

Spring-return actuator with emergency control function for adjusting dampers in technical building installations

- Air damper size up to approx. 0.8 m²
- Torque motor 4 Nm
- Nominal voltage AC/DC 24 V
- Control 3-point


Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V / DC 21.6...28.8 V
	Power consumption in operation	2.5 W
	Power consumption in rest position	2.5 W
	Power consumption for wire sizing	5 VA
	Power consumption for wire sizing note	I _{max} 5.8 A @ 5 ms
	Connection supply / control	Cable 1 m, 4 x 0.75 mm ²
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	4 Nm
	Torque spring return	4 Nm
	Direction of motion motor	selectable with switch L / R
	Direction of motion emergency control function	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	150 s / 90°
	Running time emergency control position	<20 s / 90°
	Running time emergency setting position note	@ -20...50 °C / <60 s @ -30 °C
	Sound power level, motor	30 dB(A)
	Mechanical interface	Universal spindle clamp 8...16 mm
	Position indication	Mechanical
Service life	Min. 60,000 emergency positions	
Safety	Protection class IEC/EN	III Safety Extra-Low Voltage (SELV)
	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	0.8 kV
	Control pollution degree	3
	Ambient temperature	-30...50 °C
	Non-operating temperature	-40...80 °C
	Ambient humidity	Max. 95% r.h., non-condensing
Maintenance	Maintenance-free	
Weight	Weight	1.5 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.
- 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

Mode of operation	The actuator is activated with a 3-point signal. 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 emergency position by spring force when the supply voltage is interrupted.
Simple direct mounting	Simple direct mounting on the damper spindle with an universal spindle clamp, supplied with an anti-rotation device to prevent the actuator from rotating.
Adjustable angle of rotation	Adjustable angle of rotation with mechanical end stops.
High functional reliability	The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.

Accessories

	Description	Type
Electrical accessories	Auxiliary switch, 2 x SPDT	S2A-F
	Feedback potentiometer, 200 Ohm, incl. installation accessories	P200A-F
	Feedback potentiometer 1 kOhm, incl. installation accessories	P1000A-F
	Description	Type
Mechanical accessories	Shaft extension 170 mm, for damper spindles Ø 6...16 mm	AV6-20
	Shaft extension 240 mm, for damper spindles Ø 8...22.7 mm or Ø 10...22.7 mm damper spindle	AV8-25
	Spindle clamp, for damper spindles Ø 16...20 mm	K6-1
	Straight ball joint with M8, suitable for damper crank arm KH8	KG10A
	Angled ball joint with M8, suitable for damper crank arm KH8	KG8
	Damper crank arm, for damper spindles	KH8
	Actuator arm, for damper spindles Ø 8...16 mm	KH-LF
	Angle of rotation limiter, for LF with end stop	ZDB-LF
	Additional shaft adapter for LF..., 8x8 mm	ZF8-LF
	Mounting kit for linkage operation LF..	ZG-LF1
	Mounting kit for linkage operation LF..., suitable for damper spindles Ø 10...18 mm	ZG-LF3
Anti-rotation mechanism 180 mm	Z-ARS180L	

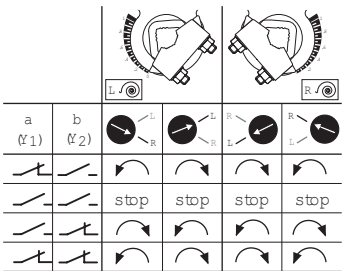
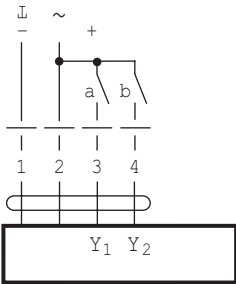
Electrical installation

	Notes	<ul style="list-style-type: none"> • Connection via safety isolating transformer. • Parallel connection of other actuators possible. Observe the performance data.
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Electrical installation

Wiring diagrams

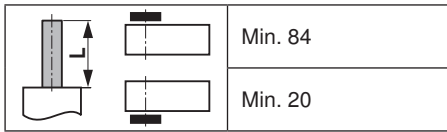
AC/DC 24 V, 3-point



Cable colours:
 1 = black
 2 = red
 3 = white
 4 = white

Dimensions [mm]

Spindle length



Clamping range

8...16	8...16

Dimensional drawings

