

FV SERIES 4-WAY FULLY PORTED VALVE

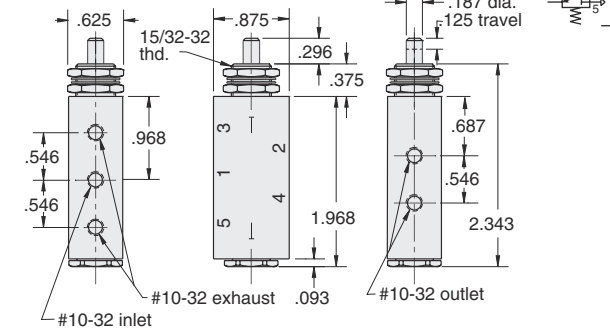


Options: see page 105 **Materials:** brass body, Buna-N seals, stainless steel stem & spring

FV-5

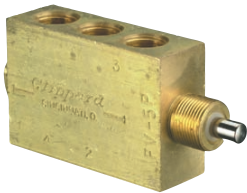


4-way spool plunger actuated spring return fully ported valve

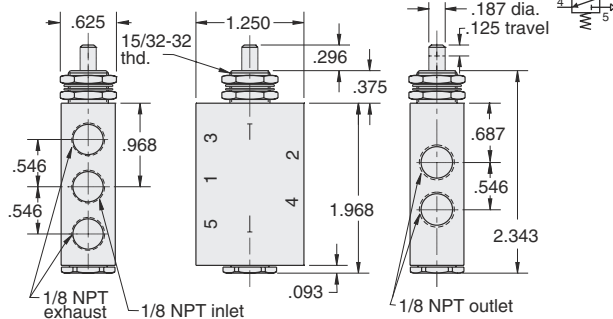


Medium: air, water, or oil
Stem Travel: 1/8"
Input Pressure: Vacuum to 150 psig max.
Air Flow: @50 psig - 6 SCFM
 @100 psig - 10 SCFM
Force For Full Stem Travel: 4 1/2 lb. nom.
Mounting: 15/32-32 thread
 Nut and lockwashers furnished
Ports: Inlet - 10-32, Outlet - 10-32
 Exhaust 10-32
Temperature Range: 32° to 230° F

FV-5P



4-way spool plunger actuated spring return fully ported valve

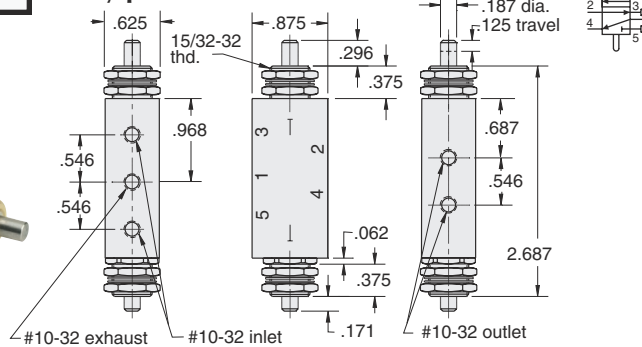


Medium: air, water, or oil
Stem Travel: 1/8"
Input Pressure: Vacuum to 150 psig max.
Air Flow: @50 psig - 6.5 SCFM
 @100 psig - 10.5 SCFM
Force For Full Stem Travel: 4 1/2 lb. nom.
Mounting: 15/32-32 thread
 Nut and lockwashers furnished
Ports: Inlet - 1/8 NPT, Outlet - 1/8 NPT
 Exhaust - 1/8 NPT
Temperature Range: 32° to 230° F

FV-5D



4-way spool double plunger two position fully ported valve

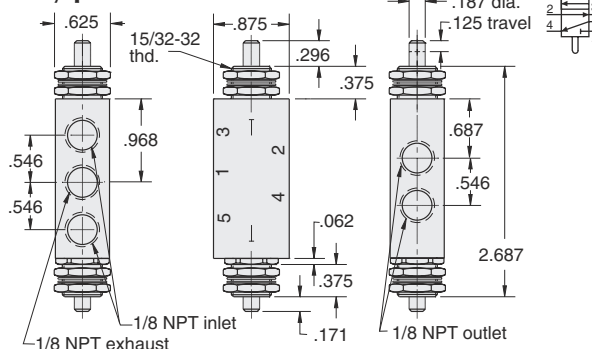


Medium: air, water, or oil
Stem Travel: 1/8"
Input Pressure: Vacuum to 150 psig max.
Air Flow: @50 psig - 6 SCFM
 @100 psig - 10 SCFM
Force For Full Stem Travel: 1 1/2 lb. nom.
Mounting: 15/32-32 thread
 Nut and lockwashers furnished
Ports: Inlet - 10-32, Outlet - 10-32
 Exhaust - 10-32
Temperature Range: 32° to 230° F

FV-5DP



4-way spool double plunger two position fully ported valve



Medium: air, water, or oil
Stem Travel: 1/8"
Input Pressure: Vacuum to 150 psig max.
Air Flow: @50 psig - 6.5 SCFM
 @100 psig - 10.5 SCFM
Force For Full Stem Travel: 1 1/2 lb. nom.
Mounting: 15/32-32 thread
 Nut and lockwashers furnished
Ports: Inlet - 1/8 NPT, Outlet - 1/8 NPT
 Exhaust - 1/8 NPT
Temperature Range: 32° to 230° F



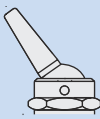
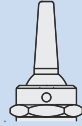
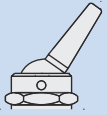
TV SERIES 4-WAY TOGGLE VALVE

Options: see page 105 **Materials:** brass body, Buna-N seals, stainless steel stem & spring

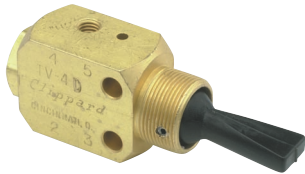
Toggle Position Options

By choosing valves with different toggle position options the user can customize the application to best suit the needs. For example, the DM model can be used on the momentary side as a "jog" or "manual" control, and with the detented side for "automatic" or "run" mode.

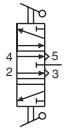
Valves are made of solid brass, bright dipped finish to resist corrosion; stems and springs are of stainless steel, toggle of black acetyl plastic, and seals of Buna-N rubber. They will handle pressures from 0 to 120 psig, and temperatures from 32 to 230 degrees F.

Model Number				
TV-4D	10-32	Detented	SPRING CENTERED supply blocked both sides exhausted	Detented
TV-4DP	1/8 NPT			
TV-4M	10-32	Momentary		Momentary
TV-4MP	1/8 NPT			
TV-4DM	10-32	Detented		Momentary
TV-4DMP	1/8 NPT			

TV-4D



4-way toggle actuated three position valve



Medium: air

Arc Of Travel: 35° each side of center

Input Pressure: 120 psig max.

Air Flow: @50 psig - 4.5 SCFM
@100 psig - 7.5 SCFM

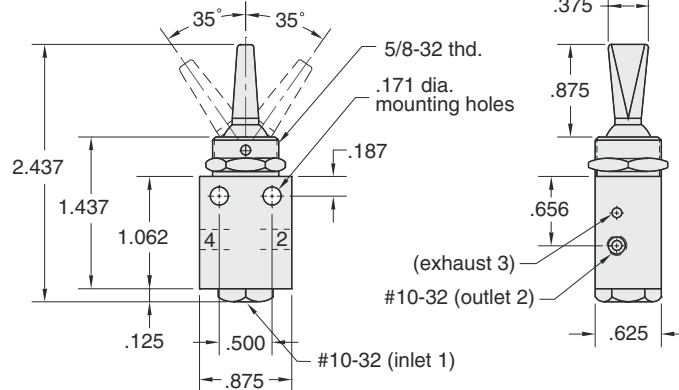
Force For Full Stem Travel: 8 oz. nom.

Mounting: 5/8-32 thread
Nut and lockwashers furnished

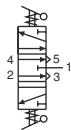
Ports: #10-32

Toggle: plastic

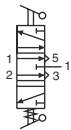
Temperature Range: 32° to 230° F



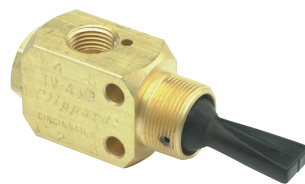
TV-4M



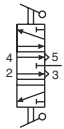
TV-4DM



TV-4DP



4-way toggle actuated three position valve



Medium: air

Arc Of Travel: 35° each side of center

Input Pressure: 120 psig max.

Air Flow: @50 psig - 4.5 SCFM
@100 psig - 7.5 SCFM

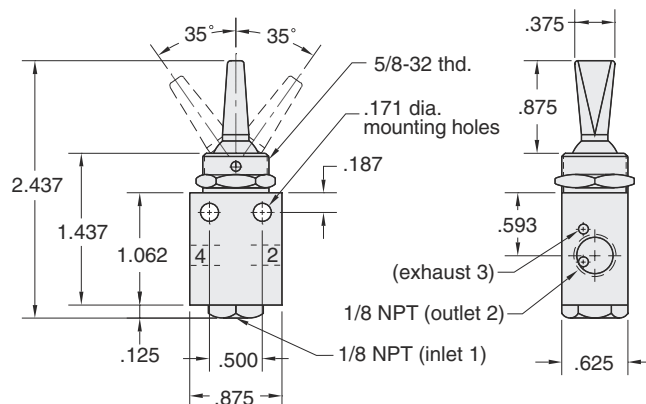
Force For Full Stem Travel: 8 oz. nom.

Mounting: 5/8-32 thread
Nut and lockwashers furnished

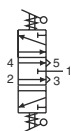
Ports: 1/8 NPT

Toggle: plastic

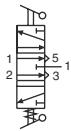
Temperature Range: 32° to 230° F



TV-4MP



TV-4DMP



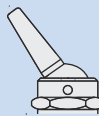
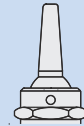
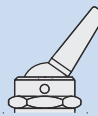
FBV SERIES 3-WAY FILL & BLEED TOGGLE VALVE



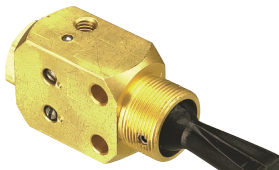
Options: see page 105 **Materials:** brass body, Buna-N seals, stainless steel stem & spring

Fill and Bleed Applications

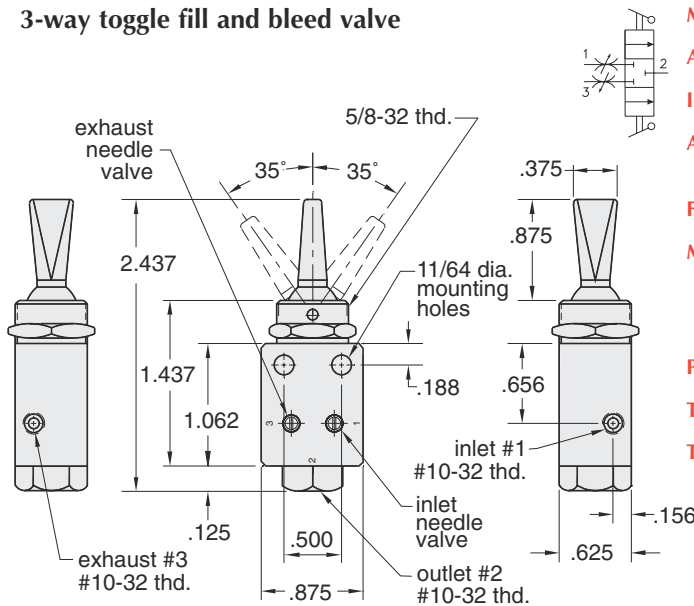
The FBV-3 may be used to pressurize or "fill" a chamber or bladder by depressing the toggle in one direction and then de-pressurize or "bleed" that same chamber or bladder by depressing the toggle in the other direction. Toggling back and forth between the inlet and exhaust provides a fine adjustment of the required pressure in the chamber or bladder.

