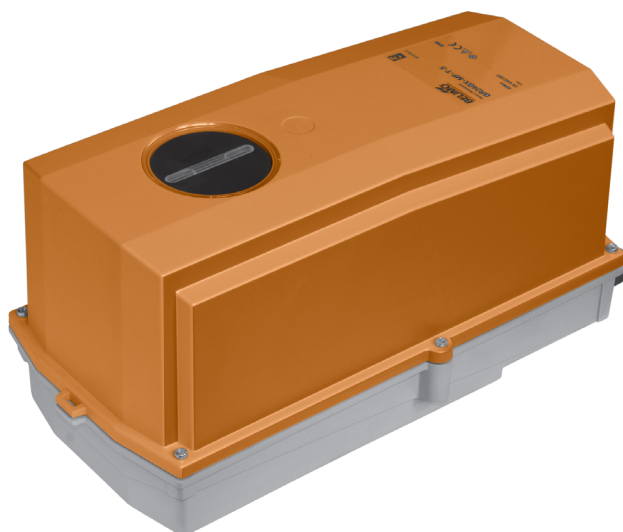


Rotary actuator for butterfly valves
for outdoor applications

- Torque 90 Nm (not constant)
- Nominal voltage AC/DC 24 V
- Control: Open-close
- IP66

Optimum protection against

- moisture
- UV radiation
- dirt and dust



Technical data

Electrical data	Nominal voltage	AC 24 V, 50/60 Hz / DC 24 V
	Nominal voltage range	AC 19.2 ... 28.8 V / DC 21.6 ... 28.8 V
	Power consumption	In operation 9 W @ nominal torque At rest 2 W For wire sizing 12 VA
	Connection	Terminals 4 mm ² (cable Ø 4 ... 10 mm)
	Parallel operation	No
Functional data	Torque	≤90 Nm @ nominal voltage (not constant)
	Manual override	Gearing latch disengaged with push-button, can be locked
	Running time	≤35 s / 90°↔
	Sound power level	≤62 dB (A) (without butterfly valve)
	Position indication	Yes
Safety	Protection class	III Safety extra-low voltage UL Class 2 Supply
	Degree of protection	IP66 NEMA 4, UL Enclosure Type 4
	EMC	CE according to 2004/108/EC
	Certification	Certified to IEC/EN 60730-1 and IEC/EN 60730-2-14 cULus according to UL 60730-1A and UL 60730-2-14 and CAN/CSA E60730-1:02
	Mode of operation	Type 1
	Rated impulse voltage	0.8 kV
	Control pollution degree	4
	Ambient temperature	-30 ... +50 °C
	Medium temperature	-20 ... +120 °C (in the butterfly valve)
	Non-operating temperature	-40 ... +80 °C
	Ambient humidity	100% r.h.
	Maintenance	Maintenance-free
Dimensions / weight	Dimensions	See «Dimensions» on page 3
	Weight	Approx. 4.7 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. Any legal regulations or regulations issued by authorities must be observed during assembly.
- The switch for changing the direction of rotation may not be adjusted.
- The angle of rotation is not permitted to be subjected to mechanical limitation. It is forbidden to alter the mechanical end stops.
- 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 device contains electrical and electronic components and is not permitted to be disposed of as household refuse. All locally valid regulations and requirements must be observed.
- The actuator is not designed for applications where chemical influences (gases, fluids) are present or for utilisation in corrosive environments (e.g. seawater coastal areas) in general.
- Because of its non-constant torque, the actuator is neither suitable nor released for motorisation with valves from other manufacturers. No legal entitlement can be claimed, even after extensive testing. Belimo will not be held liable and will provide no warranty.
- The actuator may not be used in plenary applications (e.g. suspended ceilings or raised floors).
- The materials used may be subjected to external influences (temperature, pressure, constructional fixture), that cannot be simulated in laboratory test or field trials. In case of doubt, we definitely recommend that you carry out a test.
This information does not however imply any legal entitlement. Belimo will not be held liable and will provide no warranty.
- **Cabling: flexible metallic cable conduits or threaded cable conduits of equal value if the cables are not certified for UL (NEMA) Type 4 applications.**

Product features

Fields of application	The actuator is particularly suitable for utilisation in outdoor applications and is protected against the following weather conditions: – UV radiation – rain / snow – dirt / dust – humidity – Changing atmosphere / frequent and severe temperature fluctuations (recommendation: use the actuator with integrated factory-installed heating which can be ordered separately to prevent internal condensation (see «Accessories»).
Simple direct mounting	Simple direct mounting on BELIMO butterfly valves with ISO 5211-F07 mounting flange. 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). The cover must be removed for this purpose.
High operational reliability	The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.


