

## Features

- Single stem design
- Compact size
- Four input options
- Numerous porting configurations
- Fully ported design offers plumbing versatility
- Vacuum applications to 26" Hg



## 2 & 3-Way Valves "200" & "300" Series

The "200" & "300" Series valves feature miniature size and a single stem design. The "200" Series valve features 1/16 barbed porting and is ideal for use as a pilot service device. The "300" Series is available with five porting configurations offering the following:

**10-32 (F) Input/Output:** Ideal for use as a pilot actuating device and for basic on/off functions

**Rear Ported:** Streamlined profile with side-by-side porting for use in space constrained applications  
**1/8 NPT Input:** Ideal for direct mounting in a manifold or other machine member

**Cartridge:** Ideal for use in manifold systems and custom applications where space is limited

**10-32 (F) Fully ported:** Threaded exhaust port can be used in applications to direct and capture exhaust flow- [see alternative plumbing options](#)

## Performance Data

Temperature Range	Operating Pressure
-20° to 160° F	26" Hg to 125 psi

Product	C <sub>v</sub>		Flow Rate (scfm) Port 1-2		Fill Time sec/ in <sup>3</sup> 0-90 psi	Exhaust Time sec/ in <sup>3</sup> 100-10 psi
	Port 1-2	Port 2-3	50 psi	125 psi		
"200" Series Barbed N.C.	.026	N/A	.93	2.10	.14	.20
"200" Series Barbed N.O.	.030	N/A	1.08	2.33	.12	.19
"300" Series 10-32 (F) Input/output	.20	N/A	7.2	15.5	.02	.04
"300" Series 10-32 (F) Fully ported	.27	.25	9.0	20.0	.014	.035

- 2-Way valves ideal for use in liquid applications compatible with materials of construction

C<sub>v</sub> per ANSI / (NFPA) T3.21.3

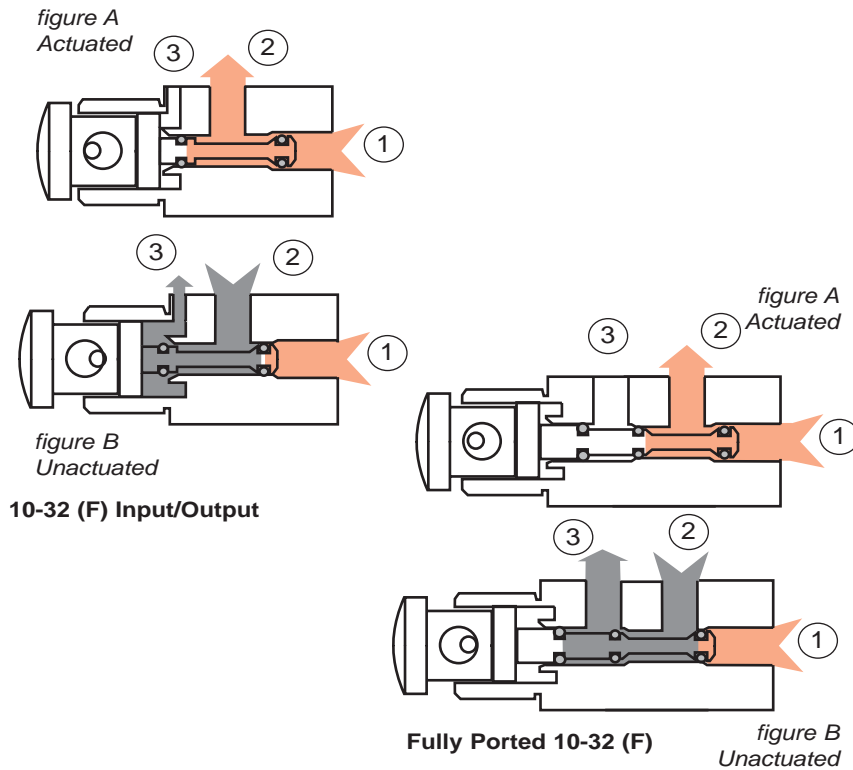
## Actuation Force

Actuator Style	"200" Series Barbed		"300" Series 10-32 input		"300" Series Fully ported 10-32 (F)	
	50 psi	125 psi	50 psi	125 psi	50 psi	125 psi
Toggle	6 oz	11 oz	6 oz	11 oz	6 oz	11 oz
Ball	29 oz	51 oz	29 oz	51 oz	29 oz	51 oz
Push Button	29 oz	51 oz	29 oz	51 oz	29 oz	51 oz
Integral Air Pilot	-	-	-	-	30 psi	40 psi