Model Number				
FBV-3D FBV-3DP	10-32 1/8 NPT	Detented	SPRING CENTERED all ports blocked	Detented
FBV-3M FBV-3MP	10-32 1/8 NPT	Momentary		Momentary
FBV-3DM FBV-3DMP	10-32 1/8 NPT	Detented		Momentary

FBV-3D

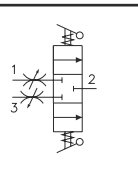


3-way toggle fill and bleed valve

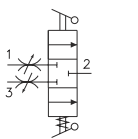


Medium: air
Arc Of Travel: 35° each side of center
Input Pressure: 120 psig max.
Air Flow: @50 psig - 3.0 SCFM
 @100 psig - 5.0 SCFM
Force For Full Stem Travel: 8 oz. nom.
Mounting: 5/8-32 thread
 Nut and lockwashers furnished
 (2) .171 mounting holes in body or may
 be mounted directly on a cylinder
Ports: #10-32
Toggle: plastic
Temperature Range: 32° to 230° F

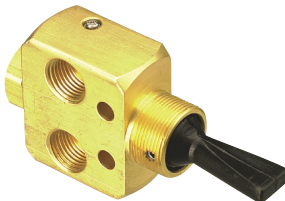
FBV-3M



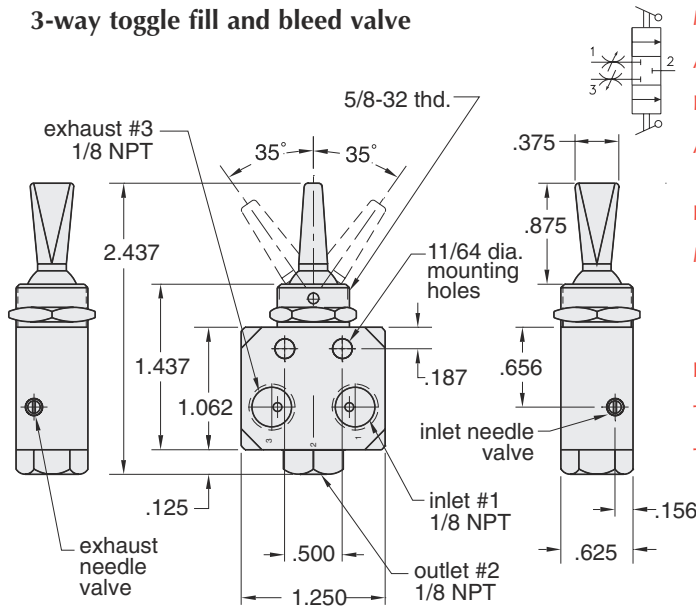
FBV-3DM



FBV-3DP

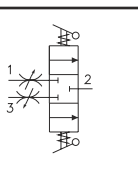


3-way toggle fill and bleed valve

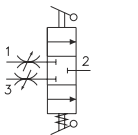


Medium: air
Arc Of Travel: 35° each side of center
Input Pressure: 120 psig max.
Air Flow: @50 psig - 3.0 SCFM
 @100 psig - 5.0 SCFM
Force For Full Stem Travel: 8 oz. nom.
Mounting: 5/8-32 thread
 Nut and lockwashers furnished
 (2) .171 mounting holes in body or may
 be mounted directly on a cylinder
Ports: 1/8 NPT
Toggle: plastic
Temperature Range: 32° to 230° F

FBV-3MP



FBV-3DMP

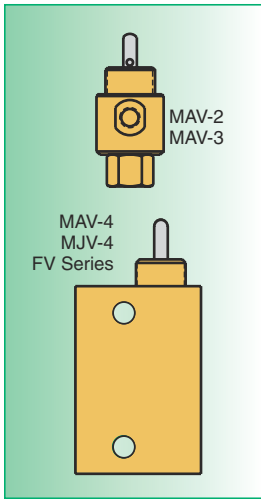




VALVE ACTUATORS

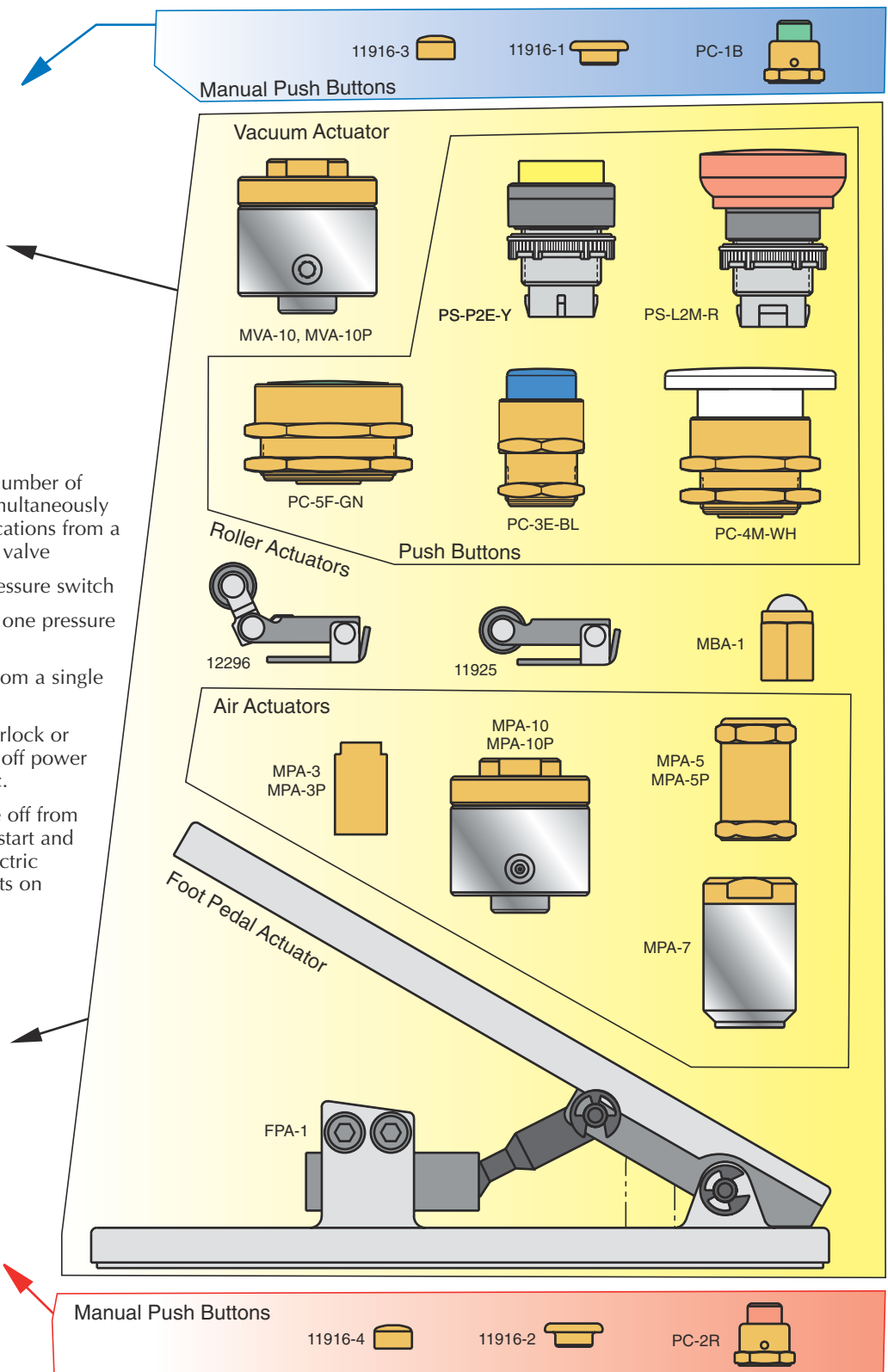
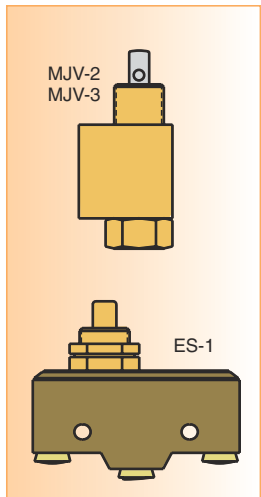
The following valve actuators are compatible with all Clippard MAV, MAVO, MJV, MJVO, ES-1, & FV series valves.

One of the most versatile items in the Clippard line. Permits wide circuit flexibility and allows many control functions to be accomplished pneumatically with less cost, hazards and complexity. Threads onto the tops of our Miniature 2-way, 3-way, and 4-way valves and ES-1 electric switch to provide fast pilot actuation from a pneumatic signal.



MPA Actuators Can:

- Remotely actuate any number of valves and switches simultaneously in different strategic locations from a single miniature 3-way valve
- Make an ES-1 into a pressure switch
- Act as an air relay, i.e., one pressure source to another.
- Operate the MAV-4D from a single impulse.
- Serve as a pressure interlock or safety device, i.e., turn off power when pressure fails, etc.
- Provide an electric take off from a pneumatic source to start and stop power, actuate electric counters, indicator lights on panel boards, etc.

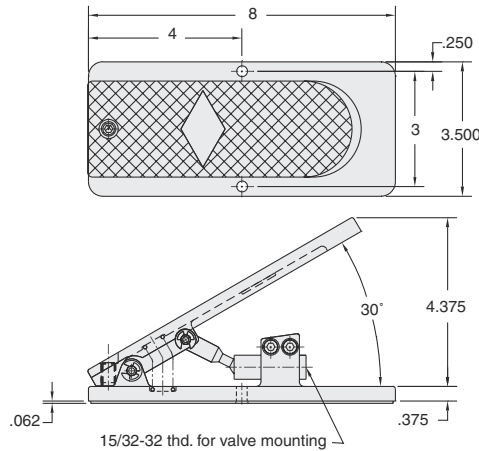




FPA-1



Adjustable travel needle type foot pedal



Construction: Sturdy cast aluminum and black oxidized steel

Control Devices: May be fitted with any Clippard 2, 3 or 4-way valve or MAR-1C pressure controller with a 15/32-32 mounting thread

Mounting: To floor or other structure with two 9/32" mounting holes stroke plunger adjustable to accommodate a variety of valves

"Hands-free" touch-of-toe operation of endless types of automated and semi-automated machinery and equipment, jigs and fixtures, is possible thru use of this sturdy treadle type foot pedal, combined with Clippard miniature valves, plunger type air pressure controls, and electrical switch.

A sliding link mechanism between treadle and mounting sleeve actuates the component, and a set screw at the back of pedal base adjusts treadle travel.

Pedal is spring loaded at approximately 1/2 lb. for return to "off" position.

Note for MBA-1, 11925 & 12296:

When mounting on a valve, a space should be provided between the body and the actuator according to the chart to the right:

Valve mtg. thd.	MBA-1	11925	12296
.250 thd length	.125"	.062"	.062"
.373 thd length	.218"	.188"	.188"

A mounting nut (supplied with valve), mounting bracket or washers should be used to obtain the required spacing.

MBA-1



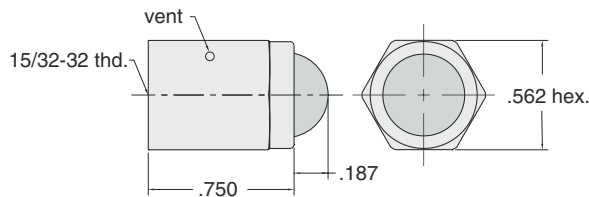
Ball cam actuator permits the valves and electrical switch to be operated by mechanical movement depressing the ball from any direction

Construction: Body - brass
Ball - stainless steel retained in housing

Temperature Range: 32° to 230° F

Operation: Will actuate valve while depressed from any (360°) direction

Mounting: 15/32-32 female to mount to Clippard miniature valves and electric switch



11925



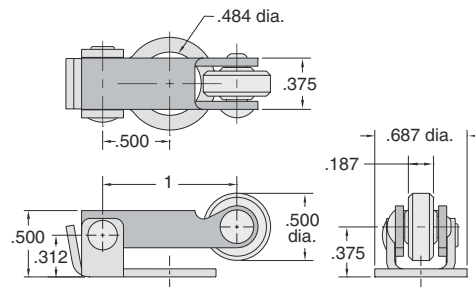
Roller cam follower actuator

Construction: Stainless steel with nylon roller

Temperature Range: 32° to 230° F

Mounting: 31/64" dia. mounting hole fits 15/32-32 threaded mounting section of valve bodies

Operation: Mounts to valve body, actuates valve when mechanically depressed; valve spring provides return



12296



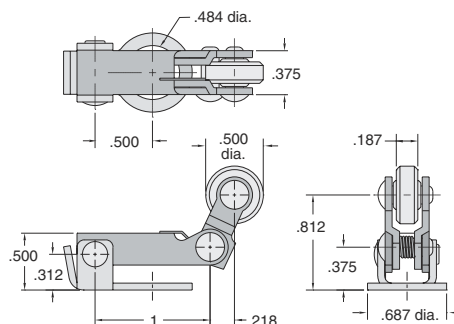
Roller, double-pivoted one way cam follower actuator

Construction: Stainless steel with nylon roller

Temperature Range: 32° to 230° F

Mounting: 31/64" dia. mounting hole fits 15/32-32 threaded mounting section of valve bodies

Operation: Mounts to valve body, actuates valve when depressed by activating cam or linear travel device in one direction only; no actuation on return travel





