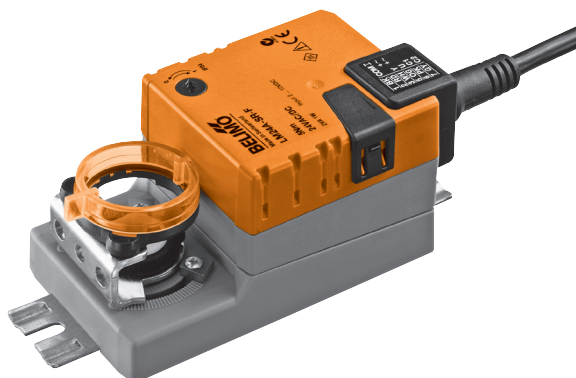


Modulating damper actuator for operating air control dampers in ventilation and air-conditioning systems for building services installations

- For air 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
- Damper rotation: Form-fit 8 mm



Technical data

Electrical data	Nominal voltage	AC 24 V, 50/60 Hz / DC 24 V
	Nominal voltage range	AC 19.2 ... 28.8 V / DC 21.6 ... 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, 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	Max. 45 dB (A)
	Damper rotation	Form-fit 8 mm
	Position indication	Mechanical, pluggable
Safety	Protection class	III Safety extra-low voltage / UL Class 2 Supply
	Degree of protection	IP54 in any mounting position NEMA 2, UL Enclosure Type 2
	EMC	CE according to 2004/108/EC
	Certification	cULus according to UL 60730-1A and UL 60730-2-14 and CAN/CSA E60730-1:02 Certified to IEC/EN 60730-1 and IEC/EN 60730-2-14
Dimensions / Weight	Mode of operation	Type 1
	Rated impulse voltage	0.8 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	See «Dimensions» on page 2
	Weight	Approx. 480 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.
- 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.

Security notes

(Continued)

- 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 by form-fit. The actuator, with its hollow shaft, is placed over the 8 mm square spindle of the damper and secured by two screws.
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

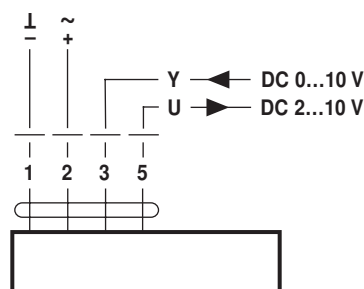
	Description	Data sheet
Electrical accessories	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..
	Positioner SGA24, SGF24 und SGE24	T2 - SG..24
	Range controller SBG24	T2 - SBG24
	Digital position indication ZAD24	T2 - ZAD24
Mechanical accessories	Various accessories	T2 - Z-TM..A../LM..A..

