

## EPC11W | Pump Controller for CH or HW



### Quick Guide

Ver. 2  
Release date: V 2023

## Introduction

Controller is designed to control water pump in central heating system or pump of the hot water tank. It can be used also as a safety thermostat. Controller will turn on or turn off the pump depends on the sensor temperatures. Pump is running after exceeding the setpoint temperature „C“ set by user and it will stop after exceeding setpoint temperature „U“.

## Product Compliance

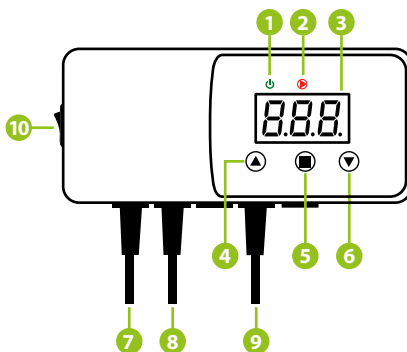
This product complies with the essential requirements and other relevant provisions of the following EU Directives: EMC 2014/30/EU, RoHS 2011/65/EU.

## Safety Information

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

Before carrying out any activities related to the power supply (connecting wires, device installing etc.), make sure that main power is not connected to the controller! Incorrect wiring connections may cause device damage.

## Controller description



- |                             |                            |
|-----------------------------|----------------------------|
| 1. Power supply indicator   | temperature or value       |
| 2. Pump operation indicator | 7. Controller power supply |
| 3. Display                  | 8. Pump power supply       |
| 4. Increasing setpoint      | 9. Temperature sensor      |
| temperature or value        | 10. ON/OFF power           |
| 5. Menu button              | supply switch              |
| 6. Decreasing setpoint      |                            |

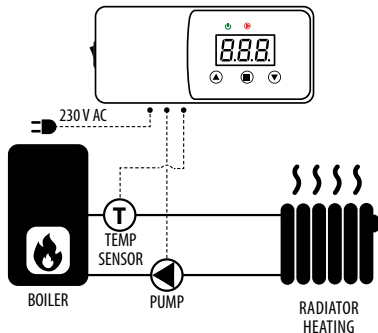
## Technical specification

Power supply	230V AC 50Hz
Max load of the pump output	3 (1) A
Temp. measurement range	0 – 99°C
Adjustable temp. range (ON)	5 – 75°C
Adjustable temp. range (OFF)	10 – 80°C
Sensor temp. range	-10 – 120°C
Sensor cable lenght	1,5m
Dimension [mm]	155 x 70 x 39

## Wiring diagrams - examples

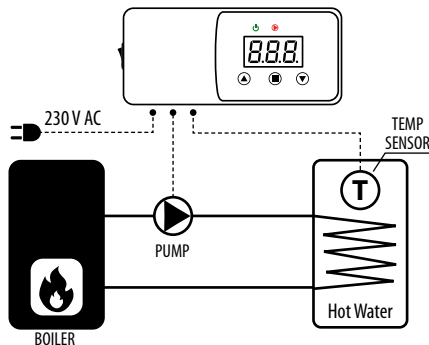
### 1. CENTRAL HEATING PUMP CONTROL

**NOTE!** The „U” parameter should be set to the maximum value. Pump will be turned on when temperature sensor exceed the value of „C” parameter.



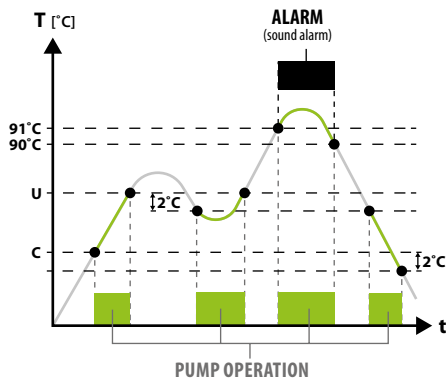
### 2. HOT WATER PUMP CONTROL OR WORK AS A SAFETY THERMOSTAT

**NOTE!** The „C” parameter should be set to the minimum value. Pump will be turned off when temperature sensor exceed the value of „U” parameter.



## Principle of operation

U - above this temperature pump is turned OFF  
C - above this temperature pump is turned ON



## Controller operation

Setpoint temperature of the pump start can be changed by pressing **⏏** button (menu option). On the display appears flashing „C” letter. At this point „C” setpoint temperature can be changed with **▲** or **▼** buttons. After few seconds controller will go itself into operating mode and display the current temperature.

Setpoint temperature of the pump stop can be changed by pressing twice **⏏** button (menu option). „U” parameter is the next parameter after „C”. On the display appears flashing „U” letter. At this point „U” setpoint temperature can be changed with **▲** or **▼** buttons. After few seconds controller will go itself into operating mode and display the current temperature.

C – activation temperature of the CH pump above the set value (setting range 5-75°C).

U – maximum HW reservoir temperature (deactivates the HW pump above the set value, setting range 10-80°C).

## Manual mode

This function allows to check if connected pump is working correctly. The pump will be turned on after pressing buttons **⏏** and **⏏**. Pressing these buttons again will turn off the pump.

## Histeresis

This is the difference between setpoint temperature of the pump start and setpoint temperature of the pump stop. Controller has a constant hysteresis of 2°C. For example:

- When „C” parameter is set to 30°C, then pump will turn on after exceeding 30°C and turn off when temperature will drop to 28°C.
- When „U” parameter is set to 50°C, then pump will turn off after exceeding 50°C and turn on when temperature will drop to 48°C.

## Additional functions

Controller has an „anti-stop” function which protects pump against lime scale when there is no heating season. Pump is turned on every 14 days for 15 seconds.

An additional protection is the frost protection function, which runs pump permanently when temperature on the sensor drops below 5°C.

## Alarm

The controller is equipped with an acoustic alarm signaling:

- Too high temperature on the boiler 90 °C.
- Short circuit in the CH sensor

## Error Code

- E1 - short circuit in the CH sensor
- E2 - broken CH sensor

## **PLEASE NOTE!**

If the E1 or E2 error is displayed, the CH pump works all the time until the fault is removed.