



# All in One

Firmware / App / Cloud



All-in-one software developed in Germany features Bluetooth mesh firmware pre-installed on a pre-certified Bluetooth module based on the Nordic nRF52-Series chip. MESHLE Firmware supports switches, lights, HVAC, sensors, gateways, and E-Ink displays. The free MESHLE App is available on the Android Play Store and Apple App Store without the need for registration. The mesh network can optionally be connected to the internet through the gateway, enabling integration with Google Home, Apple HomeKit, and Amazon Alexa.

- Developed in Germany
- Free App for Android & iOS
- Option for White Label App
- Bluetooth Mesh Network
- EU Data Privacy Compliance
- Optional Cloud Connectivity

[www.meshle.com](http://www.meshle.com)





The MESHLE firmware comes pre-installed on the pre-certified BLE Module based on the Nordic nRF52-Series Chip. Once the module is integrated into a device, users gain free access to the entire suite of MESHLE Software with that device:

The MESHLE App for Android and iOS, developed entirely in Germany, does not require registration and enables users to set up a robust mesh network with many professional features directly with their devices.

Users can optionally benefit from MESHLE Cloud, which is hosted in Europe and does not rely on AWS or Google Cloud Services. This cloud service is free and allows for internet-based control of the mesh network. Devices can be integrated with Amazon Alexa, Google Home, or Apple Home, but only if the user desires. All cloud features are accessible via the MESHLE Gateway, which supports the Matter protocol.

Additionally, all MESHLE devices can be linked to battery-powered or battery-free (kinetic) peripheral devices like sensors and kinetic switches.

# Expandable as needed

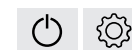
## Autonomous Actuators

Each MESHLE-compatible device, whether a switch, LED dimmer or switch, is a complete product and ready to use in homes, offices or apartments. It requires no additional components to form a functioning smart home system.



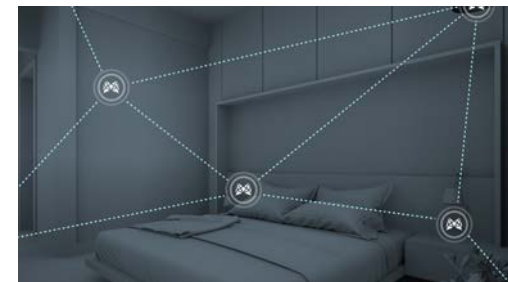
## Configurable via the App

A MESHLE-compatible actuator can be installed and used immediately without needing the app. However, the app allows for convenient and precise settings and automation, e.g., switching by time.



## Connection via Bluetooth Mesh

When another MESHLE-compatible actuator is installed nearby, the two can be connected together. This only requires a simple configuration of the two actuators in a password-protected network.



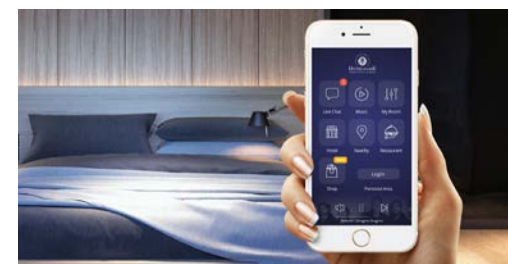
## Optional Cloud Connection

Connecting to the cloud via a gateway enables internet-based control, dashboard visualization, and integration with Amazon Alexa, Apple Home, and Google Home.



## Web App & Guest Control

The Guest Control Feature enables users to control devices within seconds using their own smartphone without the need to install an app. This feature allows secure temporary access to the network via a browser.