Electrical installation

Wiring diagrams

Notes

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

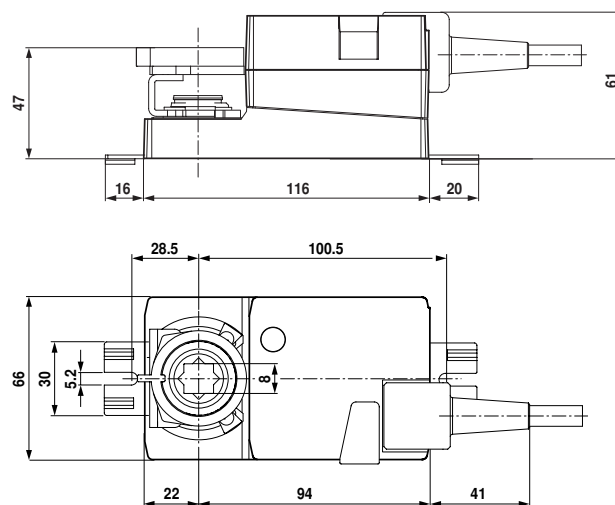


cable colours

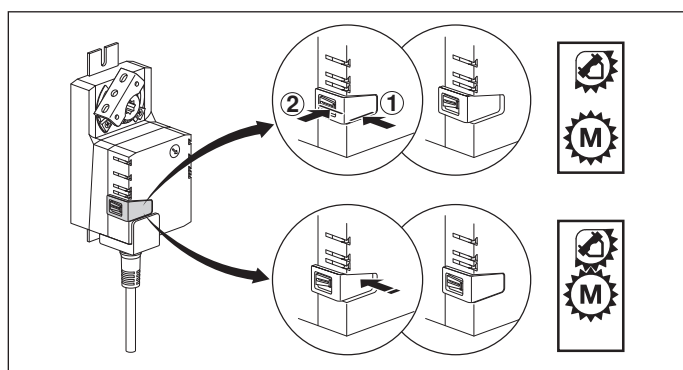
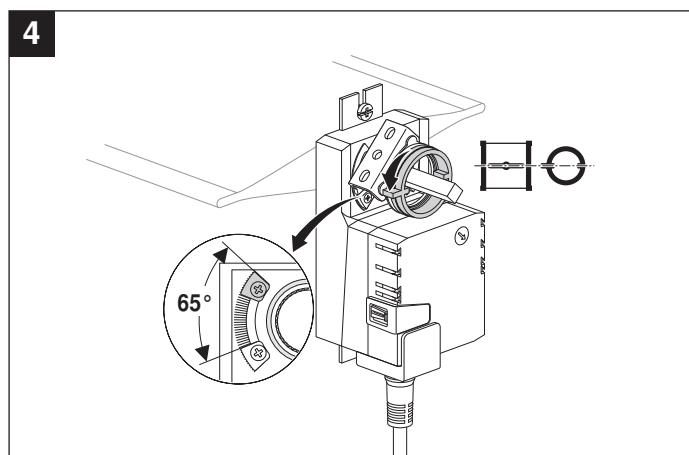
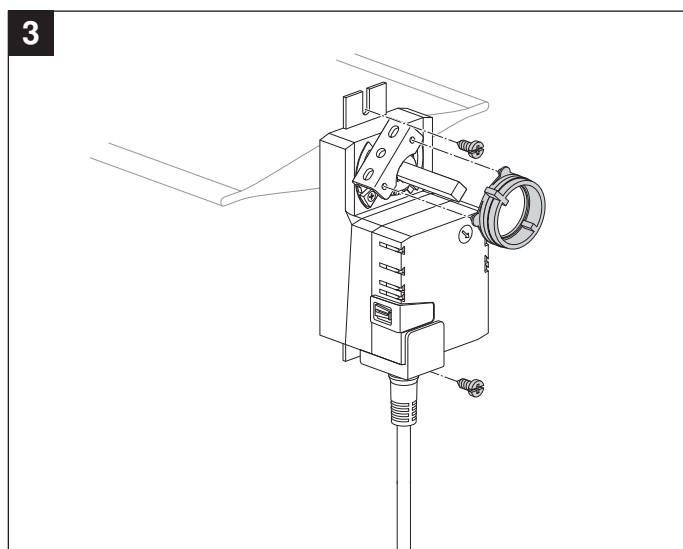
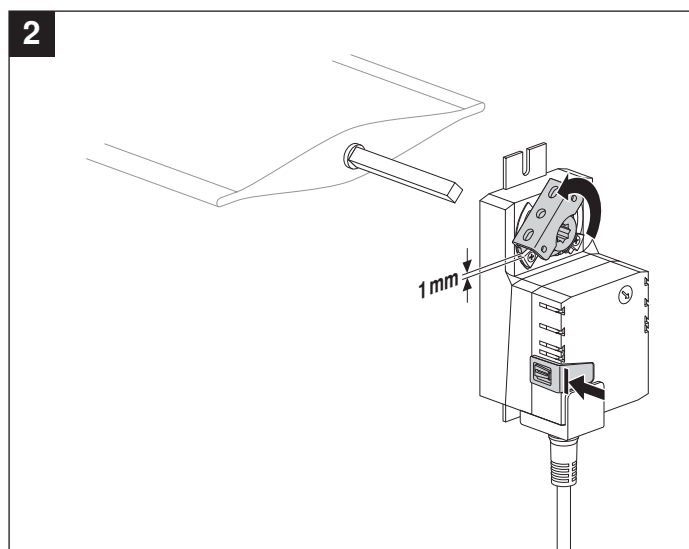
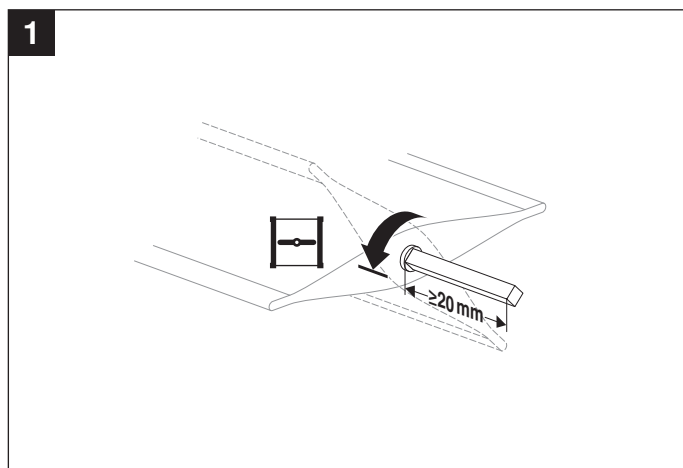
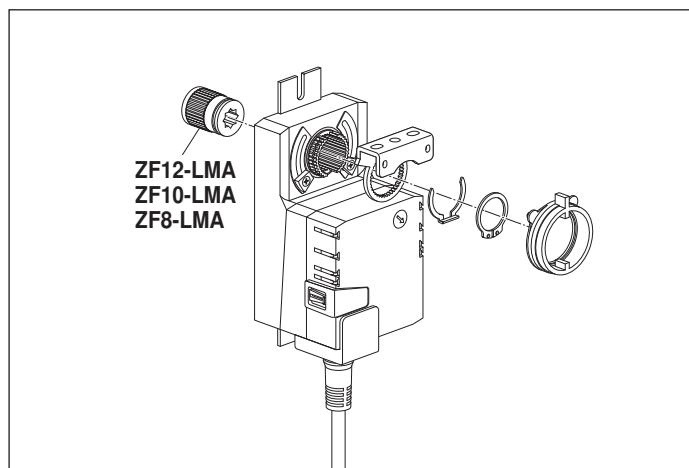
1=black
2=red
3=white
5=orange

