



proSmart

User Manual

*Control your devices from anywhere in the world.
Efficiently. Reliably. Easily.*

Control your home through your touchscreen control panel or smartphone!.

The product:

- **PS Thermo** is a Wi-Fi programmable thermostat controller with a touchscreen. The device is an Internet connected relayed module, that includes a weekly schedule. It can be programmed and controlled via an Internet connected PC, smartphone or via the built-in touch display.
- **PS Thermo** allows the fast automation of every electrical device, regardless of its manufacturer or model.
- The technology set in **PS Thermo** allows it to connect with any Wi-Fi network, without the need for any additional settings.
- **PS Thermo** is a complex system with which you not only turn on and off your devices remotely, but manage and adjust a number of devices in your home, office, house or villa.
- **PS Thermo** allows the users to receive real-time information for all connected devices — their work and current status

PS Thermo includes a main controlling module with built-in touch display, temperature and humidity sensor, as well as wirelessly controlled relay module.

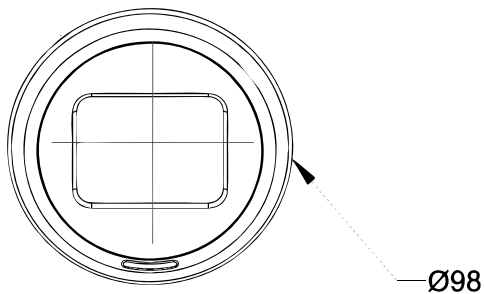
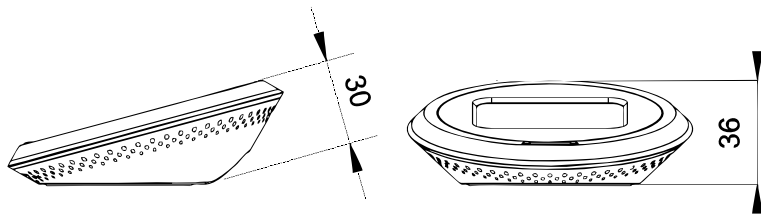
Why choose PS Thermo:

- It saves money from the energy bills
- Optimizes the energy consumption of every connected device
- Fully-integrated control system
- User-friendly application interface
- Flexible work regimes – thermostat and on/off
- Secure access and control from every part of the world

PS Thermo finds application in the control of:

- Electric water-heaters
- Gas- and solid fuel boilers
- Solar systems
- Irrigation systems
- Internal and external lighting
- Various types of electrical devices

Technical specification:



Temperature measurement range	-40°C — +125°C (0,1°C range)
Temperature range set	-40°C — +100°C (0,1°C range)
Temperature accuracy	±0,3°C (@25°C)
Clock	Built-in clock
Programs	Switching modes: <ul style="list-style-type: none"> · Turned off · Manually set temperature · Weekly schedule work
Upper and lower hysteresis (set by the user in the outlined ranges)	0°C — ±74°C (0,1°C range)
Touch panel – Voltage	5V=1A
Touch panel – Operating frequency	Wi-Fi (b/g/n) 2,4 GHz
Touch panel – Screen size	4,9 x 3,7 mm (WxH)
Touch panel – Body size	30,0 x 98,0 x 36,0 mm (LxWxH)
Relay module – Switching socket	Max. 230V~; 16 A (4A inductive load)
Relay module – Voltage	100-240V~ 50/60Hz 35mA T45
Relay module – Consumption	<5W
Relay module – Operating frequency	433 MHz
Relay module – Range	Min. 100 m. free space
Relay module – Size	90,2 x 53,3 x 56,5 mm (LxWxH)
Relay module – Main unit fuse	FF1 T 250mA 250V 35A
Working temperature	0° — +45°C
Working humidity	5% — 90% without condensation

Storage temperature	-20° C — +60° C
Transport temperature	from –20°C till +60°C
Transport air-humidity	from 5% till 90% without condensation
Overvoltage category	II
Chain type	SELV
Network topology	Wireless communication
Protection degree, provided by the sheath	IP20 - at installation position

SAFETY INSTRUCTIONS

The outlined safety procedures below are to be followed while using the current product. Please, do follow all warnings in the device's user manual.

General safety instructions

Please, read before using the device for the first time You are the only one responsible for the device's usage, as well as for any caused damages in consequence of that. The device's usage is a subject of the set safety measures for the customers and their environment. Please do not press the device too hard. Always use it and its accessories gently and keep them in a clean place, away from any dust. Do not expose them to open fire or in any proximity to lighted tobacco products. Do not let the device and its accessories to fall down, do not throw or fold them. Do not use any aggressive chemicals, detergents or aerosols for their cleaning. Do not paint them and do not attempt to disassemble the device or its accessories. That could be accomplished only by a qualified professional. The device's working temperature is from 0°C till +45°C and storing temperature of -20°C till +60°C. For removing electric products' waste, the national and regional legislations are followed. The device is to be installed in electric switchboards or in the device/s it will manage and is created to control household devices and equipment.

