MPa or larger.
- Flow adjustment is easy since the flow adjusting dial operating range is 300 degrees.
- If subplate SHF**-**T1 and/or a flange is necessary, please order one separately.
- When the valve is provided with a check valve, the check valve cracking pressure is 0.04 MPa.
- Option

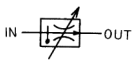
  Anti-jumping mechanism ... This option restricts jumping or pop-out of the actuator at the start of movement. Please specify "-301" at the end of the model designation.

MODEL DESIGNATION

HF 2 - K G 2 (K) - 03 - (301)

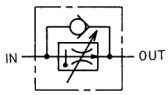
- Flow control valve
- Max. operating pressure
  - 2: 14 MPa
  - 3: 21 MPa
- With pressure and temperature compensation
- Piping method
  - G: Gasket
- Flow adjustment range
- With/without check valve
  - K: With check valve
  - No code: Without check valve
- Nominal size
- With/without anti-jumping mechanism
  - 301: With the mechanism
  - No code: Without the mechanism

● Without Check Valve



Nominal Size	Max. Operating Pressure (MPa)	Flow Adjustment Range (L/min)	Model
03	21	0.5 to 40	HF3-KG40-03
		1 to 80	HF3-KG80-03
06		2 to 120	HF3-KG120-06
03	14	0.5 to 30	HF2-KG30-03
		0.5 to 56	HF2-KG56-03
06		1 to 106	HF2-KG106-06

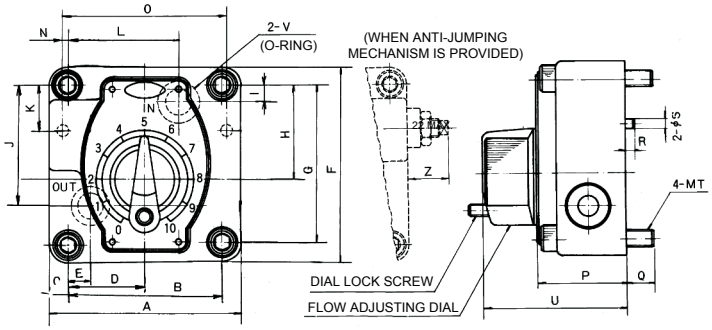
● With Check Valve



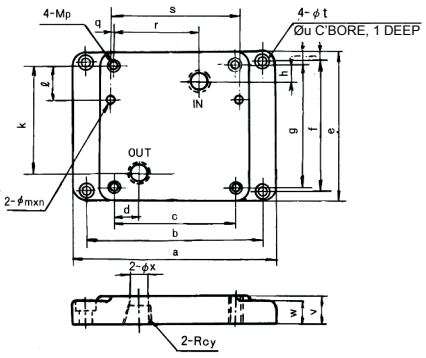
Nominal Size	Max. Operating Pressure (MPa)	Free Flow (L/min)	Flow Adjustment Range (L/min)	Model
03	21	80	0.5 to 40	HF3-KG40K-03
			1 to 80	HF3-KG80K-03
06		120	2 to 120	HF3-KG120K-06
03	14	56	0.5 to 30	HF2-KG30K-03
			0.5 to 56	HF2-KG56K-03
06		106	1 to 106	HF2-KG106K-06

EXTERNAL DIMENSIONS

● HF $\frac{2}{3}$-KG*(K)-**



● SHF**-**T1



NOTE: WITH SIZE 03, ONLY ONE DOWEL PIN IS USED (AT THE LEFT SIDE).

Model	A	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q	R	S	T	U	V	Z	Mass (kg)
HF*-KG**(K)-03	124	101.6	11.2	50.8	20.6	124	101.6	58.8	12.8	89	28.7	71.4	0.8	-	54	15	6	8	10	84.5	JISB2401-1AP18	25	5
HF*-KG**(K)-06	178	146	16	73	22.2	178	145.8	83.9	12.9	107.9	41.1	104.8	-1.6	142.8	82	25	9	10	16	131.5	JISB2401-1AG30	41	15

Model	a	b	c	d	e	f	g	h	i	j	k	ℓ	m	n	p	q	r	s	t	u	v	w	x	y
SHF03-06T1	168	146	101.6	20.6	124	101.6	101.6	12.8	11.2	11.2	89	28.7	9	8	10	0.8	71.4	-	8.5	19	25	22	16	$^3/_4$
SHF06-06T1	241.5	209.5	146	22.2	178	145.8	145.8	12.9	16.1	16.1	107.9	41.1	11	10	16	-1.6	104.8	142.8	18	26	35	15.5	20	$^3/_4$