



# MC500 Series PLC Hardware Manual



For models of MC500\MC508\MC516\MC532\

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## Notice

Read this manual carefully before any assembling and using. Incorrect handling of products in this manual can result in injury and damage to persons and machinery. Strictly adhere to the technical information regarding installation requirements.

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Therefore, information contained in this manual may be updated from time-to-time due to product improvements, etc., and may not conform in every respect to former issues.

- ◆ **Thank you for purchasing Leadshine MC500 series products**
- ◆ **Please read this manual carefully before operating**
- ◆ **Please keep this manual appropriately**



## Record of Revisions

Manual Reversion	Data	Description of Release
V1.0	08/23/2023	Initial Release
V1.1	09/07/2024	Add some functions
V1.2	01/01/2026	Add some functions

# Safety Precautions

## Overall Notes



- Do not remove the housing with the PLC powered on. Cables. Connectors and optional equipment.
- Commissioning the machine should be done with safety in mind! The user must design effective safety protection devices in the machine and include error handling programs in the software. Otherwise, it may cause personal safety accidents, property damage, etc.



- Please use the power supply specifications (number of phases.) that match the product. Voltage. Frequency.( DC).
- Be sure to connect the ground terminal of the PLC to the ground pole.
- Please do not disassemble the product yourself. Repair or modification.
- Make sure that all cable connectors are securely attached to this product. Improper installation may result in fire, or malfunction.



- The heat sink of the PLC may be hot when the power is on or when the power is just cut off. Take safety measures such as installing a cover to prevent accidental touching by hands and parts.
- Use double-insulated or reinforced insulation for control power.
- Do not use in places where water can be splashed. Corrosive environments. Do not use the product in the vicinity of flammable gases and combustible materials.
- Do not use damaged.
- Please set up an emergency stop circuit externally to ensure that the power can be cut off and the operation can be stopped immediately in case of an abnormality.
- Please to ensure that the input power is supplied within the specified voltage variation range.
- Please use a noise filter to reduce the influence of electromagnetic interference.

## Precautions for Storage and Transportation



- Please follow the Commands on the packaging for storage and do not overload the product.
- Please place this product in the following environment:
  - No direct sunlight in the place.
  - Ambient temperature does not exceed the product specification.
  - Humidity does not exceed product specifications. Without condensation.
  - No corrosive gases. Place of flammable gas.
  - Dust. The place where there is less salt and metal powder.
  - No water. Oil. The place where the splash of medicine, etc. occurs.
  - Vibration or shock does not exceed product specifications.
  - No equipment generating strong magnetic fields in the vicinity.

### Precautions for Installation



- Please install the PLC in a cabinet that provides fire protection. Electrical protection in the control cabinet.
- Please install this product in the following environment:
  - No direct sunlight in the place.
  - Ambient temperature does not exceed the product specification.
  - Humidity does not exceed product specifications. Without condensation.
  - No corrosive gases. Place of flammable gas.
  - Dust. Dust. The place where there is less salt and metal powder.
  - No water. Oil. The place where the splash of medicine, etc. occurs.
  - Vibration or shock does not exceed product specifications.
  - No equipment generating strong magnetic fields in the vicinity.
- Do not block the air inlet and exhaust ports, and do not allow foreign objects to enter the PLC.
- Do not step on the product or place heavy objects on the PLC.
- Make sure to keep the specified intervals between the inner surfaces of the PLC control cabinet and other machines.

### Precautions for Wiring



- Installation, wiring, etc. must be done after disconnecting all power sources; avoid wiring, plugging and unplugging cables in an electrified state, as this may cause electric shocks or damage to circuits.
- Avoid dropping metal shavings or wires into the controller when screwing and wiring, as this could result in malfunction, damage to electronic components, or fire.
- After wiring is completed, check carefully to make sure that the operating voltage and the position of the terminals are correct, otherwise it may cause a fire or an accident.
- Individual grounding or single point grounding is preferred for grounding, not common grounding. Please use a grounding wire of AWG14 (2mm<sup>2</sup>) or higher, with a grounding resistance of 100Ω or less. The grounding point should be as close as possible to the PLC, and the distance between the grounding wires should be as short as possible.
- Please connect the power terminal and motor terminal firmly.
- Signal cable. The encoder cable should be a twisted shielded cable with the shield grounded at both ends.

### Precautions during operation



- In locations where the operator has direct access to mechanical parts, such as loading and unloading of mechanical tools, or where machinery operates automatically, careful consideration must be given to the functioning of a field manual device or other back-up means, which needs to be independent of the programmable controller, and which can initiate or interrupt the automatic operation of the system.
- If it is necessary to modify the program while the system is running, locks or other safeguards must be considered to ensure that only authorized personnel can make the necessary modifications.
- When an alarm occurs, please reset it after investigating the cause and making sure it is safe.

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## 1. Introduction

### 1.1 Product Introduction

MC500 is a new generation of basic EtherCAT bus PLC products independently developed by Raysay Controls, with 6 programming languages in accordance with IEC61131-3 standard, it can realize the encapsulation and multiplexing of process through FB/FC function, and it supports RS485, RS232, Ethernet and EtherCAT interfaces to realize the multilevel network communication.

The MC500 series is versatile and cost-effective and performs excellently in many industrial applications such as solar equipment, textile, civil, robotics, power generation equipment, 3C, packaging...

### 1.2 Programming Instructions

This instruction manual mainly describes the specifications, characteristics and usage of MC500. Before using the product, please read the manual carefully in order to grasp the characteristics of the product more clearly and use the product more safely. For the use of the user program development environment and the user program design method, please refer to the “LC/MC Series PLC Instruction Manual” and “Leadsys Studio Programming and Application Manual” issued by our company, and please refer to the latest version of the information published by (<https://www.Leadshine.com/>).

### 1.3 Arrival inspection

- Check whether the surface of the product is damaged or not during transportation.
- Check the nameplate models of the drive and motor are what you have ordered.
- Check if it is fully equipped with accessories. Accessories include power supply and motor output connector, control I/O signal connector.