AIR PILOTED VALVE ACTUATORS

MINIMUM PRESSURE REQUIRED (PSIG)**											
Clippard Valve	Pressure (psig)				Vacuum (in Hg)	Clippard Valve	Pressure (psig)				Vacuum (in Hg)
	w/MPA3	w/MPA-5	w/MPA-7	w/MPA-10	w/MVA-10		w/MPA3	w/MPA-5	w/MPA-7	w/MPA-10	w/MVA-10
ES-1 Switch	12	4	2	*	*	FV-3	41	15	7.5	4.0	8.2
MAV-2 Valve	23	8	4	2.0	4.2	FV-3P	41	15	7.5	4.0	8.2
MAV-3 Valve	23	8	4	2.0	4.2	FV-4	41	15	7.5	4.0	8.2
MAV-4 Valve	36	11	5.5	3.5	7.2	FV-4P	41	15	7.5	4.0	8.2
MJV-4 Valve	36	11	5.5	3.5	7.2	FV-5	41	15	7.5	4.0	8.2
MAV-4D Valve	13	4	1.5	1.0	2.0	FV-5P	41	15	7.5	4.0	8.2
MJV-4D Valve	13	4	1.5	1.0	2.0	FV-3D	14	5	2.5	1.5	3.2
MJV-2 Valve	30	10	5	3.0	6.2	FV-3DP	14	5	2.5	1.5	3.2
MJV-3 Valve	30	10	5	3.0	6.2	FV-4D	14	5	2.5	1.5	3.2
MAVO-2 Valve	27	9	4.5	2.5	5.2	FV-4DP	14	5	2.5	1.5	3.2
MAVO-3 Valve	27	9	4.5	2.5	5.2	FV-5D	14	5	2.5	1.5	3.2
MJVO-2 Valve	30	10	5	3.0	6.2	FV-5DP	14	5	2.5	1.5	3.2
MJVO-3 Valve	30	10	5	3.0	6.2						

**with 100 psi to valve inlet; *consult factory

MPA-3

Single acting spring return miniature air pilot actuator

Input Pressure: 250 psig max.

Bore Size: .375

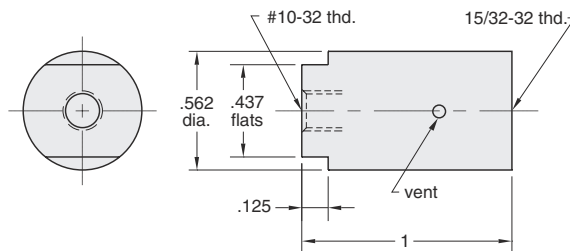
Construction: Body - brass
Springs - stainless steel
Seals - Buna-N rubber
Piston - Delrin®

Force Factor: .1

Mounting: 15/32-32 female thread to mount to Clippard miniature valves and components

Ports: 10-32

Temperature Range: 32° to 230° F



MPA-3P

Single acting spring return miniature air pilot actuator

Input Pressure: 250 psig max.

Bore Size: .375

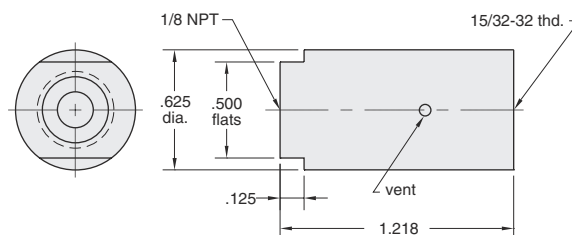
Construction: Body - brass
Springs - stainless steel
Seals - Buna-N rubber
Piston - Delrin®

Force Factor: .1

Mounting: 15/32-32 female thread to mount to Clippard miniature valves and components

Ports: 1/8 NPT

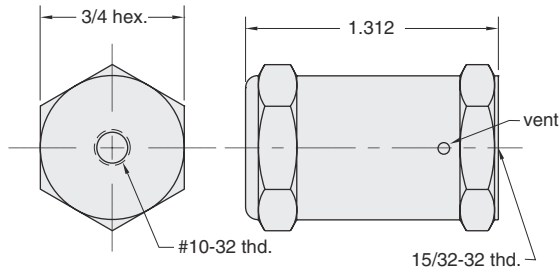
Temperature Range: 32° to 230° F



MPA-5



Single acting spring return miniature air pilot actuator



Input Pressure: 250 psig max.

Bore Size: .625

Construction: Body - brass
Springs - stainless steel
Seals - Buna N rubber
Piston - Delrin®

Force Factor: .3

Mounting: 15/32-32 female thread to mount to Clippard miniature valves and components

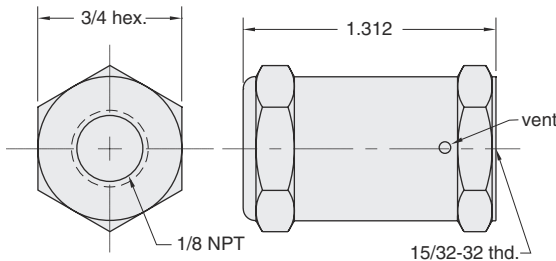
Ports: 10-32

Temperature Range: 32° to 230° F

MPA-5P



Single acting spring return miniature air pilot actuator



Input Pressure: 250 psig max.

Bore Size: .625

Construction: Body - brass
Springs - stainless steel
Seals - Buna N rubber
Piston - Delrin®

Force Factor: .3

Mounting: 15/32-32 female thread to mount to Clippard miniature valves and components

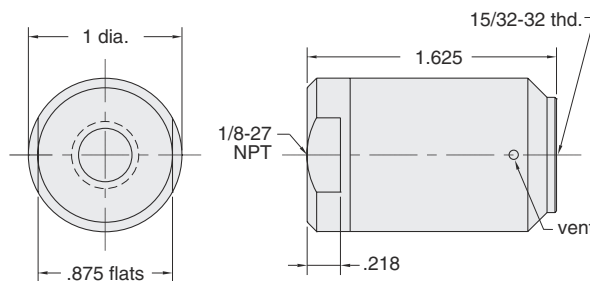
Ports: 1/8 NPT

Temperature Range: 32° to 230° F

MPA-7



Single acting spring return miniature air pilot actuator



Input Pressure: 250 psig max.

Bore Size: .825" dia.

Construction: Body - aluminum and brass
Springs - stainless steel
Seals - Buna N rubber
Piston - Delrin®

Force Factor: .6

Mounting: 15/32-32 female thread to mount to Clippard miniature valves and components

Ports: 1/8-27 NPT

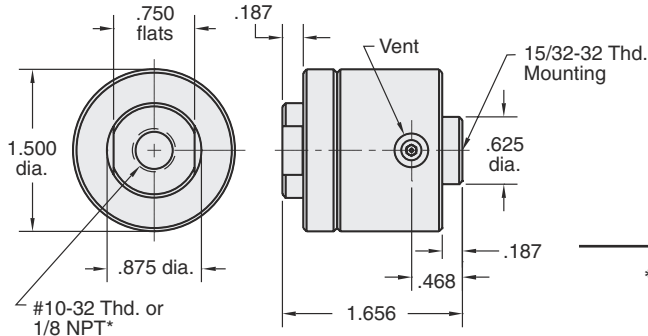
Temperature Range: 32° to 230° F



VALVE ACTUATORS

MPA-10

Single acting spring return **pilot actuator**



Bore Size: 1.250" dia.
Input Pressure: 150 psig maximum
Inlet Port: #10-32 female thread
Mounting: 15/32-32 female thread to mount to Clippard Minimatic® valves and components; no spacers or washers are required when assembled to any Clippard valve; may be used with 15018-2 mounting bracket

Force Factor: 1.2
Temperature Range: 32° to 230° F

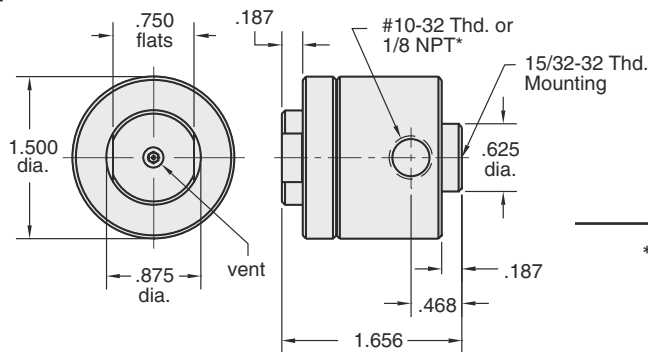
* **Inlet Port:** 1/8 NPT female thread

MPA-10P



MVA-10

Single acting spring return **vacuum actuator**



Input Pressure: 30 in. Hg vacuum
Inlet Port: #10-32 female thread
Mounting: 15/32-32 female thread to mount to Clippard Minimatic® valves and components; no spacers or washers are required when assembled to any Clippard valve; may be used with 15018-2 mounting bracket

Temperature Range: 32° to 230° F

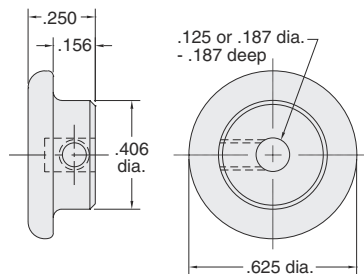
* **Inlet Port:** 1/8 NPT female thread

MVA-10P



11916-1 1/8" STEM 11916-2 3/16" STEM

Round solid brass 5/8" dia. **push button**



Use: Mounts directly on valve stem for manual operation of valve; prevents overtravel of valve stem by providing a positive stop

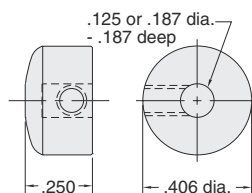
Mounting: 1/8" or 3/16" dia. mounting hole fits valve stems; locks in place by set screw (Allen wrench furnished)

Temperature Range: 32° to 230° F

Note: Individually packaged or bulk quantities available

11916-3 1/8" STEM 11916-4 3/16" STEM

Round solid brass 13/32" dia. **push button**



Use: Mounts directly on valve stem for manual operation of valve; small size permits attachment to valve before valve is mounted through 15/32" dia. hole; prevents overtravel of valve stem by providing a positive stop

Mounting: 1/8" or 3/16" dia. mounting hole fits valve stems; locks in place by set screw (Allen wrench furnished)

Temperature Range: 32° to 230° F

Note: Individually packaged or bulk quantities available

Captivated Push Buttons

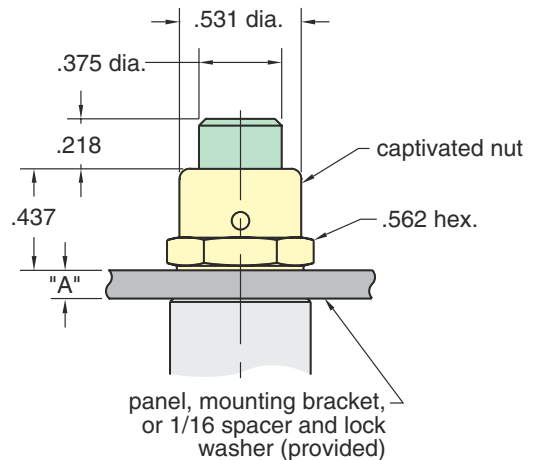
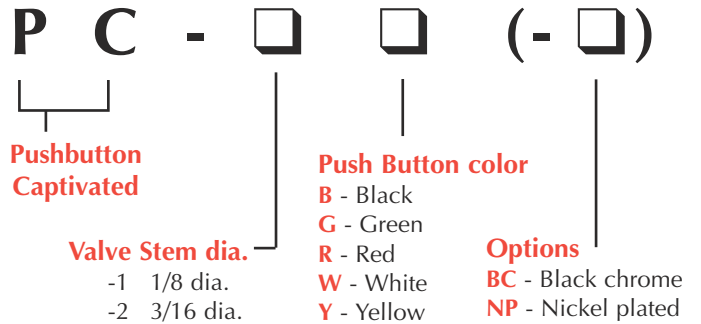
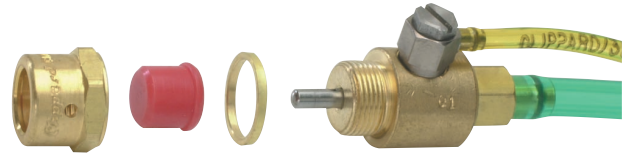
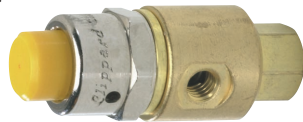


Clippard also offers the captivated push button for use with a large variety of stem operated valves. Captivated push buttons are sold as kits, adaptable to either 1/8" diameter stems or 3/16" diameter stems. Each kit includes a colored acetyl push button, brass housing nut, 1/16" brass spacer, and lock washer for assembly. The standard furnished mounting nut has a bright chromate finish. Black chrome or nickel-plated finishes are also available by adding the suffix -BC or -NP to the part number.

