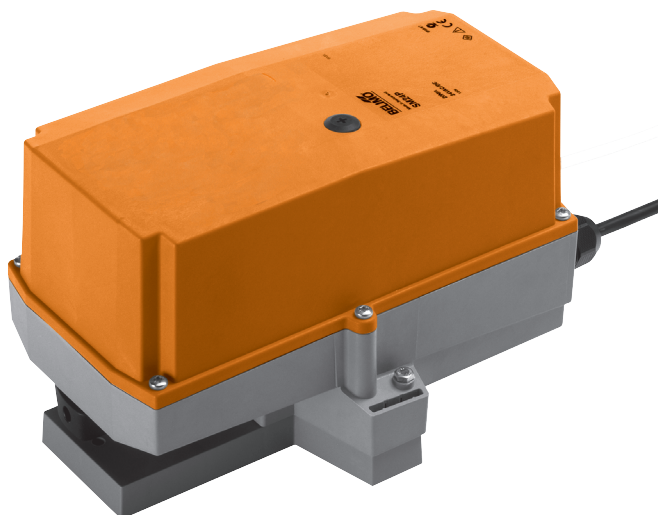


Modulating Robustline rotary actuator
for 2 and 3 way ball valves

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

Optimum protection against

- Corrosion and chemical influences
- UV radiation
- Damp and condensation



Technical data

Electrical data	Nominal voltage	AC 24 V, 50/60 Hz / DC 24 V	
	Nominal voltage range	AC/DC 19.2 ... 28.8 V	
	Power consumption	In operation	2 W @ nominal torque
		At rest	0.4 W
	For wire sizing	4 VA	
	Connection	Halogen-free cable 1 m, 4 x 0.75 mm ²	
	Parallel connection	Possible, note the performance data	
Functional data	Torque (nominal torque)	Min. 20 Nm @ nominal voltage	
	Control	Control signal Y	DC 0 ... 10 V, typical input impedance 100 k
		Operating range	DC 2 ... 10 V
	Position feedback (Measuring voltage)	DC 2 ... 10 V, max. 1 mA	
	Position accuracy	±5%	
	Manual override	Gearing latch disengaged with pushbutton, can be locked	
	Running time	90 s / 90° ↯	
	Sound power level	Max. 45 dB (A) (without ball valve)	
Position indication	Mechanical, pluggable		
Safety	Protection class	III Safety extra-low voltage	
	Degree of protection	IP66 + IP67	
	EMC	CE according to 2004/108/EC	
	Mode of operation	Type 1 (EN 60730-1)	
	Rated impulse voltage	0.8 kV (EN 60730-1)	
	Control pollution degree	4 (EN 60730-1)	
	Ambient temperature	-30 ... +50 °C	
	Non-operating temperature	-40 ... +50 °C	
	Ambient humidity	100% r.H.	
	Maintenance	Maintenance-free	
Dimensions / Weight	Dimensions	See «Dimensions» on page 3	
	Weight	Approx. 1.55 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 installation.
- 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 cover of the protective housing may be opened for adjustment and servicing. When it is closed afterwards, the housing must seal tight.
- The device on the inside may only be opened up in the factory. It does not contain any parts that can be replaced or repaired by the user.
- The cable must not be removed from the device.

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.
- The information on chemical resistance refers to laboratory tests with raw materials and finished products and to trials in the field in the areas of application indicated.
- The materials used may be subjected to external influences (temperature, pressure, constructional fixture, effect of chemical substances etc.), that cannot be simulated in laboratory test or field trials.
- The information regarding areas of application and resistance can therefore only serve as a guideline. In case of doubt, we recommend that you definitely carry out a test. This information does not imply any legal entitlement. Belimo will not be held liable and will provide no warranty. The chemical or mechanical resistance of the materials used is not alone sufficient for judging the suitability of a product. Regulations pertaining to combustible liquids such as solvents etc. must be taken into account with special reference to explosion protection.

