

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

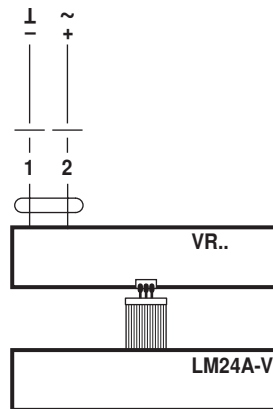
Mode of operation	The actuator is controlled with a Belimo VAV controller VR.. and travels to the position defined by the control signal.
Simple direct mounting	Simple direct mounting on the damper spindle with a universal spindle clamp, supplied with an anti-rotation strap to prevent the actuator from 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

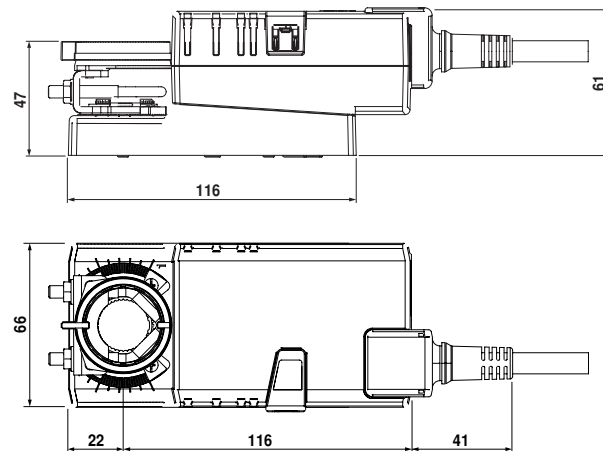
Wiring diagram




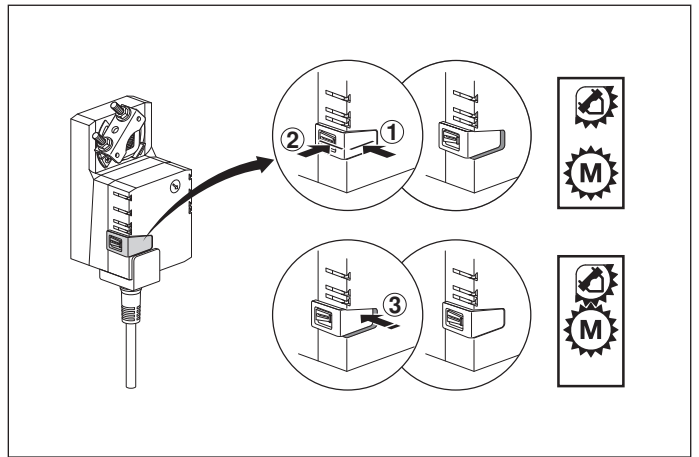
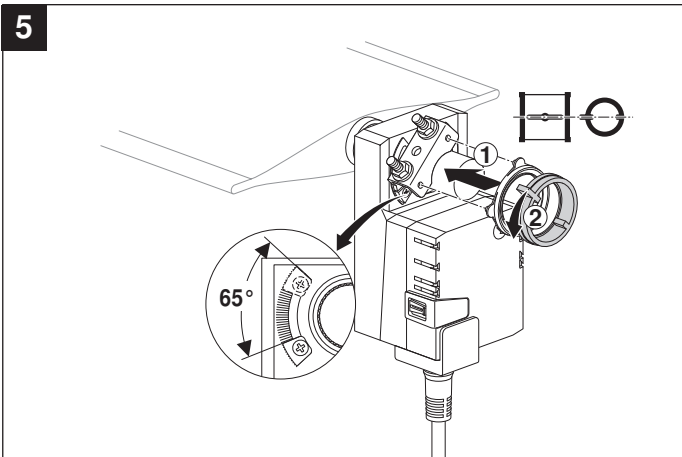
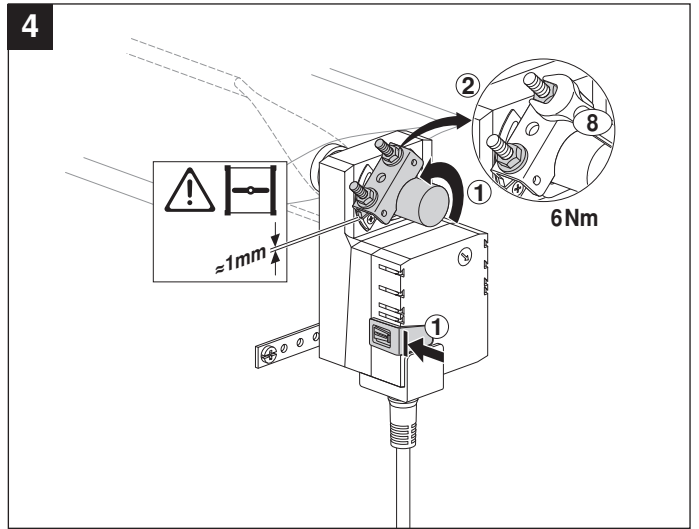
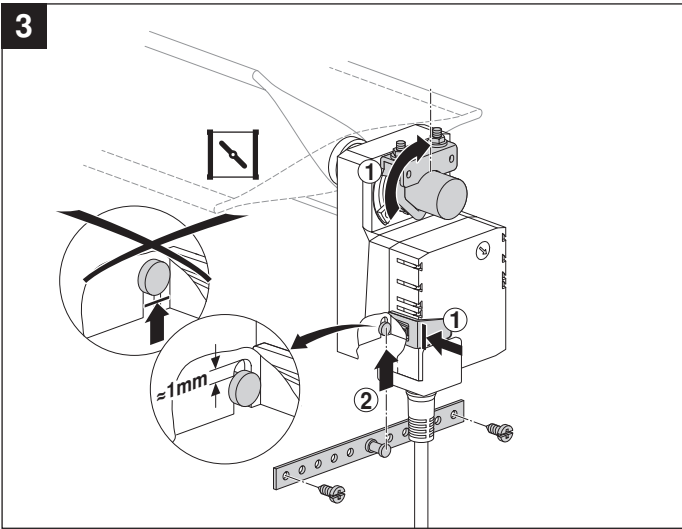
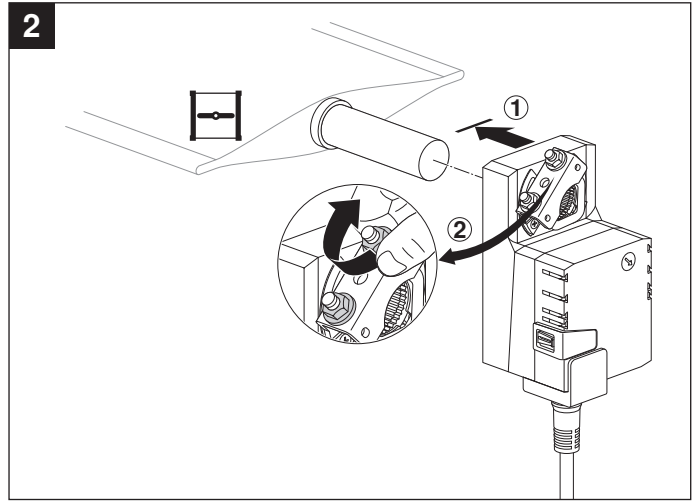
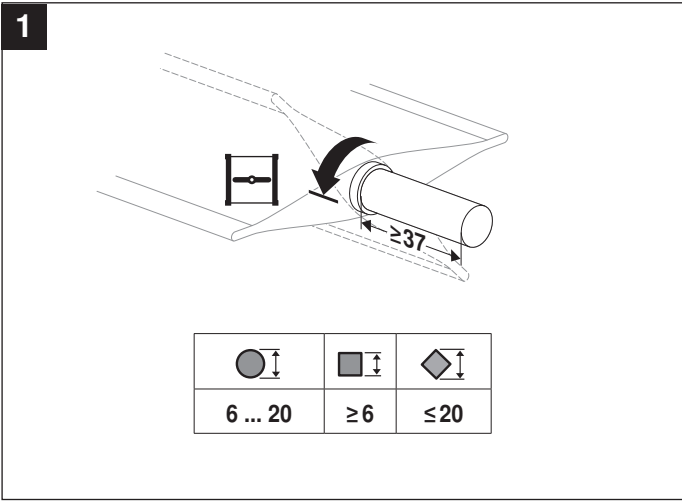
The ready-to-connect operating unit is connected to the VR.. controller with the 3-pin plug.

