



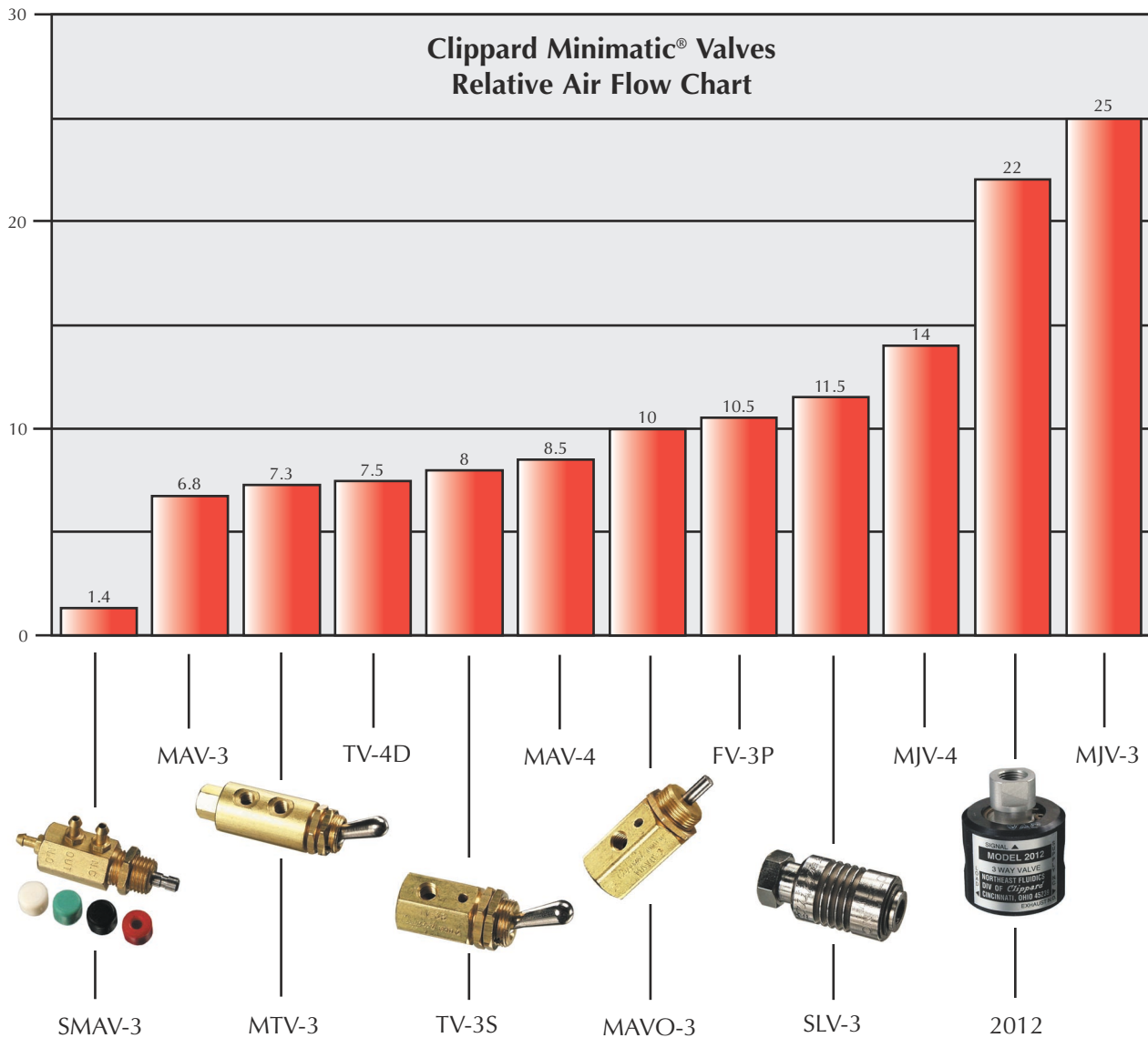
CONTROL VALVES



Every air system is unique... and Clippard has the air valve you need. Clippard control valves are available in poppet or spool design; 2, 3, or 4-way functions, in sizes from #3-56 and #10-32 through 1/8 NPT ports; and for pressures to 300 PSIG. They are available with solenoid, air pilot, manual and mechanical actuators. Mounting styles include inline, panel mount, manifold mount or clearance holes for mounting screws.

When designing a pneumatic system, choose the proper size for each component. A valve of insufficient capacity may cause an entire system to operate slower than expected. Conversely, utilizing a valve which possesses greater capacity than is actually required results in needless size and often leads to excessive speed, impact, wear, and air consumption.

The chart below shows the variety of valve flows available from Clippard. It can be used as a guide to determine the proper valve for an actual application.



Clippard Minimatic® miniature valves and associated products have evolved into a widely used system of fluid power control devices, known for quality, value and performance.

Over the past five decades, a diverse range of industries in the U.S. and throughout the world have come to rely on Minimatics® to control machines, systems, and processes through an unlimited list of applications. Clippard quality in design, engineering, manufacturing, as well as an expansive product offering, make Minimatics® the preferred choice for miniature and subminiature pneumatic applications.



Recognized as the original and most complete line of miniature fluid power components, Clippard's Minimatic® line is available across the globe through a network of fully-trained, stocking distributors. Clippard and our distributors stand ready to provide expert application assistance, support, and technical answers, to help you achieve the highest level of performance in your system.

Options

-NP Nickel Plating

This option provides a bright finish on brass parts for decorative purposes that also protects the surface from corrosion and tarnishing. It has a nominal thickness of .0015", and does not affect the fit or function of the part.

-ENP Electroless Nickel Plating

This option provides a low luster finish on brass parts for decorative purposes that also protects the surface from corrosion and tarnishing. It has a nominal thickness of .0002", and does not affect the fit or function of the part.

-V Viton

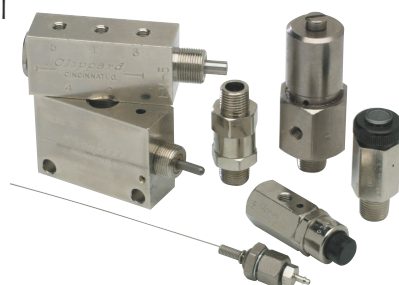
This option replaces the standard Buna-N seals with Viton seals either for high temperature (up to + 400°F) applications or those that require Viton for chemical compatibility.

-M5

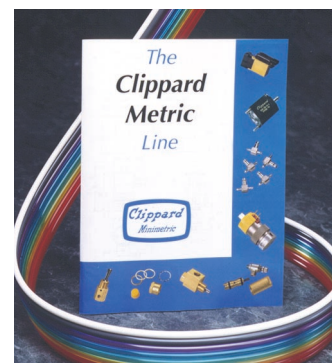
M5 metric ports

-MG

G 1/8 metric ports



Metric Catalog



Many of the most popular Clippard valves and fittings are available with metric ports. The Minimetric® catalog is a 90 page color catalog that has been drilled to fit in the standard Clippard three ring binder, as well as the four ring European binder. Divided into five sections, the Minimetric® catalog details the complete line of Clippard Metric products and is available from your local distributor.



