MHCOZY ZIGDC32

MHCOZY 1CH Dry Contact Passive Output Zigbee Switch Module User Manual

Model: ZIGDC32

1. PRODUCT OVERVIEW

The MHCOZY 1CH Dry Contact Passive Output Zigbee Switch Module (Model ZIGDC32) is a smart home device designed to integrate various electrical appliances into your Zigbee network. It operates on a DC 24-32V input and provides a passive (dry contact) output, allowing control of both low-voltage and high-voltage devices without directly supplying power through the module's output terminals. This module supports remote control via the Tuya/Smart Life app, voice control through Amazon Alexa and Google Home, and offers features like inching mode, self-locking mode, and scheduling.
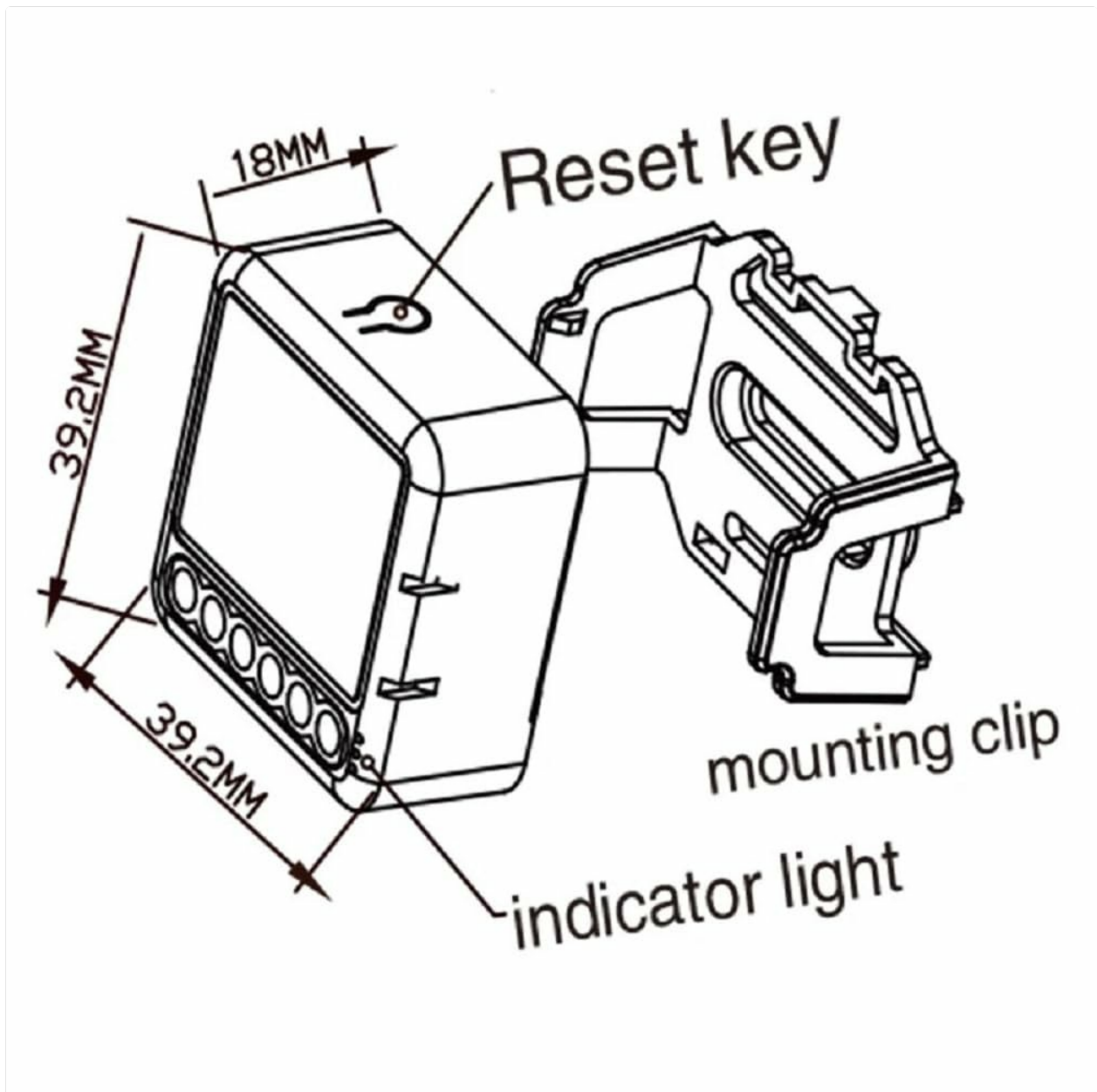
Key Features:

- **Dry Contact Passive Output:** Controls devices from 0-240V by providing an on/off signal, suitable for garage door openers, lights, and other appliances.
- **Zigbee 3.0 Protocol:** Ensures wide compatibility and easy pairing with Tuya Zigbee Hubs.
- **Voice Control:** Compatible with Amazon Alexa and Google Home for hands-free operation.
- **App Remote Control:** Manage connected devices from anywhere using the Tuya or Smart Life application.
- **Flexible Working Modes:** Supports default inching (momentary) function and self-locking (toggle) mode.
- **Timer and Schedule Functions:** Set countdowns, loop timers, and schedules for automated control.
- **Input Voltage:** DC 24-32V.
- **Max Load:** 5A Cutover Current, 250V Cutover Voltage.
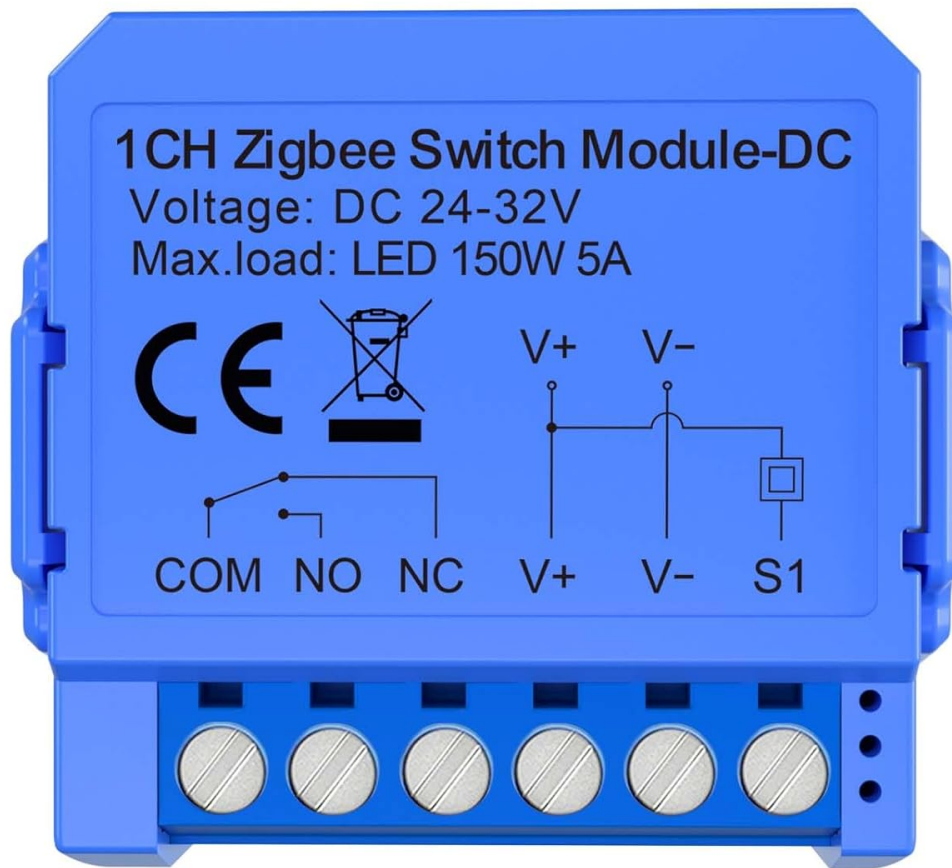
Package Contents:

- 1 x MHCOZY 1CH Dry Contact Passive Output Zigbee Switch Module (Model ZIGDC32)
- 1 x English Instruction Manual (This document)

2. PRODUCT COMPONENTS AND DIMENSIONS

Familiarize yourself with the physical components and dimensions of the switch module.