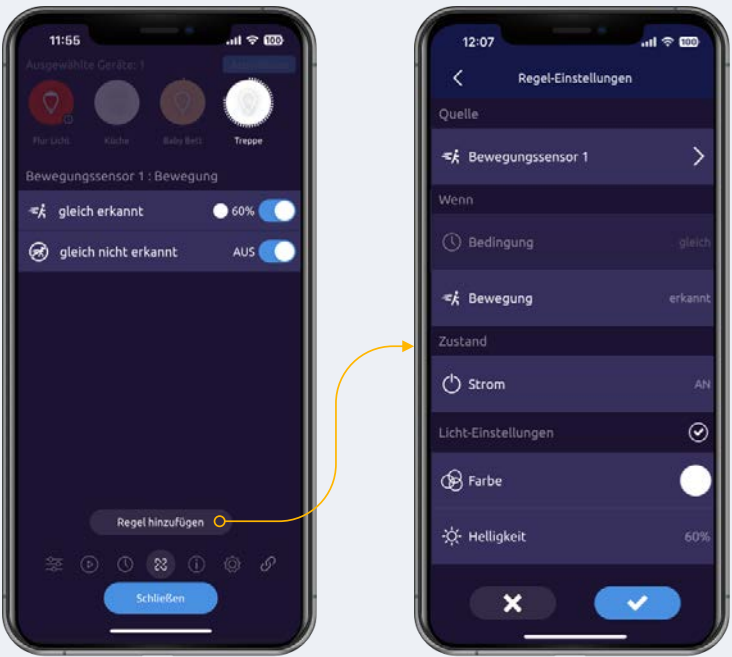
# Control

Devices can be easily controlled via the main app view. A click on the device opens a detailed view for more precise control options and automation possibilities.



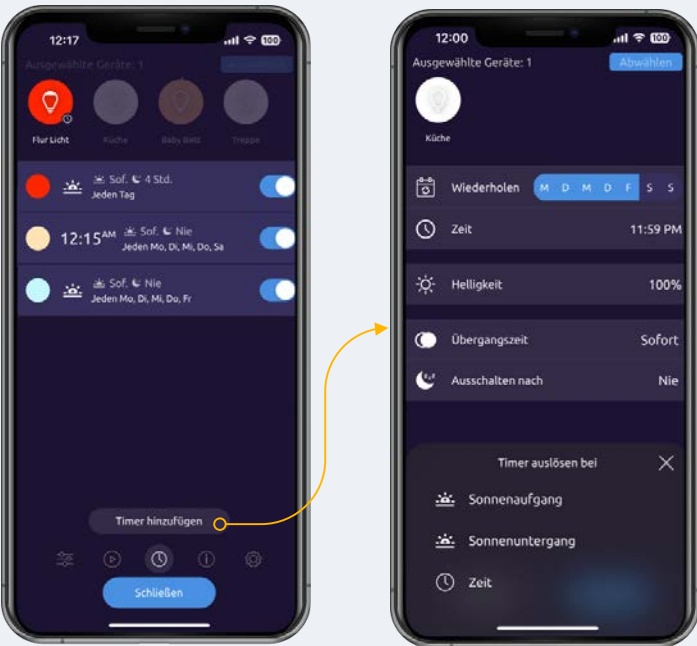
# Rules

Each device can have a set of rules describing the behavior of the devices under certain events. For example, an actuator can be turned on when a motion sensor detects movement. Rules listen to the status of selected devices or sensors and respond accordingly.