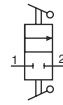
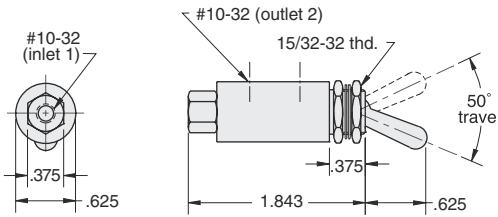
2-WAY TOGGLE VALVES

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

MTV-2



Two position 2-way poppet toggle valve

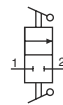
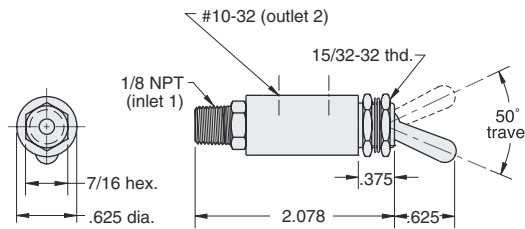


Medium: air, water, or oil
Arc of Travel: 50°
Input Pressure: 300 psig max.
Air Flow: @50 psig - 4.0 SCFM
 @100 psig - 7.3 SCFM
Force For Full Stem Travel: 16 oz. nom.
Mounting: 15/32-32 male thread
 Nut and lockwashers furnished
Ports: Inlet - 10-32, Outlet - 10-32
Temperature Range: 32° to 230° F

MTV-2P



Two position 2-way poppet toggle valve with 1/8 NPT inlet

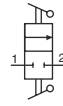
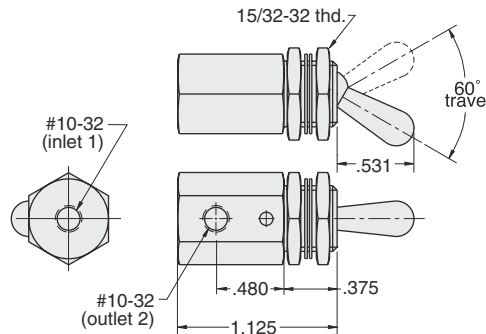


Medium: air, water, or oil
Arc Of Travel: 50°
Input Pressure: 300 psig max.
Air Flow: @50 psig - 4.0 SCFM
 @100 psig - 7.3 SCFM
Force For Full Stem Travel: 16 oz. nom.
Mounting: 15/32-32 thread
 Nut and lockwashers furnished
Ports: Inlet - 1/8 NPT, Outlet - 10-32
Temperature Range: 32° to 230° F

TV-2S



Two position 2-way spool toggle valve

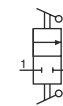
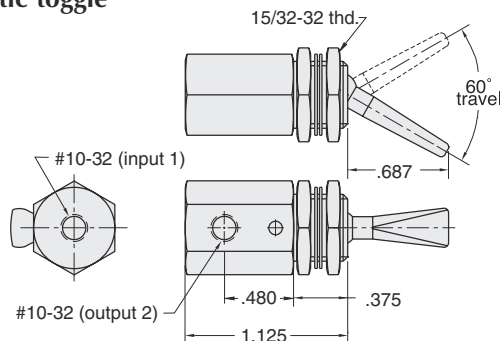


Medium: air, water, or oil
Arc Of Travel: 60°
Input Pressure: 150 psig max.
Air Flow: @50 psig - 4.5 SCFM
 @100 psig - 8.0 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thread
 Nut and lockwashers furnished
Ports: Inlet - 10-32, Outlet - 10-32
Temperature Range: 32° to 230° F

TV-2SF



Two position 2-way spool toggle valve with plastic toggle



Medium: air, water, or oil
Arc Of Travel: 60°
Input Pressure: 150 psig max.
Air Flow: @50 psig - 4.5 SCFM
 @100 psig - 8.0 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thread
 Nut and lockwashers furnished
Ports: Inlet - 10-32, Outlet - 10-32
Toggle: Plastic
Temperature Range: 32° to 230° F

2-WAY TOGGLE VALVES

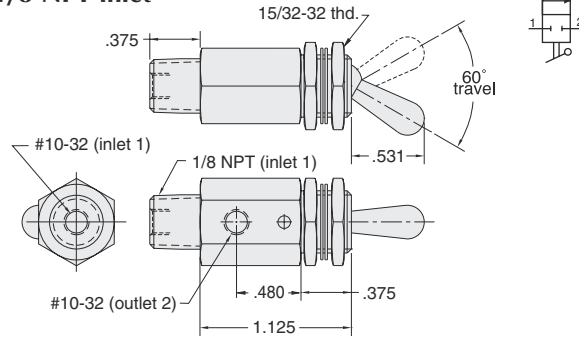


Options: see page 105 **Materials:** brass body, Buna-N seals, stainless steel stem & spring

TV-2SP



Two position 2-way spool toggle valve with 1/8 NPT inlet

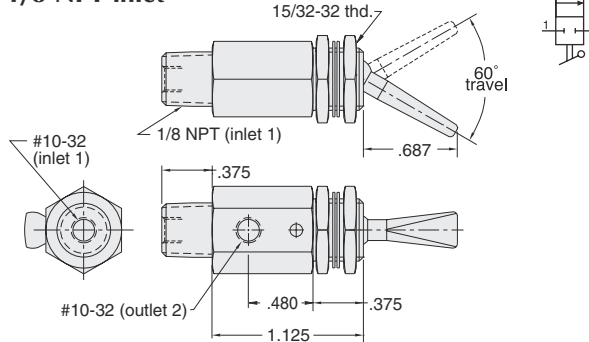


Medium: air, water, or oil
Arc Of Travel: 60°
Input Pressure: 150 psig max.
Air Flow: @50 psig - 4.5 SCFM
 @100 psig - 8.0 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thread
 Nut and lockwashers furnished
Ports: Inlet - 1/8 NPT, Outlet - 10-32
Temperature Range: 32° to 230° F

TV-2SFP



Two position 2-way spool toggle valve with 1/8 NPT inlet

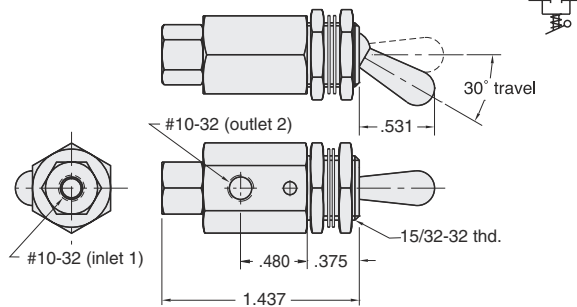


Medium: air, water, or oil
Arc Of Travel: 60°
Input Pressure: 150 psig max.
Air Flow: @50 psig - 4.5 SCFM
 @100 psig - 8.0 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thread
 Nut and lockwashers furnished
Ports: Inlet - 1/8 NPT, Outlet - 10-32
Toggle: Plastic
Temperature Range: 32° to 230° F

TV-2M



Two position 2-way poppet toggle valve with momentary actuation

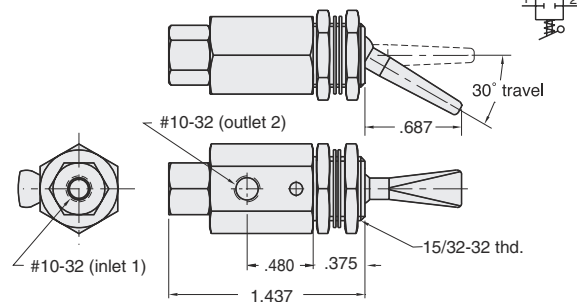


Medium: air, water, or oil
Arc Of Travel: 30°
Input Pressure: 150 psig max.
Air Flow: @50 psig - 4.5 SCFM
 @100 psig - 8.0 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thread
 Nut and lockwashers furnished
Ports: Inlet - 10-32, Outlet - 10-32
Temperature Range: 32° to 230° F

