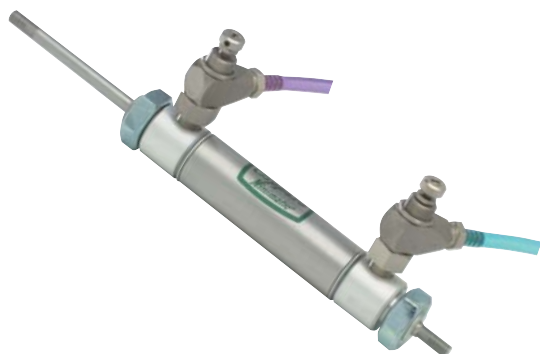




FLOW CONTROL VALVES

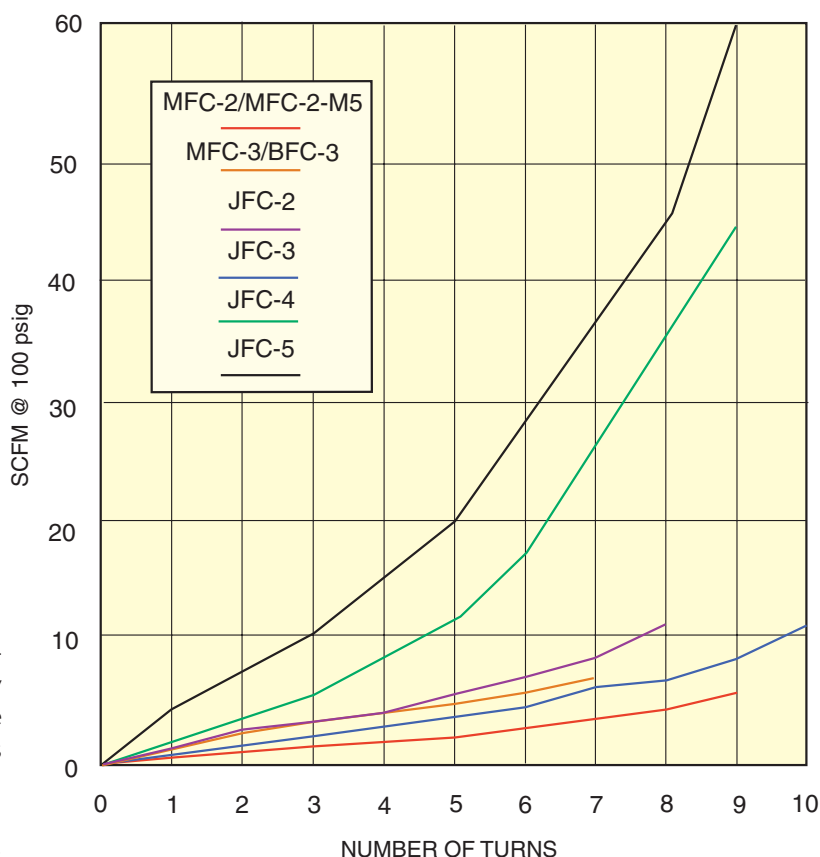
Flow Controls Flow vs. Needle Turns



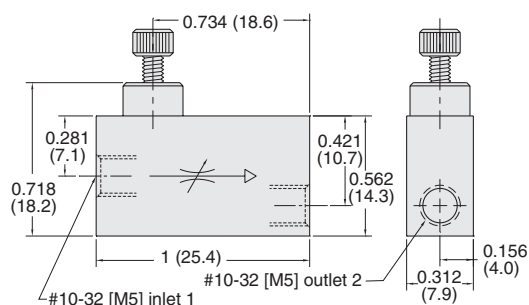
Clippard offers five models of adjustable flow controls with #10-32 through 3/8" NPT ports. They feature a combination needle and check valve that controls flow in one direction and allows free flow in the opposite direction.

They are an ideal valve for use with a cylinder, providing a slow extend stroke while allowing a fast retract stroke. The chart on this page illustrates the flow versus the number of needle adjustments turns for the MFC-2, MFC-2-M5, MFC-3, BFC-3, JFC-2, JFC-3, JFC-4 and JFC-5.