Accessories

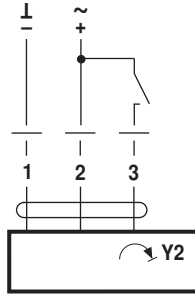
	Description	Data sheet
Electrical accessories	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..
	Heating with mechanical hygrostat HH24-MG	T2/T5 - HH24-MG
	Heating with adjustable thermostat HT24-MG	T2/T5 - HT24-MG

Electrical installation

Wiring diagrams

Notes

- Connection via safety isolation transformer. 
- Direction of rotation switch is covered. Factory default: Direction of rotation Y2.



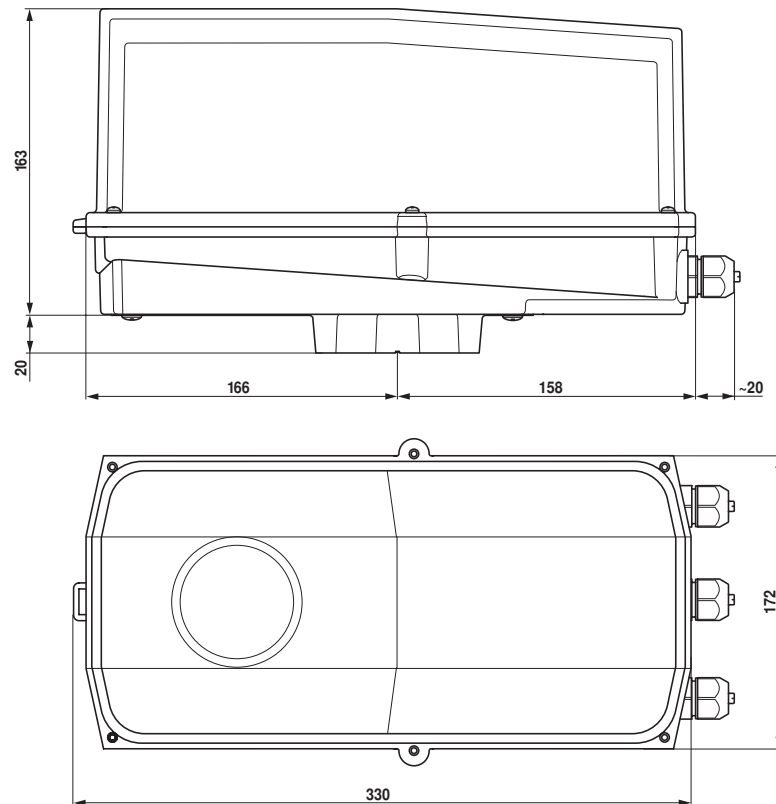
Direction of rotation



Rotary actuator	Rotary valve
Y2	A – AB = 0%

Dimensions [mm]