## Materials

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

### “300” Series Cut-away 3-Way Normally Closed



#### Function

In the actuated position (figure A) air flows through port 1 travels around the lower O-ring and flows out port 2- the upper O-ring seals the passage preventing exhaust flow out of the valve.

In the unactuated position (figure B) the lower O-ring seals the flow at port 1, allowing flow to enter port 2 travel around the upper seal and exhaust to atmosphere through port 3.

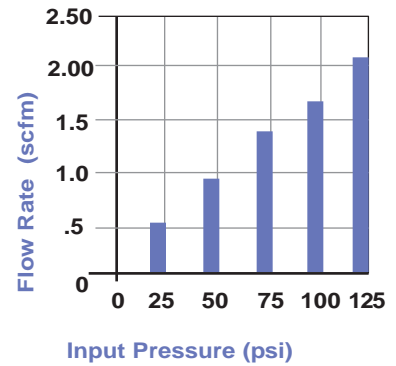
The **10-32 (F) fully ported** valve allows the capture and removal of exhaust flow. (See [Plumbing Options for Fully Ported Valves](#) alternative plumbing methods.)

#### Port Options

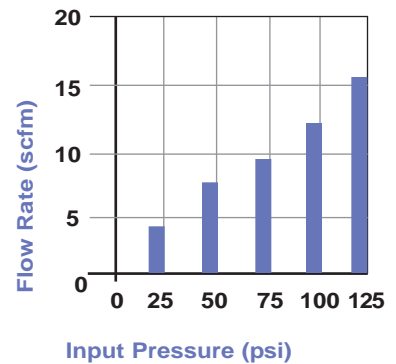
Valve	Input 1	Output 2	Exhaust
Barbed	062 Barb	062 Barb	non-threaded
10-32 (F) Input/Output	10-32 (F)	10-32 (F)	non-threaded
Rear Ported	10-32 (F)	10-32 (F)	non-threaded
1/8 NPT Input	1/8 NPT	10-32 (F)	non-threaded
*Cartridge	non-threaded	non-threaded	non-threaded
10-32 (F) Fully Ported	10-32 (F)	10-32 (F)	10-32 (F)

[\\*Cartridge valve mounting drawing](#)

“200” Series Flow Chart



“300” Series Flow Chart



#### Mounting Method

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

(2) nuts and (1) lockwasher provided



Stainless Steel 10-32 Fully Ported valve with M5 threads available- contact factory

**Viton® is a registered trademark of Dupont Dow Elastomers**

## Product Information

### "200" Series Barbed Valve

Part Number	Operator
<b>2-Way Normally Closed</b>	
C021701	Toggle Detented
C021703	Toggle Momentary
C021705	Nylon Button
C021707	Nylon Ball
C021721	Metal Toggle Detented
C021723	Metal Toggle Momentary
C021725	Metal Button
C021727	Stainless Steel Ball

#### 2-Way Normally Open

C021501	Toggle Detented
C021503	Toggle Momentary
C021505	Nylon Button
C021507	Nylon Ball
C021521	Metal Toggle Detented
C021523	Metal Toggle Momentary
C021525	Metal Button
C021527	Stainless Steel Ball

#### 3-Way Normally Closed

C021601	Toggle Detented
C021603	Toggle Momentary
C021605	Nylon Button
C021607	Nylon Ball
C021621	Metal Toggle Detented
C021623	Metal Toggle Momentary
C021625	Metal Button
C021627	Stainless Steel Ball

