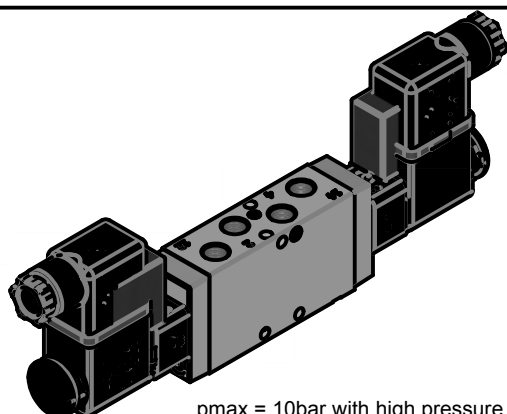




p_{max} = 10bar with high pressure option to 16/12 bar.
t = -10C to +60C with option to -40C



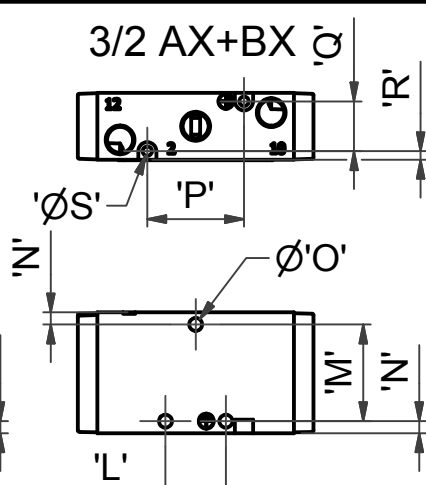
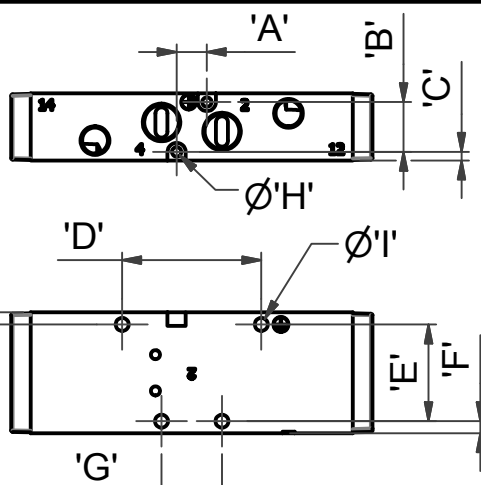
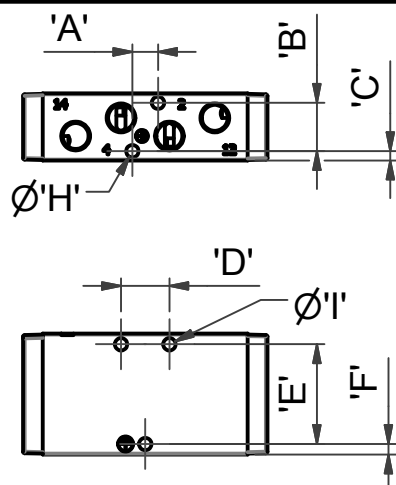
Ensure supply voltage is compatible with solenoid.

S'assurer que la tension est compatible avec la bobine.

Kontrollieren Sie, ob die Steuerspannung mit der Angabe auf der Magnetspule übereinstimmt!

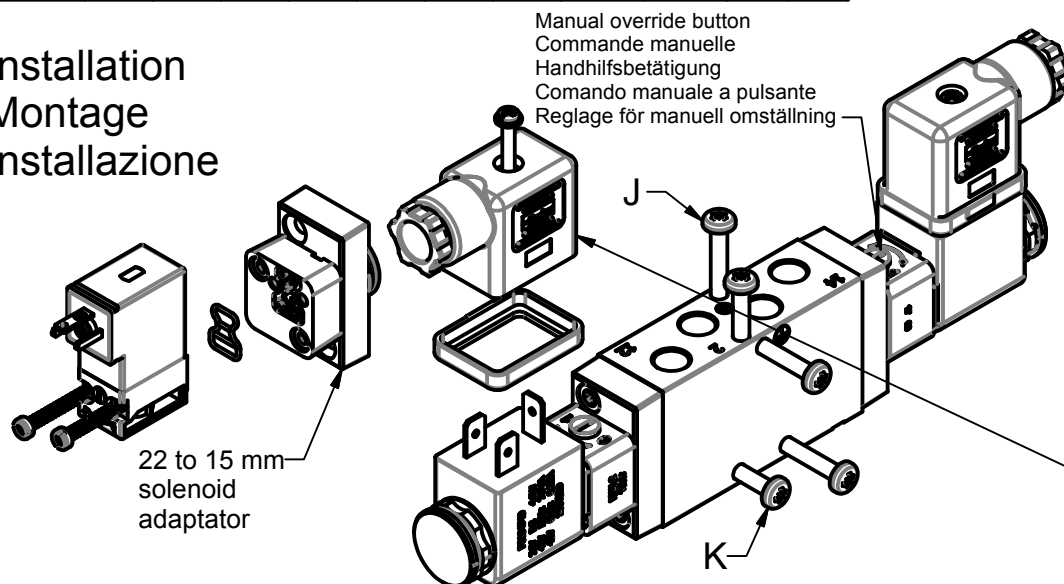
Controllare che l'alimentazione elettrica sia compatibile con il solenoide.

