

## Thermostatic Radiator Valve



ETRV-M28 / ETRV-M30

### Quick Guide



Ver. 1.1

Release date: VII 2024

Soft: v3.5

#### Producer:

Engo Controls sp. z o.o. sp. k.  
Rolna 4 St.  
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[www.engocontrols.com](http://www.engocontrols.com)

## Introduction

The wireless valve head is used for controlling radiator heating. It is an excellent replacement for a traditional manual thermostatic valve head. For it to function properly, pairing with a master controller is necessary. Up to six wireless valve heads can be paired with a single controller within the same room. Two-way communication between the devices occurs every few minutes via radio signals. Based on the collected data, the controller modulates the valve head's opening. The temperature measured by the controller ensures even heating throughout the entire room. By using an internet gateway, the set (valve head + controller) can be controlled via the ENGO Smart application.

## Product features

- Wireless communication with the master controller
- Automatic calibration
- Exceptionally quiet
- plug&play

## Product Compliance

This product complies with the following EU Directives: 2014/53/EU i 2011/65/EU.

## Safety Information:

Use in accordance with national and EU regulations. Use the device only as intended, keeping it in a dry condition. The product is for indoor use only. Installation must be carried out by a qualified person in accordance with national and EU regulations.

## Installation:

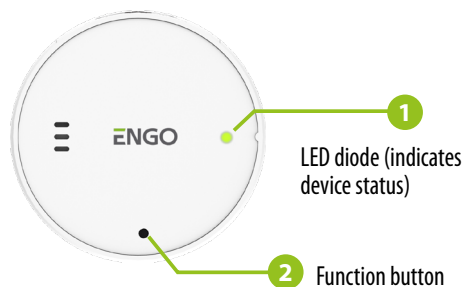
Installation must be performed by a qualified person with appropriate electrical qualifications, in accordance with the standards and regulations in force in a given country and in the EU. The manufacturer is not responsible for non-compliance with the instructions.



### WARNING:

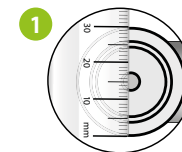
For the entire installation, there may be additional protection requirements, which the installer is responsible for (e.g., installation of an additional differential pressure overflow valve).

## User interface

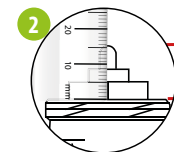


## Compatibility with Radiator Valves

**PEASE NOTE:** If there are discrepancies in dimensions, please contact us or the installer to consider replacing the valves to ensure compatibility with the valve head.



Measure the thread diameter. Choose the valve head according to the valve size: For a thread diameter of 30mm (M30) or 28mm (M28).



Measure the pin height. The pin height should be between 10-15mm in the open position.

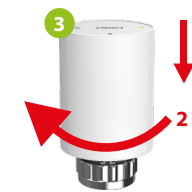
## Installation of radiator head



Remove the cover as shown in the illustration.



Insert the batteries according to the correct polarity.



Reattach the cover as shown in the illustration.



The LED will indicate the software version (e.g., v3.5 flashes 3 times green and 5 times red).



Wait until the LED light is continuously green.



Screw the valve head onto the radiator valve.

## The installation on a Danfoss RA valve

When installing the valve head on a Danfoss RA valve (see diagram nearby), you must use an M30 thread adapter.



## INFORMATION:

If installing the valve head on a Danfoss RA valve, please contact customer support.



### ATTENTION:

If an adaptation error occurs with the valve insert, the LED will flash alternately green/red every 3 seconds. Check if the valve head is properly installed. You can immediately retry the adaptation by pressing the button once.



To start the adaptation process press the button once or wait 3 minutes, then the adaptation will start automatically. When the adaptation is correct - the LED will turn off.

## Technical specifications

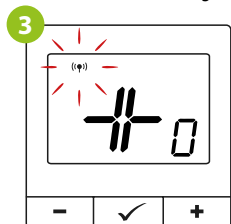
Power supply	2xAA battery
Communication	Wireless with ZigBee compatible controllers (868 MHz + ZigBee)
Thread size	M30 x 1.5 / M28 x 1.5
IP Protection class	IP30
Dimension [mm]	Ø50 x 81

## Synchronization with head

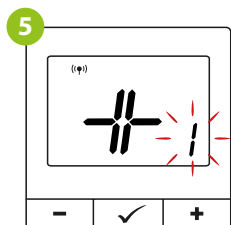
An internet gateway is not mandatory to synchronize thermostat with head. Make sure head is installed and adapted to valve insert (see head manual). If thermostat is connected to a wireless control box or relay module, synchronization with head cannot be activated.