Product features

Fields of application	The actuator is particularly suited for use in difficult conditions, e.g. in the field of: <ul style="list-style-type: none"> – Wood drying – Animal breeding – Food processing – Agricultural – Swimming baths / Bathrooms – Rooftop units – General outdoor applications – Changing climate 		
Resistances	Test	Test standard	Testing body
	Noxious gas tests	EN 60068-2-60	Fraunhofer Institute ICT / DE
	Salt fog spray test	EN 60068-2-52	Fraunhofer Institute ICT / DE
	Ammoniac test	DIN 50916-2	Fraunhofer Institute ICT / DE
	Climatic test	IEC 60068-2-30	Trikon Solutions AG / CH
	Disinfectants (animals)		Trikon Solutions AG / CH
	UV test	EN 60068-2-5	Quinel / Zug CH
	(Solar radiation at ground level)	EN 60068-2-63	
Used materials	Actuator parts	Material	
	Actuator housing	Polypropylene (PP)	
	Cable glands / hollow shaft	Polyamide (PA)	
	Connection cable	FRNC	
	Clamp / screws in general	Steel 1.4404	
	Seals	EPDM	
	Form-fit insert	Anodised aluminium	
Mode of operation	The actuator is controlled with a standard modulating signal of DC 0 ... 10 V and moves to the position defined by the control signal. The measuring voltage U serves for the electrical display of the ball position 0 ... 100% and as slave control signal for other actuators.		
Simple direct mounting	Straightforward direct mounting on the ball valve with only one screw. The assembly tool is integrated in the plug-on position indicator. The mounting position in relation to the fitting can be selected in 90°-steps.		
Manual override	Manual override with push-button possible (the gear is disengaged for as long as the button is pressed or remains locked).		
Adjustable angle of rotation	Adjustable angle of rotation with mechanical end stops. Standard setting 0 ... 90°-steps. The housing cover must be removed to set the angle of rotation.		
High functional reliability	The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.		

Accessories

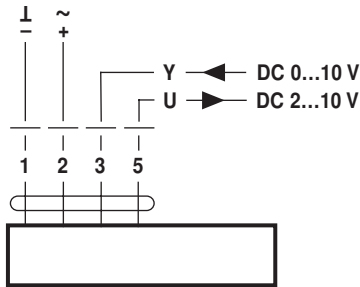
	Description	Data sheet
Electrical accessories	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..
	Range controller SBG24	T2 - SBG24
	Positioner SG..24	T2 - SG..24
	Digital position indication ZAD24	T2 - ZAD24

