



Safety notes



- The damper actuator 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 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 is not allowed to be removed from the unit.
- When calculating the torque required, the specifications supplied by the damper manufacturers concerning the cross section, design and installation site, and the air flow conditions must be observed.
- The device contains electrical and electronic components and is not allowed to be disposed of as household refuse. The local and currently valid regulations and requirements must be observed.

Product features

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.
Parameterisable actuators	The factory settings cover the most common applications. Input and output signals and other parameters can be altered with the MFT-H parameterising device or the BELIMO Service Tool, MFT-P.
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.
Manual override	Manual override with self-resetting pushbutton possible (the gear is disengaged for as long as the button is pressed).
Adjustable angle of rotation	Adjustable angle of rotation with mechanical end stops.
High functional reliability	The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.
ISO 5211 - F07 Butterfly valve D6..	For BELIMO F07 butterfly valve D6 and other dampers with the following mechanical specifications: <ul style="list-style-type: none"> - Square stem head (17 mm) for form-fit attachment of the rotary actuator. - Hole circle (d = 70 mm) for assembly with the butterfly valve.
Home position	When the supply voltage is switched on for the first time, i.e. at commissioning or after pressing the "gear disengagement" switch, the actuator travels to the home position. Factory setting: Y2 (counter-clockwise rotation)

Rotary actuator	Rotary valve
	A - AB = 0%
	A - AB = 100%

The actuator then moves into the position defined by the control signal.

Accessories

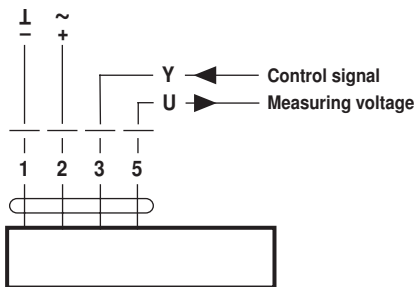
	Description	Data sheet
Electrical accessories	Auxiliary switch S..A..	T2 - S..A..
	Feedback potentiometer P..A..	T2 - P..A..
	Manual parameterising device MFT-H	T2 - MFT-H
	PC-Tool MFT-P	T2 - MFT-P

Electrical installation

Wiring diagram

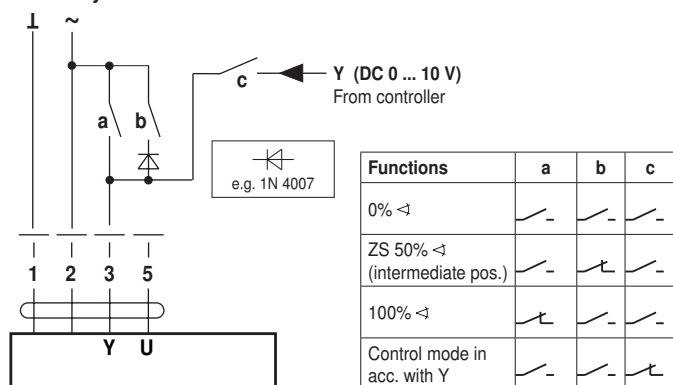
Notes

- Connect via safety isolation transformer.
- Parallel connection of other actuators possible. Note the performance data.

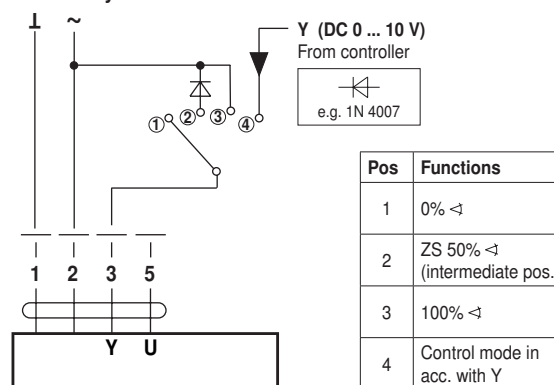


Functions with basic values

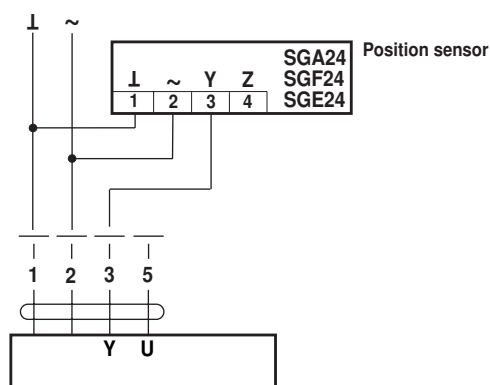
Override control with AC 24 V with relay contacts



