

Damper actuator for adjusting dampers in technical building installations

- Air damper size up to approx. 2 m²
- Nominal torque 10 Nm
- Nominal voltage AC/DC 24 V
- Control Open-close, 3-point
- With integrated feedback potentiometer


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	3.5 VA
	Feedback potentiometer	5 kΩ ±5% 1 W
	Connection supply / control	Cable 1 m, 3 x 0.75 mm ²
	Connection feedback potentiometer	Cable 1 m, 3 x 0.75 mm ²
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	Min. 10 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 8...26.7 mm
	Position indication	Mechanically, pluggable
	Safety	Protection class IEC/EN
Protection class UL		UL Class 2 Supply
Degree of protection IEC/EN		IP54
Degree of protection NEMA/UL		NEMA 2, UL Enclosure Type 2
EMC		CE according to 2004/108/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
Rated impulse voltage supply / control		0.8 kV
Control pollution degree		3
Weight	Ambient temperature	-30...50 °C
	Non-operating temperature	-40...80 °C
	Ambient humidity	95% r.h., non-condensing
	Maintenance	Maintenance-free
	Weight approx.	0.84 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.

Safety notes

- 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

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.
Position feedback U5	With integrated feedback potentiometer position feedback 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	Description	Type
	Actuator arm, for standard spindle clamp (reversible) K-SA	AH-20
	Actuator arm, for one-sided spindle clamp K-ENSA	AH-25
	Shaft extension 250 mm, for damper spindles Ø 8...25 mm	AV8-25
	Spindle clamp, one side for NM..A	K-ENMA
	Spindle clamp, one side for NM..A, SM..A	K-ENSA
	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
	Spindle clamp, reversible for NM..A and LMQ..	K-NA
	Angle of rotation limiter, for K-NA	20334-00001
	Universal mounting bracket 180 mm	Z-ARS180
	Form fit insert 8x8 mm, for NM..A	ZF8-NMA
Form fit insert 10x10 mm, for NM..A / SM..A	ZF10-NSA	
Form fit insert 12x12 mm, for NM..A / SM..A	ZF12-NSA	

Accessories

Description

Form fit insert 15x15 mm
 Form fit insert 16x16 mm, for NM..A / SM..A
 Mounting kit for linkage operation, NM..A for flat installation
 Base plate extension from NM..A to NM..
 Position indication for LM..A, NM..A, SM..A, GM..A

Type

ZF15-NSA
 ZF16-NSA
 ZG-NMA
 Z-NMA
 Z-PI

Electrical installation

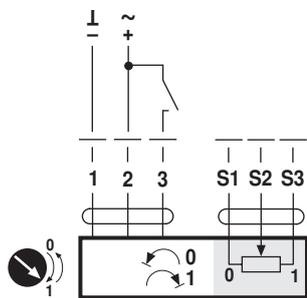


Notes

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

Wiring diagrams

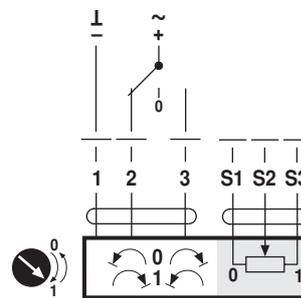
AC/DC 24 V, open-close



Cable colours:

- 1 = black
- 2 = red
- 3 = white
- S1 = violet
- S2 = red
- S3 = white

AC/DC 24 V, 3-point

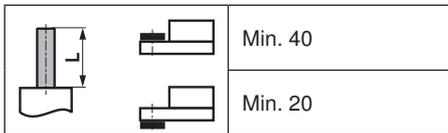


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Dimensions [mm]

Spindle length



Clamping range

	8...26.7	≥8	≤26.7
	8...20	≥8	≤20

*Option: Spindle clamp mounted below (accessories K-NA needed)

Dimensional drawings