#### CAUTION



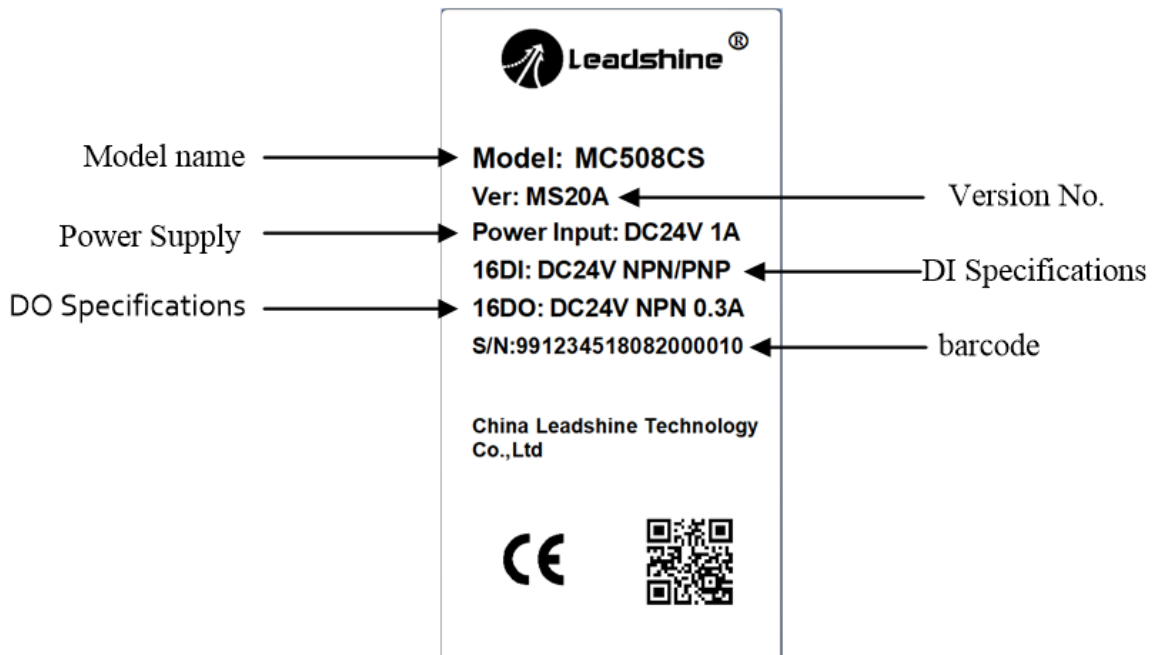
- Neither the damaged nor missing accessories of stepper system are allowed to install.
- Contact Leadshine or local distributor if any failure was found.

## 2. Product information

### 2.1 Related Products

Name	Model	Descriptions
MC508CS	MC508CS	EtherCAT up to 8 axes, 2 RS485, 1 RS232, 1 CAN, 1 Ethernet, 16 in 16 out 200KHz high speed IO
MC516CS	MC516CS	EtherCAT up to 16 axes, 2 RS485, 1 RS232, 1 CAN, 1 Ethernet, 16 in 16 out 200KHz high speed IO
MC532CS	MC532CS	EtherCAT up to 32 axes, 2 RS485, 1 RS232, 1 CAN, 1 Ethernet, 16 in 16 out 200KHz high speed IO

### 2.2 Nameplate information

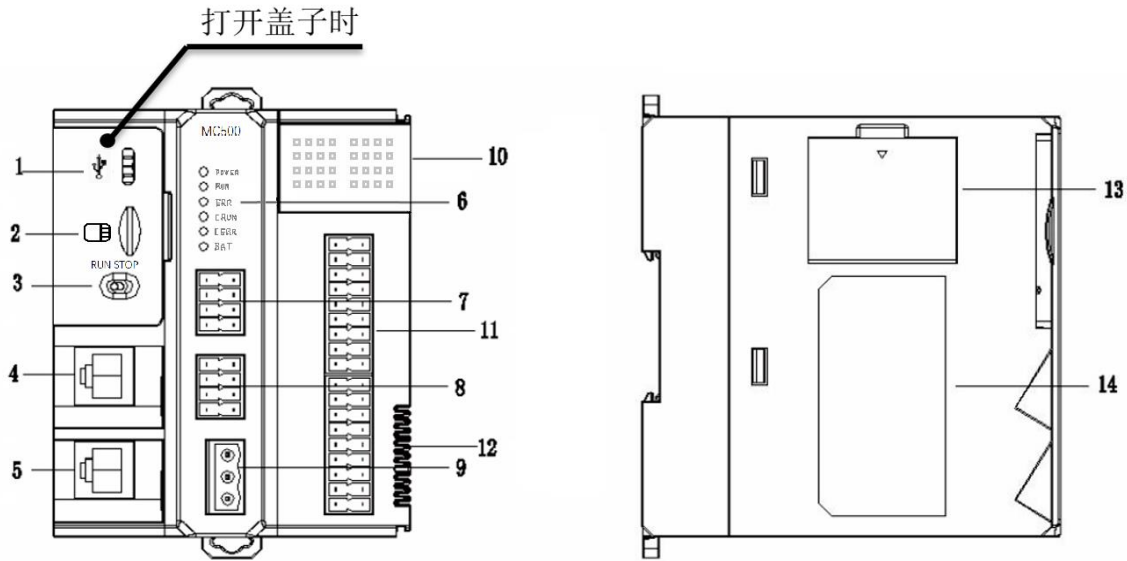


### 2.3 Part number

Model: MC - 5 - XX - CS - XX

①            ②            ③            ④            ⑤

- ① **Product Type**  
MC: Medium PLC (Basic)
- ② **Product Series**  
3:300 Series(Basic)  
5:500 Series(Trajectory)  
6:600 Series(Internet of Things Type)
- ③ **Number of Axis**  
08:8 Axis 16:16 Axis 32:32 Axis  
00:00 No Axis
- ④ **Functionality**  
CS: Codesys platform  
blank: LeadStudio platform
- ⑤ **Special models**  
CN: CAN communications  
RS: RS485 communications  
blank: Standard type

