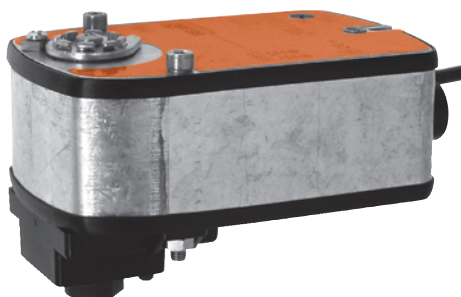


Rotary actuator with emergency control function for 2- and 3-way ball valves

- Torque 4 Nm
- Nominal voltage AC 230 V
- Control: Open/close
- 2 auxiliary switches
- LRF230-S: Deenergised NC
LRF230-S-O: Deenergised NO



Technical data

Electrical data	Nominal voltage	AC 230 V, 50/60 Hz		
	Power supply range	AC 198 ... 264 V		
	Power consumption	Spring return	5 W at nominal torque	
		Holding position	3 W	
		For wire sizing	7 VA	
	Auxiliary switch	2 x SPDT, 3 (0.5) A, AC 250 V II □ Switching points: 10° \leftarrow fixed, 85° \leftarrow fixed		
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. 4 Nm at nominal voltage	
		Spring return	Min. 4 Nm	
	Direction of rotation	LRF230-S	Deenergised NC, ball valve closed (A – AB = 0%)	
		LRF230-S-O	Deenergised NO, ball valve open (A – AB = 100%)	
	Manual override	With hand crank, can be fixed in any position		
	Angle of rotation	95° \leftarrow		
	Running time	Motor	40 ... 75 s (0 ... 4 Nm)	
		Spring return	~20 s at –20 ... 50°C / max. 60 s at –30°C	
	Noise level	Motor	Max. 50 dB (A)	
		Spring return	~62 dB (A)	
Service life	Min. 60'000 emergency settings			
Position indication	Mechanical			
Safety	Protection class	II Totally insulated □		
	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	4 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 ball 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. 1.4 kg (without ball 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.
- **Caution: Power supply voltage!**
- 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

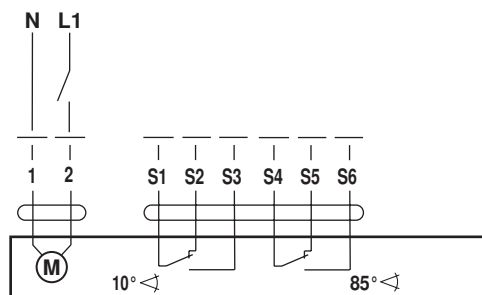
Mode of operation	The actuator moves the ball valve to its normal working position while tensioning the return spring at the same time. If the power supply is interrupted, the energy stored in the spring moves the ball valve back to its safe position.
Simple direct mounting	With WLF mounting kit (accessory) simple direct mounting on the ball valve with only one screw. The mounting position in relation to the ball valve can be selected in 90° steps.
Manual override	The ball 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 two auxiliary switches with fixed settings. They permit a 10° or 85° angle of rotation to be signalled.
Combination valve actuators	Refer to the valve documentation for suitable valves, their permitted media temperatures and closing pressures.

Electrical installation

Wiring diagram

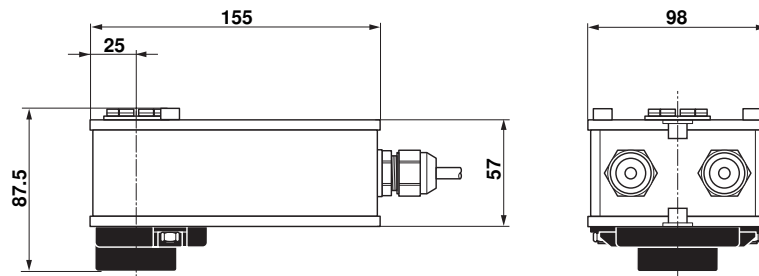
Note

- Caution: Power supply voltage!
- Parallel connection of other actuators possible. Note performance data for supply.



