

## Technical data sheet

### UL-360S-024-090-S2/RE25 Spring return actuator for fire and smoke protection

#### Description

Spring return actuator for adjusting UL 555/555S fire and smoke protection dampers in HVAC installations

- Running time motor 75 s / 90°
- Running time spring 10 s / 90°
- Torque motor 90 in-lb [10 Nm]
- Torque spring 90 in-lb [10 Nm]
- Nominal voltage 24 VAC/DC
- Control 2-point
- Auxiliary switch 2x fixed, not adjustable
- Shaft coupling clamp  
Ø 0,35-1,02 in [9-26 mm]



#### Technical data

<b>Electrical data</b>	Nominal voltage	24 VAC/DC, 50/60 Hz
	Nominal voltage range	19...29 VAC/DC
	Power consumption motor (motion)	6,0 W
	Power consumption standby (end position)	2,5 W
	Wire sizing	8,0 VA
	Control	2-point
	Feedback signal	-
	Auxiliary switch	2 x SPDT (AgAu)
	Contact load	1 mA...5 (2,5) A, 5 VDC...250 VAC
	Switching point	5° / 80°
	Connection motor	cable 3,2 ft [1000 mm], 2 x AWG 18
	Connection auxiliary switch	cable 3,2 ft [1000 mm], 6 x AWG 18
	Connection GUAC	-
<b>Functional data</b>	Torque motor	90 in-lb [10 Nm]
	Torque spring	90 in-lb [10 Nm]

## Technical data

<b>Functional data</b>	Synchronised speed	±5%
	Direction of rotation	selected by mounting
	Manual override	manual operation
	Angle of rotation	-5°...max. +90°
	Running time motor	75 s / 90°
	Running time spring	10 s / 90°
	Sound power level motor	< 45 dB(A)
	Sound power level spring	< 65 dB(A)
	Shaft coupling	clamp Ø 0,35-1,02 in [9-26 mm]
	Position indication	mechanical with pointer
	Service life	> 60 000 cycles (-5°...+90°...-5°)
	Thermal tripping device	-
	Temperature TF1	-
	Temperature TF2	-
<b>Safety</b>	Protection class	III (safety extra-low voltage)
	Degree of protection	IP 54
	UL	UL 873 UL 94 5V
	Mode of operation	Typ 1 (UL 60730-2-14)
	Rated impulse voltage	0,8 kV (UL 60730-2-14)
	Control pollution degree	2 (UL 840)
	Ambient temperature normal operation	-22°F...+122°F [-30°C...+50°C]
	Ambient temperature safety operation	-
	Storage temperature	-22°F...+122°F [-30°C...+50°C]
	Ambient humidity	5...95% r.H., non condensing (UL 60730-1)
<b>Dimensions / Weight</b>	Maintenance	maintenance free
	Dimensions	7,6 x 3,8 x 2,4 in [193 x 96 x 60 mm]
	Weight	3,75 lb [1700 g]

## Functionality / Properties

### Operating mode

Connect power supply to wire 1+2, actuator drives to position 1 while the pre-tensioned spring is wound up the same time. If the power supply is interrupted, actuator drives back to position 0 by spring power. The actuator is still maintaining the minimum torque at the damper spindle.

The damper actuator running time is adapted to come closer to the needs of UL555 requirements.

The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.

### Direct mounting

Simple direct mounting on the damper shaft with a clamp, protection against rotating with enclosed anti-rotation lock or rather at intended attachment points.

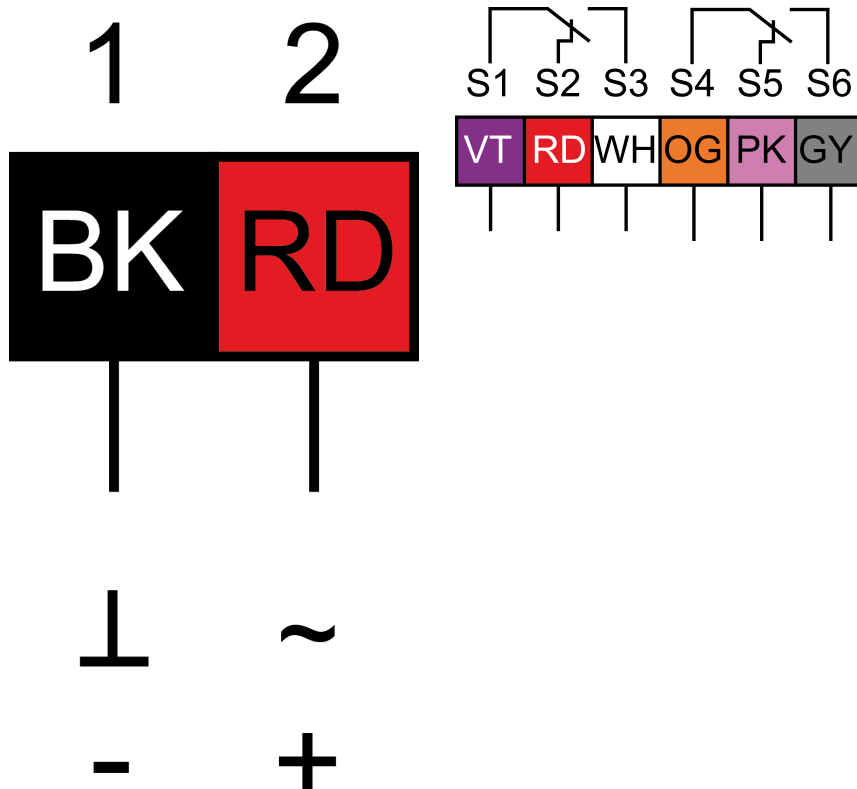
### Manual override

The actuator can be operated only manually while the power supply is off. The supplied lever is to open and lock the damper position. The lock stays until the power supply is put on.

### Signaling

The two integrated auxiliary switches are activated at the fixed switching positions ( $> 5^\circ$  and  $> 80^\circ$ ). The damper position can be checked by the mechanical pointer.

## Connector / Security Note



## Safety remarks

- Connect via safety isolation transformer!
- The device is not allowed to be used outside the specified field of application, especially in airplanes.
- It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.
- The device may only be opened at the manufacturer's site.
- The device is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.
- When calculating the required torque, the specifications supplied by the damper manufacturer's (cross-section, design, installation site), and the air flow conditions must be observed.
- The device is adapted and mounted to the fire and smoke damper by the damper manufacturer. For this reason, the device is only supplied direct to safety damper manufacturer. the manufacturer then bears full responsibility for the proper functioning of the damper.

## Technical Drawing

