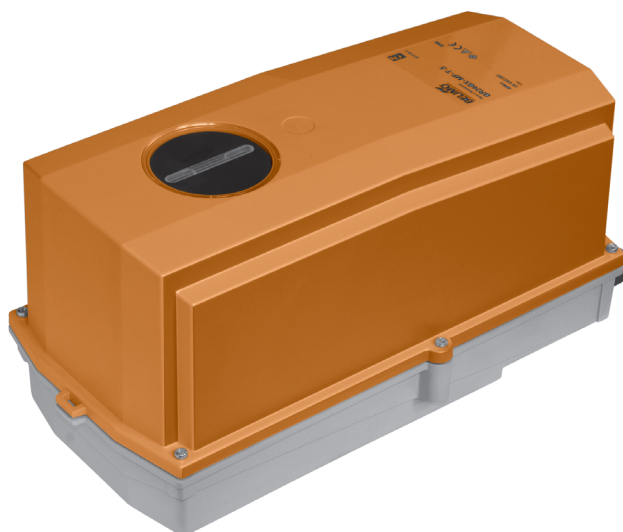


Modulating damper actuator in the IP66 protective housing for adjusting air dampers in industrial plants and in technical building installations

- 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

Optimum weather protection for outdoor applications



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 (I _{max} 20 A @ 5 ms)
	Connection	Terminals 4 mm ² (cable Ø 4 ... 10 mm)
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 U)	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 ↶ or 1 ↷, 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	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	IP66 NEMA 4, UL Enclosure Type 4
	EMC	CE according to 2004/108/EC
	Certification	Certified to IEC/EN 60730-1 and IEC/EN 60730-2-14 cULus according to UL 60730-1 and UL 60730-2-14 and CAN/CSA E60730-1:02
Mode of operation	Type 1	
Rated impulse voltage	0.8 kV	
Control pollution degree	4	
Ambient temperature	-30 ... +50 °C	
Non-operating temperature	-40 ... +80 °C	
Ambient humidity	100% r.h.	
Maintenance	Maintenance-free	
Dimensions / Weight	Dimensions	See «Dimensions» on page 3
	Weight	Approx. 4.7 kg

Safety notes



- The 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 installation.
- The cover of the protective housing may be opened for adjustment and servicing. When it is closed afterwards, the housing must seal tight (see installation instructions).
- The device on the inside may only be opened up in the factory. 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.
- The actuator is not designed for applications where chemical influences (gases, fluids) are present or for utilisation in corrosive environments in general.
- The materials used may be subjected to external influences (temperature, pressure, constructional fixture), that cannot be simulated in laboratory test or field trials. In case of doubt, we definitely recommend that you carry out a test. This information does not imply any legal entitlement. Belimo will not be held liable and will provide no warranty.
- If cables which are not authorised for UL (NEMA) Type 4 applications are guided out of the unit, then flexible metallic cable conduits or threaded cable conduits of equal value are to be used.
- The actuator may not be used in plenum applications (e.g. suspended ceilings or raised floors).

Product features

Fields of application	The actuator is particularly suitable for utilisation in outdoor applications and is protected against the following weather conditions: <ul style="list-style-type: none"> – UV radiation – rain / snow – dirt / dust – humidity – Changing atmosphere / frequent and severe temperature fluctuations (recommendation: use the actuator with integrated factory-installed heating which can be ordered separately to prevent internal condensation *)
Mode of operation	The actuator is controlled with a standard modulating signal of DC 0 ... 10 V and travels 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 pushbutton 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. Standard setting 0 ... 90° ↯. The housing cover must be removed to set the angle of rotation.
High functional reliability	The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.
	* in development

Accessories

Electrical accessories

Description	Data sheet
Auxiliary switch S..A..	T2 - S..A..
Feedback potentiometer P..A..	T2 - P..A..
Range controller SBG24	T2 - SBG24
Positioner SGA24, SGE24 and SGF24	T2 - SG..24
Digital position indicator ZAD24	T2 - ZAD24
Heating with mechanical hygrostat *	
Heating with adjustable thermostat *	

