

Technical data sheet

237D-024-50 Spring return actuator

Description

Spring return actuator for adjusting dampers in HVAC installations

- Running time motor 12 s / 90°
- Running time spring 10 s / 90°
- Torque motor 50 Ncm
- Torque spring 50 Ncm
- Nominal voltage 24 VAC
- Control 2-point
- Feedback signal 1x switching output
- Damper size up to approx. 0,4 m²



Technical data

Electrical data	Nominal voltage	24 VAC, 50/60 Hz
	Nominal voltage range	19...29 VAC
	Power consumption motor (motion)	3,5 W
	Power consumption standby (end position)	1,5 W
	Wire sizing	4,0 VA
	Control	2-point
	Feedback signal	switching output
	limit switch	1x SPST (Ag)
	Contact load	5 (2,5) A, 250 VAC
	Switching point	90°
	Connection motor	Tyco - AMP universal MATE-N-LOK Nr.: 350766-1
	Connection limit switch	via motor plug
	Functional data	Torque motor
Torque spring		50 Ncm
Damper size		up to approx. 0,4 m²
Synchronised speed		±5%

Technical data

Functional data	Direction of rotation	Motor : clockwise Spring: counter clockwise
	Manual override	-
	Angle of rotation	90°
	Running time motor	12 s / 90°
	Running time spring	10 s / 90°
	Sound power level motor	< 35 dB(A)
	Sound power level spring	< 45 dB(A)
	Shaft coupling	see technical drawing
	Position indication	mechanical with pointer
	Service life	> 400 000 cycles
Safety	Protection class	III (safety extra-low voltage)
	Degree of protection	IP 20
	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 (EN60730-1)
	Control pollution degree	3 (EN 60730-1)
	Ambient temperature normal operation	0°C...+60°C
	Storage temperature	-20°C...+80°C
Ambient humidity	5...95% r.H., non condensing (EN 60730-1)	
Maintenance	maintenance free	
Dimensions / Weight	Dimensions	103 x 60 x 60 mm
	Weight	300 g

Functionality / Properties

Operating mode

Through connecting the power supply to BU+BN (1+2), the actuator move to position 1 while the pre-tensioned spring is wound up the same time. If the power supply is interrupted the actuator is moving back to position 0 by the spring power. The actuator is still maintaining the minimum torque at the damper spindle.

The actuator is not overload-proof. There must not an external blocking follow.

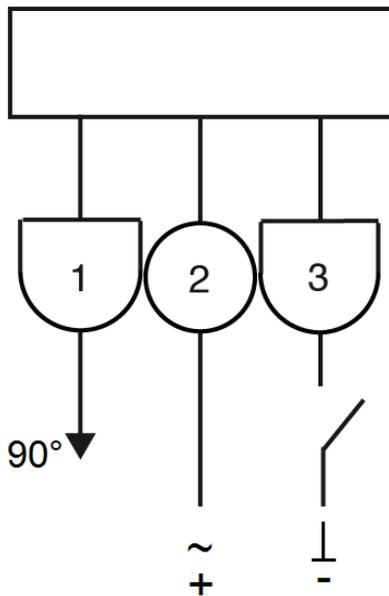
Signaling

The built-in limit switch is by reaching the final position activated. It is connected in the supply voltage to the output.

Direct mounting

Simple direct mounting on the damper spindle with special shaft.

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

