

Model: SR3-1

On/Off, Spring Return, 24 VAC



Technical Data

- Nominal Torque: 30 in-oz.
- Power Supply: 24 VAC +/- 20%, 60 Hz
- Operating Current: 0.4 amps
- Rotational Range: 90 degrees
- Electrical Connection: 2-Wire Pigtail, 18 gage
- Strain Relief: Yes
- Noise Level: 40 dB (A) maximum at 3 ft.
- Housing Dimensions: 3.0" H x 2.7" W x 3.1" L
- Motor Type: Synchronous Hysteresis
- Ambient Temperature: 32 F to 122 F (0 C to 50 C)
- Ambient Humidity: 5 to 95% RH non-condensing
- Weight: 1.1 lb. (0.50 kg)
- Rotation Direction:
 - Power Advance (ON), Clockwise
 - Spring Return (OFF), Counter-Clockwise
- Delivered Torque (in-oz.)
 - Power Advance: 70 Start, 40 Finish
 - Spring Return: 60 Start, 30 Finish
- Running Time (nominal):
 - Power Advance (ON), 30 seconds
 - Spring Return (OFF), 20 seconds

Application

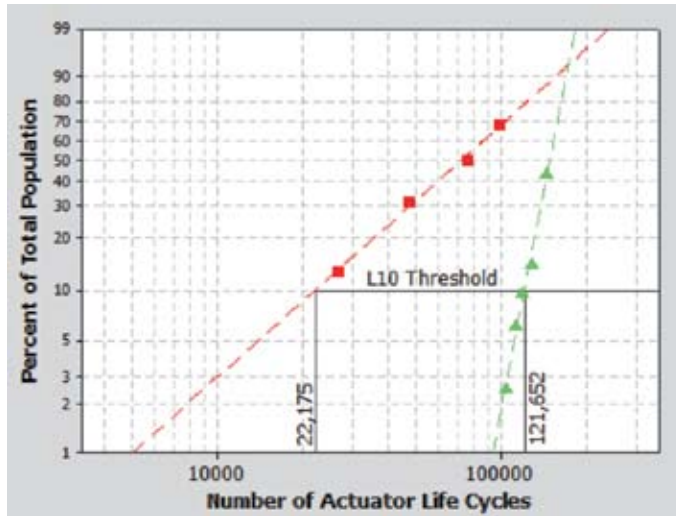
- The Series SR3 spring return actuator provides fail-safe ON/OFF control of dampers in HVAC systems

Features and Benefits

- Torque is consistently delivered throughout the full 90° rotational operating range to open and close the damper, and irrespective of whether the actuator is operating in Power Advance Mode (energized) or Spring Return Mode (de-energized).
- The energized actuator may be stalled at any angular position and remain energized indefinitely.
- When de-energized, the actuator consistently returns the damper shaft to home position, whether or not the starting spring return position is a full 90 degrees or any intermediate position.
- Extremely reliable. Statistical life reliability exceeds 120,000 cycles at 90% reliability and 100% confidence (automotive standard) with no decay in delivered torque over life of the actuator.
- Very quiet operation typically 40 dB (A) or less at 3 feet.

Operation

- Power Advance Mode: Starting at its home position, the actuator is energized and the output shaft rotates clockwise until the damper cannot rotate further, either open or closed.
- Spring Return Mode: When de-energized, a wound spring drives the actuator counter-clockwise to return the damper to its home position.
- Actuator sizing should be done in accordance with the damper manufacturer's specifications.
- An auxiliary contact or manual switch may be used to provide ON/OFF control of the actuator.
- The actuator mounts directly to a 5/16" diameter damper shaft with D-flat. A set screw provided with an integral locking collar clamps the damper shaft in position.
- Anti-rotation post is provided for engagement with the damper housing to secure the actuator during operation.



Weibull Probability Chart of Actuator Reliability

- ▲--- Seitz SR3 Actuator
- Competitor "A" Actuator

Superior Reliability vs. "Competition"

The above Weibull probability chart presents a compilation of laboratory statistical reliability tests performed on 28 actuators. The actuators were continually powered on and off through the full rotation range in both directions until failure was observed. Failure is considered inability to achieve the full rotation range at any time in the cycling sequence. The SR3 actuator achieved a statistical reliability exceeding 120,000 cycles at 90% reliability and 100% confidence levels as typically applied in the automotive industry. Competitor "A" demonstrated statistical reliability of only 22,175 cycles in a side-by-side comparison.

Series SR3 Spring Return Actuator

DIMENSIONS, INCHES (MM)

