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Zhejiang Hechuan Technology Co.,Ltd
No.5, Qinshan Road, Longyou Industrial Zone, Quzhou City, Zhejiang Province
900101000463
Date 2026-10-21
CN 安装说明
EN Instruction Sheet

⚠ 1. 安全注意事项（Safety precautions）

本说明书涉及产品为工业产品，并且均为开放型外壳设计。要求用户使用产品时，务必将产品安装于具有防尘、防潮以及免于电击 / 冲击等意外的控制柜内，并且需要设置保护措施以防止非维护人员不当操作或意外导致设备故障或损坏，造成不可避免的人员危险和财产损失。

The products in this manual are industrial products and are all open-type housing designs. It is essential to install these products within a control cabinet that is safeguarded against dust, moisture, and accidents such as electric shocks or physical impacts. Additionally, protective measures must be taken to prevent malfunctions or damage caused by improper operation or accidents involving non-maintenance personnel. Failure to do so may lead to serious risks to personnel safety and potential loss of property.

更详细的信息请参考 M500 系列硬件手册。

Please refer to the M500 series hardware operation manual for more detailed information.

2. 命名规则（Model identification）

HC M5 1 1 □ - 32 M T 4 - D - XXXX

1 2 3 4 5 6 7 8 9 10 11

1	产品名称（Product name）
HC	禾川（Hechuan Technology）

2	产品系列（Product series）
M3	通用逻辑控制器（薄型） (General logic controller (thin-type))
M5	通用ECAT运动控制器（薄型） (General ECAT motion controller (thin-type))

3	以太网口（Ethernet port）
0	无（N/A）
1	1个以太网接口（One Ethernet port）
2	2个以太网接口（Two Ethernet ports）

4		型号代码（Type code）
0	M300系列 (M300 series)	第1类型产品 (The 1st type product)
1		第2类型产品 (The 2nd type product)
2		第3类型产品 (The 3rd type product)
1	M500系列 (M500 series)	8个EtherCAT运动轴 (8 EtherCAT motion axes)

5	功能代号（Function code）
空	标准版（Standard edition）
S	经济版（Economy edition）
P	增强版（Enhanced edition）

6	总点数（Total number of channels）
32	16点输入16点输出 (16-channel input & 16-channel output)

7	主控单元（Master control unit）
M	CPU单元（CPU unit）

8	输出类型（Output type）
T	NPN型晶体管（NPN-type transistor）
R	继电器（Relay）

9	脉冲输出（Pulse output）
4	4通道脉冲输出 (4-channel pulse output)
6	6通道脉冲输出 (6-channel pulse output)

10	电源类型（Power supply type）
D	直流电源（DC power supply）

11	软件/固件定制代码（Customized software/ firmware code）
X	0~9/A~Z/空(N/A)
PNP	PNP型晶体管（PNP-type transistor）

