

SAMOTECH 5060610231220

Zigbee Dimmer 2-CH Module User Manual

Model: SM309-S-2CH (P/N: 5060610231220)

1. INTRODUCTION

This user manual provides detailed instructions for the installation, operation, and maintenance of the SAMOTECH Zigbee Dimmer 2-CH Module. This module is designed to integrate seamlessly with various Zigbee hubs, including Philips Hue, Home Assistant, Homekit, SmartThings, and Hubitat, allowing for smart control of lighting.

2. SAFETY INFORMATION

WARNING: Electrical installation should only be performed by a qualified electrician. Incorrect installation can lead to electric shock, fire, or damage to the device and connected equipment. Always disconnect power at the circuit breaker before performing any electrical work.

- Ensure the power supply is completely off before installation or maintenance.
- Verify voltage and current ratings of the module are compatible with your electrical system and connected loads.
- This device requires a neutral wire for proper operation.
- Do not expose the device to moisture or extreme temperatures.
- Adhere to all local electrical codes and regulations.

3. PRODUCT OVERVIEW

The SAMOTECH Zigbee Dimmer 2-CH Module is a compact in-wall device designed for smart lighting control. It supports resistive, capacitive, and inductive loads and features a soft start function. It can be installed in deep wall switch electrical boxes or behind ceiling roses.

Key Features:

- ZigBee 3.0 protocol for reliable wireless communication.
- Compatible with popular Zigbee gateways (Philips Hue, Homekit, Echo Plus, Hubitat, Homeassistant).
- Wide input and output voltage range: 100-240VAC.
- Supports various load types.
- Requires a neutral wire.

- Soft start function for extended bulb life.
- Supports self-forming Zigbee networks and find-and-bind mode.

Module Diagram:

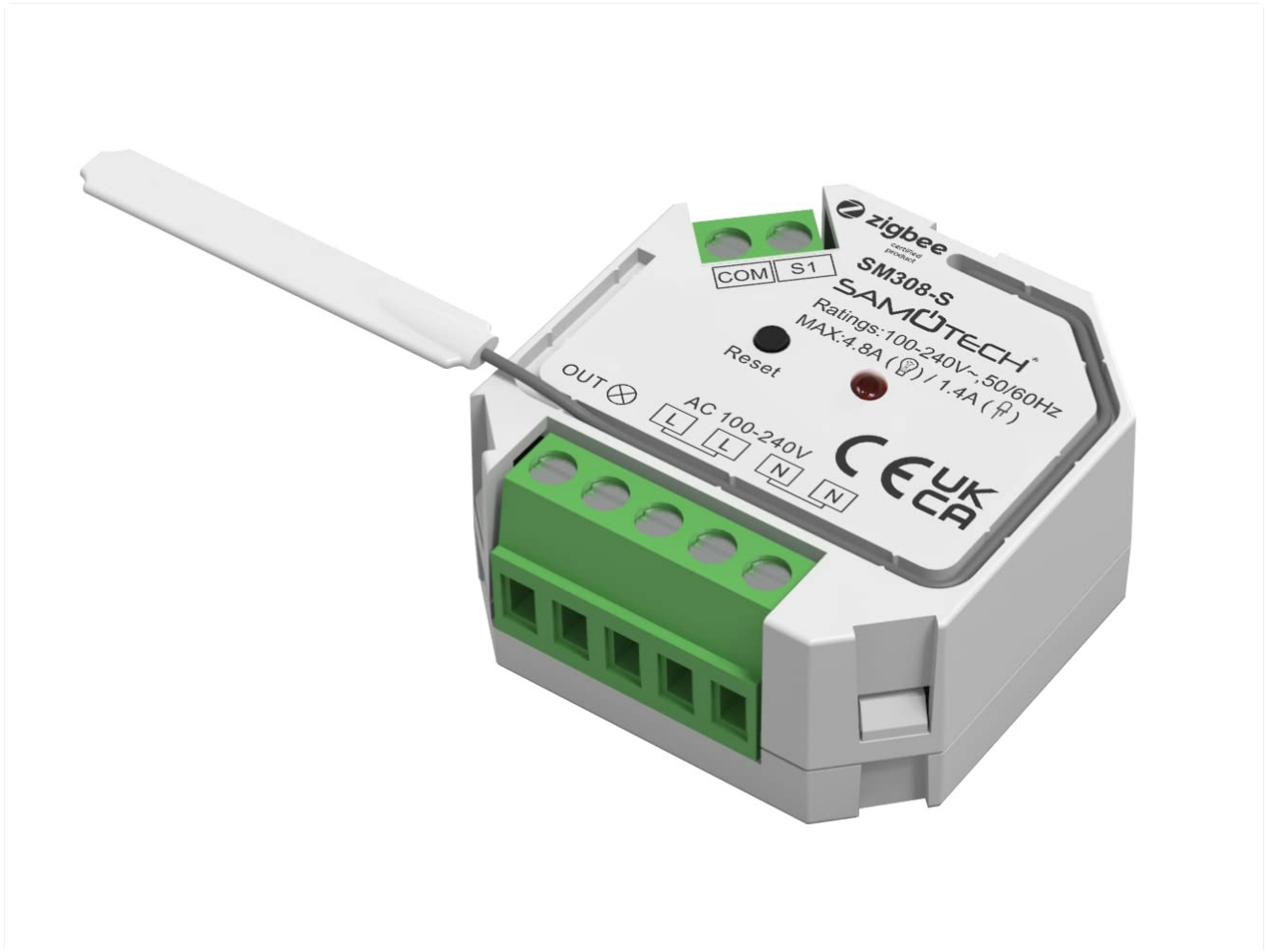


Figure 3.1: SAMOTECH Zigbee Dimmer 2-CH Module. The image shows the compact white module with green screw terminals for input (AC 100-240V L, L, N, N) and output (OUT), a small antenna, a reset button, and labels including "zigbee certified product", "SM308-S", "SAMOTECH", "Ratings: 100-240V~, 50/60Hz MAX:4.8A / 1.4A", and "CE UK CA" markings.