Säkerställ att matningsspänning är kompatibel med magnetventilen.



SERIES TYP.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
AX mm	8.5	16	3.1	16	33	3.5	N/A	Ø4.1	Ø4.1	M4*	M4	20	32	4	Ø4.3	32	16.5	2.85	Ø3.1
BX mm	10	16.5	2.85	46	32	4	20	Ø3.1	Ø4.3	M3	M4	20	32	4	Ø4.3	32	16.5	2.85	Ø3.1
CX mm	71	23	3.5	53	11	N/A	N/A	Ø4.4	Ø6.9	M4	M6	(*M4 for 3/2 AX)							
DX mm	84	23	3.5	N/A	N/A	7.5	34	Ø4.4	Ø6.9	M4	M6								

Installation Montage Installazione



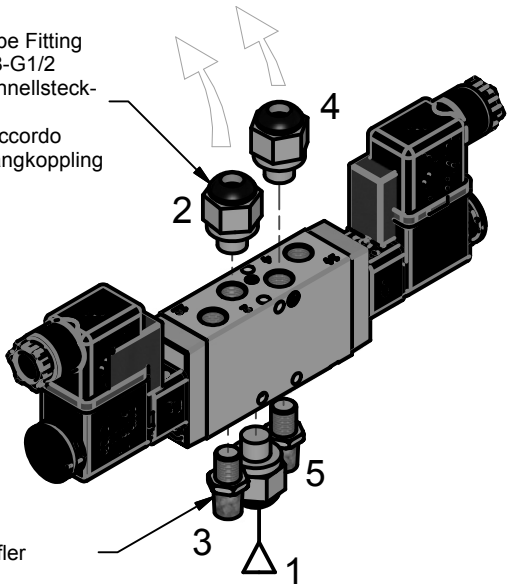
22 to 15 mm
solenoid
adaptator

Manual override button
Commande manuelle
Handhilfsbetätigung
Comando manuale a pulsante
Reglage für manuell omställning

Cable connector can be orientated in 180° increments.
Le connecteur peut être orienté à 180°
Kabelzuführung kann um jeweils 180° versetzt angebracht werden
Il connettore elettrico può essere orientato con incrementi di 180°
Kabelhuvud kan placeras med 180° delning

Installation - Anschluss - Installazione

G18-G1/2 Tube Fitting
Raccord G1/8-G1/2
G18-G1/2 Schnellsteck-
Verbinder
G18-G1/2 Raccordo
G18-G1/2 Slangkoppling



Exhaust Muffler
Silencieux
Geräuschdämpfer
Silenziatori
Avluftningsljuddämpare

Valves can be used without airline lubrication. If lubrication is used, the following oils are recommended:-

Les distributeurs peuvent être utilisés avec de l'air non lubrifié. Si l'air est lubrifié, les huiles suivantes sont recommandées:-

Ventile sind vorgefettet und können mit ungeölter Luft betrieben werden. Falls mit geölter Luft gearbeitet wird, empfehlen wir folgende Ölsorten:-

Le valvole possono essere utilizzate senza lubrificazione. Se utilizzata consigliamo i seguenti olii lubrificanti.

Ventilen kan användas utan tillsatssmörjning. Om tillsatssmörjning används rekommenderas följande oljor.