TV-2MF



Two position 2-way poppet toggle valve with plastic toggle and momentary actuation



Medium: air, water, or oil
Arc Of Travel: 30°
Input Pressure: 150 psig max.
Air Flow: @50 psig - 4.5 SCFM
 @100 psig - 8.0 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thread
 Nut and lockwashers furnished
Ports: Inlet - 10-32, Outlet - 10-32
Toggle: Plastic
Temperature Range: 32° to 230° F

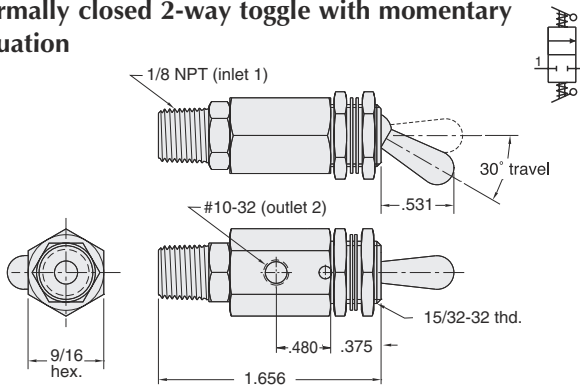


2-WAY MOMENTARY TOGGLE VALVES

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

TV-2MP

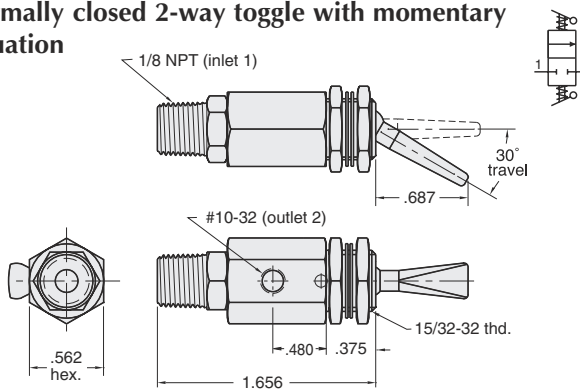
Normally closed 2-way toggle with momentary actuation



Medium: air, water, or oil
Input Pressure: 150 psig max.
Air Flow: @50 psig - 4.0 SCFM
 @100 psig - 6.8 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thd.
 nut and lockwasher furnished
Ports: Inlet 1/8 NPT, Outlet 10-32
Temperature Range: 32° to 230° F

TV-2MFP

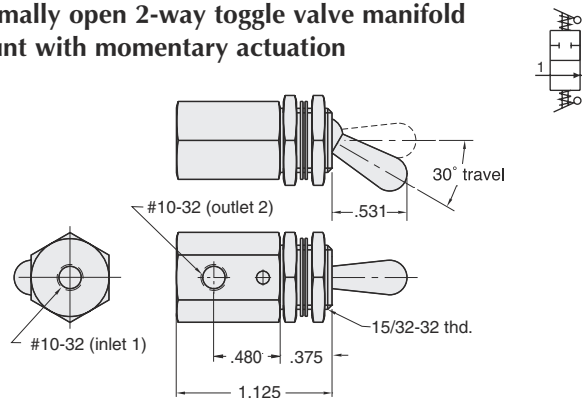
Normally closed 2-way toggle with momentary actuation



Medium: air, water, or oil
Input Pressure: 150 psig max.
Air Flow: @50 psig - 4.0 SCFM
 @100 psig - 6.8 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thd.
 nut and lockwasher furnished
Ports: Inlet 1/8 NPT, Outlet 10-32
Toggle: plastic
Temperature Range: 32° to 230° F

TVO-2M

Normally open 2-way toggle valve manifold mount with momentary actuation

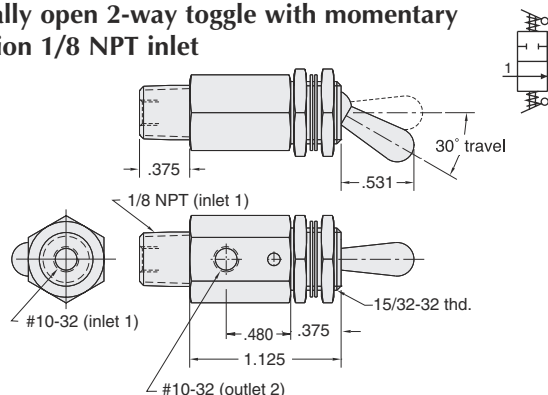


Medium: air, water, or oil
Arc Of Travel: 60°
Input Pressure: 150 psig max.
Air Flow: @50 psig - 4.5 SCFM
 @100 psig - 8.0 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thd.
 nut and lockwasher furnished
Ports: Inlet 10-32, Outlet 10-32
Temperature Range: 32° to 230° F

TVO-2MF: same as TVO-2M except with a plastic toggle

TVO-2MP

Normally open 2-way toggle with momentary actuation 1/8 NPT inlet



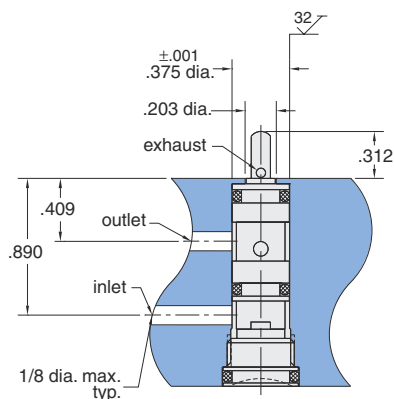
Medium: air, water, or oil
Input Pressure: 150 psig max.
Air Flow: @50 psig - 4.0 SCFM
 @100 psig - 6.8 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thd.
 nut and lockwasher furnished
Ports: Inlet 1/8 NPT, Outlet 10-32
Temperature Range: 32° to 230° F

TVO-2MFP: same as TVO-2MP except with a plastic toggle

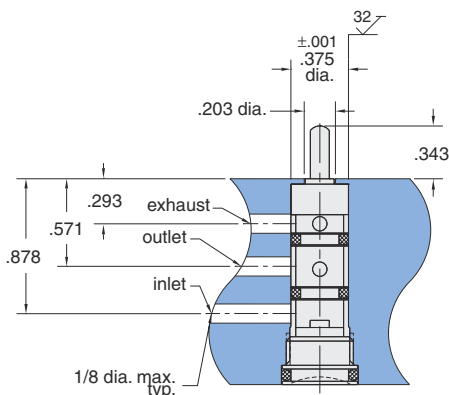
Options: see page 105 **Materials:** brass body, Buna-N seals, stainless steel stem & spring

CARTRIDGE VALVE MOUNTING

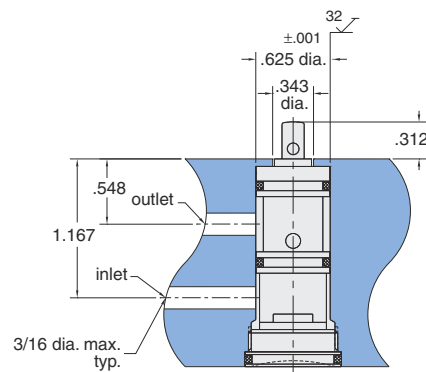
Clippard miniature cartridge valves offer the user flexibility in the application of 2-way and 3-way normally open or normally closed valves. Two sizes are provided: to fit either a .375" diameter bore or .625" diameter bore. They are used in Clippard heavy duty limit switches and are suitable for pneumatic tools and manifolds or for any use where a valve needs to be built in.



