

# 4-Way

## Direct Acting & Pilot Operated Valves 1/8" - 1/2" NPT



### General Description:

4-Way Direct Acting and Pilot Operated valves are used in applications for actuation of double acting cylinders and piloting of larger control valves. Pilot operated valves require the minimum operating pressure differential specified to ensure proper operation. Direct Acting valves do not have a minimum pressure differential requirement.

#### Installation

Valves can be mounted in any position. The preferred orientation is with the coil vertical and upright.

#### Standard Materials of Construction

Please refer to page C15.

#### Compatible Fluids

Lubricated Air, Inert Gases, Water, Light Oil (300 SSU) and additional fluids compatible with materials of construction, as shown in the product specification charts.

Use of non-lubricated gaseous media can affect valve life.

### Electrical Characteristics:

#### Standard Voltages:

AC -24/60

120/60-110/50

240/60-220/50

DC -12, 24 & 120

For other voltages - consult factory



4-Way

#### Coil Classification:

Class F standard, Class H available  
Class B standard on V9xx models

#### Agency Approvals:

Standard valves with NEMA 4X or explosion proof solenoid enclosures are UL Listed and CSA Certified. (Consult Factory for Approvals on Models V933, V935 and V955).

SIL-3 Capable (Models 73417xx, 74417xx, 73477xx). See certificate on page F20 in the Technical section of this catalog. For additional details, consult factory.

#### Maximum Ambient Temperature

167°F

#### Minimum Ambient Temperature

-40°F for models 73417xx, 74417xx and 73477xx. Dew point must be more than 7°F below ambient.

### Applications:

- Pilot valve actuation of control valves
- Oil and gas including off-shore
- Double acting cylinder control
- Air vises and Air motors
- Damper control

Please refer to page C15 for details.



### 4/2, 4-Way 2 Position Single Solenoid - Brass\*

Port Size NPT	Orifice Size in.	Flow Factor Cv**	Operating Pressure Differential (MOPD) PSI		Watt	Max. Media Temp. °F	Seal	Pressure Vessel Number	Pressure Vessel Number with Metering	Pressure Vessel Number with Manual Operator	Reference	
			Min.	Air, Inert Gas, Water & light oil							Coil	Valve

#### AC TECHNICAL SPECIFICATIONS (Available ONLY in AC)

1/4	3/16	0.75	0	125	24	160	NBR	71417BN2SN00	71417BN2SNR1	71417BN2SNM0	10	C9
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3/8	3/16	0.75	0	125	24	160	NBR	71417BN3SN00	71417BN3SNR1	71417BN3SNM0	10	C9
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\* Minimum ambient temperature: -40°F (-40°C). Dew point must be more than 7° F below ambient temperature.

\*\* Cv=0.45 with built-in metering control (Digits 11 and 12 are R1)

### 4/2, 4-Way 2 Position Dual Solenoid - Brass\*

Port Size NPT	Orifice Size in.	Flow Factor Cv**	Operating Pressure Differential (MOPD) PSI		Watt	Max. Media Temp. °F	Seal	Pressure Vessel Number	Pressure Vessel Number with Metering	Pressure Vessel Number with Manual Operator	Reference	
			Min.	Air, Inert Gas, Water & light oil							Coil	Valve

#### AC TECHNICAL SPECIFICATIONS

1/4	3/16	0.75	0	125	24	160	NBR	71477BN2SN00	71477BN2SNR1	-	10	C9
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3/8	3/16	0.75	0	125	24	160	NBR	71477BN3SN00	71477BN3SNR1	-	10	C9
-----	------	------	---	-----	----	-----	-----	--------------	--------------	---	----	----

\* Minimum ambient temperature: -40°F (-40°C). Dew point must be more than 7° F below ambient temperature.

\*\* Cv=0.45 with built-in metering control (Digits 11 and 12 are R1)

### 4/2, 4-Way 2 Position Single Solenoid - Brass

Port Size NPT	Orifice Size in.		Flow Factor Cv	Operating Pressure Differential PSI			Watt	Max. Fluid Temp. °F	Seal	Pressure Vessel	Reference	
	In	Exh.		Min.	Air, Inert Gas	Water					Light Oil (300 SSU)	Coil

#### AC TECHNICAL SPECIFICATIONS

1/4	1/16	1.59	0.09	10	150	150	150	11	180	NBR	04F48S2106ACF	4	C8
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#### DC TECHNICAL SPECIFICATIONS

1/4	1/16	1.59	0.09	10	100	100	100	11.5	104	NBR	04F48S2106A3F	6	C8
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4-Way

### 4-Way Direct Acting Normally Closed - Normally Closed Aluminum

Port Size NPT	Orifice Size in. Valve #1 Normally Closed		Cv Flow Factor Valve #1 Normally Closed		Orifice Size in. Valve #2 Normally Closed		Cv Flow Factor Valve #2 Normally Closed		Operating Pressure Differential PSI		Watt	Max. Fluid Temp. °F	Seal	Pressure Vessel Number without Metering	Pressure Vessel Number with Inlet and Exhaust Metering	Reference	
	In	Exh.	In	Exh.	In	Exh.	In	Exh.	Min.	Air, Inert Gas						Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

1/4	3/64	1/16	0.05	0.10	3/64	1/16	0.05	0.10	0	150	10	130	NBR	V933LB2150	V933LEF2150	*	C5
1/4	1/16	3/32	0.10	0.14	1/16	3/32	0.10	0.14	0	100	10	130	NBR	V933LB2100	V933LEF2100	*	C5
1/4	3/32	3/32	0.16	0.14	3/32	3/32	0.16	0.14	0	75	10	130	NBR	V933LB2075	V933LEF2075	*	C5

### 4-Way Direct Acting Normally Closed - Normally Open Aluminum

Port Size NPT	Orifice Size in. Valve #1 Normally Closed		Cv Flow Factor Valve #1 Normally Closed		Orifice Size in. Valve #2 Normally Closed		Cv Flow Factor Valve #2 Normally Closed		Operating Pressure Differential PSI		Watt	Max. Fluid Temp. °F	Seal	Pressure Vessel Number without Metering	Pressure Vessel Number with Inlet and Exhaust Metering	Reference	
	In	Exh.	In	Exh.	In	Exh.	In	Exh.	Min.	Air, Inert Gas						Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

1/4	3/64	1/16	0.05	0.10	3/64	1/16	0.05	0.10	0	150	10	130	NBR	V935LB2150	V935LEF2150	*	C5
1/4	1/16	3/32	0.10	0.14	1/16	1/8	0.08	0.18	0	100	10	130	NBR	V935LB2100	V935LEF2100	*	C5
1/4	3/32	3/32	0.16	0.14	3/32	1/8	0.14	0.21	0	75	10	130	NBR	V935LB2075	V935LEF2075	*	C5

### 4-Way Direct Acting Normally Open - Normally Open Aluminum

Port Size NPT	Orifice Size in. Valve #1 Normally Closed		Cv Flow Factor Valve #1 Normally Closed		Orifice Size in. Valve #2 Normally Closed		Cv Flow Factor Valve #2 Normally Closed		Operating Pressure Differential PSI		Watt	Max. Fluid Temp. °F	Seal	Pressure Vessel Number without Metering	Pressure Vessel Number with Inlet and Exhaust Metering	Reference	
	In	Exh.	In	Exh.	In	Exh.	In	Exh.	Min.	Air, Inert Gas						Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

1/4	3/64	1/16	0.05	0.10	3/64	1/16	0.05	0.10	0	150	10	130	NBR	V955LB2150	V955LEF2150	*	C5
1/4	1/16	1/8	0.08	0.18	1/16	1/8	0.08	0.18	0	100	10	130	NBR	V955LB2100	V955LEF2100	*	C5
1/4	3/32	1/8	0.14	0.18	3/32	1/8	0.14	0.21	0	75	10	130	NBR	V955LB2075	V955LEF2075	*	C5

\*Fig. 1

Voltage	24/60	120/60	240/60	12VDC	24VDC
Coil Code	AB2A7W	AB6A0Z	AB8B6A	DC1A3X	DC2A4Y
Coil Part Number*	V57724F24	V57731F24	V57734F24	V57727F24	V57730F24

\*When ordering a replacement coil, use Coil Part Number (not Coil Code)

Select the series V9 pressure vessel number from above and follow with the coil/enclosure number based on voltage from Fig. 1. Example V935LB2150 for 120/60 becomes part number V935LB2150AB6A0Z.

