Rotary actuator for butterfly valves

• **Torque 60 Nm**
• **Nominal voltage AC/DC 24 V**
• **Control: Open/close**
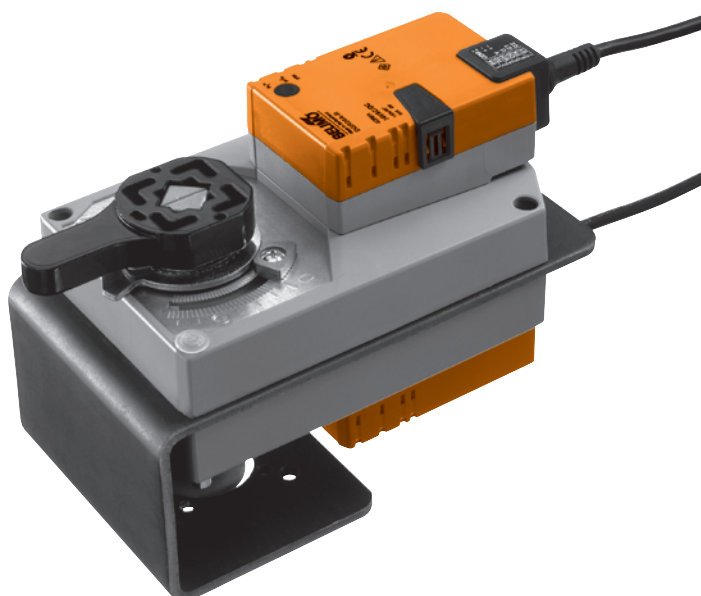
Technical data

Electrical data	Nominal voltage	AC 24 V, 50/60 Hz
		DC 24 V
	Power supply range	AC/DC 19.2 ... 28.8 V
	Power consumption In operation	8 W at nominal torque
	At rest	4 W
	For wire sizing	12 VA
	Connection	2 cables 1 m, 3 x 0,75 mm²
	Parallel connection	Possible, note performance data
Functional data	Torque (nominal torque)	Min. 60 Nm at nominal voltage
	Manual override	Gearing latch disengaged with pushbutton (temporary / permanent)
	Running time	150 s / 90°◁
	Noise level	Max. 45 dB (A) (without the valve)
	Position indication	Mechanical, add-on
Safety	Protection class	**III** Extra low voltage
	Degree of protection	IP54 in any mounting position
	EMC	CE according to 89/336/EEC
	Mode of operation	Type 1 (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	−20 ... +100° in butterfly 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. 5000 g

Safety notes

⚠

• **The rotary 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 switch for changing the direction of rotation may only be operated by authorized personnel. The direction of rotation must not be reversed in a frost protection circuit.**

• **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 in combination with the BELIMO butterfly valve D6 or other dampers with the following mechanical specifications: – Square stem head (17 mm) for form-fit attachment of the rotary actuator – Hole circle (d = 70 mm) for assembly with the butterfly valve *Adapters for other stem head dimensions on request.*
Simple direct mounting	Straightforward direct mounting on the butterfly valve with ISO 5211- F05 assembly 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.

Accessories

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

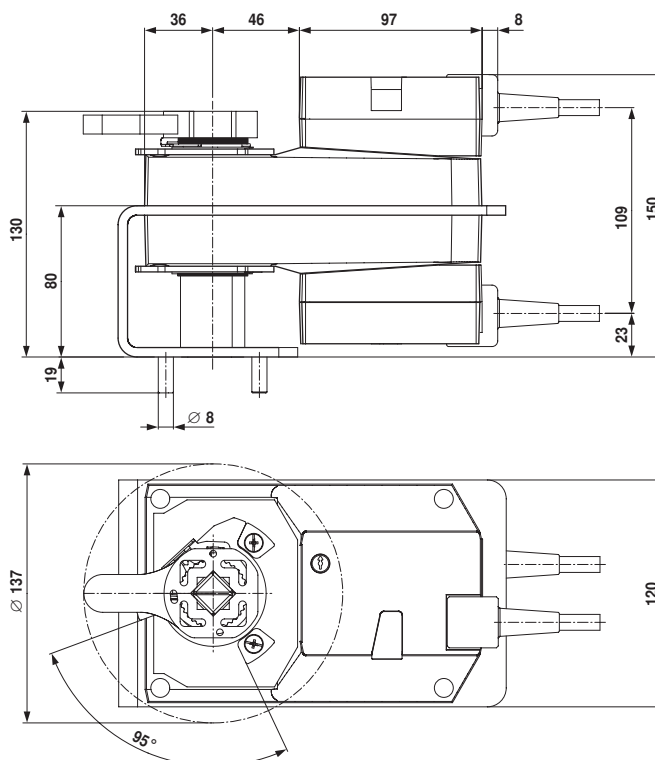## Electrical installation

Wiring diagrams

Notess
– Connect via safety isolation transformer.
– Parallel connection of other actuators possible.
– Direction of rotation switch is covered.
  Factory setting: Direction of rotation Y2