Medium: Air, Water or Oil



Adjustable Flow Control Valve



Materials: Brass body and stainless steel needle; Buna-N seals

Input Pressure: 300 psig max.

Air Flow: 4 scfm max. @ 50 psig; 7 scfm max. @ 100 psig

Pressure To Open: Cracks at approx. 2 psig

Mounting: In-line

Flow Direction: Arrow in valve body shows direction of controlled flow

Adjustment: Knurled knob on needle shaft



Part No.	Description
<u>MFC-2</u>	Adjustable Flow Control Valve, #10-32
<u>MFC-2-M5</u>	Adjustable Flow Control Valve, M5

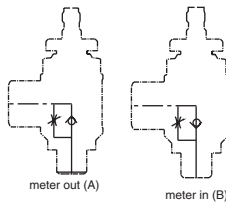
Input Pressure: 150 psig max.

Mounting: Directly into #10-32 port

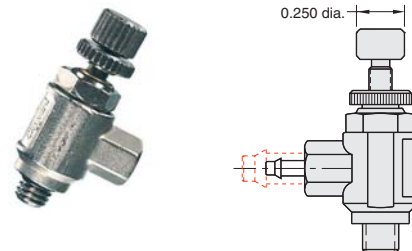
Ports: Rotating input port allows 360° positioning #10-32 port

Flow Direction: Arrow on valve body shows direction of controlled flow

Adjustment: Screwdriver slot; slotted knurled knob with lock nut on #10-80 threaded needle shaft for fine adjustment; or recessed slotted needle

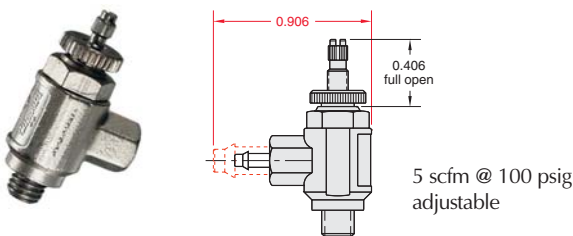


#10-32 Valves, Knurled Knob



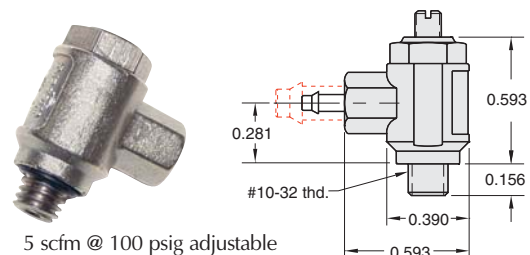
Part No.	Description
<u>MFC-3AK</u>	Meter Out Control Valve, #10-32 Female Side Port
<u>MFC-3AK1</u>	Meter Out Control Valve, 1/16" Barb Side Port
<u>MFC-3AK2</u>	Meter Out Control Valve, 1/8" Barb Side Port
<u>MFC-3BK</u>	Meter In Control Valve, #10-32 Female Side Port
<u>MFC-3BK1</u>	Meter In Control Valve, 1/16" Barb Side Port
<u>MFC-3BK2</u>	Meter In Control Valve, 1/8" Barb Side Port

#10-32 Valves, Screwdriver Slot



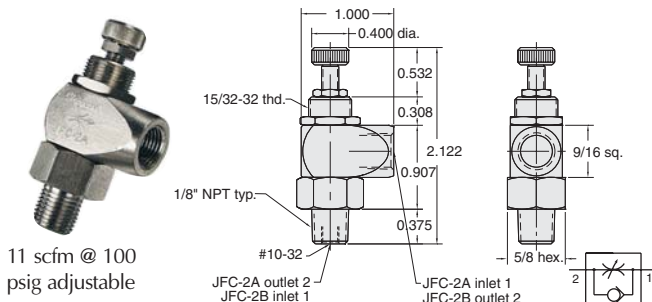
Part No.	Description
<u>MFC-3A</u>	Meter Out Control Valve, #10-32 Female Side Port
<u>MFC-3A1</u>	Meter Out Control Valve, 1/16" Barb Side Port
<u>MFC-3A2</u>	Meter Out Control Valve, 1/8" Barb Side Port
<u>MFC-3B</u>	Meter In Control Valve, #10-32 Female Side Port
<u>MFC-3B1</u>	Meter In Control Valve, 1/16" Barb Side Port
<u>MFC-3B2</u>	Meter In Control Valve, 1/8" Barb Side Port

