

[Manuals.plus](#) /

› [UIOTEC](#) /

› UIOTEC SRD-05VDC-SL-C 8-Way 5V Relay Module User Manual

UIOTEC SRD-05VDC-SL-C

UIOTEC SRD-05VDC-SL-C 8-Way 5V Relay Module User Manual

Model: SRD-05VDC-SL-C

Brand: UIOTEC

1. INTRODUCTION

The UIOTEC SRD-05VDC-SL-C is an 8-channel USB controlled relay module designed for ON/OFF switching of electrical devices. It is suitable for various applications including home automation, robotics, and PC intelligent control systems. This module utilizes HID technology, eliminating the need for specific drivers, offering plug-and-play functionality with Windows XP, 7, and 8 (32-bit and 64-bit) systems.

2. PRODUCT OVERVIEW

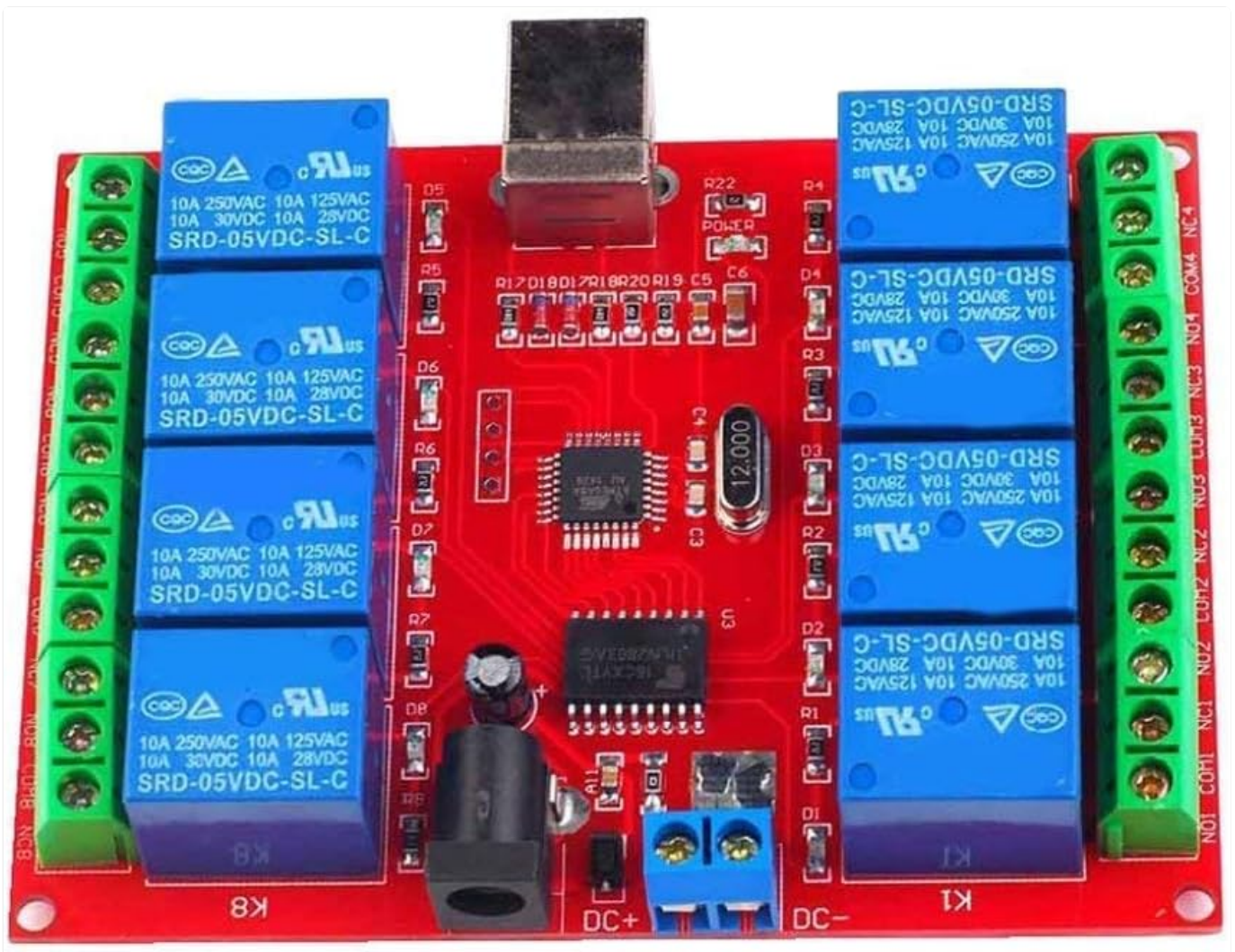


Figure 1: UIOTEC SRD-05VDC-SL-C 8-Way 5V Relay Module. This image shows the red PCB board with eight blue relays, green screw terminals on both sides, a USB Type-B port, and a DC power jack.

