



SELECTION CHARTS

3-Way Valves

Order No.	Style	Flow (@ 100 psig/7 bar)	Ports			Normally-Open	Normally-Closed	Momentary/Detented	Brass Toggle	Plastic Toggle	Page No.
			Inlet	Outlet	Exhaust						
MTV-3	Poppet	7 scfm	#10-32	#10-32	#10-32		▲	D	▲		119
MTV-3-M5	Poppet	175 l/min	M5	M5	M5		▲	D	▲		119
MTV-3P	Poppet	7 scfm	1/8" NPT	#10-32	#10-32		▲	D	▲		119
MJTV-3	Poppet	25 scfm	1/8" NPT	1/8" NPT	1/8" NPT		▲	D	▲		120
MJTV-3-MG	Poppet	600 l/min	G1/8	G1/8	G1/8		▲	D	▲		120
FTV-3	Spool	10 scfm	#10-32	#10-32	#10-32		▲	D	▲		121
FTV-3-M5	Spool	240 l/min	M5	M5	M5		▲	D	▲		121
FTV-3F	Spool	10 scfm	#10-32	#10-32	#10-32		▲	D		▲	121
FTV-3F-M5	Spool	130 l/min	M5	M5	M5		▲	D		▲	121
FTV-3P	Spool	10.5 scfm	1/8" NPT	1/8" NPT	1/8" NPT		▲	D	▲		121
FTV-3-MG	Spool	250 l/min	G1/8	G1/8	G1/8		▲	D	▲		121
FTV-3FP	Spool	10.5 scfm	1/8" NPT	1/8" NPT	1/8" NPT		▲	D		▲	121
FTV-3F-MG	Spool	250 l/min	G1/8	G1/8	G1/8		▲	D		▲	121
TV-3S	Spool	8 scfm	#10-32	#10-32	hole in body		▲	D	▲		119
TV-3S-M5	Spool	190 l/min	M5	M5	hole in body		▲	D	▲		119
TV-3SF	Spool	8 scfm	#10-32	#10-32	hole in body		▲	D		▲	119
TV-3SF-M5	Spool	190 l/min	M5	M5	hole in body		▲	D		▲	119
TV-3SP	Spool	8 scfm	1/8" NPT	#10-32	hole in body		▲	D	▲		119
TV-3SFP	Spool	8 scfm	1/8" NPT	#10-32	hole in body		▲	D		▲	119
TV-3M	Spool	6.8 scfm	#10-32	#10-32	hole in body		▲	M	▲		119
TV-3M-M5	Spool	170 l/min	M5	M5	hole in body		▲	M	▲		119
TV-3MF	Spool	6.8 scfm	#10-32	#10-32	hole in body		▲	M		▲	119
TV-3MF-M5	Spool	170 l/min	M5	M5	hole in body		▲	M		▲	119
TV-3MP	Spool	6.8 scfm	1/8" NPT	#10-32	hole in body		▲	M	▲		120
TV-3MFP	Spool	6.8 scfm	1/8" NPT	#10-32	hole in body		▲	M		▲	120
TVO-3M	Spool	6.8 scfm	#10-32	#10-32	hole in body	▲		M	▲		120
TVO-3M-M5	Spool	170 l/min	M5	M5	hole in body	▲		M	▲		120
TVO-3MF	Spool	6.8 scfm	#10-32	#10-32	hole in body	▲		M		▲	120
TVO-3MF-M5	Spool	170 l/min	M5	M5	hole in body	▲		M		▲	120
TVO-3MP	Spool	6.8 scfm	1/8" NPT	#10-32	hole in body	▲		M	▲		120
TVO-3MFP	Spool	6.8 scfm	1/8" NPT	#10-32	hole in body	▲		M		▲	120
SMTV-3	Spool	1.4 scfm	#3-56*	#3-56*	hole in body	▲	▲	D	▲		121

Toggle Valves



3-Way Valves Cont'd.

Order No.	Style	Flow (@ 100 psig/7 bar)	Ports			Normally-Open	Normally-Closed	Momentary/Detented	Brass Toggle	Plastic Toggle	Page No.
			Inlet	Outlet	Exhaust						
FV-3	Spool	10 scfm	#10-32	#10-32	through stem	▲	▲				123
FV-3-M5	Spool	240 l/min	M5	M5	through stem	▲	▲				123
FV-3-MG	Spool	240 l/min	G1/8	G1/8	through stem	▲	▲				123
FV-3D	Spool	10 scfm	#10-32	#10-32	through stem	▲	▲				123
FV-3D-M5	Spool	240 l/min	M5	M5	through stem	▲	▲				123
FV-3DP	Spool	10.5 scfm	1/8" NPT	1/8" NPT	through stem	▲	▲				123
FV-3D-MG	Spool	240 l/min	G1/8	G1/8	through stem	▲	▲				123
FV-3P	Spool	10.5 scfm	1/8" NPT	1/8" NPT	through stem	▲	▲				123
MAV-3	Poppet	6.8 scfm	#10-32	#10-32	through stem		▲				122
MAV-3-M5	Poppet	170 l/min	M5	M5	through stem		▲				122
MAV-3P	Poppet	6.8 scfm	1/8" NPT	#10-32	through stem		▲				122
MAV-3C	Poppet	6 scfm	-	-	through stem		▲				122
MAV-3R	Poppet	6.8 scfm	#10-32	#10-32	through stem		▲				122
MAV-3R-M5	Poppet	170 l/min	M5	M5	through stem		▲				122
MAVO-3	Spool	10 scfm	#10-32	#10-32	holes in body	▲					122
MAVO-3-M5	Spool	245 l/min	M5	M5	holes in body	▲					122
MAVO-3P	Spool	10 scfm	#10-32	#10-32	holes in body	▲					122
MAVO-3C	Spool	10 scfm	-	-	holes in body	▲					122
MJV-3	Poppet	25 scfm	1/8" NPT	1/8" NPT	through stem		▲				123
MJV-3-MG	Poppet	600 l/min	G1/8	G1/8	through stem		▲				123
MJV-3C	Poppet	22 scfm	-	-	through stem		▲				123
MJVO-3	Spool	12 scfm	1/8" NPT	1/8" NPT	holes in body	▲					123
MJVO-3-MG	Spool	600 l/min	G1/8	G1/8	holes in body	▲					123
MJVO-3C	Spool	15 scfm	-	-	holes in body	▲					123
SMAV-3	Spool	1.4 scfm	#3-56	#3-56	#3-56	▲	▲				121
PAV-3	Poppet	6.8 scfm	#10-32	#10-32	holes in body		▲				124
PAV-3P	Poppet	6.8 scfm	#10-32	1/8" NPT	holes in body		▲				124
PAVO-3	Poppet	11.6 scfm	#10-32	#10-32	holes in body	▲					124
PAVO-3P	Poppet	11.6 scfm	#10-32	1/8" NPT	holes in body	▲					124

Stem Valves

3-WAY TOGGLE VALVES



3-WAY TOGGLE VALVES

3-way valves have a supply, outlet and exhaust port. When the toggle is in the "on" position air flows from the inlet to the outlet and the exhaust port is blocked. Moving the toggle to the "off" position closes the inlet and opens the outlet to an exhaust port which vents the outlet to atmosphere. 3-way toggle valves may have a poppet or spool and by movement

of the toggle may either be 2-position or have a momentary actuation.

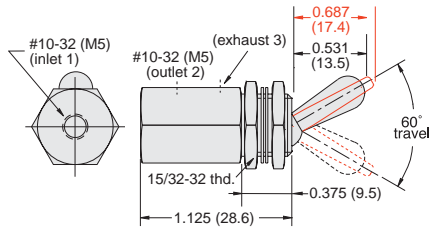
Medium: Air

Materials: Brass body, Buna-N seals, stainless steel stem and spring

Stem Travel: 1/8" (3.2)

Mounting: 15/32-32 thd. Nuts and lockwashers furnished

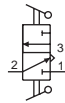
2 Position Spool Valves



Input Pressure: 150 psig/10 bar max.

