

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

- For air dampers up to approx. 4 m²
- Torque 20 Nm
- Nominal voltage AC/DC 24 V
- Control: Open-close or 3-point
- with integrated feedback potentiometer


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	2 W @ nominal torque
		At rest	0.2 W
		For wire sizing	4 VA
	Feedback potentiometer	5 kΩ ±5% 1 W	
Connection	Motor	Cable 1 m, 3 x 0.75 mm ²	
	Feedback potentiometer	Cable 1 m, 3 x 0.75 mm ²	
Functional data	Torque (nominal torque)	Min. 20 Nm @ nominal voltage	
	Direction of rotation	Reversible with switch 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	150 s / 90° ↔	
	Sound power level	Max. 45 dB (A)	
	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. 1.1 kg	

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 features

- 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.
- Position feedback** Position feedback with integrated feedback potentiometer 0 ... 100%.

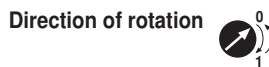
Accessories

	Description	Data sheet
Electrical accessories	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..
Mechanical accessories	Various accessories (clamps, shaft extensions etc.)	T2 - Z-SM..A..

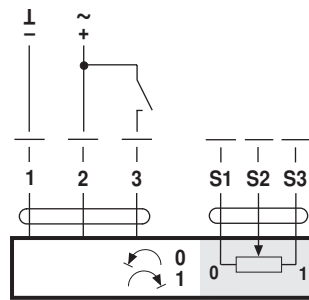
Electrical installation

Wiring diagrams

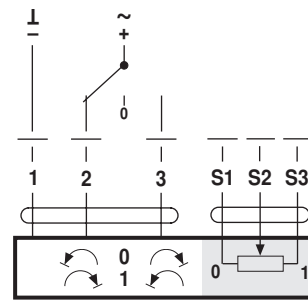
- Notes**
- Connection via safety isolating transformer.
 - Other actuators can be connected in parallel. Please note the performance data.



Open-close control



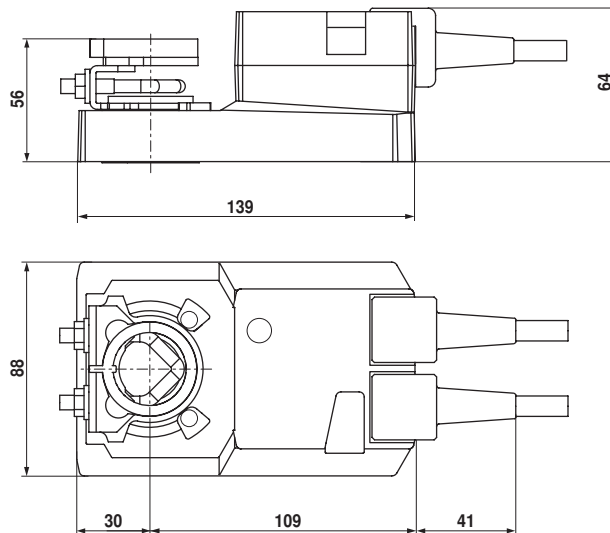
3-point control



- Cable colours:**
- 1 = black
 - 2 = red
 - 3 = white
 - S1 = violet
 - S2 = red
 - S3 = white

