
user guide

dimmer

MATTER-CV-M2

- TECHNICAL FEATURES

- MODE OF OPERATION

1 | 1 CHANNEL OUTPUT WITH 1 LOCAL BUTTON

2 | 1 CHANNEL OUTPUT WITH 1 MATTER BUTTON (LOCALLY ASSOCIATED)

3 | 1 CHANNEL OUTPUT WITH 1 MATTER BUTTON (NOT ASSOCIATED LOCALLY)

4 | 1-CHANNEL OUTPUT WITH 1 MATTER GENERIC SWITCH BUTTON (NOT ASSOCIATED LOCALLY)

5 | 2-CHANNEL OUTPUT WITH 1 MATTER BUTTON (NOT ASSOCIATED LOCALLY)

6 | 1-CHANNEL TUNABLE WHITE OUTPUT WITH 1 LOCAL BUTTON

7 | 1-CHANNEL TUNABLE WHITE OUTPUT WITH 1 MATTER BUTTON (LOCALLY ASSOCIATED)

8 | 1-CHANNEL TUNABLE WHITE OUTPUT WITH 1 MATTER BUTTON (NOT ASSOCIATED LOCALLY)

- SUPPLEMENTARY DIAGRAMS

- PWM OUTPUT FREQUENCY SETUP

- MATTER DEVICE INSTALLATION GUIDE

MATTER-CV-M2

MATTER inputs 1-2 channels PWM output

TECHNICAL FEATURES

- Dimmer with Matter WiFi control and Push input (isolated/non-isolated)
- **Compatible with Matter WiFi control devices**
- Selection of 1-channel/2-channel/Tunable White mode
- **Power supply LED**
- **Output status LED**
- Power supply and output terminals 0.05÷3 mm² (30÷12 AWG)
- PWM frequency: 390Hz, 3000Hz, 10000Hz
- Protection against: polarity reversal, short circuit, open circuit, voltage spikes
- Total power output 144W at 12V, 288W at 24V, 576W at 48V
- **UL Printed Circuit Board**

SAFETY WARNINGS

- Minimum storage temperature: -40°C, maximum storage temperature: 60°C
- Minimum operating temperature: -20°C, maximum operating temperature: 50°C
- Maximum Tc point: 85°C
- Tc is located on the terminal screw corresponding to the Tc indication (see figure A)

The **MATTER-CV-M2** dimmer is a **very low voltage** 12, 24 and 48V DC PWM dimmer suitable for controlling LED strips and PWM dimmable LED loads.

The dimmer can be controlled via a push button (N/O normally open) at mains voltage or 12, 24-48V or the MATTER system.

The **MATTER-CV-M2** dimmer is managed by MATTER on an 802.11 WiFi network.

The dimmer is also equipped with an LED indicator to show that it is correctly powered.

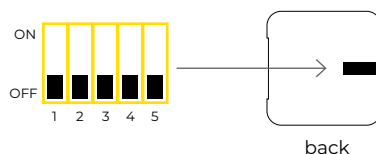
The **MATTER-CV-M2** dimmer must be powered according to the polarity indicated in **FIG. 1** via the DC IN terminals (+ and -).

If the power supply polarity is reversed, the device will not be damaged. The LED load must be connected using the OUT terminals (L+ and L-).



ATTENTION!

The DIP switch **MUST** be located on the right side of the back of the dimmer box!



CODE	VOLTAGE RANGE	CURRENT OUTPUT	POWER OUTPUT	OUTPUTS	INPUT	LOAD TYPE	PART NUMBER
MATTER-CV-M2	8÷53 V DC	12A	576W a 48V 288W a 24V 144W a 12V	1 - 2	MATTER WIFI / PUSH	monochrome / tunable white	L801MA0FTIA01



48x48x22,8 mm
weight: 35 gr

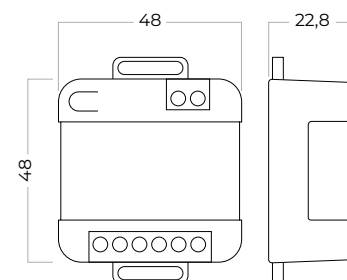
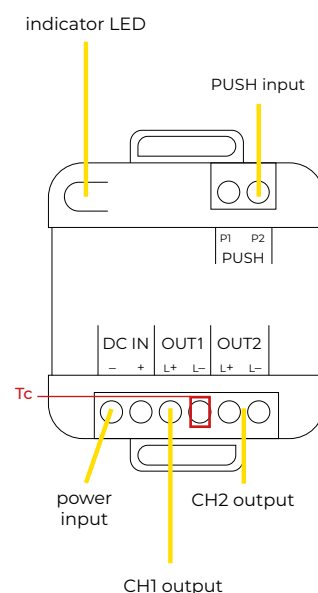


figure A



Maintenance: The appliance is maintenance-free. Use a dry cloth to clean it. The use of solvents or other aggressive substances should be avoided at all costs.

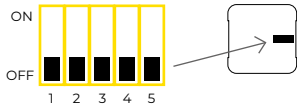


Disposal: at the end of its useful life, the product described in this data sheet is classified as waste from electronic equipment according to the European Directive 2012/19/EU (WEEE recast), implemented in Italy with Legislative Decree no. 49 of 14 March 2014, and cannot be disposed of as unsorted municipal solid waste. **Important:** Improper disposal of the product may cause serious harm to the environment and human health. For proper disposal, inquire about the collection and treatment methods provided by the local authorities.

Mode of operation

1 | 1 channel output with 1 local button

Dip switch setting:



In this mode, the status of the output channel, modified by the control button, is also updated on MATTER.
In this mode, the button is not visible on MATTER.

In order to activate this control/operation mode, the DIP switches must be set as indicated above.

Control via push button can be achieved by using the mains voltage (110÷230VAC) directly, as shown in **FIG. 1**, or the output voltage of the power supply (8÷53VDC), **FIG. 2**.

For installation of the dimmer in the system, it is preferable to use the diagram shown in **FIG. 1**.

In this configuration, the dimmer guarantees isolation from the mains voltage.

The input range between poles P1 and P2 is DC: 10÷265V, AC 12÷265VAC 50÷65Hz. The maximum current drawn by the PUSH interface is approximately 2mA. The maximum distance between the dimmer and the button must not exceed 20 meters; the use of shielded cables is recommended.

For cable lengths exceeding 20 meters or in the presence of multiple control buttons, the use of a normally open support relay is recommended. See diagram on page 13.

When there is no power supply, the dimmer saves the output status so that the set level can be restored when power is restored, except for different configurations set via MATTER.

In this mode, the dimmer can handle currents up to 12A.

PUSH interface operation

Single Click (quick press <1 sec)

- Turns the output on or off (ON/OFF).

Double Click (quick press <1 sec)

- Sets maximum brightness (output = 100%).
 Fast maximum light mode.

Long Press (press and hold for more than 1 second)

- If the dimmer is in the OFF state, set the output to the minimum value (default = 1%). Anti-disturbance night mode.
 - If the dimmer is in the ON state, pressing and holding the button allows the output to be dimmed (increased/decreased).

note: Check that the input and output connection cables are correctly inserted into the terminal block and not under the block itself. Incorrect insertion of the cable into the block can lead to overheating or malfunctioning.