Dimensions [mm]

Dimensional diagrams



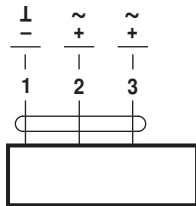
Damper spindle	Length	
	Min. 37	6 ... 20



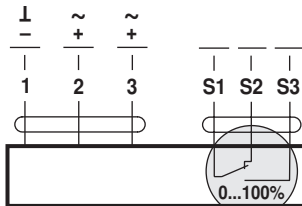


AC 24 V / DC 24 V

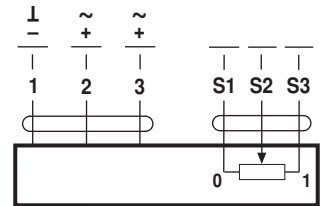
DC 48 ... 110 V
(LM72A..)



LM24A.. LMC24A..
LM72A.. TMC24A..

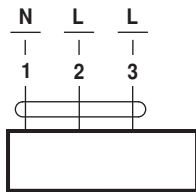


LM24A-S.. TMC24A-S..
LM72A-S..

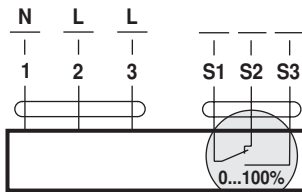


LM24AP5..

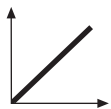
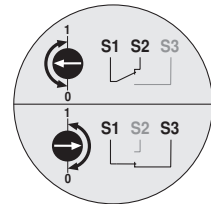
AC 100 ... 240 V



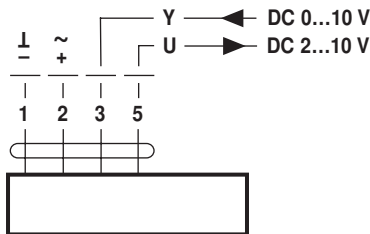
LM230A.. LMC230A..
TMC230A..



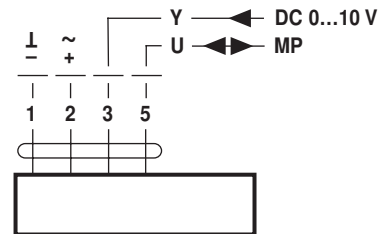
LM230A-S.. TMC230A-S..



AC 24 V / DC 24 V

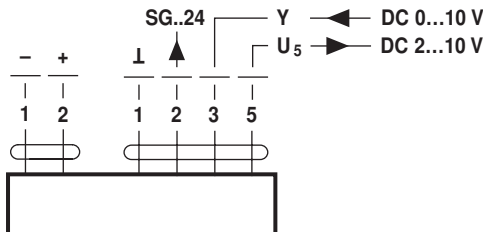


LM24A-SR.. LMC24A-SR..
LM24A-MF.. TMC24A-SR..



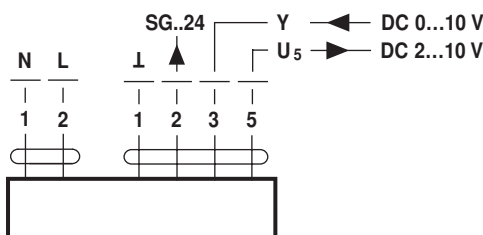
LM24A-MP..

DC 48 ... 110 V
(LM72A-SR..)



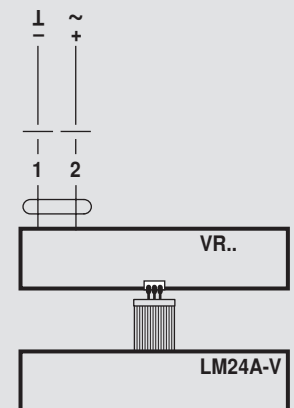
LM72A-SR..

AC 100 ... 240 V



LM230ASR.. TMC230ASR..

AC 24 V / DC 24 V
(LM24A-V / VR..)



LM24A-V / VR..