

TECH
CONTROLLERS

 **Sinum**

Your home in tune with you.



-  Heating
-  Lighting
-  Safety and quality
-  Control of roller shutters and awnings

tech-controllers.com

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Sinum mobile application

Cockpit

You will find here all the most important information about your home. You may customize the cockpit freely in order to suit your preferences by adding your favourite rooms, devices, scenes or automations.

Add your favourite rooms, devices or scenes to your home screen.

Rooms

Get instant access to the most frequently used features.

In the room view, you will find all the devices assigned to it.

Enjoy full control over the room temperature using virtual thermostats. You can also view the temperature, air pressure and air quality statistics.

Create rooms and easily add devices to them.

View room statistics and control the parameters of each of them.



Scenes and automations

Combine actions into scenes and trigger them at any time from the comfort of your armchair. Configure automations so that you do not have to worry about day-to-day home activities. The system will start them automatically at a given time.

Create complex scenes and activate them with one click. Configure automations for your convenience.

Use a simple automation configurator and let the system work for you.

Cloud access

Manage one or more homes from anywhere with **Sinum**. Grant users permissions, collect statistics, run scenes and control access. Keep an eye on everything - all you need is Internet access.

Access your home from anywhere in the world.





SINUM CENTRAL DEVICE



Sinum central device



EH-01

Sinum central device

Make your dream smart home come true with **EH-01**.

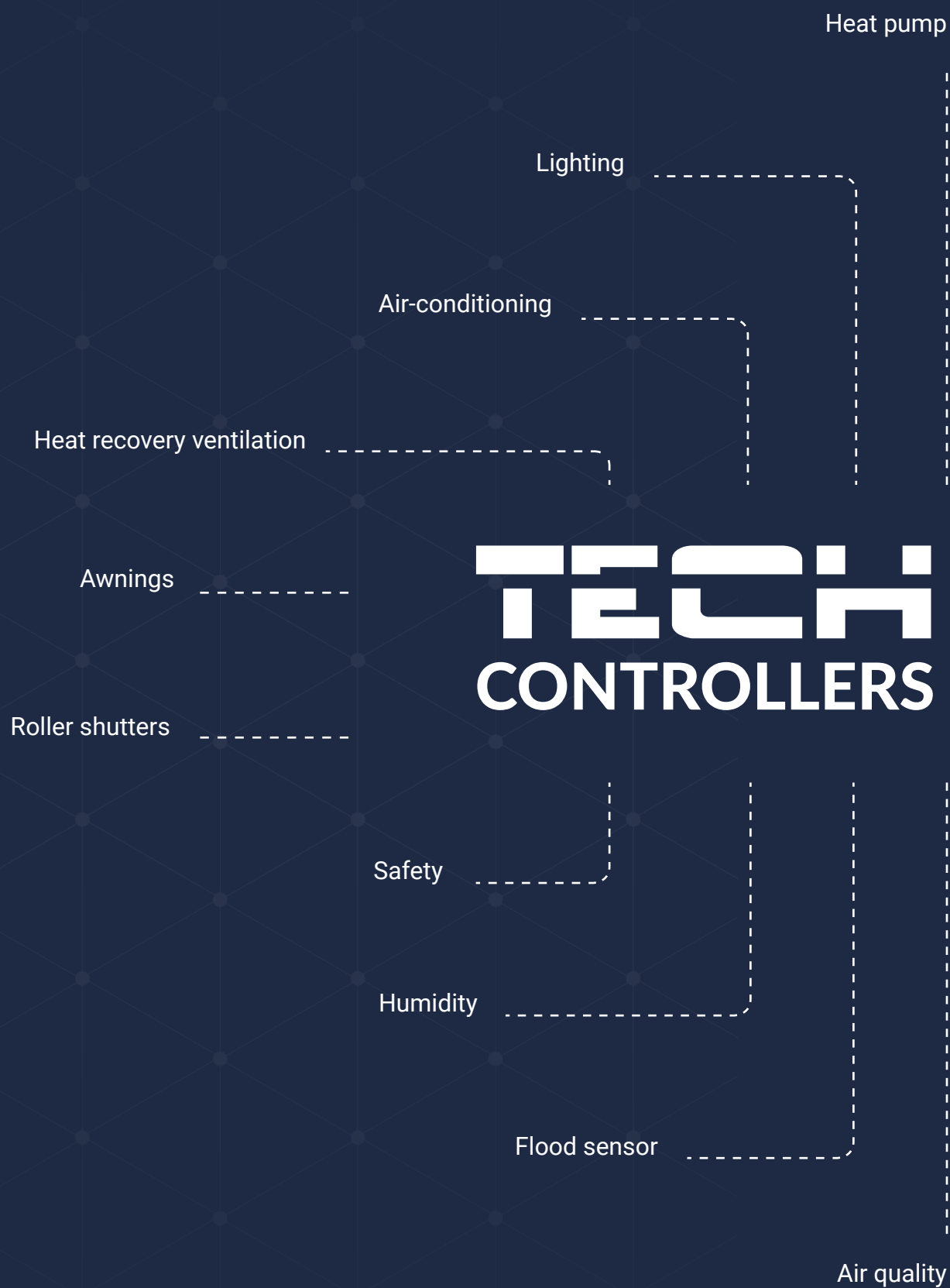
EH-01 is a device which collects and processes information from external devices and executive modules, giving you the opportunity to view and change their operating status via your **home network** or **CLOUD services**. The device also allows you to create automations involving connected devices as well as data collected from them. It is also possible to create scenes and schedules. **EH-01 cares for the comfort and safety of your entire family 24/7.**

The devices communicate wirelessly. EH-01 has 4 RS ports for connecting other devices manufactured by **TECH Controllers**, such as controllers for heating/cooling systems, heat recovery ventilation systems and heat pumps.

Thanks to the Ethernet port or WiFi connection, you can connect **EH-01** to the Internet and control your whole home from anywhere in the world via a smartphone, a tablet or a computer. In case of no Internet access, your smart home still works and watches over you as **EH-01** works in the local LAN.

EH-01 has one MODBUS RTU/TCP input for controlling external devices, one TECH SBUS input for controlling **Sinum** wired devices, two USB slots and a micro SD card slot thanks to which you can save your settings as well download device logs.

The top of **EH-01** is fitted with LEDs indicating the current operating status - thanks to that you can easily check what is happening with the device at a given time and what the network connection status is.



LED lighting

Temperature

RGB LED

Pellet boiler

 **Sinum**

Curtains

Gate

Sprinkler

Motion sensor

Smoke sensor

Opening sensor

Configure your system

DOUBLE



Integrated glass switches,
mountable in a double electrical box (60mm)

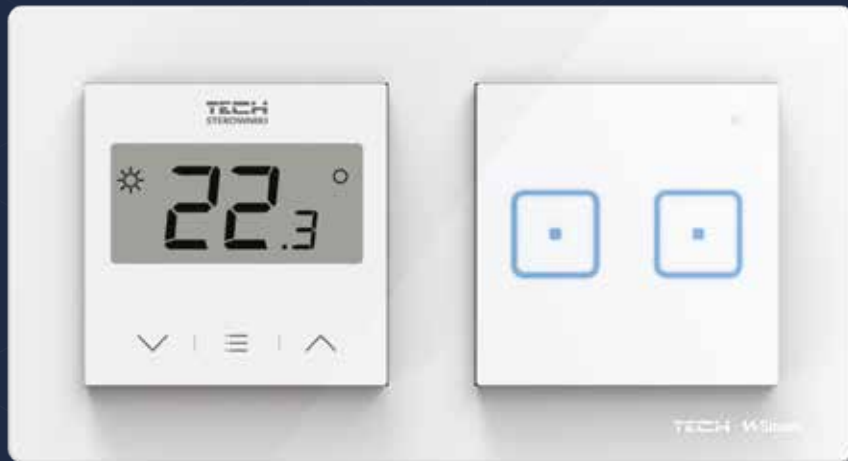
SINGLE



Glass switches mountable
in a 60mm electrical box

Sinum suited to you

FRAME



Frame-mountable devices
(mountable in a 60mm electrical box)

RELAYS



Monostable switches combined
with system relay modules

Heating

Give your family the blissful comfort of sleep, rest and fun. Save money by boosting your heating capacity by up to 20%

Do you want to set the same temperature throughout your home, or maybe increase it only in the children's room? Just a moment! What is more, if you open the windows, the system will turn off the heating and turn it on again after airing is over so as not to lose heat energy.

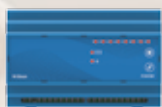
Temperature adjusted to individual needs of household members.
Ideal temperature at any time of the day and night.

Connect other heating management devices to the **Sinum** central device.

If you already have some devices manufactured by TECH Controllers, some of them can be connected to the smart **Sinum** system.



Underfloor heating
controller PS-10 230



PS-08 230
relay module



EU-F-8z frame-mountable
room regulator



STT-869
wireless radiator actuator



Heating



WSR light switch + regulator

WZR roller shutter switch + regulator

The touch switches are equipped with sensor fields. They allow you to control lighting or roller shutters via 2 built-in voltage outputs. The remaining fields are virtual fields for managing scenes and actions or other devices.

Room regulators can be connected to floor temperature sensors in order to both control the room temperature and maintain the floor temperature at a pre-set level. You can also protect the floor against overheating. The devices also have a built-in air humidity sensor.

The switch has a built-in LED which informs about the device status (ON/OFF). You can change the backlight colour and brightness in the **Sinum** application.

Communication with the **Sinum EH-01** control device is wireless (WSR-*, WZR-*) or wired (WSR-*m, WZR-*m) via the TECH SBUS. The devices are available in white and black colour.



SENSORS AND ROOM REGULATORS

temperature measurement and control

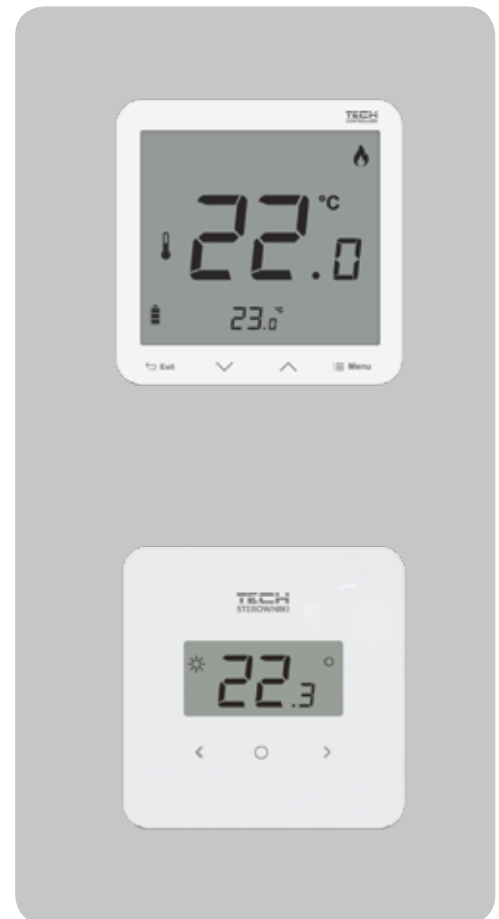
Divide your building into zones and manage temperatures according to your needs.

The multitude of devices gives you the freedom to choose between sensors and temperature regulators. Sensors may prove useful e.g. in a children's room because they do not offer the possibility of changing the room temperature.

Thanks to the use of regulators, on the other hand, you will be able to check the current temperature in a quick and easy way. If needed, you may also use them to adjust the pre-set temperature value.

Most room regulators offer the option of connecting a floor temperature sensor in order to both control the room temperature and maintain the floor temperature at a pre-set level. You can also protect the floor against overheating. The devices also have a built-in air humidity sensor.

Communication with the **Sinum EH-01** control device is wireless (selected devices) or wired (selected devices) via the TECH SBUS. The devices are available in white and black colour.



EU-F-8z, FR-S2

temperature measurement and control

The **EU-F-8z or FR-S2** room regulator may be connected to a floor temperature sensor in order to both control the room temperature and maintain the floor temperature at a pre-set level. You can also protect the floor against overheating. The device also has a built-in air humidity sensor. These parameters can be freely used in various automations created in the **Sinum** smart home system.

Communication with the **Sinum EH-01** control device is wireless (EU-F-8z) or wired (FR-S2) via the TECH SBUS. The devices are available in white and black colour.



Lighting

How can I manage lighting?

With a wall switch

Just click the touch button to turn on/off the light in your room.

Using an automation

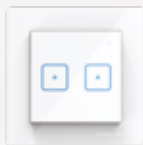
Integrate the lighting with the lowering of roller shutters, a motion sensor or other functionalities so that your home always provides maximum comfort.

Using a motion sensor

The lights will turn off when the sensor detects no movement in the room. They will turn on again when household members enter the room or start moving around the house.



CR-01
motion sensor



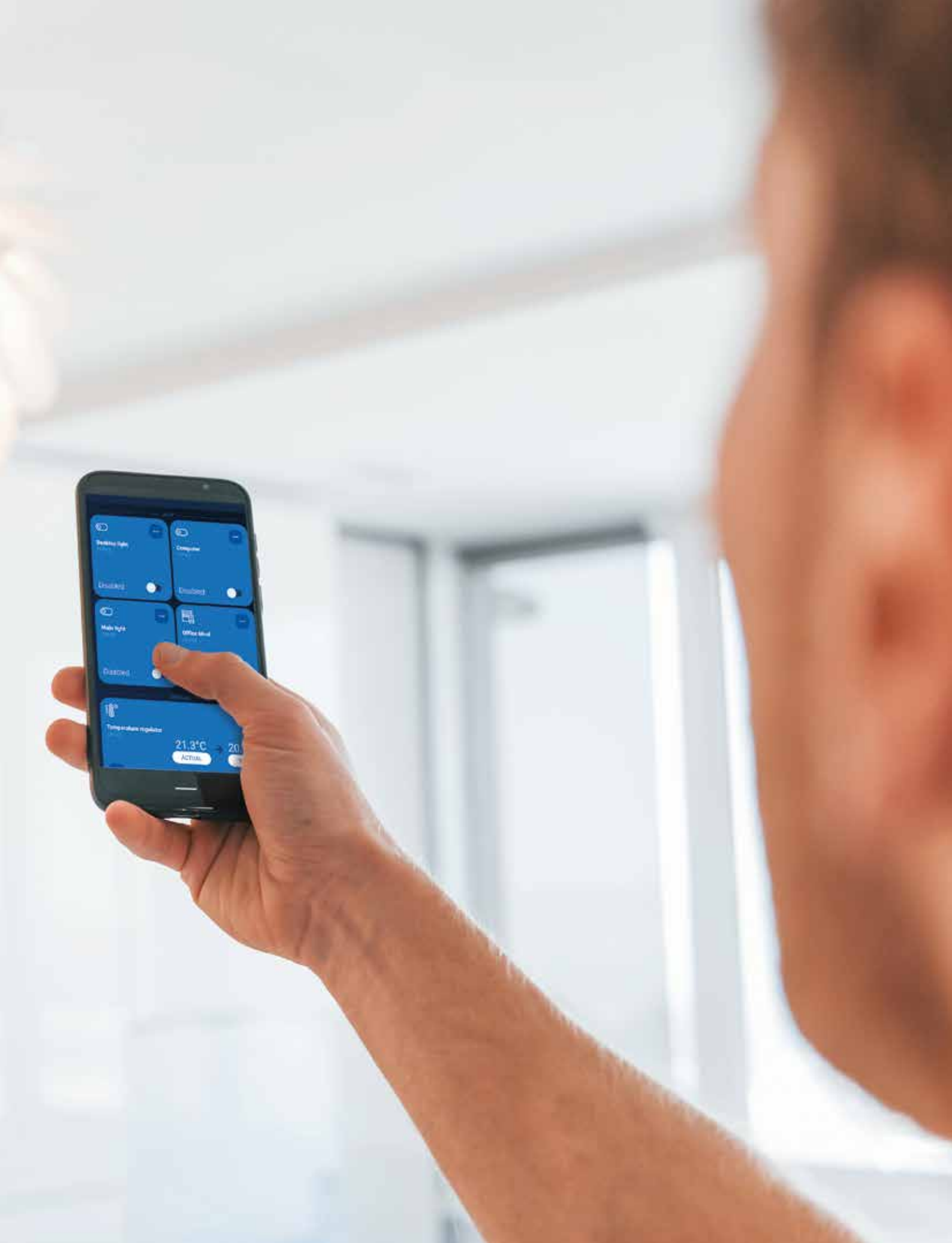
FR-02
double switch



BT-01
smart button



PPS-02
flush-mountable relay module



💡 Lighting



FS

light switch

Make your wall switches look stylish and smart. The devices from the **FRAME** series allow you to create a combination of devices tailored to your needs.

The touch switches, depending on the version, are equipped with 1 or 2 relays and sensor fields to enable remote control of lighting or other device connected to the switch.

After adding and programming the FS switch in the **Sinum EH-01** central device, it allows for remote control as well as adding scenes and actions.

The switch has a built-in LED indicating the device status (ON/OFF). The user may adjust the backlight colour and brightness using the **Sinum** application.

Communication with the **Sinum EH-01** control device is wireless (FS-01, FS-02) or wired (FS-01m, FS-02m) via the TECH SBUS. The devices are available in white and black colour.



WS

light switch

The touch switches, depending on the version, are equipped with 1-6 sensor fields to enable remote control of lighting via built-in voltage outputs (max 2) or via flush-mountable or DIN rail relay modules. Additional programmable sensor fields may be used to trigger a scene, automation or enable a device with the use of relay modules.

After adding and programming the **WS** switch in the **Sinum EH-01** central device, it allows for remote control as well as adding scenes and actions.

The switch has a built-in LED indicating the device status (ON/OFF). The user may adjust the backlight colour and brightness using the **Sinum** application.

Communication with the **Sinum EH-01** control device is wireless (WS-*) or wired (WS-*m) via the TECH SBUS. The devices are available in white and black colour.



WSS

light switches

The touch switches are equipped with sensor fields. They allow you to control lighting or roller shutters via 2 built-in voltage outputs. The remaining fields are virtual fields for managing scenes and actions or other devices.

Room regulators can be connected to floor temperature sensors in order to both control the room temperature and maintain the floor temperature at a pre-set level. You can also protect the floor against overheating. The devices also have a built-in air humidity sensor.

The switch has a built-in LED which informs about the device status (ON/OFF). You can adjust the backlight colour and brightness in the **Sinum** application.

Communication with the **Sinum EH-01** control device is wireless (WSS-*) or wired (WSS-*m) via the TECH SBUS. The devices are available in white and black colour.





Roller shutters

Let yourself be helped out all year round.

All roller shutters with one button

Raise and lower all the roller shutters in your house when you wake up or when it is getting dark outside.

In particular rooms

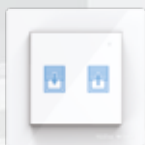
Control the roller shutters in particular rooms and adjust their work to your family daily routine.

When you are at work or on holiday

While you are away, the roller shutters will mimic your presence by opening and closing at certain times.



CR-01
motion sensor



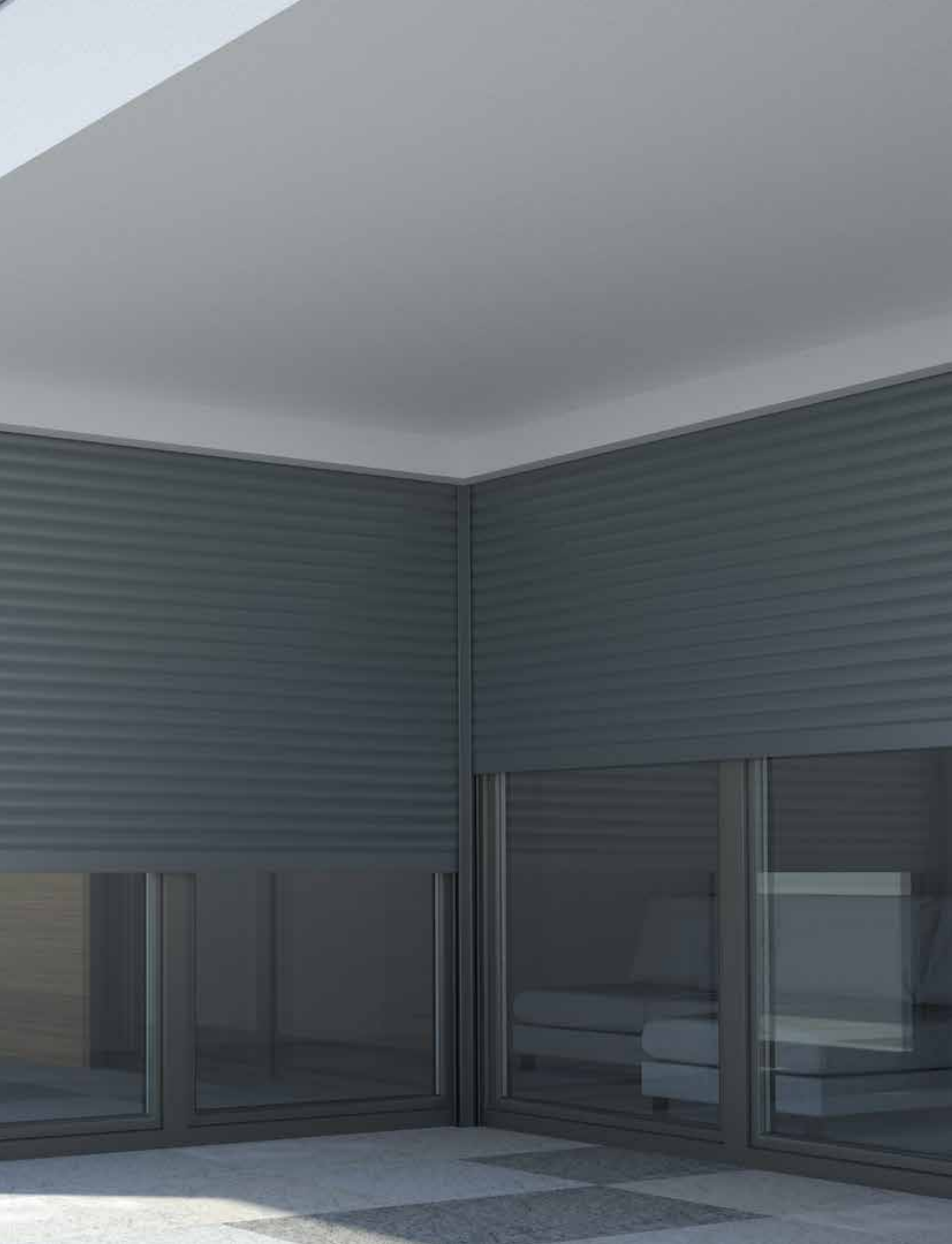
FZ-02
roller shutter switch



PSZ-02
double relay module



PPZ-02
flush-mountable relay module



Roller shutters



FZ

roller shutter switch

Make your wall switches look stylish and smart. Replace your old switches with the ones from the **FRAME** series in order to control the roller shutters connected to your **Sinum** smart home system. The series allows you to create a combination of devices tailored to your needs.

The touch switches are equipped with 2 relays and sensor fields to enable remote control of the roller shutters connected to the switch.

After adding and programming the **FS-02** switch in the **EH-01** central device, it allows for remote control as well as adding scenes and actions.

The switch has a built-in LED indicating the device status (ON/OFF). The user may adjust the backlight colour and brightness using the **Sinum** application.

Communication with the **Sinum EH-01** control device is wireless (FZ-02) or wired (FZ-02m) via the TECH SBUS. The devices are available in white and black colour.



WZ

roller shutter switch

The **SINGLE** series glass switches allow you to control the roller shutters connected to your **Sinum** smart home system.

The touch switches are equipped with 2 sensor fields to enable remote control of the roller shutters with the use of built-in voltage outputs.

After adding and programming the **WZ** switch in the **EH-01** central device, it allows for remote control as well as adding scenes and actions.

The switch has a built-in LED indicating the device status (ON/OFF). The user may adjust the backlight colour and brightness using the **Sinum** application.

Communication with the **Sinum EH-01** control device is wireless (WZ-02) or wired (WZ-02m) via the TECH SBUS. The devices are available in white and black colour.



WSZ

roller shutter switch

The touch switches are equipped with sensor fields. They allow you to control lighting or roller shutters via 2 built-in voltage outputs. The remaining fields are virtual fields for managing scenes and actions or other devices.

Room regulators can be connected to floor temperature sensors in order to both control the room temperature and maintain the floor temperature at a pre-set level. You can also protect the floor against overheating. The devices also have a built-in air humidity sensor.

The switch has a built-in LED which informs about the device status (ON/OFF). You can adjust the backlight colour and brightness in the **Sinum** application.

Communication with the **Sinum EH-01** control device is wireless (WSZ-*) or wired (WSZ-*m) via the TECH SBUS. The devices are available in white and black colour.



≡ Safety

What functions are at my disposal?

Smoke-free air

When smoke is detected in the house, the system will automatically raise the roller shutters and turn off heat recovery ventilation.

Protection against flooding

In case of flooding, the sensor will send a signal and the relay will close the electric water valve. Thanks to this, you can avoid flooding, mess and costs related to removing the effects of a breakdown.

One configuration to let you gain peace of mind

Secure your house and make your family safe while you are sleeping, working or relaxing on holiday. While you are away, the roller shutters will mimic your presence by opening and closing at certain times.



CR-01
motion sensor



CZ-01
flood sensor



CJP-01
air quality sensor



CD-01
smoke sensor





CR-01

motion, light, temperature and humidity sensor

The **CR-01** motion sensor is a device which enables the user to control motion, light intensity, temperature and the air humidity level in the room. Each of these parameters can be used while creating scenes and automations. Use the motion sensor for switching on the light and the light sensor for controlling outdoor lighting or roller shutters. The temperature sensor will help maintain ideal temperature in a given room.

The device communicates with the **EH-01** central device wirelessly. As it is battery-powered, the device installation is simple and non-invasive.



CZ-01

flood sensor

Protect your home against flooding with a **CZ-01** flood sensor. The sensor is placed on the floor and in the event of flooding it sends a signal to the main module. You can put it directly on the surface as well as use the **CZS-01** probe to detect room flooding. A flooding signal may be programmed to trigger an automation which will cause the water valve to close, preventing your house from further damage.

The device communicates with the **EH-01** central device wirelessly.



CJP-01

air quality sensor

The device monitors the concentration of particulate matter contained in the air in the room where it is located.

When the critical values are exceeded, it sends information. The large color display shows the air parameters on an ongoing basis. In addition, it displays the current temperature and air humidity from the sensor included in the set. Ensure the right air quality by combining the CJP-01 sensor with recuperation system using the **Sinum** EH-01 control unit.

Communication with the **Sinum** EH-01 control device is wireless.



CD-01

smoke sensor

Feel safe with a **CD-01** smoke sensor. The device is equipped with a sensor that enables early detection of smoke. Detecting smoke may be programmed to trigger the siren informing your about the danger.

The device communicates with the **EH-01** central device wirelessly.



Accessories and additional devices



Complementary devices

In order for the light or the heating system to be switched on/off, additional devices are necessary to perform these actions. This group includes actuators and executive modules mounted in electrical boxes and on DIN rails.

Accessories

In order for the heating to turn off while you airing out your house, you need a window sensor. The button will allow you to control selected devices from anywhere in your home.



C-2n
opening sensor



PS-08 230V
relay module



BT-01
button



Floor and radiator
actuators





CP-04m

wired control panel

The **CP-04m** control panel serves as a multi-tasking device. Thanks to it, we can display the current weather forecast, check the temperature in the room where it is installed (possibility to connect an air temperature sensor and a floor temperature sensor), and set shortcuts for favorite scenes. The panel can also function as a switch (using any relay installed in the Sinum system). The panel therefore serves as a weather forecaster, temperature controller, information panel and switch. All this is controlled from a 4-inch color touch display that can display up to 5 screens and a shortcut screen.

Communication with the **Sinum EH-01** control panel is wired via the TECH SBUS bus. The device is available in black colour.



Weather screen

Current weather forecast with the current air temperature displayed, taken from the weather service or any temperature sensor from the Sinum system.



Temperature controller screen

Current room temperature and floor temperature. Possibility to change the set temperature parameters.

Sensor screen

Ability to display parameters of any sensors installed in the Sinum system. Current preview of parameters without the possibility of changes.



Screen of scenes and switches

Possibility to run selected scenes and turn devices on and off from the control panel. CP-04m can replace traditional switches.

Accessories and additional devices

KW

input card

Extension of the **Sinum** system with additional inputs, such as 2 state inputs, voltage-free contacts, inputs for NTC sensors, 0-10V outputs.

Communication with the **Sinum EH-01** control device is done by wire via TECH SBUS.



RC-07

wireless remote control

The **RC-07** wireless remote control is a device that, when connected to the **Sinum** control device, can be programmed to perform any scenes, e.g. opening or closing all roller shutters, or opening or closing the gate.

You can also use it to control devices communicating over the HTTP protocol, turn on your favorite music, make, change its volume. There are 7 programmable buttons.

The device communicates with the **Sinum EH-01** central device wirelessly.



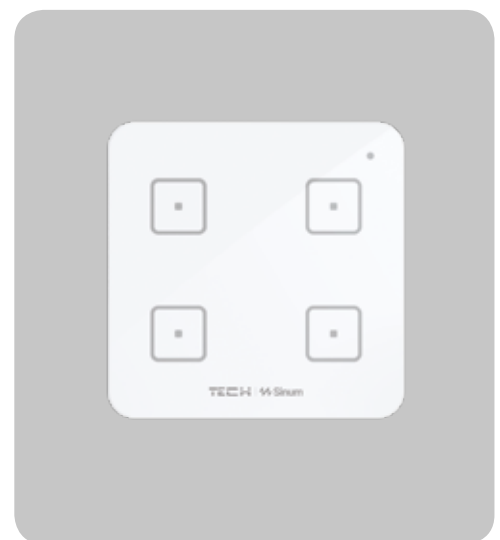
WP-04

programmable switch

The **WP-04** quadruple programmable switch is a wall-mountable device. It is equipped with four touch sensor fields, each of which may be programmed to operate another device, e.g. for switching the lights on/off or triggering a particular scene.

For users' convenience, the device is equipped with a mounting hook which can be attached to a 60mm electrical box or directly to the wall.

The device communicates with the **Sinum EH-01** central device wirelessly. The device is available in white and black colour.



Accessories and additional devices

BT-01

button

The **BT-01** wireless button may be used e.g. for turning off all the lights in the house when you leave or when you go to sleep. A pre-set number of presses allows you to trigger a particular scene or automation. It can serve to turn the lights on or off, control roller shutters or any device or group of devices connected to the **Sinum** system.

The **BT-01** button is a wireless device which can be used anywhere in your house.



EU-C-2n

opening sensor

The **EU-C-2n** wireless opening sensor is a device which informs the system if a given window is open. This information may be used for heating control - turning off the heating while airing out the rooms. The sensor may be installed both on a window and on the door and it may be used in automations or scenes.

The device communicates with the **EH-01** central device wirelessly. The device is available in 4 colours: white, golden oak, anthracite and brown.



EX

extender

Thanks to the extender, you can extend the operating range of a wireless or wired system (depending on the device version). The extenders are available in two versions. One type (EX-01, EX-G1, EX-S1) connects to wireless **Sinum** system devices, the other (EX-S1m, EX-MODBUS) with wired devices, and via WiFi or LAN transmits data to the **Sinum EH-01** control device. Difference between each device is available in marketing materials.



Accessories and additional devices

MC

multi-sensor

The **MC-01** multisensor is a device that combines many functions. The sensor measures such parameters as:

- concentration of volatile organic particles
- air temperature
- air humidity
- atmospheric pressure

The **MC-02** multi-sensor is a device which combines many functions. It is a room regulator which may also measure and display such parameters as:

- CO₂ concentration
- atmospheric pressure
- current temperature
- current humidity
- air quality

The device communicates with the **Sinum EH-01** central device wirelessly.



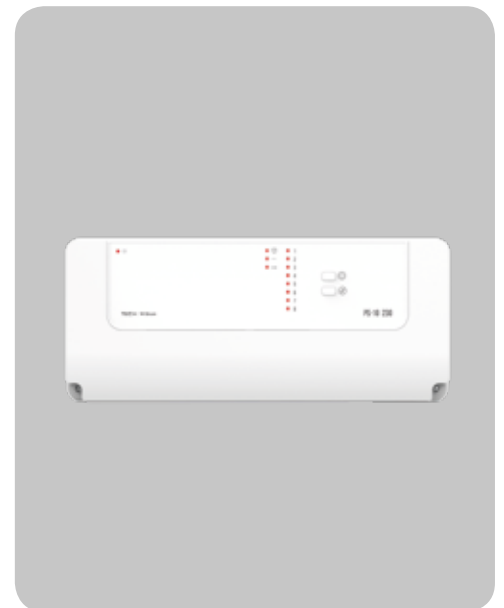
PS-10 230, PS-10m 230

thermostatic valve controller

SINUM dedicated controller for thermostatic valves for underfloor heating. It combines the simplicity and security of connection with the unlimited possibilities of the system. It has 8 voltage outputs to support up to 50 thermostatic actuators, 1 dedicated voltage output dedicated as pump and 1 voltage-free contact. Both are additionally equipped with 2x 2-state inputs.

Each output is programmable separately, so they can be used both for the operation of underfloor heating actuators and assigned to operate circulation pumps, and in the case of a voltage-free signal as a signal to the heating device.

Communication with the **Sinum EH-01** control device is wireless (PS-10 230) or wired (PS-10m 230) via the TECH SBUS.



Accessories and additional devices

EHI-2

mixing valves module

The **EHI-2** mixing valve module allows you to extend the **Sinum** system to support 2 mixing valves.

The controller has voltage outputs to operate 2 mixing valves (open/close), 2 pumps dedicated to valves and 1 additional pump. In addition, it has a voltage-free contact and the ability to connect an RS regulator or two 2-state regulators. The device can also work independently without being connected to the **Sinum** control device.

Communication with the **Sinum EH-01** control device is done by wire via the TECH RS bus.



PPS, PPZ, PS

relays

Relays are executive devices. We have two types of relays on offer: **PPS-02** and **PPZ-02** relays mountable in a 60mm electrical box or **PS-02, PS-08, PS-08 230V, PSZ-02, PS-06m and PS-08m 230** relays mountable on a DIN rail. The range of executive devices includes relays for controlling the light, the heating or other electrical equipment as well as relays for controlling roller shutters.

The **PPS-02, PPZ-02, PS-02** and **PSZ-02** relays can cooperate with monostable switches, thanks to which you can use a switch from any series and also enjoy application-based control.

Communication with the **Sinum EH-01** control device is wireless (PPS-02, PPZ-02, PS-08, PS-08 230V, PSZ-02) or wired (PS-06m, PS-08m 230) via the TECH SBUS. The devices are available in white and black colour.



MB-04m

gate module

The **MB-04m** gate module is a device equipped with two voltage-free relays that allow you to control the operation of the gate motor. It is intended for mounting on a DIN rail. Connection with the **Sinum** central device is wired via the TECH SBUS bus.



Accessories and additional devices

STT-230

underfloor heating actuators

The smart home system allows you to control your underfloor heating. For controlling the heating system, apart from the device which will provide temperature readings, you will also need to use an appropriate actuator. We offer four types of actuators for underfloor heating:

- **STT-230/2**,
- **STT-230/2T**,
- **STT-230/2M**.

All of them are NC actuators (closed without current).

The underfloor heating actuators are powered by 230V and they can be directly connected to the **PS-10 230** or **PS-10m 230** module. The maximum number of actuators per one relay output is 5.



STT-869, G-X

radiator actuators

The smart home system also allows you to control radiators. For controlling the heating, apart from the device which will provide temperature readings, you will also need to use an appropriate actuator. The **STT-869** or **GX** actuators may be used for controlling radiator valves.

The radiator actuators are battery-powered, which makes the installation completely non-invasive - it only involves screwing the actuator onto the radiator valve. The set includes adapters for the **RA-N** and **RTD-N** valves.

The actuator is equipped with a motor which makes it possible to stop in any position. As a result, the user may define the minimum and maximum valve opening as well as control the valve on the basis of the **SIGMA** algorithm.

Radiator heating zones may be successfully expanded to include the **EU-C-2n** opening sensors to make sure that the radiators are turned off when the windows are open.

The radiator actuator communicates wirelessly with the **Sinum EH-01** central device.



Accessories and additional devices

DIM

LED DIMMER

DIM-P4, DIM-P4m, DIM-S5, DIM-S5m LED light dimmers enable smooth change of the light intensity of LED strips in the range from 0 to 100% of the total lighting power. They support 4 LED strips (DIM-P4, DIM-P4m) or 5 strips (DIM-S5, DIM-S5m) simultaneously. Possible choice of light color in the range of 3000°K - 6000°K (from cold through neutral to warm). All this depending on the selected scene, automation or manually.

The module is powered by 12-24V DC. The load of each channel is 3A.

Communication with the **Sinum EH-01** control device is wireless (DP-04 and DS-05) or wired (DP-04m and DS-05m) via the TECH SBUS protocol.



RGB

RGBW module

RGB modules are used to power and control the operation of RGB LED strips. Thanks to the use of the module, you will be able to manage both the color and intensity of light, as well as the temperature. All this depending on the selected scene, automation or manually.

The module is powered by 12-24V DC. The load of each channel is 3A.

Communication with the **Sinum EH-01** control panel is wireless (RGB-P4 and RGB-S5) or wired (RGB-S4m and RGB-S5m) via the TECH SBUS protocol.



Accessories and additional devices

EU-MW

executive module

Thanks to plug-in executive modules, you will be able to run devices powered by 230V (**EU-MW-1 230**) or feed signals to main devices, e.g. system controllers or heating device controllers (**EU-MW-1**).

The device communicates with the **EH-01** central device wirelessly.

It is intended to be plugged into a 230V socket.



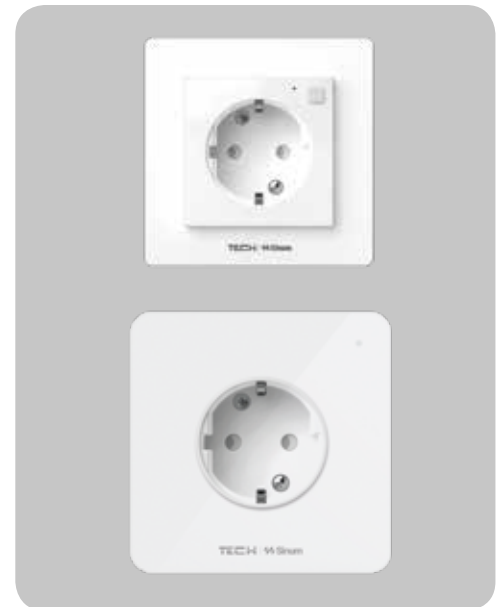
FF-230, SG-230

socket

The socket is an executive device to be mounted directly in a electric box (**SG-230**) or in a frame (**FF-230**).

We can remotely turn on and off devices connected directly to the socket.

Communication with the **Sinum EH-01** control device is wireless.



Glass frames



FG-01



FG-02



FG-03



FG-04

FG-01, FG-02, FG-03, FG-04

glass frames

Glass frames to be used with switches and regulators from the **FRAME** series. The following versions of frames are available: **FG-01, FG-02, FG-03, FG-04**. They enable the user to install the devices in standard $\varnothing$ 60mm electrical boxes and system spacing, both horizontally and vertically.

Opening dimensions: 55mm x 55mm. Frames are also available in white or black color.

Communication protocols



TECH SBUS

TECH CONTROLLERS COMMUNICATION PROTOCOL

The **TECH SBUS** encrypted communication protocol enables connection of wired devices of the **Sinum** system to the central device. It allows you to expand the functionality of the whole system with additional modules and devices. Connecting other devices makes it possible to use them in scenes and automations in order to take full advantage of the **Sinum** system.



TECH RS

TECH CONTROLLERS COMMUNICATION PROTOCOL

The **TECH RS** communication protocol allows up to 4 **TECH Controllers** devices to be connected to the **Sinum** central device. These are such devices as underfloor heating controllers, heat recovery ventilation units, heat pumps or pellet boilers. Thanks to the integration, all settings and parameters may be found in one place, available for user control. Additionally, they can be used together with other devices to create scenes and automations. Compatible devices just need to be plugged into the **Sinum** central device and they are ready to be used.



MODBUS RTU/TCP

OPEN COMMUNICATION PROTOCOL

It is an open Client-Server protocol which enables control of devices. Thanks to **MODBUS RTU/TCP RS-485 input** in the **Sinum** central device, you can control any device connected to it. All you need to know to be able to control a device via the **Sinum** central device are the right addresses and codes provided by the device manufacturer. You can display and adjust the parameters of the devices, and thanks to automations and scenes you can use them together with other devices.



HTTP

OPEN COMMUNICATION PROTOCOL

It is an **HTTP-based** communication protocol. More and more devices offer the option of remote control via the Internet. If the device manufacturer provides **HTTP API**, the device may be integrated into the **Sinum** system, enabling remote control and access to the device parameters. Additionally, by using automations and scenes, you can coordinate their operation with other devices connected to the **Sinum** central device.



MQTT

OPEN COMMUNICATION PROTOCOL

A protocol for communicating with devices that do not require high bandwidth. This protocol is based on the transfer of messages between clients via a central server-broker. Through appropriate queries, the **Sinum** system can communicate with devices using this data transmission protocol.

Custom device



Create and manage as you like

Add a new device and control it easily by creating your own tile. Create and control your own audio player. Add a smart socket and manage it through the **Sinum** system!

A **custom device** allows you to create and combine the functions of different devices. We have an impact on the appearance, displayed content, we can also control individual functions of the new device.

Integration

Better together

Thanks to the use of open communication protocols and cooperation with leading companies in the heating and installation industry, the **Sinum** system enables communication and control with devices such as heat pumps (Modbus RTU/TCP), recuperators (Modbus RTU/TCP), air conditioners (Modbus RTU/TCP).



Previo reception system

Thanks to the **Sinum** system, we are able to integrate with the **Previo** reception system. Now you can manage rooms automatically. The heating in the room will turn on for the duration of the reservation and automatically switch to energy saving mode when you leave the room. Managing a hotel or guesthouse has never been so easy.

Integration with inverters and energy meters

Thanks to integration with inverters and energy meters, the **Sinum** system enables effective monitoring and display of data on electricity production. System integration allows users to continuously track and optimize the performance of their photovoltaic system. We integrate, among others: with: SolaxX1, SolaxX3, Sofar Solar, SolarEdgeMultiple, GoodWeMtSmt, GoodWeSdtMsDnsXs, HuaweiSUN200, Soli, EastonSDM630.

Additionally, thanks to the use of API and communication protocols, we can integrate many more devices with **Sinum**, including: Philips hue (HTTP API), Govee LED (HTTP API), Yamaha HiFi MusicCast (HTTP API), Volumio and many others.

Thanks to the **Sinum** system, all these devices can be managed in one place from one application.



Energy management

The growing popularity of renewable energy sources (RES), such as photovoltaic panels or heat pumps, makes it necessary to optimize the way energy is used in buildings. In response to these challenges, innovative solutions are appearing on the market, such as **HEMS** (Home Energy Management System), i.e. a home energy management system, and **EMS** (Energy Management System), which aims to effectively manage the entire range of energy.

What is HEMS?

HEMS - Home Energy Management System is a set of technologies and solutions aimed at optimizing energy consumption in households. HEMS allows you to monitor, control and automate various devices and systems in your home to increase energy efficiency. Examples of HEMS activities include harmonizing the operation of heating, ventilation and air conditioning systems, lighting management, monitoring energy consumption and, in some cases, integration with renewable energy systems, such as solar panels or wind micro-installations.



What is EMS?

EMS - Energy Management System focuses primarily on managing energy obtained from photovoltaic panels and regulating the flow of electricity between the installation, energy storage and current demand. This system can also work in coordination with the power grid, allowing excess energy to be fed back into the grid.



Energy management in Sinum

The **Sinum** system enables the integration and control of devices responsible for the production and consumption of electricity in the building, thanks to which it can monitor current needs and select the most economical solutions for its consumption. Thanks to the system, we can use the energy produced by photovoltaic systems and, during periods of overproduction, accumulate it in batteries and DHW tanks or through a heating device in heating or cooling systems.



What are the benefits of HEMS and EMS systems?

The **Sinum** system as a **HEMS/EMS** system brings numerous advantages, contributing to energy savings and increasing energy efficiency. Thanks to this solution, it becomes possible, among others:

- Optimizing energy consumption through continuous monitoring and ongoing management of its use.
- Effective management of the operation of photovoltaic installations and effective use of energy from renewable sources.
- Increasing the comfort and convenience of using buildings thanks to the automation of processes such as temperature regulation or lighting control.
- Reducing energy costs through better optimization of energy consumption and the use of available renewable sources.
- Reducing greenhouse gas emissions and supporting sustainable development through the active use of renewable energy.



Example application

The world of automation

Connect devices and coordinate their operation. Thanks to automations, the **Sinum** system may turn your devices on and off, send failure notifications and also take care of safety. All this in one place!

Data at your fingertips

Thanks to the **Sinum** system, you may access and adjust many parameters provided by your device. The data, in turn, allow you to tailor the system operation to your needs. Find out how simple it is - imagination is your only limit!



CR-01
motion sensor



PS-08 230V
relay module



BT-01
button



PPS-02
relay

Entrance gate control



Using the programmable **BT-01** or **RC-07** button and the **MB-04m** relay, you can control the opening and closing of the entrance gate, garage gate or gate. Just connect these devices to the **Sinum** control panel and assign the appropriate automations.

Protection against flooding



The **CZ-01** flood sensor together with the **PPS-02** or **PS-02** relays enable you to control the electric valve installed on the water supply pipe. After setting up an automation, the system will close the valve when a leak is detected and notify you about the failure. All this thanks to **Sinum**!

Automatic sprinkling system



The **PS-02** relay together with a soil moisture sensor (controlled via **MODBUS RTU/TCP** protocol) and appropriate automation will allow you to control the garden sprinkler. Just set the time and conditions, and the **Sinum** system will open the electric water valve and ensure proper hydration of your plants or lawn.

Automatic alarm arming



With the use of the **BT-01** button and the **PS-02** relay together with any lighting switch from the **FS, WS, WSS or WSR** series, you can switch off all the lights in your home and arm your home alarm system with one button. Just set up an automation - it's so simple!

Air quality automation



The **Sinum** system will allow you to take care of your home air quality. Thanks to the **MC-02** sensor, which monitors the air quality, and the possibility of connecting your heat recovery ventilation unit via **TECH RS** or **MODBUS RTU/TCP** protocol, the system may increase or decrease the ventilation rate to ensure appropriate air quality for you and your loved ones.

Lighting automation



With the use of the **CR-01** motion sensor and the **Sinum** system, the ambient light will be turned on at night when motion is detected, without waking other household members. Your children may safely get to the bathroom at night, and even when they forget to turn off the light - the system will do it automatically. All you need to do is use the **CR-01** sensor and the **WS-01** light switch together to set up an automation.

Air conditioning control



On hot days, let your air conditioning system work automatically. Thanks to the **Sinum** system together with the **EU-R-8pz PLUS** room regulator and an air conditioning unit with **MODBUS RTU/TCP**, you can maintain a steady home temperature even in summer. Your air conditioning unit cools the air only when needed.

Audio system control



Do you like listening to music? The **Sinum** system will play your favourite radio station or songs when you wake up in the morning or to greet you as soon as you come home after work. Just connect your sound system to the **Sinum** central device via **HTTP** protocol. Additionally, you can use the **RC-07** programmable switch to control the device remotely.

Cooperation with installers and automation specialists

Take part in free training, master a specific skill pack, and offer high-end installation services to your customers!

Who are we looking for?



Installers



Automation specialists



Electronic engineers



Electrical engineers



Training & Special skill pack

We guarantee:

- a practical presentation of our systems, controllers and automation algorithms
- a step-by-step workshop course
- a certificate confirming participation in the training
- lunch and delicious coffee
- a small gift



Responsible partnership

We combine modern technology with innovation, and responsibility towards our customers, business partners and installers is the foundation of your company.

The synergy of these values means:

- respect in mutual relations
- a step-by-step workshop course
- clear principles
- professional support at every stage of cooperation



Profitable professional development

Home automation is no longer exclusive to a narrow group of people and it is gaining more and more popularity month by month. Moreover, not only the owners of single-family houses and apartments, but also developers decide to install such systems.

What does this mean for you?

- enriching your service offer with the installation of home automation systems
- adjusting your services to the market needs and satisfying the most demanding customers
- the prospect of multiple orders
- skills compatible with the development of the **Sinum** system
- a big advantage over the competition

Are you interested? Contact us.



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