3. 适用型号（Applicable model）

名称 (Name)	型号（Model）	适配的扩展卡型号 (Applicable)	适配的 IO 型号 * (Applicable IO model)	简要说明（Brief description）
CPU单元 CPU unit	HCM312-32MT6-D	HCMXB-CAN-BD HCMXB-2RS232-BD HCMXB-2RS485-BD HCMXB-RTC-BD HCMXB-ID04-BD HCMXB-OD04-BD HCMXB-OD04-BD-PNP HCMXB-MA03-BD HCMXB-AB-500-BD*[1] HCMXB-2AB-500-BD*[1]	HCMX-ID08-D HCMX-ID16-D HCMX-OD08-D HCMX-OD08-D-PNP HCMX-OD16-D HCMX-OD16-D-PNP HCMX-MD16-D HCMX-MD16-D-PNP HCMX-ID32-D HCMX-OD32-D HCMX-OD32-D-PNP HCMX-MD32-D HCMX-MD32-D-PNP HCMX-OC08-D HCMX-AD04-D HCMX-AD04S-D HCMX-DA04-D HCMX-DA04S-D HCMX-TC04-D HCMX-PT04-D	程序容量512KBytes，变量容量256KBytes，掉电保持容量32KBytes，6轴脉冲输出，M312自带以太网口（EtherNet）*1，M322自带以太网口（EtherNet）*2，RS485*2 512KBytes program capacity, 256KBytes variable capacity, 32KBytes persistent data memory, 6-axis pulse output , M312: Built-in Ethernet port (EtherNet) * 1; M322: Built-in Ethernet ports (EtherNet)* 2, RS485 *2
	HCM312-32MT6-D-PNP			
	HCM322-32MT6-D			
	HCM511S-32MT4-D			程序容量512KBytes，变量容量256KBytes，掉电保持容量32KBytes，8轴EtherCAT总线+4轴脉冲输出，自带以太网口（EtherNet+EtherCAT）*2，RS485*2 512KBytes program capacity, 256KBytes variable capacity, 32KBytes persistent data memory, 8-axis EtherCAT bus , 4-axis pulse output , built-in Ethernet port (EtherNet+EtherCAT) *2, RS485 *2
	HCM511S-32MT4-D-PNP			
	HCM511-32MT4-D			程序容量20MBytes，变量容量20MBytes，掉电保持容量128KBytes，8轴EtherCAT总线+4轴脉冲输出，自带以太网口（EtherNet+EtherCAT）*2，RS485*2 20MBytes program capacity, 20MBytes variable capacity, 128KBytes persistent data memory, 8-axis EtherCAT bus , 4-axis pulse output , built-in Ethernet port (EtherNet+EtherCAT) *2, RS485 *2
	HCM511-32MT4-D-PNP			
	HCM512-32MT4-D			程序容量20MBytes，变量容量20MBytes，掉电保持容量128KBytes，16轴EtherCAT总线+4轴脉冲输出，自带以太网口（EtherNet+EtherCAT）*2，RS485*2 20MBytes program capacity, 20MBytes variable capacity, 128KBytes persistent data memory, 16-axis EtherCAT bus , 4-axis pulse output , built-in Ethernet port (EtherNet+EtherCAT) *2, RS485 *2
	HCM512-32MT4-D-PNP			
	HCM513-32MT4-D			程序容量20MBytes，变量容量20MBytes，掉电保持容量128KBytes，32轴EtherCAT总线+4轴脉冲输出，自带以太网口（EtherNet+EtherCAT）*2，RS485*2 20MBytes program capacity, 20MBytes variable capacity, 128KBytes persistent data memory, 32-axis EtherCAT bus , 4-axis pulse output , built-in Ethernet port (EtherNet+EtherCAT) *2, RS485 *2
	HCM513-32MT4-D-PNP			
	HCM514-32MT4-D			程序容量20MBytes，变量容量20MBytes，掉电保持容量128KBytes，64轴EtherCAT总线+4轴脉冲输出，自带以太网口（EtherNet+EtherCAT）*2，RS485*2 20MBytes program capacity, 20MBytes variable capacity, 128KBytes persistent data memory, 64-axis EtherCAT bus , 4-axis pulse output , built-in Ethernet port (EtherNet+EtherCAT) *2, RS485 *2
	HCM514-32MT4-D-PNP			

* 注：1.HCMXB-AB-500-BD、HCMXB-2AB-500-BD 仅支持 M500 系列控制器；
2.CPU 单元本体右侧最多可以挂载 16 个 IO 模块。

*Note: 1.HCMXB-AB-500-BD and HCMXB-2AB-500-BD only support M500 series controllers.
2.Up to 16 IO modules can be mounted to the right side of a CPU unit.

4. 通用电气及环境规格（General electrical and environmental specifications）

4.1 通用电气规格（Electrical specifications）

型号（Model）*[1]	额定电压 / 功率（Rated voltage, power）*[2]	输出电压 / 功率（Output voltage/power）*[3]	数字量输入 / 输出类型（Digital input/Output type）
HCM312-32MT6-D	DC 24V(DC 20.4V~28.8V)/5W	DC24V/60W	数字量输入：DC24V(DC20.4~28.8V),5mA/Ch 数字量输出：DC24V, 500mA/Ch, 4A/16Ch*[4] 负载类型：阻性/电磁/钨丝灯负载 Digital input: DC24V(DC20.4~28.8V),5mA/Ch Digital output: DC24V, 500mA/Ch, 4A/16Ch*[4] Load type: Resistive/Pilot duty/Tungsten
HCM312-32MT6-D-PNP			
HCM322-32MT6-D			
HCM511S-32MT4-D			
HCM511S-32MT4-D-PNP			
HCM511-32MT4-D			
HCM511-32MT4-D-PNP			
HCM512-32MT4-D			
HCM512-32MT4-D-PNP			
HCM513-32MT4-D			
HCM513-32MT4-D-PNP			
HCM514-32MT4-D			
HCM514-32MT4-D-PNP			

* 注：1. 所有型号仅能在由有限功率电源（LPS）提供的安全特低电压（SELV）下运行。
2. 此处标识的额定功率为满负载运行的功率。
3. 由外部电源输出电压与功率。
4. 考虑温升影响，降额使用。

*Note: 1. All models can only operate under the safety extra low voltage (SELV) provided by a limited power source (LPS).
2. The power rating indicated here is the power under full-load operation.
3. The voltage and power are output by the external power supply.
4. Consider the effect of temperature rise and derate during using.