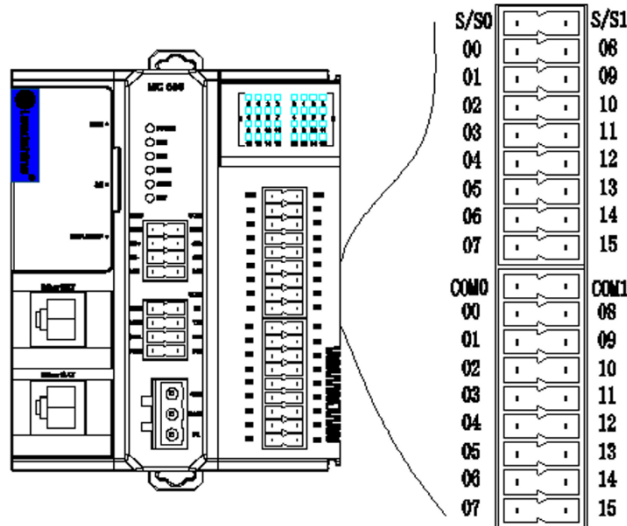
**2.4 Parts description**


No.	Interface	Name	Definition	Description
1	USB port	/	USB connect	Type-C connector connecting with PC
2	SD card slot	SD	SD card holder Used for inserting SD cards	User download program, standard micro SD card, FAT32 type, Maximum capacity 32G
3	RUN/STOP/RESET Switch	/	RUN: system run STOP: system stop	Switching RUN/STOP 5 times within 5 second to trigger restore factory settings
4	EtherNET Port	EtherNET	Ethernet communication RJ45 port	Modbus TCP/IP protocol
5	EtherCAT Port	EtherCAT	EtherCAT communication	/
6	Running status indicator light	POWER	Power status	Light up when power on, light off when power off
		RUN	System status	Light up when system run, light off when system stop
		ERR	System failure	/
		CRUN	CANopen run	/
		CERR	CANopen error	/
		BAT	Battery error	Alarm when battery level low
7	RS485 port	R(COM0)	Termination resistor	Modbus RTU protocol Free communication protocol
		485+(COM0)	485+	
		485-(COM0)	485-	
		GND(COM0)	GND	
		R(COM1)	Terminator	
		485+(COM1)	485+	
		485-(COM1)	485-	
		GND(COM1)	GND	
8	CANopen port	R	CAN terminator	CANopen protocol
		H	CAN differential H signal	
		L	CAN differential L signal	
		GND	CAN ground	
	RS232 port	TXD(COM2)	TXD	Modbus RTU protocol Free communication protocol
		RXD(COM2)	RXD	
		GND(COM2)	GND	
9	Power port	24V	DC 24V input	DC 24V input
		EGND		
		PE		

10	I/O status indicator light	/	16 input 16 output	Lights up when signal valid, light off when signal invalid
11	I/O port	/		Refer to pins definition
12	Extension module port	/	Connect to extension module	Maximum extend 32 module don't support hot swapping
13	Battery slot	Battery	Install spare battery	Install spare battery
14	Label	/	PLC label	/

## 2.5 Product Specifications

### 2.5.1 standard



### MC508CS\*\*

Label	Definition	Note	Label	Definition	Note
SS0	Input common		SS1	Input common	
0	High speed input	Encoder_01	8	High speed input	Encoder_05
1	High speed input		9	High speed input	
2	High speed input	Encoder_02	10	High speed input	Encoder_06
3	High speed input		11	High speed input	
4	High speed input	Encoder_03	12	Normal input	
5	High speed input		13	Normal input	
6	High speed input	Encoder_04	14	Normal input	
7	High speed input		15	Normal input	
COM	Output common		COM	Output common	
0	High speed output	Pulse Axis 0 PUL	8	High speed output	Pulse Axis 4 PUL OR PWM_01
1	High speed output	Pulse Axis 0 DIR	9	High speed output	Pulse Axis 4 DIR OR PWM_02
2	High speed output	Pulse Axis 1 PUL	10	High speed output	Pulse Axis 5 PUL OR PWM_03
3	High speed output	Pulse Axis 1 DIR	11	High speed output	Pulse Axis 5 DIR OR PWM_04
4	High speed output	Pulse Axis 2 PUL	12	Normal output	
5	High speed output	Pulse Axis 2 DIR	13	Normal output	
6	High speed output	Pulse Axis 3 PUL	14	Normal output	
7	High speed output	Pulse Axis 3 DIR	15	Normal output	

**MC516CS\*\* AND MC532CS\*\***

Label	Definition	Note	Label	Definition	Note
SS0	Input common		SS1	Input common	
0	High speed input	Encoder_01	8	High speed input	Encoder_05
1	High speed input		9	High speed input	
2	High speed input	Encoder_02	10	High speed input	Encoder_06
3	High speed input		11	High speed input	
4	High speed input	Encoder_03	12	Normal input	
5	High speed input		13	Normal input	
6	High speed input	Encoder_04	14	Normal input	
7	High speed input		15	Normal input	
COM	Output common		COM	Output common	
0	High speed output	Pulse Axis 0 PUL	8	High speed output	Pulse Axis 4 PUL
1	High speed output	Pulse Axis 0 DIR	9	High speed output	Pulse Axis 4 DIR
2	High speed output	Pulse Axis 1 PUL	10	High speed output	Pulse Axis 5 PUL
3	High speed output	Pulse Axis 1 DIR	11	High speed output	Pulse Axis 5 DIR
4	High speed output	Pulse Axis 2 PUL	12	Normal output	
5	High speed output	Pulse Axis 2 DIR	13	Normal output	
6	High speed output	Pulse Axis 3 PUL	14	Normal output	
7	High speed output	Pulse Axis 3 DIR	15	Normal output	

