

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

- For air control dampers up to approx. 4 m<sup>2</sup>
- Torque 20 Nm
- · Nominal voltage AC 100 ... 240 V
- Control: modulating DC 0 ... 10 V, position feedback DC 2 ... 10 V



Technical data sheet

Technische Daten		
Electrical data	Nominal voltage	AC 100 240 V, 50/60 Hz
	Nominal voltage range	AC 85 265 V
	Power consumption In operation	3.5 W @ nominal torque
	At rest	1 W
	For wire sizing	6.5 VA
	Connection Power supply	Cable 1 m, 2 x 0.75 mm <sup>2</sup>
	Signals	Cable 1 m, 4 x 0.75 mm <sup>2</sup>
Functional data	Torque (nominal torque)	Min. 20 Nm @ nominal voltage
	Control Control signal Y	DC 0 10 V, typical input impedance 100 $k\Omega$
	Working 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 rotation at $Y = 0 V$	at switch position 0 🖍 resp. 1 🤼
	Manual override	Gearing latch disengaged with pushbutton,
		self-resetting
	Angle of rotation	Max. 95°
		by means of adjustable, mechanical end stops
	Running time	150 s
	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
	EMC	CE according to 89/336/EEC
	Low voltage directive	CE according to 73/23/EWG
	Mode of operation	Type 1 (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
Dimensions / Weight	Dimensions	See «Dimensions» on page 2
_	Weight	Approx. 1'200 g
		<u>=</u>

### Safety notes



- The damper 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.
- · 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**

Mode of operation The actuator is controlled by means of a standard control signal DC 0 ... 10 V. It opens to the

position dictated by this signal. The measuring voltage U allows the damper position (0 ... 100%) to be electrically indicated and serves as a follow-up 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 operation is possible with the self-resetting pushbutton (the gearing latch remains

disengaged as long as the pushbutton is pressed).

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 SA	T2 - SA
	Feedback potentiometer PA	T2 - PA
	Positioner SG24	T2 - SG24
lechanical accessories	Various accessories (clamps, shaft extensions etc.)	T2 - 7-SM A

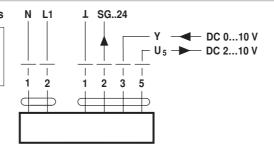
### **Electrical installation**

### Wiring diagrams

#### Notes

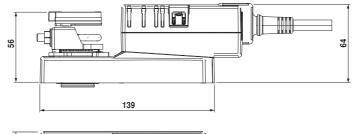
• Caution: Power supply voltage !

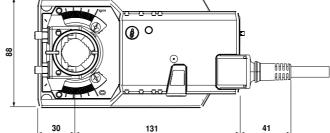
• Other actuators can be connected in parallel. Please note the performance data.



## **Dimensions** [mm]

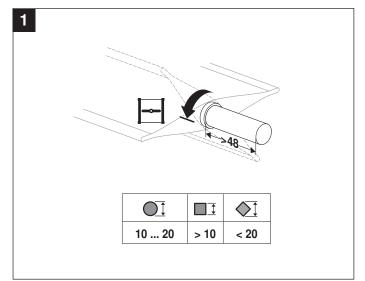
# **Dimensional drawings**

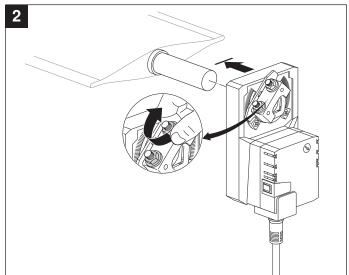


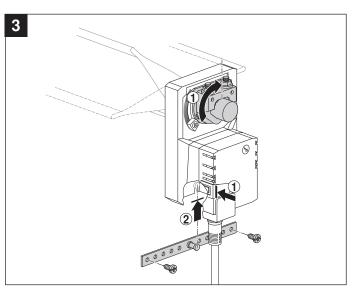


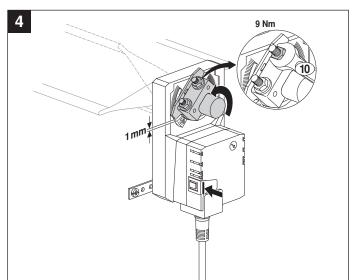
Damper spindle	Length	<u>0</u> 1\$
Clamp on top	min. 42	10 20 (26.7)
Clamp on bottom	min. 20	10 20

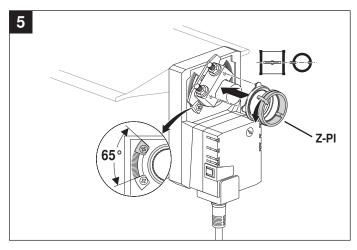
BELIMO

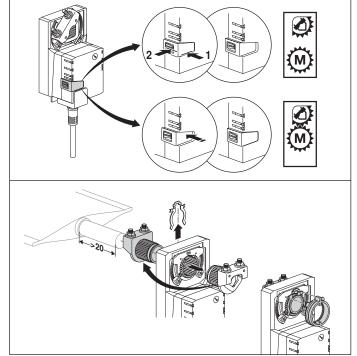






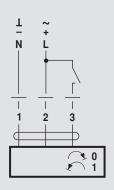


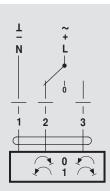






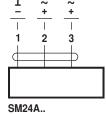


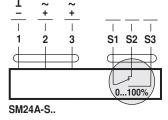


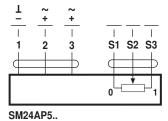




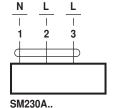
AC 24 V / DC 24 V

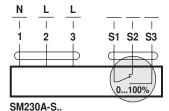


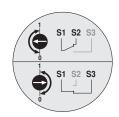




AC 100 ... 240 V



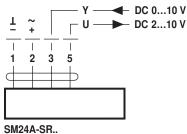


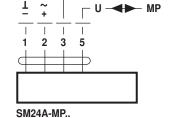


**←** DC 0...10 V



AC 24 V / DC 24 V





SM24A-SR.. SM24A-MF..



