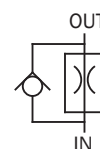




FT-G0*-**-22



CFT-G02-*-22



FT Type Flow Control (and Check) Valve (with Pressure and Temperature Compensation)

.01 to 28 gpm
3045 psi

Features

Pressure compensation and temperature compensation mechanisms provide a stable control flow rate, even when fluid

temperature fluctuates.
A wider control flow rate range as well as easier minute flow rate adjustability than previous products.

Specifications

Model No.	Nominal Diameter (Size)	Volume control flow rate gpm	Maximum Working Pressure psi	Reverse Flow Rate gpm	Cracking pressure psi	Weight lbs	Gasket Surface Dimensions
(C)FT-G02-8-22 30-22	1/4	.01 to 2.1 .02 to 7.9	3045	13.2	14.5	8.1	ISO 6263-AK-06-2-A
FT-G03-42-22 106-22	3/8	.02 to 11.0 .05 to 28.0		31.7		17.4	ISO 6263-AM-07-2-A

Asterisk (*) indicates values for auxiliary plate with check valve.

• Handling

- In the temperature range of 68°F to 140°F, flow rate fluctuation is within ±5% of the standard flow rate at 104°F.
- In the pressure range of 145 to 3045 psi, flow rate fluctuation is within ±5% of the setting flow rate.
- 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 .05 gpm, use with a filter that does not exceed 10µm.
- For flow rate control, make sure that the pressure differential between the input port and output port is at least 145 psi.
- The control flow rate is increased by clockwise (rightward) rotation of the control handle.

7 See the table below for installation hex socket bolts.

8 Use the following table for specification when a sub plate is required.

• Sub Plate and Auxiliary Plate Application Table

Name	Model No.	Pipe Diameter	Recommended Flow Rate gpm	Weight lbs	Applicable Valve Type	Use With Sub Plate
Sub Plate	MF-02X-10	3/8	7.9	4.8	(C)FT-G02-*-22	-
	MF-02Y-20	1/2	13.2			
Sub Plate	MF-03-10	3/8	11	7.2	FT-G03-*-22	-
	MF-03Y-20	3/4	19.8			
	MF-03Z-20	1	31.7			
Sub Plate with Check Valve	MF-03Y-C-22	3/4	19.8	12.5		
	MF-03Z-C-22	1	31.7	12.3		
Auxiliary Plate A with Check Valve	MCF-03-A-22	φ23	31.7	7.0		MF-03-*-*

9 Though FT-G03 does not have a built-in check valve, a sub plate with check valve and auxiliary plate with check valve is

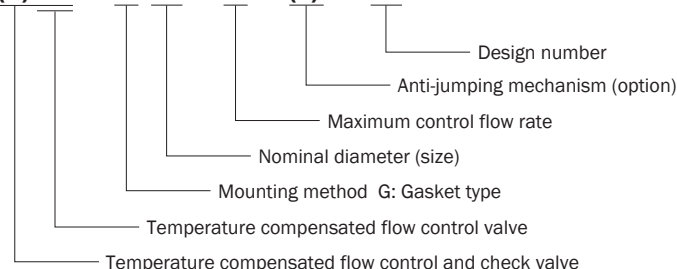
used in addition to the normal sub-plate. (Use the auxiliary plate in combination with the sub plate.)

Applicable Model	Bolt Size	Q'ty	Tightening Torque ft lbs
(G)FT-G02-*-22	M8 × 55 ℓ	4	14.7 to 18.4
FT-G03-*-22	M10 × 75 ℓ	4	55 to 70
With FT-G03 Auxiliary Plate	M10 × 110 ℓ	4	55 to 70

Note: For mounting bolts, use grade 8 or equivalent.