**Note:**

**Only the MC508CS supports PWM functionality; the MC516 and MC532 do not support PWM functionality.**



Specifications	MC508CS	MC516CS	MC5 32CS
	EtherCAT 8 axes + pulse 6 axes	EtherCAT 16 axes + pulse 6 axes	EtherCAT 32 axes + pulse 6 axes
Axes of Pulse	Local 6 axes 200K pulse output		
Module Capacity	Maximum extend 32 R2 series extension modules		
EtherNET	1* EtherNET port, Modbus,Socket,program upload or download ,debugging		
EtherCAT	EtherCAT master , up to 128 slaves		
Serial port communication	RS232*1,RS485*2,free communication protocol, modbus rtu master and slave		
CAN	Maximum 31 slave		
Capacity of Program file	20 M Byte		
Capacity of data	40 M Byte		
Power-Failure Retention Area	512K Byte		
USB port	Type-C port, program upload or download, debugging		
SD card slot	User download program, standard micro SD card,FAT32 type, Maximum capacity 32G		
Function	Point to point , E-CAM, Interpolation		
High-speed counter	6 inputs ,200K		
IO Quantity	High-speed input/ normal input: 12 inputs 200K/4 inputs 1K(NPN/PNP) High-speed output/ normal output: 12 outputs 200K/4 outputs 10K(NPN)		
RTC clock	RTC		
Program software	Leadsys Studio ,CODESYS V3.5(SP15) or higher		
Program Language	ST,LD,CFC,SFC FBD,IL		
Power input	DC 24V		
PWM	4		----
Power rating	3.6W		
Dimension	L 98.50mm*W 81.75mm*H100.00mm		

### 2.5.2 Input Port Specifications

The input signal support NPN or PNP type.

- 1) Voltage is below 5.0V is disconnected (OFF),
- 2) Voltage of the input signal is greater than 15.0V is closed state (ON).

Specifications	Input (IN0~IN15)	
Input type	NPN/PNP NPN:SS0/SS1 connect to 24V+ PNP:SS0/SS1 connect to 0V	
Electrical Parameters	Input voltage	24VDC
	Input resistance	High speed input3.3K $\Omega$ , normal input 4.7K $\Omega$
	Input ON	Over DC 15V, Current above 5mA
	Input OFF	Below DC 5V, Current above 1mA
Filtering function	Digital filtering	Input(X0~X15),digital filtering 1~1000ms
High speed function	High speed counting function , frequency : 200K	
Common	2 common terminal , SS0 for IN0~IN7,SS1 for IN8~IN15	

### 2.5.2 Output Port Specifications

The output signal is NPN type.

- 1) The output is valid (state "ON"), it is in a low-level state,
- 2) And when the output is invalid (state "OFF"), it is in a high-level state.
- 3) The high-speed output circuit has a short circuit protection function..

Specifications	Output (Y0~Y15)	
Voltage	DC5V~24V	
Output type	NPN	
Maximum output current	Resistive load	0.5A/output, 2.4A/COM
High speed output frequency	High speed output maximum frequency 200kHz, Normal output maximum frequency 10kHz	
Common	Each group using one common terminal, Non-isolated from each other	

### 3. Installation


#### 3.1 Storage and Installation Conditions

##### 3.1.1 Storage condition

- Correctly packaged and store in a clean and dry environment where direct sunlight is avoided.
- Store within an ambient temperature ranging from -20°C to +65°C.
- Store within a relative humidity ranging from 40% to 90% and non-condensed.
- Avoid any type of exposure to corrosive gases.

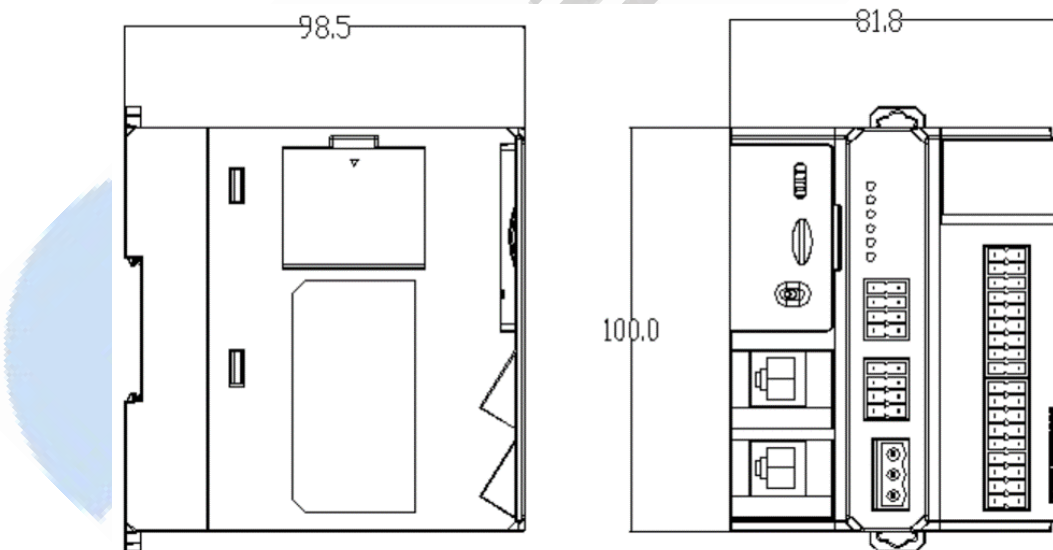
##### 3.1.2 Operating ambience conditions

- Temperature ranging from 0°C to 50°C. The ambient temperature of drive for long-term reliability should be under 40°C. Please install the drive in a well-ventilated area.
- Operation within a relative humidity ranging from 40% to 90% and non-condensed.
- Vibration lower than 0.15mm at a frequency of 10Hz-55Hz.

