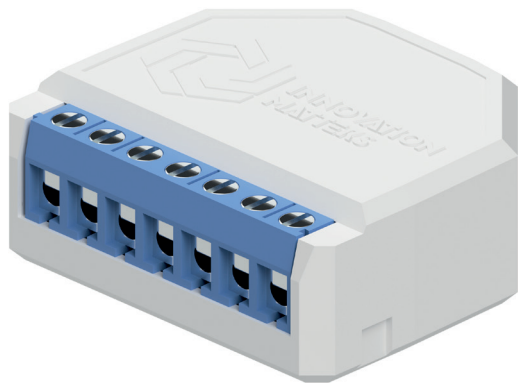


Push Button Module V1.0

Matter



Product description

- Matter Push Button Module with 4 inputs
- Wireless controllable with Matter devices
- Connection over IPV6 WLAN network
- ENEC, UL and Matter certified



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Technical data	
Rated supply voltage	110 - 240 V
Mains frequency	50/60 Hz
Max. power input	1.5 W
Connectivity standards	Matter
WLAN frequency	2.4 - 2.5 GHz
Max. output power (E.I.R.P.)	
802.11 b WIFI	< +18.22 dBm
802.11 g/n WIFI	< +19.99 dBm
Number of push button inputs	4
Ambient temperature t_a	-20 ... +70 °C
Transport/storage conditions	-40 ... +75 °C
Purpose of the control	Operating , type 1 action
Rated impulse voltage	4000 V
Overvoltage category	III
Control pollution degree	2
Dimensions L x B x H	43 x 38 x 18 mm

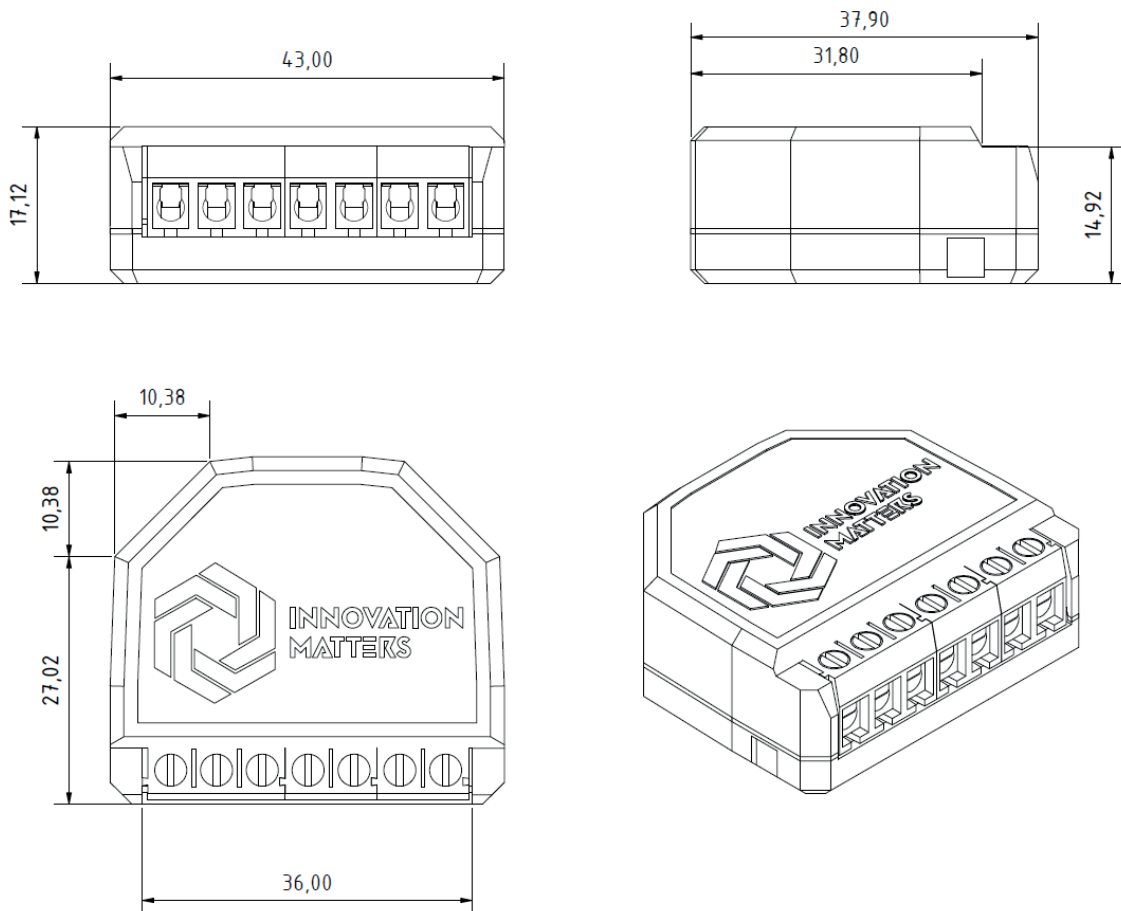
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Details

Dimensions [mm]



Description

The Push Button Module has 4 independent push button inputs. Each can perform up to 3 different control mechanisms.