Any unauthorized reconstruction and/or product modification is strictly forbidden following the European safety and approval directives (CE). The device works at supply voltage of 100-240V~/50/60 Hz. Services, settings and repairs could be accomplished only by an authorized service provider. For its repair use only the original spare parts. The usage of other spare parts could cause significant damages or injuries. If you notice any damage, please stop using the device. The device is intended for direct connection to TN / IT AC power supply 100-240V, 50/60Hz. Before cleaning the device, disconnect it from the power supply. Do not use any liquids or aerosols. Do not use the device if there is a damaged cable, power supply cord or network plug. In the case of power supply cable's damage, please leave its repair to a qualified professional! The device's installation is accomplished according to the manufacturers' instructions, the HD 60364-4-41 regulations and the national legislations.

Attention! Damaged power supply cables are a life threat as could lead to an electric shock.

Do not use the device if there is a damaged cable, power supply cord or network plug. In the case of power supply cable's damage, please leave its repair to a qualified professional!

Do not leave children with the device without supervision!

Do not let children play with the device. They cannot properly assess the danger of using electric devices. The device is not intended for use by individuals (including children) with limited physical, sensory or mental capabilities or without any experience and/or knowledge unless they are controlled by an individual responsible for their safety or have received instructions on how to use it. Use, set and keep the product only in places away from children. Do not leave the packing materials spread aimlessly. They could be a dangerous toy for your children. Your new device contains many small components with sharp edges that could cause injuries and upon disassemble - a swallowing or suffocation risk.

Electric safety

This device could be used only when powered by the specific supply unit. Every other way could be dangerous and terminates the validity of any issued device's certificate. Use the correct external power supply. The device should be powered only by the specific power supply as indicated on the nominal electric power supply's nameplate. If unsure of the power supply's type, please turn to the authorized service provider or to the local electric services company. Please, be extremely careful. Store and use the device in a place far from water or other liquids as those could cause a short circuit.

Dangerous environment limitation usages

Do not use this device in gas stations, gas storages, chemical plants or in places where flow blasting is taking place, locations with potentially explosive environment, for instance in places such as fueling areas, gas storages, ship holds, chemical plants, in installations for fuel or chemical transportation or storage and in zones where the air contains chemicals or particles such as grain, dust or metal particles. The sparks in such places could cause a blast or fire and in consequence - a severe health damage, even death.

In case you are in a flammable materials' environment, the device must be turned off and the user is to follow all instructions and warning labels. The sparks in such places could cause fires or explosions, leading to injuries and even death. We highly recommend to not use the device in fueling areas, workshops or gas stations. The customers should follow the limitations set for high frequency devices' usage in fuel storages, chemical plants or in places of flow blasting work process.

Damages requiring repair

In case of any of the outlined cases below, unplug the device from the power supply and look for an authorized service provider or turn to the supplier for specialized repair: the product had been exposed to rain or moisture, slipped, hit, 10 damaged or has visible overheating traces. Do not use the device after a sudden temperature change. If you are transferring the device between environments with big temperature and humidity level differences, it is possible for the steam to condense on the surface and inside of the device. In order to avoid the device's damage, please do wait for the moisture to evaporate before using the device. Do not insert any elements in the device that are not part of its original accessories!

EU-regulations and disposal

The device fulfills all needed standards for the free movement of goods within the EU. This product is an electric device and as such must be collected and dispose of according to the European directive on waste electrical and electronic equipment (WEEE) Even though you are following the user manual, the device is not working correctly. Do not expose it to heating or in a close proximity to a heating source, such as radiators, thermal accumulators, furnaces or other equipment (including amplifiers) that emit heat. Keep your device from any humidity. Never use the product in rain, in a close proximity to sinks, in other moist environment or in such with high air humidity. If the device ever gets wet, do not attempt to dry it off in a furnace or a dryer for the risk of damage is high!

Burns and fire prevention

Do not use the device if the premises' temperature goes above 40°C. Keep the highly flammable materials away from the device. Make sure free air access around the device is available.

PS Thermo is Wi-Fi programmable thermostat controller with a touch display set up to work with wireless temperature sensors. It is suitable for building and home installations, without the need of additional wiring. The built-in temperature sensor sends real-time information regarding the recorded temperature in the premise, where it is installed. Using the received data, **PS Thermo** controls the heating and/or cooling installation, maintaining the set desired temperature from the user. The innovative design of the controlling module with built-in touchscreen, temperature and humidity sensor controls wirelessly a relay module, allowing easy installation and exploitation of the device in various professional and home systems for heating and cooling. During the set's installation, the user installs **PS Thermo** according to the user manual to the desired appliance to control. The product complies with the requirements of EN 50491-3.

PS Thermo is created to work on the following environmental conditions:

- For premises' work;
- For altitude up to 2000m;
- For ambient temperature from 0°C till +45°C;
- For average maximum air humidity for temperature up to 31°C - 80%, linearly decreasing to 30% average humidity for 45°C temperature;
- For power supply deviation of $\pm 10\%$ to the measured range of power supply
- For use under the conditions of overvoltage category II;
- For environment with level 2 pollution (Pd2).

Attention! The protection against inflation and fire spreading is provided by the terminal equipment in which you would be embedding your device. Please keep all devices for remote control away from children.