<p><b>CAUTION</b></p> 	<ul style="list-style-type: none"> <li>● DO NOT mount the PLC in a location subjected to corrosive or flammable gases, and combustibles.</li> <li>● Please mount the PLC in an indoor electric control cabinet without liquid where direct sunlight is avoided.</li> <li>● DO NOT mount the PLC in a location subjected to airborne dust.</li> <li>● Please ensure grounding wires are securely connected</li> </ul>
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#### 3.2 Mechanical Specification

Unit: mm, 1inch=25.4mm



MC500 series mechanical drawing

## 4. Production Specifications

### 4.1 Electrical Specifications

#### 4.1.1 Caveat

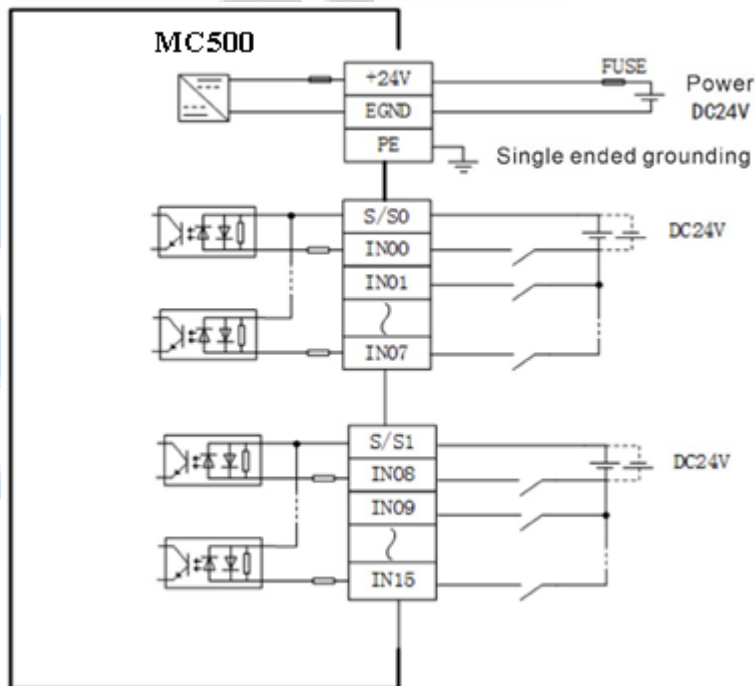
- When wiring the emergency stop input signal, avoid bundling it with power cables and other cables that transmit strong interfering signals, and route them separately and avoid running them in parallel.
- Emergency stop input signal port is recommended to use shielded cable to improve the anti-interference ability, the cable length is recommended to be 3m or less.
- If a collector output point is used to connect the emergency signal input point, it is recommended to add a parallel resistor (pull-up/down) between the EMG point and the S/S0 point, and it is recommended to use a 2W/1K $\Omega$  resistor.

#### 4.1.2 Power requirements

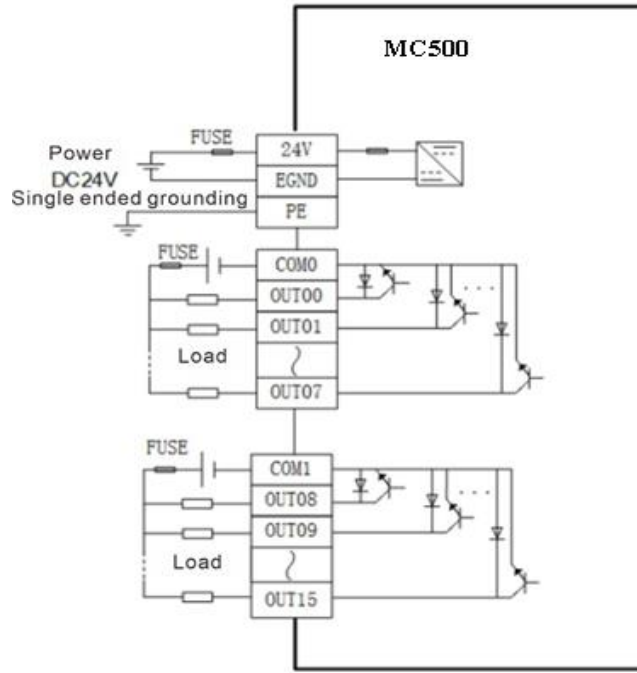
Event	Specification Description
Rated voltage	DC24V
Voltage range	DC20.4~28.8V
input power	15W
undervoltage quasi-positioning	DC19V