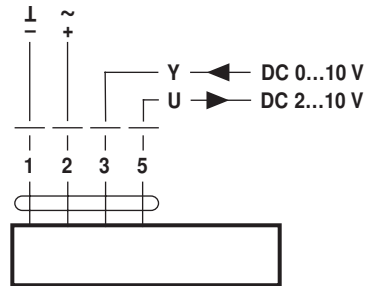
* in development

Electrical installation

Wiring diagram

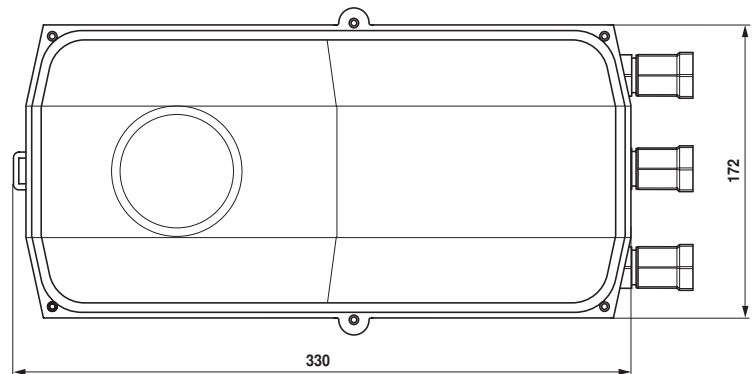
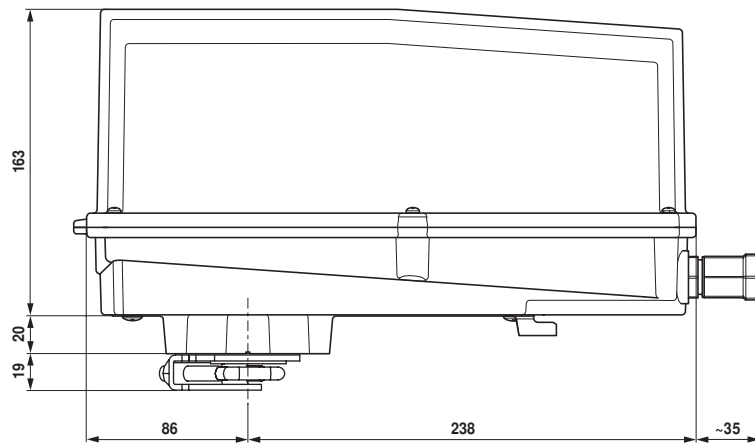
Notes

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

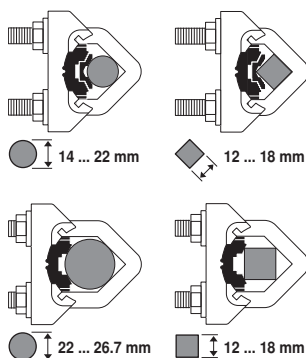


Dimensions [mm]

