Controller CS-09

How it works.
Controller CS -09 is designed to steer the solar collector pump and circulation pump . The collector pump works on the principle of temperature difference . Switching the pump occurs when the collector's temperature exceeds the tank's temperature of hysteresis set by the user. The switch off of the collector pump is dependent on the set hysteresis . The hysteresis of switching off is always 10◦C lower than the switching on hysteresis , when we set the switching hysteresis at 20 ° C , the switching off hysteresis is automatically set to 10.
If you set the hysteresis at 10 ° C , the pump runs until the temperature of the collector and storage tank are aligned or when the set tank temperature is reached . The circulation pump switches on when the temperature exceeds the tank temperature set by the user and works until the tank temperature drops below the set temperature.

The pumps for continuous operation.
Holding down the key □ and Δ simultaneously will activate the circulation pump for continuous work. The pump will run until the user manually takes it off , by holding down the key□ and Δ while switching on the pump and causes the collector to the continuous work. The pump will work to the point where the user manually turns it off ,by holding keys □ andΔ.
Preview tank temperature is possible by pressing a key ⌂ and after a few seconds the controller will return to display the collector's temperature.
The use of controller
The temperature of the collector, the circulation pump and hysteresis can be changed by pressing the key□ -the entrance to the menu's options, the display should show a flashing letter C, U, or H, at this moment you can change the desired temperatures by using keys□⌂. After a few seconds, the controller automatically enter the mode and will display the current collector's temperature.

Hysteresis.
This function is used to set the difference between temperatures (collector and heat storage) which activates the pump after reaching. This prevents from constant switching on and off of the collector pump.
The controller's functions.
U-maximum storage tank temperature,
C-activation of the circulation pump,
H-hysteresis of the collector pump.

Installation instructions
The installation should be done by the person having the proper electrical qualifications. The sensor should be placed at the exit of the boiler by the wire-tie and isolated from the external factors by the isolation tape (it cannot be immersed in any liquid).The power cord for the pump should be connected in the following way: blue-brown- 230V,yellow Green (protective) should be connected to the ground. The controller Has the thermal security which should be installed together with the central heating sensor. This is the additional security which in case of the failure of the controller, at 90 °C, cuts off the power supply to the blower.

Information concerning disposal of electrical and electronic appliances

The symbol shown above placed on the products or the enclosed documentation informs that the faulty electrical or electronic appliances cannot be thrown away together with the domestic waste. The correct way in case of disposal, reuse or recycling of actuators is to give the appliance to the specialized waste collecting centers, where it will be taken free of charge. In some countries you may give your product away to the local distributor while buying another appliance. The correct utilization of the appliance enables preventing the precious resources and avoiding the negative impact on health and environment, which may be endangered by the improper conduct with the waste. You can get the specific information concerning the nearest collection point at the local authorities. The incorrect utilization of waste is subject to penalty provided in the appropriate local provisions.

Guarantee

The producer ensures the buyer that the product will work faultlessly for 24 months since the date of sale. The guarantor promises to repair the appliance, if the failures occurred due to his fault. The appliance should be delivered to the place where it was bought, enclosing this guarantee with the confirmed date of purchase. All the expenses connected with it will be due to the user. The guarantee does not cover the failures caused as a result of lightning strikes Or short circuits. The guarantee for the sold commodity does not exclude, restrict nor suspend the rights of the buyer resulting from the inconsistency of the commodity with the agreement.

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producer date of sale