

341C-024-05_VNB(-S2F_VNB) Modulating Actuator for Ball Valve

Description

Spring return actuator for Ball Valves

- Running time motor100 s / 90°
- Running time spring20 s / 90°
- Torque motor5 Nm
- Torque spring5 Nm
- Nominal voltage24 VAC/DC
- Controlcontinuous control (0)2–10 VDC
- Auxiliary switch (-S2F)2 x fixed position
- Matching with V2FB.15–40 and V3FA.15-32 Ball Valves with linkage 341-SHT-VB



Technical data

Electrical data		
	Nominal voltage	24 VAC/DC, 50/60Hz
	Nominal voltage range	19–29 VAC/DC
	Power consumption motor (motion)	5.0 W
	Power consumption standby (end position)	2.0 W
	Wire sizing	6.5 VA
	Control	continuous control (0)2–10 VDC / Ri > 100 kΩ (0)4–20 mA
	Feedback signal	(0)2–10 VDC, max. 5 mA
	Connection motor	cable 1000 mm, 4 x 0.75 mm² (halogen free)
	Connection feedback potentiometer	-
	Connection GUAC	-
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	Auxiliary switch	2 x SPDT (Ag)
	Contact load	5 (2.5) A, 250 VAC
	Switching point	10° / 85°
	Connection auxiliary switch	cable 1000 mm, 6 x 0.75 mm² (halogen free)
Functional data		
	Torque motor/spring	5 Nm
	Synchronized speed	±5 %
	Manual override	manual operation
	Running Time motor	100 s / 90°
	Running Time spring	20 s / 90°
	Sound power level motor	< 35 dB(A)
	Sound power level spring	< 65 dB(A)

	Service life	> 60,000 cycles (0°–95°–0°) > 1 000 000 partial cycles (max. ±5°)
Safety	Protection Class	III (safety extra-low voltage)
	Protection Class auxiliary switch	II (double insulation)
	Degree of protection	IP54 (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	Type 1 (EN 60730-1)
	Rated impulse voltage supply/control	0.8 kV (EN 60730-1)
	Rated impulse voltage auxiliary switch	4 kV (EN 60730-1)
	Control pollution degree	3 (EN 60730-1)
	Ambient temperature normal operation	-30–50 °C
	Storage temperature	-30–80 °C
	Ambient humidity	5–95 % R.H., non-condensing (EN60730-1)
	Maintenance	maintenance free
Dimensions	Dimensions	145 x 75 x 70 mm
	Weight	1300 g
	Weight (-S2F)	1400 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 while the pre-tensioned spring is wound up the same time. The actual valve position (0...100%) is a feedback signal U on wire 4 for example to share with other actuators. If the power supply is interrupt, actuator drives back to position 0 by spring power. The actuator is still maintaining the minimum torque at the damper spindle.

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

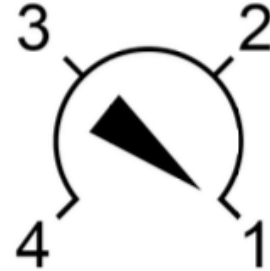
Manual override

The actuator can only be operated manually while the power supply is off. The supplied lever is used to open and lock the damper position. The lock stays until the power supply is switched on again.

Mode switch

Mode switch with four positions at the housing:

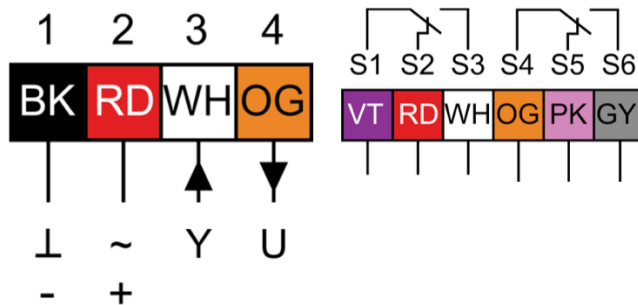
- 1: rotary direction right 2-10 VDC
- 2: rotary direction right 0-10 VDC
- 3: rotary direction left 0-10 VDC
- 4: rotary direction left 2-10 VDC



Adaption drive

- Actuator power off
- Setting the mechanical end stops
- Supply conductor "Y" with 15 VDC
- Actuator power on
- Adaption enable
- Actuator drive to position 0
- Actuator drive to position 1
- Actuator power off, if desired angular range reached or rather if actuator reached endstop
- "Y" refers to the measured angular range

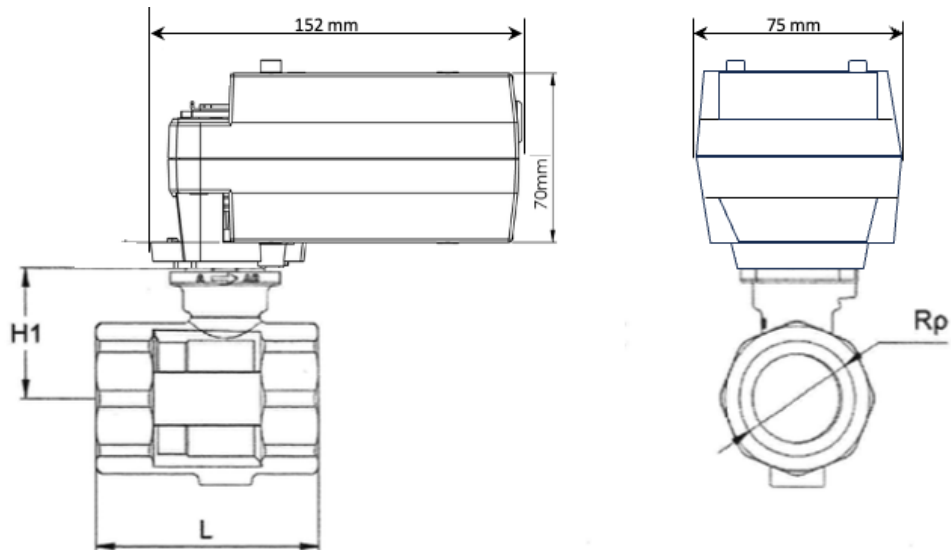
Connector / Security Note



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 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.

Dimensions



DN	Rp	L MM	H1 mm
15	1/2"	55	38
20	3/4"	60	42
25	1"	65	45
32	1 1/4"	80	50
40	1 1/2"	85	48