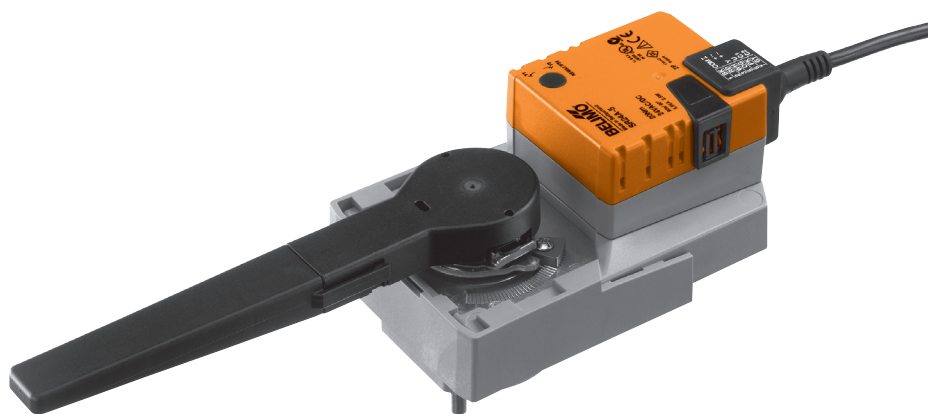


**Modulating rotary actuator for butterfly valves**

- Torque 20 Nm
- Nominal voltage AC/DC 24 V
- Control: modulating DC 0 ... 10 V
- Position feedback DC 2 ... 10 V


**Technical data**

<b>Electrical data</b>	Nominal voltage	AC 24 V, 50/60 Hz / DC 24 V	
	Power supply range	AC 19.2 ... 28.8 V / DC 21.6 ... 28.8 V	
	Power consumption	In operation 2.5 W @ nominal torque At rest 0.4 W Dimensioning 5 VA	
	Connection	Cable 1 m, 4 x 0.75 mm <sup>2</sup>	
	Parallel operation	Possible, note the performance data	
<b>Functional data</b>	Torque (nominal torque)	Min. 20 Nm @ nominal voltage	
	Control	Control signal Y DC 0 ... 10 V, typical input impedance 100kΩ Operating range DC 2 ... 10 V	
	Position feedback	DC 2 ... 10 V, max. 1 mA (measuring voltage U)	
	Uni-rotation	±5%	
	Manual override	Gearing latch disengaged with pushbutton, can be locked	
	Running time	90 s / 90°↔	
	Noise level	max. 45 dB (A) (without butterfly valve)	
	Position indication	Mechanical, pluggable	
	<b>Safety</b>	Protection class	III Safety extra-low voltage / UL Class 2 Supply
		Protection mode	IP54 in any mounting position NEMA 2, UL Enclosure Type 2
EMC		CE in accordance with 2004/108/EU	
Certification		cULus according to UL 60730-1A and UL 60730-2-14 and CAN/CSA E60730-1:02 Certified to IEC/EN 60730-1 and IEC/EN 60730-2-14	
	Mode of operation	Type 1	
	Rated impulse voltage	0.8 kV	
	Control pollution degree	3	
	Ambient temperature	0 ... +50 °C	
	Medium temperature	-20 ... +120 °C in the butterfly valve	
	Non-operating temperature	-40 ... +80 °C	
	Ambient humidity	95% r.h., non-condensating	
	Maintenance	maintenance-free	
<b>Dimensions / Weight</b>	Dimensions	See «Dimensions» on page 2	
	Weight	Approx. 1 kg	

Safety notes



- The actuator 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.
- It may only be installed by suitably trained personnel.  
Any legal regulations or regulations issued by authorities must be observed during assembly.
- The switch for changing the direction of rotation may only be operated by authorised personnel. The direction of rotation must not be reversed in a frost protection circuit.
- 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 cable must not be removed from the device.
- 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