The control mechanisms can be configured according to the permitted scope.

Operations are defined according to button press times, and in case of multi presses, delay time between two presses.

Button press	Time
Short press	< 0.5 s
Long press	> 0.5 s
Multi press	press two times with <0.25 s delay

Each push button input alternatively provides a dimmer switch mode.

If supported, a Matter controller can set up a direct peer-to-peer connection called „binding“ between the push button and any Matter device that is controllable via OnOff and LevelControl commands (e.g. luminaires, speakers, etc.).

When the binding is successfully set up, a single (short) press will toggle the on/off state of the device and a long press will either increase or decrease the current level of the device in an alternating manner.

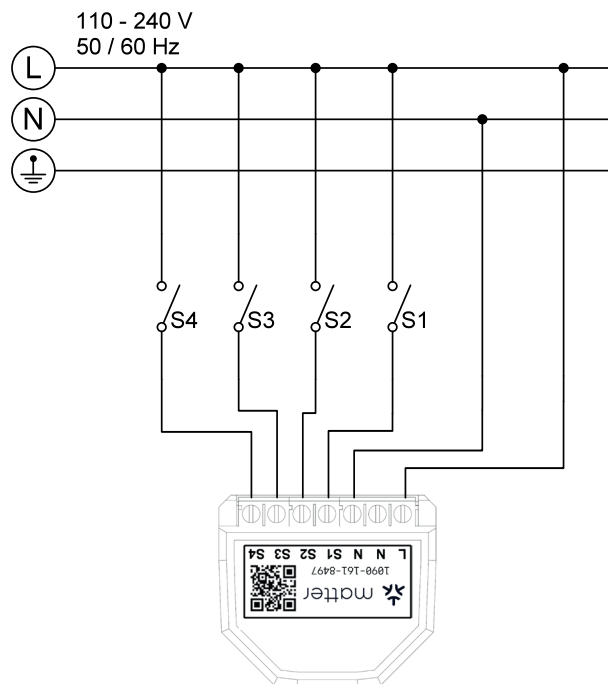
When this mode is used, all actions assigned to single-, long- and multi-presses should first be removed from the controller, otherwise the sent commands will interfere with each other.

Installation instructions

CAUTION! Please read the instructions carefully and completely before installing. Incorrect installation of the device can lead to malfunctions, fire, danger to health and life and the loss of the commercial guarantee.

Wiring diagram

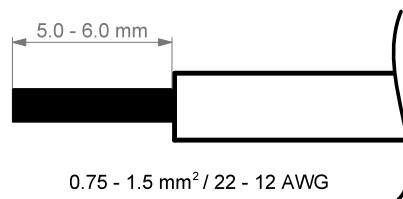
Make sure that the line-wire is connected to the L-terminal of the Push Button Module and the neutral-wire to one of the two N-terminals.



Cross section and wire types:

For the wiring between the Push Button Module, Mains and push buttons, solid wires as well as stranded wires can be used.

The recommended cross-sections and dimensions of the stripping of the insulation are shown in the figure below. The suggested wire size is from min. 0.75 mm² to max. 1.5 mm² or 22AWG to 12AWG. The recommended tightening torque of the screws on the terminals is 0.3 Nm.



To prevent electrical faults such as short circuits between a potentially electrically conductive cavity wall box and the Push Button Module, strictly follow the recommended stripping length of the wires.

Mounting environment

For the operation of the Push Button Module, at least the connection of the line and neutral conductor is required.



Before you start with the wiring of the Push Button Module, make sure that the wires are electrically voltage free! For this purpose, use a phase tester, multimeter or another appropriate measuring instrument.

Depending on the number of push button inputs required (max. 4), further wiring must be carried out between the push buttons and the push button module. A schematic connection diagram of two push-button inputs (European- and North American regions) is shown in the wiring sketch on page 7.

