



FT-GO*-*-22



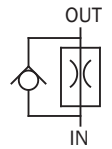
FT Type Flow Control (and Check) Valve .01 to 28 gpm
(with Pressure and Temperature Compensation) 3045 psi

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.

CFT-G02*-*-22



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			

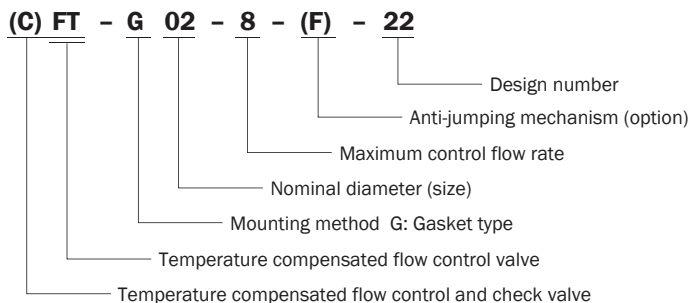
9 Though FT-G03 does not have a built-in check valve, a sub plate with check valve and auxiliary plate with check valve is

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

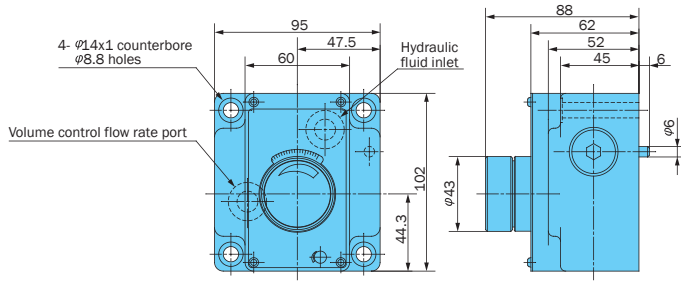
Note: For mounting bolts, use grade 8 or equivalent.

Understanding Model Numbers

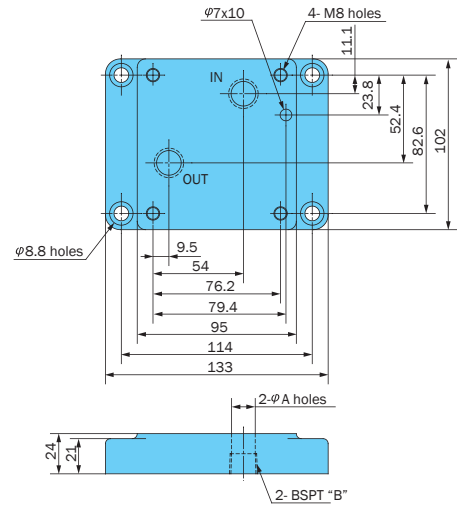


Installation Dimension Drawings

(C)FT-G02-**-22

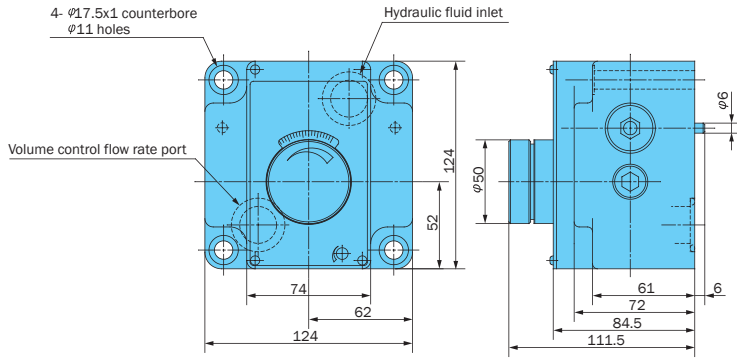


Sub Plate MF-02*-.*



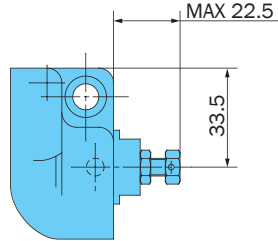
Sub Plate	A	B
MF-02X-10	14.7	3/8
MF-02Y-20	17	1/2