AC Power Consumption Rating	
VA Holding	VA Inrush
17.5	32.5

DC Power Consumption Rating		
12 VDC	24 VDC	120 VDC
0.71	0.35	0.07

### 5/2, 4-Way 2 Position Single Solenoid - Brass

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI		Watt	Max. Media Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air, Inert Gas							Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

1/4	11/64	0.55	30	150	10	167	NBR	73417BN2KN00	73417BN2KNM0	73417BN2KN7A	7	C1
1/4	11/64	0.55	30	150	1.5	150	NBR	73417BN2KN00	73417BN2KNM0	73417BN2KN7A	11	C1
1/4	1/4	1.20	30	150	10	167	NBR	73417BN2PN00	73417BN2PNM0	73417BN2PN7A	7	C1
1/4	1/4	1.20	30	150	1.5	150	NBR	73417BN2PN00	73417BN2PNM0	73417BN2PN7A	11	C1
1/4	1/4	1.20	30	150	0.6	150	NBR	73417BN2PN90	-	-	12	C1
1/2	5/8	4.00	30	150	10	167	NBR	73417BN4UN00	73417BN4UNM0	-	7	C10
1/2	5/8	4.00	30	150	1.5	150	NBR	73417BN4UN00	73417BN4UNM0	-	11	C10
1/2	5/8	4.00	30	150	0.6	150	NBR	73417BN4UN90	-	-	12	C10

### 5/2, 4-Way 2 Position Dual Solenoid - Brass

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI		Watt	Max. Media Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air, Inert Gas							Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

1/4	11/64	0.55	30	150	10	167	NBR	73477BN2KN00	73477BN2KNM0	73477BN2KN7A	7	C3
1/4	11/64	0.55	30	150	1.5	150	NBR	73477BN2KN00	73477BN2KNM0	73477BN2KN7A	11	C3
1/4	1/4	1.20	30	150	10	167	NBR	73477BN2PN00	73477BN2PNM0	73477BN2PN7A	7	C3
1/4	1/4	1.20	30	150	1.5	150	NBR	73477BN2PN00	73477BN2PNM0	73477BN2PN7A	11	C3
1/4	1/4	1.20	30	150	0.6	150	NBR	73477BN2PN90	-	-	12	C3
1/2	5/8	4.00	30	150	10	167	NBR	73477BN4UN00	73477BN4UNM0	73477BN4UN7A	7	C11
1/2	5/8	4.00	30	150	1.5	150	NBR	73477BN4UN00	73477BN4UNM0	73477BN4UN7A	11	C11
1/2	5/8	4.00	30	150	0.6	150	NBR	73477BN4UN90	-	-	12	C11



### 5/2, 4-Way 2 Position Single Solenoid - Brass External Pilot\*

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI		Watt	Max. Media Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air, Inert Gas							Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

1/4	1/4	1.20	0	150	10	167	NBR	74417BN2PN00	-	-	7	C4
1/4	1/4	1.20	0	150	1.5	150	NBR	74417BN2PN00	-	-	11	C4

\* External pilot pressure to operate valve must be 30 - 150 psi.

### 5/2, 4-Way 2 Position Single Solenoid - Stainless Steel

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI		Watt	Max. Media Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air, Inert Gas							Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

1/4	11/64	0.55	30	150	10	167	NBR	73417VN2KN00	73417VN2KNM0	73417VN2KN7A	7	C1
1/4	11/64	0.55	30	150	1.5	150	NBR	73417VN2KN00	73417VN2KNM0	73417VN2KN7A	11	C1
1/4	11/64	0.55	30	150	0.6	150	NBR	73417VN2KN90	-	-	12	C1
1/4	1/4	1.20	30	150	10	167	NBR	73417VN2PN00	73417VN2PNM0	73417VN2PN7A	7	C1
1/4	1/4	1.20	30	150	1.5	150	NBR	73417VN2PN00	73417VN2PNM0	73417VN2PN7A	11	C1

### 5/2, 4-Way 2 Position Dual Solenoid - Stainless Steel

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI		Watt	Max. Media Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air, Inert Gas							Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

1/4	11/64	0.55	30	150	10	167	NBR	73477VN2KN00	73477VN2KNM0	73477VN2KN7A	7	C3
1/4	11/64	0.55	30	150	1.5	150	NBR	73477VN2KN00	73477VN2KNM0	73477VN2KN7A	11	C3
1/4	11/64	0.55	30	150	0.6	150	NBR	73477VN2KN90	-	-	12	C3
1/4	1/4	1.20	30	150	10	167	NBR	73477VN2PN00	73477VN2PNM0	73477VN2PN7A	7	C3
1/4	1/4	1.20	30	150	1.5	150	NBR	73477VN2PN00	73477VN2PNM0	73477VN2PN7A	11	C3

### 5/2, 4-Way 2 Position Single Solenoid - Stainless Steel - External Pilot\*

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI			Max. Media Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air, Inert Gas	Watt						Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

1/4	11/64	0.55	0	150	10	167	NBR	74417VN2KN00	-	-	7	C4
1/4	11/64	0.55	0	150	1.5	150	NBR	74417VN2KN00	-	-	11	C4
1/4	1/4	1.20	0	150	10	167	NBR	74417VN2PN00	-	-	7	C4
1/4	1/4	1.20	0	150	1.5	150	NBR	74417VN2PN00	-	-	11	C4

\* External pilot pressure to operate valve must be 30 - 150 psi.

### 5/2, 4-Way 2 Position Single Solenoid - Aluminum

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI			Max. Media Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air, Inert Gas	Watt						Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

1/8	5/32	0.35	15	150	10	167	NBR	-	7341LAN1HNM0	-	7	C6
1/4	1/4	1.00	30	150	10	167	NBR	73419AN2NN00	73419AN2NNM0	-	7	C2

### 5/2, 4-Way 2 Position Single Solenoid - Zinc Alloy (Epoxy Coated)

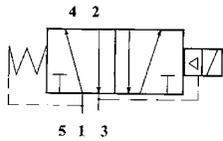
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			Min.	Air, Inert Gas	Watt						Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

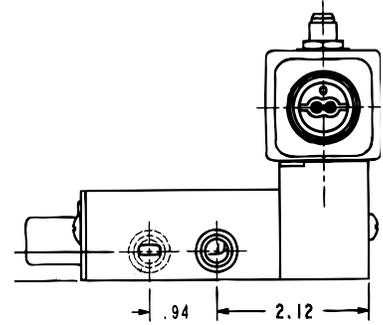
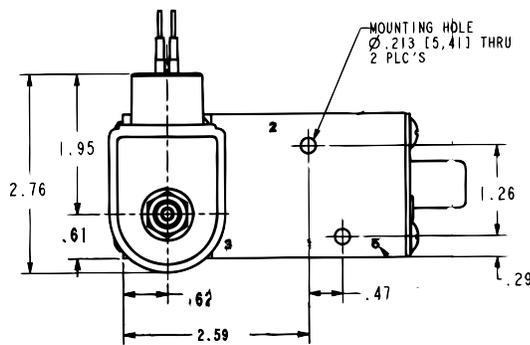
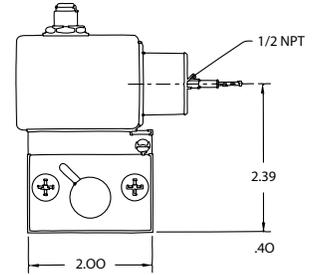
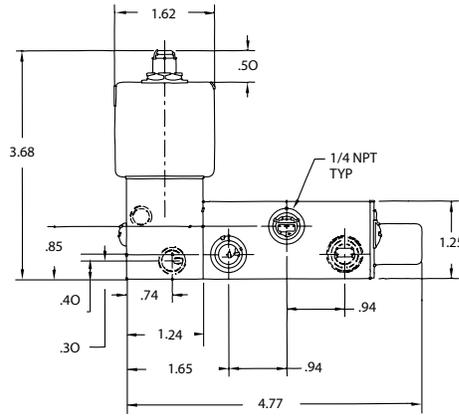
1/4	5/16	1.40	15	150	10	167	NBR	-	7341LMN2NNM0	-	7	C7
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## Valve Reference C1

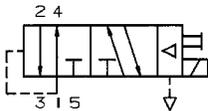


4-Way 2 position single solenoid  
 Port identification:  
 Press-1/Cyl - 2,4/ EXH - 3,5

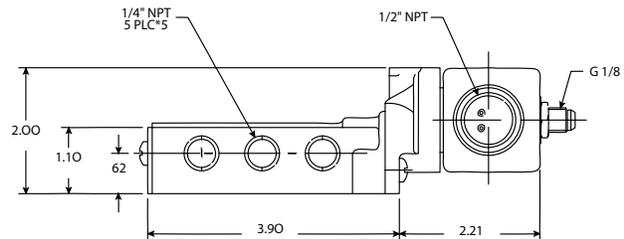
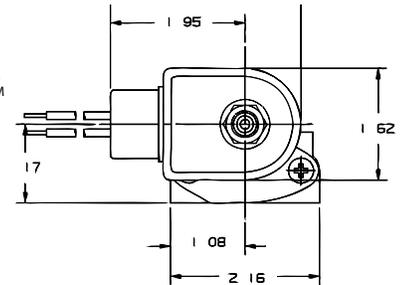
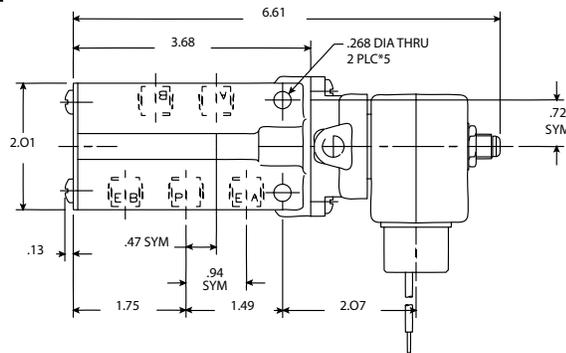


