

## OEM Actuator 5: 230 V Standard 6,5

The OEM Actuator 5: 230 V Standard 6,5 is a thermoelectronic actuator for opening and closing standard valves, sectioning valves, bigger balanced valves as well as multi-way valves for heating and cooling applications. The OEM Actuator 5: 230 V Standard 6,5 is controlled by a 230 V room thermostat with two-point output or pulse-width modulation.

The OEM Actuator of the 5th generation has been specially developed for the customer-specific use in OEM businesses. The modular structure offers diverse differentiation possibilities for customer-specific designs.



### 1.1 Features

- Modern OEM design
- 6.5 mm stroke
- Designs "normally closed" (NC) and "normally open" (NO)
- 1.2 watts power input
- 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
- Adaptation check on the valve
- Alignment aid on the valve
- Compact size, small dimensions
- All-round function display
- Noiseless and maintenance-free
- High functional safety and long expected service life
- Overvoltage guarantee
- Certified by the TÜV-SÜD

### 1.2 Variants

In its basic version, the OEM Actuator 5: 230 V Standard 6,5 is delivered in a neutral design without logo, with fixed connection cable, function display blue/grey, without valve adapter and laser marking. The following variants are available in the basic version.

Variant 230 V	Stroke	Closing force	Control direction	Running times OPEN / CLOSED	"First Open" function	Scope of supply
A20625-00	6.5 mm	125 N	NC	Approx. 4.5 min.	yes	<ul style="list-style-type: none"> <li>• OEM Actuator 5: 230 V Standard 6,5 in individual packing</li> <li>• 1 m connection cable, grey PVC H03VV 2 x 0.75 mm<sup>2</sup></li> <li>• Installation instruction in 12 languages</li> </ul>
A21625-10	6.5 mm	125 N	NO	Approx. 4.5 min.	no	

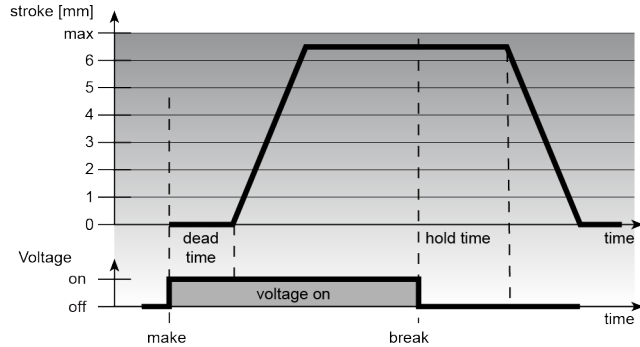
The following extension possibilities resp. differentiations from the basic version are available optionally:

Line	standard	2 m, 3 m, 5 m, PVC H03VV in grey – 2 x 0.75 mm <sup>2</sup>
	Non-halogen	1 m, 2 m, 3 m, 5 m, Hal F H03Z1Z1 in white – 2 x 0.75 mm <sup>2</sup> For the compliance with fire protection and environmental regulations.
Valve adapters	adapters are available for almost all valves and distributors	
Packaging	Packaging can be manufactured and printed individually according to requirements.	
Imprint on casing	Laser marking of the company logo and the individual type designation	
Colour of casing and cable	Homogeneous colouring, colour of the function display or function cap matching your product design or corporate design	
Please contact us if you have further wishes.		

## 2 Function

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

### 2.1 Version NC: Normally closed (valve closed)

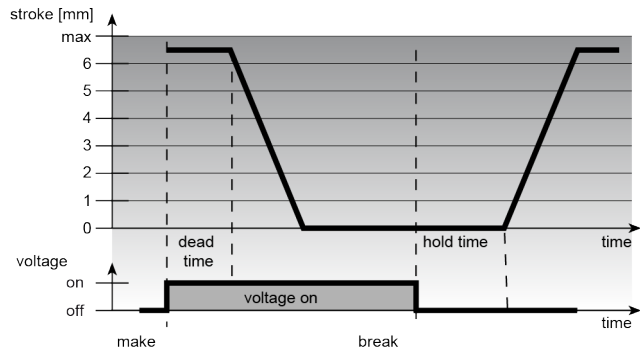


In case of the normally closed version, the valve is opened steadily by the ram motion upon switching on the operating voltage and after expiry of the dead time.

