

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

- For air dampers up to approx. 8 m²
- Torque 40 Nm
- Nominal voltage AC/DC 24 V
- Control: modulating DC 0 ... 10 V
- Position feedback DC 2 ... 10 V


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 4.5 W @ nominal torque At rest 2 W For wire sizing 6.5 VA
	Connection	Terminals 4 mm ² (Kabel Ø 4 ... 10 mm, four-core)
Functional data	Torque (nominal torque)	Min. 40 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)	DC 2 ... 10 V, max. 1 mA
	Position accuracy	±5%
	Direction of rotation	Reversible with switch 0 / 1
	Direction of motion at Y = 0 V	At switch position 0 ↺ resp. 1 ↻
	Manual override	Gearing latch disengaged with push-button, can be locked
	Angle of rotation	Max. 95° ↔, limited on both sides by means of 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 NEMA2, 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 E60730-01:02 Certified to IEC/EN 60730-1 and IEC/EN 60730-2-14
	Mode of operation	Type 1 (EN 60730-1)
Rated impulse voltage	0.8 kV (EN 60730-1)	
Control pollution degree	3 (EN 60730-1)	
Ambient temperature	-30 ... +50 °C	
Non-operating temperature	-40 ... +80 °C	
Ambient humidity	95% r.H., non-condensating (EN 60730-1)	
Maintenance	Maintenance-free	
Dimensions / Weight	Dimensions	See «Dimensions» on page 3
	Weight	Approx. 1.7 kg

Safety notes



- This actuator is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- It may only be installed by suitably 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.
- 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 with a standard modulating signal of DC 0 ... 10 V and moves to the position defined by the control signal. The measuring voltage U serves for the electrical display of the damper position 0 ... 100% and as slave 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

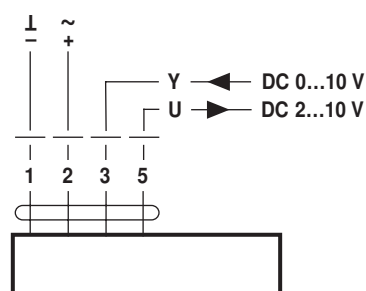
	Description	Data sheet
Electrical accessories	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..
	Range controller SBG24	T2 - SBG24
	Positioner SG..24	T2 - SG..24
	Digital position indication ZAD24	T2 - ZAD24
Mechanical accessories	Various accessories (damper and actuator crank arms, anti-rotation strap etc.)	T2 - Z-GM..A..

Electrical installation

Wiring diagram

Note

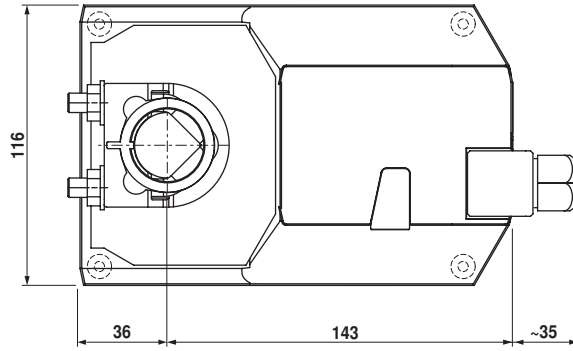
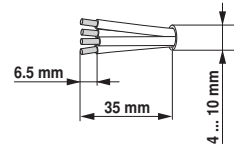
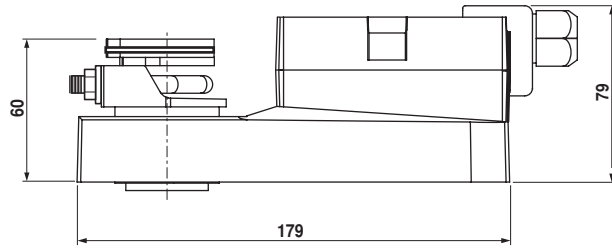
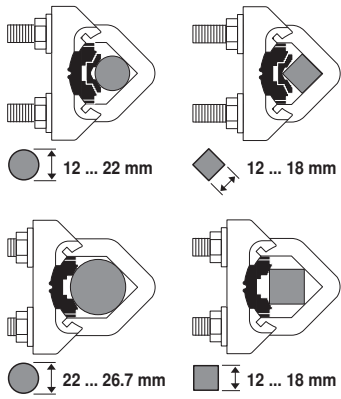
- Connect via safety isolation transformer.
- Parallel connection of other actuators possible. Note performance data for supply.



