### 4A120-420 SERIES AIR PILOT VALVE

<table>
<thead>
<tr>
<th>Valve Model</th>
<th>4A120-1/8</th>
<th>4A220-1/4</th>
<th>4A320-3/8</th>
<th>4A420-1/2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port &amp; Mounting</td>
<td>Body Ported</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action &amp; Motion</td>
<td>Double Air Pilot, Spool Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Pressure</td>
<td>Valve: 0 to 115 PSI, Pilot: 40 PSI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Port Sizes</td>
<td>1/8 NPT</td>
<td>1/4 (in/outlet)</td>
<td>3/8 (in/outlet)</td>
<td>1/2 NPT</td>
</tr>
<tr>
<td>Cv</td>
<td>0.67</td>
<td>0.78</td>
<td>1.68</td>
<td>2.79</td>
</tr>
<tr>
<td>SFCM @ 100PSI</td>
<td>25</td>
<td>53</td>
<td>80</td>
<td>160</td>
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<tr>
<td>Working Medium</td>
<td>40 micron filtered air or inert gas</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Valve Body Material</td>
<td>Anodized Aluminum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seal Material</td>
<td>NBR (Buna N)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lubrication</td>
<td>Not Required</td>
<td></td>
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</tbody>
</table>
4A120-420 SERIES AIR PILOT VALVE DIMENSIONS
4-Way 2 Air Pilot Valve
Models 4A120-4A420
Installation Procedure

Note:
- This valve is designed for air flow only.
- Make sure the pilot source is operating at pressures specified for the valve.

Attaching a Pilot Source to a Valve:
1. Attach connector to the pilot port.
2. Connect pilot source to connector.

Installing a Valve onto a Manifold:
Note:
- Manifolds can fit 2, 4, 6, 8 and 16 valves.
- Secure screws until the component will not move freely, and tighten another quarter turn.

Procedure:
1. Place a rubber seal over the manifold openings.
2. Line up the valve with port “A” and corresponding pilot holes for the screws.
3. Secure the valve into place.
4. Cover the remaining holes with the provided gaskets.

Installation:
1. Connect the source to the port labeled “P”.
2. Connect the first outlet to the port labeled “A”.
3. Connect the first exhaust to the port labeled “EA”.
4. Connect the second outlet to the port labeled “B”.
5. Connect the second exhaust to the port labeled “EB”.

Operational Notes
- A continuous air supply is not required to maintain the solenoid position.
- To move the piston to a new position, activate the appropriate pilot source. Do not activate both pilots at the same time.

Maintenance and Troubleshooting

Procedure:
1. Remove any pilot connections attached to the valve.
2. Unscrew the pilot block and remove the piston and spring.
3. Check for any debris that may have collected on the piston and in the hole in the center of the valve.
4. Insert the piston and spring back into the valve body.
5. Screw the pilot block back into the valve.

Reference Figures

Figure 1: Model 4A120 with port labels and one pilot port shown.
STC Installation and Operation Procedure
3A120-420 & 4A120-420 Air Pilot Valves

3A120-420 (3 way valve)

Valve Position
1
2

Operations:
1. When Valve is in Position 1, Port A is connected to Port E. Port P is closed
2. When Valve is in Position 2, Port P is connected to Port A. Port E is closed.

4A120-420 (4 way valve)

Valve Position
1
2

Operations:
1. When Valve is in Position 1, Port P is connected to Port A. Port B is connected to Port EB.
2. When Valve is in Position 2, Port P is connected to Port B. Port A is connected to Port EA.
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Credit Application: To establish a net 30 day account, please mail or fax three trade references with complete mailing addresses and account numbers.

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