

IM Pushbutton Module VI.O

Matter scene controller / dimmer switch with 4 inputs



Product description

- Matter Pushbutton Module with 4 inputs
- Wireless controllable with Matter devices
- Connection over IPV6 WiFi network
- ENEC, UL and Matter certified



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Technical data	
Model name	IM-0002
Rated supply voltage	110 - 240 V
Mains frequency	50/60 Hz
Max. power input	1.5 W
Application protocol	Matter
Communication protocol	WiFi
WiFi frequency	2.4 - 2.5 GHz
Max. output power (E.I.R.P.) 802.11 b WIFI 802.11 g/n WIFI	< +18.22 dBm < +19.99 dBm
Number of pushbutton inputs	4
Wire clamping section IEC/EN US/CAN	0.5 - 1.5 mm ² 22 - 14 AWG
Terminal screw tightening torque	0.3 Nm
Ambient temperature t_a	-20 ... +60 °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
Lifetime	up to 50000 h
Article number	0002

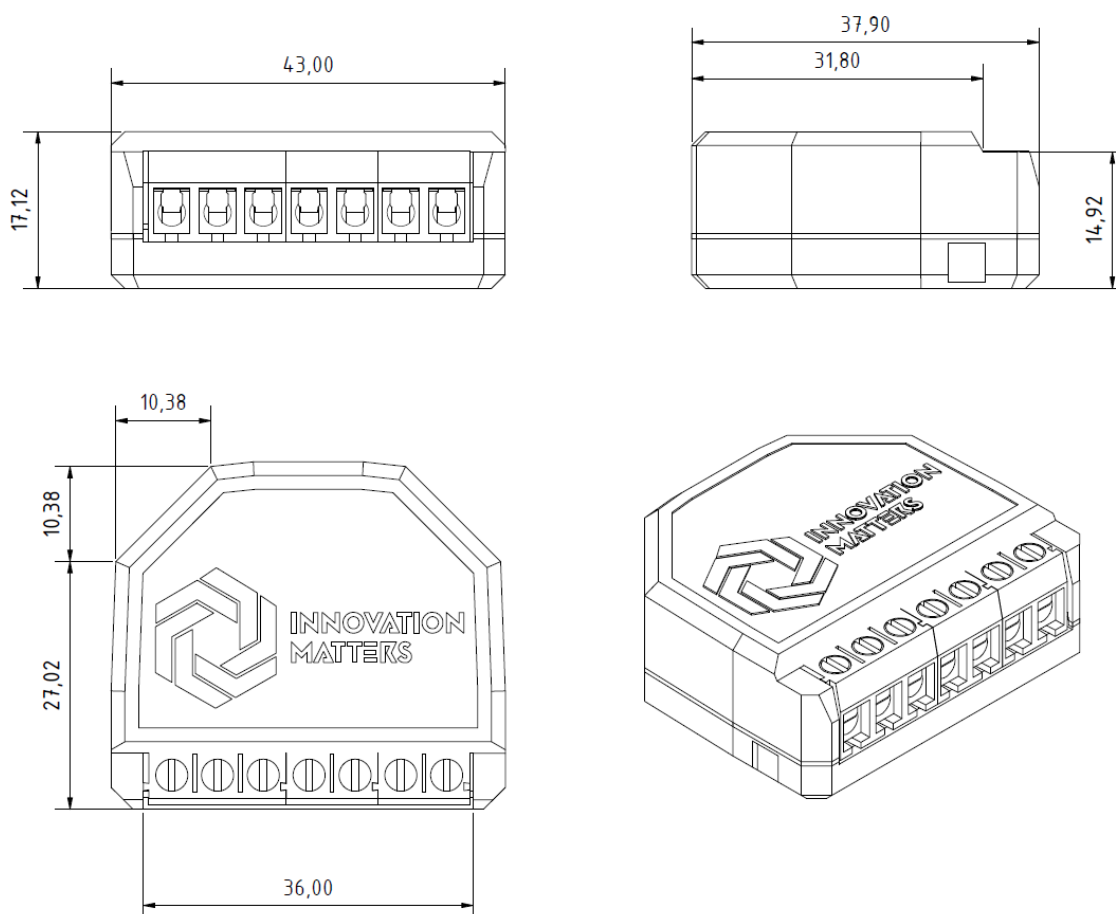
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Details

