



Floor Heating Control with Homematic IP

homematic 

WHAT MAKES HOMEMATIC IP SO SPECIAL

Homematic IP is the next generation of the successful smart home system Homematic by eQ-3.

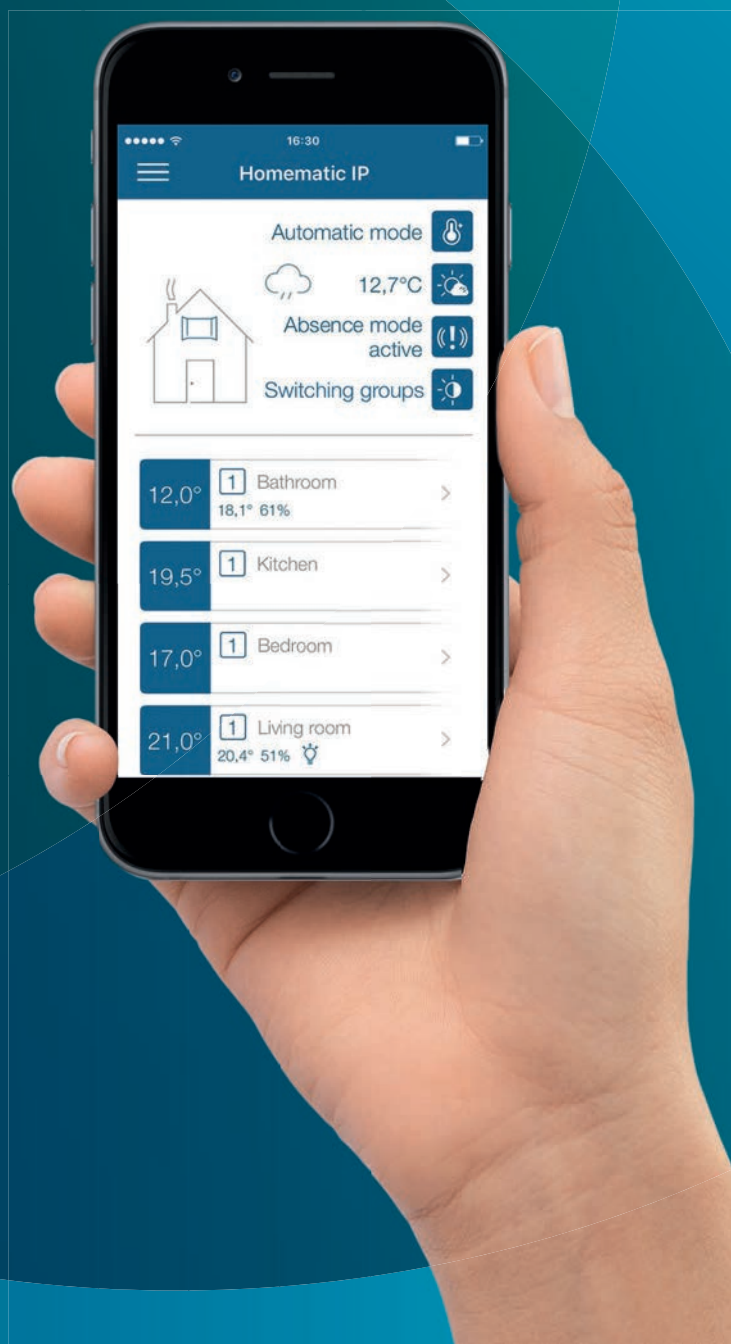
The constantly growing product range of Homematic IP includes devices for climate control, security, weather, light and shutter control applications as well as various accessory components. Our climate control devices offer demand-based room-by-room control of radiators throughout the entire house, enabling users to save up to 30 % on their **energy costs**. And also floor heating systems can efficiently be controlled with Homematic IP products. No movement goes unnoticed with our **security components**. Users are informed whenever windows and doors are opened. One look at the app is enough to find out that everything is all right at home. **Comfort is enhanced** with our switching and dimming actuators for light control as well as products for automation of shutters and blinds. All Homematic IP devices for brand switches can be easily integrated into the design of existing switch series using our adapters. The Homematic IP **weather sensors** do not only offer the possibility of recording and evaluating measured data. Furthermore, in combination with products of other areas, it is for example possible to adjust the smart home to current weather conditions, e.g. by moving up the shutters in case of strong wind.

The entire Homematic IP solution can be intuitively set up via a **free smartphone app** (iOS and Android) and conveniently controlled via app, remote control, wall-mounted push-button or even via **voice control (Amazon Alexa)**. Single devices are configured by the Homematic IP cloud service, which is run exclusively on servers located in Germany and therefore complies with European and German data protection guidelines. All data stored in the Homematic IP cloud is **completely anonymous**. However, it does not permit any conclusion about the user's identity and the individual usage behaviour. Furthermore, all communication between the Access Point, cloud and app is **encrypted**. As neither during nor after installation of the app you will need to provide private data such as name, email address or mobile phone number, your anonymity is protected 100%.

Homematic IP builds on the strengths of Homematic, implements IPv6 – the next generation Internet protocol – in each device and therefore offers a solution tailored to the Internet

of Things (IoT). Thanks to the **open platform**, the solution can be flexibly expanded at any time. Via the Homematic Central Control Unit CCU2 all Homematic IP devices can also be integrated into and operated in an existing Homematic system.

As the devices communicate via radio, they can be **retrofitted** into houses really easily. All products communicate via the robust and reliable 868 MHz Homematic IP wireless protocol. This means that there is no interference whatsoever from WLAN, Bluetooth or other radio standards operating within the 2.4 GHz frequency band.



MODERN, WIRELESS FLOOR HEATING CONTROL

Users who have decided to install a floor heating system want to use an efficient way for heating – and this on a long term basis. But if the installation is already several years ago and no longer state of the art, users are often confronted with the question: modernisation, yes or no?

The desire for a modern floor heating system is no longer a large-scale project in the future. Due to its radio communication, Homematic IP is easily retrofitted, without having to lay new cables. This type of floor heating control is appropriate for new buildings, as all necessary devices can be put into operation even without Internet connection, directly on the construction site. Works to the electrical installation are done quickly and easily by the users or with the help of a specialist installer – and all that even before the winter.



Benefits of floor heating control with Homematic IP

- ✓ Heating control not only for floor heating systems, but also for other water-based surface heatings like wall heatings, for example
- ✓ Most advanced control algorithms ensure high energy efficiency, also adjusted to different floor structures
- ✓ Accurate adjustment of the desired temperature – compared to conventional control systems there are almost no temperature variations in the room
- ✓ Individual heating profiles for demand-based room-by-room heating
- ✓ Reliable and secure wireless communication with Homematic IP
- ✓ Easy integration into a smart home solution and operation via the free Homematic IP app – this makes the heating control even more comfortable, no matter if you are at home or when you are on the road



PRODUCT OVERVIEW

PRODUCT	FEATURES
<p>Wall Thermostat with Humidity Sensor</p> 	<ul style="list-style-type: none"> ✓ Wall thermostat with LC display for time-controlled regulation ✓ Operation also possible without Homematic IP Access Point or Homematic Central Control Unit CCU2 with floor heating actuators and Multi IO Box Allows integration into switch systems with 55 mm frames
<p>Wall Thermostat with switching output – for brand switches, 230 V</p> 	<ul style="list-style-type: none"> ✓ Individual control of 230 V valve drives for floor heating systems via relay output in accordance with the defined heating profiles ✓ By replacing the existing wall thermostats, conventional floor heating systems can be easily upgraded to an intelligently controlled regulation of the room climate via smartphone ✓ Works also without Access Point or Central Control Unit CCU2
<p>Wall Thermostat with switching output – for brand switches, 24 V</p> 	<ul style="list-style-type: none"> ✓ Individual control of 24 V valve drives for floor heating systems via relay output in accordance with the defined heating profiles ✓ By replacing the existing wall thermostats, conventional floor heating systems can be easily upgraded to an intelligently controlled regulation of the room climate via smartphone ✓ Works also without Access Point or Central Control Unit CCU2
<p>Temperature and Humidity Sensor with display – indoor</p> 	<ul style="list-style-type: none"> ✓ Regulates the room temperature in connection with one or more Homematic IP Radiator Thermostats or Homematic IP Floor Heating Actuators ✓ Shows the temperature and humidity values via the display as well as the free smartphone app ✓ Allows integration into switch systems with 55 mm frames
<p>Temperature and Humidity Sensor without display – indoor</p> 	<ul style="list-style-type: none"> ✓ Regulates the room temperature in connection with one or more Homematic IP Radiator Thermostats or Homematic IP Floor Heating Actuators ✓ Shows the temperature and humidity values via the free smartphone app ✓ Allows integration into switch systems with 55 mm frames
<p>Floor Heating Actuator – 230 V, 6/10 channels</p> 	<ul style="list-style-type: none"> ✓ Controls the floor heating system and, if required, the heating pump ✓ Individual room-by-room temperature control ✓ Efficient heating and cooling of rooms via floor surfaces (if a heating pump is used)
<p>Floor Heating Actuator – 24 V, 6/10 channels</p> 	<ul style="list-style-type: none"> ✓ Controls the floor heating system and, if required, the heating pump ✓ Individual room-by-room temperature control ✓ Efficient heating and cooling of rooms via floor surfaces (if a heating pump is used)

PRODUCT OVERVIEW

Transformer for Floor Heating Actuators, 24 V



- ✓ Offers supply voltage for floor heating actuators with 24 V
- ✓ Durable and long-lasting toroidal transformer
- ✓ Quick start-up thanks to pre-assembled connection cables
- ✓ 1.5 A AC power supply

Multi IO Box



- ✓ Separate, wireless control unit for switching the boiler and the circulation or heating pump
- ✓ Change-over from heating to cooling operation by configuring the corresponding switching output and input
- ✓ Can be used with up to four floor heating actuators even without Access Point or Central Control Unit CCU2

Switch Actuator for heating systems – 2 channels



- ✓ Universal switch actuator offers switching of heating pumps, circulation pumps, boilers, electric radiators and other consumers via two channels
- ✓ Can be used via the Homematic IP Access Point or the Homematic Central Control Unit e.g. as heat demand relay for controlling heating pumps in connection with radiator thermostats or floor heating actuators

This product overview is only an excerpt from the Homematic IP product range.

Depending on the degree of expansion (please see overview on page 6), it is possible to combine various devices of other Homematic IP application fields. In this way, you can expand houses or apartments with conventional floor heating control systems into a reliable smart home with very little effort.



SMART HOME INTEGRATION WITHOUT EXTRA COSTS

Homematic IP offers an economical entry and can be expanded at any time:

STAND ALONE *

All features provided by an integrated floor heating solution and still less expensive than simple, wired switching regulator systems.



HOMEMATIC IP SMART HOME – CONFIGURATION AND OPERATION VIA APP *

Expansion into a smart home system with Homematic IP Access Point, cloud and free smartphone app for iOS and Android.



COMPREHENSIVE SMART HOME SOLUTION *

Expansion into a comprehensive smart home solution with the Homematic Central Control Unit CCU2 or control units of partners. Different apps and software available.

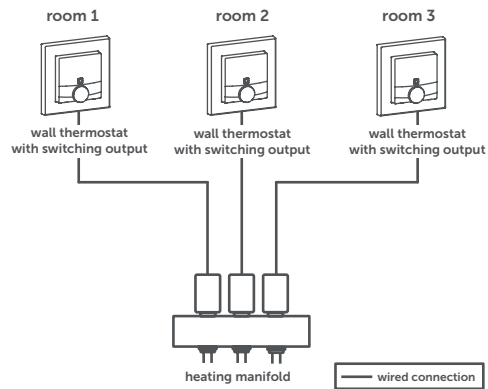


* The expansion stages described above are examples. The constellation of devices (number of rooms/heating zones) as well as the product range can be flexibly adjusted.

APPLICATION EXAMPLES

Homematic IP offers multiple possibilities for installing a new floor heating control system or for the modernisation of an existing solution. The following applications **demonstrate different installation possibilities**. Please refer to the Homematic IP User Guide (available for download at www.homematic-ip.com) for various alternative examples. When using the Homematic IP Access Point or the Homematic Central Control Unit CCU2, it is possible to control the system via free smartphone app (Homematic IP) or the browser-based interface Homematic WebUI.

Application of the wall thermostat with switching output



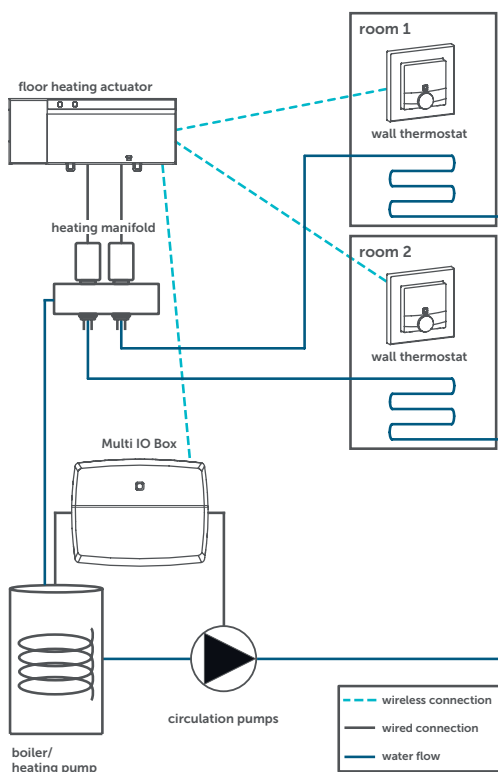
Installation

- ✓ Replacement of conventional, wired room thermostats by Homematic IP Wall Thermostats with switching outputs

Pros:

- ✓ Modernisation of the existing floor heating system is realised quickly and in a cost-efficient way by easy replacement of conventional room thermostats
- ✓ No works have to be made on the heating system for retrofitting the thermostats
- ✓ The 24 V version of the wall thermostat offers completely silent operation

Application of the wall thermostat, floor heating actuator and Multi IO Box



Installation

- ✓ Connection of the valve drives of the heating manifold to the floor heating actuator
- ✓ Connection of the Multi IO Box to the boiler and/or heating pump
- ✓ Wireless communication between the Multi IO Box, floor heating actuator and the wall thermostats/temperature and humidity sensors in the rooms

Pros:

- ✓ Installation without wiring effort in the rooms due to the reliable radio communication
- ✓ Efficient utilisation of the heating system with automatic load balancing and continuous flow of heating water
- ✓ In addition to the floor heating control, also the heating pump or boiler can be controlled according to the current heat demand

Homematic IP is a brand of eQ-3 AG

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