

Damper actuator for adjusting dampers in technical building installations

- Air damper size up to approx. 1 m<sup>2</sup>
- Nominal torque 5 Nm
- Nominal voltage AC/DC 24 V
- Control Open-close, 3-point
- With connecting terminals
- With integrated auxiliary switch


**Technical data**

<b>Electrical data</b>	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V / DC 19.2...28.8 V
	Power consumption in operation	1 W
	Power consumption in rest position	0.2 W
	Power consumption for wire sizing	1.5 VA
	Auxiliary switch	1 x SPDT, 0...100%
	Switching capacity auxiliary switch	1 mA...3 (0.5 inductive) A, AC 250 V
	Connection supply / control	Terminals 4 mm <sup>2</sup> (cable Ø 4...10 mm, 3-wire)
	Connection auxiliary switch	Terminals 4 mm <sup>2</sup> (cable Ø 4...10 mm, 3-wire)
Parallel operation	Yes (note the performance data)	
<b>Functional data</b>	Torque motor	Min. 5 Nm
	Direction of motion motor	Selectable with switch 0 (ccw rotation) / 1 (cw rotation)
	Manual override	Gear disengagement with push-button, can be locked
	Angle of rotation	Max. 95°
	Angle of rotation note	can be limited on both sides with adjustable mechanical end stops
	Running time motor	150 s / 90°
	Sound power level motor	35 dB(A)
	Spindle driver	Universal spindle clamp 6...20 mm
	Position indication	Mechanically, pluggable
	<b>Safety</b>	Protection class IEC/EN
Protection class UL		II Protective insulated
Protection class auxiliary switch IEC/EN		II Protective insulated
Degree of protection IEC/EN		IP54
Degree of protection NEMA/UL		NEMA 2, UL Enclosure Type 2
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
Certification UL		cULus according to UL 60730-1A, UL 60730-2-14 and CAN/CSA E60730-1:02
Mode of operation		Type 1.B
Rated impulse voltage supply / control	0.8 kV	
Rated impulse voltage auxiliary switch	2.5 kV	
Control pollution degree	3	
Ambient temperature	-30...50°C	
Non-operating temperature	-40...80°C	
Ambient humidity	95% r.h., non-condensing	
Maintenance	Maintenance-free	
<b>Weight</b>	Weight approx.	0.49 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.

## Safety notes

- 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.
- 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>Simple direct mounting</b>	Simple direct mounting on the damper spindle with an universal spindle clamp, supplied with an anti-rotation device to prevent the actuator from rotating.
<b>Manual override</b>	Manual override with push-button possible (the gear is disengaged for as long as the button is pressed or remains locked).
<b>High functional reliability</b>	The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.
<b>Adjustable angle of rotation</b>	Adjustable angle of rotation with mechanical end stops.
<b>Flexible signalization</b>	With adjustable auxiliary switch (0 ... 100%)

## Accessories

	Description	Type
<b>Electrical accessories</b>	Auxiliary switch, add-on, 1 x SPDT	S1A
	Auxiliary switch, add-on, 2 x SPDT	S2A
	Auxiliary switch, add-on, 2 x SPDT, grey	S2A GR
	Feedback potentiometer 140 Ohm, add-on	P140A
	Feedback potentiometer 140 Ohm, add-on, grey	P140A GR
	Feedback potentiometer 200 Ohm, add-on	P200A
	Feedback potentiometer 500 Ohm, add-on	P500A
	Feedback potentiometer 500 Ohm, add-on, grey	P500A GR
	Feedback potentiometer 1 kOhm, add-on	P1000A
	Feedback potentiometer 2.8 kOhm, add-on	P2800A
	Feedback potentiometer 2.8 kOhm, add-on, grey	P2800A GR
	Feedback potentiometer 1 kOhm, add-on, grey	P1000A GR
	Feedback potentiometer 5 kOhm, add-on	P5000A
	Feedback potentiometer 5 kOhm, add-on, grey	P5000A GR
	Feedback potentiometer 10 kOhm, add-on	P10000A
Feedback potentiometer 10 kOhm, add-on, grey	P10000A GR	
<b>Mechanical accessories</b>	Shaft extension 170 mm, for damper spindles Ø 6...20 mm	AV6-20
	Spindle clamp for LM..A, clamping range 6...20 mm	K-ELA
	Spindle clamp for LM..A, clamping range 6...10 mm	K-ELA10
	Spindle clamp for LM..A, clamping range 6...13 mm	K-ELA13
	Spindle clamp for LM..A, clamping range 6...16 mm	K-ELA16
	Universal mounting bracket 180 mm	Z-ARS180
	Form fit insert 10x10 mm, for LM..A	ZF10-LMA
	Form fit insert 12x12 mm, for LM..A	ZF12-LMA
	Form fit insert 8x8 mm, for LM..A	ZF8-LMA
	Form fit insert 10x10 mm, with angle of rotation limiter and position indication for LM..A	ZFRL10-LMA

