

# **Directair 2 Series**

**Inline Valves** Manual / Mechanical 3 & 4-Way, 3 & 5-Port, 2-Position

Section F www.parker.com/pneu/directair	Brass Poppet
	LV / EZ
	OW
	Viking Lever
	42
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	F

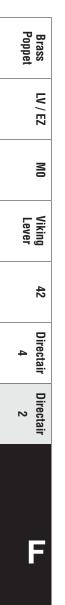
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BOLD ITEMS ARE MOST POPULAR.



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### **Directair 2 Series**

### **Specifications**

#### **Inline Valve**

- 1/8" Port
- 4-Way, 2-Position
- 3-Way, 2-Position

#### **Manual Operators**

- Lever
- Toggle
- Button

#### **Mechanical Operators**

- Plunger
- Roller
- One-Way Tripper

## **Spool Style**

#### Packed Bore Style – .20 Cv

- Stainless Steel Spool
- Fluorocarbon O-Rings
- 3-Way & 4-Way

#### Poppet Style – .17 Cv

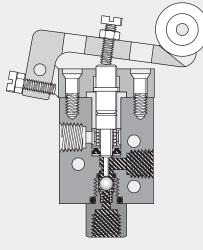
- Economical
- 3-Way Normally Closed Function

### **Operating Pressure**

- Vacuum to 150 PSI (28" Hg to 1035 kPa) for spool style
- 0 to 150 PSI (0 to 1035 kPa) for poppet style

### **Operating Temperature**

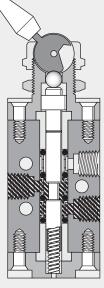
• 32°F to 175°F (0°C to 80°C)



**Directair 2 Series** 

Manual / Mechanical

**Roller Operated** 



**Toggle Operated** 

Pressure

Exhaust



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#### F3 www.comoso.com

Brass Poppet

LV / EZ

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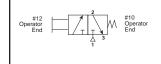
Viking Lever

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### **Plunger Operated**

404111000 Plunger Operated, Spring Return



Spring Return



Normal Position – Pressure at Inlet Port 1 is blocked. Outlet Port 2 is connected to Exhaust Port 3.

Actuated Position – Pressure at Inlet Port 1 is connected to Outlet Port 2. Exhaust Port 3 is blocked.



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Directair 4

Directair

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Brass Poppet

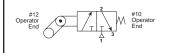
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# **Tripper Operated**

404311000 One-Way Tripper Operated, Spring Return





#### **Spring Return**

Normal Position – Pressure at Inlet Port 1 is blocked. Outlet Port 2 is connected to Exhaust Port 3.

Actuated Position – Pressure at Inlet Port 1 is connected to Outlet Port 2. Exhaust Port 3 is blocked.

# **Button Operated**

**404411000** Button Operated, Spring Return

#### Spring Return

Normal Position – Pressure at Inlet Port 1 is blocked. Outlet Port 2 is connected to Exhaust Port 3.

Actuated Position – Pressure at Inlet Port 1 is connected to Outlet Port 2 Exhaust Port 3 is blocked.

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### **Roller Operated**

404211000 Roller Operated, Spring Return

#### **Spring Return**

Normal Position – Pressure at Inlet Port 1 is blocked. Outlet Port 2 is connected to Exhaust Port 3.

Actuated Position – Pressure at Inlet Port 1 is connected to Outlet Port 2. Exhaust Port 3 is blocked.

# **Toggle Operated**

404811000 Detented Toggle, Spring Return

#### Operator End 2 2 #10 Operator 1 3 #10 Operator



# Spring Return

*Normal Position* – Pressure at Inlet Port 1 is blocked. Outlet Port 2 is connected to Exhaust Port 3.

Actuated (Detented) Position – Pressure at Inlet Port 1 is connected to Outlet Port 2. Exhaust Port 3 is blocked.

# Hand Lever Operated

404711000 Hand Lever Operated, Spring Return

#### **Spring Return**

Normal Position – Pressure at Inlet Port 1 is blocked. Outlet Port 2 is connected to Exhaust Port 3.

Actuated Position – Pressure at Inlet Port 1 is connected to Outlet Port 2. Exhaust Port 3 is blocked.