Direction of rotation 1 Y1 Y2 2 Y1 Y2
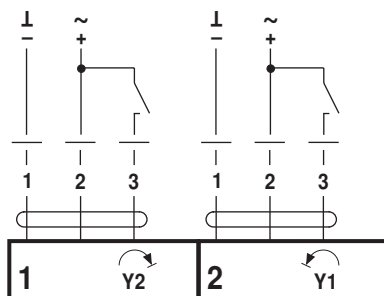
Rotary actuator	Rotary valve
Y2	A – AB = 0%

Dimensions [mm]

Dimensional diagrams
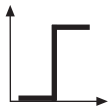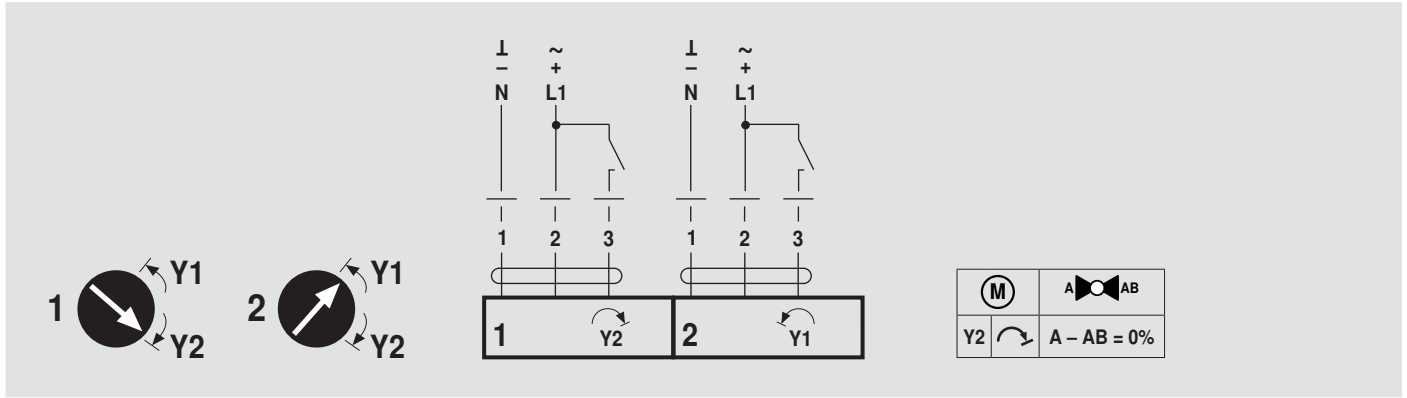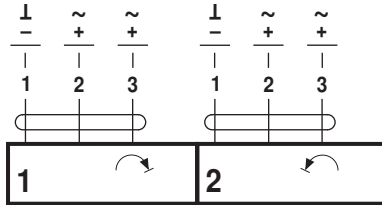

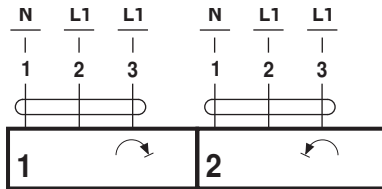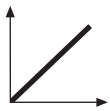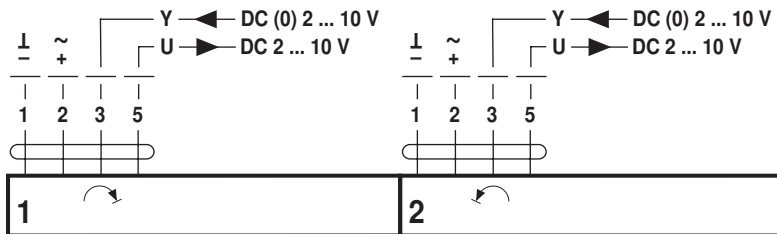|	
Further documentations	• Complete overview of actuators for water solutions • Data sheets for butterfly valves • Installation instructions for actuators and/or butterfly valves • Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance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