4.2 环境规格（Environmental requirements）

项目	Item	规格	Specifications
海拔高度	Altitude	≤2000m	≤2000m
使用环境	Operating environment	开放式产品，需安装在有防护的控制柜内并于室内使用	Indoor use open type, must be installed in a protective control cabinet
工作温度	Operating temperature	0~55℃	0~55℃
储存温度	Storage temperature	-25~70℃	-25~70℃
环境湿度	Ambient humidity	10~95%RH（无结露）	10~95%RH (non-condensing)
振动耐受	Vibration resistance	5~150Hz（X/Y/Z方向，1g/3.5mm位移）	5~150Hz (X/Y/Z direction, 1g /3.5mm displacement)
污染等级	Pollution degree	污染度2	Level 2
冷却方式	Cooling method	自然冷却	Natural air cooling
防护等级	IP rating	IP20	IP20
外壳材质	Enclosure material	PPE	PPE

* 注：若设备未依制造商指定方式使用，设备所提供的保护可能会被减弱。

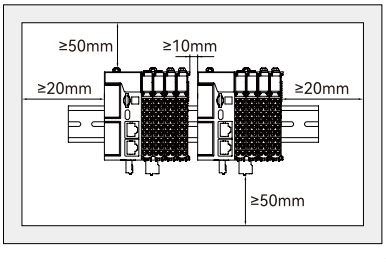
*Note: If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

5. 安装说明（Installation instructions）

5.1 控制柜安装（Installation within a control cabinet）

CN 设备冷却方式为自然冷却，请保证安装方向与柜壁垂直；请参考右侧示意图，在设备的周围留有足够的空间。并排安装时，建议横向两侧预留 20mm 以上间距。

EN Please install the product perpendicular to the wall and ensure a sufficient cooling effect via natural air. Please leave enough clearance around the product as shown in the right figure. During a side-by-side installation, please leave a horizontal clearance of more than 20 mm on both sides.



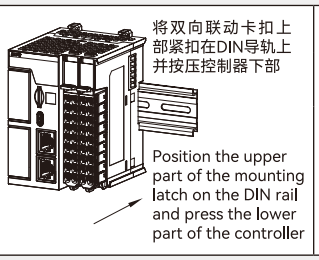
* 注：无线缆状态下建议最小间距。

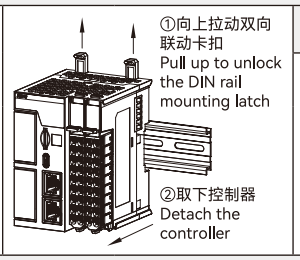
*Note: Recommended minimum clearance in cableless state.

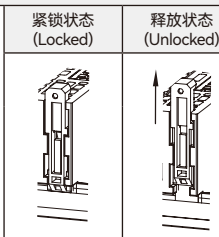
5.2 导轨拆装（DIN rail mounting and dismounting）

CN 安装控制器时，将控制器后方双向联动卡扣上部紧扣在 DIN 导轨上，并用力按压控制器下部，听到“咔哒”声，控制器即成功安装于 DIN 导轨上（安装前应保证双向联动卡扣处于紧锁状态，否则可能导致安装故障）；拆卸控制器时，将双向联动卡扣向上拉动一定距离，听到“咔哒”声后，取下控制器即可。

EN Before installation, check that the DIN rail mounting latch is in a locked state. During mounting, position the upper part of the mounting latch of the module on the DIN rail, and then press the controller against the DIN rail until a clear click is heard (which indicates the latch is momentarily opened and locked onto the rail). During dismounting, pull the latch upwards until a clear click is heard (which indicates the latch is unlocked), and then directly remove the controller.



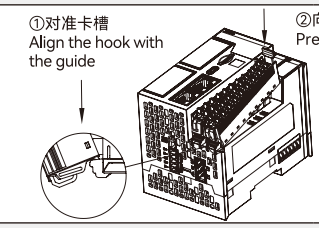


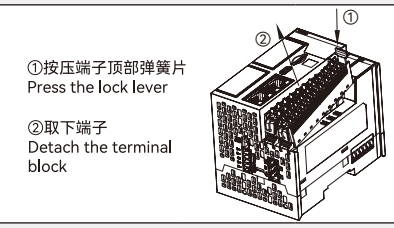


5.3 可拆卸端子拆装 1（Removable terminal block mounting and dismounting I）

CN 安装可拆卸端子时，将端子底部对准模块底部凹槽并紧扣，上部对齐模块，当听到“咔哒”声即完成了端子的组装；拆卸端子时，向下按压端子顶部卡扣，使其脱离模块本体并以底部卡扣呈圆弧状斜向下施力，将端子取下。

EN During mounting, align the mounting hook at the bottom of the terminal block to the guide of the module and press inwards on the terminal block until a clear click is heard (which indicates the terminal block has been locked to the module). During dismounting, press the lock lever on the terminal block and then detach it from the module.

