



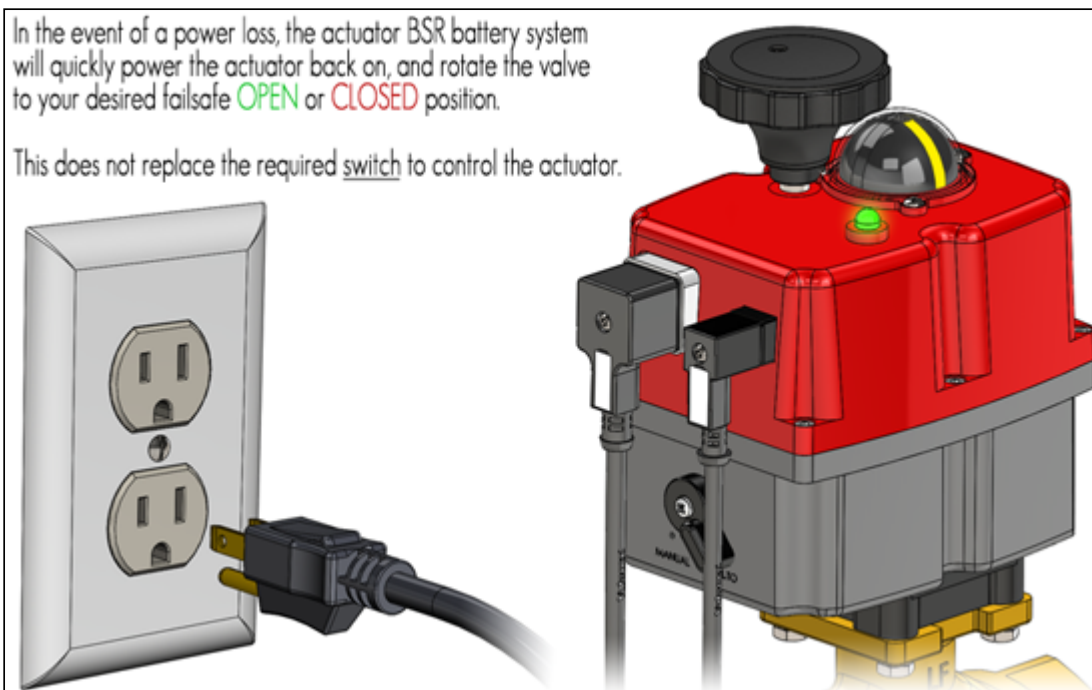
ProTips

Failsafe Actuators

- Valworx offers air and electric actuators that can be operated in "fail safe" mode.
- A **"Fail Safe"** actuator returns to a "safe" position upon loss of air supply or electrical power.
- A better understanding of the differences between air and electric failsafe actuation will help you decide the best type for your application.

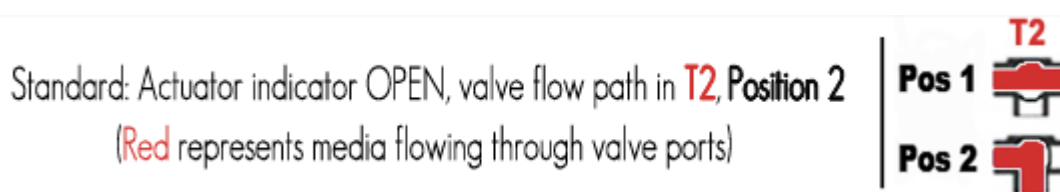
Electric Actuated Valves with Accessory BSR Installed

5610/5615/5616 Series Valworx actuators can be equipped with pre-installed BSR (Battery Spring Return) system.



BSR kits can be pre-set to Fail Open or Fail Closed. This choice denotes the final position of the valve ball or disc after a power failure.

- **2-Way Ball or Butterfly Valves** are the most commonly used with battery backups, the main purpose being to either flush a line out in case of power failure, or to close the valve to prevent continued flow during an emergency.
- **3-Way Ball Valves** will fail to Position 1. For example, a valve shipped with flow path T2 is normally "open" in Position 2. It will fail to position 1 per below:



For actuators with an optional positioner system installed (which converts Open/Closed valve actuators to throttling actuators), upon resumption of power after an outage, the actuator will return to the position previously held by the control signal. If the 4-20mA or 0-10v control signal is also lost, the actuator will fail to a pre-determined position of Standard **CLOSED**, or *Optional OPEN*.