MAV-2C/3C



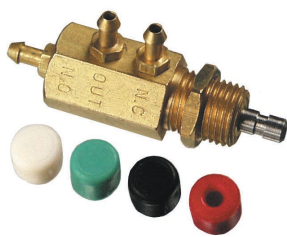
MAVO-2C/3C



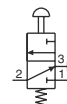
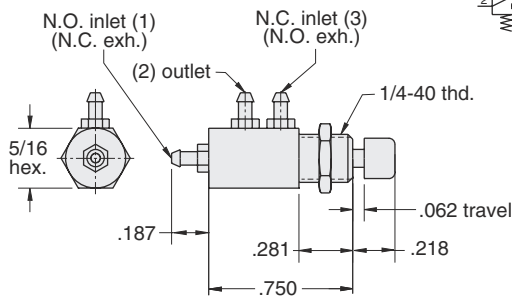
MJV-2C/3C

SUB-MINIATURE 3-WAY VALVES

SMAV-3

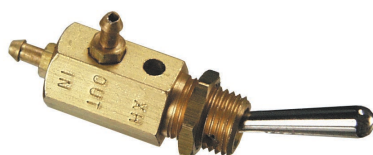


Sub-miniature 3-way N.C. or N.O. spool valve

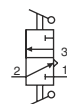
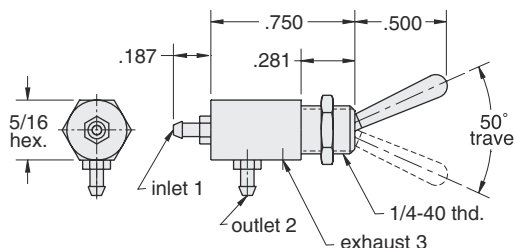


- Medium:** air
 - Stem Travel:** 1/16"
 - Input Pressure:** 100 psig max.
 - Air Flow:** @100 psig - 1.4 SCFM
 - Force For Full Stem Travel:** 20 oz. nominal
 - Ports:** 3-56 with 1/16" I.D. hose bars
 - Temperature Range:** 32° to 230° F
 - Spool Material:** Delrin®
- Four colors of snap on push buttons included with each valve

SMTV-3



Sub-miniature 3-way spool two position toggle valve



- Medium:** air
- Arc Of Travel:** 50°
- Input Pressure:** 100 psig max.
- Air Flow:** @100 psig - 1.4 SCFM
- Force For Full Stem Travel:** 24 oz. nominal
- Ports:** 3-56 with 1/16" I.D. hose bars
- Temperature Range:** 32° to 230° F
- Spool Material:** Delrin®



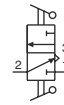
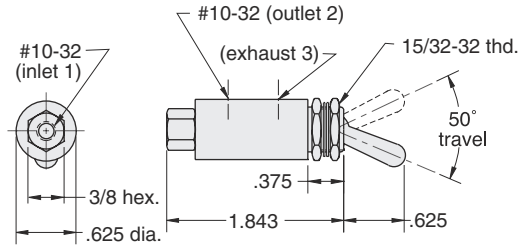
3-WAY TOGGLE VALVES

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

MTV-3



3-way poppet two position toggle valve

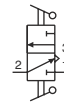
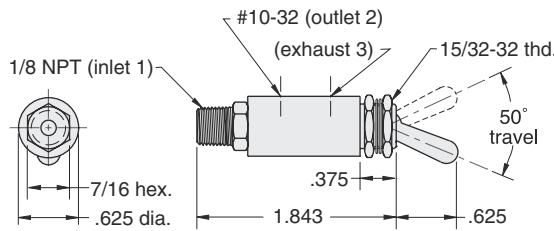


Medium: air, water, or oil
Arc Of Travel: 50°
Input Pressure: 300 psig max.
Air Flow: @50 psig - 4 SCFM
 @100 psig - 7 SCFM
Force For Full Stem Travel: 16 oz. nom.
Mounting: 15/32-32 thd.
 nut and lockwasher furnished
Ports: Inlet - 10-32, Outlet - 10-32,
 Exhaust 10-32
Temperature Range: 32° to 230° F

MTV-3P



3-way poppet two position toggle valve

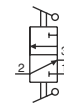
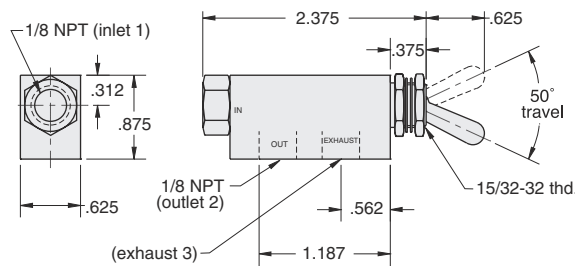


Medium: air, water, or oil
Arc Of Travel: 50°
Input Pressure: 300 psig max.
Air Flow: @50 psig - 4 SCFM
 @100 psig - 7 SCFM
Force For Full Stem Travel: 16 oz. nom.
Mounting: 15/32-32 thd.
 nut and lockwasher furnished
Ports: Inlet - 1/8 NPT, Outlet - 10-32
 Exhaust 10-32
Temperature Range: 32° to 230° F

MJTV-3



3-way poppet two position toggle valve with 1/8 NPT ports

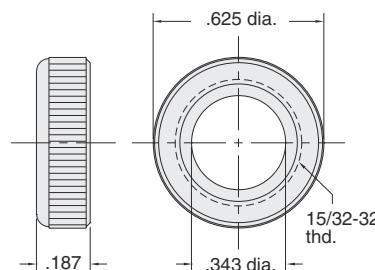


Medium: air, water, or oil
Arc Of Travel: 50°
Input Pressure: 300 psig max.
Air Flow: @50 psig - 14 SCFM
 @100 psig - 25 SCFM
Force For Full Stem Travel: 16 oz. nom.
Mounting: 15/32-32 thd.
 nut and lockwasher furnished
Ports: Inlet - 1/8 NPT, Outlet - 1/8 NPT
 Exhaust 1/8 NPT
Temperature Range: 32° to 230° F

11406-1 (black) 11406-2 (bright)



15/32" panel mounting nut



Construction: Brass with black or bright nickel finish

3-WAY TOGGLE VALVES

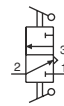
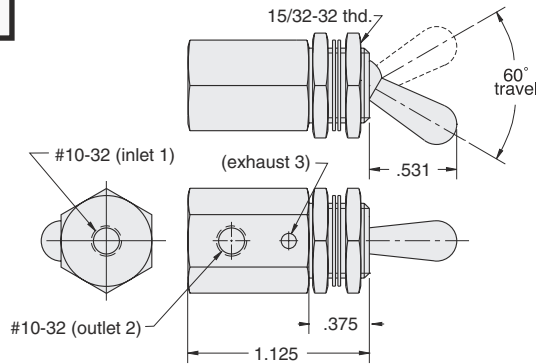


Options: see page 105 **Materials:** brass body, Buna-N seals, stainless steel stem & spring

TV-3S



3-way spool two position toggle valve



Medium: air

Arc Of Travel: 60°

Input Pressure: 150 psig max.

