**ALLENAIR** Slider-type 4-Way 2-Position Valves are rugged, field proven Valves that can be mounted in any plane. They are available in a wide range of Solenoid, Pressure Pilot, Bleed Pilot and Manual Models. The basic principle of operation is the use of a pilot operated spool which moves the slider across the internal porting. Operating pressure 10 P.S.I to 150 P.S.I, maximum.

The above Valve shows the combined design features of our basic Valve and standard “AAS” splice box housing solenoid operators.
4-WAY VALVES
1/4”, 3/8” & 1/2”

STANDARD VOLTAGES
12, 24, 120 & 240/60 AC and 6, 12 & 24VDC. Other voltages are available.

DOUBLE SOLENOID PRESSURE PILOT
MODEL VDS GENERAL PURPOSE

A momentary or maintained electrical contact applied to one solenoid will shift the Valve. It will remain in that position until the other solenoid is energized, which will cause the Valve to shift to its original position. If a maintained contact is employed, the first solenoid must be de-energized before the other is energized.

NOTES:
1) ENERGIZING SOLENOID PRESSURIZES CYLINDER PORT DIRECTLY UNDER THAT SOLENOID.
2) EXHAUST PORT IS LOCATED 180° FROM SPEED CONTROLS.

OPTIONAL COMMON LEAD CONNECTOR FOR “AAS” OPERATORS ONLY
SPECIFY CLC AFTER THE VALVE NOMENCLATURE

A neat, compact assembly eliminating the need for two separate conduit connections. This consists of a rigid tubing between the solenoid covers, which allows the coil leads of one coil to be passed through the connector and into the other coil housing, so that all coil leads exit through a common outlet.
4-WAY VALVES
1/4”, 3/8” & 1/2”

SINGLE SOLENOID
(GENERAL PURPOSE)

MODEL
(PRESSURE PILOT)

VSS
A maintained electrical contact is required to shift the valve. Breaking the electrical contact will return the valve to its original position.

MODEL
(PRESSURE PILOT)

VSSAP
A momentary (NOT continuous) electrical contact is required to shift the valve. It will remain in that position until a separate momentary pilot pressure is applied to the spool cap opposite the solenoid, returning the valve to its original position. Pilot pressure must be at least 25% of the operating pressure.

OPTIONS (SOLENOID VALVES)

SPECIFY HTP FOR HIGH TEMPERATURE SEALS
These seals are a fluorocarbon compound (viton) and have an operating temperature range of +10°F to +350°F. They will function at temperatures up to +400°F with reduced life.

SPECIFY IL FOR INDICATOR LIGHT (AAS OPERATOR ONLY)
Light indicates when solenoid is energized.

SPECIFY OR FOR MANUAL OVER-RIDE LEVER
These are non-locking and are particularly useful for set-up or electrical failure.

SPECIFY PE FOR PIPED EXHAUST ADAPTERS
Enables the solenoid exhaust to be piped from the actuator.

ORDERING PROCEDURE (SOLENOID VALVES)

MODEL

VSS 1/2 AAS HTP - OR - PE 24VDC
VDS 1/4 AAX OR - 120/60

OPTIONS

1/4”, 3/8” or 1/2”

VOLTAGE

EXAMPLES:

AAC CONDUIT HOUSING, UL & CSA Listed.
AAD DIN-type HOUSING A male connector configuration of DIN 43650/ISO 4400. See page 75 for female connectors.
AAG GROMMET HOUSING, UL & CSA Listed.
AAS SPLICE BOX HOUSING (STANDARD), UL & CSA Listed.
AAX EXPLOSION PROOF, UL Listed covering Class I Groups C & D (NEMA 7) and Class II Groups E, F & G (NEMA 9).
AAY SPADE TERMINALS, UL & CSA Listed.
JIC NEMA 4/IP-56 Water Tight per NEMA 4/IP-56
AAN6 NEMA 6 Water Tight per NEMA 6
4-WAY VALVES
1/4”, 3/8” & 1/2” N.P.T.

DOUBLE PILOT

MODEL **VAP** PRESSURE PILOT
A momentary or maintained pilot pressure applied to one side of the valve will cause it to shift. It will remain in that position until a pilot pressure is applied to the other side, which will cause the valve to return to its original position. If a maintained pilot pressure is employed, it must be released before the other pilot pressure is applied. Pilot pressure must be at least 25% of the operating pressure.

MODEL **VSA** BLEED PILOT
A separate Bleeder Valve, such as the Allenair BV100 or BV-1/8, must be installed in a line to each spool cap. Depressing one Bleeder Valve momentarily will shift the valve. It will remain in that position until the other Bleeder Valve is depressed, which will cause the valve to shift to its original position.

SINGLE PILOT

MODEL **VAPSR** PRESSURE PILOT
A continuous pilot pressure applied to “IN” side of the valve will shift the valve. When the pilot pressure is released the valve will shift to its original position. The pilot pressure must be at least 75% of the operating pressure.

**NOTES:**
1) MODELS VAP & VAPSR: PILOT SIGNAL PRESSURIZES CYLINDER PORT DIRECTLY UNDER THAT PILOT PORT.
2) MODEL VSA: BLEED PILOT SIGNAL Pressurizes CYLINDER PORT OPPOSITE THAT BLEED PILOT PORT.
3) EXHAUST PORT IS LOCATED 180° FROM SPEED CONTROLS.

**OPTION**

**SPECIFY HTP FOR HIGH TEMPERATURE SEALS**
These seals are a fluorocarbon compound (viton) and have an operating temperature range of +10° F to +350° F. They will function at temperatures up to +400° F with reduced life.

**ORDERING PROCEDURE**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>SIZE</th>
<th>OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAPSR</td>
<td>1/2</td>
<td>HTP</td>
</tr>
<tr>
<td>VSA</td>
<td>1/4</td>
<td></td>
</tr>
</tbody>
</table>
MANUALLY OPERATED

MODEL VH HAND
Manual operation of the lever is required to shift the valve to either position.

MODEL VHSR HAND
Manual operation of the lever is required to shift the valve. It is equipped with a built-in spring return which automatically shifts the valve when the lever is released.

MODEL VT FOOT TREADLE
Foot operation of the treadle is required to shift the valve to either position.

MODEL VP FOOT PEDAL
Foot operation of the pedal is required to shift the valve. Releasing the pedal will shift the valve to its original position.

MODEL VC CAM
Manual operation of the cam is required to shift the valve. It is equipped with a built-in spring return which automatically shifts the valve when the cam is released.

OPTIONS

SPECIFY HTP FOR HIGH TEMPERATURE SEALS
These seals are a fluorocarbon compound (viton) and have an operating temperature range of +10°F to +350°F. They will function at temperatures up to +400°F with reduced life.