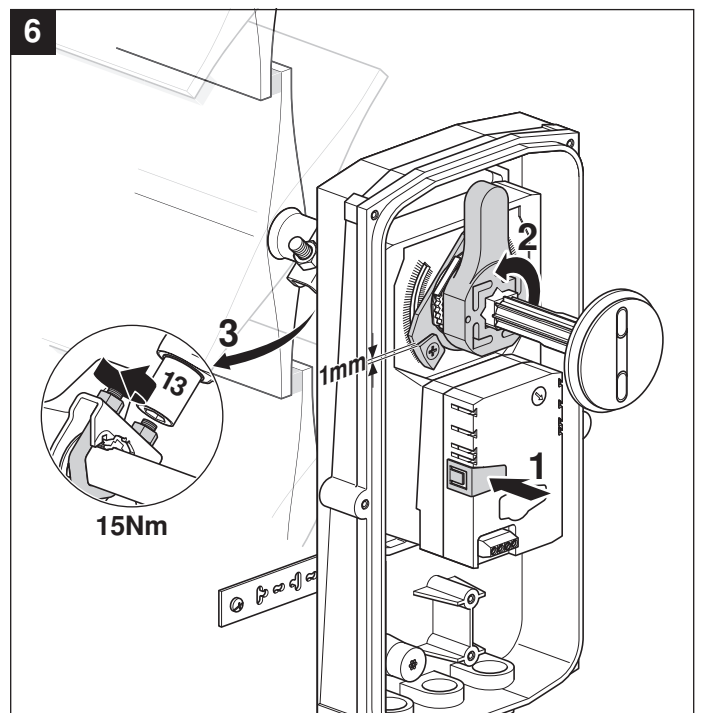
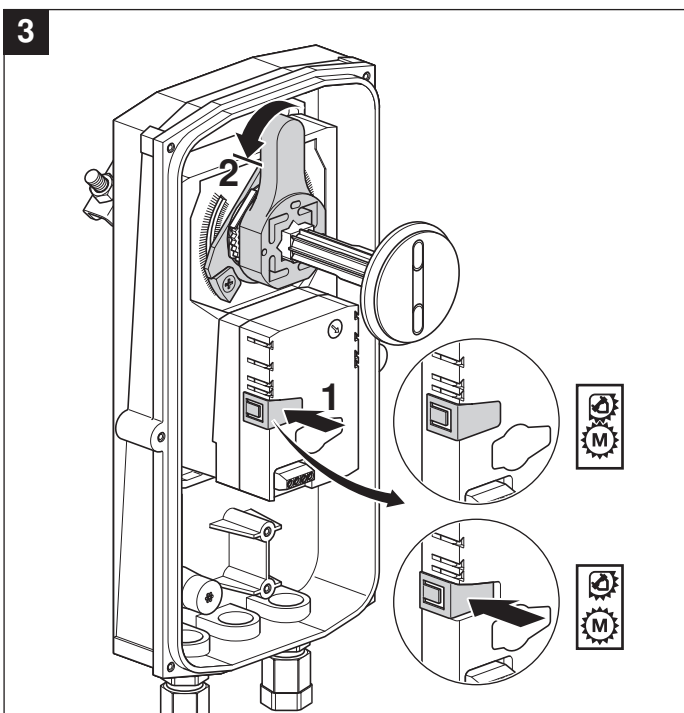
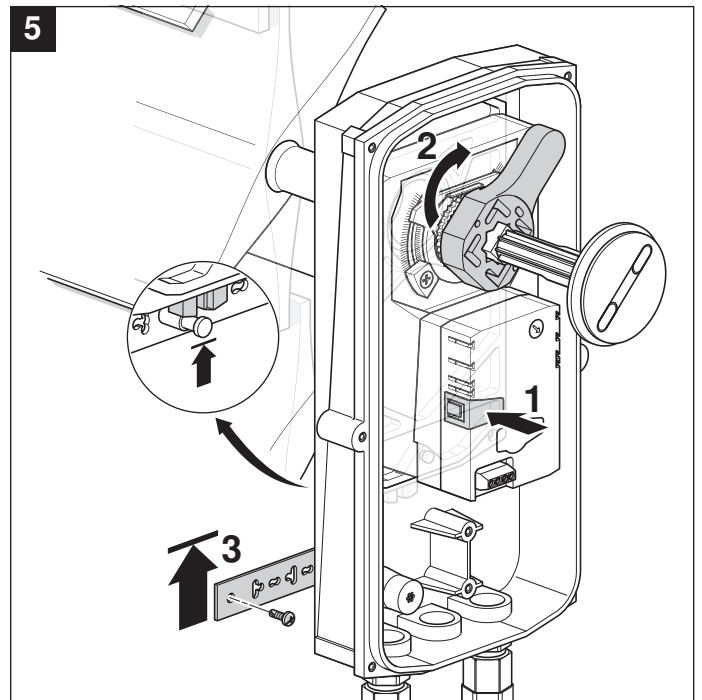
