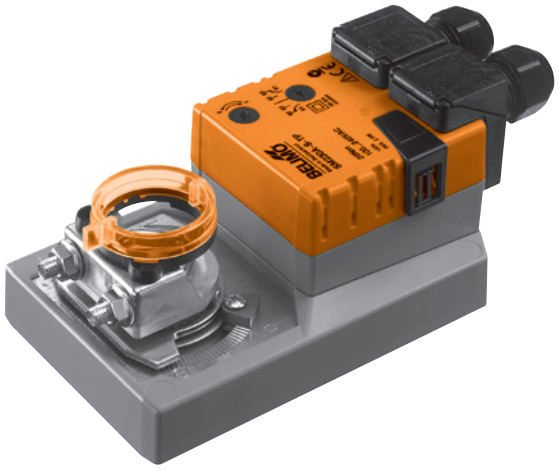
BELIMO

Technical data sheet SM230A-S-TP

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 100 ... 240 V**
- **Control: Open-close or 3-point**
- **with integrated auxiliary switch**
- **with connecting terminals**



Technical data

Electrical data	Nominal voltage		AC 100 ... 240 V, 50 / 60 Hz
	Nominal voltage range		AC 85 ... 265 V
	Power consumption	In operation	2.5 W @ nominal torque
		At rest	0.6 W
		For wire sizing	6 VA
	Auxiliary switch		1 x SPDT, 1 mA ... 3 (0.5) A, AC 250 V ⧈ (0 ... 100% adjustable)
	Connection	Motor	Terminals 4 mm² (Cable ∅ 4 ... 10 mm, 3-core)
		Auxiliary switch	Terminals 4 mm² (Cable ∅ 4 ... 10 mm, 3-core)
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		**II** Totally insulated ⧈
	Degree of protection		IP54 in any mounting position NEMA 2, UL Enclosure Type 2
	EMC		CE according to 2004/108/EC
	Low voltage directive		CE according to 2006/95/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
	Mode of operation		Type 1
	Rated impulse voltage		2.5 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 / Weight	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.**
- **Caution: Power supply voltage!**
- **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.**
- **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.**

Safety 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

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.

Flexible signalization — Flexible signalization with adjustable auxiliary switch (0 ... 100%).

Accessories

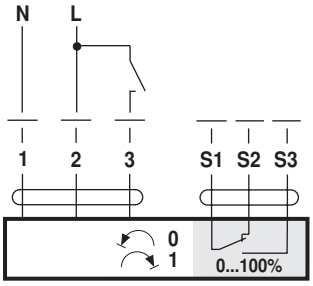
	Description	Data sheet
Electrical accessories	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..
Mechanical accessories	Various accessories (clamps, shaft extensions etc.)	T2 - Z-SM..A..

Electrical installation

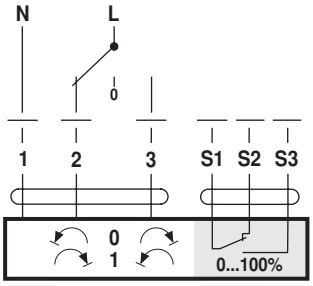
Wiring diagrams

Notes
- Caution: Power supply voltage!
- Other actuators can be connected in parallel. Please note the performance data.

Open-close control



3-point control

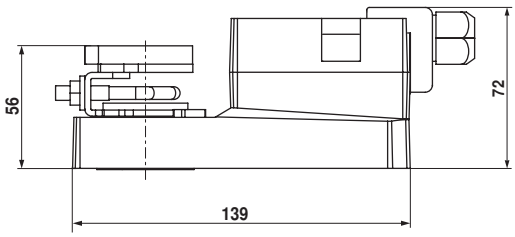


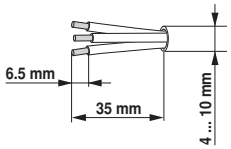
Direction of rotation

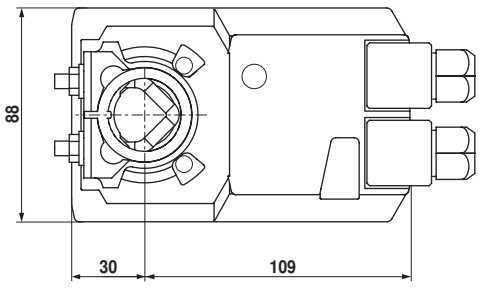
Auxiliary switch

Dimensions [mm]