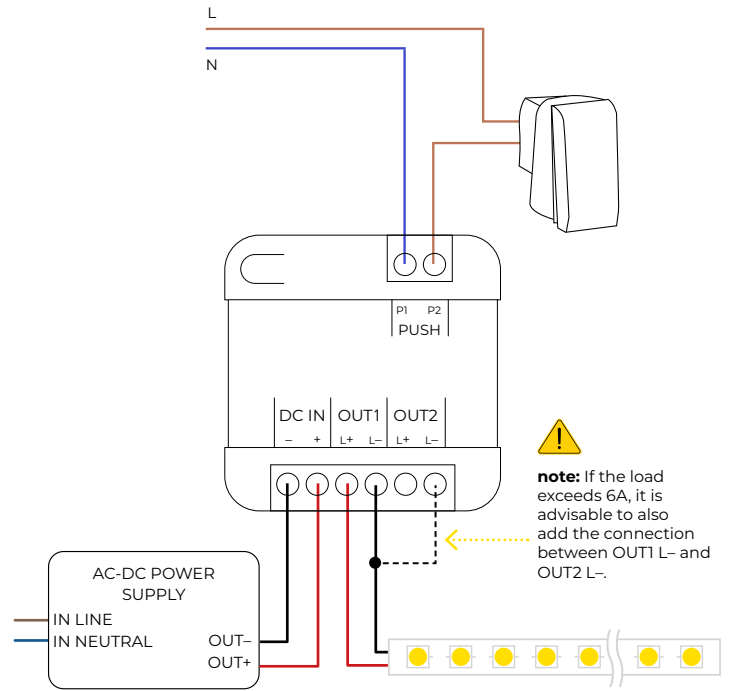


FIG. 1 - mains voltage button connection

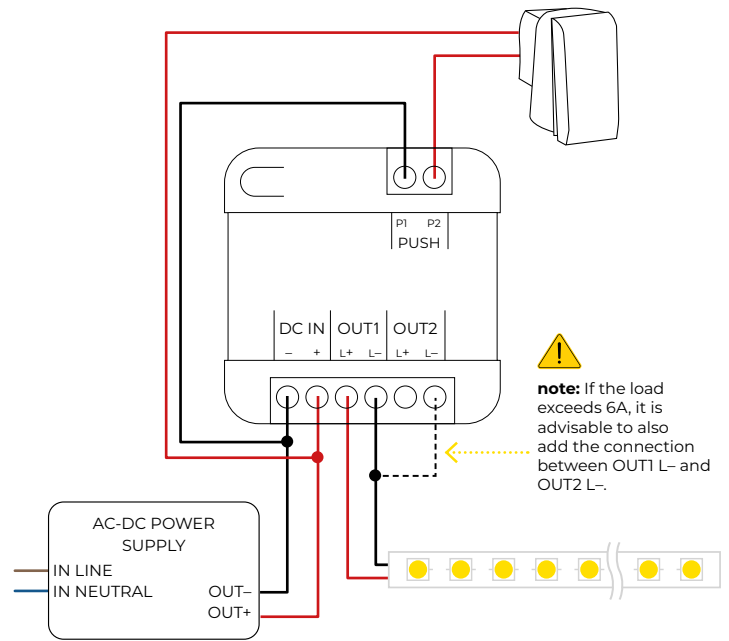


FIG. 2 - button connection with voltage from the power supply

➔ When switched on, the device is visible for MATTER commissioning for approximately 5 minutes. The indicator light on the device will flash slowly in blue. After 5 minutes, the indicator LED will remain steady blue. If MATTER commissioning is successful, the LED will turn steady green. A yellow flash indicates that the dimmer is in the MATTER commissioning phase.

Mode of operation

2 | 1 channel output with 1 MATTER button (locally associated)

Dip switch setting:



In this mode, the status of the output channel, modified by the control button, is also updated on MATTER.

In this mode, the button is visible on MATTER and acts locally on the dimmer output channel.

In order to activate this control/operation mode, the DIP switches must be set as indicated above.

Control via push button can be achieved by using the mains voltage (110÷230VAC) directly, as shown in FIG. 3, or the output voltage of the power supply (8÷53VDC), FIG. 4.

For installation of the dimmer in the system, it is preferable to use the diagram shown in FIG. 3.

In this configuration, the dimmer guarantees isolation from the mains voltage.

The input range between poles P1 and P2 is DC: 10÷265V, AC 12÷265VAC 50÷65Hz.

The maximum current drawn by the PUSH interface is approximately 2mA. The maximum distance between the dimmer and the button must not exceed 20 meters; the use of shielded cables is recommended.

For cable lengths exceeding 20 meters or in the presence of multiple control buttons, the use of a normally open support relay is recommended. See diagram on page 13.

When there is no power supply, the dimmer saves the output status so that the set level can be restored when power is restored, except for different configurations set via MATTER.

In this mode, the dimmer can handle currents up to 12A.

PUSH interface operation

Single Click (quick press <1 sec)

- Turns the output on or off (ON/OFF).

Double Click (quick press <1 sec)

- Set maximum brightness (output = 100%).
Fast maximum light mode.

Long Press (press and hold for more than 1 second)

- If the dimmer is in the OFF state, set the output to the minimum value (default = 1%). Anti-disturbance night mode.
- If the dimmer is in the ON state, pressing and holding the button allows the output to be dimmed (increased/decreased).

note: Check that the input and output connection cables are correctly inserted into the terminal block and not under the block itself. Incorrect insertion of the cable into the block can lead to overheating or malfunctioning.