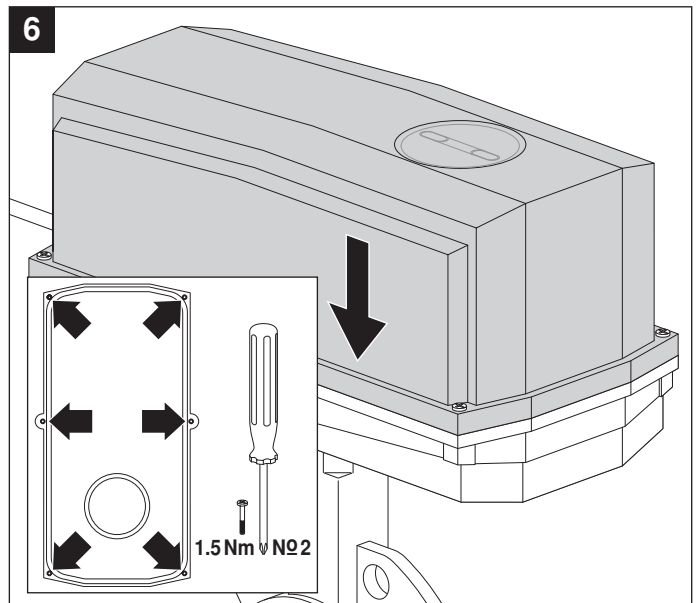
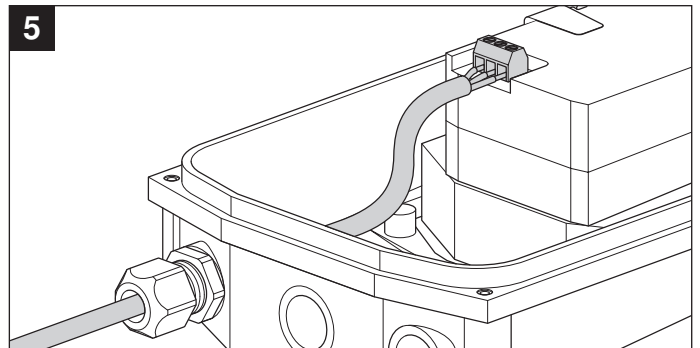
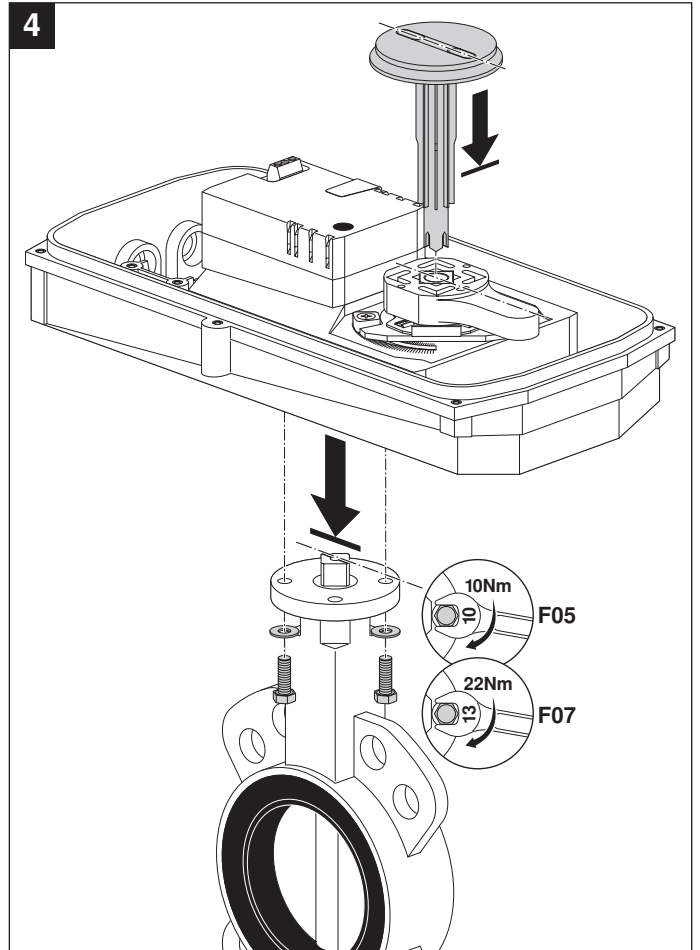
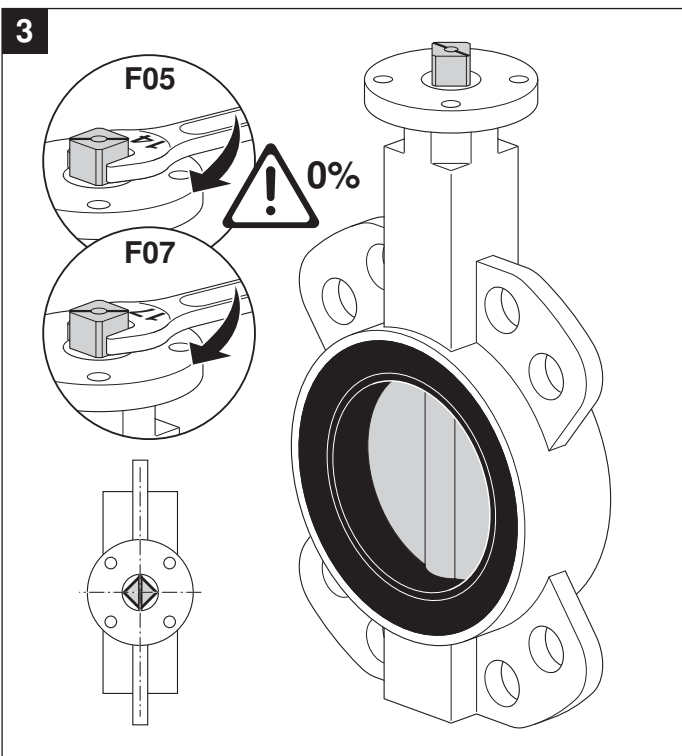
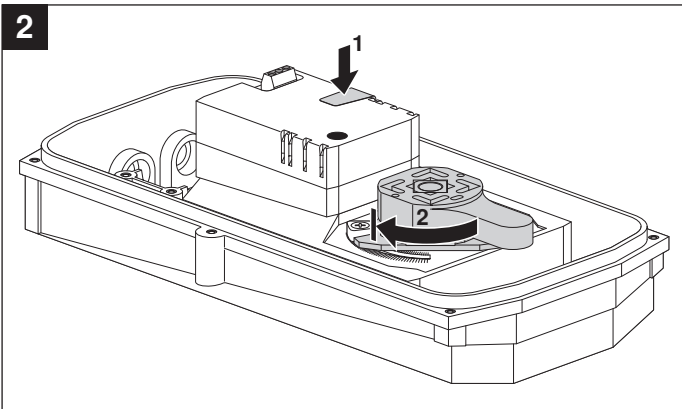
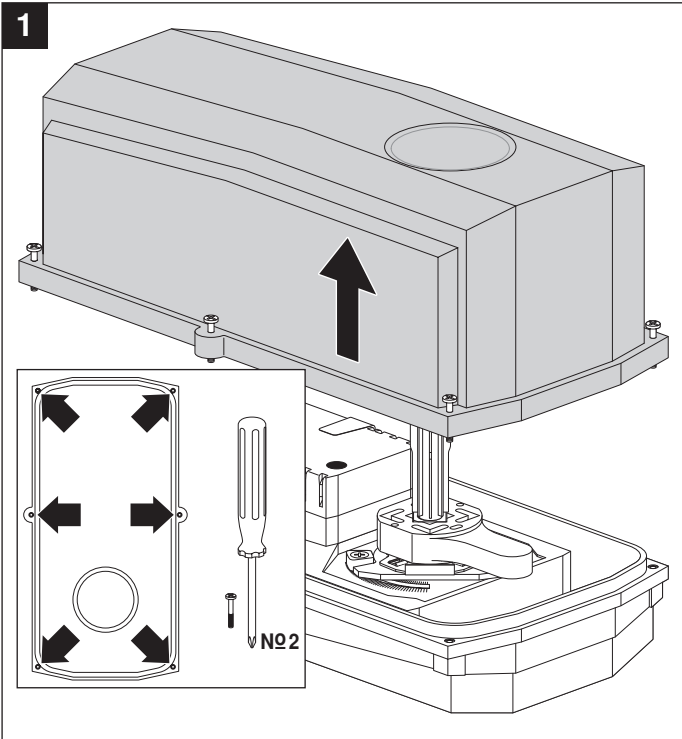
Dimensional drawings

