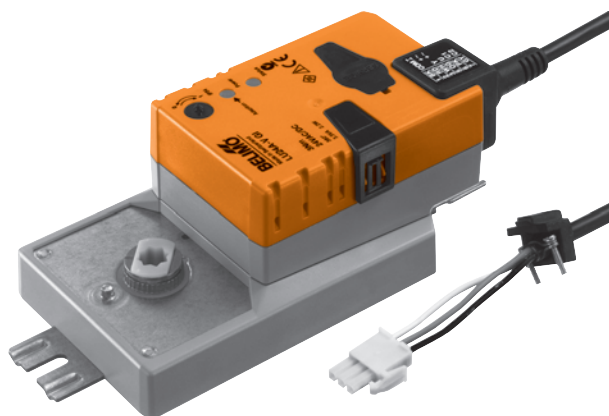


Ready-to-connect damper actuator for VAV and CAV units in ventilation and air conditioning systems in buildings

- For air dampers up to approx. 0.6 m<sup>2</sup>
- Torque 3 Nm
- Compatible with Belimo VAV controller VR..
- Spindle driver: Positive fit  
8 mm or 12 mm (without insert)


**Technical data**

<b>Electrical data</b>	Nominal voltage	AC 24 V, 50/60 Hz / DC 24 V (of controller VR..)	
	Power consumption	In operation	2.5 W @ nominal torque
		At rest	1.2 W
	For wire sizing	5 VA	
	Connection	0.5 m cable with 3-pin plug (compatible with VR.. controller)	
<b>Functional data</b>	Torque (nominal torque)	Min. 3 Nm @ nominal voltage	
	Control	6 V ±4 V (from VR.. controller)	
	Position accuracy	±5%	
	Direction of rotation	Can be selected with 0 / 1 switch	
	Direction of motion at Y = 2 V	At switch position 0 ↺ resp. 1 ↻	
	Manual override	Gearing latch disengaged with pushbutton, can be locked	
	Angle of rotation	Max. 1°440°↔ (with angle of rotation limiter ZDB-LU adjustable 0 ... 330°↔)	
	Running time	90 s / 360°↔	
	Sound power level	Max. 35 dB (A)	
	Adaption	Adaptation of the control range to the damper angle of rotation	
	Display	LED display for 24 V supply and status	
	Spindle driver	Form-fit 12 mm or 8 mm (with insert)	
	<b>Safety</b>	Protection class	III Safety extra-low voltage
Degree of protection		IP54 in all mounting positions	
EMC		CE according to 2004/108/EC	
Mode of operation		Type 1 (EN 60730-1)	
Rated impulse voltage		0,8 kV (EN 60730-1)	
Control pollution degree		3 (EN 60730-1)	
Ambient temperature		-30 ... +50 °C	
Non-operating temperature		-40 ... +80 °C	
Ambient humidity		95% r.H., non-condensating (EN 60730-1)	
Maintenance		Maintenance-free	
<b>Dimensions / weight</b>	Dimensions	See «Dimensions» on page 2	
	Weight	Approx. 440 g	

**Safety notes**


- This actuator is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.
- 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.
- The cable must not be removed from the device.
- Self adaptation is necessary when the system is commissioned (press the pushbutton adaptation)
- When calculating the required torque, the specifications supplied by the damper manufacturers (cross section, design, installation site), and the air flow conditions must be observed.
- The device contains electrical and electronic components and is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.

**Product features**

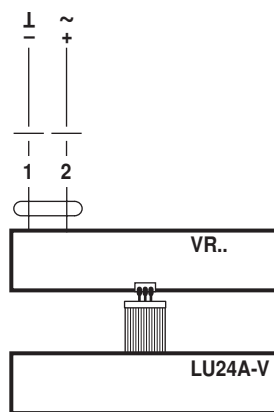
- Mode of operation** The actuator is controlled with a Belimo VAV controller VR.. and travels to the position defined by the control signal.
- Simple direct mounting** Form-fit direct mounting on a 12 mm or 8 mm damper spindle (without insert). The actuator can also be optionally equipped with a 10 mm form fit or an 8 ... 12 mm clamp (see «Accessories»).
- Manual override** Manual override with pushbutton possible (the gear is disengaged for as long as the button is pressed or remains locked).
- Adjustable angle of rotation** The angle of rotation of the full-rotation actuator can be adjusted in 10° increments between 0 and 330° with mechanical end stops (see «Accessories»).
- Adaptation** Angle-of-rotation sensing and adaptation of the control range. Triggered by pressing a button on the actuator, with LEDs for status display. Self adaptation is necessary when the system is commissioned.
- High functional reliability** The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.

**Accessories**

	Description
<b>Mechanical accessories</b>	Form-fit insert 10 x 10 mm ZF10-LUA
	Clamp with 8 ... 12 mm clamping range and anti-rotation strap K-LU
	Angle or rotation limiter 0 ... 330° ZDB-LU

**Electrical installation**

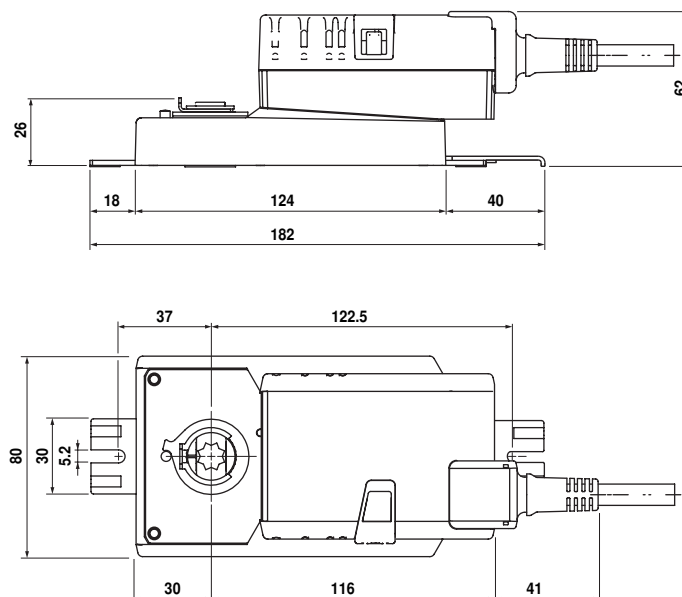
Wiring diagram



The ready-to-connect operating unit is connected to the VR.. controller with the 3-pin plug.

**Dimensions [mm]**

Dimensional drawings



Damper spindle	Length	■ I
	Min. 20	8 or 12 (without insert)