

I/O controlled by Modbus RTU user manual

1. Overview

lotzone's 8 relays module V5.8 support Modbus RTU, enable "I/O Control by RS485".Use "Modbus Poll" tool to test in this document.The device default address is 1 which can be set in "RS485 Interface" webpage.

2. Steps:

- (1) Connect to the PC by a USB to RS485 tool.
- (2) Power on the device.
- (3) Enable the "I/O contrl by RS485" and "RS485 Address".

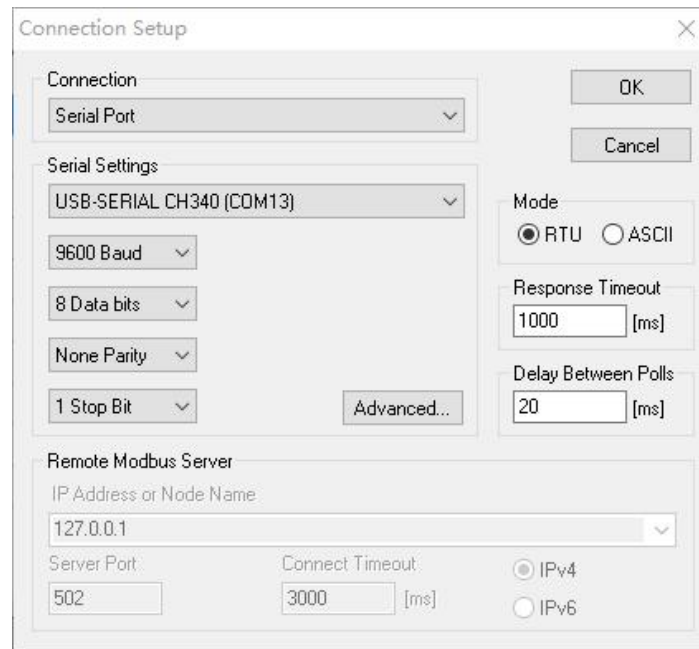
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RS485 Interface

Configure RS485 interface parameters here

Item	Status
Baud rate(4800,9600,38400,115200)	<input type="text" value="9600"/>
Check bit	<input type="text" value="0"/>
lotzone's Sensor	<input type="button" value="disable"/>
Modbus RTU to TCP MODBUS enable	<input type="button" value="disable"/>
RS485 to mqtt enable	<input type="button" value="disable"/>
I/O Control by RS485	<input type="button" value="enable"/>
RS485 Address(Serial relay mode is valid)	<input type="text" value="1"/>

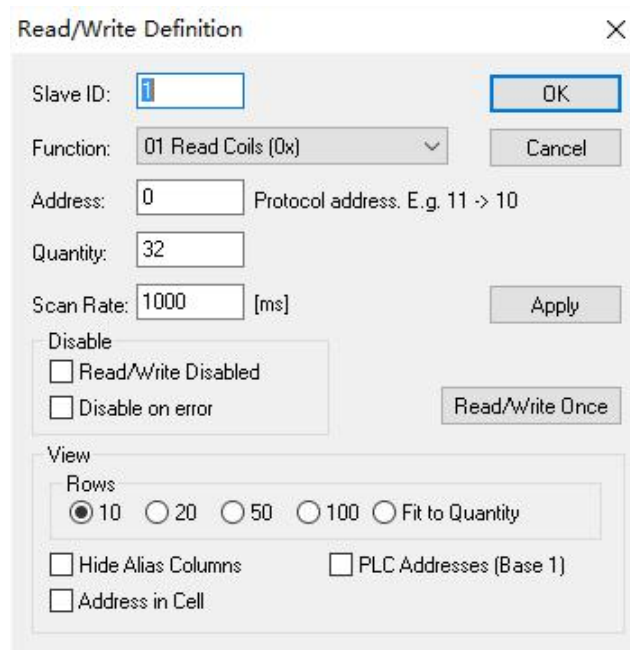
- (4) Open "Modbus Poll" software
- (5) Select "Serial Port" in "Connection", the COM port in "serial settings", 9600 bandrate same and none parity in the "rs485.cgi" webpage, other is default as in figure.



The 'Connection Setup' dialog box is shown with the following settings:

- Connection:** Serial Port
- Serial Settings:**
 - USB-SERIAL CH340 (COM13)
 - 9600 Baud
 - 8 Data bits
 - None Parity
 - 1 Stop Bit
- Mode:** ☒ RTU ☐ ASCII
- Response Timeout:** 1000 [ms]
- Delay Between Polls:** 20 [ms]
- Remote Modbus Server:**
 - IP Address or Node Name: 127.0.0.1
 - Server Port: 502
 - Connect Timeout: 3000 [ms]
 - ☒ IPv4 ☐ IPv6

(6) Set the “Read/Write Definition” in “Setup”,Slave ID is 1,function is ‘01’ (Read Coil),Address is 0,Qunatity is 8, other is default.



The 'Read/Write Definition' dialog box is shown with the following settings:

- Slave ID:** 1
- Function:** 01 Read Coils (0x)
- Address:** 0
- Quantity:** 32
- Scan Rate:** 1000 [ms]
- Disable:**
 - ☐ Read/Write Disabled
 - ☐ Disable on error
- View:**
 - Rows: ☒ 10 ☐ 20 ☐ 50 ☐ 100 ☐ Fit to Quantity
 - ☐ Hide Alias Columns
 - ☐ PLC Addresses (Base 1)
 - ☐ Address in Cell

(7) Control relay

The state of relay show in real time.'05' fuction command to control single relay,and '15' fuction command to control multiple relays on or off.

Mbpoll1

Tx = 164: Err = 0: ID = 254: F = 01: SR = 1000ms

	Alias	00000	Alias	00010	Alias	00020	Alias	00030
0		1		1		1		1
1		0		1		1		1
2		1		1		1		
3		1		1		1		
4		1		1		1		
5		1		1		1		
6		1		1		1		
7		1		1		1		
8		1		1		1		
9		1		1		1		

Write Single Coil

Slave ID:

Address:

Value

☐ On ☒ Off

Result

N/A

☐ Close dialog on "Response ok"

Use Function

☒ 05: Write single coil

☐ 15: Write multiple coils

15: Write Multiple Coils

Slave ID:

Address:

Quantity:

- ☒ Coil 0
- ☒ Coil 1
- ☒ Coil 2
- ☒ Coil 3
- ☒ Coil 4
- ☒ Coil 5
- ☒ Coil 6
- ☒ Coil 7
- ☒ Coil 8
- ☒ Coil 9
- ☒ Coil 10
- ☒ Coil 11
- ☒ Coil 12
- ☒ Coil 13