

Rotary actuator for  
2 and 3-way ball valves

- Torque 10 Nm
- Nominal voltage AC 24 V
- Control: Open/close or 3-point
- Auxiliary switch


**Technical data**

<b>Electrical data</b>	Nominal voltage	AC 24 V, 50/60 Hz	
	Power supply range	AC 19.2 ... 28.8 V	
	Power consumption	In operation	1.5 W at nominal torque
		For wire sizing	1.5 VA
	Auxiliary switch	1 SPDT, 5 (1) A, AC 250 V II □ Adjustable switching point, 0 ... 100% ◁ (Factory setting 100% ◁)	
	Connecting cable	Motor	1 m, 3 x 0,75 mm <sup>2</sup>
		Auxiliary switch	1 m, 3 x 0,75 mm <sup>2</sup>
Parallel connection	No		
<b>Functional data</b>	Torque (nominal torque)	Min. 10 Nm at nominal voltage	
	Position accuracy	±5%	
	Manual override	Temporary and permanent disengagement of the gearing latch by means of the rotary knob on the housing	
	Running time	140 s / 90° ◁	
	Sound power level	Max. 35 dB (A)	
	Position indication	Scale plate 0 ... 1	
	<b>Safety</b>	Protection class	III Extra low voltage
Degree of protection		IP40	
EMC		CE according to 89/336/EEC	
Mode of operation		Type 1.B (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		0 ... +50 °C	
Media temperature		+5 ... +120 °C (in ball valve)	
Non-operating temperature		-30 ... +80 °C	
Ambient humidity range		95% r.H., non-condensating (to EN 60730-1)	
Maintenance	Maintenance-free		
<b>Dimensions / Weight</b>	Dimensions	See «Dimensions» on page 2	
	Weight	Approx. 500 g (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.
- It may only be installed by suitably trained personnel.  
All applicable legal or institutional installation regulations must be complied with.
- The device 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

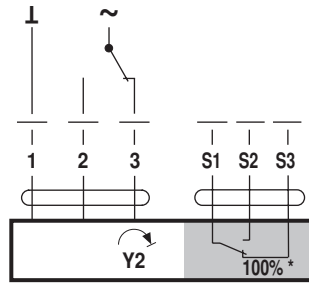
- Simple direct mounting** Straightforward direct mounting on the ball valve with only one screw. The mounting position in relation to the mixing valve can be selected in 90° steps.
- Manual operation** Manual operation possible by lever (temporary disengagement of the gearing latch by pressing, permanent disengagement by means of the rotary knob on the housing).
- Functional reliability** The actuator switches off automatically when the end stops are reached.
- Combination valve actuators** Refer to the valve documentation for suitable valves, their permitted media temperatures and closing pressures.

Electrical installation

Wiring diagrams

**Note**  
Connect via safety isolation transformer.

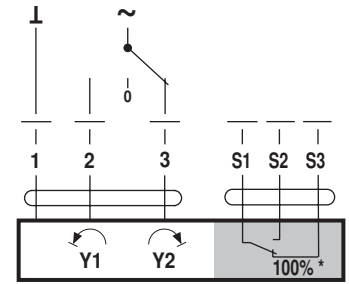
Open-close control



Cable colours:

- 1 = black
- 2 = white
- 3 = white
- S1 = white
- S2 = white
- S3 = white

3-point control

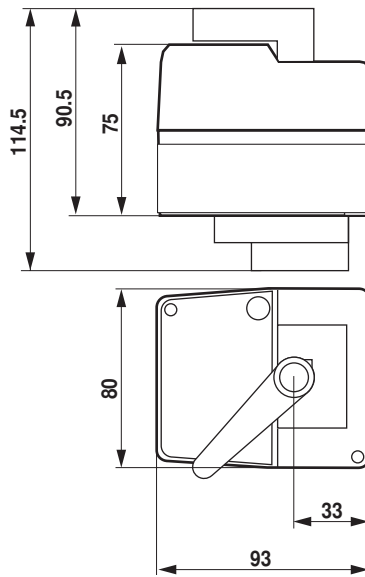


\* Factory setting

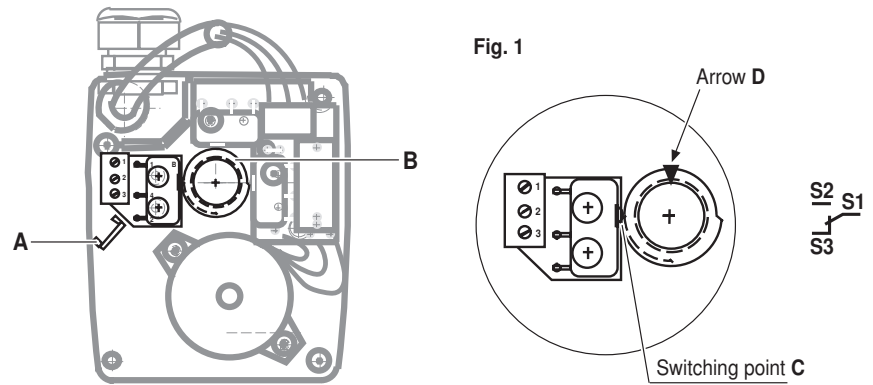
Rotary actuator	Rotary valve
Y2	A - AB = 0%

Dimensions [mm]

Dimensional diagrams



## Adjusting auxiliary switch



1. Remove the cover of the housing.
2. Press down the manual disengagement **A** on the actuator and turn the actuator into the required switching position of the auxiliary switch by means of the lever.
3. Insert the cam ring **B** as shown in Fig. 1, so that the switching point **C** just about operates the switch. Connection S1–S2 is switched (the arrow **D** is now at the top).
4. Assemble the cover of the housing.

