

227C-024-16I_VNB(-S1_VNB) Modulating Actuator for Ball Valve

Description

Modulating Actuator for Ball Valve.

- Running time 100 s / 90°
- Torque 16 Nm
- Nominal voltage 24 VAC/DC
- Control continuous control (0)2...10 VDC



Technical data

Electrical data

Nominal voltage	24 VAC/DC, 50/60Hz
Nominal voltage range	19...29 VAC/DC
Power consumption motor (motion)	2.5 W
Power consumption standby (end position)	1.0 W
Wire sizing	4.0 VA
Control	Continuous control (0)2...10 VDC / Ri > (100 kΩ) 50 kΩ (0)4...20 mA / Rext. = 500 Ω
Connection motor	Cable 1000 mm, 3 x 0.75 mm ² (halogen free)
Connection feedback potentiometer	-
Connection GUAC	-
Feedback signal	(0)2...10 VDC, max. 5 mA
227C-024-16I-S1_VNB	
Auxiliary switch	- 1 x SPDT (ag)
Contact load	- 5 (2.5) A, 250 VAC
Switching point	- 0...95°
Connection auxiliary switch	Cable 1000 mm, 3 x 0.75 mm ² (halogen free)

Functional data

Torque	16 Nm
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
Running Time	100 s / 90°
Sound power level	< 35 dB(A)
Position indication	Mechanical with pointer
Service life	> 1,00,000 cycles (0°...95°...0°) > 1,500,000 partial cycles (max. ±5°)

Safety

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 supply / control	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	117 x 67 x 66 mm
Weight	460 g
Weight (S1_VNB)	510 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 valve 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.

Direct Mounting

With one screw the actuator can be securely mounted on the ball valves. The mounting orientation in relation to the ball valve can be selected in 90° steps.

Manual override

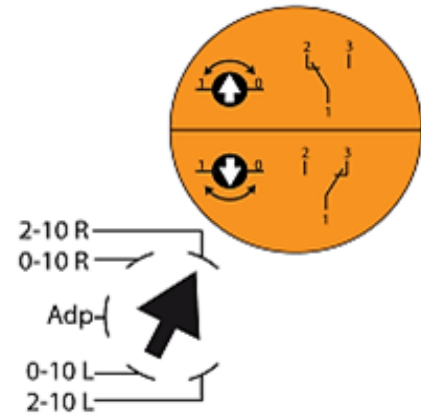
Manual override with self resetting push button possible (the gear is disengaged as long as the button is pressed).

Mode switch

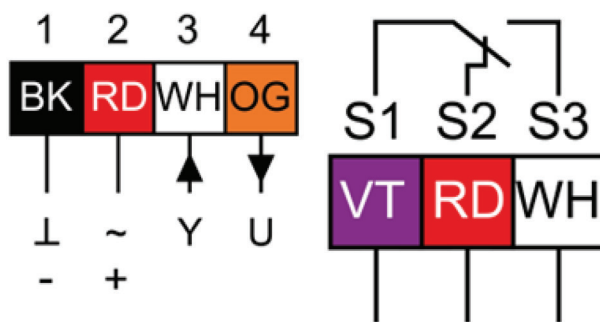
Mode switch with five positions at the housing:
 2-10 R: rotary direction right 2-10 VDC
 0-10 R: rotary direction right 0-10 VDC
 Adp: adaption
 0-10 L: rotary direction left 0-10 VDC
 2-10 L: rotary direction left 2-10 VDC

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



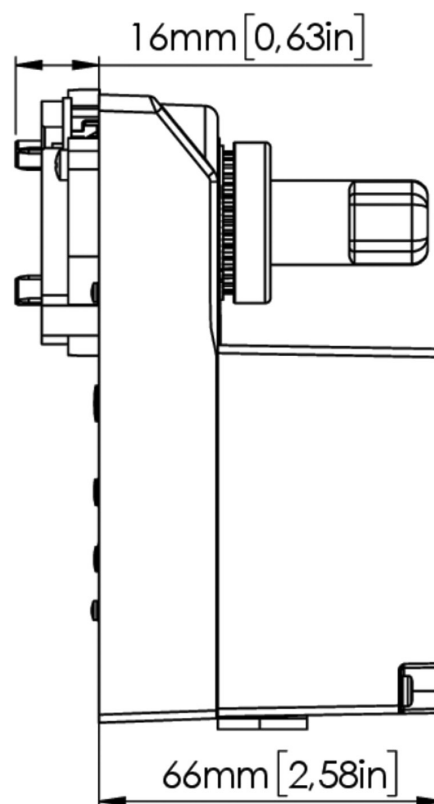
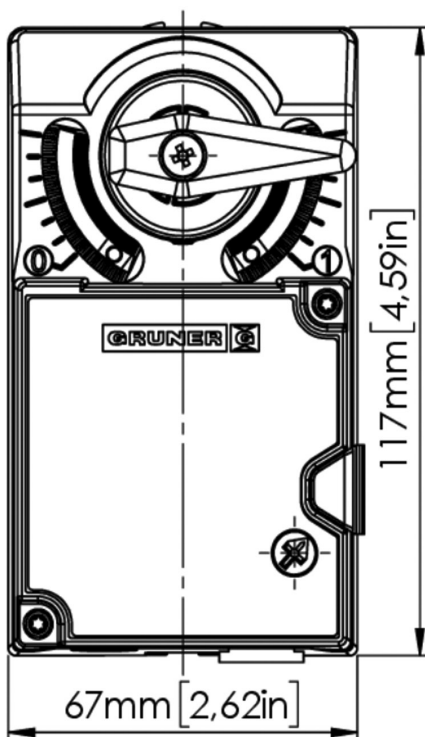
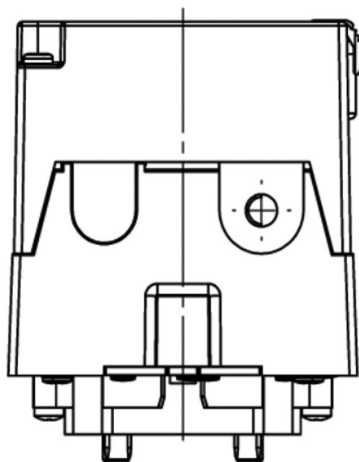
Connector / Security Note



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.

Technical Drawing



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