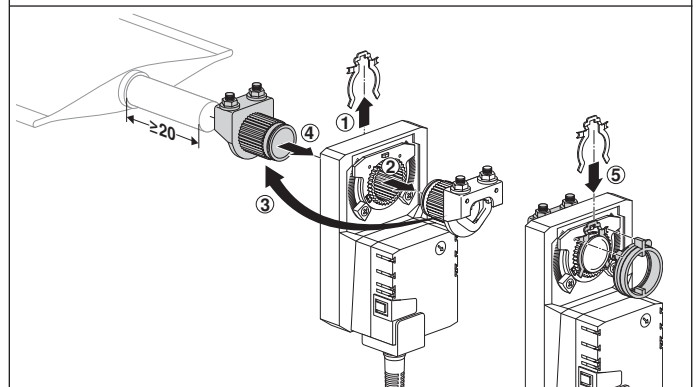
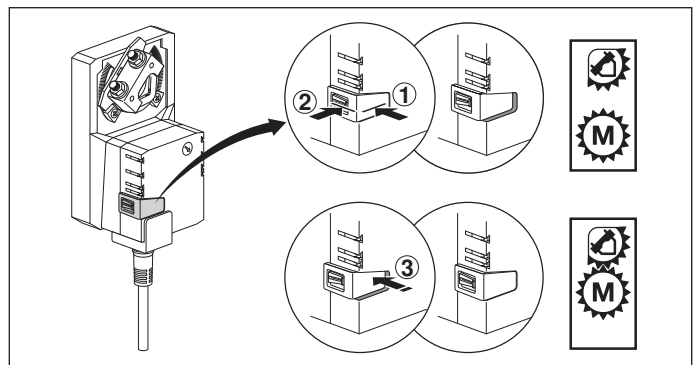
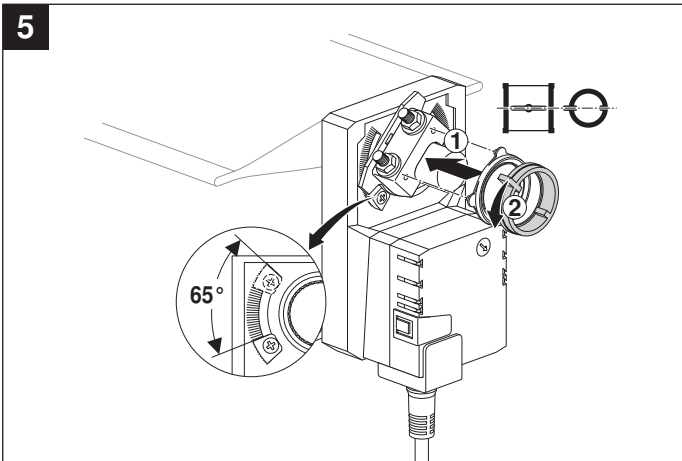
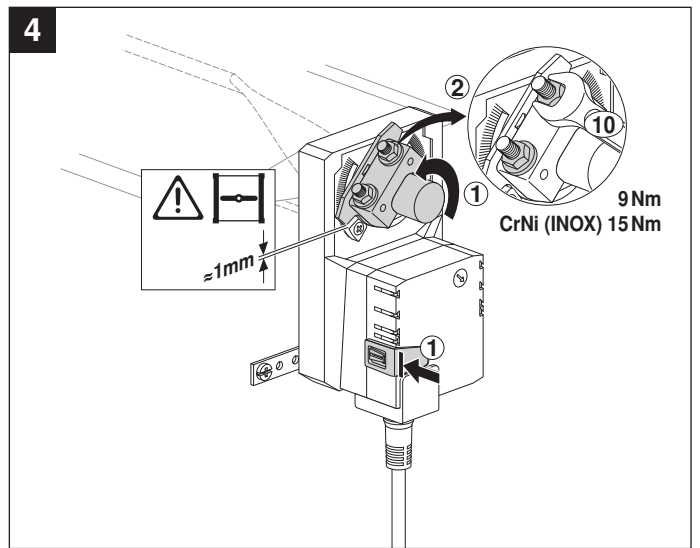
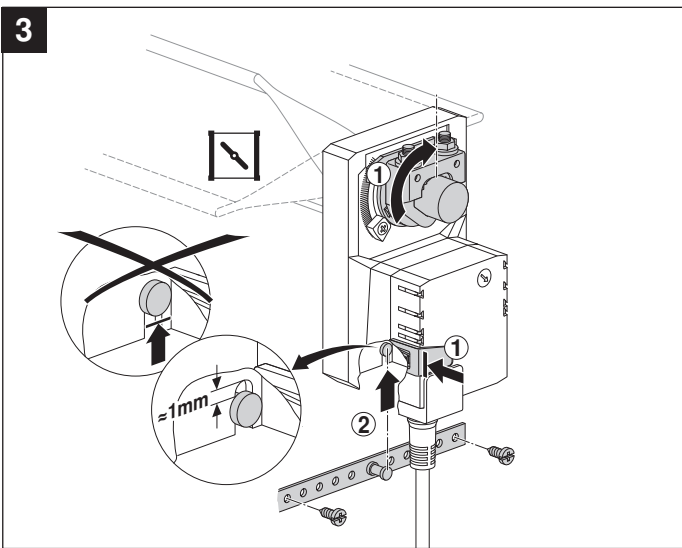
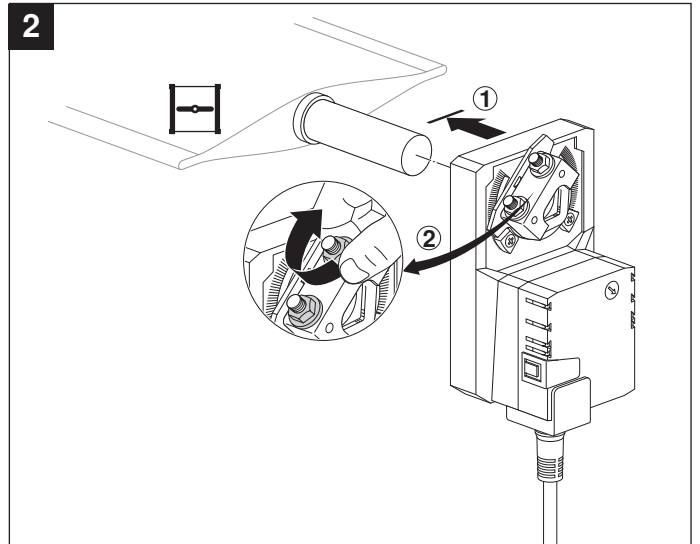
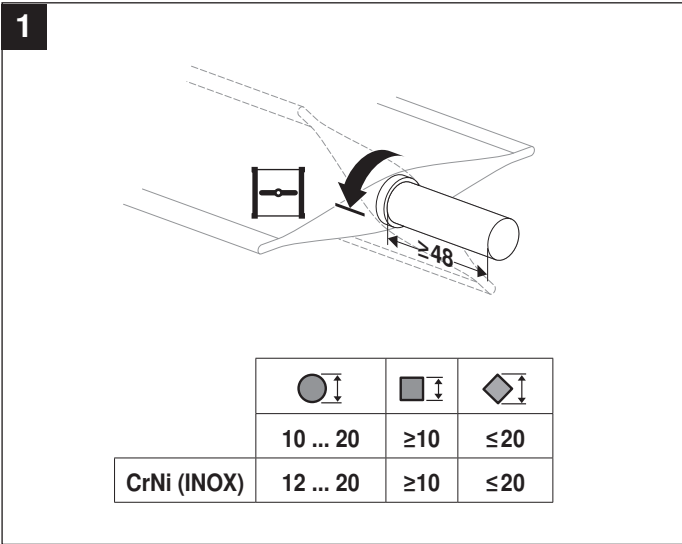
Dimensions [mm]

