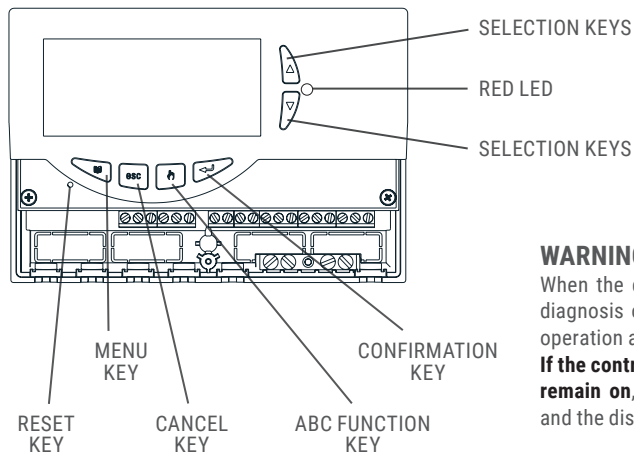


## TECHNICAL FEATURES

Power supply:	230V~ ±10% 50Hz	Protection grade:	IP 40
Power absorption:	<2 VA	Type of action:	1
Sensors type:	3 x NTC 10K @ 25 °C ±1 %	Overvoltage category:	II
Sensor operating range:	-50 °C .. +200 °C (collector) -50 °C .. +110 °C (boiler)	Pollution degree:	2
Temperature reading range:	-20 °C .. 180 °C	Tracking Index (PTI):	175
Accuracy:	±2 °C	Class of protection against electric shock:	II
Resolution:	0,1°C (-20°C .. 144,9°C) 1°C (145°C .. 180°C)	Rated impulse voltage:	2500V
Offset adjustment:	on S1: ±5.0°C on S2: ±5.0°C on S3: ±5.0°C	Number of manual cycles:	50000
Installer Password:	0000 .. 9999 (default 0000)	Number of automatic cycles:	100000
Acoustic Signal:	On/Off (default On)	Software class:	A
Backlight timing:	20 sec from last keypress	EMC test voltage:	230V~ 50Hz
OUT2 Relay Logic:	NOR=N.O. REV=N.C. (default N.O.)	EMC test current:	34mA
Contacts rating:		Distances tolerances fault mode 'short' exclusion:	±0,15mm
OUT 1 relay:	2(1)A max 250V~ (SPST) Voltage free	Ball pressure test temperature:	75°C
OUT 2 relay:	8(1)A max 250V~(SPST) Voltage free	Operating temp. range:	0°C .. 40°C
Alarm relay contacts rating:	4(1)A max 250V~ (SPDT) Voltage free	Storage temp. range:	-10°C .. +50°C
Output Signal:		Humidity limits:	20% .. 80% RH non-condensing
PWM: Amplitude:	10V ±15%	Case: Material:	ABS V0 self-extinguishing
Frequency:	1KHz	Color:	Signal White (RAL 9003)
Current:	15mA max.	Dimensions:	156 x 108 x 47 (W x H x D)
0..10V: Amplitude:	0V..10V ±10%@10V	Weight:	~672 gr. (version with probe) ~553 gr. (version without probe)
Minimum load:	10KOhm.	Installation:	Wall-mount
Max allowed PWM / 0...10V cable length:	< 3m.		

## COMMANDS DESCRIPTION



### WARNING!

When the control unit is turned on it will carry out a diagnosis of the internal circuitry to verify its correct operation and the red led will flash three times. **If the control unit reveals no anomalies the red led will remain on**, otherwise it will continue to flash quickly and the display will show the type of error.

TDST24M100SE 042177 200923

## ELIOS MIDI DIGITAL CONTROL UNIT FOR THERMAL SOLAR SYSTEMS



SCAN THE QR CODE AND DOWNLOAD THE COMPLETE USER MANUAL.