Image 2.1: MHCOZY ZIGDC32 Module with dimensions, reset key, and indicator light labeled. The module measures approximately 39.2mm x 39.2mm x 18mm and includes a mounting clip for DIN rail installation. The reset key is located on the side, and an indicator light is visible on the front.
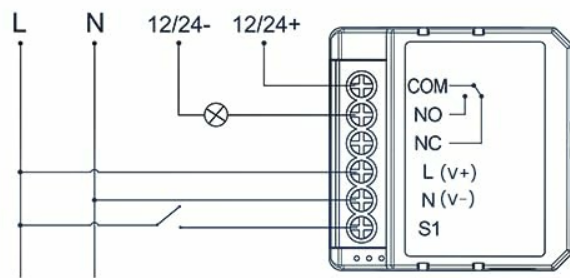
Image 2.2: Top view of the MHCOZY ZIGDC32 module showing the terminal block. Labels include V+ and V- for power input, and COM, NO, NC, S1 for the dry contact output and external switch input. The module specifies DC 24-32V input and a maximum load of LED 150W 5A.
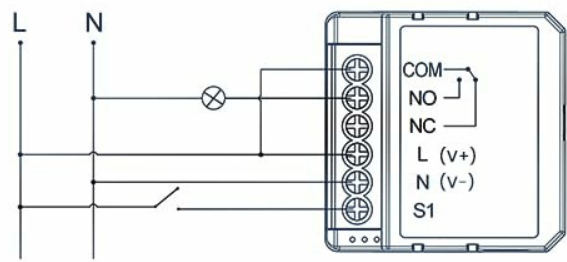
3. SETUP AND INSTALLATION

3.1 Wiring Instructions

The module requires a DC 24-32V power supply for its operation. The output terminals (COM, NO, NC) are dry contacts, meaning they do not supply voltage themselves but act as a switch for an external circuit. Always ensure power is disconnected before performing any wiring.
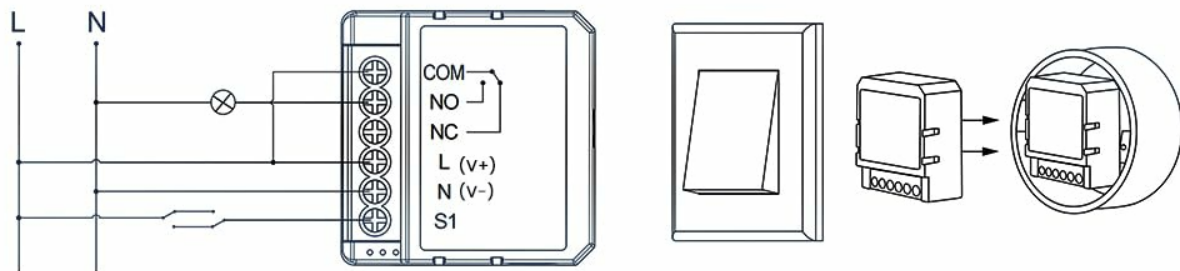
Image 3.1: Various wiring diagrams for the MHCOZY ZIGDC32 module. This includes configurations for low-voltage lamps, high-voltage lamps, and a double switch setup. The diagrams illustrate how to connect the module's V+, V- for power, and COM, NO, NC terminals for controlling external loads, as well as the S1 terminal for an external manual switch.

1. **Power Connection:** Connect your DC 24-32V power supply to the **V+** and **V-** terminals on the module. Ensure correct polarity.

2. **Load Connection (Dry Contact):**

   - For normally open (NO) operation, connect one side of your load (e.g., light, gate opener) to the **COM** terminal and the other side of the load to the **NO** terminal. The module will close this circuit when activated.

   - For normally closed (NC) operation, connect one side of your load to the **COM** terminal and the other side of the load to the **NC** terminal. The module will open this circuit when activated.

   - The module's dry contacts can switch circuits up to 250V and 5A. Ensure your load's power requirements do not exceed these limits.

3. **External Switch Connection (Optional):** If you wish to use a traditional wall switch alongside the smart control, connect it to the **S1** terminal and the **V-** terminal (or a common ground, depending on your switch type and desired behavior). Refer to Image 3.1 for specific configurations.

3.2 Pairing with Zigbee Hub (Tuya/Smart Life)

This module requires a Tuya Zigbee Hub to function within your smart home ecosystem. It does not connect directly to Wi-Fi.

Image 3.2: Diagram illustrating the MHCOZY ZIGDC32 Zigbee Smart Switch Module's integration into a smart home. It shows the module connecting to a Gateway (Zigbee Hub), which then connects to a WiFi Router, enabling APP Control and Voice Control via devices like Google Home. A Tuya Zigbee Hub is required.

1. **Power On:** After wiring, apply DC 24-32V power to the module. The indicator light should illuminate.

2. **Enter Pairing Mode:** Press and hold the **Reset key** (refer to Image 2.1) for approximately 5-10 seconds until the indicator light begins to blink rapidly. This indicates the module is in pairing mode.

3. **Open Tuya/Smart Life App:** Ensure your Tuya Zigbee Hub is already set up and connected to the app.

4. **Add Device:** In the Tuya/Smart Life app, navigate to your Zigbee Hub and select "Add Sub Device" or a similar option to search for new Zigbee devices.

