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



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*

			Pre Diffe	erating essure erential PD) PSI							Refe	erence
Port	Orifice	Flow		Air, Inert Gas, Water		Max. Media			Pressure Vessel	Pressure Vessel	Kere	- I circe
Size	Size	Factor		& light		Temp.		Pressure Vessel	Number with	Number with		
NPT	in.	Cv**	Min.	oil	Watt	°F	Seal	Number	Metering	Manual Operator	Coil	Valve
AC T	ECHNI	CAL SF	PECIF	ICATION	VS (A	/ailable	ONLY	in AC)				
1/4	3/16	0.75	0	125	24	160	NBR	71417BN2SN00	71417BN2SNR1	71417BN2SNM0	10	C9
3/8	3/16	0.75	0	125	24	160	NBR	71417BN3SN00	71417BN3SNR1	71417BN3SNM0	10	C9

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

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

			Pre Diffe	erating essure erential PD) PSI							Pof	erence
Port Size NPT	Orifice Size in.	Flow Factor Cv**	Min.	Air, Inert Gas, Water & light oil	Watt	Max. Media Temp. °F	Seal	Pressure Vessel Number	Pressure Vessel Number with Metering	Pressure Vessel Number with Manual Operator	Coil	Valve
	ECHNI	CAL SF	PECIF	ICATION	NS				, ,	·	<u>. </u>	
1/4	3/16	0.75	0	125	24	160	NBR	71477BN2SN00	71477BN2SNR1	-	10	C9
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.

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

		fice			Operatin	-			Max.				
Port	Size	e in.	Flow		Differe	ntial PSI			Fluid			Ref	erence
Size			Factor		Air, Inert		Light Oil	1	Temp.				
NPT	In	Exh.	Cv	Min.	Gas	Water	(300 SSU)	Watt	°F	Seal	Pressure Vessel	Coil	Valve
AC TECHNICAL SPECIFICATIONS													
1/4	1/16	1.59	0.09	10	150	150	150	11	180	NBR	04F48S2106ACF	4	C8
DC TECHNICAL SPECIFICATIONS													
1/4	1/16	1.59	0.09	10	100	100	100	11.5	104	NBR	04F48S2106A3F	6	C8



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

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

4-Way Direct Acting Normally Closed - Normally Closed Aluminum

Port Size NPT	Clo		Fac Valv Norr		Clo		Fac Valv Norr Clo	low tor e #2 mally sed Exh.	Pres Diffe	rating ssure rential SI Air, Inert Gas	Watt	Max. Fluid Temp. °F	Seal	Pressure Vessel Number without Metering	Pressure Vessel Number with Inlet and Exaust Metering		rence Valve
AC/E	C TEC	CHNIC	CAL SI	PECIF	ICATIO	ONS								·			
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	*	

4-Way Direct Acting Normally Closed - Normally Open Aluminum

Port	Size Valv Norr Clo	fice e in. e #1 nally sed	Fac Valv	nally	1	e in. e #2 nally		tor e #2 nally	Pres Diff	er- l PSI		Max. Fluid			Pressure Vessel Number with Inlet	Refer	-ence
Port										Air,			l .	Vessel Number			
Size		١ ا		١	١.					Inert		Temp.	l .	without	and Exaust		l., .
NPT	<u>In</u>	Exh.	<u>In</u>	Exh.	l In	Exh.	ln	Exn.	Min.	Gas	Watt	<u>°F</u>	Seal	Metering	Metering	Coil	Valve
AC/E	C TE	CHNI	CAL	SPEC	IFICA	TION	S										
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