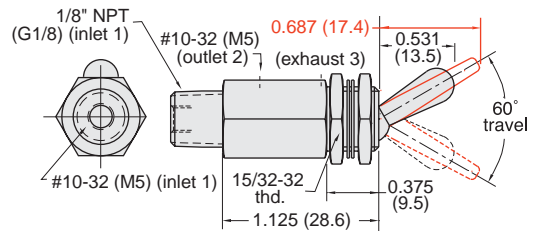
Air Flow: 4.5 SCFM @ 50 psig; 8.0 SCFM @ 100 psig;
190 l/min @ 6 bar

Force For Full Stem Travel: 12 oz. nominal



Part No.	Description
TV-3S	2 Position Spool Valve, NP Brass Toggle, #10-32
TV-3S-M5	2 Position Spool Valve, NP Brass Toggle, M5
TV-3SF	2 Position Spool Valve, Plastic Toggle, #10-32
TV-3SF-M5	2 Position Spool Valve, Plastic Toggle, M5

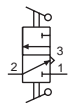
2 Position Spool Valve with 1/8" NPT Inlet



Input Pressure: 150 psig

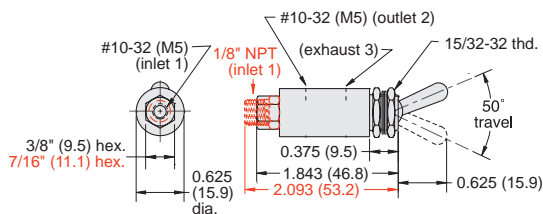
Air Flow: 11.6 SCFM @ 50 psig; 8.0 SCFM @ 100 psig

Force For Full Stem Travel: 12 oz. nominal



Part No.	Description
TV-3SP	2 Position Spool Valve, NP Brass Toggle
TV-3SFP	2 Position Spool Valve, Plastic Toggle

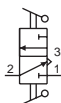
2 Position Poppet Valves



Input Pressure: 150 psig/10 bar max.

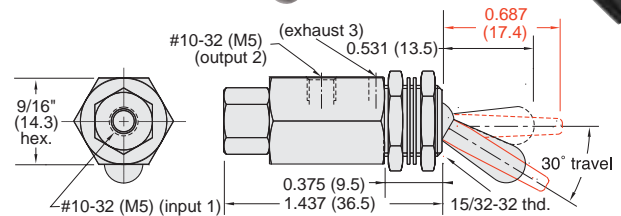
Air Flow: 4.0 SCFM @ 50 psig; 6.8 SCFM @ 100 psig;
175 l/min @ 6 bar

Force For Full Stem Travel: 16 oz. nominal



Part No.	Description
MTV-3	2 Position Poppet Valve, #10-32, NP Brass Toggle
MTV-3-M5	2 Position Poppet Valve, M5, NP Brass Toggle
MTV-3P	2 Position Poppet Valve, 1/8" NPT, NP Brass Toggle

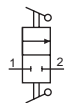
2 Position N.C. Poppet with Momentary Actuation



Input Pressure: 150 psig/10 bar max.

Air Flow: 4.0 SCFM @ 50 psig; 6.8 SCFM @ 100 psig;
175 l/min @ 6 bar

Force For Full Stem Travel: 12 oz. nominal

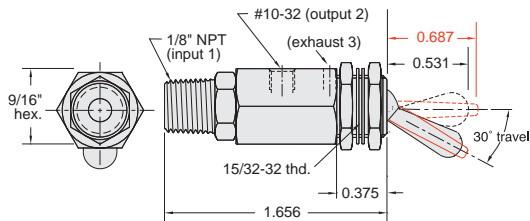
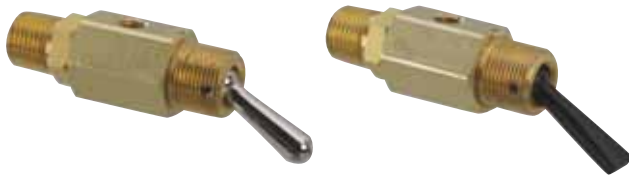


Part No.	Description
TV-3M	2 Position Poppet Valve, NP Brass Toggle, #10-32
TV-3M-M5	2 Position Poppet Valve, NP Brass Toggle, M5
TV-3MF	2 Position Poppet Valve, Plastic Toggle, #10-32
TV-3MF-M5	2 Position Poppet Valve, Plastic Toggle, M5



3-WAY TOGGLE VALVES

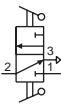
2 Position N.C. Spool w/Momentary Actuation



Input Pressure: 300 psig max.

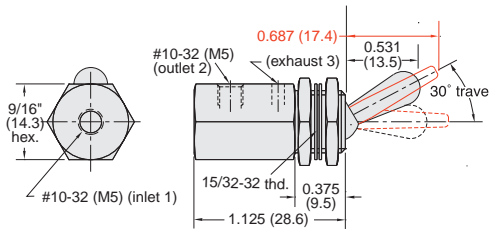
Air Flow: 4.0 SCFM @ 50 psig; 6.8 SCFM @ 100 psig

Force For Full Stem Travel: 12 oz. nominal



Part No.	Description
TV-3MP	.2 Position Spool Valve, NP Brass Toggle
TV-3MFP	.2 Position Spool Valve, Plastic Toggle

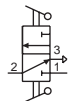
2 Position N.O. Poppet w/Momentary Actuation



Input Pressure: 150 psig/10 bar max.

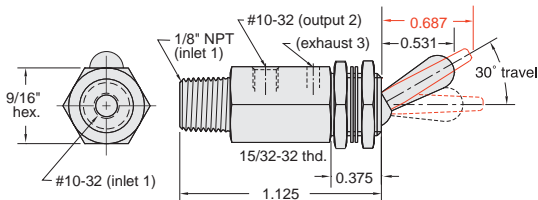
Air Flow: 4.0 SCFM @ 50 psig; 6.8 SCFM @ 100 psig;
170 lpm @ 6 bar

Force For Full Stem Travel: 12 oz. nominal



Part No.	Description
TVO-3M	.2 Position Spool Valve, NP Brass Toggle, #10-32
TVO-3M-M5	.2 Position Spool Valve, NP Brass Toggle, M5
TVO-3MF	.2 Position Spool Valve, Plastic Toggle, #10-32
TVO-3MF-M5	.2 Position Spool Valve, Plastic Toggle, M5

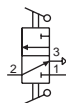
2 Position N.O. Poppet w/Momentary Actuation



Input Pressure: 150 psig max.

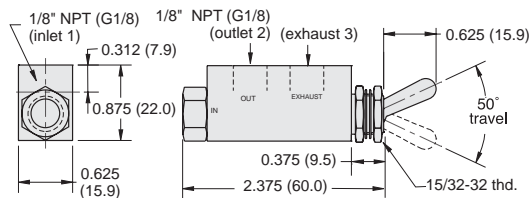
Air Flow: 4.0 SCFM @ 50 psig; 6.8 SCFM @ 100 psig

Force For Full Stem Travel: 12 oz. nominal



Order Information	Description
TVO-3MP	.2 Position Spool Valve, NP Brass Toggle
TVO-3MFP	.2 Position Spool Valve, Plastic Toggle

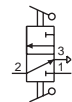
2 Position Poppet Valves



Input Pressure: 300 psig/21 bar max.

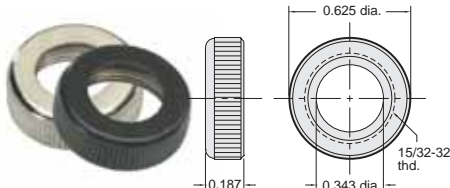
Air Flow: 14 SCFM @ 50 psig; 25 SCFM @ 100 psig;
600 l/min @ 6 bar

Force For Full Stem Travel: 16 oz. nominal



Part No.	Description
MJTV-3	.2 Position Poppet Valve, 1/8" NPT
MJTV-3-MG	.2 Position Poppet Valve, G1/8

15/32 Panel Mounting Nut



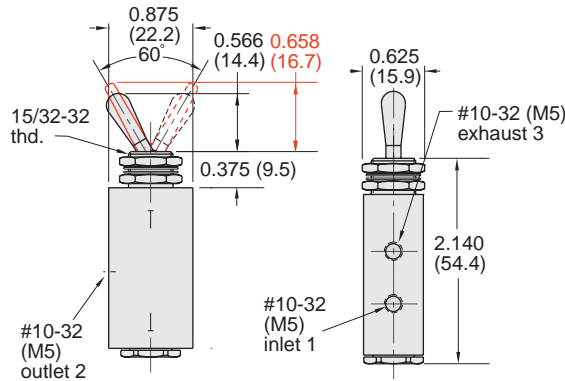
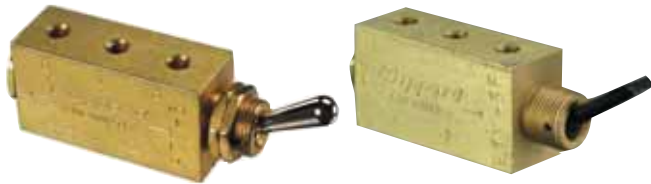
Brass with black or bright nickel finish

Part No.	Description
11406-1Black
11406-2Bright

3-WAY TOGGLE & STEM VALVES



2 Position Spool Valves

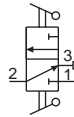


Input Pressure: 150 psig/10 bar max.