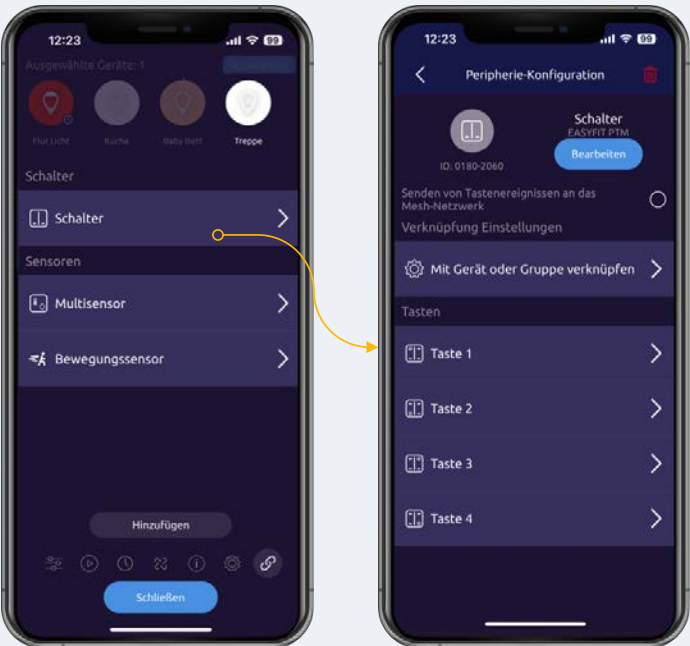
# Timer

Set individual timers for each actuator, with options for automation at sunrise and sunset. It can be a one-time timer, as well as recurring timers where days of the week can be selected. Up to 16 timers can be set up per device.



# Peripherals

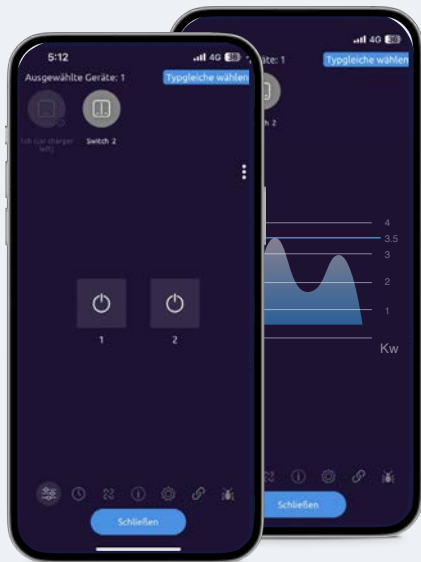
Devices that do not have their own power source or are battery-operated require a parent device to send and receive information. Each device can have multiple battery-free switches, temperature/humidity/motion sensors, or thermostat valves. Battery-free switches have additional settings for programming the behavior of individual buttons.





# Switch

Devices that switch power on and off can be easily controlled via an app. There can be up to 8 channels per device that can be controlled simultaneously or independently. Some features include timers, rules, countdowns, auto-off, and state memory in case of power loss. All of the switchable devices can be operated with up to 4 internal buttons but can also be connected to a kinetic switch.



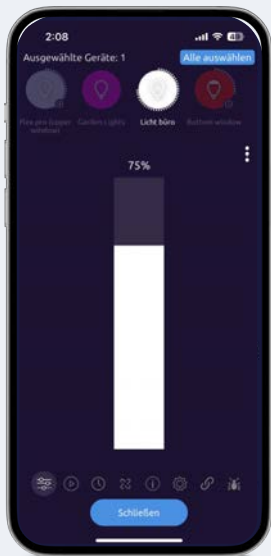
# HVAC

Temperature control, whether for underfloor heating, smart thermostatic radiator valves (TRVs), or air conditioning (AC), can be easily controlled and configured via the app. With timers and rules, users can create their own heating/cooling programs. Rules allow for changing the current temperature based on external sensors that can be linked with the current heating device.



# Dimmer

Dimmable devices, such as single-color LED strips, spots, or triac dimmers, can be comfortably controlled via an app. Some features include timers, rules, countdowns, auto-off, and state memory in case of power loss. All of the switchable devices can be operated with up to 4 internal buttons but can also be connected to a kinetic switch.



# Shutter

With this device type, fine control of the position of the shutter blind or slats angle can easily be done. The app provides a smart wizard to gather information about the movement and writes the calibration data into the device. Then, the device can drive precisely to the required position, regardless of possible non-linear movement. The app offers a variety of extra settings. Rules and timers are also available. The device can be operated with up to 4 internal buttons but can also be connected to a kinetic switch.



# Color

Devices capable of changing not only brightness but also color, such as CCT, RGB, RGBW, or RGBTW lights, offer a wide range of features and control options in the app. In addition to color saturation and brightness controls, there are predefined animations and an animation editor for creating customized color sequences that can last from 1 second to 24 hours. Features include timers, rules, countdowns, auto-off, and state memory in case of power loss. The app also supports controlling the color of SPI devices with addressable LEDs, offering some extra features.

