POSITAL

QUICK MANUAL

Modbus RTU Interface Encoder

Modbus

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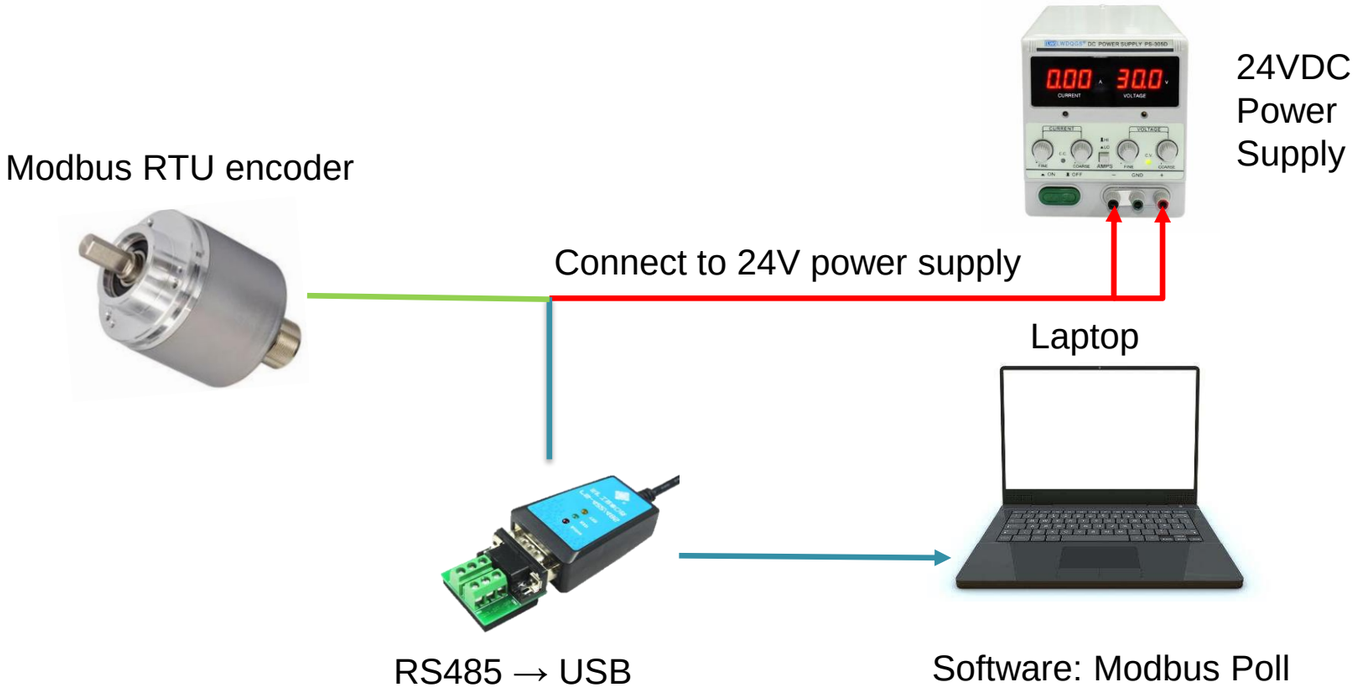
DEVICE CONNECTION

Cable Connection



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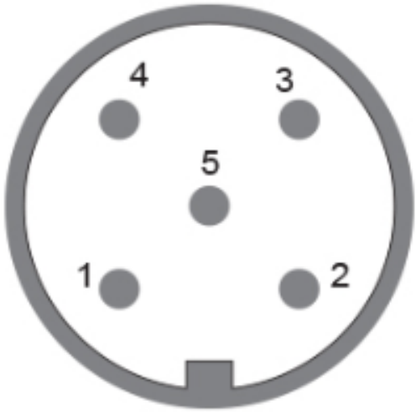
DEVICE CONNECTION

Encoder Setting

Pin Definition



Connection Plan

SIGNAL	PIN NUMBER
Power Supply	2
GND	3
RS485 A +	4
RS485 B -	5
Signal GND	1

Default Setting

- Baud rate: 19200
- Even parity check
- 1 stop bit
- Slave ID: 7Fh(127d)
- 8 data bits.

