

Modulating rotary actuator for butterfly valves with mounting flange ISO 5211-F07

- Torque 60 Nm
- Nominal voltage AC/DC 24 V
- Control: modulating DC 0 ... 10 V
- Position feedback DC 2 ... 10 V


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	4 W
		For wire sizing	13 VA
Connection	2 x cable 1 m, 4 x 0.75 mm ²		
Parallel operation	Possible, note the performance data		
Functional data	Torque (nominal torque)	Min. 60 Nm @ nominal voltage	
	Control	Control signal Y	DC 0 ... 10 V, typical input impedance 100kΩ
		Operating range	DC 2 ... 10 V
	Position feedback	DC 2 ... 10 V, max. 0.5 mA (Measuring voltage U)	
	Position accuracy	±5%	
	Manual override	Not allowed	
	Running time	150 s / 90°↔	
	Sound power level	Max. 45 dB (A) (without butterfly valve)	
	Position indication	Mechanical, pluggable	
	Safety	Protection class	III Safety extra-low voltage / UL Class 2 Supply
Degree of protection		IP54 in any mounting position	
		NEMA 2, UL Enclosure Type 2	
EMC	CE in accordance with 2004/108/EU		
Certification	cULus according to UL 60730-1A and UL 60730-2-14 and CAN/CSA E60730-1:02		
	Certified to IEC/EN 60730-1 and IEC/EN 60730-2-14		
Mode of operation	Type 1		
Rated surge voltage	0.8 kV		
Control pollution degree	3		
Ambient temperature	0 ... +50 °C		
Medium temperature	-20 ... +120 °C in the butterfly valve		
Non-operating temperature	-40 ... +80 °C		
Ambient humidity	95% r.h., non-condensating		
Maintenance	Maintenance-free		
Dimensions / Weight	Dimensions	See «Dimensions» on page 3	
	Weight	Approx. 5 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 assembly.
- Because of the fact that it is mandatory that the two actuators run in synchronised fashion, no synchronisation is permitted to be carried out. Accordingly it is not permitted
 - to press the gear disengagement push-button when the actuator is carrying voltage,
 - to actuate the direction of rotation switch or
 - to adjust the end stops (0 ... 90°↻).
- 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 cable must not be removed from the device.
- 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

Application	The actuator is used together with the BELIMO butterfly valve D6.. or other valves with the following mechanical specifications: – Square stem head, WAF 17 mm, for form-fit attachment of the rotary actuator – Hole circle (d = 70 mm) for assembly with the butterfly valve <i>Adapters for other stem head dimensions available on request.</i>
Mode of operation	The actuator is controlled with a standard modulating signal of DC 0 ... 10 V and travels to the position defined by the control signal. Measuring voltage U serves for the electrical display of the actuator position 0 ... 100% and as slave control signal for other actuators.
Simple direct mounting	Simple direct mounting on a butterfly valve with ISO 5211-F07 mounting flange. The mounting position in relation to the butterfly valve can be selected in 90°↻ steps.
High functional reliability	The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.
Restrictions	Because of the fact that it is mandatory that the two actuators run in synchronised fashion, neither a manual synchronisation nor an adaption is permitted to be carried out (see also «Safety notes»).


Accessories

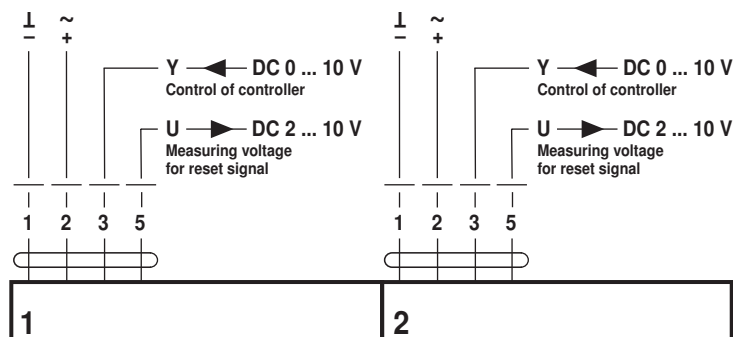
	Description	Data sheet
Electrical accessories	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..