Air Flow: @50 psig - 4.5 SCFM
@100 psig - 8.0 SCFM

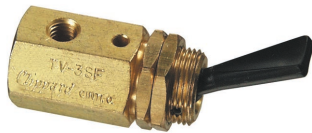
Force For Full Stem Travel: 12 oz. nom.

Mounting: 15/32-32 thd.
nut and lockwasher furnished

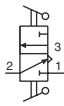
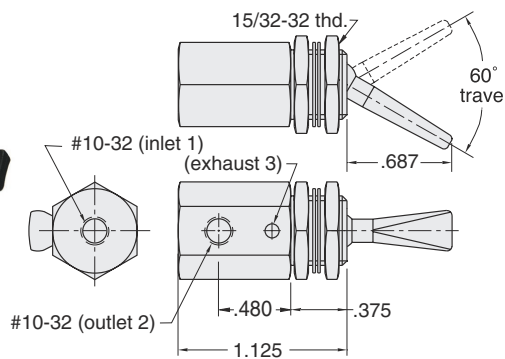
Ports: Inlet - 10-32, Outlet - 10-32

Temperature Range: 32° to 230° F

TV-3SF



3-way spool two position toggle valve



Medium: air

Arc Of Travel: 60°

Input Pressure: 150 psig max.

Air Flow: @50 psig - 4.5 SCFM
@100 psig - 8.0 SCFM

Force For Full Stem Travel: 12 oz. nom.

Mounting: 15/32-32 thd.
nut and lockwasher furnished

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

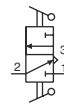
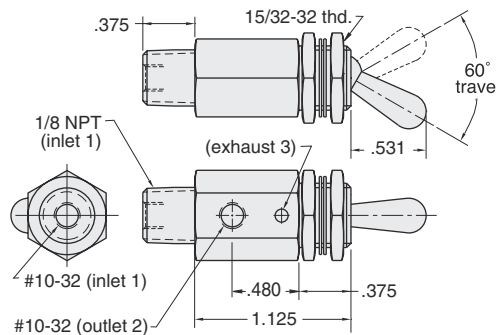
Toggle: Plastic

Temperature Range: 32° to 230° F

TV-3SP



3-way spool two position toggle valve with 1/8 NPT



Medium: air

Arc Of Travel: 60°

Input Pressure: 150 psig max.

Air Flow: @50 psig - 4.5 SCFM
@100 psig - 8.0 SCFM

Force For Full Stem Travel: 12 oz. nom.

Mounting: 15/32-32 thd.
nut and lockwasher furnished

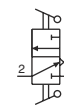
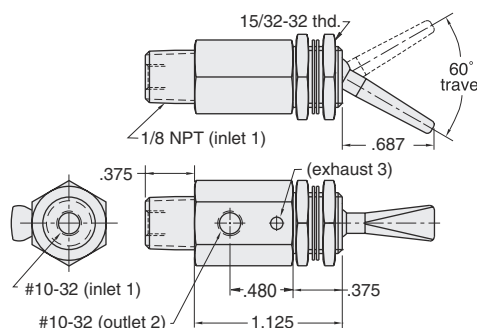
Ports: Inlet - 1/8 NPT, Outlet - 10-32

Temperature Range: 32° to 230° F

TV-3SFP



3-way spool two position toggle valve with 1/8 NPT inlet and plastic toggle



Medium: air

Arc Of Travel: 60°

Input Pressure: 150 psig max.

Air Flow: @50 psig - 4.5 SCFM
@100 psig - 8.0 SCFM

Force For Full Stem Travel: 12 oz. nom.

Mounting: 15/32-32 thd.
nut and lockwasher furnished

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

Toggle: Plastic

Temperature Range: 32° to 230° F

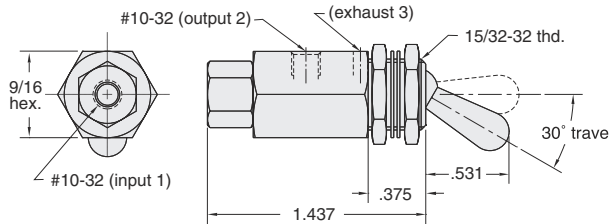
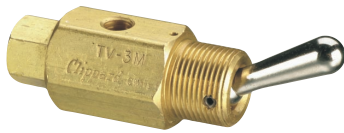


3-WAY MOMENTARY TOGGLE VALVES

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

TV-3M

Normally closed 3-way toggle valve with momentary actuation

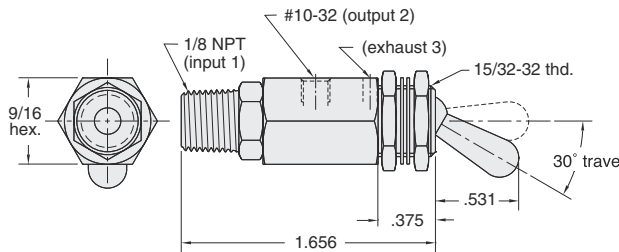


Medium: air
Input Pressure: 300 psig max.
Air Flow: @50 psig - 4.0 SCFM
 @100 psig - 6.8 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thd.
 nut and lockwasher furnished
Ports: Inlet 10-32, Outlet 10-32
Temperature Range: 32° to 230° F

TV-3MF: same as TV-3M except with a plastic toggle

TV-3MP

Normally closed 3-way toggle valve with momentary actuation 1/8 NPT inlet

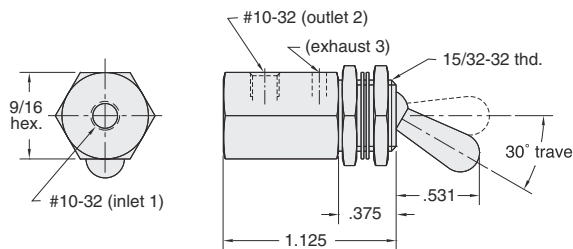


Medium: air, water, or oil
Input Pressure: 150 psig max.
Air Flow: @50 psig - 4.0 SCFM
 @100 psig - 6.8 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thd.
 nut and lockwasher furnished
Ports: Inlet 1/8 NPT, Outlet 10-32
Temperature Range: 32° to 230° F

TV-3MPF: same as TV-3MP except with a plastic toggle

TVO-3M

Normally open 3-way toggle valve with momentary actuation

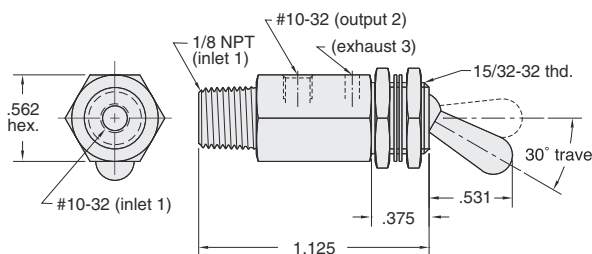


Medium: air
Input Pressure: 300 psig max.
Air Flow: @50 psig - 4.0 SCFM
 @100 psig - 6.8 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thd.
 nut and lockwasher furnished
Ports: Inlet 10-32, Outlet 10-32
Temperature Range: 32° to 230° F