### 4.2 Equivalent internal circuit

#### 4.2.1 Input Signal Wiring

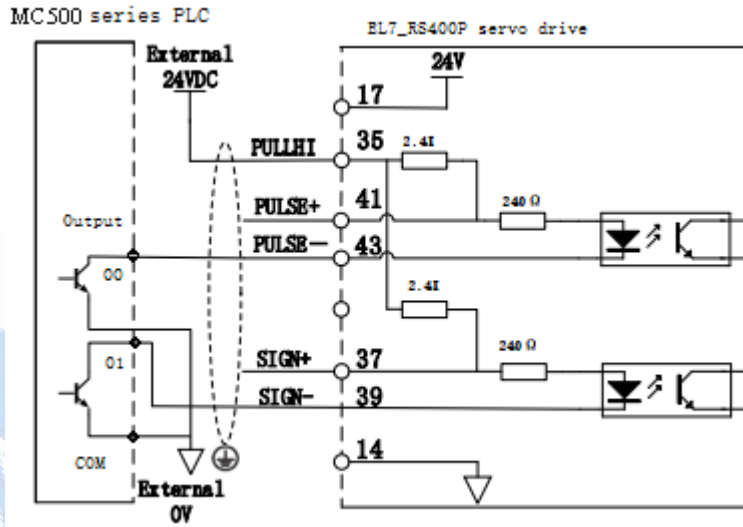


**4.2.2 Output Signal Wiring**

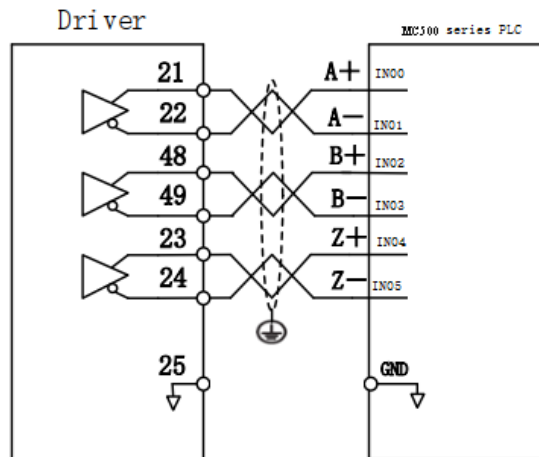


**4.3 High Speed IO Wiring**

**4.3.1 High speed output wiring**



**4.3.2 High speed output wiring**

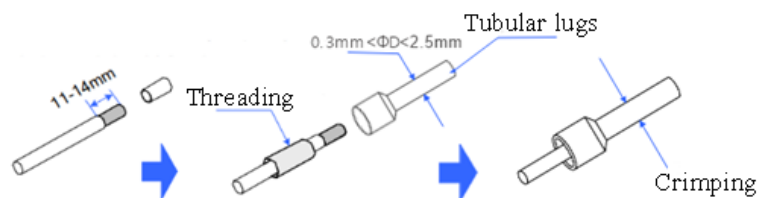


### 4.3.3 Cable selection and production standards

Applicable models	Name	Wire Diameter	
		GB/mm <sup>2</sup>	ASTM/AWG
Power Cord	Tubular lugs	0.5-1.5	16-24
Signal cable	Tubular lugs	0.5-1.5	16-24
Ground wire	Tubular lugs	≥2	1.5-14

### 4.3.4 Steps for making tubular cables

- 1) Remove the cable insulation, the exposed copper part is 11-14mm, and thread the cable into the wire lug sleeve;
- 2) The conductor part of the cable is threaded into the round holes of the lugs and crimped using the crimping pliers recommended by the lug manufacturer;



#### Note:

- When wiring I/O signals, avoid bundling them with power cables and other cables transmitting strong interfering signals, and route them separately and avoid parallel routing. Shielded cables are recommended for high-speed I/O ports to improve anti-interference capability, and the cable length is recommended to be within 3m.
- If the collector output point is used to connect the MC host high-speed input point, it is recommended to add (pull-up/down) parallel resistors between the specified IN point and the S/S point, and the resistors are recommended to use 1K $\Omega$ /2W resistors.
- When the output port is connected to relays, solenoid valves and other inductive loads, when the inductive load is suddenly switched off, a large reverse electromotive force will be generated between the contacts and the product arc discharge, which may breakdown the output transistor, the user should be based on the use of the situation, and if necessary, the load is connected in parallel with a current-continuing diode as shown in Fig. 2.7, to prolong the life of the product. Diodes need to meet the reverse voltage is 5 to 10 times the load voltage; forward current is greater than the load current.
- Large capacitive loads are not allowed to be connected to the output ports, otherwise there is a risk of failure when the channel is switched off.

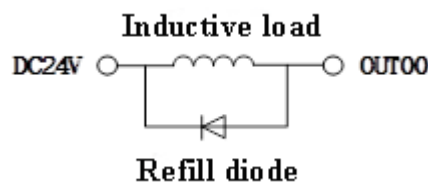
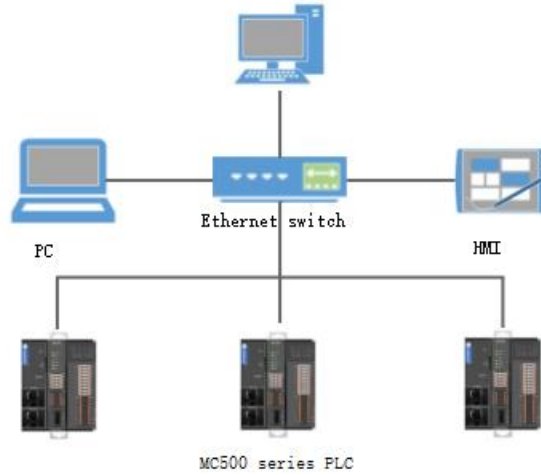


Fig. 2.7

## 5. Communications

### 5.1 Ethernet connection

1) The PLC Ethernet port can be connected to the hub or switch through Ethernet cables, and connected to other network devices through the hub or switch to achieve multi-point connection.

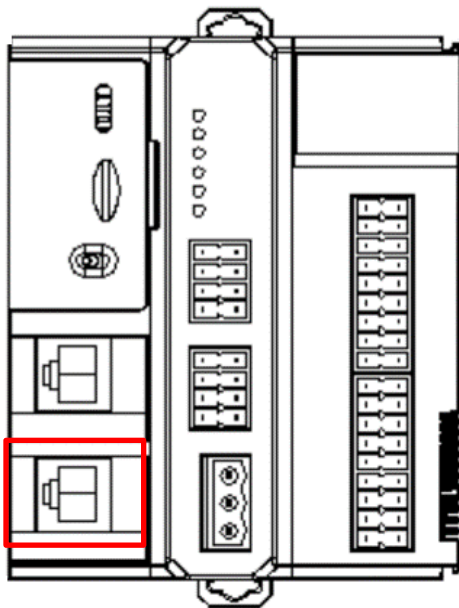


2) The MC500 series can be connected through Ethernet cable directly, the default IP address is 192.168.1.3



### 5.2 EtherCAT

#### 5.2.1 EtherCAT Interface



Interface definition

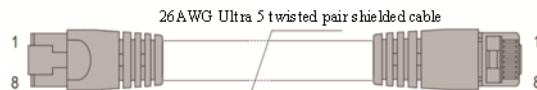
No.	Signal name	Description
1	TX data+	Send data+
2	TX data-	Send data-
3	RX data+	Receive data+
4	/	/
5	/	/
6	RX data-	Receive data-
7	/	/
8	/	/

### 5.2.2 EtherCAT bus specification description

Event	Specification Description
Communication standard	IEC61158 Type12
Support Services	CoE (PDO、SDO)
Synchronization Methods	FreeRun\SM-Synchronous\DC-Synchronous
Physical Layer	100BASE-TX
Transmission Speed	100Mbit/s (100Base-TX)
Duplex Mode	Full duplex
Topology	Line, Bus and Star
Transmission Media	Network cables
Transmission Distance	Less than 100m between two nodes
Number of slaves	Max 128
EtherCAT frame length	44 byt to 1498 byt
Process data	Max. 1486 bytes for a single Ethernet frame, max. number of frames 4

### 5.2.3 Wiring

For EtherCAT cables, use shielded twisted-pair cables of Category 5 or higher.



