Introduction

A double-acting scotch yoke actuator requires air pressure for both the open and close stroke, as the spring is missing.

Double-acting actuators do not have an inherent fail-safe action. If pneumatic power is lost, then the actuator will remain in its last position.

Rotork Fluid Systems manufacture double-acting actuators in many configurations. This publication provides information on all the available configurations.

Actuator Configurations

<table>
<thead>
<tr>
<th>Actuator</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fail Stay Electric &amp; Pneumatic</td>
<td>2</td>
</tr>
<tr>
<td>Fail Last Electric, Fail Stay Pneumatic</td>
<td>3</td>
</tr>
<tr>
<td>Fail Close Electric &amp; Fail Stay Pneumatic</td>
<td>4</td>
</tr>
<tr>
<td>Fail Close Electric &amp; Pneumatic</td>
<td>5</td>
</tr>
<tr>
<td>Fail Lock Pneumatic &amp; Fail Stay Electric</td>
<td>6</td>
</tr>
<tr>
<td>Fail Lock Pneumatic &amp; Fail Close Electric</td>
<td>7</td>
</tr>
</tbody>
</table>
FAIL STAY ELECTRIC & PNEUMATIC:
Upon loss of electric and pneumatic supply the actuator maintains the last position (piston not locked).

Notes:
1. Only if necessary
2. The control schematic is shown without pneumatic and electric supply
3. The above schematic must be used as reference only.
4. Different configurations could be necessary to cover specific flow rates, material requirements or customized logics.
**FAIL LAST ELECTRIC:**
The actuator maintains the last received command; upon loss of electric supply during closing (open) signal, the actuator will end the closing (open) stroke.

**FAIL STAY PNEUMATIC:**
Upon loss of pneumatic supply the actuator maintains the last position (piston not locked).

**Notes:**
1. Only if necessary
2. The control schematic is shown without pneumatic and electric supply
3. The above schematic must be used as reference only.
4. Different configurations could be necessary to cover specific flow rates, material requirements or customized logics.
FAIL CLOSE ELECTRIC & FAIL STAY PNEUMATIC:
Upon loss of electric supply, the actuator will fail close. Upon loss of pneumatic supply, the actuator maintains the last position (piston not locked).

Notes:
1. Only if necessary
2. The control schematic is shown without pneumatic and electric supply
3. The above schematic must be used as reference only.
4. Different configurations could be necessary to cover specific flow rates, material requirements or customized logics.
FAIL CLOSE ELECTRIC & PNEUMATIC:
Upon loss of electric and/or pneumatic supply, the actuator will fail close.

Notes:
1. Only if necessary
2. The control schematic is shown without pneumatic and electric supply
3. The above schematic must be used as reference only.
4. Different configurations could be necessary to cover specific flow rates, material requirements or customized logics.
FAIL LOCK PNEUMATIC & FAIL STAY ELECTRIC:
Upon loss of pneumatic supply the actuator maintains the
last position (piston locked); upon loss of electric supply the
actuator maintains the last position (piston not locked).

Notes:
1. Only if necessary
2. The control schematic is shown without pneumatic and electric supply
3. The above schematic must be used as reference only.
4. Different configurations could be necessary to cover specific flow rates, material
requirements or customized logics.
FAIL LOCK PNEUMATIC & FAIL CLOSE ELECTRIC:
Upon loss of pneumatic supply the actuator maintains the last position (piston locked); upon loss of electric supply the actuator will fail close.

Notes:
1. Only if necessary
2. The control schematic is shown without pneumatic and electric supply
3. The above schematic must be used as reference only.
4. Different configurations could be necessary to cover specific flow rates, material requirements or customized logics.

Verify if device pilot inlet is suitable with not regulated supply pressure.
A full listing of the Rotork sales and service network is available on our website.