	Orifice Cv Flow Orif Size in. Factor Size Valve #1 Valve #1 Valve Normally Normally Norm Closed Closed Close		e in. e #2 nally	e in. Factor e #2 Valve #2 nally Normally		Pre:	rating ssure rential				Pressure	Pressure					
<u> </u> .		sed	Clo	sed	Clo	sed	Clo	sed	F	PSI		Max.			Vessel Number	Refe	rence
Port										Air,		Fluid		Number	with Inlet		
Size		E. I.	1		1	E. I	1	E. I	N4:	Inert	147-11	Temp.	C 1	without	and Exaust	0-:1	
NPT		Exh.	<u>In</u>	Exh.		Exh.		Exn.	Min.	Gas	Watt	°F	Seal	Metering	Metering	Coil	Valve
AC/E	C TE	CHNI	CAL	SPEC	IFICA	MOIT	S										
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 Cons	sumption Rating									
VA Holding VA Inrush										
17.5	32.5									

DC Pov	ver Consumption	n Rating										
12 VDC 24 VDC 120 VDC												
0.71 0.35 0.07												



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

			Pres Differ	ating sure ential D) PSI		Max.			Pressure Vessel	Pressure Vessel	Pofo	rence
	Orifice			Air,		Media		Pressure Vessel	Number with	Number with	itele	Tence
Size NPT	Size in.	Factor Cv	Min.	Inert Gas	Watt	Temp. °F	Seal	Number without Manual Override	Locking Manual Override	Momentary Manual Override	Coil	Valve
AC/D	C TEC	HNICA	L SPEC	CIFICAT	TIONS							
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

			Pres Differ	ating sure ential D) PSI		Max.			Pressure Vessel	Pressure Vessel	Refe	rence
Port Size NPT	Orifice Size in.	Flow Factor Cv	Min.	Air, Inert Gas	Watt	Media Temp. °F	Seal	Pressure Vessel Number without Manual Override	Number with Locking Manual Override	Number with Momentary Manual Override		Valve
AC/D	C TEC	HNICA	L SPEC	CIFICAT	TIONS							
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	СЗ
1/4	1/4	1.20	30	150	10	167	NBR	73477BN2PN00	73477BN2PNM0	73477BN2PN7A	7	СЗ
1/4	1/4	1.20	30	150	1.5	150	NBR	73477BN2PN00	73477BN2PNM0	73477BN2PN7A	11	СЗ
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*

			Pres Differ	ating sure ential D) PSI		Mari			Danasana Vasasi	Drawn Versel		
Port	Orifice	Flow	(1.101.	Air.		Max. Media		Pressure Vessel	Number with	Pressure Vessel Number with	Refe	rence
Size		Factor		Inert		Temp.		Number without	Locking Manual	Momentary		
NPT	in.	Cv	Min.	Gas	Watt	°F	Seal	Manual Override	Override	Manual Override	Coil	Valve
AC/D	C TEC	HNICA	L SPEC	CIFICAT	IONS							
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

			Operating Pressure Differential (MOPD) PSI			Max.			Pressure Vessel	Pressure Vessel	Reference	
Port Size	Orifice Size	Flow Factor		Air, Inert		Media Temp.		Pressure Vessel Number without	Number with Locking Manual	Number with Momentary	Refer	Circo
NPT	in.	Cv	Min.	Gas	Watt	°F	Seal	Manual Override	_	Manual Override	Coil	Valve
AC/D	C TEC	HNICA	L SPEC	CIFICAT	TIONS							
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

			Operating Pressure Differential (MOPD) PSI		Max.			Pressure Vessel	Pressure Vessel	Refe	rence	
Port Size NPT	Orifice Size in.	Flow Factor Cv	Min.	Air, Inert Gas	Watt	Media Temp. °F	Seal	Pressure Vessel Number without Manual Override	Number with Locking Manual Override	Number with Momentary Manual Override		Valve
AC/D	C TEC	HNICA	L SPEC	CIFICAT	IONS							
1/4	11/64	0.55	30	150	10	167	NBR	73477VN2KN00	73477VN2KNM0	73477VN2KN7A	7	СЗ
1/4	11/64	0.55	30	150	1.5	150	NBR	73477VN2KN00	73477VN2KNM0	73477VN2KN7A	11	СЗ
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	СЗ



