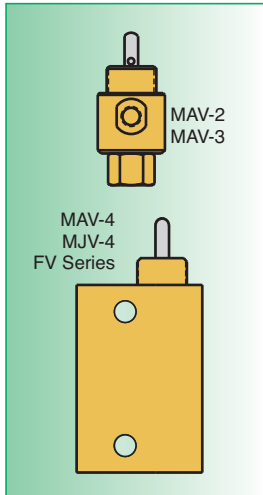




# VALVE ACTUATORS

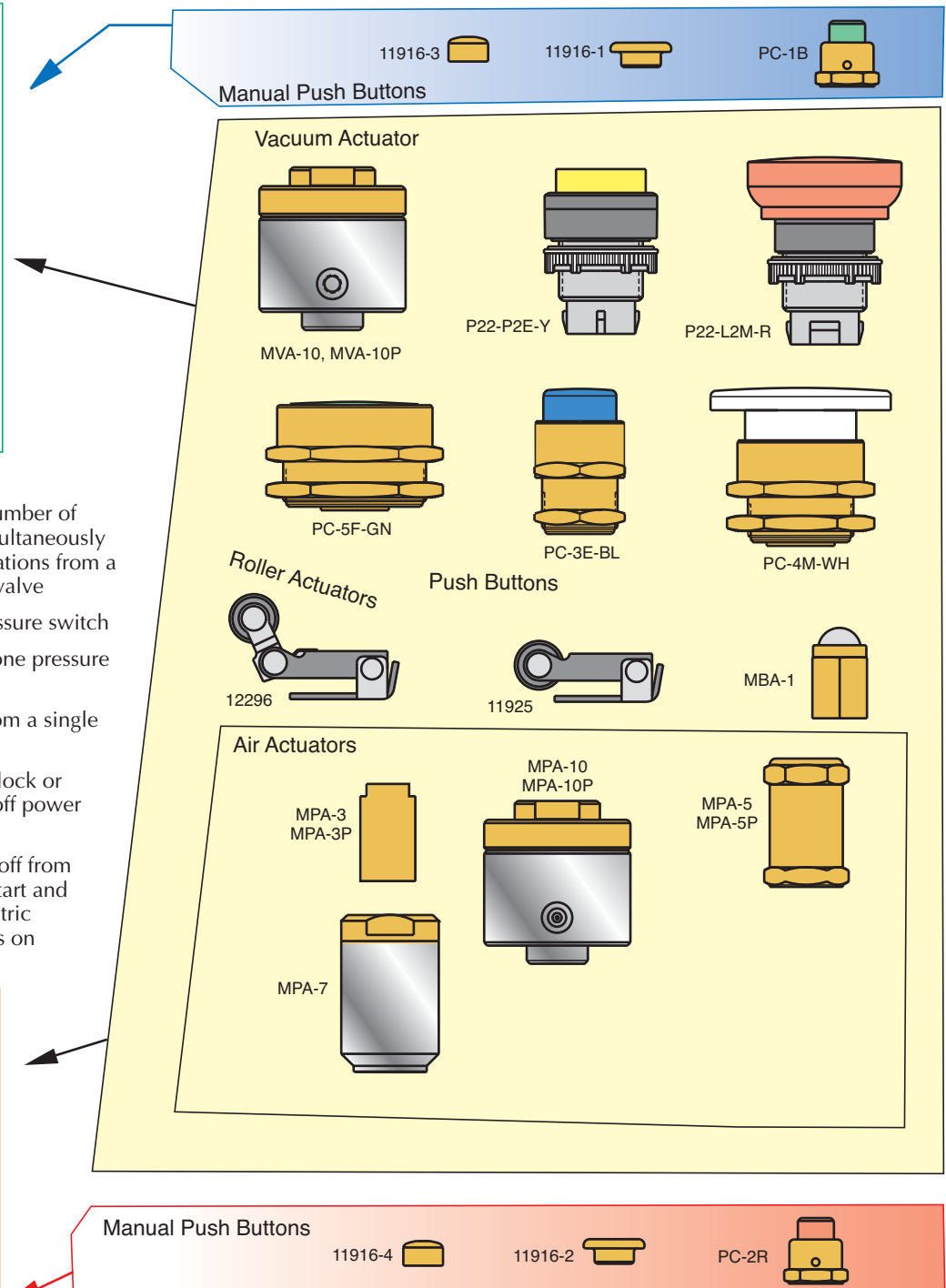
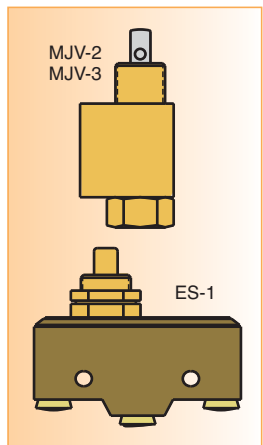
The following valve actuators are compatible with all Clippard MAV, MAVO, MJV, MJVO, ES-1, & FV series valves.