Electrical installation

Wiring diagram

Note

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

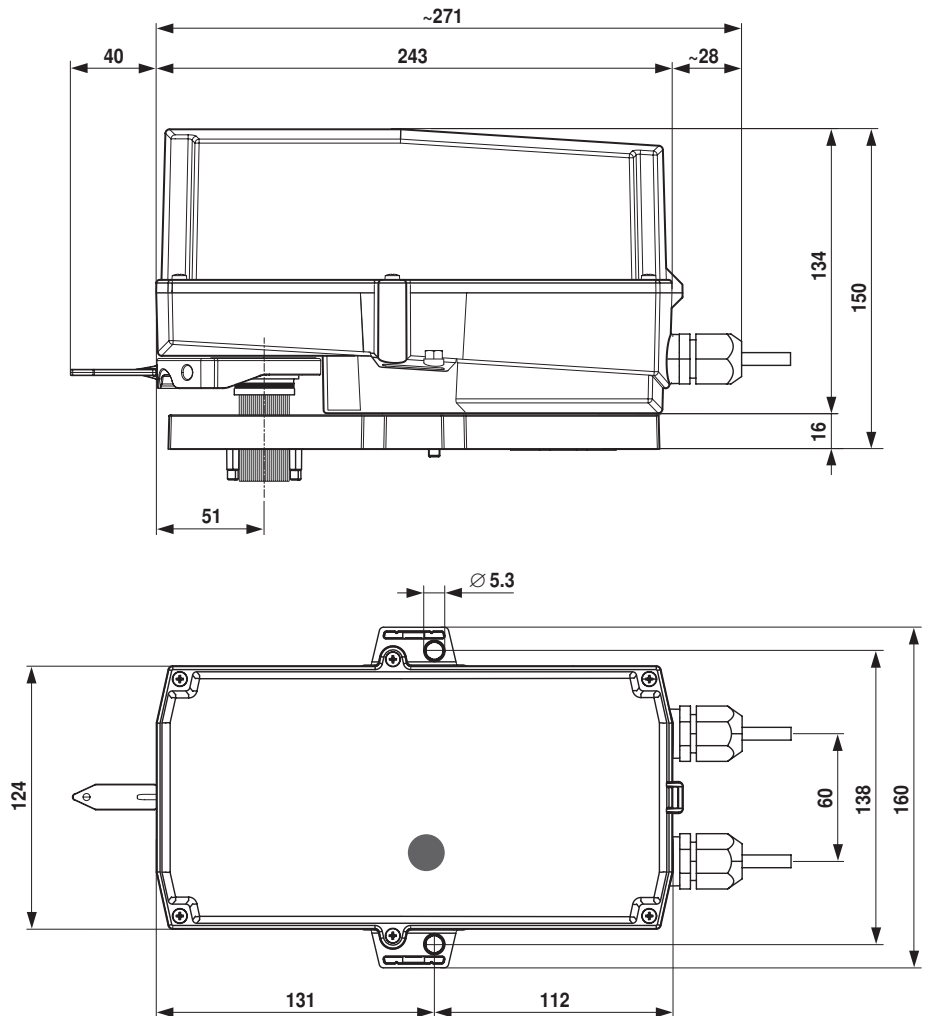


Cable colours:

- 1 = black
- 2 = red
- 3 = white
- 5 = orange

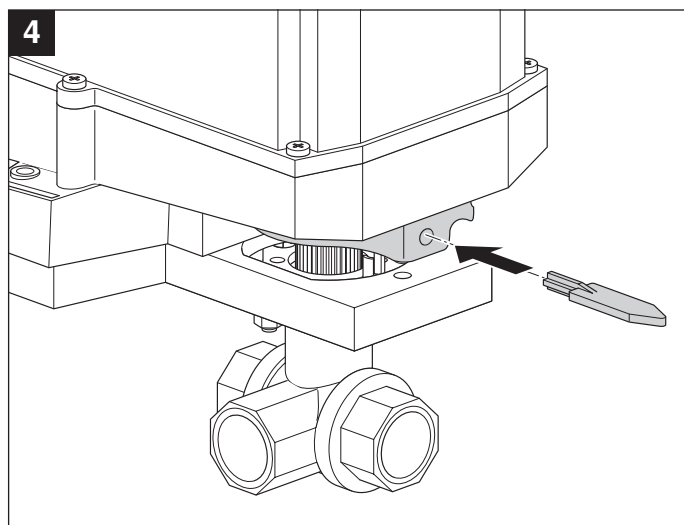
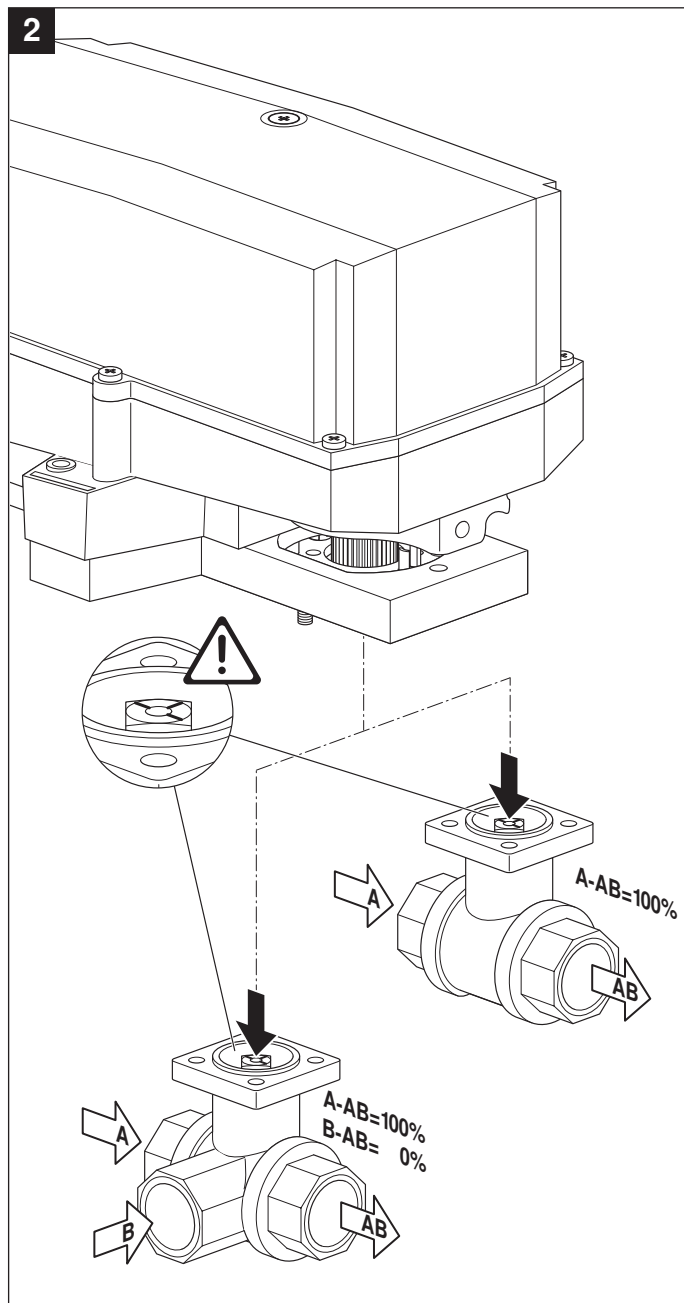
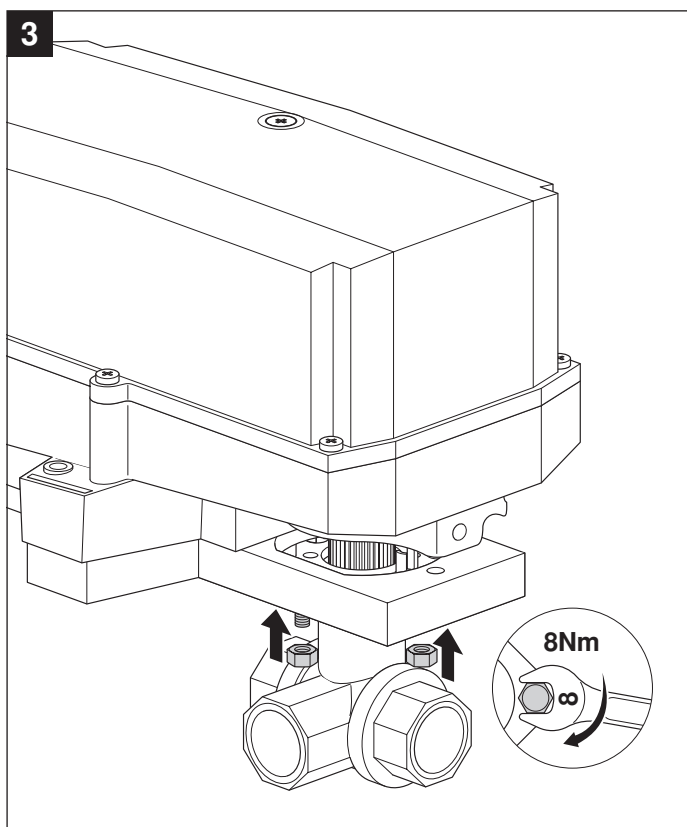
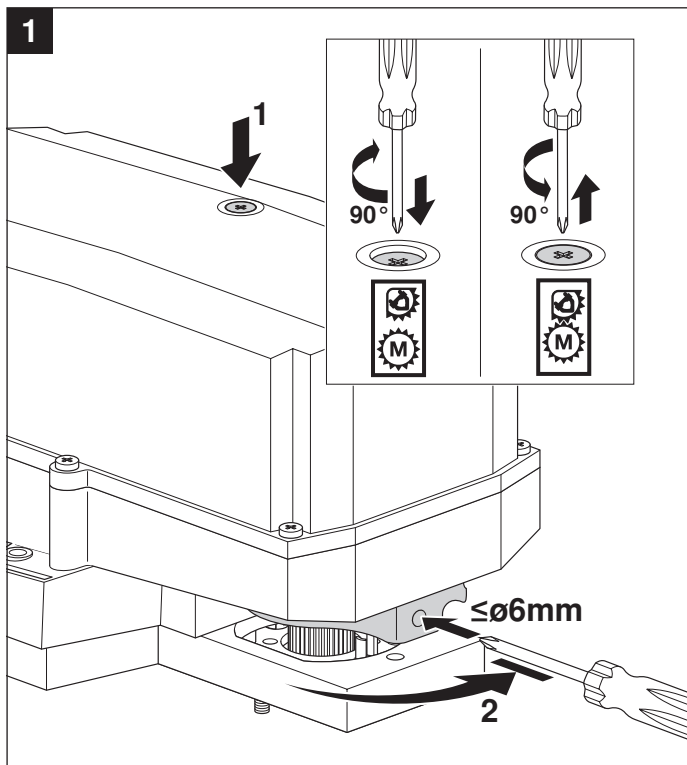
Dimensions [mm]

