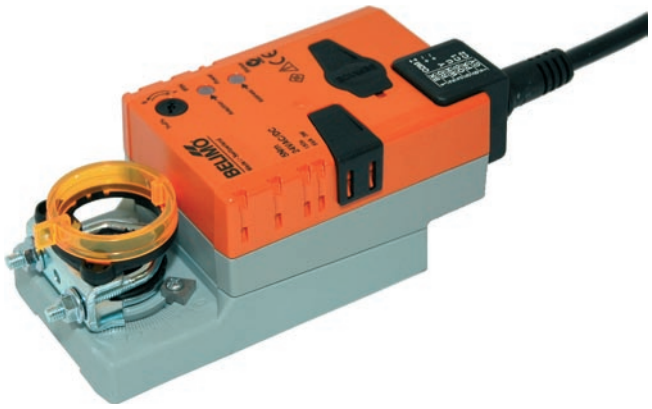
BELIMO

Technical data sheet — Damper actuator LM24A-V

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

- **Air control damper size up to approx. 1 m²**
- **Torque 5 Nm**
- **Compatible with Belimo VAV controller VR..**



Technical data

Electrical data	Nominal voltage		AC 24 V, 50/60 Hz / DC 24 V (from VR.. controller)
	Power consumption	In operation	2 W @ nominal torque
		At rest	1.2 W
		For wire sizing	3.5 VA
	Connection		0.5 m cable with 3-pin plug (compatible with VR.. controller)
Functional data	Torque (nominal torque)		Min. 5 Nm @ nominal voltage
	Control		6 V ±4 V (from VR.. controller)
	Uni-rotation		±5%
	Direction of rotation		Can be selected with 0 / 1 switch
	Direction of motion at Y = 2 V		In switch position 0 ↶ or 1 ↷
	Manual override		Disengaging the gearing latch by means of a pushbutton, self-resetting
	Angle of rotation		Max. 95°∢, can be limited at both ends with adjustable mechanical end stops
	Running time		150 s
	Sound power level		Max. 35 dB (A)
	Position indication		Mechanical, plug-on
	Adaptation		Adaptation of the control range to the damper angle of rotation
	Display		LED display for 24 V supply and states
Safety	Protection class		**III** Safety extra-low voltage
	Degree of protection		IP54 in all mounting positions
	EMC		CE according to 89/336/EEC
	Mode of operation		Type 1 (in acc. with EN 60730-1)
	Rated impulse voltage		0.8 kV (in acc. with EN 60730-1)
	Control pollution degree		3 (in acc. with EN 60730-1)
	Ambient temperature range		–30 ... +50°C
	Non-operating temperature range		–40 ... +80°C
	Ambient humidity range		95% RH, non-condensating (EN 60730-1)
	Maintenance		Maintenance-free
Dimensions / weight	Dimensions		See „Dimensions“ on page 2
	Weight		Approx. 440 g

Safety notes

⚠

- **The damper 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. All applicable legal or institutional installation regulations must be complied with.**
- **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 is not allowed to be removed from the unit.**
- **When the required torque is calculated, the cross section, design and installation site as well as 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. The local and currently 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
Simple direct mounting on the damper spindle with a universal spindle clamp, supplied with an anti-rotation strap to prevent the actuator from rotating.

Manual override
Manual override with self-resetting pushbutton possible (the gear is disengaged for as long as the button is pressed).

Adjustable angle of rotation
Adjustable angle of rotation with mechanical end stops.

Adaptation
Angle-of-rotation sensing and adaptation of the control range. Triggered by pressing a button on the actuator, with LEDs for status display.

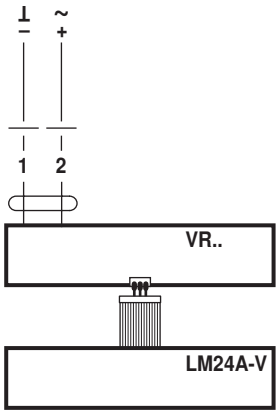
High functional reliability
The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.

Accessories

	Description	Data sheet
Electrical accessories	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..
Mechanical accessories	Spindle extension AV6-20	T2 - Z-LM..A..

Electrical installation

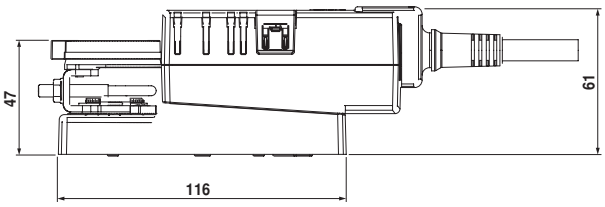
Wiring diagram

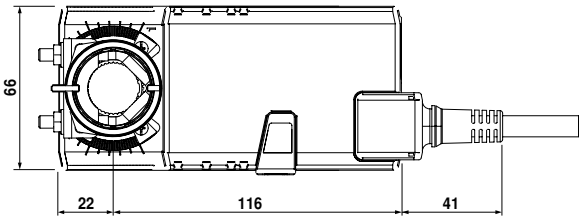


The ready-to-connect operating unit is connected to the VR.. controller with the 3-pin plug.

Dimensions [mm]

Dimensional diagrams





Damper spindle	Length	⊙⁞◇
	Min. 37	6 ... 20