

Electronic control

Controllers for hot-water systems with solar collectors



Solar Controller CS-10

It controls production of Domestic Hot Water of the solar energy system.

By means of a correct programming, this unit can guarantee maximum use of the solar energy received, can also monitor the back-up boiler selected.

Main features

- Solar collector temperature control.
- DHW storage cylinder temperature control.
- Solar pump operation control according to the solar collector and DHW cylinder temperature.
- Anti-legionella protection feature (with back-up boiler).
- Possibility of connecting a pulse counter.
- Bus connection capability.

Delivery

In a box containing 4 sensors mod. PT 1000 of 1 KOhm

Technical data

Supply voltage.	230V AC \pm 10%. 50Hz
Power input.	5VA
Relay switching capacity	250 V, 2 (2) A
Max. current at L1 terminal supplying L'	6,3 A
Electrical protection to DIN EN 60 529	IP 40
Protection class to DIN 60730	II
Timer battery back-up (only CS 10)	10 horas
Allowable room temp.	0 ° hasta 50 °C
Sensor resistors:	PT 1000, 1KOhm + / - 0,2% to 0 °C

Base for wall-mounting through rawlplugs and screws or making use of the guides attached to the lid for vertical fixing.

Roughing-in measurements

143 mm long; 96 mm high and 59 mm deep

Diagram and basic circuit

Solar energy system schematic for Domestic Hot Water with a wall-mounted back-up boiler.

- 1 Solar collectors
 - 2 Air vent
 - 3 Solar collector flow
 - 4 Solar collector return
 - 5 Domestic Hot Water
 - 6 Storage cylinder
 - 7 Thermostatic mixing valve
 - 8 Expansion vessel
 - 9 Hydraulic kit KHS
 - 10 Solar Controller
 - 11 Back-up boiler heat exchanger
 - 12 Solar collectors heat exchanger
 - 13 Cold water inlet
 - 14 Back-up heat generator (Wall-mounted gas boiler for Central Heating only)
- F1 Solar collector sensor
F4 Cylinder sensor for interconnecting solar collectors
F3 Cylinder sensor for interconnecting back-up boiler
A1 Pump control