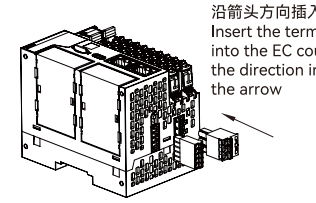


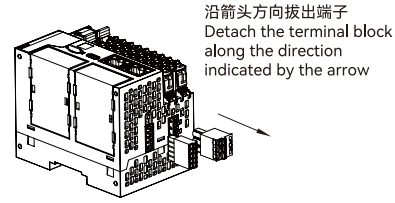


5.4 可拆卸端子拆装 2（Removable terminal block mounting and dismounting II）

CN 可拆卸端子拆装如右图所示。

EN The mounting and dismounting of the removable terminal block are shown in the figures on the right side.

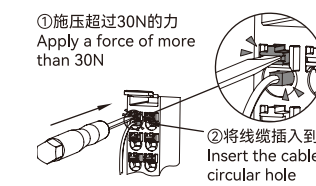


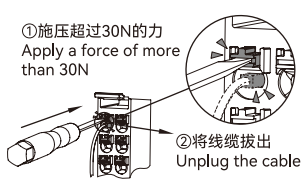


⚠ 5.5 线缆拆装 1（Cable connecting and disconnecting I）

CN 安装线缆时，将一字螺丝刀垂直插入可拆卸端子压块内，施加超过 30N 的力，此时圆孔打开，将准备好的线缆插入到圆孔中，拔出一字螺丝刀，轻拽线缆，线缆不松动即成功完成配线；反之即可取出线缆。端子规格及配线示意图如右图所示。

EN During connecting, insert the flat-blade screwdriver into the unlocking tab with a force of more than 30 N. Then insert a cable into the circular hole. Gently tug the cable after pulling out the screwdriver. If the cable is secured firmly, then the connection is finished. The reverse is the procedure for unplugging the cable. The terminal specifications and wiring diagram are shown in the right figure.

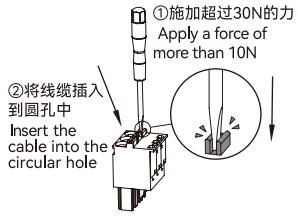


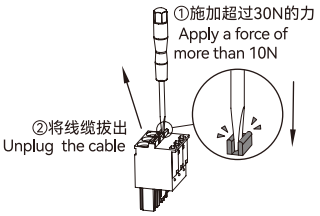


⚠ 5.6 线缆拆装 2（Cable connecting and disconnecting II）

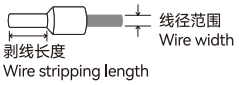
CN 安装线缆时，将一字螺丝刀垂直插入可拆卸端子压块内，施加超过 30N 的力，此时圆孔打开，将准备好的线缆插入到圆孔中，拔出一字螺丝刀，轻拽线缆，线缆不松动即成功完成配线；反之即可取出线缆。端子规格及配线示意图如右图所示。

EN During connecting, insert the flat-blade screwdriver into the unlocking tab with a force of more than 30 N. Then insert a cable into the circular hole. Gently tug the cable after pulling out the screwdriver. If the cable is secured firmly, then the connection is finished. The reverse is the procedure for unplugging the cable. The terminal specifications and wiring diagram are shown in the right figure.





控制器端子（Terminal）	线径范围：AWG (Wire width)	剥线长度：mm (Wire stripping length)	按压力：N (Pressure)
18Pin IO端子（18Pin IO terminal）	24~18	8~10	30.00
5Pin 串行通讯端子（5Pin serial communication terminal）	24~16	9~10	19.20
DC24V 电源端子（DC24V power supply terminal）	26~12	9~10	31.36

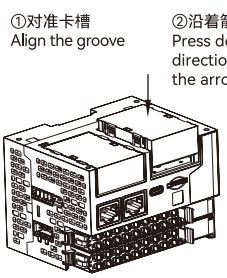


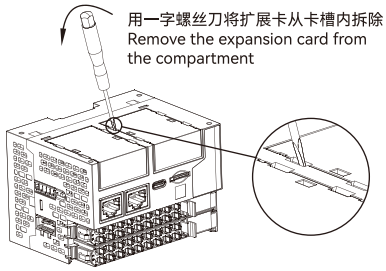
⚠ 警告：只能使用 75℃铜导线。
Warning: Use only a copper conductor that is 75° C.
Attention: Utilisez uniquement un conducteur en cuivre à 75° C.

