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07060201-0841-001

Date 2025-12-25

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.

## 2. 命名规则 (Model identification)

V 5 15 E - XXXX  
1 2 3 4 5

1	产品系列 (Product series)	3	屏幕尺寸 (Screen size)	4	配置 (Configuration)
V	V系列 (V series)	11	11.6寸 (11.6 inches)	空 (N/A)	电容 (默认) (Capacitor (default))
		12	12.1寸 (12.1 inches)	E	标准型 (Standard type)
		15	15.0寸 (15.0 inches)	P	增强型 (Enhanced type)
		16	15.6寸 (15.6 inches)		
		17	17寸 (17 inches)		
		18	18.5寸 (18.5 inches)		
		21	21.5寸 (21.5 inches)		
				5	软件/固件定制代码 (Customized software/firmware code)
				X	0~9/A~Z

## 3. 适用型号 (Applicable model)

名称 (Name)	型号 (Model)	简要说明	Description
触摸屏 (HMI)	V512E	12.1寸标准版, 支持2路以太网, 3路串口通信, 2路USB 2.0接口	12.1-inch standard version, supports 2-channel Ethernet, 3-channel serial communication, and 2-channel USB 2.0 interfaces
	V515E	15寸标准版, 支持2路以太网, 3路串口通信, 2路USB 2.0接口	15-inch standard version, supports 2-channel Ethernet, 3-channel serial communication, and 2-channel USB 2.0 interfaces
	V517E	17寸标准版, 支持2路以太网, 3路串口通信, 2路USB 2.0接口	17-inch standard version, supports 2-channel Ethernet, 3-channel serial communication, and 2-channel USB 2.0 interfaces
	V511P	11.6寸增强版, 支持2路以太网, 3路串口通信, 2路USB 2.0接口	11.6-inch enhanced version, supports 2-channel Ethernet, 3-channel serial communication, and 2-channel USB 2.0 interfaces
	V516P	15.6寸增强版, 支持2路以太网, 3路串口通信, 2路USB 2.0接口	15.6-inch enhanced version, supports 2-channel Ethernet, 3-channel serial communication, and 2-channel USB 2.0 interfaces
	V518P	18.5寸增强版, 支持2路以太网, 3路串口通信, 2路USB 2.0接口	18.5-inch enhanced version, supports 2-channel Ethernet, 3-channel serial communication, and 2-channel USB 2.0 interfaces
	V521P	21.5寸增强版, 支持2路以太网, 3路串口通信, 2路USB 2.0接口	21.5-inch enhanced version, supports 2-channel Ethernet, 3-channel serial communication, and 2-channel USB 2.0 interfaces
网络适配器 (Network adapter)	V500-4G-ADP	适配的4G扩展模块	Compatible 4G expansion module
	V500-WIFI-ADP	适配的WIFI扩展模块	Compatible WIFI expansion module

## 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	额定功率 *2	Rated power*2	额定电压	Rated voltage
V512E	14W	14W	DC24V, 电压范围: DC19.2~28.8V	DC24V, voltage range: DC19.2~28.8V
V515E	13W	13W		
V517E	13W	13W		
V511P	9W	9W		
V516P	10W	10W		
V518P	14W	14W		
V521P	32W	32W		
V500-4G-ADP	-	-	由触摸屏供电	Powered by HMI
V500-WIFI-ADP	-	-		

\*注: 1. 所有型号均为安全特低电压输入产品。

2. 此处标识的额定功率为满负载运行时的最大功率。

\*Note: 1. All models are featured by the SELV input type.

2. The power rating indicated here is the maximum power under full-load operation.

### 4.2 环境规格 (Environmental requirements)

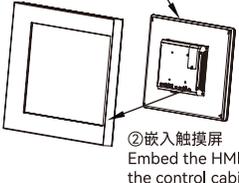
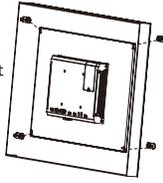
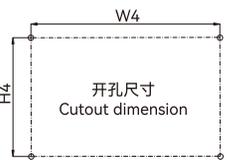
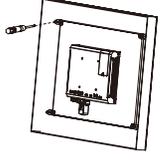
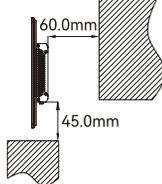
项目	Item	规格	Specifications
海拔高度	Altitude	≤2000m	≤2000m
使用环境	Operating environment	控制柜内安装, 开放式及室内使用	Installation within a control cabinet, open-type and indoor use
工作温度	Operating temperature	0~55°C	0~55°C
储存温度	Storage temperature	-20~60°C (无结露)	-20~60°C (non-condensation)
环境湿度	Ambient humidity	10~95%RH (无结露)	10~95%RH (non-condensation)
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	Pollution degree II
冷却方式	Cooling method	自然冷却	Natural cooling
防护等级	IP rating	前面板IP65, 后壳IP20	Front panel: IP65, Back housing: IP20
外壳材质	Enclosure material	阻燃材料	Self-extinguishable