Electrical installation

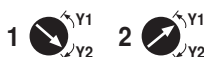
Wiring diagram

Notes

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



Direction of rotation

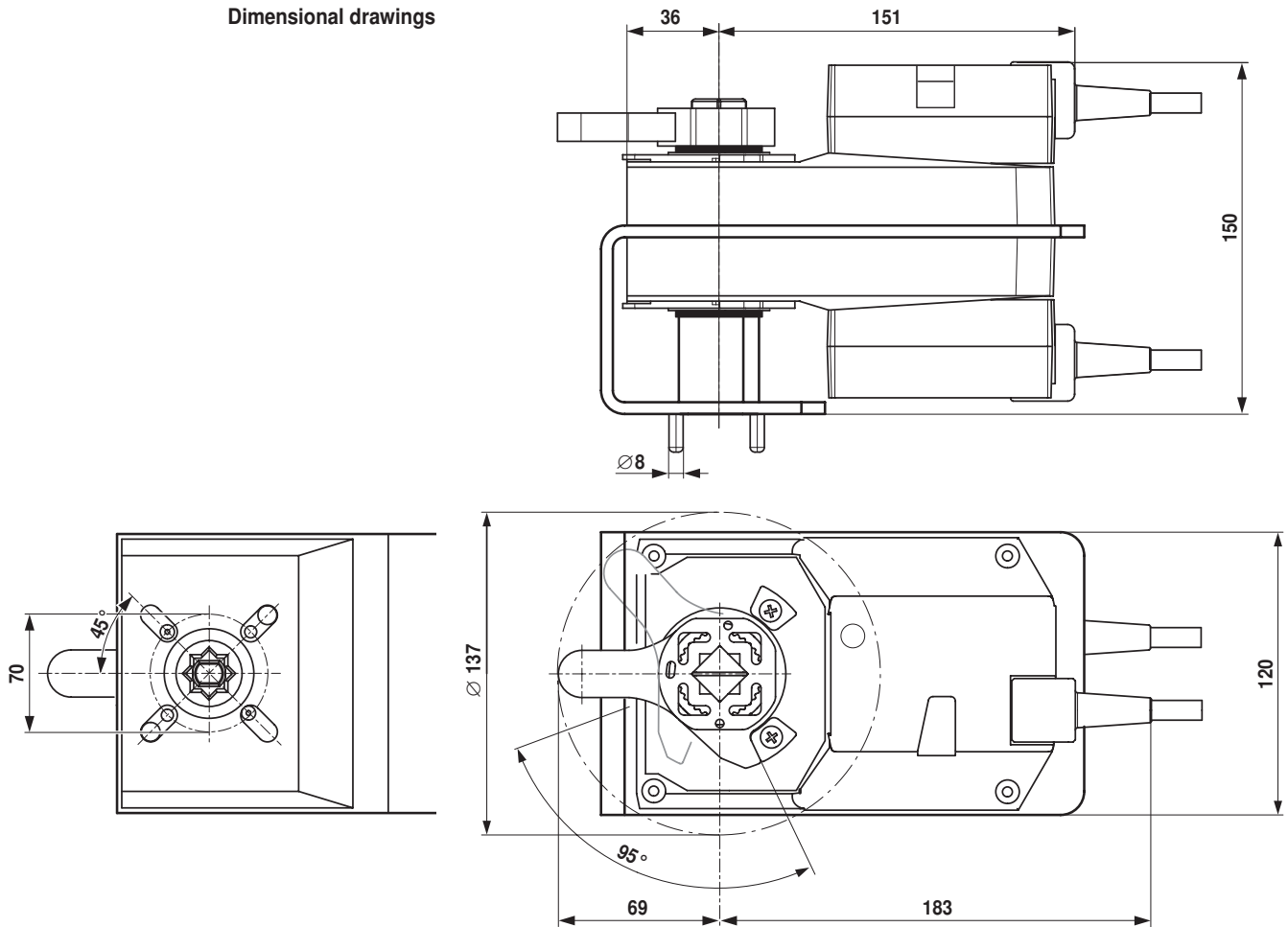


Cable colours:

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

Dimensions [mm]

