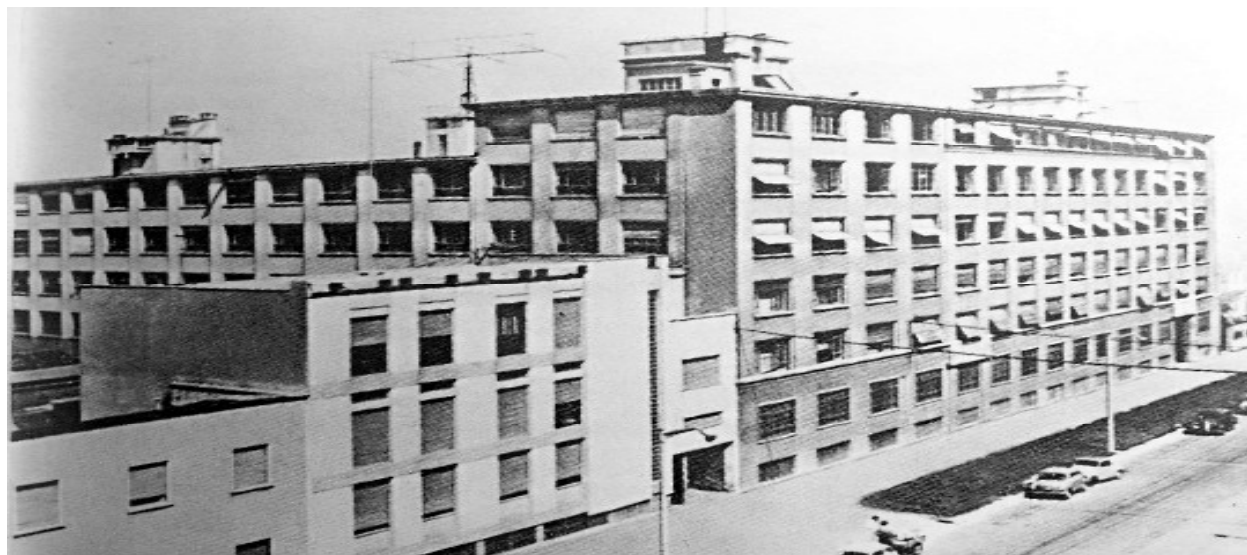


Solar Panels control "Solar Control" SC100 / 3 V. 4



The thermostat is an electronic instrument based on **BEINAT's** many years of experience in temperature control.

This device allows maintaining precise control of the temperature of the solar panels connected to the boiler's sanitary hot water.

It detects the boiler water temperature through the 3 provided sensors and compares it with the solar panels fluid.

When the panels temperature is higher than the boiler's water, the control unit starts the pump allowing thermal exchange between panels and boiler.

Its second main function is to use a supplementary source of heat when the temperature is lower than the set integration temperature.

In order to ensure a perfect thermal exchange, the device is fitted with a "delta T" temperature differential that varies from 1 to 9°C, and can be regulated using the knob on the thermostat front panel.

Thanks to the 3-module Omega-type format, you can build several systems exploiting the modularity of the DIN rail in the previously set electrical panels.



Important: Assembly / maintenance of the appliance must be carried out by qualified personnel and in accordance with applicable laws and regulations.
The manufacturer assumes no responsibility for the use of products that have to comply with particular environmental and / or installation standards.



Important note

Before connecting the equipment, it is recommended that you read the instruction manual carefully and keep it for future reference. It is also recommended to perform the electrical connections correctly as per enclosed drawings, observing the instructions and the Standards.
N.B. Refer to the documentation in all cases where the symbol is on the side

 <p>Installation and user guide</p>	 <p>INSTALL IN SAFE AREA, NO ATEX</p>	<p>CONFORMITY</p> <p>EN 61010-1 DM01/02/1986</p>
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Useful information

CHECK the integrity of the thermostat after having removed it from the box. Check that the data written on the box correspond to the product. Any use of the detector for purposes other than the intended one is considered improper, and as a result of which **BEINAT S.r.l.** therefore disclaims any responsibility for possible damages caused to people, animals or objects. Never clean with chemical products. If necessary after remove the voltage, wash with a moist cloth. Entrust always the installation and maintenance to technicians qualified and / or authorized which can ensure the original spare parts in case of failure.