Please watch the product's video installation and usage instructions on the following link: prosmartsystem.com/en



Installation guide

Step 1:

1.1. Every **PS Thermo** set includes:

- 1 pc Touchscreen control panel
- 1 pc relay module
- 1 pc power supply adapter + cable
- 1 pc user manual for installation and usage
- 1 pc mounting bracket;
- 2 pcs fasteners
- 2 pcs dowel nails

Unpack the device and take the two main elements out of the box (**Scheme 1**).



Proceed to connecting your **PS Thermo** to a desired electrical appliance.

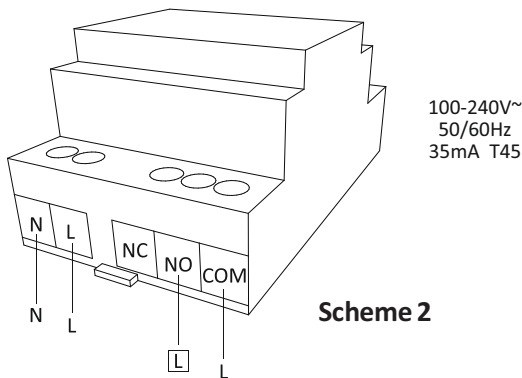
Attention! Switch off the power supply before installing **PS Thermo**. We highly recommend the installation to be performed by a qualified technician. If you do not possess the needed knowledge and qualification, please do turn to an authorised retailer!



Attention! Do not modify or influence the built in protection of the electric device in any way!

The device can be used for control of electric devices and appliances, heating systems or low-current systems that allow interruption of input fuse or are controlled by normally open/normally closed circle.

The relay module of **PS Thermo** can easily connect to every gas/pellet boiler or other heating system that has a double core connector for room thermostat. Connect the two connection points of the device you wish to control to the outputs **NO** and **COM**, that is to the relays' normally open outputs. The thermostat's installation is outlined in **Scheme 2**. The device must be installed and connected by a qualified professional.



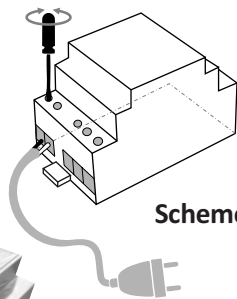
The thermostat can also be used in cooling mode. In that case, the output terminals **NO** and **COM** are closed above the set temperature. Please contact the manufacturer/distributor of the cooling equipment for the installation. The cooling mode can be chosen in section '**Settings**' from both the web page and the mobile application after '**Login**' into the system.

1.3 Installation of relay module

Connect the power supply cable to the relay module of **PS Thermo**. After that, connect it to the power supply (**Scheme 3**).

1.4 Installation possibilities

The relay module of **PS Thermo** is a product, constructed for installation in limited access zones and must be installed to the switchboard using a Eurorim (**Scheme 4**).



Scheme 4

1.5 A few requirements must always be considered and followed during installation:

- The device's installation and connection must be accomplished according to the national legislation for electrical installations.
All activities on the device's installation, uninstallation, service and repair are to be made only after it had been securely removed from the power supply (the controller itself, as well as the chain it controls through the relayed exit).
- The device is to be installed only in places with limited access with the assistance of an instrument or key and are accessible only to the service personnel or a user who has passed the initial training.
- The wiring must be completed using double insulated wires.
- Automatic circuit breakers 25 Amax 250V must be installed to the electric installation to ensure the protection against short circuits and possible overload.
- Disengagement tool must be provided for the electric installation during the device's installation and the needed safety is to be ensured for the service provided.

- All connections to the relay's outputs in the device must be conducted with conductors with an insulation resistance not lower than that of the insulated conductors of PVC T 105°C.
- The device's installation is conducted by the manufacturer's instructions and following the HD 60364-4-41 requirements, as well as the national legislation.
- Installation of the controller in a way that the terminals are positioned less than 5mm from the metal parts and the device's surface, is strictly forbidden.
- The device is installed only in a shell allowing the needed level of protection of the end product. Its installation on accessible surfaces and covers, allowing easy access without the use of any instrument, is strictly forbidden.
- The device's installation must be accomplished in such a way as to deem it impossible to accidentally activate the reset button.

Step 2: Connecting and using the touch-screen control panel with a built-in temperature and humidity sensors

2.1 **PS Thermo** is developed as a room thermostat (**Scheme 5**). As such, it should be installed in the room where the temperature is to be measured and managed. Connect carefully the device to the electrical grid, using the power supply adapter and cable included in the package.



Scheme 5



Attention! If the touch-screen of **PS Thermo** does not indicate or react adequately to your touches (commands), it has to be calibrated. In order to do this, the device should be disconnected from the power supply. Turn it on again, touch the screen and hold until the three-dot calibration menu appears. Touch three times on every position the marker indicates and keep the changes.

The following information is displayed on the main screen of **PS THERMO**:

- Measured temperature
- Thermostat menu
- RF sensor menu
- Settings
- Wi-Fi Status
- Clock

Thermostat menu

The screen displays:

- Measured temperature by the main sensor and the name of the chosen main
- The current status of the relay – red indicates your system is on, red indicates the system is off, the temperature set point and buttons to change it.
- Boost mode – switches on your system for a selected amount of time, then it goes back to its initial mode
- Off – device is off
- Manual – system works until the desired temperature set point is reached
- Schedule – follows the set schedule. Step 6.4 describes in detail how to create a schedule from the app.