#10-32 Valves, Recessed Needle



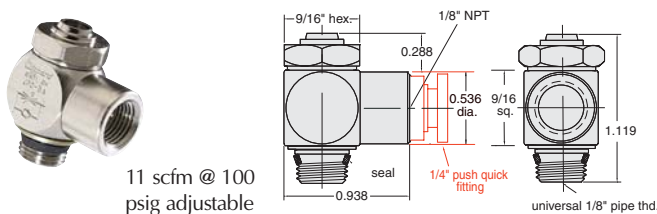
Part No.	Description
<u>MFC-3AR</u>	Meter Out Control Valve, #10-32 Female Side Port
<u>MFC-3AR1</u>	Meter Out Control Valve, 1/16" Barb Side Port
<u>MFC-3AR2</u>	Meter Out Control Valve, 1/8" Barb Side Port
<u>MFC-3BR</u>	Meter In Control Valve, #10-32 Female Side Port
<u>MFC-3BR1</u>	Meter In Control Valve, 1/16" Barb Side Port
<u>MFC-3BR2</u>	Meter In Control Valve, 1/8" Barb Side Port

1/8" NPT Control Valves, Knurled Knob



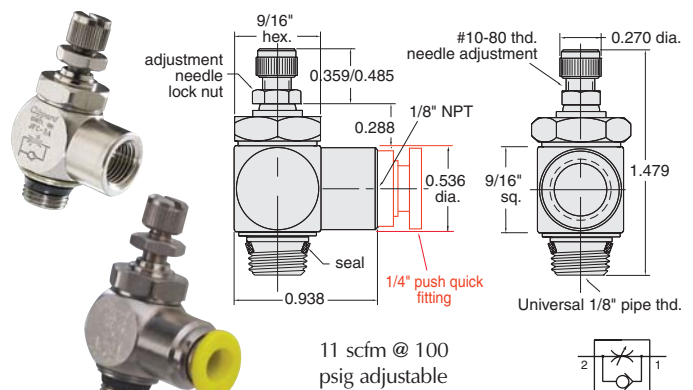
Part No.	Description
<u>JFC-2A</u>	Meter Out Control Valve, 1/8" NPT
<u>JFC-2B</u>	Meter In Control Valve, 1/8" NPT

1/8" NPT Valves, Recessed Needle



Part No.	Description
<u>JFC-3AR</u>	Meter Out Control Valve, 1/8" NPT
<u>JFC-3BR</u>	Meter In Control Valve, 1/8" NPT
<u>JFC-3ARP08</u>	Meter Out Control Valve, 1/4" Push-Quick Fitting
<u>JFC-3BRP08</u>	Meter In Control Valve, 1/4" Push-Quick Fitting

1/8" NPT Valves, Knurled Knob



Part No.	Description
<u>JFC-3A</u>	Meter Out Control Valve, 1/8" NPT
<u>JFC-3B</u>	Meter In Control Valve, 1/8" NPT
<u>JFC-3AP08</u>	Meter Out Control Valve, 1/4" Push-Quick Fitting
<u>JFC-3BP08</u>	Meter In Control Valve, 1/4" Push-Quick Fitting



FLOW CONTROL VALVES



These combination needle and check valve flow controls are typically used to control air flow from air cylinders, thereby controlling the speed at which

the piston strokes, either while extending or retracting, depending on their location in the circuit.

J-Series Flow Control Valves allow free flow in one direction. In the opposite direction the flow is metered by the needle valve.

Models listed in the chart have either a 1/4" NPT (JFC-4) or 3/8" NPT (JFC-5) male threaded outlets, recessed screwdriver slot (R) or knurled knob (K) flow adjustment needles and female NPT or push-to-connect tubing (Push-Quick) inlets. The P08 models features a 1/4" Push-Quick fitting, and the P12 versions have a 3/8" Push-Quick fitting.

Medium: Air, Water or Oil

Material: Electroless nickel plated brass needle and stem, anodized aluminum body, Buna-N seals

Input Pressure: 150 psig max.

