

## Technical data sheet

### 227-024-10-S1

#### 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** 150 s / 90°
- **Torque Motor** 15 Nm
- **Nominal Voltage** 24 VAC/DC
- **Control** 2/3 Point
- **Connection** 1x freely adjustable
- **Auxiliary switch S1**
- **Damper size** up to approx. 2 m<sup>2</sup>
- **Damper coupling** Clamp  
 $\diamond$  8-15 mm /  $\varnothing$  8-20 mm



##### Technical data

##### Electrical data

Nominal voltage	24 VAC/DC
Nominal voltage range	19...29 VAC/DC
Power consumption motor (motion)	2,0 W
Power consumption standby (end position)	1,0 W
Wire sizing	3,5 VA
Control	2/3 Point
Position feedback	-
Auxiliary switch	1 x SPDT(Ag)
Contact load	5 (2,5) A, 250 VAC
Switching point	0...95°
Connection Motor	Cable 1000 mm, 3 x 0,75 mm <sup>2</sup> (halogen free)
Connection Auxiliary switch	Cable 1000 mm, 3 x 0,75 mm <sup>2</sup> (halogen free)
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 $\diamond$ 8-15 mm / $\varnothing$ 8-20 mm

## Technical data

## Functional data

Position indication	mechanical with pointer
Service life	> 60'000 cycles (0° - 95° - 0°)

## 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.H., non condensing (EN 60730-1)
Maintenance	maintenance free

## Dimensions / Weight

Dimensions	115 x 65 x 61 mm
Weight	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

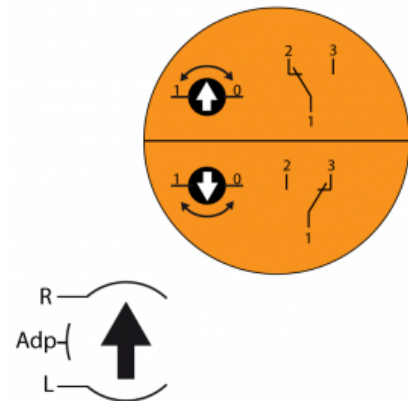
Manual override is possible with the self-resetting pushbutton (the gearing latch remains disengaged as long as the pushbutton is pressed).

## Rotary direction switch

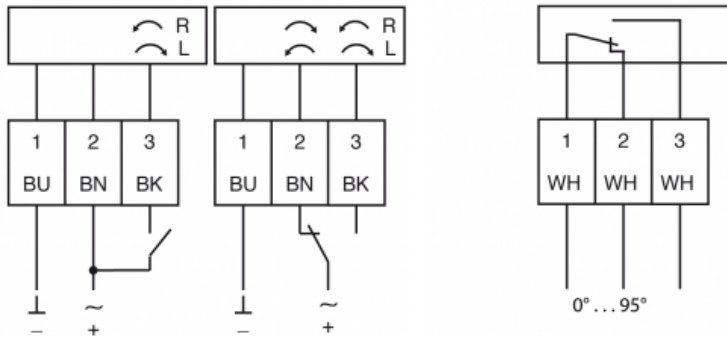
R / CW = clockwise  
L / CCW = counter clockwise

## Adaption drive

- 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 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

