ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

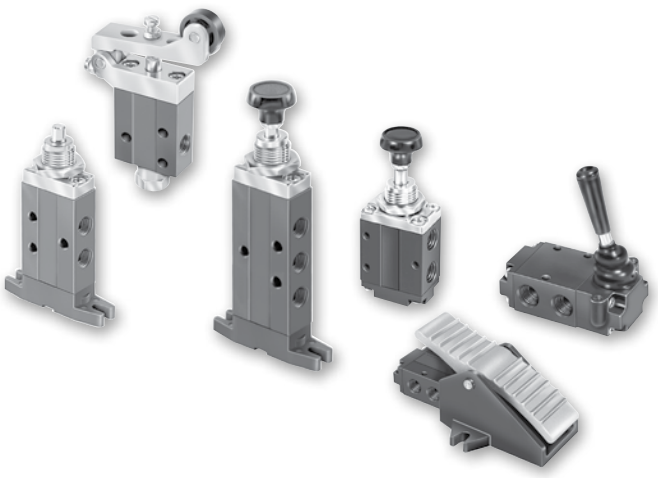
Find the *Parker 521831000* at our website: ***Click HERE***

Features

Directair 2, 1/8" valves
Poppet style – .17 Cv
- Economical
- 3-way normally closed function

Directair 2, 1/8" valves
Packed bore style – .20 Cv
- Stainless steel spool
- Fluorocarbon o-rings
- 3-way & 4-way

Directair 4, 1/4" valves
Packed bore style – .83 Cv
- Stainless steel spool
- Fluorocarbon o-rings
- 3-way & 4-way



Material specifications

Body and operator housings	Aluminum extrusion
Bushings and pilot piston	Brass
Dynamic seals	Fluorocarbon
O-rings	Buna (nitrile)
Poppet ball	Nylon
Spacers - Directair 2	Aluminum
Spacers - Directair 4	Zinc die cast
Spool	Stainless steel

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

Operating information

Operating pressure	Vacuum to150 PSI (28 inHg to 1035 kPa)*
Temperature range	32°F to 175°F (0°C to 80°C)

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

⚠ ***CAUTION:***
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.

Mechanically operated actuating forces in lbs. 1/4" Directair 4 valves

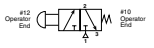
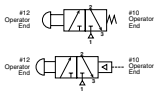
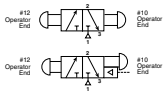
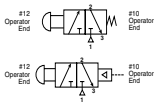
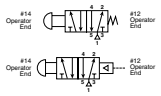
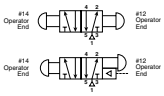
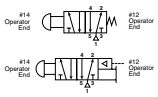
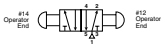
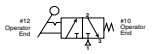
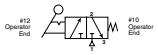
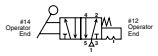
	2-Position Spring Return	2-Position Manual Return	3-Position Spring Return	3-Position Manual Return
Button Actuator	13.0	2.0	13.0	N/A
Roller Actuator	13.0	N/A	N/A	N/A
Lever Actuator	4.0	2.0	4.0	2.5

Notes: N/A = Not Applicable
All valves are at 100 PSIG inlet pressure to the valve.

☐ Most popular. For technical information see CD

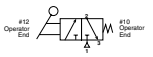
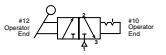
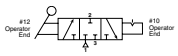
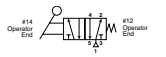
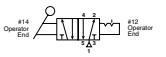
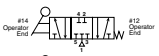
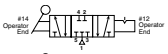
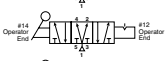
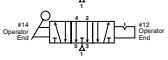
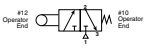
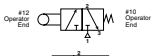
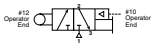
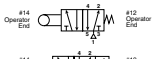
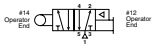
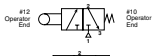
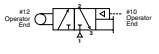
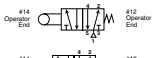
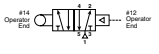
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

3-way & 4-way Valves

	Symbol	Port size	Cv	Description	Valve type	Part number
Button operated, 3-way		1/8"	.17	3-way, spring return	Poppet	**404411000**
		1/8"	.20	3-way, spring return	Spool	**414411000**
		1/8"	.20	3-way, spring return, foot mounted	Spool	**414421000**
		1/8"	.20	3-way, pilot return	Spool	**414451000**
		1/8"	.20	3-way, manual return	Spool	**414931000**
		1/8"	.20	3-way, manual return, foot mounted	Spool	**414941000**
		1/8"	.20	3-way, manual or pilot return	Spool	**414951000**
		1/4"	.83	3-way, spring return	Spool	**524411000**
		1/4"	.83	3-way, pilot return	Spool	**524451000**
		1/4"	.83	3-way, manual return	Spool	**524431000**
Button operated, 4-way		1/8"	.20	4-way, spring return	Spool	**410411000**
		1/8"	.20	4-way, spring return, foot mounted	Spool	**410421000**
		1/8"	.20	4-way, pilot return	Spool	**410451000**
		1/8"	.20	4-way, manual return	Spool	**410931000**
		1/8"	.20	4-way, manual return, foot mounted	Spool	**410941000**
		1/8"	.20	4-way, manual or pilot return	Spool	**410951000**
		1/4"	.83	4-way, spring return	Spool	**520411000**
		1/4"	.83	4-way, pilot return	Spool	**520451000**
		1/4"	.83	4-way, manual return	Spool	**520431000**
Toggle operated, detented		1/8"	.17	3-way, spring return	Poppet	**404811000**
		1/8"	.20	3-way, spring return	Spool	**414811000**
		1/8"	.20	3-way, spring return, foot mounted	Spool	**414821000**
		1/8"	.20	4-way, spring return	Spool	**410811000**
		1/8"	.20	4-way, spring return, foot mounted	Spool	**410821000**