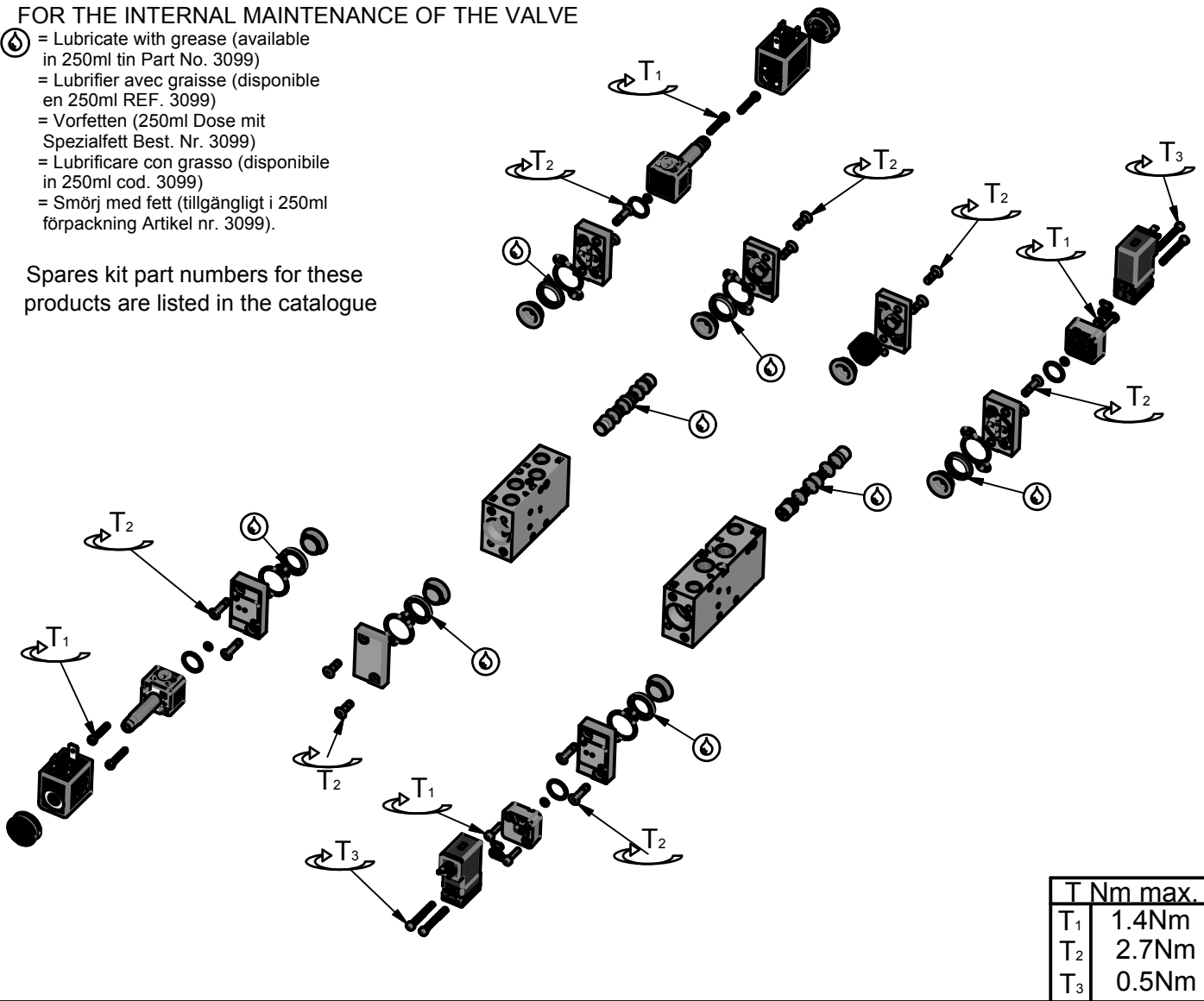
Oil Company Fabricants Fabrikat Typo Olje-bolag	Grade Sorte Grado	ISO Grade Grade ISO ISO Klasse Viscosità ISO
B.P.	HLP 32	32
Esso	NUTO H32	32
Gulf	Harmony 43AW	32
Shell	Tellus 37	37

Repair - Maintenance Reparatur Manutenzione
Reparation - Underhåll

FOR THE INTERNAL MAINTENANCE OF THE VALVE

- ⑥ = Lubricate with grease (available in 250ml tin Part No. 3099)
- = Lubrifier avec graisse (disponible en 250ml REF. 3099)
- = Vorfetten (250ml Dose mit Spezialfett Best. Nr. 3099)
- = Lubrificare con grasso (disponibile in 250ml cod. 3099)
- = Smörj med fett (tillgängligt i 250ml förpackning Artikel nr. 3099).

Spares kit part numbers for these products are listed in the catalogue



T	Nm max.
T ₁	1.4Nm
T ₂	2.7Nm
T ₃	0.5Nm



Pneumatic Division
Richland, Michigan 49083

Installation & Service Instructions
V695P

Viking Xtreme Air Control Valves
1/8", 1/4", 3/8", 1/2" Inline

ISSUED: December, 2006

Supersedes: None

Doc. #V695P, NPR #061092, Rev. 1

WARNING

To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer's specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

EXTRA COPIES OF THESE INSTRUCTIONS ARE AVAILABLE FOR INCLUSION IN EQUIPMENT / MAINTENANCE MANUALS THAT UTILIZE THESE PRODUCTS. CONTACT YOUR LOCAL REPRESENTATIVE.