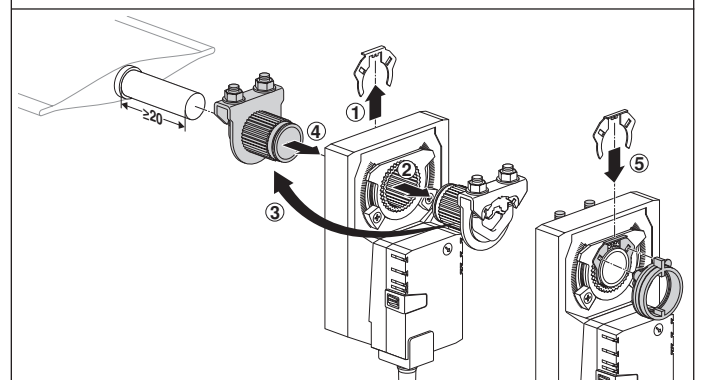
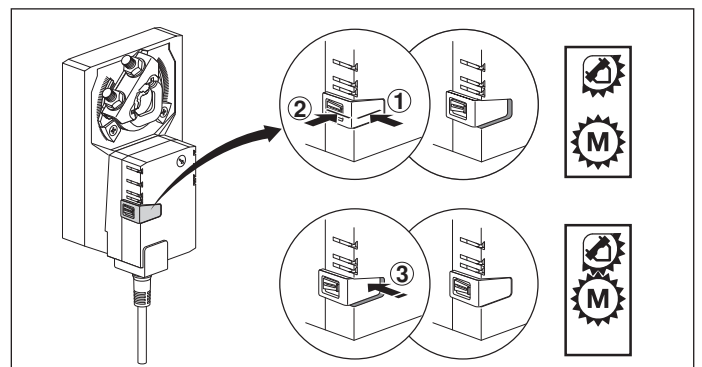
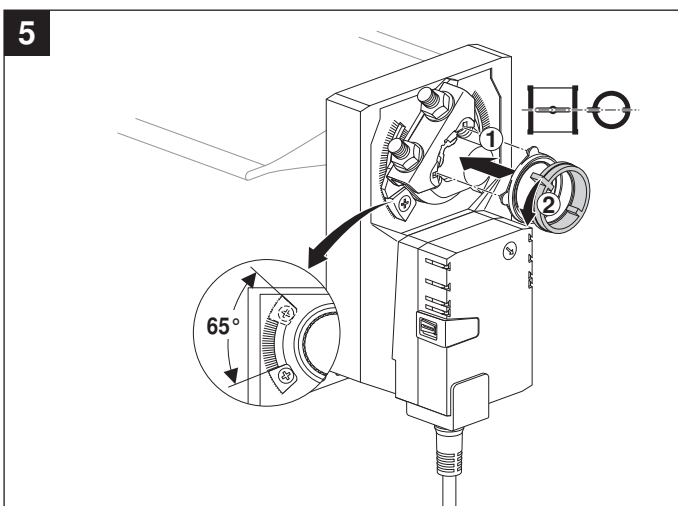
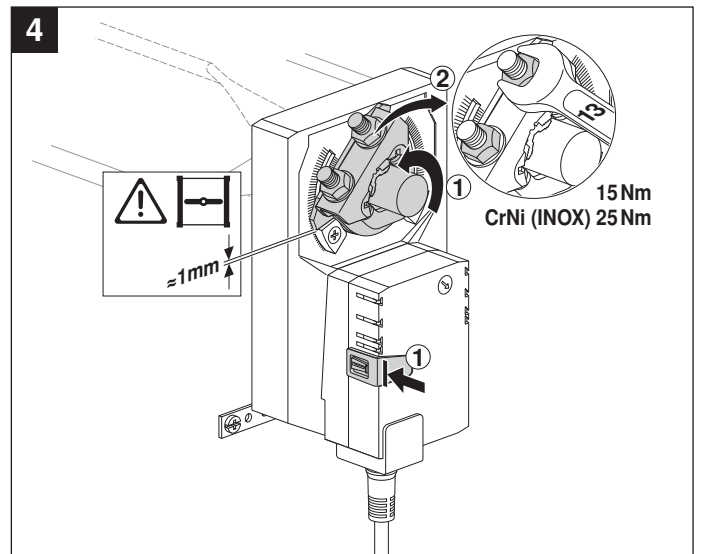
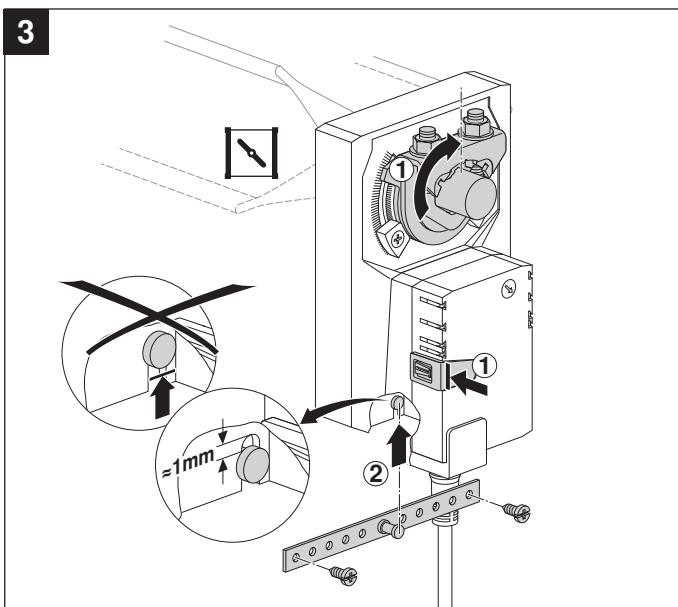
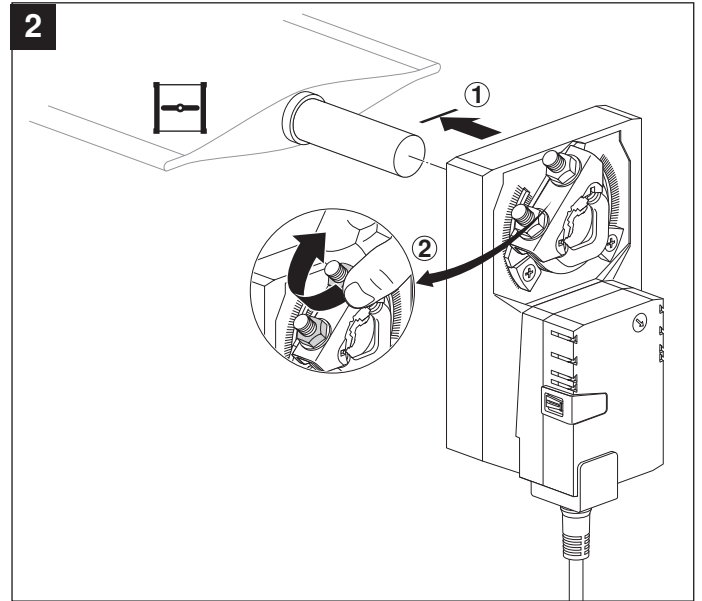
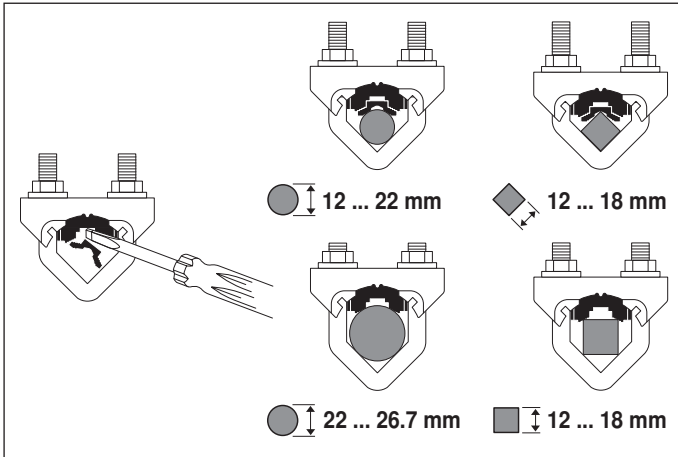
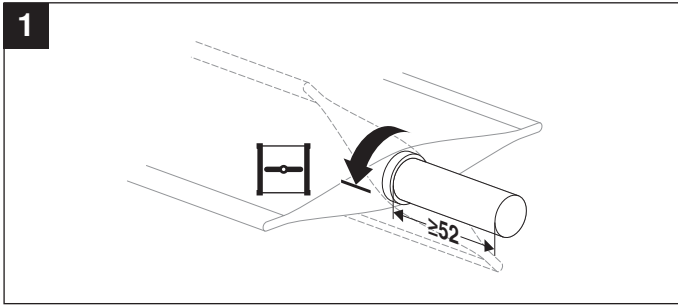
Dimensions [mm]

