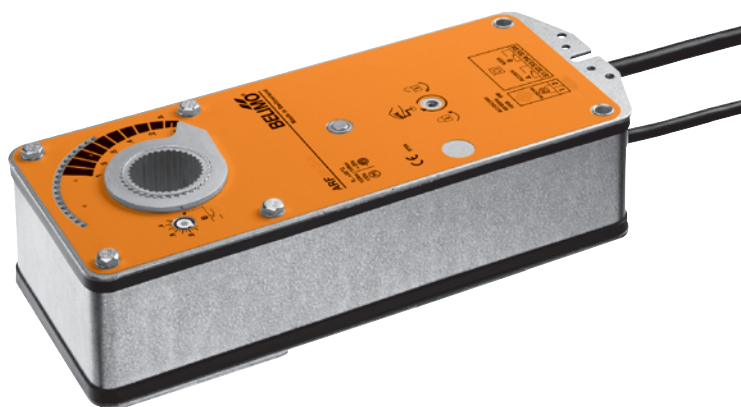


Modulating rotary actuator with emergency control function for butterfly valves

- Torque 15 Nm
- Nominal voltage AC/DC 24 V
- Control: Modulating DC 0 ... 10 V, position feedback DC 2 ... 10 V
- 2 auxiliary switches
- ARF24-SR-S-5: Deenergised NC
ARF24-SR-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 W at nominal torque
		Holding position	2,5 W
		For wire sizing	10 VA
	Auxiliary switch		2 x SPDT, 6 (3) A, AC 250 V II □ Switching points: 10% ↯ fixed, 28 ... 94% ↯ adjustable
Connection	Motor	Cable 1 m, 4 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
	Control	Control signal Y	DC 0 ... 10 V, typical input impedance 100 kΩ
		Working range	DC 2 ... 10 V
	Position feedback (Measuring voltage U)		DC 2 ... 10 V, max. 0.5 mA
	Direction of rotation	Motor	Switch R / L
		Spring return	ARF24-SR-S-5 Deenergised NC, butterfly valve closed (A – AB = 0%) ARF24-SR-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° ↯
	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	
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.

Safety notes

(Continued)

- 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.
- 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.

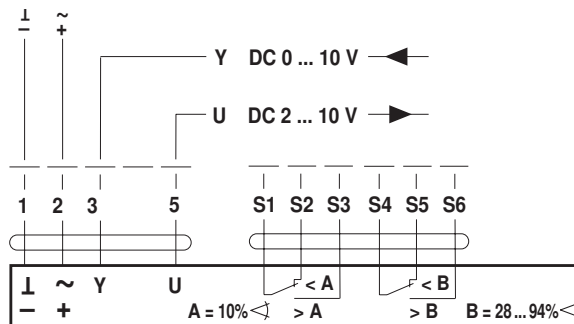
Electrical installation

Wiring diagram / Direction of rotation

Note

- Connect via safety isolation transformer.
- Parallel connection of other actuators possible.

Note performance data for supply.

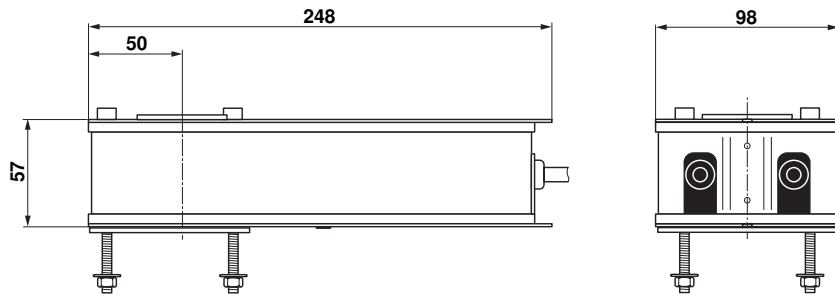


Direction of rotation

ARF24-SR-S-O	ARF24-SR-S
Direction of rotation switch	
Y = 0	Y = 0
A - AB = 0%	

Dimensions [mm]

