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## LiebeWH ESP8266 Channel Relay Module

# LiebeWH ESP8266 Channel Relay Module User Manual

Model: ESP8266 Channel Relay Module

## 1. PRODUCT OVERVIEW

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The LiebeWH ESP8266 Channel Relay Module is designed for smart home applications, enabling remote control of devices via a mobile application. It integrates an ESP-01 module and an STM8S103 microprocessor, offering reliable performance with diode discharge protection and quick response times. This module allows for convenient automation and control of various electrical loads.

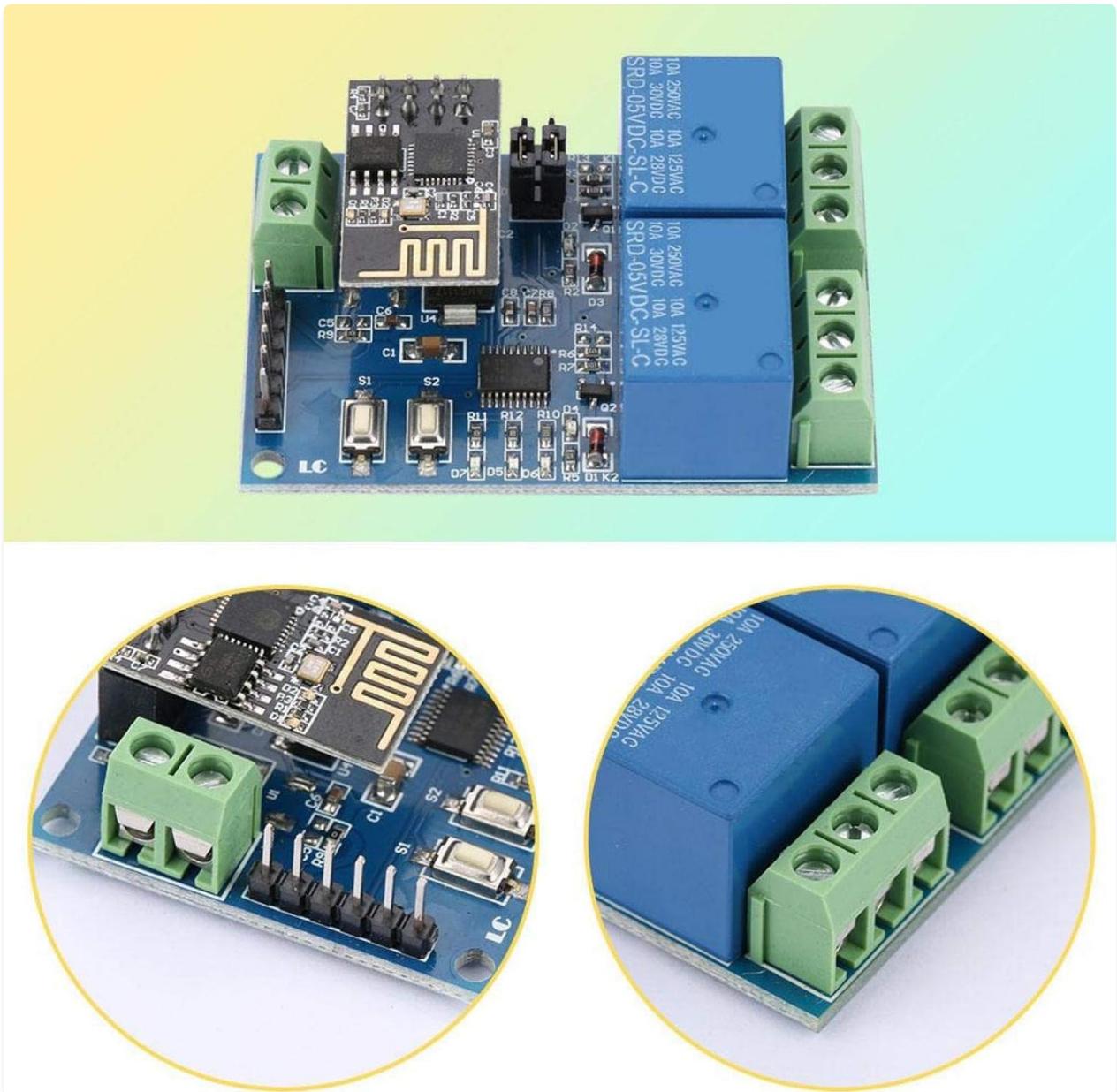
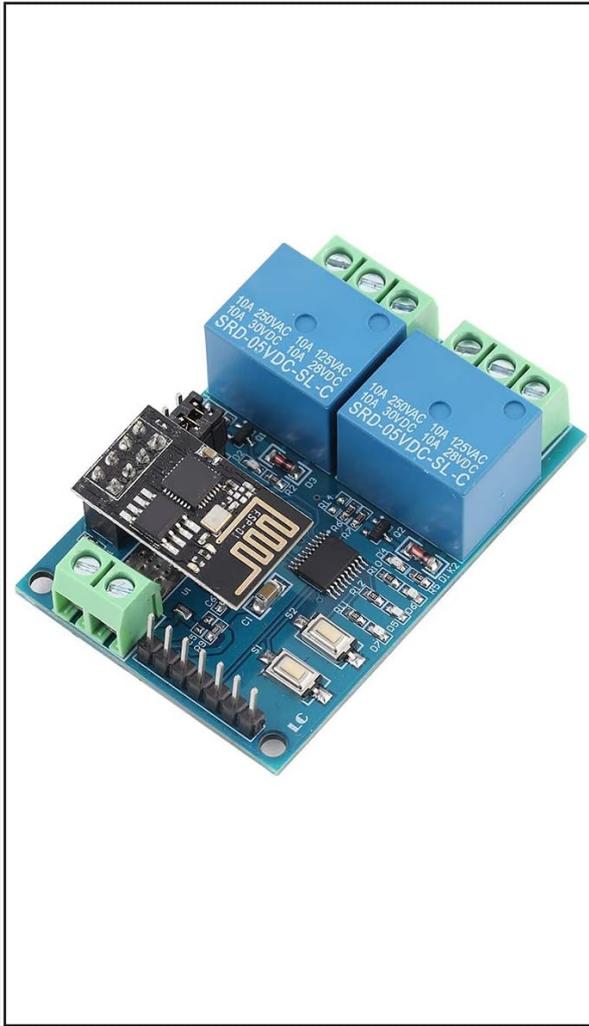


