BELIMO®

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

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	0.5 W
	Power consumption in rest position	0.2 W
	Power consumption for wire sizing	1 VA
	Connection supply / control	Cable 1 m, 3 x 0.75 mm²
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	Min. 2 Nm
	Direction of motion motor	cw rotation
	Manual override	Gear disengagement with magnet
	Angle of rotation	0...287.5°,
	Angle of rotation note	Without limitation: endless With one end stop clip Z-ESCM: 315°
	Running time motor	75 s / 90°
	Sound power level motor	35 dB(A)
	Spindle driver	Universal spindle clamp 6...12.7 mm
	Position indication	Mechanically, pluggable (with integrated magnet for gear disengagement)
Safety	Protection class IEC/EN	III Safety extra-low voltage
	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
	Ambient temperature	-30...50°C
	Non-operating temperature	-40...80°C
	Ambient humidity	95% r.h., non-condensing
	Maintenance	Maintenance-free
Weight	Weight	0.28 kg

Safety notes

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- 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.
- 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.

Safety notes

- 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	The actuator is mounted directly on the damper spindle ($\varnothing$ 6...12.7 mm) with an universal spindle clamp and then secured with the anti-rotation device supplied, to prevent it from rotating.
Manual override	Manual override with magnet possible (the gear is disengaged as long as the magnet adheres to the magnet symbol). The magnet for gear disengagement is integrated in the position indication.
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
Mechanical accessories	Anti-rotation clip for CM..	Z-ARCM
	Magnet disengagement	Z-MA
	Position indicator CM..	Z-PICM

Electrical installation

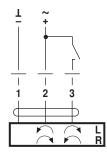|	Notes	• Connection via safety isolating transformer. • Parallel connection of other actuators possible. Observe the performance data.

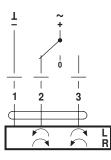### Wiring diagrams

AC/DC 24 V, open-close

Cable colours:
1 = black
2 = red
3 = white

AC/DC 24 V, 3-point

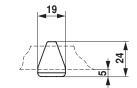**Cable colours:**
1 = black
2 = red
3 = white

Dimensions [mm]

Spindle length

L	▬	Min. 32
		-

Clamping range

⬤ ↕	▪ ↕	◆ ↕
6...12.7	6 / 8 / 10	6...12.7

Dimensional drawings