

Damper actuator for operating air control dampers in ventilation and air-conditioning systems for building services installations

- For air control dampers up to approx. 1 m²
- Torque 5 Nm
- Nominal voltage AC/DC 24 V
- Control: modulating DC 0 ... 10 V, position feedback DC 2 ... 10 V
- Running time 35 s


Technische Daten

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	1.5 W @ nominal torque
		At rest	0.4 W
	For wire sizing	3 VA	
	Connection	Cable 1 m, 4 x 0.75 mm ²	
Functional data	Torque (nominal torque)	Min. 5 Nm @ nominal voltage	
	Control Control signal Y	DC 0 ... 10 V, typical input impedance 100 kΩ	
		Working range	DC 2 ... 10 V
	Position feedback (Measuring voltage)	DC 2 ... 10 V, max. 1 mA	
	Position accuracy	±5%	
	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	35 s	
Sound power level	Max. 45 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 «Dimensions» on page 2	
	Weight	Approx. 500 g	

Safety notes


- The damper 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 features

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.

Accessories

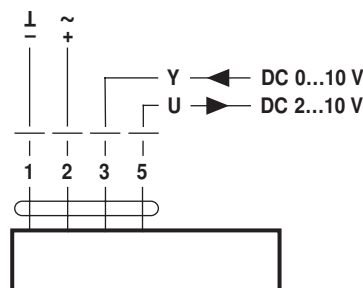
	Description	Data sheet
Electrical accessories	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..
	Range controller SBG24	T2 - SBG24
	Positioner SG..24	T2 - SG..24
	Digital position indication ZAD24	T2 - ZAD24
Mechanical accessories	Shaft extension AV6-20	T2 - Z-LM..A..

Electrical installation

Wiring diagrams

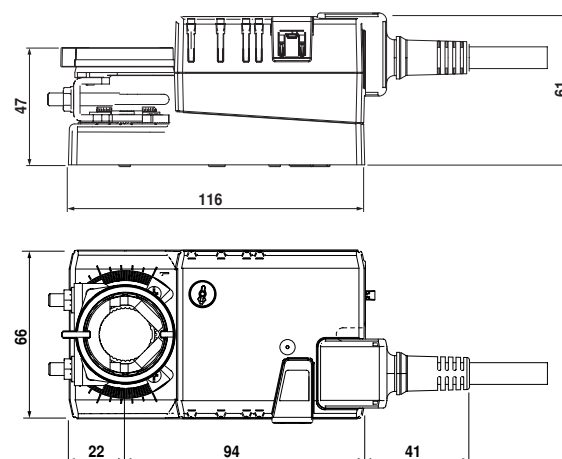
Notes

- Connection via safety isolating transformer.
- Other actuators can be connected in parallel. Please note the performance data.

