

## Technical data sheet

# 227CS-024-10B

## Continuous control rotary drive without spring return

### Description

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

- Running time Motor      3 s / 90°
- Torque Motor              10 Nm
- Nominal Voltage          24 VAC/DC
- Control                      Continuous control  
DC (0)2...10 VDC  
up to approx. 2 m<sup>2</sup>
- Damper size
- Damper coupling          Clamp  
Ø 8-15 mm / Ø 8-20 mm



### Technical data

#### Electrical data

Nominal voltage	24 VAC/DC
Nominal voltage range	19...29 VAC/DC
Power consumption motor (motion)	11,0 W
Power consumption standby (end position)	1,0 W
Wire sizing	15,0 VA
Control	Continuous control (0)2...10 VDC / Ri >(100 kΩ) 50kΩ (0)4...20 mA / Rext.= 500Ω
Position feedback	(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 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
Running time Motor	3 s / 90°
Sound power level Motor	< 55 dB(A)
Damper coupling	Clamp Ø 8-15 mm / Ø 8-20 mm

## Technical data

## Functional data

Position indication	mechanical with pointer
Service life	> 60'000 cycles (0° - 95° - 0°) > 1'500'000 partial cycles (max. ±5°)

## Safety

Protection class	III (safety extra-low voltage)
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	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.F., non condensing (EN 60730-1)
Maintenance	maintenance free

## Dimensions/ Weight

Dimensions	172,5 x 65 x 90 mm
Weight	ca. 720 g

## Operating mode / Properties

### Operating mode

Through connecting the power supply to BU+BN (1+2) and a reference signal Y to BK (3) of (0)2...10VDC, moves the actuator to its specified position. The actual damper position 0...100% is a feedback signal U for example to share the signal 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 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)

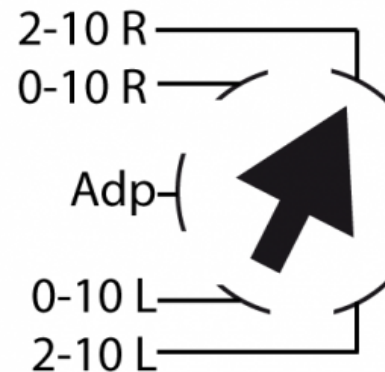
### Mode- switch

Mode- switch with five positions at the housing

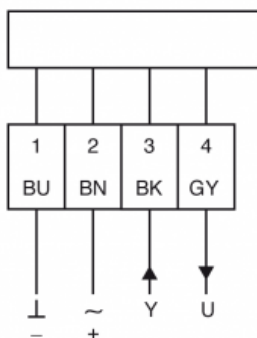
- Rotary direction right 2-10 V
- Rotary direction right 0-10 V
- Adp = Adaption
- Rotary direction left 0-10 V
- Rotary direction left 2-10 V

### Adaption journey

- Adaption on angle of rotation < 90°
- Actuator power-off
- Setting the mechanical end stops
- Actuator power-on
- Adaption to enable
- Actuator adaption on angular range
- Adaption to disable
- “Y” refers to the measured angular range



## Connection / Safety remarks



### Safety remarks

- Connect via safety isolation transformer
- 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.

## Technical drawing

