

# Actuator Operating, Single Acting (SR) Actuators

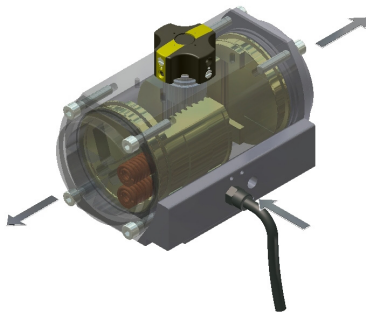
Piston based devices can either use air (or some others such as hydraulic oil) for both strokes, known as Double Acting (DA) Actuators, or air for one stroke and springs for the other, known as Single Acting or Spring Return (SR) Actuators.

## Port A and Port B

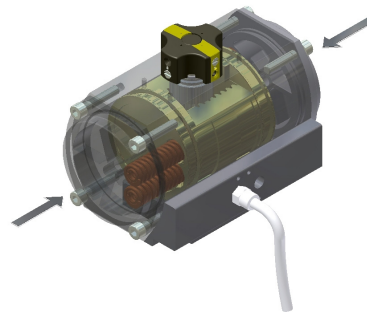
The drive medium are collected and vented through the "Ports" at the side of the Actuator.



### Opening Stroke, SR



### Closing Stroke, SR



- To open the Actuator, connect the air supply to Port A (pressurized), Port B vented. This will fill the central chamber of the Actuator.
- The two opposing Pistons will open, compressing the springs in the outer chambers and rotate the driveshaft in counter-clockwise direction.
- When the Pistons reach the end of their travel, the springs will be fully compressed and the actuator driveshaft will be in the open position.
- To close the Actuator, disconnect the air supply to Port A (vented). This will allow the compressed springs to push the Pistons back to their starting positions.
- As the springs decompress, the two opposite Pistons will close and rotate the actuator driveshaft in a clockwise direction.
- When the Pistons reach the end of their travel, the actuator driveshaft will be in the closed position.

**Note:** The above described operating principle is applicable for standard actuators (settings by factory). For reverse acting actuators pressurizing the ports will result in an opposite rotation.