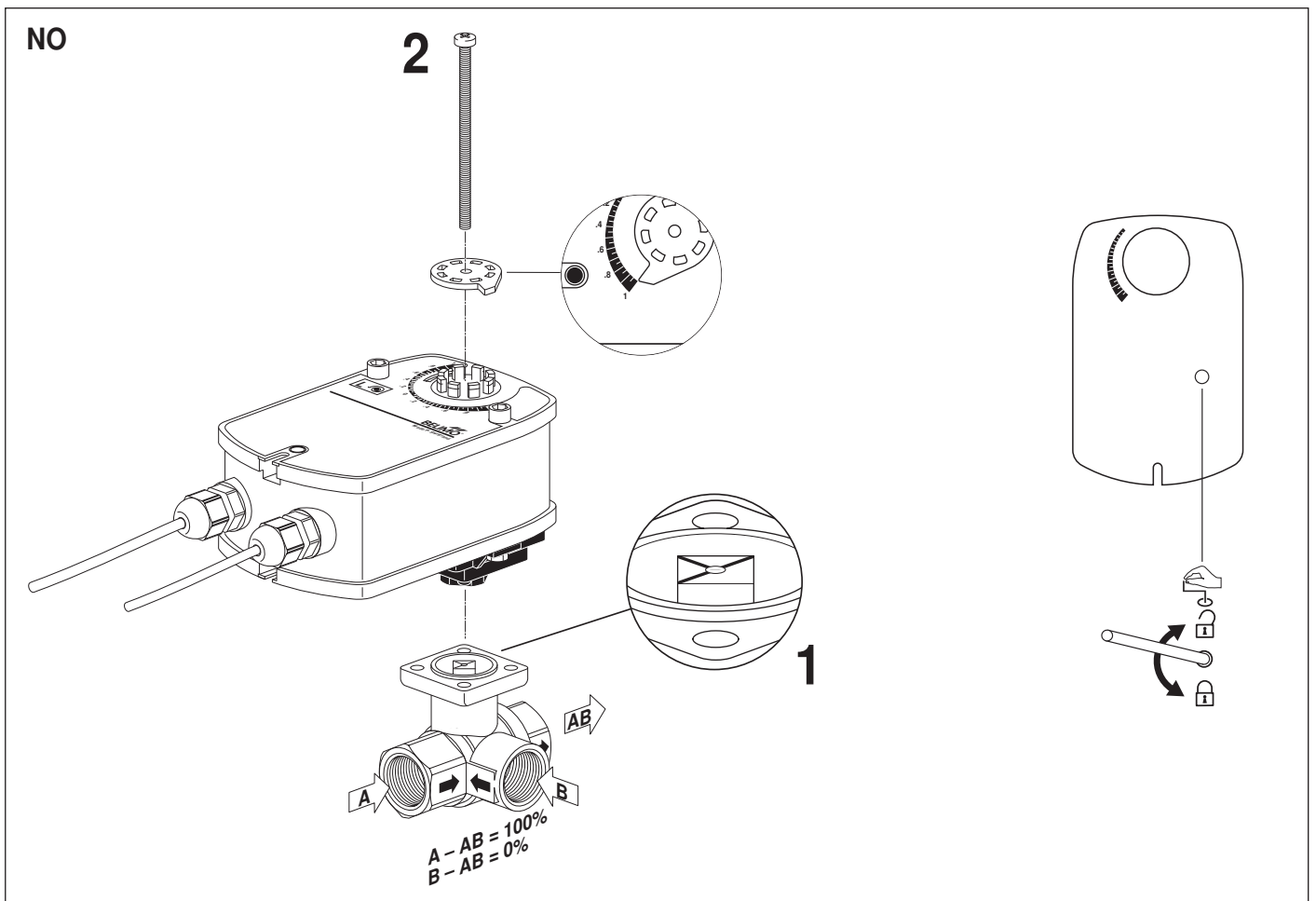
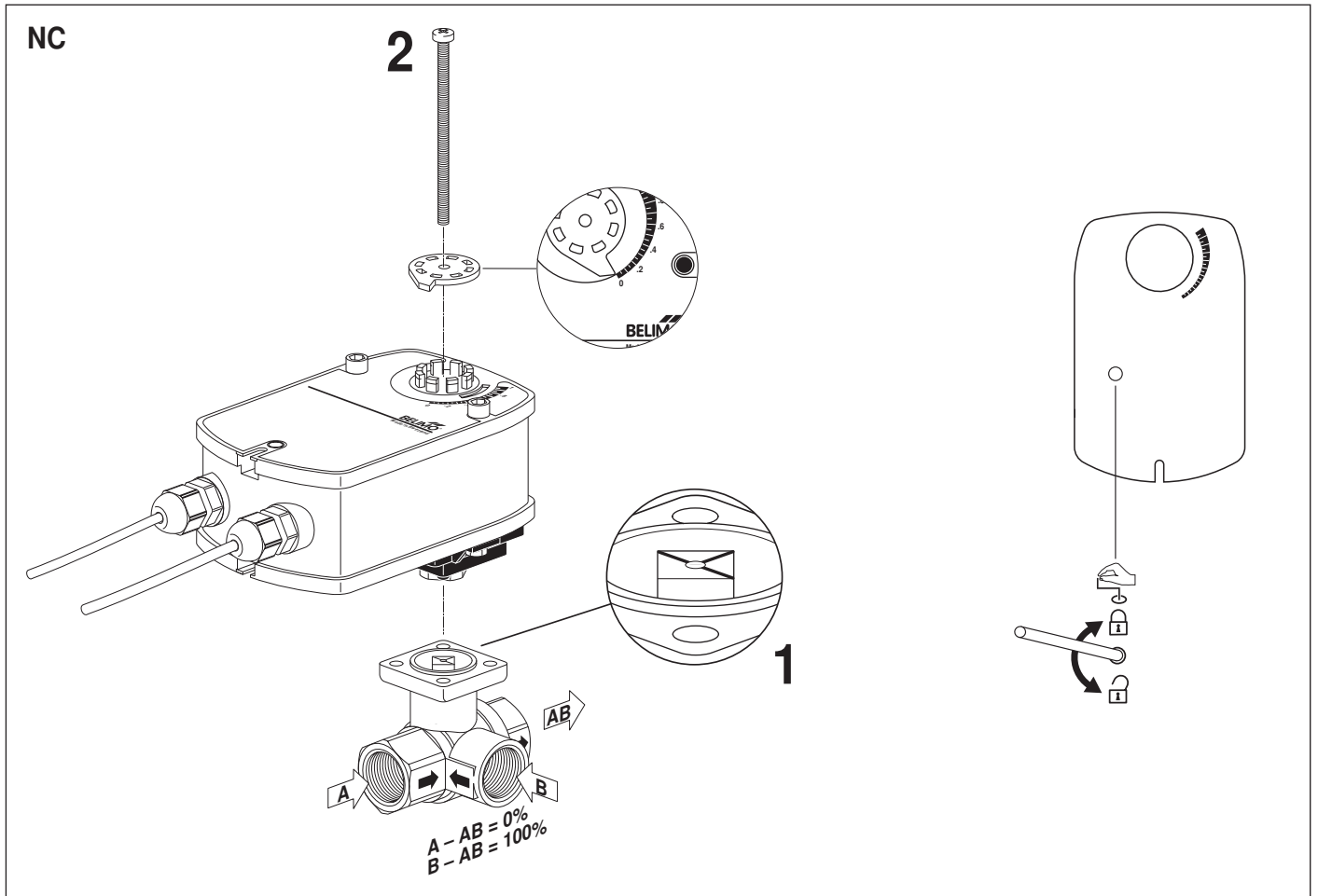
Dimensions [mm]

