

Large globe valve actuator for 2-way and 3-way
large globe valves DN 200/250

- Actuating force 15000 N
- Nominal voltage AC/DC 24 V
- Control modulating (0.5)2...10 V
- Stroke 65 mm



Picture may differ from product

Technical data

Electrical data		
	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V / DC 19.2...28.8 V
	Power consumption for wire sizing	74 VA
	Connection supply / control	Terminals 2.5 mm ²
Functional data		
	Actuating force motor	15000 N
	Operating range Y	(0.5)2...10 V
	Input impedance	500 kΩ
	Operating range Y variable	2...10 V 0.5...10 V
	Position feedback U	2...10 V
	Position feedback U note	Max. 0.5 mA
	Position feedback U variable	0.5...10 V
	Manual override	temporary with handwheel (non-rotating)
	Stroke	65 mm
	Running time motor	82 s / 65 mm
	Sound power level, motor	63 dB(A)
	Position indication	Mechanical, 30...65 mm stroke
Safety data		
	Protection class IEC/EN	III, Safety Extra-Low Voltage (SELV)
	Degree of protection IEC/EN	IP65
	EMC	CE according to 2014/30/EU
	Low voltage directive	CE according to 2014/35/EU
	Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14
	Type of action	Type 1
	Pollution degree	3
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-20...70°C [-4...158°F]
	Storage temperature	-40...85°C [-40...185°F]
	Servicing	maintenance-free
Weight		
	Weight	9.5 kg

Safety notes



- This device has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Outdoor application: only possible in case that no (sea) water, snow, ice, insolation or aggressive gases interfere directly with the device and that it is ensured that the ambient conditions remain within the thresholds according to the data sheet at any time.
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied with during installation.
- The device does not contain any parts that can be replaced or repaired by the user.
- The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Product features

Operating mode The actuator is activated with a standard 0.5...10 V signal. If the actuator reaches the end position, then the motor will be switched off via (two) load-dependent switches. These switches protect the motor when there are foreign objects between the fitting seat and the cone.

Mounting on Belimo valves The actuator is mounted at the factory to the corresponding valve and is adjusted and compensated to the stroke of the valve. The power connection is done with form fit. The power transmission is done by means of the coupling, which is secured against torsion.

Replacement of actuator In case the actuator needs to be replaced, the installation instructions have to be observed.

Manual override In deenergised state and/or when the motor is shut off, upward and downward movement can be accomplished when the handwheel is pressed in.

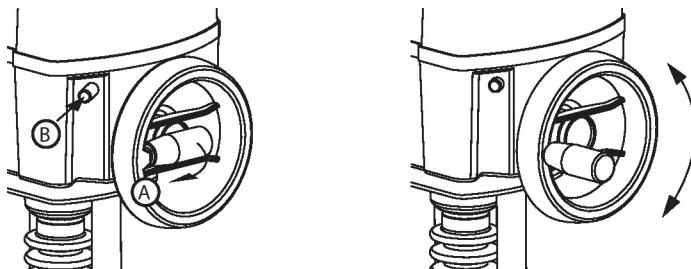
To accomplish this, proceed as follows:

- Unfold the rotary handle from the handwheel A
- Press in the engagement button for manual operation B while rotating the handwheel slightly → Button engages
- Rotate handwheel clockwise → Stem extending
- Rotate handwheel counterclockwise → Stem retracting

The motor is no longer engaged when the handwheel is pressed in. The handwheel is pushed out automatically when the motor starts and the motor is once again coupled.

Caution:

- Manual operation may be shifted only when the motor is not running. Switching while the motor is running could lead to damage to the propulsion drive!
- When in manual operation, do not fail to note that, when in the end position, the handwheel is rotated only to the point that the torque switches are actuated (audible clicking), otherwise the propulsion drive will be damaged.



High functional reliability The actuator is protected against short circuits, polarity reversal and overloading.

Position indication The stroke is indicated mechanically on the bracket. The position indication adjusts itself automatically.

Electrical installation

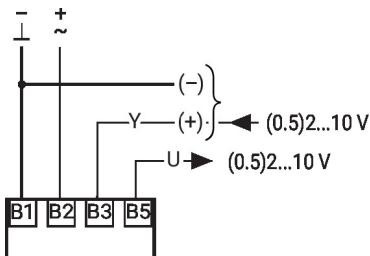


Supply from isolating transformer.

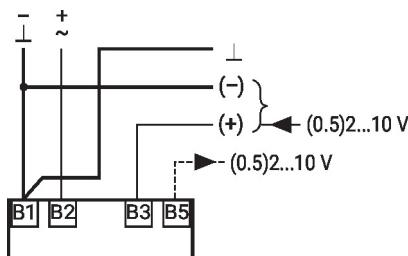
Shared ground for feed and signal with max. signal conductor lengths of 25 m with 1.5 mm² conductor cross-section or 10 m with 0.75 mm² conductor cross-section. Guide feed and signal separately with longer signal conductor lengths (Ground Signal).

Use twisted cables.