TVO-3MF: same as TVO-3M except with a plastic toggle

TVO-3MP

Normally open 3-way toggle valve with momentary actuation 1/8 NPT inlet



Medium: air
Input Pressure: 150 psig max.
Air Flow: @50 psig - 4.0 SCFM
 @100 psig - 6.8 SCFM
Force For Full Stem Travel: 12 oz. nom.
Mounting: 15/32-32 thd.
 nut and lockwasher furnished
Ports: Inlet 1/8 NPT, Outlet 10-32
Temperature Range: 32° to 230° F

TVO-3MPF: same as TVO-3MP except with a plastic toggle

4-WAY TOGGLE VALVES

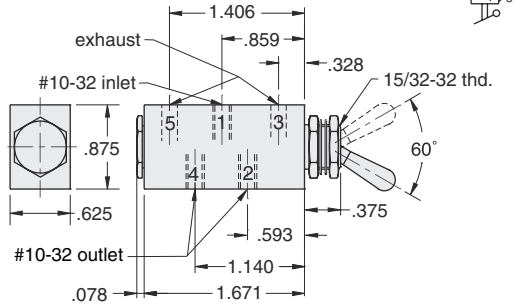


Options: see page 105 **Materials:** brass body, Buna-N seals, stainless steel stem & spring

MTV-4



4-way spool toggle actuated two position valve

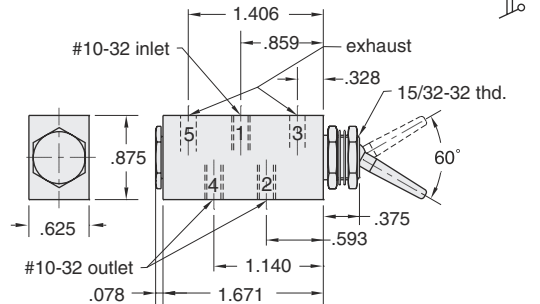


- Medium:** air
- Arc Of Travel:** 60°
- Input Pressure:** 150 psig max.
- Air Flow:** @50 psig - 6 SCFM
@100 psig - 10 SCFM
- Force For Full Stem Travel:** 16 oz. nominal
- Mounting:** 15/32-32 thread
nut and lockwashers furnished
- Ports:** Inlet - 10-32, Outlet - 10-32
- Exhaust:** To atmosphere through holes
in body
- Temperature Range:** 32° to 230° F

MTV-4F

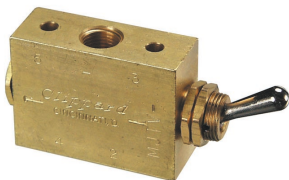


4-way spool toggle actuated two position valve with plastic toggle

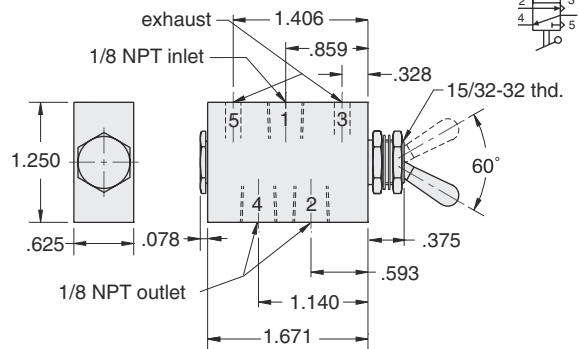


- Medium:** air
- Arc Of Travel:** 60°
- Input Pressure:** 150 psig max.
- Air Flow:** @50 psig - 6 SCFM
@100 psig - 10 SCFM
- Force For Full Stem Travel:** 16 oz. nominal
- Mounting:** 15/32-32 thread
nut and lockwashers furnished
- Ports:** Inlet - 10-32, Outlet - 10-32
- Exhaust:** To atmosphere through holes in body
- Construction:** Plastic Toggle
- Temperature Range:** 32° to 230° F

MJTV-4



4-way spool toggle actuated two position valve

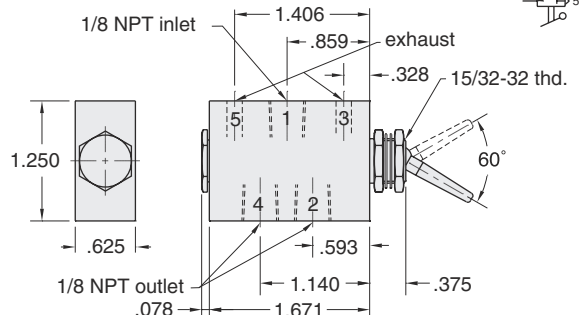


- Medium:** air
- Arc Of Travel:** 60°
- Input Pressure:** 150 psig max.
- Air Flow:** @50 psig - 6.5 SCFM
@100 psig - 10.5 SCFM
- Force For Full Toggle Travel:** 16 oz. nominal
- Mounting:** 15/32-32 thread
nut and lockwashers furnished
- Ports:** Inlet - 1/8 NPT, Outlet - 1/8 NPT
- Exhaust:** To atmosphere through holes
in body
- Temperature Range:** 32° to 230° F

MJTV-4F



4-way spool toggle actuated two position valve with plastic toggle



- Medium:** air
- Arc Of Travel:** 60°
- Input Pressure:** 150 psig max.
- Air Flow:** @50 psig - 6.5 SCFM
@100 psig - 10.5 SCFM
- Force For Full Toggle Travel:** 16 oz. nominal
- Mounting:** 15/32-32 thread
nut and lockwashers furnished
- Ports:** Inlet - 1/8 NPT, Outlet - 1/8 NPT
- Exhaust:** To atmosphere through holes in body
- Construction:** Plastic Toggle
- Temperature Range:** 32° to 230° F

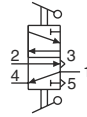
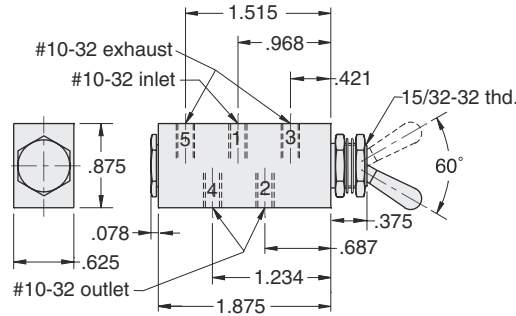
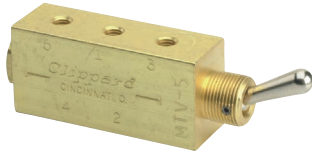


4-WAY FULLY PORTED TOGGLE VALVES

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

MTV-5

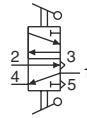
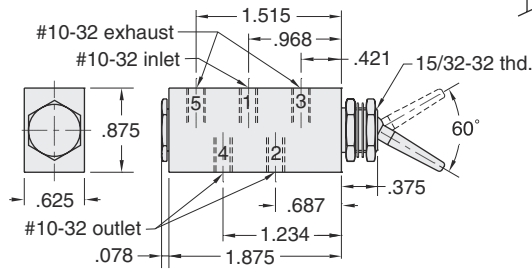
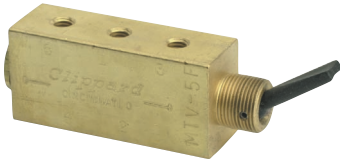
4-way spool toggle actuated two position fully ported valve