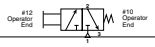
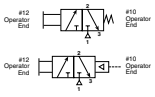
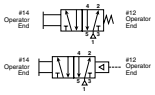
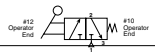
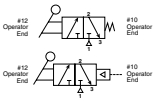
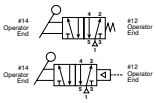
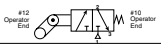
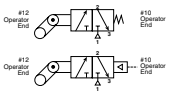
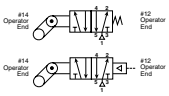
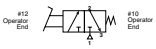
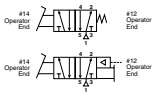
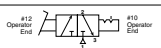
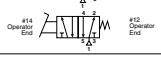
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

3-way & 4-way Valves

	Symbol	Port size	Cv	Description	Valve type	Part number
Lever operated		1/4"	.83	3-way, spring return	Spool	**524811000**
		1/4"	.83	3-way, manual return	Spool	**524831000**
		1/4"	.83	3-way, 3-Position detented, all ports blocked	Spool	**523831000**
		1/4"	.83	4-way, spring return	Spool	**520811000**
		1/4"	.83	4-way, manual return	Spool	**520831000**
		1/4"	.83	4-way, spring centered, closed center	Spool	**521811000**
		1/4"	.83	4-way, spring centered, pressure center	Spool	**522811000**
		1/4"	.83	4-way, spring centered, exhaust center	Spool	**529811000**
		1/4"	.83	4-way, detented, closed center	Spool	**521831000**
		1/4"	.83	4-way, detented, pressure center	Spool	**522831000**
		1/4"	.83	4-way, detented, exhaust center	Spool	**529831000**
Roller operated		1/8"	.20	3-way, spring return	Poppet	**404211000**
		1/8"	.20	3-way, spring return	Spool	**414211000**
		1/8"	.20	3-way, spring return, foot mounted	Spool	**414221000**
		1/8"	.20	3-way, pilot return	Spool	**414251000**
		1/8"	.20	4-way, spring return	Spool	**410211000**
		1/8"	.20	4-way, spring return, foot mounted	Spool	**410221000**
		1/8"	.20	4-way, pilot return	Spool	**410251000**
Roller operated		1/4"	.83	3-way, spring return, delrin roller	Spool	**524211000**
		1/4"	.83	3-way, pilot return, delrin roller	Spool	**524251000**
		1/4"	.83	3-way, spring return, steel roller	Spool	**524A11000**
		1/4"	.83	3-way, pilot return, steel roller	Spool	**524A51000**
		1/4"	.83	4-way, spring return, delrin roller	Spool	**520211000**
		1/4"	.83	4-way pilot return, delrin roller	Spool	**520251000**
		1/4"	.83	4-way, spring return, steel roller	Spool	**520A11000**
		1/4"	.83	4-way, pilot return, steel roller	Spool	**520A51000**

Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

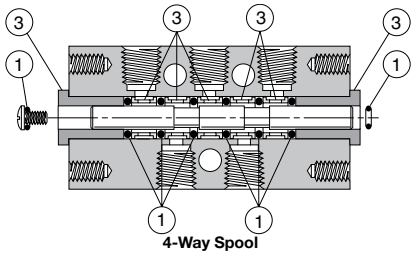
3-way & 4-way Valves

	Symbol	Port size	Cv	Description	Valve type	Part number
Plunger operated		1/8"	.17	3-way, spring return	Poppet	**404111000**
		1/8"	.20	3-way, spring return	Spool	**414111000**
		1/8"	.20	3-way, spring return, foot mounted	Spool	**414121000**
		1/8"	.20	3-way, pilot return	Spool	**414151000**
		1/8"	.17	4-way, spring return	Spool	**410111000**
		1/8"	.20	4-way, spring return, foot mounted	Spool	**410121000**
		1/8"	.20	4-way, pilot return	Spool	**410151000**
Hand lever operated		1/8"	.17	3-way, spring return	Poppet	**404711000**
		1/8"	.20	3-way, spring return	Spool	**414711000**
		1/8"	.20	3-way, spring return, foot mounted	Spool	**414721000**
		1/8"	.20	3-way, pilot return	Spool	**414751000**
		1/8"	.20	4-way, spring return	Spool	**410711000**
		1/8"	.20	4-way, spring return, foot mounted	Spool	**410721000**
		1/8"	.20	4-way, pilot return	Spool	**410751000**
One way tripper operated		1/8"	.17	3-way, spring return	Poppet	**404311000**
		1/8"	.20	3-way, spring return	Spool	**414311000**
		1/8"	.20	3-way, spring return, foot mounted	Spool	**414321000**
		1/8"	.20	3-way, pilot return	Spool	**414351000**
		1/8"	.20	4-way, spring return	Spool	**414311000**
		1/8"	.20	4-way, spring return, foot mounted	Spool	**414321000**
		1/8"	.20	4-way, pilot return	Spool	**414351000**
Pedal operated		1/4"	.83	3-way, spring return	Spool	**524711000**
		1/4"	.83	3-way, pilot return	Spool	**524751000**
		1/4"	.83	4-way, spring return	Spool	**520711000**
		1/4"	.83	4-way, pilot return	Spool	**520751000**
				⚠ ***CAUTION:*** *This valve shall not be used to actuate a punch press. Do not use this valve on punch presses or press brakes. See OSHA 1910.217.*		
Treadle operated		1/4"	.83	3-way, treadle operated, detented	Spool	**524931000**
		1/4"	.83	4-way, treadle operated, detented	Spool	**520931000**
				⚠ ***CAUTION:*** *This valve shall not be used to actuate a punch press. Do not use this valve on punch presses or press brakes. See OSHA 1910.217.*		

