

### Features

- Battery Spring Return for 5610/5615/5616 series electric actuators
- Actuator fails to a pre-set position with loss of power
- Trickle charged industrial quality battery
- Battery installs inside actuator for compact design
- Economically priced

### Applications

The BSR- Spring Return kit is available as a factory pre-installed option for Valworx 5610, 5615 and 5616 series electric actuators. The BSR kit will work with both on-off models and actuators with DPS positioners. The battery failsafe system provides an alternative source of power to drive the actuator to a preset failsafe position in the event of an external power failure. Standard actuator is setup to fail closed, can also be setup to fail open. The industrial quality battery is constantly trickle charged during normal operation to assure maximum charge when required. The battery kit is installed under the actuator cover. No separate modules or boxes are required.

In many applications, the BSR battery spring return function tends to be a very economical option when compared to the alternate true mechanical spring return actuator. Valworx actuators with the BSR option are much smaller, lighter and less expensive.



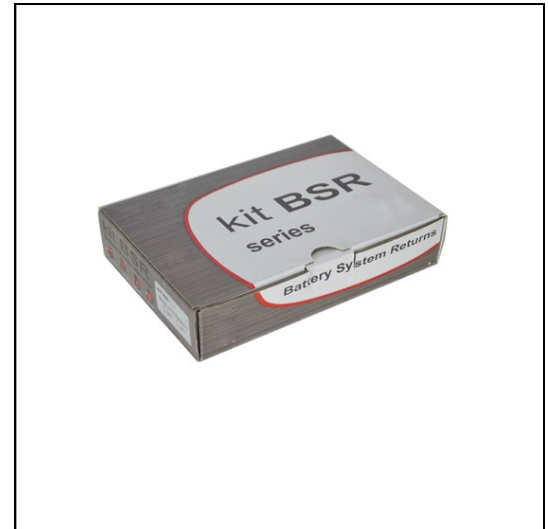
5610/5615 series



5616 series

Actuator with BSR	561020E 561520	561055E 561555	561085E 561585	561604C
Working operations without recharge, with 100% battery charge	10	10	10	4
Recharge time per working operation	15 min	48 min	58 min	50 min
Full Charge Time 100%	28 h	28 h	28 h	54 h
Battery capacity +/-5%	2200 mA	2200 mA	2200 mA	4400 mA*

\*Contains two batteries, each rated at 2200 mA



### Operation

The installed BSR kit will provide enough power to move the actuator/valve to a failsafe position with loss of external power. The kit can be ordered as fail closed or fail open as required.

The actuator operates in the normal power open and power close mode while external power is available. Internal circuitry monitors the incoming main power and automatically switches within a few seconds to the battery backup with loss of external power. The battery will then provide enough power to move the actuator to a failsafe position. Under normal operation the external control power will trickle charge the battery and maintain a full charge.

In the normal mode of operation, an LED status light located on top of the actuator cover will be continuously lit. With a loss of power, the LED status light will blink slowly. On resumption of external power, conditional that the actuator control signal remained unchanged, the actuator will reset to the position it saw at the time of the main power failure.



## BSR – Battery Spring Return Kit

For 5610/5615/5616 series Electric Actuators  
Failsafe System

SERIES  
**5610**  
**5615**  
**5616**  
**BSR**

### BSR – Battery Spring Return Kit

Stock Number	Description	Used with Valworx Electric Actuators
561104E	5610 BSR Battery Spring Return Kit, Normally Closed - Installed	561020E, 561055E, 561085E, 561520, 561555, 561585
561105E	5610 BSR Battery Spring Return Kit, Normally Open - Installed	561020E, 561055E, 561085E, 561520, 561555, 561585
561106C	5616 BSR Battery Spring Return Kit, Normally Closed - Installed	561604C
561107C	5616 BSR Battery Spring Return Kit, Normally Open - Installed	561604C

Note: The BSR kit is a factory installed option. The BSR kit is pre-installed at the factory when ordered as an option for the 5610, 5615 or 5616 series electric actuator or electric actuated valve assembly.

### Consumption Data:

Actuator with BSR	561020E	561055E	561085E	561520	561555	561585	561604C
Battery consumption/working operation	2.2 w	6.8 w	8.3 w	2.2 w	6.8 w	8.3 w	23 w
Current required/one working operation with battery	10.1 mA	31.6 mA	38.6 mA	10.1 mA	31.6 mA	38.6 mA	25.7 mA