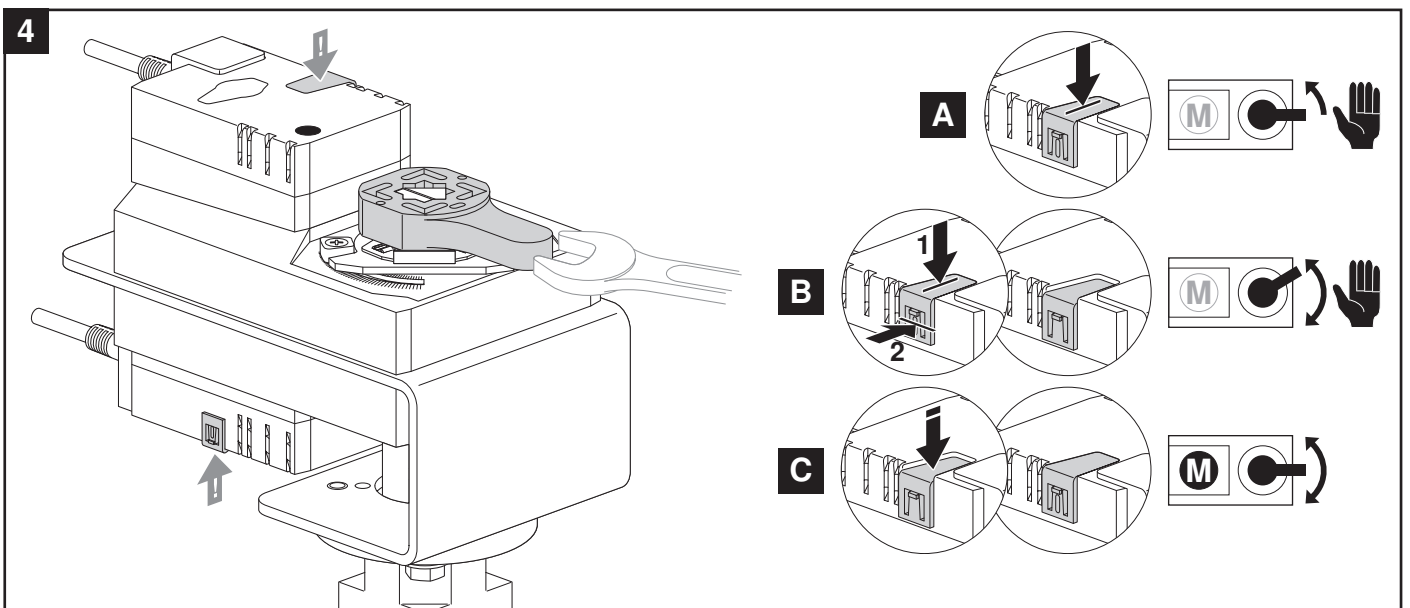
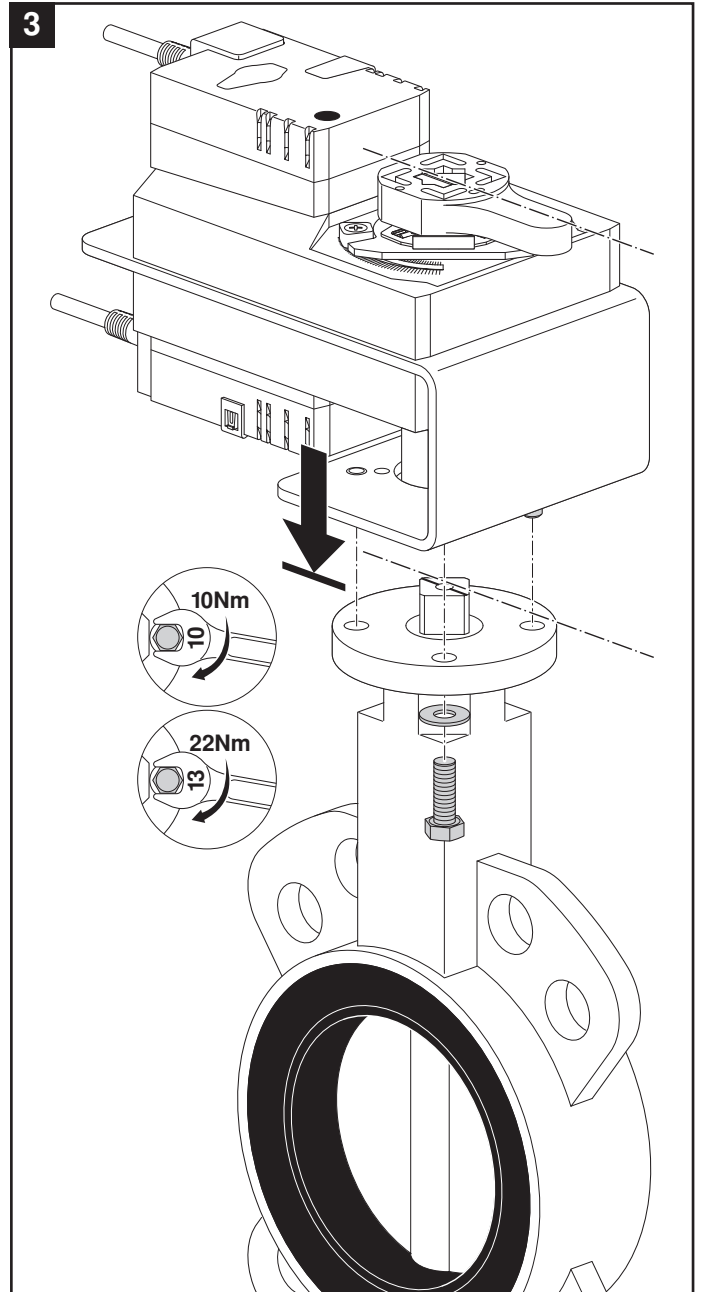