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

			Pres Differ	ating sure ential D) PSI		Max.			Pressure Vessel	Pressure Vessel	Reference	
1	Orifice	Flow		Air,		Media		Pressure Vessel	Number with	Number with	110101	
Size NPT	Size in.	Factor Cv	Min.	Inert Gas	Watt	Temp. °F	Seal	Number without Manual Override	Locking Manual Override	Momentary Manual Override	Coil	Valve
AC/D	C TEC	HNICA	L SPEC	CIFICAT	TIONS							
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

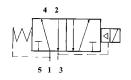
			Operating Pressure Differential (MOPD) PSI		Max.			Pressure Vessel	Pressure Vessel	Refe	ence	
Port Size NPT	Orifice Size in.	Flow Factor Cv	Min.	Air, Inert Gas	Watt	Media Temp. °F	Seal	Pressure Vessel Number without Manual Override	Number with Locking Manual Override	Number with Momentary Manual Override	Refer	Valve
AC/D	C TEC	HNICA	L SPEC	CIFICAT	TIONS							
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)

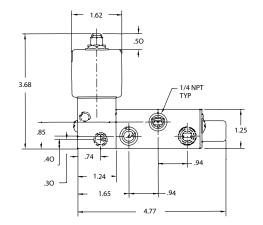
			Operating Pressure Differential (MOPD) PSI			Max.			Pressure Vessel	Pressure Vessel	Refe	rence
Port Size NPT	Orifice Size in.	Flow Factor Cv	Min.	Air, Inert Gas	Watt	Media Temp. °F	Seal	Pressure Vessel Number without Manual Override	Number with Locking Manual	Number with Momentary Manual Override		Valve
AC/DC TECHNICAL SPECIFICATIONS												
1/4	5/16	1.40	15	150	10	167	NBR	-	7341LMN2NNM0	-	7	C7

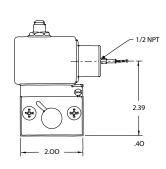


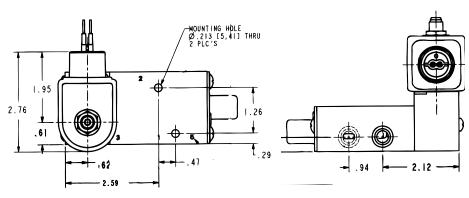




4-Way 2 position single solenoid Port identification: Press-1/Cyl - 2,4/ EXH - 3,5

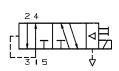




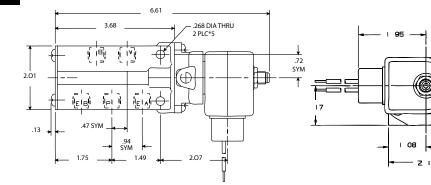


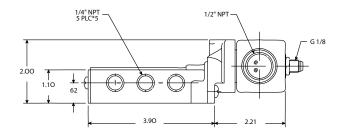
Valve Reference C2





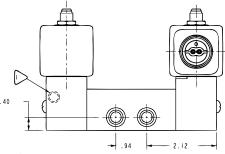
4-Way 2 position single solenoid Port identification: Press-P/A-Cylinder/ EA-Exhaust/ B-Cylinder/ EB- Exhaust

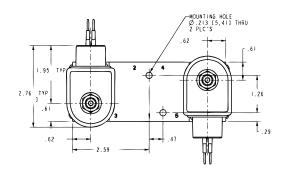




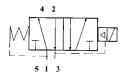




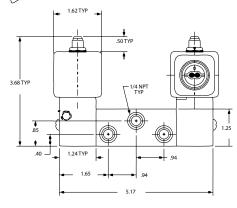


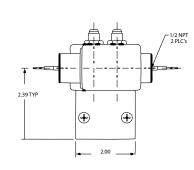


1 Manual override mechanical option



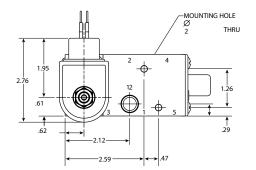
4-Way 2 position dual solenoid Port Identification: Press-1/CYL-2,4/EXH - 3,5