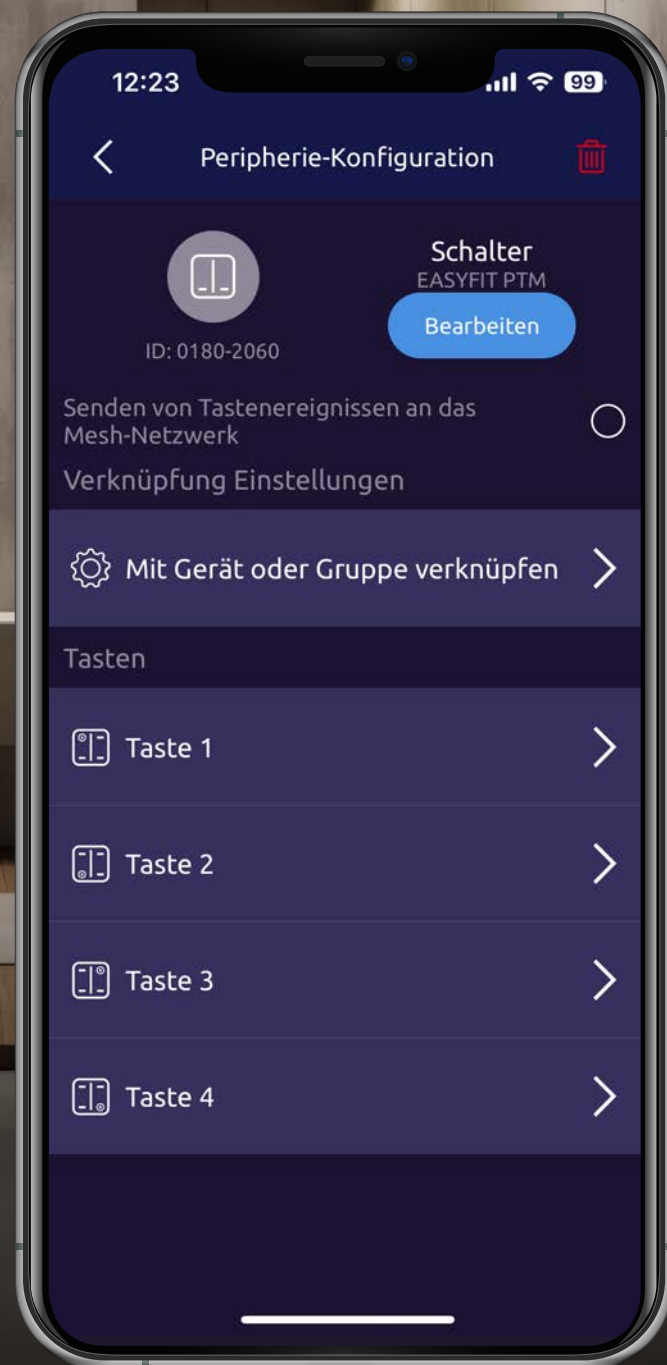


# Sensors

Sensors or multi-sensors that measure temperature, relative humidity, contact, or light can be easily integrated into the network and play a crucial role in automation. Rules set on each device can react to new sensor telemetry and act according to the user's settings.



