



Throttle (and Check) Valve

190ℓ/min
21MPa



Features

- ① Compact and lightweight, requires very little space for installation.
- ② Special needle valve configuration provides smooth flow rate control.
- ③ Pressure is internally balanced for light handle operation, even at high pressure.

Specifications

Model No.		Nominal Diameter (Size)	Maximum Flow Rate ℓ/min	Cracking pressure MPa{kgf/cm ² }	Maximum Working Pressure MPa{kgf/cm ² }	Weight kg	
Screw Mounting	Gasket Mounting					T Type	G Type
(C)FR-T03-10	(C)FR-G03-10	3/8	30	0.15{1.5}	21{214}	1.3	1.7
(C)FR-T06-10	(C)FR-G06-10	3/4	75	0.1 {1.0}		3.0	3.7
(C)FR-T10-10	(C)FR-G10-10	1¼	190			5.6	5.8

● Handling

- ① The control flow rate is increased by counter clockwise (leftward) rotation of the flow rate control handle.
- ② The control flow rate does not become zero even if the handle is fully turned.
- ③ There is no pressure or temperature compensation mechanism.
- ④ Bi-directional restriction is possible when there is no check valve.
- ⑤ Use the table to the right for specification when a sub plate is required.
- ⑥ See the table to the right for installation hex socket bolts. However, bolts are not included for a screw mounting type.

Applicable Pump Model	Bolt Size	Q'ty	Tightening Torque N·m{kgf·cm}
(C)FR-G03-10	M8 × 65ℓ	4	20 to 25{ 205 to 255}
(C)FR-G06-10	M12 × 75ℓ	4	75 to 95{ 765 to 969}
(C)FR-G10-10	M14 × 90ℓ	4	120 to 150{1220 to 1530}

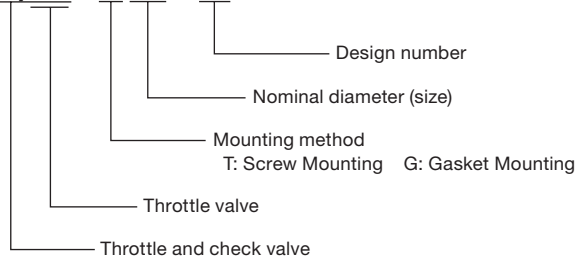
Note) For mounting bolts, use bolts of 12.9 strength classification or equivalent.

● Sub Plate

Model No.	Pipe Diameter	Recommended Flow Rate ℓ/min	Weight kg	Applicable Valve Type
MFR-03-10	3/8	30	1.0	(C)FR-G03-10
MFR-06-10	3/4	75	2.2	(C)FR-G06-10
MFR-10-10	1¼	190	4.1	(C)FR-G10-10

Explanation of model No.

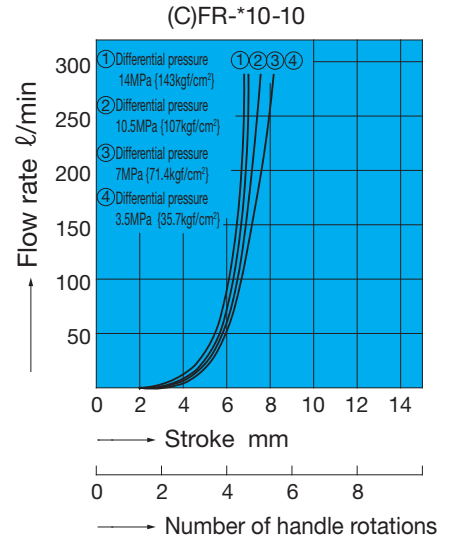
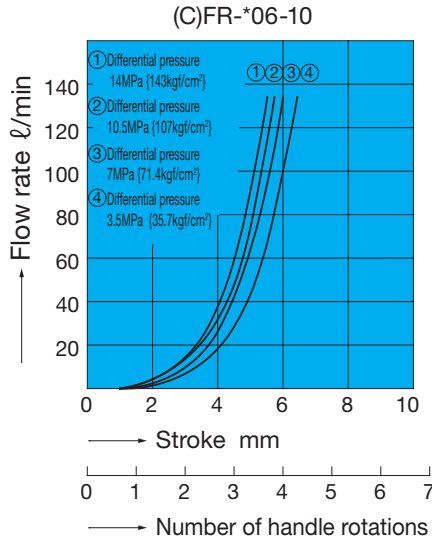
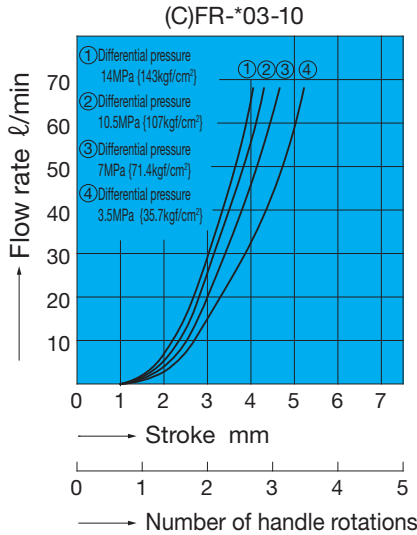
(C)FR - G 03 - 10