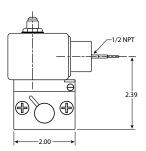


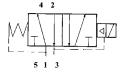


Valve Reference C4



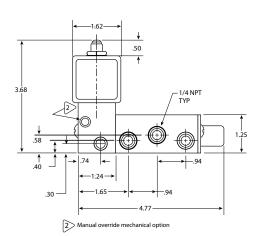


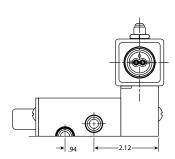




4-Way 2 position solenoid external pilot

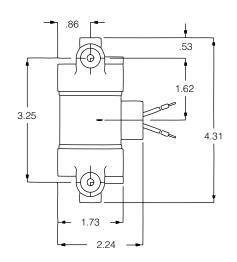
Port Identification: Press-1/CYL-2,4/EXH - 3,5

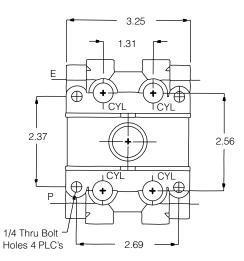






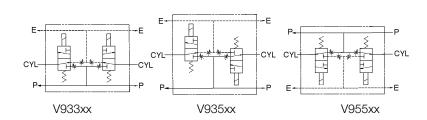






4-way direct acting

V933xx: Normally Closed-Normally Closed v935xx: Normally Closed-Normally Open v955xx: Normally Open-Normally Open

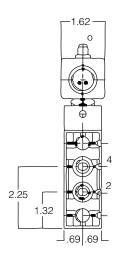


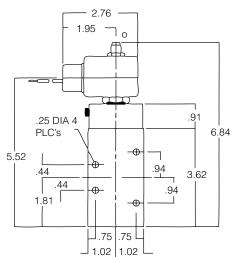
Valve Reference C6 2.76 1.36 3.70 1.95 2.36 .71 -1/8"-27 NPT 5 PLC's -.91 3.20 .47 .35 .22 DIA .55 Thru 2 PLC's 2.897 1.57 - 1.890 3.183 1/8" NPT 5 PLC'S 4-way 2 position single solenoid Port identification: pressure-1/cyl.A-2/cyl.B-4/exh.A-3/exh. B-5 1.181

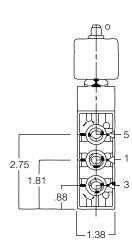


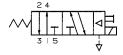




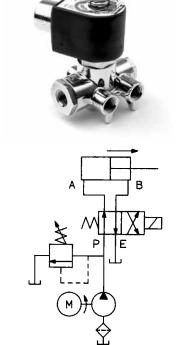


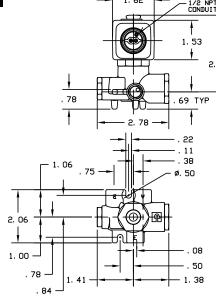


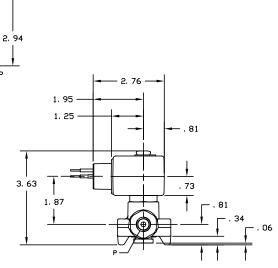




4-Way 2 position single solenoid Port identification: pressure-1/cyl.A-2/cyl.B-4/Exh.A-3/Exh. B-5







