

C.H. pump controller Model: PC11



Manual

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Introduction

The PC11 controller is designed to control water pump in C.H. systems. Controller's task is to start the pump when temperature will exceed the desired value and turn it off when boiler will cool down. It prevents unnecessary pump operation and extends its service life, which allows also to save electricity. Savings depends on the boiler's utilization rate, up to 60%. Thanks to this, pump reliability increases and heating costs are lower.

Product Compliance

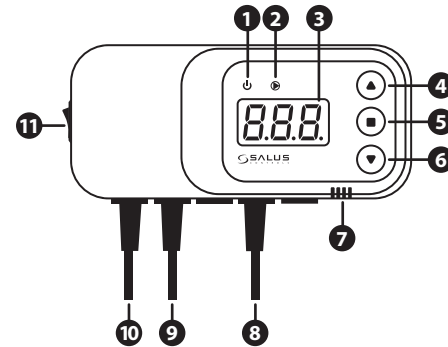
This product complies with the essential requirements and other relevant provisions of the following EU Directives: EMC 2014/30/EU, RoHS 2011/65/EU.

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.

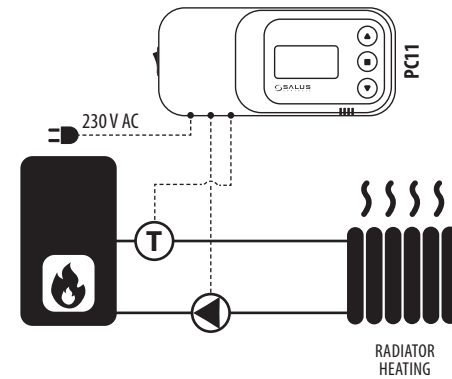
Before carrying out any activities related to the power supply (connecting wires, device installing etc.), make sure that main power is not connected to the controller! Incorrect wiring connections may cause device damage.

Controller description



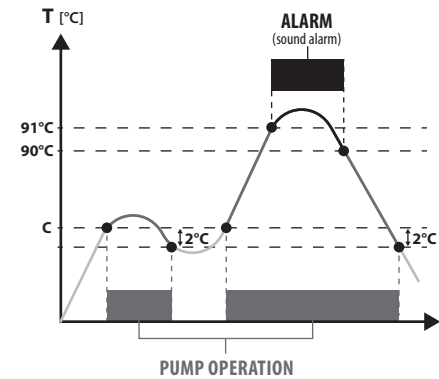
- | | |
|---|--------------------------------|
| 1. Power supply indicator | 7. Sound alarm |
| 2. C.H. pump operation indicator | 8. Temperature sensor |
| 3. Display | 9. Pump power supply |
| 4. Increasing setpoint temperature or value | 10. Controller power supply |
| 5. Menu button | 11. ON/OFF power supply switch |
| 6. Decreasing setpoint temperature or value | |

Wiring diagram






Principle of operation



C - pump start temperature



Controller operation

Setpoint temperature is changed by pressing  button - display should indicate a flashing „C” letter. At this point it is possible to change the desired setpoint temperature using  or  buttons. After a few seconds, the controller will go into operating mode and display the current boiler temperature.

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.

Hysteresis

This is the difference between temperature of the pump start and the temperature of return to standby. Controller has a constant hysteresis of 2°C. For example, after setting the setpoint temperature at 50°C, pump will be turned on after exceeding 50°C, and will be turned off when the 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 sound alarm which signals too high temperature on the boiler (above 90°C).

Technical specification

Power supply	230 V / 50Hz ±10%
Power consumption	2 W
Ambient temperature	-10 to 50°C
Max load of the pump output	6 A
Temperature measurement range	0 to 99°C
Setpoint temperature range	5 to 80°C
Sensor temperature range	-10 to 120°C
Sensor cable lenght	1,2 m

Pump controller for C.H. or H.W.
Model: PC11W



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Introduction

PC11W 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

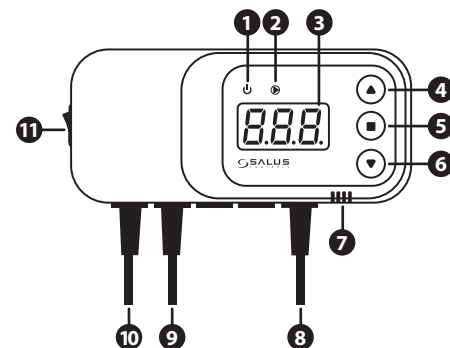
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Before carrying out any activities related to the power supply (connecting wires, device installing etc.), make sure that main power is not connected to the controller! Incorrect wiring connections may cause device damage.

Controller description

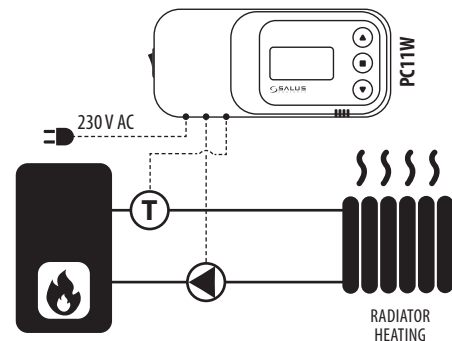


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Wiring diagrams - examples

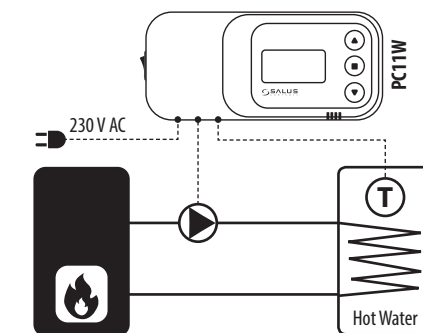
1. CENTRAL HEATING PUMP CONTROL

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.



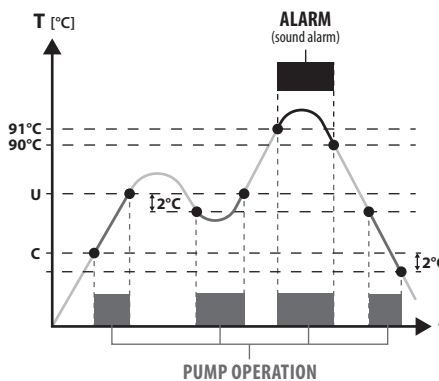
2. HOT WATER PUMP CONTROL OR WORK AS A SAFETY THERMOSTAT

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 OFF



Controller operation

Setpoint temperature of the pump start can be changed by pressing **U** 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 **U** 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.

Manual mode

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

Hysteresis

This is the difference between temperature of the pump start and the temperature of return to standby. 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 sound alarm which signals too high temperature on the boiler (above 90°C).

Technical specification

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