

## 328QS-024-02A

### Rotary Actuator with fail-safe position

#### Description

Rotary actuator with fail-safe position 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  
∅ 8-15 mm / Ø 8-20 mm



#### General data

#### Technical data

Nominal voltage	24 VAC/DC, 50/60 Hz
Nominal voltage range	19...29 VAC/DC
Power consumption motor (motion)	14.0 W
Power consumption standby (end position)	1.0 W
Wire sizing	19.0 VA
Control	Continuous control (0)2...10 VDC / Ri > (100 kΩ) 50 kΩ resolution 80 mV (0)4...20 mA / Rext. = 500 Ω resolution 0.08 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	-
Connection GUAC	-

### Functional data

<b>Torque</b>	2 Nm
<b>Damper size</b>	up to approx. 0.4 m <sup>2</sup>
<b>Synchronized speed</b>	±5%
<b>Direction of rotation</b>	Selected by switch
<b>Manual override</b>	Gearing latch disengaged with pushbutton, self-resetting
<b>Angle of rotation</b>	0°...max. 95° can be limited with adjustable mechanical end stops ; after changing the angle of rotation, a adaptation drive must be made
<b>Running time</b>	1 s / 90°
<b>Sound power level</b>	< 55 dB(A)
<b>Shaft coupling</b>	clamp $\varnothing$ 8-15 mm / $\varnothing$ 8-20 mm
<b>Position indication</b>	mechanical with pointer
<b>Service life</b>	> 100 000 cycles (0°...95°...0°) > 1 500 000 partial cycles (max. ±5°)

### Safety

<b>Protection class</b>	III (safety extra-low voltage)
<b>Degree of protection</b>	IP 54
<b>Cable Mounting Type</b>	Type Z (EN 60730-1)
<b>EMC</b>	CE (2014/30/EU)
<b>LVD</b>	CE (2014/35/EU)
<b>RoHS</b>	CE (2011/65/EU - 2015/863/EU -2017/2102/EU)
<b>Mode of operation</b>	Typ 1.AA.B (EN 60730-1)
<b>Rated impulse voltage</b>	0. 8 kV (EN 60730-1)
<b>Control pollution degree</b>	3 (EN 60730-1)
<b>Ambient temperature normal operation</b>	-30°C...+50°C
<b>Storage temperature</b>	-30°C...+80°C
<b>Ambient humidity</b>	5...95% r.H., non condensing (EN 60730-1)
<b>Maintenance</b>	Maintenance free

### Dimensions / Weight

<b>Dimensions</b>	168 x 67 x 88 mm
<b>Weight</b>	1000 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. actuator drives back to safety position by integrated capacitors. The actuator is still maintaining the minimum torque at the damper spindle.

The safety position can be changed via the mode switch. Positions 0 and 1 are possible.

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.

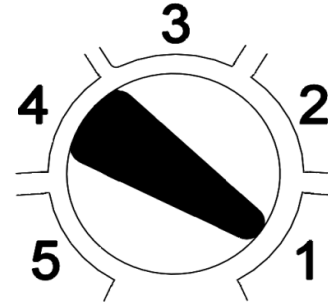
### Manual override

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:

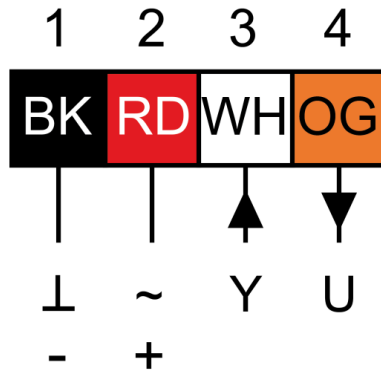
- 1: rotary direction right, safety position 0
- 2: rotary direction right, safety position 1
- 3: adaption
- 4: rotary direction left, safety position 0
- 5: rotary direction left, safety position 1



