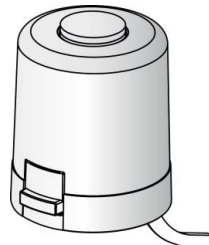


1 CU-ACT-B230V

The CU-ACT-B230V is a thermoelectric actuator for opening and closing valves and small valves on heating circuit distributors of surface heating and cooling systems. The predominant area of application is the energy-efficient room-by-room temperature control in the area of building services and automation. The Actuator VH: 230 V is controlled by a 230 V room thermostat with two-point output or pulse-width modulation.



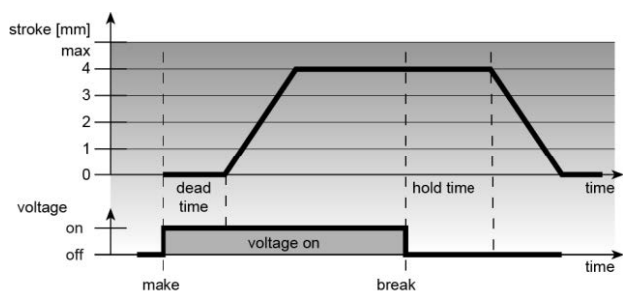
1.1 FEATURES

- ▶ Modern design
- ▶ Stroke 4.0 mm
- ▶ Designs "normally closed" (NC)
- ▶ Power consumption 2 watt
- ▶ Complete compatibility to the valve adapter system
- ▶ Simple plug-in installation
- ▶ 360° installation position
- ▶ Patented 100% protection in case of leaky valves
- ▶ "First open" function (NC)
- ▶ Adaptation check to the valve (NC)
- ▶ Alignment aid on the valve
- ▶ Compact size, small dimensions
- ▶ All around function display
- ▶ Noiseless and maintenance-free
- ▶ High functional safety and long expected service life
- ▶ Surge protection guarantee
- ▶ Certified by the TÜV

2 FUNCTION

The actuator mechanism of the CU-ACT-B230V uses a PTC resistor-heated expansion unit and a compression spring. The expansion unit is heated by applying the operating voltage and moves the integrated plunger. The force generated by this movement is transferred to the plunger, thus opening or closing the valve.

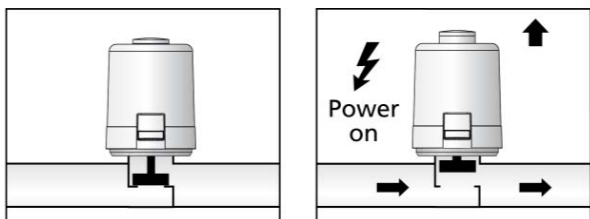
2.1 VALVE OPENING



In case of the normally closed version, the valve is opened steadily by the plunger motion upon switching on the operating voltage and after expiry of the dead time. After the operating voltage is cut and after expiry of the hold time the valve is closed evenly by the closing force of the compression spring. The closing force of the compression spring is matched to the closing force of commercially available valves and keeps the valve closed when de-energised.

2.2 FUNCTION DISPLAY

The function display (all around display) of the CU-ACT-B230V shows at the first glance whether the valve is open or closed; this can also be felt in the dark.



For the version NC: Normally closed extracts the function display when the valve opens.

2.3 "FIRST OPEN" FUNCTION

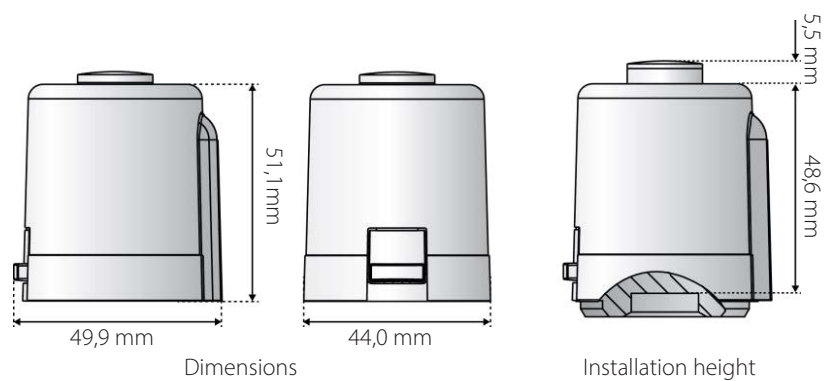
In its delivery condition, the CU-ACT-B230V is normally open due to the "First Open" function. This enables heating operation during the carcass construction phase even when the electric wiring of the room-by-room temperature control is not yet complete. When commissioning the system at a later date, the "First Open" function is automatically unlocked by applying the operating voltage (for more than 6 minutes) and the actuator is fully operable.

3 TECHNICAL DATA

Operating voltage	230 V AC, -10%...+10%, 50/60 Hz
Max. inrush current	< 300ax. 200 ms
Operating power	2 W
Valve path	4.0 mm
Actuation force	100 N +/- 5%
Fluid temperature	0 to +100 °C ¹⁾
Storage temperature	-25 °C to +60 °C
Ambient temperature	0 to +60 °C
Protection class	II
Degree of protection	IP 54 ²⁾
CE conformity according to	EN 60730
Casing material / colour	Polyamide / light grey (RAL 7035)
Connection line / colour	2 x 0.75 mm ² PVC / light grey (RAL 7035)
Line length	1 m
Weight with connection cable (1 metre)	100 g
Surge strength according to EN 60730-1	2.5 kV

1) or higher, depending on the adapter

2) in all installation positions

3.1 DIMENSIONS**3.2 CERTIFICATES**