2.1 Key Features

- HID technology for driver-free, plug-and-play operation.
- Compatibility with Windows XP/7/8 (32-bit and 64-bit systems).
- High-performance USB controller chip and military-grade PCB production.
- Eight 5V relays, capable of controlling loads up to 250V 10A AC or 30V 10A DC.
- Reserved 4-way and 8-way power interfaces for maintaining relay state even when USB is disconnected or PC is off. (Note: 1-way and 2-way versions do not have this power connector).
- LED indicators for power and each relay output.

3. SPECIFICATIONS

Parameter	Value
Relay Specification	10A 250VAC / 10A 125VAC / 10A 30VDC / 10A 28VDC
Power Supply	5V DC
Relay Type	5V Relay
Contact Type	NC / COM / NO (Normally Closed / Common / Normally Open)

Parameter	Value
Input Current	≤300mA
Max Load	AC250V/10A or DC30V/10A
Supported OS	Win XP/Win7/Win8 32-bit/64-bit systems
Current Consumption	300 mA
Dimensions (L x W x H)	93mm x 70mm x 16mm
PCB Parameters	FR4 / 1.5mm / two layers / metalized holes / HAL / white stamp / solder mask

4. SETUP AND INSTALLATION

- Power Connection:** Connect a 5V DC power supply to the module's DC power jack or the DC+ / DC- screw terminals. Ensure the power supply can provide at least 300mA. For 4-way and 8-way modules, this external power supply allows the relay state to be maintained even if the USB connection is lost.
- USB Connection:** Connect the module to your computer's USB port using a standard USB cable. The module will be recognized automatically as a HID device, requiring no additional driver installation.
- Load Connection:** Identify the Normally Open (NO), Normally Closed (NC), and Common (COM) terminals for each relay.
 - Normally Open (NO):** The circuit is open (disconnected) when the relay is de-energized and closes (connects) when the relay is energized.
 - Normally Closed (NC):** The circuit is closed (connected) when the relay is de-energized and opens (disconnects) when the relay is energized.
 - Common (COM):** The common terminal for the relay switch.

Connect your electrical device to the appropriate NO/NC and COM terminals based on your application requirements. Ensure the load's voltage and current do not exceed the relay's maximum ratings (10A 250VAC / 10A 30VDC).

5. OPERATING INSTRUCTIONS

The UIOTEC SRD-05VDC-SL-C module is controlled via software running on your PC. UIOTEC provides universal software compatible with their relay boards, along with example code for various programming environments.

5.1 Software Control

- Download Software:** Obtain the latest control software and example code from the UIOTEC official website or the provided resources.
- Launch Application:** Run the provided software application on your Windows PC.
- Relay Control:** The software interface will typically allow you to individually control each of the 8 relays (e.g., turn ON/OFF). Observe the LED indicators on the module, which will illuminate when a corresponding relay is energized.

5.2 Programming Examples

UIOTEC provides software examples for various programming languages, facilitating custom application development:

- VB6
- BCB6
- Java (NetBeans)

- VB.NET 2010 Express
- C++.NET 2010 Express

Refer to the provided example code and documentation for integrating the relay module into your own projects.

6. MAINTENANCE

- **Cleaning:** Keep the module clean and free from dust. Use a soft, dry cloth for cleaning. Do not use liquid cleaners or solvents.
- **Environment:** Operate the module in a dry environment, away from moisture, extreme temperatures, and corrosive substances.
- **Connections:** Periodically check all electrical connections to ensure they are secure and free from corrosion.
- **Storage:** When not in use for extended periods, store the module in an anti-static bag in a cool, dry place.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Module not recognized by PC.	USB cable faulty; USB port faulty; Module not powered correctly.	Try a different USB cable and/or USB port. Ensure 5V DC power is supplied to the module. Check device manager for HID device recognition.
Relays not switching.	Incorrect software command; Insufficient power supply; Overload on relay.	Verify software commands are correct. Ensure stable 5V DC power. Check if the connected load exceeds relay specifications.
LED indicators not working.	No power to module; Faulty LED.	Check power supply connection. If power LED is off, troubleshoot power. If individual relay LEDs are off, check software commands.
Intermittent operation.	Unstable power supply; Loose connections; Electromagnetic interference.	Use a stable 5V DC power supply. Secure all connections. Keep module away from strong electromagnetic fields.

8. APPLICATIONS

The UIOTEC SRD-05VDC-SL-C 8-Way 5V Relay Module is versatile and can be used in various projects, including:

- Robotics control
- Home automation systems
- Controlling doors and windows via a Windows system
- General controller power supply applications

9. PACKAGE CONTENTS

Upon opening the package, you should find the following item:

- 1 x UIOTEC SRD-05VDC-SL-C 8-Channel USB Relay Module

10. WARRANTY AND SUPPORT

For warranty information, technical support, or further inquiries, please refer to the official UIOTEC website or contact their customer service directly. Keep your purchase receipt for any warranty claims.



© 2023 UIOTEC. All rights reserved.

This manual is for informational purposes only. Specifications are subject to change without notice.