FT-G03-***-22

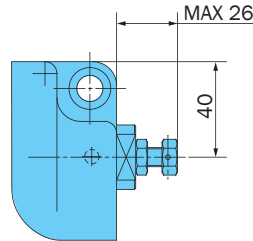


Anti-jumping mechanism

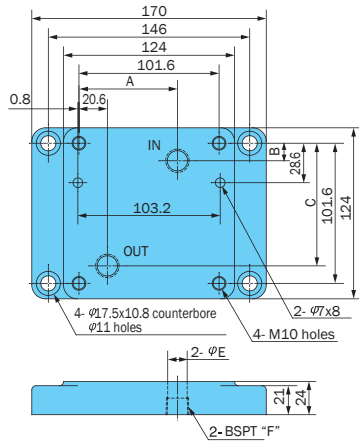
(C)FT-G02-**-F-22



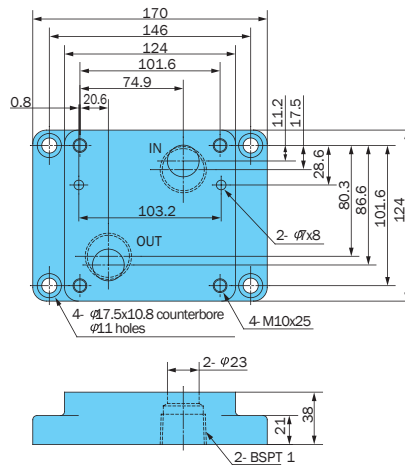
(C)FT-G03-**-F-22



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

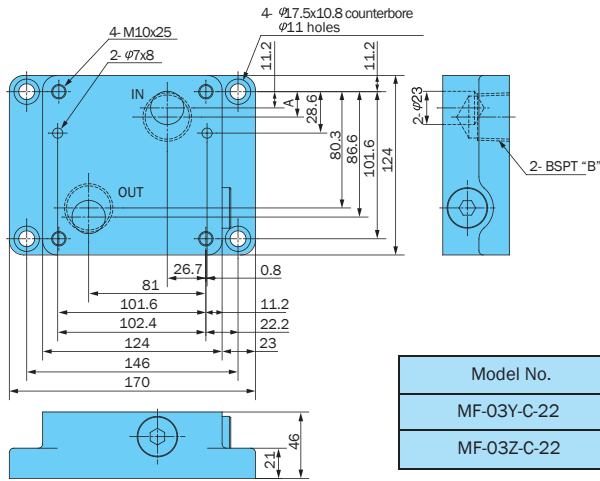


MF-03Z-20

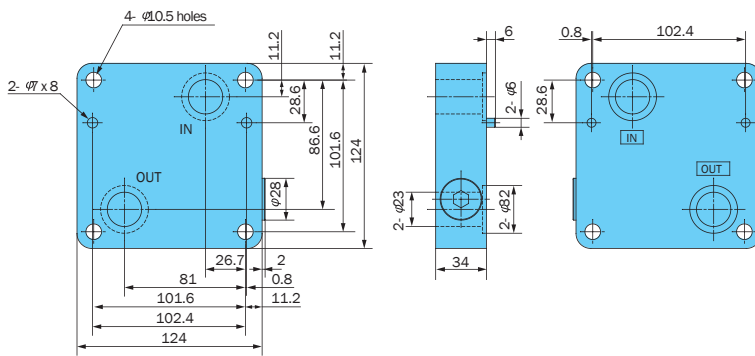


Sub Plate	A	B	C	E	F
MF-03-10	71.4	12.7	88.9	14.7	3/8
MF-03Y-20	74.9	11.2	86.6	23.0	3/4

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



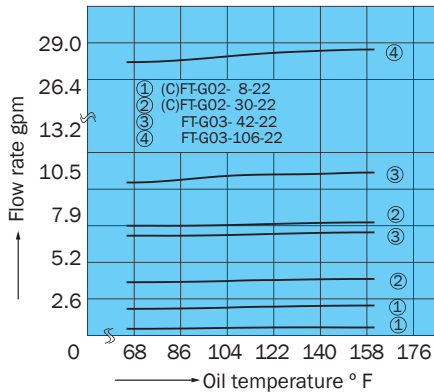
Auxiliary Plate with Check Valve MCF-03-A-22



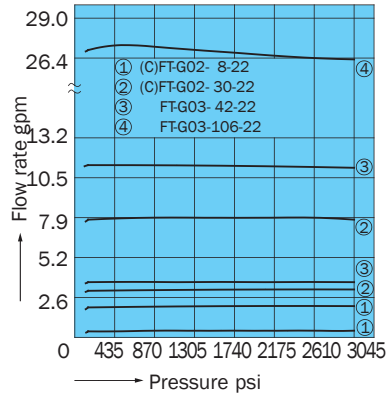
Performance Curves

Hydraulic Operating Fluid Viscosity 32 centistokes

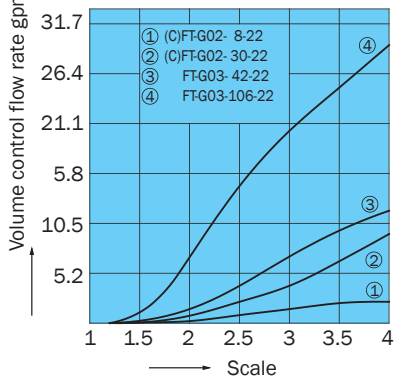
Fluid Temperature - Control Flow Rate Characteristics