Check package contents

No. 1 SOLAR CONTROL SC100 control unit
 No. 3 Temperature probes in thermoplastic weatherproof case, immersion version with IP55 protection degree



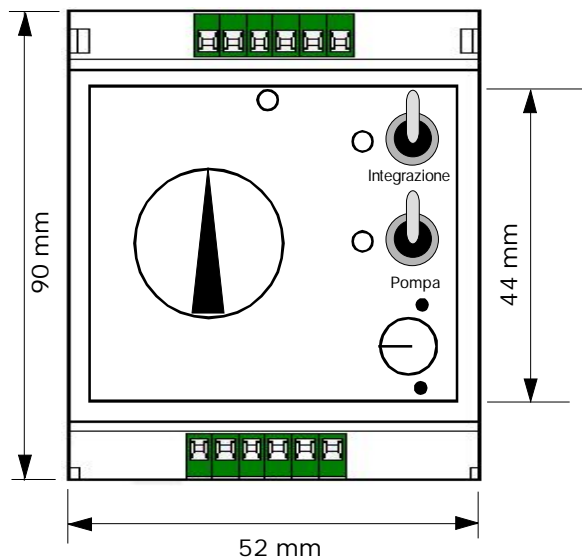
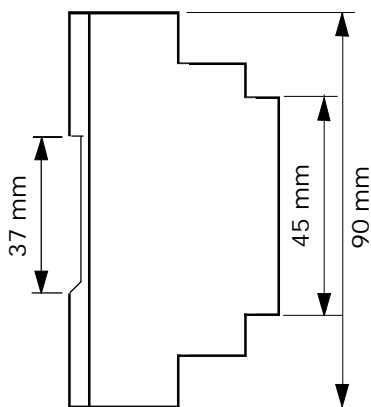
Accessories on demand

Immersion version temperature probes with chromium plated weatherproof case art. **ST400**

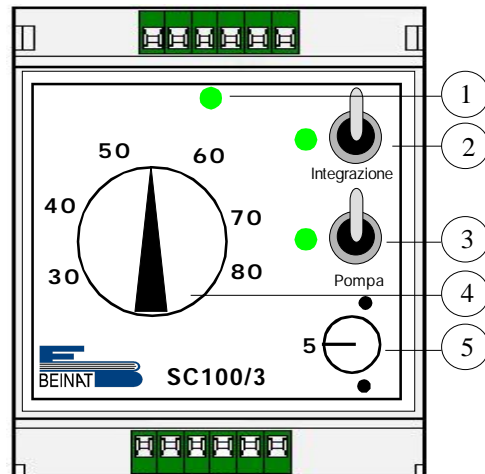


Technical features

Power supply	230V~ ±10% 50Hz
Power demand	1 VA
Relay Contact Range	10A 250V resistive 5A 30V resistive
Free of voltage contacts	
Type of sensors	NTC 47K
Functioning temperature sensors	-20°C to 120°C
Accuracy	± 1°C
Resolution	1 °C
Delta differential temperature	Adjustable from 0 ° C to 9 ° C
Integration temperature	Adjustable from 30 ° C to 80 ° C
Integration Switch	Automatic, Manual
Force pump switch on the panel	Built in
Functioning temperature sensors	-20°C .. 120°C
Max. distance between probes and unit	150 m
Cable diameter for connecting probes	1 mm ²
Functioning temperature	0°C to 50°C
Storage temperature	-10°C to +60°C
Humidity limits	90% RH non-condensing
Electromagnetic Compatibility "CE"	Reference norms
Degree of protection	IP20 air
Omega-type size DIN EN 50092 3 modules	53*90*58
Mounting	Panel mounted



- 1) "Power connected" LED, thermostat working.
- 2) Automatic/Manual Switch for sanitary hot water integration. AUTOMATIC. By setting the switch up, you select the automatic functioning.
- a) **Automatic.** functioning works according to the temperature set using the graduated knob from 30°C to 80°C. Please see point No. 4
- b) **Manual.** By setting the switch down, you select the manual functioning. When selecting the manual functioning, the integration is always ON.
- 3) **Forced pump insertion** switch, between boiler and panel.
- By setting the switch down, you select to forcedly insert the circulation pump between panel and boiler.
- 4) **Temperature selection** knob. It is used to set the desired sanitary hot water temperature before activation of the integration.
- 5) **DELTA T** knob on the panel. It is used to program the temperature difference between BOILER and PANEL. It was set to 5°C in the factory.