WARNING

Air exhausting from one valve into the exhaust gallery of the manifold assembly may momentarily pressurize other valve circuits open to the same gallery. Design the circuit such that there is no hazard or consequence of damage from this action.

Safety Guide

For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the **Pneumatic Division Safety Guide** at: www.parker.com/safety

Introduction

Follow these instructions when installing, operating, or servicing the product.

Application Limits

These products are intended for use in general purpose compressed air systems only.

Operating Pressure

Maximum: Normal Version.....145 PSIG (10 bar)

Extreme Version.....232 PSIG (16 bar)

Minimum:

Valve Type - Internal Pilot	Minimum PSIG (bar)			
	P2LAX	P2LBX	P2LCX	P2LDX
Single Sol - Spring Return	46 (3.2)	51 (3.5)	51 (3.5)	51 (3.5)
Single Remote Pilot - Spring Return	46 (3.2)	51 (3.5)	51 (3.5)	51 (3.5)
Double Solenoid - 2-Position	22 (1.5)	22 (1.5)	22 (1.5)	22 (1.5)
Double Remote Pilot - 2-Position	22 (1.5)	22 (1.5)	22 (1.5)	22 (1.5)
Double Solenoid - 3-Position (APB, PC, CE)	55 (3.8)	55 (3.8)	55 (3.8)	55 (3.8)
Double Remote Pilot - 3-Position (APB, PC, CE)	55 (3.8)	55 (3.8)	55 (3.8)	55 (3.8)

Valve Type - External Pilot	P2LAX	P2LBX	P2LCX	P2LDX
All Viking Series	Vacuum			

NOTE: Solenoid operated valves specified for external pilot or double air pilot operated valves may have pressures down to vacuum in the main valve. External pilot pressure and air pilot signals must be greater than or equal to that in the main valve, but not exceed the ranges above.

Temperature Range:

Normal: 14°F to 122°F (-10°C to 50°C)

Extreme: -40°F to 158°F (-40°C to 70°C)

Lubrication

Filtered and lubricated air is necessary for maximum valve life and minimum maintenance. If in-service lubrication is used, lubricate with a straight paraffin based mineral oil having an ISO viscosity grade of 32 (e.g. Sunvis 932).

NOTE: Once in-service lubrication is initiated, the practice should be continued in order to maximize valve life.

General Installation & Operating Instructions

Valve should be installed with reasonable accessibility for service whenever possible. Repair service kits are available. Keep pipe or tubing clean and free of dirt and chips. Pipe joint compound should be used sparingly and applied only to the male pipe - never into the female port. Do not use PTFE tape to seal pipe joints - pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction. After valve assembly is complete, plumb the valve, turn on air pressure and electrical power source. Test valve for functional operation and internal and external leakage. If leakage is audible (indicating improper assembly is likely), do not operate. Conduct assembly again.

Installation

 **CAUTION:** It is recommended that double operated 2-Position valves be mounted so that the axis of the main valve spool is in the horizontal plane. The valve may be rotated 360° around the axis for mounting convenience.

Maintenance & Trouble Shooting Hints

Valve Not Shifting Completely When Energized:

1. Check to insure that the proper voltage is supplied to the solenoids.
2. Check to insure that the minimum supply pressure is equal to that shown in the Application Limits chart above.
3. Check for possible restrictions in air supply, such as undersized hoses, fittings, or quick disconnects.
4. Check to insure that the spool moves smoothly.
5. Check spool for proper installation, dirt, or damage.

Air Leakage Through Exhaust Ports:

1. Check for internal leakage in the cylinder being operated by the valve.
2. Check condition of the spool for proper alignment, damaged seals and dirt contamination.
3. Check for missing, damaged, or incorrectly assembled seals and gaskets.

If installing new spool: Remove old spool assembly, taking care not to scratch bore. Install new spool assembly into clean bore, taking care to install squarely and push slowly to avoid damaging the spool or the valve bore.

If installing new piston: Refer to drawing for proper orientation. Install piston/seal assembly into the operator bore, taking care to assure the lips of the seal pass smoothly into the bore.

- Ⓐ Lightly grease with provided lubricant.
- Ⓑ Inspect for nicks, scratches, and surface imperfections. If present, reduced service life is probable and future replacement should be planned.
- Ⓒ Clean with lint-free cloth.