\*注: 如果以制造商未规定的方式使用设备, 可能会损坏设备。

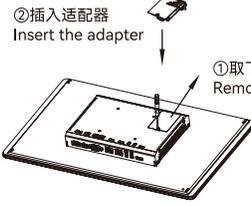
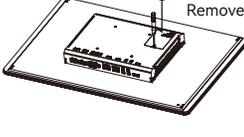
\*Note: The equipment may be damaged if used in a manner not specified by the manufacturer.

## 5. 安装说明 (Installation instructions)

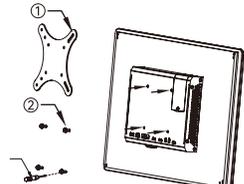
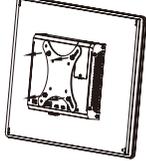
### 5.1 控制柜安装 (Installation within a control cabinet)

<p>CN 确认触摸屏防水垫圈安装到位后，将其嵌入控制柜内。然后将螺丝装入固定卡扣内，对准触摸屏后盖上的螺丝孔，拧入螺丝至顶住控制柜内侧。以 0.5~0.7 N.m 扭力锁紧，请勿超过此扭力，否则会导致物料外壳损坏。请参考右侧示意图，在设备周围留有足够的空间。</p>	<p>①确认防水垫圈安装到位后 Confirm the waterproof gasket is properly installed</p>  <p>②嵌入触摸屏 Embed the HMI into the control cabinet</p>	<p>①将螺丝装入固定卡扣内 Insert the screws into the fixed clips</p> <p>②对准螺丝孔 拧入螺丝 Align the screw holes and insert the screws</p> 	 <p>W4</p> <p>H4</p> <p>开孔尺寸 Cutout dimension</p>
<p>EN After confirming the waterproof gasket is properly installed, embed the HMI into the control cabinet. Then, insert the screws into the fixed clips, align them with the screw holes on the rear cover of the HMI, and tighten the screws until they contact the inner wall of the control cabinet. Tighten the screws with a torque of 0.5~0.7 N.m. Do not exceed this torque, otherwise the material housing may be damaged. Refer to the right-side diagram and leave sufficient clearance around the device.</p>	<p>施加 0.5~0.7 N.m 的扭力锁紧螺丝 Lock the screws with a torque of 0.5~0.7 N.m</p> 	 <p>60.0mm</p> <p>45.0mm</p>	

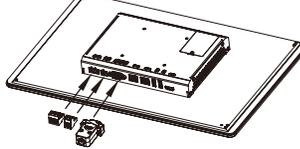
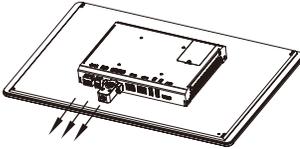
### 5.2 网络适配器拆装 (Network adapter mounting and dismounting)

<p>CN 安装适配器时，使用十字螺丝刀拧松螺丝，将触摸屏背面的盖子取下，然后将适配器上的排针对准排孔插入，再重新将螺丝拧紧。拆卸适配器时，使用十字螺丝刀将螺丝拧松并取出适配器，然后换回盖子并拧上螺丝。</p>	<p>②插入适配器 Insert the adapter</p>  <p>①取下盖子 Remove the cover</p>	<p>②换回盖子 Reinstall the cover</p>  <p>①拔出适配器 Remove the adapter</p>
<p>EN During mounting, use a Phillips screwdriver to loosen the screws, remove the back cover of the HMI, align the pin header on the adapter with the pin hole, and insert it, then retighten the screws. During dismounting, use a Phillips screwdriver to loosen the screws, remove the adapter, reinstall the cover, and tighten the screws.</p>		