Medium: air, water, or oil
Arc Of Travel: 60°
Input Pressure: 150 psig max.
Air Flow: @50 psig - 6 SCFM
 @100 psig - 10 SCFM
Force For Full Stem Travel: 16 oz. 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

MTV-5F

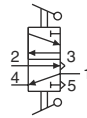
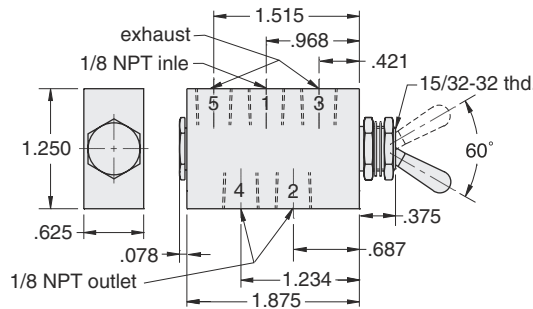
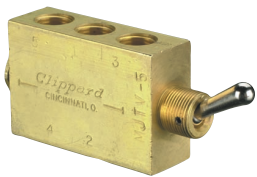
4-way spool toggle actuated two position fully ported valve



Medium: air, water, or oil
Arc Of Travel: 60°
Input Pressure: 150 psig max.
Air Flow: @50 psig - 6 SCFM
 @100 psig - 10 SCFM
Force For Full Stem Travel: 16 oz. nom.
Mounting: 15/32-32 thread nut and lockwashers furnished
Ports: Inlet - 10-32, Outlet - 10-32
Exhaust: 10-32
Construction: Plastic Toggle
Temperature Range: 32° to 230° F

MJTV-5

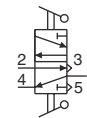
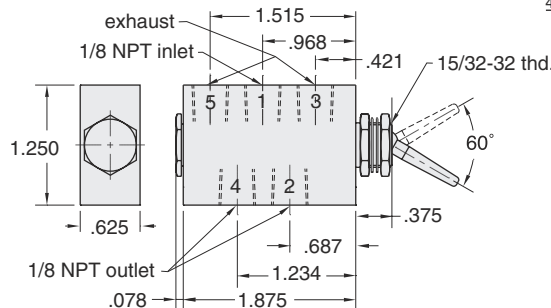
4-way spool toggle actuated two position fully ported valve



Medium: air, water, or oil
Arc Of Travel: 60°
Input Pressure: 150 psig max.
Air Flow: @50 psig - 6.5 SCFM
 @100 psig - 10.5 SCFM
Force For Full Stem Travel: 16 oz. 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

MJTV-5F

4-way spool toggle actuated two position fully ported valve



Medium: air, water, or oil
Arc Of Travel: 60°
Input Pressure: 150 psig max.
Air Flow: @50 psig - 6.5 SCFM
 @100 psig - 10.5 SCFM
Force For Full Stem Travel: 16 oz. nom.
Mounting: 15/32-32 thread nut and lockwashers furnished
Ports: Inlet - 1/8 NPT, Outlet - 1/8 NPT
Exhaust: 1/8 NPT
Construction: Plastic Toggle
Temperature Range: 32° to 230° F

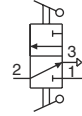
FTV SERIES 3-WAY VALVE



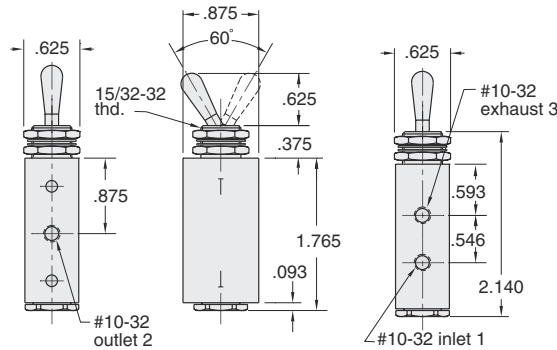
Options: see page 105 **Materials:** brass body, Buna-N seals, stainless steel stem & spring

FTV-3

3-way spool toggle actuated two position fully ported valve



- Medium:** air, water, or oil
- Input Pressure:** Vacuum to 150 psig max.
- Air Flow:** @50 psig - 6 SCFM
@100 psig - 10 SCFM
- Force For Full Stem Travel:** 16 oz. nom.
- Arc Of Travel:** 60°
- 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
- Construction:** Plastic Toggle (FTV-3F)

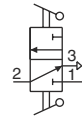


FTV-3F

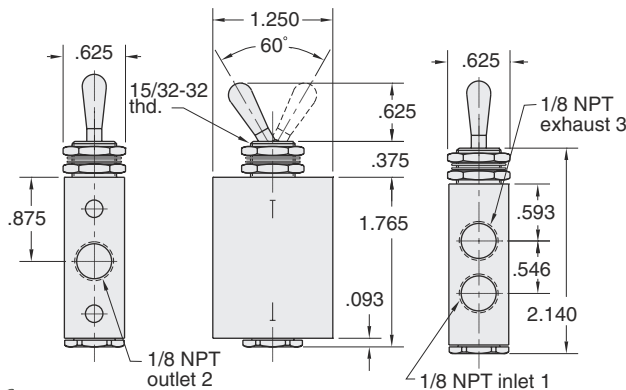
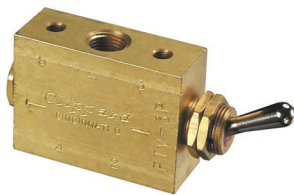


FTV-3P

3-way spool toggle actuated two position fully ported valve



- Medium:** air, water, or oil
- Input Pressure:** Vacuum to 150 psig max.
- Air Flow:** @50 psig - 6.5 SCFM
@100 psig - 10.5 SCFM
- Force For Full Stem Travel:** 16 oz. nom.
- Arc Of Travel:** 60°
- 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
- Construction:** Plastic Toggle (FTV-3FP)

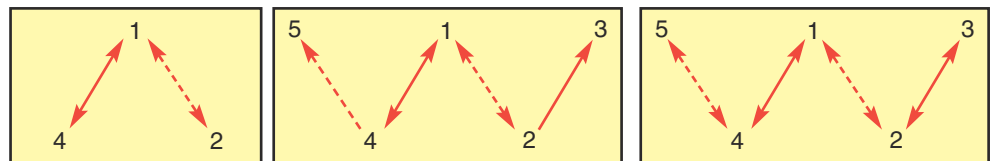


FTV-3FP



FLOW PATHS FOR "FTV & FV" SERIES VALVES

Solid lines indicate flow paths with toggle or stem in one direction. Dotted lines indicate flow paths when the toggle or stem are shifted.



Note: Includes MTV-4, MTV-5, MFTV-4 & MJTV-5



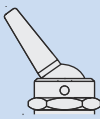
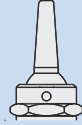
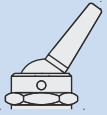
TV SERIES 4-WAY TOGGLE VALVE

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

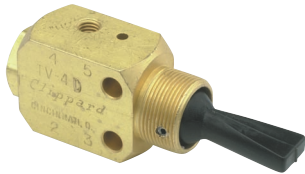
Toggle Position Options

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.

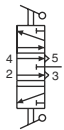
Valves are made of solid brass, bright dipped finish to resist corrosion; stems and springs are of stainless steel, toggle of black acetyl plastic, and seals of Buna-N rubber. They will handle pressures from 0 to 120 psig, and temperatures from 32 to 230 degrees F.

