

# Thermo electric actuators

Art. 126 – 126m



**Function** To control room temperature, in combination with all the thermostatic valves and manifolds for underfloor heating systems, it is also possible to use Pintossi+C electrothermic actuators art.126 or art.126m combined with room thermostats or other systems.

The opening/closing function is managed by a sensitive wax sensor, which through its compression or expansion, caused by the heat produced from the working voltage, makes the force to open and close the valve.

The actuator is normally closed, in other words, in lack of electricity, the valve is automatically closed.

The auxiliary micro-switch, if present, allows direct control operations on pumps and fan-coil units.

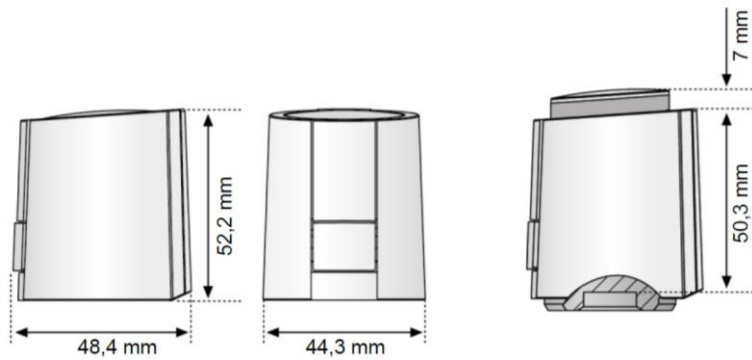
The actuator is produced following the regulation CE EN 60730 and is certified following norm TÜV Süd.

Product range	230V 50/60 Hz	26x1,5	
	230V 50/60 Hz	26x1,5	with auxiliary microswitch
	230V 50/60 Hz	30x1,5	
	230V 50/60 Hz	30x1,5	with auxiliary microswitch

Technical characteristics	Room temperature:	0 - 60°C
	Operating power:	1W
	Working voltage:	2,5 kV
	Opening time:	3 min ca
	Functioning:	On/Off
	Cable length:	1 m
	Motion:	Rotation
	Stroke:	4 mm
Protection:	IP54	

Materials	Body:	Polyamide PA 6, 30% glass fiber
	Sensitive element:	Wax

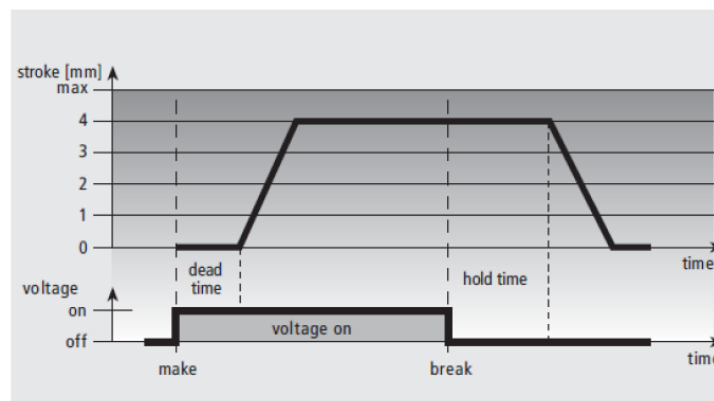
## Dimensions



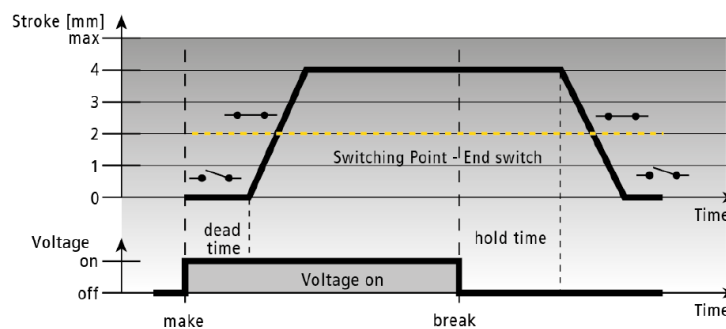
## Functioning

The actuator mechanism of the actuator uses a PTC resistor-heated wax 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.

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.



In the auxiliary micro-switch version this is activated following a stroke path of 2mm, as in the below images. At the same time the closure happens after a stroke path of 2mm.



## First open function

In its delivery condition, the actuator is kept open when de-energized due to the first-open function. This enables heating operation during the carcass construction phase even when the electric wiring of the individual room control is not yet complete. During the later electrical start-up, the First-Open function is automatically unlocked by applying the operating voltage for more than 6 minutes. The valve drive is now fully operable.

## Manual opening

The actuator can be used even in manual mode, following the below steps:

- Drop the actuator from the valve's body;
- Re-insert the actuator pin in the valve without pushing;
- Make the rotation to manually operate the valve, using the actuator as handle.

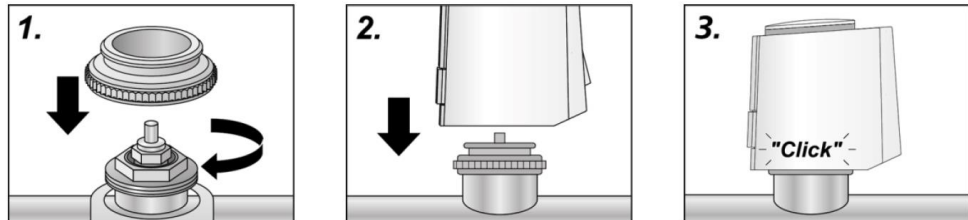
## Installation

The adaptor combined with the actuator allows a perfect match between it and all Pintossi + C thermostatic screws with 26x1,5 thread or 30x1,5 thread.

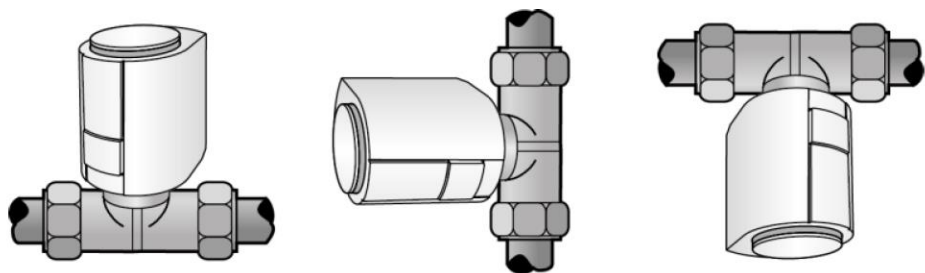
To install correctly the actuator, follow the below steps:

- Screw the adapter manually onto the valve;
- Place the actuator vertically on the valve adapter;

The actuator snaps onto the valve adapter with a "click" when pressed down vertically by hand.

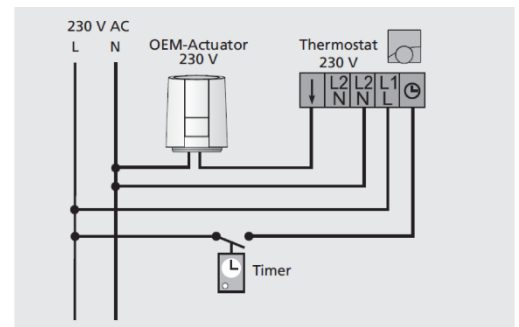


The preferred installation position of the actuator is vertical or horizontal. An upside down position may reduce product life through special circumstances (e.g. contaminated water).



## Electric connections

Example of 230V actuator installation.



Example of 230V actuator installation with microswitch.