Captivated push buttons can be used on individual stem operated valves or in panel mount application by omitting the 1/16" brass spacer. These push buttons are available in a variety of colors, allowing you to color code, or easily differentiate between valves when designing control systems.

The design of these push buttons allows maximum actuation of the valve with no overtravel or side load to the valve stem. This assures superior performance and long life.

Captivated push buttons are commonly used as limit valves in conjunction with pneumatic cylinders, slides, and any variety of mechanical actuators. The rugged design coupled with precise actuation of stem operated valves make it perfect for applications where repetitive cycling of the valve is necessary. Designed to work with Clippard MAV, MJV, and FV series, these push buttons integrate easily into Minimatic® systems, providing optimal quality and efficiency in miniature pneumatic control.



Spacing Required for Proper Actuation of Push Button

Valve	"A" Dim.
MAV-2, MAV-3 MAVO-2, MAVO-3	3/32"
MAV-4, MAV-4D MJV-4, MJV-4D	5/32"
MJV-2, MJV-3 MJVO-2, MJVO-3 FV-3, FV-4, FV-5	7/32"

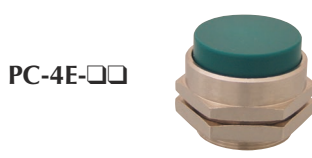
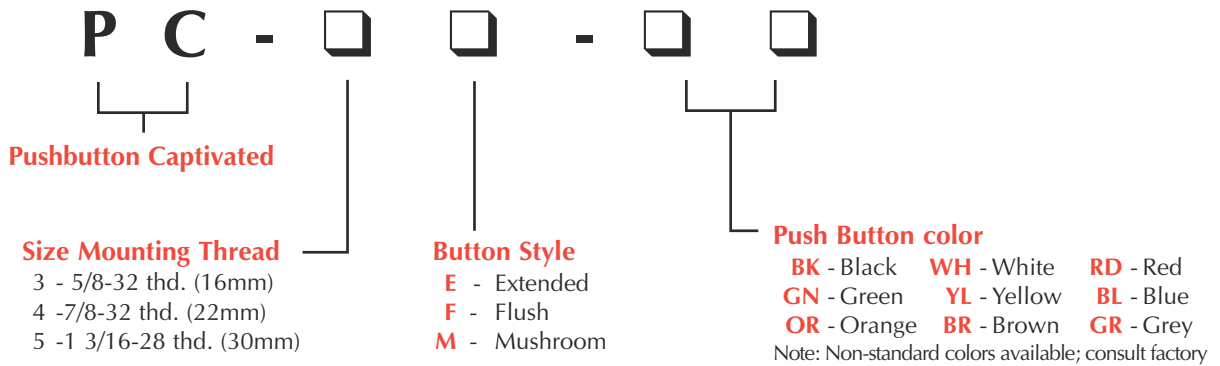


PUSH BUTTON ACTUATORS

Heavy Duty Push Button Actuators

Heavy Duty Push Button Actuators can be used on individual stem operated valves or in panel mounting applications. These push buttons are available in a variety of colors, allowing you to color code, or easily differentiate between valves when designing control systems. They feature a built-in spring so the button always returns to the extended position when released with no additional load on the valve.

The design of these push buttons allows complete actuation of the valve with no overtravel or side load to the valve assuring superior performance and long life.



Features

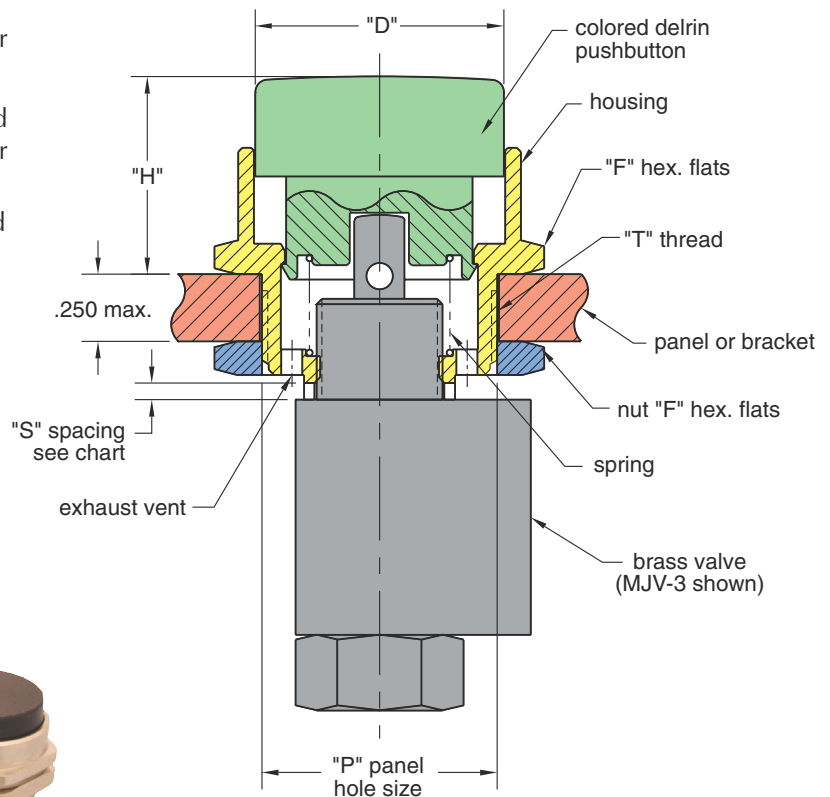
- Assembles directly to the valve; no adapters required
- Ideal for mounting on panels or brackets, up to 1/4" thick panel
- Self-contained assembly; no loose parts
- Stainless steel spring returns button to extended position with no added load to the valve stem
- Three sizes: 16 mm (5/8 dia.), 22 mm (7/8 dia.) and 30 mm (1-3/16 dia.)
- Flush, extended and mushroom style buttons
- Caution: Pushbuttons are easily depressed. Maintain positive outlook when in use.
- Five bright colors for visibility and operator recognition. Other colors available upon request
- Nickel plated brass housing and nut, molded Delrin® button and stainless steel spring for long life and corrosion resistance
- Protects the valve from overtravel and side load

Different valve models vary in mounting thread length, stem extension and stroke. To accommodate these differences, the chart below lists the recommended spacing ("S") to insure complete valve actuation. Provided with each button is a 1/16" thick spacer ring that may be used in place of a panel or bracket to obtain proper spacing. The lockwasher provided may be used with no significant effect on spacing.



DIMENSIONS

SIZE	MODEL	"D" Dia.	"H" Hgt.	"T" Thd.	"P" Panel Hole	+1/32 -0 "F" Hex Flats
5/8-32 (16 mm) mtg. thd.	PC-3E-□□	.625"	.734"			
	PC-3F-□□	.625"	.500"	5/8-32	5/8" dia.	3/4"
	PC-3M-□□	1.165"	.906"			
7/8-32 (22 mm) mtg. thd.	PC-4E-□□	.925"	.734"			
	PC-4F-□□	.925"	.500"	7/8-32	7/8" dia.	1-1/16"
	PC-4M-□□	1.500"	.906"			
1 3/16-32 (30 mm) mtg. thd.	PC-5E-□□	1.165"	.734"			
	PC-5F-□□	1.165"	.500"	1 3/16-32	1-3/16 dia.	1-5/16"
	PC-5M-□□	1.500"	.906"			



SPACING "S" REQUIRED FOR PROPER VALVE ACTUATION						
Valve series	MAV-2	MAVO-2	MAV-4	MAV-4D	MJV-2,-3	MJVO-2,-3
	MAV-3	MAVO-3	MJV-4	MJV-4D	FV-3, FV-4, FV-5	
• Mounting thd.	1/4"		1/4"		3/8"	
• Stem extension	5/16"		3/8"		5/16"	
• Valve stroke	1/8"		3/16"		1/8"	
"S" Minimum	none		none		1/16"	
Maximum	1/16"		1/16"		1/8"	



PUSH BUTTON ACTUATORS

Minimatic® Actuators

Easily actuated, clearly identifiable panel controls are the hallmark of a professional control system.

Whether the system is a single valve machine control...or an operating console for controlling complex pneumatic systems...you will find the actuator you require.

The line includes round push buttons, in flush, extended, and mushroom styles. Also included are key locking controls, and twist actuators. An electric switch is also available where a combination of electric and pneumatic switching is desired in a single panel.

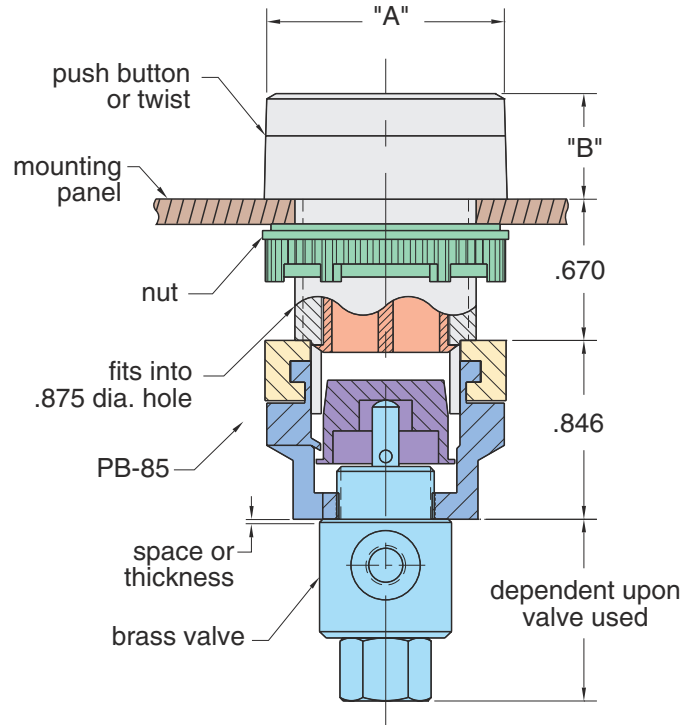
Dimensions

Size 22			Size 30		
Model	"A"	"B"	Model	"A"	"B"
PS-P2F	1.156	.492	PL-P2F	1.440	.550
PS-P2E	1.156	.736	PL-P2E	1.440	.960
PS-P2M	1.575	.965	PL-P2M	1.575	1.043
PS-L3M	1.575	.965	PL-L3M	1.575	1.043
PS-P4K	1.156	2.320	PL-P4K	1.440	2.280
PS-L4M	1.575	2.320	PL-L4M	1.575	2.280
PS-T2T	1.156	1.043	PL-T2T	1.440	1.403
PS-T3T	1.156	1.043	PL-T3T	1.440	1.043
PS-T3K	1.156	2.320	PL-T3K	1.440	2.280

Actuator Mounting Chart

The following chart gives the necessary spacing required between the shoulder of the valve and the base of the adaptor.

Valves	PB-85
MAV-2, -2P, -2R, -3R, -3, -3P MAVO-2, -3	None
MJV-2, -3 MJVO-2, -3	1/8"
MAV-4, -4D MJV-4, -4D	None
ES-1	None
FV-3, -3P, -3D, -3DP FV-4, -4P, -4D, -4DP FV-5, -5P, -5D, -5DP	1/8"



Manual Actuator Features

- Attractive and rugged: precision molded ABS plastic
- Two sizes: 30 mm (1 13/64" dia.) in 20 models
22 mm (7/8" dia.) in 20 models
- 4 bright colors for visibility and operator recognition
- Flush, extended, and mushroom styles
- Custom adaptor mates manual actuator with 26 different Clippard 2, 3, and 4 way valves. Valve and adaptor slide on and lock onto actuator in seconds. Easily removed.
- Special wrench fits both sizes, speeds assembly
- Actuators may be mounted or dismounted in panel independent of valve and adaptor
- 19 legend plates available plus blank plates in each size
- Valve and adaptor may be locked onto actuator in any of four positions to ease installation inside panel
- Anti-rotation rings available for secure mounting
- Key lockable push buttons for security and/or safety

Legend Text	22 Size Part #	33 Size Part #
Blank	PS-01	PL-01
Start	PS-02	PL-02
Stop (red)	PS-03	PL-03
Forward	PS-04	PL-04
Reverse	PS-05	PL-05
Fast	PS-06	PL-06
Slow	PS-07	PL-07
On	PS-08	PL-08
Off (red)	PS-09	PL-09
Reset	PS-10	PL-10
Raise	PS-11	PL-11
Lower	PS-12	PL-12
Emergency Stop (red)	PS-13	PL-13
Run / Jog	PS-31	PL-31
Auto / Hand	PS-32	PL-32
Forward / Reverse	PS-33	PL-33
Fast / Slow	PS-34	PL-34
Open / Close	PS-35	PL-35
Up / Down	PS-36	PL-36
Off / On	PS-37	PL-37

Legend Plates*

Plastic legend plate, two sizes, with a black field and white inscription (red as noted). Inscription plates are interchangeable in both sizes.