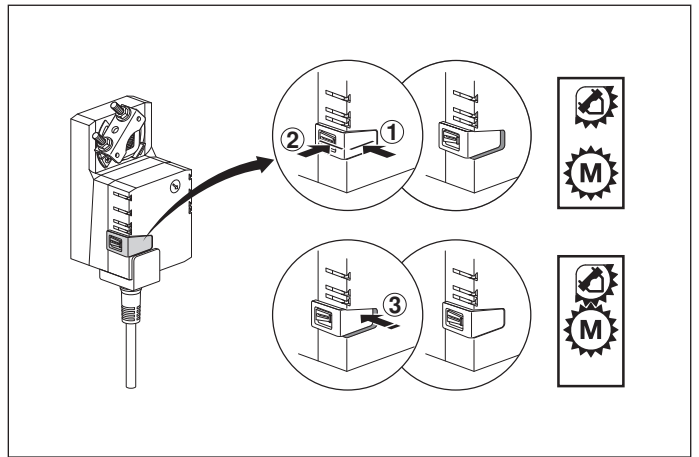
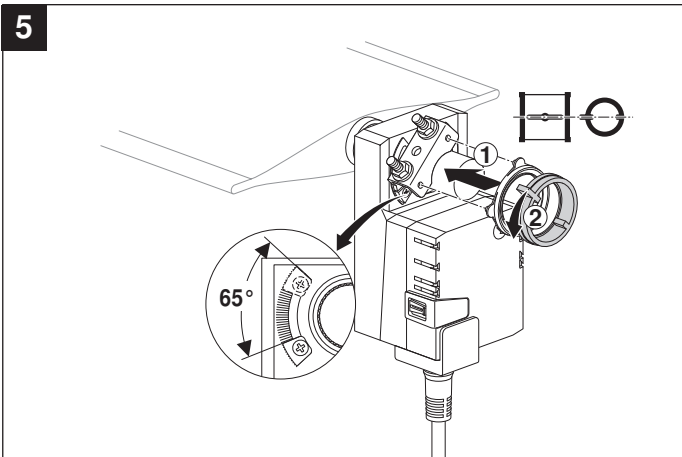
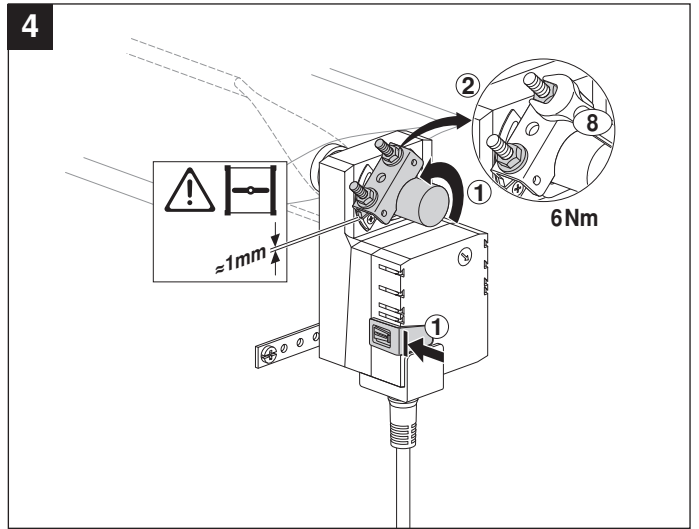
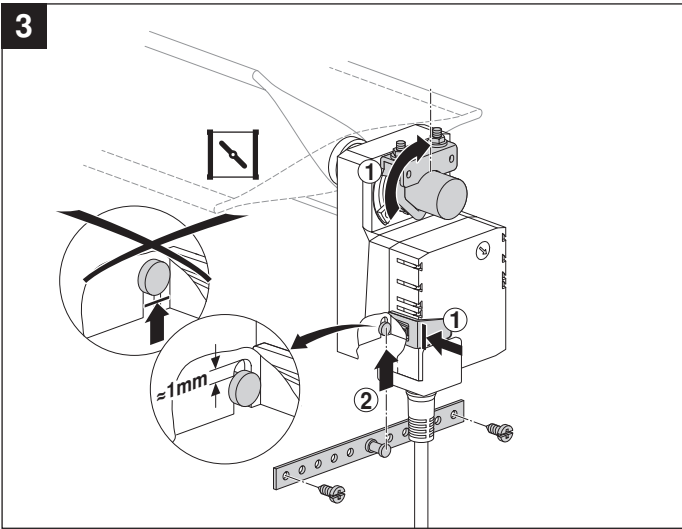
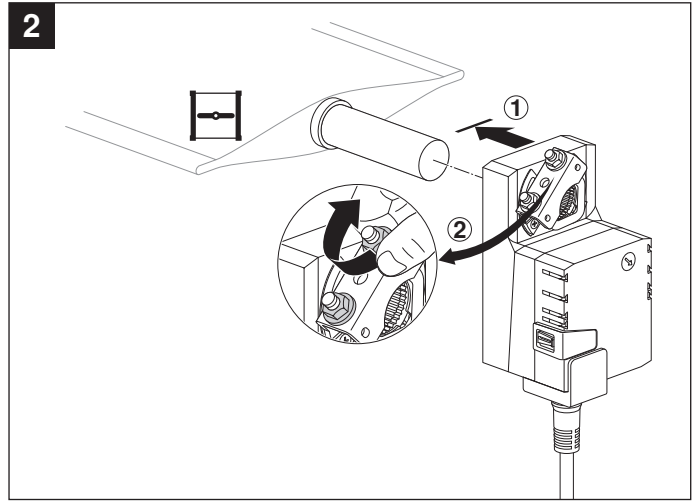
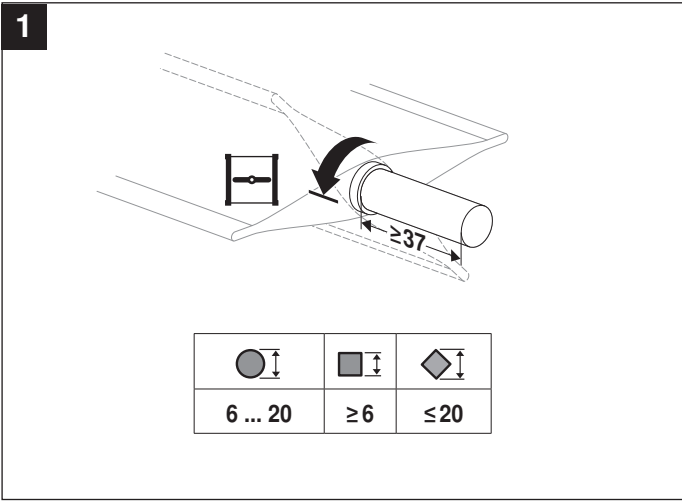