5. **Confirm Pairing:** The app should discover the MHCOZY module. Follow the on-screen prompts to add it to your smart home network. You may be prompted to name the device.
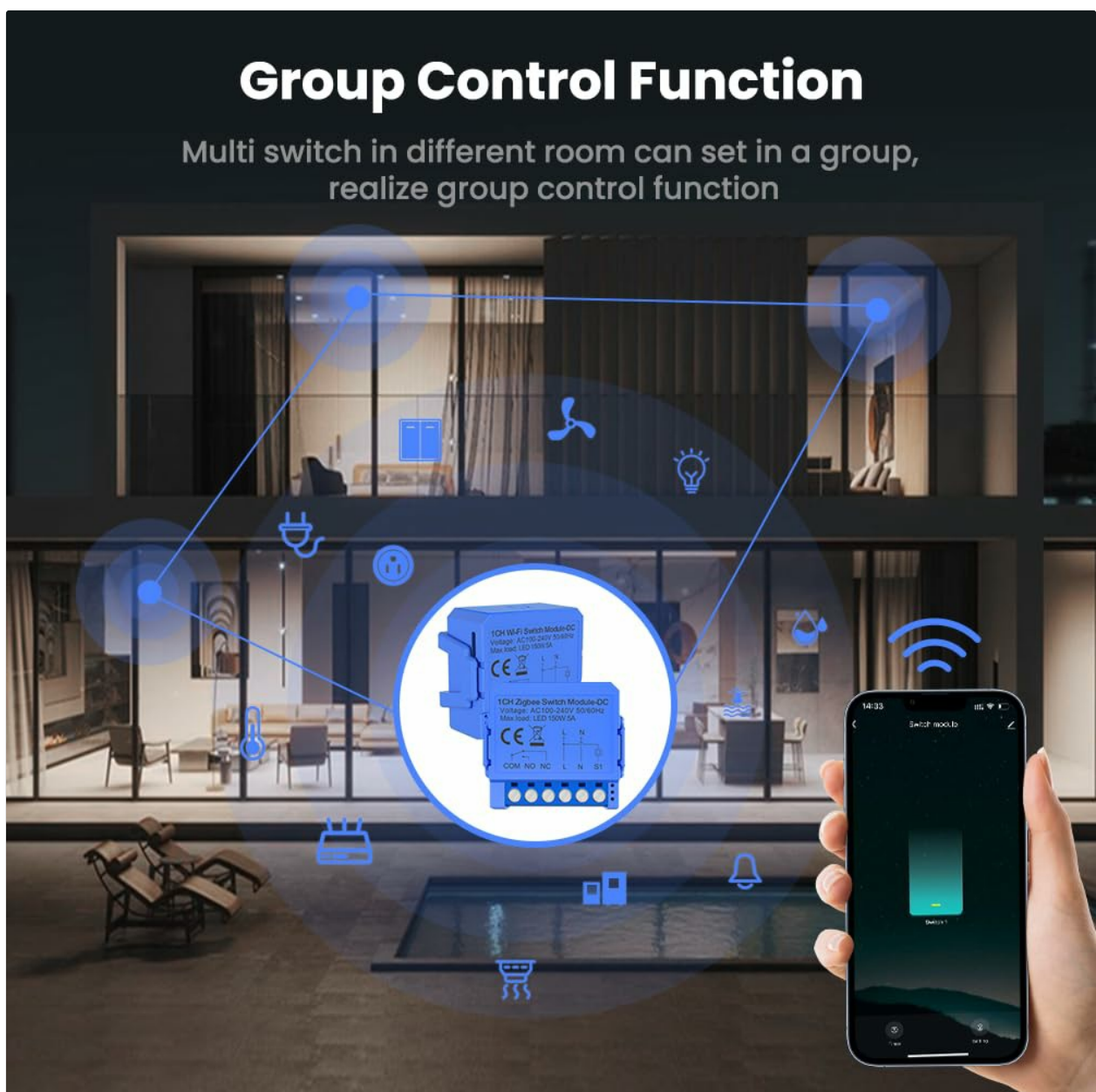
4. OPERATING INSTRUCTIONS

4.1 App Control (Tuya/Smart Life)

Once paired, you can control the module and its connected device through the Tuya or Smart Life app.

- **On/Off Control:** Tap the device icon in the app to toggle the connected appliance on or off.
- **Working Modes:** The module supports two main working modes:

    - **Inching (Momentary) Mode:** The relay closes for a set duration (default 1 second) and then automatically opens. This is ideal for momentary actions like opening a garage door or triggering a pulse.
    - **Self-locking (Toggle) Mode:** The relay stays in its current state (on or off) until another command is received. This is suitable for lights or other devices that need to remain continuously on or off.