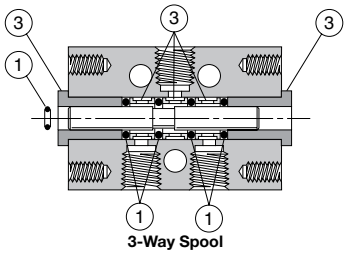
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

Service kits – 1/8 port size valves (DA2)

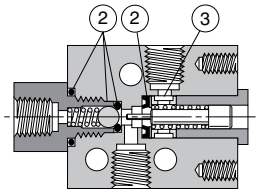
①	Spool valve seal kit (3 & 4-way, direct pipe ported)	**410008000**
②	Poppet valve seal kit	**404118000**
③	Body service kit	**410008005**



4-Way Spool



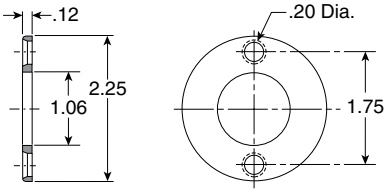
3-Way Spool



3-Way Poppet

Panel Mounting Kit – No. 520838004

Available for panel mounting direct pipe ported, lever operated 1/4" Directair 4 Series valves only. Kit includes a flange and two screws.

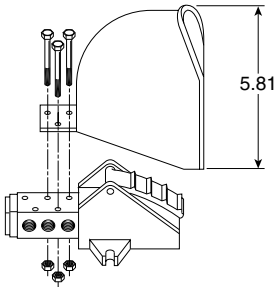


Pedal Guard Kit – No. 520718001

Pedal guard meets safety requirements for foot operated valves by protecting pedal from accidental tripping from all angles. Guard is constructed of lightweight aluminum casting for strength and durability. Bolts quickly into place with only three screws without special valve mounting. One model fits any pedal (not treadle) operated 1/4" Directair 4 Series valve.

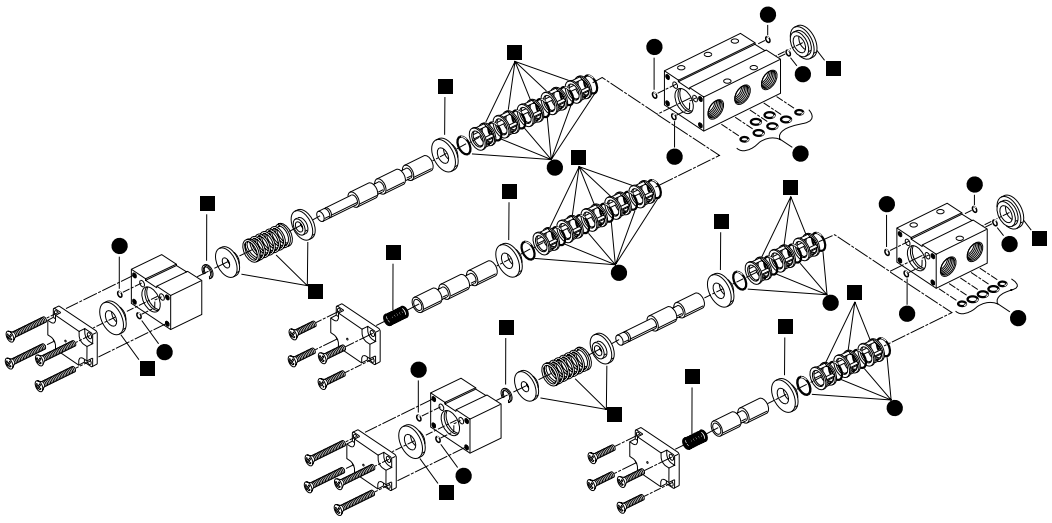
⚠ ***CAUTION:***

This valve shall not be used to actuate a punch press.
Do not use this valve on punch presses or press brakes.
See OSHA 1910.217.