4-Way

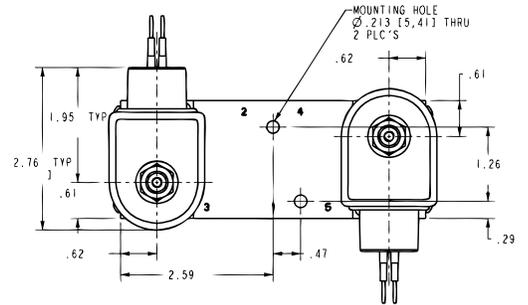
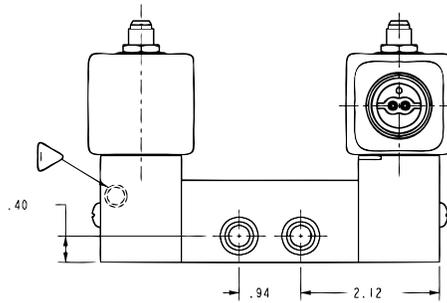
## Valve Reference C2



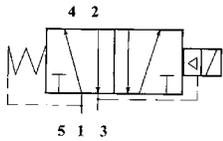
4-Way 2 position single solenoid  
 Port identification:  
 Press-P/A-Cylinder/ EA-Exhaust/  
 B-Cylinder/ EB- Exhaust



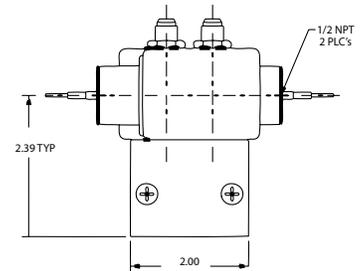
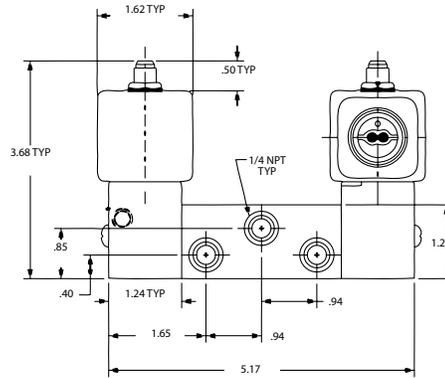
## Valve Reference C3



1 Manual override mechanical option

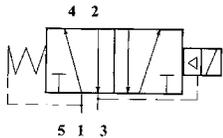
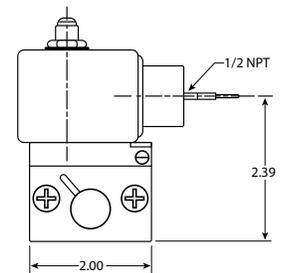
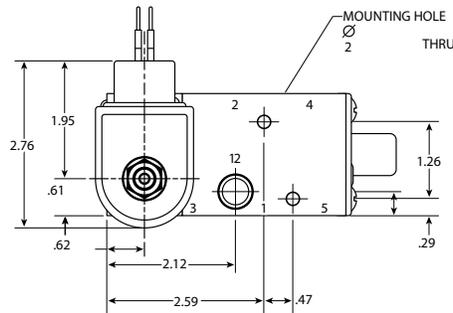


4-Way 2 position dual solenoid  
Port Identification:  
Press-1/CYL-2,4/EXH - 3,5



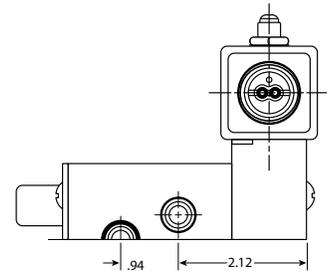
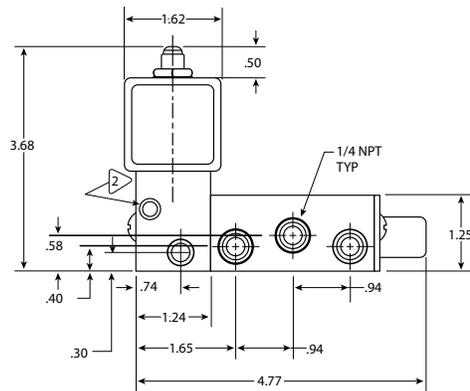
4-Way

## Valve Reference C4



4-Way 2 position solenoid  
external pilot

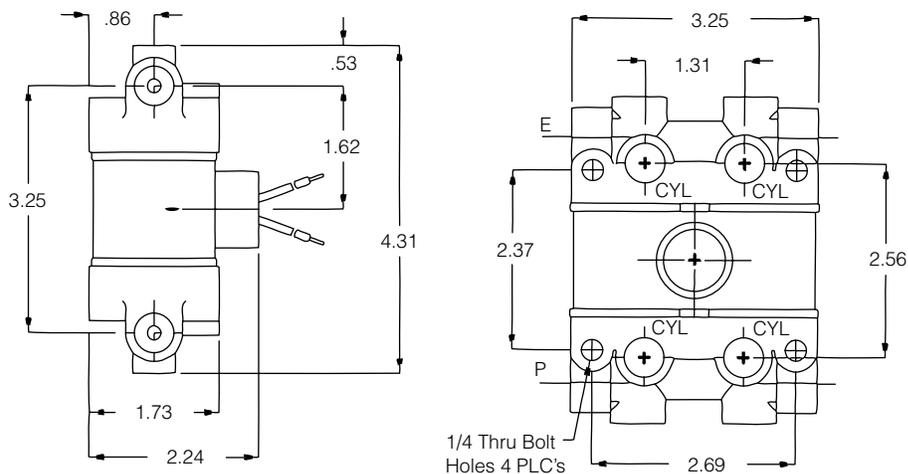
Port Identification:  
Press-1/CYL-2,4/EXH - 3,5



2 Manual override mechanical option



## Valve Reference C5

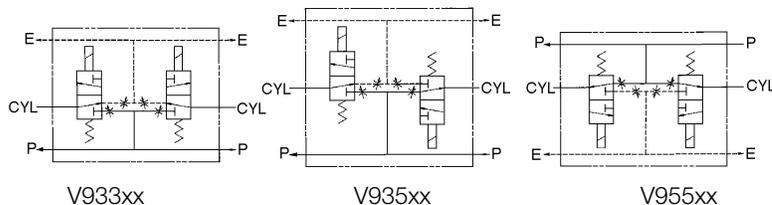


4-way direct acting

V933xx: Normally Closed-Normally Closed

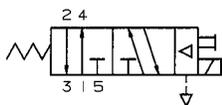
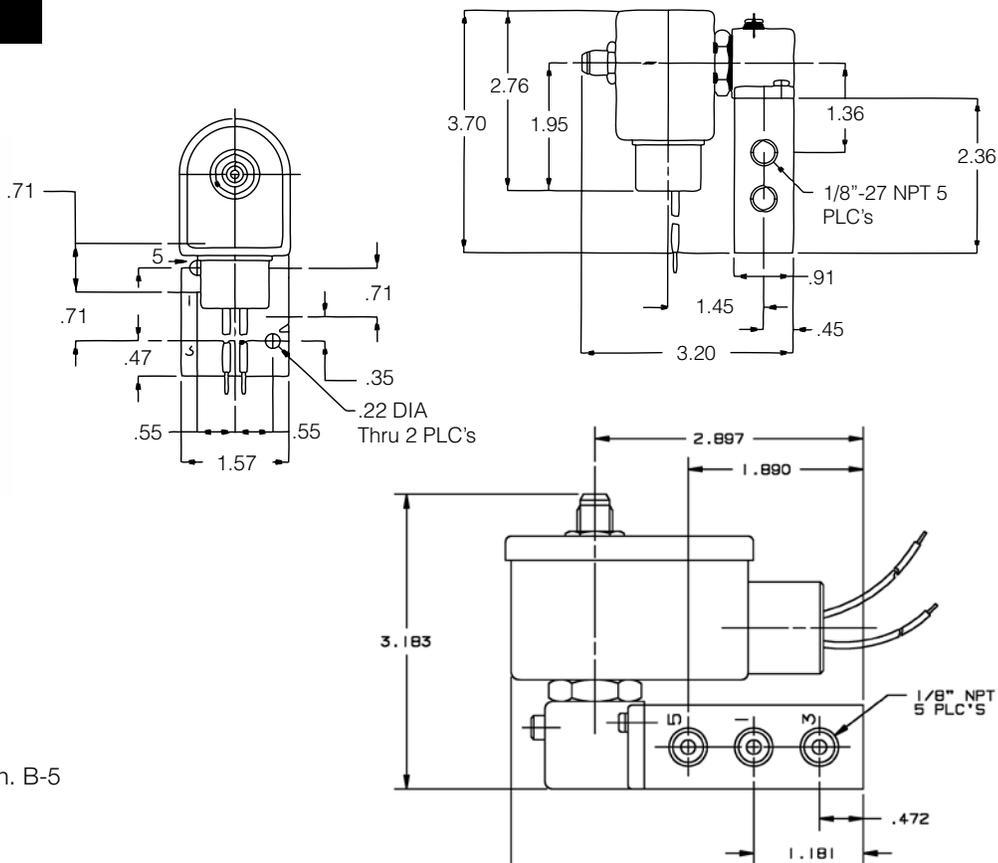
v935xx: Normally Closed-Normally Open