    You can usually switch between these modes within the device settings in the Tuya/Smart Life app.
- **Timer and Schedule:** Set up countdown timers, one-time schedules, or recurring schedules to automate the module's operation based on your needs.
- **Group Control:** If you have multiple MHCOZY modules or other compatible smart devices, you can group them together in the app for simultaneous control.
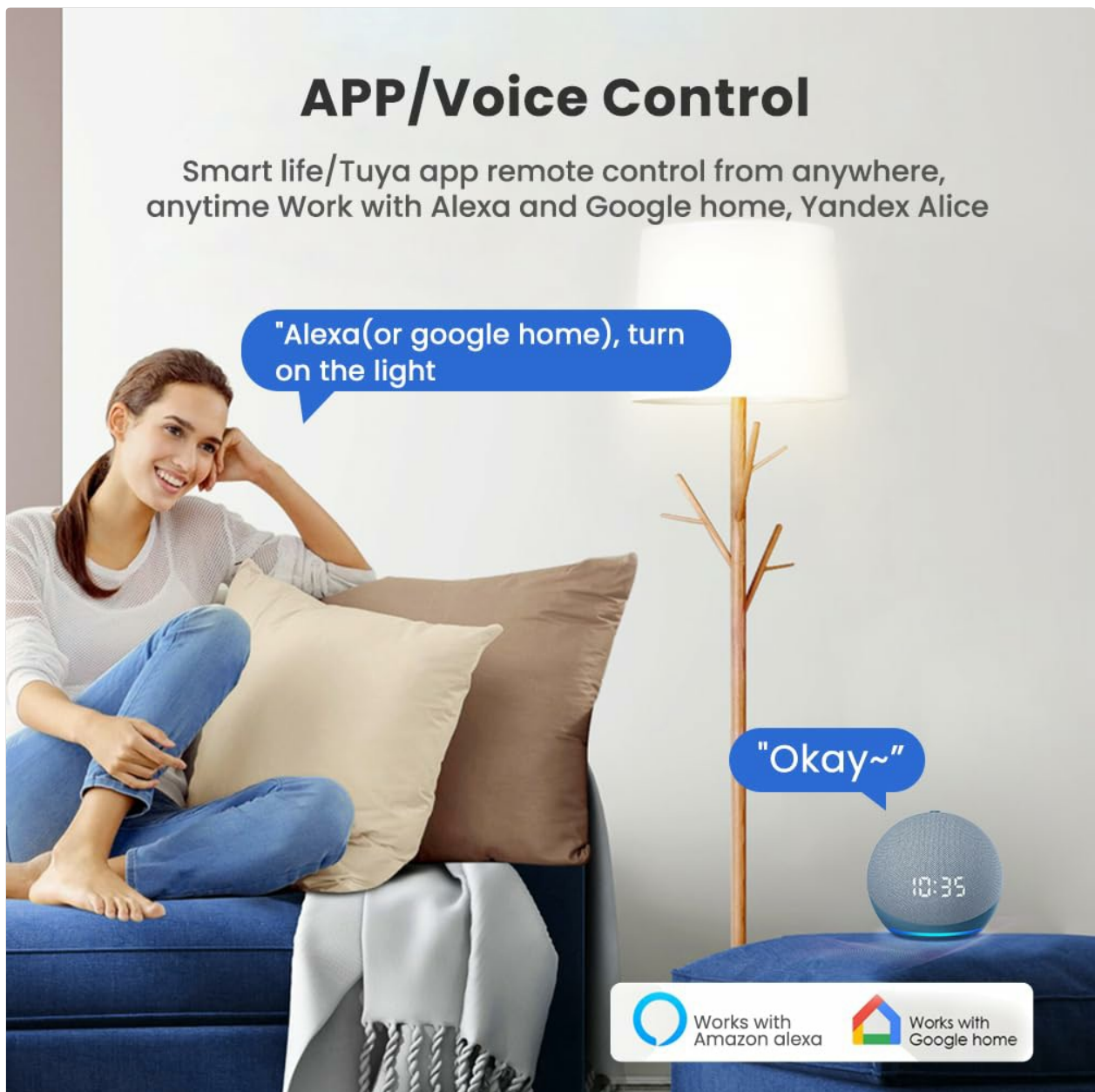