Accessories for Manual Actuators

Mounting Wrench

Fits both 22 Size and 30 Size manual actuators.

PB-60



Valve Adaptor

Adapts all manual actuators to any Clippard standard 2-, 3-, or 4-way brass valve. Made of ZYTEL® ST-901 Supertough Nylon.

PB-85

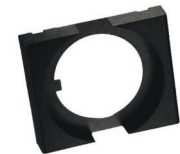


ZYTEL® is a registered trademark of DuPont

Square Bezel

Converts any 22 Size actuator to a square actuator.

PS-65



Replacement Mounting Nut

Mounting nut that holds manual actuators to panel. Included with manual actuators. 22 Size only.

PS-55



Anti-Rotation Ring

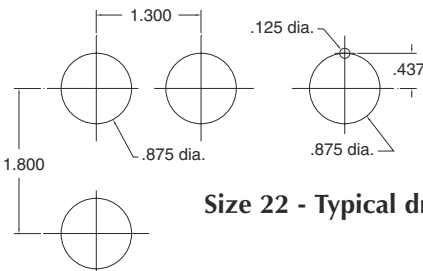
Holds push button in one position. Included with all twist manual actuators.

**PS-50 (22 Size)
PL-50 (30 Size)**

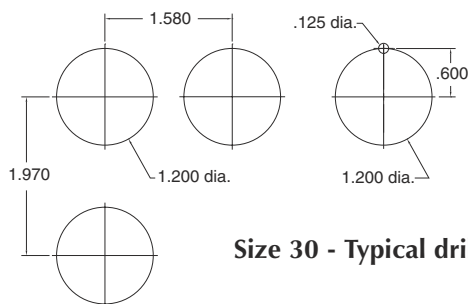


Mounting Clippard Manual Actuators

These drill plans are for units fitted with optional anti-rotation ring



Size 22 - Typical drill plan

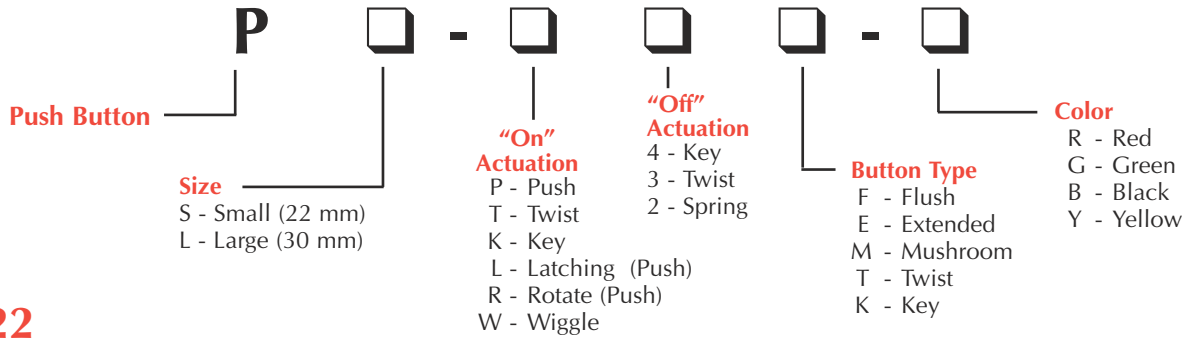


Size 30 - Typical drill plan



PUSH BUTTON ACTUATORS

MANUAL ACTUATORS



Size 22

Flush Push Button



PS-P2F-R
PS-P2F-G
PS-P2F-B
PS-P2F-Y

Manual push "In". Spring return.

Extended Push Button



PS-P2E-R
PS-P2E-G
PS-P2E-B
PS-P2E-Y

Manual push "In". Spring return.

Manual Push Mushroom



PS-P2M-R
PS-P2M-G
PS-P2M-B

Manual push "In". Spring return.

Automatic Push/Turn Mushroom



PS-L3M-R
PS-L3M-G
PS-L3M-B

Manual push "In" Latches "In". Turn clockwise to unlatch. Spring return.

Push Key Push Button



PS-P4K-B

Manual push "In". Spring return. Turn key counter-clockwise to lock "Out"; clockwise to unlock. Key withdrawable locked or unlocked. Black only.

Push Key Mushroom



PS-L4M-R

Manual push "In". Automatic latches "In". Turn key clock-wise to release. Spring return. Key withdrawable "Out" position only. Red only.

Spring Return Twist 45°



PS-T2T-B

Turn clockwise and hold for "In". Release for spring return. Black only.

Maintained Twist 90°



PS-T3T-B

Turn clockwise to latch "In". Turn counter-clockwise to release. Black only.

Key Twist 90° Maintained



PS-T3K-B
PS-K3K-B

(PS-T3K-B) Turn key clockwise to latch "In". Turn key counterclockwise to release. Key withdrawable in both positions. Black only.

(PS-K3K-B) Same as PS-T3K-B except key is withdrawable in "Out" position only.

Size 30

Flush Push Button



PL-P2F-R
PL-P2F-G
PL-P2F-B
PL-P2F-Y

Manual push "In". Spring return.

Extended Push Button



PL-P2E-R
PL-P2E-G
PL-P2E-B
PL-P2E-Y

Manual push "In". Spring return.

Key Twist 90° Maintained



PL-T3K-B
PL-K3K-B

(PL-K3K-B) Same as PL-T3K-B except key is withdrawable in "Out" position only.

(PL-T3K-B) Turn key clockwise to latch "In". Turn key counterclockwise to release. Key with-drawable in both positions. Black only.



Automatic Push/Turn Mushroom



PL-L3M-R
PL-L3M-G
PL-L3M-B

Manual push "In". Latches "In". Turn clockwise to unlatch. Spring return.

Push Key Push Button



PL-P4K-B

Manual push "In". Spring return. Turn key counter-clockwise to lock "Out"; clockwise to unlock. Key withdrawable locked or unlocked. Black only.

Push Key Mushroom



PL-L4M-R

Manual push "In". Automatic latches "In". Turn key clock-wise to release. Spring return. Key withdrawable "Out" position only. Red only.

Spring Return Twist 45°



PL-T2T-B

Turn clockwise and hold for "In". Release for spring return. Black only.

Maintained Twist 90°



PL-T3T-B

Turn clockwise to latch "In". Turn counter-clockwise to release. Black only.

Manual Push Mushroom



PL-P2M-R
PL-P2M-G
PL-P2M-B

Manual push "In". Spring return.

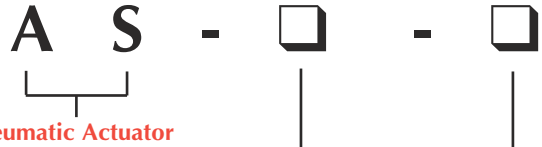


AIR-2-ELECTRIC® SWITCHES

Features

- Switch modules available normally open or normally closed
- Wide range of mounting configurations available
- Actuators with or without an air pressure indicator
- Standard manual override
- Interfaces pneumatic signals with manual signals, via the same devices, saving space and cost, adding safety and convenience
- 4 bright colors for visibility and operator recognition
- Can actuate as many as 12 switches
- Low operating pressure requirements: approx. 10 psig

Air-2-Electric® Pneumatic Actuators Numbering System



Push Button Color/ Indicator Color:

- | | |
|-------------------|--------------------------|
| BG - Black/Green | BN - Black/No Indicator |
| BR - Black/Red | GN - Green/No Indicator |
| BY - Black/Yellow | RN - Red/No Indicator |
| BW - Black/White | YN - Yellow/No Indicator |

Blank - Pneumatic Actuation with Manual Override (Standard)

A - Pneumatic Actuation Only (Manual Override Blocked)

Medium: Air

Operating Pressure: Approx. 10 psig plus 1.5 psig per switch

Max. Operating Pressure: 150 psig

Temperature Range: 32° - 140° F

Port: 10-32

Construction:

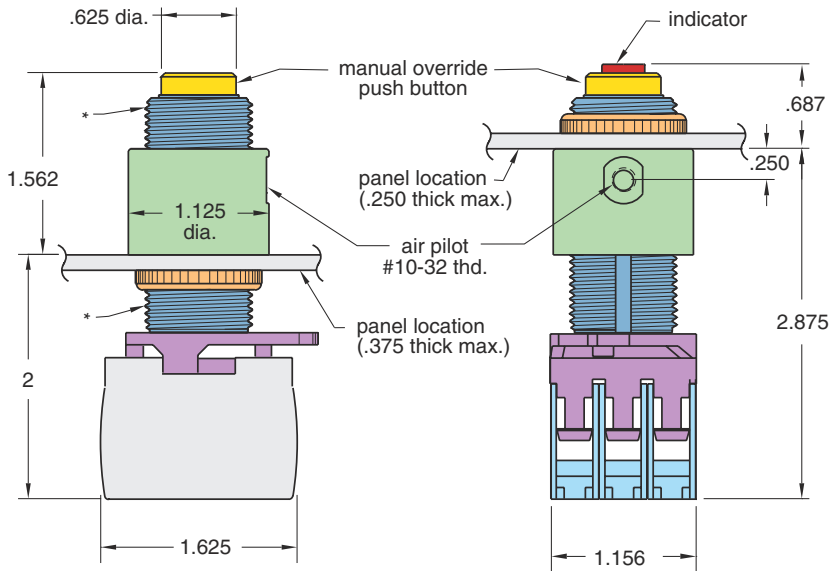
Activator Housing - Nickel-plated brass, Anodized aluminum, Nylon

Internal Parts - Delrin®

Seals - Buna-N rubber

Mounting - M22 x 1.5 male thread for panel mount through 7/8" diameter hole

Air-2-Electric® System Dimensions



* M22 x 1.5 thread (7/8" dia. panel mount hole)

Air-2-Electric® Pneumatic Actuators



Push Button

Manual Override

- AS-BN - Black*
- AS-GN - Green
- AS-RN - Red
- AS-YN - Yellow

Air Actuation Only

- AS-BN-A - Black
- AS-GN-A - Green
- AS-RN-A - Red
- AS-YN-A - Yellow

* Push button color



Push Button with Indicator

Manual Override

- AS-BG - Green**
- AS-BR - Red
- AS-BY - Yellow
- AS-BW - White

Air Actuation Only

- AS-BG-A - Green
- AS-BR-A - Red
- AS-BY-A - Yellow
- AS-BW-A - White

** Indicator Color

Air-2-Electric® Air Switches and Mounting Clips

The Air-2-Electric system can handle multiple switches; using line voltage, as many as 12 switches can be actuated. Switch modules are available in normally open or normally closed models. Air-2-Electric actuators are available with a number of feature options such as a manual override and an air pressure indicator and in a variety of colors.

Air Switches

AS-01 - Normally Closed

AS-10 - Normally Open



Mounting Clips

The single clip mounts one switch to the pneumatic actuator. The front clip mounts up to three switches. Add side clips to mount up to five switches. For six to twelve switches, add a 2nd row clip to the front clip.

Note: The 2nd row clip will not mount where side clips are attached.