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.

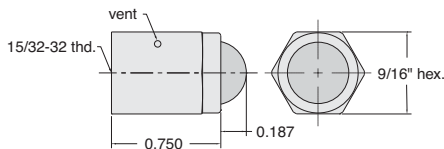




## Ball Cam Actuator



Ball Cam Actuator permits the valves and electrical switch to be operated by mechanical movement depressing the ball from any direction.



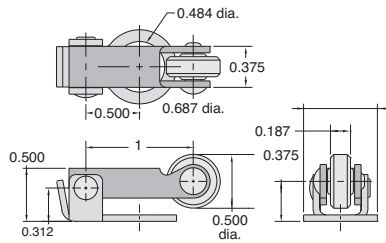
**Construction:** Body - brass  
Ball - stainless steel retained in housing

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

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

Part No.	Description
<u>MBA-1</u>	Ball Cam Actuator

## Roller Cam Actuator



**Construction:** Stainless steel with nylon roller

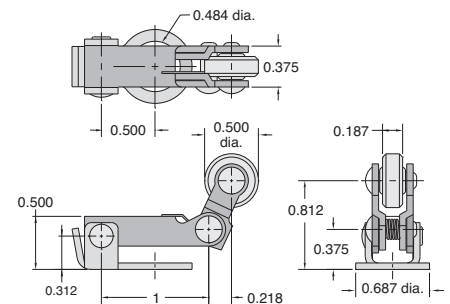
**Temperature Range:** 32 to 230°F

**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

Part No.	Description
<u>11925</u>	Roller Cam Follower Actuator

## Double-Pivoted Actuator



**Construction:** Stainless steel with nylon roller

**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

Part No.	Description
<u>12296</u>	Roller, Double-Pivoted 1-Way Cam Follower Actuator

**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
0.250 thd. length	0.125"	0.062"	0.062"
0.373 thd. length	0.218"	0.188"	0.188"

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

## CUSTOMer solutions

If you need a product that fits your application perfectly, Clippard has the capability to design or modify one of its products to suit your exact needs. We understand that a standard catalog product may be close but not be exactly what you need. Let us know YOUR Need, and we will help to find YOUR Solution!



A valve used in dental applications features ports located straight out of the back for ease-of-assembly in a tight space. It also incorporates a special toggle to match the customers' aesthetic requirements.

Use any combination of Clippard's electronic valves to actuate any Clippard control valve with an external supply.



In system subassemblies, manifold-mounted components are desirable for an integrator. In this design, Clippard utilizes the miniature regulator series and an air-piloted 2-way valve mounted on a manifold adjacent to our electronic valve.



For more information, visit [www.clippard.com/customsolutions](http://www.clippard.com/customsolutions)



# AIR PILOTED VALVE ACTUATORS

MINIMUM PRESSURE REQUIRED (psig)*													
Clippard Valve	Pressure (psig)					Vacuum (" Hg)	Clippard Valve	Pressure (psig)					Vacuum (" 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	n/a	n/a	FV-3	41	15	7.5	4.0	8.2		
MAV-2	23	8	4	2.0	4.2	FV-3P	41	15	7.5	4.0	8.2		
MAV-3	23	8	4	2.0	4.2	FV-4	41	15	7.5	4.0	8.2		
MAV-4	36	11	5.5	3.5	7.2	FV-4P	41	15	7.5	4.0	8.2		
MJV-4	36	11	5.5	3.5	7.2	FV-5	41	15	7.5	4.0	8.2		
MAV-4D	13	4	1.5	1.0	2.0	FV-5P	41	15	7.5	4.0	8.2		
MJV-4D	13	4	1.5	1.0	2.0	FV-3D	14	5	2.5	1.5	3.2		
MJV-2	30	10	5	3.0	6.2	FV-3DP	14	5	2.5	1.5	3.2		
MJV-3	30	10	5	3.0	6.2	FV-4D	14	5	2.5	1.5	3.2		
MAVO-2	27	9	4.5	2.5	5.2	FV-4DP	14	5	2.5	1.5	3.2		
MAVO-3	27	9	4.5	2.5	5.2	FV-5D	14	5	2.5	1.5	3.2		
MJVO-2	30	10	5	3.0	6.2	FV-5DP	14	5	2.5	1.5	3.2		
MJVO-3	30	10	5	3.0	6.2	GV-2/3	87	31	16	8.0	16.0		
HV-3/4	41	15	7.5	4.0	8.2								