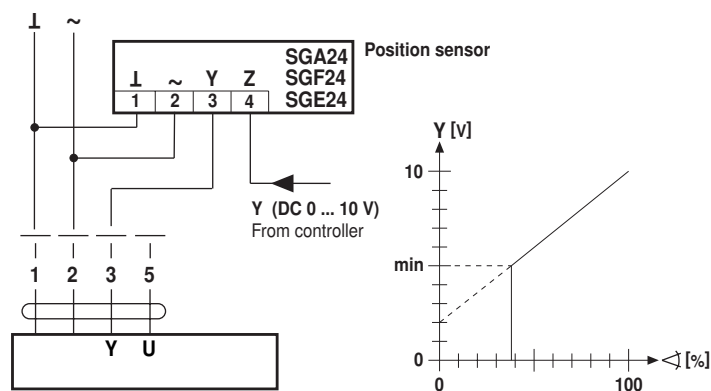
Override control with AC 24 V with rotary control switch



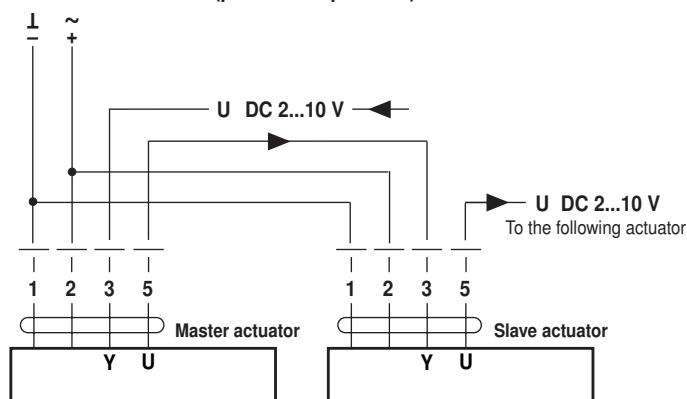
Remote control 0 ... 100 %



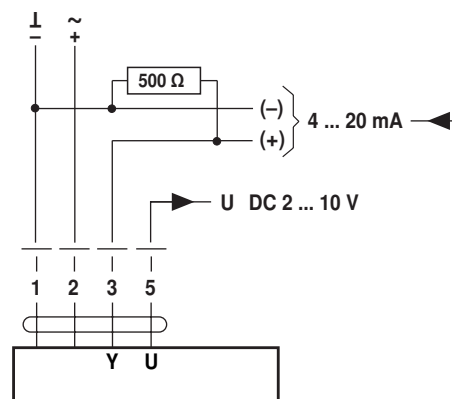
Minimum limit



Master/Slave control (position-dependent)



Control with 4 ... 20 mA via external resistance

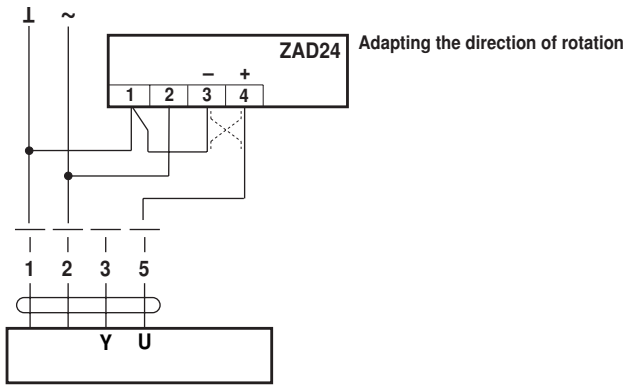


The 500 Ω resistor converts the 4 ... 20 mA current signal to a voltage signal DC 2 ... 10 V