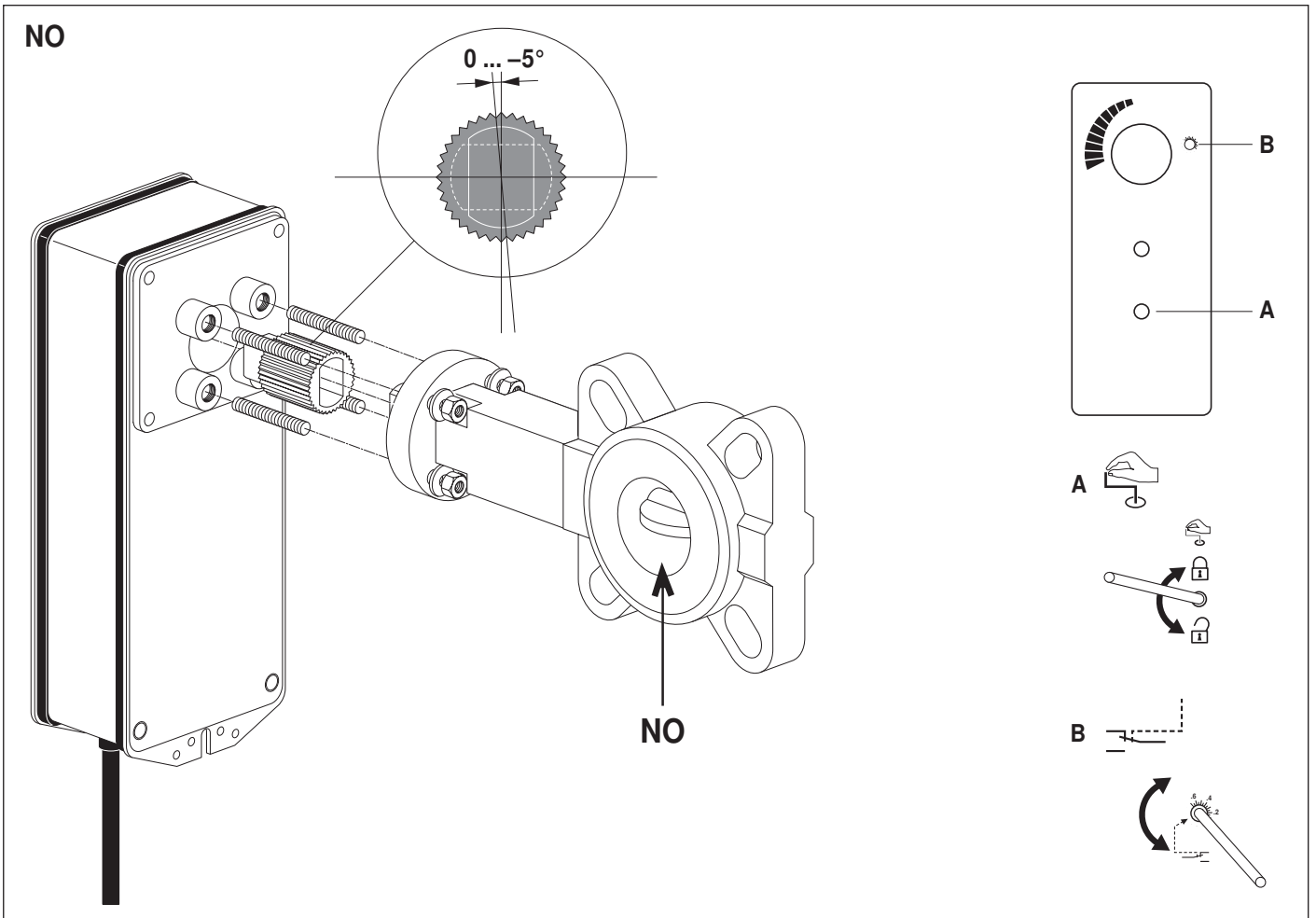
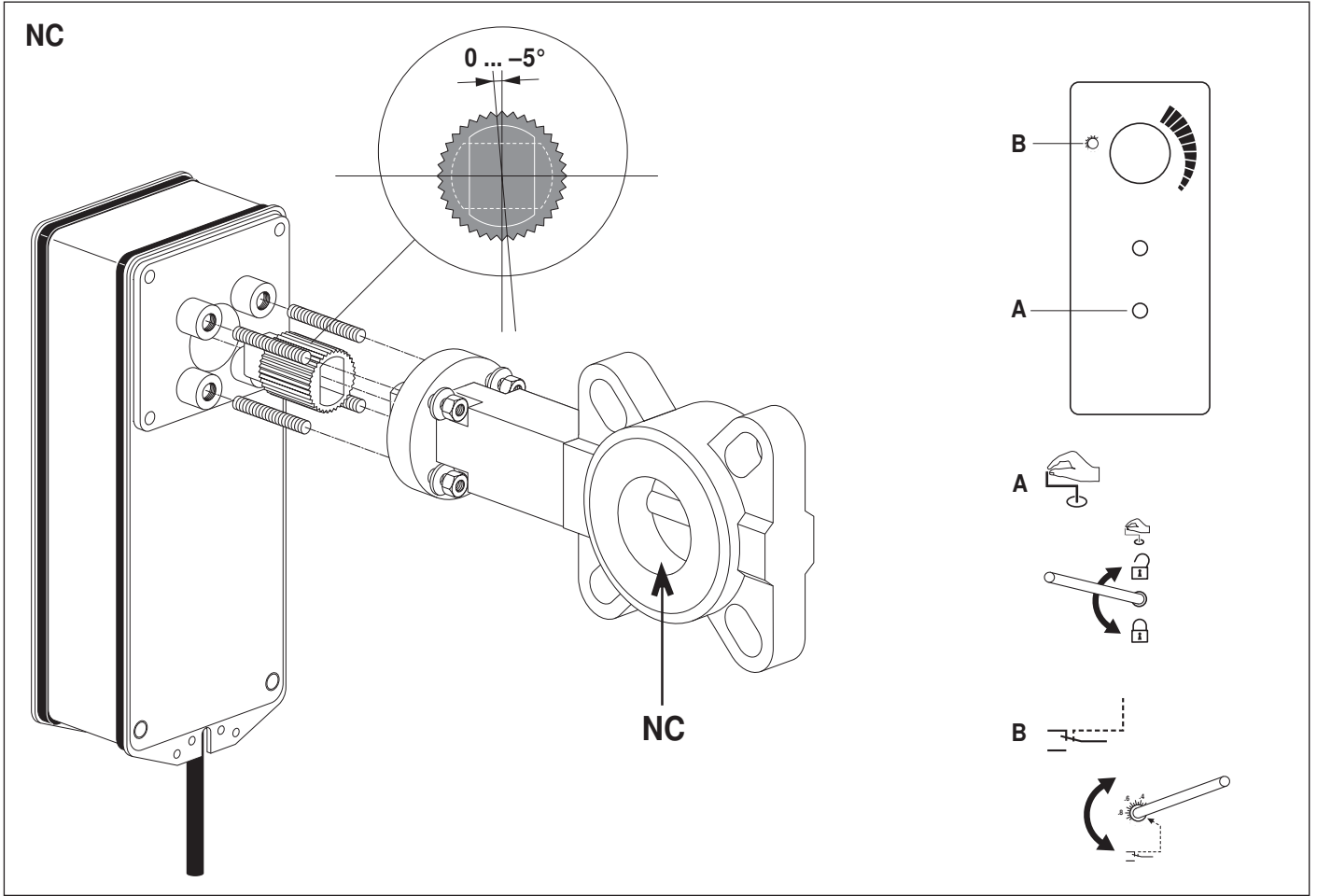
Dimensional diagrams

