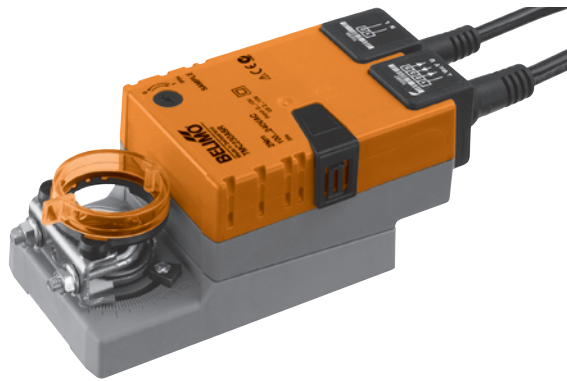


Modulating damper actuator for adjusting air dampers in ventilation and air-conditioning systems for building services installations

- For air dampers up to approx. 0.4 m²
- Torque 2 Nm
- Nominal voltage AC 100 ... 240 V
- Control: modulating DC 0 ... 10 V
- Position feedback DC 2 ... 10 V
- Running time 35 s



Technical data

Electrical data	Nominal voltage	AC 100 ... 240 V, 50/60 Hz	
	Nominal voltage range	AC 85 ... 265 V	
	Power consumption	In operation	2 W @ nominal torque
		At rest	1 W
	For wire sizing	3.5 VA	
Connection	Power supply	Cable 1 m, 2 x 0.75 mm ²	
	Signals	Cable 1 m, 4 x 0.75 mm ²	
Functional data	Torque (nominal torque)	≥2 Nm @ nominal voltage	
	Control	Control signal Y	DC 0 ... 10 V, typical input impedance 100 kΩ
		Operating range	DC 2 ... 10 V
	Position feedback (Measuring voltage U)	DC 2 ... 10 V, ≤1 mA	
	Auxiliary supply	DC 24 V ±30%, ≤10 mA	
	Position accuracy	±5%	
	Direction of rotation	Reversible with switch 0 ↺ or 1 ↻, respectively	
	Direction of rotation at Y = 0 V	At switch position ↺ or ↻, respectively	
	Manual override	Gearing latch disengaged with pushbutton, can be locked	
	Angle of rotation	Max. 95°↻, can be limited at both ends with adjustable mechanical end stops	
	Running time	35 s / 90°↻	
	Sound power level	≤35 dB (A)	
	Position indication	Mechanical, pluggable	
Safety	Protection class	II Totally insulated <input type="checkbox"/>	
	Degree of protection	IP54	
		NEMA 2, UL Enclosure Type 2	
	EMC	CE according to 2004/108/EC	
Low voltage directive	CE according to 2006/95/EC		
Certification	Certified to IEC/EN 60730-1 and IEC/EN 60730-2-14 cULus according to UL 60730-1A and UL 60730-2-14 and CAN/CSA E60730-1:02		
Mode of operation	Type 1		
Rated impulse voltage	4 kV		
Control pollution degree	3		
Ambient temperature range	-30 ... +50 °C		
Non-operating temperature	-40 ... +80 °C		
Ambient humidity range	95% r.H., non-condensating		
Maintenance	Maintenance-free		
Dimensions / Weight	Dimensions	See «Dimensions» on page 2	
	Weight	Approx. 700 g	

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.
- **Caution: Power supply voltage!**
- It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during installation.
- 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.

Safety notes

(Continued)

- 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 override with push-button possible (the gear is disengaged for as long as the button is pressed or remains locked).
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

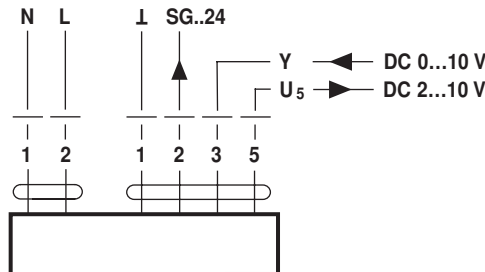
	Description	Data sheet
Electrical accessories	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..
	Positioner SGA24, SGE24 und SGF24	T2 - SG..24
Mechanical accessories	Various accessories	T2 - Z-TM..A../LM..A..