70693-00001.A

1

1A

2

1B

2

0%

3

10Nm
10

22Nm
13

4

A

M

B
1
2

M

C

M

BELIMO
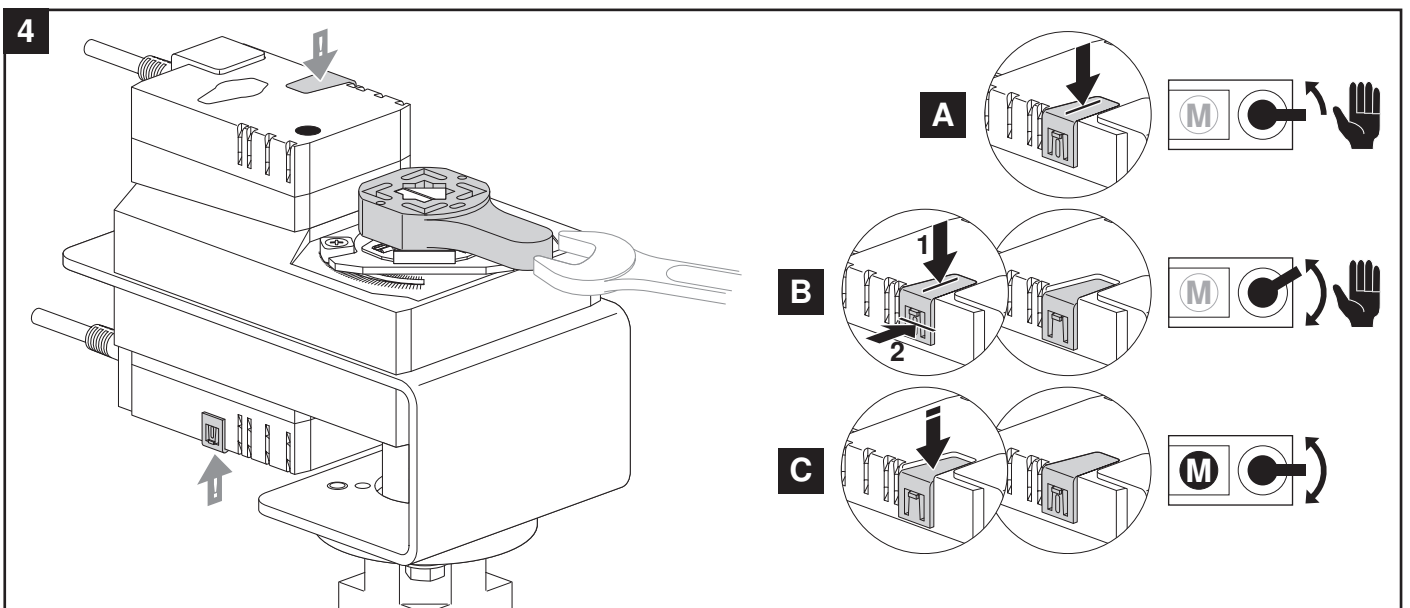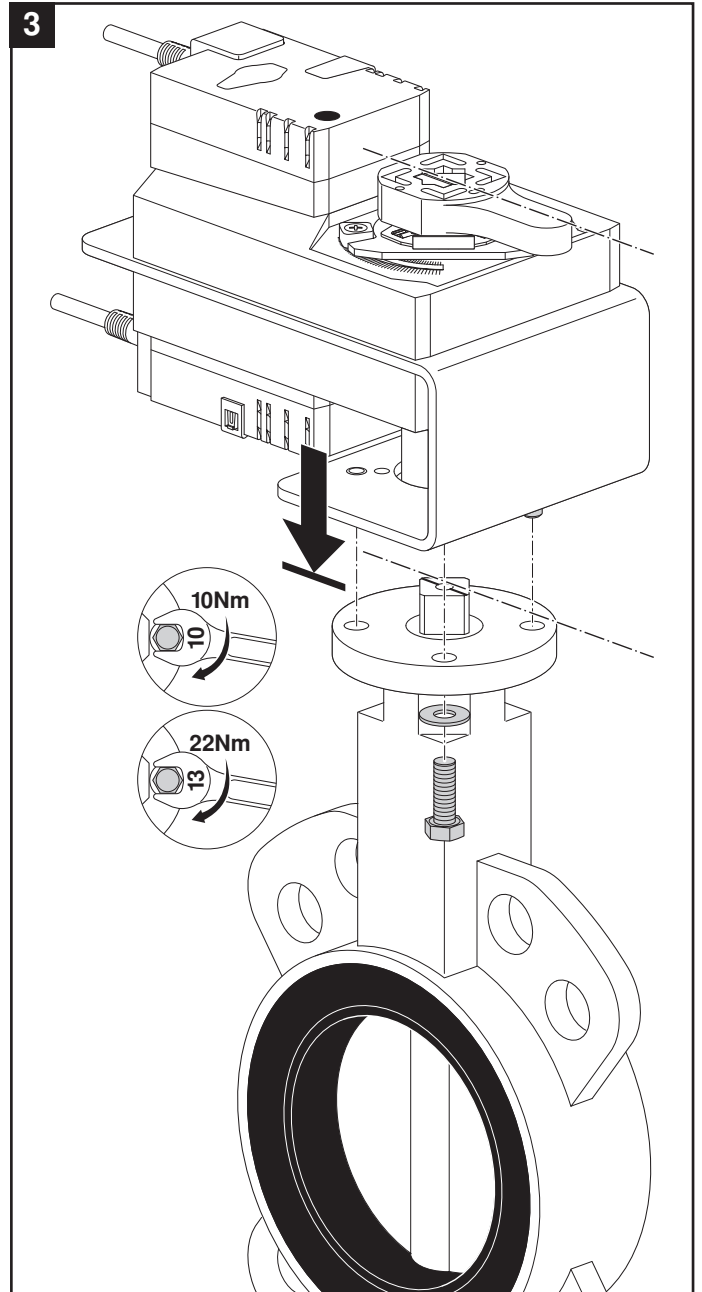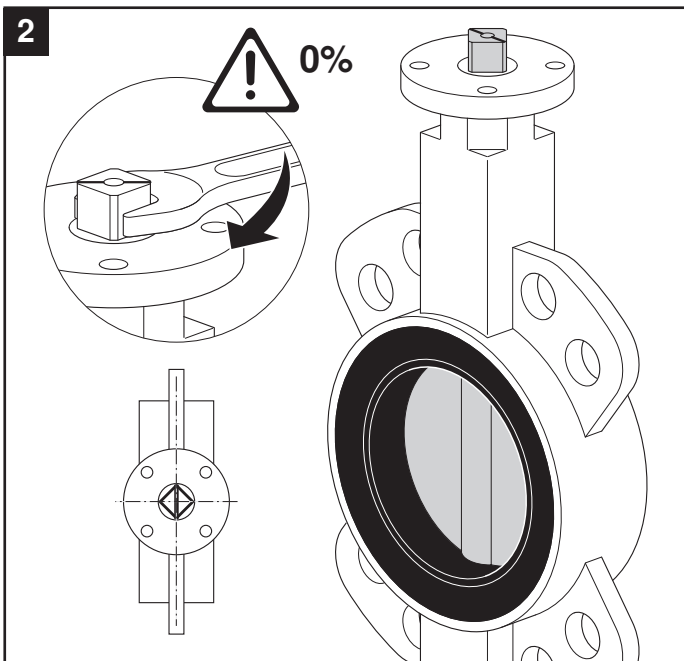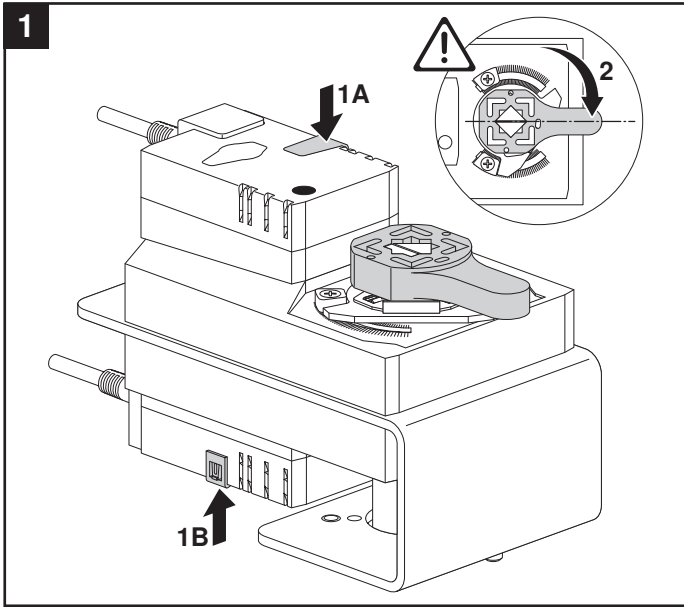
AC 24 V / DC 24 V

DGR24A..

AC 100 ... 240 V ⚠

DGR230A..

AC 24 V / DC 24 V

Y ◀ DC (0) 2 ... 10 V
U ▶ DC 2 ... 10 V

Y ◀ DC (0) 2 ... 10 V
U ▶ DC 2 ... 10 V

DGR24A-SR..

U ◀ DC 2 ... 10 V

U ▶ DC 2 ... 10 V

DGR24A-MF..

M5-DGR.. • v1.0 • 03.2007 **www.belimo.com**