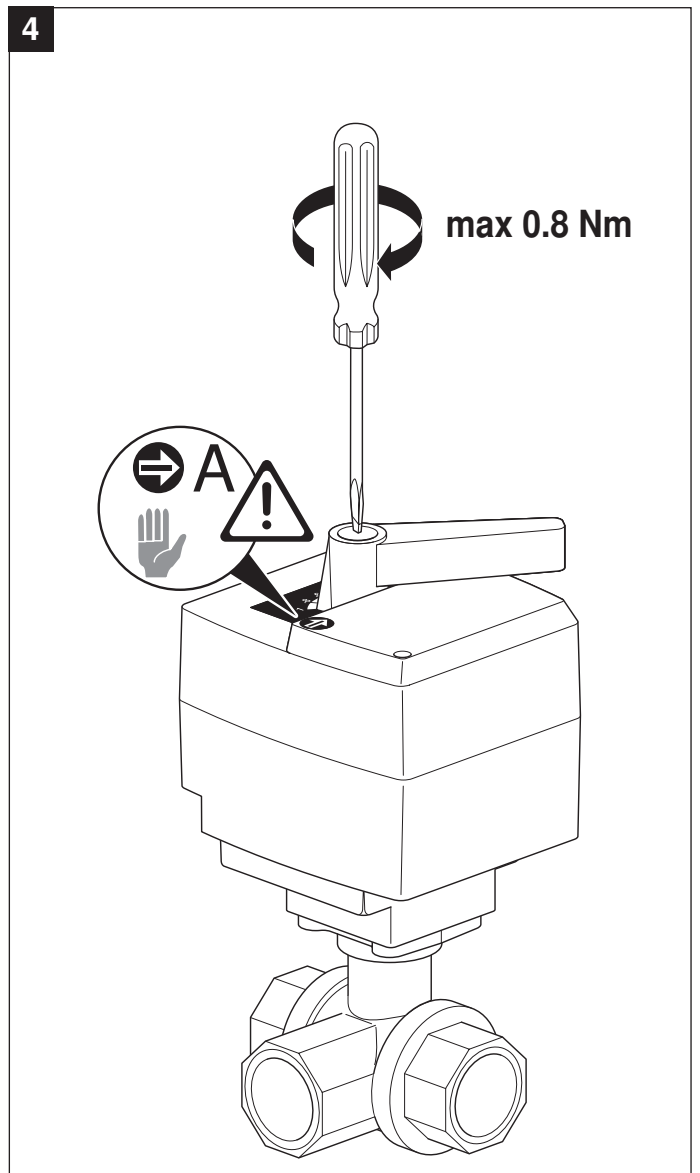
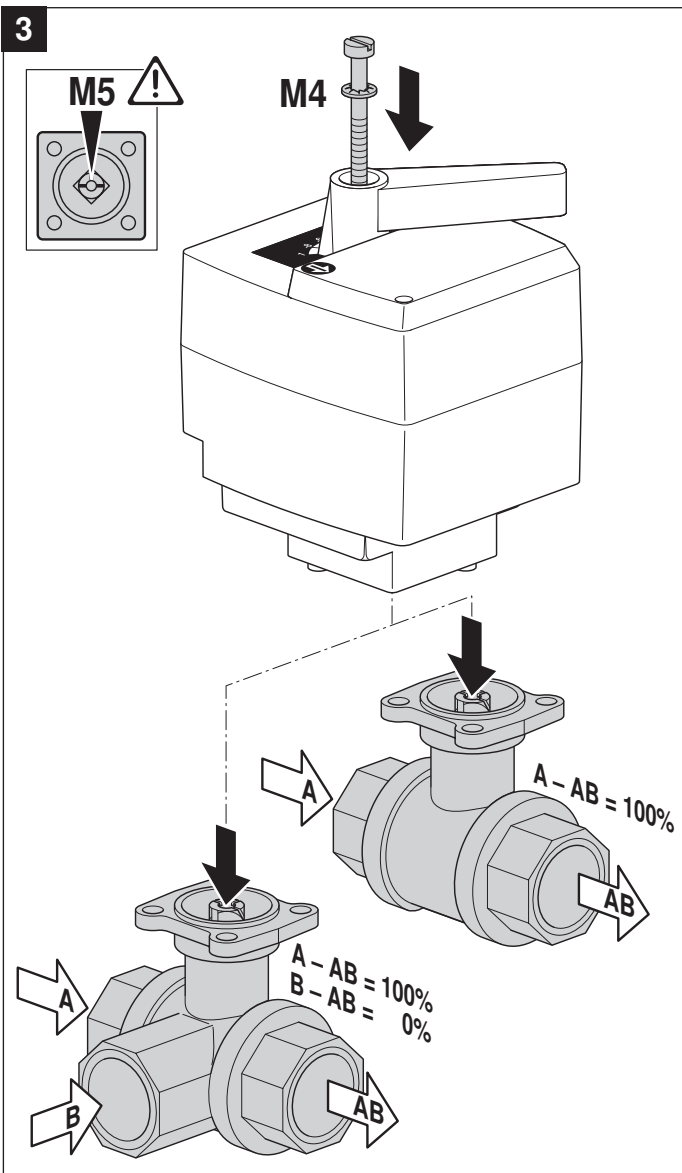
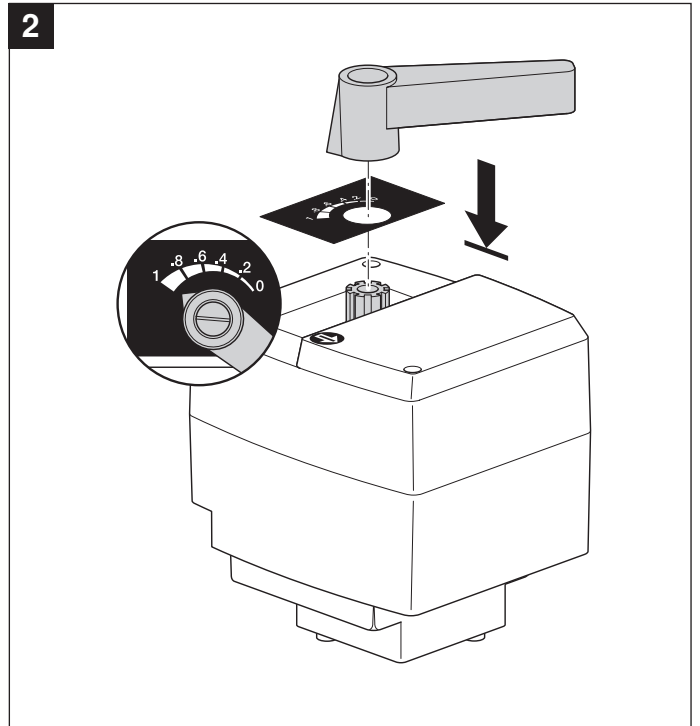
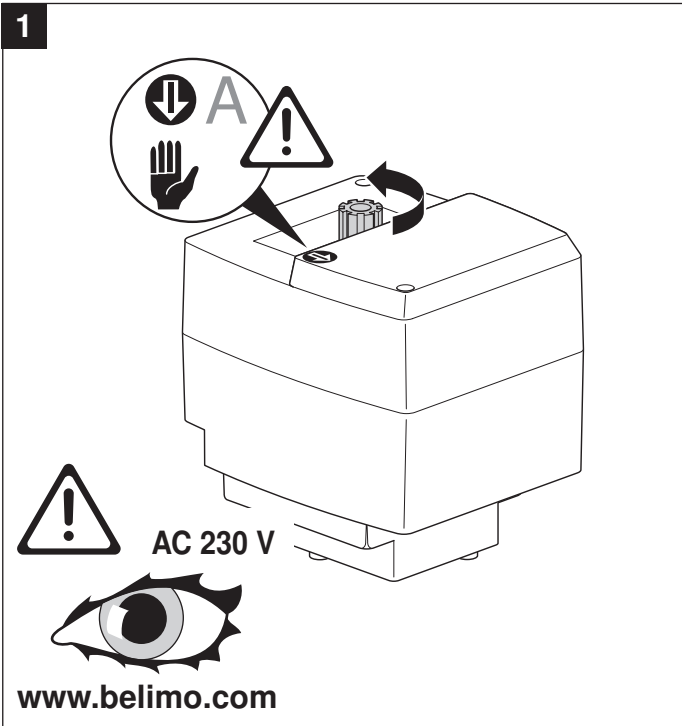
**Dismounting the housing cover**