Dimensions [mm]



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Description

The Pushbutton Module has 4 independent pushbutton inputs, which can be used as Matter Generic Switch or alternatively as a Matter Dimmer Switch.

Generic Switch mode:

Up to three different control mechanisms may be performed on each pushbutton input. The control mechanisms can be configured according to the permitted scope. These 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

Dimmer Switch mode:

If supported, a Matter controller can set up a direct peer-to-peer connection called „binding“ between the pushbutton 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 on the same input should first be removed from the controller, otherwise the sent commands will interfere with each other.

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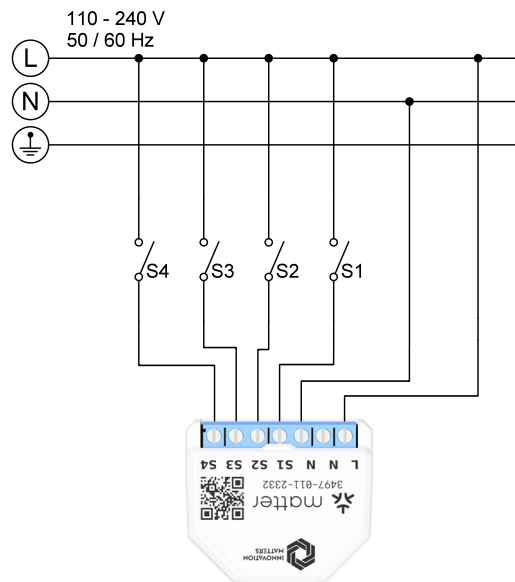
Installation instructions

CAUTION! In order to avoid hazards, the Pushbutton Module must be installed by an authorized electrician!

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.

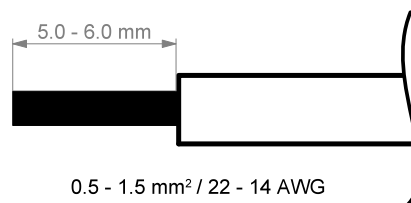
Wiring diagram

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



Cross section and wire types:

For the wiring between the Pushbutton Module, Mains and pushbuttons, solid wires as well as stranded wires can be used. If stranded wires are used, the ends must be clamped with a ferrule. 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. 0.5 mm² to max. 1.5 mm² or 22AWG to 14AWG. The recommended tightening torque of the screws on the terminals is 0.3 Nm.



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

Mounting environment

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



Before starting with the wiring of the Pushbutton Module, the electrician must make sure that the wires are electrically voltage free!

Depending on the number of pushbutton inputs required (max. 4), further wiring must be carried out between the pushbuttons and the Pushbutton Module. A schematic connection diagram of two pushbutton 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 and may differ from the terminals of your pushbutton. For correct wiring, please read the manual of the pushbutton you want to use.

CAUTION! In the case of cavity wall boxes or other enclosures made of electrically conductive materials that could potentially come into contact with the terminals of the Pushbutton Module, the terminals must be protected against contact by applying insulating tape, ensuring proper spacing from any conductive parts. For this purpose, it is recommended to wrap the terminals with 2-3 layers of insulating tape after tightening the terminal screws. Please tighten also the screws of the unused terminal inputs.

