

# **Directional Control Valves**

The Automation Warehouse is an Authorized Stocking Distributor featuring numerous solenoid, air piloted and manual valves for industrial automation.

AirTAC valves are manufactured with precise machining processes and offer true value where directional control valves are required. AirTAC valves are available with industry standard functions and are cost effective replacements for existing pneumatic valves in industrial machines.

If you have an existing valve from another manufacturer, feel free to reach out to us at any time. We're happy to cross it to the AirTAC replacement.



## Solenoid Pilot Valves

Solenoid pilot valves, when energized create an electromagnet to shift the internal spool. This in turn changes the direction of flow in the air circuit. Solenoid pilot valves can be connected to control panels, PLCs and other electrical communication systems. They can also be mounted on multi-station valve manifolds to save space when using a common pressure setting.

Some of the AirTAC solenoid valves featured on The Automation Warehouse are solenoid pilot versions such as the 6TV Series, 3V Series, 4V Series and 6V Series. These are all body Ported versions similar to the SMC VQZ Series, SYJ Series and VP Series.



AirTAC- SMC Solenoid Pilot Valve Reference Chart							
AirTAC Series	Туре	Available Voltages	Control Port Sizes	Cv Ranges	Available Electrical Connectors	Functional Replacement for*	
6TV Series	3 Port, 3 Way	24VDC 110VAC 12VDC 220VAC	M5, 1/8", 1/4", 3/8" Thread	0.91-2.26	2 Wire Terminal Grommet	SMC VQZ (3 Port) SMC SYJ (3 Port) SMC VP (3 Port)	
3V Series	3 Port, 3 Way	24VDC 110VAC 12VDC 24VAC 220VAC	M5, 1/8", 1/4", 3/8" Thread	0.6-1.65	DIN Connector, 2 Wire Terminal Grommet	SMC VQZ (3 Port) SMC SYJ (3 Port) SMC VP (3 Port)	Lill.
4V Series	5 Port, 4 Way	24VDC 110VAC 12VDC 24VAC 220VAC	M5, 1/8", 1/4", 3/8", 1/2" Thread	0.5-2.82	DIN Connector, 2 Wire Terminal Grommet	SMC VQZ (5 Port) SMC SYJ (5 Port) SMC VP (5 Port)	
6V Series	5 Port, 4 Way	24VDC 110VAC 12VDC 24VAC 220VAC	5/32", 1/4", 5/16", 3/8" Tube M5, 1/8", 1/4", 3/8" Thread	0.2-2.26	2 Wire Terminal Grommet	SMC VQZ (5 Port) SMC SYJ (5 Port) SMC VP (5 Port)	

<sup>\*&</sup>quot;Replacement" means functional AirTAC replacement available and not necessarily a drop in replacement for the noted SMC series. Please double check dimensions and functionality for these AirTAC versions in your application before ordering. Please also feel free to contact us for additional help.



## Air Pilot Valves

Air pilot valves are similar to solenoid valves except they use a direct "signal" pilot air line from another source to shift the internal spool of the valve. Air pilot valves are often used in air logic circuits or with accompanying manual valves. An example would be a push button valve that controls an air pilot valve. When the push button is pressed it sends air signals to the air pilot valve which in turn could causes an air cylinder on a machine to extend or retract. Air pilot valves are also sometimes used in flammable or explosive situations where electrical solenoids would not be permitted.

The Automation Warehouse offers the AirTAC 6A Series, 3A Series, 4A Series and 6A Series air pilot valves. These are also body Ported and similar to the SMC SYA Series, SYJA Series, VPA Series and VFA

Series. Like the solenoid valves these can also be mounted on multi-station valve manifolds to save space when using a common pressure setting.



AirTAC- SMC Air Pilot Valve Reference Chart							
AirTAC Series	Туре	Control Port Sizes	CV Ranges	Functional Replacement for*			
6TA Series	3 Port, 3 Way	M5, 1/8", 1/4", 3/8" Thread	0.2-2.26	SMC SYJA (3 Port) SMC VPA (3 Port)			
3A Series	3 Port, 3 Way	M5, 1/8", 1/4", 3/8" Thread	0.6-1.65	SMC SYJA (3 Port) SMC VPA (3 Port)	ATTACA TO THE PARTY OF THE PART		
4A Series	5 Port, 4 Way	M5, 1/8", 1/4", 3/8" Thread	0.51-2.82	SMC SYA (5 Port) SMC SYJA (5 Port) SMC VFA (5 Port)	ATTAL TO THE PARTY OF THE PARTY		
6A Series	5 Port, 4 Way	M5, 1/8", 1/4", 3/8" Thread	0.2-2.26	SMC SYA (5 Port) SMC SYJA (5 Port) SMC VFA (5 Port)	Artic		

### Manual Valves

Manual valves are often used for manually operated machines, pneumatic control panels, air logic and other such applications. They feature a number of different styles of operators like push buttons, levers, selectors, cams and foot pedals to name a few.

The Automation Warehouse offers the AirTAC 4H Series, 3L Series, 4L Series, 4F Series, CM3 Series, M3 Series, M5 Series, and ZME Series mechanical valves. These are similar to the SMC VM Series, XT34-60/XT34-67 Series, VZM Series and VFM Series.