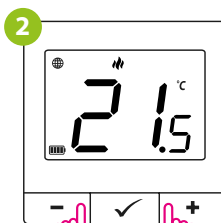
After successful adaptation process, press&hold head button for 3 seconds. The LED will start flashing blue.



Release buttons, SYNC function will be active (synchronization with head).



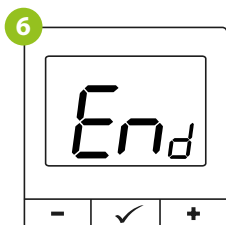
Thermostat will indicate how many heads are synchronized.



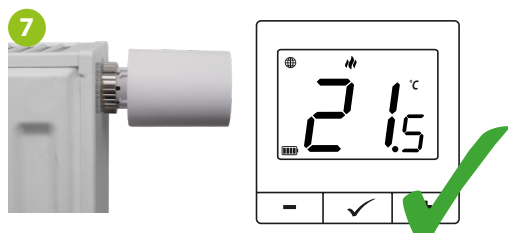
Hold simultaneously – and + buttons on thermostat until the “SY” function appears.



After successful synchronization, LED diode will indicate blue light for 10 seconds.



„END” message will appear after successful synchronization.



The devices are synchronized and ready to work.



### ATTENTION:

The synchronization should be performed for each head separately. One thermostat can control up to 6 heads within one room.

LED diode indications - explanation	
LED diode flashes <b>green</b> a few times, then <b>red</b> ● ● ● ● ● ● ● ● ● ●	Turning on the power (inserting the battery into the head) - the LED indicates the software version (e.g. v3.5 flashes 3x green and 5x red).
LED diode flashes <b>slowly on green</b> ● ● ● ● ● ● ● ● ● ●	After inserting the batteries and indicating the software version, the head opens.-
LED diode lights <b>up green</b> ●	The head is open and prepared for adaptation with a valve insert.
LED diode flashes <b>quickly on green</b> ● ● ● ● ● ● ● ● ● ●	Adaptation of the head with a valve insert.
LED diode flashes <b>slowly on red</b> ● ● ● ● ● ● ● ● ● ● 10x	The head is adapted with a valve insert, but is not paired with the thermostat. After clicking the button 1x, the LED will flash red slowly 10x.
LED diode flashes <b>slowly on blue</b> ● ● ● ● ● ● ● ● ● ●	The head is in synchronization mode with the controller. To enter the head-to-regulator pairing mode, press and hold the button until the LED starts flashing blue, then release the button.
LED diode lights <b>up blue</b> ● 10 seconds	After synchronizing the head with the controller, the LED in the head will light up for 10 seconds.
LED diode lights <b>up green</b> ● 3 seconds	When you want to check the opening/closing status of the head paired with the regulator. After pressing the button once - when the head is open, the LED lights up green for 3 seconds.
LED diode lights <b>up red</b> ● 3 seconds	When you want to check the opening/closing status of the head paired with the regulator. After pressing the button once - when the head is closed, the LED lights up red for 3 seconds.
LED diode flashes <b>quickly on red</b> ● ● ● ● ● ● ● ● ● ●	After holding the button for 10 seconds, the LED will flash red, then release the button. The head will be restored to factory values and the connection with the regulator will be removed. After the factory reset, the head restarts indicating the software version and is prepared for adaptation with the valve insert.
LED diode flashes <b>on blue 2x every 10 seconds</b> ● ● ● ● 10 sec... ● ● ● ●	The head lost communication with the regulator. If the head does not receive a signal from the regulator, it flashes blue for 7 days and then turns off. If the head receives a signal from the regulator, the head returns to normal operation and the blue flashing stops.
LED diode flashes <b>on red 3x every 10 seconds</b> ● ● ● ● 10 sec... ● ● ● ●	Batteries are almost exhausted - they need to be replaced.
LED diode flashes <b>alternately on green/red every 3 seconds</b> ● ● ● 3 sec... ● ● ●	Adaptation error with valve insert, after correctly mounting the head on the valve insert, the adaptation can be repeated immediately by clicking the button once.
LED diode flashes <b>alternately on green/red/blue</b> ● ● ● ● ● ● ● ● ● ●	A hardware error.
LED diode flashes <b>on pink</b> ● ● ● ● ● ● ● ● ● ●	Software update in progress.

### Factory Reset

To RESET the head to factory settings, hold the button until the LED flashes red, then release the button. The head will restart, restore factory default values and the connection with the regulator will be removed. The head must be re-adapted with the valve insert.

