The Model 25 Reversing Relay provides an output which will decrease in direct proportion to an increase in input pressure.

**Features**

- High strength, deep convolution compensating diaphragm.
- Bottom pressure balancing chamber with a diaphragm.
- Floating seal ring.
- Balances undesirable relief seat forces.
- Ensures balanced supply seat forces.
- Protects stabilizing chamber from effect of high relief flows.

**Operating Principles**

The Model 25 Reversing Relay is designed for applications requiring an output that equals a manually preset spring load minus a variable signal pressure. This high quality unit combines excellent sensitivity with unusually high flow capacity.

The Model 25 is ideally suited for a variety of precision control applications, including converting direct acting valves to reverse action, controlling opposite acting valves from a single transmitter, and cushioning cylinder loads.

The basic mathematical expression for the Model 25 is \( PO = K - PS \) where \( PO \) is output pressure, \( PS \) is signal pressure and \( K \) is the spring constant.
Model 25 Reversing Relay

Technical Information

Catalog Information

Catalog Number 25

Pressure Range

<table>
<thead>
<tr>
<th>psig</th>
<th>[BAR]</th>
<th>(kPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>[0-0.7]</td>
<td>(0-70)</td>
</tr>
<tr>
<td>0.5-30</td>
<td>[0.03-2]</td>
<td>(3-200)</td>
</tr>
<tr>
<td>1-60</td>
<td>[0.1-4]</td>
<td>(10-400)</td>
</tr>
<tr>
<td>2-150</td>
<td>[0.15-10]</td>
<td>(15-1000)</td>
</tr>
</tbody>
</table>

Pipe Size

- 1/4" NPT
- 3/8" NPT
- 1/2" NPT

Options

- Tapped Exhaust
- BSPP (Parallel)
- Fluorocarbon Elastomers
- BSPT (Tapered)

Service Kit

A Service Kit is available for the Model 25 Reversing Relay, refer to the Fairchild Installation, Operation and Maintenance Instructions, IS-30000025.

Specifications

- Maximum Supply Pressure: 250 psig, [17.5 BAR], (1750 kPa)
- Flow Capacity: 40 SCFM (68 m³/HR) @ 100 psig, [7.0 BAR], (700 kPa) supply, 20 psig, [1.5 BAR], (150 kPa) setpoint
- Exhaust Capacity: 11 SCFM (18.7 m³/HR) where downstream pressure is 5 psig, [.35 BAR], (35 kPa) above setpoint
- Signal or Output Pressure: 150 psig, [10 BAR], (1000 kPa) maximum
- Supply Pressure Effect: Less than 0.1 psig, [.007 BAR], (.7 kPa) for 100 psig, [7.0 BAR], (700 kPa) change in supply pressure
- Sensitivity: Less than 1/8" (.32 cm) Water Column

Mounting

- Pipe or Panel

Ambient Temperature Limits

-40°F to +200°F, (-40°C to 93.3°C)

Materials of Construction

- Body: Aluminum
- Trim: Aluminum, Stainless Steel, Brass
- Diaphragms: Buna N and Dacron