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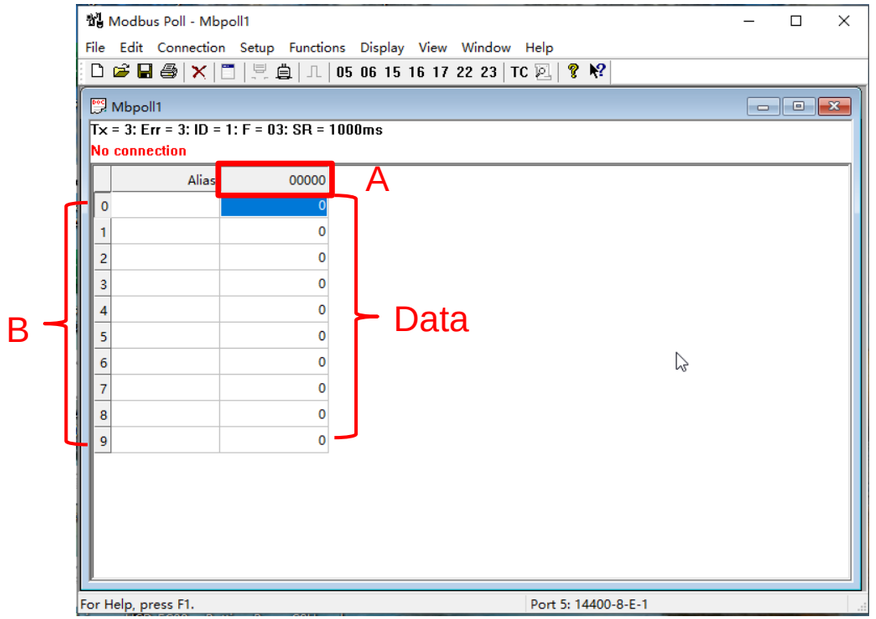
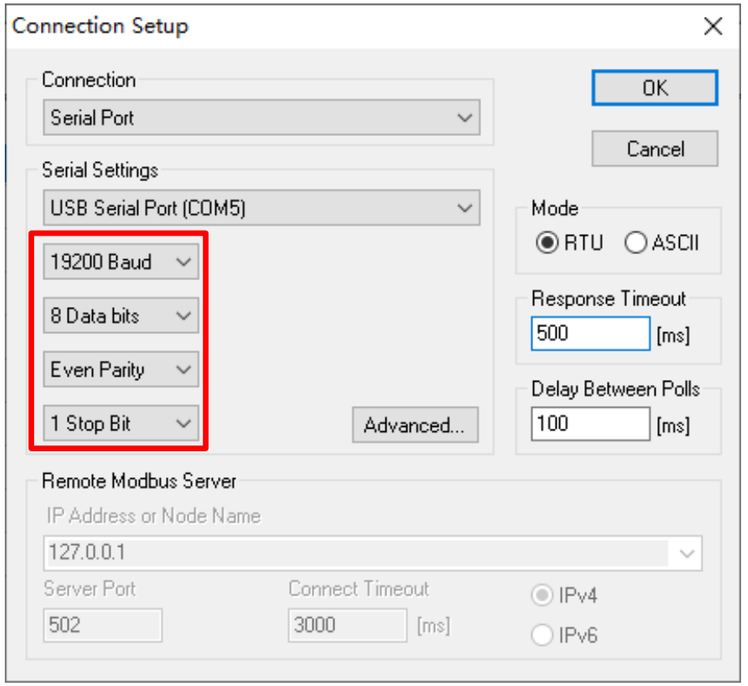
COMMUNICATION SETTING





- Register Address = A + B

- Press F3 to make connection setup. If it is the first time to use, select it according to the original settings.

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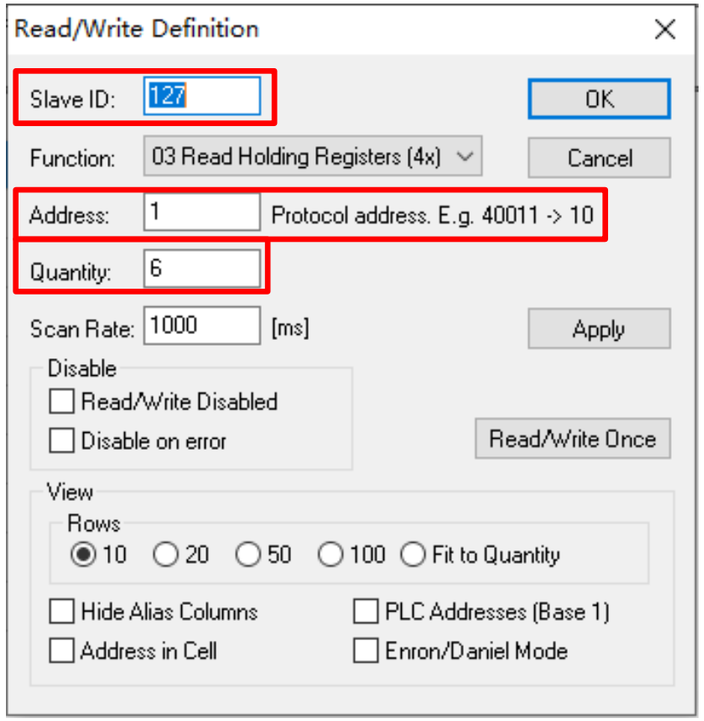
COMMUNICATION SETTING



- Press F8 to make read/write definition. The original slave ID is 127. According to register list, choosing Address and Quantity.

Register	Data name	Order	Attribute	Value	Default
40002	Position	MSB	RO	Position Value Bit 17-32	
40003	Position	LSB	RO	Position Value Bit 1–16	
40004	Actual Reverse State	MSB	RO	Actual State CW = 0, CCW = 1	0
40005	Term Rest State	MSB	RO	Termination on = 1, off = 0	1
40006	Speed	MSB	RO	Speed Value Bit 17-32	
40007	Speed	LSB	RO	Speed Value Bit 1–16	
40008	Limit switch state		RO		

- Address: The first register address you need to view.
- Quantity: The number of continuous registers you need to view.

For example: If you want to check the position data.

- Address: Protocol address. E.g. 40011→10.
  So Position Register address 40002 should be reduced 40001 = 1.
- Quantity blank should be filled 2.
- Note: If the register being queried is not in use, an error is reported.