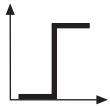
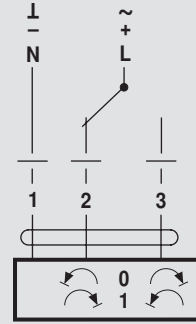
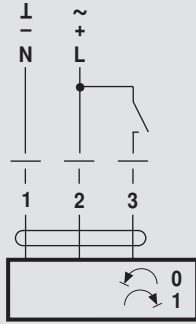
Dimensional drawings

Damper spindle	Length	○ I	■ I	◇ I
	≥52	12 ... 26.7	≥12	≤25.2
	≥20	12 ... 26.7	≥12	≤25.2

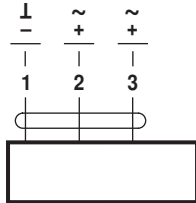


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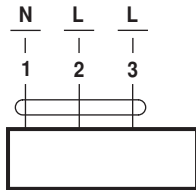


AC 24 V / DC 24 V

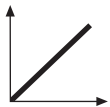


GM24A..

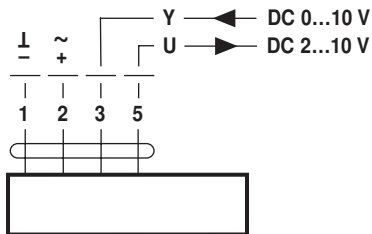
AC 100 ... 240 V



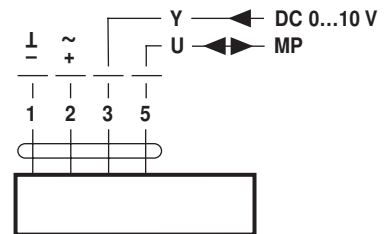
GM230A..



AC 24 V / DC 24 V



GM24A-SR..
GM24A-MF..



GM24A-MP..