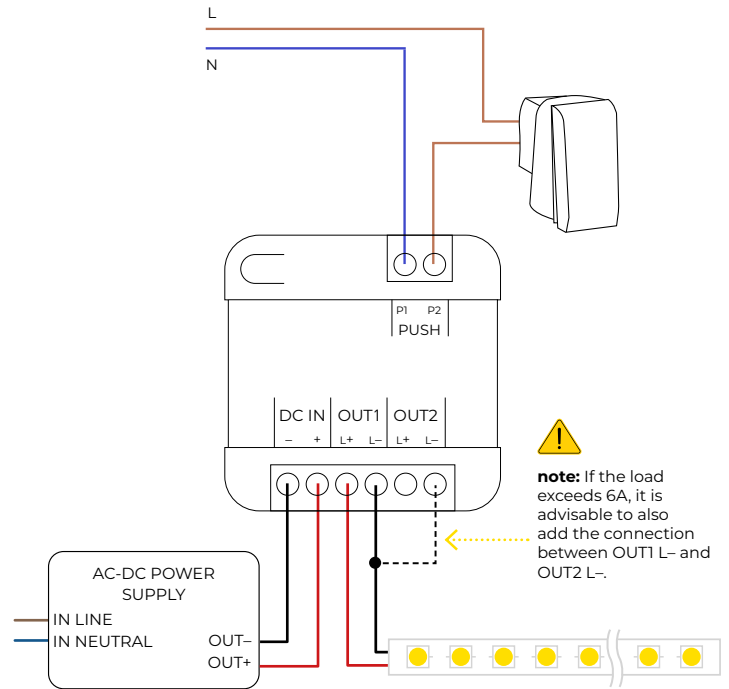


FIG. 3 - mains voltage button connection

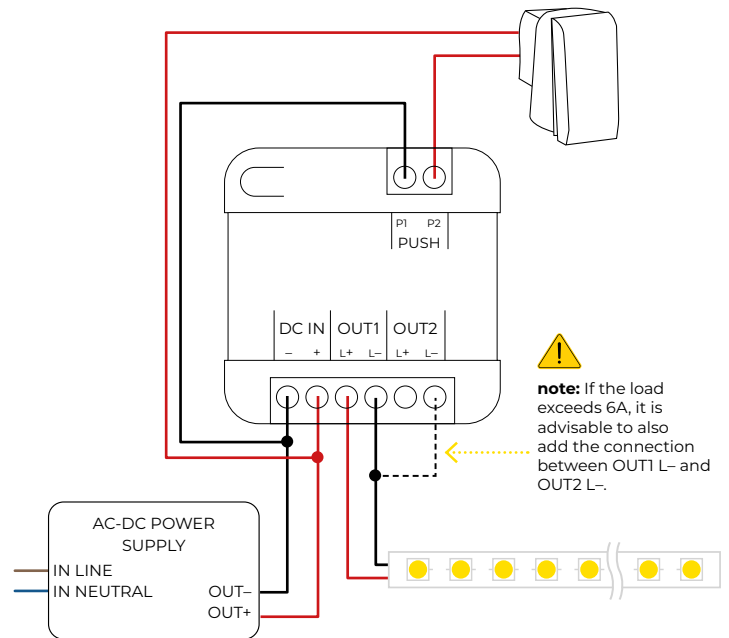


FIG. 4 - button connection with voltage from the power supply

➔ When switched on, the device is visible for MATTER commissioning for approximately 5 minutes. The indicator light on the device will flash slowly in blue. After 5 minutes, the indicator LED will remain steady blue. If MATTER commissioning is successful, the LED will turn steady green. A yellow flash indicates that the dimmer is in the MATTER commissioning phase.

Mode of operation

3 | 1 channel output with 1 MATTER button (not associated locally)

Dip switch setting:



In this mode, the button is visible on MATTER and can be associated with other dimmers or actuators.

In this mode, the button cannot act on the dimmer to which it is connected.

In order to activate this control/operation mode, the DIP switches must be set as indicated above.

Control via push button can be achieved by using the mains voltage (110÷230VAC) directly, as shown in **FIG. 5**, or the output voltage of the power supply (8÷53VDC), **FIG. 6**. For installation of the dimmer in the system, it is preferable to use the diagram shown in **FIG. 5**. In this configuration, the dimmer guarantees isolation from the mains voltage.

The input range between poles P1 and P2 is DC: 10÷265V, AC 12÷265VAC 50÷65Hz. The maximum current drawn by the PUSH interface is approximately 2mA. The maximum distance between the dimmer and the button must not exceed 20 meters; the use of shielded cables is recommended. For cable lengths exceeding 20 meters or in the presence of multiple control buttons, the use of a normally open support relay is recommended. See diagram on page 13.

When there is no power supply, the dimmer saves the output status so that the set level can be restored when power is restored, except for different configurations set via MATTER.

In this mode, the dimmer can handle currents up to 12A.

note: Check that the input and output connection cables are correctly inserted into the terminal block and not under the block itself. Incorrect insertion of the cable into the block can lead to overheating or malfunctioning.

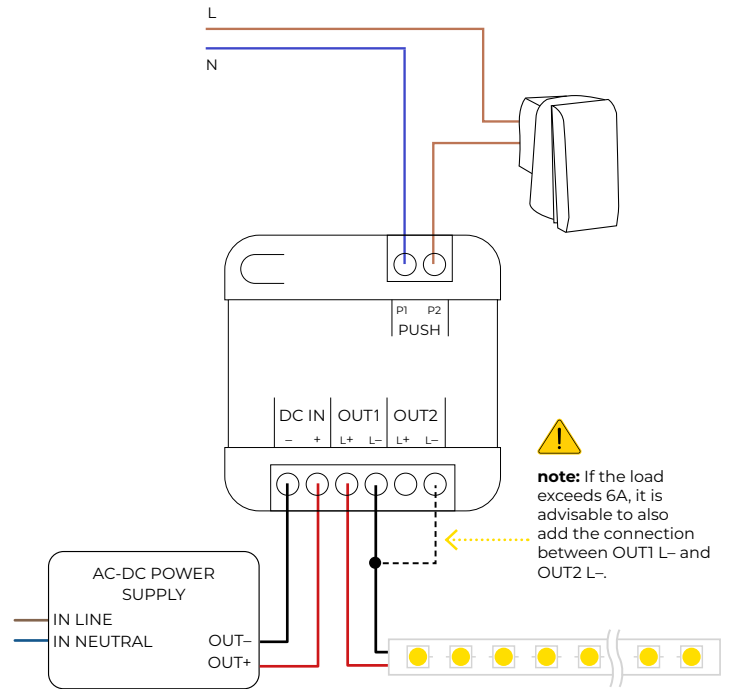


FIG. 5 - mains voltage button connection

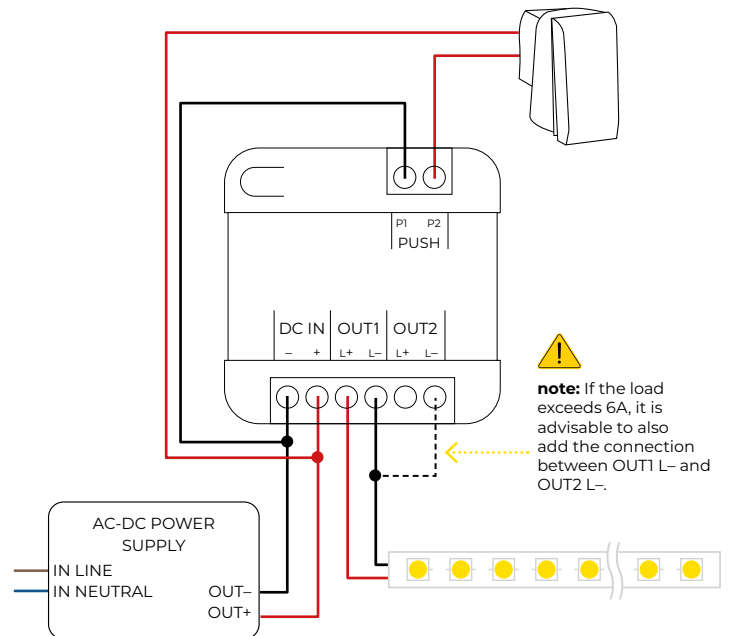


FIG. 6 - button connection with voltage from the power supply

➔ When switched on, the device is visible for MATTER commissioning for approximately 5 minutes. The indicator light on the device will flash slowly in blue. After 5 minutes, the indicator LED will remain steady blue. If MATTER commissioning is successful, the LED will turn steady green. A yellow flash indicates that the dimmer is in the MATTER commissioning phase.