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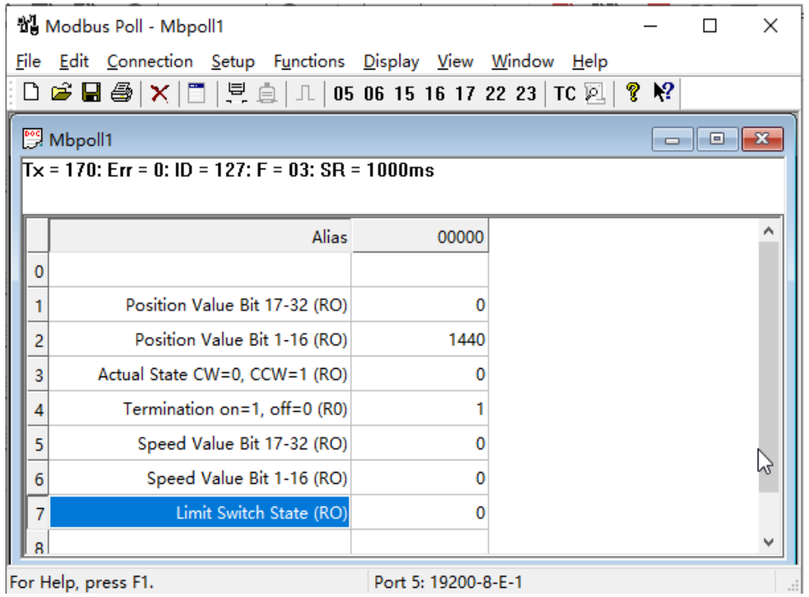
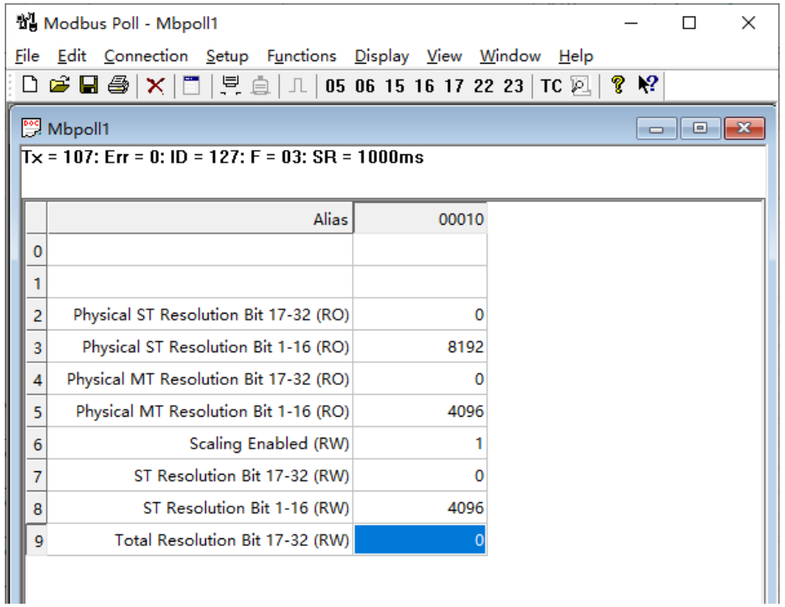
REGISTER DESCRIPTION

Register 0 - 19





Remark:

- RO: Read only, not modifiable.
- RW: Read and write.

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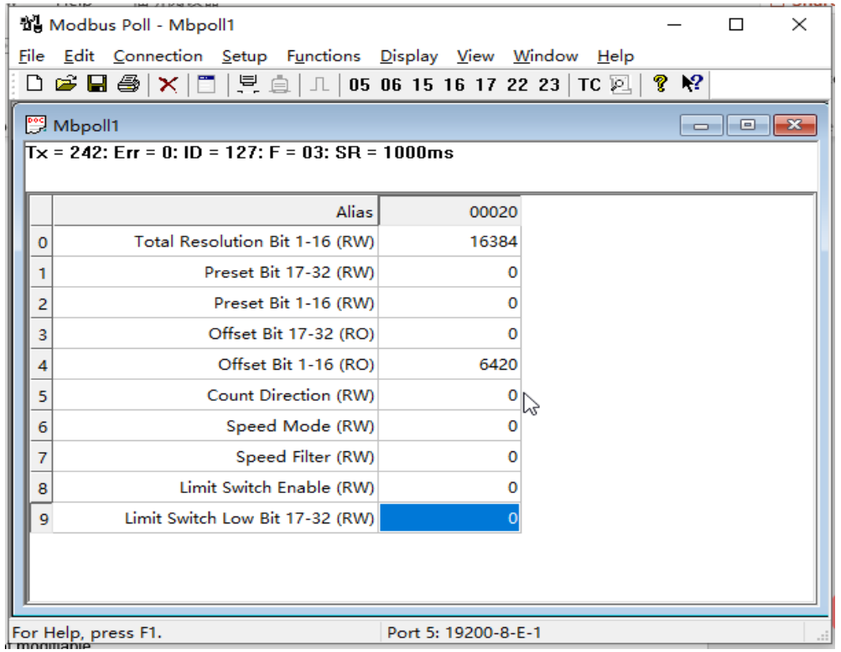
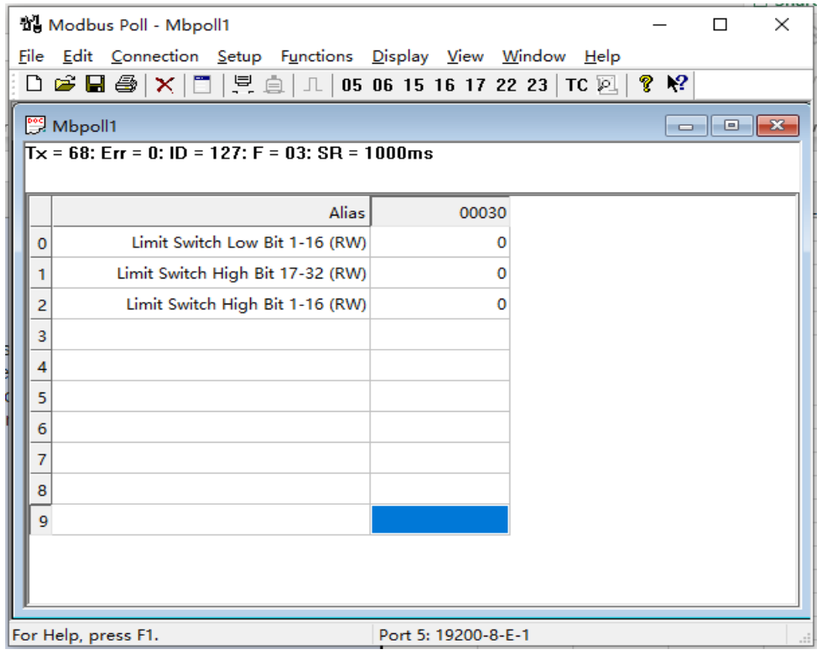
REGISTER DESCRIPTION