Dimensional drawings







Damper spindle	Length			
	≥48	10 ... 20 [1]	≥10	≤20
	≥20	10 ... 20 [1]	≥10	≤20

[1] CrNi (INOX) 12 ... 20

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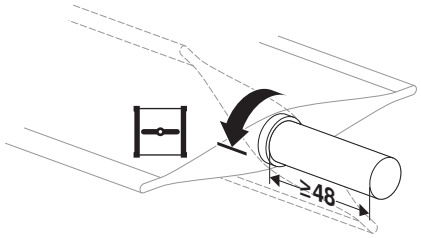
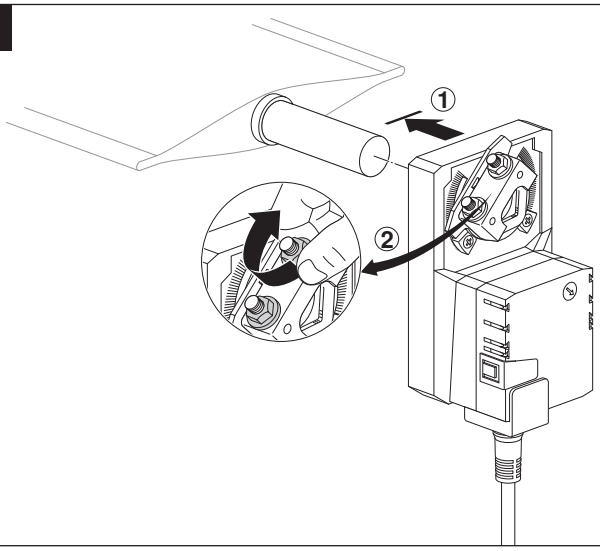
1



	10 ... 20	≥10	≤20
CrNi (INOX)	12 ... 20	≥10	≤20

2



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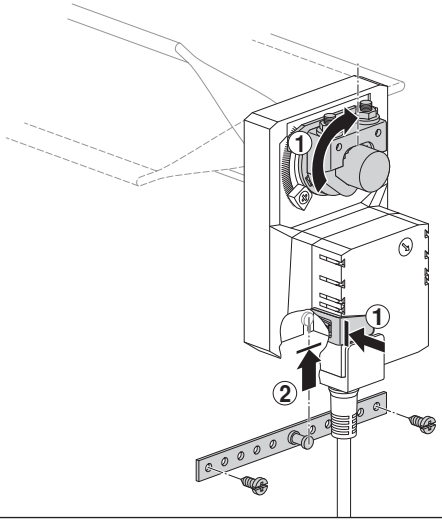

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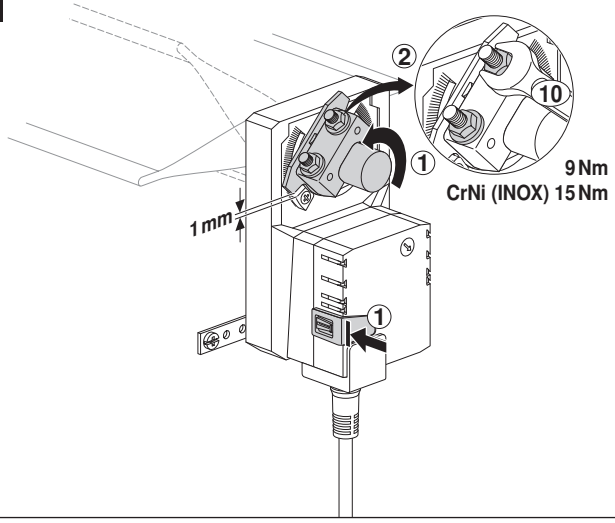