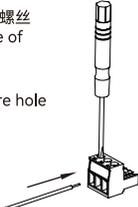
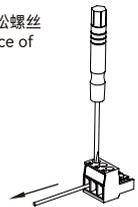
### 5.3 VESA 支架拆装 (VESA bracket mounting and dismounting)

<p>CN 安装 VESA 支架时，将螺丝穿过 VESA 支架，拧在触摸屏的安装螺纹孔处，并以 0.5~0.7 N.m 的扭力锁紧。拆卸 VESA 支架时，将螺丝拧松，并从触摸屏中抽出，即可取出 VESA 支架。</p>	<p>沿箭头方向拧紧螺丝安装 VESA 支架 Install the VESA bracket by tightening the screws along the arrow direction.</p>  <p>①</p> <p>②</p>	<p>沿箭头方向拧松螺丝，拆卸 VESA 支架 Remove the VESA bracket by loosening the screws along the arrow direction.</p> 
<p>EN During mounting, pass the screws through the VESA bracket and tighten them into the mounting threaded holes of the HMI with a torque of 0.5~0.7 N.m. During dismounting, loosen the screws, pull them out from the HMI, and the VESA bracket can be removed.</p>		

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

<p>CN 可拆卸端子拆装如右图所示。</p>	<p>沿箭头方向插入端子 Insert the terminal block along the arrow direction.</p> 	<p>沿箭头方向拔出端子 Remove the terminal block along the arrow direction.</p> 
<p>EN The mounting and dismounting of the removable terminal block are shown in the figures on the right side.</p>		

### ⚠️ 5.5 线缆拆装 (Cable connecting and disconnecting)

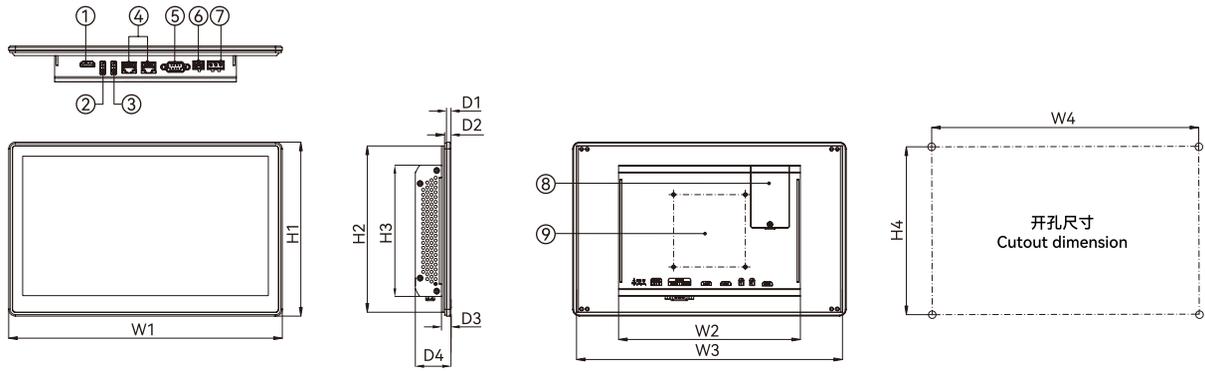
<p>CN 安装线缆时，将一字螺丝刀对准可拆卸端子螺丝，施加 0.5~0.7 N.m 的扭力拧松螺丝，将准备好的线缆插入到方孔中，拧紧螺丝，拔出一字螺丝刀，轻拽线缆，线缆不松动即成功完成配线；反之即可取出线缆。端子规格及配线示意图如右图所示。</p>	<p>①施加 0.5~0.7 N.m 的扭力拧松螺丝 Loosen the screw with a force of 0.5~0.7 N.m</p> <p>②将线缆插入方孔中 insert the cable into the square hole</p> <p>③拧紧螺丝 Tighten the screw</p> 	<p>①施加 0.5~0.7 N.m 的扭力拧松螺丝 Loosen the screw with a force of 0.5~0.7 N.m</p> <p>②将线缆拔出 Unplug the cable</p> 									
<p>EN 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.</p>	 <p>剥线长度 Wire stripping length</p> <p>线径范围 Wire width</p>	<table border="1"> <thead> <tr> <th>模块端子 (Terminal)</th> <th>线径范围: AWG (Wire width)</th> <th>剥线长度: mm (Wire stripping length)</th> <th>扭力: N.m (Torsion force)</th> </tr> </thead> <tbody> <tr> <td>3Pin DC24V 电源端子 (3Pin DC24V power supply terminal)</td> <td rowspan="2">24~12</td> <td rowspan="2">7~8</td> <td rowspan="2">0.5~0.7</td> </tr> <tr> <td>2Pin RS485 端子 (2Pin RS485 terminal)</td> </tr> </tbody> </table>	模块端子 (Terminal)	线径范围: AWG (Wire width)	剥线长度: mm (Wire stripping length)	扭力: N.m (Torsion force)	3Pin DC24V 电源端子 (3Pin DC24V power supply terminal)	24~12	7~8	0.5~0.7	2Pin RS485 端子 (2Pin RS485 terminal)
模块端子 (Terminal)	线径范围: AWG (Wire width)	剥线长度: mm (Wire stripping length)	扭力: N.m (Torsion force)								
3Pin DC24V 电源端子 (3Pin DC24V power supply terminal)	24~12	7~8	0.5~0.7								
2Pin RS485 端子 (2Pin RS485 terminal)											