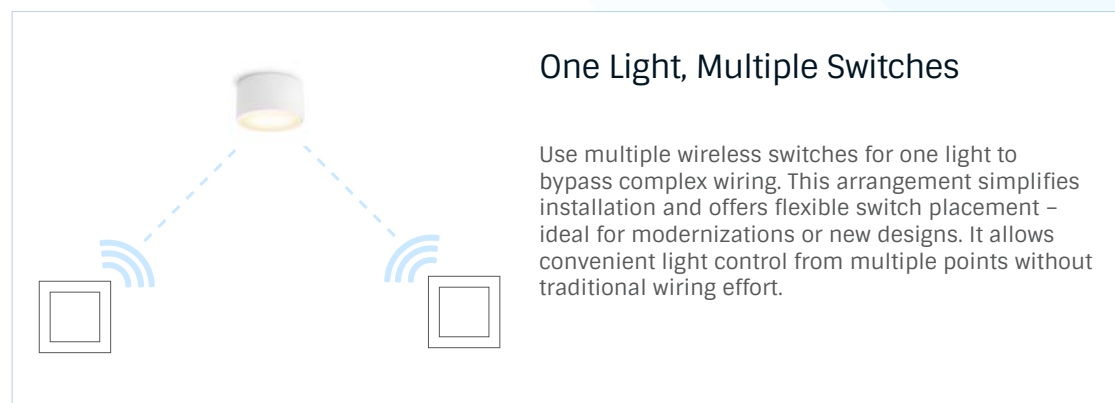
# Wireless Boundless



MESHLE / Switch

## Programmable Buttons

The wireless kinetic switch is battery-free and operates through energy generation. It has four programmable buttons allow control of lights and smart devices. Once configured, the switch controls one or multiples devices and can have up to 8 different states configured. Longpress and Doublepress events are also supported and configurable.



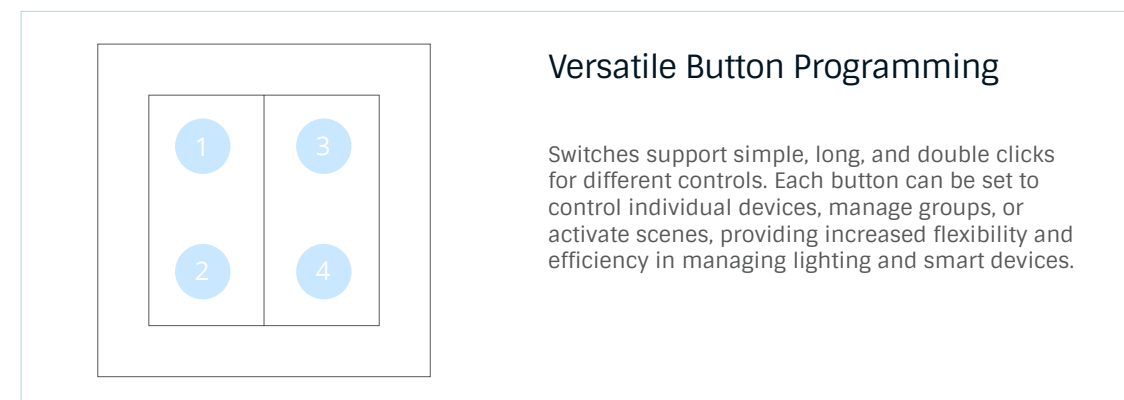
### One Light, Multiple Switches

Use multiple wireless switches for one light to bypass complex wiring. This arrangement simplifies installation and offers flexible switch placement – ideal for modernizations or new designs. It allows convenient light control from multiple points without traditional wiring effort.