4-Way 2 position single solenoid

Port identification:

de-energized: pressure to A

B to exhaust

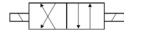
energized: pressure to B

A to exhaust

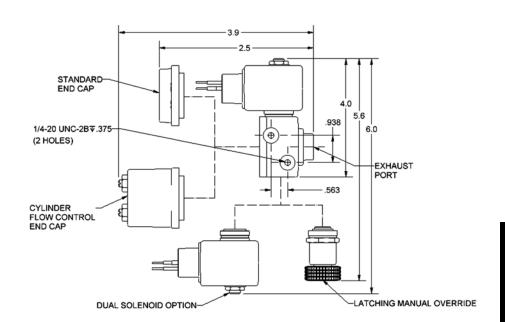




4-Way 2 position single solenoid

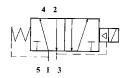


4-Way 2 position dual solenoid Port Identification: Press-P/CYL-A,B/EXH - E

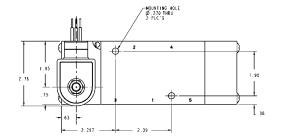


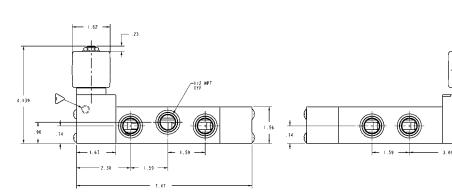
Valve Reference C10





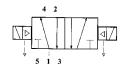
4-Way 2 position single solenoid Port Identification: Press-1/CYL-2,4/EXH - 3,5





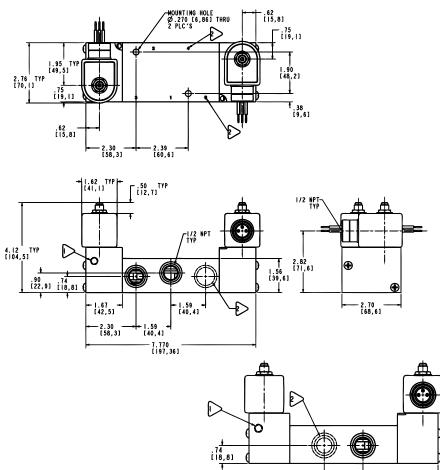






4-Way 2 position dual solenoid

Port Identification:
1-Pressure/2, 4-Cylinder/3, 5-Exhaust

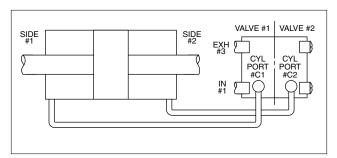


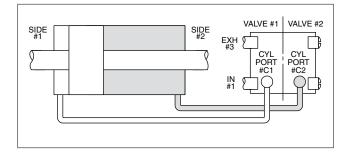


V933 Four-Way Normally Closed - Normally Closed Valves

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.

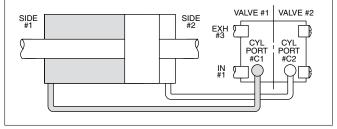




Typical cylinder operation with V933 Valves

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.

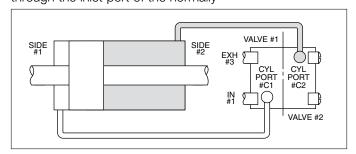


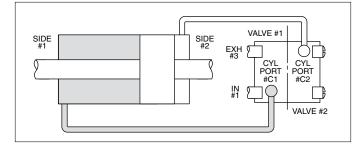
Coil of valve #1 de-energized; coil of valve #1 energized. The inlet pressure is closed off to side #1 of the double-acting cylinder; the exhaust is open through cylinder port #C1. Side #2 of the cylinder is closed to the exhaust and open to inlet pressure through cylinder port #C2. The piston moves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

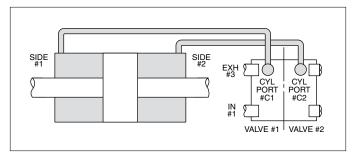


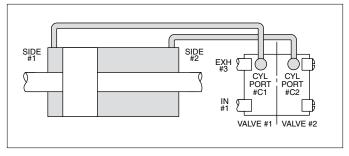
V955 Four-Way Normally Open - Normally Open Valves

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	Туре	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	Туре	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.