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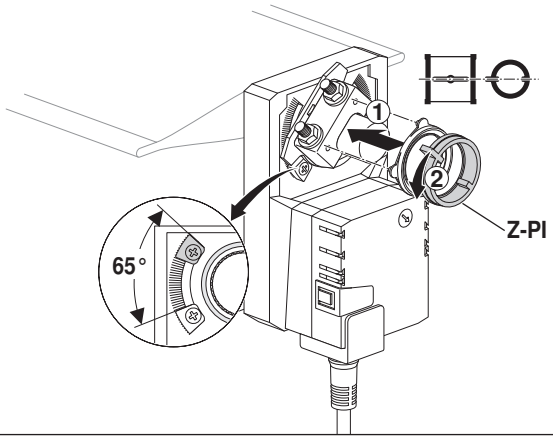
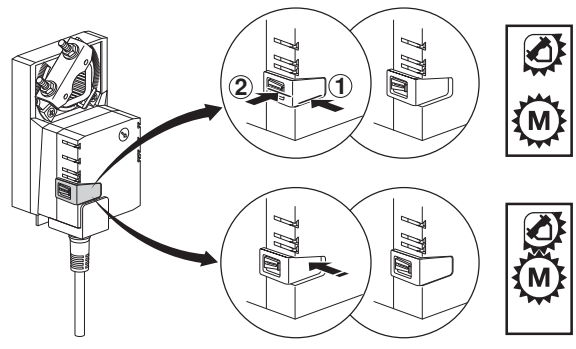
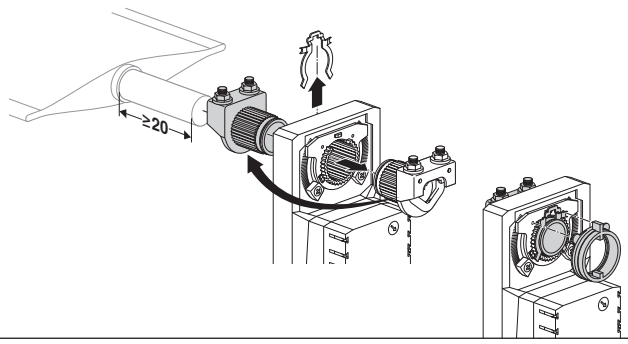
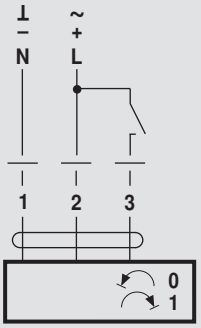
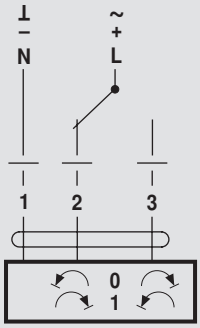
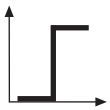




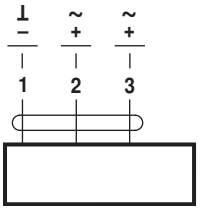




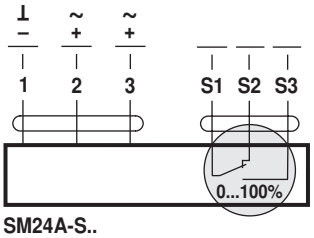




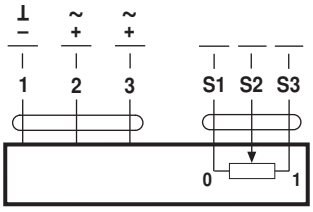
AC 24 V / DC 24 V



SM24A..

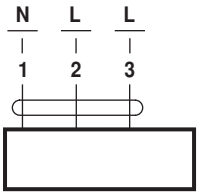


SM24A-S..

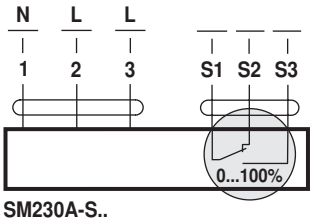


SM24AP5..

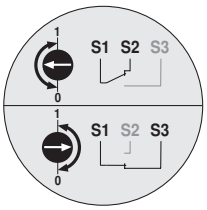
AC 100 ... 240 V ⚠

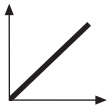


SM230A..

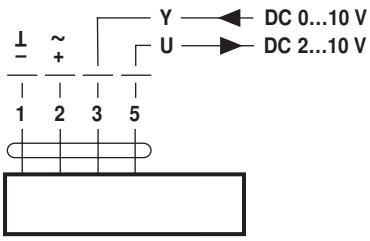


SM230A-S..

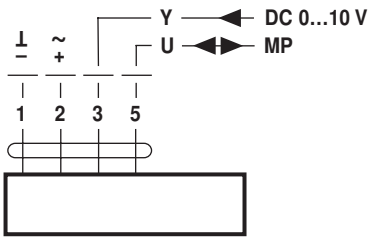




AC 24 V / DC 24 V

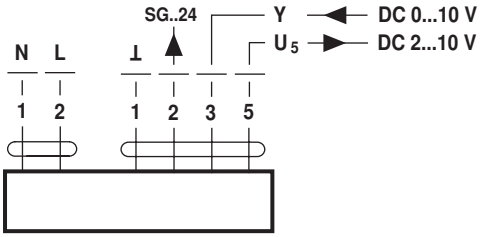


SM24A-SR..
SM24A-MF..



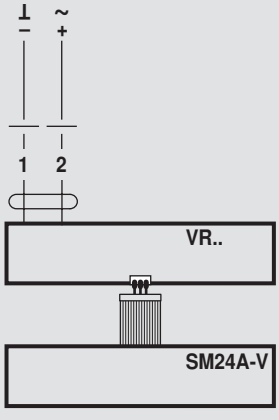
SM24A-MP..

AC 100 ... 240 V ⚠



SM230ASR..

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



SM230A-V / VR..