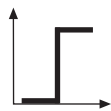
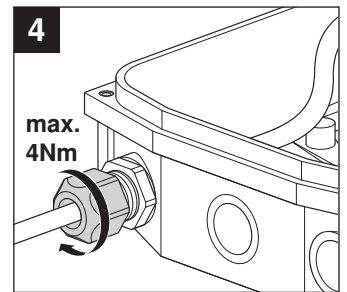
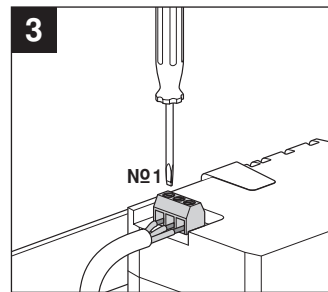
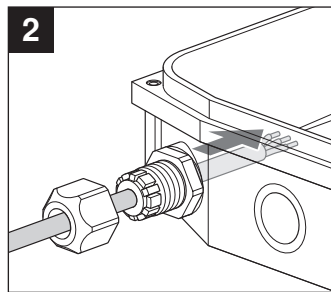
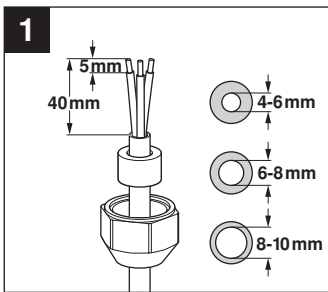
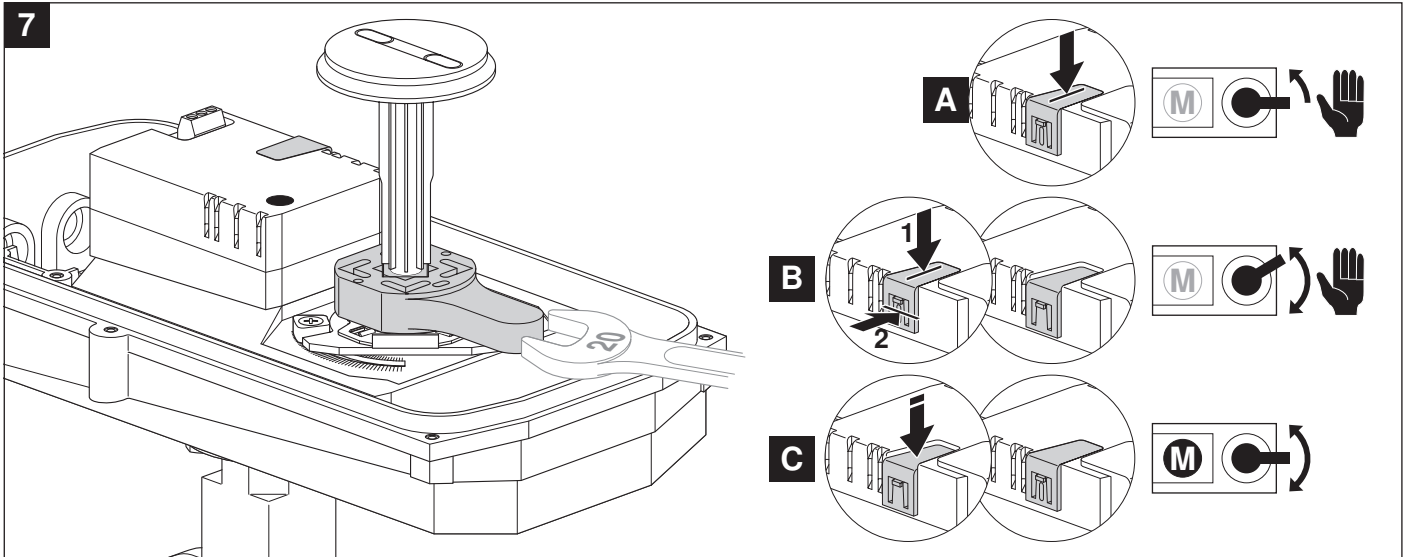