CAUTION! The connection terminals in the picture are purely for demonstration purposes may differ from the terminals of your pushbutton. For correct wiring, please read the manual of the push-button you want to use.

CAUTION! In the case of cavity wall boxes or other enclosures made of electrically conductive materials that could possibly come into contact with the terminals of the Push Button Module, the terminals must be protected from contact with an insulating tape. For this purpose, it is recommended to wrap the terminals with 2-3 layers of insulating tape after tightening the terminal screws.

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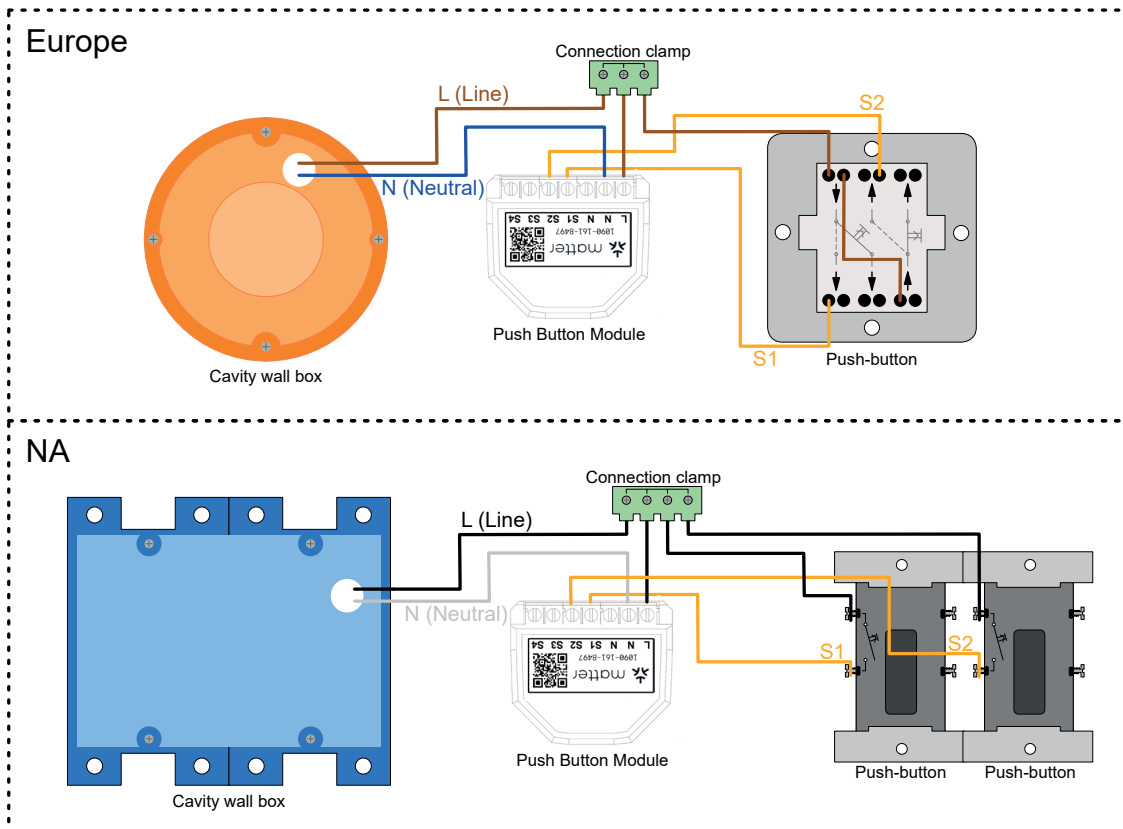
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The dimensions of standard cavity wall boxes of the respective region (Europe: single cavity wall box with a diameter of 68mm, NA: single cavity wall box with a size of 3" x 2") are recommended as the minimum installation space. This ensures sufficient ventilation for temperature dissipation.

For the installation of standard push-buttons (European market) in combination with the Push Button Module, cavity wall boxes with a depth of >60mm are recommended.

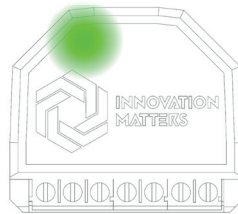
To increase the operating range of the Push Button Module, avoid powered cables in the area of the antenna (for more information, see chapter: Device placement, page 10).



Commissioning instructions

Commissioning

A factory new Push Button Module is generally in a factory reset state, which means that it is ready for commissioning after the rated supply voltage (110 - 240 V) has been applied. This factory reset mode is indicated by the green LED lighting up continuously.