Air Flow: 6 SCFM @ 50 psig; 10 SCFM @ 100 psig;
280 l/min @ 6 bar

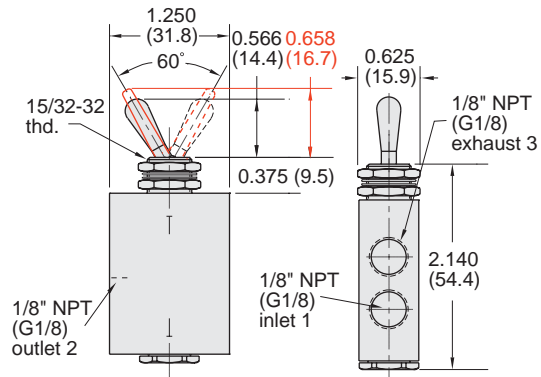
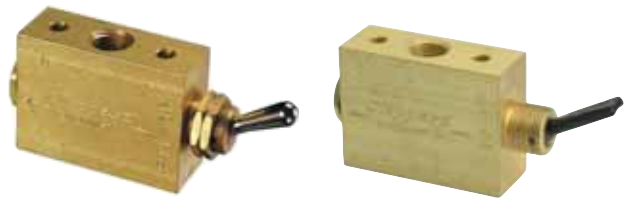
Force For Full Stem Travel: 16 oz. nominal

Mounting: 15/32-32 thread. Nuts and lockwashers furnished.



Part No.	Description
FTV-3	.2 Position Spool Valve, NP Brass Toggle, #10-32
FTV-3-M5	.2 Position Spool Valve, NP Brass Toggle, M5
FTV-3F	.2 Position Spool Valve, Plastic Toggle, #10-32
FTV-3F-M5	.2 Position Spool Valve, Plastic Toggle, M5

2 Position Spool Valves

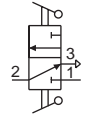


Input Pressure: 150 psig/10 bar max.

Air Flow: 6.5 SCFM @ 50 psig; 10.5 SCFM @ 100 psig;
290 l/min @ 6 bar

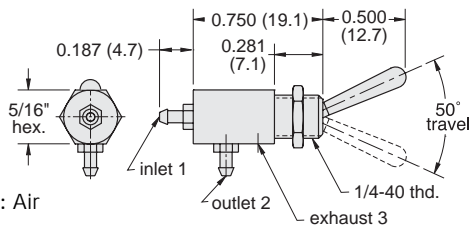
Force For Full Stem Travel: 16 oz. nominal

Mounting: 15/32-32 thread. Nuts and lockwashers furnished.



Part No.	Description
FTV-3P	.2 Position Spool Valve, NP Brass Toggle, 1/8" NPT
FTV-3P-MG	.2 Position Spool Valve, NP Brass Toggle, G1/8
FTV-3FP	.2 Position Spool Valve, Plastic Toggle, 1/8" NPT
FTV-3FP-MG	.2 Position Spool Valve, Plastic Toggle, G1/8

Sub-Miniature Spool Valve



Medium: Air

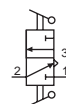
Input Pressure: 100 psig max.

Ports: 3-56 with 1/16" ID Hose Barbs

Air Flow: 1.4 SCFM @ 100 psig

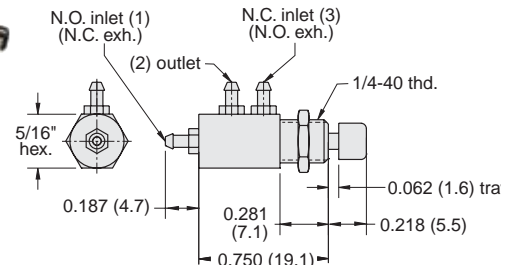
Force For Full Stem Travel: 24 oz. nominal

Spool Material: Delrin®



Part No.	Description
SMTV-3Sub-Miniature Spool Valve

Sub-Miniature N.O. or N.C. Spool Valve



Medium: Air

Stem Travel: 1/16"

Input Pressure: 100 psig max.

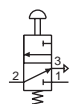
Ports: 3-56 with 1/16" ID Hose Barbs

Air Flow: 1.4 SCFM @ 100 psig

Force For Full Stem Travel: 20 oz. nominal

Spool Material: Delrin®

Four colors of snap on push buttons included with each valve



Part No.	Description
SMAV-3Sub-Miniature N.O. or N.C.



3-WAY STEM VALVES



3-WAY STEM VALVES

3-way valves are 2-way valves with the added function of exhausting the outlet when the valve is closed. When the stem is depressed, the valve is in the

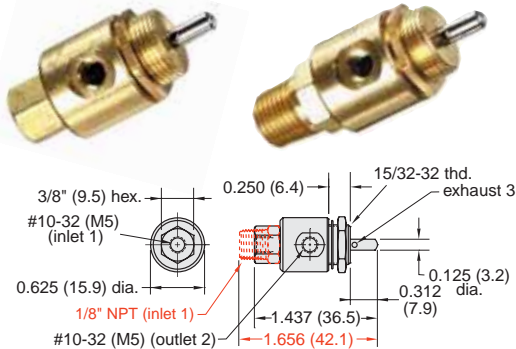
“on” position allowing air to flow from the inlet to the outlet while blocking the exhaust. Releasing the stem closes the inlet and opens the outlet to an exhaust port which vents the outlet to atmosphere. 3-way stem valves may have a poppet or spool and be normally closed (NC) or normally open (NO).

Medium: Air

Materials: Brass body, Buna-N seals, stainless steel stem and spring

Stem Travel: 1/8" (3.2)

Miniature 3-Way Poppet Valves



Input Pressure: 300 psig/21 bar max.

Air Flow: 4.0 SCFM @ 50 psig; 6.8 SCFM @ 100 psig;
170 l/min @ 6 bar

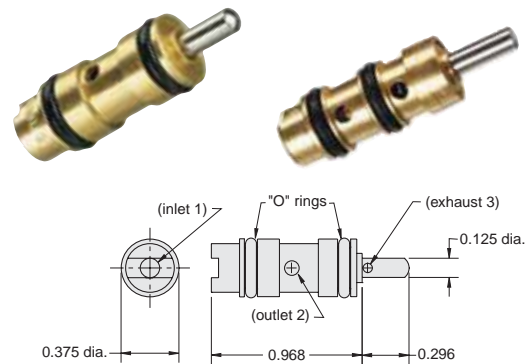
Force For Full Stem Travel: 24 oz. nominal

Mounting: 15/32-32 thread. Nut and lockwasher furnished.



Part No.	Description
MAV-3	Miniature Poppet Valve, #10-32
MAV-3-M5	Miniature Poppet Valve, M5
MAV-3P	Miniature Poppet Valve, 1/8" NPT

Miniature Cartridge Valves



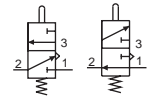
Input Pressure: 300 psig

Air Flow: 3.0 SCFM @ 50 psig; 6.0 SCFM @ 100 psig

Force For Full Stem Travel: 24 oz. nominal

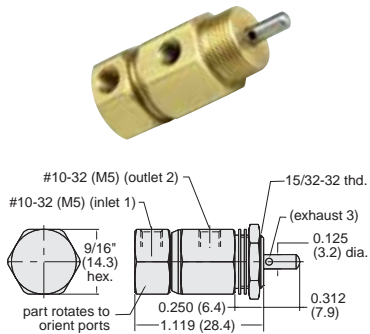
Mounting: Inserts into a 3/8" bore (0.375" 0.001")

Note: See page 118 for mounting details



Part No.	Description
MAV-3C	Normally-Open Poppet Cartridge Valve
MAVO-3C	Normally-Closed Spool Cartridge Valve

N. C. Poppet Valves with Rotatable Inlet



Input Pressure: 300 psig/21 bar max.

Air Flow: 4.0 SCFM @ 50 psig; 6.8 SCFM @ 100 psig;
170 l/min @ 6 bar

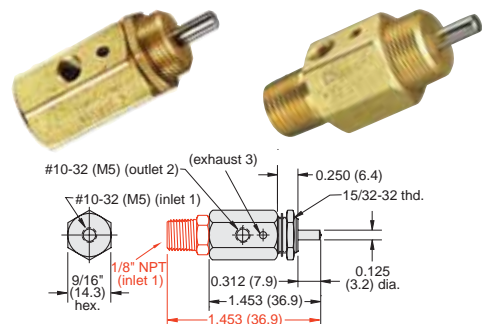
Force For Full Stem Travel: 24 oz. nominal

Mounting: 15/32-32 thread. Nut and lockwasher furnished.



Part No.	Description
MAV-3R	Normally-Closed Valve with Rotatable Inlet, #10-32
MAV-3R-M5	Normally-Closed Valve with Rotatable Inlet, M5

Normally-Open Spool Valves



Input Pressure: 150 psig/10 bar max.