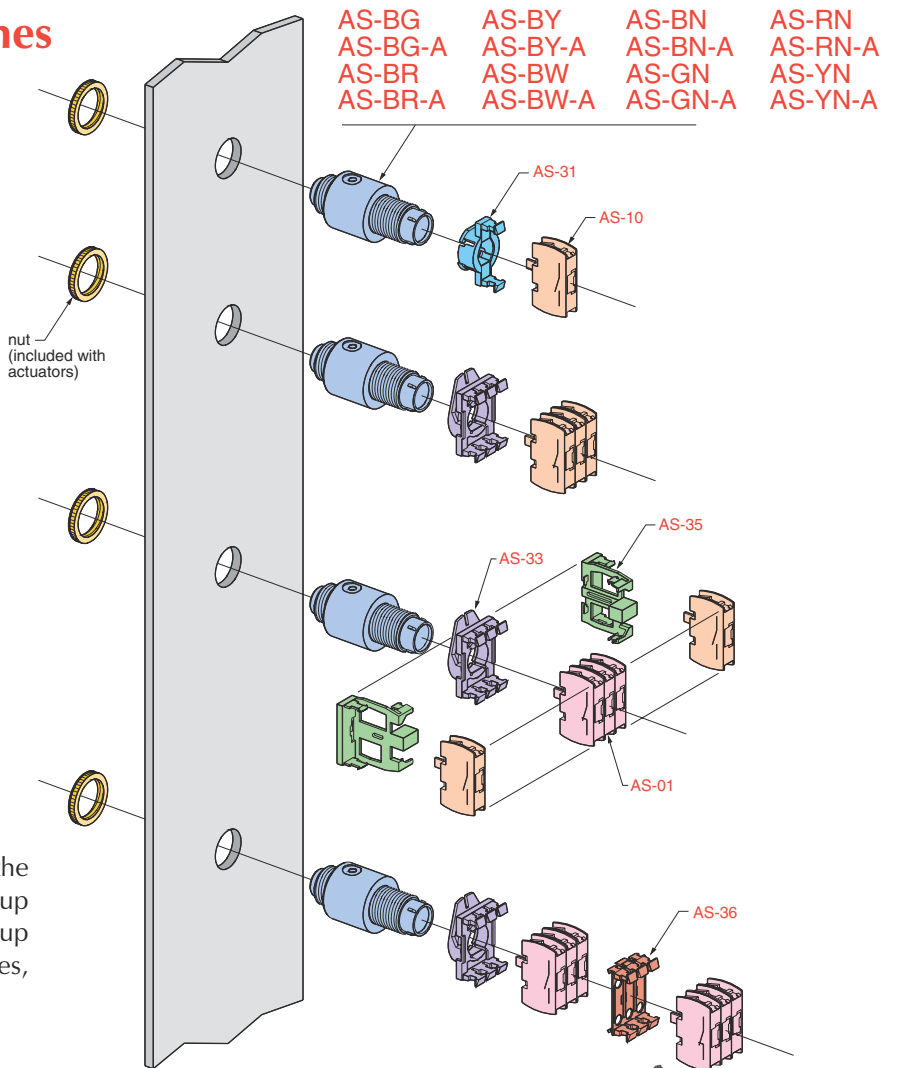


AS-31 - Single Clip

AS-33 - Front Clip

AS-35 - Side Clip

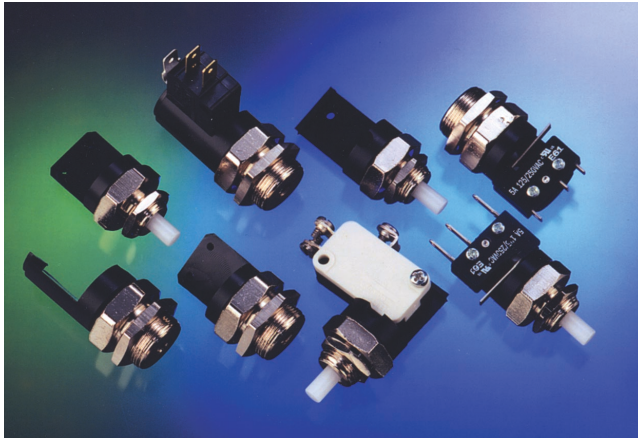
AS-36 - 2nd Row Clip



SWITCH MODULES AS-01 AND AS-10					Electrical and Mechanical Characteristics		
Electrical Performance				Voltage		Motor Horsepower	
AC	Nom. Operating Voltage (VAC) (50-60 Hz)	110	220	440	110	Single phase	0.5
	Nom. Operating Current (A)	8	6.5	3.5	220	Single phase	1.0
DC	Nom. Operating Voltage (VDC)	12	24		220/440	3-phase	3.0
	Nom. Operating Current (A)	4	1.5		440/480	3-phase	5.0
Electrical Life		220 V (50-60 Hz)		Approvals			
Operating Current (A)		6	2				
No. of Operations		1 x 10 ⁶	3 x 10 ⁶				
Mechanical Life		3 x 10 ⁶ cycles		Connection Screw terminals suitable for field wiring # 14-12 AWG			
WARNING Caution should be taken to assure the conformation of all applicable standard codes and installation procedures. Proper design engineering procedures should be used to guard against the accidental actuation of the switches. Manual overrides or other precautionary measures should be considered.							



PRESSURE ACTUATED SWITCHES



Medium: Air
Inlet Pressure: 5 - 150 psig
Temperature Range: 32° - 230° F
Pilot Port: #10-32, 1/8 NPT, M5
Mounting: External thread and nut for panel, bracket, or bulkhead mounting,
 5/8 - 32 pressure actuated
 15/32-32 manually operated
Accuracy: Actuation and deactuation pressures listed are nominal values. Each has a tolerance of ±12% or 1 psi whichever is greater



SAS Sub-Miniature Air Switch
MAS Miniature Air Switch

Design Series

Switch Current Rating:

- SAS**
A 5A @ 125/250 VAC
 3A @ 30 VDC/.1A 60 VDC
X no switch
MAS
B 3A @ 125/250 VAC
 3A @ 30 VDC
C 10A @ 125/250 VAC
 5A @ 50 VDC
X no switch

Switch Terminals:

- SAS: 0** no switch
1 110 series Q.C.
MAS: 0 no switch
2 187 series Q.C.
3 screw terminals

Actuation Pressure*

- 06** 6 psig
20 20 psig
40 41 psig
65 65 psig

Deactuation Pressure*

- 06** 5 psig
20 18 psig
40 36 psig
65 58 psig

Inlet Port:

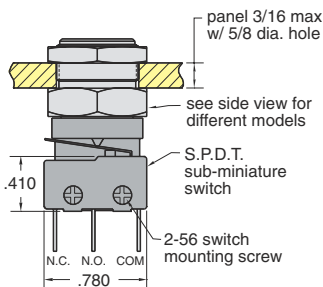
- Blank** 10-32 thd
F 1/8 NPT female
P 1/8 NPT male
M5 M5 x 0.8 thd

*Nominal value +/- 12% or 1psi, whichever is greater when used with Clippard switches

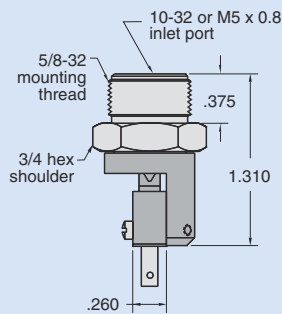
Pressure Actuated

Mechanically Actuated

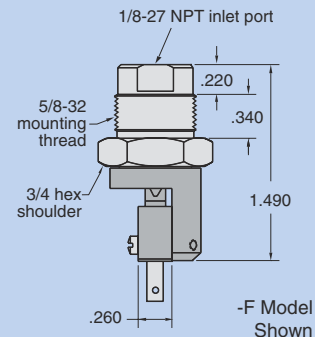
SAS Model



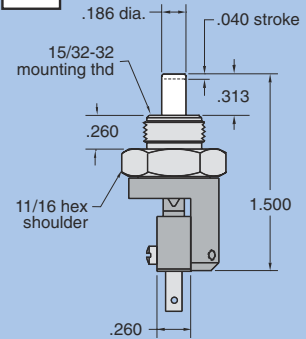
STD. & -M5



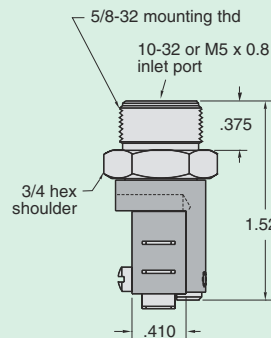
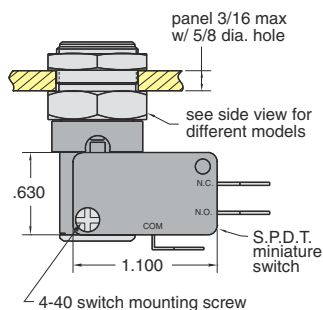
-F & -P



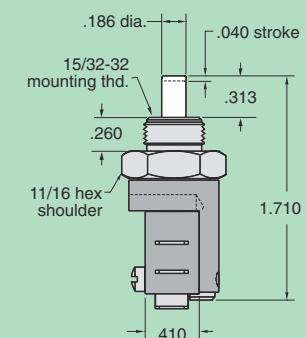
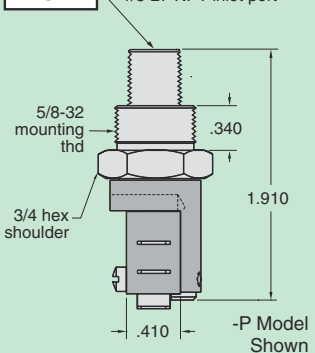
-MN



MAS Model



-F & -P



ES-1

Single pole, double throw snap-action electrical switch



Stem Travel: 1/8"

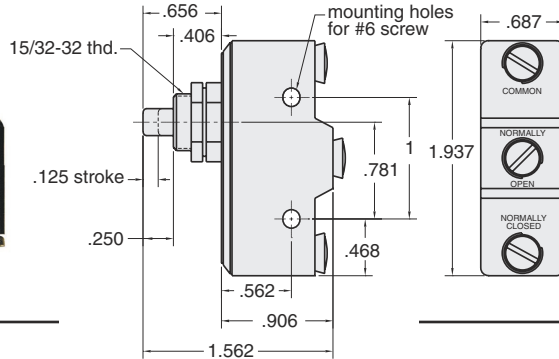
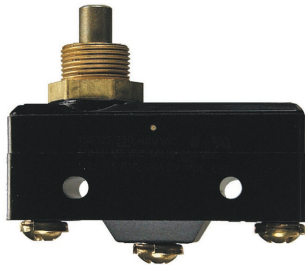
Rating A.C.: 120 volts - 15 amperes
240 volts - 15 amperes
480 volts - 15 amperes

Rating D.C.: 125 volts - 0.5 amperes
250 volts - 0.25 amperes

Mounting: 15/32-32 thread; nut and lockwashers furnished, also two .140" dia. mounting holes in body

Temperature Range: 32° to 230° F

Approvals: UL and CE



15601



Type: Terminal cover for ES-1 (optional)

Note: Specify ES-1GP for gold plated contact.

5100-3 NO 5100-3 NC

Pneumatic electric switch



Electrical Rating: 60 ma. AC resistive
40 ma. DC resistive @120 volts

Switching Speed: 125 Hz, normally open

Actuating Pressure: 3" H₂O 10% pressure vacuum, or DP

Maximum Pressure: 8 psig (continuous)

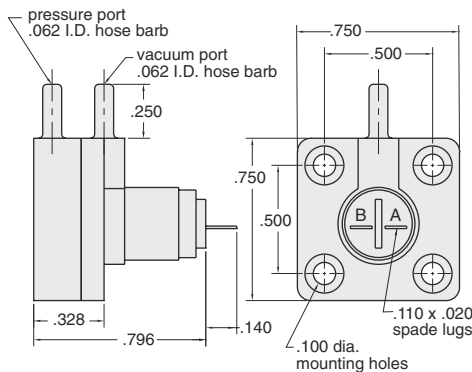
Construction: ABS plastic case gold plated contacts natural rubber diaphragm

Options: 5100 N.O. contacts normally open
5100 N.C. contacts normally closed

Weight: 4 grams

Temperature Range: 32° to 230° F

Use: for interfacing fluidic or other low pressure air signals with electronic circuitry dual inputs operates on pressure, vacuum, or differential pressure signals



Did you know...

Clippard Instrument Laboratory, Inc. began as a manufacturer of radio coils and test instruments in 1941.

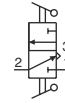
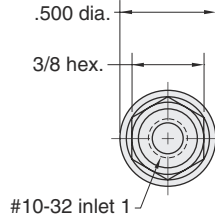
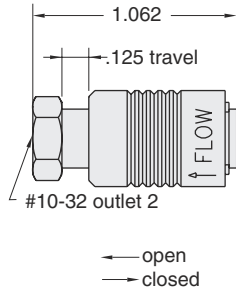




SLEEVE VALVES

SLV-□

Two position, 2-way or 3-way sleeve valve



Medium: air, water, or oil

Stem Travel: 1/8"

Input Pressure: 150 psig max.

Air Flow: @50 psig - 6.5 SCFM
@100 psig - 11.8 SCFM

Force to Actuate: approx. 2.5 lbs

Mounting: Inline or direct to fitting

Ports: Inlet - 10-32, Outlet - 10-32

Material: Nickel plated brass

Temperature Range: 32° to 230° F

J-SERIES SLEEVE VALVE

Features

- Compact size, rugged construction
- Variety of inlet and outlet porting eliminates fittings
- Large flow capacity
- No cross-over between inlet and exhaust ports
- Corrosion resistant electroless nickel plated brass body
- Anodized aluminum sleeve for corrosion resistance
- Smooth operation, low sliding friction
- Buna-N seals; (Viton® available)

J S L V - □ - □ □ □ □

Valve Type

2 - 2 way
3 - 3 way

Inlet Thread Type

M - Male Thread
F - Female Thread

Outlet Thread Type

M - Male Thread
F - Female Thread

J-Series Sleeve Valve

J - J-Series
SL - Sleeve
V - Valve

Inlet Thread Size

2 - 1/8" pipe
4 - 1/4" pipe

Outlet Thread Size

2 - 1/8" pipe
4 - 1/4" pipe

Model #	Type	Inlet Thread	Outlet Thread
JSLV-2-F2M2 JSLV-3-F2M2	2-way 3-way	1/8" Female Pipe	1/8" Male Pipe 1/8" Male Pipe
JSLV-2-M2F2 JSLV-3-M2F2	2-way 3-way	1/8" Male Pipe	1/8" Female Pipe 1/8" Female Pipe
JSLV-2-F4M4 JSLV-3-F4M4	2-way 3-way	1/4" Female Pipe	1/4" Male Pipe 1/4" Male Pipe
JSLV-2-M4M4 JSLV-3-M4F4	2-way 3-way	1/4" Male Pipe	1/4" Female Pipe 1/4" Female Pipe

Clippard J-Series sleeve valves with 1/8 NPT and 1/4" NPT ports offer large flow capability with a relatively short stroke in 2-way and 3-way valves, and no cross-over between inlet and exhaust on the 3-way models.