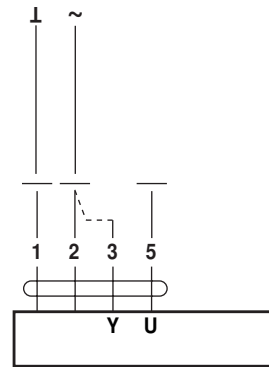
Functions with basic values

(continued)

Position indication



Functional check

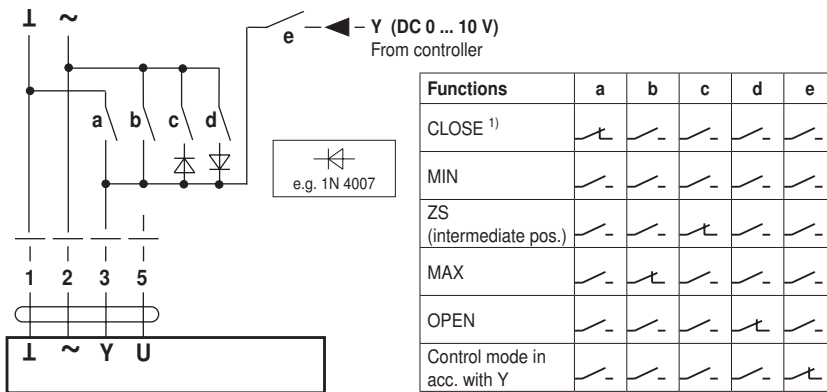


Procedure

- Apply AC 24 A to connection 1 and 2
- Disconnect connection 3:
 - For direction of rotation 0: Actuator turns in the direction of ↺
 - For direction of rotation 1: Actuator turns in the direction of ↻
- Short circuit connections 2 and 3:
 - Actuator runs in the opposite direction

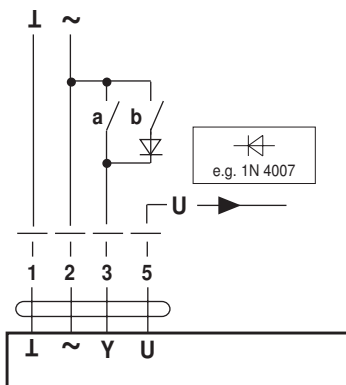
Functions for actuators with specific parameters

Override control and limiting with AC 24 V with relay contacts

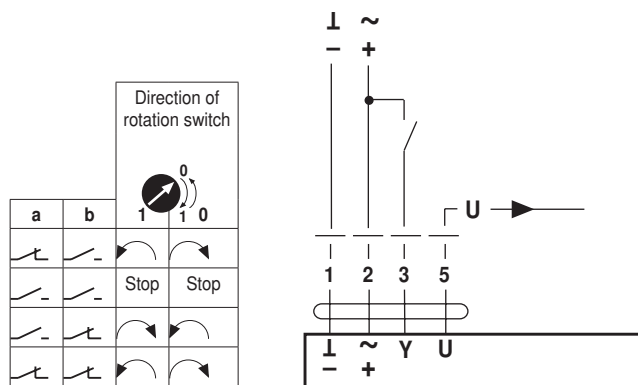


¹⁾ **Caution!** This function is only guaranteed if the start point of the operating range is defined as min. 0.6 V.