Dimensions [mm]

Dimensional drawings



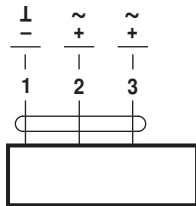
Damper spindle	Length	
	min. 37	6 ... 20



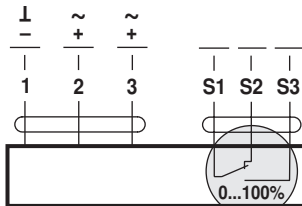


AC 24 V / DC 24 V

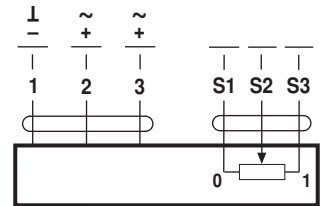
DC 48 ... 110 V
(LM72A..)



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

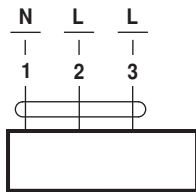


LM24A-S.. TMC24A-S..
LM72A-S..

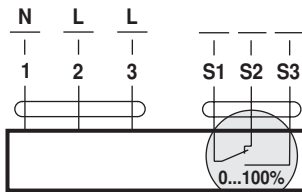


LM24AP5..

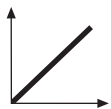
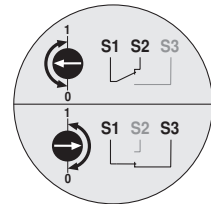
AC 100 ... 240 V



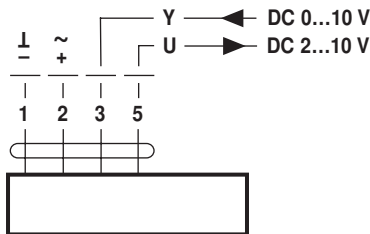
LM230A.. LMC230A..
TMC230A..



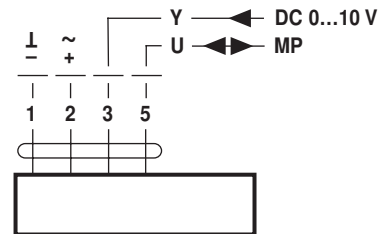
LM230A-S.. TMC230A-S..



AC 24 V / DC 24 V

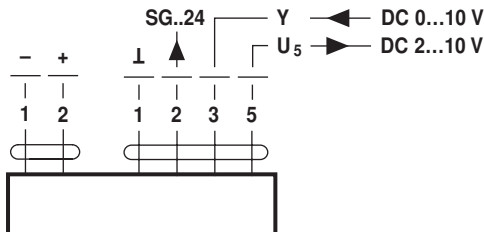


LM24A-SR.. LMC24A-SR..
LM24A-MF.. TMC24A-SR..



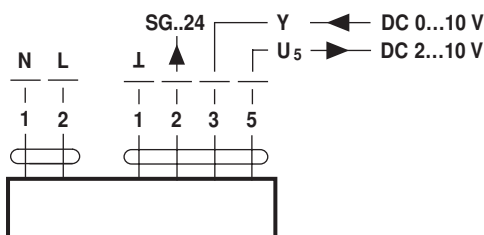
LM24A-MP..

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



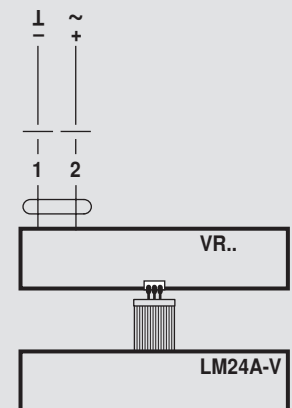
LM72A-SR..

AC 100 ... 240 V



LM230ASR.. TMC230ASR..

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



LM24A-V / VR..