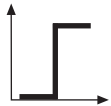
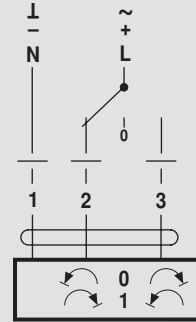
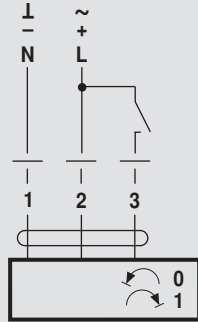
Dimensions [mm]

Dimensional drawings

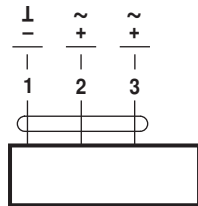
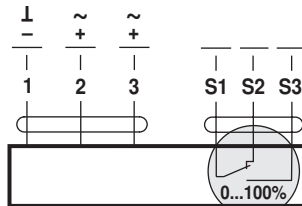


Damper spindle	Length	■ I
	≥20	8

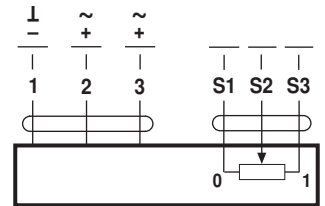




AC 24 V / DC 24 V

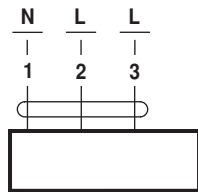
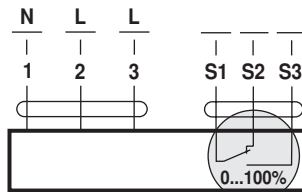
DC 48 ... 110 V
(LM72A..)LM24A.. LMC24A..
LM72A.. TMC24A..

LM24A-S.. TMC24A-S..

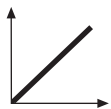
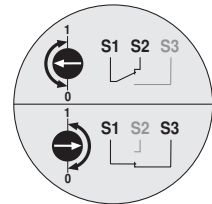


LM24AP5..

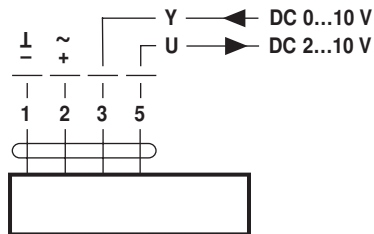
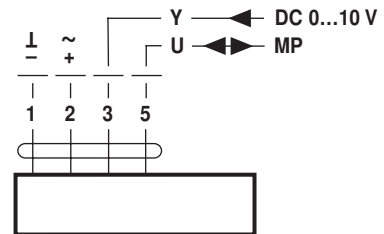
AC 100 ... 240 V

LM230A.. LMC230A..
TMC230A..

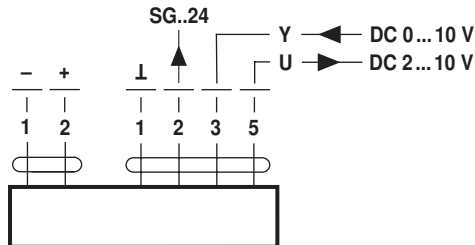
LM230A-S.. TMC230A-S..



AC 24 V / DC 24 V

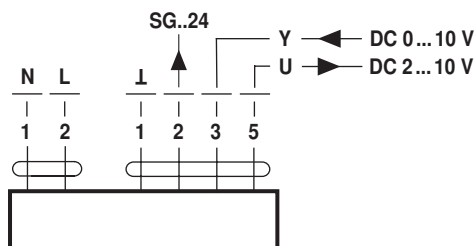
LM24A-SR.. LMC24A-SR..
LM24A-SX.. TMC24A-SR..
LM24A-MF..

LM24A-MP..

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

LM72A-SR..

AC 100 ... 240 V



LM230ASR..