

Rotary actuator with emergency control function for butterfly valves

- Torque 15 Nm
- Nominal voltage AC/DC 24 V
- Control: Open/close
- 2 auxiliary switches
- ARF24-S-5: Deenergised NC
ARF24-S-5-O: Deenergised NO


Technical data

Electrical data	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	Spring return 6.5 W at nominal torque Holding position 2.5 W For wire sizing 11 VA	
	Auxiliary switch	2 x SPDT, 6 (3) A, AC 250 V II □ Switching points: 10% \leftarrow fixed, 28 ... 94% \leftarrow adjustable	
	Connection	Motor Cable 1 m, 2 x 0.75 mm ² Auxiliary switch Cable 1 m, 6 x 0.75 mm ²	
	Parallel connection	Yes (Note performance data for supply!)	
Functional data	Torque (nominal torque)	Motor Min. 15 Nm at nominal voltage Spring return Min. 15 Nm	
	Direction of rotation	ARF24-S-5 Deenergised NC, butterfly valve closed (A – AB = 0%) ARF24-S-5-O Deenergised NO, butterfly valve open (A – AB = 100%)	
	Manual override	With hand crank, can be fixed in any position	
	Angle of rotation	95° \leftarrow	
	Running time	Motor 150 s Spring return ~16 s at –20 ... 50°C / max. 60 s at –30°C	
	Noise level	Motor Max. 45 dB (A) Spring return ~62 dB (A)	
	Service life	Min. 60'000 emergency settings	
	Position indication	Mechanical	
	Safety	Protection class	III Extra low voltage
		Degree of protection	IP54
EMC		CE according to 89/336/EEC	
Low voltage directive		CE according to 2006/95/EC	
Mode of operation		Type 1 (to EN 60730-1)	
Rated impulse voltage		0.8 kV (to EN 60730-1)	
Control pollution degree		3 (to EN 60730-1)	
Ambient temperature range		–30 ... +50°C	
Media temperature		+5 ... +100°C (in butterfly valve)	
Non-operating temperature		–40 ... +80°C	
Ambient humidity range		95% r.H., non-condensating (to EN 60730-1)	
Maintenance		Maintenance-free	
Dimensions / Weight	Dimensions	See «Dimensions» on page 2	
	Weight	Approx. 2.7 kg (without butterfly valve)	

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.
All applicable legal or institutional installation regulations must be complied with.
- 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.

Safety notes

(Continued)

- 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

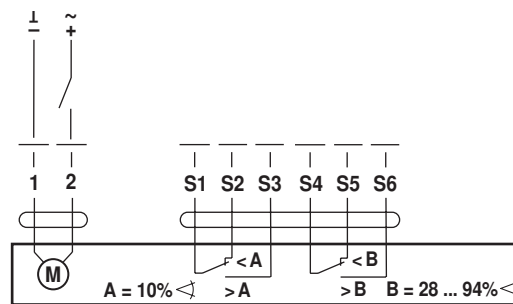
Mode of operation	The actuator moves the butterfly valve to its normal working position while tensioning the return spring at the same time. If the power supply is interrupted, the energy stored in the spring moves the butterfly valve back to its safe position.
Simple direct mounting	Simple direct mounting on the butterfly valve with two screws. The mounting position in relation to the butterfly valve can be selected in 90° steps.
Manual override	The butterfly valve can be manually operated and fixed in any position using a hand crank. Release of the locking mechanism can be achieved manually or automatically by applying the supply voltage.
High functional reliability	The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.
Signalling	The actuator has one adjustable auxiliary switch and one auxiliary switch with a fixed setting. They permit a 10% or 28 ... 94% angle of rotation to be signalled.
Combination butterfly valves actuators	Refer to the butterfly valve documentation for suitable butterfly valves, their permitted media temperatures and closing pressures.