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 normally closed.

### 2.2 Version NO: Normally open (valve open)

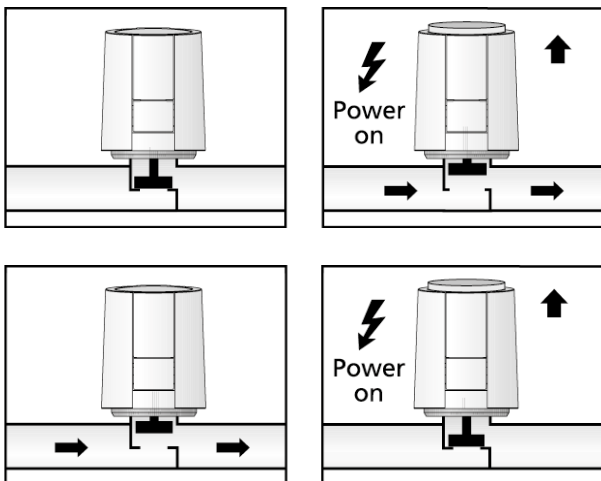


In case of the normally open version, the valve is closed evenly by the ram motion upon switching on the operating voltage and after expiry of the dead time.

After the operating voltage is cut and after expiry of the hold time, the valve is opened evenly by the closing force of the compression spring.

### 2.3 Function display

The function display of the OEM-Actuator (all-around display) allows identifying the operating condition (valve open or closed) at a glance.



- In case of the **NC version**, an extended function display shows opening of the valve.

- In case of the **NO version**, an extended function display shows that the valve is closed.

### 2.4 "First open" function (for NC variants only)

In its delivery condition, the OEM-Actuator is kept open when de-energised due to the First-Open function. This enables heating operation during the carcass construction phase even when the electric wiring is not yet complete. During the later electrical start-up, the First-Open function is unlocked by applying the operating voltage for more than 6 minutes. The OEM-Actuator will then be completely operable.

### 3 Technical data

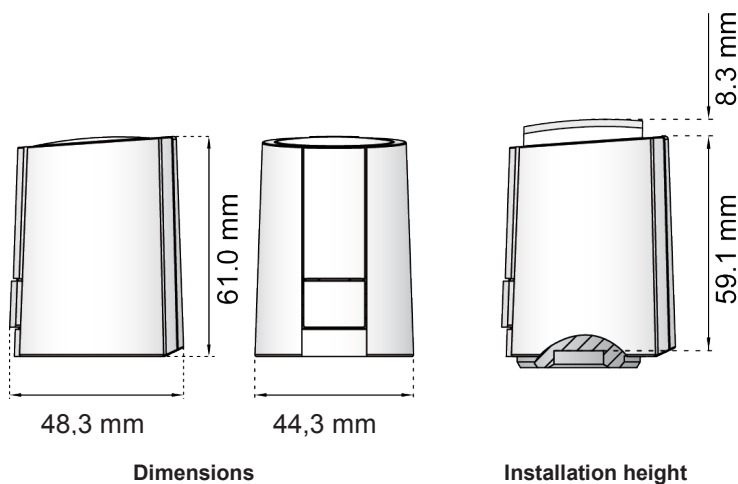
Operating voltage	230 V AC, -10 %...+10 %, 50/60 Hz	
Max. inrush current	< 550 mA during max. 100 ms	
Operating power	1.2 W <sup>1)</sup>	
Stroke (actuator travel)	6.5 mm	
Actuating force	125 N +5 %	
Running time	approx. 4.5 min.	
Fluid temperature	0 °C to +100 °C <sup>2)</sup>	
Storage temperature	-25 °C to +60 °C	
Ambient temperature	0 °C to +60 °C	
Degree /	IP 54 <sup>3)</sup>	
Class of protection	II	
CE conformity according to	EN 60730	
Casing	material	Polyamide
	colour	light grey (RAL 7035)
Connection line	type	2 x 0.75 mm <sup>2</sup> PVC
	colour	light grey (RAL 7035)
	length	1 m
Weight with connection cable (1 metre)	110 g	
Overtoltage strength according to EN 60730-1	2.5 kV	