v955xx: Normally Open-Normally Open



4-Way

## Valve Reference C6

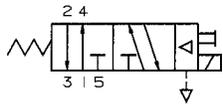
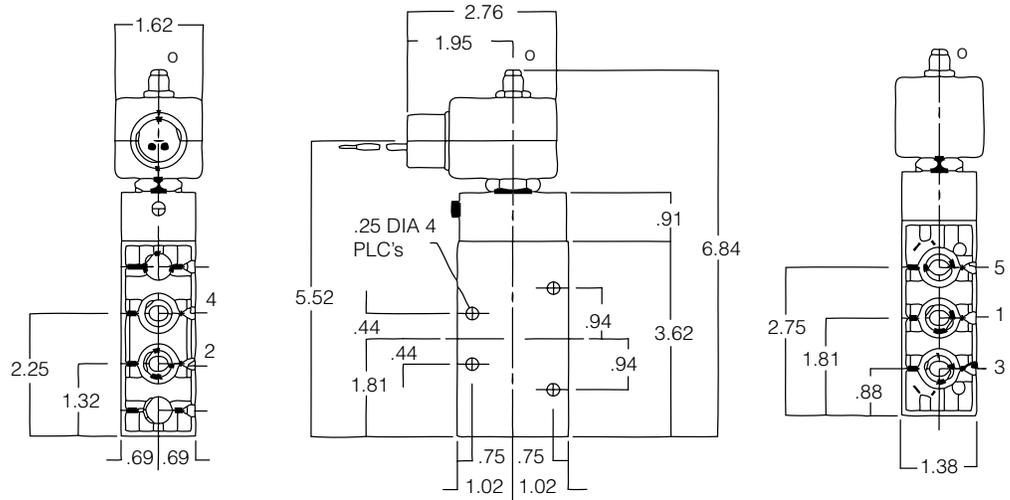


4-way 2 position single solenoid

Port identification:

pressure-1/cyl.A-2/cyl.B-4/exh.A-3/exh. B-5

## Valve Reference C7



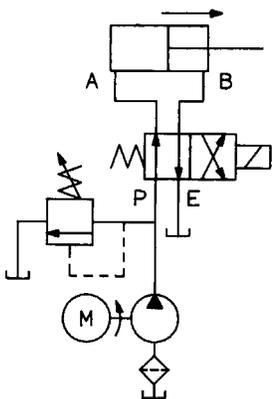
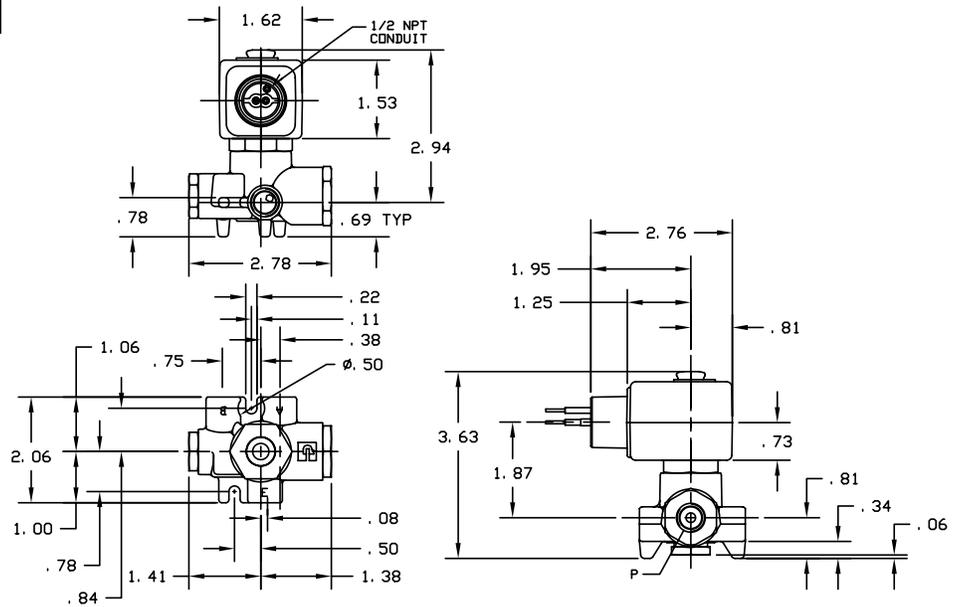
4-Way 2 position single solenoid

Port identification:

pressure-1/cyl.A-2/cyl.B-4/Exh.A-3/Exh. B-5

4-Way

## Valve Reference C8



4-Way 2 position single solenoid

Port identification:

de-energized: pressure to A

B to exhaust

energized:

pressure to B

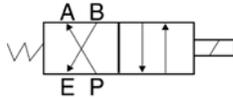
A to exhaust



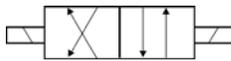
C10

Parker Hannifin Corporation  
**Fluid Control Division**  
 1 800 825 8305 (1 800 Valve05)  
[www.parker.com/fcd](http://www.parker.com/fcd)

## Valve Reference C9



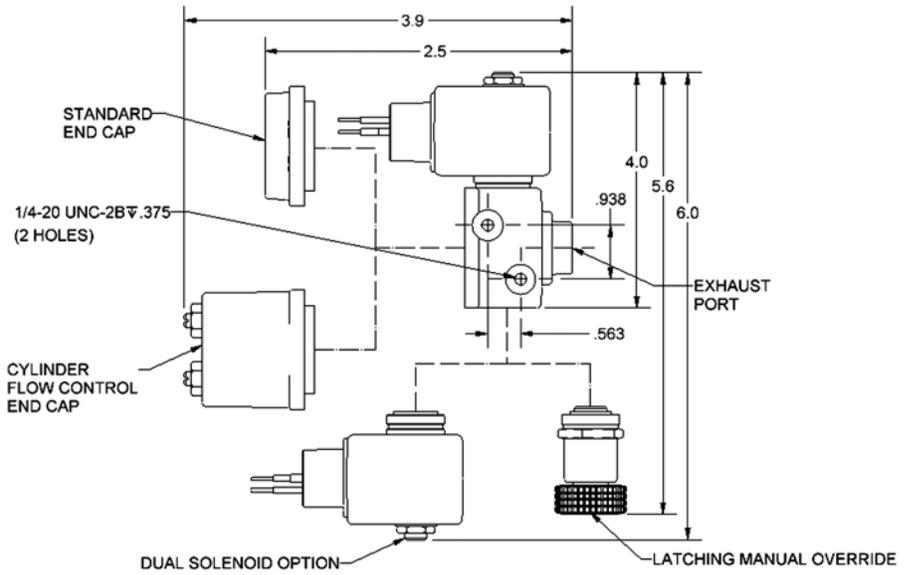
4-Way 2 position single solenoid



4-Way 2 position dual solenoid

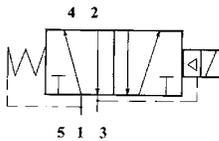
Port Identification:

Press-P/CYL-A,B/EXH - E



4-Way

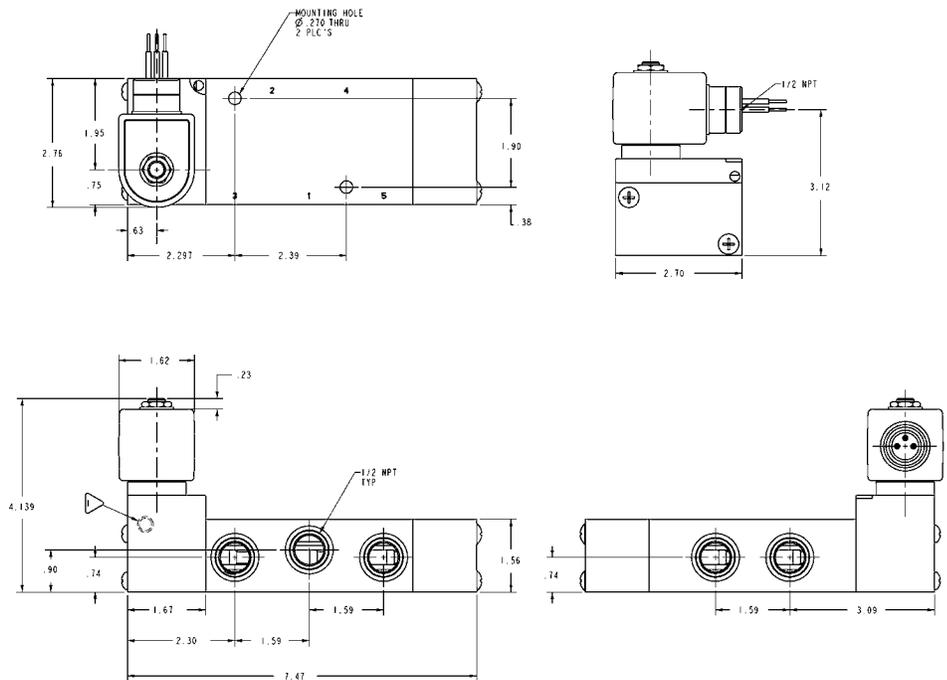
## Valve Reference C10



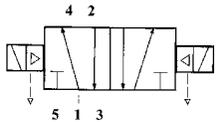
4-Way 2 position single solenoid

Port Identification:

Press-1/CYL-2,4/EXH - 3,5



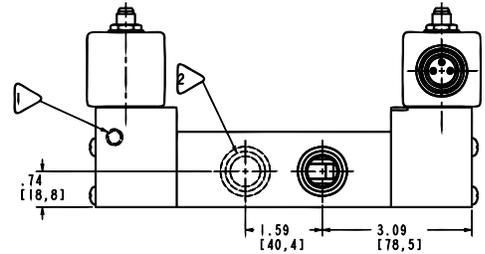
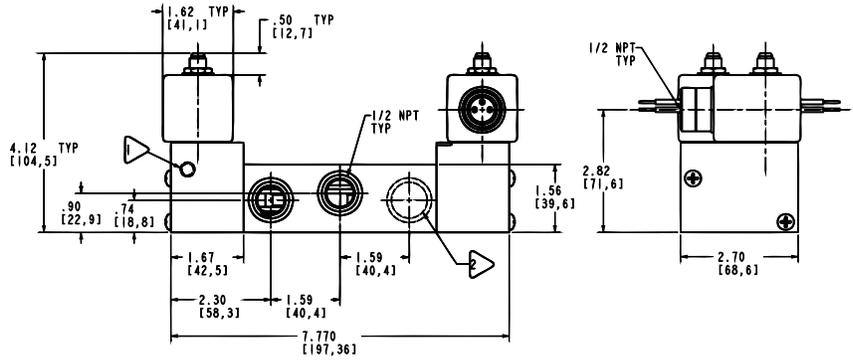
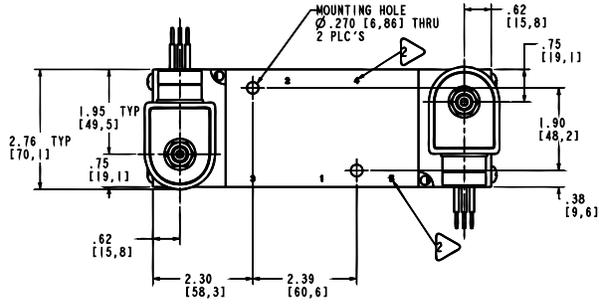
# Valve Reference C11



4-Way 2 position dual solenoid

Port Identification:

1-Pressure/2, 4-Cylinder/3, 5-Exhaust



4-Way

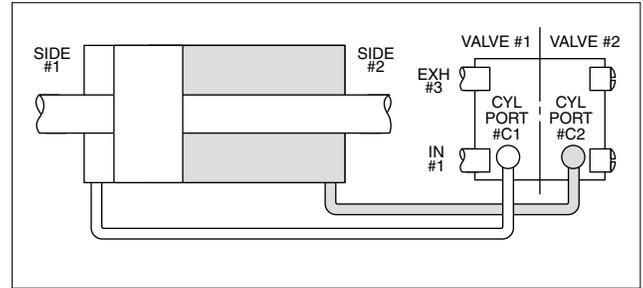
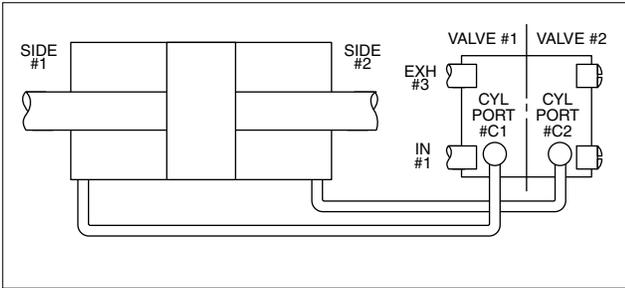


## V933 Four-Way Normally Closed - Normally Closed Valves

When de-energized, both inlet ports are closed by the two plungers preventing flow from the common inlet through both of the valves. The cylinder port in each valve is open to the

common exhaust, permitting flow from the cylinders to the exhaust. When the coils are energized, both valve plungers rise, opening the inlet orifices, and at the same time closing the

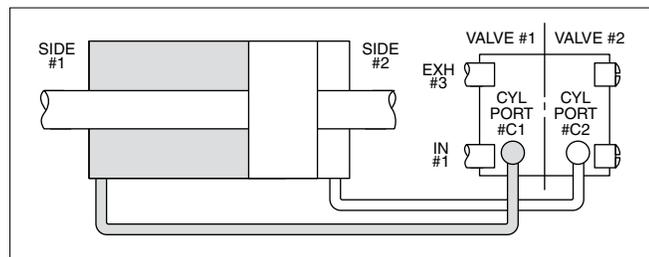
orifices in the sleeves. This stops flow from the cylinder ports to the exhaust, and permits flow from the inlet to the cylinder ports.



### Typical cylinder operation with V933 Valves

Both coils de-energized. The inlet pressure is closed to both sides of a double-acting cylinder. Side #1 and Side #2 of the cylinder are open to exhaust through cylinder ports #C1 and #C2. The piston can be shifted manually.

Coil of valve #1 energized; coil of valve #2 de-energized. The inlet pressure is open to side #1 of the double-acting cylinder through cylinder port #C1, the exhaust is closed off by the plunger insert. Side #2 of the cylinder is open to exhaust through cylinder port #C2, the inlet is closed off by the plunger insert. The piston moves to the right.



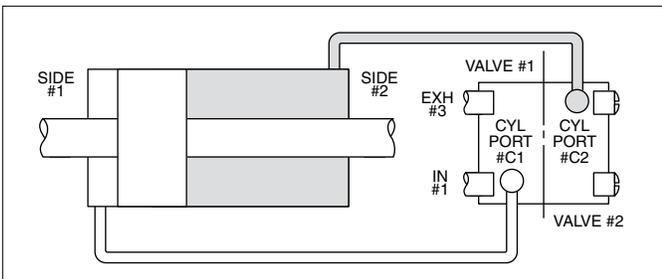
Coil of valve #1 de-energized; coil of valve #2 energized. The inlet pressure is closed off to side #1 of the double-acting cylinder; the exhaust is open through cylinder port #C1. Side #2 of the cylinder is closed to the exhaust and open to inlet pressure through cylinder port #C2. The piston moves to the left.

## V935 Four-Way Normally Closed - Normally Open Valves

The plungers of the two valves are at opposite positions in both the energized and de-energized conditions - one normally open while the other is normally closed. When de-energized, fluid flows from the inlet of the valve through the inlet port of the normally

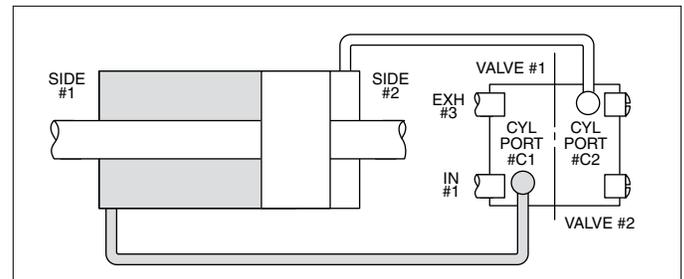
open valve, through the sleeve, and out the cylinder port of the valve. At the same time, the normally closed valve inlet orifice is closed, but the orifice in the sleeve is opened, permitting flow from its cylinder port to the common

exhaust. Therefore, fluid flows from the inlet of the valve to the cylinder port of the normally open valve and from the cylinder port of the normally closed valve to the exhaust. When energized, the two valves reverse in position.



