# 3A110-410 SERIES AIR PILOT VALVE

![3A110-410 Valve Image](image)

<table>
<thead>
<tr>
<th>Valve Model</th>
<th>3A110-1/8</th>
<th>3A210-1/4</th>
<th>3A310-3/8</th>
<th>3A410-1/2</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>Single 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>
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</tr>
<tr>
<td>Port Sizes</td>
<td>1/8 NPT</td>
<td>1/4 NPT</td>
<td>3/8 NPT</td>
<td>1/2 NPT</td>
</tr>
<tr>
<td>$C_v$</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>
</tr>
<tr>
<td>Working Medium</td>
<td>40 micron filtered air or inert gas</td>
<td></td>
<td></td>
<td></td>
</tr>
<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>
3A110-410 SERIES AIR PILOT VALVE DIMENSIONS

MODEL: 3A110-1/8

2-Ø3.3 through hole

NPT 1/8

3-NPT 1/8

MODEL: 3A210-1/4

NPT 1/8°

3-NPT 1/4°
3-Way Air Pilot Valve
Models 3A110-3A410
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 the 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 outlet to the port labeled “A”.
3. Connect the exhaust to the port labeled “EA”.

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 3A210 with port labels and pilot port shown.
3A110-410 (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.

4A110-410 (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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