Electrical installation

Wiring diagram

Notes

- Caution Power supply voltage !
- Other actuators can be connected in parallel. Please note the performance data.

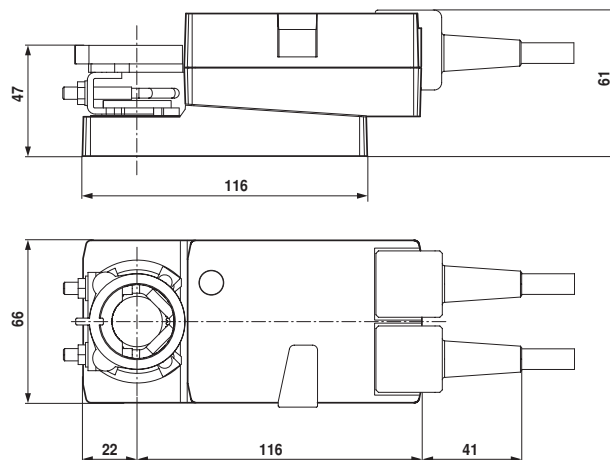


cable colours

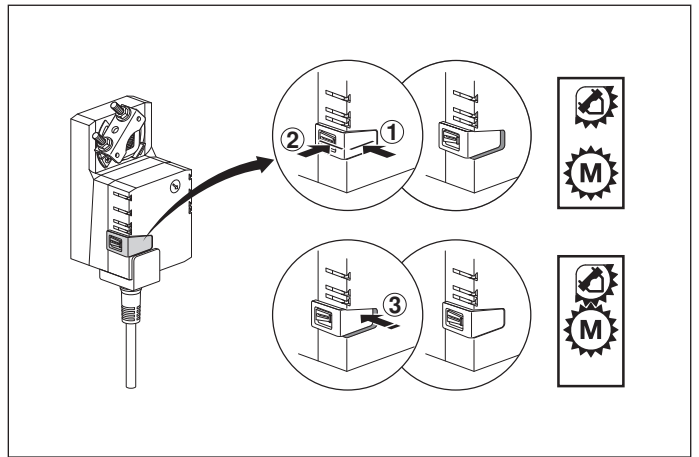
