GRUNER
SWITCH TO INNOVATIONS

Technical data sheet

UL-360S-024-135-S2/8Fx
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 135 in-lb [15 Nm]
- Torque spring 135 in-lb [15 Nm]
- Nominal voltage 24 VAC/DC
- Control 2-point
- Auxiliary switch 2x fixed, not adjustable
- Shaft coupling form fit 0.32 in [8 mm] (8F 8) form fit 0.40 in [10 mm] (8F10) form fit 0.48 in [12 mm] (8F12)

Technical data

Electrical data	Nominal voltage	24 VAC/DC, 50/60 Hz
	Nominal voltage range	19...29 VAC/DC
	Power consumption motor (motion)	9,0 W
	Power consumption standby (end position)	2,5 W
	Wire sizing	12,0 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	-
Functional data	Torque motor	135 in-lb [15 Nm]

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Technical data

Functional data	Torque spring	135 in-lb [15 Nm]
	Synchronized 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	form fit 0.32 in [8 mm] (8F 8) form fit 0.40 in [10 mm] (8F10) form fit 0.48 in [12 mm] (8F12)
	Position indication	mechanical with pointer
	Service life	> 60 000 cycles (-5°...+90°...-5°)
	Thermal tripping device	-
	Temperature TF1	-
	Temperature TF2	-
Safety	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 supply / control	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)
	Maintenance	maintenance free
Dimensions / Weight	Dimensions	7,6 x 3,8 x 2,8 in [193 x 96 x 70 mm]
	Weight	3,97 lb [1800 g]

Functionality / Properties

Operating mode

Connect power supply to wire 1+2, actuator drives to postion 1 while the pre-tensioned spring is wound up the same time. If the power supply is interrupt, 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 requirments.

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 form fit, protection against rotating at intended mounting points.

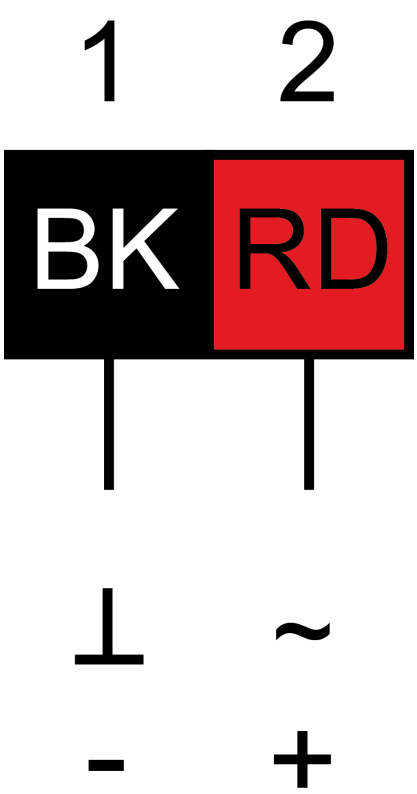
Manual override

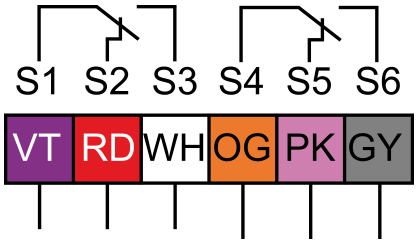
The actuator can only be operated manually while the power supply is off. The supplied lever is used to open and lock the damper position. The lock stays until the power supply is switched on again.

Signaling

The two integrated auxiliary switches are activated at he fixed switching positions (> 5° and > 80°). The damper position can be checked by the mechanicel 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.
- Cables may not be removed from the device.
- The cable of this actuator cannot be replaced. If the cable is damaged, the actuator should be scrapped.
- 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