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BELIMO

LM24A-SR damper actuator

LM24A-SR

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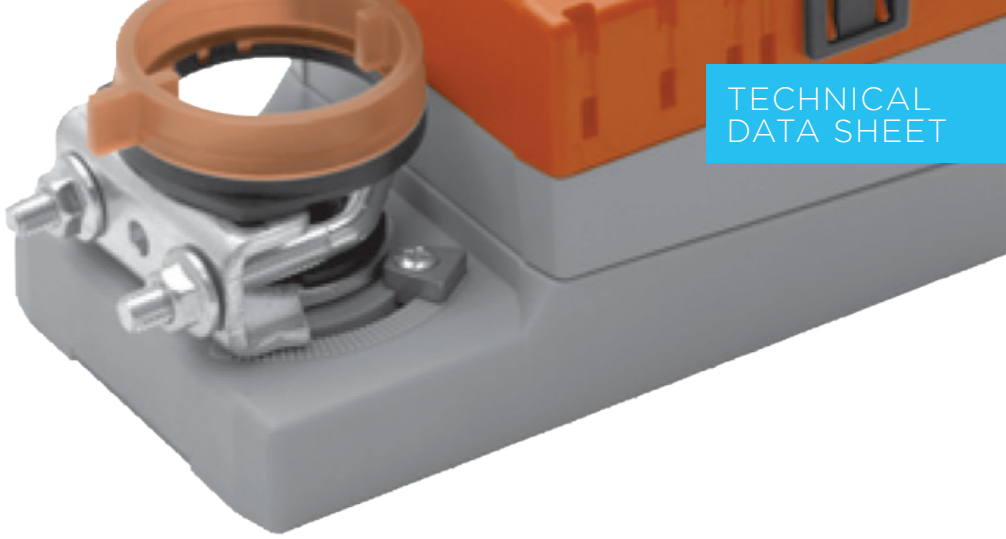
TECHNICAL DATA SHEET



BELIMO

LM24A-SR DAMPER ACTUATOR

Overview

Damper actuator for operating air control dampers in ventilation and air-conditioning systems for building services installations for air dampers up to approx. 1m². Torque 5 Nm. Nominal voltage AC/DC 24V. Control: modulating DC 0 ... 10 V, position feedback DC 2 ... 10 V.