\*with 100 psig to valve inlet

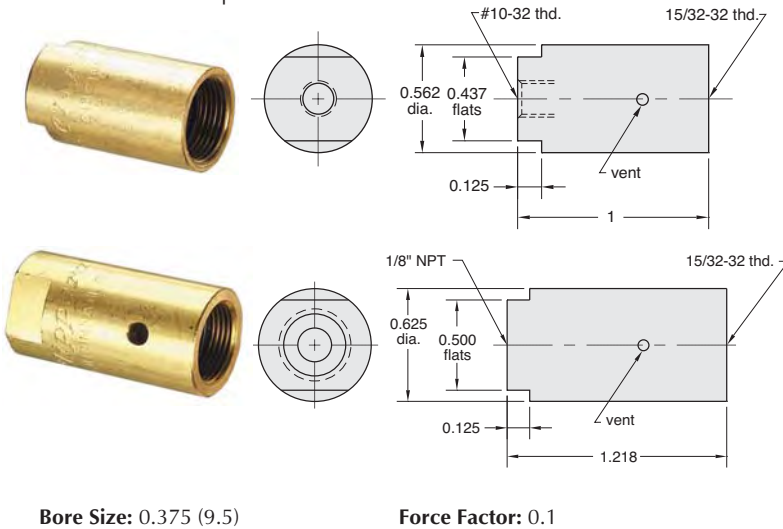
## Single Acting Air Pilot Actuators

**Input Pressure:** 250 psig max.

**Construction:** Body - brass; Springs - stainless steel; Seals - Nitrile; Piston - Delrin®



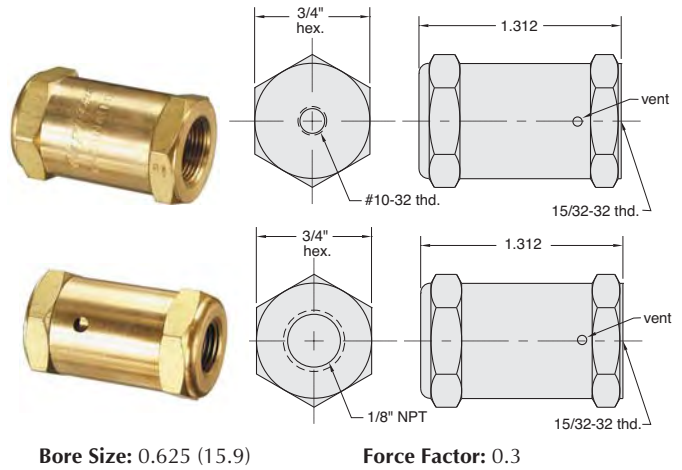
**Mounting:** #15/32-32 female thread to mount to Clippard miniature valves and components



**Bore Size:** 0.375 (9.5)

**Force Factor:** 0.1

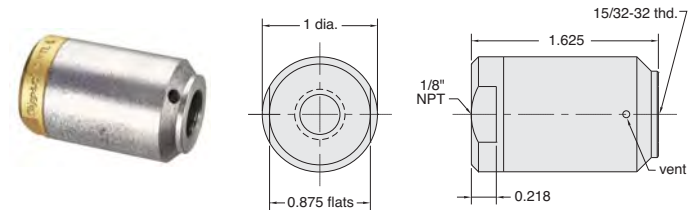
Part No.	Description
<u>MPA-3</u>	Single Acting, Spring Return Actuator, #10-32
<u>MPA-3P</u>	Single Acting, Spring Return Actuator, 1/8" NPT



**Bore Size:** 0.625 (15.9)

**Force Factor:** 0.3

Part No.	Description
<u>MPA-5</u>	Single Acting, Spring Return Actuator, #10-32
<u>MPA-5P</u>	Single Acting, Spring Return Actuator, 1/8" NPT