Electrical connections

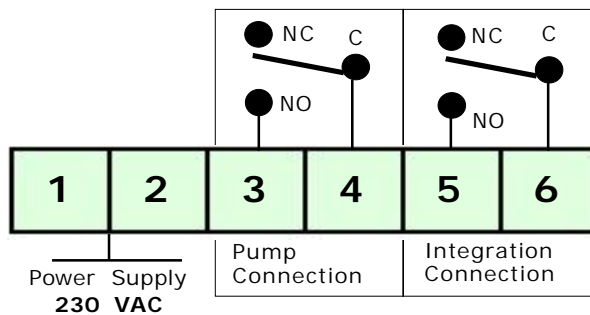


WARNING

Before connecting to the mains power, ensure the voltage is correct. Carefully follow the instructions and the connections according to Regulations in force, keeping in mind that the signal cables should be laid separate from the power cables. An automatic cut-off switch (appropriately identified as device sectioning of the detector) should be incorporated in the electrical system, adequately located and easily accessible.

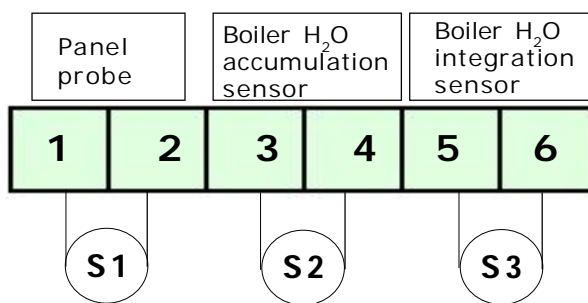
Electrical connection of the terminal block at the top

The relays schematized are free voltage with a capacity of 10 A resistive.



Electrical connection of the terminal block at the bottom

The immersion probes can be inverted one with the other both for position and polarity. Max. distance 150 m, with minimum diameter of 1 mm²



Before calling a technician, check...

If the device does not turn on: Check that all the 230V cables are firmly connected the terminal block's poles 1 and 2. Check if the mains power supply is present.

The control unit works well but cannot drive the appliances: Check that all the wiring is correct. Please remind that all relays are free of voltage. Check that the resistive values are right. Please see table on the side.

If other problems arise, a specialised and/or authorised technician and/or the Distributor of **BEINAT S.r.l.** should be contacted directly.

SENSORS			
Conversion from temperature to ohmic value of the probes			
Temp.	Resistive values	Temp.	Resistive values
0°C	155.820	10°C	94.523
30°C	37.704	40°C	24.695
50°C	16.533	60°C	11.296
70°C	7.865	80°C	5.573
95°C	3.427	100°C	2.936

INSURANCE. This device is insured by the SOCIETÀ REALE MUTUA for the PRODUCT'S GENERAL LIABILITY up to a maximum of 1,500,000.00 EURO against damages caused by the device in case of failures in functioning.

WARRANTY. The warranty term is 3 years from manufacturing date, in agreement with the following conditions. The components acknowledged as faulty will be replaced free of charge, excluding the replacement of plastic or aluminium cases, bags, packing, batteries and technical reports.

The device must arrive free of shipment charges to **BEINAT S.r.l.**

Defects caused by unauthorized personnel tampering, incorrect installation and negligence resulting from phenomena outside normal functioning shall be excluded from the warranty.

BEINAT S.r.l. is not liable for possible damage, direct or indirect, to people, animals, or things; from product faults and from its enforced suspension of use.



DISPOSAL OF OLD ELECTRICAL & ELECTRONIC EQUIPMENT.

This symbol on the product or its packaging indicates that this product shall not be treated as household waste. Instead, it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment, such as for example:

- sales points, in case you buy a new and similar product
- local collection points (waste collection center, local recycling center, etc...).

By ensuring this product is disposed of correctly, you will help prevent potential negative consequence for the environment and human health, which could otherwise be caused by inappropriate waste handing of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Attention: In some countries of the European Union, the product is not included in the field of application of the National Law that applies the European Directive 2002/96/EC and therefore these countries have no obligation to carry out a separate collection at the "end of life" of the product.



Solar thermostat SC100/3 *Lo styling è della b & b design*

Stamp and signature of the dealer

Date of purchase:

Serial number:

Beinat S.r.l. following the purpose of improving its products, reserves the right to change the technical, aesthetic and functional characteristics at any time and without giving any notice.

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