#### 3-Way Normally Open

C021401	Toggle Detented
C021403	Toggle Momentary
C021405	Nylon Button
C021407	Nylon Ball
C021421	Metal Toggle Detented
C021423	Metal Toggle Momentary
C021425	Metal Button
C021427	Stainless Steel Ball

### "300" Series Standard

Part Number	Operator
<b>2-Way Normally Closed</b>	
C030201	Toggle Detented
C030203	Toggle Momentary
C030205	Nylon Button
C030207	Nylon Ball
C030209	062 Barb Integral Air Pilot
C030221	Metal Toggle Detented
C030223	Metal Toggle Momentary
C030225	Metal Button
C030227	Stainless Steel Ball

#### 3-Way Normally Closed

C030101	Toggle Detented
C030103	Toggle Momentary
C030105	Nylon Button
C030107	Nylon Ball
C030109	062 Barb Integral Air Pilot
C030121	Metal Toggle Detented
C030123	Metal Toggle Momentary
C030125	Metal Button
C030127	Stainless Steel Ball

### "300" Series Standard

Part Number	Operator
<b>2-Way Normally Open</b>	
C030401	Toggle Detented
C030403	Toggle Momentary
C030405	Nylon Button
C030407	Nylon Ball
C030421	Metal Toggle Detented
C030423	Metal Toggle Momentary
C030425	Metal Button
C030427	Stainless Steel Ball
<b>3-Way Normally Open</b>	
C030301	Toggle Detented
C030303	Toggle Momentary
C030305	Nylon Button
C030307	Nylon Ball
C030321	Metal Toggle Detented
C030323	Metal Toggle Momentary
C030325	Metal Button
C030327	Stainless Steel Ball

**Product Information**



**“300” Series  
Standard  
Stainless Steel**

<i>Part Number</i>	<i>Operator</i>
--------------------	-----------------

**2-Way Normally Closed**

C032101	Toggle Detented
C032103	Toggle Momentary
C032105	Nylon Button
C032107	Nylon Ball
C032121	Metal Toggle Detented
C032123	Metal Toggle Momentary
C032125	Metal Button
C032127	Stainless Steel Ball

**3-Way Normally Closed**

C032201	Toggle Detented
C032203	Toggle Momentary
C032205	Nylon Button
C032207	Nylon Ball
C032221	Metal Toggle Detented
C032223	Metal Toggle Momentary
C032225	Metal Button
C032227	Stainless Steel Ball

**“300” Series Rear Ported**

<i>Part Number</i>	<i>Operator</i>
--------------------	-----------------

**2-Way Normally Closed**

C031001	Toggle Detented
C031003	Toggle Momentary
C031005	Nylon Button
C031007	Nylon Ball
C031021	Metal Toggle Detented
C031023	Metal Toggle Momentary
C031025	Metal Button
C031027	Stainless Steel Ball

**3-Way Normally Closed**

C030901	Toggle Detented
C030903	Toggle Momentary
C030905	Nylon Button
C030907	Nylon Ball
C030921	Metal Toggle Detented
C030923	Metal Toggle Momentary
C030925	Metal Button
C030927	Stainless Steel Ball

**“300” Series  
1/8 NPT Input**

<i>Part Number</i>	<i>Operator</i>
--------------------	-----------------

**2-Way Normally Closed**

C030701	Toggle Detented
C030703	Toggle Momentary
C030705	Nylon Button
C030707	Nylon Ball
C030721	Metal Toggle Detented
C030723	Metal Toggle Momentary
C030725	Metal Button
C030727	Stainless Steel Ball

**3-Way Normally Closed**

C030601	Toggle Detented
C030603	Toggle Momentary
C030605	Nylon Button
C030607	Nylon Ball
C030621	Metal Toggle Detented
C030623	Metal Toggle Momentary
C030625	Metal Button
C030627	Stainless Steel Ball