Menu **RF sensor**

The screen displays the measured temperature and humidity from the additional remote sensor. The sensor can be used only for information (e.g. to measure outside temperature) or it can be used as a main controlling sensor. You can change your desired main sensor from the settings menu in the proSmart app.

Settings

Here you can find the following tools:

- **Wi-Fi** – Connect PS Thermo to the local Internet network. The three methods are:
 - **SmartConfig**: described in detail in step 3.1;
 - **Wi-Fi AP**: described in detail in step 3.2;
 - **Wi-Fi**: type in your password directly from the touchscreen
- **LED** – switch on/off the LED of the touchscreen control panel
- **Sound** – switch on/off the sound of the touchscreen control panel
- **Pair** – connect the touchscreen control panel of PS Thermo to a relay of remote sensor, described in detail is Step 2.2
- **Calibration** – Three-dots display calibration

- **Calibration** – Three-dots display calibration
- **Language** – change the language of the device
- **Brightness** – change the brightness of the display
- **Restart** – restart the device
- **Reset** – return device to its initial settings
- **Firmware** – check and download new firmware
- **Terminal** – service menu for tracking indicators of the device – signal strength, free memory, battery level, etc.
- **About** – full information about the device – serial number, firmware version, free memory, etc.

Wi-Fi status

Icon showing the status and strength of your local Wi-Fi network. Status is indicated in three colors:

Black – successfully connected to the Internet

Yellow – connected to the Internet, but there is no connection to the server

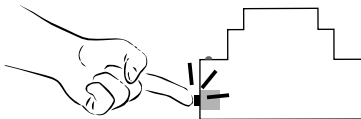
Red – not connected to the Internet

Under the display of PS Thermo is positioned LED indication, which glows in **red** when there is incoming radio signal, in **green** when there is outgoing one. When there is an incoming signal from the server the diode glows in **purple**, when the signal is outgoing to the server the light is **yellow**.

The touch-screen control panel and the relay module are paired by default. The pairing process is taking place when a relay module is replaced or additional one is added. Connect the device to the electrical grid, using the power supply cable and adapter from the product set, if you do not need to execute the pairing process move directly to **step 3**.

2.2 Pairing the **PS Touch** control panel with additional relay modules

- Install the relay block of **PS Thermo**, as described in **section 1.3**
- Enter **“Settings”** mode on the relay module by pressing and holding its button for 5 seconds. In **“Settings”** mode the diode starts blinking rapidly for 30 seconds (**Scheme 6**)



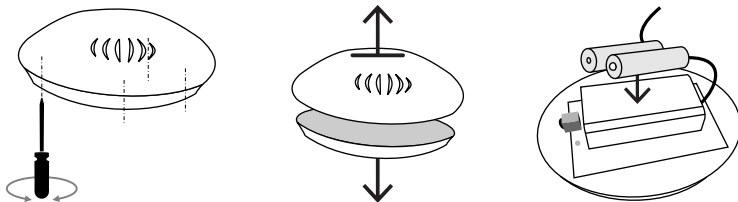
Scheme 6

Enter the settings of PS Thermo.

Go to **'Pairing'** Check the process on the device's screen and wait to see the message for successful pairing. The light indicator on the relay module should blink every second. The devices are paired successfully and ready for work.

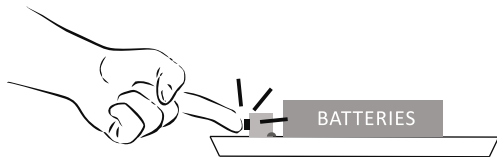
Pairing of the touchscreen control panel of PS Thermo to a wireless remote sensor.

- Unscrew the four screws from the wireless sensor and remove the bottom lid. Then, place 2xAA alkaline batteries (LR6 type) in the batteries holder (**Scheme 7**).



Scheme 7

- Press the button on the temperature sensor. (**Scheme 7**). This way the temperature sensor will enter '**Settings**' mode for 30 seconds, during this time the light indicator will blink every seconds.



Scheme 7

Enter the main settings of PS Thermo. Go to "**Pairing**" (**Scheme 8**). Check the process on the device's screen and wait to see the message for successful pairing. The light indicator of the temperature sensor will turn off after a second. The devices are paired and ready to work.

- Close the bottom lid of the temperature sensor and screw back the four screws.
- After successful pairing of the two elements, they start to work together properly.
- If the two elements do not pair successfully during the 30 seconds during which the remote sensor is in Settings mode, the temperature sensor continues to work according the previously set settings.

Step 3: Initial setting up and connection to a chosen Wi-Fi network.

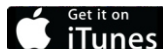
In order to use all functionalities of the device in real time, it needs to be connected to the Internet. After the installation is finished, provide a power supply to the device and **PS Thermo**. Wait 10 seconds, open the '**Settings**' menu and select '**Wi-Fi**'. **PS Thermo** offers three methods for connecting the device to the Wi-Fi.

- Through SmartConfig mode of the application
- Access Point portal created by the device
- Enter the password directly through the keypad on the touch display

3.1 SmartConfig

The device is now in **SmartConfig** mode and waits for information about the network. Connect your mobile device to the Wi-Fi that you want PS Thermo to use. **Important!!!** The Wi-Fi network must be 2.4 Ghz.