3-point control

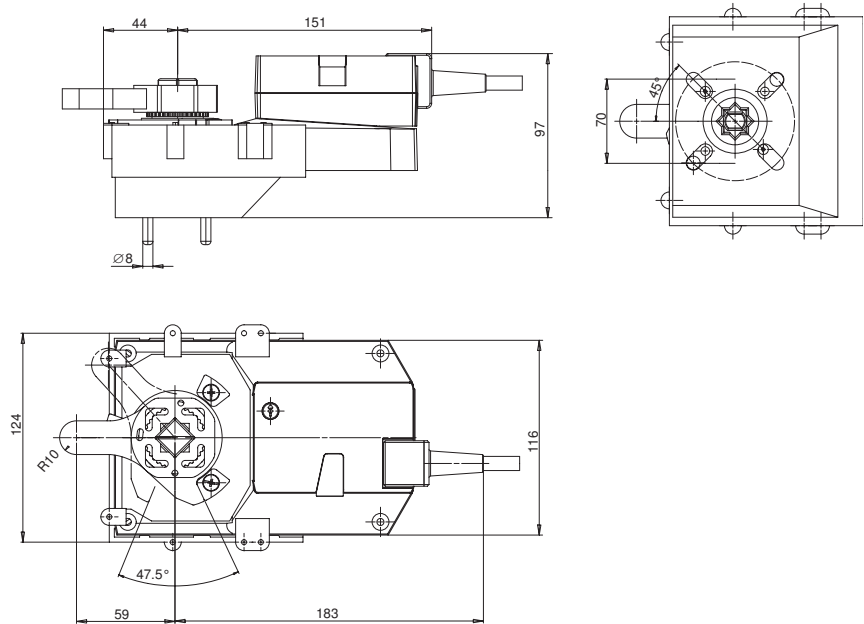


Open/close control



Dimensions [mm]