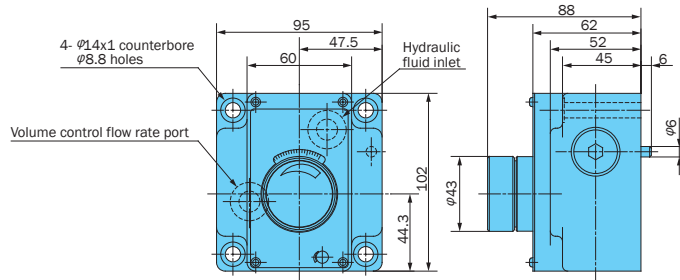
Understanding Model Numbers

(C) FT - G 02 - 8 - (F) - 22

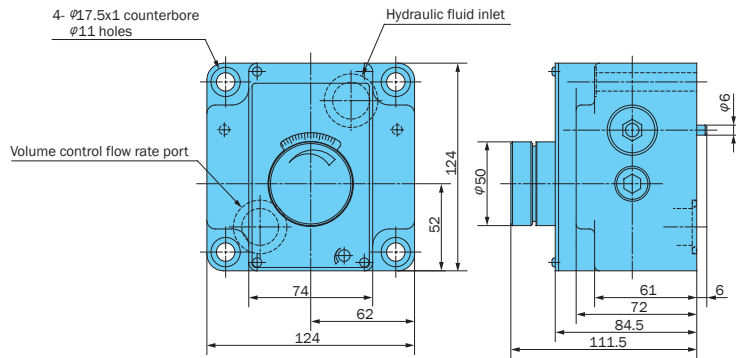


Installation Dimension Drawings

(C)FT-G02-**-22

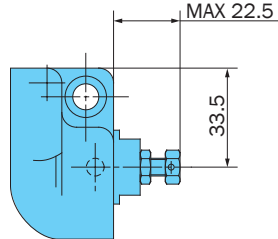


FT-G03-***-22

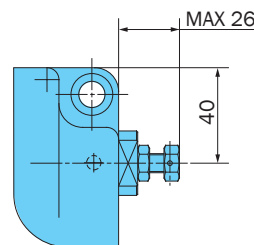


Anti-jumping mechanism

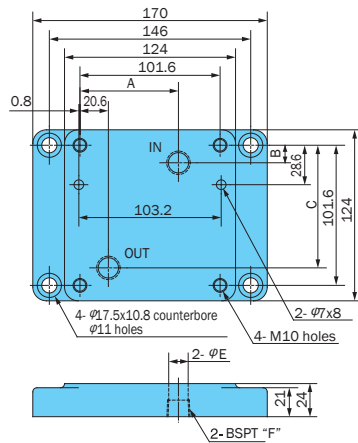
(C)FT-G02-**-F-22



(C)FT-G03-**-F-22

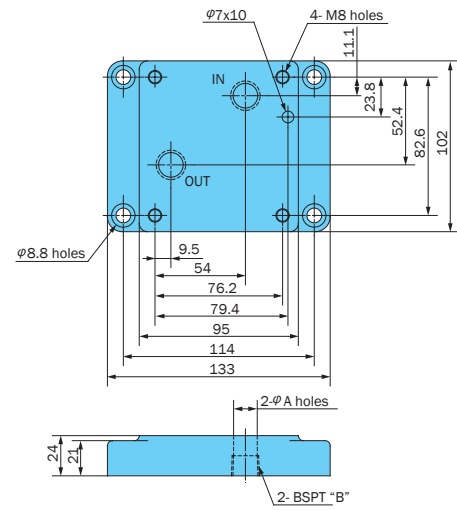


Sub Plate MF-03-10
MF-03Y-20



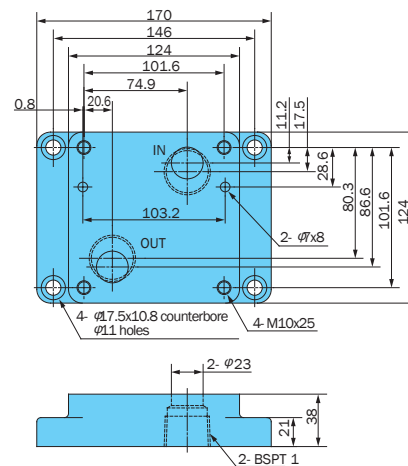
Sub Plate	A	B	C	E	F
MF-03-10	71.4	12.7	88.9	14.7	3/8
MF-03Y-20	74.9	11.2	86.6	23.0	3/4