The JSLV-2 2-way valve and the JSLV-3 3-way valve combine high flow with small size. Unlike ball valves, sleeve valves require no space for a handle. They also provide flexibility in pipe connections and are available with either male or female threads or combinations of both.

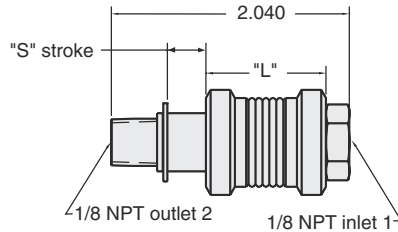
The JSLV-2 and JSLV-3 valves feature a smooth opening stroke during which inlet air is directed to the outlet. During the closing stroke, in the opposite direction of travel, the outlet is closed

from the inlet and in the JSLV-3 version, the outlet is then exhausted to atmosphere without the inlet ever being connected to exhaust. Rugged and compact in size, the J-Series sleeve valves are constructed of corrosion resistant materials. The main body is electroless nickel plated brass and the sleeve is anodized aluminum. The seals are Buna-N.

JSLV-□ - F2M2



2-way or 3-way sleeve valve



Medium: air, water, or oil

Input Pressure: 150 psig max.

Air Flow: 1/8 NPT: @100 psig - 43 SCFM

Force to Actuate: approx. 8 lbs

Mounting: Inline or direct to fitting

Ports: Inlet - 1/8 NPT, Outlet - 1/8 NPT

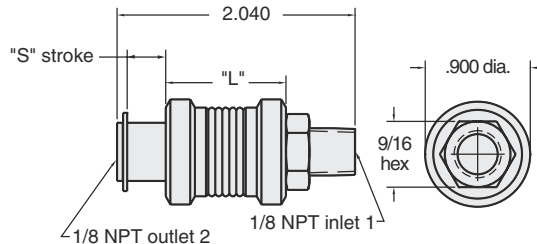
Temperature Range: 32° to 230° F

Model#	"L"	"S"
JSLV-2-F2M2	1.155"	.260"
JSLV-3-F2M2	1.030"	.385"

JSLV-□ - M2F2



2-way or 3-way sleeve valve



Medium: air, water, or oil

Input Pressure: 150 psig max.

Air Flow: 1/8 NPT: @100 psig - 43 SCFM

Force to Actuate: approx. 8 lbs

Mounting: Inline or direct to fitting

Ports: Inlet - 1/8 NPT, Outlet - 1/8 NPT

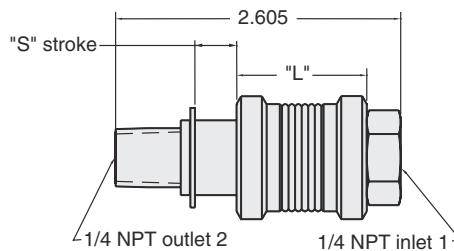
Temperature Range: 32° to 230° F

Model#	"L"	"S"
JSLV-2-M2F2	1.155"	.260"
JSLV-3-M2F2	1.030"	.385"

JSLV-□ - F4M4



2-way or 3-way sleeve valve



Medium: air, water, or oil

Input Pressure: 150 psig max.

Air Flow: 1/4 NPT: @100 psig - 70 SCFM

Force to Actuate: approx. 8 lbs

Mounting: Inline or direct to fitting

Ports: Inlet - 1/4 NPT, Outlet - 1/4 NPT

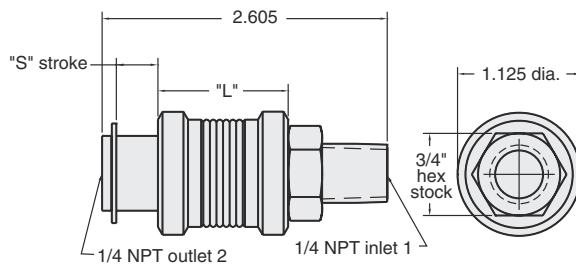
Temperature Range: 32° to 230° F

Model#	"L"	"S"
JSLV-2-F4M4	1.325"	.305"
JSLV-3-F4M4	1.190"	.460"

JSLV-□ - M4F4



2-way or 3-way sleeve valve



Medium: air, water, or oil

Input Pressure: 150 psig max.

Air Flow: 1/4 NPT: @100 psig - 70 SCFM

Force to Actuate: approx. 8 lbs

Mounting: Inline or direct to fitting

Ports: Inlet - 1/8 NPT, Outlet - 1/8 NPT

Temperature Range: 32° to 230° F

Model#	"L"	"S"
JSLV-2-M4F4	1.325"	.305"
JSLV-3-M4F4	1.190"	.460"



MINIATURE PRESSURE REGULATORS

Materials: brass body, Buna-N seals, stainless steel stem & spring

MAR Series Design Features

- Self-relieving type; permits pressure to be adjusted downward as well as up; eliminates creepage of down-stream pressure; holds pressure constant
- Knurled brass or plastic micro-adjustment knob, with 40 pitch threads on adjustment screw, permits smooth, easy pressure selection without use of tools
- Convenient to use with wide range of Clippard fittings, valves, and cylinders MAR-1P has standard 1/8 NPT inlet; MAR-1 has 10-32; both have 10-32 outlets
- Panel mounting permits unit to be located with other controls on a control console or panel board for pilot operation of larger regulators or for remote control; mounting nuts and lockwashers furnished
- Small, compact - ideal for mounting on individual jigs and fixtures as well as in control circuits
- Delivery pressure range of 0 - 100 psi. Max. supply pressure 150 psi.
- NON-RELIEVING TYPE REGULATORS ARE AVAILABLE

Pressure Range Options for MAR Series

Model Number	MAR-1-1	MAR-1-2	MAR-1-3	MAR-1-4	MAR-1-5	MAR-1-6	MAR-1-7	MAR-1
Pressure Range	0-10 psi	0-20 psi	0-30 psi	0-40 psi	0-50 psi	0-60 psi	0-70 psi	0-100 psi

MAR-1

Adjustable self-relieving pressure regulator



Medium: air

Input Pressure: input - 150 psig max.
output - 100 psig max.

Air Flow: @50 psig - 3 SCFM
@100 psig - 5 SCFM

Mounting: 15/32-32 thread
Nut and lockwashers furnished

Ports: Inlet - 10-32, Outlet - 10-32

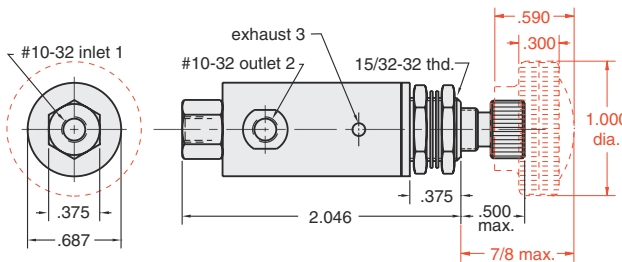
Exhaust: To atmosphere through hole

Adjustment: By means of knurled knob with micro-adjustment (40 pitch thd.); pressure may be adjusted

Temperature Range: 32° to 230° F



MAR-1-K



Adjustable self relieving pressure regulator with plastic knob
dimensions in red

MAR-1NR Adjustable non-relieving pressure regulator

MAR-1NR-K Adjustable non-relieving pressure regulator with plastic knob dimensions in red

MAR-1P

Adjustable self-relieving pressure regulator



Medium: air

Input Pressure: input - 150 psig max.
output - 100 psig max.

Air Flow: @50 psig - 3 SCFM
@100 psig - 5 SCFM

Mounting: 15/32-32 thread
Nut and lockwashers furnished

Ports: Inlet - 1/8 NPT, Outlet - 10-32

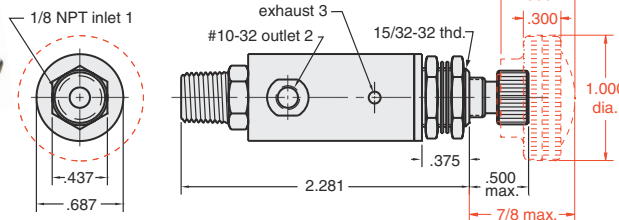
Exhaust: To atmosphere through hole

Adjustment: By means of knurled knob with micro-adjustment (40 pitch thd.); pressure may be adjusted

Temperature Range: 32° to 230° F



MAR-1P-K



Adjustable self relieving pressure regulator with plastic knob
dimensions in red

MAR-1PNR Adjustable non-relieving pressure regulator

MAR-1PNR-K Adjustable non-relieving pressure regulator with plastic knob dimensions in red

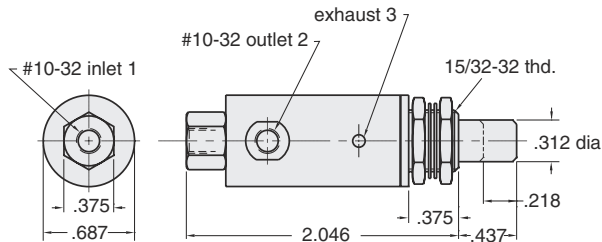
MINIATURE PRESSURE REGULATORS



Materials: brass body, Buna-N seals, stainless steel stem & spring

MAR-1C

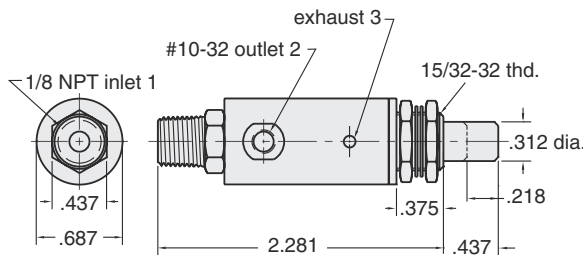
Normally closed 3-way piston type valve with variable pressure output



Medium: air
Plunger Travel: 7/32"
Input Pressure: input - 150 psig max.
 output - 100 psig max.
Air Flow: @50 psig - 3 SCFM
 @100 psig - 5 SCFM
Force For Full Stem Travel: 25 lb nominal
Mounting: 15/32-32 thread
 Nut and lockwashers furnished
Ports: Inlet - 10-32, Outlet - 10-32
Exhaust: To atmosphere through body hole
Temperature Range: 32° to 230° F
Operation: As plunger is depressed pressure increases proportionally to the travel; when plunger is released the input is closed and the output pressure is exhausted to atmosphere

MAR-1CP

Normally closed 3-way piston type valve with variable pressure output



Medium: air
Plunger Travel: 7/32"
Input Pressure: input - 150 psig max.
 output - 100 psig max.
Air Flow: @50 psig - 3 SCFM
 @100 psig - 5 SCFM
Force For Full Stem Travel: 25 lb nominal
Mounting: 15/32-32 thread
 Nut and lockwashers furnished
Ports: Inlet - 1/8 NPT, Outlet - 10-32
Exhaust: To atmosphere through body hole
Temperature Range: 32° to 230° F
Operation: As plunger is depressed pressure increases proportionally to the travel; when plunger is released the input is closed and the output pressure is exhausted to atmosphere

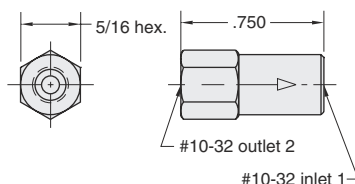
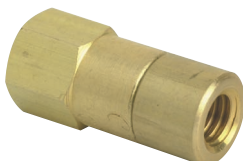
CHECK VALVES

Three varieties of check valves are offered by Clippard. Each permits flow in one direction only. All have bright-dipped brass bodies that provide in-line mounting, Buna-N seals and stainless steel springs as standard. The MCV-2 has 10-32 ports and a "duckbill" seal. The MCV-1 series has 10-32 ports and a brass poppet. The MJCV-1 series has 1/8 NPT ports and a Delrin® poppet.