Electrical installation

Wiring diagram

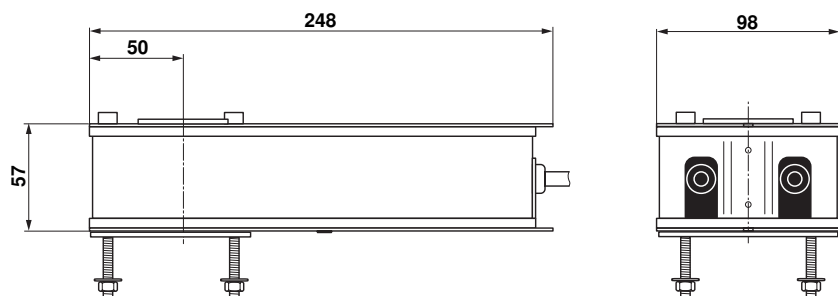
Note

- Connect via safety isolation transformer.
- Parallel connection of other actuators possible. Note performance data for supply.



Dimensions [mm]

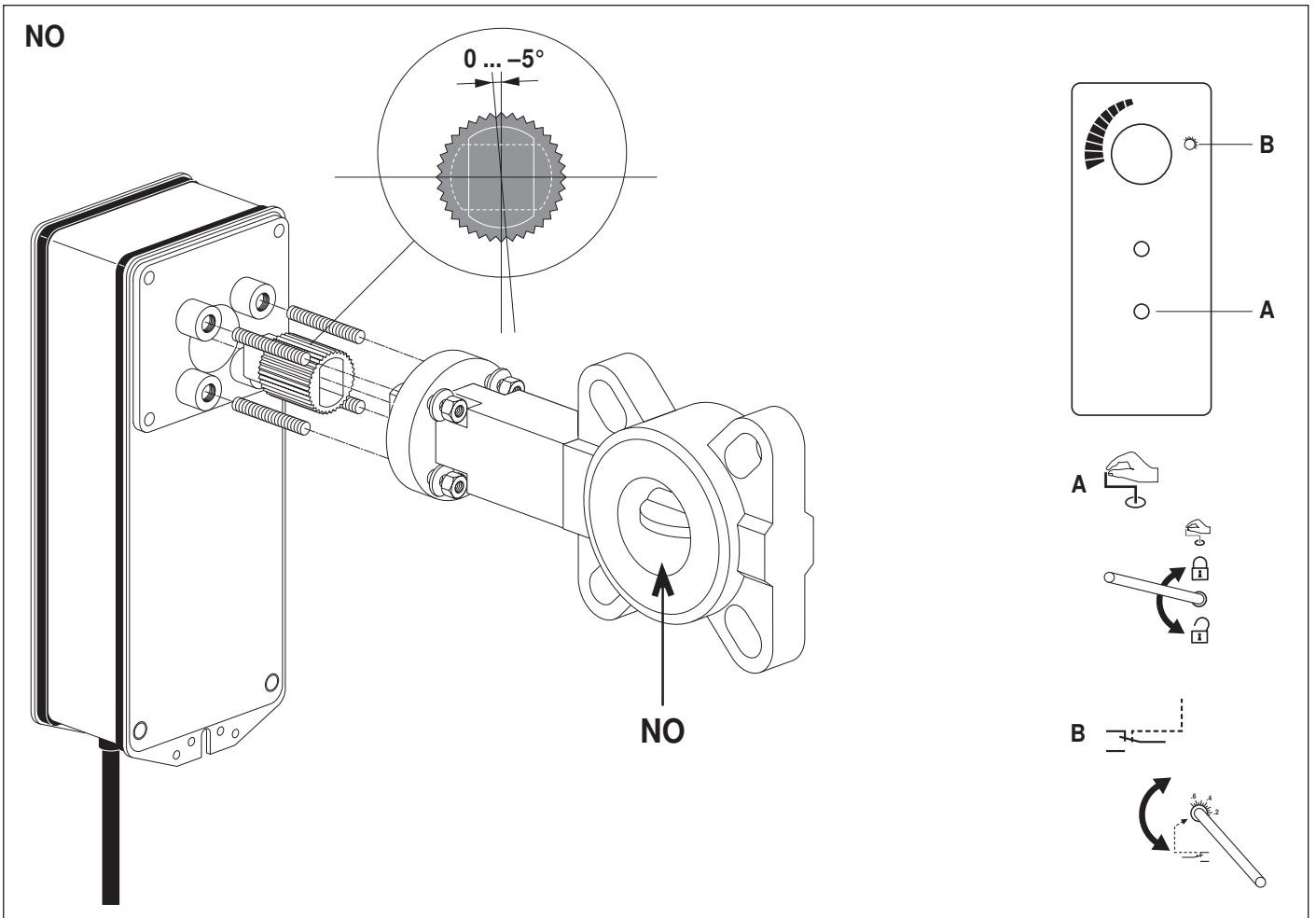
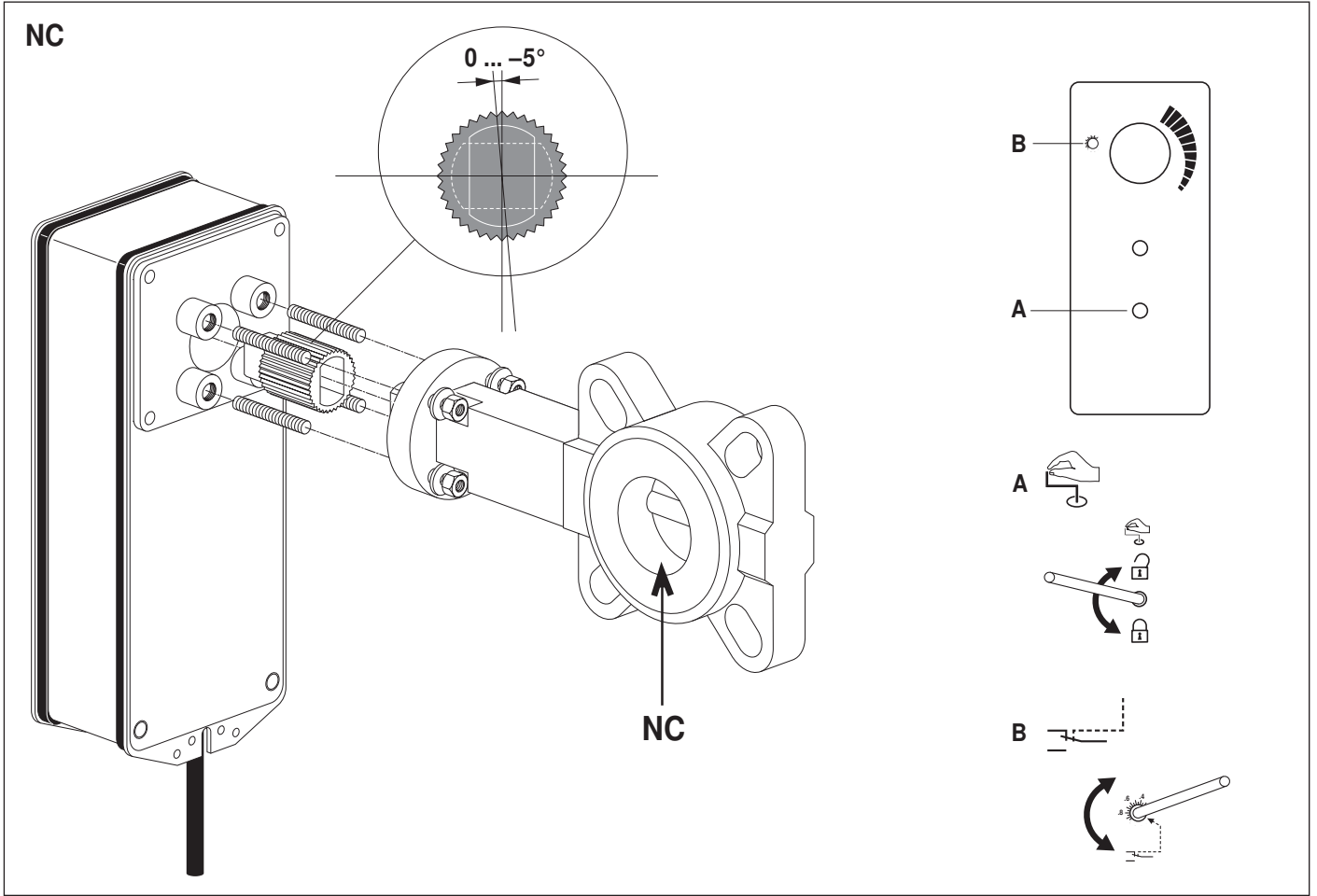
Dimensional diagrams