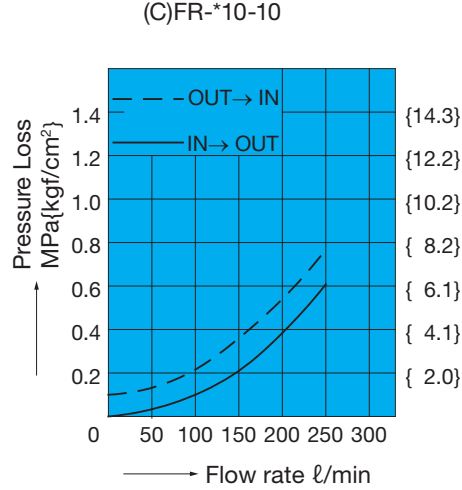
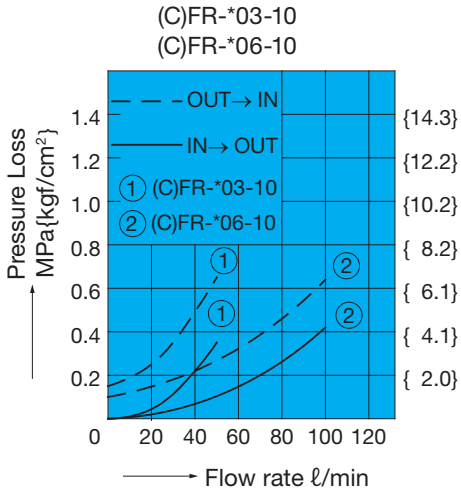
Performance Curves

Hydraulic Operating Fluid Kinematic Viscosity 32mm²/s

Stroke – Flow Rate Characteristics

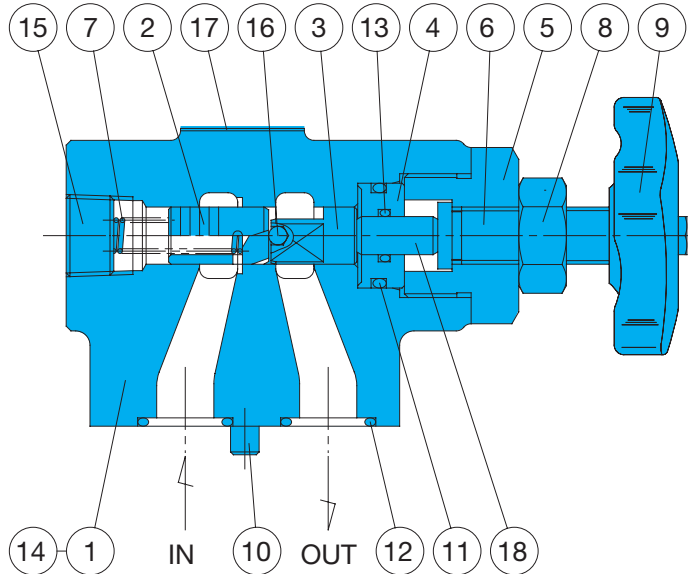


Pressure Loss Characteristics



Cross-sectional Drawing

CFR-G*-10



Part No.	Part Name
1	Body
2	Poppet
3	Piston
4	Bracket
5	Stopper
6	Screw
7	Spring
8	Nut
9	Handle
10	Pin
11	O-ring
12	O-ring
13	O-ring
14	Plug
15	Plug
16	Ball
17	Plate
18	Rod

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

Part No.	Part Name	CFR-G03-10		CFR-G06-10		CFR-G10-10	
		Part Number	Q'ty	Part Number	Q'ty	Part Number	Q'ty
11	O-ring	NBR-90 P18	1	NBR-90 G25	1	NBR-90 G25	1
12	O-ring	NBR-90 P16	2	NBR-90 G25	2	NBR-90 G35	2
13	O-ring	NBR-90 P8	1	NBR-90 P8	1	NBR-90 P8	1

Note) The materials and hardness of the O-ring conforms with JIS B2401.
 *** in the kit number is used for specification of the valve size (G03, T06, etc.)