

Globe valve actuator with emergency control function for 2-way and 3-way globe valves

- Actuating force 2000 N
- Nominal voltage AC 24 V
- Control 3-point
- Nominal stroke 32 mm
- Design life SuperCaps: 15 years


Technical data

Electrical data	Nominal voltage	AC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V
	Power consumption in operation	4.5 W
	Power consumption in rest position	2 W
	Power consumption for wire sizing	9 VA
	Connection supply / control	Terminals 4 mm ² (cable Ø 4...10 mm)
	Parallel operation	Yes (note the performance data)
Functional data	Actuating force	2000 N
	Setting emergency position (POP)	Actuator spindle retracted / extended, adjustable (POP rotary button)
	Manual override	Gear disengagement with push-button
	Nominal stroke	32 mm
	Actuating time	150 s / 32 mm
	Actuating time emergency control function	35 s / 32 mm
	Sound power level motor max.	60 dB(A)
	Sound power level emergency setting position max.	60 dB(A)
Safety	Position indication	Mechanically, 5...32 mm stroke
	Protection class IEC/EN	III Safety extra-low voltage
	Degree of protection IEC/EN	IP54
	EMC	CE according to 2004/108/EC
	Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14
	Mode of operation	Type 1.AA
	Rated impulse voltage supply / control	0.8 kV
	Control pollution degree	3
	Ambient temperature	0...50 °C
	Non-operating temperature	-40...80 °C
	Ambient humidity	95% r.h., non-condensing
	Maintenance	Maintenance-free
Weight	Weight approx.	7.6 kg
Terms	Abbreviations	POP = Power off position / emergency setting position CPO = Controlled power off / controlled emergency control function PF = Power fail delay time / bridging time

Safety notes


- This device has been designed for use in stationary heating, ventilation and air conditioning systems and is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.
- The switch for changing the direction of motion and so the closing point may be adjusted only by authorised specialists. The direction of motion is critical, particularly in connection with frost protection circuits.

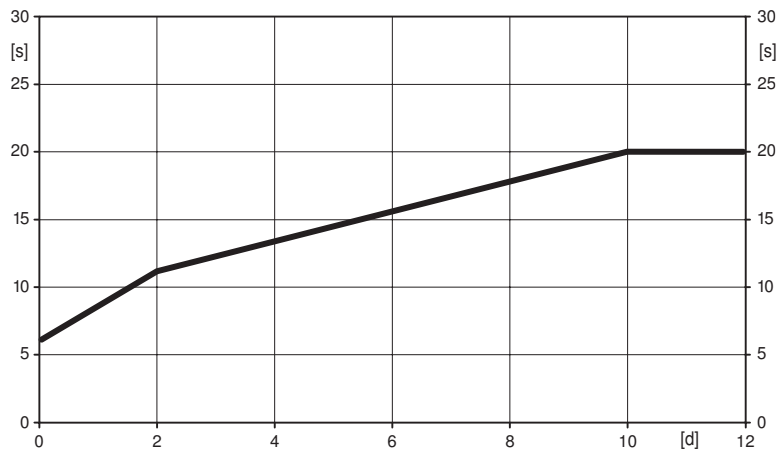
Safety notes

- The device may only be opened at the manufacturer's site. It does not contain any parts that can be replaced or repaired by the user.
- The device contains electrical and electronic components and is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Product features

- Mode of operation** The actuator moves the valve to the desired operating position at the same time as the integrated capacitors are loaded. Interrupting the supply voltage causes the valve to be moved to the selected emergency setting position (POP) by means of stored electrical energy.
- Pre-charging time (start up)** The capacitor actuators require a pre-charging time. This time is used for charging the capacitors up to a usable voltage level. This ensures that, in the event of an electricity interruption, the actuator can move at any time from its current position into the preset emergency setting position (POP). The duration of the pre-charging time depends mainly on how long the power was interrupted.

