

COMPUTHERM S300

Wi-Fi Thermostat

Operating instruction



COMPUTHERM S Series



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1. A GENERAL DESCRIPTION OF THE THERMOSTAT

COMPUTHERM S300 Wi-Fi thermostat is an apparatus that can be controlled by a smart phone via the Internet, and we recommend it primarily as a supplement for an existing central heating systems and other electric devices to enable remote control. When it is **ON**, the network voltage appears on the thermostat terminal, and below the maximum loadability limit of its output relay the thermostat is suitable to control any connected electric device (e.g. gas boilers, infrared heating panels, etc.). The apparatus can be easily controlled manually on the spot or by a smart phone via the Internet and its operating condition (**ON/OFF**) can be checked continuously. In addition, the apparatus enables automatic control based on the temperature and humidity. Several thermostats installed at different places can be registered into the same user account and can be controlled (even from the same smart phone). For easy handling, devices belonging to the same place of use can be arranged into separate groups (e.g. flat or

holiday home). Devices that have been put into service can be controlled by more than one smart phone with the help of „**Share**” function.

A heating system controlled by an existing thermostat and complemented with a **COMPUTHERM S300** Wi-Fi thermostat can be made remotely controllable by means of a smartphone via the Internet.

This product is especially useful when you do not use your flat or house according to a predetermined schedule, you leave your home for an uncertain period of time or you wish to control or check the heating of your holiday home remotely during the heating season.

The functions and services of the apparatus and recommendations for its use are described in detail in *Chapters 5 and 6.*

2. IMPORTANT WARNINGS AND SAFETY RECOMMENDATIONS

- Before starting to use the apparatus, please study carefully the instructions for use and follow strictly the instructions therein.
- The thermostat was designed for business or household (not industrial) use and can be used to control any electric device whose performance does not exceed 3.6 kW (loadability: 230 V AC; 50-60 Hz; 16 A).
- **When it is ON, network voltage appears on the thermostat terminal, contrary to thermostats with conventional potential free relay output.**
- Before starting to use the thermostat, make sure that the Wi-Fi network is reliably accessible at the place where you intend to use the apparatus.
- This apparatus has been designed for indoor use. Do not use it in a humid, dusty or chemically aggressive environment.

- This apparatus is a thermostat that can be controlled via a wireless Wi-Fi network. To prevent jamming, keep it away from such electric equipment which may interfere with wireless communications.
- The manufacturer will assume no responsibility for any direct or indirect damages or income losses caused by/during the use of the product.
- The apparatus will not work without power supply but in automatic mode it memorizes the settings and resumes operation without any intervention after the power supply is restored (the power outage is eliminated). In manual mode please check - and modify if required – the setting of the thermostat according to the needs and specify its position to be set after the power outage is eliminated and power supply is restored (turned on/off, last previous condition; see Point “g” in Chapter 5). If you intend to use the apparatus in an environment where

power outages occur frequently, for safety purposes we propose you to control proper operation of the thermostat regularly.

- **Before actually starting to control the device connected to the thermostat, make sure that the device is perfectly functioning when it is controlled by the thermostat and it can be operated reliably.**
- The software of the thermostat and the mobile application is constantly upgraded and updated. For proper operation please check regularly whether there is any accessible software or mobile application update in menu item „...” / „**Setting**” and always use their latest version! Due to constant updates it is possible that some functions of the apparatus and the applications operate and appear in a way other than described in these instructions for use. (The service provider will send a notification of the accessible updated software).

3. MEANINGS OF THE LED SIGNALS OF THE THERMOSTAT

The operating condition of the thermostat is indicated by one red and one blue LED light as described below:

- Normal operation of the device is indicated by a solid blue LED light.
- The device indicates tuning with the Wi-Fi network as follows:
 - the blue LED is flashing briskly or
 - the blue LED blinks three times then illuminates steadily for a short time and this process is repeated.
- When the blue LED flashes once for a short time every few seconds then the connection between the thermostat and the Wi-Fi network has not been established.
- When the blue LED flashes twice for a short time every few seconds then the connection between the thermostat and the Wi-Fi network has been

established but the connection to the central server was unsuccessful.

- When the blue LED flashes once for ~1 second every few seconds then the thermostat has been connected to the Wi-Fi network and the central server but the connection to the user account was unsuccessful.
- The ON position of the thermostat terminal is indicated by steady illumination of the red LED beside the blue LED.

4. PUTTING THE APPARATUS INTO OPERATION

4.1. Downloading and installing mobile application

The thermostat can be controlled from devices using the **Android** or **iOS** operating system by means of an application called **COMPUTHERM S Series**.

- a) Download the free **COMPUTHERM S Series** application from App Store or Google Play store to the device (e.g. smart phone or tablet) you intend to use to control the thermostat. The application is accessible through the below link and QR code:

<http://quantrax.hu/computherm-wi-fi-termosztatok/>



- b) After the application has been installed, register a user account by means of your e-mail address. During the registration process give the e-mail address you wish to use then tap the „**NEXT**” button. On the appearing page tap the „**SEND**” button and the application will send your e-mail address to the central server which will send a 4-digit validation code to the e-mail address given within a few minutes. Enter this 4-digit validation code into the line „**VERIFICATION CODE**”. Following this, give a password composed of at least 8 characters. When you are ready, click twice on the „**REGISTER**” button and enter into your user account.

Following this, the mobile application is ready for use.

4.2. Connecting the thermostat to the user account and establishing connection between the thermostat and the Wi-Fi network

The apparatus should be connected to the user account differently from devices which are using the Android or iOS operating system.

4.2.1. In case of devices using the Android operating system you can connect the thermostat to the user account and the Wi-Fi network chosen by means of the following steps:

- a) Enable the Wi-Fi connection on your device using the Android operating system.
- b) Connect the thermostat to the mains power source through the „N”, „L” and „E” connection points indicated on the apparatus in the direct vicinity of the Android-operated device and the Wi-Fi router selected then wait for ~10 seconds. The Wi-Fi network selected must have Internet access.

- c) Press and hold down the push button on the thermostat for around 5 seconds. The LED on the apparatus will blink three times then illuminates steadily for a short time and this process is repeated. Press and hold down the button again for around 5 seconds and the blue LED starts to blink briskly indicating that the apparatus is in tuning mode (should you encounter any problem during the further steps of tuning then we propose you to reset the router to the factory default and attempt tuning again. Another way to attempt tuning: press only once and hold down the button on the apparatus for a longer time and the blue LED on the apparatus blinks 3 times then illuminates steadily for a short time and this process is repeated. This blinking indicates the alternative tuning mode).
- d) On the Android device open application „**COMPUTHERM S Series**” and click on „+” at the bottom of the screen then on the „**Next**” button.
- e) In the application give the name and password of the Wi-Fi network to which

the thermostat is to be connected then click on the „**Next**” button again.

- f) Following this, the Android operated device will automatically find the thermostat in its environment and connects it to the user account and establishes connection between the thermostat and the Wi-Fi network selected.
- g) As a last step enter a name for the thermostat (e.g. daytime thermostat) so that it can be distinguished from any possible devices easily then click on the „Submit” button. Now the thermostat can be seen with the name given in the application. Then you can connect the device to be controlled to the thermostat (see Chapter 6 for detailed instructions), which becomes remotely controllable this way. **Please make sure that neither the device to be controlled nor the thermostat are connected to the mains power while the device is connected to the thermostat.**

4.2.2. In case of a device using the iOS operating system you can connect the thermostat to the user account and the Wi-Fi network

chosen by means of the following steps:

- a) Connect the thermostat to the mains power source through the „N”, „L” and „E” connection points indicated on the apparatus in the immediate vicinity of the iOS-operated device and the Wi-Fi router selected then wait for ~10 seconds. (The Wi-Fi network selected must have Internet access).
- b) On your **iOS** device open the „**COMPUTHERM S Series**” application then tap „+” at the bottom of the screen then the „**Next**” button.
- c) Pressing the „**Home**” button of the iOS device send the application to the background then enter into menu item „**Settings/Wi-Fi networks**”. Press and hold down the push button on the thermostat for around 5 seconds. The blue LED on the apparatus blinks three times then illuminates steadily for a short time and this process is repeated. Press and hold down the button again for around 5 seconds and the blue LED starts to blink briskly indicating that the apparatus is in tuning mode. At this point the „**ITEADxxxxxx**” Wi-Fi network should appear on the list of Wi-Fi networks. (Should you encounter any problem dur-

ing the further steps of tuning than we propose you to reset the router to the factory default and attempt tuning again. Another way to attempt tuning: press only once and hold down the button on the apparatus for a longer time and the blue LED on the apparatus blinks 3 times then illuminates steadily for a short time and this process is repeated. This blinking indicates the alternative tuning mode).

- d) Out of the list of Wi-Fi networks offered by the device select the network named „**ITEADxxxxxx**” and give its password: **12345678**. (If the phone does not allow connection to the ITEADxxxxxx Wi-Fi network then delete Wi-Fi connections saved at the given place because the phone tries to make connections to them automatically). Once the **iOS** device is connected to the Wi-Fi network of the thermostat, exit from the „**Settings**” menu.
- e) On your **iOS** device open again application „**COMPUTHERM S Series**” then tap the „Next” button at the bottom of the page.

- f) On the next screen give the name and password of the Wi-Fi network to which the socket is to be connected then tap the „**Next**” button again. Following this, the **iOS** device will connect the thermostat to the user account and establishes connection between the thermostat and the Wi-Fi network selected.
- g) As a last step enter a name for the thermostat (e.g. daytime thermostat) so that it can be distinguished easily from the other devices connected to the user account and acknowledge settings by tapping the button “**Added successfully!**” then „**OK**” that appears afterwards. Now the thermostat can be seen with the name given in the application. Then you can connect the device to be controlled to the thermostat (see Chapter 6 for detailed instructions), which becomes remotely controllable this way. **Please make sure that neither the device to be controlled nor the thermostat are connected to the mains power while the device is connected to the thermostat.**

5. USE OF THE THERMOSTAT AND APPLICATION, DESCRIPTION OF FUNCTIONS AND SERVICES

Once you have successfully established a connection between the thermostat and the Wi-Fi network selected (which must have the Internet access) and connected the thermostat to your user account, you can control it remotely with the help of the application.


To enable remote control, in the application log in to your user account with your user name (phone number/e-mail address) and your password. By means of the menu items that can be opened at the top of the main screen of the application you can arrange the devices into groups („**Group**”) then you can select those you wish to see together on the main screen.

The settings of the user account and the application can be modified and the application can be updated in settings (👤) menu. You can return to the main menu with the icon showing four squares (☐☐).

The Android application has a widget functionality, with which the basic func-

tionalities of the devices connected to the user account can be accessed directly from the home screen of the Android device.

The thermostat will continue its pre-set function even in the absence of the Internet access. Besides, it will continue its pre-set function after the power is restored following a mains supply failure (power outage), except if the Internet is not accessible any longer when power supply is restored.

If, for any reasons, in the future you intend to control you apparatus through another Wi-Fi network or from another user account then first you have to remove it from this account with “**Delete**” or using the icon  then put the thermostat into service again by means of the steps described in *Chapter 4*.

Attention! In the setting menu of the device the software of the thermostat can also be updated. For proper operation please check regularly whether a software update is available and always use the latest version!

The thermostat has the following functions and services:

- a) **Manual** on/off control: press the push button on the thermostat for a short time.
- b) **Manual** on/off control by means of the application: tap „**OFF**”/„**ON**” button.
- c) **Timed** on/off control at a preset point of time with the application: tap the „**Timing/Timer**” button then specify settings of the function.
- d) Timed on/off control with the help of the application after a certain period of time has elapsed: tap „**Countdown**” button then specify settings of the function.
- e) Repeated timed on/off control with the help of the application after a certain period of time has elapsed: tap „...” then „**Loop timer**” button then specify settings of the function.
- f) **Automatic** mode: tap „**Auto/Manual**” button then specify the parameter concerned (temperature or humidity) and the associated conditions (e.g. „**Higher than 22°C**” or „**Lower than 21°C**” and **ON/OFF**).

Settings can be confirmed by tapping the „**OK**” button. You can return to manual mode by tapping the „**Auto/Manual**” button again.

- g)** You can get access to settings of the device by pressing „...” then the „**Setting**” button. Here you can alter the name of the device or, in case of switching, activate the vibration of the smart phone or update the software. In addition, you can specify the position of the device to be set (turned on/off, last previous condition) once the power supply is restored (e.g. after a power outage). For proper operation please check regularly whether there is any accessible software update and always use the latest version!
- h)** You can share the device with other user accounts (e.g. those of family members/colleagues) by tapping the „**Share**” button. Sharing requires that the other party also registers a user account, enters into this account and stays online while sharing steps are carried out.
- i)** Coordinated control of several devices with function „**Scene**”: Coor-

minated control of the devices connected to your user account can be done with function „**Scene**”. You can manually control several devices simultaneously or, based on pre-set parameters, turn on/off one or more **COMPUTHERM** Wi-Fi devices that are not equipped with temperature sensor (e.g. **COMPUTHERM S200** Wi-Fi sockets) with the help of the **COMPUTHERM S300** Wi-Fi thermostat as a master device.

The „**Scene**” function is accessible from the main screen of the application by tapping icon „...” then menu item „**Scene**”. After entering into this function you can create a new switch command by tapping the „+” button at the bottom of the screen, and previous settings also appear on this screen.

The creation of the switch command is composed of four steps:

- A name should be given to the switch command (e.g. Turn on the heating or Turn off the heating)
- After tapping the „+” button located beside menu item „**When it meets**” you have to select the type of the switch command: manual start-up

- („**Tap to run**”) or control from the master device („**Master device**”).
- When „**Master device**” control is chosen, the program offers the device(s) connected to the user account (e.g. the **COMPUTHERM S300** Wi-Fi thermostat), out of which one should be chosen to be a master device. Then out of the parameters offered for control you have to choose the one (e.g. temperature) based on which you intend to control the other device (e.g. a **COMPUTHERM S200** socket). Finally, you have to give the condition belonging to the parameter (e.g. „ ≤ 21 °C” or „ ≥ 22 °C”) then tap the „**OK**” button to confirm the settings.
 - After confirming the parameters having been set, by tapping the „**+**” button located beside menu item (**Execute**) you can choose the type of switch („**ON**” or „**OFF**”) to be performed when the pre-set value is reached on the selected device(s) (e.g. a **COMPUTHERM S200** socket).
 - When manual start-up is chosen (**Tap to run**), several devices can easily be turned on/off simultaneously. This mode is especially

suitable to activate certain electric devices with the push of a single button (e.g. turning on/off lights, opening/closing motorized roller blinds) when you arrive at or leave your flat or holiday cottage.

- When controlling from a master device the thermostat will automatically execute the commands when the specified conditions are met therefore in this mode the thermostat is perfectly suited to control the central heating system (for more details please refer to Sub-chapter 6.1). Function „**Scene**” is only in operation when each of the two or more devices connected to the function have the Internet access.

The active „Scene” function overwrites the manual switch commands therefore you have to delete or modify the settings of the „Scene” function if you wish to control, either on the spot or remotely, e.g. a *COMPUTHERM S200* socket controlled by the „Scene” function from a *COMPUTHERM S300* thermostat.

6. RECOMMENDATIONS FOR THE USE OF THE THERMOSTAT

6.1. Remote control for central heating, heaters and infrared heating panels

Remote control of an existing central heating system is easily feasible if it is complemented with and controlled by a **COMPUTHERM S300** Wi-Fi thermostat. To this end all you have to do is connect the power cable of the boiler of the central heating system through the terminal of the thermostat to the electrical network (Figure 1). **However, please note that in this case domestic hot water will not be available in the OFF state of the Wi-Fi socket.**

Therefore, if you control your boiler with a **COMPUTHERM** wireless (RF) thermostat, we suggest you to connect the power supply of the receiver unit of the RF thermostat to the **COMPUTHERM S200** Wi-Fi socket instead (Figure 2), **as this way heating will be turned off in the OFF state of the Wi-Fi socket, while domestic hot water is still available.**

heating equipment (boiler)

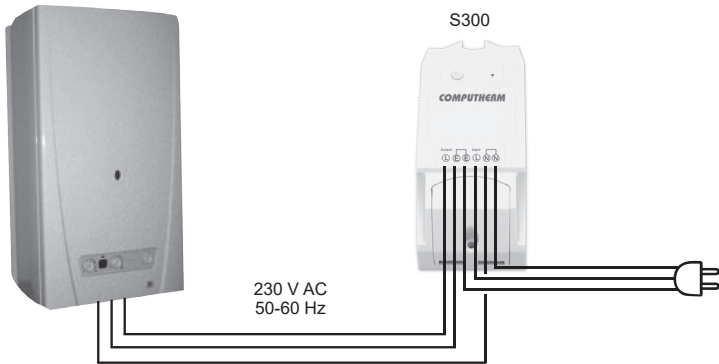


Figure 1

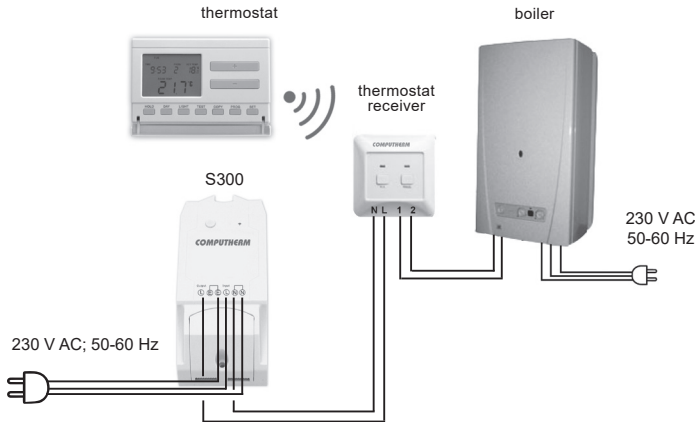


Figure 2

Then, with remote switch (**ON/OFF**) of the thermostat via the Internet, the central heating system can be controlled and switching between economy and comfort temperatures is feasible.

If the central heating system is operated in an environment where no risk of frost exists (e.g. a south-facing condominium or holiday home in commonhold) then it is sufficient to turn **OFF** the thermostat when leaving home and turn it **ON** remotely before arriving home. When it is **ON**, the central heating system will heat the flat to the temperature preset on the room thermostat in the usual way.

If the central heating system is operated in an environment where risk of frost exists we propose you to operate the **COMPUTHERM S300** thermostat in automatic mode and set an antifreeze temperature according to Sub-point „f” of **Chapter 5** to prevent risk of frost.

If the temperature sensor of the thermostat installed in the vicinity of the boiler fails to guarantee that there is no risk of frost in the entire flat then

either extend the cables thereof or use a **COMPUTHERM S200** socket and a **COMPUTHERM S300** thermostat for the control of the boiler, and with the help of the „Scene” function keep the temperature above freezing according to Sub-point „i” of **Chapter 5**.

6.2. Programmed operation and remote control for other electric devices (e.g. watering pump, refrigerator)

Below the loadability limit of the output relay, the **thermostat**, even without a temperature sensor that can be connected thereto, is able to control any electric device (e.g. a watering pump) remotely.

Connect your electric device to be controlled remotely to the 230 V network through the **COMPUTHERM S300** thermostat and turn on the main switch of the device to be remote controlled (Figure 3).

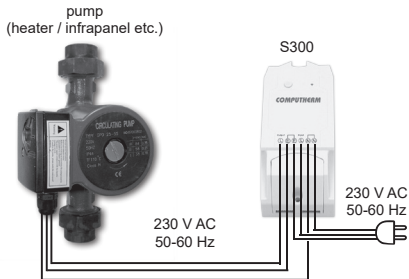


Figure 3

You can switch between automatic and manual control modes by tapping the „**Auto/Manual**” button. Choose manual control so that you can control the operation of the device connected to the thermostat remotely by turning on/off the thermostat manually.

The timed („**Timer**”/„**Timing**”) and repeated timed („**Loop timer**”) on/off controls make the device particularly suited to control e.g. a watering pump. By means of the device you can operate the pump of the irrigation system at pre-set intervals and period of time and, additionally, you can modify settings remotely (e.g. in case of high volume of rainfall or a severe draught), and you can check the operation of the system, and manual remote control of the watering pump is also feasible.

7. PRACTICAL ADVICES

Problems with the Wi-Fi connection

If you are not able to control the device through the Internet because it cannot be reached through the application, then the connection between the device and the server has been broken. This can have multiple reasons.

In most of the cases it is caused by the Wi-Fi router. It is practical to restart the routers from time to time by disconnecting them from the mains voltage for 2 minutes. In most cases the problems can be fixed by this. If the devices still cannot be controlled after a couple of seconds, then you should try to reconnect the device to the Wi-Fi network, as described in Section **4.2**. If you finished the connecting steps successfully but the device still cannot be controlled, then you should reset the router to the factory default settings, because it is possible that some settings of the router do not allow the device to connect to the internet.

You can still switch on/off the device manually even when it is not available through the internet using the button on the device.

The use of the application

The phone/tablet application is under constant development. It is advised to update it to the latest version, as the user experience is continuously enhanced and there can be new functionalities available in the new versions.

8. PRODUCT INFORMATION AND TECHNICAL DATA

Trademark: **COMPUTHERM**

Model identifier: **S300**

Temperature control class: **Class I**

Contribution to the efficiency of seasonal space heating: **1 %**

Temperature measuring range: **-20 °C – +70 °C**

Temperature measurement accuracy: **+/- 0.5 °C**

Type of the temperature sensor: **resistive (ohmic) temperature sensor**

Adjustable measuring range: **-20 °C – +70 °C**

Switch sensitivity: **+/- 1 °C (temperature); 1 % RH (humidity)**

Humidity measuring range: **0 - 100 %**

RH Humidity measurement accuracy: **+/- 2 % RH**

Adjustable humidity range: **0 - 100 % RH**

Supply voltage for the thermostat: **90-230 V AC; 50/60 Hz**

Output voltage of the thermostat: **90-230 V AC (identical with the input voltage)**

Protection against environmental impacts: IP51
Output loadability of the thermostat: 16 A (3 A inductive)
Standby power consumption: 0.1 W
Operating frequency: Wi-Fi (b/g/n) 2.4 GHz
Storage temperature: -40 °C ... +80 °C
Operating temperature: -20 °C – +70 °C
Permissible relative humidity: max. 80 % without condensation
Dimensions: 115 x 52 x 32 mm
Mass: 85 g

The **COMPUTHERM S300** type Wi-Fi thermostat complies with standards RED 2014/53/EU and RoHS 2011/65/EU.



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