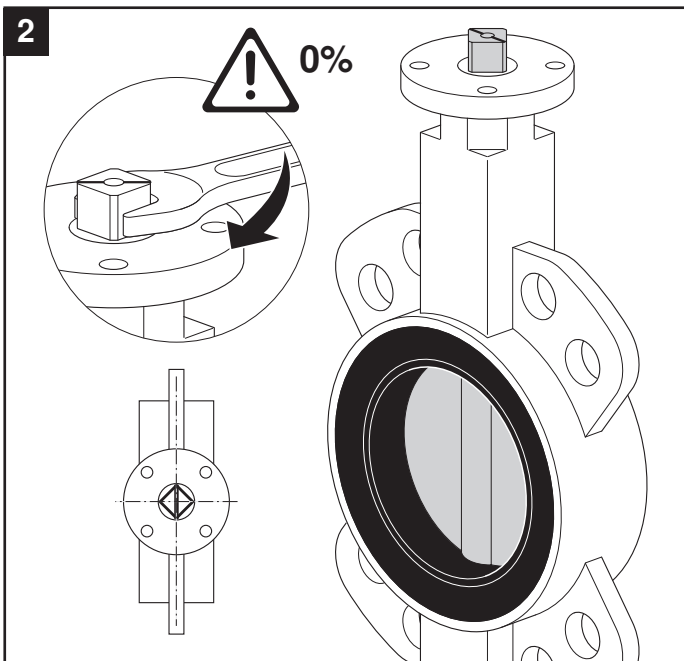
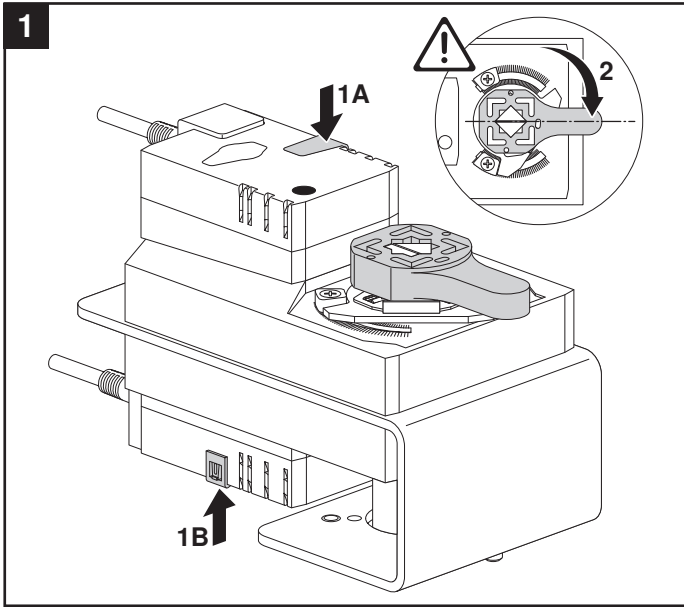
Dimensional drawings