Image 4.1: Illustration of the group control function for the MHCOZY ZIGDC32 module within a smart home environment. Multiple modules controlling various devices (lights, fans, etc.) can be managed collectively through the mobile app, allowing

4.2 Voice Control (Alexa/Google Home)

Integrate your Tuya/Smart Life account with Amazon Alexa or Google Home for voice-activated control.
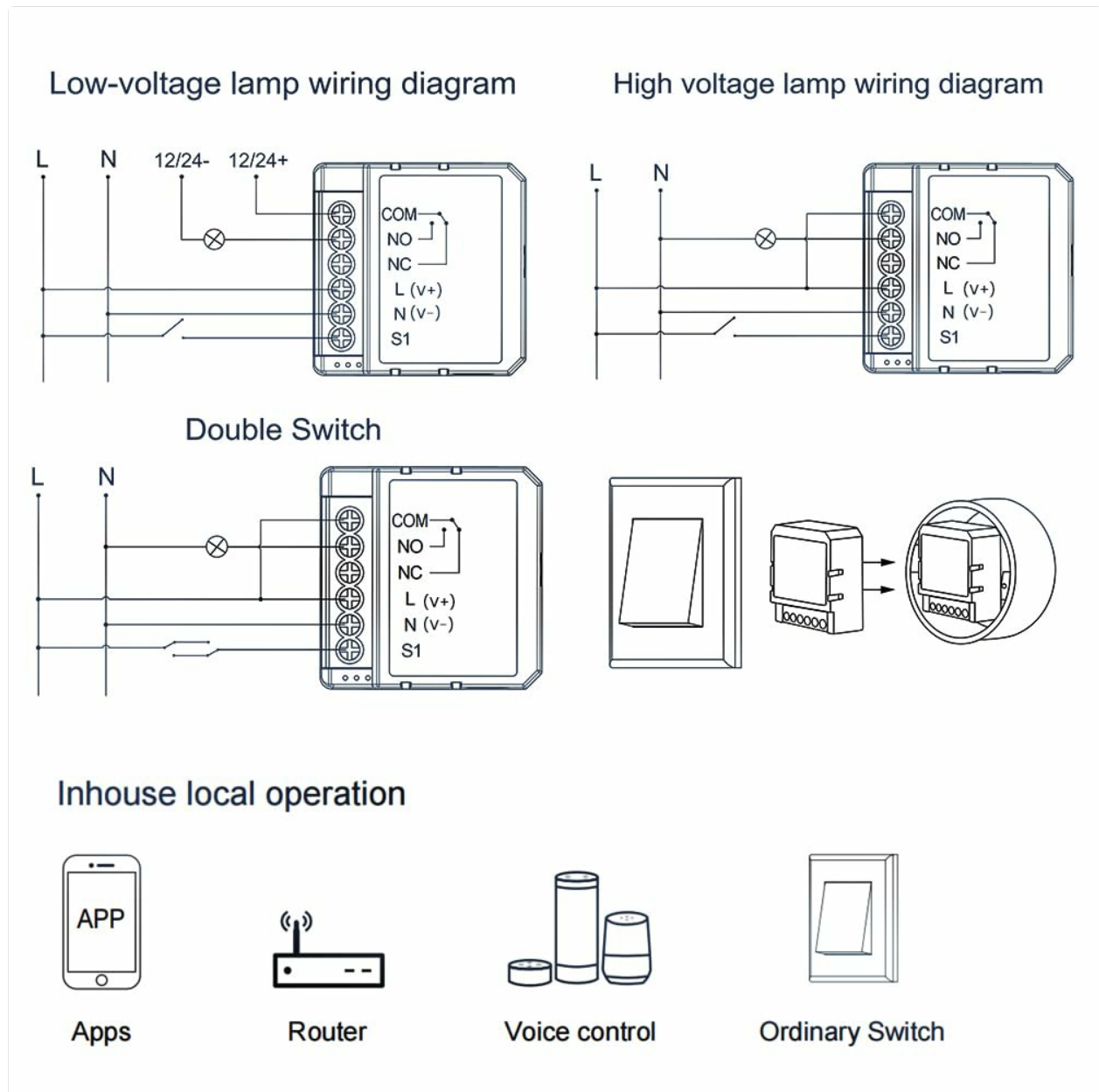

Image 4.2: A user interacting with a smart speaker to control a light, demonstrating the voice control capabilities of the MHCOZY ZIGDC32 module. The image shows compatibility with Amazon Alexa and Google Home, allowing users to issue commands like "Alexa, turn on the light."

1. **Link Accounts:** In your Alexa or Google Home app, enable the "Tuya Smart" or "Smart Life" skill/service and link your account.