Sub Plate MF-02-**-*

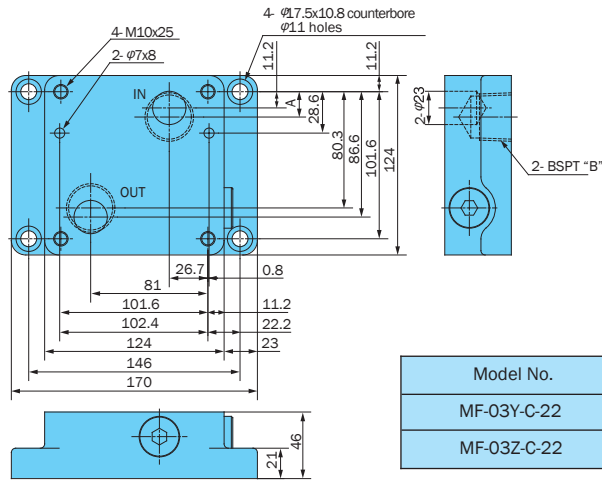


Sub Plate	A	B
MF-02X-10	14.7	3/8
MF-02Y-20	17	1/2

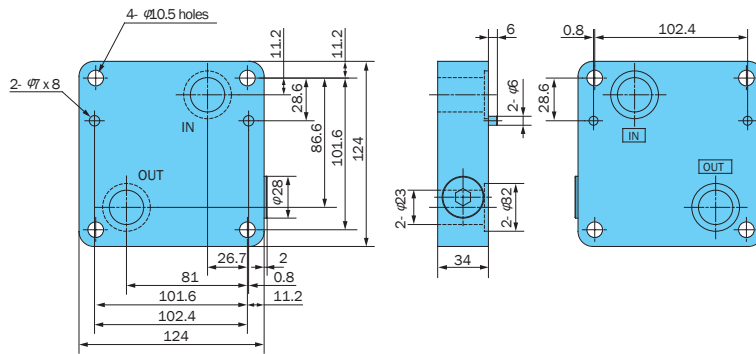
MF-03Z-20



Sub Plate with Check Valve MF-03*-C-22



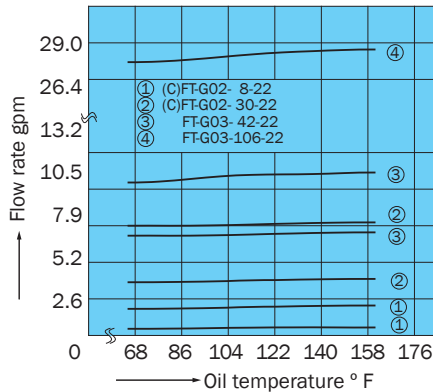
Auxiliary Plate with Check Valve MCF-03-A-22



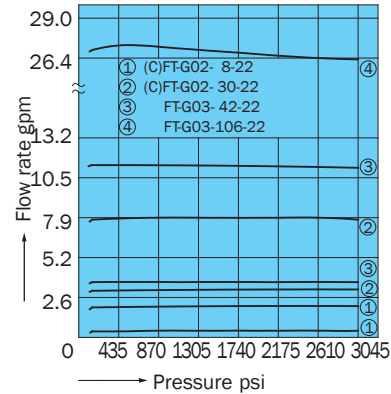
Performance Curves

Hydraulic Operating Fluid Viscosity 32 centistokes

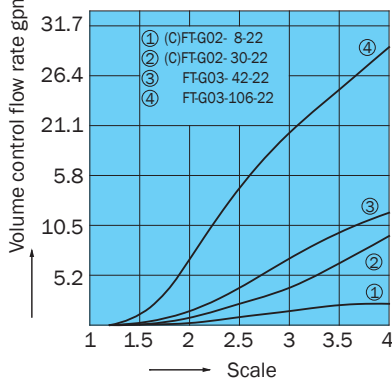
Fluid Temperature - Control Flow Rate Characteristics



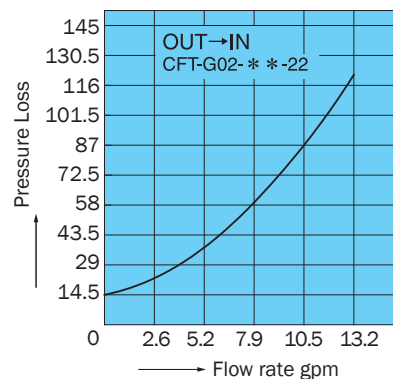
Pressure - Control Flow Rate Characteristics



Scale - Control Flow Rate Characteristics



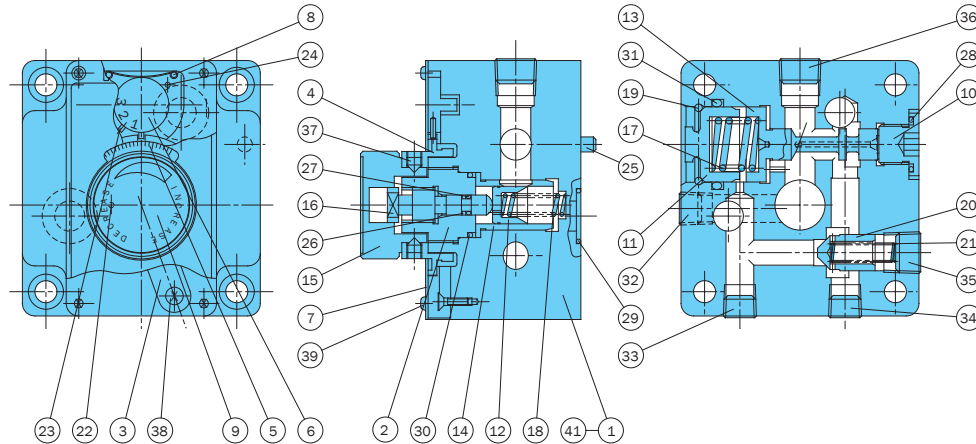
Pressure Loss Characteristics



Cross-sectional Drawing

CFT-G02-*-22

Note: O-ring 1A/B-** refers to JIS B2401-1A/B.