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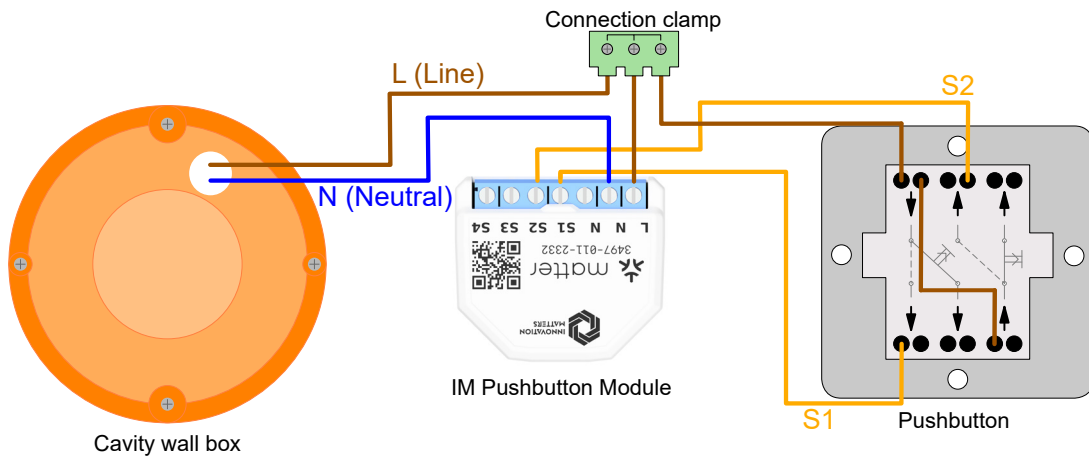


The dimensions of standard cavity wall boxes of the respective region (Europe: single cavity wall box with a diameter of 68mm, North America: single cavity wall box with a size of 3" x 2") are recommended as the minimum installation space. This ensures sufficient ventilation for temperature dissipation.

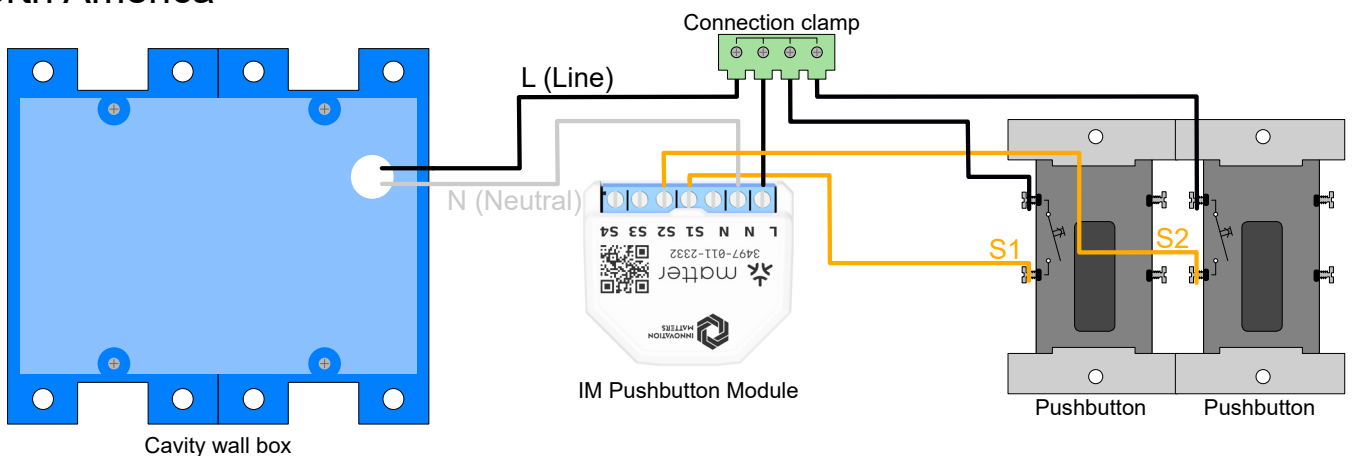
For the installation of standard pushbuttons (European market) in combination with the Pushbutton Module, cavity wall boxes with a depth of >60mm are recommended.

