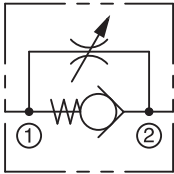


**F, FP Flow Control**  
Female-to-Female

IN-LINE



**DESCRIPTION**

**A Variable Flow Restrictor with Positive Shut-Off and Free Reverse Flow**

A wide range of flow adjustment in the controlled flow direction is possible because of the fine thread and tapered needle. A spring biased ball check or optional poppet check allows full flow in the opposite direction. Unwanted changes in adjustment are prevented by a lock nut.

- A wide range of flow adjustability
- Lock Nut to maintain flow setting
- Positive shut-off
- Leak-Tight Ball Check standard
- Bubble-Tight Poppet with O-Ring optional

**SPECIFICATIONS**

**FLOW RATING**

Size	Max Recommended Flow gpm (lpm)	Co-Efficient (Cv Factor)
1/8"	1.5 (5.7)	.23
1/4"	3.0 (11.4)	.54
3/8"	5.0 (18.9)	.83
SAE 6		
1/2"	8.0 (30.3)	1.47
3/4"	12.0 (45.4)	1.90

**Maximum Operating Pressure (Non-Shock Service)**

Brass: 2,000 psi (138 bar)  
Carbon Steel: 5,000 psi (345 bar)  
Stainless Steel: 5,000 psi (345 bar)

**Maximum Operating Pressure (Flow Control Poppet)**

60 psi (4 bar)

**Cracking Pressure**

1 to 2.5 psi (.07 to .17 bar)  
Soft seat check valves if left seated for a period of time, will have the rubber adhere to the metal it is in contact with. This results in an initial high crack point due to sticking. The degree depends on many things (time seated, pressure, etc.).

**Operating Temperature Range**

-15° to +400° F (-26° to +204° C)

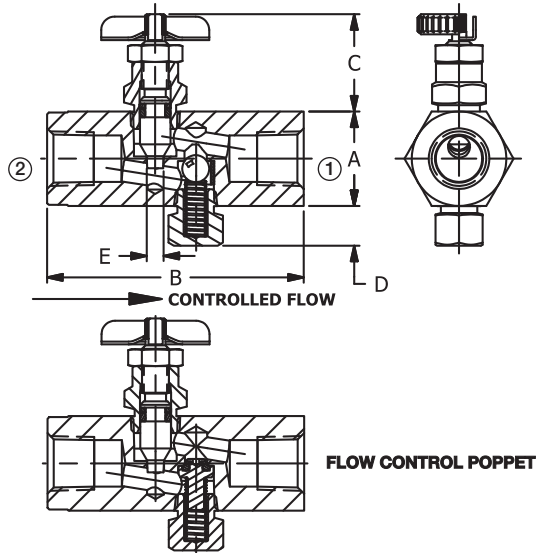
**Threads**

NPTF, BSPT, SAE

**Materials**

Body, Housing, Plug: Brass, Steel, Stainless Steel 303  
Needle: Brass (Brass Valves)  
                    Stainless Steel 416 (Steel and Stainless Steel Valves)  
O-Ring: Viton  
Back-Up Washer: Teflon  
Ball: Stainless Steel 440  
Spring: Stainless Steel 302  
Lock Nut: Brass, Steel, Stainless Steel 303  
Tamperproof Key: Steel  
Knob: Aluminum

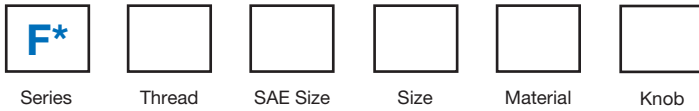
**INSTALLATION DIMENSIONS**



Pipe Size	A HEX	B	C Open	D	E Orifice
1/8"	11/16 (17.5)	1-3/4 (44.5)	7/8 (22.2)	13/64 (5.2)	.107 (2.7)
1/4"	7/8 (22.2)	2-3/8 (60.3)	1-1/16 (27.0)	23/64 (9.1)	.156 (4.0)
3/8"	1-1/16 (27.0)	2-3/4 (69.9)	1-3/16 (30.2)	11/32 (8.7)	.219 (5.6)
1/2"	1-5/16 (33.4)	3-3/16 (81.0)	1-15/32 (37.3)	15/32 (11.9)	.281 (7.1)
3/4"	1-5/8 (41.3)	3-9/16 (90.5)	1-11/16 (42.9)	17/32 (13.5)	.344 (8.7)

( ) Parentheses = Millimeters

**HOW TO ORDER**



Code	Series	Code	SAE Size	Code	Size	Code	Material	Code	Knob
F	Flow Control	Omit	NPTF, BSPT	10	1/8"	B	Brass	Omit	Tamperproof Adjustment Key
FP	Flow Control Poppet	6	9/16-18 UNF	20	1/4"	S	Carbon Steel	K	Knob
				25	3/8"	SS	Stainless Steel		
				30	1/2"				
				35	3/4"				

Code	Thread
Omit	NPTF
B	BSPT
M	SAE

**AVAILABLE MODEL CODES**

Size	NPTF Thread			ISO 7/1 - RS — BSP Taper Thread		SAE Thread
	Brass	Steel	Stainless Steel	Brass	Steel	Steel
1/8"	FP10BK F10B F10BK	F10S F10SK	- F10SSK	FB10BK	FB10SK	-
1/4"	FP20BK F20B F20BK	F20S F20SK	- F20SSK	FB20BK	FB20SK	FM620S FM620SK
3/8"	FP25BK F25B F25BK	F25S F25SK	- F25SSK	FB25BK	FB25SK	-
1/2"	F30B F30BK	F30S F30SK	- F30SSK	-	FB30SK	-
3/4"	F35B -	F35SK	- -	-	FB35SK	-