**Bore Size:** 0.875" (22.2) dia.

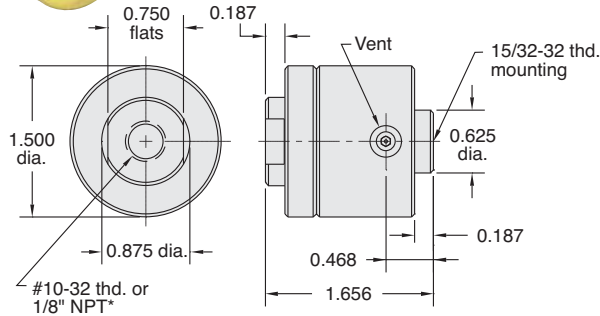
**Force Factor:** 0.6

Part No.	Description
<u>MPA-7</u>	Single Acting, Spring Return Actuator, 1/8" NPT

## Pilot Actuators



Single Acting Spring Return Pilot Actuator



**Bore Size:** 1.250" dia.

**Input Pressure:** 150 psig max.

**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

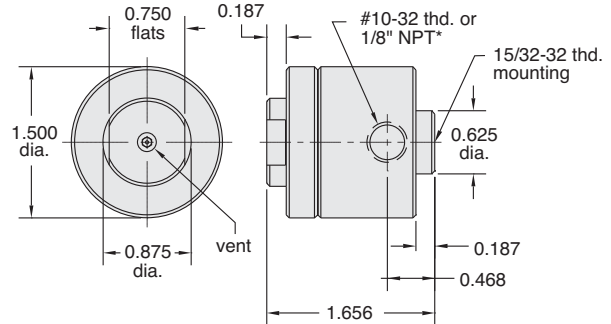
**Force Factor:** 1.2

Part No.	Description
<u>MPA-10</u>	Single Acting, Spring Return Actuator, #10-32
<u>MPA-10P</u>	Single Acting, Spring Return Actuator, 1/8" NPT

## Vacuum Actuators



Single Acting Spring Return Vacuum Actuator



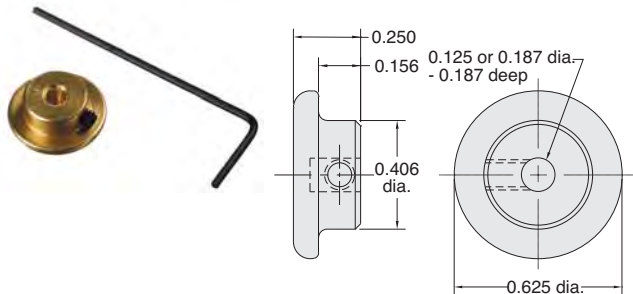
**Input Pressure:** 30 in. Hg

**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

Part No.	Description
<u>MVA-10</u>	Single Acting, Spring Vacuum Actuator, #10-32
<u>MVA-10P</u>	Single Acting, Spring Vacuum Actuator, 1/8" NPT

## Push Button Actuators, 5/8"

Round Solid Brass 5/8" dia. Push Button



**Use:** Mounts directly on valve stem for manual operation of valve; prevents over-travel of valve stem by providing a positive stop

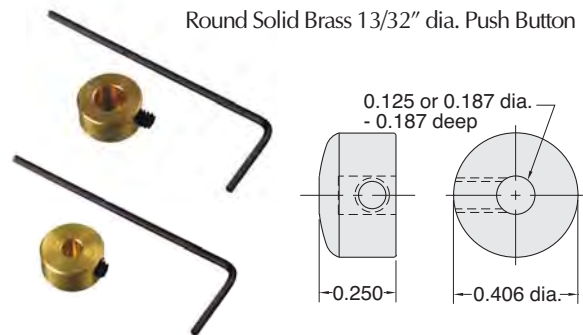
**Mounting:** 1/8" or 3/16" dia. mounting hole fits valve stems; locks in place by set screw (Allen wrench furnished)

**Note:** Individually packaged or bulk quantities available

Part No.	Description
<u>11916-1</u>	5/8" Brass Push Button, 1/8" Stem
<u>11916-2</u>	5/8" Brass Push Button, 3/16" Stem

## Push Button Actuators, 13/32"

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 over-travel 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)

**Note:** Individually packaged or bulk quantities available

Part No.	Description
<u>11916-3</u>	13/32" Brass Push Button, 1/8" Stem
<u>11916-4</u>	13/32" Brass Push Button, 3/16" Stem

Metric line available. Visit [www.clippard.com](http://www.clippard.com)