### Multiple Lights, One Switch

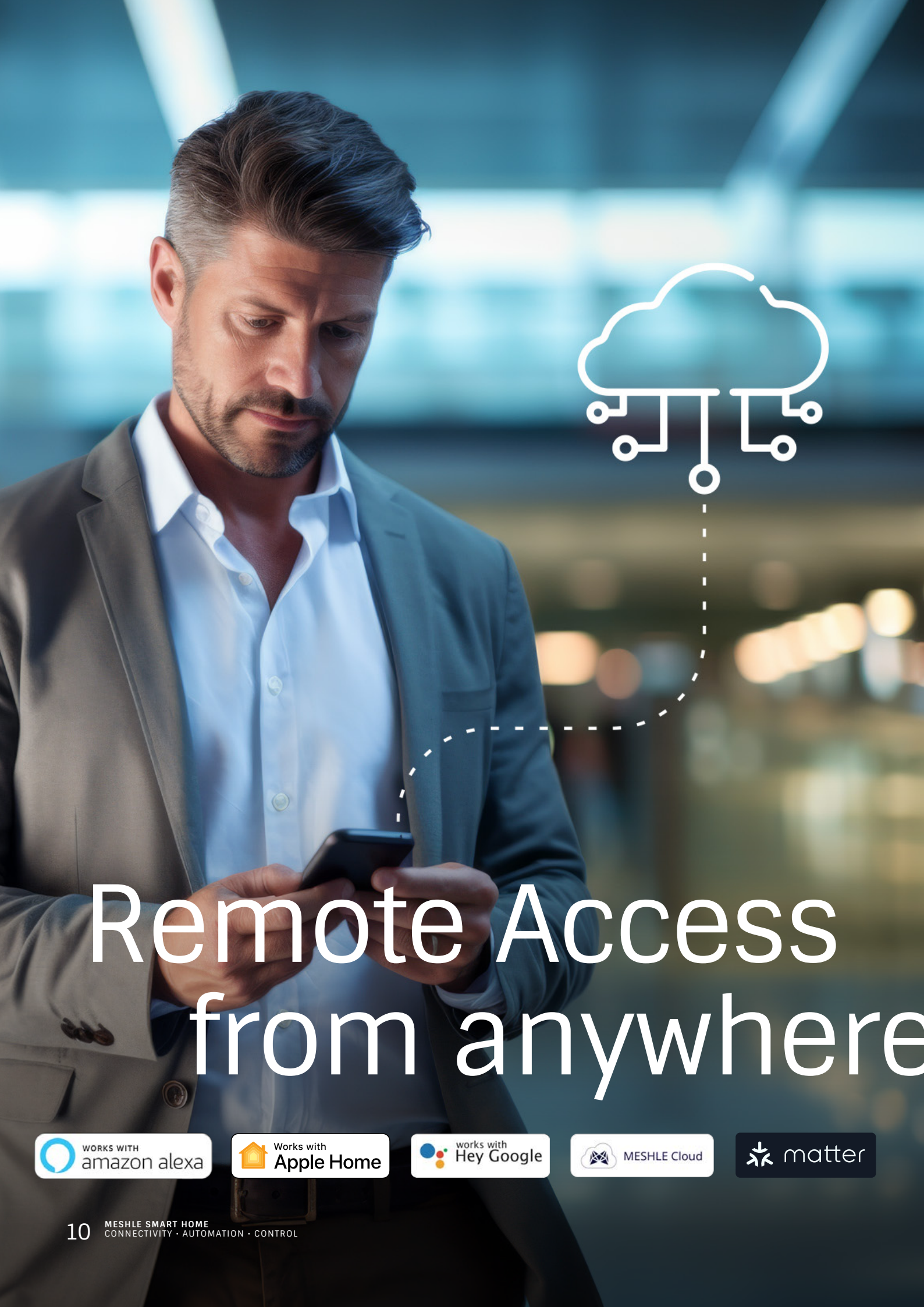
A single switch controls multiple lights, simplifying light management. This function is ideal for uniform lighting scenarios or simultaneous control of multiple areas, increasing flexibility and efficiency in lighting design for residential and commercial spaces.



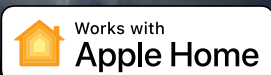
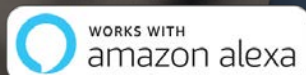
### Versatile Button Programming

Switches support simple, long, and double clicks for different controls. Each button can be set to control individual devices, manage groups, or activate scenes, providing increased flexibility and efficiency in managing lighting and smart devices.





