

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 m<sup>2</sup>
- Torque 40 Nm
- Nominal voltage AC/DC 24 V
- Control: modulating DC 0 ... 10 V
- Position feedback DC 2 ... 10 V



## Technical data

<b>Electrical data</b>	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 <sup>2</sup> (Kabel Ø 4 ... 10 mm, four-core)
<b>Functional data</b>	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
<b>Safety</b>	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
<b>Dimensions / Weight</b>	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

<b>Mode of operation</b>	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.
<b>Simple direct mounting</b>	Simple direct mounting on the damper spindle with a universal spindle clamp, supplied with an anti-rotation strap to prevent the actuator from rotating.
<b>Manual override</b>	Manual override with push-button possible (the gear is disengaged for as long as the button is pressed or remains locked).
<b>Adjustable angle of rotation</b>	Adjustable angle of rotation with mechanical end stops.
<b>High functional reliability</b>	The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.

## Accessories

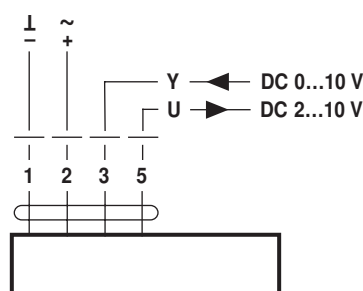
	Description	Data sheet
<b>Electrical accessories</b>	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..
	Range controller SBG24	T2 - SBG24
	Positioner SG..24	T2 - SG..24
	Digital position indication ZAD24	T2 - ZAD24
<b>Mechanical accessories</b>	Various accessories (damper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

## Electrical installation

### Wiring diagram

#### Note

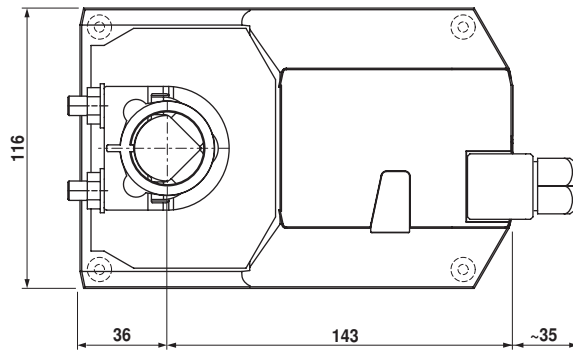
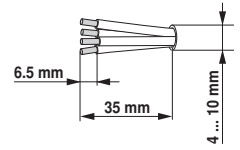
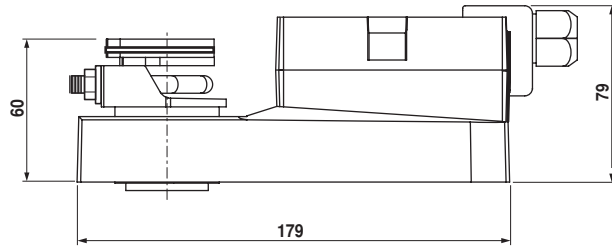
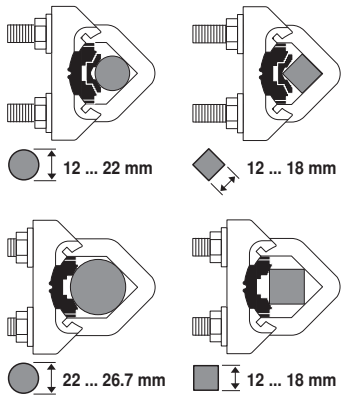
- Connect via safety isolation transformer.
- Parallel connection of other actuators possible. Note performance data for supply.



