

## 227-230-16I\_VNB(-S1\_VNB) Open Close Actuator for Ball Valve

### Description

Open Close actuators for ball valve.

- Running time 100 s / 90°
- Torque 16 Nm
- Nominal voltage 230 VAC/DC
- Control 2-/3-point



### Technical data

#### Electrical data

<b>Nominal voltage</b>	230 VAC/DC, 50/60Hz
<b>Nominal voltage range</b>	85...265 VAC/DC
<b>Power consumption motor (motion)</b>	3.0 W
<b>Power consumption standby (end position)</b>	1.5 W
<b>Wire sizing</b>	5.5 VA
<b>Control</b>	2-/3-point
<b>Connection motor</b>	cable 1000 mm, 3 x 0.75 mm <sup>2</sup> (halogen free)
<b>Connection feedback potentiometer</b>	-
<b>Connection GUAC</b>	-
<b>Feedback signal</b>	-
<b>227-230-16I-S1_VNB</b>	
<b>Auxiliary switch</b>	- 1 x SPDT (ag)
<b>Contact load</b>	- 5 (2.5) A, 250 VAC
<b>Switching point</b>	- 0...95°
<b>Connection auxiliary switch</b>	cable 1000 mm, 3 x 0.75 mm <sup>2</sup> (halogen free)

### Functional data

<b>Torque</b>	16 Nm
<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>Running Time</b>	100 s / 90°
<b>Sound power level</b>	< 35 dB(A)
<b>Position indication</b>	mechanical with pointer
<b>Service life</b>	> 100,000 cycles (0°...95°...0°)

### Safety

<b>Protection class</b>	II (double insulation)
<b>Degree of protection</b>	IP 54 (cable downwards)
<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 (EN 60730-1)
<b>Rated impulse voltage auxiliary switch</b>	4 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>	117 x 67 x 67 mm
<b>Weight</b>	350 g
<b>Weight (S1_VNB)</b>	510 g

## Functionality / Properties

### Operating mode

2 point:

Connect power supply to wire 1+2, actuator drives to position 1. Is also wire 3 connected to the power supply, actuator drives to position 0.

3 point:

Connect power supply to wire 1+2, actuator drives to position 1. Is wire 1+3 connected to the power supply, actuator drives to position 0.

The actuator is overload-proof, requires no limit switches and automatically stops, when the end stop is reached.

### Manual override

Manual override with self resetting push button possible (the gear is disengaged as long as the button is pressed).

### Mode switch

Mode switch with two positions at the housing

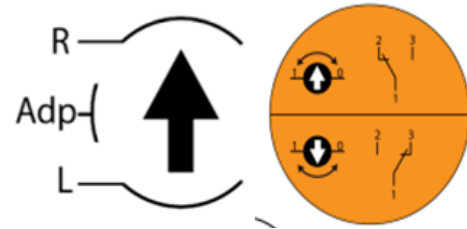
R: rotary direction right / clockwise

Adp : adaption

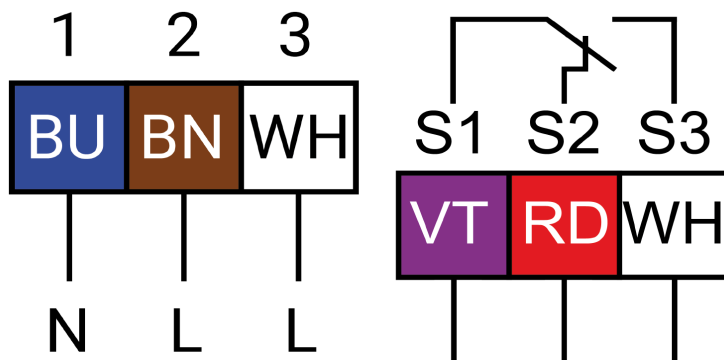
L: rotary direction / counter clockwise

### 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 an angular range reached or rather if actuator reached end stop.



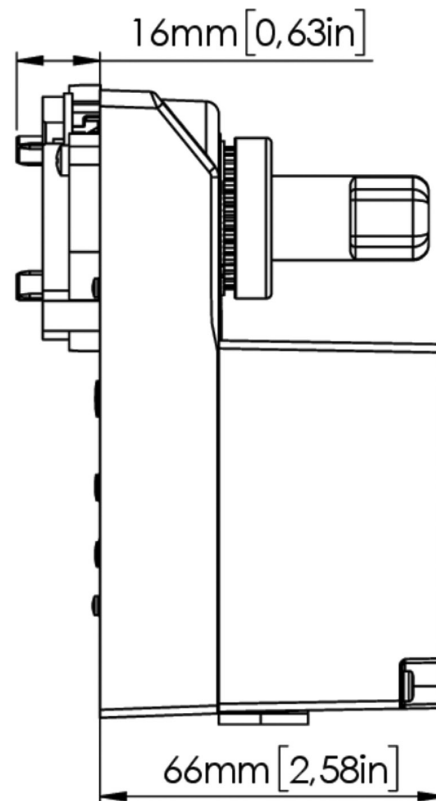
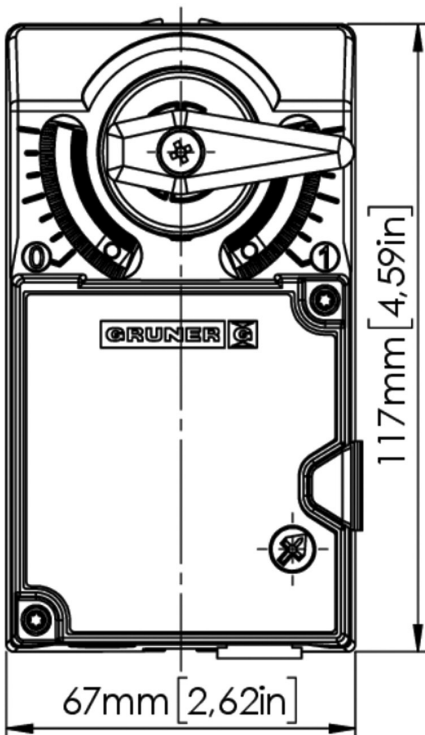
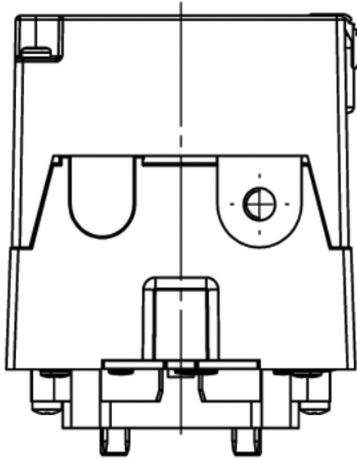
## Connector / Security Note



### Safety remarks

- Caution: power supply voltage!
- 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 (crosssection, design, installationsite), and the air flow conditions must be observed.

Technical Drawing



Copyright by GRUNER AP @2025\_V1. Subject to change in technology and Design.