# Remote Access from anywhere

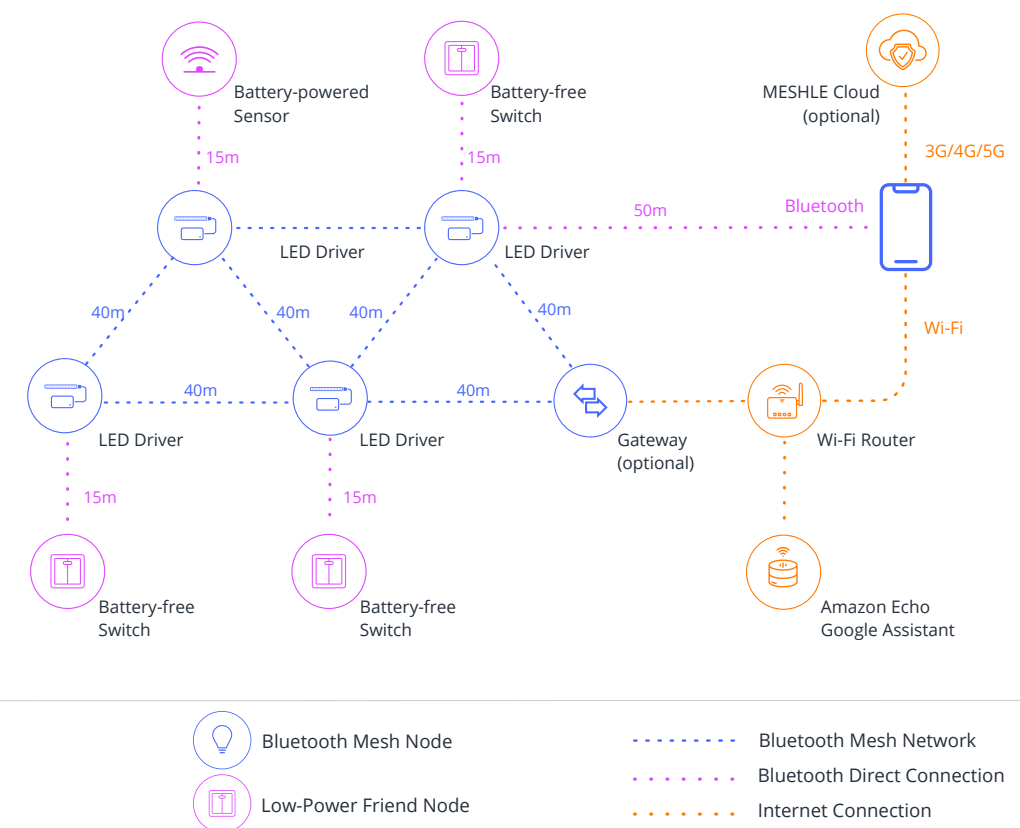


## Optional Gateway

MESHLE Bluetooth Mesh networks do not rely on the gateway; it is a completely optional accessory. A gateway is only necessary if you require remote control or monitoring via the internet, integration into Apple HomeKit, Amazon Alexa, Google Home, or other third-party providers.

The installation works as with any other MESHLE device via the app. Once Wi-Fi credentials have been entered, the user has the choice to set up the gateway in MESHLE Cloud.

### System Example



## Made in Germany

The MESHLE Cloud was not only developed in Germany, but is also hosted here. Your data is securely encrypted on German servers, MESHLE does not rely on Amazon AWS or Google Cloud\*. Our commitment to European data privacy standards sets us apart, instilling confidence in our clients through secure and private data handling practices

\*With voice control, the respective provider (Amazon or Google) accesses our cloud via a secure connection. Only the devices are recognized and controlled, no personal data is passed on.







# Web App & Guest Control

Whether in a hotel room, at a trade fair stand, or in a show house, MESHLE guest control enables temporary access to the smart home network without requiring app installation or password sharing. This innovative solution provides convenient and secure access for guests without additional effort.



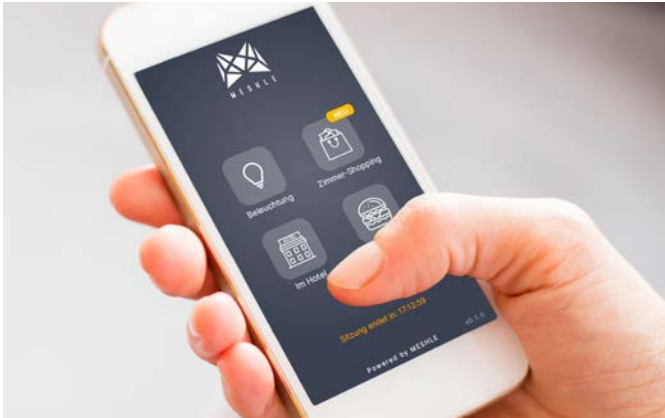
## Access via QR Code Terminal

The guest's authentication takes place directly via the MESHLE Smart Terminal, which enables secure and time-limited control of MESHLE-compatible devices in the hotel room.