Service kits – 1/4 port size valves (DA4)

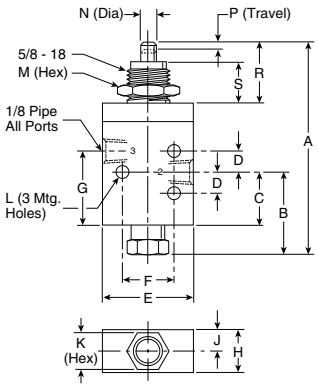
●	**Valve seal kit** (Contains all soft seals found in 3 & 4-way bodies and all actuator styles.)	**520008050**
	All fluorocarbon	**520008500**
■	**Body service kit** (Contains bushing, springs, retainers and shell from 2 & 3-position, 3 & 4-way bodies.)	**520018005**



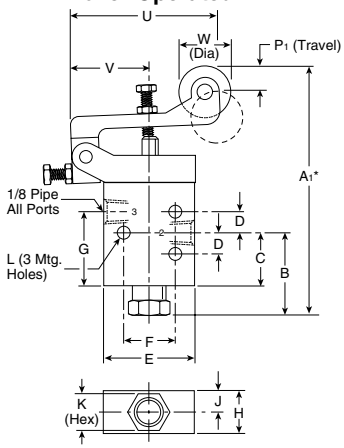
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

Plunger, Roller, One-way Tripper & Toggle Operated — 3-Way, 3-Port, 2-Position – 1/8" Ports

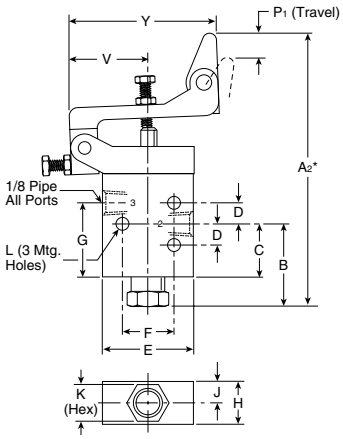
Plunger Operated



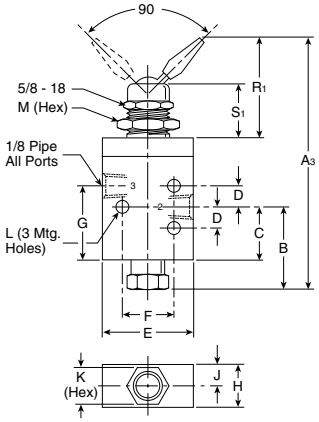
Roller Operated



One-Way Tripper Operated



Toggle Operated



3-Way, 3-Port, 2-Position

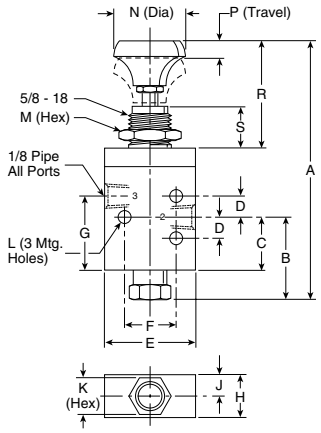
A	A1*	A2*	A3	B
3.37	4.21	4.46	3.99	1.03
(86)	(107)	(113)	(101)	(26)
C	**D**	**E**	**F**	**G**
.55	.31	1.31	.75	.90
(14)	(8)	(33)	(19)	(23)
H	**J**	**K**	**L**	**M**
.62	.31	.56	.19	.88
(16)	(8)	(14)	(5)	(22)
N	**P**	**P1**	**R**	**R1**
.25	.17	.38	.91	1.53
(6)	(4)	(10)	(23)	(39)
S	**S1**	**U**	**V**	**W**
.62	.78	2.28	1.19	.75
(16)	(20)	(58)	(30)	(19)
X	**Y**			
.19	2.19			
(5)	(56)			

* Dimensions may be reduced .44" using adjusting screw.

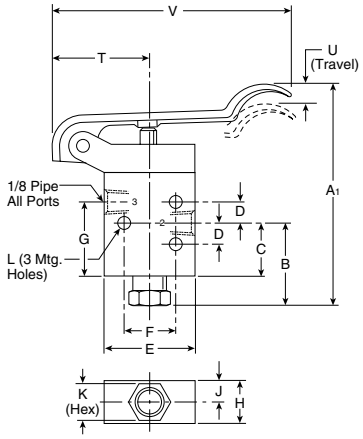
Inches (mm)

Button & Hand Lever Operated — 3-Way, 3-Port, 2-Position – 1/8" Ports

Button Operated



Hand Lever Operated



3-Way, 3-Port, 2-Position

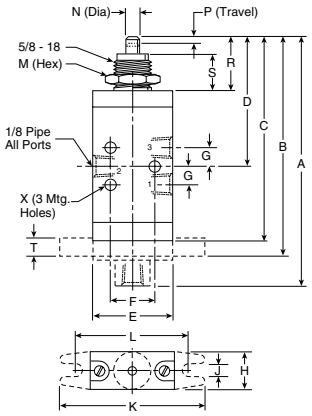
A	A1	B	C	D
4.13	3.34	1.03	.55	.31
(105)	(85)	(26)	(14)	(8)
E	**F**	**G**	**H**	**J**
1.31	.75	.90	.62	.31
(33)	(19)	(23)	(16)	(8)
K	**L**	**M**	**N**	**P**
.56	.19	.88	1.06	.17
(14)	(5)	(22)	(27)	(4)
R	**S**	**T**	**U**	**V**
1.67	.63	1.19	.53	3.38
(42)	(16)	(30)	(13)	(86)