5.7 扩展卡拆装（Expansion card mounting and dismounting）

CN 安装扩展卡时，水平放置控制器，将扩展卡沿着卡扣垂直放入控制器的卡槽中，并向下按压扩展卡。当听到明显声音后，检查表面是否平齐，若平齐，则扩展卡安装完成；拆卸扩展卡时，将一字螺丝刀插入卡扣，按箭头方向撬动扩展卡。当听到明显声音时，扩展卡与控制器脱离，此时将扩展卡垂直拿出，扩展卡拆卸完成。

EN During dismounting, place the controller horizontally, put the expansion card into the slot of the controller along the card slot, and press the expansion card downwards. When a distinct sound is heard, check whether the surface is flush, if flush, the expansion card installation is complete; when removing the expansion card, insert a screwdriver into the card slot and pry the expansion card in the direction of the arrow. When you hear the obvious sound, the expansion card is detached from the controller, at this time, the expansion card will be taken out vertically, the expansion card disassembly is complete.

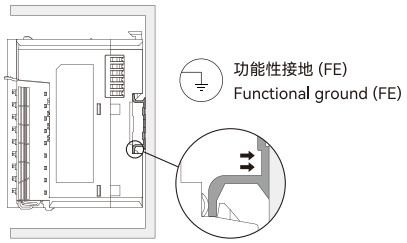




5.8 接地（Functional ground）

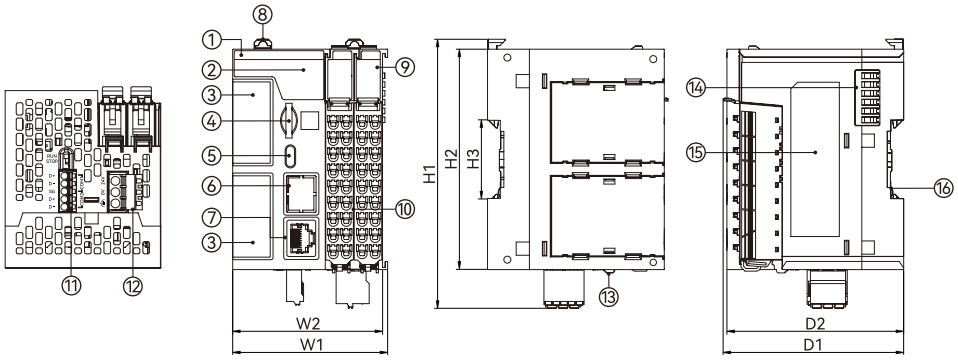
CN M 系列控制器通过背部金属弹片接地，示意图如右图所示。

EN The M series controller is grounded through a metal spring on the back side, as shown in the diagram on the right.

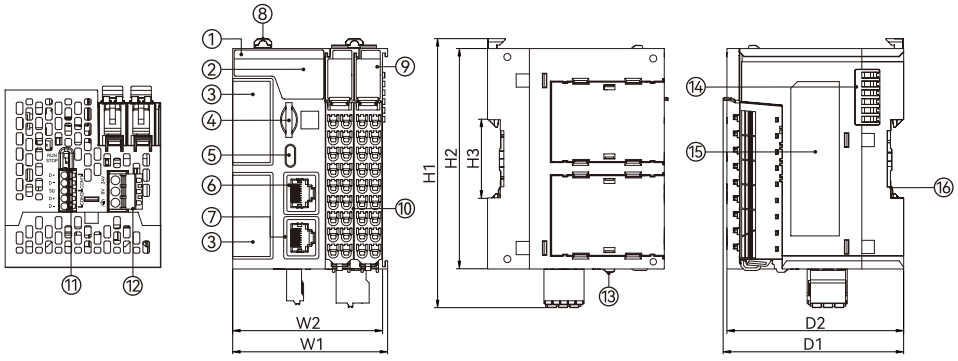


6. 接口和尺寸说明（Interface and dimension description）

M312/M312-PNP



M322/M511S/ M511S-PNP/M511/M511-PNP/M512/M512-PNP/M513/M513-PNP/M514/M514-PNP

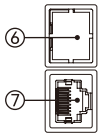
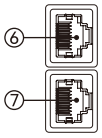


型号（Model）	外形尺寸（Dimension）：mm							重量（Weight）：g
	W1	W2	H1	H2	H3	D1	D2	
HCM312-32MT6-D	70.30	67.99	122.05	100.00	35.40	81.92	80.20	240 approx.
HCM312-32MT6-D-PNP								
HCM322-32MT6-D								
HCM511S-32MT4-D								
HCM511S-32MT4-D-PNP								
HCM511-32MT4-D								
HCM511-32MT4-D-PNP								
HCM512-32MT4-D								
HCM512-32MT4-D-PNP								
HCM513-32MT4-D								
HCM513-32MT4-D-PNP								
HCM514-32MT4-D								
HCM514-32MT4-D-PNP								