Typical pre-charging time



	[d]				
	0	1	2	7	≥10
[s]	6	9	11	16	20

[d] = Electricity interruption in days
[s] = Pre-charging time in seconds

- Delivery condition (capacitors)** The actuator is completely discharged after delivery from the factory, which is why the actuator requires approximately 20 s pre-charging time before initial commissioning in order to bring the capacitors up to the required voltage level.
- Installation on third-party valves** The retrofit actuators for installation on a wide range of valves from various manufacturers are comprised of an actuator, universal valve neck adapter and universal valve stem adapter. Adapt the valve neck and valve stem to begin with, then attach the retrofit actuator to the valve neck adapter, connect to the valve and start up. The valve neck adapter/actuator can be rotated through 360° on the valve neck, provided it is permitted by the size of the installed valve.
- Installation on BELIMO valves** Please use standard actuators from Belimo for installation on Belimo globe valves. The installation of retrofit actuators on Belimo globe valves is technically possible.
- Manual override** Manual control with push-button possible - temporary. The gear is disengaged and the actuator decoupled for as long as the button is pressed. The stroke can be adjusted by using a hexagon socket screw key (5 mm), which is inserted into the top of the actuator. The stroke spindle extends when the key is rotated clockwise.
- High functional reliability** The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.
- Position indication** The stroke is indicated mechanically on the bracket with tabs. The stroke range adjusts itself automatically during operation.
- Home position** Factory setting: Actuator spindle is retracted.

Product features

Direction of stroke switch When actuated, the direction of stroke switch changes the running direction in normal operation. The direction of stroke switch has no influence on the emergency setting position (POP) which has been set.

Rotary knob emergency setting position The «Emergency setting position» rotary knob can be used to adjust the desired emergency setting position (POP). The POP range is in reference to the maximum height of stroke of the actuator.
 In the event of an electricity interruption, the actuator will move into the selected emergency setting position, taking into account the bridging time (PF) of 2 s which was set ex-works.

Accessories

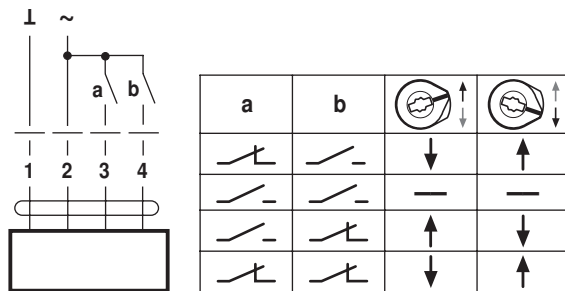
	Description	Type
Electrical accessories	Auxiliary switch, 2 x SPDT, add-on	S2A-H

Electrical installation

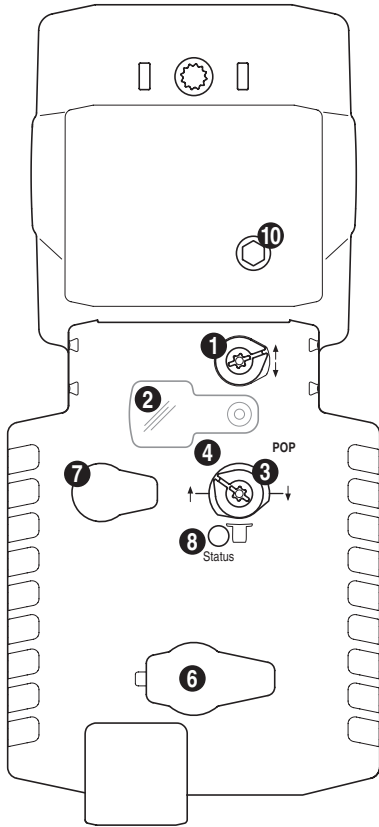
	Notes	<ul style="list-style-type: none"> • Connection via safety isolating transformer. • Parallel connection of other actuators possible. Observe the performance data. • Direction of stroke switch factory setting: Actuator spindle retracted.
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Wiring diagrams