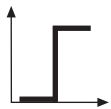
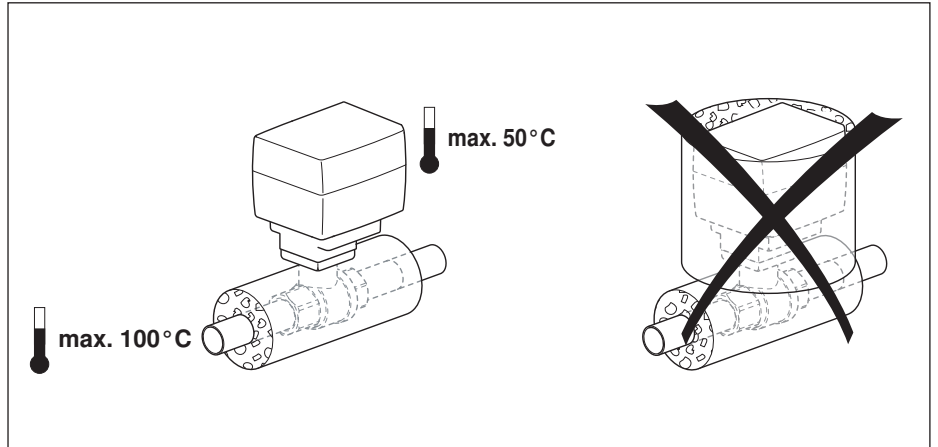
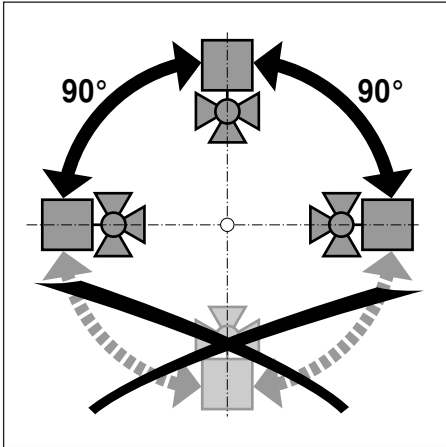
Dimensional diagrams