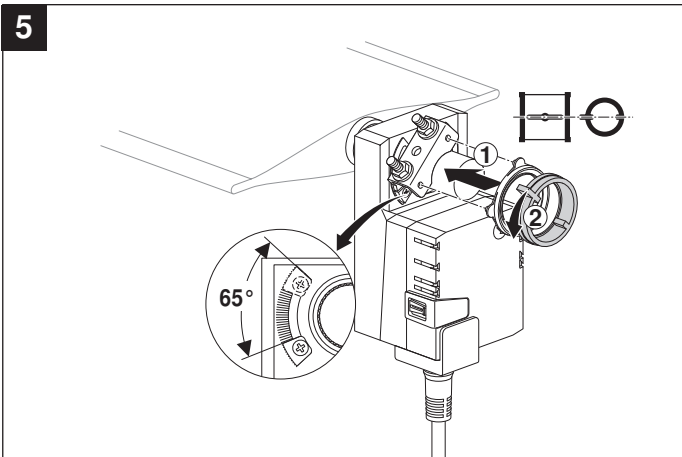
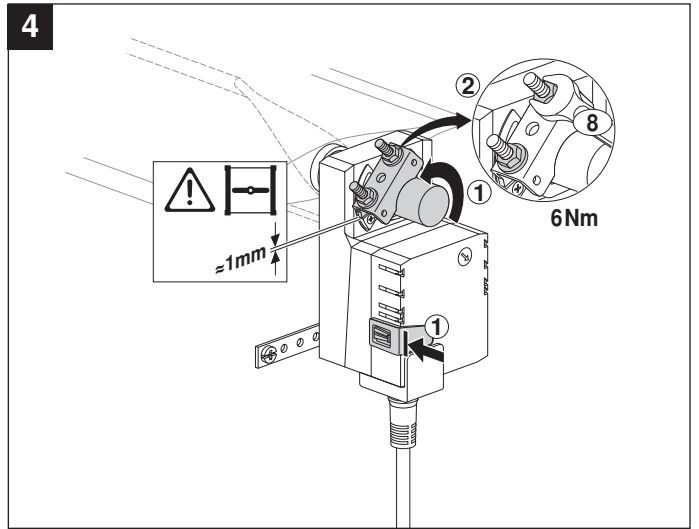
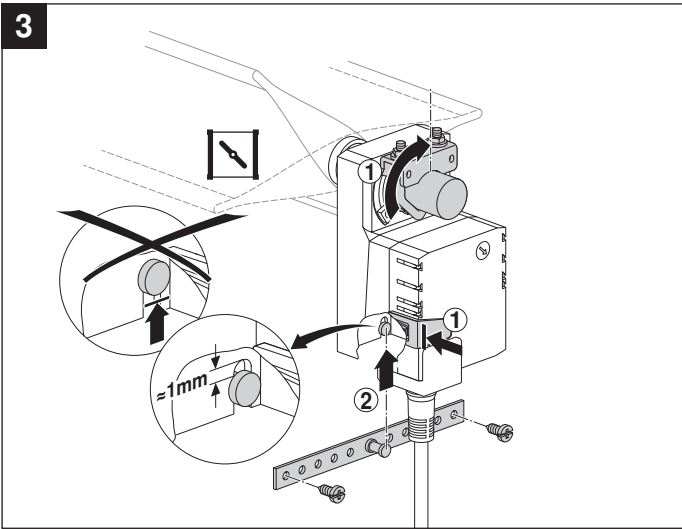
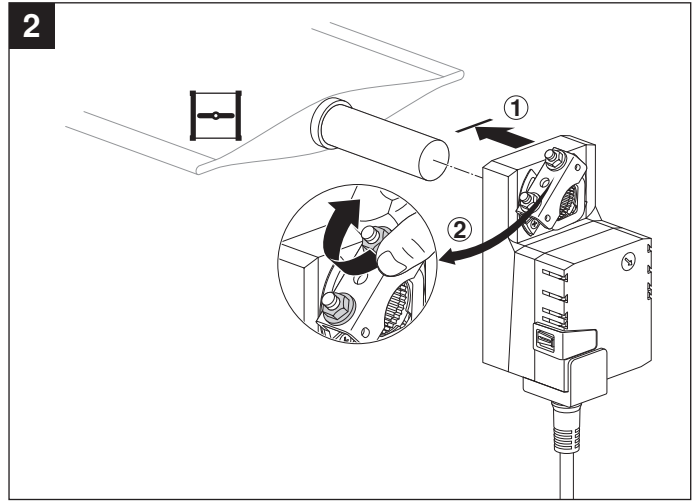
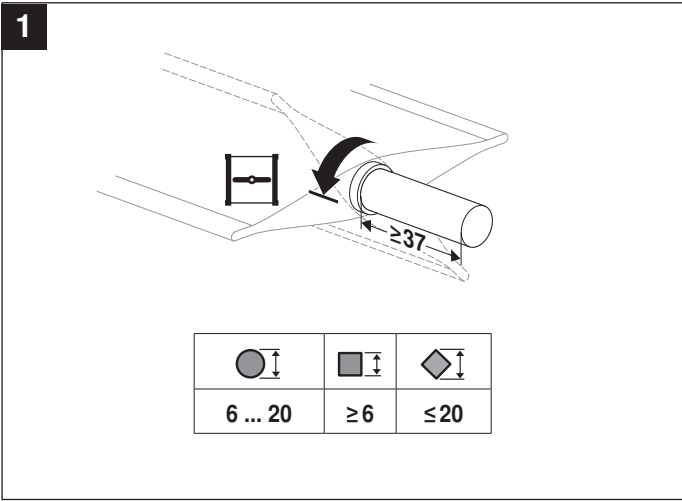
- 1=blue
- 2=brown
- 1=black
- 2=red
- 3=white
- 5=orange