Register 20 - 32





Remark:

- RO: Read only, not modifiable.
- RW: Read and write.

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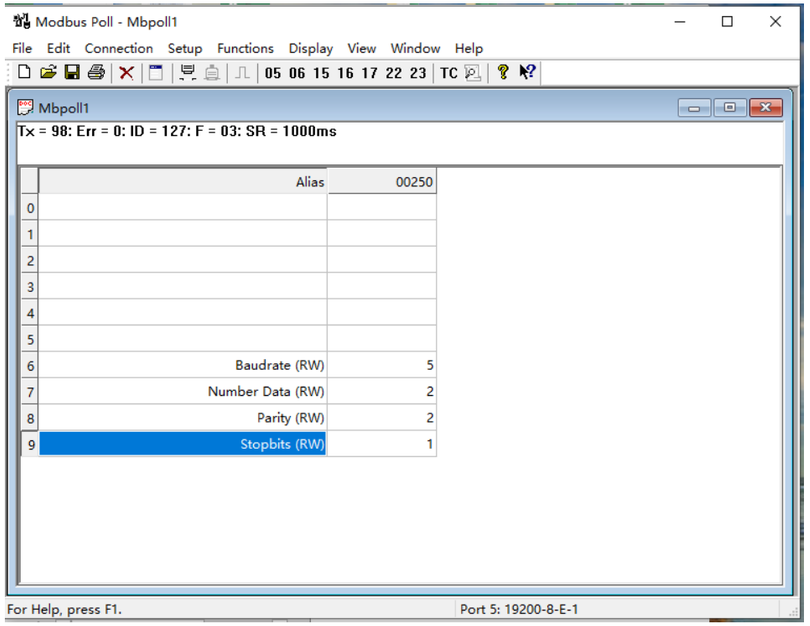
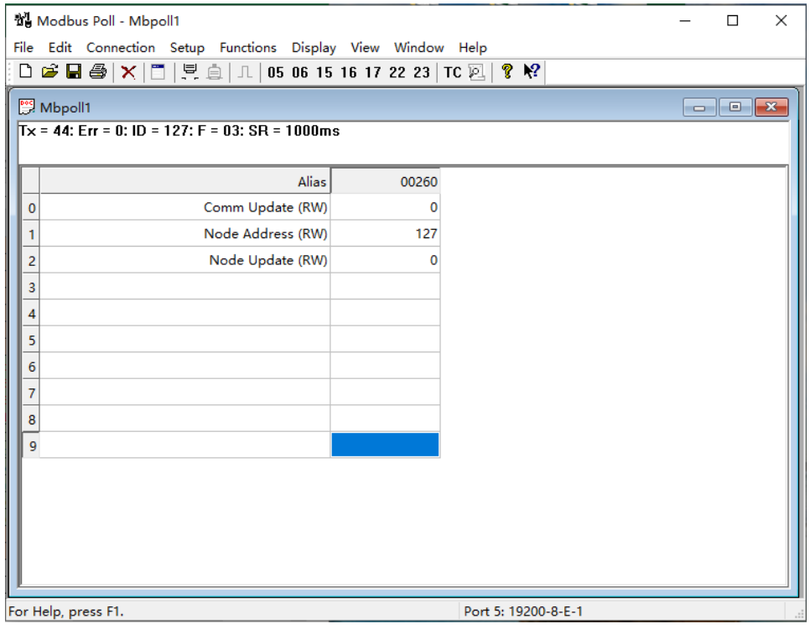
REGISTER DESCRIPTION

Register 256 - 262





Remark:

- RO: Read only, not modifiable.
- RW: Read and write.