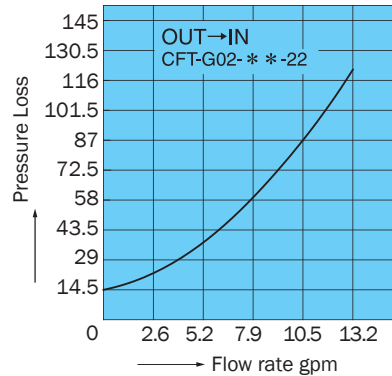
Pressure - Control Flow Rate Characteristics



Scale - Control Flow Rate Characteristics



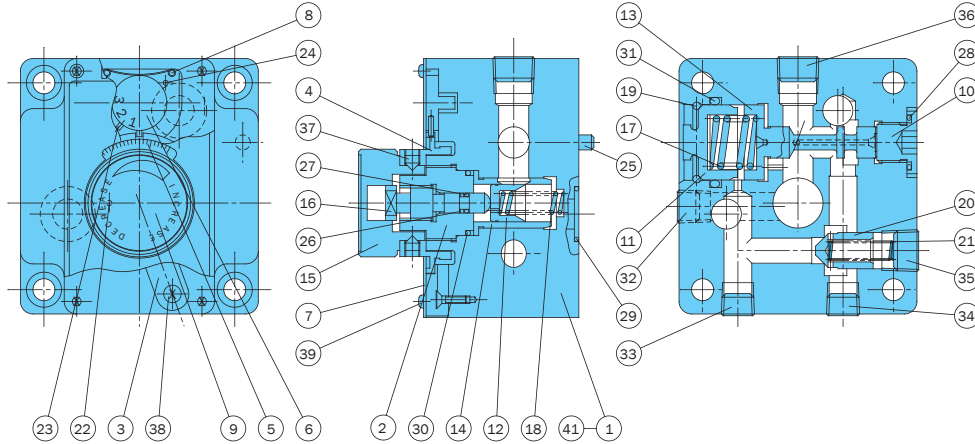
Pressure Loss Characteristics



Cross-sectional Drawing

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

CFT-G02-*-22



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-***)

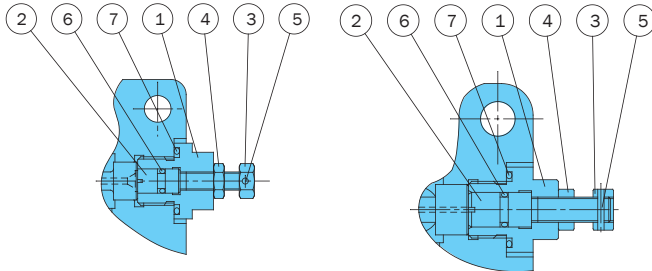
Part No.	Part Name	(C)FT-G02-*-22		FT-G03-*-22	
		Part Number	Q'ty	Part Number	Q'ty
26	Backup ring	T2-P5	1	T2-P5	1
27	O-ring	IB-P5	1	IB-P5	1
28	O-ring	IB-P18	1	IB-P20	1
29	O-ring	IB-P18	2	IB-P26	2
30	O-ring	IB-P22	1	IB-P26	1
31	O-ring	IB-P30	1	IB-P38	1
41	O-ring	-	-	IB-P20	1
Seal Kit Number		FBBS-G02-1A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

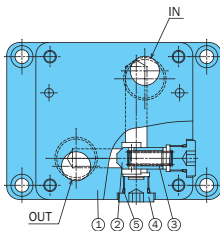
1	Retainer
2	Bolt
3	Nut
4	Nut
5	Spring pin
6	O-ring
7	O-ring

List of Sealing Parts

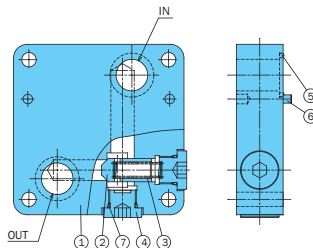
Part No.	Part Name	(C)FT-G02-*-22		FT-G03-*-22	
		Part Number	Q'ty	Part Number	Q'ty
6	O-ring	IB-P5	1	IB-P8	1
7	O-ring	IB-P18	1	IB-P20	1

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		

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-P18	2

List of Sealing Parts

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