## 1. Scan QR Code

No app installation necessary. Simply scan the QR code with the camera of your own smartphone and call up the web app in the browser.



## 2. Discover

In addition to device control, the guest can access individual services in the same app.



### MESHLE WEB-APP

The MESHLE Web App allows visitors to control devices in the network within seconds using their own smartphone, without the need for installing an app.

Scan QR code – watch the video!

# Firmware Interfaces

The MESHLE firmware is already installed on the pre-certified BLE Module, which is based on the Nordic nRF52-Series Chip. After this module is integrated into a device, users get free access to the full range of MESHLE Software for that particular device.

MESHLE can also provide custom interfaces tailored specific to the design of the product. Contact us!



**CCT / HCL**  
Tunable White with Human Centric Lighting Features.  
Art. Nr.: S-2303



**RGB**  
RGB with color animations and animation editor.  
Art. Nr.: S-2304



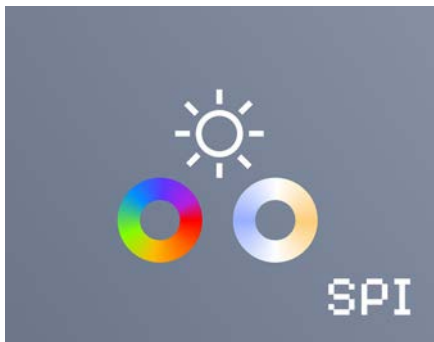
**RGBW**  
RGB + Warm White.  
Art. Nr.: S-2305



**RGBTW**  
RGB + Tunable White with Human Centric Lighting features.  
Art. Nr.: S-2306



**Universal PWM**  
Dimmer/ CCT/ RGB/RGBW/ RGBTW  
Art. Nr.: S-2307



**Universal SPI**  
Dimmer/ CCT/ RGB/RGBW/ RGBTW for addressible LEDs.  
Art. Nr.: S-2308



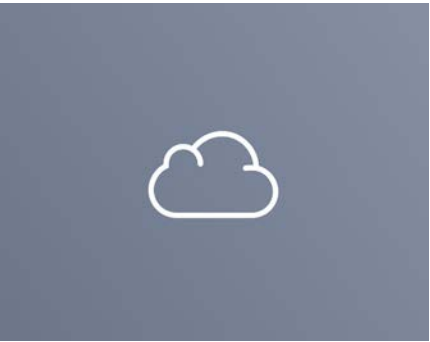
**Dimmer**  
Single color dimmable devices.  
Art. Nr.: S-2307



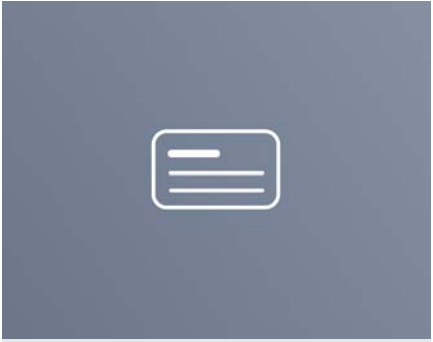
**Switch**  
Multichannel switchable devices.  
Art. Nr.: S-2308



**Shutter**  
Roller blinds shutter and awing control.  
Art. Nr.: S-2309



**Gateway**  
Connects Mesh Network to Wi-Fi. Build-in matter bridge functionality.  
Art. Nr.: S-2311



**EPD**  
E-Ink Display for QR-Code Terminal.  
Art. Nr.: S-2312



**Signal Converter**  
Converts binary input into mesh signals.  
Art. Nr.: S-2310



MESHLE app is free and offers the possibility for a white-label version. Developed in Germany, it ensures European support and data privacy standards. Additionally, the use of cloud services is optional, appealing to those concerned with privacy and data security.



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