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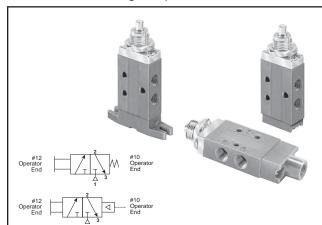
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F4

#### Catalog 0600P-E 3-Way Spool Valves

### **Plunger Operated**

- 414111000 Plunger Operated, Spring Return
- 414121000 Plunger Operated, Spring Return, Foot Mounted
- 414151000 Plunger Operated, Pilot Return



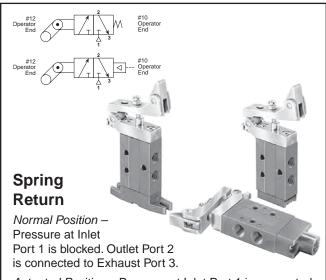
#### **Spring Return**

*Normal Position* – Pressure at Inlet Port 1 is blocked. Outlet Port 2 is connected to Exhaust Port 3.

Actuated Position – Pressure at Inlet Port 1 is connected to Outlet Port 2 Exhaust Port 3 is blocked.

# **One-Way Tripper Operated**

- 414311000 One-Way Tripper, Spring Return
- 414321000 One-Way Tripper, Spring Return, Foot Mounted
- 414351000 One-Way Tripper, Pilot Return

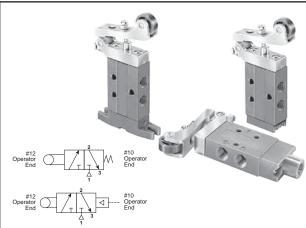


Actuated Position – Pressure at Inlet Port 1 is connected to Outlet Port 2. Exhaust Port 3 is blocked.

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### **Roller Operated**

- 414211000 Roller Operated, Spring Return414221000 Roller Operated, Spring Return, Foot Mounted
- 414251000 Roller Operated, Pilot Return



#### **Spring Return**

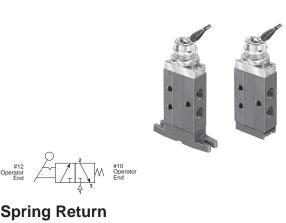
*Normal Position* – Pressure at Inlet Port 1 is blocked. Outlet Port 2 is connected to Exhaust Port 3.

Actuated Position – Pressure at Inlet Port 1 is connected to Outlet Port 2. Exhaust Port 3 is blocked.

# **Toggle Operated**

414811000	Detented Toggle, Spring Return	
444004000	Detented Teggle Caring Deturn	

**414821000** Detented Toggle, Spring Return, Foot Mounted



*Normal Position* – Pressure at Inlet Port 1 is blocked. Outlet Port 2 is connected to Exhaust Port 3.

Actuated (Detented) Position – Pressure at Inlet Port 1 is connected to Outlet Port 2. Exhaust Port 3 is blocked.



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LV / EZ

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Viking Lever

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#### Catalog 0600P-E 3-Way Spool Valves

### **Button Operated**

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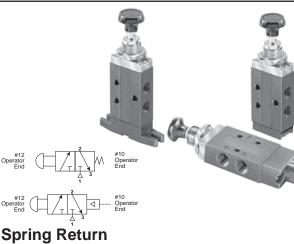
Directair 2

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414411000 Button Operated, Spring Return

**414421000** Button Operated, Spring Return, Foot Mounted

414451000 Button Operated, Pilot Return



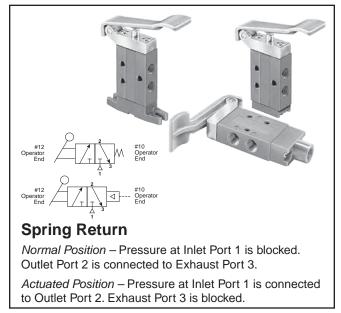
*Normal Position* – Pressure at Inlet Port 1 is blocked. Outlet Port 2 is connected to Exhaust Port 3.

Actuated Position – Pressure at Inlet Port 1 is connected to Outlet Port 2. Exhaust Port 3 is blocked.