AC/DC 24 V, modulating

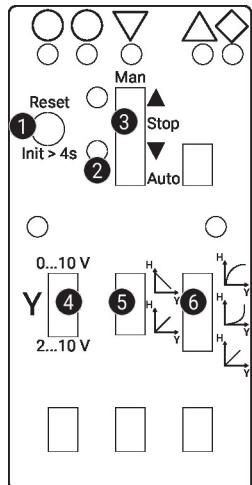


AC/DC 24 V, modulating



B3		A - AB 	A - AB
(0.5)2 V		0%	100%
10 V		100%	0%

Operating controls and indicators



1 Reset and initialisation

Reset (press <4 s): Restart of software and deletion of stored errors is carried out

Initialisation (press >4 s): Actuator travels to end stops and determines the valve stroke while doing so. Note: «Init» is to be carried out after assembly.

2 LED displaying the actuator's direction of motion (with manual operation)

3 Operating mode of the actuator: Open, Stop, Close, Auto

Presetting Auto (below): Actuator follows the positioning signals

4 Positioning signal configuration: 0/2...10V

Presetting control voltage (below): 2...10 V

5 Signal inversion

Signal inversion presetting (below): not inverted

installation on H6..W..-S7 (below): not inverted

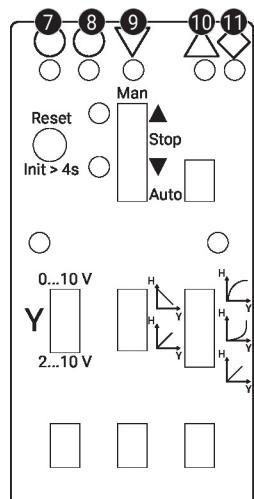
installation on H7..W..-S7 (above): inverted

6 Characteristic curve

Characteristic curve correction presetting (below): Linear

Default setting for all adjustable rocker switches thus = below

Operating controls and indicators



LED displays

⑦ green

Power Electronics is supplied with voltage

⑧ red

Fault
Actuator is not initialised, actuator cannot reach the setpoint position

⑨ orange

Functional check Blockade, manual operation (handwheel or slide switch)

⑩ yellow

Does not comply with
specification

The LED lights up when the following parameters are
exceeded:

ED (Power-on time)

Temperature range

Flashing during the initialisation run

⑪ blue

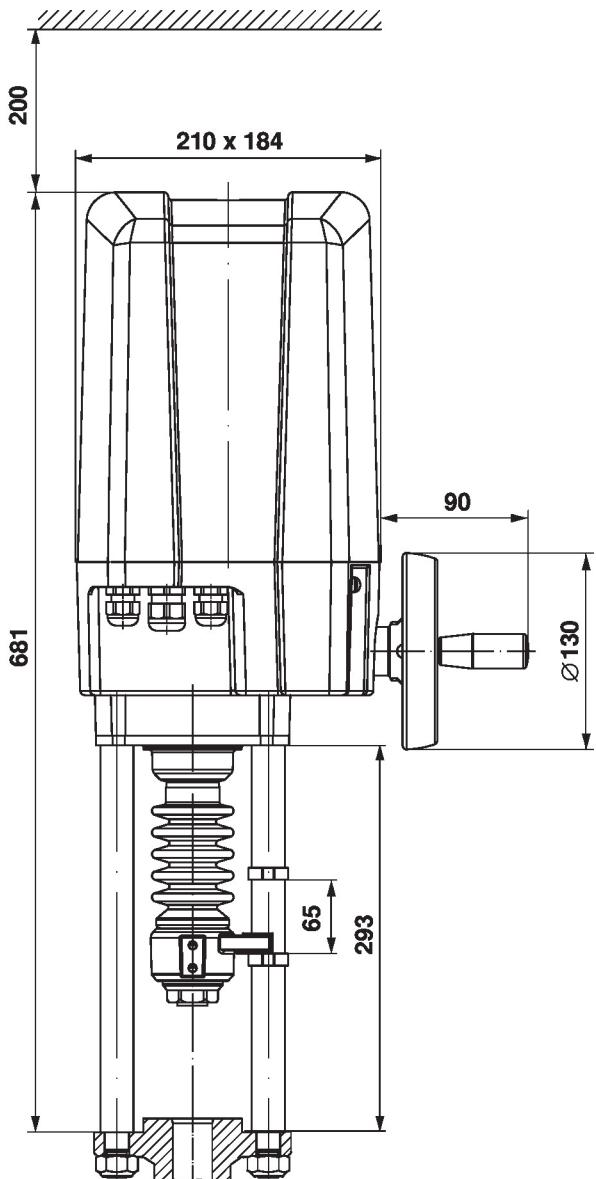
Maintenance

Dirty stroke detection

LED coding in case of fault

green ⑦	red ⑧	orange ⑨	yellow ⑩	blue ⑪	Meaning / function
On	On	Off	Off	Off	No initial run
On	On	On	Off	Off	Blockade
On	On	Off	On	Off	Y positioning signal has failed
On	On	On	On	Off	ADV – outside the valid travel path
On	On	On	Off	On	Position cannot be reached
On	On	On	On	On	Valve stroke too small

Dimensions



Further documentation

- The complete product range for water applications
- Data sheets, large globe valves
- Installation instructions for actuators and/or large globe valves
- Notes for project planning 2-way and 3-way globe valves
- General notes for project planning