

Damper actuator for adjusting dampers in technical building installations

- Air damper size up to approx. 0.4 m²
- Nominal torque 2 Nm
- Nominal voltage AC/DC 24 V
- Control Open-close, 3-point
- Running time motor 35 s
- With integrated auxiliary switch


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 19.2...28.8 V
	Power consumption in operation	1.5 W
	Power consumption in rest position	0.2 W
	Power consumption for wire sizing	2.5 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	Cable 1 m, 3 x 0.75 mm ²
	Connection auxiliary switch	Cable 1 m, 3 x 0.75 mm ²
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	Min. 2 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	35 s / 90°
	Sound power level motor	40 dB(A)
	Spindle driver	Universal spindle clamp 6...20 mm
	Position indication	Mechanically, pluggable
	Safety	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	
Weight	Weight	0.57 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.
- Cables must not be removed from the device.

Product features

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.
Manual override	Manual override with push-button possible (the gear is disengaged for as long as the button is pressed or remains locked).
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.
Flexible signalization	With adjustable auxiliary switch (0 ... 100%)

Accessories

	Description	Type
Electrical accessories	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	
Mechanical accessories	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 8x8 mm, for LM..A	ZF8-LMA
	Form fit insert 10x10 mm, for LM..A	ZF10-LMA
Form fit insert 12x12 mm, for LM..A	ZF12-LMA	

Accessories

Description	Type
Form fit insert 8x8 mm, with angle of rotation limiter and position indication for LM..A	ZFRL8-LMA
Form fit insert 10x10 mm, with angle of rotation limiter and position indication for LM..A	ZFRL10-LMA
Form fit insert 12x12 mm, with angle of rotation limiter and position indication for LM..A	ZFRL12-LMA
Position indication for LM..A, NM..A, SM..A, GM..A	Z-PI

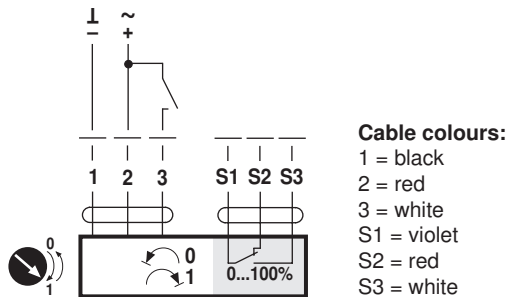
Electrical installation

Notes

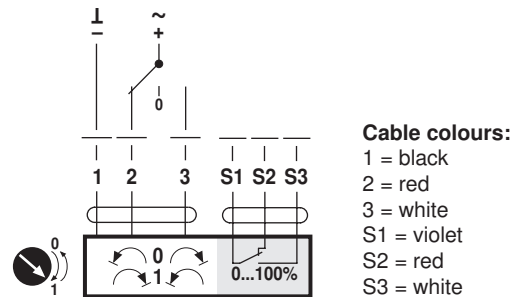
- Connection via safety isolating transformer.
- Parallel connection of other actuators possible. Observe the performance data.

Wiring diagrams

AC/DC 24 V, open-close

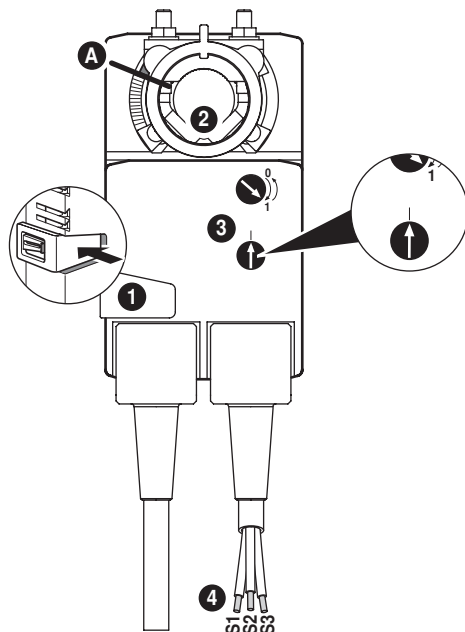


AC/DC 24 V, 3-point



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 Cable**
 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
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Clamping range

6...20	≥6	≤20

Dimensional drawings