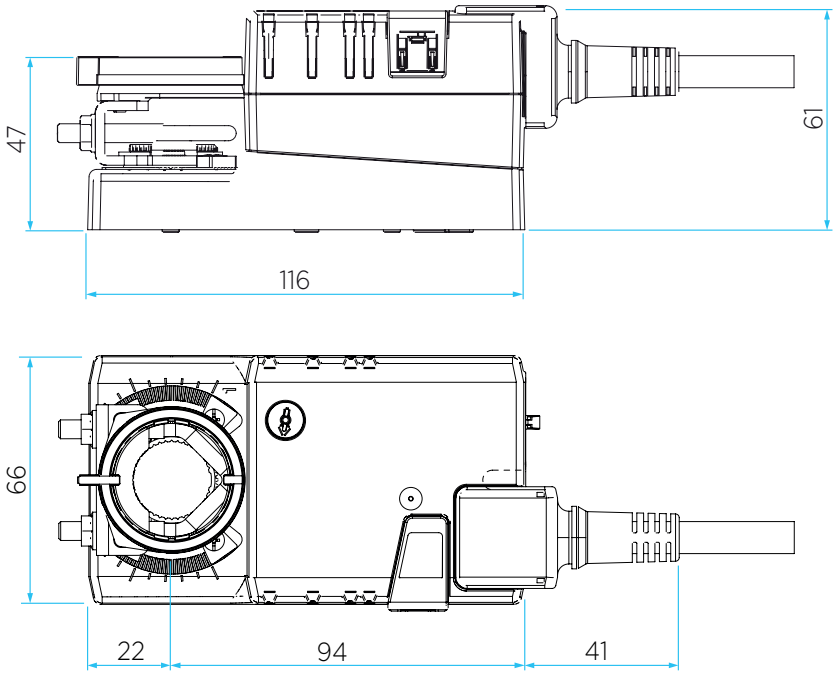
Technical Data

Technical Data		
Electrical Data	Nominal Voltage	AC 24 V, 50/60 Hz / DC 24 V
	Nominal Voltage Range	AC/DC 19.2 ... 28.8 V
	Power Consumption - In Operation - At Rest - For Wire Sizing	1 W @ nominal torque 0.4 W 2 VA
	Connection	Cable 1m, 4 x 0.75mm²
Functional Data	Torque (Nominal Torque)	Min. 5 Nm @ nominal voltage
	Control - Control Signal Y - Working Range	DC 0 ... 10 V, typical input impedance 100 kff DC 2 ... 10 V
	Position Feedback (Measuring Voltage)	DC 2 ... 10 V, max. 1 mA
	Position Accuracy	35%
	Direction of Rotation	Reversible with switch 0 / 1
	Direction of Rotation at Y = 0 V	At switch position 0 ↶ resp. 1 ↷
	Manual Override	Gearing latch disengaged with pushbutton, self-resetting
	Angle of Rotation	Max. 95° ∢, limited on both sides by means of adjustable, mechanical end stops
	Running Time	150s
	Sound Power Level	Max. 35 dB (A)
	Position Indication	Mechanical, pluggable
Safety	Protection Class	III Safety extra-low voltage
	Degree of Protection	IP54 in any mounting position
	EMC	CE according to 89/336/EEC
	Mode of Operation	Type 1 (to EN 60730-1)
	Ambient Temperature Range	-30 ... +50°C
	Non-Operating Temperature	-40 ... +80°C
	Ambient Humidity Range	95% r.H., non-condensating (EN 60730-1)
	Maintenance	Maintenance-free
Dimensions / Weight	Dimensions	See **Product Specifications** on page 3
	Weight	Approx. 500g

Safety Notes

- The actuator is not allowed to be used outside the specified field of application, especially in aircraft or any other form of air transport.
- Assembly must be carried out by 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.
- 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.

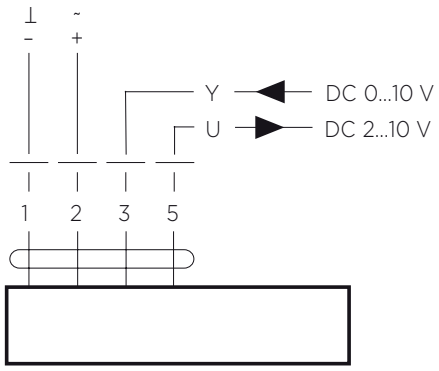
Product Specifications



Damper Spindle	
Length	min. 37
⬡	6 ... 20

Product Specifications	
Mode of Operation	The actuator is controlled by means of a standard control signal DC 0 ... 10 V. It opens to the position dictated by this signal. The measuring voltage U allows the damper position (0 ... 100%) to be electrically indicated and serves as a follow-up control signal for other actuators.
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 operation is possible with the self-resetting pushbutton (the gearing latch remains disengaged as long as the pushbutton is pressed).
Adjustable Angle of Rotation	Adjustable angle of rotation with mechanical end stops.
High Functional Reliability	The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.

Electrical Installation



OPEN-CLOSE CONTROL WIRING DIAGRAM

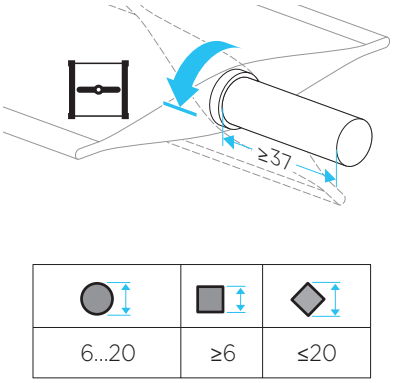
Note -

- Connect via safety isolation transformer.
- Other actuators can be connected in parallel. Please note theperformance data.

Accessories

	Description	Data sheet
Electrical Accessories	**Auxiliary Switch S..A..**	T2 - S..A..
	Feedback Potentiometer P..A..	T2 - P..A..
	Range Controller SBG24	T2 - SBG24
	Positioner SG..24	T2 - SG..24
	Digital Position Indication ZAD24	T2 - ZAD24
Mechanical Accessories	**Shaft Extension AV6-20**	T2 - Z-LM..A..

Technical Drawings



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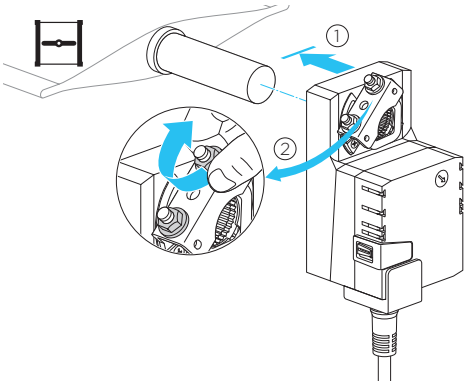

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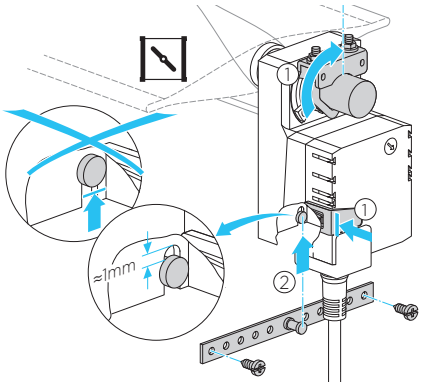