序号(No.)	名称		Name		功能	Function
1	产品型号		Product model		显示CPU单元型号	Displays CPU unit model
2	指示灯		Indicator		显示控制器运行，SD卡/U盘连接与通讯接口状态	Displays the status of controller operation, SD card/U disk connection, and communication interface
3	上方	扩展卡槽1	Upper	Expansion slot 1	扩展卡卡槽，可选配支持的扩展卡	Expansion card slot, which can be optionally equipped with supported expansion cards
	下方	扩展卡槽2	Lower	Expansion slot 2		
4	SD卡槽		SD card slot		装载SD卡(SD卡需要客户自行选购，当前版本暂不支持任何功能)	SD card installation (Please note that the SD card needs to be purchased by the customers on their own, and the current version does not support any functions for the time being.)
5	Type-C接口		Type-C interface		支持连接上位机后进行用户程序上下载、固件升级等	Supports uploading and downloading of user programs and firmware upgrading after connecting to a host computer
6	EtherNet通讯接口*		EtherNet communication interface*		支持Modbus TCP、EtherNet/IP、Socket自由协议 默认IPV4：192.168.1.8 子网掩码：255.255.255.0	Supports Modbus TCP, EtherNet/IP and Socket custom protocols Default IPV4: 192.168.1.8 Subnet mask: 255.255.255.0
7	EtherCAT/EtherNet通讯接口*		EtherCAT/EtherNet communication interface*		EtherCAT/EtherNet 通讯接口；作为 EtherCAT 通讯接口使用时，支持 EtherCAT 主站	EtherCAT/EtherNet communication interface; when used as an EtherCAT communication interface, it supports EtherCAT masters
8	双向联动卡扣		DIN rail mounting latch		固定模块在DIN导轨上	Mounts the module onto a DIN rail
9	模块状态指示灯		Module status indicator		显示模块与通道状态	Displays module and channel status
10	18Pin IO 端子	左侧 输入	18Pin IO terminal	Left input	16通道数字量输入	16-channel digital input
		右侧 输出		Right output	16通道数字量输出	16-channel digital output
11	5Pin 串行通讯端子		5 Pin serial communication terminal		RS485通讯接口*2	RS485 communication interface*2
12	DC24V 电源端子		DC24V power supply terminal		DC24V供电接口	DC24V power supply interface
13	RUN/STOP开关		RUN/STOP switch		启动或停止控制器程序运行，拨到RUN为运行，拨到STOP为停止	Starts or stops the controller program operation, toggles to RUN for running, toggles to STOP for stopping
14	扩展模块通讯接口		Expansion terminal communication interface		主机和IO模块通讯及供电接口，不支持热插拔	The interface for the communication and power supply of the host and IO modules, does not support hot-swapping
15	标签		Label		显示CPU单元型号，规格参数、内部序列号等基本信息	Displays the basic information including CPU unit model, specification parameters, and internal serial number
16	接地弹片		Grounding spring		功能性接地（FE）	Functional grounding (FE)

* 注：6 、7 号端口详细说明请参考下表。

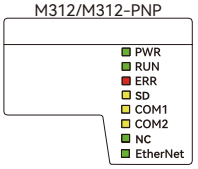
*Note: For detailed descriptions of ports 6 and 7, please refer to the table below.

序号(No.)	M312/M312-PNP	M322	M511S/ M511S-PNP/M511/M511-PNP/M512/M512-PNP/ M513/M513-PNP/M514/M514-PNP
			
6	-	EtherNet	EtherNet
7	EtherNet	EtherNet	EtherCAT

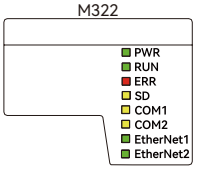
7. 指示灯说明（Indicator description）

丝印 (Screen printing)	指示灯含义 (Indicator meaning)	颜色 (Color)	状态	Status	说明	Description
PWR	电源 (Power)	绿色 (Green)	熄灭	Not lit	电源未接通	Power off
			常亮	Lit	电源接通	Power on
RUN	运行 (Run)	绿色 (Green)	熄灭	Not lit	停止状态	Stop
			常亮	Lit	正常运行	Run
ERR	系统故障 (System error)	红色 (Red)	熄灭	Not lit	无故障发生	No error
			常亮	Lit	发生故障	Error
SD	SD 卡状态 (SD card status)	黄色 (Yellow)	熄灭	Not lit	未插入 SD 卡	SD card is not inserted
			闪烁	Blinking	正在读写 SD 卡	SD card is being read/written
			常亮	Lit	已插入 SD 卡但未进行读写	SD card is inserted but is not being read/written
COM1	RS485 通讯 (RS485 communication)	黄色 (Yellow)	熄灭	Not lit	未发送数据	No data is being sent to other devices
COM2			闪烁	Blinking	正在发送数据给其他设备	Data is being sent to other devices

