

Technical data sheet

227CSZ-024-05/yEx

Rotary actuator

Description

Rotary actuator for adjusting dampers in HVAC installations

- **Running time** 20 s / 90°
- **Torque** 5 Nm
- **Nominal voltage** 24 VAC/DC
- **Control** continuous control (0)2...10 VDC
- **Damper size** up to approx. 1 m²
- **Shaft coupling** form fit 8 mm (8E 8)
form fit 10 mm (8E10)
form fit 12 mm (8E12)


Technical data
Electrical data

Nominal voltage	24 VAC/DC, 50/60 Hz
Nominal voltage range	19...29 VAC/DC
Power consumption motor (motion)	3,5 W
Power consumption standby (end position)	1,0 W
Wire sizing	5,5 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 ² (halogen free)
Connection feedback potentiometer	-
Connection auxiliary switch	-
Connection GUAC	-

Functional data

Torque	> 5 Nm
Damper size	up to approx. 1 m ²
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	< 20 s / 90°

Technical data

Functional data

Sound power level	< 45 dB(A)
Shaft coupling	form fit 8 mm (8E 8) form fit 10 mm (8E10) form fit 12 mm (8E12)
Position indication	mechanical with pointer
Service life	> 100 000 cycles (0°...95°...0°) > 1 500 000 partial cycles (max. ±5°)

Safety

Protection class	III (safety extra-low voltage)
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

Dimensions / Weight

Dimensions	149 x 67 x 66 mm
Weight	400 g

Operating mode / 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 form fit, 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).

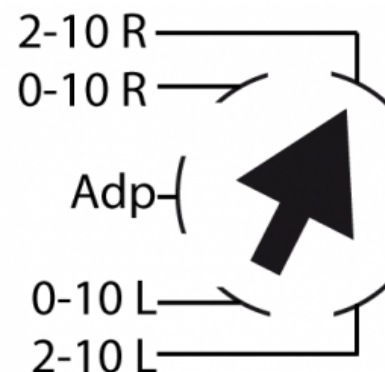
Mode switch

Mode switch with five positions at the housing:

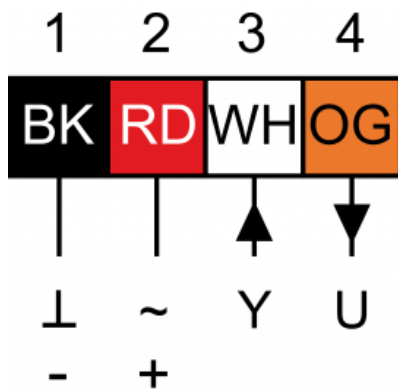
2-10 R: rotary direction right 2-10 VDC
 0-10 R: rotary direction right 0-10 VDC
 Adp: adaption
 0-10 L: rotary direction left 0-10 VDC
 2-10 L: rotary direction left 2-10 VDC

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



Connection / Safety remarks

**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