### Hand Lever Operated

414711000	Hand Lever Operated, Spring Return
414721000	Hand Lever Operated,
	Spring Return, Foot Mounted

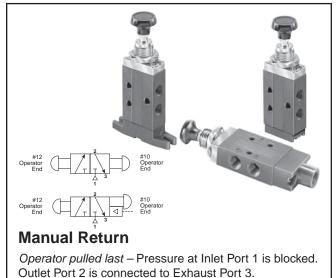
414751000 Hand Lever Operated, Pilot Return



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### **Button Operated**

- 414931000 Button Operated, Manual Return
- 414941000 Button Operated, Manual Return, Foot Mounted
- 414951000 Button Operated, Manual Return or Pilot Return



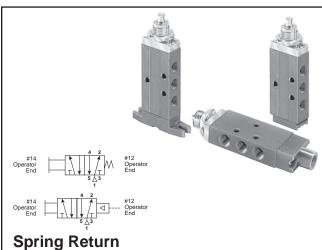
Operator pushed last – Pressure at Inlet Port 1 is connected to Outlet Port 2. Exhaust Port 3 is blocked.



#### Catalog 0600P-E 4-Way Spool Valves

### **Plunger Operated**

- 410111000 Plunger Operated, Spring Return
- 410121000 Plunger Operated, Spring Return, Foot Mounted
- 410151000 Plunger Operated, Pilot Return

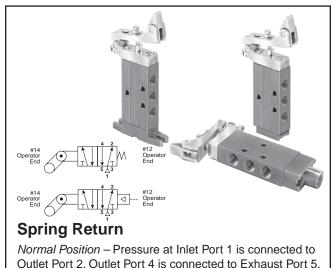


Normal Position – Pressure at Inlet Port 1 is connected to Outlet Port 2. Outlet Port 4 is connected to Exhaust Port 5. Actuated Position – Pressure at Inlet Port 1 is connected to Outlet Port 4. Outlet Port 2 is connected to Exhaust Port 3.

### **One-Way Tripper Operated**

- 410311000 One-Way Tripper, Spring Return
- 410321000 One-Way Tripper, Spring Return, Foot Mounted

410351000 One-Way Tripper, Pilot Return

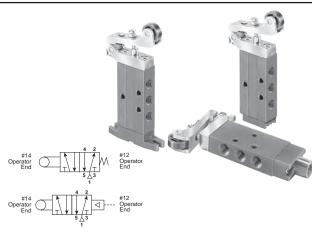


Actuated Position – Pressure at Inlet Port 1 is connected to Outlet Port 4. Outlet Port 2 is connected to Exhaust Port 3.

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### **Roller Operated**

410211000	Roller Operated, Spring Return
410221000	Roller Operated, Spring Return,
	Foot Mounted
410251000	Roller Operated, Pilot Return



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#### **Spring Return**

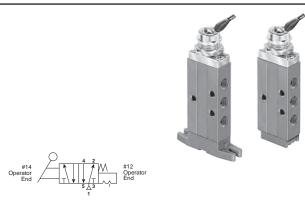
Normal Position – Pressure at Inlet Port 1 is connected to Outlet Port 2. Outlet Port 4 is connected to Exhaust Port 5. Actuated Position – Pressure at Inlet Port 1 is connected to Outlet Port 4. Outlet Port 2 is connected to Exhaust Port 3.

### **Toggle Operated**

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41	082	10	00	

Detented Toggle, Spring Return, Foot Mounted

Detented Toggle, Spring Return



#### Spring Return

Normal Position – Pressure at Inlet Port 1 is connected to Outlet Port 2. Outlet Port 4 is connected to Exhaust Port 5.

Actuated (Detented) Position – Pressure at Inlet Port 1 is connected to Outlet Port 4. Outlet Port 2 is connected to Exhaust Port 3.



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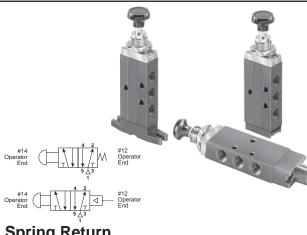
#### Catalog 0600P-E 4-Way Spool Valves

### **Button Operated**

410411000 Button Operated, Spring Return

Button Operated, Spring Return, 410421000 Foot Mounted

410451000 Button Operated, Pilot Return



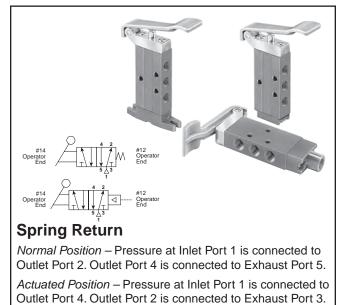
#### Spring Return

Normal Position – Pressure at Inlet Port 1 is connected to Outlet Port 2. Outlet Port 4 is connected to Exhaust Port 5. Actuated Position - Pressure at Inlet Port 1 is connected to Outlet Port 4. Outlet Port 2 is connected to Exhaust Port 3.

