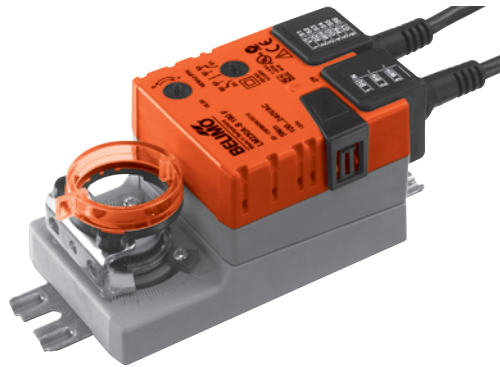


Damper actuator for operating air control dampers in ventilation and air-conditioning systems for building services installations

- For air control dampers up to approx. 0,4 m<sup>2</sup>
- Torque 2 Nm
- Nominal voltage AC 100 ... 240 V
- Control: Open-close or 3-point
- Damper rotation: Form-fit 8, 10 or 12 mm
- Auxiliary switch integrated



### Overview of types

Type	Damper rotation
TM230A-S 190 F 01 005	Form-fit 8 x 8 mm
TM230A-S 190 9 01 005	Form-fit 10 x 10 mm
TM230A-S 190 5 01 005	Form-fit 12 x 12 mm

### Technical data

<b>Electrical data</b>	Nominal voltage	AC 100 ... 240 V, 50/60 Hz	
	Nominal voltage range	AC 85 ... 265 V	
	Power consumption	In operation	2 W @ nominal torque
		At rest	0.5 W
		For wire sizing	4 VA
Auxiliary switch	1 x EPU, 1 mA ... 3 (0,5) A, AC 250 V <input type="checkbox"/>		
Connection	Motor	Cable 1 m, 3 x 0.75 mm <sup>2</sup>	
	Auxiliary switch	Cable 1 m, 3 x 0.75 mm <sup>2</sup>	
<b>Functional data</b>	Torque (nominal torque)	Min. 2 Nm @ nominal voltage	
	Direction of rotation	Reversible with switch 0 ↺ or 1 ↻	
	Manual override	Gearing latch disengaged with pushbutton, can be locked	
	Angle of rotation	Max. 95°↔, limited on both sides by means of adjustable, mechanical end stops	
	Running time	35 s / 90°↔	
	Sound power level	Max. 35 dB (A)	
	Damper rotation	See «Overview of types»	
	Position indication	Mechanical, pluggable	
<b>Safety</b>	Protection class	II Totally insulated <input type="checkbox"/>	
	Degree of protection	IP54 in any mounting position	
	EMC	CE according 89/336/EEC	
	Low voltage directive	CE according 73/23/EEC	
	Mode of operation	Type 1 (to EN 60730-1)	
	Rated impulse voltage	0.8 kV (to EN 60730-1)	
	Control pollution degree	3 (to EN 60730-1)	
	Ambient temperature range	-30 ... +50 °C	
	Non-operating temperature	-40 ... +80 °C	
	Ambient humidity range	95% r.H., non-condensating (EN 60730-1)	
	Maintenance	Maintenance-free	
<b>Dimensions / Weight</b>	Dimensions	See «Dimensions» on page 2	
	Weight	Approx. 500 g	

### Safety notes



- The damper actuator is not allowed to be used outside the specified field of application, especially not 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.

**Safety notes**

(Continued)

- 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.
- 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 by form-fit. Each actuator is fitted with two screws at the front and a clip at the back for fastening purposes.
- Manual override** Manual operation is possible with the pushbutton (the gearing latch remains disengaged as long as the pushbutton 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	T2 - Z-LM..A..

**Electrical installation**

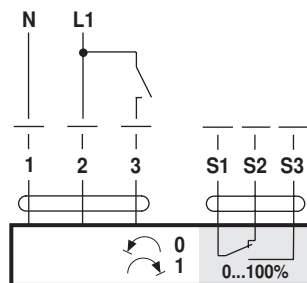
Wiring diagrams

Note

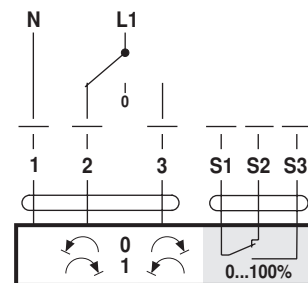
- Caution: Power supply voltage !
- Other actuators can be connected in parallel. Please note the performance data.



Open-close control



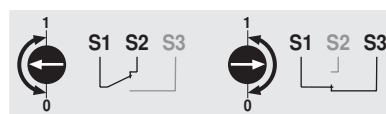
3-point control



Direction of rotation

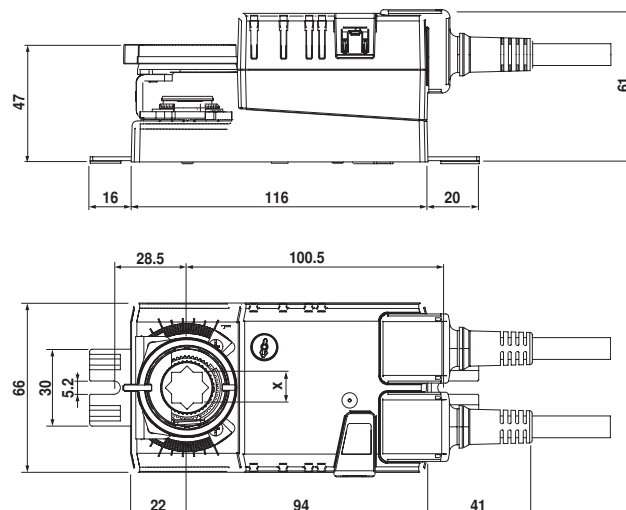


Auxiliary switch



**Dimensions [mm]**

Dimensional drawings



Damper spindle	Length	x *
	min. 20	8 / 10 / 12

\* See «Overview of types»