## **Technical data sheet**

GRUNER Schalten und Bewegen

# 227-230-10 Rotary drive without spring return

Actuator for adjusting air dampers of 90° angle of rotation to be used in HVAC installations.

- Torque Motor
- Nominal Voltage 230 VAC/DC
- Control

10 Nm

- Damper size
- Damper coupling
- 2/3 Point up to approx. 2 m<sup>2</sup> Clamp 8-15 mm / Ø 8-20 mm



Electrical data	Nominal voltage	230 VAC/DC
	Nominal voltage range	85265 VAC
	Power consumption motor (motion)	2,0 W
	Power consumption standby (end position)	1,0 W
	Wire sizing	4,5 VA
	Control	2/3 Point
	Position feedback	-
	Auxiliary switch	-
	Contact load	-
	Switching point	-
	Connection Motor	Cable 1000 mm,
		3 x 0,75 mm² (halogen free)
	Connection Auxiliary switch	-
	Connection Position feedback	-
	Connection GUAC	-
Functional data	Torque Motor	> 10 Nm
	Synchronised speed	±5%
	Direction of rotation	selected by switch
	Manual override	Gearing latch disengaged with
		pushbutton, self-resetting
	Angle of rotation	0° max. 95°
		can be limited with adjustable mechanical
		end stop min 20°.
	Running time Motor	< 150 s / 90°
	Sound power level Motor	< 35 dB(A)
	Damper coupling	Clamp
		◊ 8-15 mm / Ø 8-20 mm
	Position indication	mechanical with pointer

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Functional data	Service life	> 60'000 cycles (0° - 95° - 0°)
Safety	Protection class	II (double insulation)
	Degree of protection	IP54 (Cable downwards)
	EMC	CE (2004/108/EG)
	LVD	CE (2006/95/EG)
	RoHS	CE (2011/65/EU)
	Mode of operation	Typ 1 (EN 60730-1)
	Rated impulse voltage	4 kV (EN 60730-1)
	Control pollution degree	3 (EN 60730-1)
	Ambient temperature normal operation	-30°C+50°C
	Storage temperature	-30°C+80°C
	Ambient humidity	595% r.F.,
		non condensing (EN 60730-1)
	Maintenance	maintenance free
Dimensions/ Weight	Dimensions	115 x 65 x 61 mm
	Weight	ca. 530 g

#### Operating mode / Properties

### **Operating mode**

#### 2- point.

Through connecting the power supply to BU+BN (1+2) and the direction of rotation switch on position "R" moves the actuator to position 1. Is also BK (1+2+3) connected to the power supply the actuator is moving to position 0.

#### 3- point.

Through connecting the power supply to BU+BN (1+2) and the direction of rotation switch on position "R" moves the actuator to position 1. If the power supply is interrupted the actuator maintains its current position. Is also BU+BK (1+3) connected to the power supply the actuator is moving in direction 0.

The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.

#### **Direct mounting**

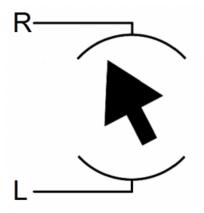
Simple direct mounting on the damper spindle with a universal spindle clamp, supplied with an anti-rotation strap to prevent the actuator from rotating.

#### Manual override

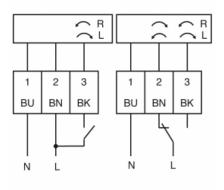
Manual override is possible with the self-resetting pushbutton (the gearing latch remains disengaged as long as the pushbutton is pressed)

#### **Rotary direction switch**

R= clockwise L= counter clockwise



### Connection / Safety remarks



#### Safety remarks

-Attention mains voltage -The actuator is not allowed to be used outside the specified field of application, especially in airplanes.

-It may only be installed by suitably 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.

-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 actuator is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.



echnical drawing