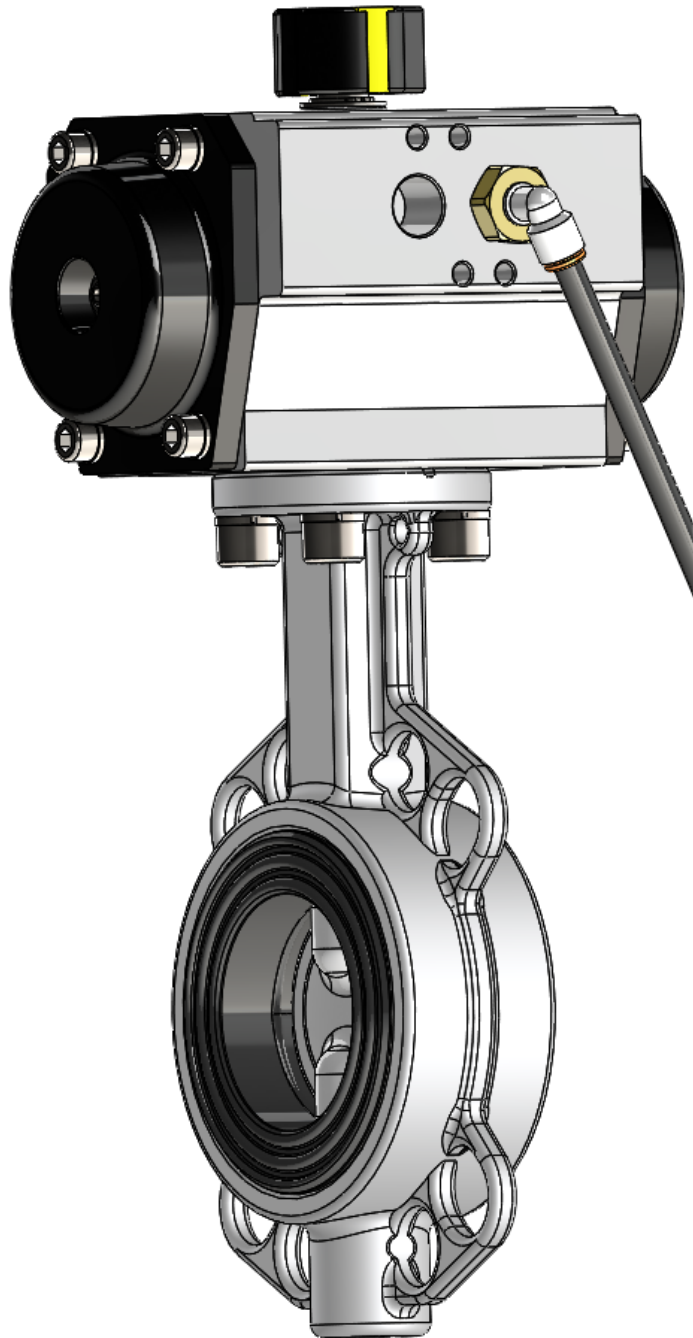
IMPORTANT: Think of the battery only as an emergency backup. It is not meant to replace the functionality of a switch or relay, which is required to rotate the actuated valve between the two possible 90° positions.

[Shop for Failsafe Battery Kits](#)

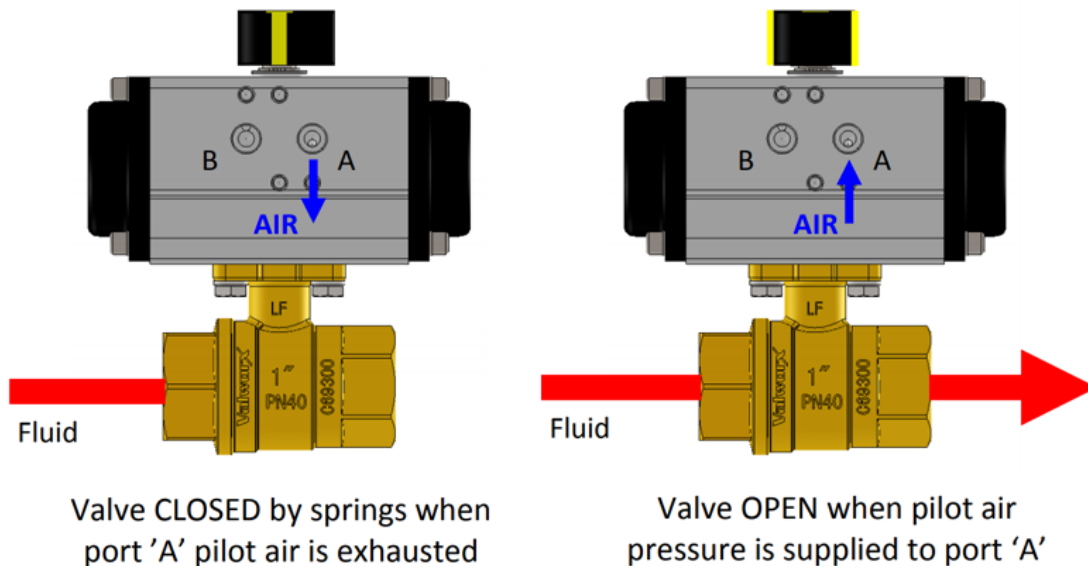
Air Actuated Valves with Mechanical Spring Return

Spring Return air actuators can be pre-set to fail open or closed without the purchase of additional accessories.

- True mechanical spring operation is achieved via a Spring Return model Air Actuator.
- Air actuators can fail to “Normally Open” or “Normally Closed” positions.
- In normal operation, air pressure acts against internal springs to open the valve. Upon loss of air pressure, the springs expand to force the valve closed.



The following diagram shows **normal operation** as shipped.



Pneumatic actuated valves can be pre-set at the factory to operate in reverse, so that the valve opens when pilot air is exhausted or lost. The actuator will still rotate counter-clockwise (Reverse Acting).

[Shop for Spring Return Air Actuators](#)



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