**seitron**  
Innovation Technology



### CONTACT US

customer.care@seitron.it

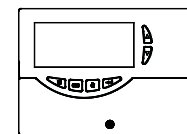


### WHATSAPP

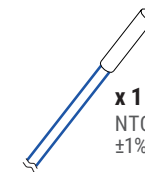
+39 329 1444390

Quick Guide

## WHAT'S IN THE PACKAGE

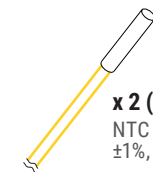


x 1



x 1 (blue cable)

NTC probe 10K Ohm @25°C  
±1%, -50°C .. +200°C



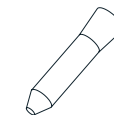
x 2 (yellow cable)

NTC probe 10K Ohm @25°C  
±1%, -50°C .. +110°C



x 6 (white)

Plugs for cable ingress holes



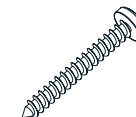
x 2

ø 5mm wall dowels



x 6 (black)

Cable retainer if the cables are mounted from the underside



x 2

Chipboard screw 4x35 mm

## WARRANTY

The user is guaranteed against the product's defects of conformity according to European Directive 2019/771 as well as the Seitron warranty terms, available online on the website [www.seitron.com](http://www.seitron.com).

We invite the user to visit our website and check the latest version of technical documents, manuals and catalogs.

# INSTALLATION

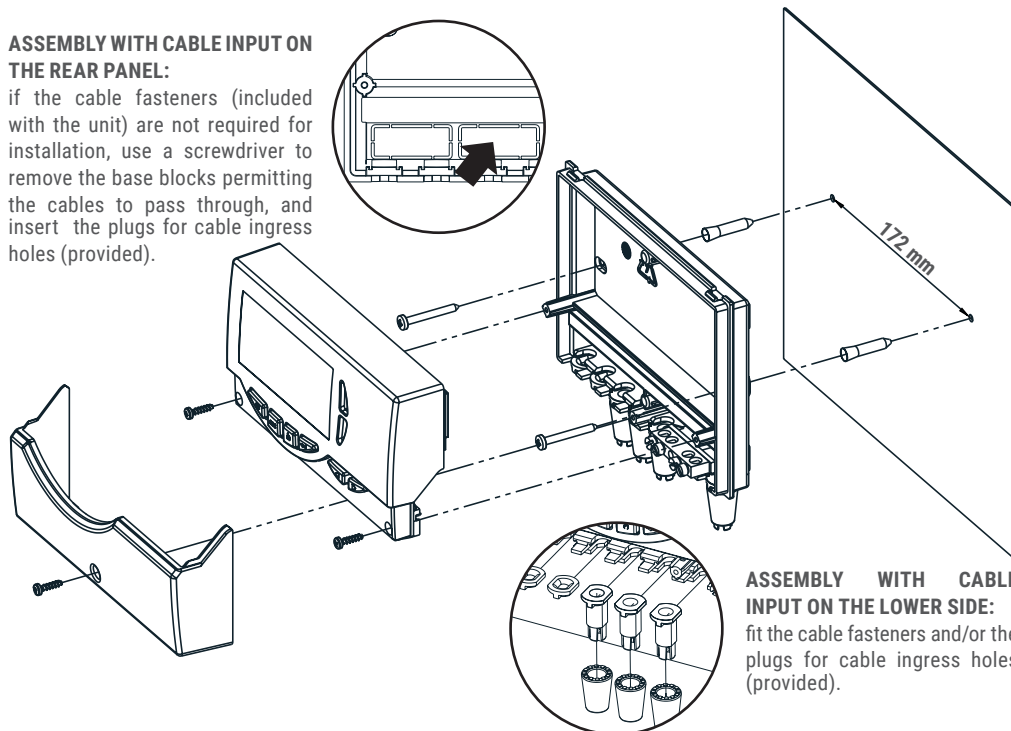


## WARNING!

- CAREFULLY READ THE COMPLETE INSTRUCTION MANUAL
- The installation technician shall operate in full compliance with all the applicable technical standards in order to grant the unit safety.
- Before wiring the appliance make sure to turn the mains power off.
- Installation and electrical wirings of this appliance must be made by qualified technicians and in compliance with the current standards.
- When closing the unit please ensure that the removable wiring terminals have been inserted with the correct orientation (the terminals screws must be facing upward).