Accessories

Description	Type
Form fit insert 12x12 mm, with angle of rotation limiter and position indication for LM..A	ZFRL12-LMA
Form fit insert 8x8 mm, with angle of rotation limiter and position indication for LM..A	ZFRL8-LMA
Position indication for LM..A, NM..A, SM..A, GM..A	Z-PI
Terminal protection IP54	Z-TP
Cable sleeve for Ø 4-6 mm, suitable for strain relief NG	43235-00001
Strain relief bushing (cable sleeve) for Ø 6-8 mm, suitable for strain relief NG	43235-00002
Cable sleeve for Ø 8-10 mm, suitable for strain relief NG	43235-00003

Electrical installation

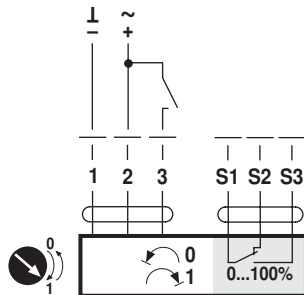


Notes

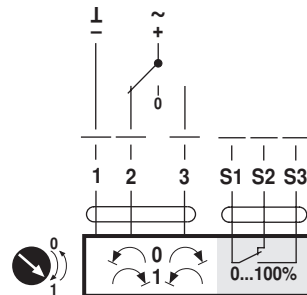
- Connection via safety isolating transformer.
- Parallel connection of other actuators possible. Observe the performance data.

Wiring diagrams

AC/DC 24 V, open-close

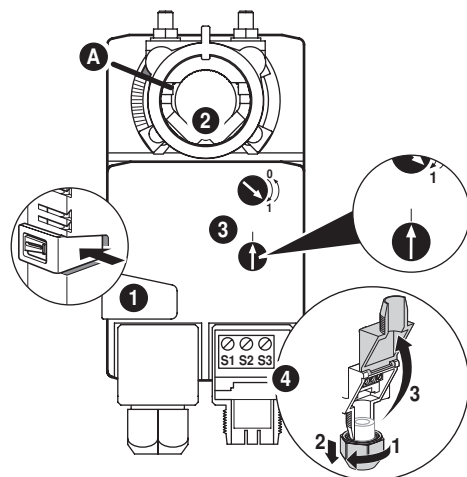


AC/DC 24 V, 3-point



Operating controls and indicators

Auxiliary switch settings



Note

Perform settings on the actuator only in deenergised state.

1 Gear disengagement

Holding button pressed down: Gear is disengaged.  
Manual override is possible.

2 Spindle clamp

Turn until edge line **A** displays the desired switching position of the actuator and release button **1**.

3 Auxiliary switch

Turn rotary knob until the arrow points to the vertical line.

4 Terminal connection

Connect continuity tester to S1 + S2 or to S1 + S3.  
If the auxiliary switch should switch in the opposite direction, rotate the auxiliary switch by 180°.

**Dimensions [mm]**

**Spindle length**

	Min. 37
	-

**Clamping range**

6...20	≥6	≤20

**Dimensional drawings**