### 5.2.4 Length

When using the EtherCAT bus, the length of the cable between master and slave, and between slave and slave, must not exceed 100 m. Exceeding this length will attenuate the signal and affect normal communication.

### 5.2.5 Technology

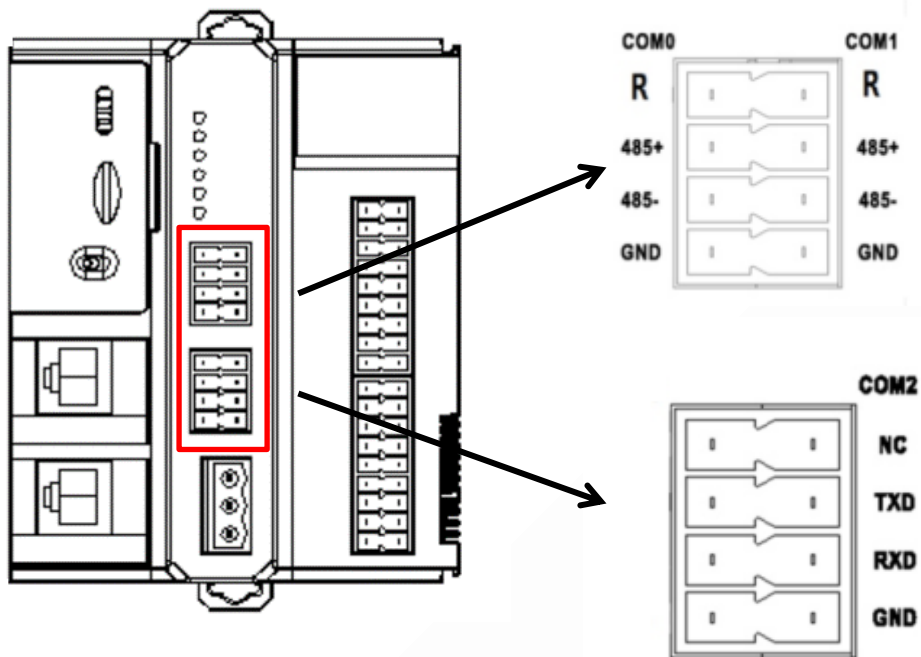
100% conductivity test, no shorts, breaks, misalignments and poor contacts, the following cable specifications are recommended:

EtherCAT cable specification requirements:

Event	Specification Description
Cable Type	Flexible Crossover Cable, S-FTP, Category 5 Ultra
Standard	EIA/TIA568A, EN50173, ISO/IEC11801 EIA/TI Abulletin TSB, EIA/TIA SB40-A&TSB36
Wire cross-section	AWG26
Wire Type	Unshielded twisted pair
thread count	4

### 5.3 RS485/RS232 connection

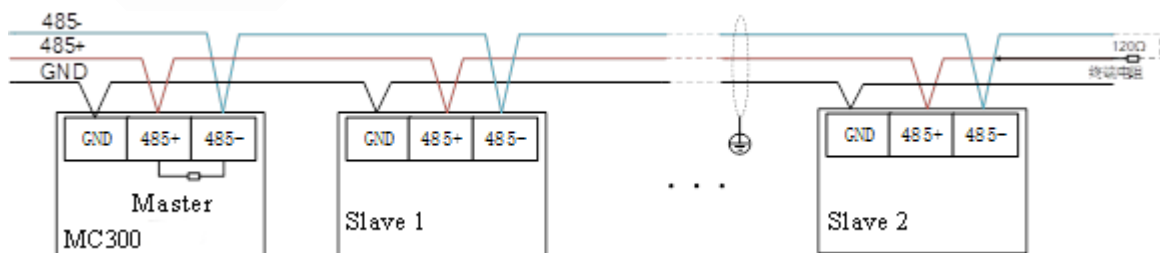
#### 5.3.1 Interface Definition



#### 5.3.2 RS485 & RS232 Interface Specifications

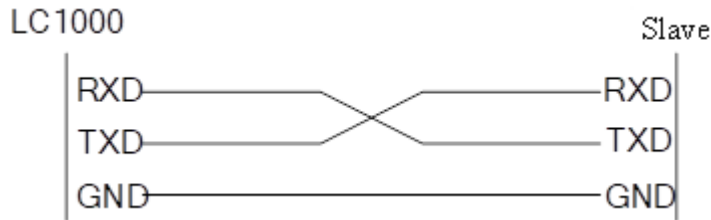
Event		Specification Description
Physical layer	COM0	RS485, master or slave
	COM1	RS485, master or slave
	COM2	RS232, master or slave
Terminating resistor	R	Built-in 120Ω, connection with 485+ indicates added
Baud bps		4800/9600/19200/38400/57600/115200
Max. communication distance	COM0/1	100m
	COM2	15m
Max. number of slaves	COM0/1	31
	COM2	1
Transmission medium		Flexible Crossover Cable, S-FTP, Category 5 Ultra

1) RS485 bus connection topology is shown in the figure below, RS485 bus recommended to use shielded twisted-pair connection, 485+, 485- using twisted-pair connection; bus ends were connected to the 120 Ohm terminal matching resistor to prevent the signal from reflecting; all the nodes of the 485 signal reference ground is connected to the same; up to 31 nodes are connected to the node, and each node branch line distance to be less than 3 meters.