Further documentation

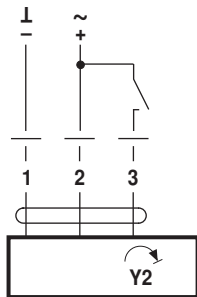
- Complete overview «The complete product range of water solutions»
- Data sheets, butterfly valves
- Installation instructions for actuators and/or butterfly valves, respectively
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance,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

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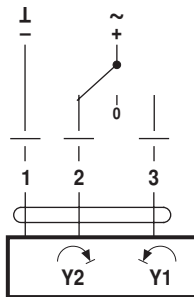




AC 24 V / DC 24 V

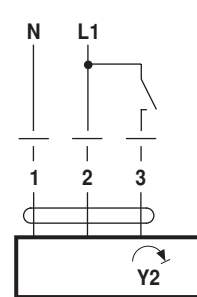


DR(C)24G(X)-T-7
GR24GX-T-5
GR24GX-T-7

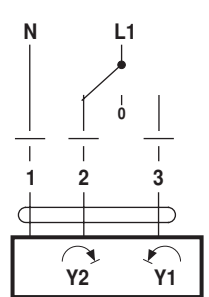


DR24G(X)-T-7
GR24GX-T-5
GR24GX-T-7

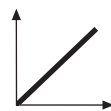
AC 230 V



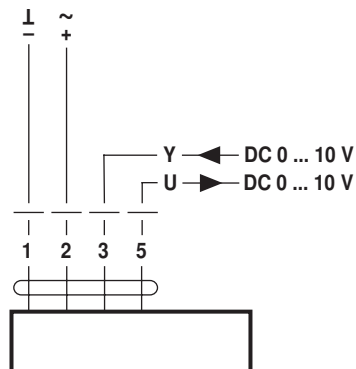
DR230GX-T-7
GR230GX-T-5
GR230GX-T-7



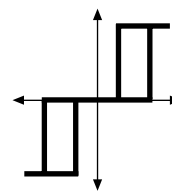
DR230GX-T-7
GR230GX-T-5
GR230GX-T-7



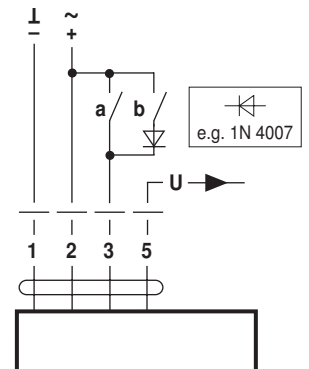
AC 24 V / DC 24 V



DRC24GX-MF-T-7
GRC24G(X)-MF-T-5
GRC24G(X)-SZ-T-5



AC 24 V / DC 24 V



DRC24GX-MF-T-7
GRC24G(X)-MF-T-5