

COMPUTHERM S100

Wi-Fi sensor centre



Operating instruction



COMPUTHERM S Series

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1. A GENERAL DESCRIPTION OF THE SENSOR CENTRE STATION

The **COMPUTHERM S100** Wi-Fi sensor centre is able to provide continuous information on environmental data (air temperature, humidity, noise level, luminous intensity) at the place of installation via the Internet, and, based on measured and set values, is able to control the paired **COMPUTHERM S200** socket via a Wi-Fi network.

The apparatus can easily be connected to a Wi-Fi network and paired with a **COMPUTHERM S200** device by means of a smartphone. Naturally, environmental parameters can be monitored and settings can be modified by a smartphone.

We offer the installation of the **COMPUTHERM S100** Wi-Fi sensor centre to those who wish to monitor environmental parameters at the place of installation and to control their **COMPUTHERM S200** socket based on the temperature/humidity measured in another room via wireless means. For example, with the installation of the **COMPUTHERM S100** Wi-Fi sensor centre a boiler connected to a **COMPUTHERM S200** socket in the basement of a house can be easily controlled by the temperature measured in the sitting room upstairs or freezing can be prevented without having

to lay a cable.

The functions and services of the apparatus are described in detail in Chapters 5.

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 device must be installed and connected by a qualified professional.
- Before starting to use the sensor centre, 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 sensor centre 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.

- In case of this version the Micro SD card connector located on the rear side of the product is out of service.
- The apparatus will not work without power supply but it memorizes the settings and resumes operation without any intervention after the power supply is restored (the power outage is eliminated). 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 sensor centre regularly.
- **Before starting to use the *COMPUTHERM S100* sensor centre matched with a *COMPUTHERM S200* socket, make sure that the pairing of the devices is working well and the apparatus is operating safely.**
- The software of the sensor centre 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 SENSOR CENTRE

The operating condition of the sensor centre is indicated by one green LED light as described below:

- Normal operation of the device is indicated by a solid green LED light.
- The device indicates tuning with the Wi-Fi network by blinking the green LED two times then illuminating steadily for a short time and this process is repeated.
- When the green LED flashes once for a short time every few seconds then the connection between the sensor centre and the Wi-Fi network has not been established.
- When the green LED flashes twice for a short time every few seconds then the connection between the sensor centre and the Wi-Fi network has been established but the connection to the central server was unsuccessful.
- When the green LED flashes once for ~1 second every few seconds then the sensor centre has been connected to the Wi-Fi network and the central server but the connection to the user account was unsuccessful.

4. PUTTING THE APPARATUS INTO OPERATION

4.1. Downloading and installing mobile application

The sensor centre can be reached 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 reach the sensor centre. 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 sensor centre to the user account and establishing connection between the sensor centre 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 sensor centre 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 sensor centre to the mains power through the adaptor packed with the micro USB cable 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 back of the sensor centre next to the micro USB connector for around 5 seconds. The LED on the apparatus will blink two times then illuminates steadily for a short time and this process is repeated. (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.)
- 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 sensor centre is to be connected then click on the „**Next**” button again.

- f) Following this, the Android operated device will automatically find the sensor centre in its environment and connects it to the user account and establishes connection between the sensor centre and the Wi-Fi network selected.
- g) As a last step enter a name for the sensor centre (e.g. daytime sensor) so that it can be distinguished from any possible devices easily then click on the „**Submit**” button. Now the sensor centre can be seen with the name given in the application.

4.2.2. In case of a device using the iOS operating system you can connect the sensor centre 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 iOS operating system.
- b) Connect the sensor centre to the mains power through the adaptor packed with the micro USB cable 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 back of sensor centre next to the micro USB connector for around 5 seconds. The green

LED on the apparatus blinks two times then illuminates steadily for a short time and this process is repeated. (Should you encounter any problem during the further steps of tuning than we propose you to reset the router to the factory default and attempt tuning again.)

- d) On the iOS device open application „**COMPUTHERM S Series**” and click on „+” at the bottom of the screen then on the „**Next**” button. Then choose the device on the bottom that blinks the same way as the sensor centre and tap the “**Next**” button.
- e) On the next screen give the name and password of the Wi-Fi network to which the sensor centre is to be connected then tap the „**Next**” button again.
- f) Following this, the **iOS** device will connect the sensor centre to the user account and establishes connection between the sensor centre and the Wi-Fi network selected.
- g) As a last step enter a name for the sensor centre (e.g. daytime sensor) 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 sensor centre can be seen with the name given in the application.

5. USE OF THE SENSOR CENTRE AND APPLICATION, A DESCRIPTION OF FUNCTIONS AND SERVICES

Once you have successfully established a connection between the sensor centre and the Wi-Fi network selected (which must have the Internet access) and connected the sensor centre to your user account, you can check the sensor informations freely from a distance via the mobile application.

To reach the device log into your user account in the application 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 Andoid application has a widget functionality, with which the basic functionalities of the devices connected to the user account can be accessed directly from the home screen of the Android device.

The sensor centre 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 use your 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 sensor centre into service again by means of the steps described in Chapter 4.

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

The sensor centre has the following functions and services:

- a) **Manual ON/OFF** control with the help of the switch located on the power supply cable of the apparatus.
- b) **The apparatus can be set** by pressing „...” then „**Setting**” button. Now you can change the name of the apparatus and update the software. To ensure proper operation check regularly whether any software update is available and always use the latest version!
- c) **Usage of the “Share” function**

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.

- d) **Coordinated control of several devices with function „Scene”:** Coordinated 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 S100** sensor centre 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:

1. A name should be given to the switch command (e.g. Turn on the heat-

ing or Turn off the heating)

2. 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**”).
3. When „**Master device**” control is chosen, the program offers the device(s) connected to the user account (e.g. the **COMPUTHERM S100** Wi-Fi sensor centre), 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. „ $\leq 21\text{ }^{\circ}\text{C}$ ” or „ $\geq 22\text{ }^{\circ}\text{C}$ ”) then tap the „**OK**” button to confirm the settings.
4. 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).

Attention!

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 S100** sensor centre.

6. 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.

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.

7. TECHNICAL DATA

Temperature measuring range: 0 °C – +50 °C

Temperature measurement accuracy: +/- 2 °C

Humidity measuring range: 20 - 80 % RH

Humidity measurement accuracy: +/- 5 % RH

Type of the built-in microphone: electric condenser microphone

Type of the built-in light sensor probe: GM5528 photoresistor

Type of the built-in air pollution probe: GP2Y1010AU0F optical
air pollution sensor

Supply voltage for the sensor centre: micro USB 5 V

Standby power consumption: 0.1 W (230 V; 50 Hz)

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

Protection against environmental impacts: IP22

Dimensions: 110 x 92 x 92 mm

Mass: 184 g

The **COMPUTHERM S100** type Wi-Fi sensor centre complies with standards RED 2014/53/EU and RoHS 2011/65/EU.



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