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

Europe



North America



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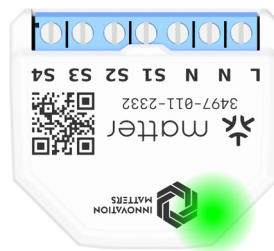
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Commissioning instructions

Commissioning

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



Note: The device will cease advertising itself after 15 minutes without an attempt to connect. Advertising refers to the time window during which the device can be commissioned. If the device has not yet been commissioned, you can reopen this time window by restarting the device.

To commission the device with a Matter controller, the QR-code, which is printed on the device and additionally supplied in the packaging, must be scanned. Keep the additional QR code stickers in a safe place. Alternatively, it is possible to use a 11-digit setup code also printed on the device.

Controllers provide means to either scan the QR-code or to enter the 11-digit 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 control other Matter devices. The green LED turns off.

Commissioning to an additional Matter controller

To add your product to another controller, open a commissioning window via the primary controller's app. For example, in the Apple Home app, go to the device's Accessory Settings and select „Turn On Pairing Mode“ to reveal an 11-digit setup code. After this, the green LED lights up again for as long as the commissioning window is open.

The displayed code allows connection to a second Matter controller, similar to the initial setup with the primary controller. After successful commissioning, the device can be managed through either controller's app.

Note: The code shown in the app differs from the one printed on the device. Use the app's displayed setup code.

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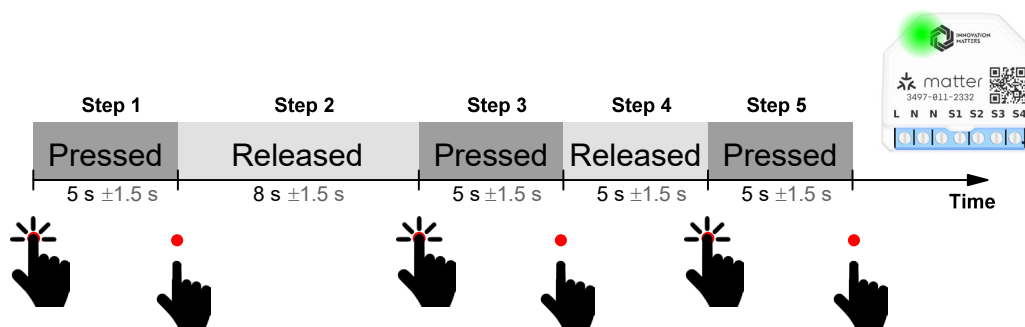
Factory reset

To perform a factory reset of a commissioned IM Pushbutton Module the user must perform a certain press-release pattern with an arbitrary pushbutton. Accordingly, this is only possible in combination with at least one connected pushbutton. A successful reset is visualized by the green LED lighting up.

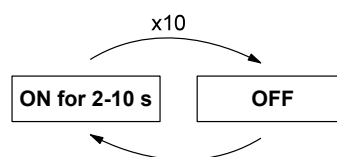
If you do not follow the pattern and therefore cannot perform the factory reset correctly, you can repeat the process at Step 1 after a 10 second (s) pause. All intervals have a time slot of +/- 1.5 s.

Before you start the factory reset, it is advised to shortly press the button once and wait a few seconds. This can also be done to restart the reset process after an erroneous sequence of button presses.

Pattern for factory reset:



If the reset does not work for unspecified reasons, the Pushbutton 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!

Note: If there are other Matter devices in the electrical circuit that can be reset by power cycling (e.g. innovation matters iot GmbH devices), these will be also reseted during the process.

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Device placement

The Pushbutton 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 Pushbutton Module should 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 Pushbutton Module should be tested during installation.



Certification marks

ENEC: [ENEC-04827](#)
UL Listed Component: [E534026](#)
Matter: [CSA241A5MAT43096-24](#)

Insulation

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