### Hand Lever Operated

410711000	Hand Lever Operated, Spring Return
410721000	Hand Lever Operated,
	Spring Return, Foot Mounted
410751000	Hand Lover Operated Dilet Poturn

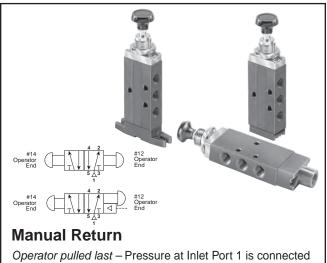
410751000 Hand Lever Operated, Pilot Return



**Directair 2 Series** Manual / Mechanical

### **Button Operated**

410931000	Button Operated, Manual Return
410941000	Button Operated, Manual Return, Foot Mounted
410951000	Button Operated, Manual Return or Pilot Return



to Outlet Port 2. Outlet Port 4 is connected to Exhaust Port 5.

Operator pushed last - Pressure at Inlet Port 1 is connected to Outlet Port 4. Outlet Port 2 is connected to Exhaust Port 3.

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		$\square$	Τ				
Basic Series	40+					Manual ,	
1/8" Port Poppet Valve	40*					000	Sta
1/8" Port Spool Valve * Only available in Spring Return.	41						
Туре						Mounting	
4-Way, 2-Position Va	lve	0*			1	Direct Pipe Ported, NPT	
3-Way, 2-Position		4			K	Direct Pipe Ported, BSPP	-
* N/A with Basic Series 40.						Return	
			1	1†		Spring	
Plunger						oping	
	n		2	<b>2</b> <sup>†</sup>		Spring w/ Foot Mount	
Plunger			2	2† 3*			
Plunger Roller - Delrin	iper				None (M	Spring w/ Foot Mount	
Plunger Roller - Delri One-Way Trip	iper		3	3.	None (M	Spring w/ Foot Mount None (Manual Return)	
Plunger Roller - Delrin One-Way Trip Button - Sprin	iper		3			Spring w/ Foot Mount None (Manual Return) anual Return w/ Foot Mount)	

### **Directair 2 Series**

#### BOLD OPTIONS ARE MOST POPULAR.

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Directair 2

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# **Operating Pressure**

150 PSI (28" Hg to 1035 kPa)\*

\* Poppet valves cannot be used for vacuum. Minimum operating pressure = 0 PSIG.

# **Temperature Range**

32°F to 175°F (0°C to 80°C)

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If it is possible that the ambient temperature may fall below freezing, the medium must be moisture free to prevent internal damage or unpredictable behavior.

# Materials

Body and Operator Housings	Aluminum Extrusion
Spool	Stainless Steel
Bushings	Brass
Spacers	Zinc Die Cast
Dynamic O-Rings	Fluorocarbon
Operator O-Rings	Buna (Nitrile)
Operator U-Cups	Buna (Nitrile)
Poppet Ball	Nylon

### Lubrication

For maximum service life use clean, lubricated air. Valves are shipped pre-lubricated and can be operated without additional lubrication with reduced service life.

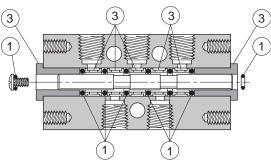
# Suggested Lubricant

F442 Oil

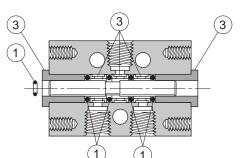
# Flow Rating (Cv)

Flow Path	Direct Pipe Spool, 1/8" Ports	Direct Pipe Poppet, 1/8" Ports
1 → 2	.199	.125
1 → 4	.191	—
2 → 3	.192	.215
4 → 5	.212	—
Avg.	.199	N/A

