

Features

- Miniature size
- Poppet design contributes to long product life
- Seven input options
- Swivel input port to accommodate critical alignment
- Closed crossover (NC *Only*)
- Non-threaded exhaust port



2 & 3-Way Valves

“O” Series

The highly reliable “O” Series valve is available in 2-Way or 3-Way normally open or normally closed. Ideal for limited space applications (OAL not more than 2.43”) this miniature valve features seven swivel input options- virtually eliminating the need for additional fittings!

Closed cross-over The normally closed “O” Series features a stem and poppet that work in conjunction with one another. The poppet seals the exhaust port before it opens to flow (normally closed). There is no transitional state from one function to the next providing the user precise control between positions.

Swivel input port to accommodate critical alignment

Performance Data

Temperature Range	Operating Pressure	C _v	Flow Rate (scfm)		Fill Time sec/ in ³ 0-90 psi	Exhaust Time sec/ in ³ 100-10 psi
			50 psi	125 psi		
-20° to 160° F	0 to 125 psi	.24	8.2	17.3	.02	.06

C_v per ANSI / (NFPA) T3.21.3

Actuation Force

Actuator Style	2-Way Valve		3-Way Valve	
	50 psi	125 psi	50 psi	125 psi
Nylon Toggle	4 oz	6 oz	4 oz	6 oz
Push Button	3 lbs	5 1/2 lbs	3 lbs	5 1/2 lbs

Actuation force for NC **ONLY**

Materials

Aluminum/ Anodize or Brass/ Electroless Nickel, Acetal, Stainless Steel, Nylon, Buna-N (optional seals available- contact factory)

“O” Series Cross Section 3-Way Normally Closed

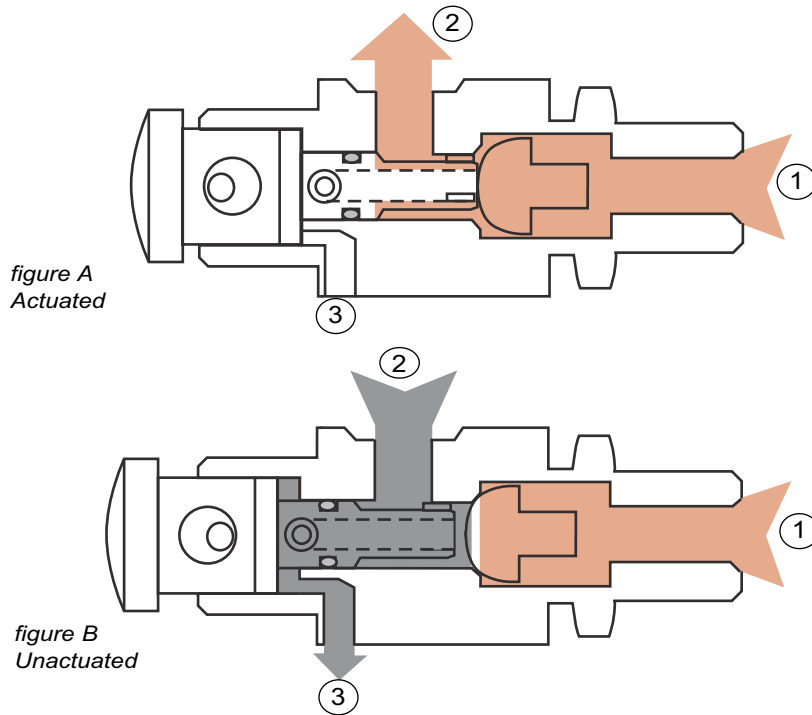


figure A
Actuated

figure B
Unactuated

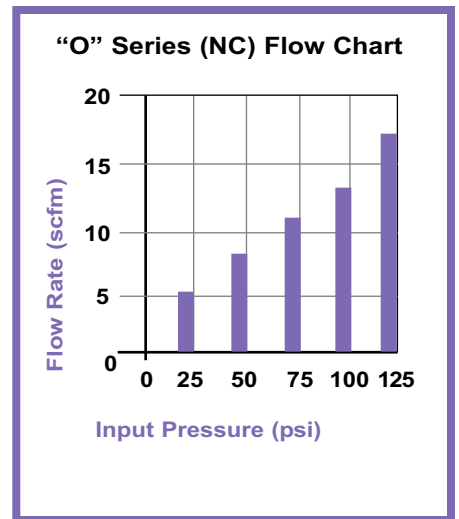
Function

When a 3-Way normally closed valve is actuated (figure A) the stem unseats the poppet allowing flow through port 1 around the poppet and stem and out port 2.

In the unactuated position (figure B) the poppet is seated. When flow enters from port 2 it travels through the hollow stem and exhausts to atmosphere through port 3. The poppet design provides a large durable surface that can withstand millions of cycles.