Air Flow: 6.0 SCFM @ 50 psig; 10 SCFM @ 100 psig;
245 l/min @ 6 bar

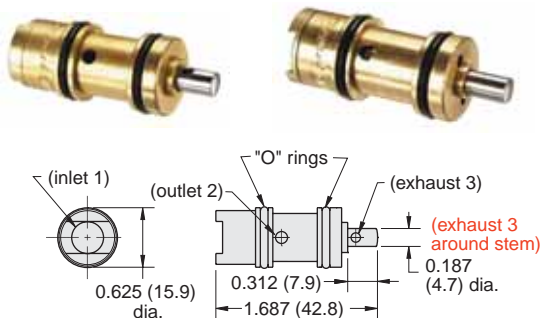
Force For Full Stem Travel: 32 oz. nominal

Mounting: 15/32-32 thread. Nut and lockwasher furnished.



Part No.	Description
MAVO-3	Normally-Open Spool Valve, #10-32
MAVO-3-M5	Normally-Open Spool Valve, M5
MAVO-3P	Normally-Open Spool Valve, 1/8" NPT

J-Series Poppet Cartridge Valves



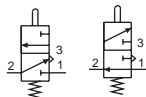
Input Pressure: 300 psig

Air Flow: 11 SCFM @ 50 psig; 22 SCFM @ 100 psig

Force For Full Stem Travel: 38 oz. nominal

Mounting: Inserts into a 5/8" bore (0.625" ±0.001")

Note: See page 118 for mounting details



Part No. Description

MJV-3C3-Way Normally-Closed Poppet Cartridge Valve
MJVO-3C3-Way Normally-Open Poppet Cartridge Valve

J-Series 3-Way Poppet Valves

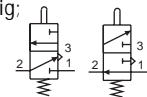


Input Pressure: MJV-3/MJV-3-MG - 300 psig/21 bar max.
 MJVO-3/MJVO-3-MG - 150 psig/10 bar max.

Air Flow: 14.0 SCFM @ 50 psig; 25 SCFM @ 100 psig;
 600 l/min @ 6 bar

Force For Full Stem Travel: 38 oz. nominal

Mounting: 15/32-32 thread. Nuts and lockwashers furnished.



Part No. Description

MJV-3Normally-Closed Valve with Spring Return, 1/8" NPT
MJV-3-MGNormally-Closed Valve with Spring Return, G1/8
MJVO-3Normally-Open Spool Valve, 1/8" NPT
MJVO-3-MGNormally-Open Spool Valve, G1/8

FV-Series 3-Way Spool Valves



Input Pressure: Vacuum to 150 psig/10 bar max.

Air Flow: 6 SCFM @ 50 psig; 10 SCFM @ 100 psig;
 240 l/min @ 6 bar

Force For Full Stem Travel: FV-3 & FV-3-M5 - 4 1/2 pounds nominal.
 FV-3D & FV-3D-M5 - 1 1/2 pounds nominal

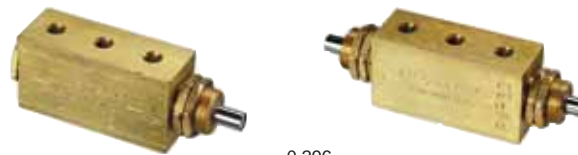
Mounting: 5/32-32 thread. Nuts and lockwashers furnished.



Part No. Description

FV-33-Way Spool Valve, #10-32
FV-3-M53-Way Spool Valve, M5
FV-3D3-Way Two Position Spool Valve, #10-32
FV-3D-M53-Way Two Position Spool Valve, M5

FV-Series 3-Way Spool Valves



Input Pressure: Vacuum to 150 psig/10 bar max.

Air Flow: 6.5 SCFM @ 50 psig; 10.5 SCFM @ 100 psig;
 240 l/min @ 6 bar

Force For Full Stem Travel: FV-3P & FV-3-MG - 4 1/2 pounds nominal.
 FV-3DP & FV-3D-MG - 1 1/2 pounds nominal

Mounting: 5/32-32 thread. Nuts and lockwashers furnished.



Part No. Description

FV-3PSpool Plunger Actuated Spring Return Valve, 1/8" NPT
FV-3-MGSpool Plunger Actuated Spring Return Valve, G1/8
FV-3DPSpool Double Plunger 2 Position Valve, 1/8" NPT
FV-3D-MGSpool Double Plunger 2 Position Valve, G1/8



3-WAY AIR-PILOTED & LIMIT VALVES



3-WAY AIR-PILOTED VALVES

3-way valves have an inlet, outlet and exhaust port. When an air signal is applied to the pilot of a normally closed (NC) valve the inlet is open to the outlet and the exhaust is blocked; removing the pilot closes the inlet and the outlet is open to the exhaust port which vents to atmosphere. When an air signal is applied to the pilot of a normally open (NO) valve the inlet is blocked and the outlet is vented; removing the pilot signal opens the inlet to the outlet and blocks the exhaust.

Medium: Air only

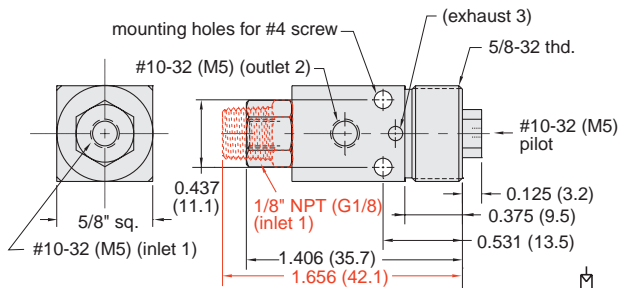
Materials: Brass body, Buna-N seals, stainless steel stem and spring

Mounting: 5/8-32 thread or #4 screw. Nut and lockwasher may be ordered separately. Part Number: PAV-MH

Air Pilot Pressure: 15 psig min.

Foot Bracket: FB-1791

Air-Piloted Normally-Closed Poppet Valves

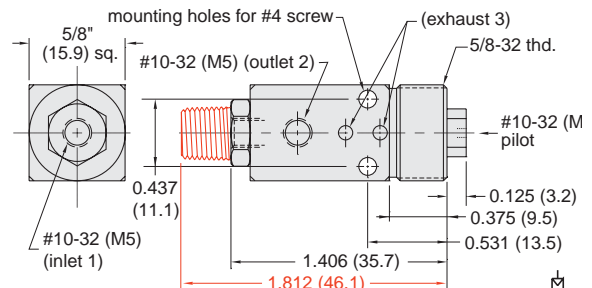


Input Pressure: 300 psig max.

Air Flow: 4.0 SCFM @ 50 psig; 6.8 SCFM @ 100 psig

Part No.	Description
PAV-3	Normally-Closed Poppet Valve, #10-32
PAV-3P	Normally-Closed Poppet Valve, 1/8" NPT

Air-Piloted Normally-Open Poppet Valves

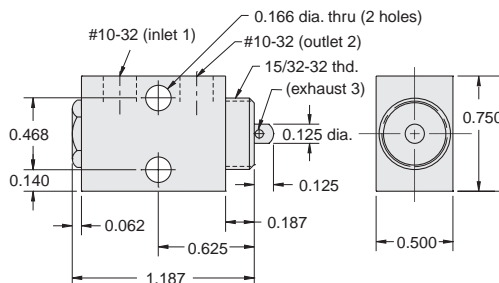


Input Pressure: 150 psig max.

Air Flow: 6.8 SCFM @ 50 psig; 11.6 SCFM @ 100 psig

Part No.	Description
PAVO-3	Normally-Open Poppet Valve, #10-32
PAVO-3P	Normally-Open Poppet Valve, 1/8" NPT

Miniature Limit Valve



Stem Travel: 1/8"

Input Pressure: 150 psig max.

Air Flow: 4 SCFM @ 50 psig; 7 SCFM @ 100 psig

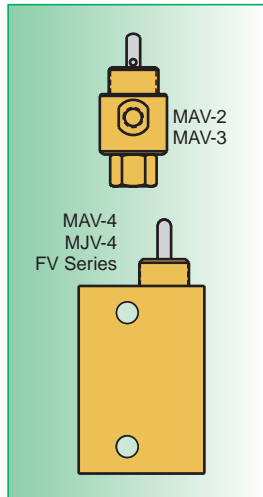
Force for Full Stem Travel: 48 oz. nominal