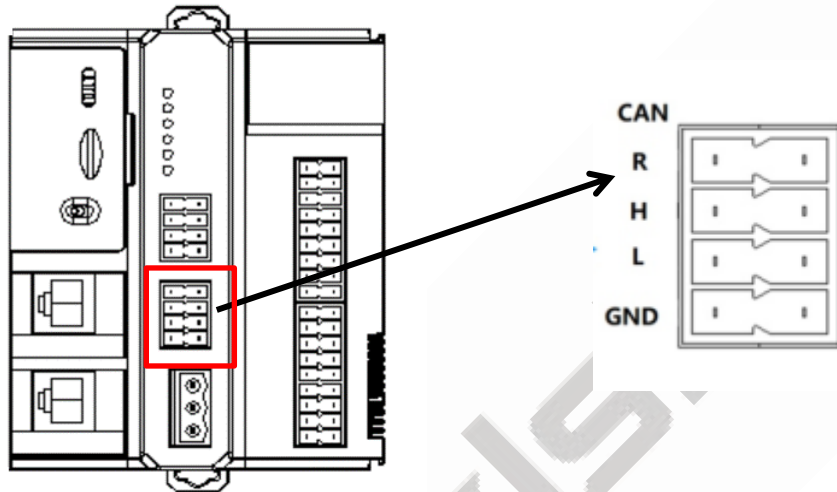
2) When using RS232 serial communication, you need to connect the data receive pin of the host computer to the data transmit pin of the serial device, the data transmit pin of the host computer to the data receive pin of the

serial device, and the direct connection of the ground pin between the host computer and the serial device.



## 5.4 CANopen connection

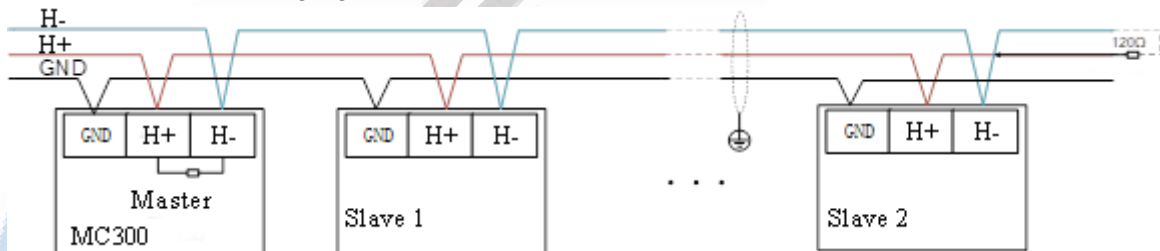
### 5.4.1 Interface Definition



### 5.4.2 Interface Definition

- 1) All three wires of the devices must be connected together one by one.
- 2) A 120 Ω terminal resistor should be added to both ends of the bus.
- 3) When R is shorted to H, access to the terminating resistance.

As shown in the following figure:



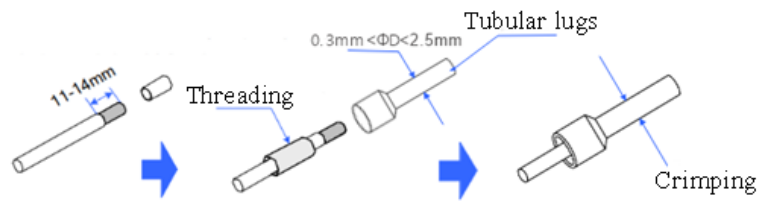
## 5.5 Cable selection and production standards

Applicable models	Name	Wire Diameter	
		GB/mm <sup>2</sup>	ASTM/AWG
Power Cord	Tubular lugs	≥1	18
Signal cable	Tubular lugs	≥0.2	24
Ground wire	Tubular lugs	≥2	14

### 5.5.1 Steps for making tubular cables

- 1) Remove the cable insulation, the exposed copper part is 11-14mm, and thread the cable into the wire lug sleeve;

2) The conductor part of the cable is threaded into the round holes of the lugs and crimped using the crimping pliers recommended by the lug manufacturer;



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## **6. Run and maintenance**

### **6.1 Run and stop operations**

After the program is written to the PLC, follow the steps below to perform the switching operation.

When you need to run the system after program writing with the PLC in the STOP state:

- ① Switch the PLC to the RUN state;
- ② Confirm that the RUN indicator is normally lit and coloured green;
- ③ When you need to stop the operation, return the RUN/STOP switch to the STOP position, at this time the RUN indicator is off, you can also stop the operation through the host computer.

### **6.2 RTC Battery Maintenance**

RTC Battery for Real Time Clock RTC Timing.

- ① If the battery is not installed or is in a discharged state, the clock stops timing;
- ② The battery has a maximum life of 5 years, depending on the environment in which it is used. When the battery is about to run out of power, the "BAT" indicator will light up red to indicate that the battery is about to run out of power, so please replace it in time.

### **6.3 Replacement of batteries**

- ① Force the controller to switch to the STOP state and turn off the PLC power;
- ② Open the controller plastic housing cover and remove the old battery with tweezers;
- ③ Slide the new battery into the battery bay, followed by closing the controller molded case cover.

**Note:** The battery replacement operation is best done under power supply conditions. If the PLC has lost power, replace the battery within 30 seconds of unplugging the battery so that the RTC clock can remain normal.

### **6.4 Restore factory default IP address**

The factory default IP address of MC500 host is 192.168.1.3, if you change the address, before communicating with another PC, you may not be able to match the communication due to the forgetting of the last modification of the IP address, at this time, you can do the following operations:

- 1) In the case of PC environment, connect the PC and PLC host through Type\_C interface, and set the IP address of the host through Codesys or Leadsys software.
- (2) In the absence of a PC environment, you can quickly switch the state of the "RUN/STOP" switch to trigger the initial setup of the IP address of the host computer, the trigger criterion is: the number of fluctuations within 5 seconds reaches 5 times or more.

### **6.5 Burning User Programs on an SD Card**

Codesys or Leadsys compiled production of user programs, stored to the root directory of the SD card, the SD card will be loaded to the PLC host; the PLC power off and restart can be programmed to update the program, the program download is complete, the RUN light flashes normally, if the download fails or the program does not run, the RUN indicator light is off.

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