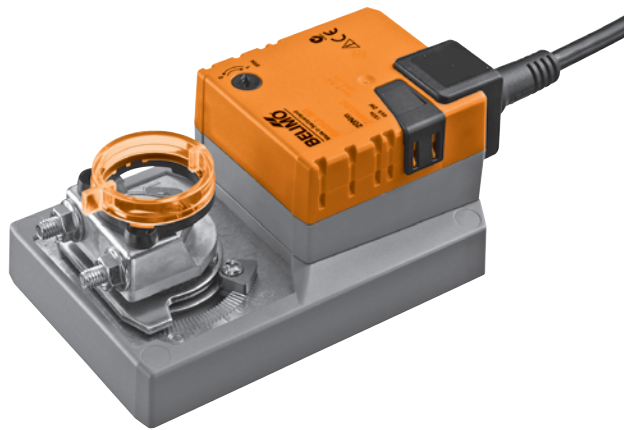


Modulating damper actuator for adjusting air dampers in ventilation and air-conditioning systems for building services installations

- For air dampers up to approx. 4 m²
- Torque 20 Nm
- Nominal voltage AC/DC 24 V
- Control: 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 19.2 ... 28.8 V / DC 21.6 ... 28.8 V
	Power consumption	In operation 2 W @ nominal torque
		At rest 0.4 W
	For wire sizing	4 VA
	Connection	Cable 1 m, 4 x 0.75 mm ²
Functional data	Torque (nominal torque)	Min. 20 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	In switch position 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
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
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 / Weight	Dimensions	See «Dimensions» on page 2
	Weight	Approx. 1.05 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.

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

- 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. 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

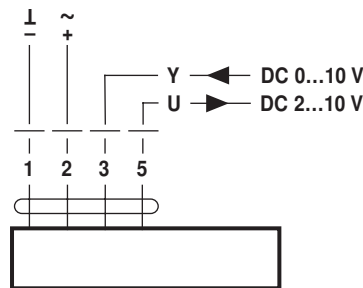
	Description	Data sheet
Electrical accessories	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..
	Range controller SBG24	T2 - SBG24
	Position sensor SGA24, SGE24 and SGF24	T2 - SG..24
	Digital position indication ZAD24	T2 - ZAD24
Mechanical accessories	Various accessories (clamps, shaft extensions etc.)	T2 - Z-SM..A..

Electrical installation

Wiring diagram

Notes

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

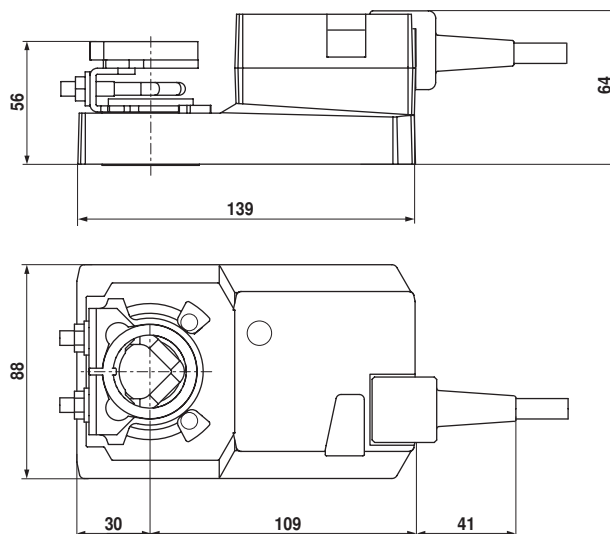


Cable colours:

- 1 = black
- 2 = red
- 3 = white
- 5 = orange

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

≥ 48

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

2

3

4

1mm

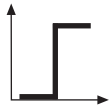
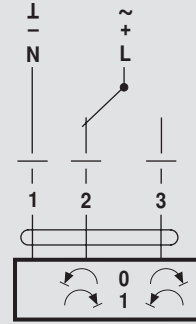
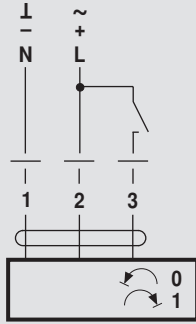
9 Nm
CrNi (INOX) 15 Nm

5

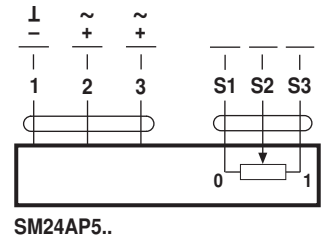
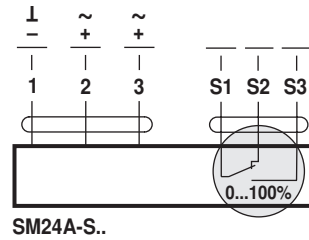
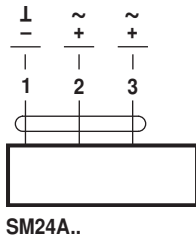
65°

Z-PI

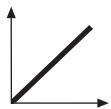
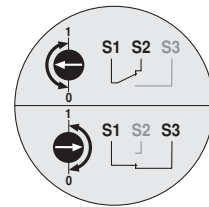
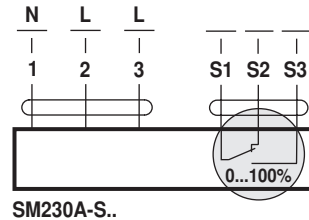
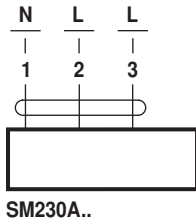
≥ 20



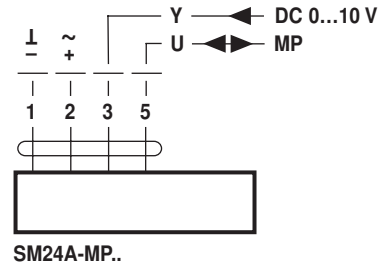
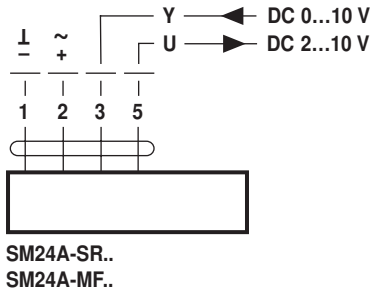
AC 24 V / DC 24 V



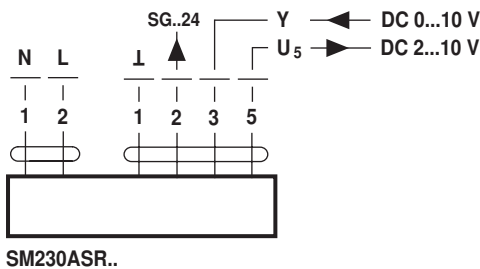
AC 100 ... 240 V ⚠



AC 24 V / DC 24 V



AC 100 ... 240 V ⚠



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