Open the **proSmart** app on your smartphone or tablet. If you still don't have it, you can download it from the **Google Play Store** or from the **Apple App Store**.



Login to your account. If this is your first Pro Smart device and you don't have an account, you can register now by loading the proSmart website: **prosmartsystem.com** or through the mobile app. Press the '+' button to add a new device. Press the button '**SmartConfig**' (Scheme 9), enter the password of the selected Wi-Fi network and press '**Search**' (Scheme 10)

proSmart + ☰

SMART CONFIG

Serial number

Add device

Serial number *

SEARCH

Scheme9

proSmart + ☰

SSID

My Wi-Fi 2.4Ghz

Password

Password *

SEARCH

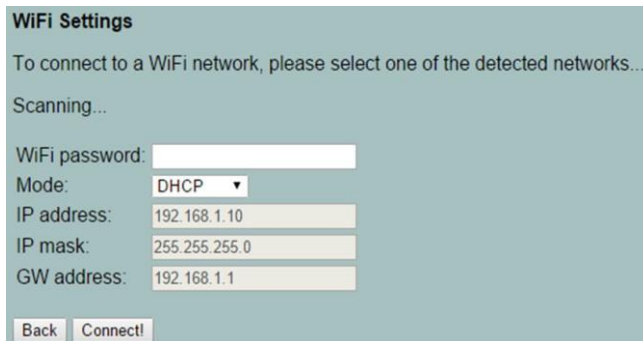
Scheme 10

Look at the screen of **PS Thermo** and save the settings for Wi-Fi network in order to successfully complete the network connection. Look at the screen of your mobile device. The app is ready to control **PS Thermo**. If you used the **SmartConfig** mode, please proceed to **Step 4**.

3.2 AP (AccessPoint)

Enter the AP mode and with your smartphone to scan the QR code from the display of **PS Thermo**. Connect your mobile device to the network that **PS Thermo** created, choose the network and enter a password. If you don't have access to a smartphone, you can complete the steps through a laptop as well.

3.2.1. Initiate a wireless network search from your smartphone or laptop and connect to the **PS Thermo's** AP (the wireless network). Every device creates a network with its own name, starting with AP TFT32_ and a combination of numbers and letters (e.g. AP TFT32_989) and it doesn't require a password.

A screenshot of a web-based WiFi settings interface. The title is "WiFi Settings". Below the title, there is a message: "To connect to a WiFi network, please select one of the detected networks...". Underneath, it says "Scanning...". There are four input fields: "WiFi password:" with an empty text box; "Mode:" with a dropdown menu showing "DHCP"; "IP address:" with a text box containing "192.168.1.10"; "IP mask:" with a text box containing "255.255.255.0"; and "GW address:" with a text box containing "192.168.1.1". At the bottom, there are two buttons: "Back" and "Connect!".

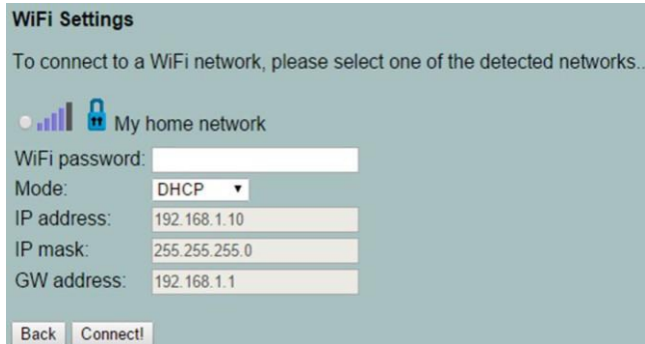
WiFi password:	<input type="text"/>
Mode:	DHCP ▼
IP address:	192.168.1.10
IP mask:	255.255.255.0
GW address:	192.168.1.1

Scheme 11

3.2.2 . After connecting, your browser will automatically open a new page giving you the chance to choose the wireless network, to which you want to connect the device (**Scheme 11**)



If your browser does not open automatically, please open it manually, as the automatic opening of the browser is a manual setting and thus it could be turned off.

3.2.3 If your mobile device does not load automatically the settings page shown in **Scheme 11**, you can do it manually. Open your browser and enter the following address:
192.168.10.1



WiFi Settings

To connect to a WiFi network, please select one of the detected networks...

  My home network

WiFi password:

Mode:

IP address:

IP mask:

GW address:

Scheme 12

3.2.4. Select the desired Wi-Fi network, enter the password and click 'Connect' (**Scheme 12**)

3.2.5. In a few seconds **PS Thermo** will go in working mode.

3.3 Enter the password directly

Select the last option for connecting to the Internet. The button 'Wi-Fi' would allow you to choose a desired Wi-Fi network and enter the password.

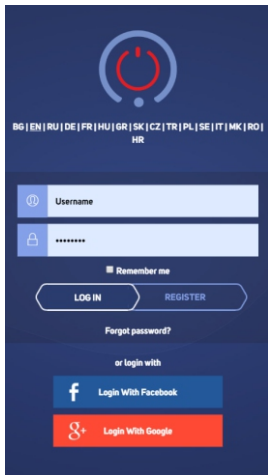
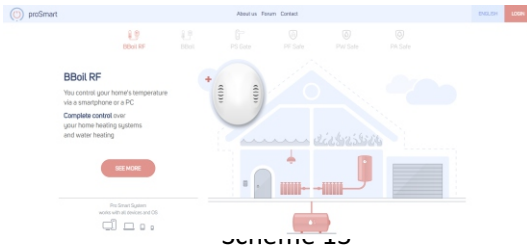
Congratulations! You have connected your device successfully and you can now add it to your account in prosmartsystem.com in order to control and monitor your device.

