

Modulating globe valve actuator for 2-way and 3-way globe valves

- Actuating force 1500 N
- Nominal voltage AC/DC 24 V
- Control: modulating DC (0) 2 V...10 V
- Nominal stroke 20 mm


Technical data

Electrical data	Nominal voltage	AC/DC 24 V	
	Nominal voltage frequency	50/60 Hz	
	Nominal voltage range	AC 19.2 V...28.8 V / DC 21.6 V...28.8 V	
	Power consumption in operation	2 W	
	Power consumption in rest position	1.5 W	
	Power consumption for wire sizing	3.5 VA	
	Connection supply / control	Terminals 4 mm ² and cable 1 m, 4 x 0.75 mm ²	
	Parallel operation	Yes	
Functional data	Actuating force	1500 N	
	Positioning signal Y	DC 0 V...10 V	
	Positioning signal Y note	Input impedance 100 kΩ	
	Operating range Y	DC 2 V...10 V	
	Position feedback U	DC 2 V...10 V	
	Position feedback U note	max. 0.5 mA	
	Position accuracy	5% absolute	
	Manual override	Gear disengagement with push-button, can be locked	
	Nominal stroke	20 mm	
	Actuating time	150 s / 20 mm	
	Sound power level motor max.	35 dB (A)	
	Position indication	Mechanical 5 ... 20 mm stroke	
	Safety	Protection class IEC/EN	III Safety extra-low voltage
		Degree of protection IEC/EN	IP54
EMC		CE in accordance with 2004/108/EC	
Certification IEC/EN		Certified to: IEC/EN 60730-1 and IEC/EN 60730-2-14	
Mode of operation		Type 1	
Rated impulse voltage supply / control		0.8 kV	
Control pollution degree		3	
Ambient temperature		0 °C ... 50 °C	
Non-operating temperature		-40 °C ... 80 °C	
Ambient humidity		95% r.h., non-condensing	
Maintenance	Maintenance-free		
Weight	Weight approx.	1.390 kg	

Safety notes


- This actuator has been designed for application 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.
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied with during installation.
- The switch for changing the direction of motion/the closing point may be adjusted only by authorised personnel. The direction of stroke is critical, particularly in connection with frost protection circuits.
- 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 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

Principle of operation	The actuator is connected with a standard modulating signal of DC 0 ... 10V and travels to the position defined by the positioning signal. The measuring voltage U serves for the electrical display of the actuator position 0 ... 100% and as slave control signal for other actuators.
Direct mounting	Simple direct mounting on the globe valve by means of form-fit hollow clamping jaws. The actuator can be rotated by 360° on the valve neck.
Manual override	Manual override with push-button possible - temporary, permanently. The gear is disengaged and the actuator decoupled for as long as the button is pressed / latched. The stroke can be adjusted by using a hexagon socket screw key (4 mm), which is inserted into the top of the actuator. The stroke spindle extends when the key is rotated clockwise.
High functional reliability	The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.
Combination valve/actuator	Refer to the valve documentation for suitable valves, their permitted medium temperatures and closing pressures.
Position indication	The stroke is indicated mechanically on the bracket with tabs. The stroke range adjusts itself automatically during operation.
Home position	Setting ex-works: Actuator spindle is retracted. When valve-actuator combinations are shipped, the direction of motion is set in accordance with the closing point of the valve.
Direction of stroke switch	When actuated, the direction of stroke switch changes the running direction in normal operation.
Adaption of stroke range	The first time the supply voltage is switched on, i.e. at the time of commissioning, the actuator carries out a stroke adaption, which is when the operating range and position feedback adjust themselves to the mechanical stroke. Manual triggering of the adaption can be carried out by pressing the "Adaption" button. The actuator then moves into the position defined by the positioning signal.

Accessories

	Description	Type
Electrical accessories	Auxiliary switch add-on, 2 x SPDT	S2A-H

Electrical installation

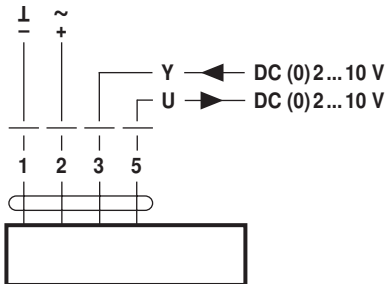


Notes

- Connection via safety isolating transformer.
- Parallel connection of other actuators possible.
- Direction of stroke switch factory setting: Actuator spindle retracted.

Wiring diagrams

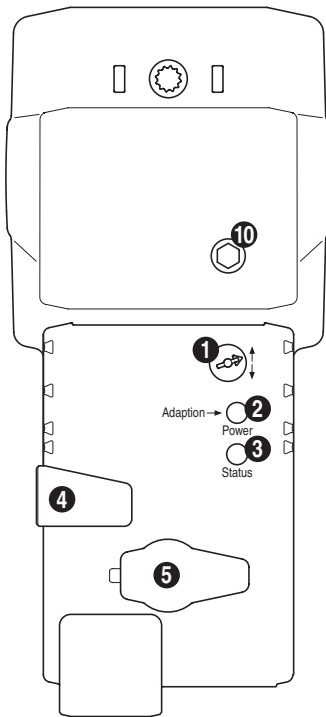
AC/DC 24V, modulating



Cable colours:

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

Indicators and operating controls



(1) Direction of stroke switch

Switching: Direction of stroke changes

(2) Push-button and LED display green

Off: No power supply or malfunction

Illuminated: In operation

Press button: Triggers stroke adaption, followed by standard mode

(3) LED display yellow

Off: Standard mode

Illuminated: Adaption procedure active

(4) Gear disengagement button

Press button: Gear disengages, motor stops, manual override possible

Release button: Gear engages, standard mode

(5) Service plug

No function

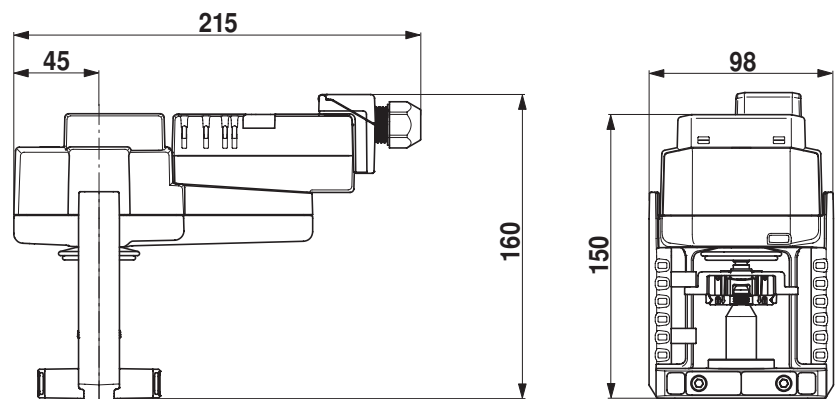
(10) Manual override

Clockwise: Actuator spindle extends

Counterclockwise: Actuator spindle retracts

Dimensions [mm]

Dimensional drawings



Further documentation

- Data sheets for globe valves
- Installation instructions for actuators and/or globe valves, respectively
- Notes for project planning for 2-way and 3-way globe valves (hydraulic characteristic curves and circuits, design and dimension, installation instructions, etc.)
- Overview "Valve-actuator combinations"