* If more aggressive cleaning is required, use mineral spirits or equivalent solvent and dry thoroughly.

Torque Chart			
P2LA	M4	15 to 18 in.lb. (1.7 to 2.0 Nm)	
P2LB	M3	10 to 12 in.lb. (1.1 to 1.4 Nm)	
P2LC	M4	15 to 18 in.lb. (1.7 to 2.0 Nm)	
P2LD	M4	15 to 18 in.lb. (1.7 to 2.0 Nm)	

A - 30mm Square
3-Pin ISO Form A

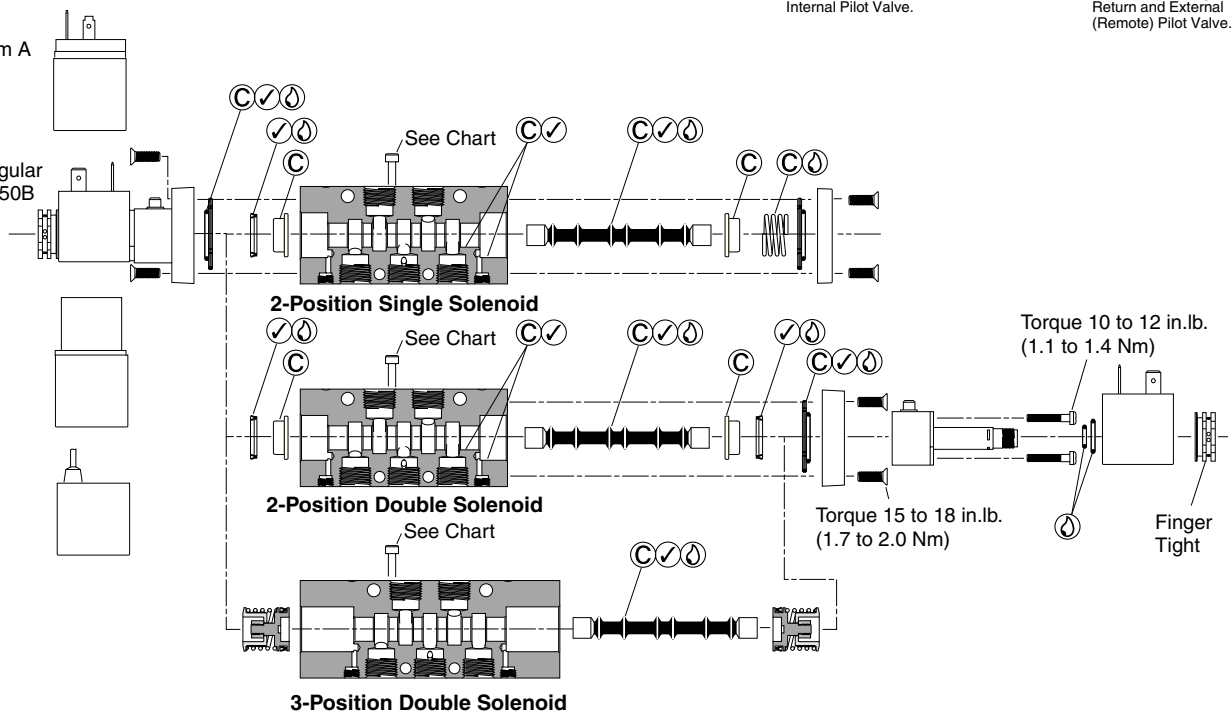
B - 22mm Rectangular
3-Pin DIN 43650B

H - 1/2" Conduit
18" Leads

R - 1/2" Conduit
72" Leads

G - Grommet
18" Leads

Q - Grommet
72" Leads



Service Kits Available:

Service kits are available for the pilot operators and solenoids only. See the product catalog or consult local representative for kits not listed.

Wiring

Follow all requirements for local and national electrical codes.

Electrical Connection:

1. Valve with lead wires should have power connected to the black wires. Ground should be connected to the green wire if provided.
2. Valves with 3-Pin male terminals should have power connected to the parallel terminals. Ground should be connected to the perpendicular terminal.

Port Identification

4-Way Valves

Port No.	Function	
	Single Pressure	Dual Pressure
1	Inlet	Exhaust
2	Cylinder	Cylinder
3	Exhaust	Inlet
4	Cylinder	Cylinder
5	Exhaust	Inlet

NOTE: For valves specified for dual pressure, the higher pressure is to be at port #3. 4-Way valves may be used for 3-Way function by plugging an outlet port.

NOTE: For single pressure valves, the operator nearest a cylinder port causes that cylinder port to be pressurized, when that operator is in control of the valve.

Endcap Orientation