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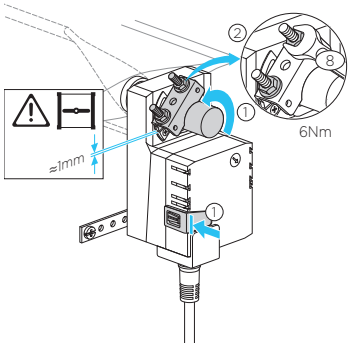

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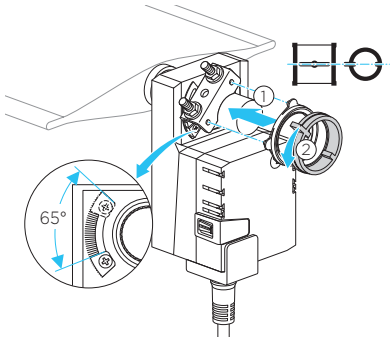

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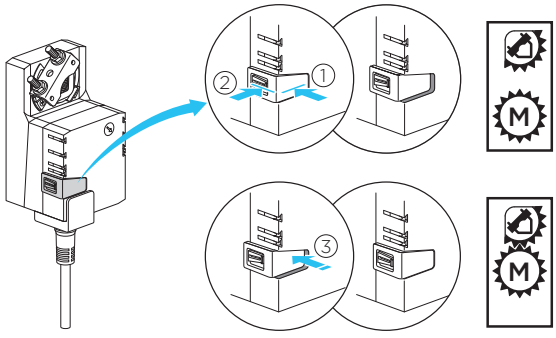

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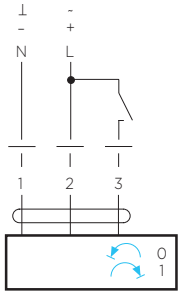
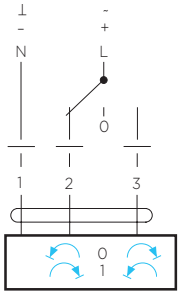
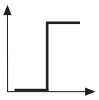
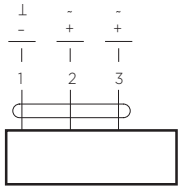


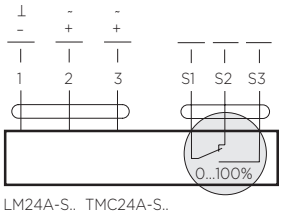




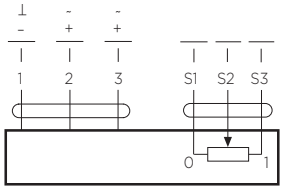
AC 24 V / DC 24 V
DC 48...110 V
(LM72A..)



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

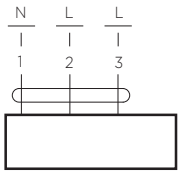


LM24A-S.. TMC24A-S..
LM72A-S..

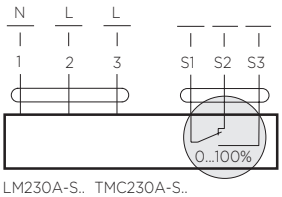


LM24AP5..

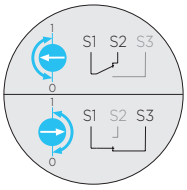
AC 100...240 V

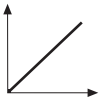


LM230A.. LMC230A..
TMC230A..

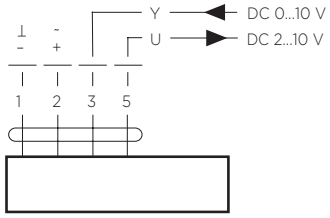


LM230A-S.. TMC230A-S..

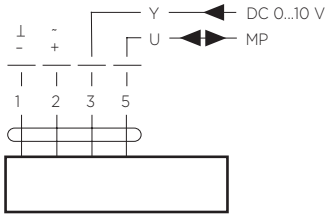




AC 24 V / DC 24 V

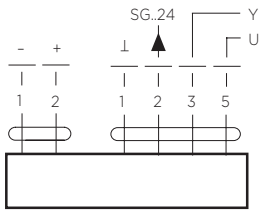


LM24A-SR.. LMC24A-SR..
LM24A-MF.. TMC24A-SR..



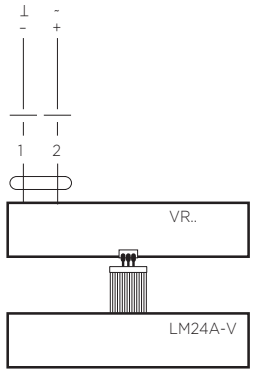
LM24A-MP..

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



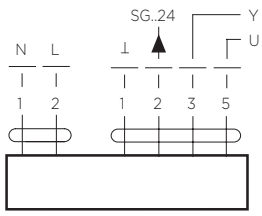
LM72A-SR..

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



LM24A-V / VR..

AC 100...240 V



LM230ASR.. TMC230ASR..