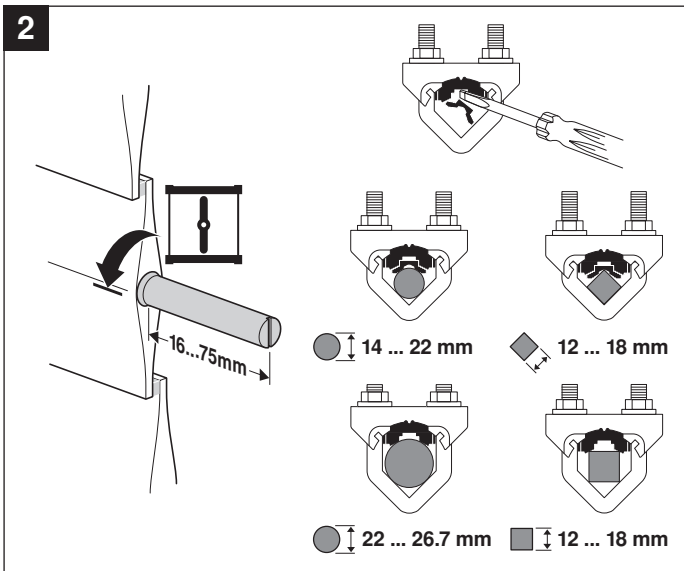
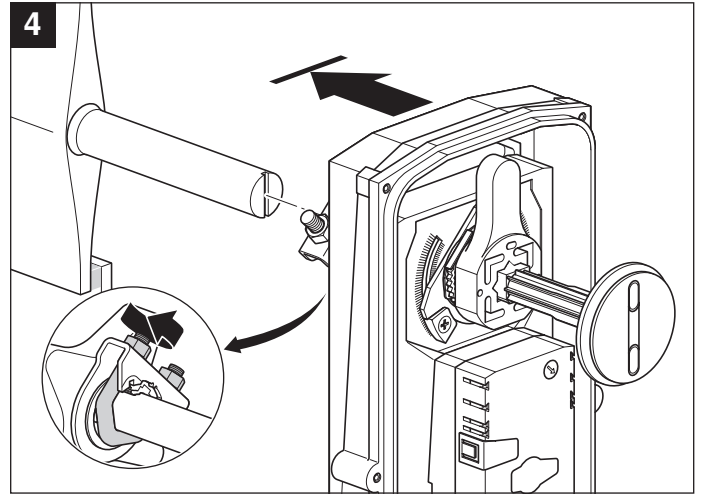
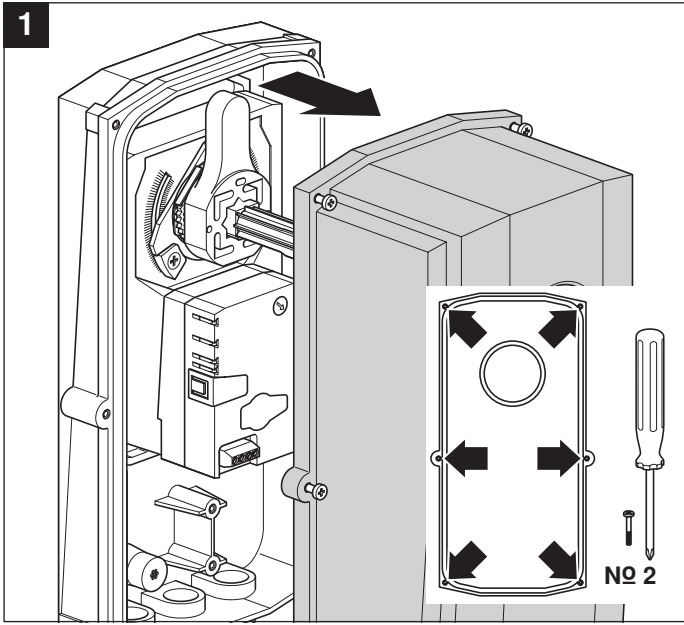
Dimensional drawings