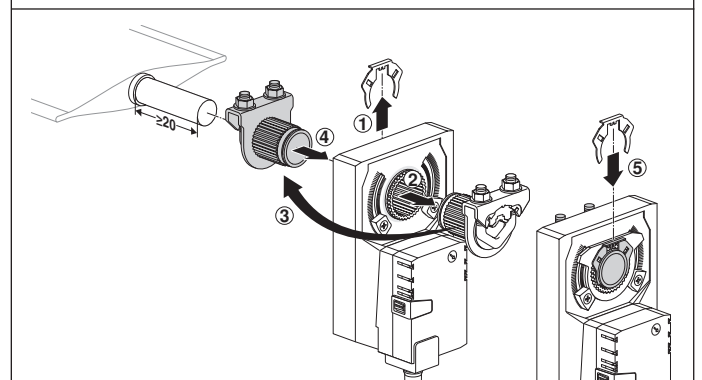
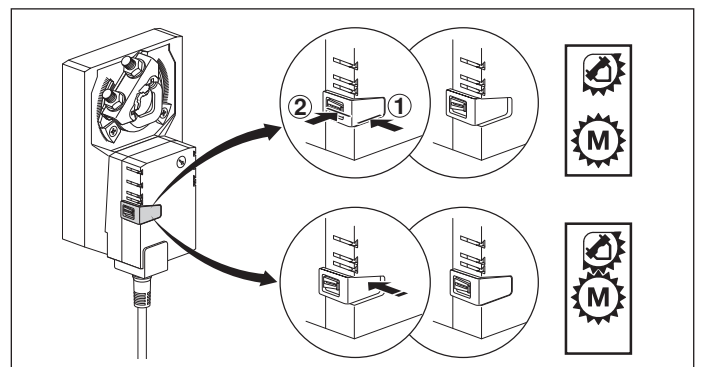
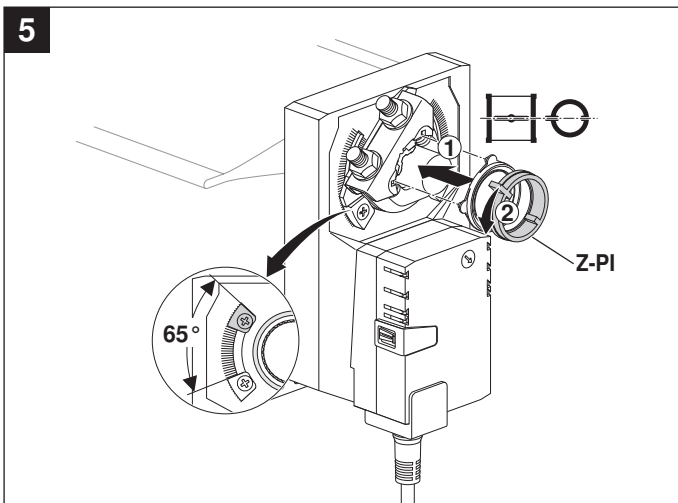
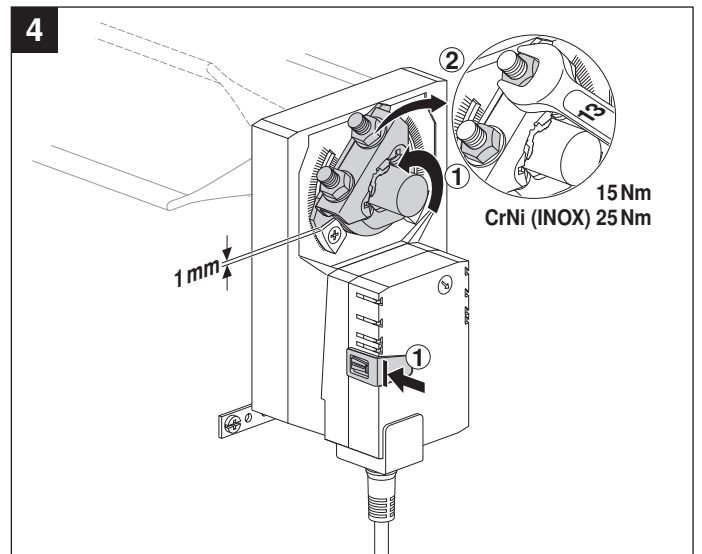
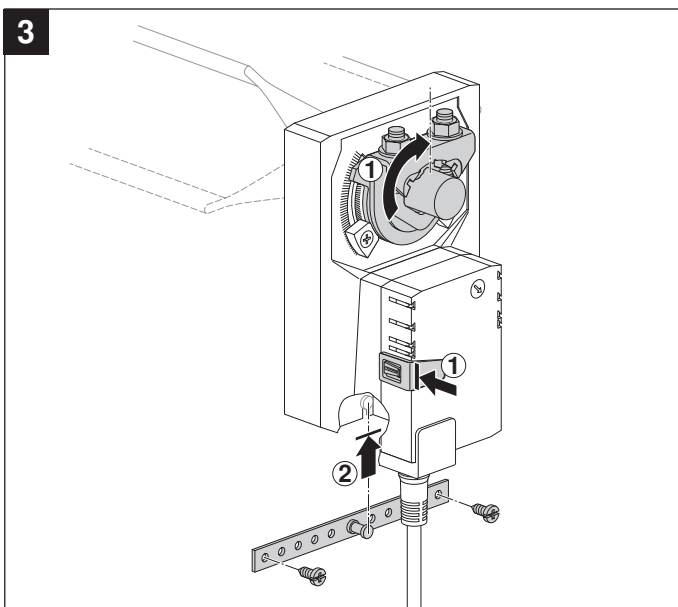
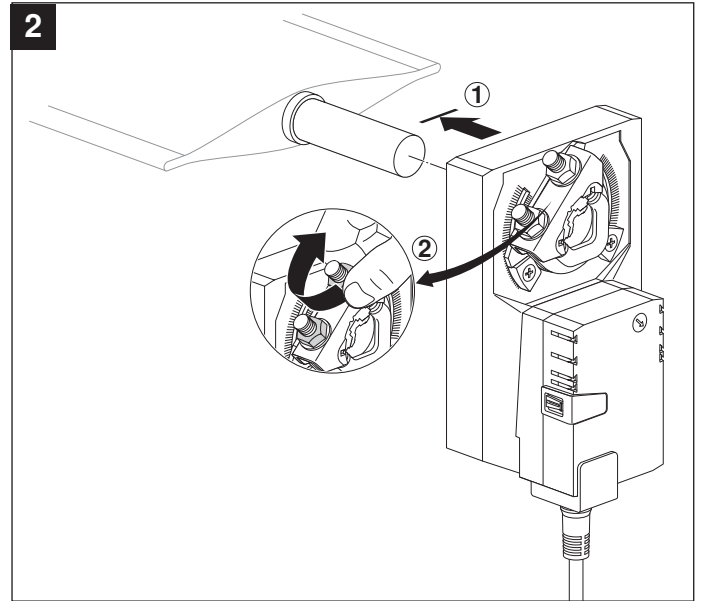
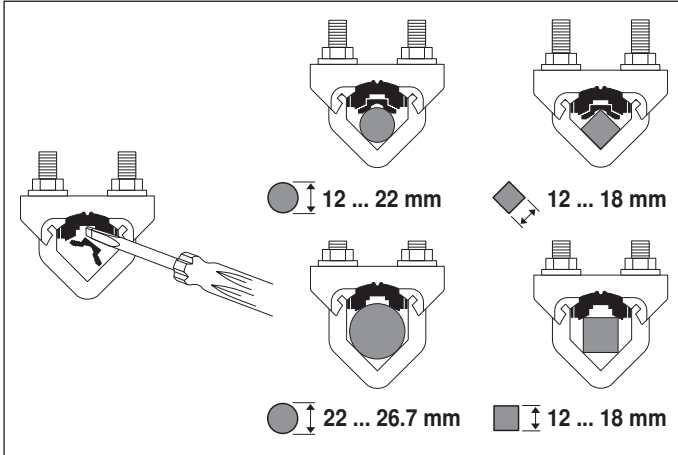
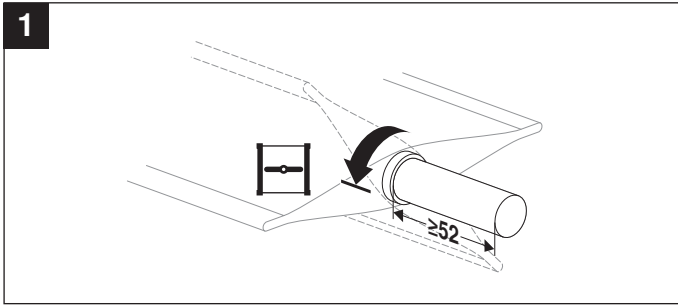
Dimensions [mm]