Inches (mm)

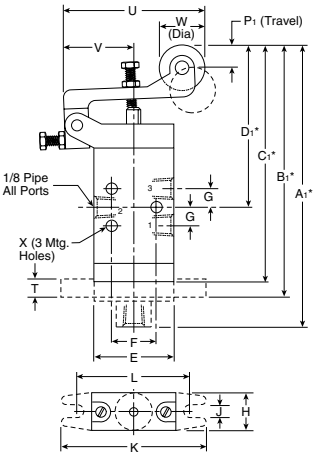
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

Plunger, Roller, One-way Tripper & Toggle Operated — 3-Way, 3-Port, 2-Position – 1/8" Ports

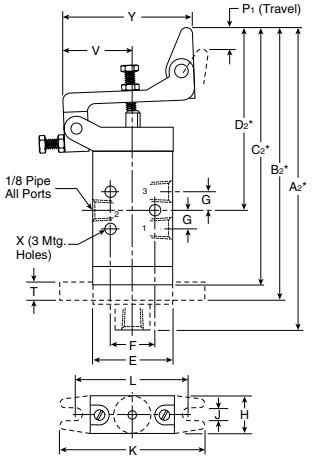
Plunger Operated



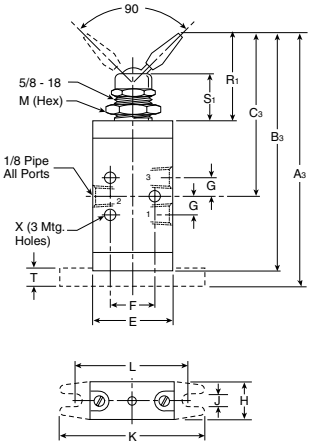
Roller Operated



One-Way Tripper Operated



Toggle Operated



3-Way, 3-Port, 2-Position

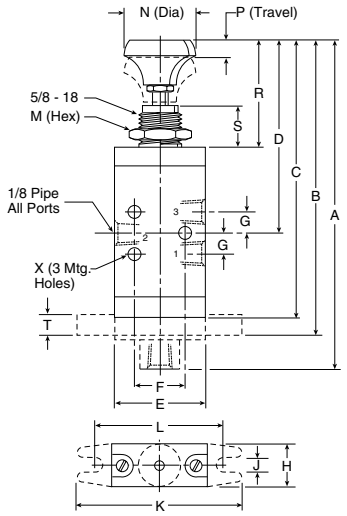
A	A1*	A2*	A3	B
4.14 (105)	4.98 (126)	5.23 (133)	4.23 (107)	3.61 (92)
B1	**B2**	**B3**	**C**	**C1**
4.45 (113)	4.70 (119)	4.00 (102)	3.38 (86)	4.22 (107)
C2	**C3**	**D**	**D1**	**D2**
4.47 (113)	2.75 (70)	2.05 (52)	2.98 (76)	3.22 (82)
E	**F**	**G**	**H**	**J**
1.31 (33)	.75 (19)	.31 (8)	.62 (16)	.20 (5)
K	**L**	**M**	**N**	**P**
2.38 (60)	1.88 (48)	.88 (22)	.25 (6)	.17 (4)
P1	**R**	**R1**	**S**	**S1**
.38 (10)	.91 (23)	1.53 (39)	.62 (16)	.78 (20)
T	**U**	**V**	**W**	**X**
.25 (6)	2.28 (58)	1.19 (30)	.75 (19)	.19 (5)
Y				
2.19 (56)				

* Dimensions may be reduced .44" using adjusting screw.

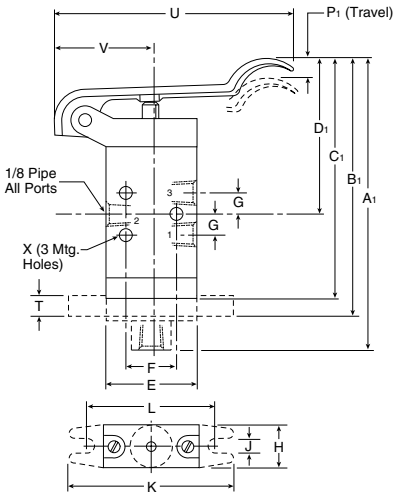
Inches (mm)

Button, Hand Lever Operated — 3-Way, 3-Port, 2-Position – 1/8" Ports

Button Operated



Hand Lever Operated



3-Way, 3-Port, 2-Position

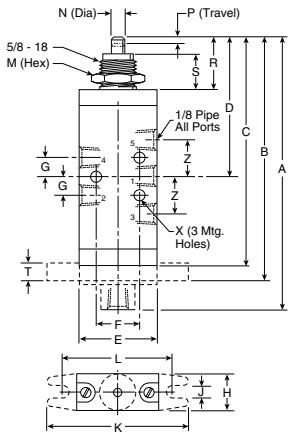
A	A1	B	B1	C
5.08 (129)	4.29 (109)	4.55 (115)	3.77 (96)	4.31 (109)
C1	**D**	**D1**	**E**	**F**
3.53 (90)	3.08 (78)	2.29 (58)	1.31 (33)	.75 (19)
G	**H**	**J**	**K**	**L**
.31 (8)	.62 (16)	.20 (5)	2.38 (60)	1.88 (48)
M	**N**	**P**	**P1**	**R**
.88 (22)	1.06 (27)	.17 (4)	.53 (13)	1.67 (42)
S	**T**	**U**	**V**	**X**
.63 (16)	.25 (6)	3.38 (86)	1.19 (30)	.19 (5)
Y				
.59 (15)				