M312/M312-PNP

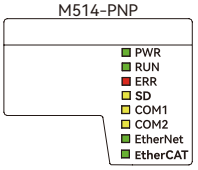


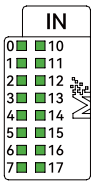
M322

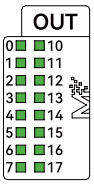


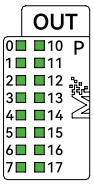
M312/M312-PNP/M511S/ M511S-PNP/M511/M511-PNP/M512/M512-PNP/M513/M513-PNP/M514/M514-PNP						
EtherNet	通讯 (Communication)	绿色 (Green)	熄灭	Not lit	未建立物理连接	No physical connection
			闪烁	Blinking	建立物理连接且有通讯数据	Physical connection with communication data
			常亮	Lit	建立物理连接但无通讯数据	Physical connection without communication data
M312/M312-PNP						
NC	-	-	-	-	-	-
M322						
EtherNet1/ EtherNet2	通讯 (Communication)	绿色 (Green)	熄灭	Not lit	未建立物理连接	No physical connection
			闪烁	Blinking	建立物理连接且有通讯数据	Physical connection with communication data
			常亮	Lit	建立物理连接但无通讯数据	Physical connection without communication data
M511S/ M511S-PNP/M511/M511-PNP/M512/M512-PNP/M513/M513-PNP/M514/M514-PNP						
EtherCAT	通讯 (Communication)	绿色 (Green)	熄灭	Not lit	未建立物理连接	No physical connection
			闪烁	Blinking	建立物理连接且有通讯数据	Physical connection with communication data
			常亮	Lit	建立物理连接但无通讯数据	Physical connection without communication data
丝印 (Screen printing)	**指示灯含义 (Indicator meaning)**	**颜色 (Color)**	**状态**	**Status**	**说明**	**Description**
IN N (0~7,10~17)	输入 (Input)	绿色 (Green)	熄灭	Not lit	输入通道 N 未检测到输入信号	The input channel N has not detected input signals
			常亮	Lit	输入通道 N 检测到输入信号	The input channel N has detected input signals
OUT N (0~7,10~17)	输出 (Output)	绿色 (Green)	熄灭	Not lit	输出通道 N 无信号输出	There is no output signal in this channel
			常亮	Lit	输出通道 N 有信号输出	There are output signals in this channel

M511S/M511S-PNP/ M511/M511-PNP/M512/ M512-PNP/M513/M513-PNP/M514/ M514-PNP

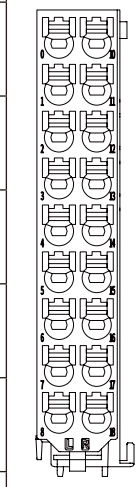
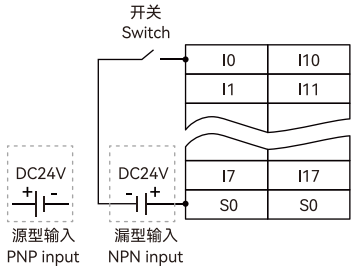
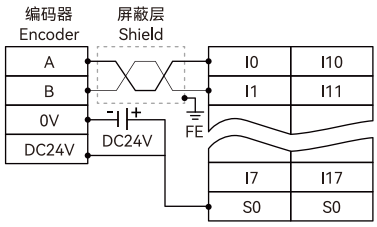
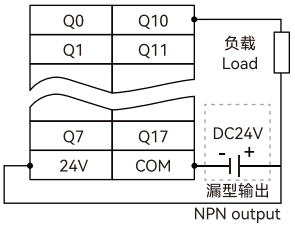
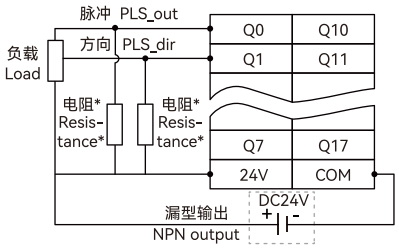
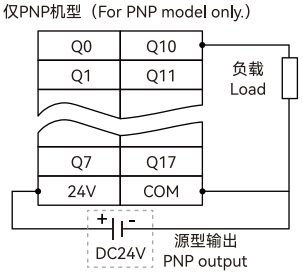
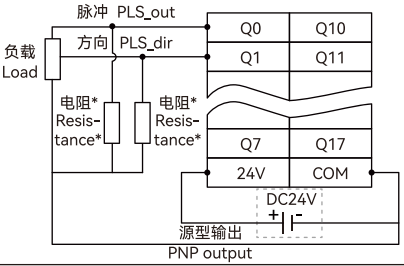