Note: The device will stop advertising itself after 15 minutes without a connection attempt. Restart the device to be able to commission the device again for 15 minutes.

To commission the device with a Matter controller the QR-code, printed on the device and supplied in the packaging, must be scanned. Alternatively, it is possible to use a setup code also printed on the device.

Controllers provide means to either scan the QR-code or to enter the setup code.

After the commissioning process is finished, the device will appear in the user interface of the controller used to commission it and is ready to be controlled. The LED turns off.

Commissioning to another Matter controller

The Matter controller, used to first commission the device, can open a commissioning window on already commissioned devices. Use this functionality to put the device into pairing mode, a setup code will be displayed in the app used to perform these steps.

This setup code can be used to connect to the device from a second controller in the same way the setup code can be used to initially commission the device. Afterwards the device can be controlled from both connected controllers.

Note: The setup code displayed on the app used to first commission the device is different from the one printed on the device. To add the device to a second controller it is necessary to use the setup code displayed in the app.

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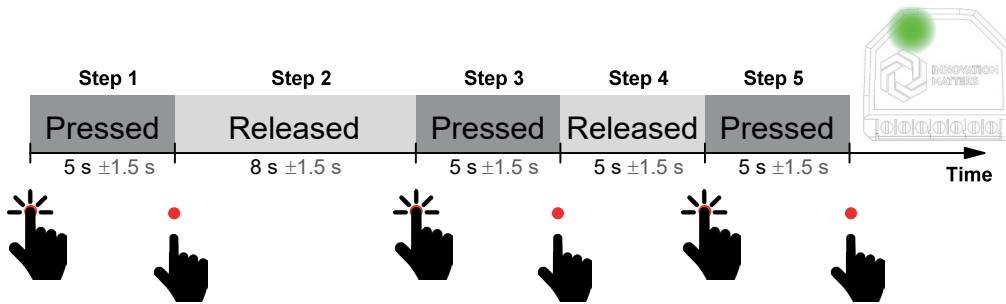


Factory reset

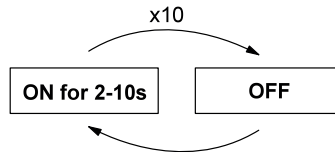
To perform a factory reset of a commissioned Push Button Module the user must perform a certain pattern by pressing a arbitrary push button. Accordingly, a factory reset is only possible in combination with at least one push button. The reset is visualized by the LED lighting up.

If you do not follow the pattern and therefore cannot perform the factory reset correctly, you can start a repeat process at Step 1 after a 10 second (s) pause. All intervals have a time slot of +/- 1.5 s.

Pattern for factory reset:



If the reset does not work for unspecified reasons, the Push Button Module can be reset by turning on/off the device (applying and disconnecting the mains) ten times in a row. Repeat the following pattern :

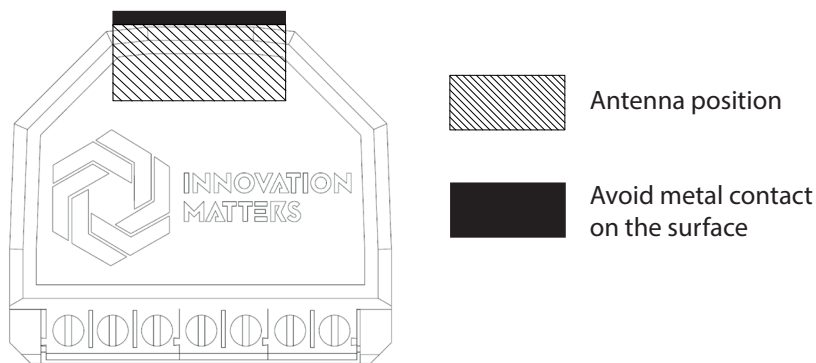


This method must be executed strictly by an expert (e.g. electrician) and only if needed!

Device placement

The Push Button Module has an integrated antenna (2.4 GHz), with an omnidirectional radiation pattern. To achieve the best communication performance, there should be no metallic objects, surfaces and powered cables in the immediate area of the antenna.

To improve the operating range, the marked area should ideally not be in contact with a metallic surface. In general, the Push button Module must not be installed in a fully closed metallic housing. The environmental parameters (e.g. building construction, obstacles such as furniture, ...) are important for the maximum operating range. The optimal alignment of the Push button Module should be tested during installation.



Insulation

The device is considered as an independently mounted control - open type (US/CAN) and classified as IP00 for IEC/EN.