Introduction

The RS485 Light and Siren Alarm is an intelligent alarm device based on the MODBUS-RTU communication protocol. It integrates a high-decibel buzzer and high-brightness LED indicator lights to achieve synchronised audio-visual alarms. It receives device commands via the RS485 bus to control the start and stop of the audio-visual alarm, enabling remote early warning reminders. It is compatible with WS1 Pro/GS1/SP1 series devices.

Applications

It is widely used in industrial automation monitoring system, environmental monitoring system warning, equipment operation status reminder, security alarm system, intelligent building management and other occasions.

Features

● No configuration required, plug and play

● RS485 Control Output

● Audible and visual alarm

Specification

Specification	
Product Model	UB-MA-N1
Supply Voltage	DC 5V
Power	<1w
Dimensions	130*68*70mm
Loudspeaker Decibel	90dB
Connector	Micro USB/3.5mm audio
Communication Protocol	RS485 Modbus RTU Protocol
RS485 Address	0xFD
Baud Rate	1200 bit/s,2400 bit/s, 4800 bit/s, 9600 bit/s(default), 19200 bit/s

Wiring Instruction

Wiring Instruction				
RS485	VCC	B	A	GND
Micro USB	Red	White	Green	Black
Audio	Red	Green	White	Black

Micro USB

Micro USB Male

Black
Green
White
Red

Audio

VCC
RS485 A
RS485 B
GND
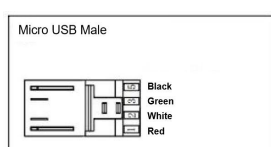
Communication protocols

1.Communication basic parameters

Communication Basic Parameter	
Coding System	8–bit binary
Data Bit	8 bits
Parity Checking Bit	none
Stop Bit	1 bit
Error Checking	CRC Check
Baud Rate	4800 bit/s, 9600 bit/s(default), 19200 bit/s，38400 bit/s，57600 bit/s，115200 bit/s

2.Data Frame Format

The Modbus-RTU communication protocol is used in the following format:

- ■ Initial structure ≥ 4 bytes in time.
- ■ Address code: 1 byte, default 0xFD.
- ■ Function code: 1 byte, support function code 0x03 (read only) and 0x06 (read/write).
- ■ Data area: N bytes, 16-bit data, high byte comes first.
- ■ Error check: 16-bit CRC code.
- ■ End structure ≥ 4 bytes of time.

Request					
Slave Address	Function Code	Register Address	No. of Registers	CRC LSB	CRC MSB
1 byte	1 byte	2 bytes	2 bytes	1 byte	1 byte

Response							
Slave Address	Function Code	No. of Bytes	Content 1	Content 1	…	Content n	CRC
1 byte	1 byte	1 byte	2 bytes	2 bytes	…	2 bytes	2 bytes

3.Register Address

Register Address				
Address (hex)	Content	Register Length	Function Code	Description of definitions
0x0010	Address	1	06	integer
0x0030	Alarm control	1	06	on：00 00，off：00 FF

Note

1. Please do not plug and unplug with electricity, be sure to disconnect the power before plugging and unplugging to avoid equipment damage.

2. Please avoid address conflict, such as with other sensor address conflict, please modify the communication address.

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