		AirTA	C- SMC Manua	Valve Refere	ence Chart	
AirTAC Series	Туре	Available Operators	Control Port Sizes	CV Ranges	Functional Replacement for*	
4H Series	5 Port, 4 Way	Hand Lever	1/8", 1/4", 3/8" Thread	0.8-1.65	SMC VH**	
3L Series	3 Port, 3 Way	Push-Pull Knob	1/8", 1/4", 3/8" Thread	0.6-1.65	SMC VM (3 Port W/ Push-Pull Knob)	
4L Series	5 Port, 4 Way	Push-Pull Knob	1/8", 1/4", 3/8" Thread	0.6-1.65	SMC VM (5 Port W/ Push-Pull Knob)	
4F Series	5 Port, 4 Way	Foot Pedal W/O Lock Foot Pedal W/ Lock Foot Pedal W/ Guard Foot Pedal W/ Lock and Guard	1/4" Thread	N/A	SMC XT34-60 SMC XT34-67 SMC VM (Plumb 4F Series for 3 Way Service)	
CM3 Series	3 Port, 3 Way & 5 Port, 4Way	Basic Stem Roller Cam Roller Cam W/ Free Return Vertical Cam Toggle Switch (Lever) Latching Turn Knob Protruding (Extended) Push button Flat Push button Mushroom Push button Mushroom Push button W/ Guard Large Mushroom Push button W/ Guard Selector Knob Double Selector Knob	M5, 1/8", 1/4" Thread	0.11-0.84	SMC VM (3 Port)	
M3 Series	3 Port, 3 Way	Basic Stem Long Handle Short Handle Lever Roller Cam Roller Cam W/ Free Return Latching Turn Knob Protruding (Extended) Push button Flat Push button Mushroom Push button Selector Knob	M5, 1/8", 1/4" Thread	0.14-0.67	SMC VM (3 Port)	
M5 Series	5 Port, 4 Way	Basic Stem Long Handle Short Handle Lever Roller Cam Roller Cam W/ Free Return Latching Turn Knob Protruding (Extended) Push button Flat Push button Mushroom Push button Selector Knob	M5, 1/8", 1/4" Thread	0.14-0.67	SMC VM (5 Port) SMC VZM SMC VFM	455. • 8
ZM3 Series	3 Port, 3 Way	Roller Cam Adjustable Roller Cam Contact Pin (Cat Whisker/Wand)	1/8" Thread	0.34	SMC VM (3 Port)	P

<sup>\*&</sup>quot;Replacement" means functional AirTAC replacement available and not necessarily a drop in replacement for the noted SMC series. Please double check dimensions and functionality for these AirTAC versions and confirm in your application before ordering. Please also feel free to contact us for help.

<sup>\*\*</sup>Other AirTAC 4 way mechanical valves are available. Please contact us for more info.



## Valve Manifolds

Many of the AirTAC valve series are available with multi-station valves manifolds which help to save space in applications where the valves all use the same pressure setting. The manifolds have a common supply and common exhaust Ports.

Please see the valve manifolds section or contact us for more information.



	AirTAC- SMC Manual Valve Reference Chart							
AirTAC Series	Туре	For Valve Series	Supply/Exhaust Port Sizes	Max Manifold Stations Available	Functional Replacement for*			
3V Series	3 Port, 3 Way	3V100, 3V200 & 3V300	1/8", 1/4", 3/8" Thread	16	SMC VQZ (3 Port) SMC SYJ (3 Port) SMC VP (3 Port)	H H H		
3A Series	3 Port, 3 Way	3A100, 3A200 & 3A300	1/8", 1/4", 3/8" Thread	16	SMC SYJA (3 Port) SMC VPA (3 Port)	H H H H		
6TV Series	3 Port, 3 Way	6TV050, 6TV100, 6TV200 & 6TV300	1/8", 1/4", 3/8" Thread	20	SMC VQZ (3 Port) SMC SYJ (3 Port) SMC VP (3 Port)			
4V Series	5 Port, 4 Way	4V100, 4V200, 4V300 & 4V400	1/8", 1/4", 3/8", 1/2" Thread	16	SMC VQZ (5 Port) SMC SYJ (5 Port) SMC VP (5 Port)			
4A Series	5 Port, 4 Way	4A100, 4A200, 4A300 & 4A400	1/8", 1/4", 3/8", 1/2" Thread	16	SMC SYA (5 Port) SMC SYJA (5 Port) SMC VFA (5 Port)			
6V Series	5 Port, 4 Way	6V100, 6V200, 6V300 & 6V400	1/8", 1/4", 3/8" Thread	20	SMC VQZ (5 Port) SMC SYJ (5 Port) SMC VP (5 Port)			
6A Series	5 Port, 4 Way	6A100, 6A200, 6A300 & 6A400	1/8", 1/4", 3/8" Thread	20	SMC SYA (5 Port) SMC SYJA (5 Port) SMC VFA (5 Port)			

<sup>\*</sup>AirTAC manifolds will not work with directly with the noted SMC Series. "Replacement" means functional AirTAC replacement available and not necessarily a drop in replacement for the noted SMC series. Please double check dimensions and functionality for these AirTAC versions and confirm in your application before ordering. Please also feel free to contact us for help.

<sup>\*\*</sup>Other AirTAC 4 way mechanical valves are available. Please contact us for more info.