警告：只能使用 75°C 铜导线。

⚠️ Warning: Use only a copper conductor that is 75° C.

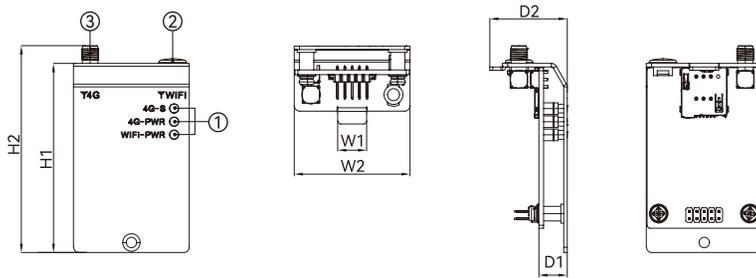
Attention: Utilisez uniquement un conducteur en cuivre à 75° C.

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



序号(No.)	名称	Name	功能	Function
1	HDMI接口	HDMI interface	支持HDMI高清显示输出	Supports HDMI high-definition display output
2	USB-A接口1	USB-A interface 1	USB 2.0接口, 支持接入鼠标、键盘及USB接口触摸板	USB 2.0 interface, supporting connection of a mouse, keyboard, or USB touch screen.
3	USB-A接口2	USB-A interface 2	USB 2.0接口, 支持U盘导入/导出程序与文件读写	USB 2.0 interface for program and file import/export via USB drives.
4	EtherNet通讯接口	EtherNet communication interface	配备独立IP的百兆以太网口, 支持连接上位机后进行用户程序上下载、固件升级等	Dedicated 100 Mbps Ethernet interface supporting user program upload/download and firmware updates when connected to a host computer.
5	COM2/COM3串行通讯接口	COM2/COM3 serial communication interface	COM2接口: RS232通讯接口 COM3接口: RS422/485通讯接口	COM2 interface: RS232 communication interface COM3 interface: RS422/485 communication interface
6	COM1串行通讯接口	COM1 serial communication interface	RS485通讯接口	RS485 communication interface
7	DC24V电源端子	DC24V power supply terminal	DC24V供电接口	DC24V power supply interface
8	网络适配器接口	Network adapter interface	连接网络适配器	Connects to network adapter
9	标签	Label	显示触摸屏型号, 规格参数、内部序列号等基本信息	Displays the basic information including HMI model, specification parameters, and internal serial number

型号 (Model)	外形尺寸 (Dimension) : cm												重量 (Weight) : g
	W1	W2	W3	W4	H1	H2	H3	H4	D1	D2	D3	D4	
V512E	303.3	190.0	284.6	286.0	241.9	226.0	136.0	228.0	5.0	7.0	17.0	44.3	2100
V515E	367.2	190.0	350.0	352.0	291.0	227.0	136.0	279.0	6.2	8.2	19.1	46.4	3750
V517E	394.7	190.0	375.5	377.0	327.3	312.3	136.0	314.0	5.6	7.6	18.5	45.8	4560
V511P	285.9	190.0	277.9	279.0	180.4	172.4	136.0	174.0	4.7	6.7	9.9	37.2	1350
V516P	406.0	190.0	382.0	384.0	257.0	245.0	136.0	247.0	5.0	7.0	11.0	38.3	2400
V518P	460.8	190.0	447.4	449.0	281.4	271.6	136.0	273.0	5.6	7.6	17.7	45.0	4520
V521P	533.4	190.0	512.6	514.0	325.2	309.2	136.0	311.0	5.6	7.6	18.5	45.8	6200

