

Rotary actuator fail-safe for adjusting dampers in technical building installations

- Air damper size up to approx. 0.8 m²
- Torque motor 4 Nm
- Nominal voltage AC/DC 24 V
- Control 3-point



Technical data

Electrical	data
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Torque motor	4 Nm
Parallel operation	Yes (note the performance data)
Connection supply / control	Cable 1 m, 4 x 0.75 mm ²
Power consumption for wire sizing note	Imax 5.8 A @ 5 ms
Power consumption for wire sizing	5 VA
Power consumption in rest position	2.5 W
Power consumption in operation	2.5 W
Nominal voltage range	AC 19.228.8 V / DC 21.628.8 V
Nominal voltage frequency	50/60 Hz
Nominal voltage	AC/DC 24 V

Functional data

Torque motor	4 Nm
Torque fail-safe	4 Nm
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 37100% with integrated mechanical limitation
Running time motor	150 s / 90°
Running time fail-safe	<20 s @ -2050°C / <60 s @ -30°C
Sound power level, motor	30 dB(A)
Mechanical interface	Universal shaft clamp 816 mm
Position indication	Mechanical
Service life	Min. 60'000 fail-safe positions

Safety data

Protection class IEC/EN	III, Safety Extra-Low Voltage (SELV)
Degree of protection IEC/EN	IP54
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
Type of action	Type 1.B
Rated impulse voltage supply / control	0.8 kV
Pollution degree	3
Ambient humidity	Max. 95% RH, non-condensing
Ambient temperature	-3050°C [-22122°F]
Storage temperature	-4080°C [-40176°F]
Servicing	maintenance-free
Weight	1.4 kg

Weight	1.4



Safety notes



- This device has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application, especially 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 device and that it is ensured that the ambient
 conditions remain within the thresholds according to the data sheet at any time.
- 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 situation 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 activated with a 3-point signal. The actuator 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 antirotation 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

Electrical accessories	Description	Туре
	Auxiliary switch 2 x SPDT	S2A-F
	Feedback potentiometer 200 Ω	P200A-F
	Feedback potentiometer 1 k Ω	P1000A-F
Mechanical accessories	Description	Туре
	Shaft extension 170 mm Ø10 mm for damper shaft Ø 616 mm	AV6-20
	Shaft clamp reversible, clamping range Ø1620 mm	K6-1
	Ball joint suitable for damper crank arm KH8 / KH10, Multipack 10 pcs.	KG10A
	Ball joint suitable for damper crank arm KH8, Multipack 10 pcs.	KG8
	Damper crank arm Slot width 8.2 mm, clamping range Ø1018 mm	KH8
	Actuator arm, clamping range Ø816 mm, Slot width 8.2 mm	KH-LF
	Angle of rotation limiter, with end stop	ZDB-LF
	Form fit adapter 8x8 mm	ZF8-LF
	Mounting kit for linkage operation for flat installation	ZG-LF1
	Mounting kit for linkage operation for side installation Slot width 6.2 mm	ZG-LF3
	Anti-rotation mechanism 180 mm, Multipack 20 pcs.	Z-ARS180L

Electrical installation



Supply from isolating transformer.

Parallel connection of other actuators possible. Observe the performance data.

Wire colours:

1 = black

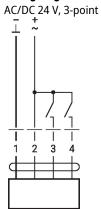
2 = red

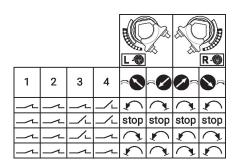
3 = white

4 = white



Wiring diagrams

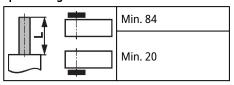




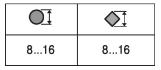
18.5

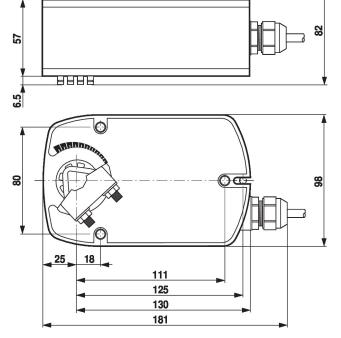
Dimensions

Spindle length

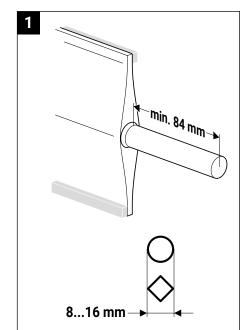


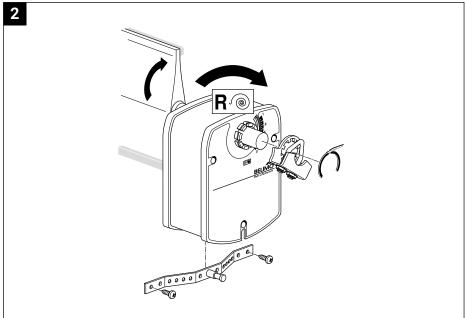
Clamping range

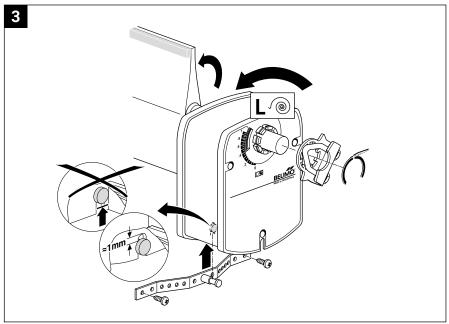


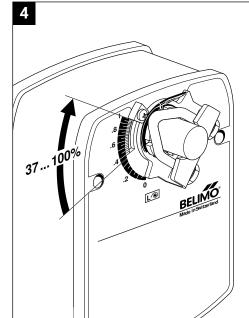


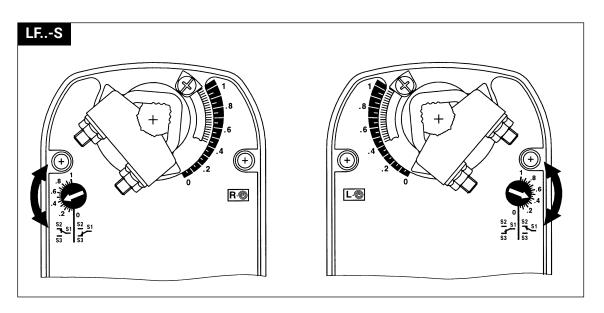








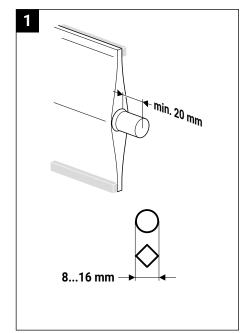


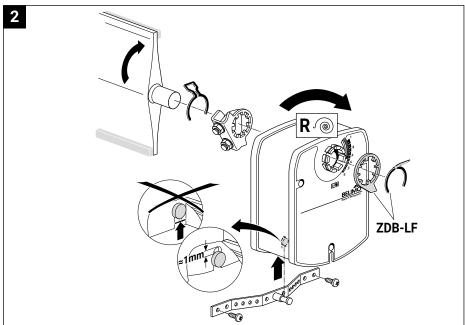


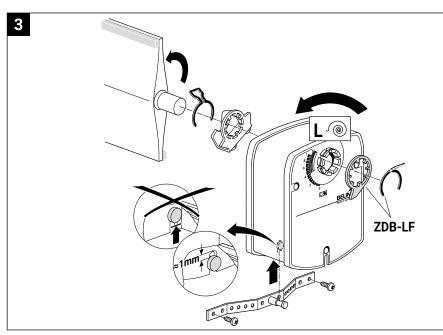


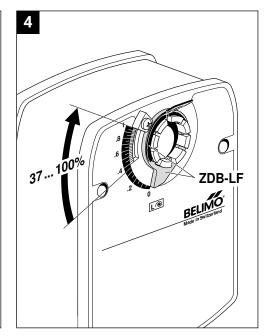
www.belimo.com/safety

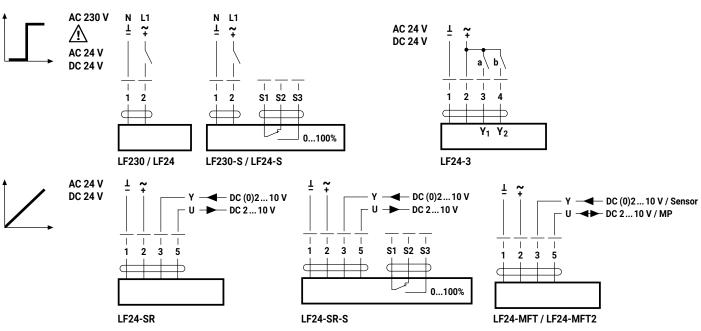












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