### Typical cylinder operation with V935 Valves

Both coils de-energized. The inlet pressure is open to side #2 of the double-acting cylinder through cylinder port #C2 and the plunger insert closes off the exhaust. Side #1 of the cylinder is open to exhaust through cylinder port #C1 and the inlet pressure is closed off. This causes the piston in the cylinder to move to the left.



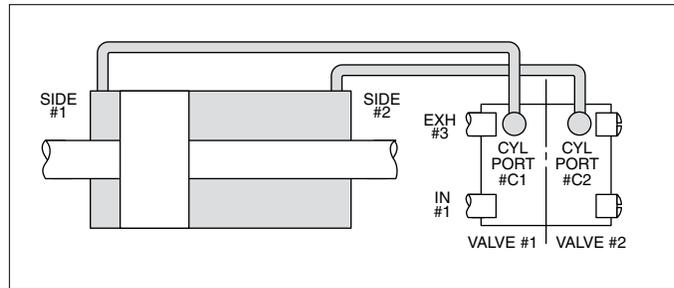
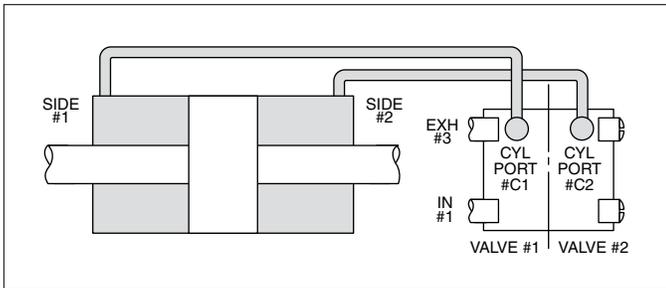
Both coils energized. The inlet pressure is open to side #1 of the cylinder through cylinder port #C1 and the exhaust is closed off. Side #2 of the cylinder is open to the exhaust through cylinder port #C2 and the inlet pressure is closed off by the plunger insert. The piston moves to the right.

## V955 Four-Way Normally Open - Normally Open Valves

Both plungers are in the same position when the coils are de-energized. In this condition, fluid flows through the common inlet of the body, up through the sleeves of both valves, and out

the cylinder ports of the valves. Both orifices in the sleeve stops are closed to the exhaust ports by the plunger. In the energized position, both valve plungers operate together to close

the inlet ports, stopping flow into the valve. At the same time, the orifices in the sleeves are opened permitting flow from the cylinder ports to the common exhaust port in the body.



### Typical cylinder operation with V955 Valves

*Both coils de-energized. The inlet pressure is open to both sides of the double-acting cylinder through cylinder port #C2 and the plunger insert closes off the exhaust. Side #1 of the cylinder is open to exhaust through cylinder port #C1 and the inlet pressure is closed off. This causes the piston in the cylinder to move to the left.*

*Coil of valve #1 energized; coil of valve #2 de-energized. The inlet pressure is closed to side #1 of the double-acting cylinder and open to exhaust through cylinder port #C1. Side #2 of the cylinder is open to the inlet pressure, through cylinder port #C2. The exhaust is closed off by the plunger insert. The piston moves to the left.*

#### 4-Way Direct Acting Materials of Construction\*\*

Product*	Watt	Type	Port Size	Body	Sleeve Tube	Sleeve Stop	Sleeve Flange	"Plunger Blank"	Plunger Spring	Shading Ring	Max. Ambient Temp.
71417BN	24	4/2	1/4 - 3/8	Brass	304SS	430FR	430F	430FR	18-8SS	Copper	140°F
71477BN	24	4/2	1/4 - 3/8	Brass	304SS	430FR	430F	430FR	18-8SS	Copper	140°F
V933	20	NC-NC	1/4	Aluminum	304SS	430FR	430F	430FR	18-8SS	Copper	122°F
V935	20	NC-NO	1/4	Aluminum	304SS	430FR	430F	430FR	18-8SS	Copper	122°F
V955	20	NC-NC	1/4	Aluminum	304SS	430FR	430F	430FR	18-8SS	Copper	122°F

#### 4-Way Pilot Piped Materials of Construction\*\*

Product*	Watt	Type	Port Size	Body	Sleeve Tube	Sleeve Stop	Sleeve Flange	"Plunger Blank"	Plunger Spring	Shading Ring	Max. Ambient Temp.
73417AN	10	5/2	1/4	Alum	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
73417BN	10	5/2	1/4	Brass	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
73417BN	10	5/2	1/2	Brass	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
73417VN	10	5/2	1/4	303	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
73419AN	10	5/2	1/4	Alum	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
7341LAN	10	5/2	1/8	Alum	304SS	430FR	430F	430FR	301SS	Copper	150°F
7341LMN	10	5/2	1/4	Zinc	304SS	430FR	430F	430FR	301SS	Copper	150°F
73477BN	10	5/2	1/4	Brass	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
73477BN	10	5/2	1/4	Brass	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
73477BN	10	5/2	1/2	Brass	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
73477VN	10	5/2	1/4	303	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
74417BN	10	5/2	1/4	Brass	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
04F48S2	11	4/2	1/4	Brass	305SS	430FR	430F	430FR	302SS	Copper	77°F
04F48S2	11.5	4/2	1/4	Brass	305SS	430FR	430F	430FR	302SS	Copper	77°F

\* Shows first 4 or 7 digits of pressure vessel part number.

\*\* Maximum ambient temperature shown is the rating when valve is operating at the maximum fluid temperature as shown in the product sections for each of the valves in this catalog.



# Direct Mount NAMUR

3/2, 3-Way — 5/2, 4-Way

Direct Acting and Pilot Operated Valves

1/4" - 1/2" NPT



## General Description:

The NAMUR mounting interface for direct mount pilot valves has become widely popular around the world. Parker's Direct Mount NAMUR valves meet that global need and are supplied with the necessary mounting hardware and seals as standard to ensure proper mounting, interface sealing and valve function. These valves can be converted between 3-way and 4-way operation by using Parker's patented mounting conversion plate which is unique in the industry. (See Conversion Plate Kit on P. C22)

### Installation

Valves can be mounted in any position. The preferred orientation is with the coil vertical and upright

### Standard Materials of Construction

Please refer to page C22.

### Compatible Fluids

Lubricated Air and Inert Gases.

Use of non-lubricated gaseous media can affect valve life.

## Electrical Characteristics:

### Standard Voltages:

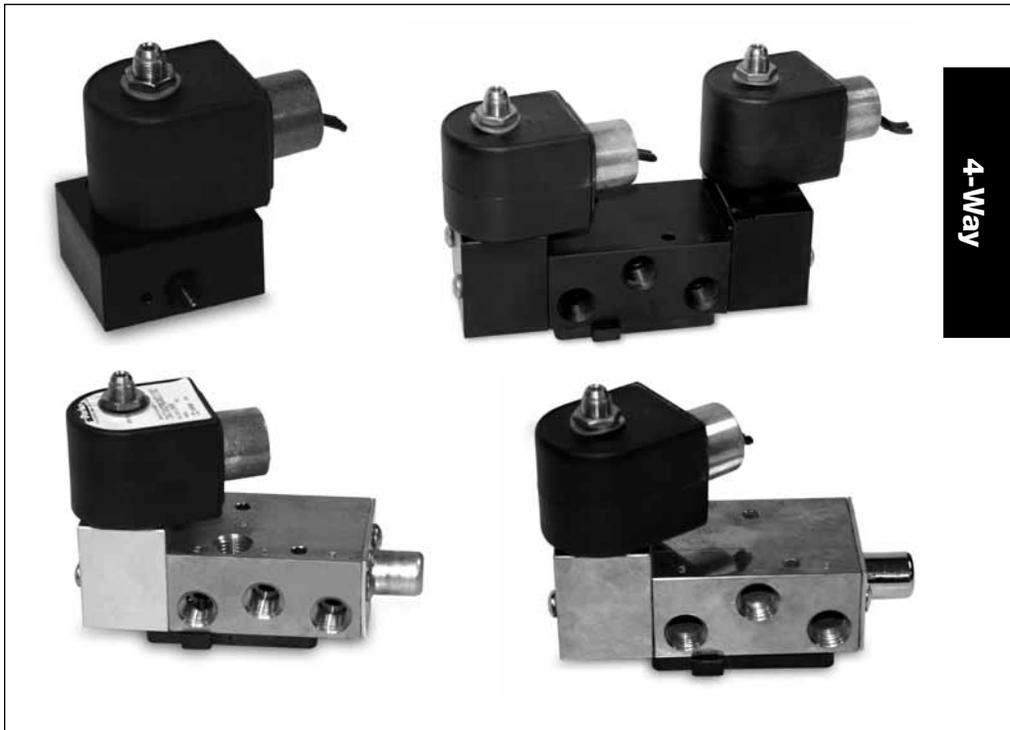
AC -24/60

120/60-110/50

240/60-220/50

DC -12, 24 & 120

For other voltages – consult factory



### Coil Classification:

Class F standard

Class H available

### Agency Approvals:

Standard valves with NEMA Type 4X or explosion proof solenoid enclosures are UL Listed and CSA Certified. For additional details, consult factory.

