

Technical data sheet

**227CZ-024-05/RE20**  
**Rotary actuator**

Description

Rotary actuator for adjusting dampers in HVAC installations

- Running time 100 s / 90°
- Torque 5 Nm
- Nominal voltage 24 VAC/DC
- Control continuous control (0)2...10 VDC
- Damper size up to approx. 1 m<sup>2</sup>
- Shaft coupling clamp  
∅ 8-15 mm / Ø 8-20 mm



Technical data

<b>Electrical data</b>	Nominal voltage	24 VAC/DC, 50/60 Hz
	Nominal voltage range	19...29 VAC/DC
	Power consumption motor (motion)	2,0 W
	Power consumption standby (end position)	1,0 W
	Wire sizing	4,0 VA
	Control	continuous control (0)2...10 VDC / Ri > (100 kΩ) 50 kΩ (0)4...20 mA / Rext. = 500 Ω
	Feedback signal	(0)2...10 VDC, max. 5 mA
	Auxiliary switch	-
	Contact load	-
	Switching point	-
	Connection motor	cable 1000 mm, 4 x 0,75 mm <sup>2</sup> (halogen free)
	Connection feedback potentiometer	-
	Connection auxiliary switch	-
	Connection GUAC	-

## Technical data

<b>Functional data</b>	Torque	5 Nm
	Damper size	up to approx. 1 m <sup>2</sup>
	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 stops
	Running time	100 s / 90°
	Sound power level	< 35 dB(A)
	Shaft coupling	clamp $\varnothing$ 8-15 mm / $\varnothing$ 8-20 mm
	Position indication	mechanical with pointer
	Service life	> 100 000 cycles (0°...95°...0°) > 1 500 000 partial cycles (max. ±5°)
	<b>Safety</b>	Protection class
Degree of protection		IP 54 (cable downwards)
EMC		CE (2014/30/EU)
LVD		CE (2014/35/EU)
RoHS		CE (2011/65/EU - 2015/863/EU - 2017/2102/EU)
Mode of operation		Typ 1 (EN 60730-1)
Rated impulse voltage		0,8 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		5...95% r.H., non condensing (EN 60730-1)
Maintenance		maintenance free
<b>Dimensions / Weight</b>	Dimensions	149 x 67 x 66 mm
	Weight	400 g

## Functionality / Properties

### Operating mode

Connect power supply to wire 1+2 and a reference signal Y to wire 3 in range of (0)2...10 VDC, actuator drives to its specified position. The actual damper position (0...100%) is a feedback signal U on wire 4 for example to share with other actuators. 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 shaft with a clamp, protection against rotating with enclosed anti-rotation lock or rather at intended attachment points.

### Manual override

Manual override with self-resetting pushbutton possible (the gear is disengaged as long as the button is pressed).

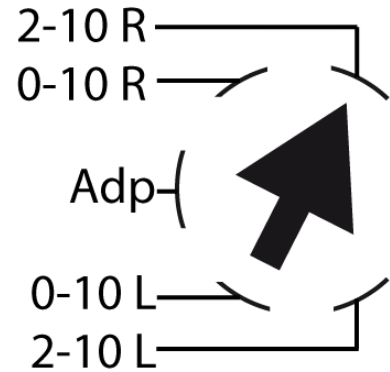
### Mode switch

Mode switch with five positions at the housing:

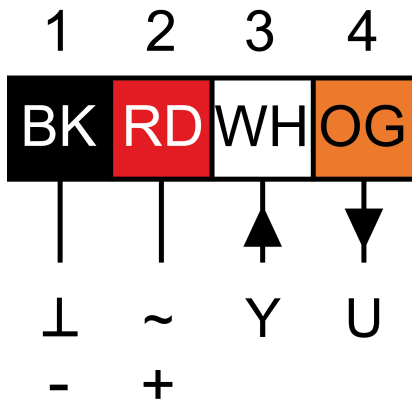
2-10 R: rotary direction right 2-10 VDC  
 0-10 R: rotary direction right 0-10 VDC  
 Adp: adaption  
 0-10 L: rotary direction left 0-10 VDC  
 2-10 L: rotary direction left 2-10 VDC

### Adaption drive

- Actuator power off
- Setting the mechanical end stops
- Actuator power on
- Adaption enable
- Actuator drive to position 0
- Actuator drive to position 1
- Adaption disable, if desired angular range reached or rather if actuator reached endstop
- "Y" refers to the measured angular range



## Connector / Security Note



## Safety remarks

- Connect via safety isolation transformer!
- The device 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.
- The device is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.
- When calculating the required torque, the specifications supplied by the damper manufacturer's (cross-section, design, installation site), and the air flow conditions must be observed.

Technical Drawing