4. SETUP AND INSTALLATION

Important: Ensure power is disconnected at the circuit breaker before proceeding with installation.

1. **Wiring:** Connect the module according to the provided wiring diagram (refer to product packaging or manufacturer's website for detailed diagrams). Ensure correct connection of Live (L), Neutral (N), and Output (OUT) wires. The module requires a neutral wire.
2. **Placement:** For initial setup, place the device as close as possible to your Zigbee hub to ensure a strong signal for pairing.
3. **Initiate Pairing Mode:**
 - For SM308/SM309 models: Press the reset button 5 times rapidly.
 - For SM314 models: Press the reset button twice. A blue LED flashing indicates the device is ready for pairing.
 - For MS104Z models: Turn the device on 5 times. A beep sound indicates the device is ready for pairing.
4. **Pairing with Zigbee Hub:**
 - **Amazon Echo Plus/Echo Show 2nd Gen:** Ask Alexa to "discover new devices."
 - **Philips Hue:** Add a new light through the Hue app: *Settings* -> *Light setup* -> *Add light* (SM308, SM309, SM314)

only). Note: Pairing with Philips Hue may require a "Touch Link" procedure, where the module is brought very close to the Hue Bridge during pairing.

- **Other Compatible Zigbee Hubs (Home Assistant, Homekit, SmartThings, Hubitat):** Follow your specific hub's instructions for adding new Zigbee devices.

5. **Testing:** Once paired, test the dimmer functionality through your Zigbee hub's application or voice commands.

5. OPERATING INSTRUCTIONS

Once the SAMOTECH Zigbee Dimmer Module is successfully installed and paired with your Zigbee hub, you can control your connected lights using the hub's interface, associated smart switches, or voice commands (if integrated with a voice assistant).

- **On/Off Control:** Use your Zigbee app or voice assistant to turn the connected lights on or off.
- **Dimming Control:** Adjust the brightness level of the connected lights through your Zigbee app's dimmer slider or specific voice commands (e.g., "Set brightness to 50%").
- **Scene and Automation:** Integrate the dimmer module into scenes, routines, or automations within your Zigbee ecosystem for advanced control based on schedules, sensor triggers, or other smart home events.
- **Physical Switch Control:** If a retractive (momentary) light switch is connected to the module's input (S1/COM), you can use it to toggle the lights on/off and, in some configurations, dim them by holding the switch.

6. MAINTENANCE

The SAMOTECH Zigbee Dimmer Module requires minimal maintenance. Follow these guidelines to ensure optimal performance and longevity:

- **Cleaning:** If necessary, gently wipe the module with a dry, soft cloth. Do not use liquid cleaners or solvents.
- **Firmware Updates:** Periodically check your Zigbee hub's application for available firmware updates for the module. Updates can improve performance, add features, or fix bugs.
- **Environmental Conditions:** Ensure the module is installed in a dry environment, away from direct sunlight, excessive heat, or moisture.
- **Power Cycle:** If the module becomes unresponsive, try power cycling it by turning off the circuit breaker for a few seconds and then turning it back on.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Module does not pair with hub.	Not in pairing mode; too far from hub; hub compatibility issue.	Ensure module is in pairing mode (press reset button 5 times). Move module closer to hub for initial pairing. Verify hub compatibility.
Lights do not respond to commands.	No power to module; incorrect wiring; module not properly paired.	Check circuit breaker. Verify wiring connections. Re-pair the module with the hub.
Dimming is erratic or lights flicker.	Incompatible load type; minimum load not met; faulty bulb.	Ensure connected bulbs are dimmable. Check if the total wattage of connected bulbs meets the module's minimum load requirement. Try a different dimmable bulb.

Problem	Possible Cause	Solution
Module frequently goes offline.	Weak Zigbee signal; interference; too many devices on network.	Improve Zigbee network mesh by adding more Zigbee devices (routers). Reduce interference from Wi-Fi or other wireless devices.

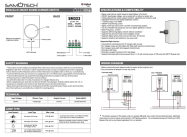
8. SPECIFICATIONS

Attribute	Value
Brand	SAMOTECH
Model Number	5060610231220 (SM309-S-2CH)
Operation Mode	ON-OFF-ON
Current Rating	4.8 Amps
Contact Type	Normally Open
Connector Type	Plug In
Terminal	Screw
Circuit Type	2-way
Actuator Type	Push Button
International Protection Rating	IP44
Number of Positions	2
Package Dimensions	2.28 x 2.24 x 1.46 inches
Weight	1.76 ounces

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official SAMOTECH website or contact their customer service directly. Keep your purchase receipt as proof of purchase for warranty claims.

Contact Information: Please visit www.samotech.co.uk for the latest support resources and contact details.



[Samotech SM323\(v2\) Smart Zigbee Dimmer Switch Installation and Operation Guide](#)

Comprehensive guide for the Samotech SM323(v2) Smart Zigbee Dimmer Switch, covering specifications, wiring, pairing, brightness settings, and compatible light sources. Learn how to install and operate your Zigbee dimmer for optimal performance.