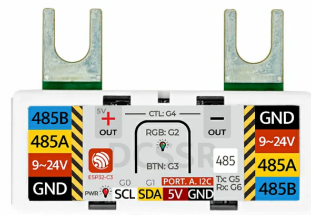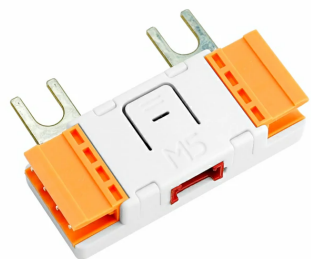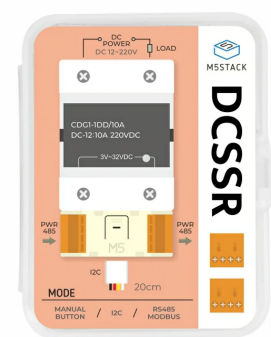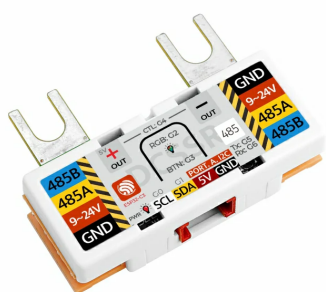# Unit DCSSR

SKU:U140

Description

Unit DCSSR is a **DC-to-DC single-phase solid-state relay** controller kit, which includes a single-phase solid-state relay + ESP32C3 core control board. It supports three working modes: **button control**, **I2C slave**, and **Modbus networking**. The integrated programmable full-color RGB LED can be used for various status indications. Compared to traditional mechanical relays, this relay is a contactless switch assembled and solidified using semiconductor components. It has a series of advantages such as fast switching speed, high operating frequency, long service life, low noise, and reliable operation without sparks. It is widely used in digital program-controlled devices, motor control devices, temperature control devices, data processing systems, and computer terminal interface circuits, especially suitable for special occasions with frequent actions, explosion-proof, moisture-proof, and corrosion-resistant requirements.

Features

- Single-phase solid-state relay
- Three working modes:
    - Button control
    - I2C slave (supports device I2C address configuration)
    - Modbus networking (supports device ID configuration)
- Programmable full-color RGB LED
- RS485PWR interface (supports 9-24V device power supply)

Includes

- 1x Unit DCSSR
- 1x Single-phase solid-state relay
- 2 x 3.96-4P terminal blocks
- 1 x HY2.0-4P Grove connection cable (20cm)
- 1 x Communication protocol manual

Applications

- DC circuit on/off
- Motor equipment control
- Temperature control equipment

Specifications

Specification	Parameter
Controller Main	ESP32C3
Programmable RGB LED	SK6812
Load Current	10A
Input Control Voltage	3-32VDC
Load Voltage	24~220VDC
Input Control Current	5mA~20mA
Off-state Leakage Current	≤5mA
On-state Voltage Drop	≤1.6V
Operating Current Safety Series	Resistive Load: 50% Inductive Load: 50%
Electrical Life	≥1 million times
Indicator Light	Red (On: Closed / Off: Open)
Product Size	80 x 45 x 31mm
Package Size	147 x 90 x 40mm
Product Weight	112.6g
Gross Weight	137.8g