MCV-2

Miniature check valve "duckbill" type, permits flow in one direction only, low cracking pressure



Medium: air
Input Pressure: 100 psig max.
Air Flow: @50 psig - 1 SCFM
Pressure To Crack: 1 psi
Pressure To Fully Open: 2.5
Mounting: direct or inline
Ports: Inlet - 10-32, Outlet - 10-32
Flow Direction: Arrow on valve body indicates direction of flow
Temperature Range: 32° to 230° F
Note: Not intended for pressure relief

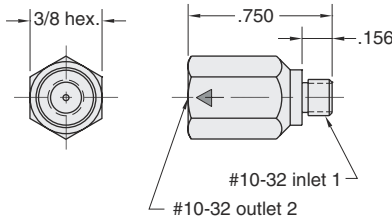


10-32 CHECK VALVES

MCV-1

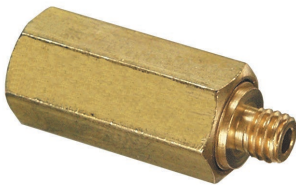


Miniature poppet type check valve
Permits flow in one direction only

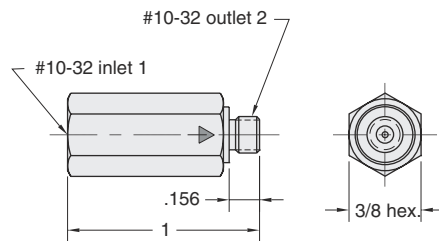


Medium: air or hydraulic
Input Pressure: 300 psig max.
Air Flow: @50 psig - 6.5 SCFM
 @100 psig - 11.5 SCFM
Pressure To Open: Cracks at approx. 1/2 psig
Mounting: direct or inline
Ports: Inlet - 10-32, Outlet - 10-32
Flow Direction: Arrow on valve body indicates direction of flow
Temperature Range: 32° to 230° F
Note: Not intended for pressure relief

MCV-1AB



Miniature poppet type check valve
Permits flow in one direction only

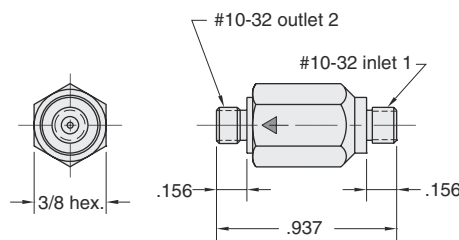


Medium: air or hydraulic
Input Pressure: 300 psig max.
Air Flow: @50 psig - 6.5 SCFM
 @100 psig - 11.5 SCFM
Pressure To Open: Cracks at approx. 1/2 psig
Mounting: direct or inline
Ports: Inlet - 10-32, Outlet - 10-32
Flow Direction: Arrow on valve body indicates direction of flow
Temperature Range: 32° to 230° F
Note: Not intended for pressure relief

MCV-1AA



Miniature poppet type check valve
Permits flow in one direction only

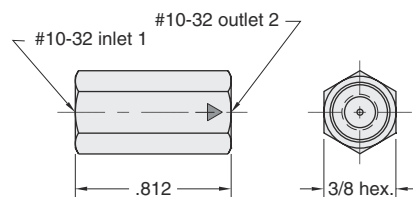


Medium: air or hydraulic
Input Pressure: 300 psig max.
Air Flow: @50 psig - 6.5 SCFM
 @100 psig - 11.5 SCFM
Pressure To Open: Cracks at approx. 1/2 psig
Mounting: direct or inline
Ports: Inlet - 10-32, Outlet - 10-32
Flow Direction: Arrow on valve body indicates direction of flow
Temperature Range: 32° to 230° F
Note: Not intended for pressure relief

MCV-1BB



Miniature poppet type check valve
Permits flow in one direction only



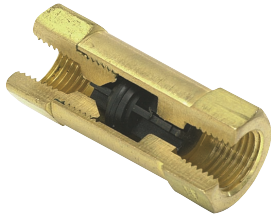
Medium: air or hydraulic
Input Pressure: 300 psig max.
Air Flow: @50 psig - 6.5 SCFM
 @100 psig - 11.5 SCFM
Pressure To Open: Cracks at approx. 1/2 psig
Mounting: direct or inline
Ports: Inlet - 10-32, Outlet - 10-32
Flow Direction: Arrow on valve body indicates direction of flow
Temperature Range: 32° to 230° F
Note: Not intended for pressure relief

1/8 NPT CHECK VALVES

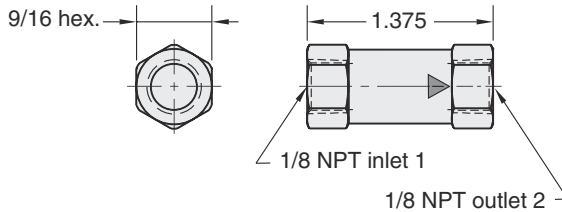


Materials: brass body, Buna-N seals, stainless steel stem & spring

MJCV-1



Miniature poppet type check valve
Permits flow in one direction only

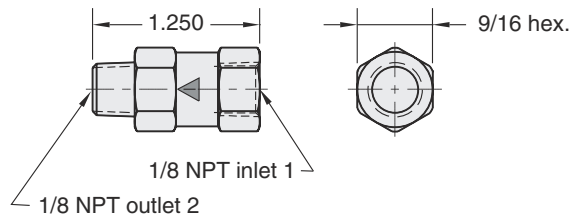


Medium: air or hydraulic
Input Pressure: 300 psig max.
Air Flow: @50 psig - 20 SCFM
 @100 psig - 36 SCFM
Pressure To Open: Cracks at approx. 1/2 psig
Mounting: direct or inline
Ports: Inlet - 1/8 NPT, Outlet - 1/8 NPT
Flow Direction: Arrow on valve body indicates direction of flow
Temperature Range: 32° to 230° F
Note: Not intended for pressure relief

MJCV-1AB



Miniature poppet type check valve
Permits flow in one direction only

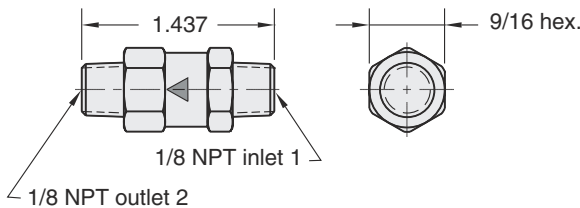


Medium: air or hydraulic
Input Pressure: 300 psig max.
Air Flow: @50 psig - 20 SCFM
 @100 psig - 36 SCFM
Pressure To Open: Cracks at approx. 1/2 psig
Mounting: direct or inline
Ports: Inlet - 1/8 NPT, Outlet - 1/8 NPT
Flow Direction: Arrow on valve body indicates direction of flow
Temperature Range: 32° to 230° F
Note: Not intended for pressure relief

MJCV-1AA



Miniature poppet type check valve
Permits flow in one direction only

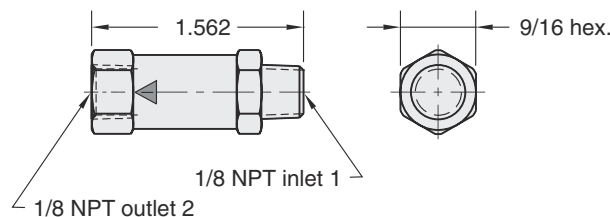


Medium: air or hydraulic
Input Pressure: 300 psig max.
Air Flow: @50 psig - 20 SCFM
 @100 psig - 36 SCFM
Pressure To Open: Cracks at approx. 1/2 psig
Mounting: direct or inline
Ports: Inlet - 1/8 NPT, Outlet - 1/8 NPT
Flow Direction: Arrow on valve body indicates direction of flow
Temperature Range: 32° to 230° F
Note: Not intended for pressure relief

MJCV-1BA



Miniature poppet type check valve
Permits flow in one direction only

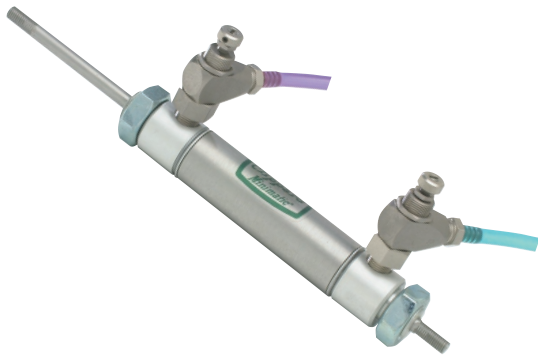


Medium: air or hydraulic
Input Pressure: 300 psig max.
Air Flow: @50 psig - 20 SCFM
 @100 psig - 36 SCFM
Pressure To Open: Cracks at approx. 1/2 psig
Mounting: direct or inline
Ports: Inlet - 1/8 NPT, Outlet - 1/8 NPT
Flow Direction: Arrow on valve body indicates direction of flow
Temperature Range: 32° to 230° F
Note: Not intended for pressure relief



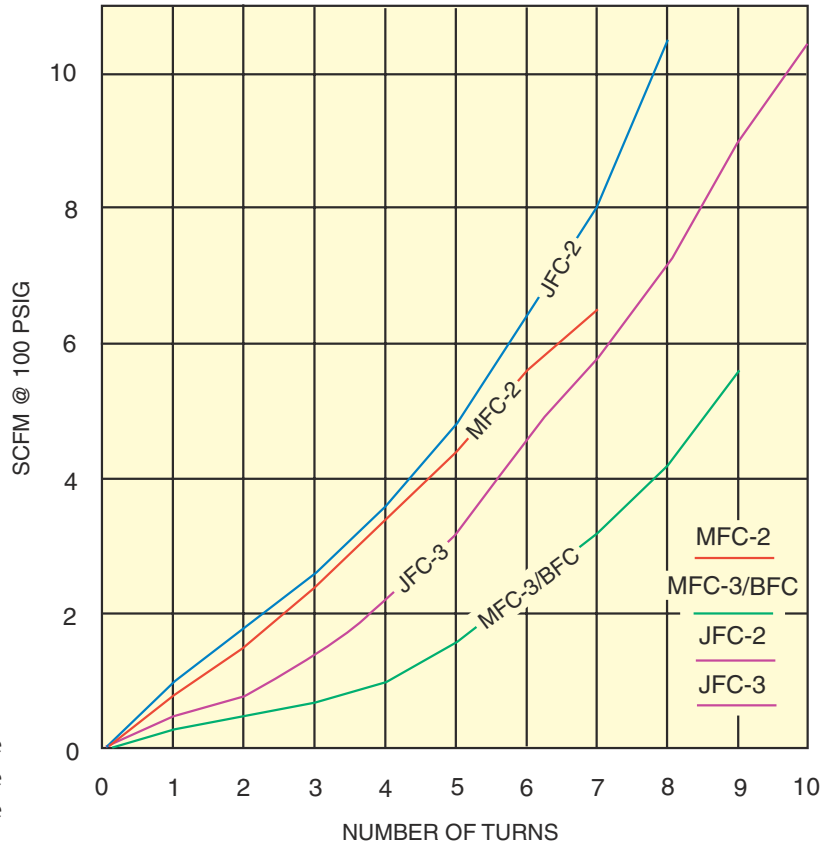
FLOW CONTROL VALVES

Flow Controls Flow vs. Needle Turns



Clippard offers (5) models of adjustable flow controls with 10-32 through 1/8 NPT ports. They feature a combination needle and check valve which controls flow in one direction and allows free flow in the opposite direction.

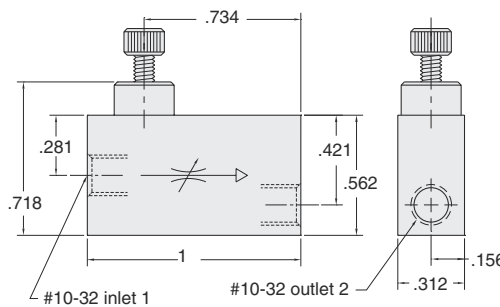
They are an ideal valve for use with a cylinder, providing a slow extend stroke while allowing a fast retract stroke. The chart on this page illustrates the flow versus the number of needle adjustments turns for the MFC-2, MFC-3, BFC-3, JFC-2, and JFC-3.



MFC-2



Adjustable flow control valve; brass body and stainless steel needle; Buna-N seals



- Medium:** air, water, or oil
- Input Pressure:** 300 psig max.
- Air Flow:** @50 psig - 4 SCFM max.
@100 psig - 7 SCFM max.
- Pressure To Open:** Cracks at approx. 2 psig
- Mounting:** direct or inline
- Ports:** Inlet - 10-32, Outlet - 10-32
- Temperature Range:** 32° to 230° F
- Flow Direction:** Arrow in valve body shows direction of controlled flow
- Adjustment:** knurled knob on needle shaft