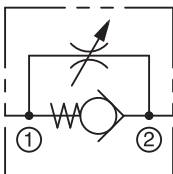


## IN-LINE



### 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

### 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

#### 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

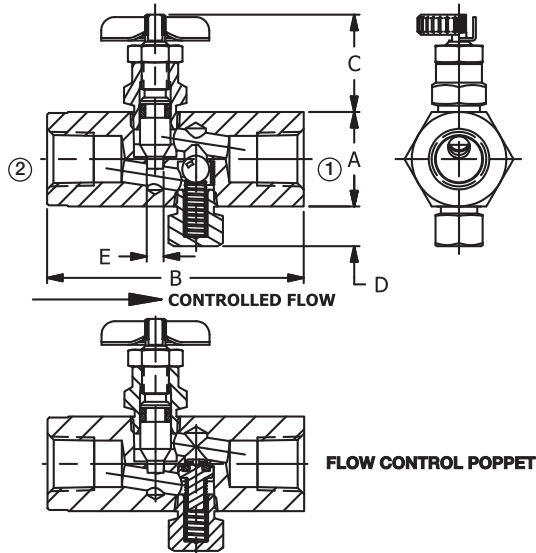
Tamperproof Key: Steel

Knob: Aluminum

(continued)  
**F, FP Flow Control**  
 Female-to-Female

IN-LINE

## 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

<b>F*</b>					
Series	Thread	SAE Size	Size	Material	Knob

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

Code	Thread
Omit	NPTF
<b>B</b>	BSPT
<b>M</b>	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	—