**“300” Series Cartridge**

<i>Part Number</i>	<i>Operator</i>
--------------------	-----------------

**2-Way Normally Closed**

C032401	Toggle Detented
C032403	Toggle Momentary
C032405	Nylon Button
C032407	Nylon Ball
C032421	Metal Toggle Detented
C032423	Metal Toggle Momentary
C032425	Metal Button
C032427	Stainless Steel Ball

**3-Way Normally Closed**

C032301	Toggle Detented
C032303	Toggle Momentary
C032305	Nylon Button
C032307	Nylon Ball
C032321	Metal Toggle Detented
C032323	Metal Toggle Momentary
C032325	Metal Button
C032327	Stainless Steel Ball

**“300” Series  
10-32 Fully Ported**

<i>Part Number</i>	<i>Operator</i>
--------------------	-----------------

**3-Way Normally Closed**

C030501	Toggle Detented
C030503	Toggle Momentary
C030505	Nylon Button
C030507	Nylon Ball
C030509	062 Barb Integral Air Pilot
C030510	Pin
C030521	Metal Toggle Detented
C030523	Metal Toggle Momentary
C030525	Metal Button
C030527	Stainless Steel Ball



**“300” Series  
10-32 Fully Ported  
Stainless Steel**

**3-Way Normally Closed**

C032001	Toggle Detented
C032003	Toggle Momentary
C032005	Nylon Button
C032007	Nylon Ball
C032021	Metal Toggle Detented
C032023	Metal Toggle Momentary
C032025	Metal Button
C032027	Stainless Steel Ball



Look for this symbol next to the part number listing to easily locate stainless steel products.



The threaded exhaust port can be used in applications to direct and capture exhaust flow

**“200” & “300” Series valves feature miniature size and a single stem design**

## Product Number Diagram “200 & 300” Series

**C O 2 1 6 0 1**

### Seals

O= Buna-N  
E= Ethylene  
Propylene  
V= Viton®

### Actuator

01= Detented Nylon Toggle  
03= Momentary Nylon Toggle  
05= Nylon Button  
07= Nylon Ball  
09= 062 Barb Integral Air Pilot  
10= Pin  
21= Metal Detented Toggle  
23= Metal Momentary Toggle  
25= Metal Button  
27= Stainless Steel Ball

### Style and Function

*214 Barbed 3WNO	306 1/8 NPT Input 3WNC
*215 Barbed 2WNO	307 1/8 NPT Input 2WNC
*216 Barbed 3WNC	309 Rear Ported 3WNC
*217 Barbed 2WNC	310 Rear Ported 2WNC
301 Standard 3WNC	320 10-32 (F) Fully Ported SS 3WNC
302 Standard 2WNC	321 Standard SS 3WNC
303 Standard 3WNO	322 Standard SS 2WNC
304 Standard 2WNO	323 Cartridge 3WNC
305 10-32 (F) Fully Ported 3WNC	324 Cartridge 2WNC

**Example:** 200 Series - Buna N O-rings, 3-Way Normally Closed, with Detented Toggle

\* 062 barb- recommended for use with 1/16 ID PUR tubing

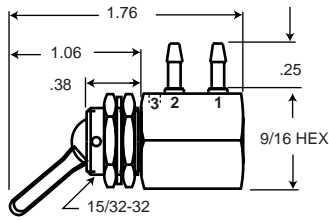
## Ordering Information

- To order standard product refer to Product Information listing.
- With Ethylene Propylene O-ring seal, change the “CO” in the part number to “CE”.
- With Viton® O-ring seal, change the “CO” in the part number to “CV”.
- Nylon toggle and push buttons are available in seven colors with black as standard. To order colored actuators specify the color, by code, as a “-code#” suffix following the part number ([see color code chart](#)).