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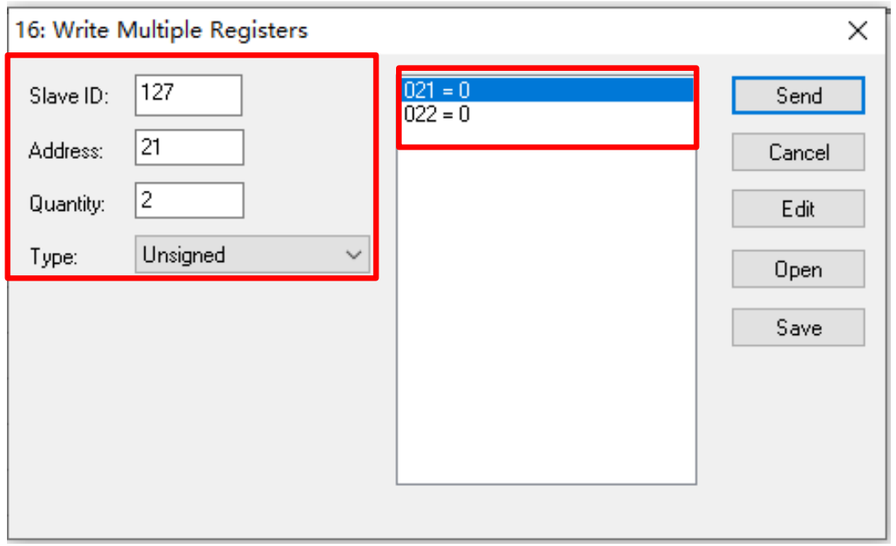
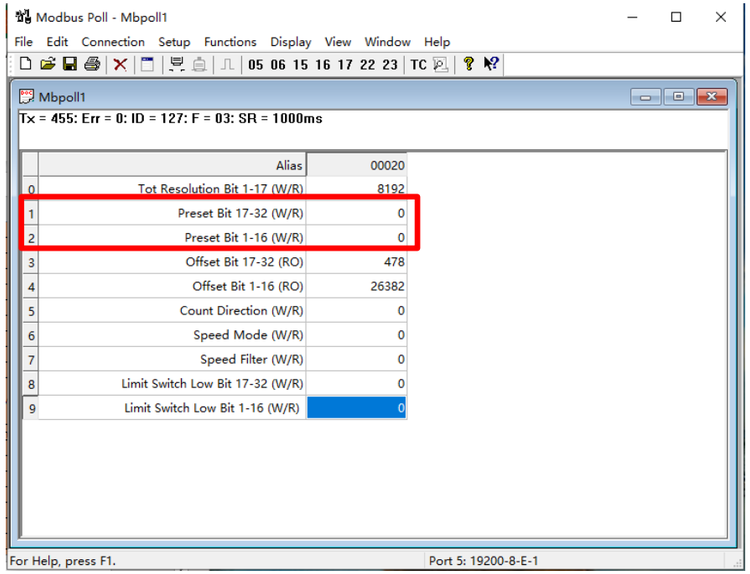
ENCODER CONFIGURATION

Position Preset





- Press Alt + F8 to write multiple registers.
- Filling in “Slave ID”, “Address”, “Quantity” and “Type”.
- Set the corresponding register data.
- Press “Send”.

- According to the figure above, we can find:
- Register Address of preset are 21 and 22.
- Address should be filled in 21.
- Quantity should be filled in 2.

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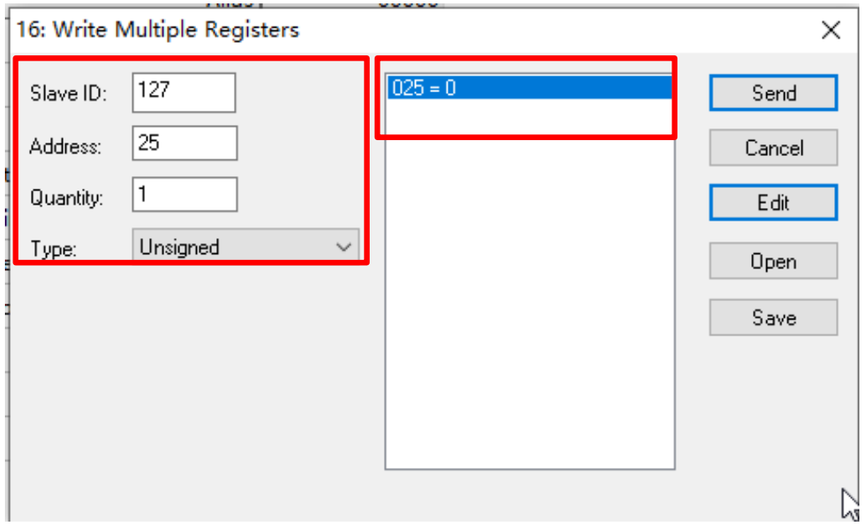
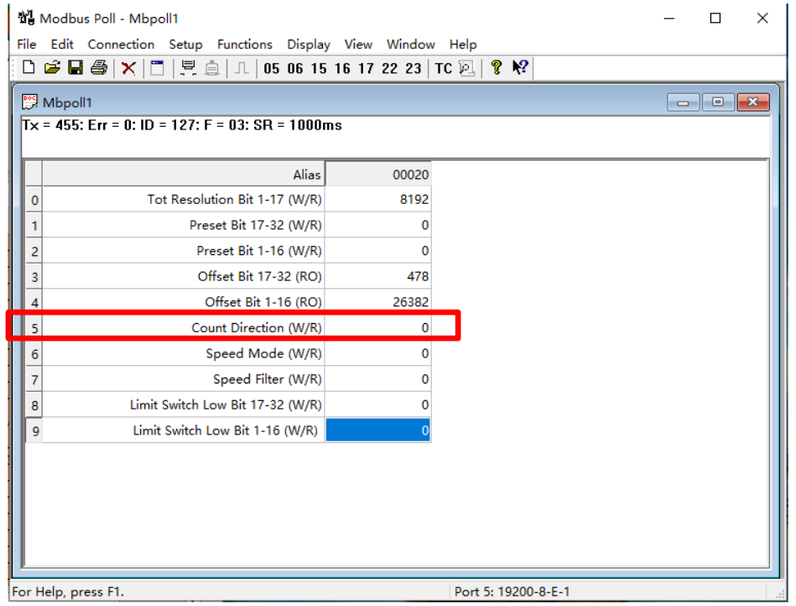
ENCODER CONFIGURATION