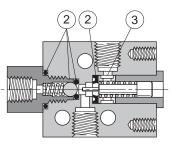
### **Service Kits**







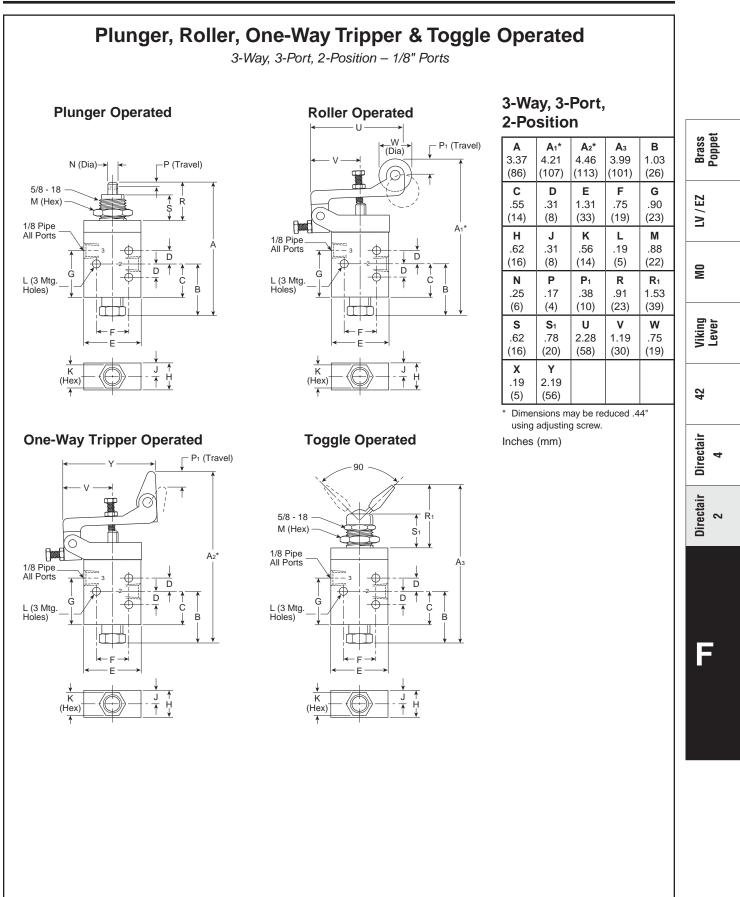
3-Way Spool



3-Way Poppet

- 1 Spool Valve Seal Kit
- (3 & 4-Way, Direct Pipe Ported) .......... 41000 8000
- (2) Poppet Valve Seal Kit ...... 40411 8000
- (3) Body Service Kit...... 41000 8005







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Directair 4

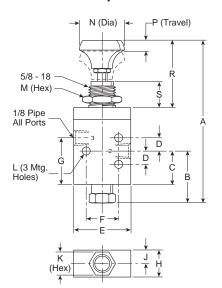
Directair 2

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### **Button & Hand Lever Operated**