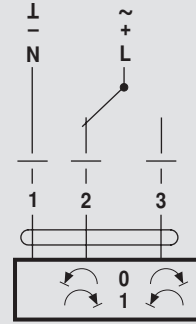
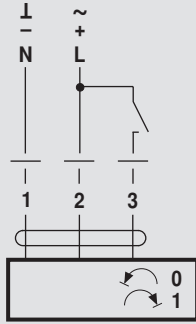
Dimensional drawings

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

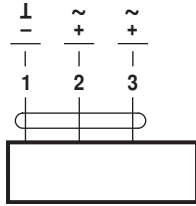


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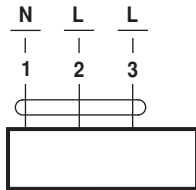


AC 24 V / DC 24 V

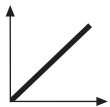


GM24A..

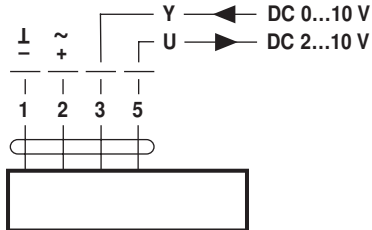
AC 100 ... 240 V



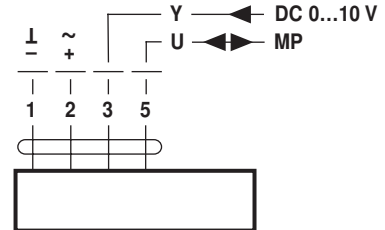
GM230A..



AC 24 V / DC 24 V

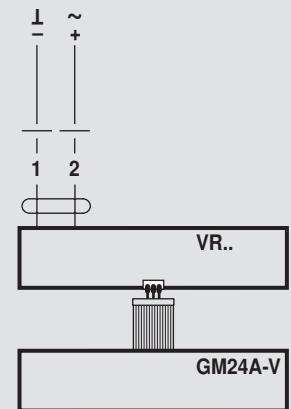


GM24A-SR..  
GM24A-MF..



GM24A-MP..

AC 24 V / DC 24 V  
(GM24A-V / VR..)



GM24A-V / VR..