Air Flow: JFC-4 - 45 scfm @ 100 psig adjustable
JFC-5 - 60 scfm @ 100 psig adjustable

Mounting: Directly into cylinder. Panel or in-line.

Ports: Rotating input port allows 360° positioning 1/8" NPT

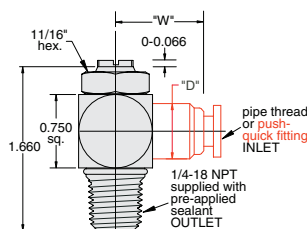
Adjustment: Recessed slotted needle or knurled knob

Part #	"D"	"W"
JFC-4K & JFC-4R	0.710"	0.890"
JFC-4K-P08 & JFC-4R-P08	0.562"	0.890"
JFC-4K-P12 & JFC-4R-P12	0.710"	1.062"
JFC-5K & JFC-5R	0.827"	1.125"
JFC-5K-P12 & JFC-5R-P12	0.750"	1.124"

1/4" NPT Valves, Recessed Needle



(JFC-4R shown)

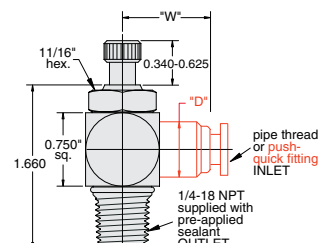


Part No.	Description
JFC-4R	Meter Out Control Valve, 1/4" NPT
JFC-4R-P08	Meter Out Control Valve, 1/4" Push-Quick Fitting
JFC-4R-P12	Meter Out Control Valve, 3/8" Push-Quick Fitting

1/4" NPT Valves, Adjusting Knob



(JFC-4K shown)

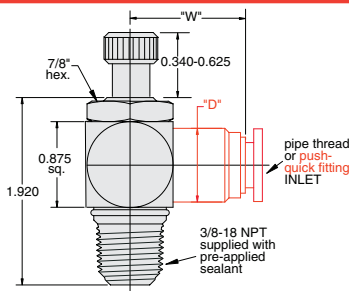


Part No.	Description
JFC-4K	Meter Out Control Valve, 1/4" NPT
JFC-4K-P08	Meter Out Control Valve, 1/4" Push-Quick Fitting
JFC-4K-P12	Meter Out Control Valve, 3/8" Push-Quick Fitting

3/8" NPT Valves, Adjusting Knob



(JFC-5K-P12 shown)

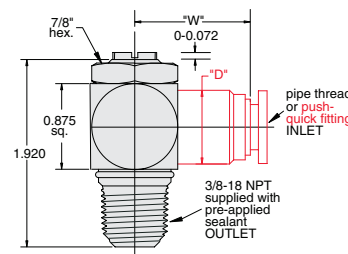


Part No.	Description
JFC-5K	Meter Out Control Valve, 3/8" NPT
JFC-5K-P12	Meter Out Control Valve, 3/8" Push-Quick Fitting

3/8" NPT Valves, Recessed Needle

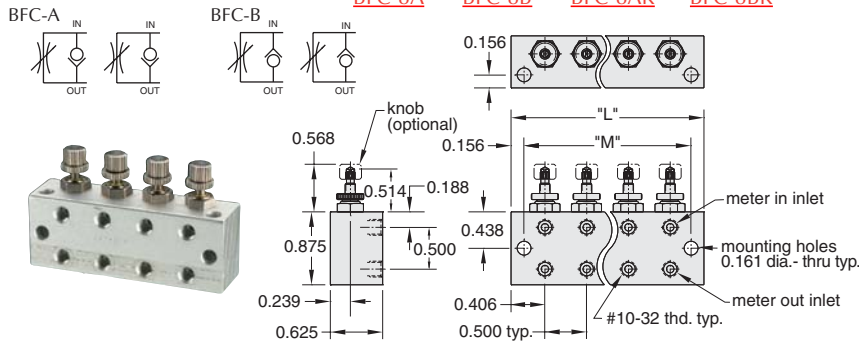


(JFC-5R-P12 shown)