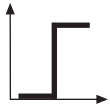
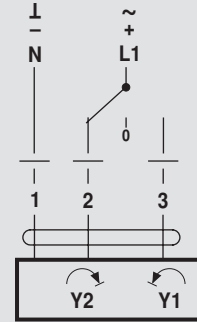
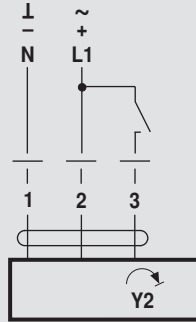
Dimensional drawings



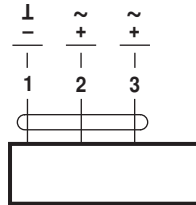
Further documentations

- Overview Valve-actuator combinations
- Data sheets for ball valves
- Installation instructions for actuators and ball valves
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance etc.)



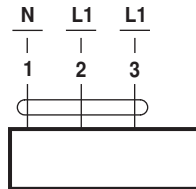


AC 24 V / DC 24 V

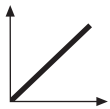


SR24P

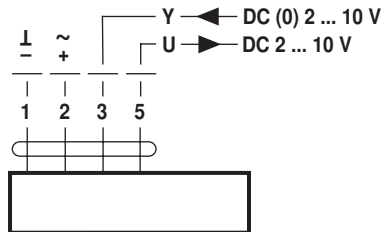
AC 100 ... 240 V



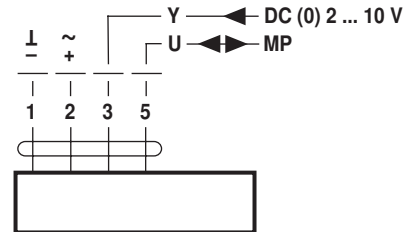
SR230P



AC 24 V / DC 24 V



SR24P-SR



SR24P-MP