

Modulating rotary actuator fail-safe for adjusting dampers in technical building installations

- Air damper size up to approx. 0.5 m²
- Torque motor 2.5 Nm
- Nominal voltage AC 230 V
- Control modulating 2...10 V
- Position feedback 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
Torque fail-safe		2.5 Nm
Operating range Y		2...10 V
Input Impedance		100 kΩ
Position feedback U		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 fail-safe		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 fail-safe		<25 s / 90°
Sound power level, motor		50 dB(A)
Mechanical interface		Universal shaft clamp 6...12.7 mm
Position indication		Mechanical
Service life	Min. 60'000 fail-safe positions	
Safety	Protection class IEC/EN	II reinforced insulation
	Degree of protection IEC/EN	IP42
	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.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
	Storage temperature	-40...80 °C
	Ambient humidity	Max. 95% r.H., non-condensing
	Servicing	maintenance-free
Weight	Weight	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 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 fail-safe position by spring force when the supply voltage is interrupted.
Simple direct mounting	Simple direct mounting on the damper shaft with a universal shaft 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	Signal converter voltage/current 100 kΩ Supply AC/DC 24 V	Z-UIC
	Range controller for wall mounting	SBG24
	Positioner for wall mounting	SGA24
	Positioner for built-in mounting	SGE24
	Positioner for front-panel mounting	SGF24
	Positioner for wall mounting	CRP24-B1
Mechanical accessories	Description	Type
	Actuator arm	AH-TF
	Shaft extension 170 mm Ø10 mm for damper shaft Ø 6...16 mm	AV6-20
	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
	Screw fastening kit	SB-TF
	Angle of rotation limiter, with end stop	ZDB-TF
	Form fit adapter 8x8 mm	ZF8-TF
	Mounting kit for linkage operation for flat and side installation	ZG-TF1
Anti-rotation mechanism 180 mm, Multipack 20 pcs.	Z-ARS180	

Electrical installation

Electrical installation

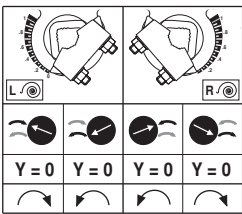
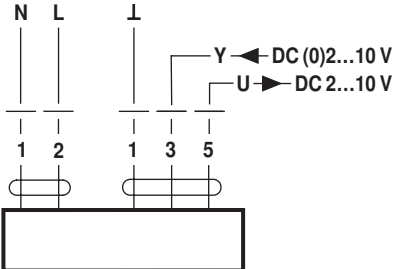


Notes

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

Wiring diagrams

AC 230 V, modulating

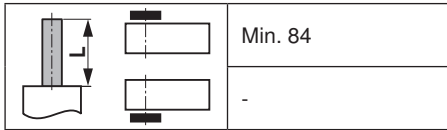


Cable colours:

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

Dimensions [mm]

Spindle length



Clamping range

6...12.7	6...12.7

Dimensional drawings

