

sd-matter smart switch module



Matter over Thread 诗达

智能开关规格书

Specification for Smart Switch

1. 产品概述

本产品是一款基于 Matter over Thread协议的 零火线供电 智能开关，内置 16A继电器，支持大功率负载控制。产品通过Thread 无线网状网络与 Matter 生态无缝兼容，可直接接入 Apple Home、Google Home 等平台，实现高可靠性的本地化智能家居控制。

1. Product Overview

This product is based on Matter over Thread The intelligent switch for zero-line and live-line power supply in the protocol has a built-in 16A capacity Relay, supporting high-power load control. The product has passed Thread wireless mesh network and Matter ecosystem Compatible with multiple platforms, it can be directly integrated into platforms such as Apple Home and Google Home, achieving highly reliable localized intelligence Home control.

2. 关键特性 2. Key characteristics

- 安全强供电Reliable and strong power supply
- 零火线取电设计，无需电池，长期稳定运行，适配全球电压（100-250V AC）。
The design features live and neutral wire power supply, eliminating the need for batteries. It operates stably over a long period and is compatible with global voltage (100-250V AC).
- 高负载能力 High load capacity
- 采用 汇港 16A 继电器。Use Huigang 16A relay.
- Matter Over Thread
- 跨平台互联互通。Cross-platform interconnectivity.
- 本地化执行 Localized execution
- Thread 网络内指令直连，响应速度 $\leq 100\text{ms}$ ，断网不影响预设场景。
Direct connection of instructions within the Thread network, with a response speed of $\leq 100\text{ms}$, and no impact on preset scenarios in case of network disconnection.
- 多重安全防护Multiple security protections
- 过载保护、短路保护、防雷电浪涌，通过电气安全认证。
Overload protection, short circuit protection, lightning surge protection, and electrical safety certification.

Category	Parameter
Protocol	Thread, Thread low-power networking + Bluetooth LE network configuration assistance
Input power	AC 100-250V, 50/60Hz, live and neutral wires are necessary
Relay specification	Huigang TV-8 (16A, resistive load)
Maximum load	16A resistive / 10A inductive / 800W lamps
Standby power consumption	$\leq 0.5W$
Network capacity	Supports ≥ 250 Thread nodes
Button design	Single key combination, physical mechanical button (with LED light)
Wiring terminal	Screw-locking terminal, supports cables below $2.5mm^2$
Material	Flame-retardant PC + VO grade fireproof shell, high temperature resistance up to $105^{\circ}C$
Size	5815.540mm (single module)
Environmental resistance	Operating temperature: $-20^{\circ}C \sim 60^{\circ}C$, humidity $\leq 95\%$
Protection grade	IP20 (prohibited installation in wet areas)

4. Compatibility

- **Supported platforms**
Apple HomeKit, Google Home, Amazon Alexa, SmartThings and other Matter ecosystem platforms.
- **Controllable devices**
Lamps, sockets, ($\leq 16A$).
- Supports scene linkage (such as "double-click the button to start the away mode").

5. Installation and Use

- **Wiring requirements**
Three wires (live wire, neutral wire + load wire) are connected, and professional electricians are required for installation. It is strictly forbidden to reverse the live and neutral wires.

- **Network configuration process**
After power on, press and hold the button for 5 seconds to enter Matter pairing mode.
Use the mobile App to scan the device QR code.
- **LED status indication**
Blue light on: waiting for access

6. Package Contents

- Switch panel ×1
- Installation matching module
- Mounting screws ×2
- Instruction manual ×1

7. Certification and Warranty

- **Certification standards**
FCC/CE/Matter CSA.
- **Warranty period**
3-year warranty, relay service life $\geq 100,000$ times.
- **Disclaimer**
Damage caused by incorrect wiring is not covered by the warranty.

8. Safety Warnings

- For AC power supply only, it is forbidden to connect to DC loads.
- Be sure to cut off the power before installation and ensure that the live and neutral wires are correctly distinguished.
- For high-power equipment (such as motors), a 20% load margin should be reserved.

Model	Number of buttons	Color	Load type
SD-SW01	1 key - toggle / button	Gold / Silver	16A resistive / 10A inductive

10. Appendix

- **Thread border router requirements**
It needs to be used with Nest Hub, HomePod Mini or third-party Thread routers.

- **Technical support**

Wiring diagrams and installation videos are available on the official website: www.insiiida.com/install

- Manufacturer: Guangzhou Shida Electric Technology Co., Ltd.
- Website: www.insiiida.com
- Origin: China

FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum 20cm distance between the radiator and your body: Use only the supplied antenna.