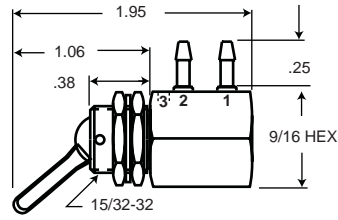


**Barbed Ports**  
*Normally Closed*

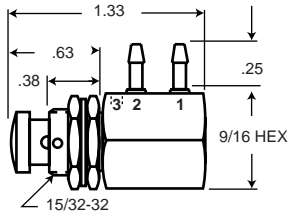
**Barbed Ports**  
*Normally Open*



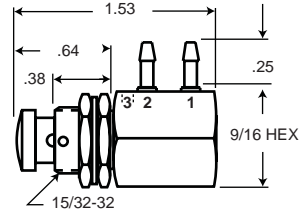
**C021601**  
**C021603**  
**C021701**  
**C021703**



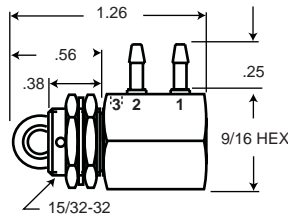
**C021401**  
**C021403**  
**C021501**  
**C021503**



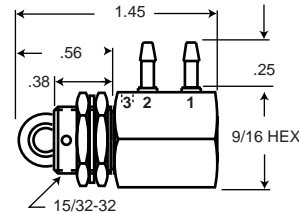
**C021605**  
**C021625**  
**C021705**  
**C021725**



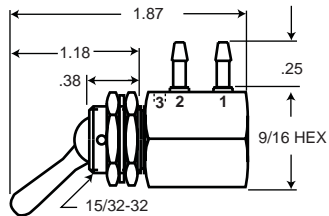
**C021405**  
**C021425**  
**C021505**  
**C021525**



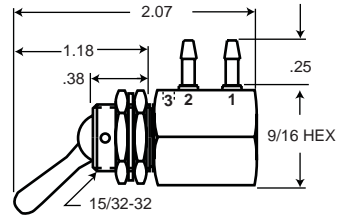
**C021607**  
**C021627**  
**C021707**  
**C021727**



**C021407**  
**C021427**  
**C021507**  
**C021527**



**C021621**  
**C021623**  
**C021721**  
**C021723**



**C021421**  
**C021423**  
**C021521**  
**C021523**

● Refer to **Product Number Diagram** for part number description

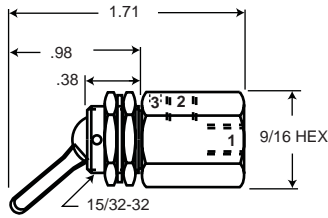
● Port 3 is for 3-Way products only

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

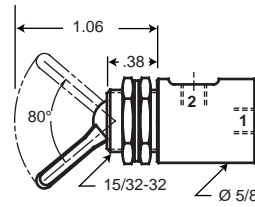
**Standard**

**Standard**

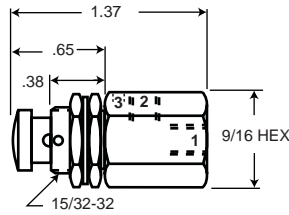
*Stainless Steel*



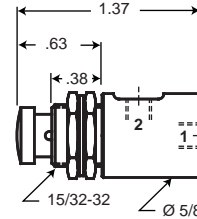
**C030101 C030103**  
**C030201 C030203**  
**C030301 C030303**  
**C030401 C030403**



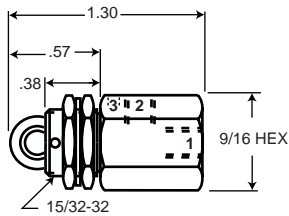
**C032101 C032103**  
**C032201 C032203**



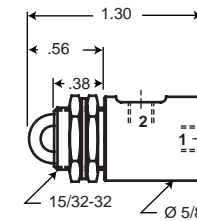
**C030105 C030125**  
**C030205 C030225**  
**C030305 C030325**  
**C030405 C030425**



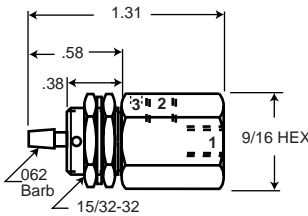
**C032105 C032125**  
**C032205 C032225**