<b>Mode of operation</b>	The actuator is controlled with a standard modulating signal DC 0 ... 10 V and travels to the position defined by the control signal. Measuring voltage U serves for the electrical display of the actuator position 0 ... 100% and as slave control signal for other actuators.
<b>Simple direct mounting</b>	Simple direct mounting on a butterfly valve with ISO 5211-F05 mounting flange. The mounting position in relation to the butterfly valve can be selected in 90° steps.
<b>Manual override</b>	Manual override with push-button possible (the gear is disengaged for as long as the button is pressed or remains locked).
<b>Adjustable angle of rotation</b>	Adjustable angle of rotation with mechanical end stops.
<b>High operational reliability</b>	The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.
<b>Position feedback U5</b>	Operation of the butterfly valve is optimised by a limiting ring. This ring reduces the angle of rotation from 95° to 90°, i.e. U will deviate from Y by approximately 0.4 V when the butterfly valve is open.

Accessories

	Description	Data sheet
Electrical accessories	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..

Electrical installation

Wiring diagram

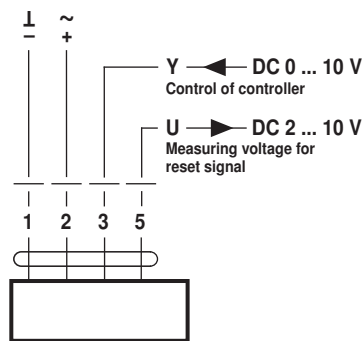
**Notes**

- Connect via safety isolation transformer.
- Other actuators can be connected in parallel.
- Note performance data for supply.
- Direction of rotation switch is covered. Factory setting: Direction of rotation Y2

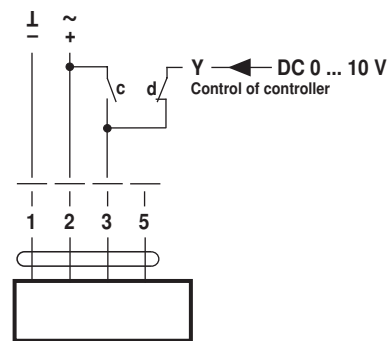
Direction of rotation



Standard connection



Override control (frost protection circuit)

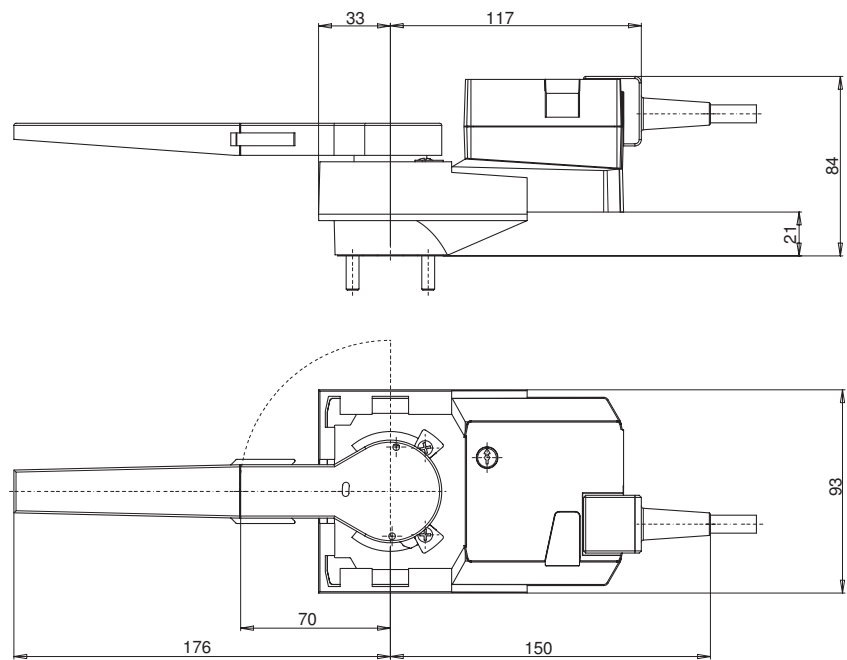


**Cable colours:**  
1 = black  
2 = red  
3 = white  
5 = orange

c	d	Actuator	Butterfly valve
↖	↗	Y1	A - AB = 100%
↘	↙	Y2	A - AB = 0%
↖	↗	Modulating operation	