Mode of operation

4 | 1-channel output with 1 MATTER GENERIC SWITCH button (not associated locally)

Dip switch setting:



In this mode, the button appears in MATTER as a GENERIC SWITCH and can be linked via routines to scenes or to the control of other dimmers or actuators.

The GENERIC SWITCH mode ensures greater compatibility with Google Nest and Amazon Alexa voice assistants.

To activate this control/operating mode, the DIP switches must be set as indicated above.

Control via the button can be achieved by using the mains voltage directly (110–230 VAC) as shown in FIG. 7, or the output voltage of the power supply (8–53 VDC), FIG. 8. For installing the dimmer in a system, it is preferable to use the diagram shown in FIG. 7.

In this configuration, the dimmer ensures isolation from the mains voltage.

The input range between terminals P1 and P2 is DC: 10÷265V, AC 12÷265VAC 50÷65Hz..

The maximum current drawn by the PUSH interface is approximately 2mA.

The maximum distance between the dimmer and the push-button must not exceed 20 metres; the use of shielded cables is recommended. For cable lengths exceeding 20 metres or where multiple control buttons are used, the use of a normally open support relay is recommended. See diagram on page 13.

If the power supply is lost, the dimmer saves the output status so that the set level is restored when power is restored, unless different settings have been configured via MATTER.

In this mode, the dimmer is capable of handling currents up to 12A.

note: Ensure that the input and output connection cables are correctly inserted into the terminal block carriage and not underneath the carriage itself. Incorrect insertion of the cable inside the carriage may lead to overheating or malfunctions.

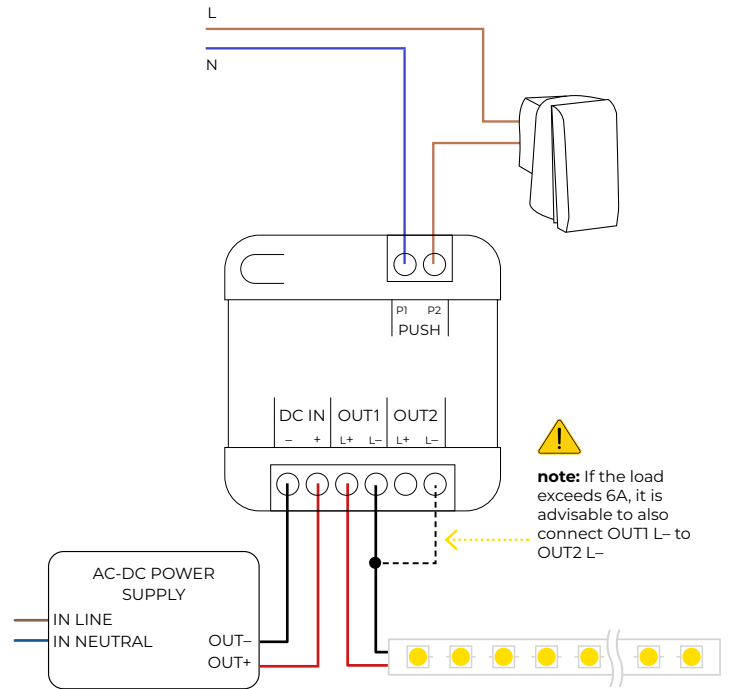


FIG. 7 - mains-powered button switch

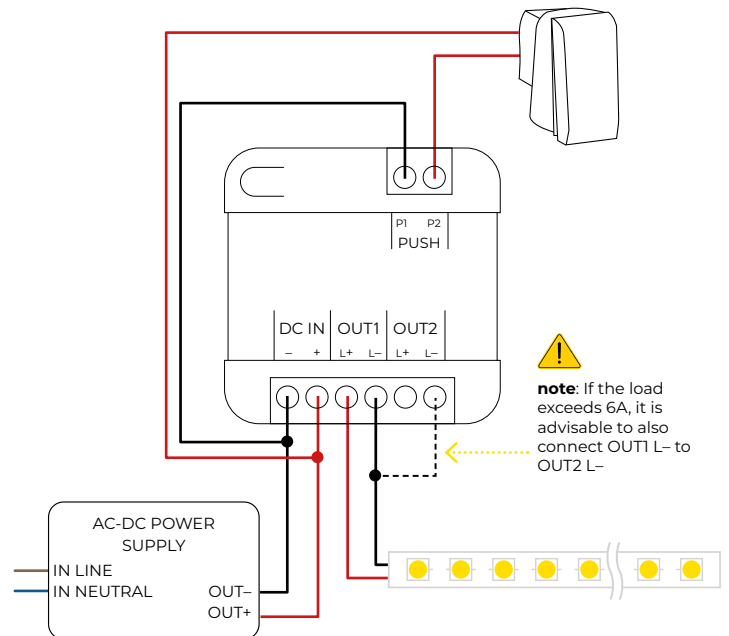


FIG. 8 - cbutton connection powered by the power supply

➔ When switched on, the device is ready for MATTER setup for approximately 5 minutes. The indicator light on the device will **flash slowly in blue**. After 5 minutes, the indicator LED will **remain steady blue**. If the MATTER setup is successful, the LED will turn **steady green**. A **yellow flash** indicates that the dimmer is in the process of being set up for MATTER.

Mode of operation

5 | 2-channel output with 1 MATTER button (not associated locally)

Dip switch setting:



In this mode, the button is visible on MATTER and can be associated with other dimmers or actuators.

In this mode, the button cannot act on the dimmer to which it is connected.

In order to activate this control/operation mode, the DIP switches must be set as indicated above.

Control via push button can be achieved by using the mains voltage (110÷230VAC) directly, as shown in FIG. 9, or the output voltage of the power supply (8÷53VDC), FIG. 10.

For installation of the dimmer in the system, it is preferable to use the diagram shown in FIG. 9.

The input range between poles P1 and P2 is DC: 10÷265V, AC 12÷265VAC 50÷65Hz.

The maximum current drawn by the PUSH interface is approximately 2mA.

The maximum distance between the dimmer and the button must not exceed 20 meters; the use of shielded cables is recommended.

For cable lengths exceeding 20 meters or in the presence of multiple control buttons, the use of a normally open support relay is recommended. See diagram on page 13.

When there is no power supply, the dimmer saves the output status so that the set level can be restored when power is restored, except for different configurations set via MATTER.

In this mode, the dimmer can handle currents up to 6A per output.

note: Check that the input and output connection cables are correctly inserted into the terminal block and not under the block itself. Incorrect insertion of the cable into the block can lead to overheating or malfunctioning.