3-Way, 3-Port, 2-Position – 1/8" Ports

#### **Button Operated**

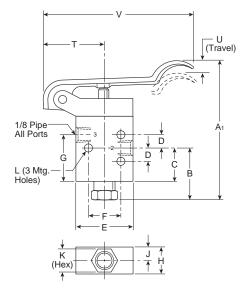


#### 3-Way, 3-Port, 2-Position

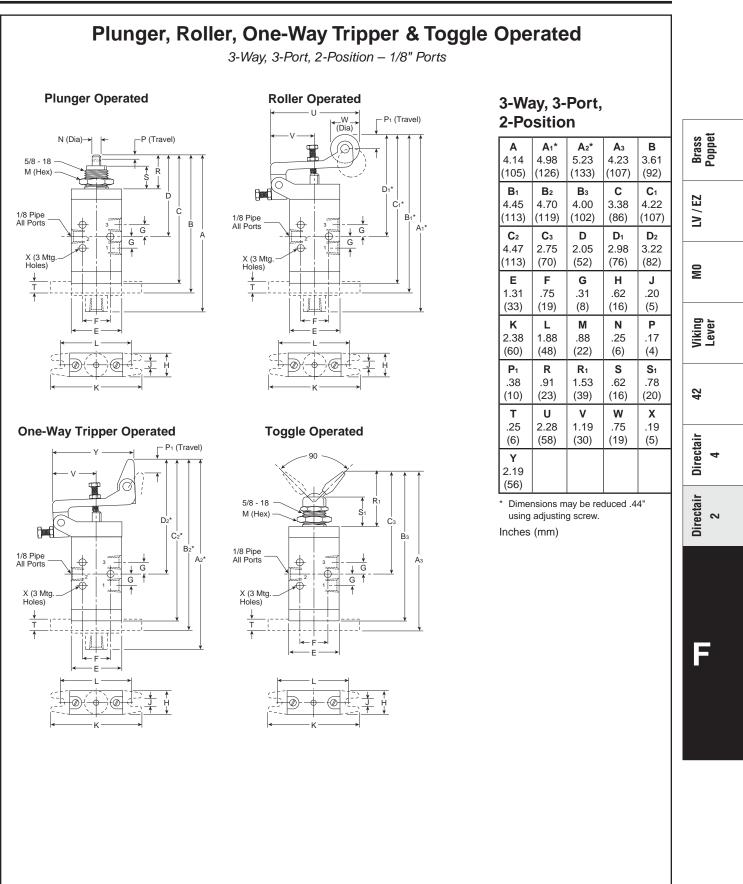
<b>A</b> 1	<b>B</b>	<b>C</b>	<b>D</b>
3.34	1.03	.55	.31
(85)	(26)	(14)	(8)
<b>F</b>	<b>G</b>	<b>H</b>	<b>J</b>
.75	.90	.62	.31
(19)	(23)	(16)	(8)
L	M	<b>N</b>	<b>P</b>
.19	.88	1.06	.17
(5)	(22)	(27)	(4)
<b>S</b>	<b>T</b>	<b>U</b>	V
.63	1.19	.53	3.38
(16)	(30)	(13)	(86)
	3.34 (85) <b>F</b> .75 (19) <b>L</b> .19 (5) <b>S</b> .63	3.34         1.03           (85)         (26)           F         G           .75         .90           (19)         (23)           L         M           .19         .88           (5)         (22)           S         T           .63         1.19	3.34         1.03         .55           (85)         (26)         (14)           F         G         H           .75         .90         .62           (19)         (23)         (16)           L         M         N           .19         .88         1.06           (5)         (22)         (27)           S         T         U           .63         1.19         .53

Inches (mm)