Direction Setting





- Press Alt + F8 to write multiple registers.
- Filling in “Slave ID”, “Address”, “Quantity” and “Type”.
- Set the corresponding register data.
- Press “Send”.

- According to the figure above, we can find:
- Register address of count direction is 25.
- Address should be filled in 25.
- Quantity should be filled in 1.

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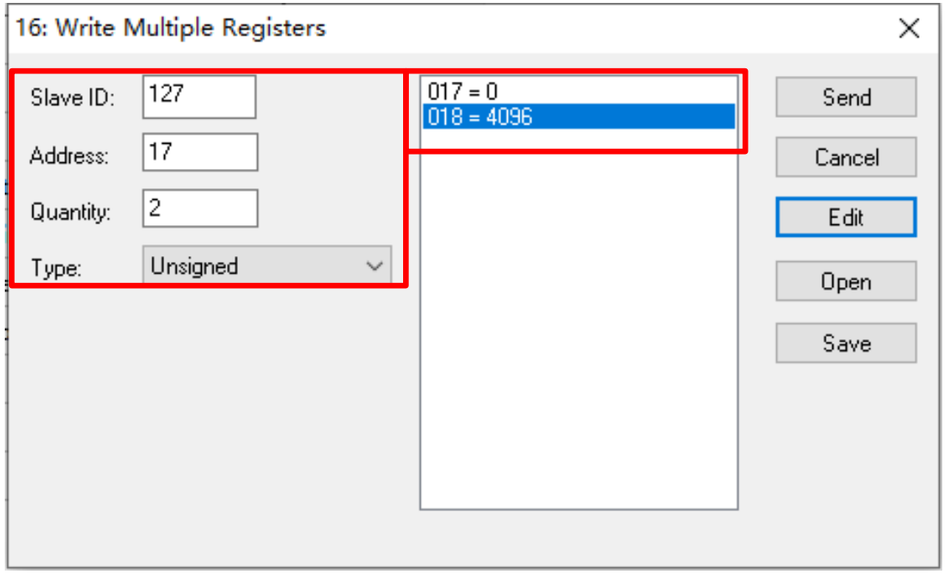
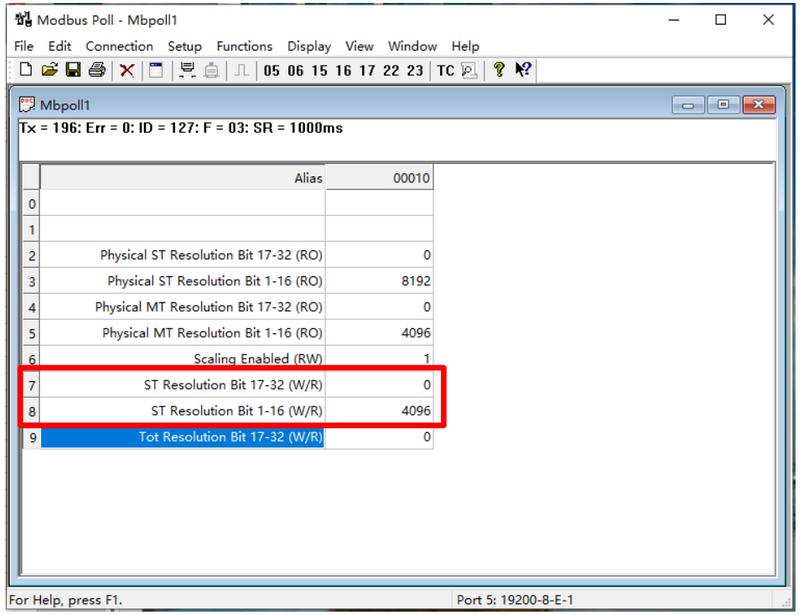
ENCODER CONFIGURATION

ST Resolution Setting





- Press Alt + F8 to write multiple registers.
- Filling in “Slave ID”, “Address”, “Quantity” and “Type”.
- Set the corresponding register data.
- Press “Send”.

- According to the figure above, we can find:
- Register address of ST resolution setting are 17 and 18.
- Address should be filled in 17.
- Quantity should be filled in 2.

