

Rotary actuator fail-safe for adjusting dampers in technical building installations

- Air damper size up to approx. 0.8 m<sup>2</sup>
- Torque motor 4 Nm
- Nominal voltage AC 230 V
- Control Open/close
- with integrated auxiliary switch


**Technical data**

<b>Electrical data</b>	Nominal voltage	AC 230 V	
	Nominal voltage frequency	50/60 Hz	
	Nominal voltage range	AC 198...264 V	
	Power consumption in operation	5 W	
	Power consumption in rest position	3 W	
	Power consumption for wire sizing	7 VA	
	Power consumption for wire sizing note	I <sub>max</sub> 150 mA @ 10 ms	
	Auxiliary switch	1 x SPDT, 0...100%	
	Switching capacity auxiliary switch	1 mA...3 A (0.5 A inductive), AC 250 V	
	Connection supply / control	Cable 1 m, 2 x 0.75 mm <sup>2</sup>	
	Connection auxiliary switch	Cable 1 m, 3 x 0.75 mm <sup>2</sup>	
	Parallel operation	Yes (note the performance data)	
	<b>Functional data</b>	Torque motor	4 Nm
		Torque fail-safe	4 Nm
Direction of motion motor		selectable by mounting L/R	
Direction of motion fail-safe		selectable by mounting L/R	
Manual override		No	
Angle of rotation		Max. 95°	
Angle of rotation note		Adjustable 37...100% with integrated mechanical limitation	
Running time motor		40...75 s / 90°	
Running time fail-safe		<20 s / 90°	
Running time fail-safe note		@ -20...50°C / <60 s @ -30°C	
Sound power level, motor		50 dB(A)	
Mechanical interface		Universal shaft clamp 8...16 mm	
Position indication		Mechanical	
Service life		Min. 60'000 fail-safe positions	
<b>Safety</b>	Protection class IEC/EN	II reinforced insulation	
	Protection class auxiliary switch IEC/EN	II reinforced insulation	
	Degree of protection IEC/EN	IP54	
	EMC	CE according to 2014/30/EU	
	Low voltage directive	CE according to 2014/35/EU	
	Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14	
	Mode of operation	Type 1.B	
	Rated impulse voltage supply / control	4 kV	
	Rated impulse voltage auxiliary switch	4 kV	
	Control pollution degree	3	
	Ambient temperature	-30...50°C	
	Storage temperature	-40...80°C	
	Ambient humidity	Max. 95% r.H., non-condensing	
	Servicing	maintenance-free	
<b>Weight</b>	Weight	2.5 kg	

**Safety notes**



- The device must not be used outside the specified field of application, especially not in aircraft or in any other airborne means of transport.
- Outdoor application: only possible in case that no (sea) water, snow, ice, insolation or aggressive gases interfere directly with the actuator and that is ensured that the ambient conditions remain at any time within the thresholds according to the data sheet.
- Caution: Power supply voltage!
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.
- The device may only be opened at the manufacturer's site. It does not contain any parts that can be replaced or repaired by the user.
- Cables must not be removed from the device.
- To calculate the torque required, the specifications supplied by the damper manufacturers concerning the cross-section, the design, the installation site and the ventilation conditions must be observed.
- The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

**Product features**

<b>Mode of operation</b>	The actuator moves the damper to the operating position at the same time as tensioning the return spring. The damper is turned back to the safety position by spring energy when the supply voltage is interrupted.
<b>Simple direct mounting</b>	Simple direct mounting on the damper shaft with a universal shaft clamp, supplied with an anti-rotation device to prevent the actuator from rotating.
<b>Adjustable angle of rotation</b>	Adjustable angle of rotation with mechanical end stops.
<b>High functional reliability</b>	The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.
<b>Flexible signalization</b>	With adjustable auxiliary switch (0...100%)

**Accessories**

	Description	Type
<b>Electrical accessories</b>	Auxiliary switch 2 x SPDT	S2A-F
	Feedback potentiometer 200 Ω	P200A-F
	Feedback potentiometer 1 kΩ	P1000A-F
	Description	Type
<b>Mechanical accessories</b>	Shaft extension 170 mm Ø10 mm for damper shaft Ø 6...16 mm	AV6-20
	Shaft extension 240 mm Ø20 mm for damper shaft Ø 8...22.7 mm	AV8-25
	Shaft clamp reversible, clamping range Ø16...20 mm	K6-1
	Ball joint suitable for damper crank arm KH8 / KH10	KG10A
	Ball joint suitable for damper crank arm KH8	KG8
	Damper crank arm Slot width 8.2 mm, clamping range Ø10...18 mm	KH8
	Actuator arm, clamping range Ø8...16 mm, Slot width 8.2 mm	KH-LF
	Angle of rotation limiter, with end stop	ZDB-LF
	Form fit adapter 8x8 mm	ZF8-LF
	Mounting kit for linkage operation for flat installation	ZG-LF1
	Mounting kit for linkage operation for side installation Slot width 6.2 mm	ZG-LF3
	Anti-rotation mechanism 180 mm, Multipack 20 pcs.	Z-ARS180L

**Electrical installation**

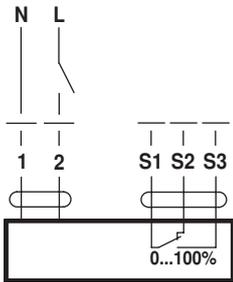


- Notes**
- Caution: Power supply voltage!
  - Parallel connection of other actuators possible. Observe the performance data.

**Electrical installation**

**Wiring diagrams**

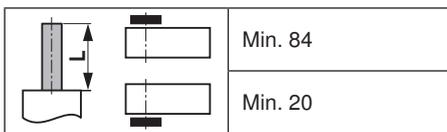
AC 230 V, open/close



Cable colours:  
 1 = blue  
 2 = brown  
 S1 = white  
 S2 = white  
 S3 = white

**Dimensions [mm]**

**Spindle length**



**Clamping range**

8...16	8...16

**Dimensional drawings**