Mounting: Dual #20 holes or 15/32-32 thd. Nut and lockwasher furnished

Part No.	Description
MLV-3	Normally-Closed Miniature Limit Valve

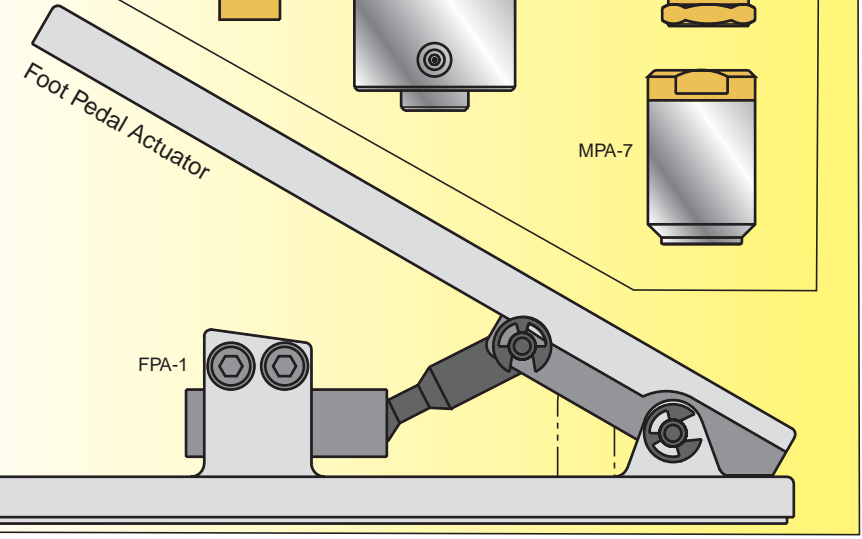
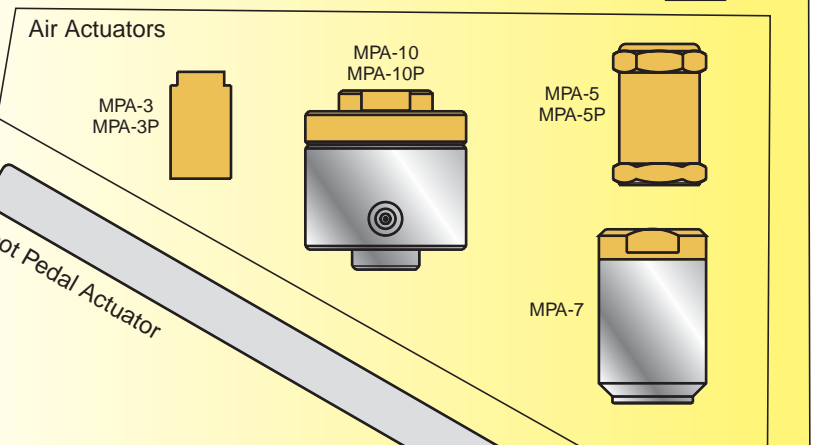
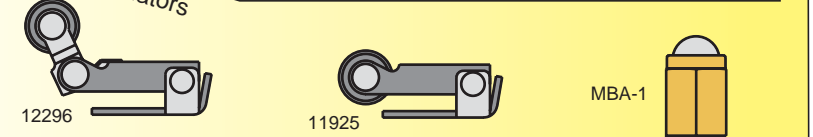
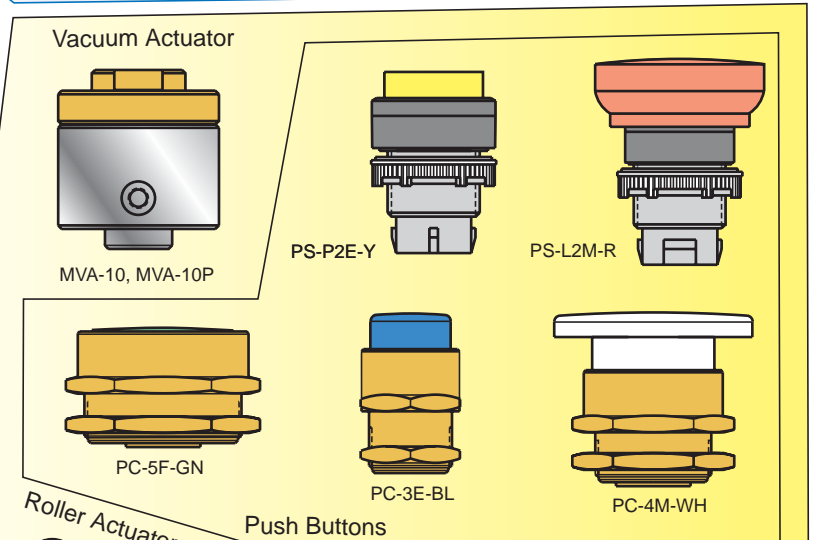
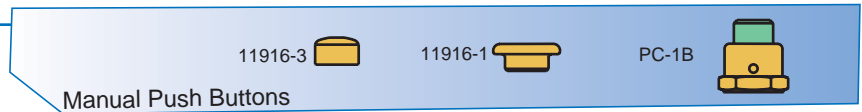
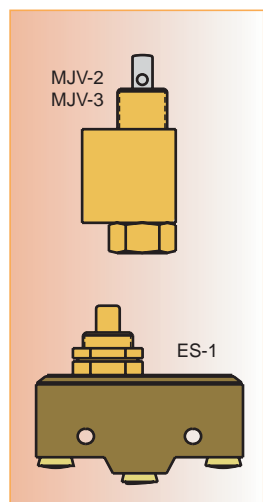
The following valve actuators are compatible with all Clippard MAV, MAVO, MJV, MJVO, ES-1, & FV series valves.

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.

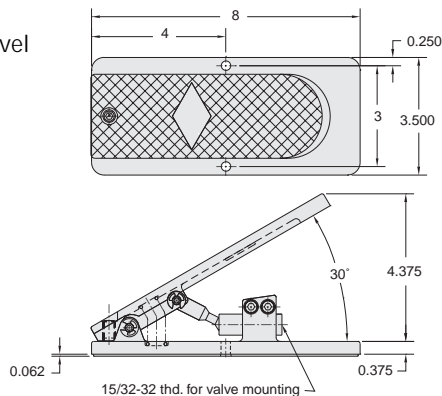




VALVE ACTUATORS

Foot Pedal

Adjustable travel foot pedal



Part No.	Description
FPA-1	Adjustable Travel 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:

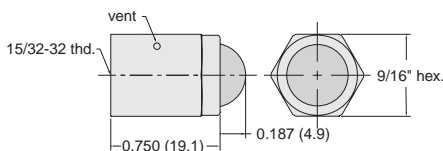
Valve mtg. thd.	MBA-1	11925	12296
0.250 thd length	0.125"	0.062"	0.062"
0.373 thd length	0.218"	0.188"	0.188"

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

Ball Cam Actuator



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



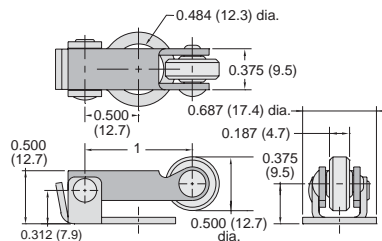
Construction: Body - brass
Ball - stainless steel retained in housing

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
MBA-1	Ball Cam Actuator

Roller Cam Actuator



Construction: Stainless steel with nylon roller

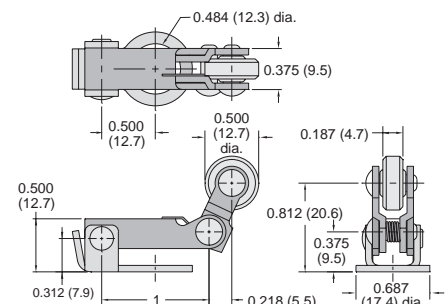
Temperature Range: 32° to 230° F

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
11925	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
12296	Roller, Double-Pivoted One-Way Cam Follower Actuator

AIR PILOTED VALVE ACTUATORS



MINIMUM PRESSURE REQUIRED (psig)*											
Clippard Valve	Pressure (psig)					Clippard Valve	Pressure (psig)				
	Pressure (psig)	Pressure (psig)	Pressure (psig)	Pressure (psig)	Vacuum (in Hg)		Pressure (psig)	Pressure (psig)	Pressure (psig)	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						

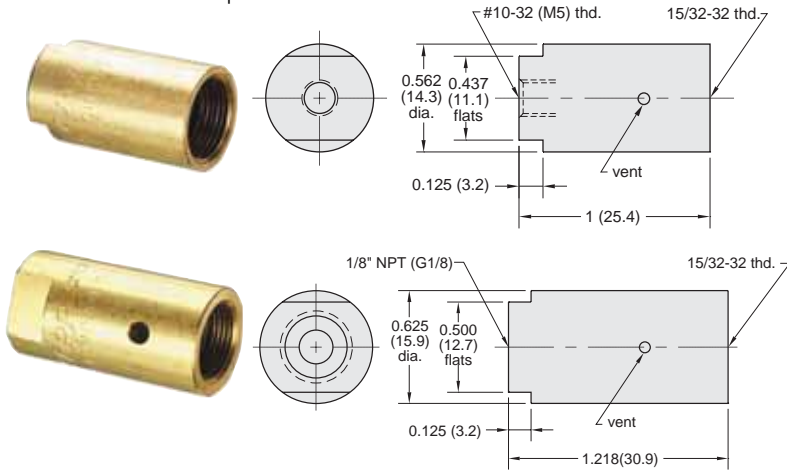
*with 100 psig to valve inlet

Single Acting Air Pilot Actuators

Input Pressure: 250 psig/17 bar max.

