Wireless Relay Switch Control

R831C/R831D

Wireless Sensor Network Based on LoRa Technology

Overview

R831C/D have three relay switches(output) and three dry contacts(input).
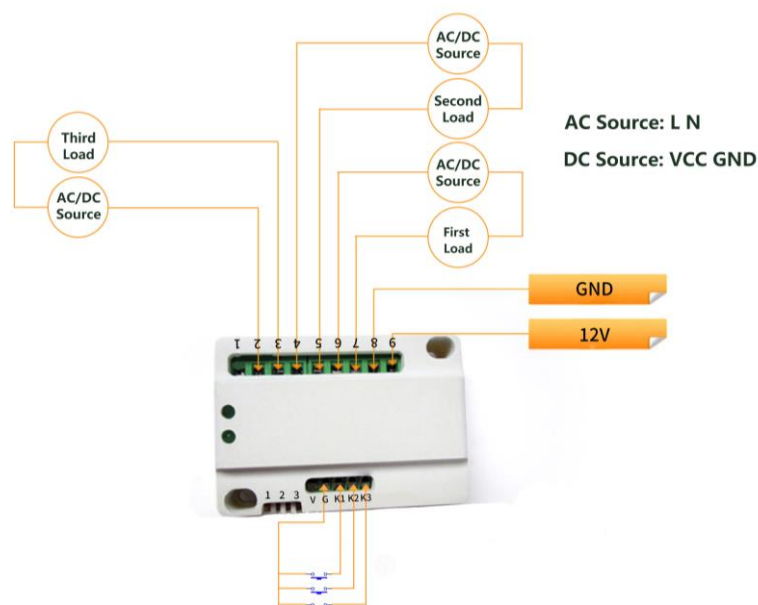
R831C can control 3 relay devices through external dry contact button or downlink commands.

R831D can report status of 3 dry contacts individually and control 3 relays
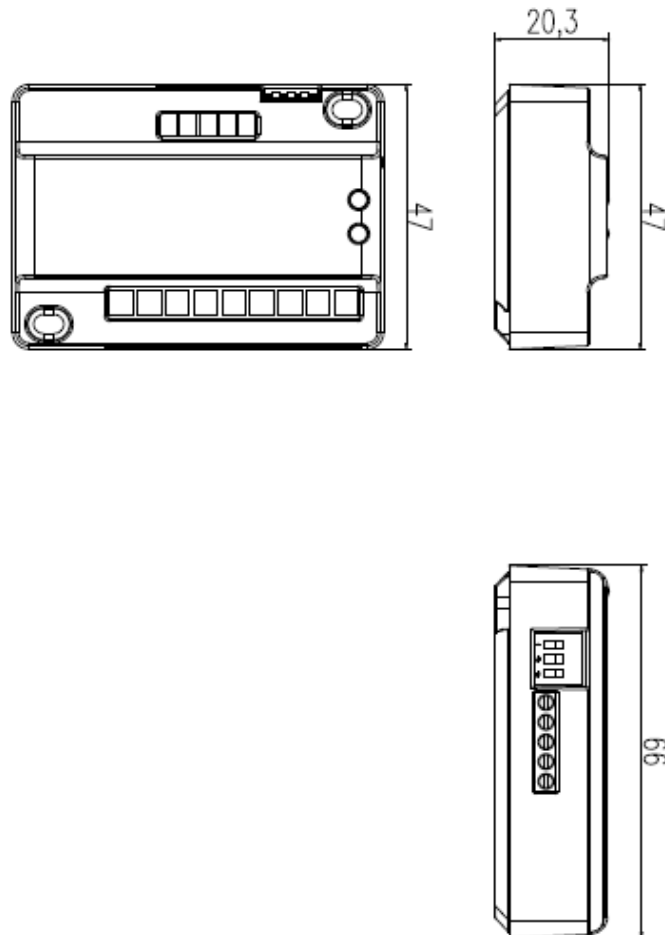
Application scenario

● Smart switches that can be applied in indoor environments such as home or office

● Remote-controlled devices that can response in real time

● Others

Wiring diagram

R831C / R831D Wiring

Wireless Relay Switch Control

Dimensions

Main characteristics

- Adopt SX1276 wireless communication module

- Three-way relays and dry contacts

- Compatible with LoRaWAN TM Class C

- Frequency hopping spread spectrum technology

- Configuration parameters can be configured through third-party software

-   platforms, data can be read and alerts can be set via SMS text and
    email(optional)

- Applicable to third-party platforms: Actility / ThingPark, TTN, MyDevices /
  Cayenne

Electrical characteristics

Work electric voltage	DC 12V / 1A
Work Current	20mA(12V) （Relay does not operate and no data transfer）
Relay Load Characteristics	AC250V/5A、DC30V/5A (contact load)
Relay Power Consumption	300mW
Relay Type	Magnetic Latching Relay
Relay Model	HFE60/5-1HSTGL2R

RF frequency parameter

Frequency range	863MHz-928MHz 470MHz-510MHz
Power Output	US915 20dbm； AS923 16dbm； AU915 20dbm； CN470 19.15dbm； EU868 16dbm； KR920 14dbm； IN865 20dbm；
Receiving Sensitivity	-136dBm （LoRa，Spreading Factor=12，Bit Rate=293bps）； -121dBm (FSK,Frequency deviation=5kHz, Bit Rate=1.2kbps)
Antenna Type	Built-in antenna
Communication Distance	Up to 10 km (visible linear obstacle-free transmission distance , actual transmission distance depends on the environment)
Data Transfer Rate	0.3kbps～50kbps
Modulation System Mode	LoRa/FSK (Note: You can choose one of them)
Supportable LoRaWAN Band	EU863-870，US902-928，AU915-928，KR920-923，AS923，CN470-510 (Note: The frequency band is optional and needs to be configured before shipment)

Physical characteristics

Size	66mm x 47mm x 20.3 mm
Working Temperature	-20°C ～ 55°C
Ambient Humidity Range	＜90% RH（no condense）
Storage Temperature Range	-40°C ～ 85°C