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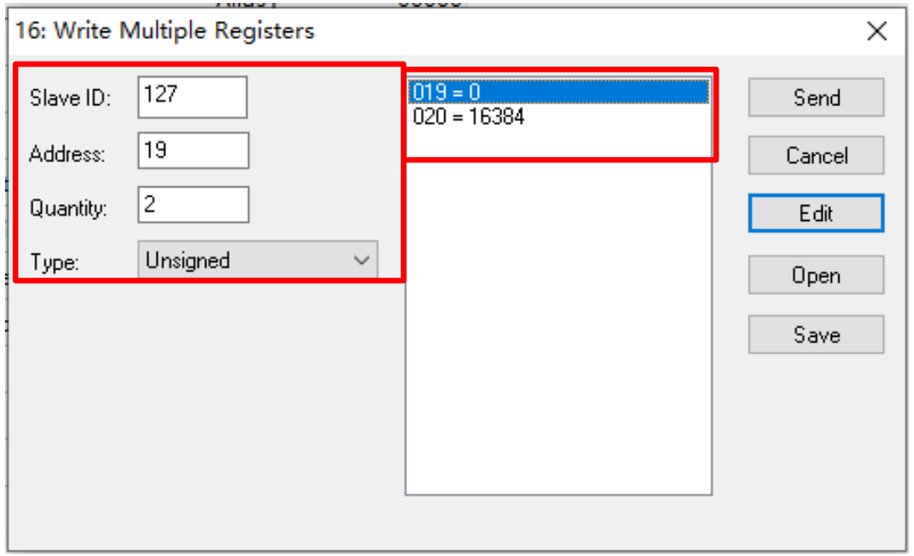
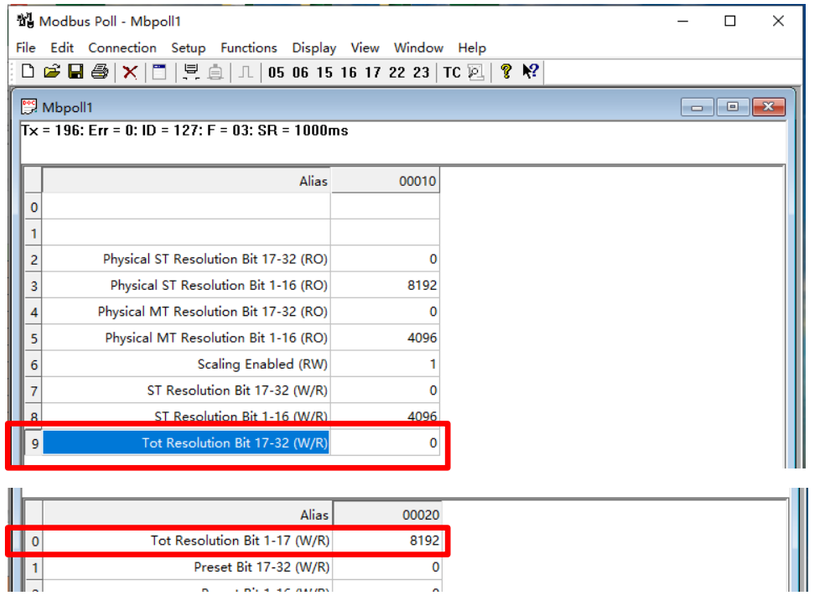
ENCODER CONFIGURATION

Total Resolution Setting





- Press Alt + F8 to write multiple registers.
- Filling in “Slave ID”, “Address”, “Quantity” and “Type”.
- Set the corresponding register data.
- Press “Send”.

- According to the figure above, we can find:
- Register address of total resolution setting are 19 and 20.
- Address should be filled in 19.
- Quantity should be filled in 2.

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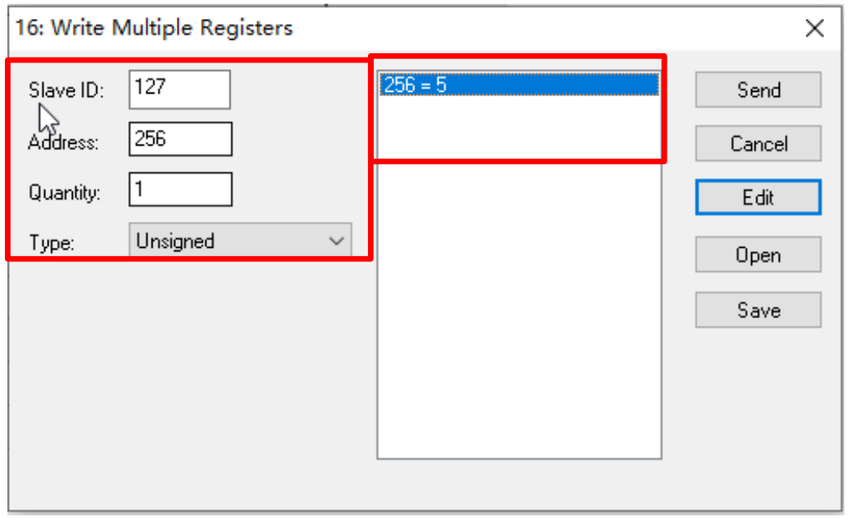
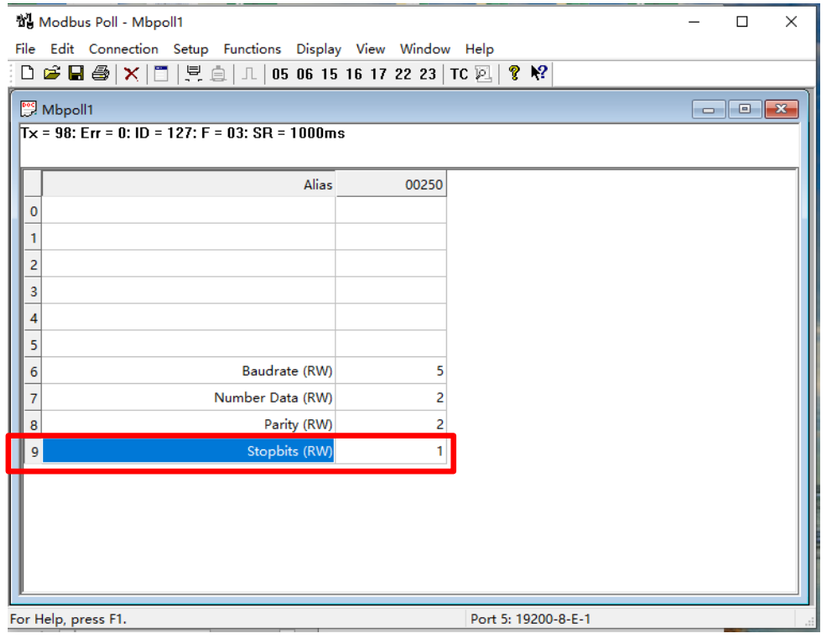
ENCODER CONFIGURATION