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

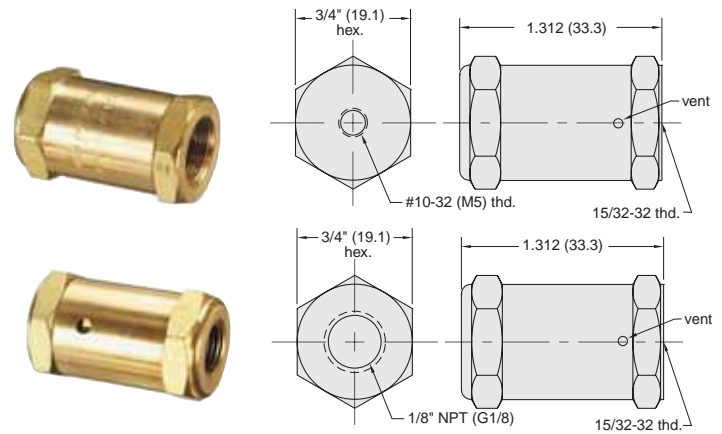
Mounting: 15/32-32 female thread to mount to Clippard miniature valves and components



Bore Size: 0.375 (9.5)

Force Factor: 0.1

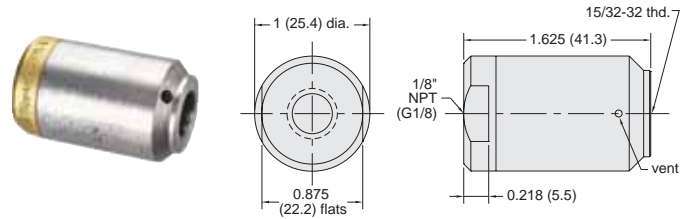
Part No.	Description
MPA-3	Single Acting, Spring Return Actuator, #10-32
MPA-3-M5	Single Acting, Spring Return Actuator, M5
MPA-3P	Single Acting, Spring Return Actuator, 1/8" NPT
MPA-3-MG	Single Acting, Spring Return Actuator, G1/8



Bore Size: 0.625 (15.9)

Force Factor: 0.3

Part No.	Description
MPA-5	Single Acting, Spring Return Actuator, #10-32
MPA-5-M5	Single Acting, Spring Return Actuator, M5 Metric
MPA-5P	Single Acting, Spring Return Actuator, 1/8" NPT
MPA-5-MG	Single Acting, Spring Return Actuator, G1/8



Bore Size: 0.825" (21.0) dia.

Force Factor: 0.6

Part No.	Description
MPA-7	Single Acting, Spring Return Actuator, 1/8" NPT
MPA-7-MG	Single Acting, Spring Return Actuator, G1/8

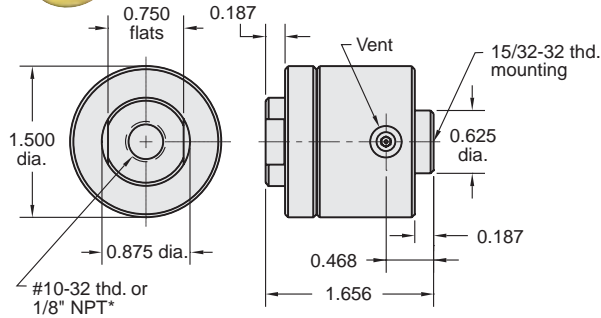


VALVE ACTUATORS

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

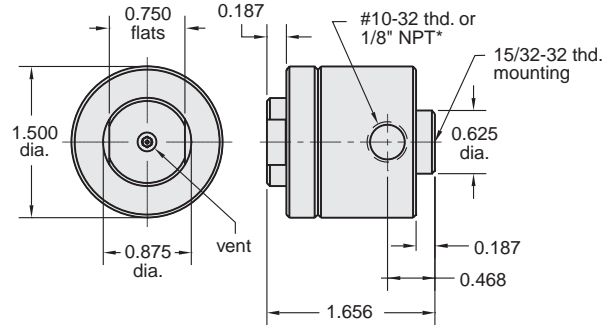
Force Factor: 1.2

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

Vacuum Actuators



Single Acting Spring Return Vacuum Actuator



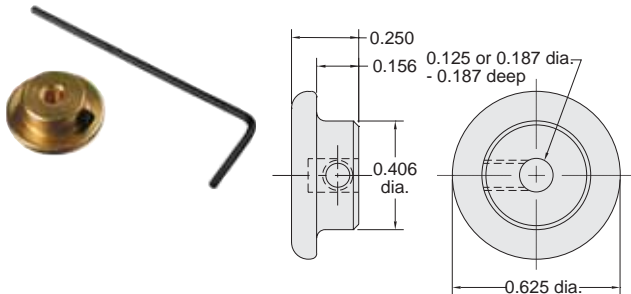
Input Pressure: 30 in. Hg vacuum

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
MVA-10	Single Acting, Spring Vacuum Actuator, #10-32
MVA-10P	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 overtravel of valve stem by providing a positive stop

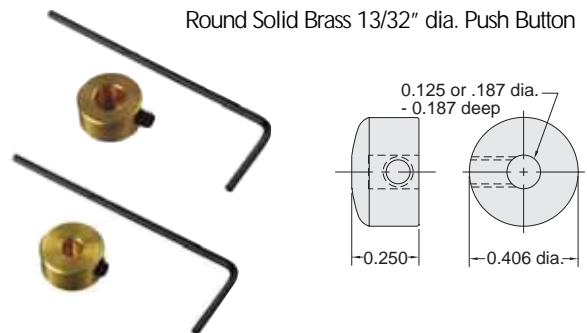
Mounting: 1/8" or 3/16" dia. mounting hole fits valve stems; locks in place by set screw (Allen wrench furnished)

Note: Individually packaged or bulk quantities available

Part No.	Description
11916-1	.5/8" Brass Push Button, 1/8" Stem
11916-2	.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 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)

Note: Individually packaged or bulk quantities available

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

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.

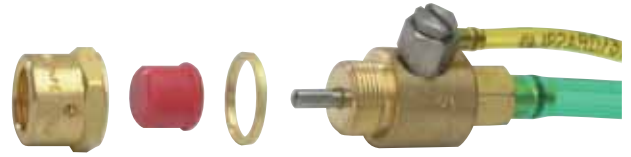
The standard furnished mounting nut has a bright chromate finish. Black chrome or nickel-plated finishes are also available by adding the suffix -BC or -NP to the part number.

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.



P C - □ □ (- □)

Push Button Captivated

Valve Stem dia.

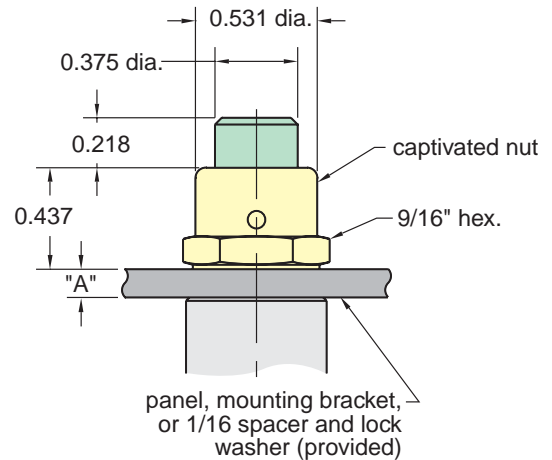
- 1 1/8" dia.
- 2 3/16" dia.

Push Button color

- B - Black
- G - Green
- R - Red
- W - White
- Y - Yellow

Options

- BC - Black chrome
- NP - Nickel plated



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"

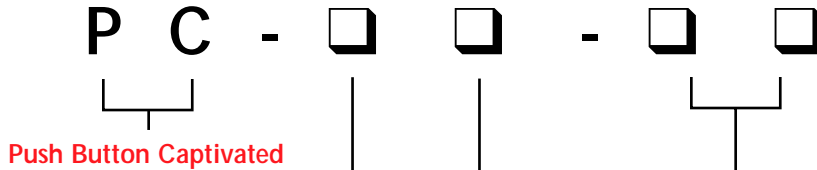


PUSH BUTTON ACTUATORS

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.