Inches (mm)

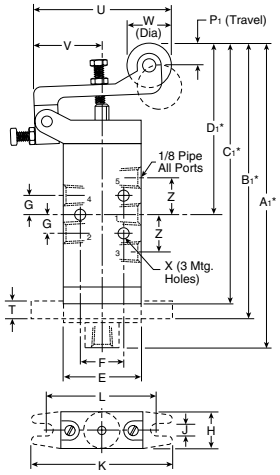
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

Plunger, Roller, One-way Tripper & Toggle Operated — 4-Way, 5-Port, 2-Position – 1/8" Ports

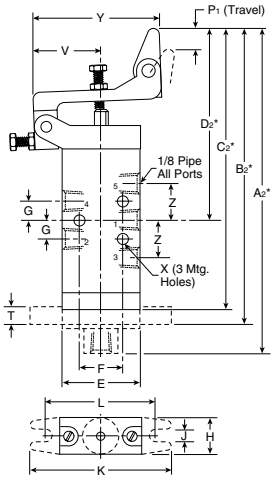
Plunger Operated



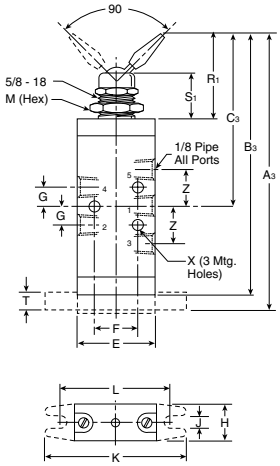
Roller Operated



One-Way Tripper Operated



Toggle Operated



4-Way, 5-Port, 2-Position

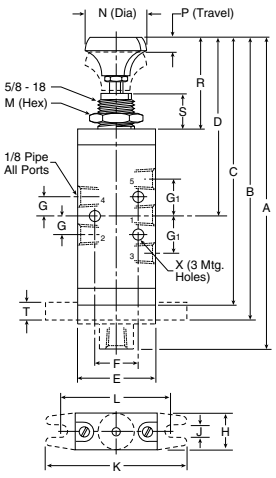
A	A_1*	A_2*	A_3	B
4.75 (121)	5.59 (142)	5.84 (148)	4.84 (123)	4.22 (107)
B_1*	**B_2***	**B_3**	**C**	**C_1***
5.06 (128)	5.31 (135)	4.61 (117)	3.99 (102)	4.83 (123)
C_2*	**C_3**	**D**	**D_1***	**D_2***
5.08 (129)	3.06 (78)	2.44 (62)	3.28 (83)	3.53 (90)
E	**F**	**G**	**H**	**J**
1.31 (33)	.75 (19)	.31 (8)	.62 (16)	.20 (5)
K	**L**	**M**	**N**	**P**
2.38 (60)	1.88 (48)	.88 (22)	.25 (6)	.17 (4)
P_1	**R**	**R_1**	**S**	**S_1**
.38 (10)	.91 (23)	1.53 (39)	.62 (16)	.78 (20)
T	**U**	**V**	**W**	**X**
.25 (6)	2.28 (58)	1.19 (30)	.75 (19)	.19 (5)
Y	**Z**			
2.19 (56)	.62 (16)			

* Dimensions may be reduced .44" using adjusting screw.

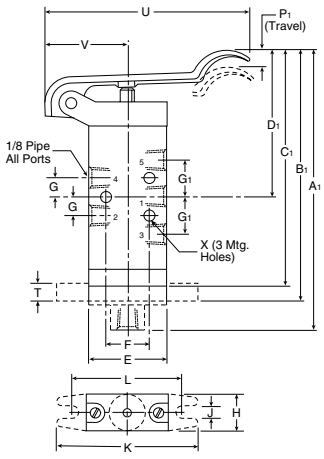
Inches (mm)

Button & Hand Lever Operated — 4-Way, 5-Port, 2-Position – 1/8" Ports

Button Operated



Hand Lever Operated



4-Way, 5-Port, 2-Position

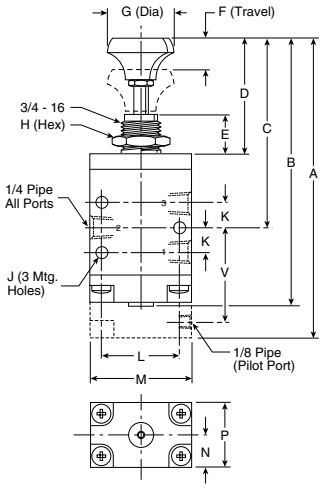
A	A_1	B	B_1	C
5.69 (144)	4.90 (124)	5.16 (131)	4.38 (111)	4.92 (125)
C_1	**D**	**D_1**	**E**	**F**
4.14 (105)	3.67 (93)	2.90 (74)	1.31 (33)	.75 (19)
G	**G_1**	**H**	**J**	**K**
.31 (8)	.63 (16)	.62 (16)	.20 (5)	2.38 (60)
L	**M**	**N**	**P**	**P_1**
1.88 (48)	.88 (22)	1.06 (27)	.17 (4)	.53 (13)
R	**S**	**T**	**U**	**V**
1.67 (42)	.63 (16)	.25 (6)	3.38 (86)	1.19 (30)
X	**Y**			
.19 (5)	.59 (15)			