The *normally open* “O” Series features a stem design with standard Buna-N O-rings.

Normally Open valves are clear anodized for corrosion resistance



Port Options

Definition	Options
Port 1 Swivel Input	<ul style="list-style-type: none"> ● 1/8 NPT / 10-32 (F) ● 10-32 (F) Elbow ● 10-32 (F) Tee ● 1/8 NPT (F) ● 170 Barb* ● 1/4 Push-in ● 5/32 Push-in
Port 2 Output	10-32 (F)
Port 3 Exhaust	non-threaded, exhausts to atmosphere

*170 barb- recommended for use with .170 ID PUR or .170 ID PE

Swivel input is NOT to be used as a rotary union

Mounting Method

Panel	Surface
Nominal mounting hole dimension 31/64"	MB-1 or MB-1F Mounting Bracket

(2) nuts and (1) lockwasher provided

Ordering Information

- To order standard product refer to Product Information listing.
- Optional seals available- contact factory.
- Metal push button available- use an "M" as the second character to indicate metal.
- Nylon toggles and push buttons are available in seven colors with black as standard. To order colored actuator specify the color, by code, as a "-code#" suffix following the part number (see color code chart).

Product Information

2-Way Normally Closed

	<i>Part Number</i>	<i>Input</i>
Push Button	AO-20-1	1/8 NPT /10-32 (F)
	AO-20-2	10-32 (F) Elbow
	AO-20-3	10-32 (F) Tee
	AO-20-4	1/8 NPT (F)
	AO-20-5	170 Barb
	AO-20-6	1/4 Push-in
	AO-20-7	5/32 Push-in
Detented Toggle	HO-20-1	1/8 NPT /10-32 (F)
	HO-20-2	10-32 (F) Elbow
	HO-20-3	10-32 (F) Tee
	HO-20-4	1/8 NPT (F)
	HO-20-5	170 Barb
	HO-20-6	1/4 Push-in
	HO-20-7	5/32 Push-in
Momentary Toggle	FO-20-1	1/8 NPT /10-32 (F)
	FO-20-2	10-32 (F) Elbow
	FO-20-3	10-32 (F) Tee
	FO-20-4	1/8 NPT (F)
	FO-20-5	170 Barb
	FO-20-6	1/4 Push-in
	FO-20-7	5/32 Push-in

3-Way Normally Closed

	<i>Part Number</i>	<i>Input</i>
Push Button	AO-30-1	1/8 NPT /10-32 (F)
	AO-30-2	10-32 (F) Elbow
	AO-30-3	10-32 (F) Tee
	AO-30-4	1/8 NPT (F)
	AO-30-5	170 Barb
	AO-30-6	1/4 Push-in
	AO-30-7	5/32 Push-in
Detented Toggle	HO-30-1	1/8 NPT /10-32 (F)
	HO-30-2	10-32 (F) Elbow
	HO-30-3	10-32 (F) Tee
	HO-30-4	1/8 NPT (F)
	HO-30-5	170 Barb
	HO-30-6	1/4 Push-in
	HO-30-7	5/32 Push-in
Momentary Toggle	FO-30-1	1/8 NPT /10-32 (F)
	FO-30-2	10-32 (F) Elbow
	FO-30-3	10-32 (F) Tee
	FO-30-4	1/8 NPT (F)
	FO-30-5	170 Barb
	FO-30-6	1/4 Push-in
	FO-30-7	5/32 Push-in

2-Way Normally Open

	<i>Part Number</i>	<i>Input</i>
Push Button	AO-21-1	1/8 NPT /10-32 (F)
	AO-21-2	10-32 (F) Elbow
	AO-21-3	10-32 (F) Tee
	AO-21-4	1/8 NPT (F)
	AO-21-5	170 Barb
	AO-21-6	1/4 Push-in
	AO-21-7	5/32 Push-in
Detented Toggle	HO-21-1	1/8 NPT /10-32 (F)
	HO-21-2	10-32 (F) Elbow
	HO-21-3	10-32 (F) Tee
	HO-21-4	1/8 NPT (F)
	HO-21-5	170 Barb
	HO-21-6	1/4 Push-in
	HO-21-7	5/32 Push-in
Momentary Toggle	FO-21-1	1/8 NPT /10-32 (F)
	FO-21-2	10-32 (F) Elbow
	FO-21-3	10-32 (F) Tee
	FO-21-4	1/8 NPT (F)
	FO-21-5	170 Barb
	FO-21-6	1/4 Push-in
	FO-21-7	5/32 Push-in