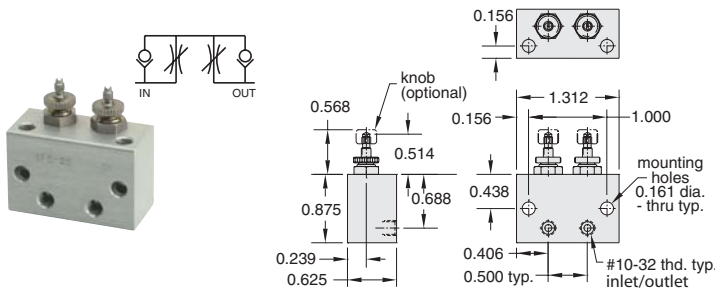
Part No.	Description
JFC-5R	Meter Out Control Valve, 3/8" NPT
JFC-5R-P12	Meter Out Control Valve, 3/8" Push-Quick Fitting

Block Flow Controls



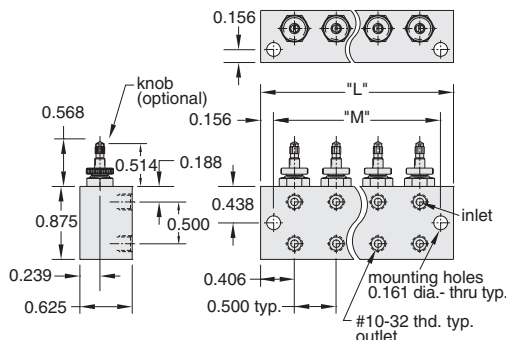
Block Flow Controls

BFC-2C BFC-2CK
Two valves common meter in and meter out.



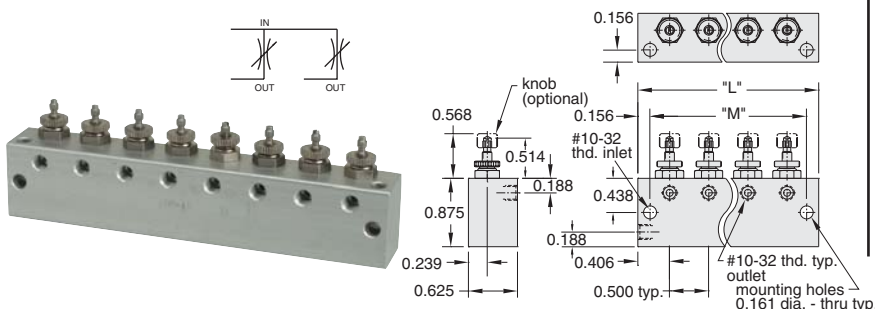
Block Needle Valves

BNV-2N BNV-2NK BNV-4N BNV-4NK BNV-6N BNV-6NK BNV-8N BNV-8NK



Block Needle Manifolds

BNM-2N BNM-2NK BNM-4N BNM-4NK BNM-6N BNM-6NK BNM-8N BNM-8NK



Precision flow controls and needle valves available in blocks for rigid mounting.

Specification same as **MFC-3**

Clippard's block flow control and needle valves have a variety of features that offer extra versatility for unique applications. These precision made valves offer high performance, low cost, reliability and ease of installation. Each valve is independent of the other (except the BFC-2C), sharing only a common body. This allows separate pressures and/or gases to be used while simplifying mounting. Each needle adjustment is smooth, exact, and includes a locking ring to prevent tampering. The valve body is machined and anodized aluminum; the compound angle needle stems are machined from 303 stainless steel; the valve sleeve is electroless nickel plated brass; and the seals are Buna-N rubber. Block flow controls and needle valves are ideal for controlling double acting cylinders.

FC - Flow Control
NV - Needle Valve
NM - Needle Manifold

B - **Block**

Block

Number of stations

2 - 2 Stations

4 - 4 Stations

6 - 6 Stations

8 - 8 Stations

A - Meter Out Flow

B - Meter In Flow

C - 2 Valves Common

Meter In and Meter Out

N - Needle Valve

Adjustment type

Blank - Screwdriver Slot

K - Adjustment Knob

Number of Stations "X"	"L"	"M"
2	1.312"	1.000"
4	2.312"	2.000"
6	3.312"	3.000"
8	4.312"	4.000"