Size Mounting Thread
 3 - 5/8-32 thd. (16 mm)
 4 - 7/8-32 thd. (22 mm)
 5 - 1 3/16-28 thd. (30 mm)

Button Style
 E - Extended
 F - Flush
 M - Mushroom

Push Button color
 BK - Black WH - White RD - Red
 GN - Green YL - Yellow BL - Blue
 OR - Orange GR - Grey
 Note: Non-standard colors available; consult factory



Part No. Description
 PC-3E-(color) . . . 5/8-32 Thd., Extended
(specify color)



Part No. Description
 PC-4E-(color) . . . 7/8-32 Thd., Extended
(specify color)



Part No. Description
 PC-5E-(color) . . 1 3/16-28 Thd., Extended
(specify color)



Part No. Description
 PC-3F-(color) . . . 5/8-32 Thd., Flush
(specify color)



Part No. Description
 PC-4F-(color) . . . 7/8-32 Thd., Flush
(specify color)



Part No. Description
 PC-5F-(color) . . 1 3/16-28 Thd., Flush
(specify color)



Part No. Description
 PC-3M-(color) . . . 5/8-32 Thd., Mushroom
(specify color)



Part No. Description
 PC-4M-(color) . . . 7/8-32 Thd., Mushroom
(specify color)



Part No. Description
 PC-5M-(color) . . 1 3/16-28 Thd., Mushroom
(specify color)

Features

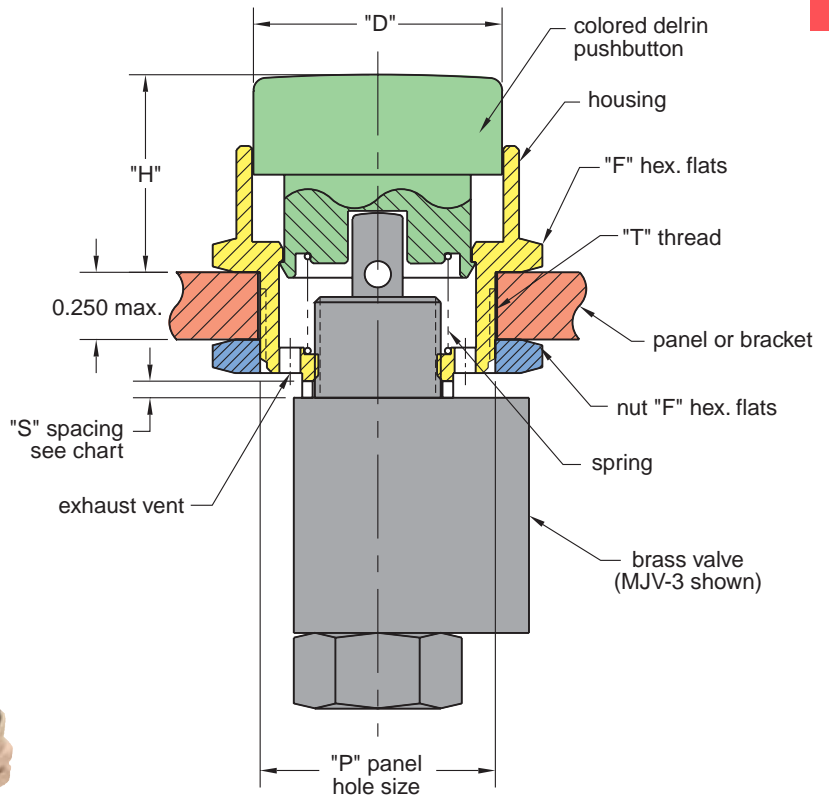
- Assembles directly to the valve; no adapters required
- Ideal for mounting on panels or brackets, up to 1/4" thick panel
- Self-contained assembly; no loose parts
- Stainless steel spring returns button to extended position with no added load to the valve stem
- Three sizes: 16 mm (5/8" dia.), 22 mm (7/8" dia.) and 30 mm (1-3/16" dia.)
- Flush, extended and mushroom style buttons
- 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-□□	0.625"	0.734"			
	PC-3F-□□	0.625"	0.500"	5/8-32	5/8" dia.	3/4"
	PC-3M-□□	1.165"	0.906"			
7/8-32 (22 mm) mtg. thd.	PC-4E-□□	0.925"	0.734"			
	PC-4F-□□	0.925"	0.500"	7/8-32	7/8" dia.	1-1/16"
	PC-4M-□□	1.500"	0.906"			
1 3/16-28 (30 mm) mtg. thd.	PC-5E-□□	1.165"	0.734"			
	PC-5F-□□	1.165"	0.500"	1 3/16-28	1-3/16" dia.	1-5/16"
	PC-5M-□□	1.500"	0.906"			



SPACING "S" REQUIRED FOR PROPER VALVE ACTUATION						
Valve series	MAV-2 MAV-3	MAVO-2 MAVO-3	MAV-4 MJV-4	MAV-4D MJV-4D	MJV-2,-3 MJVO-2,-3 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.

As shown in the drawing, a PB-85 is required to connect a push button and a Clippard valve.

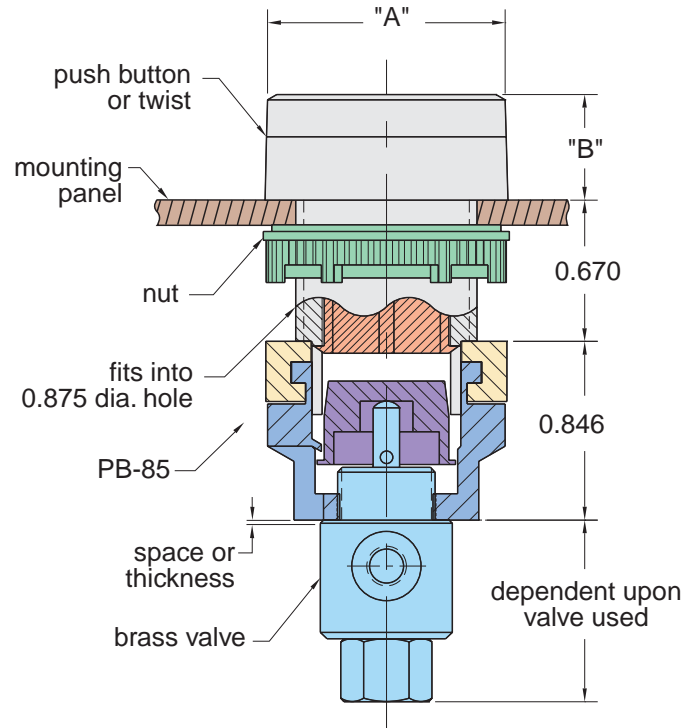
Dimensions

Size 22			Size 30		
Model	"A"	"B"	Model	"A"	"B"
PS-P2F	1.156"	0.492"	PL-P2F	1.440"	0.550"
PS-P2E	1.156"	0.736"	PL-P2E	1.440"	0.960"
PS-P2M	1.575"	0.965"	PL-P2M	1.575"	1.043"
PS-L3M	1.575"	0.965"	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 adapter.

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"



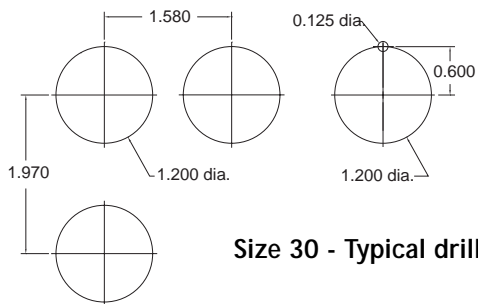
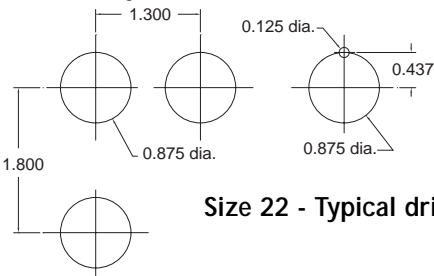
Manual Actuator Features

- 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 adapter mates manual actuator with 26 different Clippard 2-, 3-, and 4-way valves. Valve and adapter 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 adapter
- 19 legend plates available plus blank plates in each size
- Valve and adapter 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

Mounting Clippard Manual Actuators

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



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.

Part No. Description
PB-60Mounting Wrench



Valve Adapter

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

Part No. Description
PB-85Valve Adapter



Square Bezel

Converts any 22 Size actuator to a square actuator.

Part No. Description
PS-65Square Bezel



Replacement Mounting Nut

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

Part No. Description
PS-55Replacement Mounting Nut



Anti-Rotation Ring

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

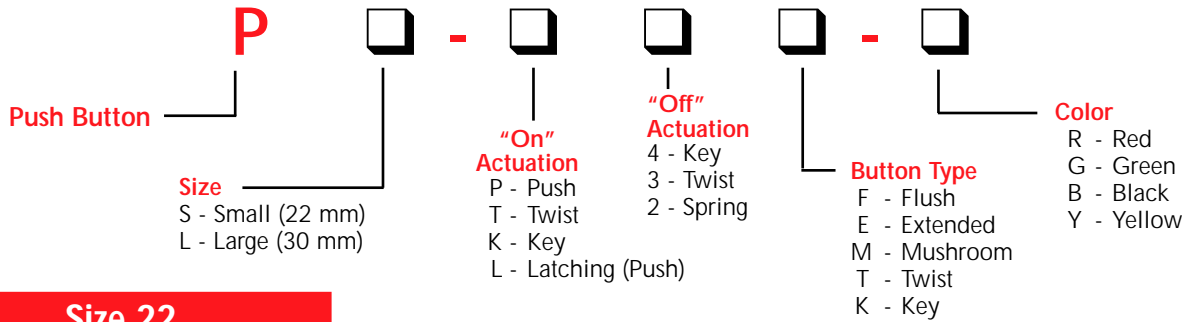
Part No. Description
PS-50Anti-Rotation Ring, 22 mm
PL-50Anti-Rotation Ring, 30 mm





PUSH BUTTON ACTUATORS

Manual Actuators



Size 22



Flush Push Button. Manual Push "In". Spring Return.