2. **Discover Devices:** Ask your voice assistant to "Discover devices" or manually initiate device discovery in the app.

3. **Voice Commands:** Once discovered, you can use commands such as:

   - "Alexa, turn on [Device Name]."
   - "Hey Google, turn off [Device Name]."
   - "Alexa, turn on Garage door."

4.3 Manual Control (External Switch)

If an external physical switch is connected to the S1 terminal, you can operate the connected device manually, independent of the app or voice control.

Image 4.3: Section of the wiring diagram showing "Inhouse local operation" with icons for Apps, Router, Voice control, and an Ordinary Switch, indicating multiple ways to control the module and its connected devices.
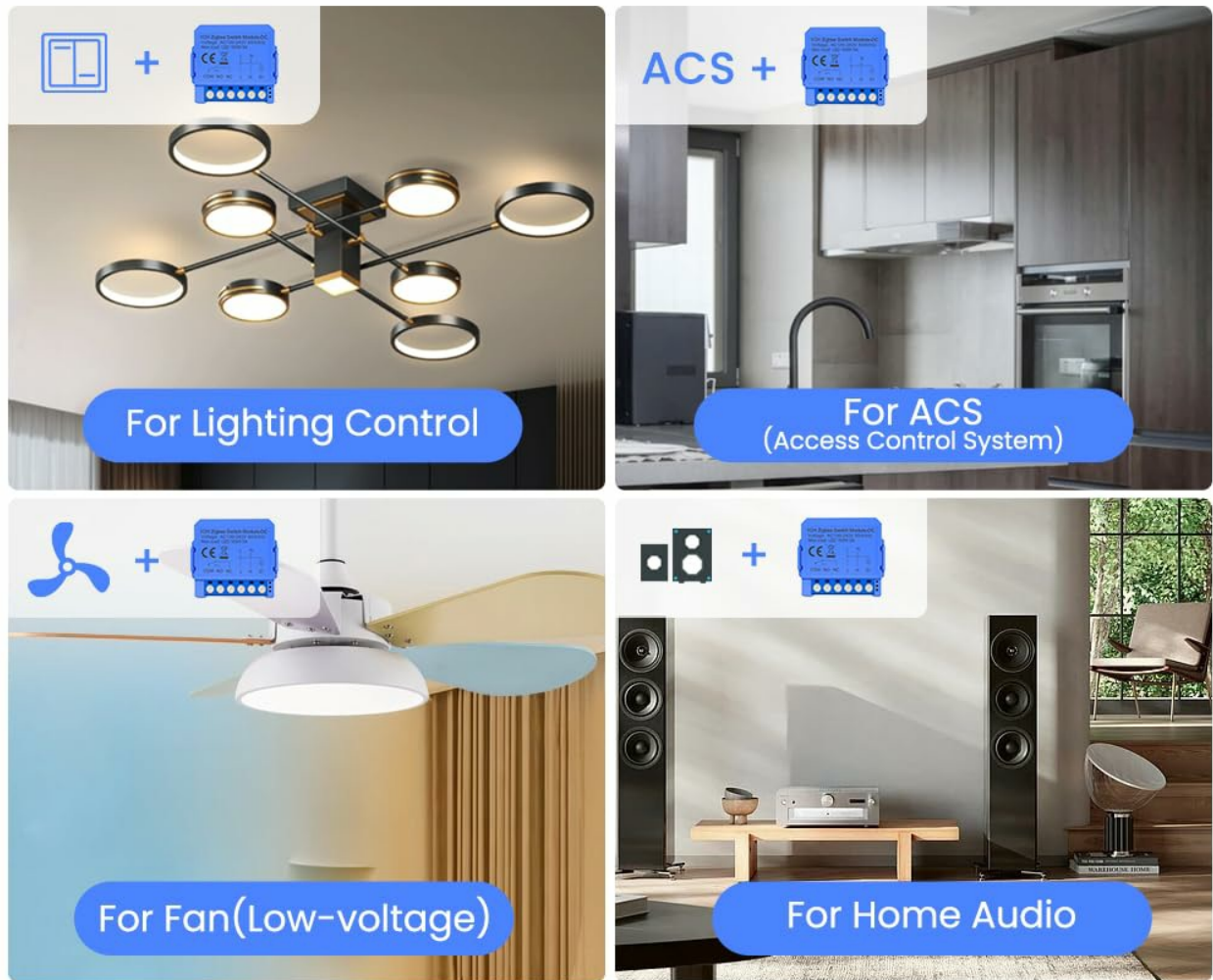
5. APPLICATIONS

The MHCOZY ZIGDC32 module's dry contact output makes it versatile for various applications, including:

Image 5.1: Examples of wide usage and application for the MHCOZY ZIGDC32 module. This includes lighting control (both low-voltage and high-voltage), Access Control Systems (ACS), fan control (low-voltage), and integration with home audio systems.