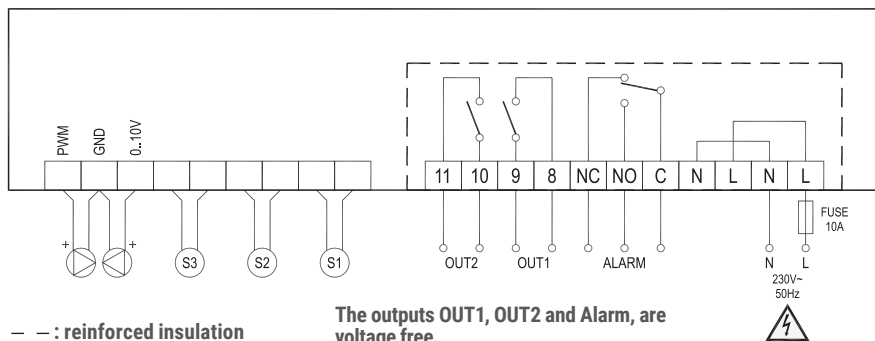
### ASSEMBLY WITH CABLE INPUT ON THE REAR PANEL:

if the cable fasteners (included with the unit) are not required for installation, use a screwdriver to remove the base blocks permitting the cables to pass through, and insert the plugs for cable ingress holes (provided).



**ASSEMBLY WITH CABLE INPUT ON THE LOWER SIDE:**  
fit the cable fasteners and/or the plugs for cable ingress holes (provided).

# WIRING DIAGRAM



## WARNING!

It is advisable to fit a 10A 250V~ fuse on the power unit mains capable to intervene in case of short circuits on loads.

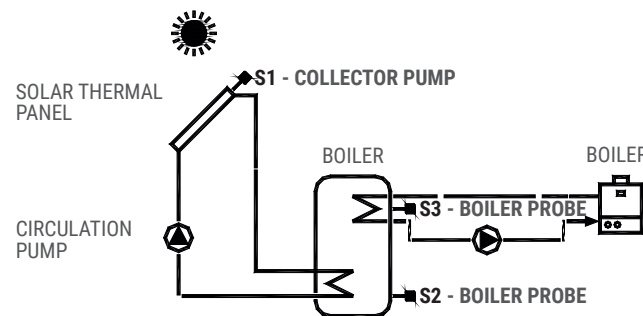
**OUT1: Circulation pump output**

**OUT2: Integrative source output**

**TERMINAL BOARD GROUNDING:** On the base of the control unit case is located a brass terminal board for connecting the ground protection conductors of the load devices connected to the control unit.

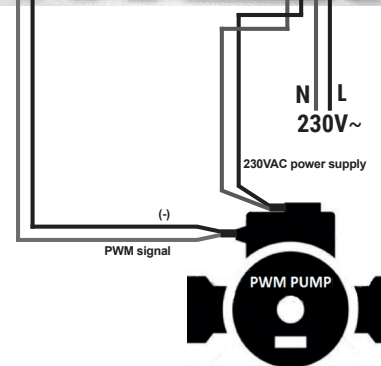
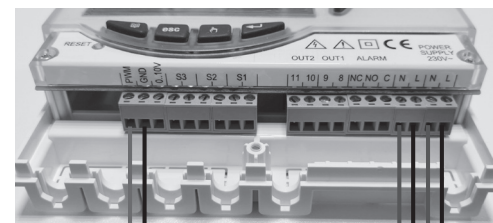
- S1:** NTC temperature probe (probe supplied with blue cable), with -50°C..+200°C range, to connect it to the collector.
- S2:** NTC temperature probe (probe supplied with yellow cable), with -50°C..+110°C range, to connect it to the bottom of the boiler (cold zone).
- S3:** NTC temperature probe (probe supplied with yellow cable), with -50°C..+110°C range, to connect it to the bottom of the boiler (cold zone).

### Standard example for the placement of the three supplied probes:



SEITRON IS THE MANUFACTURER OF THE UNIT. CONSIDERED THE WIDE RANGE OF CIRCULATORS THAT CAN BE COMBINED, THE FOLLOWING DIAGRAMS ARE TO BE CONSIDERED AS INSTALLATION EXAMPLES. REFER TO THE CIRCULATOR MANUAL FOR CORRECT CONNECTION AND PARAMETER SETTING.

WIRING EXAMPLE ONLY FOR SOLAR CIRCULATORS IN ACCORDANCE WITH DIRECTIVE ErP 2015 WITH EXTERNAL PWM SIGNAL.



EXAMPLE OF CONNECTION FOR 3-SPEED SOLAR CIRCULATORS WITH WET or "HIGH EFFICIENCY" ROTOR COMPLIANT WITH DIRECTIVE ErP 2015, WHICH DOES NOT REQUIRE AN EXTERNAL PWM SIGNAL (WITHOUT A CONNECTOR FOR PWM).