Dimensional diagrams

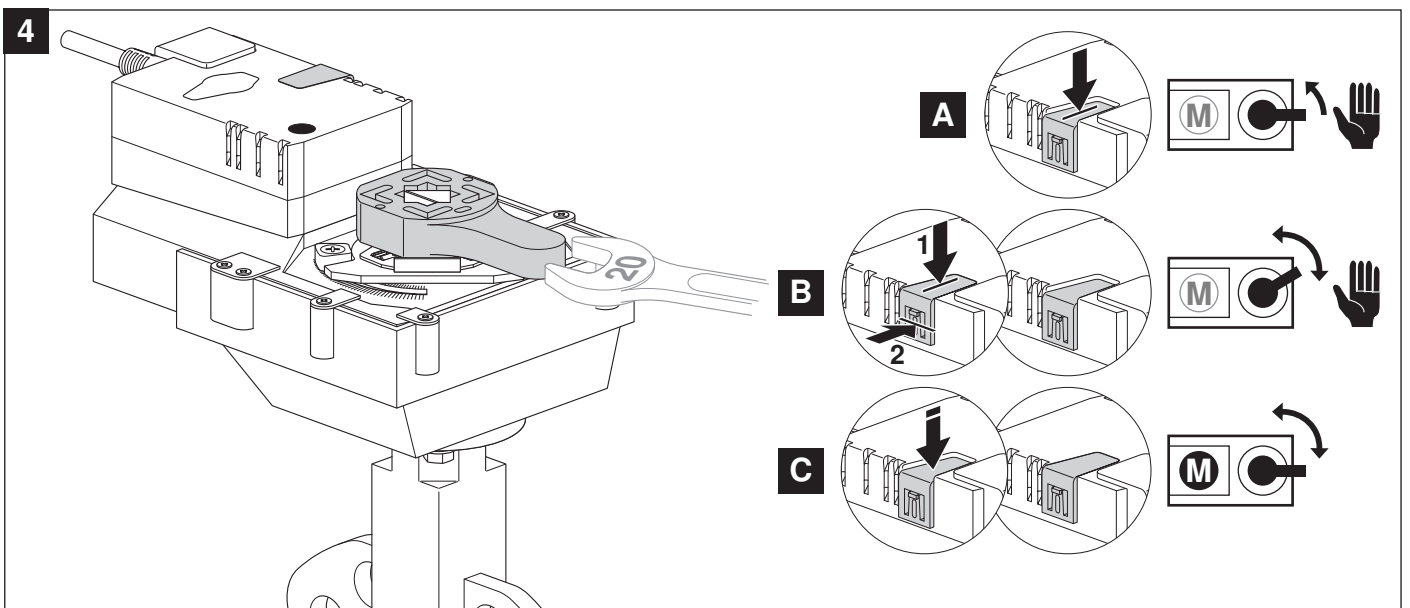
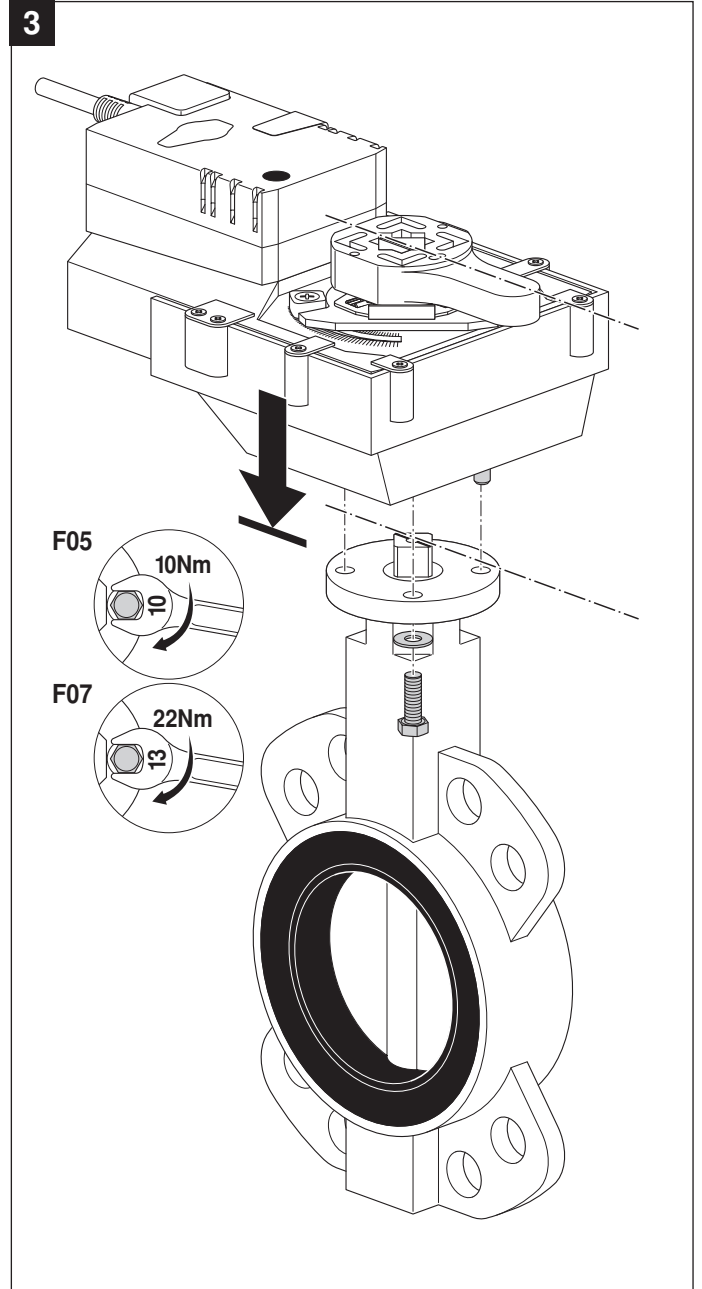
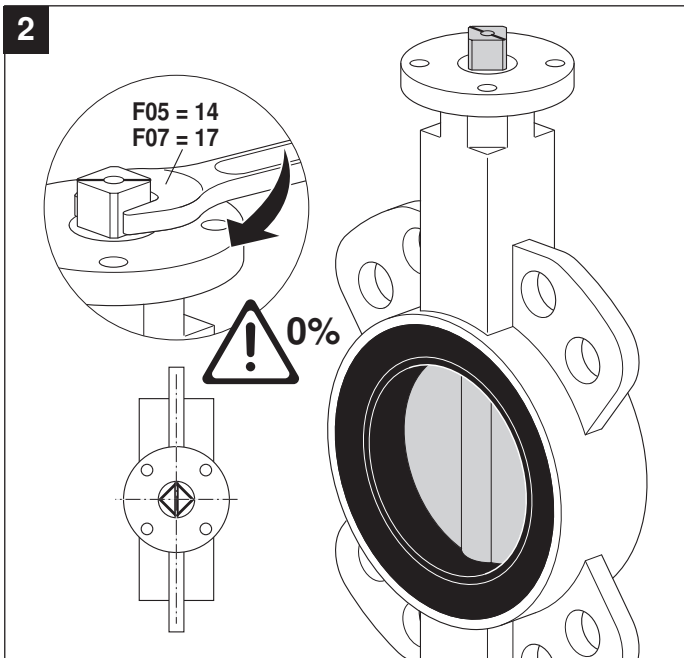
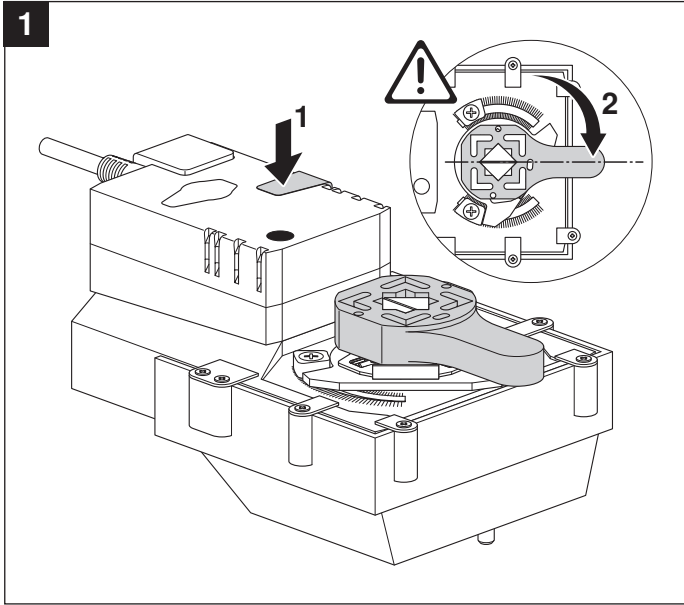