Part No.	Description
PS-P2F-R . . .	Red
PS-P2F-G . . .	Green
PS-P2F-B . . .	Black
PS-P2F-Y . . .	Yellow



Extended Push Button. Manual Push "In". Spring Return.

Part No.	Description
PS-P2E-R . . .	Red
PS-P2E-G . . .	Green
PS-P2E-B . . .	Black
PS-P2E-Y . . .	Yellow



Manual Push Mushroom. Manual Push "In". Spring Return.

Part No.	Description
PS-P2M-R . . .	Red
PS-P2M-G . . .	Green
PS-P2M-B . . .	Black



Automatic Push/Turn Mushroom. Manual push "In" Latches "In". Turn clockwise to unlatch. Spring return.

Part No.	Description
PS-L3M-R . . .	Red
PS-L3M-G . . .	Green
PS-L3M-B . . .	Black



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

Part No.	Description
PS-P4K-B . . .	Black



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

Part No.	Description
PS-L4M-R . . .	Red



Spring Return Twist 45°. Turn clockwise and hold for "In". Release for spring return. Black only.

Part No.	Description
PS-T2T-B . . .	Black



Maintained Twist 90°. Turn clockwise to latch "In". Turn counterclockwise to release. Black only.

Part No.	Description
PS-T3T-B . . .	Black



Key Twist 90° Maintained. (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.

Part No.	Description
PS-T3K-B . . .	Black
PS-K3K-B . . .	Black

Size 30



Flush Push Button.
Manual push "In".
Spring return.

Part No. Description

- PL-P2F-RRed
- PL-P2F-GGreen
- PL-P2F-BBlack
- PL-P2F-YYellow



Extended Push Button.
Manual push "In". Spring
return.

Part No. Description

- PL-P2E-RRed
- PL-P2E-GGreen
- PL-P2E-BBlack
- PL-P2E-YYellow



**Key Twist 90°
Maintained.** (PL-
T3K-B) Turn key
clockwise to latch
"In". Turn key
counterclockwise
to release. Key
with-drawable in both positions. Black
only.

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

Part No. Description

- PL-T3K-B . . .Black
- PL-K3K-B . . .Black



**Automatic Push/Turn
Mushroom.** Manual push
"In". Latches "In". Turn
clockwise to unlatch.
Spring return.

Part No. Description

- PL-L3M-R . . .Red
- PL-L3M-G . . .Green
- PL-L3M-B . . .Black



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

Part No. Description

- PL-P4K-B . . .Black



**Push Key
Mushroom.** Manual push
"In". Automatic
latches "In".
Turn key clock-
wise to release. Spring return. Key with-
drawable "Out" position only. Red only.

Part No. Description

- PL-L4M-R . . .Red



**Spring Return Twist
45°.** Turn clockwise
and hold for "In".
Release for spring
return. Black only.

Part No. Description

- PL-T2T-B . . .Black



Maintained Twist 90°.
Turn clockwise to latch
"In". Turn counterclock-
wise to release. Black
only.

Part No. Description

- PL-T3T-B . . .Black



**Manual Push
Mushroom.** Manual
push "In". Spring
return.

Part No. Description

- PL-P2M-R . . .Red
- PL-P2M-G . . .Green
- PL-P2M-B . . .Black

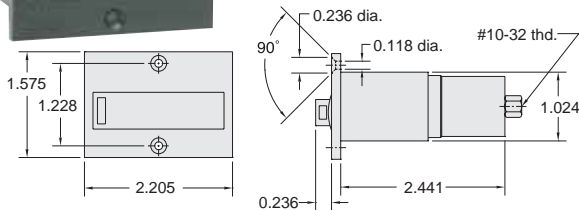


PALM BUTTONS

Pneumatic Totalizing Counter



This unit is a 6-digit pneumatic totalizing counter, designed for panel mounting. Its operation is identical to that of the PT-1SM, but in a different physical arrangement. Both units may be reset manually or by a pneumatic impulse. Operating pressure range is extremely wide (30 to 120 psig).



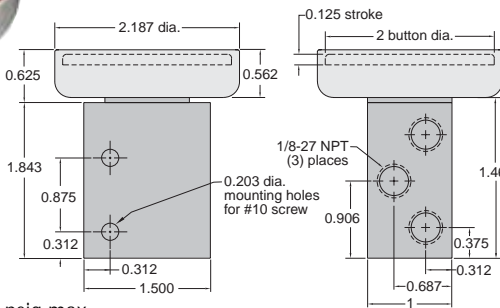
- Display:** 6 figures, numerals 0.080" to 0.160"
- Medium:** filtered compressed air containing no oil
- Reset:** Manual push button and pneumatic spring return
- Input Pressure:** 30-120 psig
- Mounting:** Panel mount

Part No.	Description
PT-2PM	Pneumatic Totalizing Counter, 6-Digit

3-Way Poppet Palm Button Valves



3-Way Poppet (MAV-3C) Normally Closed - Bubble Tight Cartridge Valve (- replaceable)



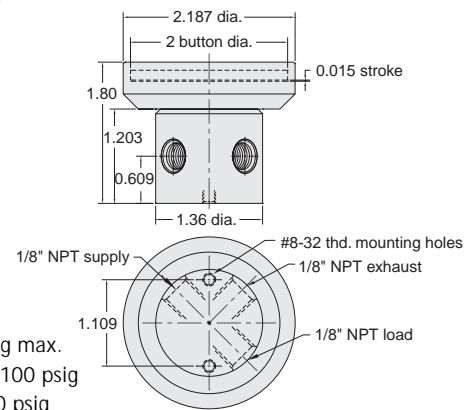
- Medium:** Air
- Stem Travel:** 1/8"
- Input Pressure:** 100 psig max.
- Air Flow:** 3.5 SCFM @150 psig; 6.0 SCFM @100 psig
- Bleed:** 0.1 SCFM @ 100 psig
- Force to Actuate:** 1.75 lb. manual
- Ports:** 1/8" NPT - exhaust may be muffled or piped away but NOT restricted
- Mounting:** Mounting holes provided; optional Bracket Kit #12959 provides additional mounting versatility; valve available with anodized color buttons

Part No.	Description
PB-1-RD	3-Way Poppet Bubble Valve, Red
PB-1-GN	3-Way Poppet Bubble Valve, Green
PB-1-BK	3-Way Poppet Bubble Valve, Black
12959	90° Mounting Bracket Kit (shown below)

Low Force 3-Way Palm Button Valves



3-way low force poppet valve; Normally closed; depressing button blocks the sensing port causing rapid valve opening



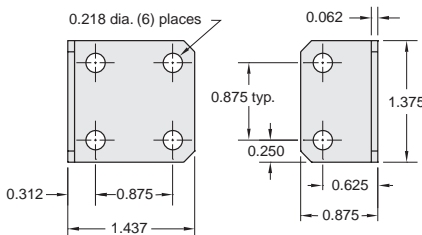
- Medium:** Air
- Input Pressure:** 100 psig max.
- Air Flow:** 22 SCFM - @100 psig
- Bleed:** 0.8 SCFM @ 100 psig
- Force to Actuate:** 1 oz. manual
- Mounting:** Mounting holes provided; optional Bracket Kit #2010-50 provides additional mounting versatility; valve available with anodized color buttons

Part No.	Description
PB-2-RD	Low Force 3-Way Poppet Valve, Red
PB-2-GN	Low Force 3-Way Poppet Valve, Green
PB-2-BK	Low Force 3-Way Poppet Valve, Black
2010-050	Mounting Bracket Kit (shown below)

90° Mounting Bracket



90° angle, heavy duty versatile Mounting Bracket for Clippard palm button valves



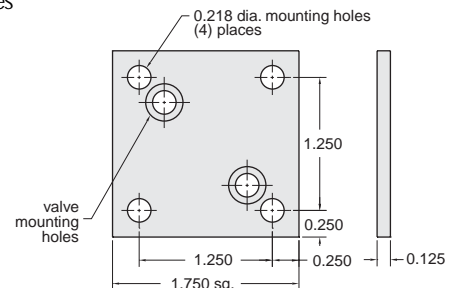
- Mounting:** Six 7/32" dia. holes on 1/8" centers for attaching valves to bracket
- Construction:** Stamped from 1/8" thick steel, zinc plated

Part No.	Description
12959	90° Mounting Bracket Kit

Mounting Bracket



Bracket to mount 2010, 2011-1, 2012 and 2013 valves



- Black oxide finish, two mounting screws furnished

Part No.	Description
2010-050	Mounting Bracket Kit