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		Momentary	
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

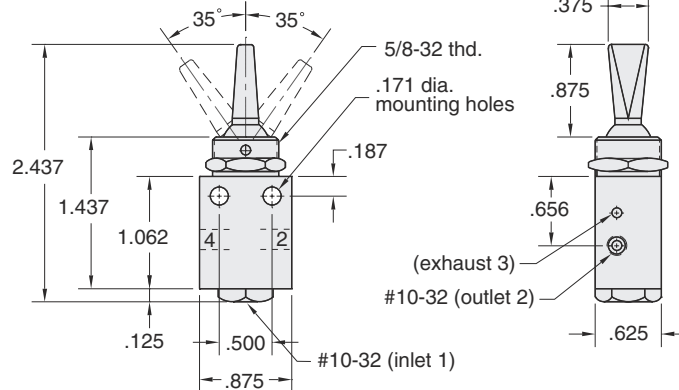
Force For Full Stem Travel: 8 oz. nom.

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

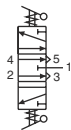
Ports: #10-32

Toggle: plastic

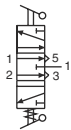
Temperature Range: 32° to 230° F



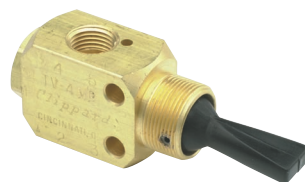
TV-4M



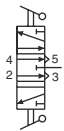
TV-4DM



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

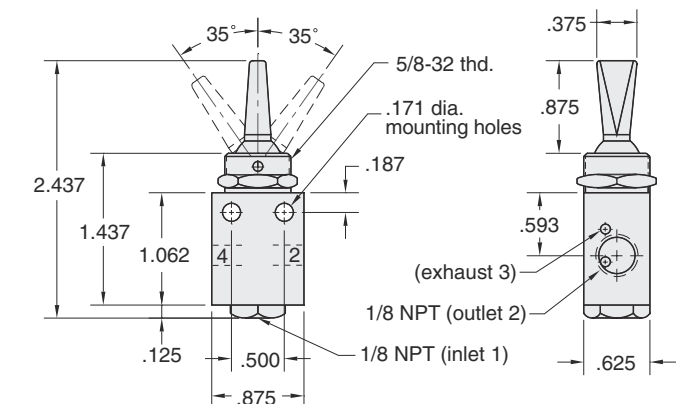
Force For Full Stem Travel: 8 oz. nom.

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

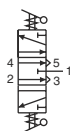
Ports: 1/8 NPT

Toggle: plastic

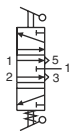
Temperature Range: 32° to 230° F



TV-4MP



TV-4DMP



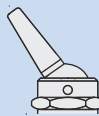
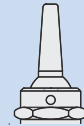
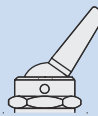
FBV SERIES 3-WAY FILL & BLEED TOGGLE VALVE



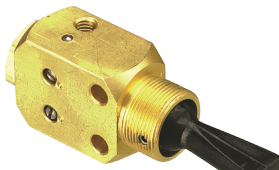
Options: see page 105 **Materials:** brass body, Buna-N seals, stainless steel stem & spring

Fill and Bleed Applications

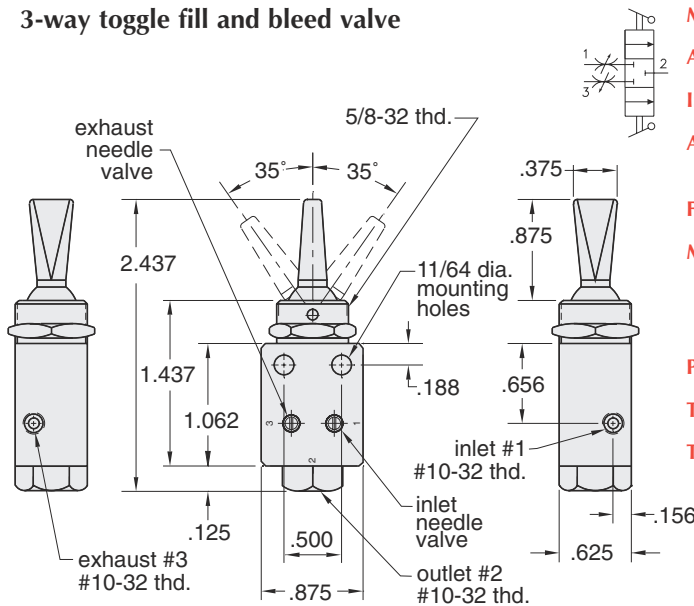
The FBV-3 may be used to pressurize or "fill" a chamber or bladder by depressing the toggle in one direction and then de-pressurize or "bleed" that same chamber or bladder by depressing the toggle in the other direction. Toggling back and forth between the inlet and exhaust provides a fine adjustment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

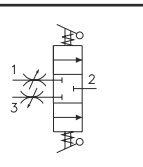


3-way toggle fill and bleed valve

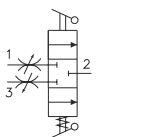


- Medium:** air
- Arc Of Travel:** 35° each side of center
- Input Pressure:** 120 psig max.
- Air Flow:** @50 psig - 3.0 SCFM
@100 psig - 5.0 SCFM
- Force For Full Stem Travel:** 8 oz. nom.
- Mounting:** 5/8-32 thread
Nut and lockwashers furnished
(2) .171 mounting holes in body or may be mounted directly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

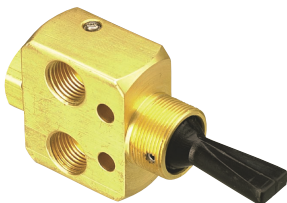
FBV-3M



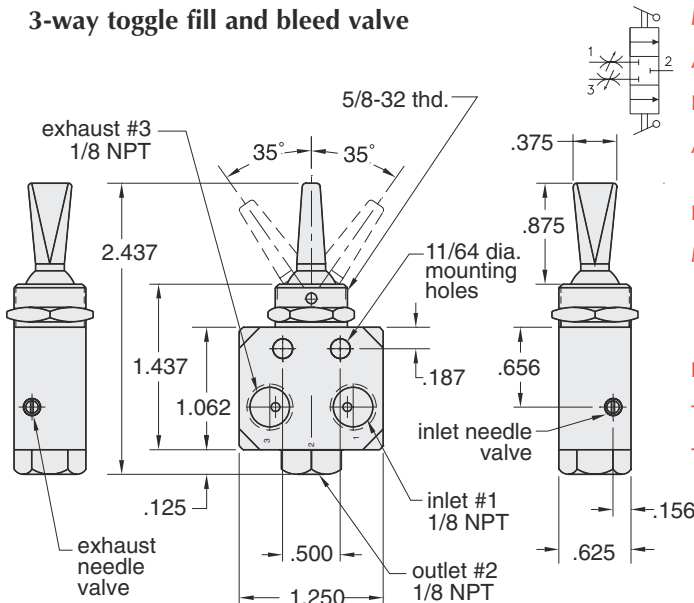
FBV-3DM



FBV-3DP

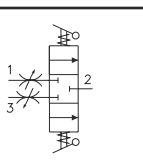


3-way toggle fill and bleed valve



- 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