AC 24 V, 3-point

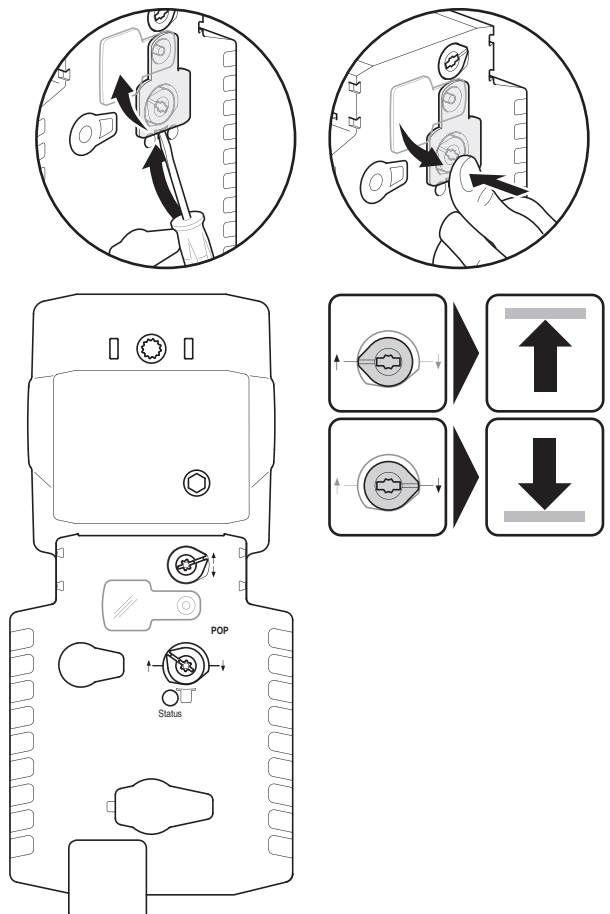


Operating controls and indicators



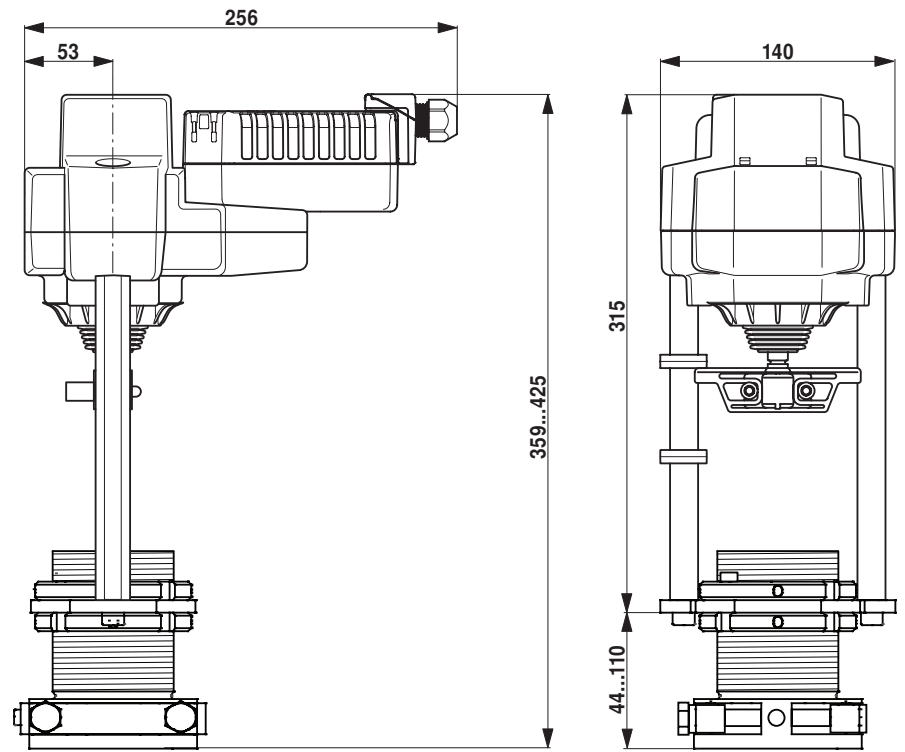
- (1) Direction of stroke switch**
Switch over: Direction of stroke changes
- (2) Cover, POP button**
- (3) POP button**
- (4) Scale for manual adjustment**
- (6) No function**
- (7) Gear disengagement button, temporary**
Press button: Gear disengages, motor stops, manual override possible
Release button: Gear engages, standard mode
- (8) LED display green**
Off: Not in operation, pre-charging time SuperCap or fault SuperCap
On: Operation OK
Flashing: POP function active
- (10) Manual override**
Clockwise: Actuator spindle extends
Counterclockwise: Actuator spindle retracts

Setting the POP power of position



Dimensions [mm]

Dimensional drawings



Further documentation

- Installation instructions for actuators