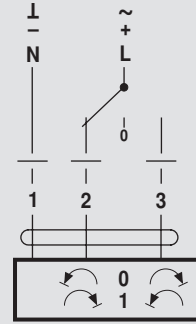
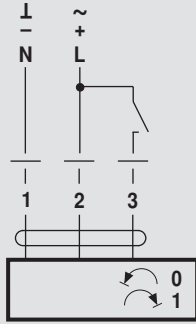
Dimensions [mm]

Dimensional drawings



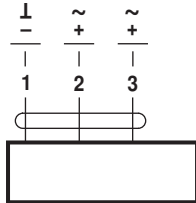
Damper spindle	Length			
	≥37	6 ... 20	≥6	≤20



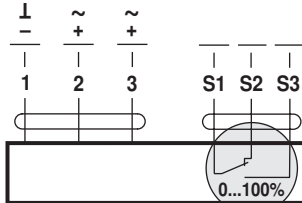


AC 24 V / DC 24 V

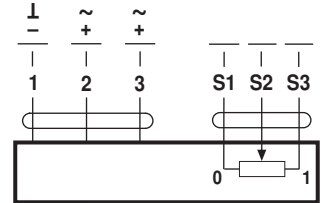
DC 48 ... 110 V
(LM72A..) ⚠



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

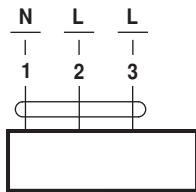


LM24A-S.. TMC24A-S..
LM72A-S..

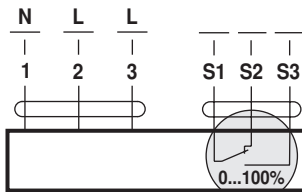


LM24AP5..

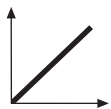
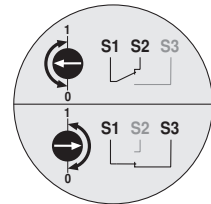
AC 100 ... 240 V ⚠



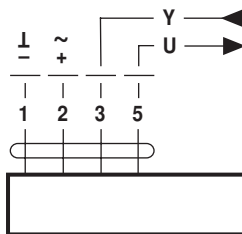
LM230A.. LMC230A..
TMC230A..



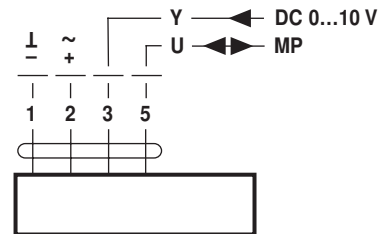
LM230A-S.. TMC230A-S..



AC 24 V / DC 24 V

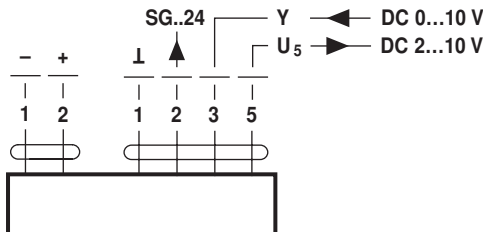


LM24A-SR.. LMC24A-SR..
LM24A-MF.. TMC24A-SR..



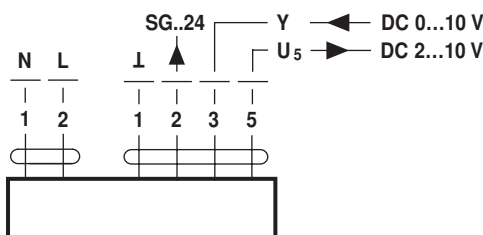
LM24A-MP..

DC 48 ... 110 V
(LM72A-SR..) ⚠



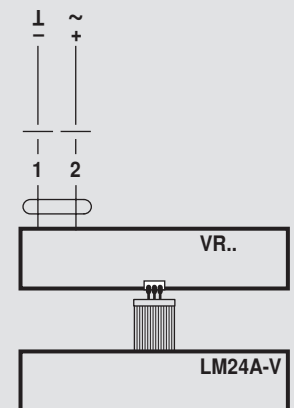
LM72A-SR..

AC 100 ... 240 V ⚠



LM230ASR.. TMC230ASR..

AC 24 V / DC 24 V
(LM24A-V / VR..) ⚠



LM24A-V / VR..