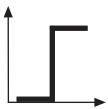
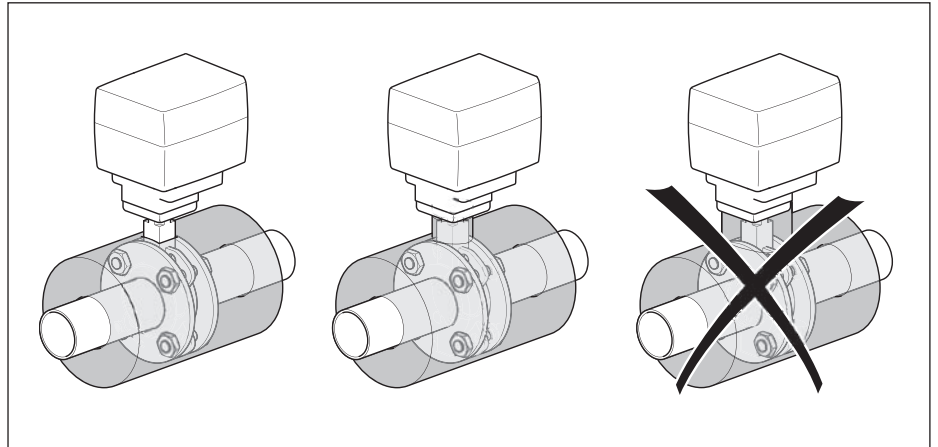
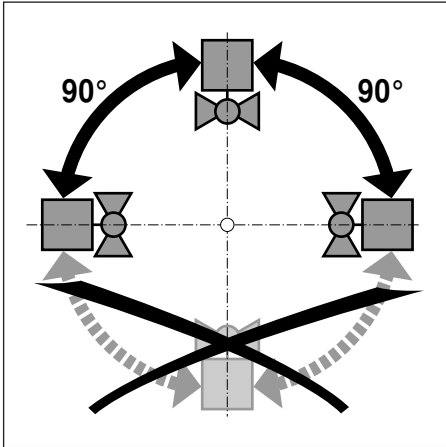