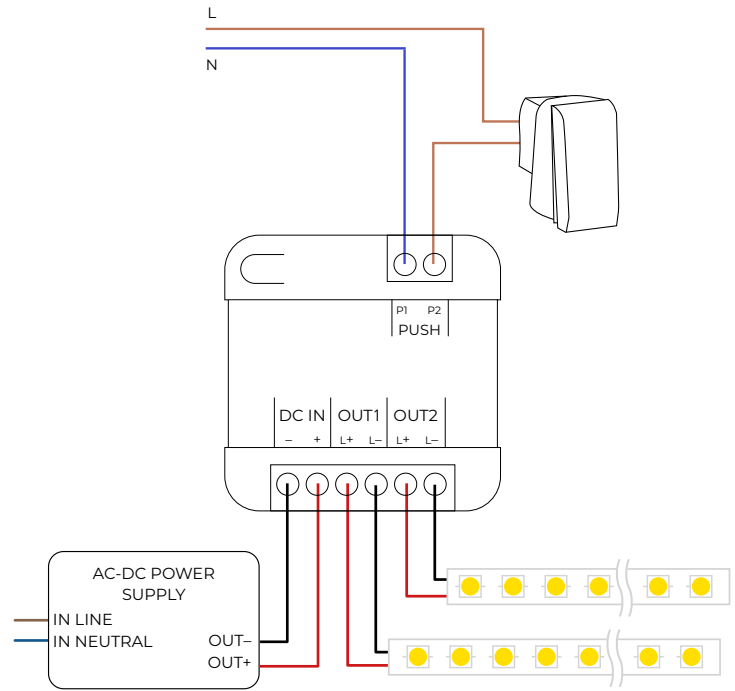


FIG. 9 - mains voltage button connection

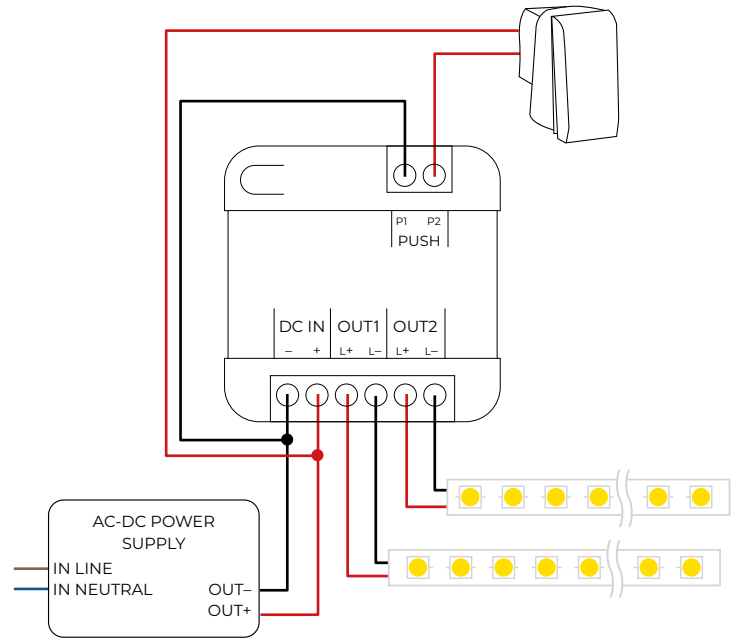


FIG. 10 - button connection with voltage from the power supply

➔ When switched on, the device is visible for MATTER commissioning for approximately 5 minutes. The indicator light on the device will flash slowly in blue. After 5 minutes, the indicator LED will remain steady blue. If MATTER commissioning is successful, the LED will turn steady green. A yellow flash indicates that the dimmer is in the MATTER commissioning phase.

Mode of operation

6 | 1-channel tunable white output with 1 local button

Dip switch setting:



In this mode, the status of the output channel, modified by the control button, is also updated on MATTER.

In this mode, the button is not visible on MATTER.

In order to activate this control/operation mode, the DIP switches must be set as indicated above.

Control via push button can be achieved by using the mains voltage (110÷230VAC) directly, as shown in **FIG. 11**, or the output voltage of the power supply (8÷53VDC), **FIG. 12**.

For installation of the dimmer in the system, it is preferable to use the diagram shown in **FIG. 11**. In this configuration, the dimmer guarantees isolation from the mains voltage.

The input range between poles P1 and P2 is DC: 10÷265V, AC 12÷265VAC 50÷65Hz. The maximum current drawn by the PUSH interface is approximately 2mA.

The maximum distance between the dimmer and the button must not exceed 20 meters; the use of shielded cables is recommended.

For cable lengths exceeding 20 meters or in the presence of multiple control buttons, the use of a normally open support relay is recommended. See diagram on page 13.

When there is no power supply, the dimmer saves the output status so that the set level can be restored when power is restored, except for different configurations set via MATTER.

In this mode, the dimmer can handle currents up to 6A per channel (12A total).

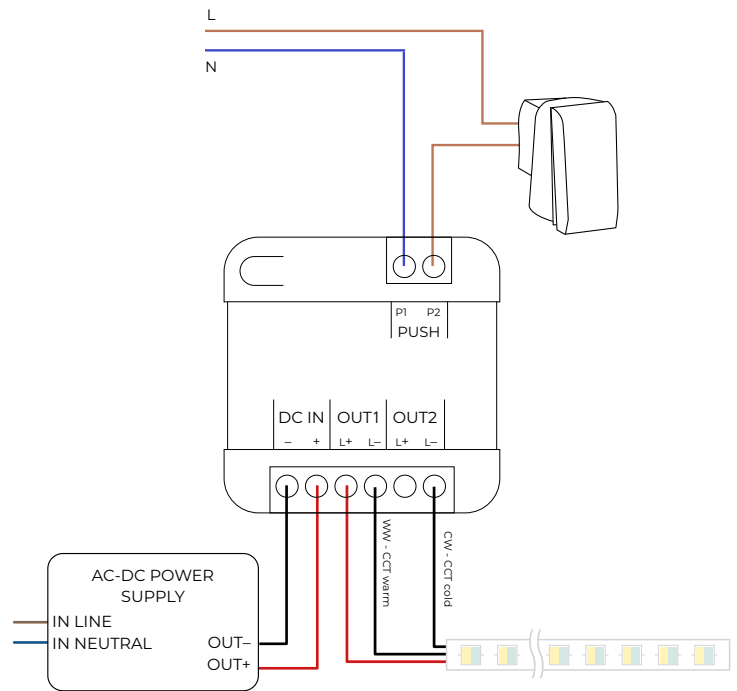


FIG. 11 - mains voltage button connection

PUSH interface operation

In this mode, the status of the output channel, modified by the control button, is also updated on MATTER.

In this mode, the button is not visible on MATTER.

Double Click (quick press <1 sec)

- Switching between **Brightness Control mode** and **CCT Control mode**.

Brightness Control mode

Single Click (quick press <1 sec)

- Turns the output on or off (ON/OFF).

Single click (press and hold for >1 sec)

- If the dimmer is in the OFF state, it sets the brightness to the minimum value while maintaining the set CCT. Anti-disturbance Night Mode.

- If the dimmer is in the ON state, pressing and holding the button allows the output to be dimmed (increased/decreased).

Control CCT mode

Single Click (quick press <1 sec)

- Turns the output ON.

