

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

- Air damper size up to approx. 0.5 m²
- Nominal torque 2.5 Nm
- Nominal voltage AC 230 V
- Control Modulating DC (0)2...10 V
- Position feedback DC 2...10 V


Technical data

Electrical data	Nominal voltage	AC 230 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 85...264 V
	Power consumption in operation	2.5 W
	Power consumption in rest position	2 W
	Power consumption for wire sizing	5.5 VA
	Connection supply	Cable 1 m, 2 x 0.75 mm ²
	Connection control	Cable 1 m, 3 x 0.75 mm ²
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	Min. 2.5 Nm
	Torque spring return	Min. 2.5 Nm
	Positioning signal Y	DC 0...10 V
	Positioning signal Y note	Input impedance 100 kΩ
	Operating range Y	DC 2...10 V
	Position feedback U	DC 2...10 V
	Position feedback U note	Max. 0.5 mA
	Position accuracy	±5%
	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 starting at 37% in 2.5% steps (with mechanical end stop)
	Running time motor	150 s / 90°
	Running time emergency control position	<25 s / 90°
	Sound power level motor	50 dB(A)
	Spindle driver	Universal spindle clamp 6...12.7 mm
	Position indication	Mechanical
	Service life	Min. 60,000 emergency positions
	Safety	Protection class IEC/EN
Degree of protection IEC/EN		IP42
EMC		CE according to 2004/108/EC
Low voltage directive		CE according to 2006/95/EC
Certification IEC/EN		IEC/EN 60730-1 and IEC/EN 60730-2-14
Mode of operation		Type 1.AA
Overvoltage category		II
Rated impulse voltage supply		2.5 kV
Rated impulse voltage control		2.5 kV
Control pollution degree		2
Ambient temperature		-30...50 °C
Non-operating temperature		-40...80 °C
Ambient humidity		95% r.h., non-condensing
Maintenance		Maintenance-free
Weight	Weight approx.	0.78 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

Mode of operation	The actuator is connected with a standard modulating signal of DC 0 ... 10 V and 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.
High functional reliability	The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.
Adjustable angle of rotation	Adjustable angle of rotation with mechanical end stops.

Accessories

	Description	Type
Electrical accessories	Signal converter voltage/current, supply AC/DC 24V	Z-UIC
	Digital position indicator for front-panel mounting, 0...99%, front mass 72 x 72 mm	ZAD24
	Range controller for wall mounting, adjustable electron. Min./max. angle of rotation limitation	SBG24
	Positioner for wall mounting, range 0...100%	SGA24
	Positioner in a conduit box, range 0...100%	SGE24
	Positioner for front-panel mounting, range 0...100%	SGF24
	Description	Type
Mechanical accessories	Actuator arm TF..	AH-TF
	Shaft extension 170 mm, for damper spindles Ø 6...20 mm	AV6-20
	Straight ball joint with M8, suitable for damper crank arms KH8	KG10A
	Angled ball joint with M8, suitable for damper crank arms KH8	KG8
	Damper crank arm, for damper spindles	KH8
	Screw fastening kit TF..	SB-TF
	Angle of rotation limiter TF..	ZDB-TF
	Form fit adapter GR, 14x14x40 mm	ZF8-TF
Mounting kit for linkage operation TF..	ZG-TF1	

Electrical installation

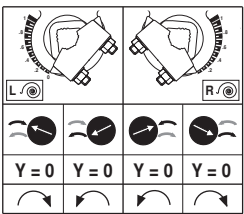
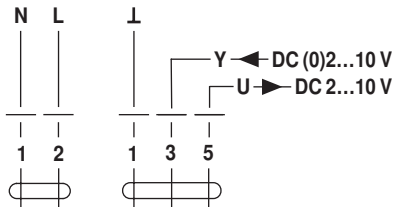


Notes

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

Wiring diagrams

AC 230 V, modulating

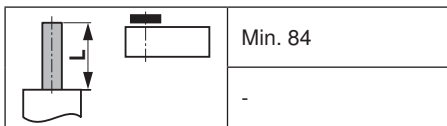


Cable colours:

- 1 = blue
- 2 = brown
- 1 = black
- 3 = white
- 5 = orange

Dimensions [mm]

Spindle length



Clamping range

6...12.7	6...12.7

Dimensional drawings