- **Lighting Control:** Smart control of both low-voltage and high-voltage lighting systems.
- **Garage Door Openers:** Convert traditional garage door openers into smart, app-controlled systems.
- **Access Control Systems (ACS):** Integrate with door locks or gates for smart access management.
- **Fan Control:** Automate ceiling fans or other low-voltage fan systems.
- **Home Audio Systems:** Control power to amplifiers or other audio components.
- **Other Appliances:** Any device that can be controlled by a simple on/off dry contact switch.

6. MAINTENANCE

To ensure optimal performance and longevity of your MHCOZY ZIGDC32 module, follow these general maintenance guidelines:

- **Keep Dry:** Avoid exposing the module to moisture or liquids.
- **Clean Gently:** If cleaning is necessary, use a dry, soft cloth. Do not use harsh chemicals or abrasive cleaners.

- **Operating Environment:** Ensure the module is used within its specified working temperature (-20 to 70 degrees Celsius) and humidity (40% to 80% RH) ranges.
- **Firmware Updates:** Periodically check the Tuya/Smart Life app for any available firmware updates for your Zigbee Hub and connected devices to ensure compatibility and access to new features.
- **Power Supply:** Use only a stable DC 24-32V power supply. Fluctuations outside this range can damage the device.

7. TROUBLESHOOTING

If you encounter issues with your MHCOZY ZIGDC32 module, refer to the following troubleshooting steps:

1. **Module Not Powering On:**
   - Verify that the DC 24-32V power supply is correctly connected to the V+ and V- terminals with correct polarity.
   - Check if the power supply itself is functioning correctly.

2. **Unable to Pair with Zigbee Hub:**
   - Ensure the module is in pairing mode (indicator light blinking rapidly) by pressing and holding the reset key for 5-10 seconds.
   - Confirm your Tuya Zigbee Hub is online and in pairing mode within the app.
   - Move the module closer to the Zigbee Hub to improve signal strength during pairing.
   - Check if your Zigbee Hub has reached its maximum device limit.

3. **Connected Device Not Responding:**
   - Verify the wiring of the load to the COM, NO, or NC terminals. Ensure connections are secure.
   - Confirm the connected device is functional when directly powered or manually operated.
   - Check the module's working mode in the app (Inching vs. Self-locking) to ensure it matches the desired behavior for your device.
   - Ensure the load's current and voltage requirements do not exceed the module's specifications (5A, 250V).

4. **Voice Control Not Working:**
   - Confirm that your Tuya/Smart Life account is correctly linked to your Alexa or Google Home account.
   - Ensure the device is discovered and named appropriately in your voice assistant app.
   - Check your internet connection and the status of your voice assistant device.

8. SPECIFICATIONS

Feature	Specification
Model Number	ZIGDC32
Input Voltage	DC 24-32V
Quiescent Current	80mA
Max. Load Current	5A

Feature	Specification
Max. Load Voltage	250V (Dry Contact)
Wireless Protocol	Zigbee 3.0
Operating Temperature	-20°C to 70°C (-4°F to 158°F)
Operating Humidity	40% to 80% RH
Dimensions	1.55 x 1.55 x 0.7 inches (39.2 x 39.2 x 18 mm)
Mounting Type	DIN Rail Mount
Material	Metal (Contact Material)

9. WARRANTY AND SUPPORT

For specific warranty information and technical support, please refer to the official MHCOZY website or contact your retailer. Keep your purchase receipt for warranty claims.

For further assistance, you may also consult the Tuya Smart or Smart Life app's help sections, as well as online communities for Zigbee and smart home enthusiasts.

Related Documents - ZIGDC32

	[MHCozy USB 5V Switch Installation and Setup Guide](#) A comprehensive guide to installing and configuring the MHCozy USB 5V Switch for remote control of FlexRadio devices using the Tuya Smart app. Includes step-by-step instructions, connection diagrams, and testing procedures.
	[A Beginner's Guide to Remote HF Station Setup - FlexRadio Systems](#) Learn how to set up a reliable remote High Frequency (HF) radio station with this beginner's guide from FlexRadio Systems. Covers essential components like AC power control, internet monitoring, remote PC access, and lightning mitigation.