Single click (press and hold for >1 sec)

- Prolonged pressure allows for variation in the color temperature (CCT) output.

note: After 30 seconds of inactivity, the dimmer returns to **Brightness Control mode**.

note: Check that the input and output connection cables are correctly inserted into the terminal block and not under the block itself. Incorrect insertion of the cable into the block can lead to overheating or malfunctioning.

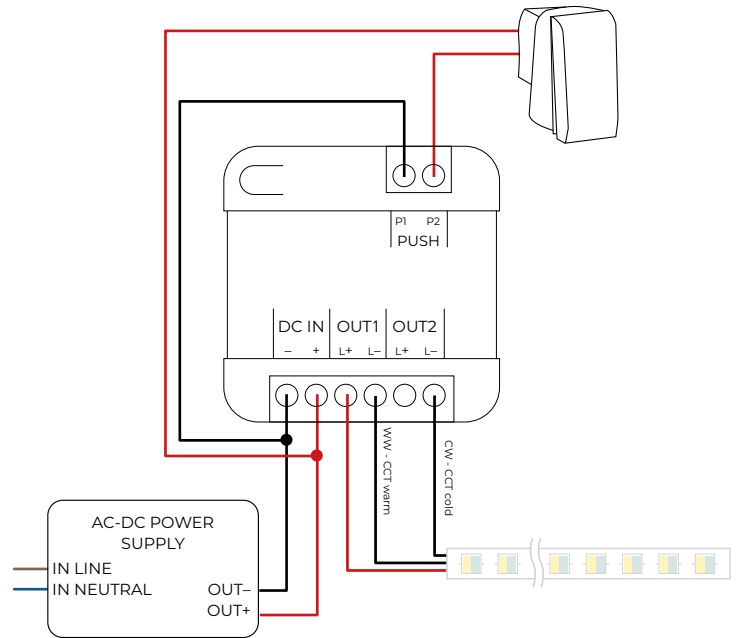


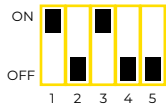
FIG. 12 - button connection with voltage from the power supply

→ When switched on, the device is visible for MATTER commissioning for approximately 5 minutes. The indicator light on the device **will flash slowly in blue**. After 5 minutes, the indicator LED will remain **steady blue**. If MATTER commissioning is successful, the LED will turn **steady green**. A **yellow flash** indicates that the dimmer is in the MATTER commissioning phase.

Mode of operation

7 | 1-channel tunable white output with 1 MATTER button (locally associated)

Dip switch setting:



In this mode, the status of the output channel, modified by the control button, is also updated on MATTER.

In this mode, the button is visible on MATTER and acts locally on the dimmer output channel.

In order to activate this control/operation mode, the DIP switches must be set as indicated above.

Control via push button can be achieved by using the mains voltage (110÷230VAC) directly, as shown in **FIG. 13**, or the output voltage of the power supply (8÷53VDC), **FIG. 14**.

For installation of the dimmer in the system, it is preferable to use the diagram shown in **FIG. 13**. In this configuration, the dimmer guarantees isolation from the mains voltage.

The input range between poles P1 and P2 is DC: 10÷265V, AC 12÷265VAC 50÷65Hz.

The maximum current drawn by the PUSH interface is approximately 2mA.

The maximum distance between the dimmer and the button must not exceed 20 meters; the use of shielded cables is recommended.

For cable lengths exceeding 20 meters or in the presence of multiple control buttons, the use of a normally open support relay is recommended. See diagram on page 13.

When there is no power supply, the dimmer saves the output status so that the set level can be restored when power is restored, except for different configurations set via MATTER.

In this mode, the dimmer can handle currents up to 6A per channel (12A total).

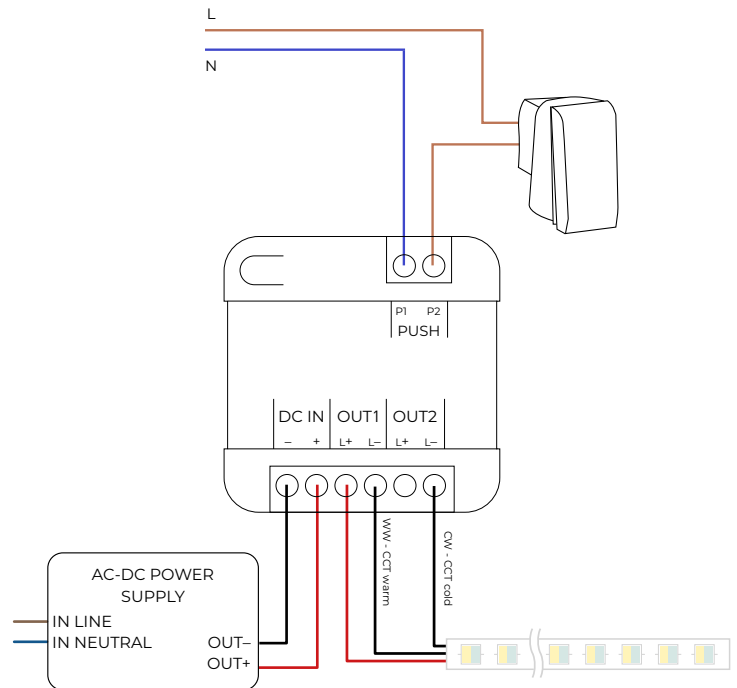


FIG. 13 - mains voltage button connection

PUSH interface operation

In this mode, the status of the output channel, modified by the control button, is also updated on MATTER.

In this mode, the button is visible on MATTER and acts locally on the dimmer output channel.

Double Click (quick press <1 sec)

- Switching between **Brightness Control mode** and **CCT Control mode**.

Brightness Control mode

Single Click (quick press <1 sec)

- Turns the output on or off (ON/OFF).

Single click (press and hold for >1 sec)

- If the dimmer is in the OFF state, it sets the brightness to the minimum value while maintaining the set CCT. Anti-disturbance Night Mode.

- If the dimmer is in the ON state, pressing and holding the button allows the output to be dimmed (increased/decreased).

Control CCT mode

Single Click (quick press <1 sec)

- Turns the output ON.

Single click (press and hold for >1 sec)

- Prolonged pressure allows for variation in the color temperature (CCT) output.

NB: After 30 seconds of inactivity, the dimmer returns to **Brightness Control mode**.

note: Check that the input and output connection cables are correctly inserted into the terminal block and not under the block itself. Incorrect insertion of the cable into the block can lead to overheating or malfunctioning.