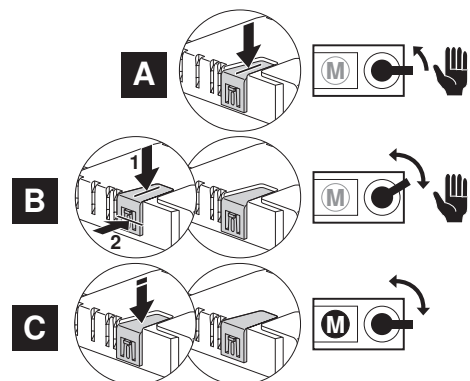
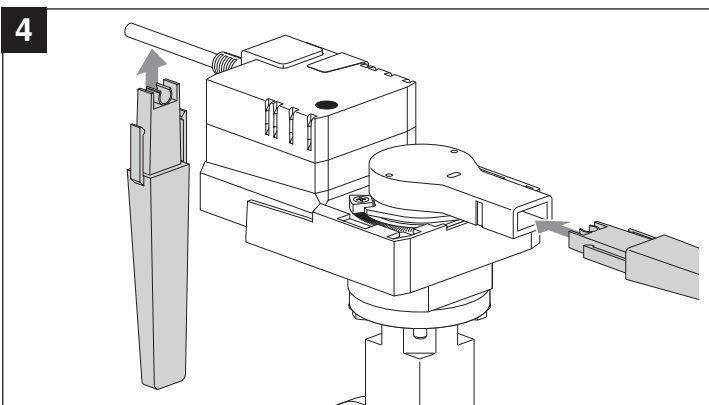
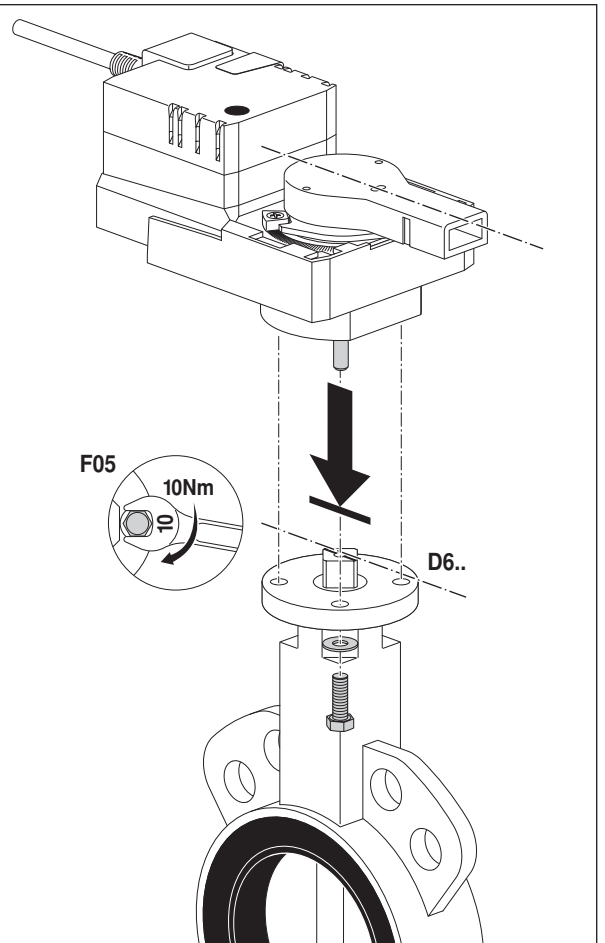