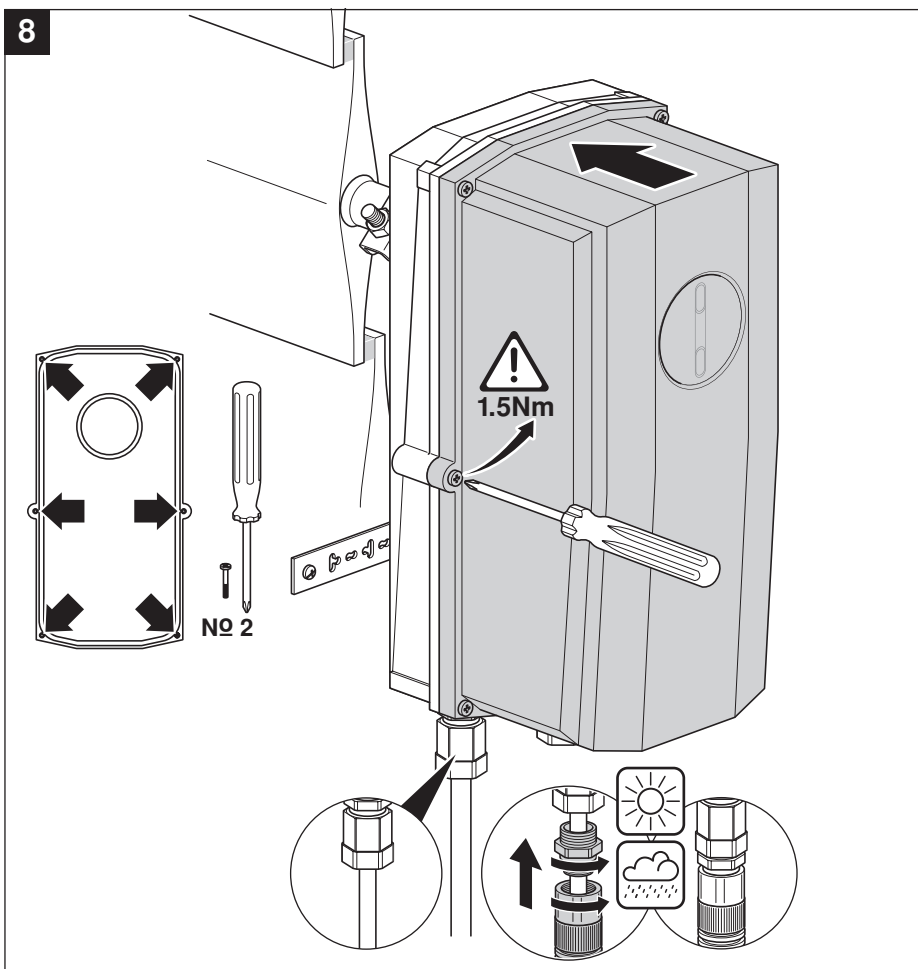
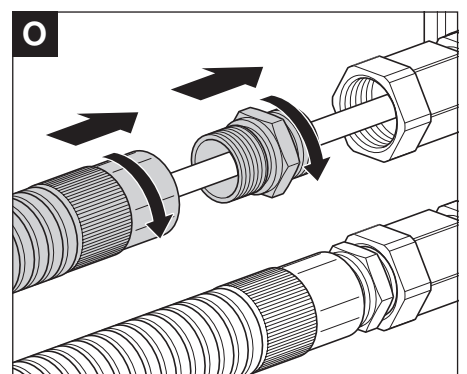
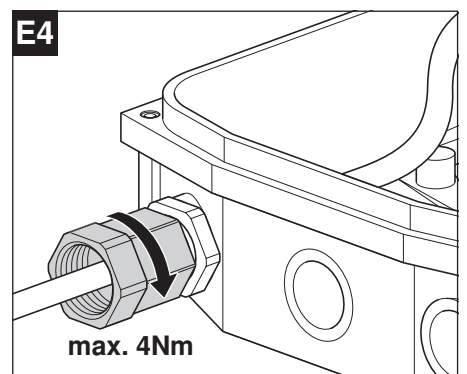
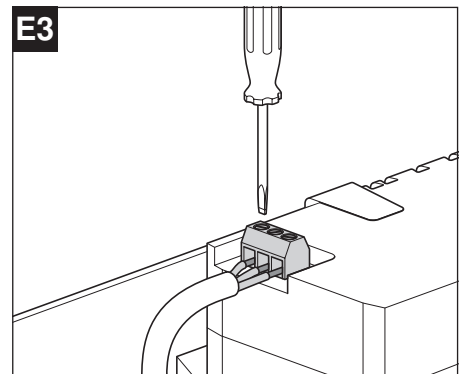
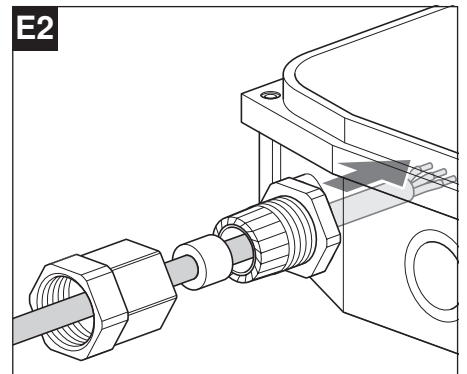
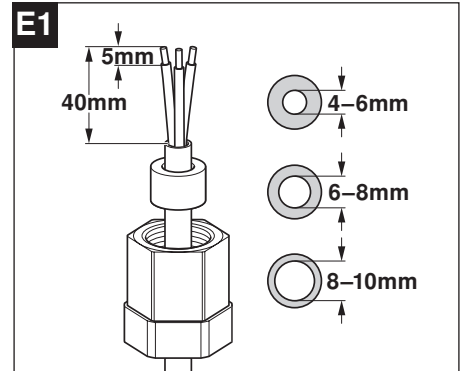
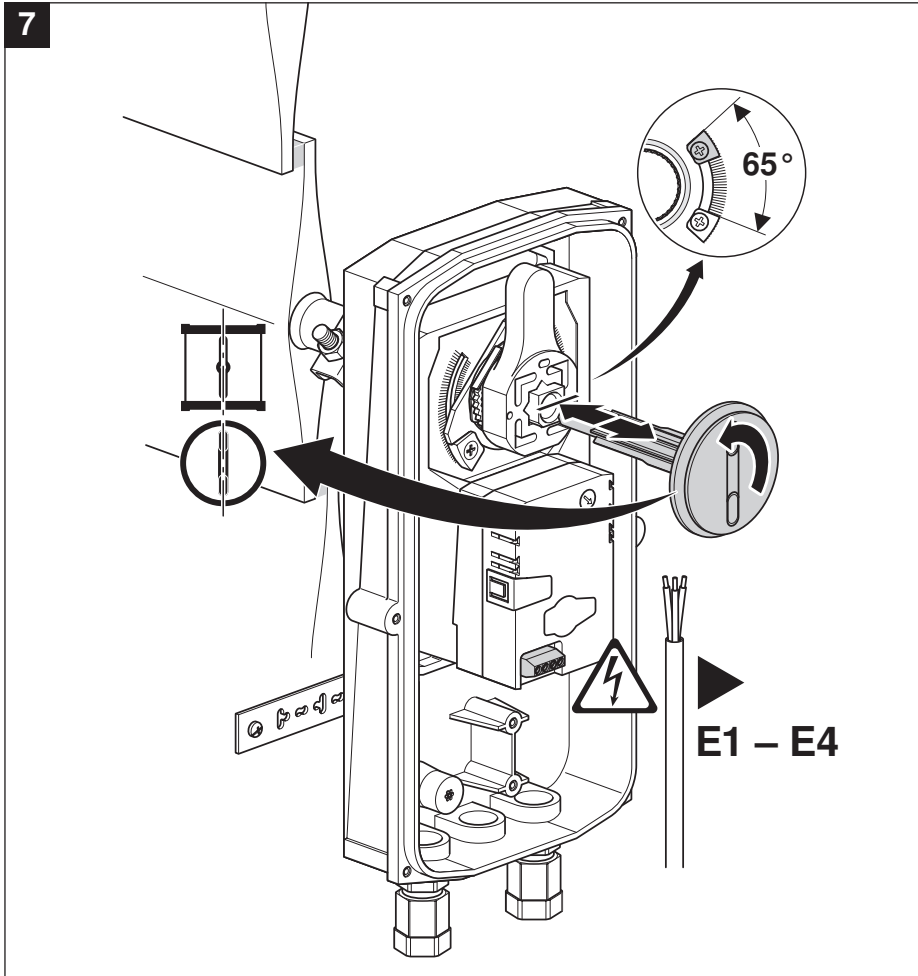