Image 1.1: Overview of the LiebeWH ESP8266 Channel Relay Module.

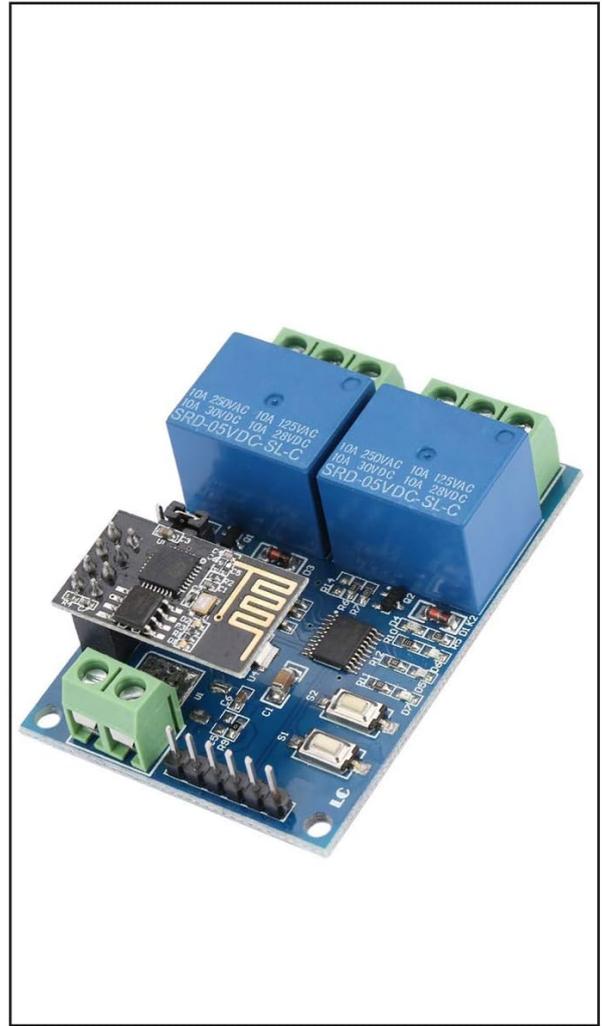
## 2. KEY FEATURES

- **Durable Construction:** The channel relay module is constructed from durable material, featuring board mode selection and a real-time working status indicator.
- **SmartConfig Technology:** Utilizes SmartConfig technology for easy account and password configuration on the mobile APP for the ESP-01 module, including memory functions for credentials.
- **Reliable Relay:** Includes diode discharge protection and a short response time. Features an onboard 5V, 10A 250V AC / 10A 30V DC relay, designed for over 100,000 continuous operations.
- **Integrated Microprocessor:** Equipped with an onboard ESP-01 module and a high-performance STM8S103 microprocessor.
- **Debug Interfaces:** Provides reserved UART debug and STM8 SWIM program download interfaces.
- **Quality Assurance:** Manufactured under strict quality control, ensuring high safety and reliability.

