

Regulator "Logo" in the PWM version has been created as a control element for simple and complex solar systems, but on the principle of action which is based on the measured temperature "source-receiver: can function as universal regulator in heating systems". This enables thus its integration with the variety of sources and receivers of heat such as stoves, fireplaces and swimming pools. The device through use of the PWM signal to control the pump can be continuously adjusted its work and makes the system energy efficient by reducing the power consumption of the pump. The controller is user-friendly thanks among other things to the large graphic LCD display, which allows you to transparently keep track of the work of the entire system, as well as with a convenient and easy-to-understand interface.

The controller has a broad base variants of installation so that in most cases, adapting it to the customer's solar system is quick and easy. Built-in backup power supply is capable of storing the device all settings even after the power loss, and the use of specialized sampling algorithms collectors and security makes the installation is free of potential failures and thus has an extended service life.

An innovative features is the "ECO" which allows the maximum benefit from solar radiation without unnecessary water heating system using electricity. Clever regulator case enables easy installation and wiring, it provide protection against external damage. In addition, the controller can be mounted in compact pump group. When using PWM controller is not necessary to control the flow of for example, a rotameter.



Variants and functions:

- Function of economic operation of electric heater
- Smooth adjustment of the pump using PWM
- 3 sensor inputs PT 1000
- Displaying the current measured values
- Memory settings for the driver
- Reversible cooling function (holiday function)
- 5 basic hydraulic variants to choose from
- Possibility programming working electrical heater.
- Possibility to calibrate the temperature sensor.

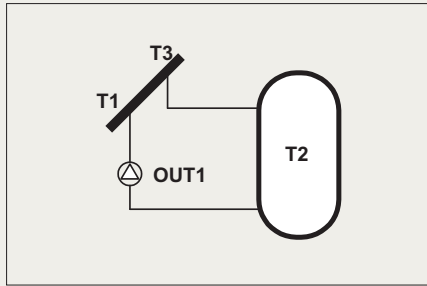
Technical data:

Voltage	230 VAC ± 10%
Frequency	50 Hz
Power consumption	2 VA
PWM output	1 kHz, 8,5 - 15V
Load relay output	120 W / 230 VAC
Delay fuse	TR5 2A, 250 VAC
Backup battery for the clock	Cr2032
Battery runtime	100 days
Input battery measurement (T1, T2, T3)	PT 1000
Measurement range (collector sensor)	-40 to 200°C
Measurement range (tank sensor)	-5 to 110°C
Operating ambient temperature regulator	0°C... 40°C
Ambient temperature storage controller	0°C... 50°C
Humidity controller operation	Max. 80% dla 25°C
Humidity storage controller	Impressible
Other data and dimensions:	
Cassing	Two-piece, ABS plastic
Installation options	Wall mounting, optional installation of the control board
Dimension: height/width/thickness	162 mm x 121 mm x 54 mm
Horizontal spacing of fixing holes	70 mm
Display	Graphic 64 x 128
Display backlight	Yes
Service	Keyboard, 3 buttons
Language versions	PL, D, GB

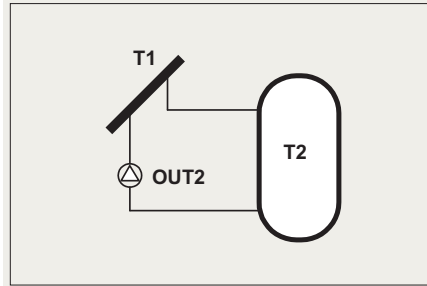
Possible applications – sample schemes.

The controller output OUT1 is designed to connect the supply 230VAC pump controlled by PWM signal. The pump supplied with the output and controlled by PWM signal will operate with variable speed. OUT2 is designed to connect any load 230VAC with maximum power of 120W. For loads with strong characteristics of the induction it is advisable to use an additional extinguishing system RC.

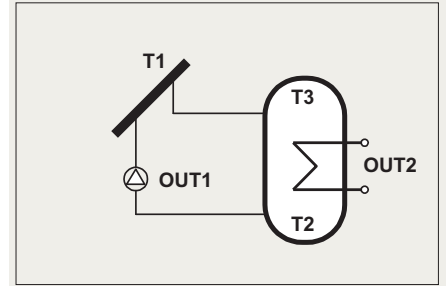
Variant 1



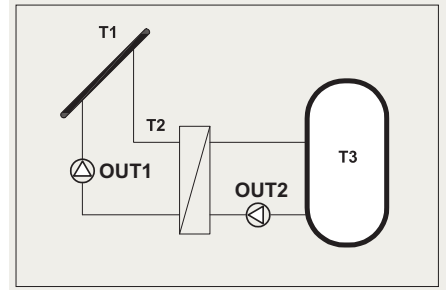
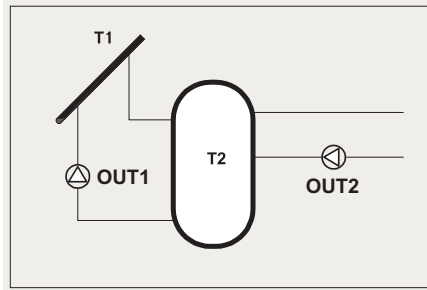
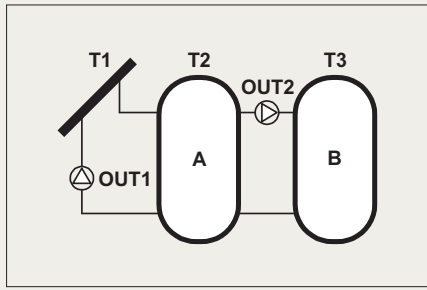
Variant 2



Variant 3



Variant 4



Variant 5