Baudrate Setting



- Press Alt + F8 to write multiple registers.
- Filling in “Slave ID”, “Address”, “Quantity” and “Type”.
- Set the corresponding register data.
- Press “Send”.
- Baud rate: 0=1200, 1=2400, 2=4800, 3=9600, 4=14400, 5=19200, 6=38400, 7=56000, 8=57600, 9=115200, 10=128000, 11=256000
- Power off and reconnect at the new baud rate after setting.



- According to the figure above, we can find:
- Register Address of baud rate is 256.
- Address should be filled in 256.
- Quantity should be filled in .

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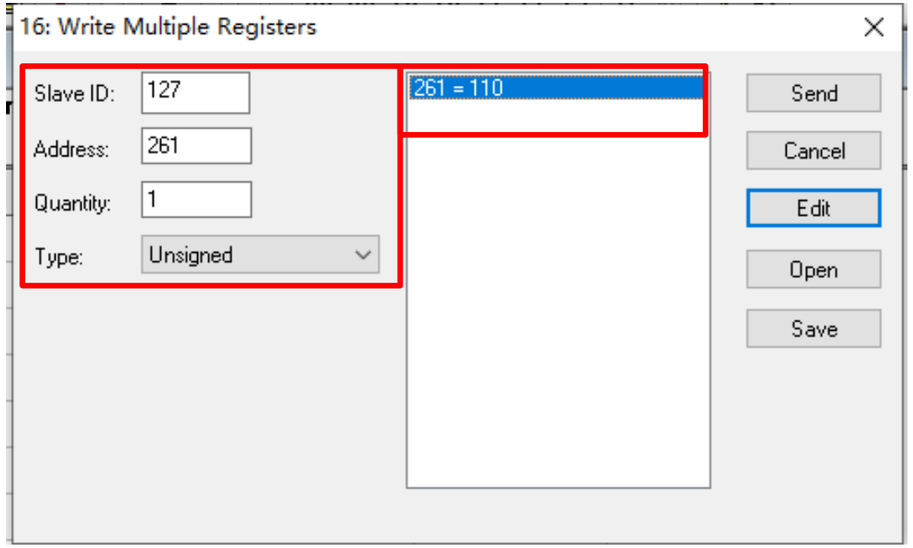
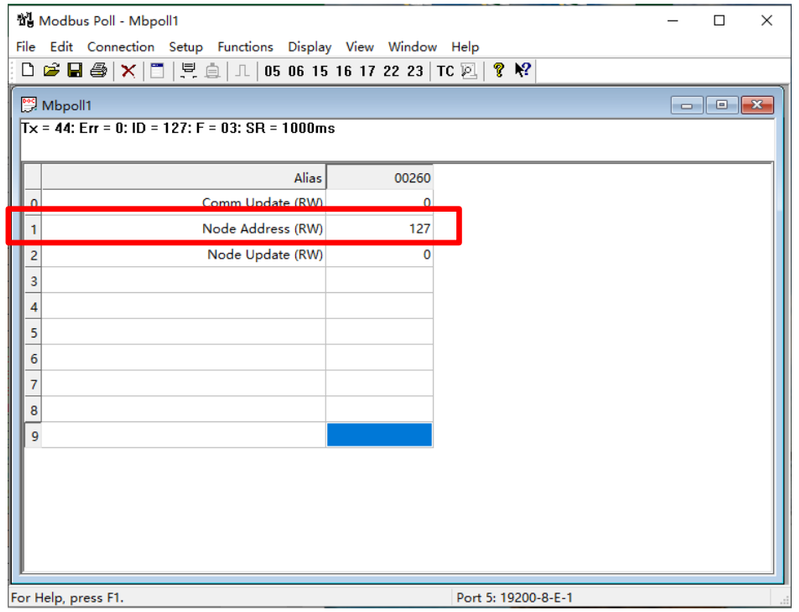
ENCODER CONFIGURATION

Slave ID Setting





- Press Alt + F8 to write multiple registers.
- Filling in “Slave ID”, “Address”, “Quantity” and “Type”.
- Set the corresponding register data.
- Press “Send”.
- Power off and reconnect at the Slave ID after setting.

- According to the figure above, we can find:
- Register Address of node address is 261.
- Address should be filled in 261.
- Quantity should be filled in 1.

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