Learn
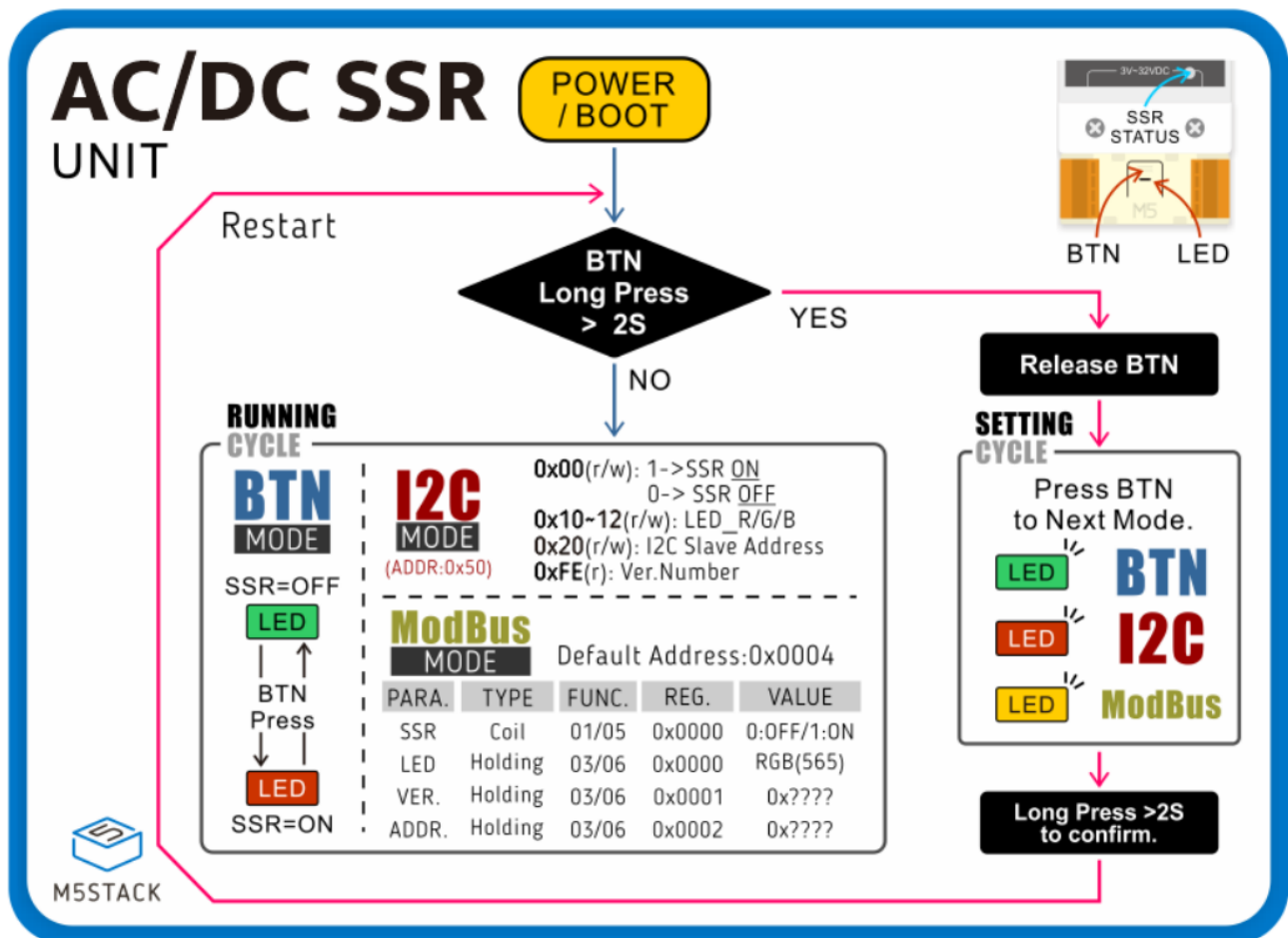
○ Connection Example Diagram
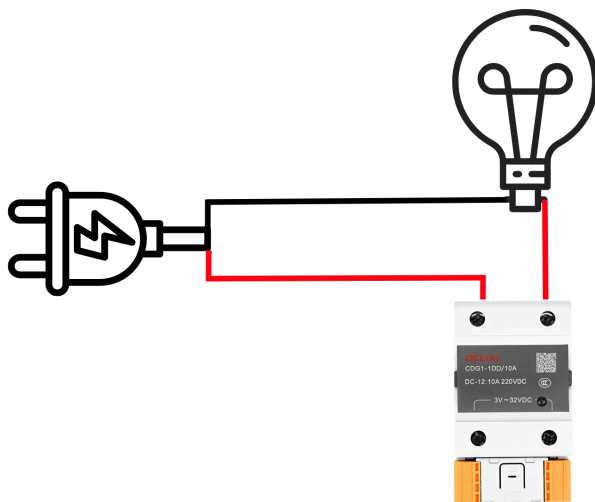
PinMap

Unit DCSSR

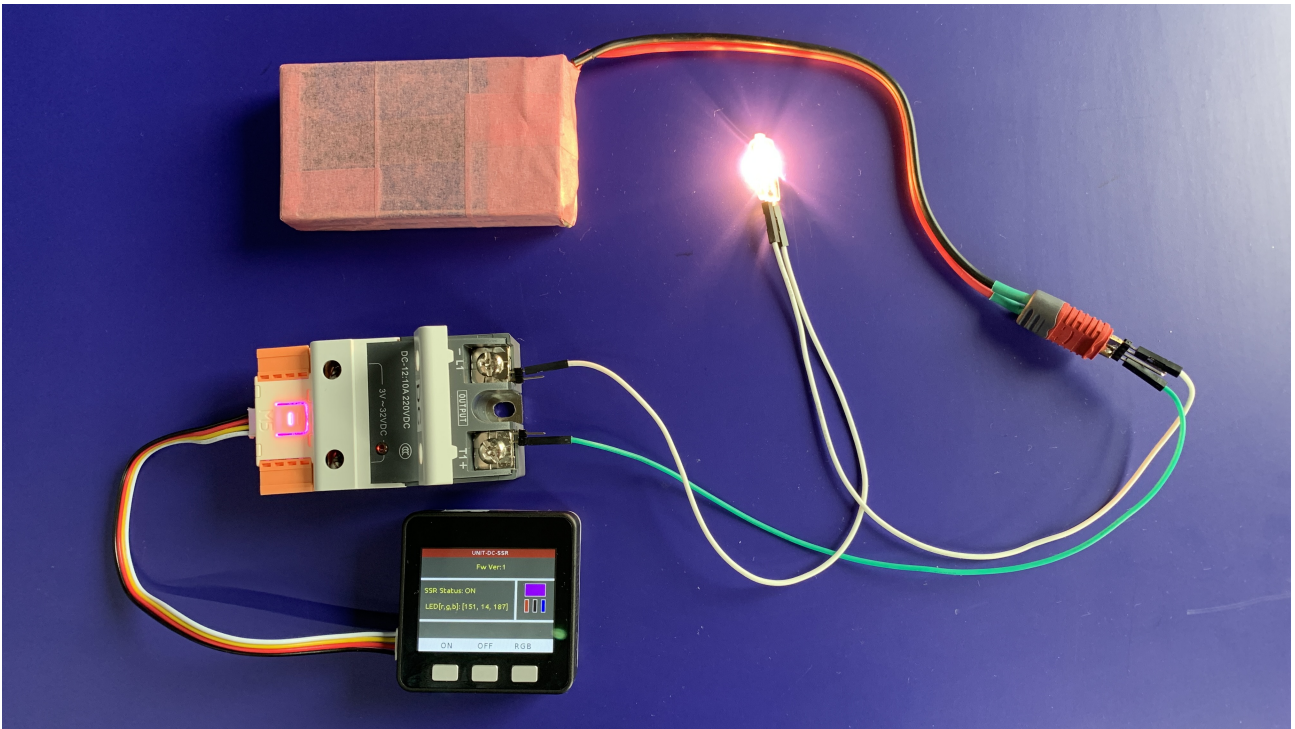| HY2.0-4P	Black	Red	Yellow	White
PORT.A	GND	5V	SDA	SCL