### 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 end stop
- "Y" refers to the measured angular range

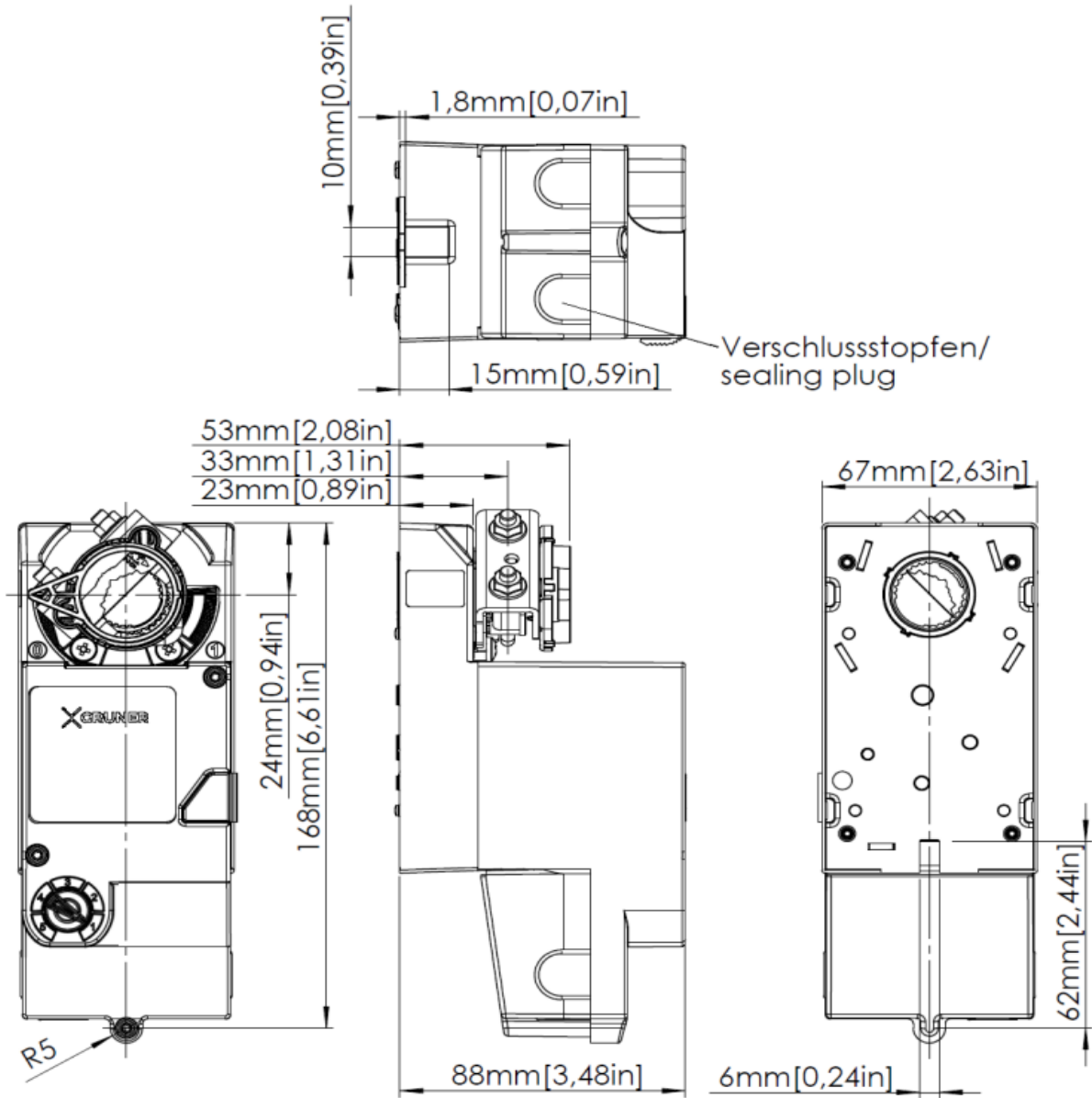
### Connector / Security Note



### Safety remarks

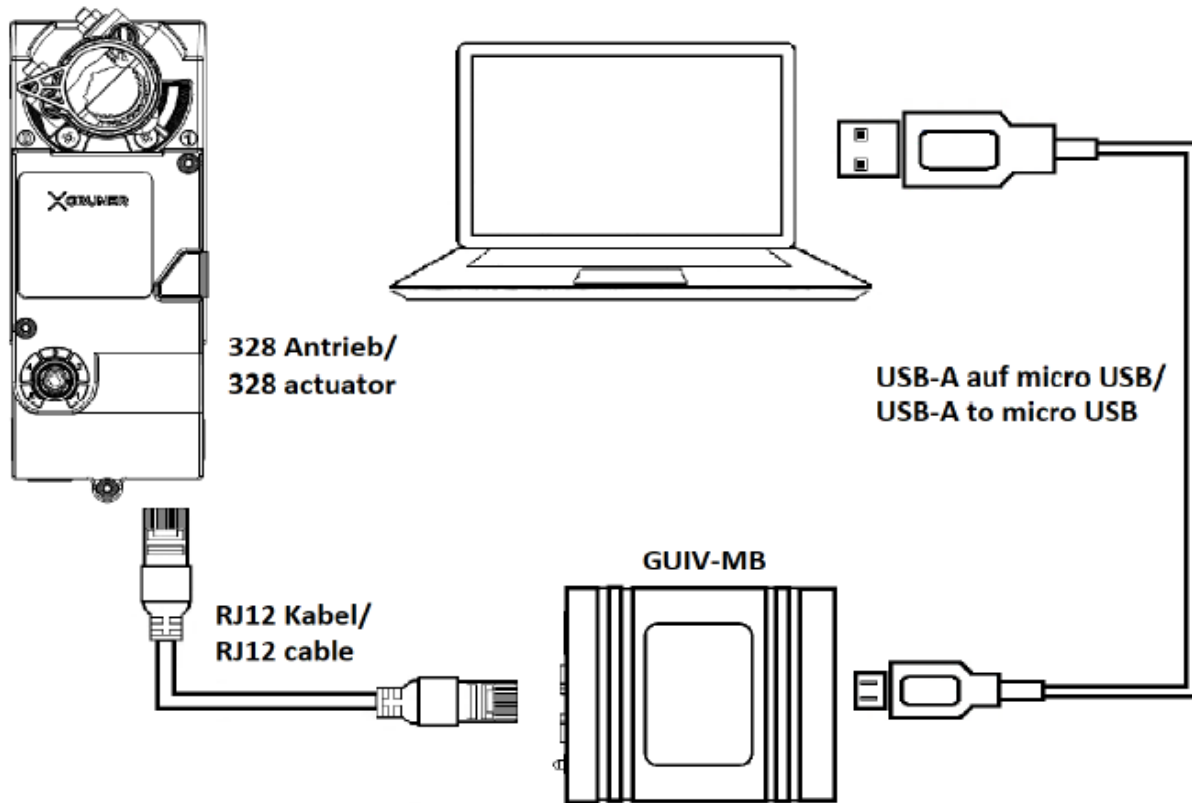
- Connect via safety isolation transformer!
- The device is not allowed to be used outside the specified field of application, especially in airplanes.
- It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.
- The device may only be opened at the manufacturer's site.
- Cables must not be removed from the Device.
- The cable of this actuator cannot be replaced. If the cable is damaged, the actuator should be scrapped
- 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



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Connection and accessories



GUIV-MB Bundle: 47281

Bestellung / Order	Bestellnummer / Order code
- GUIV-MB	47813
- RJ12 Kabel 3m / RJ12 cable 3m	47795
- USB-A auf / to Micro USB Kabel / cable 1.8m	44931
- Win-VAV2 Software	

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Montage / Mounting