SIL-3 Capable (Models 73417xxx, 73477xxx). See certificate on page F20 in Technical Section of this catalog.

Please refer to page C22 for details.

### Minimum Ambient Temperature

-40° F (Dew point must be more than 7° F below ambient temp.)

### Maximum Ambient Temperature

167° F

## Applications:

- Pilot valve actuation of larger control valves
- Oil and gas applications including off-shore installations
- Double acting cylinder control requiring direct pilot mount valves
- Air Visers
- Air Motors
- Damper Control

### 3/2 3-Way 2 Position-Single Solenoid-NAMUR Direct Mount - Aluminum

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI		Watt	Max. Fluid Temp. °F	Seal	Pressure Vessel	Reference	
			Min.	Air Inert Gas					Coil	Valve
1/4	3/32	0.17	0	150	10	167	NBR	71315AKDKN00	7	C12

### 3/2 or 5/2, 3- or 4-Way 2 Position - Single Solenoid - NAMUR Direct Mount - Aluminum

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI		Watt	Max. Fluid Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air Inert Gas							Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

1/4	11/64	0.55	30	150	10	167	NBR	73417AKDKN00	73417AKDKNM0	73417AKDKN7A	7	C13
1/4	11/64	0.55	30	150	1.5	150	NBR	73417AKDKN00	73417AKDKNM0	73417AKDKN7A	11	C13
1/4	11/64	0.55	30	150	0.6	150	NBR	73417AKDKN90	-	-	12	C13
1/4	1/4	1.20	30	150	10	167	NBR	73417AKDPN00	73417AKDPNM0	73417AKDPN7A	7	C13
1/4	1/4	1.20	30	150	1.5	150	NBR	73417AKDPN00	73417AKDPNM0	73417AKDPN7A	11	C13
1/4	1/4	1.20	30	150	0.6	150	NBR	73417AKDPN90	-	-	12	C13

### 3/2 or 5/2, 3- or 4-Way 2 Position - Dual Solenoid - NAMUR Direct Mount - Aluminum

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI		Watt	Max. Fluid Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air Inert Gas							Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

1/4	11/64	0.55	30	150	10	167	NBR	73477AKDKN00	73477AKDKNM0	73477AKDKN7A	7	C14
1/4	11/64	0.55	30	150	1.5	150	NBR	73477AKDKN00	73477AKDKNM0	73477AKDKN7A	11	C14
1/4	11/64	0.55	30	150	0.6	150	NBR	73477AKDKN90	-	-	12	C14
1/4	1/4	1.20	30	150	10	167	NBR	73477AKDPN00	73477AKDPNM0	73477AKDPN7A	7	C14
1/4	1/4	1.20	30	150	1.5	150	NBR	73477AKDPN00	73477AKDPNM0	73477AKDPN7A	11	C14
1/4	1/4	1.20	30	150	0.6	150	NBR	73477AKDPN90	-	-	12	C14

### 3/2 or 5/2, 3- or 4-Way 2 Position - Single Solenoid - NAMUR Direct Mount - Brass

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI		Watt	Max. Fluid Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air Inert Gas							Coil	Valve

#### AC/DC TECHNICAL SPECIFICATIONS

1/4	1/4	1.20	30	150	1.5	150	NBR	73417BKDPN00	73417BKDPNM0	73417BKDPN7A	11	C13
1/4	1/4	1.20	30	150	10	167	NBR	73417BKDPN00	73417BKDPNM0	73417BKDPN7A	7	C13



4-Way

**3/2 or 5/2, 3- or 4 - Way 2 Position - Dual Solenoid - NAMUR Direct Mount - Brass**

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI		Watt	Max. Fluid Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air Inert Gas							Coil	Valve

**AC/DC TECHNICAL SPECIFICATIONS**

1/4	1/4	1.20	30	150	1.5	150	NBR	73477BKDPN00	73477BKDPNM0	73477BKDPN7A	11	C14
1/4	1/4	1.20	30	150	10	167	NBR	73477BKDPN00	73477BKDPNM0	73477BKDPN7A	7	C14

**3/2 or 5/2, 3- or 4-Way 2 Position - Single Solenoid - NAMUR Direct Mount - Stainless Steel**

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI		Watt	Max. Fluid Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air Inert Gas							Coil	Valve

**AC/DC TECHNICAL SPECIFICATIONS**

1/4	11/64	0.55	30	150	1.5	150	NBR	73417VKDKN00	73417VKDKNM0	73417VKDKN7A	11	C13
1/4	11/64	0.55	30	150	10	167	NBR	73417VKDKN00	73417VKDKNM0	73417VKDKN7A	7	C13
1/4	1/4	1.20	30	150	1.5	150	NBR	73417VKDPN00	73417VKDPNM0	73417VKDPN7A	11	C13
1/4	1/4	1.20	30	150	10	167	NBR	73417VKDPN00	73417VKDPNM0	73417VKDPN7A	7	C13

**3/2 or 5/2, 3- or 4-Way 2 Position - Dual Solenoid - NAMUR Direct Mount - Stainless Steel**

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI		Watt	Max. Fluid Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air Inert Gas							Coil	Valve

**AC/DC TECHNICAL SPECIFICATIONS**

1/4	11/64	0.55	30	150	1.5	150	NBR	73477VKDKN00	73477VKDKNM0	73477VKDKN7A	11	C14
1/4	11/64	0.55	30	150	10	167	NBR	73477VKDKN00	73477VKDKNM0	73477VKDKN7A	7	C14
1/4	1/4	1.20	30	150	1.5	150	NBR	73477VKDPN00	73477VKDPNM0	73477VKDPN7A	11	C14
1/4	1/4	1.20	30	150	10	167	NBR	73477VKDPN00	73477VKDPNM0	73477VKDPN7A	7	C14

**3/2 or 5/2, 3- or 4-Way 2 Position - Single Solenoid - NAMUR Direct Mount - Brass - External Pilot\***

Port Size NPT	Orifice Size in.	Flow Factor Cv	Operating Pressure Differential (MOPD) PSI		Watt	Max. Fluid Temp. °F	Seal	Pressure Vessel Number without Manual Override	Pressure Vessel Number with Locking Manual Override	Pressure Vessel Number with Momentary Manual Override	Reference	
			Min.	Air Inert Gas							Coil	Valve

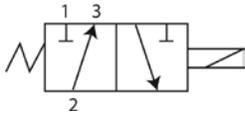
**AC/DC TECHNICAL SPECIFICATIONS**

1/4	1/4	1.20	0	150	1.5	150	NBR	74417BKDPN00	-	-	11	C15
1/4	1/4	1.20	0	150	10	167	NBR	74417BKDPN00	-	-	7	C15

\* External pilot pressure to operate valve must be 30-150 PSI.



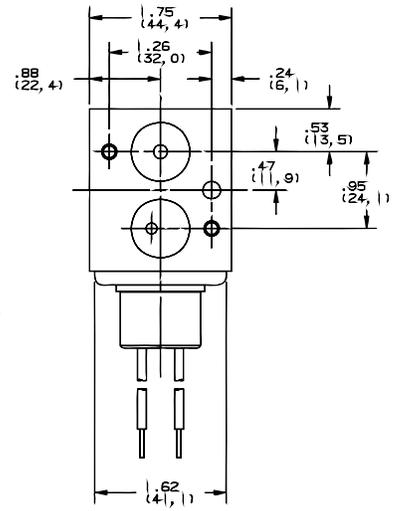
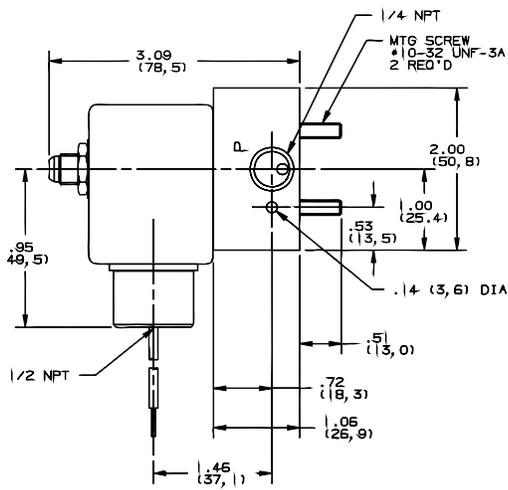
## Valve Reference C12