# New and old models are shipped randomly



New Type



Old Type

Image 2.1: Module illustrating smartphone app remote control capability.

### 3. SPECIFICATIONS

Parameter	Value
Connector Type	Through Hole
Contact Type	Normally Open
Current Rating	10 Amps
Mounting Type	PCB Mount
Operation Mode	Automatic
Coil Voltage	10 Volts
Contact Current Rating	10 Amps
Maximum Switching Current	10 Amps

Minimum Switching Voltage	5 Volts (DC)
Product Dimensions	2.36 x 1.57 x 0.59 inches
Item Weight	1.27 ounces
Manufacturer	LiebeWH
ASIN	B08Z8FSWKS

## 4. SETUP INSTRUCTIONS

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Follow these steps to set up your LiebeWH ESP8266 Channel Relay Module:

- 1. Power Connection:** Connect a stable 5V DC power supply to the module's power input terminals. Ensure correct polarity.
- 2. Load Connection:** Connect the devices you wish to control to the relay output terminals. Each relay supports up to 10A at 250V AC or 30V DC. Refer to the module's silkscreen for Normally Open (NO) and Common (COM) connections.
- 3. Mobile App Installation:** Download and install the compatible mobile application on your smartphone. The module uses SmartConfig technology for network setup.
- 4. Network Configuration (SmartConfig):**
  - Open the mobile application.
  - Follow the in-app instructions to initiate the SmartConfig process. This typically involves entering your Wi-Fi network name (SSID) and password.
  - The ESP-01 module on the relay board will connect to your Wi-Fi network. The status indicator LED on the module will change to confirm a successful connection.
- 5. Device Pairing:** Once connected to the network, the module should appear in your mobile application. You can then name and configure the relay channels as needed.



**5V ESP8266**  
**Dual Channel WiFi**  
**Relay Module IOT Smart**  
**Home Phone APP Remote Switch**

Image 4.1: Detailed view of the ESP-01 module and input terminals.



**Onboard  
ESP-01 WiFi module  
and high performance  
microprocessor STM8S103.**

Image 4.2: Detailed view of the relay components and output terminals.

## 5. OPERATING INSTRUCTIONS

After successful setup, operate the LiebeWH ESP8266 Channel Relay Module using the mobile application:

1. **Launch App:** Open the installed mobile application on your smartphone.
2. **Select Module:** From the list of devices, select your ESP8266 Channel Relay Module.
3. **Control Relays:** The app interface will display controls for each relay channel. Tap the respective buttons or toggles to switch connected devices ON or OFF.
4. **Monitor Status:** The app will typically show the current status (ON/OFF) of each relay. The physical status indicator LEDs on the module also provide real-time feedback.
5. **Advanced Features:** Depending on the app, you may have access to scheduling, timer functions, or integration with other smart home systems.

## 6. MAINTENANCE

To ensure the longevity and optimal performance of your relay module, follow these maintenance guidelines:

- **Keep Clean and Dry:** Regularly clean the module with a soft, dry cloth. Avoid exposure to moisture, dust, and corrosive substances.
- **Environmental Conditions:** Operate the module within its specified temperature and humidity ranges. Avoid extreme heat or cold.
- **Inspect Connections:** Periodically check all wiring connections to ensure they are secure and free from damage. Loose connections can lead to intermittent operation or electrical hazards.
- **Firmware Updates:** If available, keep the module's firmware updated through the mobile application to benefit from new features and bug fixes.

## 7. TROUBLESHOOTING

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If you encounter issues with your LiebeWH ESP8266 Channel Relay Module, refer to the following troubleshooting tips:

- **Module Not Powering On:**
  - Verify the 5V DC power supply is correctly connected and functioning.
  - Check for correct polarity of the power connection.
- **Cannot Connect to Wi-Fi:**
  - Ensure your Wi-Fi network (2.4GHz only) is active and the password is correct.
  - Place the module closer to your Wi-Fi router to improve signal strength.
  - Restart the module and try the SmartConfig process again.
- **Relay Not Switching:**
  - Check the load connections to the relay terminals.
  - Ensure the module is powered and connected to Wi-Fi.
  - Verify the command is being sent from the mobile app and the module's status indicator responds.
  - Confirm the connected load does not exceed the relay's maximum current rating (10A).
- **App Not Detecting Module:**
  - Ensure your smartphone is connected to the same Wi-Fi network as the module.
  - Restart the mobile application.
  - If the issue persists, try resetting the module (if a reset button is available) and re-configuring the network.

## 8. WARRANTY AND SUPPORT

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LiebeWH products are manufactured under strict quality control and are designed for reliable performance. While specific warranty details are not provided in this manual, LiebeWH is committed to providing quality products. For any technical support or inquiries, please refer to the official LiebeWH support channels or contact your retailer.