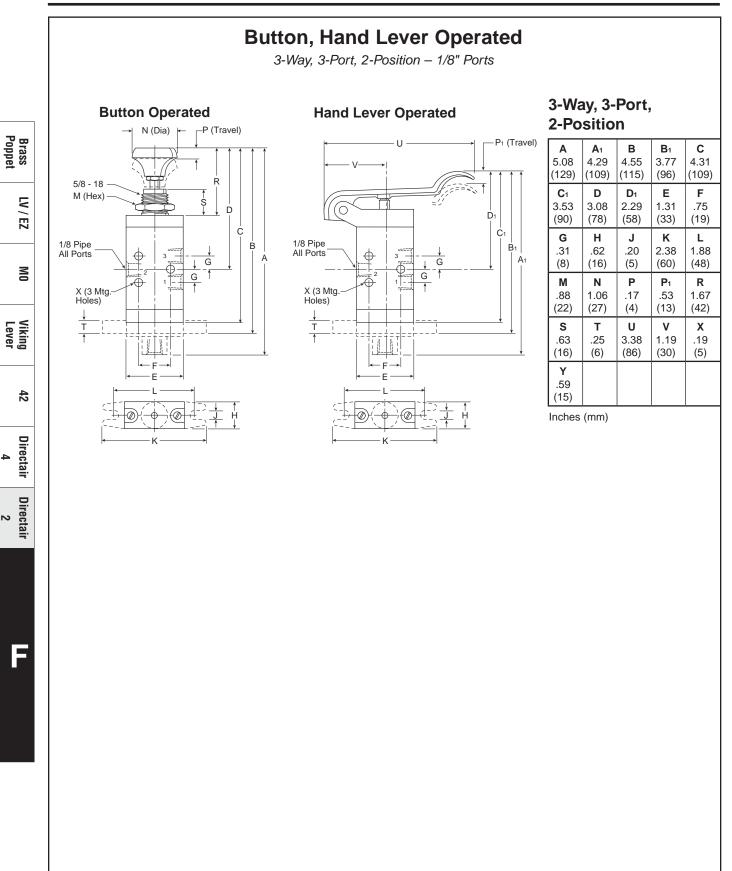
#### Hand Lever Operated









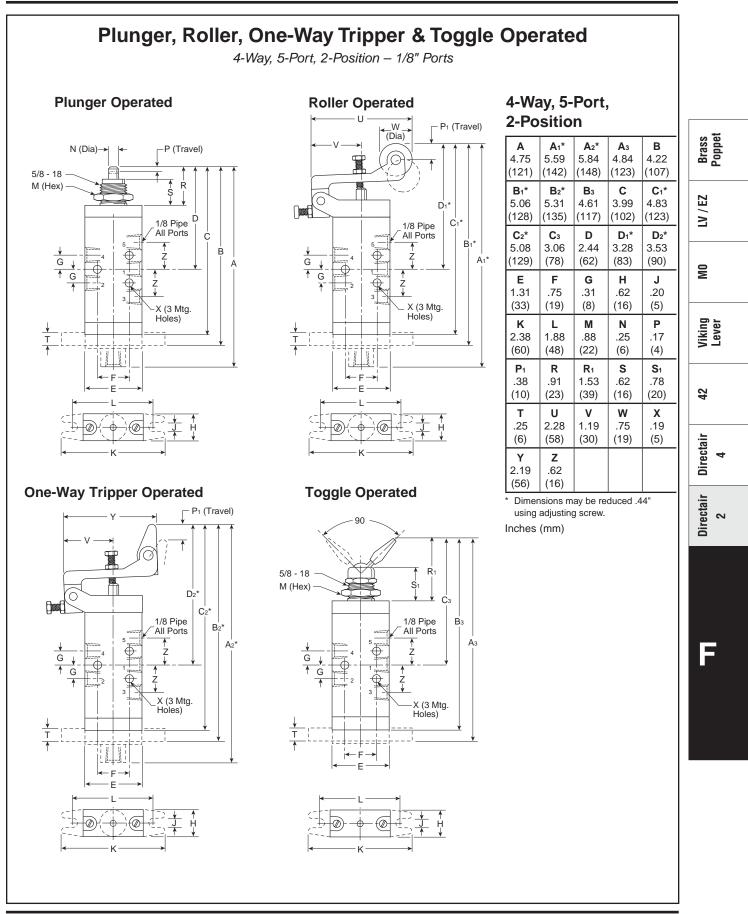




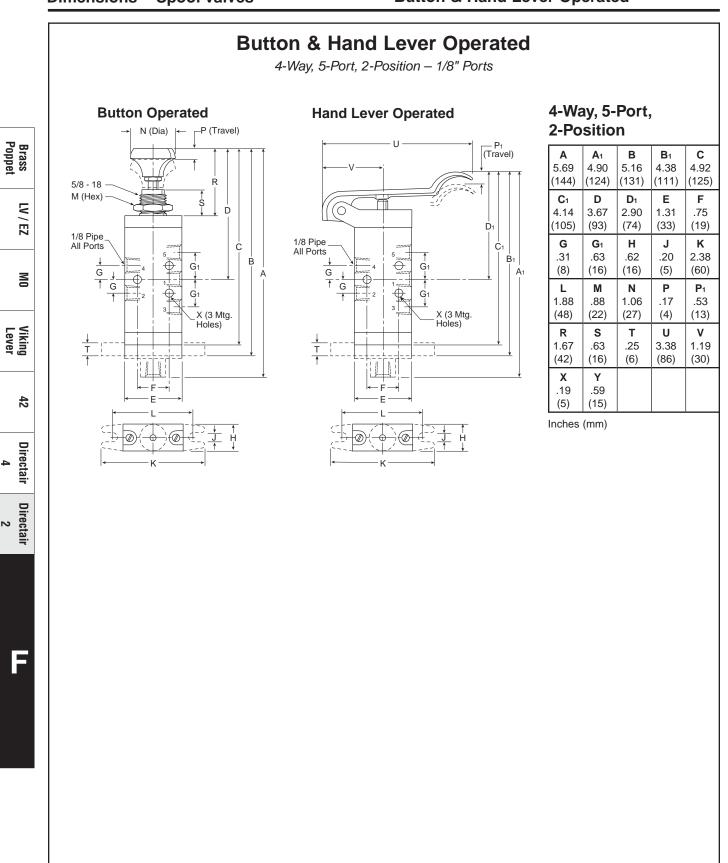
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