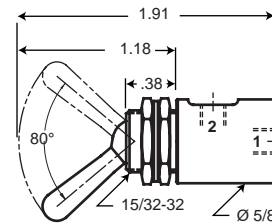
**C030107 C030127**  
**C030207 C030227**  
**C030307 C030327**  
**C030407 C030427**



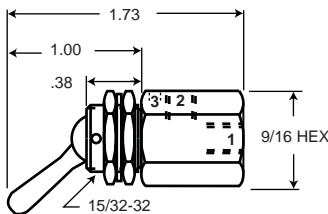
**C032107 C032127**  
**C032207 C032227**



**C030109 C030209**



**C032121 C032123**  
**C032221 C032223**



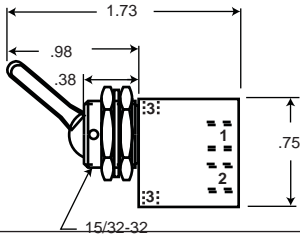
**C030121 C030123**  
**C030221 C030223**  
**C030321 C030323**  
**C030421 C030423**

● Refer to **Product Number Diagram** for part number description

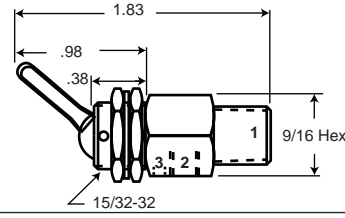
● Port 3 is for 3-Way products only

Rear Ported

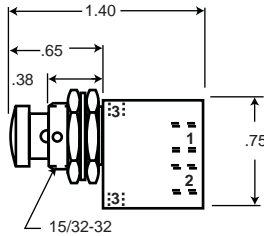
1/8 NPT Input



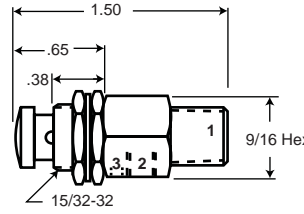
C030901  
C030903  
C031001  
C031003



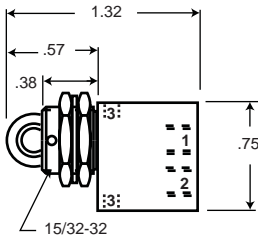
C030601  
C030603  
C030701  
C030703



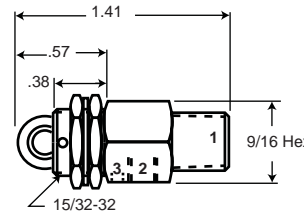
C030905  
C030925  
C031005  
C031025



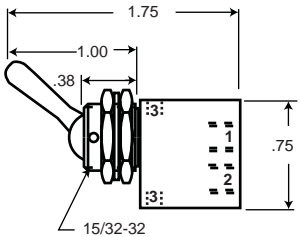
C030605  
C030625  
C030705  
C030725



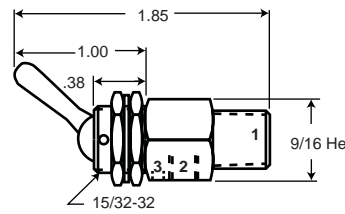
C030907  
C030927  
C031007  
C031027



C030607  
C030627  
C030707  
C030727



C030921  
C030923  
C031021  
C031023



C030621  
C030623  
C030721  
C030723

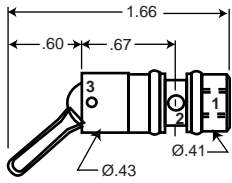
● Refer to **Product Number Diagram** for part number description

- Port 3 is for 3-Way products only
- When design makes a dimension critical- contact factory for confirmation. All dimensions shown subject to change without notice.