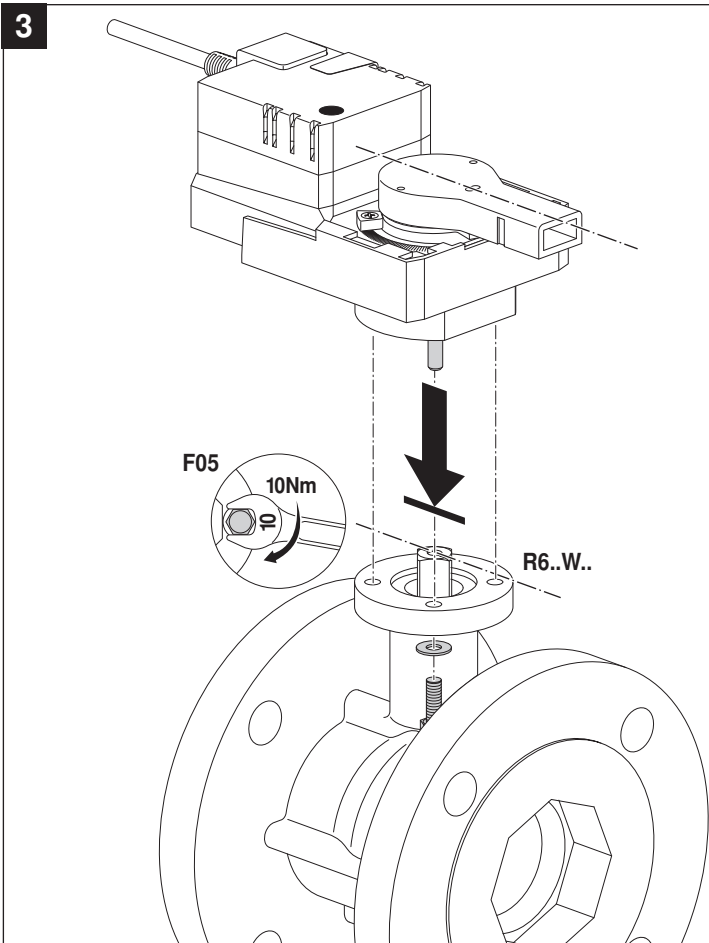
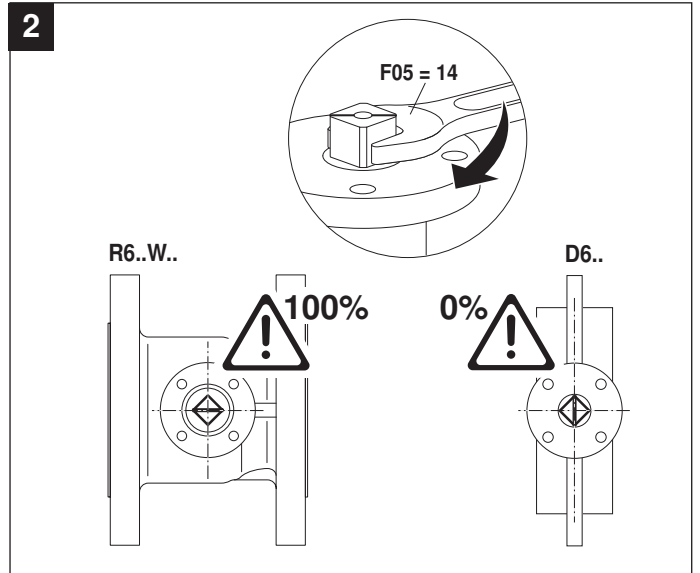
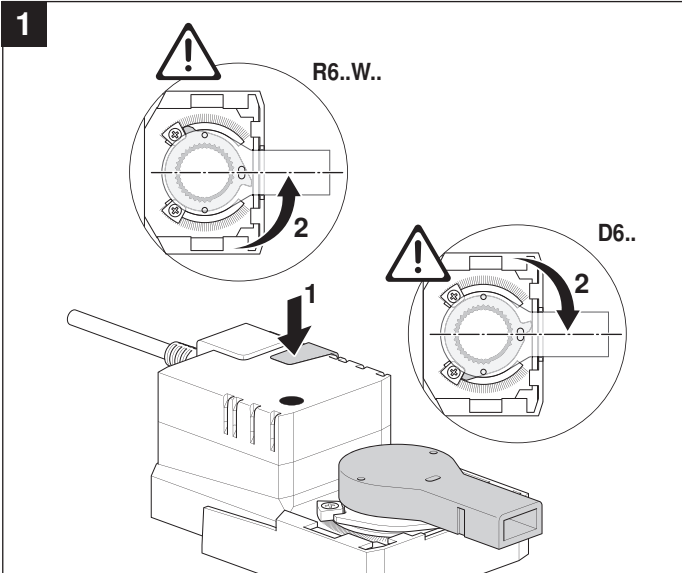
## Dimensions [mm]