Part No.	Part Name	Part No.	Part Name	Part No.	Part Name
1	Body	15	Knob	29	O-ring
2	Retainer	16	Screw	30	O-ring
3	Stopper	17	Spring	31	O-ring
4	Dial	18	Spring	32	Plug
5	Plate	19	Snap ring	33	Plug
6	Plate	20	Poppet	34	Plug
7	Plate	21	Spring	35	Plug
8	Spring	22	Pin	36	Plug
9	Plate	23	Pin	37	Screw
10	Plug	24	Pin	38	Screw
11	Plug	25	Pin	39	Screw
12	Throttle	26	Backup ring	40	Washer
13	Piston	27	O-ring	41	O-ring
14	Sleeve	28	O-ring		

Seal Part List (Kit Model Number FBBS-***)

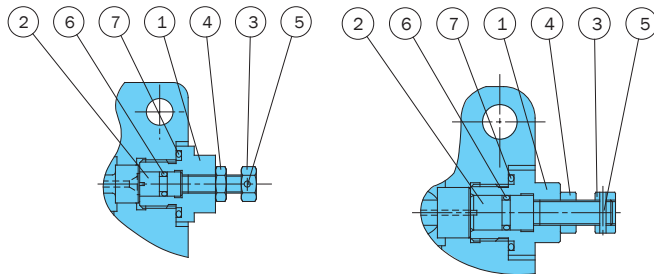
Part No.	Part Name	(C)FT-G02-*-22		FT-G03-*-22	
		Part Number	Q'ty	Part Number	Q'ty
26	Backup ring	T2-P5	1	T2-P5	1
27	O-ring	IB-P5	1	IB-P5	1
28	O-ring	IB-P18	1	IB-P20	1
29	O-ring	IB-P18	2	IB-P26	2
30	O-ring	IB-P22	1	IB-P26	1
31	O-ring	IB-P30	1	IB-P38	1
41	O-ring	-	-	IB-P20	1
Seal Kit Number		FBBS-G02-1A		FBBS-G03	

Note: 1.O-ring 1B-** refers to JIS B2401-1B-**. 2.Backup ring indicates JIS B2407-T2**.

Anti-jumping mechanism

(C)FT-G02-*-F-22

(C)FT-G03-*-22



Anti-jumping mechanism

Part No. Part Name

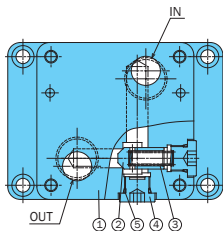
1	Retainer
2	Bolt
3	Nut
4	Nut
5	Spring pin
6	O-ring
7	O-ring

List of Sealing Parts

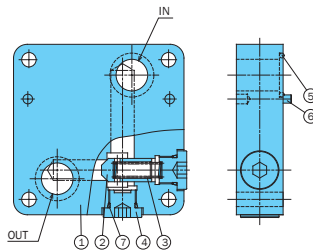
Part No.	Part Name	(C)FT-G02-*-22		FT-G03-*-22	
		Part Number	Q'ty	Part Number	Q'ty
6	O-ring	IB-P5	1	IB-P8	1
7	O-ring	IB-P18	1	IB-P20	1

Note: 1.O-ring 1B-** refers to JIS B2401-1B-**. 2.#7 O-ring and #29 O-ring are interchangeable.

Sub Plate MF-03*-C-22



MCF-03-A-22



Part No.	Part Name	Part No.	Part Name
1	Sub Plate	4	Plug
2	Poppet	5	O-ring
3	Spring		

List of Sealing Parts

Part No.	Part Name	Part Number	Q'ty
5	O-ring	1B-P18	2

Part No.	Part Name	Part No.	Part Name
1	Sub Plate	5	O-ring
2	Poppet	6	Pin
3	Spring	7	O-ring
4	Plug	8	Screw

List of Sealing Parts

Part No.	Part Name	Part Number	Q'ty
5	O-ring	1B-P26	2
7	O-ring	1B-P18	2