8. 端子及配线说明（Terminal and wiring description）

18Pin IO端子说明（18Pin IO terminal description）			IN		OUT		类型（Type）	通用IO接线（General IO wiring）	高速IO接线（High-speed IO wiring）
0		10	I0	I10	Q0	Q10	输入 Input		
1		11	I1	I11	Q1	Q11			
2		12	I2	I12	Q2	Q12			
3		13	I3	I13	Q3	Q13	输出 Output		
4		14	I4	I14	Q4	Q14			
5		15	I5	I15	Q5	Q15			
6		16	I6	I16	Q6	Q16			
7		17	I7	I17	Q7	Q17			
8		18	S0	S0	24V	COM			

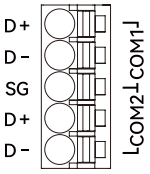
FE 功能性接地（Functional ground）

* 注：外部负载电流较小时，建议在输出点和 24V 之间接入约 500Ω 的电阻。

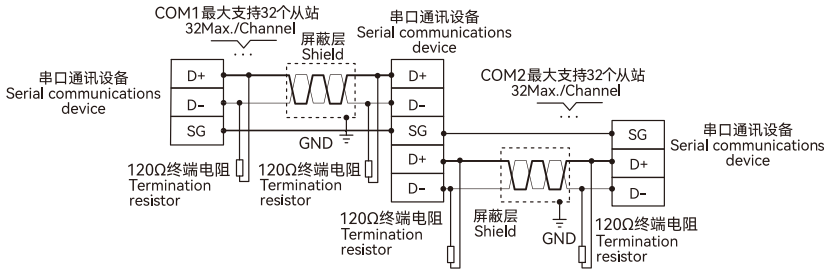
*Note : Connect a resistor of about 500 Ω between the output terminal and the 24V terminal when the external load current is small.

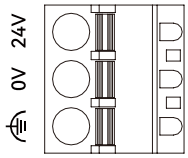
端子配置 (I/O configuration)																				
序号（No.）		0	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	
输入端子名称 (General input name)		I0	I1	I2	I3	I4	I5	I6	I7	S0	I10	I11	I12	I13	I14	I15	I16	I17	S0	
M312/M322/ M511S/ M511/ M512/M513/M514高速输入支持通道(High-speed input channels)		通道1 (Channel1)		通道2 (Channel2)		-				公共端 (Common terminal)	-								公共端 (Common terminal)	
高速输入定义 (High-speed input definition)	脉冲+方向(Pulse + Direction)	脉冲 (Pulse)	方向 (Direction)	脉冲 (Pulse)	方向 (Direction)	-					-									
	AB相(AB Phase)	A	B	A	B	-					-									
	单脉冲 (Single pulse)	脉冲 (Pulse)	-	脉冲 (Pulse)	-	-					-									

输出端子名称 (General output name)		Q0	Q1	Q2	Q3	Q4	Q5	Q6	Q7	24V	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	COM
M312/M322高速输出通道 (High-speed output channels)		通道1 (Channel1)		通道2 (Channel2)		通道3 (Channel3)		通道4 (Channel4)			通道5 (Channel5)		通道6 (Channel6)		-				
M511S/ M511/M512/M513/ M514高速输出通道 (High-speed output channels)		通道1 (Channel1)		通道2 (Channel2)		通道3 (Channel3)		通道4 (Channel4)		DC24V	-								公共端 (Common terminal)
高速输出定义 (high-speed output definition)	脉冲+方向(Pulse + Direction)	脉冲 (Pulse)	方向 (Direction)	脉冲 (Pulse)	方向 (Direction)	脉冲 (Pulse)	方向 (Direction)	脉冲 (Pulse)	方向 (Direction)		脉冲 (Pulse)	方向 (Direction)	脉冲 (Pulse)	方向 (Direction)	-				

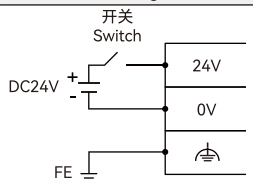
5Pin串行通讯端子说明（5Pin serial communication terminal description）		
COM1 RS485通讯信号 + COM1 RS485 communication signal +	D+	
COM1 RS485通讯信号 - COM1 RS485 communication signal -	D-	
信号参考地 Signal reference ground	SG	
COM2 RS485通讯信号 + COM2 RS485 communication signal +	D+	
COM2 RS485通讯信号 - COM2 RS485 communication signal -	D-	

接线（Wiring）



DC24V电源端子说明（DC24V power supply terminal description）	
24V	
0V	

接线（Wiring）



FE 功能性接地（Functional ground）