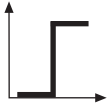
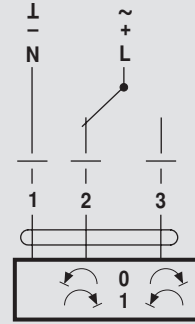
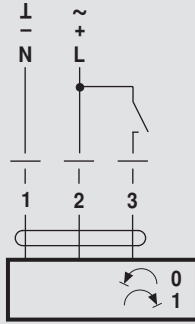
Damper spindle	Length			
	16 ... 75	14 ... 26.7	≥12	≤25.5



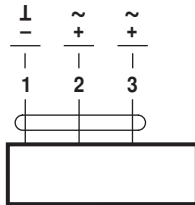
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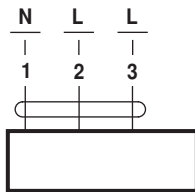


AC 24 V / DC 24 V



GM24G-T

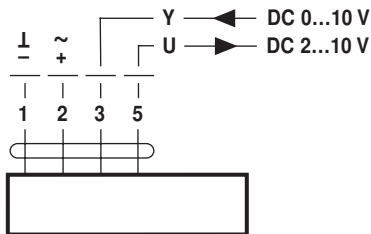
AC 100 ... 240 V



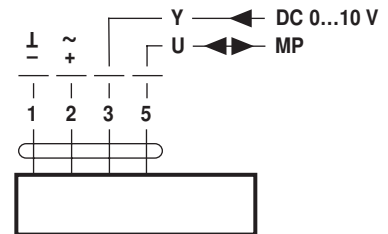
GM230G-T



AC 24 V / DC 24 V



GM24G-SR-T
GM24G-MF-T



GM24G-MP-T