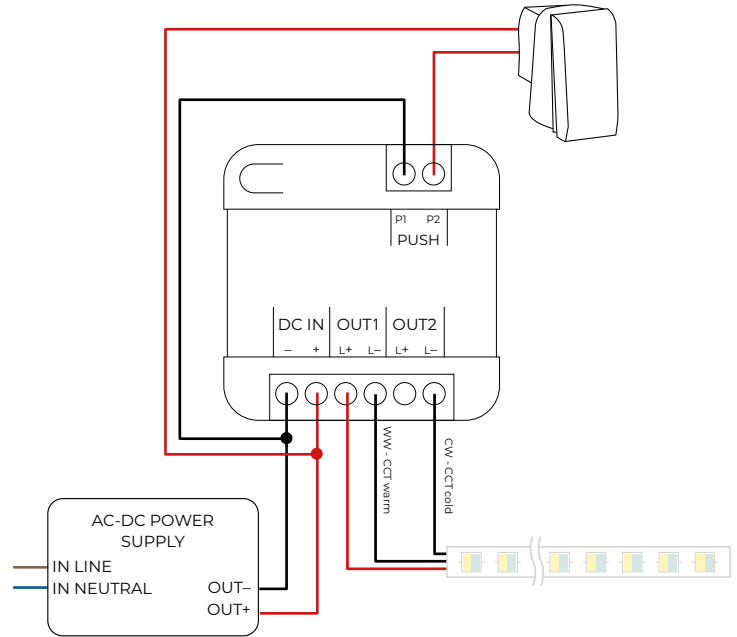


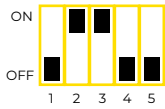
FIG. 14 - button connection with voltage from the power supply

→ When switched on, the device is visible for MATTER commissioning for approximately 5 minutes. The indicator light on the device **will flash slowly in blue**. After 5 minutes, the indicator LED will remain **steady blue**. If MATTER commissioning is successful, the LED will turn **steady green**. A **yellow flash** indicates that the dimmer is in the MATTER commissioning phase.

Mode of operation

8 | 1-channel tunable white output with 1 MATTER button (not associated locally)

Dip switch setting:



In this mode, the button is visible on MATTER and can be associated with other dimmers or actuators.

In this mode, the button cannot act on the dimmer to which it is connected.

In order to activate this control/operation mode, the DIP switches must be set as indicated above.

Control via push button can be achieved by using the mains voltage (110÷230VAC) directly, as shown in FIG. 15, or the output voltage of the power supply (8÷53VDC), FIG. 16.

For installation of the dimmer in the system, it is preferable to use the diagram shown in FIG. 13. In this configuration, the dimmer guarantees isolation from the mains voltage.

The input range between poles P1 and P2 is DC: 10÷265V, AC 12÷265VAC 50÷65Hz.

The maximum current drawn by the PUSH interface is approximately 2mA.

The maximum distance between the dimmer and the button must not exceed 20 meters; the use of shielded cables is recommended.

For cable lengths exceeding 20 meters or in the presence of multiple control buttons, the use of a normally open support relay is recommended. See diagram on page 13.

When there is no power supply, the dimmer saves the output status so that the set level can be restored when power is restored, except for different configurations set via MATTER.

In this mode, the dimmer can handle currents up to 6A per channel (12A total).

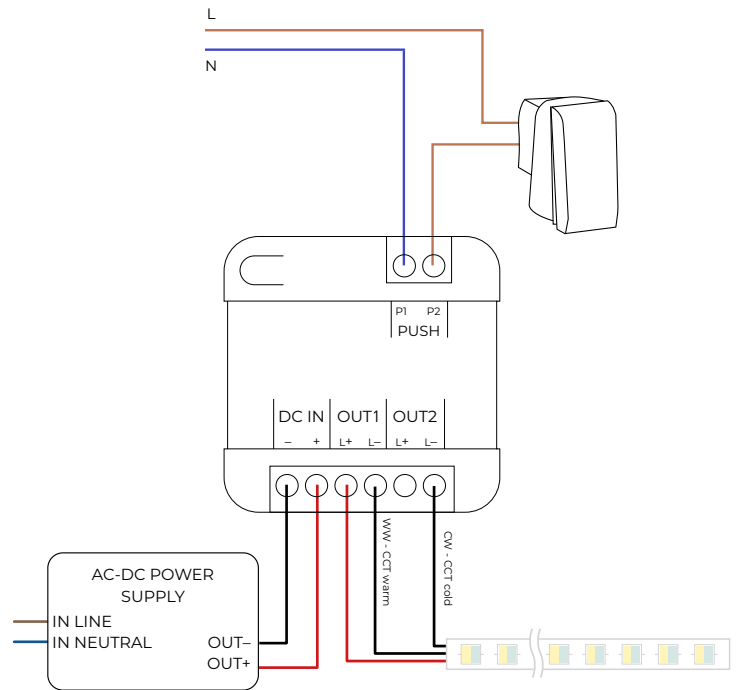


FIG. 15 - mains voltage button connection

PUSH interface operation

In this mode, the button is visible on MATTER and can be associated with other dimmers or actuators.

In this mode, the button cannot act on the dimmer to which it is connected.

Double Click (quick press <1 sec)

- Switching between **Brightness Control mode** and **CCT Control mode**.

Brightness Control mode

Single Click (quick press <1 sec)

- Turns the output on or off (ON/OFF).

Single click (press and hold for >1 sec)

- If the dimmer is in the OFF state, it sets the brightness to the minimum value while maintaining the set CCT. Anti-disturbance Night Mode.

- If the dimmer is in the ON state, pressing and holding the button allows the output to be dimmed (increased/decreased).

Control CCT mode

Single Click (quick press <1 sec)

- Turns the output ON.

Single click (press and hold for >1 sec)

- Prolonged pressure allows for variation in the color temperature (CCT) output.

note: After 30 seconds of inactivity, the dimmer returns to **Brightness Control mode**.

note: Check that the input and output connection cables are correctly inserted into the terminal block and not under the block itself. Incorrect insertion of the cable into the block can lead to overheating or malfunctioning.

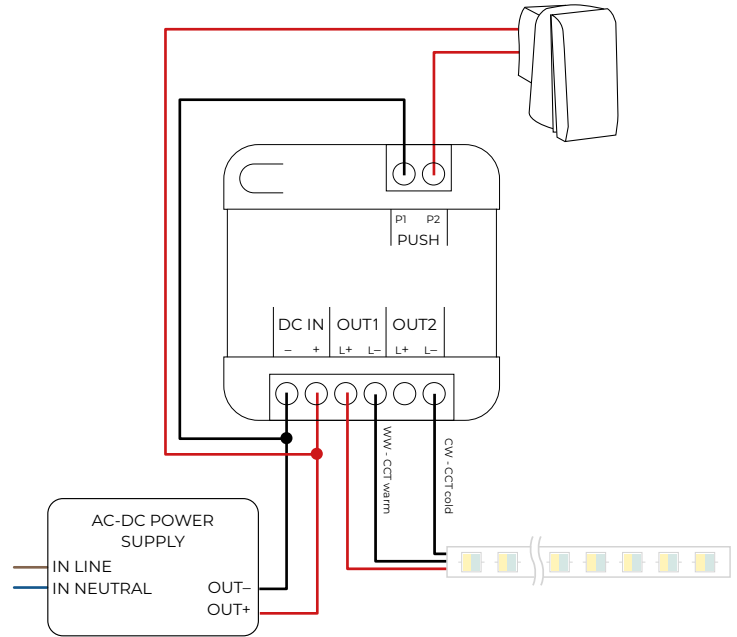
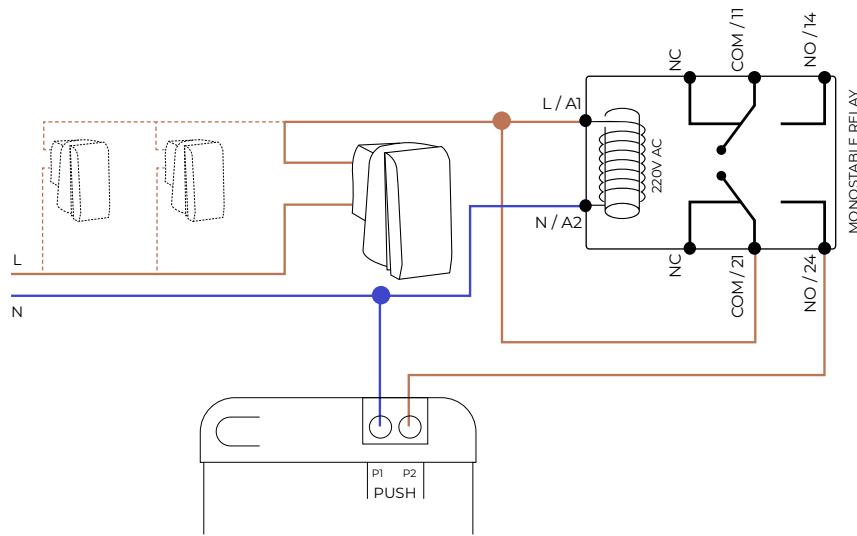