Step 4: User profile creation:

4.1 Once connected to the Internet, **PS Thermo** becomes invisible to the other devices in the network. The only way to connect with PS Thermo is via the user profile, associated with the particular device. If you do not have one, you can load the **proSmart's page: prosmartsystem.com/en** or download and install the **proSmart** app on your smartphone or tablet:



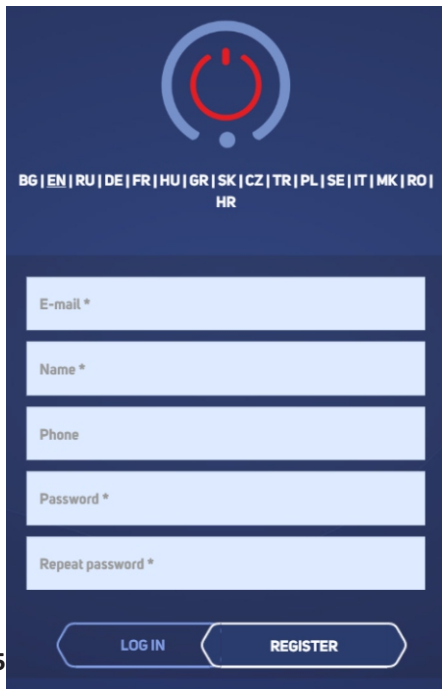
4.2 If you choose to use a browser, open **prosmartsystem.com/en** on your PC or mobile device and press the 'Login' button in the upper right corner **(Scheme 13)**



4.3 If you access the website or the app for the first me, you need to register or log in with your Facebook or Google + accounts just by clicking the particular button. **(Scheme 14).**

Scheme 14

4.4. New user registration. Fill in the registration form and click '**Register**'. You are now registered and may enter the app. (**Scheme 15**)



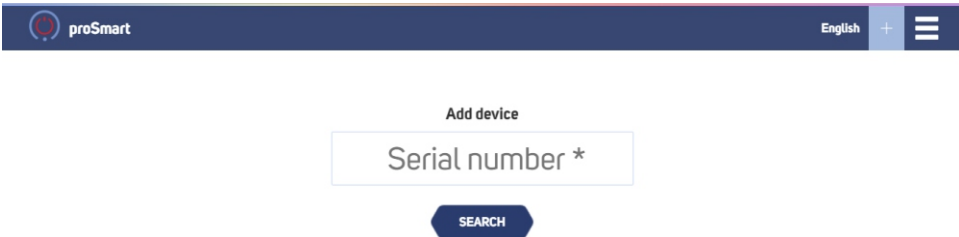
The image shows a registration form on a dark blue background. At the top center is a logo consisting of a red power button symbol inside a light blue circle. Below the logo, there is a list of country codes: BG | EN | RU | DE | FR | HU | GR | SK | CZ | TR | PL | SE | IT | MK | RO | HR. The form contains five input fields: 'E-mail *', 'Name *', 'Phone', 'Password *', and 'Repeat password *'. At the bottom, there are two buttons: 'LOG IN' and 'REGISTER'.

Scheme 15

Step 5: Adding a device

If you have used **SmartConfig** mode from step 3, please proceed to step 5.3

5.1 Home Screen —After the successful login with username and password, you should already be seeing the home screen in your profile and can add the device you have received. Enter the serial number of your **PS Thermo** device that you previously connected to the wireless network (**Scheme 16**).




The screenshot shows the 'Add device' screen in the proSmart application. At the top, there is a dark blue header with the proSmart logo on the left, the word 'English' in the center, and a plus sign and a menu icon on the right. Below the header, the text 'Add device' is centered. Underneath is a white text input field with a light blue border containing the text 'Serial number *'. Below the input field is a dark blue button with the word 'SEARCH' in white capital letters.

Scheme 16

5.2 Click **'Search'** and after successfully finding your device, the application will redirect you to the main controlling screen (**Scheme 17**).



Scheme 17

In order to set a name for you device, as well as a time zone and location, press the button  in the upper right corner and fill in the fields. **(Scheme 18)** From that window you can delete the device from your profile by clicking the 'Delete' button in the bottom right corner.



Scheme 18

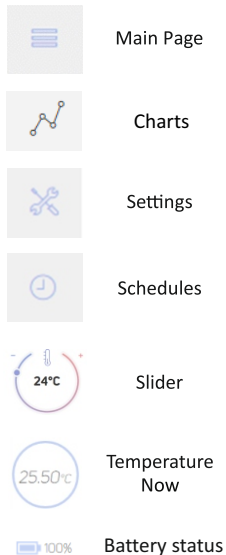
Now you can set and control your appliances.

