Information about SKU C0135

Relay voltage: 12V relay, power supply 12V.

Relay communication: multi-unit network 485 communication, based on MBDBUS-RTU protocol, the default communication address is 1, the user can modify the address by instruction

IN1 - IN4 are used by the switch. The status of the switch is read by 485, not by the input control relay output.

Board resources:

1. S1 reset button

2. D5 running LED indicator

Control commands are downloaded into the group for sharing.

1. 4-way relay output (one normally open, one normally closed)

2. STM8S103F3 microcontroller

3. 4-channel optocoupler isolation relay output

4.4 relay closed LED indicators

5. Round DC interface, interface with terminal DC. Convenient power supply wiring (supply voltage 5V or 12V is determined by the voltage of the relay)

6. 4 input interfaces (dry node input, passive input, connected to GND)

7. All the way RS485 communication interface.

8. A power indicator

9. A user LED light

10. Reset button

11. A SWIM download interface - (STLINK-V2 download program, users can develop programs twice)

MODBUS RTU communication command:

Modbus RTU instruction

Baud rate: 9600 8 NONE 1

This relay module can communicate in multiple networks, and the communication address can be set by serial port command. (Communication command network disk provided)

The factory default communication address of the relay module is fixed to 1. The serial port assistant operation command:

Note: The following specific test instructions are transmitted to the network.

Command function:

1. Set the address to 2. Read the address 3. Read the software version 4. Read the hardware version

Output instruction:

MODBUS-RTU communication command:

Function code: 05 is the relay output [control relay on/off]

Function code: 06 is the storage data [user-defined storage data, household custom data, address number, set by the user. Generally useless]

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Baud rate: 9600 8 None 1

Hexadecimal transmission

Hexadecimal reception

Steps:

1. Software setting communication baud rate 2. Setting address (device address used for communication, default address is 01)

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Set the address to: 09

01 10 00 00 00 01 02 00 09 66 56//Address 01 Modified to 09

Set the address to: 01

01 10 00 00 00 01 02 00 01 66 56// Modified to 01

Read address

00 03 00 00 00 01 85 db

return:

00 03 02 00 01 44 44 //01 is the address

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The meaning of each byte:

[Address 1]

//--------------------------------------------

Relay No. 1 is on: 01 05 00 01 01 00 9d 9a

Byte 1: Address

Byte 2: Function?

Byte 3 4: Register Address

Byte 5 6: Register Data

Byte 7 8: CRC check

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[Address 1]

//--------------------------------------------

Relay No. 0 is on: 01 05 00 00 FF 00 8C 3A

Relay No. 0 is closed: 01 05 00 00 00 00 CD CA

//--------------------------------------------

Relay No. 1 is open: 01 05 00 01 FF 00 DD FA

Relay No. 1 is closed: 01 05 00 01 00 00 9C 0A

//-------------------------------------------

Relay No. 2 is on: 01 05 00 02 FF 00 2D FA

Relay No. 2 is closed: 01 05 00 02 00 00 6C 0A

//-------------------------------------------

Relay No. 3 is open: 01 05 00 03 FF 00 7C 3A

Relay No. 3 is closed: 01 05 00 03 00 00 3D CA

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Read all interfaces input status

Send: 01 02 00 00 00 08 79 CC //Read 8 input states

Back: 01 02 01 00 A1 88

All off

Read instruction:

Read 1 channel status [IN1] 2 channel status [IN2] 3 channel status [IN3] 4 channel status [IN4]

Read all input interface status