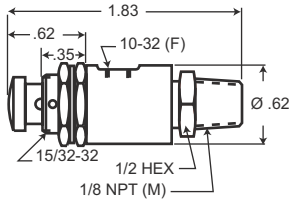
3-Way Normally Open

	<i>Part Number</i>	<i>Input</i>
Push Button	AO-31-1	1/8 NPT /10-32 (F)
	AO-31-2	10-32 (F) Elbow
	AO-31-3	10-32 (F) Tee
	AO-31-4	1/8 NPT (F)
	AO-31-5	170 Barb
	AO-31-6	1/4 Push-in
	AO-31-7	5/32 Push-in
Detented Toggle	HO-31-1	1/8 NPT /10-32 (F)
	HO-31-2	10-32 (F) Elbow
	HO-31-3	10-32 (F) Tee
	HO-31-4	1/8 NPT (F)
	HO-31-5	170 Barb
	HO-31-6	1/4 Push-in
	HO-31-7	5/32 Push-in
Momentary Toggle	FO-31-1	1/8 NPT /10-32 (F)
	FO-31-2	10-32 (F) Elbow
	FO-31-3	10-32 (F) Tee
	FO-31-4	1/8 NPT (F)
	FO-31-5	170 Barb
	FO-31-6	1/4 Push-in
	FO-31-7	5/32 Push-in

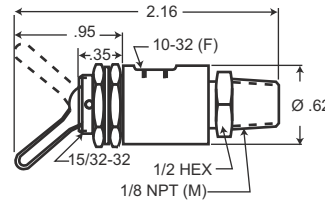
*Pneumadyne
"O" Series Valves
have been customer
tested over
40 million cycles!*

Push Button Actuator

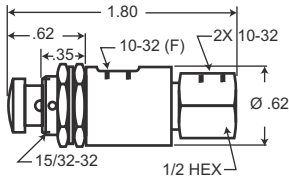
Toggle Actuator



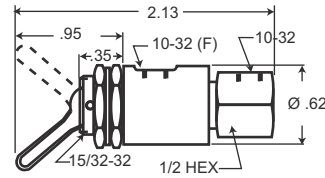
“-1” Input



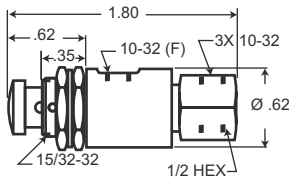
“-1” Input



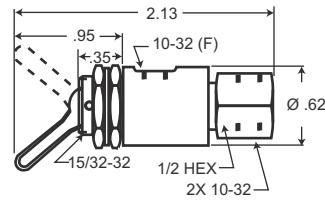
“-2” Input



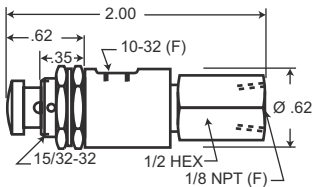
“-2” Input



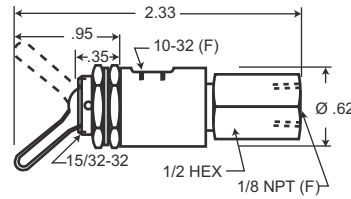
“-3” Input



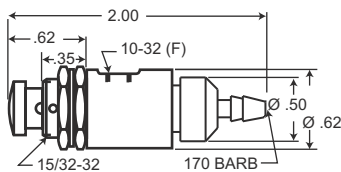
“-3” Input



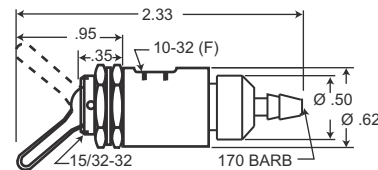
“-4” Input



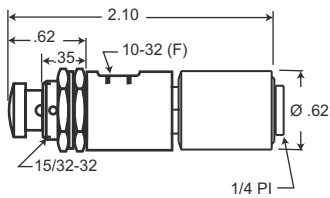
“-4” Input



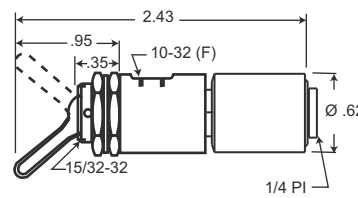
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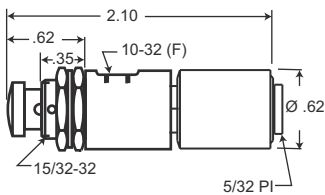
“-5” Input



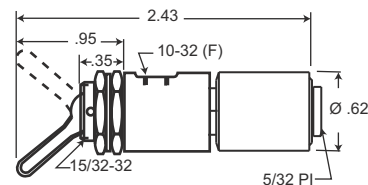
“-6” Input



“-6” Input



“-7” Input



“-7” Input

● When design makes a dimension critical- contact factory for confirmation. All dimensions shown subject to change without notice.