

# **Technical data sheet**

# 361-230-20-S2 Spring return actuator

#### Description

Spring-return actuator for adjusting and regulating dampers and valves in air conditioning and ventilation.

Torque Motor
Torque Spring
Nominal Voltage
Control
20 Nm
230 VAC/DC
2-Point

Auxiliary switch
 Damper size
 Damper shaft
 2 x freely adjustable up to approx 4 m²
 Clamp

◊ 9-18 mm / Ø 9-26 mm



#### Technical data

Electrical data	Nominal voltage	230 VAC (50/60 Hz), 230 VDC
	Nominal voltage range	85265 VAC/DC
	Power consuption motor (motion)	8,5 W
	Power consuption standby (end position)	2,0 W
	Wire sizing	13,5 VA
	Control	2-Point
	Position feedback	-
	Auxiliary switch	2 x SPDT (Ag)
	Contact load	5 (2,5) A, 250 VAC
	Switching point	0°95°
	Connection Motor	Cable 1000 mm,
		2 x 0,75 mm <sup>2</sup> (halogen free)
	Connection Auxiliary switch	Cable 1000 mm,
		6 x 0,75 mm <sup>2</sup> (halogen free)
	Connection GUAC	-
Functional data	Torque Motor	>20 Nm
	Torque Spring	>20 Nm
	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 stop min 35°
	Running time Motor	<75 s / 90°
	Running time Spring	<20 s / 90°
	Sound power level Motor	<45 dB(A)
	Sound power level Spring	<65 dB(A)
	Damper coupling	Clamp
		♦ 918 mm / Ø 926 mm



#### Technical data

Functional data	Position indication	Mechanical with pointer
	Service life	>60.000 cycles (0°+95°0°)
Safety	Protection class	II (double insulation)
	Degree of protection	IP54
	EMC	CE (2004/108/EG)
	LVD	CE (2006/95/EG)
	RoHS	CE (2011/65/EU)
	Mode of operation	Typ 1.AA B (EN60730-1)
	Rated impulse voltage	4 kV (EN60730-1)
	Control pollution degree	3 (EN60730-1)
	Ambient temperature normal operation	-30°C+50°C
	Storage temperature	-30°C+80°C
	Ambient humidity	595% relative humidity,
		non condensing (EN 60730-1)
	Maintenance	Maintenance-free
Dimensions/ Weight	Dimensions	193 x 96 x 70 mm
	Weight	ca. 2.400g

#### Operating mode / Properties

# Operating mode

Applying the power supply to BU+BN (1+2), moves the actuator to position 1. At the same time the return spring is tensioned. If the power supply is interrupted the damper is moving back to the position 0 by spring force. In position 0, the actuator still provides the rated torque.

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

# **Direct mounting**

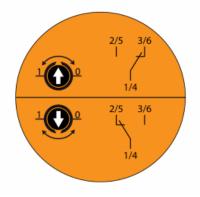
Simple direct mounting on the damper spindle with a universal spindle clamp, supplied with an anti-rotation strap to prevent the actuator from rotating.

# Signaling

The two integrated auxiliary switches are freely adjustable in the angle of  $0-95^{\circ}$ . They are activated corresponding to the adjusted angle. The damper position can be checked by the mechanical pointer.

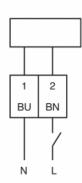
## Manual operation

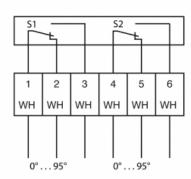
The actuator can be operated manually while the power supply is disconnected. With the supplied lever the position of the damper can be varied and locked. Applying the voltage automatically unlocks the damper.





#### Connection / Safety remarks





## Safety remarks

- -Attention mains voltage
- -The actuator 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.
- -When calculating the required torque, the specifications supplied by the damper manufacturers (cross- section, design, installation site), and the air flow conditions must be observed.
- -The actuator is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.



#### Technical drawing