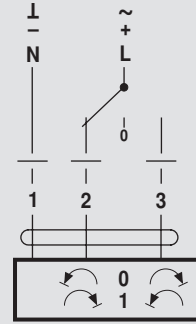
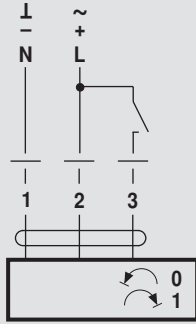
Dimensional drawings



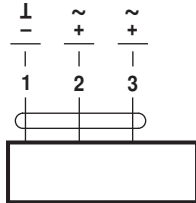
Damper spindle	Length			
	≥48	10 ... 20 ¹⁾	≥10	≤20
	≥20	10 ... 20 ¹⁾	≥10	≤20

¹⁾ CrNi (INOX) 12 ... 20

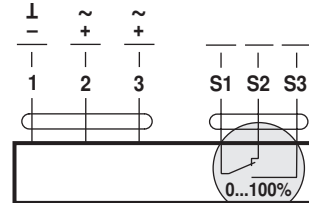




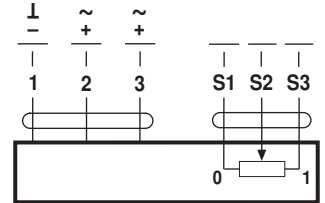
AC 24 V / DC 24 V



SM24A..
SMD24A..

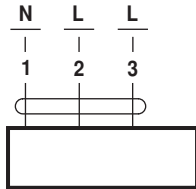


SM24A-S..

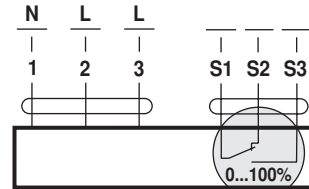


SM24AP5..

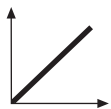
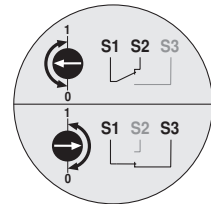
AC 100 ... 240 V ⚠



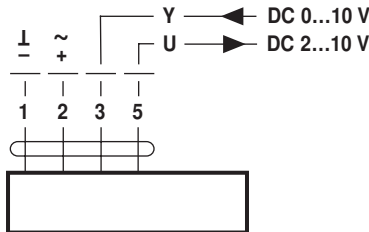
SM230A..
SMD230A..



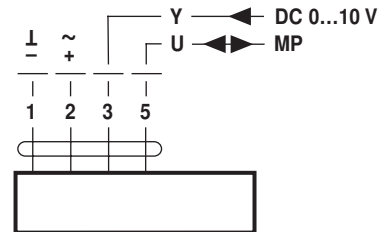
SM230A-S..



AC 24 V / DC 24 V

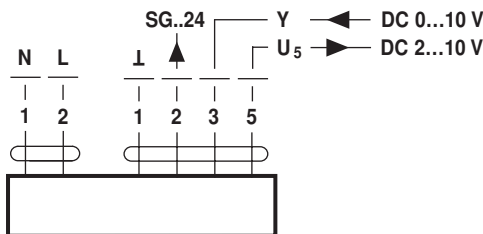


SM24A-SR..
SM24A-MF..



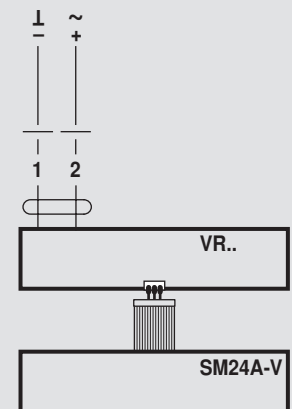
SM24A-MP..

AC 100 ... 240 V ⚠



SM230ASR..

AC 24 V / DC 24 V
(SM24A-V / VR..)



SM24A-V / VR..