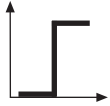
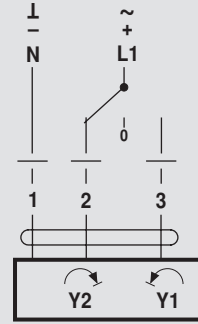
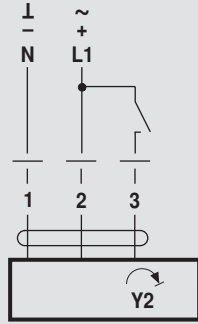
Operating controls and indicators



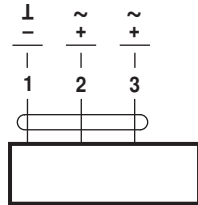
- ① Direction of rotation switch**
 Switching over: Direction of rotation changes
- ② Pushbutton and green LED display**
 Off: No voltage supply or fault
 Green, on: Operation
 Press button: Switches on angle of rotation adaptation followed by standard operation
- ③ Pushbutton and yellow LED display**
 Off: Standard operation
 Yellow, on: Adaptation or synchronising process active
 Press button: No function
- ④ Gear disengagement switch**
 Press button: Gear disengaged, motor stops, manual operation possible
 Release button: Gear engaged, synchronisation starts, followed by standard operation
- ⑤ Service plug**
 For connecting parameterising and service tools

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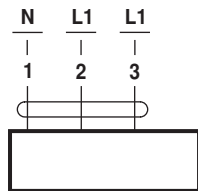


AC 24 V / DC 24 V

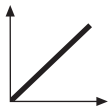


GR24A-5
GR24A-7

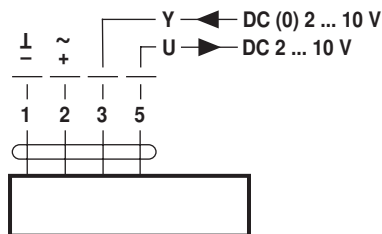
AC 100 ... 240 V ⚠



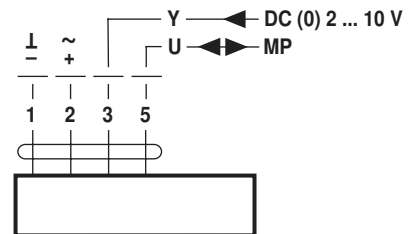
GR230A-5
GR230A-7



AC 24 V / DC 24 V



GR24A-SR-5 GR24A-MF-5
GR24A-SR-7 GR24A-MF-7



GR24A-MP-5
GR24A-MP-7

LONWORKS® AC 24 V / DC 24 V