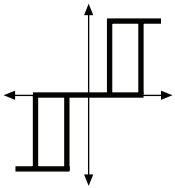
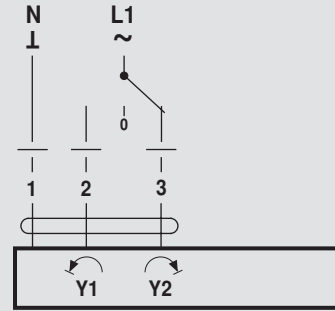
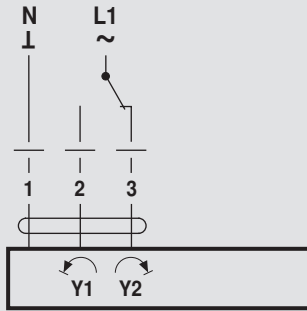
Loosen the central screw at the black lever and remove the two Phillips screws of the housing cover.

**Further documentations**

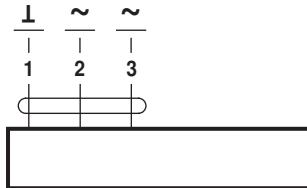
- Complete overview of actuators for water solutions
- Data sheets for ball valves
- Installation instructions for actuators and/or ball valves
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance etc.)

70721-00001.B

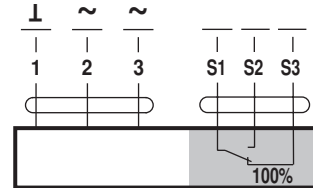




AC 24 V

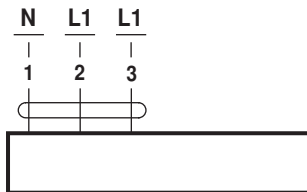


HR..24-3

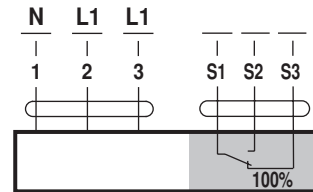


HR..24-3-S

AC 230 V



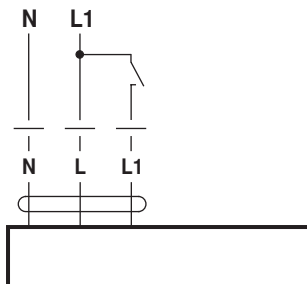
HR..230-3



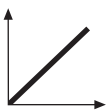
HR..230-3-S



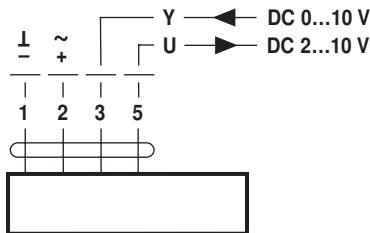
AC 230 V



HR..230-1-T



AC 24 V / DC 24 V



HR..24-SR



AC 230 V



[www.belimo.com](http://www.belimo.com)