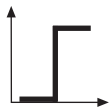
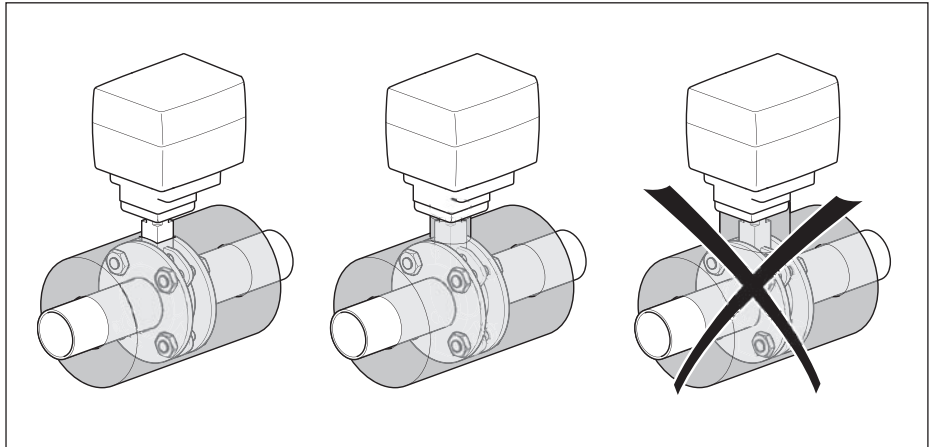
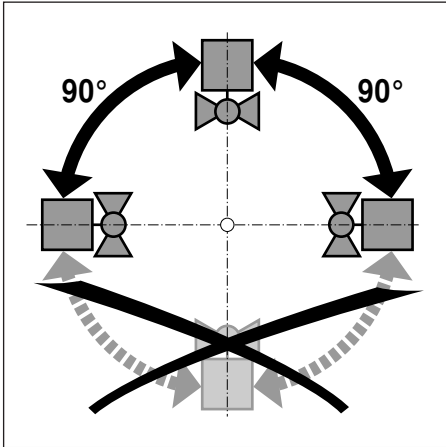


Further documentations

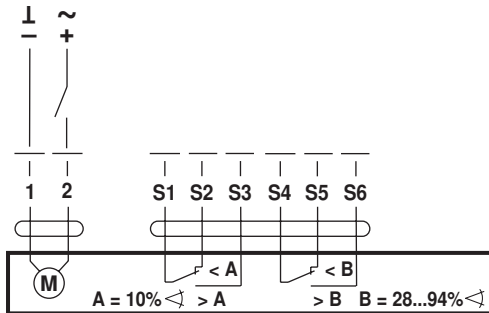
- Complete overview of actuators for water solutions
- Data sheets for butterfly valves
- Installation instructions for actuators and/or butterfly valves
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance etc.)

70691-00001.A



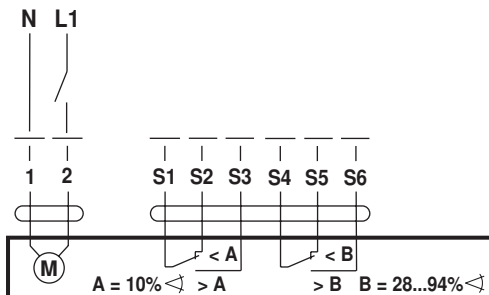


AC 24 V

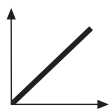


ARF24-S-5 (-O)

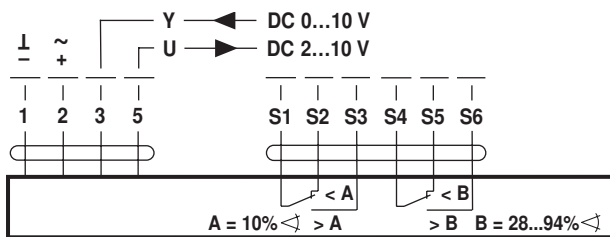
AC 230 V



ARF230-S-5 (-O)



AC 24 V / DC 24 V



ARF24-SR-S-5 (-O)

R	L		
L	R		
Y = 0	Y = 0		
			A - AB = 0%