FIG. 16 - button connection with voltage from the power supply

→ When switched on, the device is visible for MATTER commissioning for approximately 5 minutes. The indicator light on the device **will flash slowly in blue**. After 5 minutes, the indicator LED will remain **steady blue**. If MATTER commissioning is successful, the LED will turn **steady green**. A **yellow flash** indicates that the dimmer is in the MATTER commissioning phase.

Supplementary diagrams

Wiring with monostable N/O relay support



PWM output frequency setup

Dip switch setting for PWM output frequency change:



PWM output frequency 390Hz (default)



PWM output frequency 3000Hz (Flicker Free)



PWM output frequency 10000Hz (Flicker Free)

The PWM output frequency can be set using dip switches 4 and 5.

The default output frequency (dip switches 4 and 5 set to OFF) is 390Hz. This frequency is suitable for use with all resistive or resistive-capacitive loads, including switching or linear voltage-current converters with limited frequency.

By setting dip switch 4 to ON and 5 to OFF, the output frequency is set to 3000Hz. This parameter allows the dimmer to comply with the IEEEE1789-2015 directive and be declared FLICKER FREE.

By setting dip switch 4 to OFF and 5 to ON, the output frequency is set to 10000Hz. This parameter allows the dimmer to be adapted for use in video recording environments.

The output settings with a frequency of 3000/10000Hz do not lower the maximum current of 12A.

The use of the output with a frequency of 3000/10000Hz must be adapted to the type of load used, which must allow the use of this frequency*.

* The use of loads that are not suitable for PWM dimming with a frequency of 3000/10000Hz could compromise the operation of the dimmer or load and lead to irreversible damage to them.

Matter Device Installation Guide

Overview of the Matter Standard

Matter is a unified connectivity standard for smart home devices, developed by the Connectivity Standards Alliance (CSA). It is based on IP protocols and uses Thread, Wi-Fi, and Ethernet as transport layers, with Bluetooth LE for initial commissioning. MATTER-4CV-DIN, MATTER-CV-M2, and MATTER-230V-M2 devices use Wi-Fi as their transport layer.

Preliminary Requirements for MATTER Products

Before proceeding with installation, the following requirements must be verified:

- **Network Infrastructure:** A 2.4 GHz or 5 GHz home Wi-Fi network is required (depending on the device), or a Thread Border Router if the device uses the Thread protocol. Thread Border Routers can be integrated into smart speakers such as HomePod mini, Nest Hub, or Echo (4th generation).
- **Matter Controller:** At least one Matter-compatible ecosystem is required as the primary controller. Options include Apple Home (iOS 16.1 or higher), Google Home, Amazon Alexa, Samsung SmartThings, or Home Assistant. The controller manages the commissioning and subsequent operation of the device.
- **Device Requirements:** Verify that the device explicitly states the type of connectivity it supports (Wi-Fi, Thread, or both via multi-protocol technology).

For MATTER-4CV-DIN, MATTER-CV-M2, and MATTER-230V-M2 devices, the connectivity type is Wi-Fi.

Installation Procedure

Step 1 - Physical Preparation: Install the device in the desired location and power it up. Make sure it is within range of the Wi-Fi network or a Thread Border Router. The device automatically enters pairing mode for 5 minutes after receiving power, as indicated by the blue flashing status LED.

Step 2 - QR Code Scanning: Each certified Matter device includes a unique QR code that contains commissioning information according to the Matter Onboarding Payload standard. Open the application of your chosen controller and select the option to add a new Matter device. Scan the QR code on the device or in the documentation. Alternatively, you can manually enter the 11- or 21-digit code attached to the dimmer.

Step 3 - Commissioning Network: The application will establish a temporary Bluetooth LE connection with the device for the commissioning process. During this step, the controller will transmit the Wi-Fi network credentials or Thread network information to the device. This process uses the PASE (Password Authenticated Session Establishment) protocol to ensure a secure connection.

Step 4 - Finale Configuration: Once connected to the network, the device will receive a unique Node ID within the Matter fabric. The app will ask you to name the device and associate it with a specific room or zone. The device will now be operational and controllable via the main controller.



Multi-Admin and Cross-Ecosystem Sharing

A key feature of Matter is its multi-admin capability, which allows a single device to be controlled simultaneously by multiple ecosystems. To add an already configured device to a second controller, use the “share” feature in the first controller’s app. A new temporary QR code will be generated, allowing the second ecosystem to join the existing fabric without resetting the device.

Relevant Technical Aspects

Security: Matter implements end-to-end encryption using PKI certificates and session keys derived via ECDH. Each commissioning creates new cryptographic credentials. Devices use attestation certificates to verify authenticity during the certification process.

Device Types: The Matter standard defines specific device types (lighting, outlets, sensors, locks, thermostats, etc.) with standardized command clusters. Verify that the specific features of the device are supported by the chosen controller.

Firmware Updates: Matter devices support OTA (Over-The-Air) updates. Updates can be distributed via any controller.

Common Troubleshooting

If the device is not detected when scanning the QR code, check that Bluetooth is enabled on your mobile device and that the Matter device is actually in pairing mode. If the connection fails during network commissioning, check the Wi-Fi signal strength or the presence of an active Thread Border Router. If problems persist, perform a factory reset of the dimmer.

For Thread devices, verify that the Border Router is configured correctly and that the Thread network is operational via the smart home ecosystem settings.

Factory reset procedure for MATTER products

To reset the dimmer to factory settings, follow this procedure:

- Turn off the device
- Change the configuration of at least one dip switch
- Turn on the device
- Turn off the device
- Set the desired configuration using the dip switches
- Turn on the device and proceed with networking.