Step 6: Control and preferences (Scheme 19)

6.1 Main screen

On the top left of the screen, you will find a blue circle that indicates the current measured temperature. To the right of it, you find a slider used for the manual setting of the desired temperature. Next, you can find a timer for the Boost mode. Upon choosing **Boost mode** the appliance is on until the desired temperature is reached and remains on for the chosen period of time. Once the time is up, **PS THERMO** automatically goes back to its previous working mode (Scheme 20). Next, you can find the three main buttons for choosing a working mode.

- **Off** - the device is not working
- **Manual** - the device is on and working until reaching the set temperature from the right slider
- **Schedule** - the device follows the set schedule



Scheme 19



Scheme 20

6.2 Data visualization

In the **'Charts'** tab you can find a graph with the temperature and humidity fluctuations registered by the device. Select a point on the curve to get more detailed information about it.



6.3 General scheme of the 'Settings'

The screenshot displays the 'Settings' interface for a 'Solar water heater' device named 'Sofia'. The interface is organized into three main sections:



- General:** Includes 'Working mode' (set to 'Thermostat'), 'Temperature accuracy' (set to '0'), and 'Emergency mode setpoint' (set to '70').
- Hysteresis /Low/:** Features a circular temperature gauge showing '4°C'. Below it, 'Ranges of low hysteresis' are defined with 'Minimal' set to '0' and 'Maximal' set to '10'.
- Hysteresis /High/:** Features a circular temperature gauge showing '1°C'. Below it, 'Ranges of upper hysteresis' are defined with 'Minimal' set to '0' and 'Maximal' set to '10'.

Navigation icons at the top include a dropdown arrow, a cloud icon, a home icon, a refresh icon, a clock icon, and a power icon. The top bar also shows the 'proSmart' logo, the language 'English', and a menu icon.

Scheme 21

In the 'Settings' page, you can find the two sliders for the Upper and Lower hysteresis. Their main purpose is to keep the set temperature with the highest possible energy savings and extending the life of the electrical appliance.

You can manually set the value range between the lower and upper hysteresis and temperature. The range depends on the functionality of the controlled device. **(Scheme 22)**

Hysteresis /Low/	Hysteresis /High/
	
Ranges of low hysteresis	Ranges of upper hysteresis
Minimal <input type="text" value="0"/>	Minimal <input type="text" value="0"/>
Maximal <input type="text" value="20"/>	Maximal <input type="text" value="10"/>

Scheme 22

In the **General menu** you can find the working modes of the relay that set which sensor to be the main controlling one:

- Onboard temperature - temperature sensor built in the touchscreen control panel
- Relay temperature - temperature sensor built in the relay module
- Remote temperature - wireless temperature sensor

Attention! If you do not possess the needed knowledge or qualification, please do not change that setting
You can choose **‘Working mode’** - **‘Heating’** or **‘Cooling’**

depending on the desired work and the controlled device or appliance. Through **‘Temperature precision’** you can set the visualization of degrees – ‘0’ or ‘0.0’. In **“Emergency mode setpoint”** fill in the temperature that you want your appliance to maintain when **PS Thermo** is switched on by pressing the hardware button. Fill in the desired temperature range in **‘Main sensor’s notification limits’**. **PS Thermo** will notify you when the room temperature is out of the chosen range. In the field **‘Temperature groups’** you can fill in the name of a group of sensors. In the field **‘Temperature sensors’** you can fill in the names of the different sensors. In the field **‘Temperature ranges’** you can set the values of the temperature slider on the main screen. (Scheme 23)

General

Working mode

Working mode

Temperature accuracy

Emergency mode setpoint

Main sensor's notification limits

Min Max

Temperature groups

Group: 1

Temperature sensors

Group: 1, Sensor 1

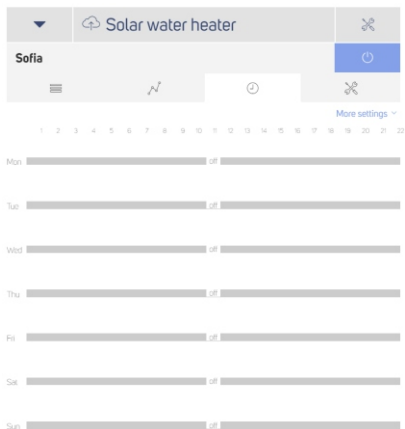
Temperature ranges

Minimal

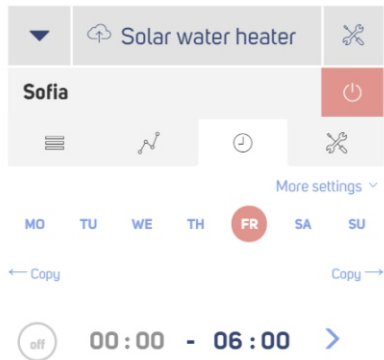
Maximal

Scheme 23

6.4 In the **'Schedule'** page, you can see a form for setting a weekly schedule for autonomous control of the connected device to **PS Thermo. Scheme 24a** shows an example of an empty schedule on a laptop's browser, and **Scheme 24b** - on a smartphone. It is possible to save individually created schedules and use them as templates for different scenarios.

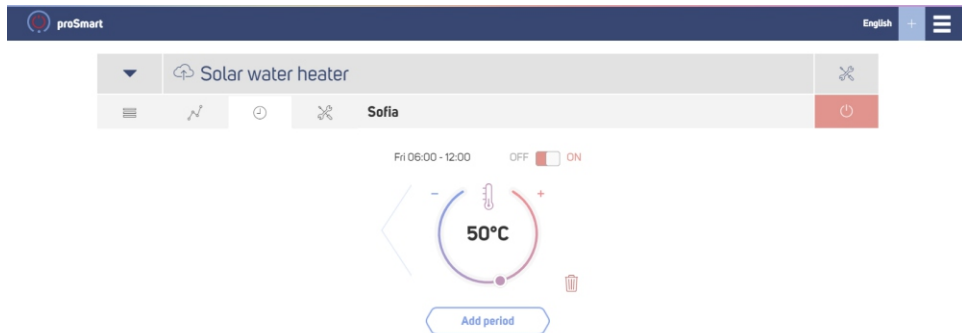


Scheme 24a



Scheme 24b

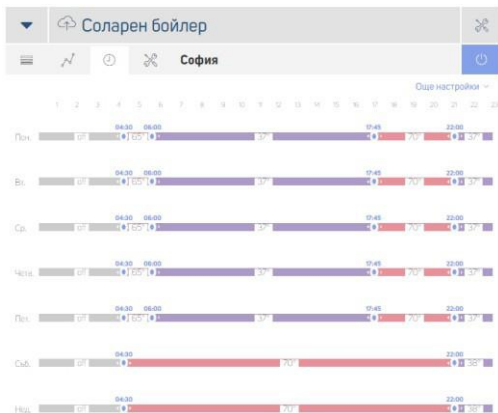
6.4.1 Press the axis on the desired day of the week. On the window that pops up, you can locate the buttons for splitting the set period – the day is split in two there is also a drop down menu for turning the chosen period on and off. When it is turned on, you see a slider for setting the desired temperature for that period.



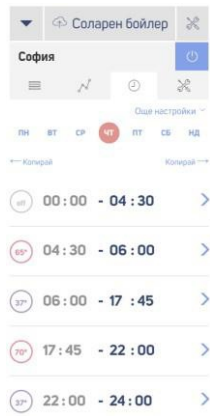
Scheme 25

To add a new period and come back to the schedule creation form, press the **'Add period'** button (Scheme 25)

6.4.2 This is an example of a weekly schedule's view on a laptop (**Scheme 26a**) and on a smartphone (**Scheme 26b**)



Scheme 26a



Scheme 26b

Important! We highly recommend to always update your browser to the latest version. The use of outdated browser versions could cause issues with the user interface's functions.

Step 7: Servicing of PS Thermo

7.1 **PS Thermo** is cleaned with a dry or slightly dampened with water towel. The use of aggressive or abrasive cleaning liquids is strictly forbidden.

7.2 The condition of the terminals, terminal connections, as well as the connection reliability of external wires needs to be checked every six months, and strengthened if needed.

Attention! **PS Thermo** is designed to work regardless of the Internet connectivity. Internet outage does not affect the work of the device. Control is established through the menu of touchscreen control panel.

Warranty

The warranty of the device is 24 months from the date of purchase. The serial number of the PS Thermo device is unique and you need to present it in the event of a problem during the warranty period. The warranty will not be recognized if any of the following events occur:

- Lost or counterfeited warranty card;
- Damages, caused from wrong installation and exploitation;
- Attempted repair from an unauthorized service provider;

Chemical, electrical or other influence on the product, which is not part of its natural usage.

- Distorted physical integrity of the device

All claims under the warranty are to be directed at the shop the device had been bought from or directly at the manufacturer Pro Smart AD.

Wi-Fi programmable thermostat PS Thermo complies to all of the following standards and regulations:

EU EMC 2014/30/EU, LVD 2014/35/EU, RED 2014/53/EU, WEEE 2012/19/EU and the RoHS 2011/65/EU. БДС EN 55022:2010 (CISPR 22:2008); БДС EN 55024:2010 (CISPR 24:2010); БДС EN 55016-2-3:2010+A1:2010 (CISPR 16-2-3:2010+A1:2010);

БДС EN 61000-4-3:2006+A1:2008+A2:2010 (IEC 61000-4-3:2006+A1:2007+A2:2010); БДС EN 61000-3-2:2014 (IEC 61000-3-2:2014); БДС EN 61000-3-3:2013 (IEC 61000-3-3:2013); БДС EN 61000-4-2:2009 (IEC 61000-4-2:2008); БДС EN 61000-4-4:2012 (IEC 61000-4-4:2012); БДС EN 61000-4-5:2014 (IEC 61000-4-5:2014); БДС EN 61000-4-6:2014 (IEC 61000-4-6:2013); БДС EN 61000-4-11:2006 (IEC 61000-4-11:2004); БДС EN 60730-1:2012; БДС EN 60730-

2-9:2010; БДС EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 (IEC 60950-1:2005+A1:2009+A2:2013); EN 60730-1:2011 (БДС EN 60730-1:2012), EN 60730-2-9:2010 (БДС EN 60730-2-9:2010); EN 50491-1:2014 (БДС EN 50491-1:2014); EN 50491-3:2009 (БДС EN 50491-3:2009)



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