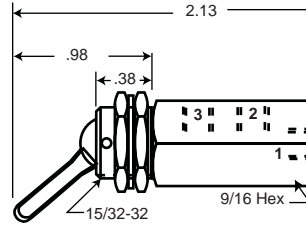


**Cartridge**

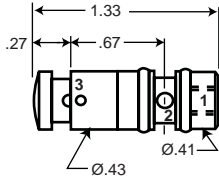
**10-32 (F) Fully Ported**



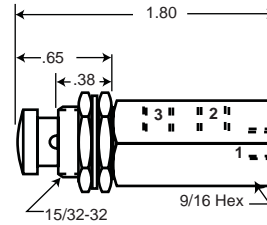
C032301  
C032303  
C032401  
C032403



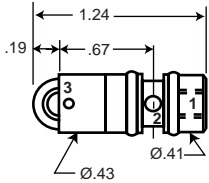
C030501  
C030503



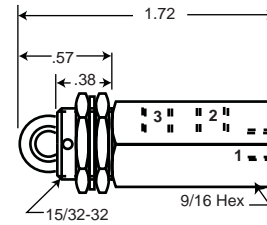
C032305  
C032325  
C032405  
C032425



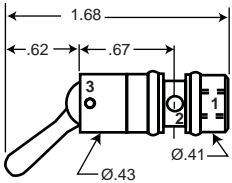
C030505  
C030525



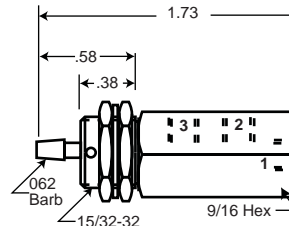
C032307  
C032327  
C032407  
C032427



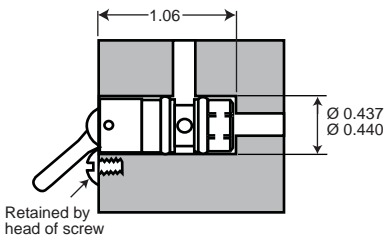
C030507  
C030527



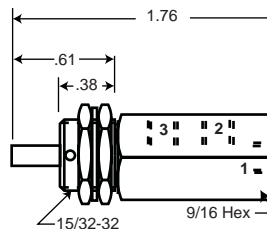
C032321  
C032323  
C032421  
C032423



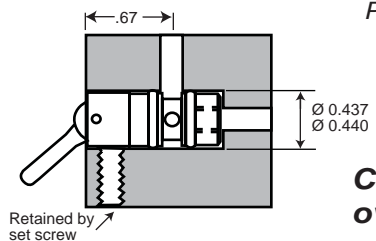
C030509



**Mounting Options**

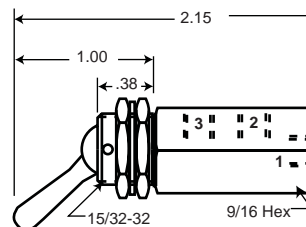


C030510



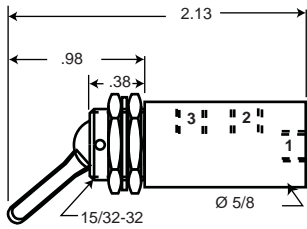
*Preferred Method*

**Caution- do NOT over torque retention screw**



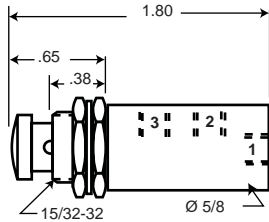
C030521  
C030523

10-32 Fully Ported  
Stainless Steel



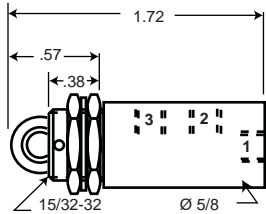
 C032001

 C032003



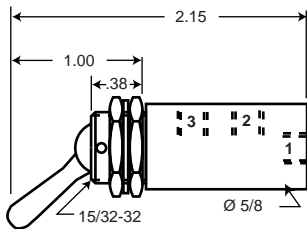
 C032005

 C032025



 C032007

 C032027



 C032021

 C032023

● Refer to **Product Number Diagram** for part number description

- Port 3 is for 3-Way products only
- When design makes a dimension critical- contact factory for confirmation. All dimensions shown subject to change without notice.