Model Size

UNIT:mm
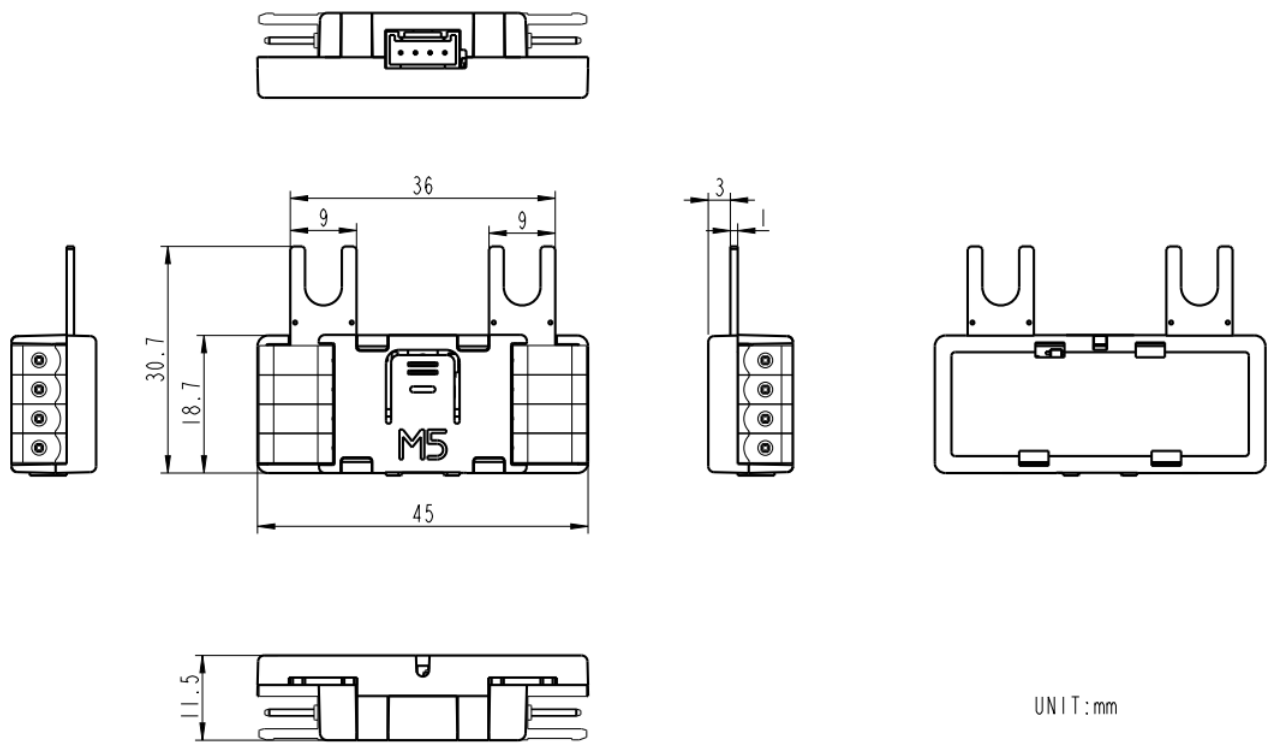
Softwares

Arduino

- Unit DCSSR Arduino Library
- Arduino485 Library
- ArduinoModbus Library

UiFlow1

- [Unit DCSSR UiFlow1 Docs](#)

UiFlow2

- [Unit DCSSR UiFlow2 Docs](#)

Video

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[M5Stack](#):

[U140](#)