3-Way Normally Closed

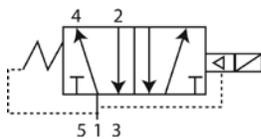
Port Identification:

1- Pressure/2 - Cylinder/3 - Exhaust



4-Way

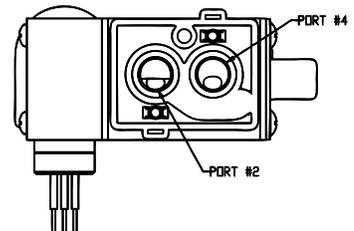
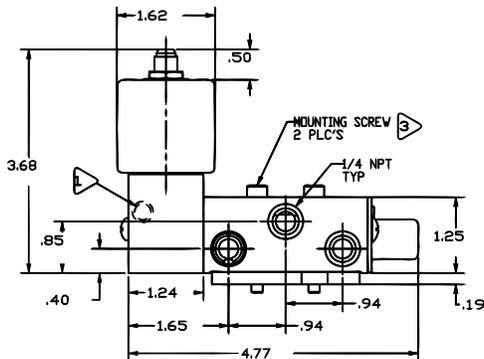
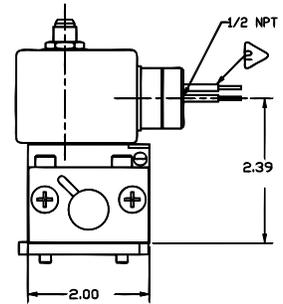
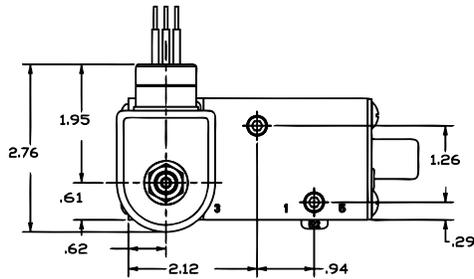
## Valve Reference C13



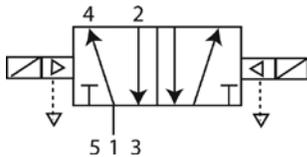
5/2, 4-Way 2 Position Single Solenoid

Port Identification:

1- Pressure/2, 4 - Cylinder/3, 5 - Exhaust



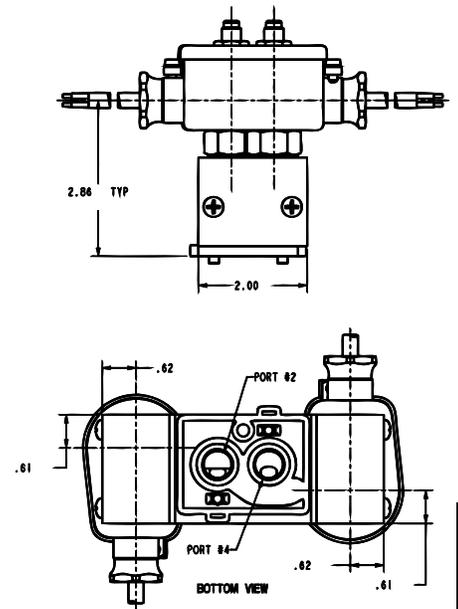
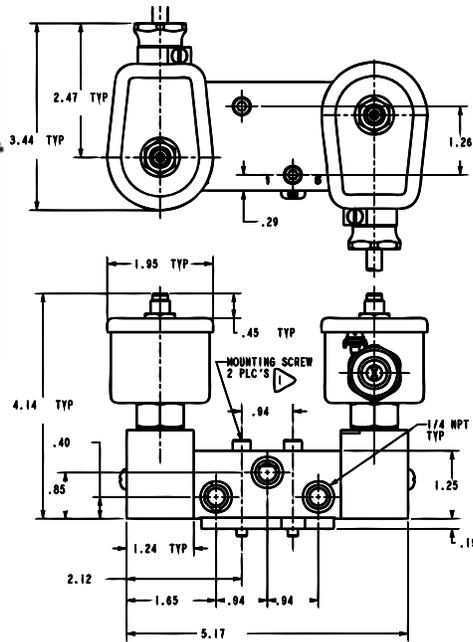
## Valve Reference C14



5/2, 4-Way 2 Position Dual Solenoid

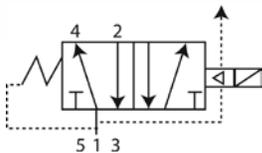
Port Identification:

1- Pressure/2, 4 - Cylinder/3, 5 - Exhaust



4-Way

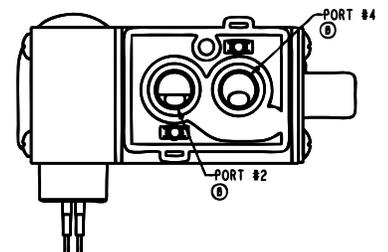
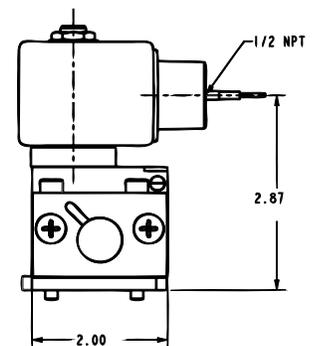
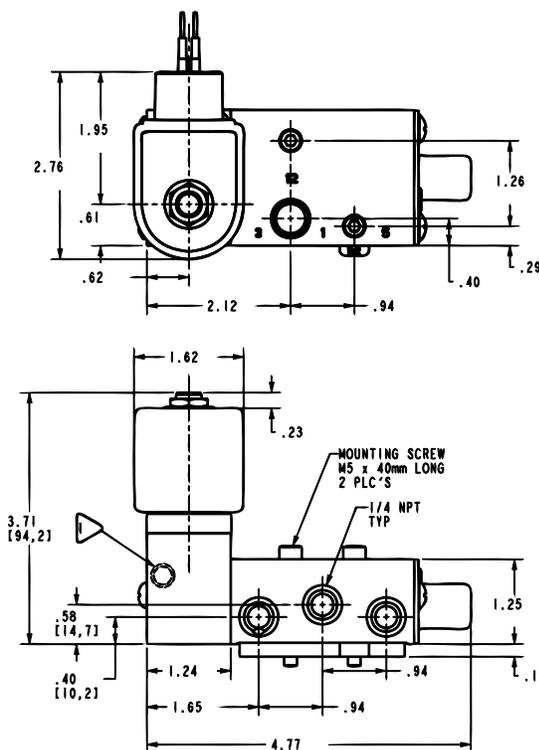
## Valve Reference C15



5/2, 4-Way 2 Position Single Solenoid

Port Identification:

1- Pressure/2, 4 - Cylinder/3, 5 - Exhaust



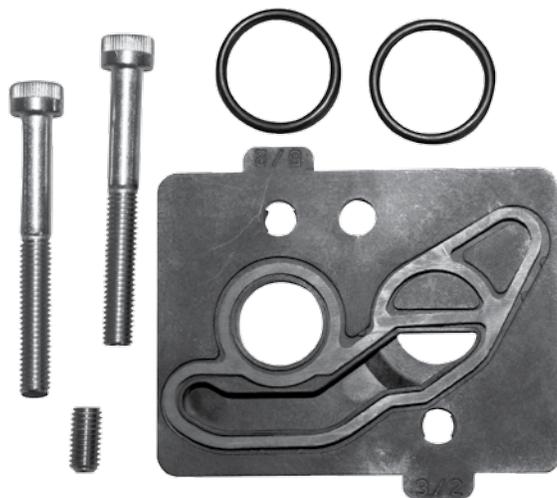
## 4-Way Pilot Direct Mount Materials of Construction\*\*

Product*	Watt	Type	Port Size	Body	Sleeve Tube	Sleeve Stop	Sleeve Flange	"Plunger Blank"	Plunger Spring	Shading Ring	Max. Ambient Temp.
71315AK	10	3WNC	NAMUR	Alum	304ss	430FR	430F	430FR	19-8SS	Copper	167°F
73417AK	10	3/2-5/2	1/4	Alum	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
73417BK	10	3/2-5/2	1/4	Brass	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
73417VK	10	3/2-5/2	1/4	Brass	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
73477AK	10	3/2-5/2	1/4	Alum	304SS	430FR	430F	430FR	18-8SS	Copper	167°F
73477BK	10	3/2-5/2	1/4	Brass	304SS	430FR	430F	430FR	18-8SS	Copper	167°F

\* Shows first 7 digits of pressure vessel part number.

\*\* Maximum ambient temperature shown is the rating when valve is operating at the maximum fluid temperature as shown in the product sections for each of the valves in this catalog.

### Parker's 3-way/4-way Conversion Mounting Plate Kit



This conversion mounting kit, unique in the industry, allows a common valve to be installed and used in either a 3-way or 4-way function.

Available with U.S., or Metric mounting screws. Consult factory for the specific kit number that meets your requirements.