

## Technical data sheet

### 328CS-024-02A Rotary actuator

#### Description

Rotary actuator for adjusting dampers in HVAC installations

- Running time 1 s / 90°
- Torque 2 Nm
- Nominal voltage 24 VAC/DC
- Control continuous control (0)2...10 VDC
- Damper size up to approx. 0.4 m<sup>2</sup>
- Shaft coupling clamp  
Ø 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)	11,0 W
	Power consumption standby (end position)	1,0 W
	Wire sizing	14,0 VA
	Control	continuous control (0)2...10 VDC / Ri > (100 kΩ) 50 kΩ resolution 80 mV (0)4...20 mA / Rext. = 500 Ω resolution 0,16 mA
	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	-

## Technical data

<b>Electrical data</b>	Connection GUAC	-
<b>Functional data</b>	Torque	2 Nm
	Damper size	up to approx. 0.4 m <sup>2</sup>
	Synchronized 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 ; after changing the angle of rotation, a adaptation drive must be made
	Running time	< 1 s / 90°
	Sound power level	< 60 dB(A)
	Shaft coupling	clamp Ø 8-15 mm / Ø 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	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
<b>Dimensions / Weight</b>	Dimensions	172 x 65 x 87 mm
	Weight	700 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. A supply of direct current (VDC) is preferred.

### 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).

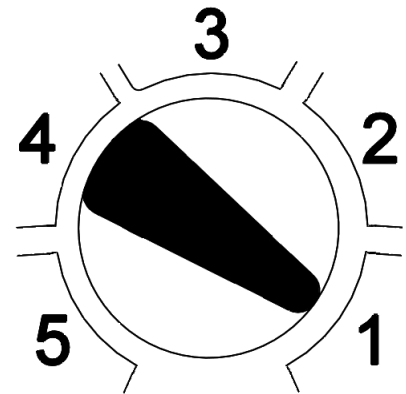
### Mode switch

Mode switch with five positions at the housing:

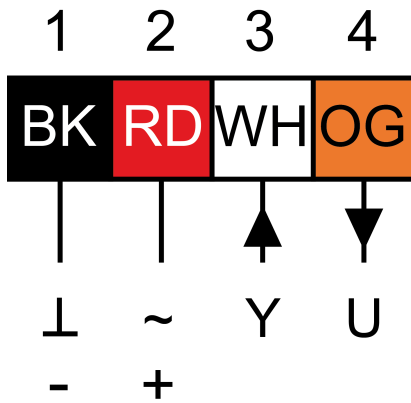
- 1: rotary direction right 2-10 VDC
- 2: rotary direction right 0-10 VDC
- 3: adaption
- 4: rotary direction left 0-10 VDC
- 5: rotary direction left 2-10 VDC

### 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



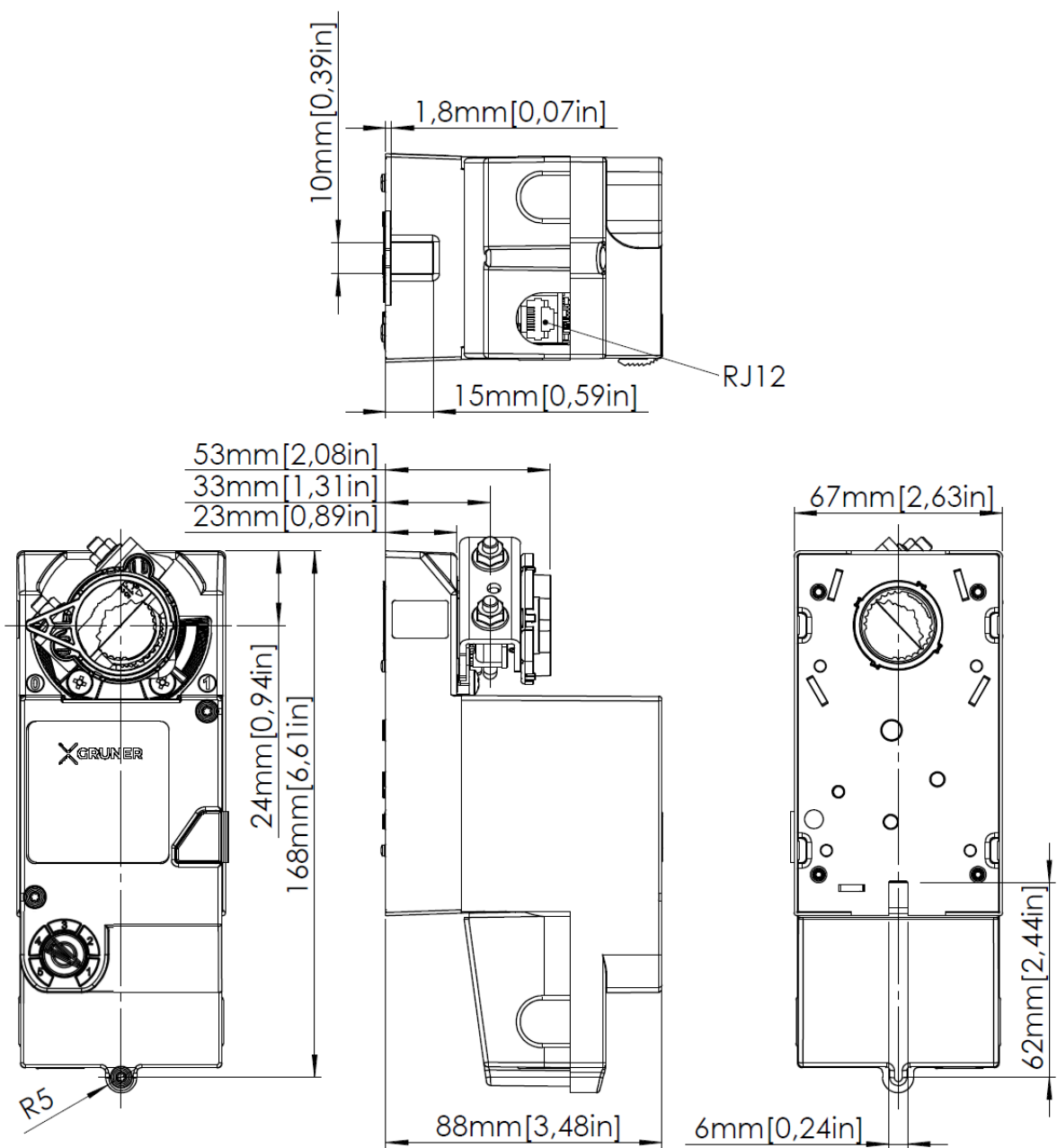
## Connector / Security Note



## 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



Montage / Mounting

