

Technical data sheet

361C-024-10-S2

Spring return actuator

Description

Spring return actuator for adjusting dampers in HVAC installations

- Running time motor 150 s / 90°
- Running time spring 20 s / 90°
- Torque motor 10 Nm
- Torque spring 10 Nm
- Nominal voltage 24 VAC/DC
- Control continuous control (0)2...10 VDC
- Auxiliary switch 2x freely adjustable up to approx. 2 m²
- Damper size clamp
- Shaft coupling \diamond 9-18 mm / \varnothing 9-26 mm



Technical data

Electrical data	Nominal voltage	24 VAC/DC, 50/60 Hz
	Nominal voltage range	19...29 VAC/DC
	Power consumption motor (motion)	5,0 W
	Power consumption standby (end position)	2,0 W
	Wire sizing	8,0 VA
	Control	continuous control (0)2...10 VDC / Ri > (100 k Ω) 50 k Ω (0)4...20 mA
	Feedback signal	(0)2...10 VDC, max. 5 mA
	Auxiliary switch	2 x SPDT (Ag)
	Contact load	5 (2,5) A, 250 VAC
	Switching point	0°...95°
	Connection motor	cable 1000 mm, 4 x 0,75 mm ² (halogen free)
	Connection feedback potentiometer	-
	Connection auxiliary switch	cable 1000 mm, 6 x 0,75 mm ² (halogen free)
	Connection GUAC	-

Technical data

Functional data	Torque motor	10 Nm
	Torque spring	10 Nm
	Damper size	up to approx. 2 m ²
	Synchronised speed	±5%
	Direction of rotation	selected by mounting
	Manual override	manual operation
	Angle of rotation	0°...max. 95° can be limited with adjustable mechanical end stops
	Running time motor	150 s / 90°
	Running time spring	20 s / 90°
	Sound power level motor	< 35 dB(A)
	Sound power level spring	< 65 dB(A)
	Shaft coupling	clamp \diamond 9-18 mm / \varnothing 9-26 mm
	Position indication	mechanical with pointer
	Service life	> 60 000 cycles (0°...95°...0°) > 1 000 000 partial cycles (max. ±5°)
Safety	Protection class	III (safety extra-low voltage)
	Degree of protection	IP 54
	EMC	CE (2014/30/EU)
	LVD	CE (2014/35/EU)
	RoHS	CE (2011/65/EU - 2015/863/EU - 2017/2102/EU)
	Mode of operation	Typ 1 (EN 60730-1)
	Rated impulse voltage	0,8 kV (EN 60730-1)
	Control pollution degree	3 (EN 60730-1)
	Ambient temperature normal operation	-30°C...+50°C
	Storage temperature	-30°C...+80°C
	Ambient humidity	5...95% r.H., non condensing (EN 60730-1)
	Maintenance	maintenance free
Dimensions / Weight	Dimensions	193 x 96 x 60 mm
	Weight	1700 g

Functionality / Properties

Operating mode

Connect power supply to wire 1+2 and a reference signal Y to wire 3 in range of (0)2...10 VDC, actuator drives to its specified position while the pre-tensioned spring is wound up the same time. The actual damper position (0...100%) is a feedback signal U on wire 4 for example to share with other actuators. 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 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

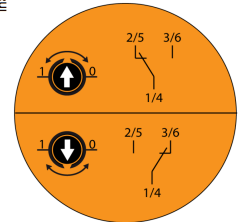
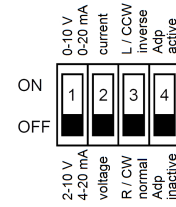
The two integrated auxiliary switches are freely adjustable in the angle of 0 - 95°. There are activated corresponding to the adjusted angle. The damper position can be checked by the mechanical pointer.

Mode switch

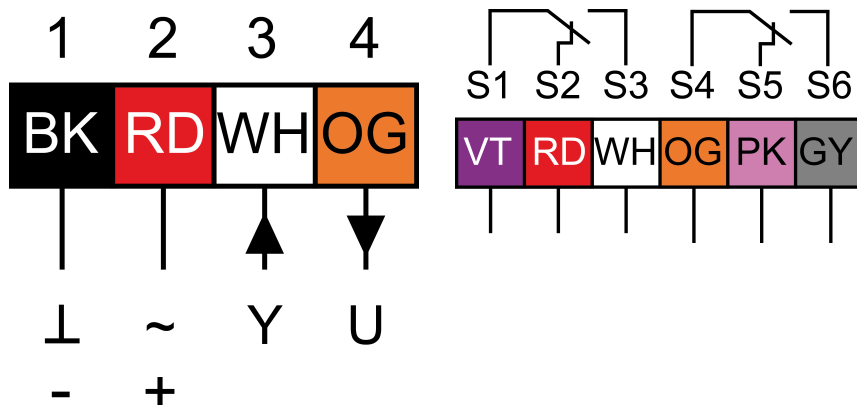
DIP switch under the case cover

Adaption drive

- Actuator power off
- Setting the mechanical end stops
- Actuator power on
- Adaption enable
- Actuator drive to position 0
- Actuator drive to position 1
- Adaption disable, if desired angular range reached or rather if actuator reached endstop
- "Y" refers to the measured angular range



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.

Technical Drawing

