

1.D8120: RS-485 Communication protocol, setting method refer to the following table :

位号	名称	内容	
		0(位OFF)	1(位ON)
B0	数据长	7位	8位
B1 B2	奇偶性	B2,B1 (0, 0) 无 (0, 1) 奇数(ODD) (1, 1) 偶数(EVEN)	
B3	停止位	1位	2位
B4 B5 B6 B7	传送速率 (BPS)	B7,B6,B5,B4 B7,B6,B5,B4 (0, 0, 1, 1) 300 (1, 0, 0, 0) 9600 (0, 1, 0, 0) 600 (1, 0, 0, 1) 19200 (0, 1, 0, 1) 1200 (1, 0, 1, 0) 38400 (0, 1, 1, 0) 2400 (1, 0, 1, 1) 57600 (0, 1, 1, 1) 4800 (1, 1, 0, 0) 115200	
B8	起始字符选择	无	D8124
B9	第一结束字符选择	无	D8125
B10	第二结束字符选择	无	D8126
B15-B12	0x02 Modbus RTU 主机 0x09 Modbus RTU 从机		

M8122 sending is effective from its next next communication command. It must be connected in a pulse mode.

M8123 is a communication receiving signal, manual clear 0

M8127 WR3A RD3A receives the latest communication command from the end. It must be manually cleared by software.

M8129 receives the timeout setting time in D8129

M8130 multi data transfer mode the actual transport data start address is D8200.

When M8161=OFF is 16 bit mode, M8161=ON is 8 bit mode.

The default of D8121 from the station address is 1

D8129 is the receiving timeout. After the last data is received, the M8127 is connected to MS after the delay time.

When D8200 runs WR3A instructions, the data read by M8127=ON is stored at the ad-

dress where D8200 starts.

WR3A instruction instructions

WR3A is defined as a MODBUS RTU writing function in this PLC

M8130 =OFF single register write

WR3A H1 D200 D201

H1 is the slave address to be written

D200 to write the slave register address

Data to be written by D201

Register write of multiple continuous addresses in M8130 =ON

WR3A H1 D200 D201

H1 is the slave address to be written

The starting address of the slave register from D200 (for example, the data of D200 is 1, actually the beginning of D8201).

The number of data to be written by D201

The actual data is D8200, which has 16 consecutive addresses at most.

When M8127 is ON, the data is sent successfully, manually clearing 0.

RD3A instruction instructions

RD3A is defined as a MODBUS RTU reading function in this PLC

RD3A H1 D202 D203

H1 is the slave address to read

D202 to read the slave register address

The number of data to be read by D203

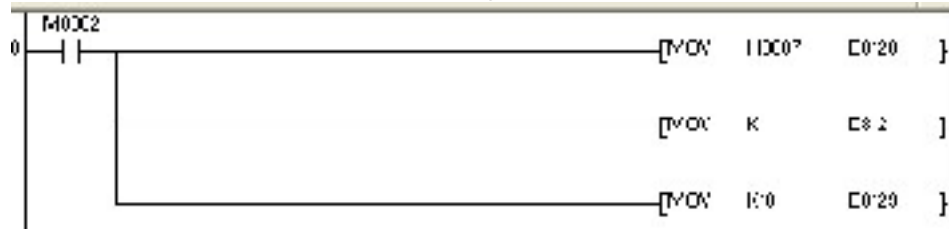
When M8127 is ON, the data read function is manually cleared and read 0. The returned data is stored in the register with the beginning of the D8200 address.

MODBUS RTU From machine function

Set the D8120 communication format to H9087

D8121 from the station address is 1

The D8129 receiving timeout is K10, 10ms



1. Forced position single coil
2. Executable range M0-M1535

Send	
Field Name	Example (Hex)
Slave Address	01
Function	05
Coil Address Hi	00
Coil Address Lo	01
Force Data Hi	FF
Force Data Lo	00
CRC(low byte)	DD

CRC(high byte)	FA
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3. Example: forcing M1 to send commands to the ON host to PLC

Return the command from the machine PLC

Receive	
Field Name	Example (Hex)
Slave Address	01
Function	05
Coil Address Hi	00
Coil Address Lo	01
Force Data Hi	FF
Force Data Lo	00
CRC(low byte)	DD
CRC(high byte)	FA

Example: read coil M1 host send command to PLC

Send	
Field Name	Example (Hex)
Slave Address	01
Function	01
Starting Address Hi	00
Starting Address Lo	01
No. of Points Hi	00
No. of Points Lo	01
CRC(low byte)	AC
CRC(high byte)	0A

Return the command from the machine PLC

Receive	
Field Name	Example (Hex)
Slave Address	01
Function	01
Byte Count	01

Data Coils	01
CRC(low byte)	90
CRC(high byte)	48

Example: write data to register (D0-D500) host send command to PLC

Send	
Field Name	Example (Hex)
Slave Address	01
Function	06
Register Address Hi	00
Register Address Lo	01
Preset Data Hi	12
Preset Data Lo	34
CRC(low byte)	D5
CRC(high byte)	7D

Write the value of 0x1234 into D1

Return the command from the machine PLC

Receive	
Field Name	Example (Hex)
Slave Address	01
Function	06
Register Address Hi	00
Register Address Lo	01
Preset Data Hi	12
Preset Data Lo	34
CRC(low byte)	D5
CRC(high byte)	7D

Example: read data to register (D0-D500) host send command to PLC

Send	
Field Name	Example (Hex)
Slave Address	01
Function	03
Starting Address Hi	00
Starting Address Lo	01
No. of Points Hi	00
No. of Points Lo	01
CRC(low byte)	D5
CRC(high byte)	CA

Read the value of D1

Return the command from the machine PLC

Receive	
Field Name	Example (Hex)
Slave Address	01
Function	03
Byte Count	01
Data Hi	12
Data Lo	34
CRC(low byte)	45
CRC(high byte)	33