Further documentations

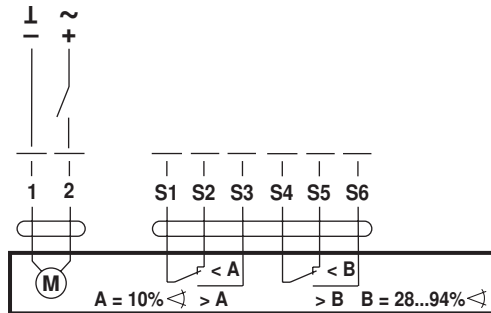
- Complete overview of actuators for water solutions
- Data sheets for butterfly valves
- Installation instructions for actuators and/or butterfly valves
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance etc.)

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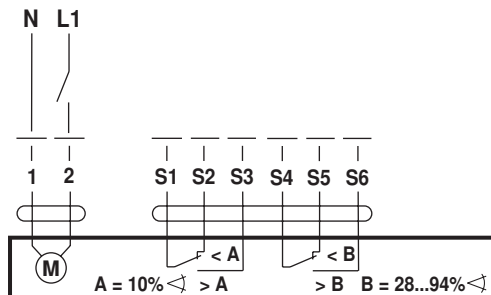


AC 24 V

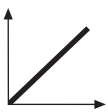


ARF24-S-5 (-O)

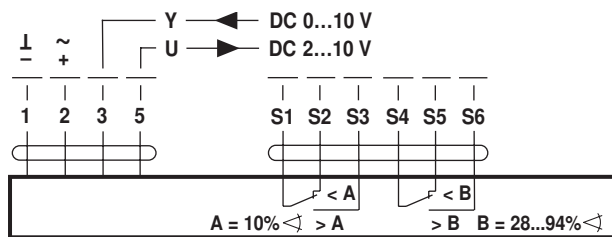
AC 230 V



ARF230-S-5 (-O)



AC 24 V / DC 24 V



ARF24-SR-S-5 (-O)

