

Technical Datasheet

# Actuator Thermoelectric Valve Drive 230V

*Art.no.: 57111*



## Thermoelectric Valve Drive

- First-Open function
- All-around function indicator
- Maintenance free
- Noiseless
- High functional safety and long expected service life
- Low power consumption
- Connecting cable plug-in
- 360° installation positions
- Snap-on installation
- Valve-adapter concept
- Adaptation check on valve
- 100% protection against leaky valves
- Anti-theft protection by detachable transparent visor application
- Control is done with a room thermostat with two-point output or pulse-width modulation.

57111 Actuator Thermoelectric Valve Drive, 230V NC

## Valve Actuator

The actuator mechanism of the function actuator uses a PTC resistor-heated elastic element and a compression spring. The wax element is heated by applying the operating voltage and moves the integrated ram. The force generated by the movement is transferred on the valve lifter and thus opens and closes the valve.

### Standard Version

Normally Closed (valve closed)

The valve is opened steadily by the ram motion upon switching on the operating voltage and after expiration of the dead time. The elastic element cools down after the operating voltage is cut and after expiration 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 normally closed.

### **Alternative Version**

Normally Open (valve open)

In case of the normally open version, ram motion is redirected by mechanical means, resulting in precisely opposite actuator function.

### **First-Open Function (for NC only)**

In its delivery condition, the function actuator 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 single room 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 function actuator is fully operable.

### **Valve-Adapter-Concept**

A valve-adapter concept guarantees a perfect match of the actuator to almost any valve bottom or heating circuit distributor available on the market. Simply snap-on the function actuator to the pre-installed valve adapter.

### **Function Display**

The function display of the function actuator (All-round display) allows identifying the operating state (valve open or closed) at a glance.

### **Accessories for Valve Actuator**

57201 Cable Thermoelectric Valve Drive, 1m

57205 Cable Thermoelectric Valve Drive, 5m

57301 Adapter Valve Drive, VA80

57302 Adapter Valve Drive, VA78

57303 Adapter Valve Drive, VA55H

57304 Adapter Valve Drive, VA02

57305 Adapter Valve Drive, VA50

57306 Adapter Valve Drive, VA10

## Technical data

Actuator Thermoelectric Valve Drive, 230V		57111 NC
Power	• Operating voltage	230V AC ± 10% 50/60Hz
	• Operating power	1.0W
	• Operating current	4,3mA
	• Max inrush current	550mA during 100ms max
Design	• Connection cable	2 x 0.75 mm <sup>2</sup>
	• Closing and opening times	Ca. 3,5 min
	• Actuator travel	4 mm
	• Actuator force	100N ± 5%
	• Housing color	Light Grey / RAL 7035
	• Weight	89 g
Temperature range	• Fluid temperature	0 °C to 100 °C
	• Ambient temperature	0 °C to 60 °C
Approvals	• Overvoltage protection according to EN 60730-1	At least 2.5 kV
	• Degree	IP 54
	• Class of protection	II
CE mark	• CE conformity according to	EN 60730

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