Inches (mm)

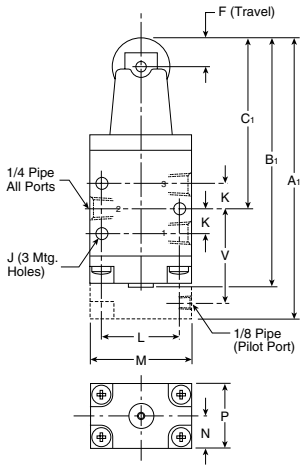
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

Button & Roller Operated — 3-Way, 3-Port, 2-Position

Button Operated



Roller Operated



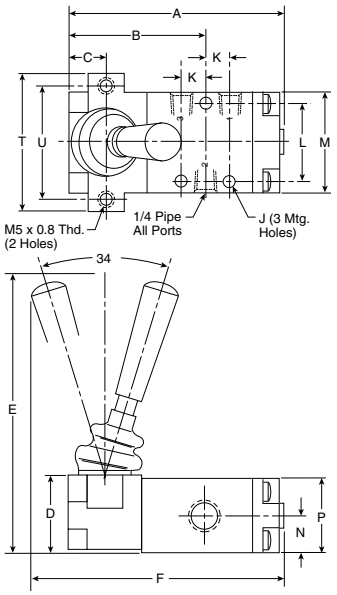
3-Way, 3-Port, 2-Position

A	A1	B	B1	C
4.91 (125)	4.25 (108)	4.44 (113)	3.78 (96)	3.10 (79)
C1	**D**	**E**	**F**	**G**
2.44 (62)	2.00 (51)	.63 (16)	.32 (8)	1.05 (27)
H	**J**	**K**	**L**	**M**
1.00 (25)	.19 (5)	.41 (10)	1.25 (32)	1.63 (42)
N	**P**	**V**		
.53 (14)	1.06 (27)	1.52 (39)		

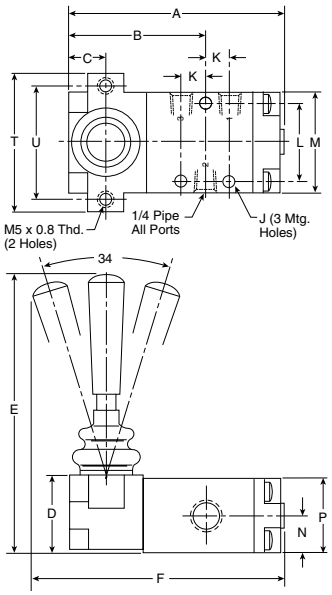
Inches (mm)

Lever & Pedal Operated — 3-Way, 3-Port, 2 & 3-Position

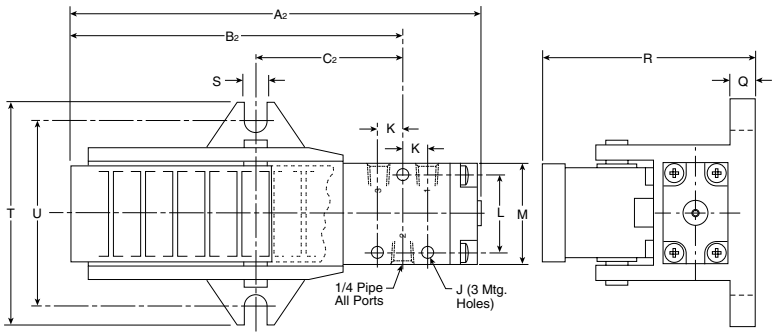
Lever Operated 2-Position



Lever Operated 3-Position



Pedal / Treadle Operated



3-Way, 3-Port, 2 & 3-Position

A	A1	B	B1	C
3.31 (84)	6.55 (166)	1.97 (50)	5.20 (132)	.53 (14)
C1	**D**	**E**	**F**	**J**
2.19 (56)	1.12 (28)	4.06 (103)	3.90 (99)	.19 (5)
K	**L**	**M**	**N**	**P**
.41 (10)	1.25 (32)	1.63 (42)	.53 (14)	1.06 (27)
Q	**R**	**S**	**T**	**T1**
.37 (10)	2.40 (61)	.34 (9)	2.13 (54)	3.50 (89)
U	**U1**			
1.75 (44)	3.00 (76)			

Inches (mm)

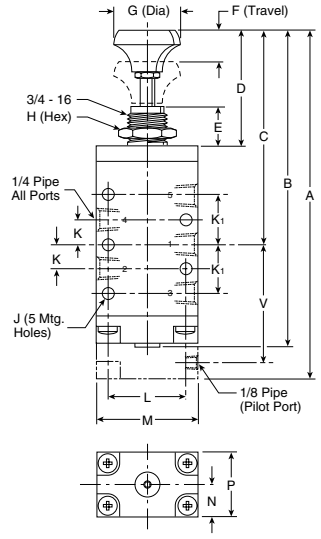
⚠ CAUTION:

This valve shall not be used to actuate a punch press.
Do not use this valve on punch presses or press brakes.
See OSHA 1910.217.