1) measured with precision power meter LMG95

2) or higher, depending on the adapter

3) in all installation positions

#### 3.1 Dimensions



#### 3.2 Certificates

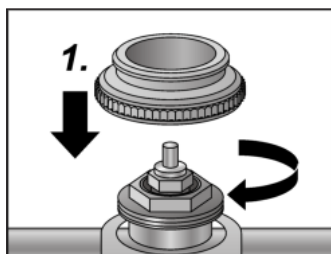


The OEM Actuator 5 is certified by TÜV Süd

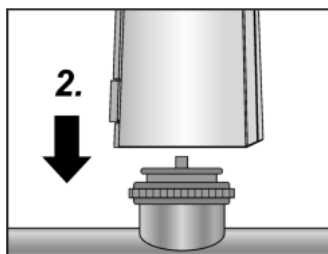
## 4 Installation notes

### 4.1 Installation with valve adapter

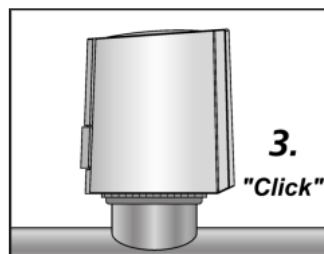
The valve adapter assortment guarantees a perfect match of the actuator to almost all valve bottoms and heating circuit distributors available on the market. The OEM Actuator 5 is simply plugged on to the valve adapter previously installed manually.



1. Screw the valve adapter manually onto the valve.

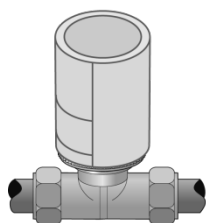


2. Position the OEM Actuator manually in vertical position to the valve adapter.

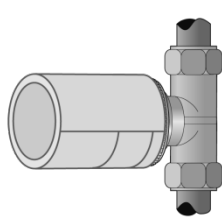


3. Latch the OEM Actuator to the valve adapter by manually applied vertical pressure; this can be done noiselessly and without any problems.

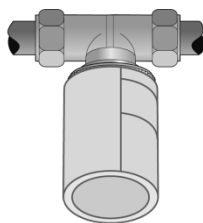
### 4.2 Installation position



vertical



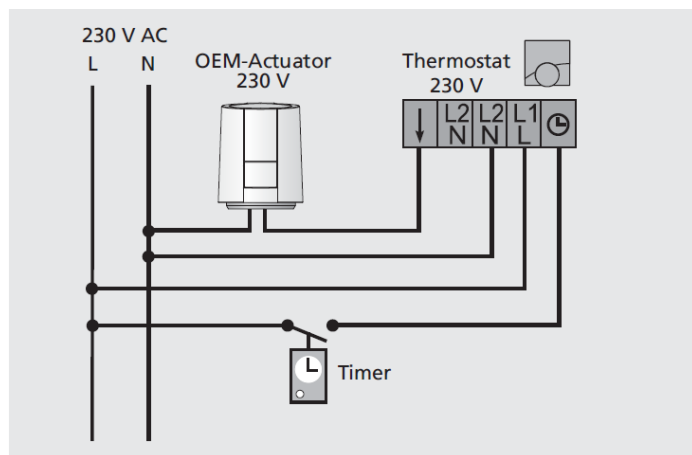
horizontal



“overhead”

The OEM Actuator must be installed preferably in vertical or horizontal installation position. In cas of “overhead” installation, special circumstances (e. g. drainwater) can reduce the lifetime of the actuator.

### 4.3 Electric connection



We recommend the following cables for installing a 230 V system:

- Light plastic-sheathed cable: NYM 1.5 mm<sup>2</sup>
- Flat webbed building wire: NYIF 1.5 mm<sup>2</sup>

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