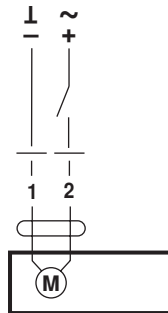
Further documentations

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

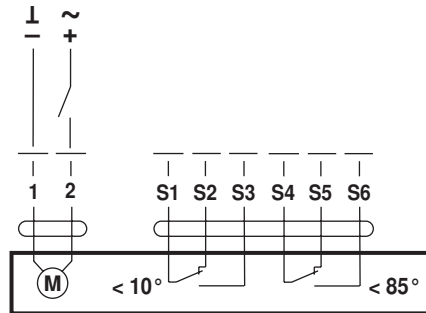




AC 24 V

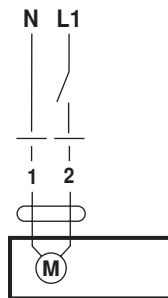


LRF24 (-O)

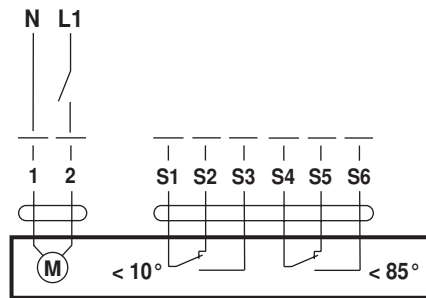


LRF24-S (-O)

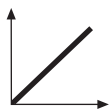
AC 230 V



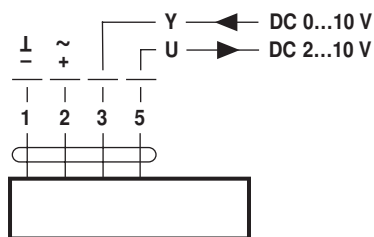
LRF230 (-O)



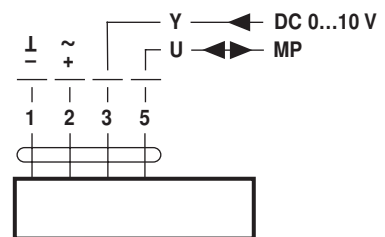
LRF230-S (-O)



AC 24 V / DC 24 V



LRF24-SR (-O)



LRF24-MP (-O)