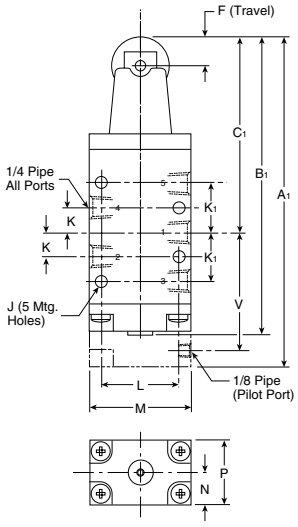
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

Button, Roller, Pedal & Treadle, Lever Operated — 4-Way, 5-Port, 2-Position

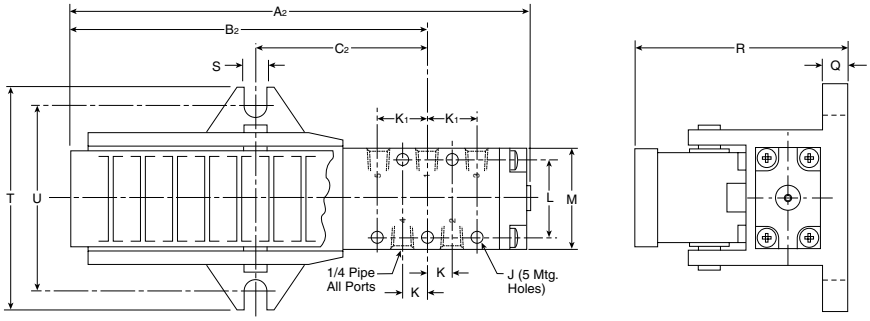
Button Operated



Roller Operated



Pedal and Treadle Operated



4-Way, 5-Port, 2-Position

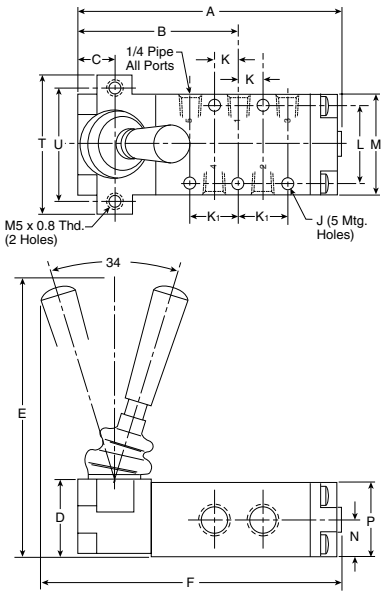
A	A1	A2	B	B1
5.75 (146)	5.13 (130)	7.41 (189)	5.28 (134)	4.66 (118)
B2	**C**	**C1**	**C2**	**D**
5.63 (143)	3.50 (89)	2.88 (73)	2.64 (67)	2.00 (51)
E	**F**	**G**	**H**	**J**
.63 (16)	.32 (8)	1.05 (27)	1.00 (25)	.19 (5)
K	**K1**	**L**	**M**	**N**
.44 (11)	.84 (21)	1.25 (32)	1.63 (41)	.53 (14)
P	**Q**	**R**	**S**	**T**
1.06 (27)	.37 (10)	2.40 (61)	.34 (9)	3.50 (89)
U	**V**			
3.00 (76)	1.96 (50)			

Inches (mm)

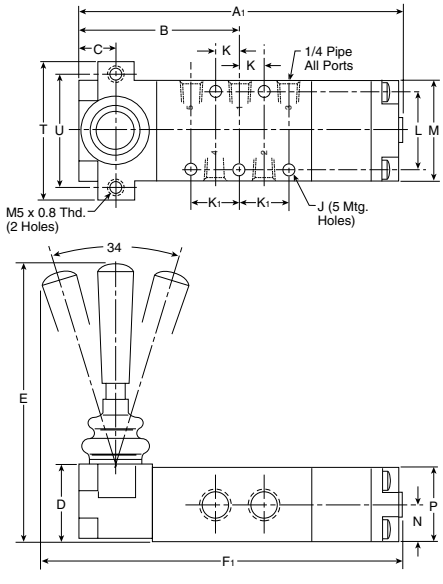
CAUTION:
This valve shall not be used to actuate a punch press. Do not use this valve on punch presses or press brakes. See OSHA 1910.217.

Lever Operated — 4-Way, 5-Port, 2 & 3-Position

Lever Operated 2-Position



Lever Operated 3-Position



4-Way, 5-Port, 2 & 3-Position

A	A1	B	C	D
4.19 (106)	5.09 (129)	2.41 (61)	.53 (14)	1.12 (28)
E	**F**	**F1**	**J**	**K**
4.06 (103)	4.78 (121)	5.78 (147)	.19 (5)	.44 (11)
K1	**L**	**M**	**N**	**P**
.84 (21)	1.25 (32)	1.63 (42)	.53 (14)	1.06 (27)
T	**U**			
2.13 (54)	1.75 (44)			

Inches (mm)

Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP