# The world of Smart Home

Greater convenience, security and energy efficiency.

# OEM ALPHA IP

## Access to the promising Smart Home market

→ www.moehlenhoff.de

# Teamwork in interconnected homes

## Perfect integration equals more comfort



**The intelligent Alpha IP home automation system brings the future to your own four walls, making homes more comfortable, more secure and more energy efficient.**

The Alpha IP system is child's play to install and intuitive to operate, but its modular, open approach is its most impressive feature. The system is compatible with the Homematic IP protocol, the leading communications standard in the Smart Home segment. This protocol guarantees compatibility with an extensive system of components for the Internet of Things.

**Alpha IP – fully automatic and under control**
If you're changing heating times or quickly check-
ing everything's alright at home – the user-friendly
app allows convenient access from anywhere.

**Highlights
at a glance**

**OEM Alpha IP**
- More comfortable and practical homes
- Future-proofed technology
- Highly secure systems
- Top energy-saving potential in homes
- Easy to install, configure and operate
- Huge flexibility due to modular scalability
- Perfect solution for new builds and modernisations

# Alpha IP – the ideal gateway to interconnected homes

## Intelligent heating control for maximum comfort



### Intelligent interconnection

The Smart Home is taking centre stage more and more because energy efficiency, security and comfort are issues increasingly capturing people's attention. Gone are the days when interconnected homes were options for the high-end segment or gadget market. The Internet of Things is on the brink of a mass-market breakthrough and harbours huge potential.

The intelligent connection of devices spawns a variety of conceivable scenarios in Smart Homes which respond to desires for a reduction in energy costs, or more comfort and security. For example, sensors connect windows with central heating systems to shut off valves automatically when windows are open. The window sensor also alerts owners to break-ins when nobody's at home. And all devices can be conveniently controlled by a smartphone, locally in users' home networks, or worldwide via the internet.

### Perfect market access with Möhlenhoff

Möhlenhoff is your OEM partner for this Smart Home solution which is based on the leading Homematic IP protocol. Our OEM products and services are the stepping stones to success on this promising market of the future.

The indoor environment solution is the ideal gateway to an interconnected home. It perfectly and conveniently regulates and controls all the heating solutions, from radiant heating systems to radiators to electric heaters. A range of components to boost security and protection from break-ins, as well as to provide light and shade will complement the system in future with more core solutions for the intelligent home.

### Ready for the Internet of Things

Thanks to the new generation of the IPv6 internet protocol, all Alpha IP devices are well prepared for the Internet of Things.
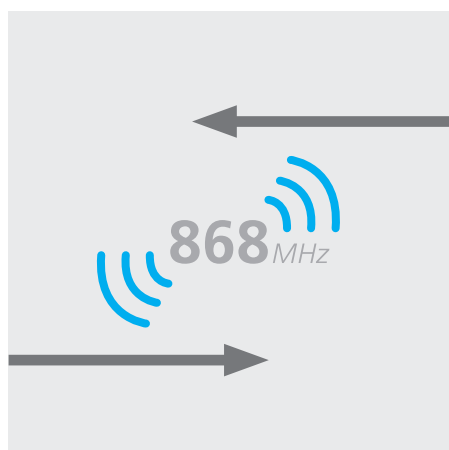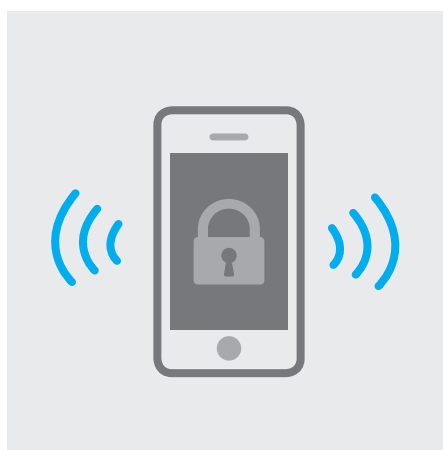
# First-class security

## Data protection is paramount



**Outstanding security**

The Alpha IP meets stringent security requirements in several respects.



**Fail-safe:** All wireless communications operate on the 868 MHz band and are bi-directional, so in other words they reconfirm all wireless commands. The result is a perfect combination of wide range and fail-safe operation regarding WiFi, Bluetooth wireless technology and video-streaming systems.



**Tamper-proof:** During installation and operation, encrypted communication (to encryption standard AES-128 in the CCM mode) of the wireless components virtually rules out unauthorised access.



**Data protection:** No personal data is required at any point during the configuration procedure. To manage the data stored in the cloud only servers based in Germany are used.

# The intelligent heart of the system

## Alpha IP Access Point



Underfloor heating

Radiators

Electric heaters

Shading systems

Lighting control

AES 128

IPv6

Security
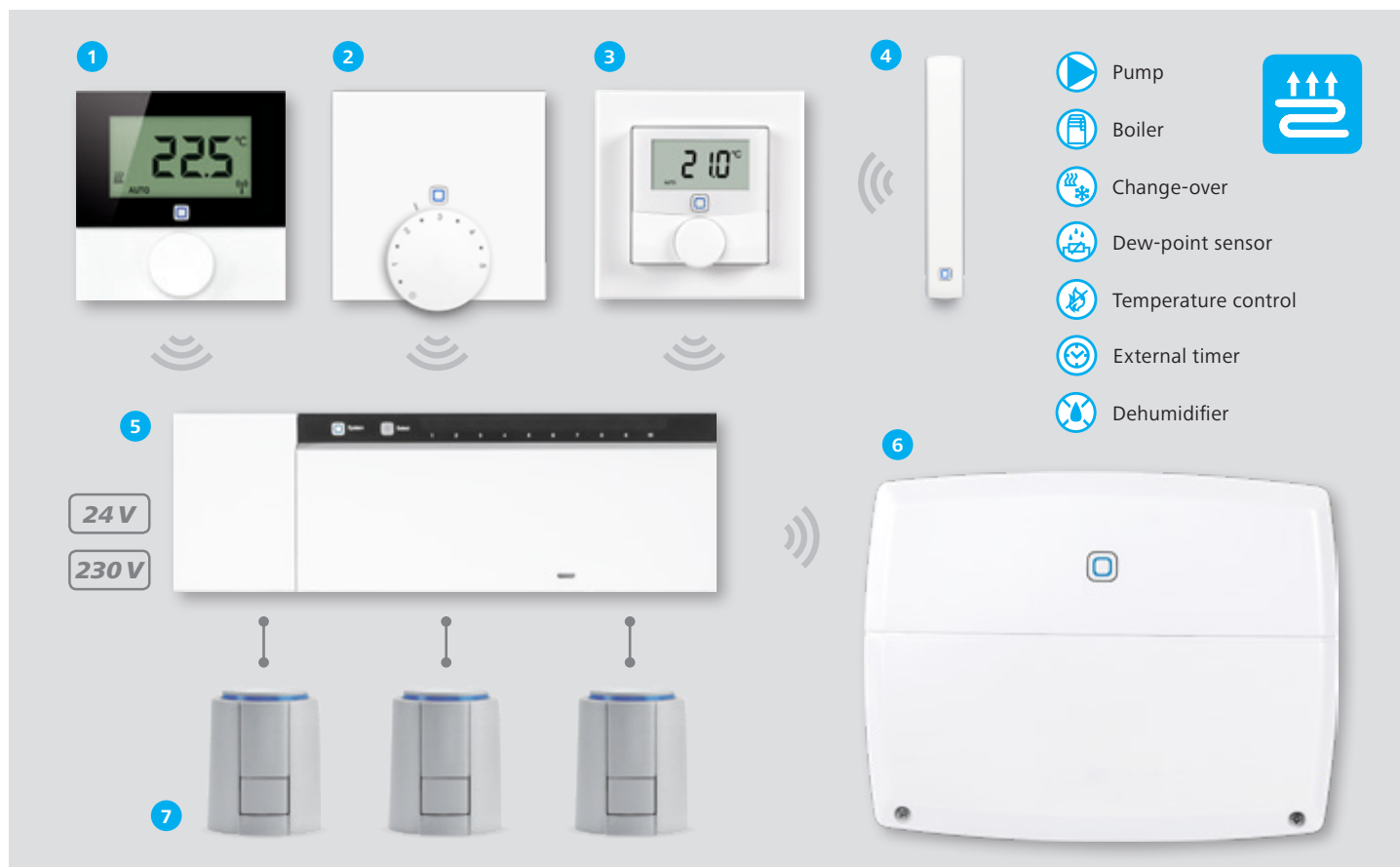
Alpha IP Access Point

**The Alpha IP Access Point is the control unit and therefore point of access to the Smart Home world.**

The Alpha IP Access Point connects smartphones via a cloud server with all system components to transmit the configuration and operational commands from the Alpha IP app. The Access Point is installed within just a few minutes. The Smart Home heating, lighting, security and shading systems components are custom-fitted and set up.

# OEM Alpha IP underfloor heating

## Perfectly controlled underfloor heating



Pump
Boiler
Change-over
Dew-point sensor
Temperature control
External timer
Dehumidifier

24 V
230 V

**Smart Home solution for heating systems with underfloor heating**

Because of the energy efficiency required, new detached homes usually have underfloor heating systems. This radiant heating system is sometimes used for heating and cooling. The underfloor heating components are ideal for this purpose and for existing systems that are often inadequately controlled. What's so clever about this system is that it's also standalone and doesn't require an access point, but can be upgraded at any time to a comprehensive Smart Home system.

## Overview of components

**1  Alpha IP Room Control Unit Display**

The Alpha IP room control unit with its large display registers the temperature and humidity in the room and transmits the results to the base station's heating zones to allow precise temperature control.

**2  Alpha IP Room Control Unit Analogue**

The Room Control Unit Analogue registers the temperature and humidity in the room and transmits the results to the base station's heating zones. It's perfect for areas where temperature control via smartphone isn't required.

**3  Alpha IP Room Control Unit Display S**

The Alpha IP Room Control Unit Display S can be fitted over light switches, or directly on the wall. It registers the temperature and humidity in the room and sends the results periodically to heating zones allocated by the base station.

**4  Alpha IP Door/Window Contact**

The Alpha IP Window/Door Contact Optical uses an infrared sensor to

spot when windows and doors are opened and closed. Heating is interrupted if a window is open, for example while a room is being aired.

**5  Alpha IP Base Station, 24V / 230 V, 6 / 10 heating zones**

The intelligent, self-learning radiant heating control and connection unit is available in various versions. Some of the base stations' many advantages include switching between heating and cooling, Smart start/stop technology, as well as automatic load balancing.
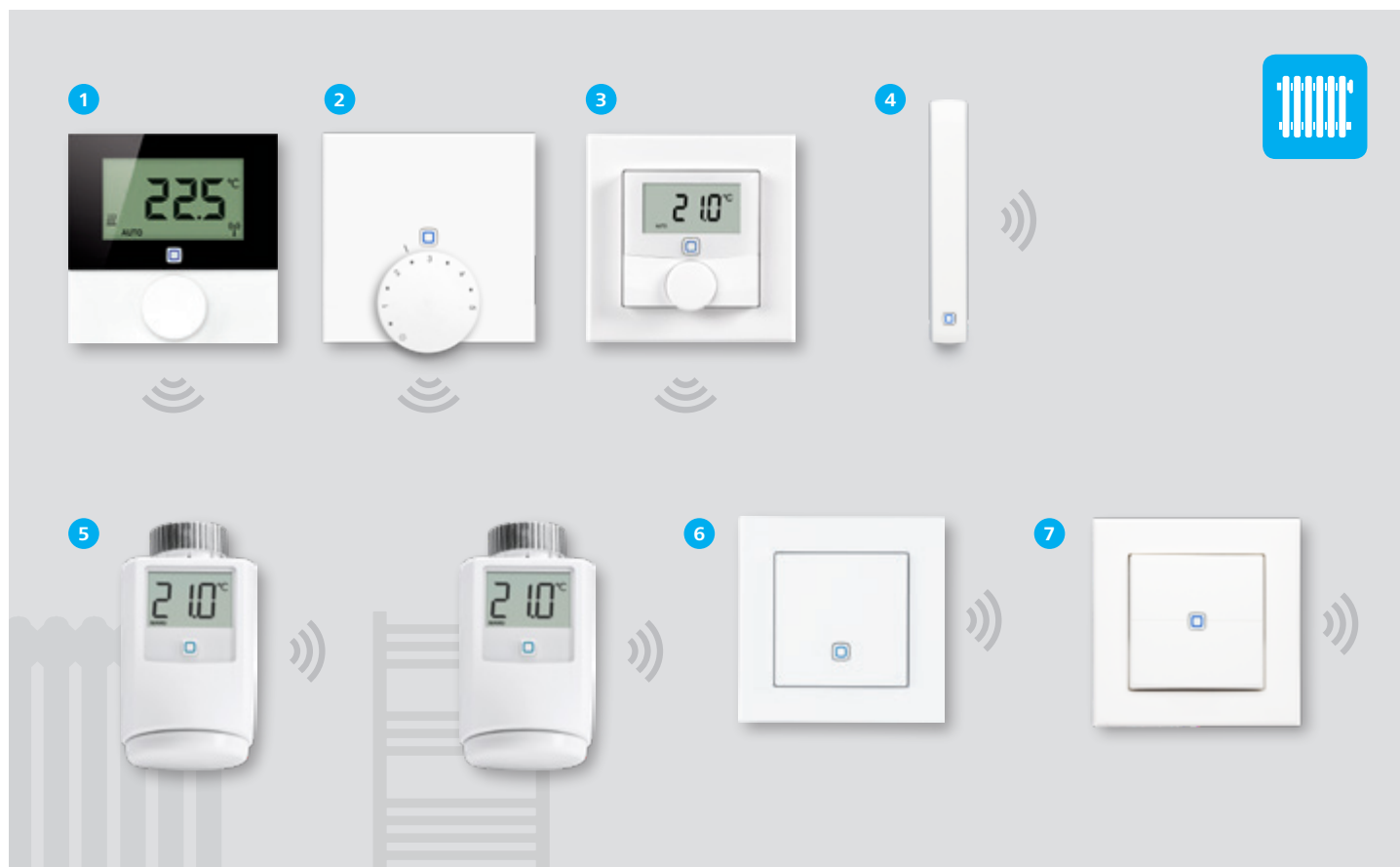
**6  Alpha IP Multi IO Box**

The purpose of the Multi IO Box is to enhance the functionality of the Alpha IP base stations to include control of the pump, boiler and dehumidifier for example. Inputs for CO and temperature monitoring are other highlights.

**7  Valve Actuators, 24 V / 230 V**

Thermoelectric valve actuator for silent opening and closure of small valves and valves on radiators and heating circuits in radiant heating and cooling systems.

# OEM Alpha IP radiator heating

## Everything radiator heating requires



**Smart Home solution for heating systems with Radiators**

The Alpha IP radiator solution has been enhanced for use with this heating system which is still the most commonplace one today. The purely manual controls on conventional radiator thermostats are replaced by electronic versions. Customised setting of the room temperature is time-controlled, or carried out directly via the Alpha IP smartphone app. The temperature can also be controlled manually by turning the radiator thermostat.

## Overview of components

**1  Alpha IP Room Control Unit Display**

The Alpha IP room control unit with its large display registers the temperature and humidity in the room and transmits the results cyclically to the relevant Alpha IP radiator thermostats.

**2  Alpha IP Room Control Unit Analogue**

The Room Control Unit Analogue registers the temperature and humidity in the room and transmits the results to the Alpha IP's radiator thermostats.

**3  Alpha IP Room Control Unit Display S**

The Alpha IP Room Control Unit Display S can be fitted over light switches, or directly on the wall. It registers the temperature and humidity in the room and sends the results periodically to connected Alpha IP radiator thermostats.

**4  Alpha IP Door/Window Contact**

The Alpha IP Window/Door Contact Optical uses an infrared sensor to spot when windows and doors are opened and closed. Heating is interrupted if a window is open, for example while a room is being aired.

**5  Alpha IP Radiator Thermostat**

The Alpha IP Radiator Thermostat for the Alpha IP indoor environment solution is an easy-to-install, custom-configurable radiator thermostat that allows control of radiators as desired.
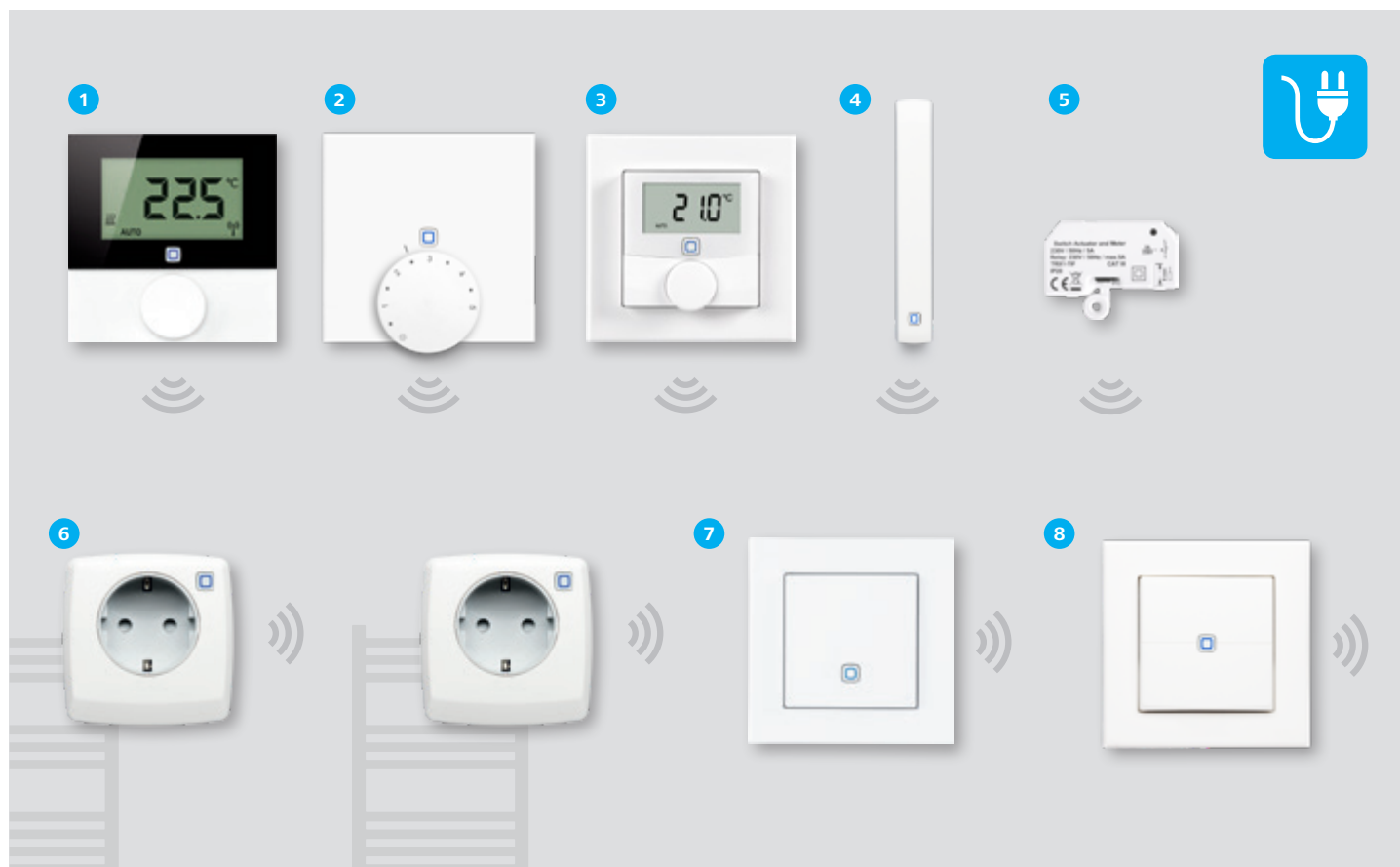
**6  Alpha IP temperature and humidity sensor**

The temperature and humidity sensor measures the temperature and humidity in the room. The readings are transmitted at intervals to the Alpha IP Access Point and the Alpha IP app and help to regulate the indoor environment.

**7  Alpha IP Wall Mount Switch 2 Push Button**

At the touch of a button, the wall mount switch allows users to turn all radiator thermostats down to ECO temperature. Users select the temperature and the time span.

# OEM Alpha IP electric heaters

## Perfect control of electrical heating systems



### Smart Home solution for electric heating systems

Lots of households use one or several electrical bathroom radiators or mobile electric radiators in bathrooms, or in rarely used rooms or garages, or garden sheds. Combined with the Alpha IP Pluggable Switch and Meter and a wall-mounted thermostat, the temperature in these rooms can be controlled exactly as desired. Another advantage is that the energy used by devices that have been connected is shown in the app and provides information about consumption and costs until that point.

## Overview of components

**1** **Alpha IP Room Control Unit Display**

The Alpha IP Room Control Unit with its large display registers the temperature and humidity in the room and transmits the results to the Alpha IP Pluggable Switch/Pluggable Switch and meter to enable precise temperature control.

**2** **Alpha IP Room Control Unit Analogue**

The Room Control Unit Analogue registers the temperature and humidity in the room and transmits the results to the Alpha IP Pluggable Switch/ Pluggable Switch and Meter to make precise temperature control possible.

**3** **Alpha IP Room Control Unit Display S**

The Alpha IP Room Control Unit Display S can be fitted over light switches, or directly on the wall. It registers the temperature and humidity in the room and sends the results periodically to allocated Alpha IP pluggable switches/pluggable switches and meters in order to control the temperature precisely.

**4** **Alpha IP Door/Window Contact**

The Alpha IP Window/Door Contact Optical uses an infrared sensor to spot when windows and doors are opened and closed. Heating is interrupted if a window is open, for example while a room is being aired.

**5** **Alpha IP Switch Actuator and Meter**

The Alpha IP Pluggable/Meter Actuator is placed in flush-mounted boxes, e.g. behind sockets to bring it up to date. All connected devices can be easily switched on and off using the Alpha IP app. Energy consumption is measure and shown in the app at the same time.

**6** **Alpha IP Pluggable Switch/Pluggable Switch and Meter**

Switches on electric heaters that have been connected to allow precise temperature control in rooms that aren't connected to the central heating systems, such as garages or other sources of heat such as electric towel heaters in bathrooms.

**7** **Alpha IP temperature and humidity sensor**

The temperature and humidity sensor measures the temperature and humidity in the room. The readings are transmitted at intervals to the Alpha IP Access Point and the Alpha IP app and help to regulate the indoor environment.

**8** **Alpha IP Wall Mount Switch 2 Push Button**

At just a touch of a button, the wall switch allows users to turn all electric heaters down to ECO temperature. Users select the temperature and the duration.

# OEM Alpha IP security and surveillance

## Security has top priority



**Smart Home solution for security and surveillance**

The Alpha IP Security and Surveillance solution is designed to protect rented property and owner-occupied homes. It allows residents to be comfortable in the knowledge that they are being protected and alarms are issued in emergencies. Window and door contacts protect the building's outer shell, motion detectors reliably detect movement and smoke detectors warn residents if fires break out.

## Overview of components

**1 Alpha IP Smoke Detector**

The Alpha IP Smoke Detector with the Q label gives reliable and early warnings when fires start to break out.

**2 Alpha IP Alarm Indoors**

Should an emergency arise, the indoor alarm system provides a dependable, loud acoustic and bright optical warning.

**3 Alpha IP Door/Window Contact**

Window and door contacts always indicate whether a door or window is open or closed, therefore protecting the building envelope.

**4 Alpha IP Wall Mount Switch**

The wall mounted switch activates designated panic lights or lighting from switching groups.

**5 Alpha IP Motion Detector with Twilight Sensor – Indoor**

The Motion Detector with Twilight Sensor – Indoor immediately reports intruders if full protection has been activated.

**6 Alpha IP Motion Detector – Outdoor**

The Alpha IP Motion Detector – Outdoor offers extra security for the home and garden.
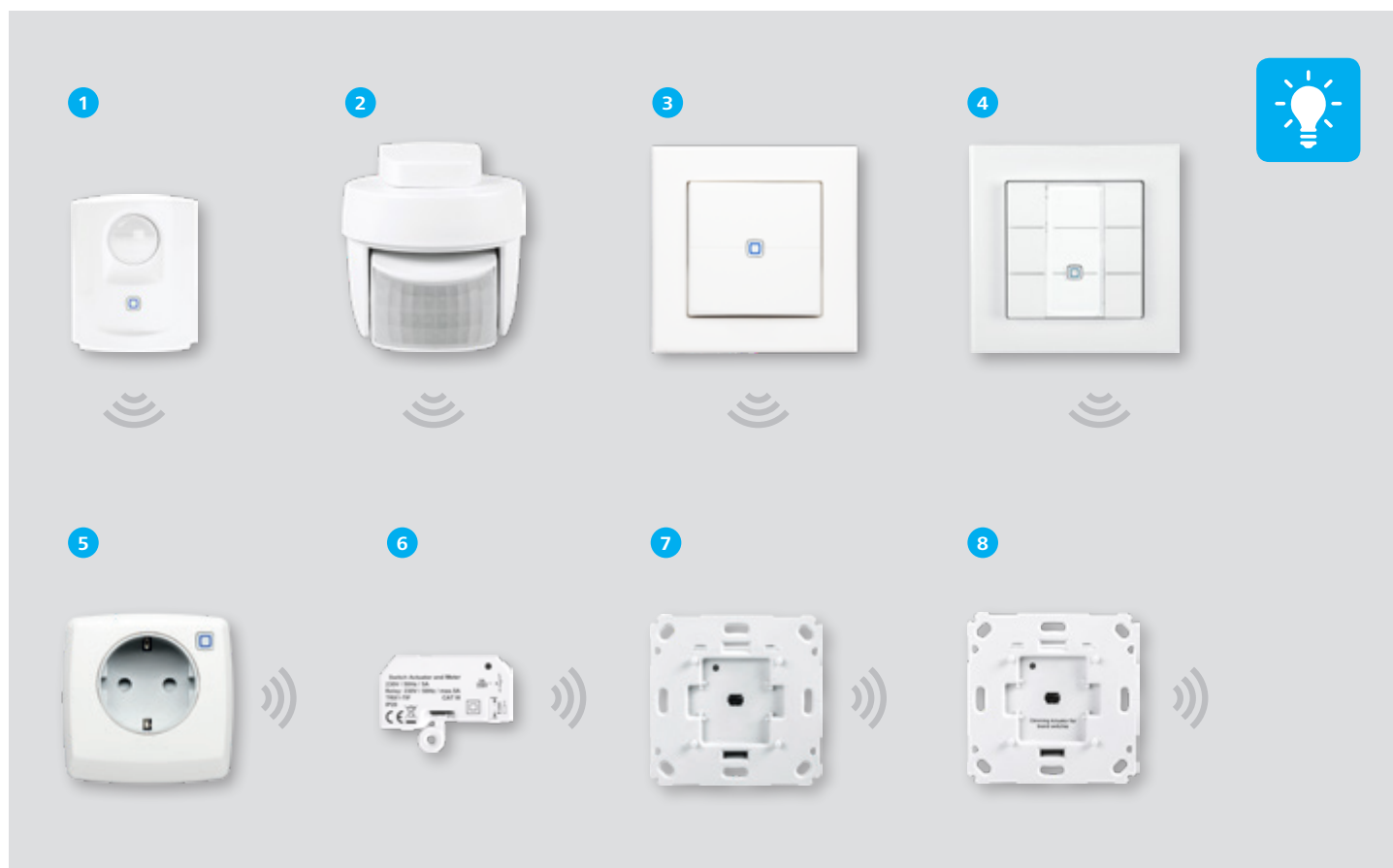
**7 Alpha IP Pluggable Switch**

The Alpha IP Pluggable Switch activates panic and alarm lights or 230 V pluggable acoustic alarms as part of the security solution.

**8 Alpha IP Keyring Remote Control**

The Alpha IP Keyring Remote Control allows you to switch full protection of the system on or off easily without a smartphone. It's also used to activate pre-defined light sources.

# OEM Alpha IP light

## Smart lighting control



**Smart Home lighting control solution**

Switching on and dimming lighting creates an appealing atmosphere in homes. The Alpha IP Lighting Control Solution creates lighting scenarios, puts lamps into lighting groups and controls them via a switch or smartphone.

## Overview of components

**1  Alpha IP Motion Detector with Twilight Sensor – Indoor**

The Motion Detector with Twilight Sensor – Indoor activates defined lighting and/or switching groups as soon as movement is detected.

**2  Alpha IP Motion Detector – Outdoor**

The Motion Detector – Outdoor activates defined lighting and/or switching groups as soon as movement is detected.

**3  Alpha IP Wall Mount Switch**

The Alpha IP Wall Mount Switch switches defined sources of light on and off. Thanks to wireless technology and batteries it can be put anywhere in the home without the need to lay cables.

**4  Alpha IP wall mount switch 6 push button**

The multipurpose wall mount switch 6 push button conveniently controls trained devices in the home via three pairs of buttons placed over one another. As a result, roller shutters can be rolled up and down.

**5  Alpha IP Pluggable Switch/Pluggable Switch and Meter**

The Alpha IP Pluggable Switch switches devices connected such as lamps on and off via the Alpha IP Wall Mount Switch or smartphone.

**6  Alpha IP Switch Actuator and Meter**

The Alpha IP Pluggable/Meter Actuator is placed in flush-mounted boxes, e.g. behind sockets to bring it up to date. All connected devices can be easily switched on and off using the Alpha IP app. Energy consumption is measure and shown in the app at the same time.

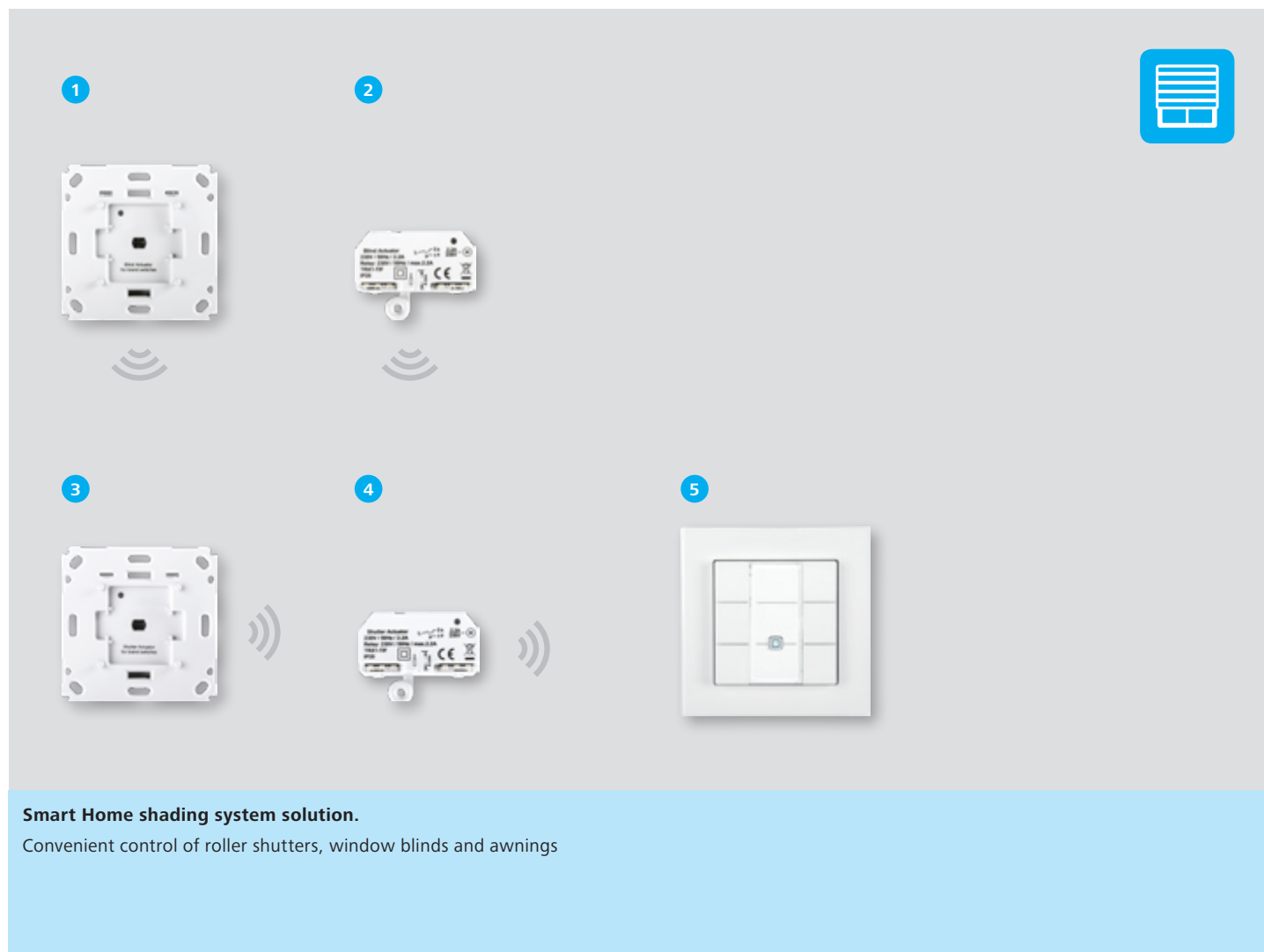**7  Alpha IP Switch Actuator and Meter – Brand Switches**

The Alpha IP Switch Actuator and Meter – Brand Switches replaces traditional light switches, adding Smart Home functions and recording energy consumption. A comprehensive adaptor system allows seamless integration into numerous switching programs.

**8  Alpha IP Dimming Actuator – Brand Switches**

The Alpha IP Dimming Actuator – Brand Switches replaces traditional light switches, adding Smart Home functions and a dimming function. A comprehensive adaptor system allows seamless integration into numerous switching programs.

# OEM Alpha IP shading systems

## Convenient control of roller shutters, window blinds and awnings



**Smart Home shading system solution.**
Convenient control of roller shutters, window blinds and awnings

## Overview of components

**❶ Alpha IP window blind actuator for brand switches**
The window blind actuator for brand switches allows electrically operated window blinds to be rolled up and down automatically. Furthermore, it allows precise adjustment of the slat positions on Venetian blinds and window shutters, therefore replacing conventional installations.

**❷ Alpha IP window blind actuator**
The window blind actuator allows electrically operated window blinds to be rolled up and down. Furthermore, it allows precise adjustment of the slat positions on Venetian blinds and window shutters.

**❸ Alpha IP roller shutter actuator for brand switches**
The roller shutter actuator for brand switches allows electrically operated window blinds and awnings to be rolled up and down automatically, therefore replacing conventional installations.

**❹ Alpha IP roller shutter actuator**
The roller shutter actuator allows electrically operated roller shutters and awnings to be rolled up and down automatically.

**❺ Alpha IP wall mount switch 6 push button**
The multipurpose wall mount switch 6 push button conveniently controls trained devices in the home via three pairs of buttons placed over one another. As a result, roller shutters can be rolled up and down.

# Exceptionally easy – right from the start

## Automatic installation, simple configuration and intuitive operation

Main menu
All key data
at a glance

Automatic or ECO mode displayed

Current weather information

Alarm mode displayed

Switching group menu

Current target temperature

Current heating profile

Overview of rooms

Symbol display
(e.g. wireless communication malfunction,
open window, empty battery)

**Straightforward to install and
intuitive to use**
The Alpha IP app's clearly set-out, intuitive user interface and easy-to-navigate menu structure make setting up and operating the system especially easy.

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**The intelligent user interface on the free
Alpha IP app makes the system easy to set
up and control.**

Installing each of the components is virtually automatic, as all the links between the devices are created automatically. And operations, such as setting the required room temperature, or configuring heating profiles, are carried out via the smartphone's touchscreen. At the touch of a button you can switch the heating to energy-saving mode in all rooms.

**Simple installation**
The app takes you through the set-up process step by step.

**Heating profiles**
Heating profiles can be customised and configured to suit preferences for each room.

**Room menu**
Room configuration, tailored temperature settings, as well as activation of the boost function.

# Ready to go in just a few steps

## Minimal installation procedures required for the whole system
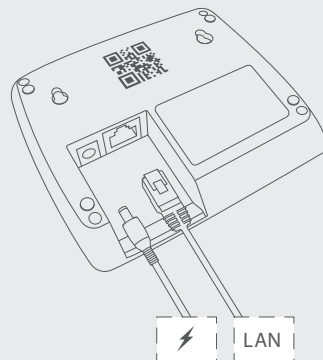


**Easy and secure commissioning**

Starting up the online Alpha IP System couldn't be easier. All you need is internet access with a customary router. The Alpha IP Access Point is connected via an unused network connection with the router using a network cable. The smartphone app allows you to set up and control the Alpha IP System intuitively and without any problems. You can download the app free of charge in the Google Play Store (for Android) or in the App Store (for iPhones) onto your smartphone.

Teaching the other Alpha IP components is equally as uncomplicated as commissioning the system – a quick scan is all that's required to set up the connection.

**❶ Alpha IP app downloads**

The Alpha IP smartphone app is available to download free of charge for Android from version 4.1 and for iOS from version 7.

**❷ Connecting**

Use the network cable supplied to connect the Alpha IP Access Point with the router and the mains adapter to connect it to the power supply.

**❸ Scan the QR code and off you go!**

Now just use the Alpha IP app to scan the QR code on the back of the access point. Once it's been registered on the server, the access point is set up and ready to go.
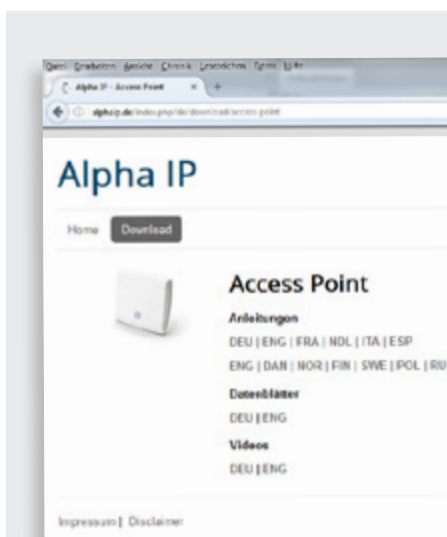
# Flexible system solutions and OEM service

## Tailored to requirements



**Your own customised system**

Our customisable system solutions plus exclusive OEM service portfolio make it especially easy for you to access the Smart Home world.



**In-depth product literature**

In-depth, multilingual literature and installation films on the products are available online at **www.alphaip.de**



**Customised packaging/printing**

Supports your marketing activities thanks to customised packaging, special promotional packaging and print.



**Technical support**

Should you have any questions about our products, please contact the experts on the support hotline +49 (0) 5341 8475 - 470 from 7.30 a.m. to 5 p.m. and on Fridays until 3 p.m. (CET)

# Perspectives for the OEM partner







**Service portfolio**

Providing application-driven advice and technical support for our products and systems are part of the services we deliver to our OEM customers. We also offer in-depth product information to assist in providing customised technical literature and advertising materials.

**Quality pledge**

Möhlenhoff has recognised testing, inspection and simulation devices that make our high level of quality and innovation possible. We underpin this high standard by providing a modern management system. We also ensure our staff are quality-driven and have strong environmental awareness.

**Tailored system modifications**

We can offer different logos, casing designs, packaging or additional functions. Möhlenhoff's OEM solutions enable you to present a customised image to the market. As a result, you can create a distinctive product portfolio, adapted exactly to your customers' wishes. Contact us for advice on how to make your products stand apart.

**Möhlenhoff**

**Your OEM partner**

Möhlenhoff GmbH has been an established player on the international market for more than 3 decades. The company is a reliable, expert OEM that excels. These factors, combined with innovative ideas and a spirit of fairness in partnerships, have made it a very successful player worldwide for years. As an OEM, Möhlenhoff GmbH supplies products and complete systems for heating, ventilation and air-conditioning systems. As a specialist in control components and systems, the company offers its expertise to manufacturers worldwide. Möhlenhoff GmbH is a global market leader in thermal valve drives.

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