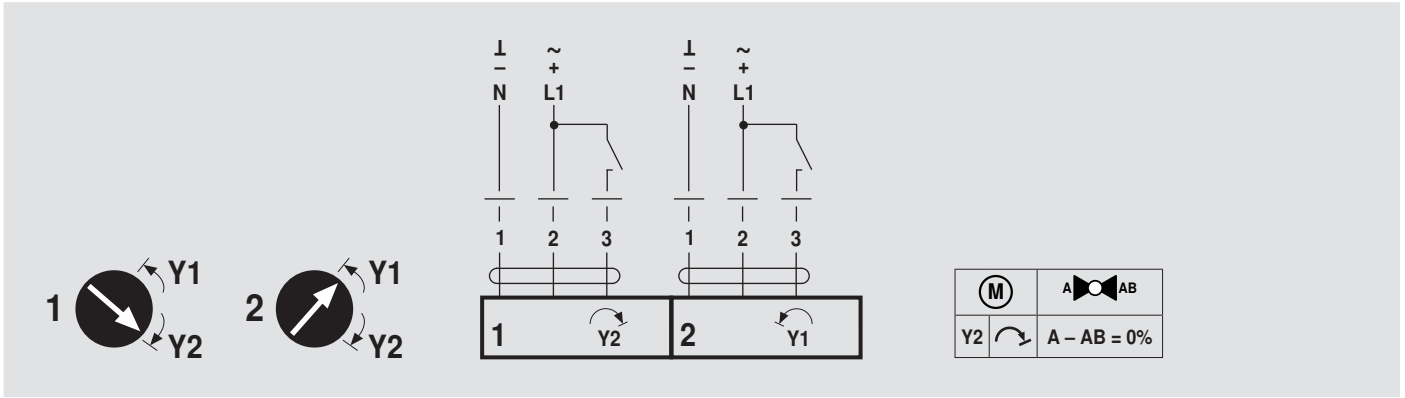


Further documentations

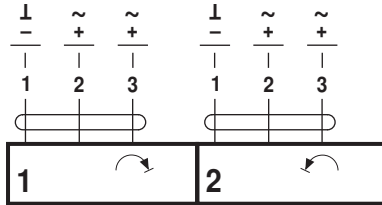
- Complete overview «The complete range of water solutions»
- Data sheets for butterfly valves
- Installation instructions for actuators and/or butterfly valves, respectively
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance.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

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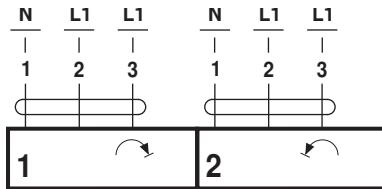


AC 24 V / DC 24 V

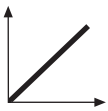


DGR24A..

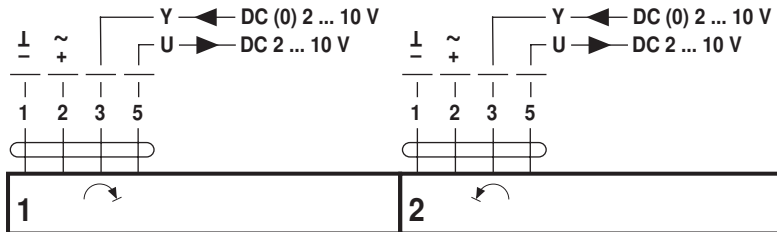
AC 100 ... 240 V ⚠



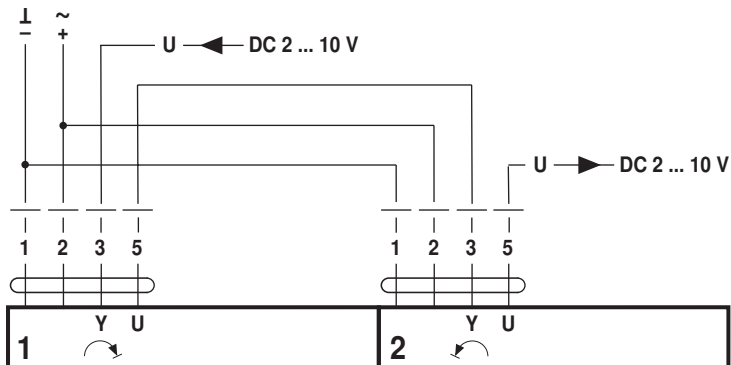
DGR230A..



AC 24 V / DC 24 V



DGR24A-SR..



DGR24A-MF..