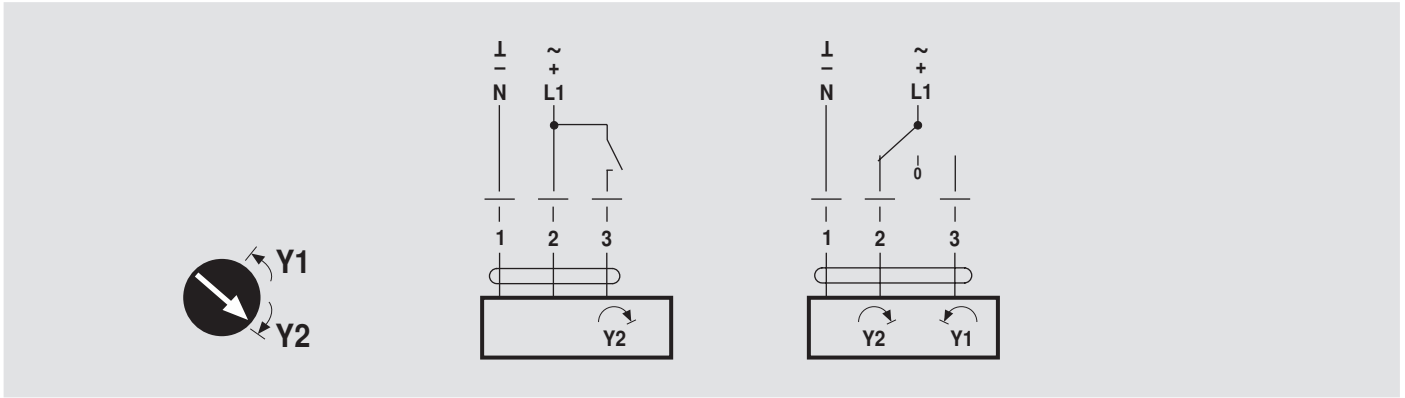
## Dimensional drawings

**Further documentation**

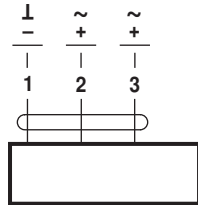
- Complete overview «The complete product range of water solutions»
- Data sheets, butterfly valves
- Installation instructions for actuators and/or butterfly valves, respectively
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance, etc.)

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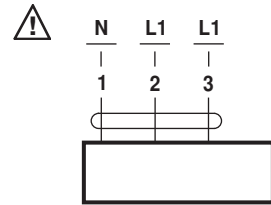


AC 24 V / DC 24 V

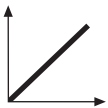


SR24A-5

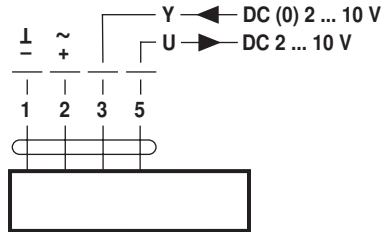
AC 100 ... 240 V



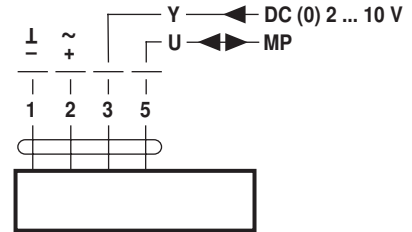
SR230A-5



AC 24 V / DC 24 V

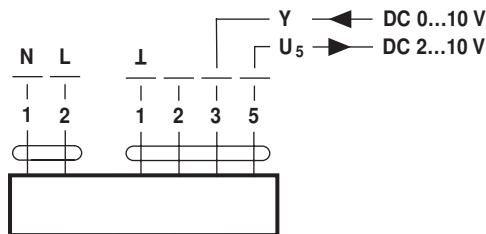


SR(C)24A-SR-5  
SR24A-MF-5



SR24A-MP-5

AC 100 ... 240 V



SR230A-SR-5

**LONWORKS**<sup>®</sup>

AC 24 V / DC 24 V