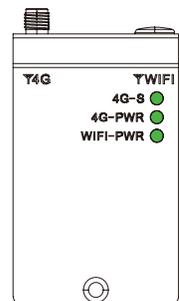


序号(No.)	名称	Name	功能	Function
1	模块状态指示灯	Module status indicator	显示适配器运行状态	Displays the running status of the adapter
2	WiFi接口	WiFi antenna interface	连接WiFi天线, 增强无线信号	Connects to the WiFi antenna to enhance the wireless signal
3	4G接口	4G antenna interface	连接4G天线, 增强无线信号	Connects to the 4G antenna to enhance the wireless signal

型号(Model)	外形尺寸 (Dimension) : cm						重量 (Weight) : g
	W1	W2	H1	H2	D1	D2	
V500-4G-ADP	10.00	40.00	64.85	70.95	9.80	26.75	40 approx
V500-WIFI-ADP							

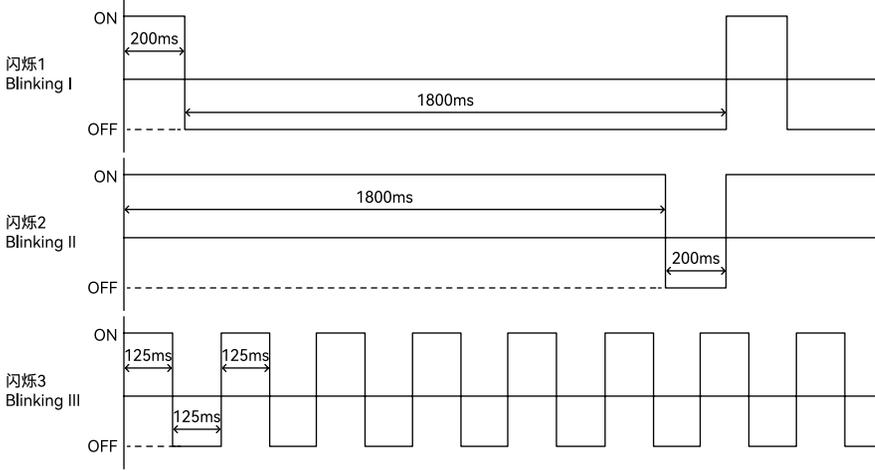
## 7. 指示灯和面板说明 (Indicator and LED panel description)

丝印 (Screen printing)	指示灯含义 (Indicator meaning)	颜色 (Color)	状态 (Status)	Status	说明 (Description)	Description
4G-S*	4G 信号 (4G signal)	绿色 (Green)		熄灭 Not lit	无信号	No signal
				闪烁 1 Blinking I	网络搜索中	Finding the internet
				闪烁 2 Blinking II	待机	Stand-by
				闪烁 3 Blinking III	数据传输中	Sending data
4G-PWR	4G 适配器电源 (4G adapter power)	绿色 (Green)		熄灭 Not lit	未供电	No power supply
				常亮 Lit	供电正常	Normal power supply
WIFI-PWR	WiFi 适配器电源 (WiFi adapter power)	绿色 (Green)		熄灭 Not lit	未供电	No power supply
				常亮 Lit	供电正常	Normal power supply



\*注：指示灯闪烁频率说明。

\*Note: Indicator blinking frequency description.

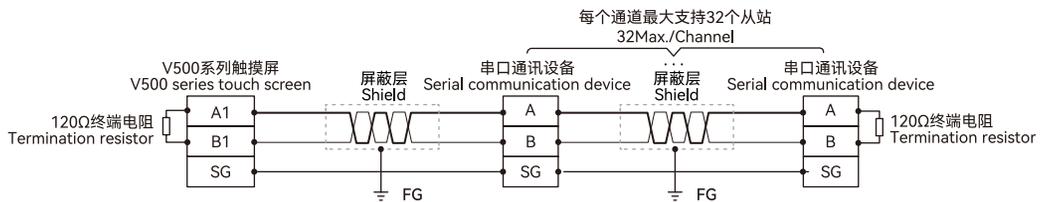


## 8. 端子及配线说明 (Terminal and wiring description)

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

通讯端子说明 (Communication terminal description)				
COM1 串行通讯接口 (COM1 serial communication interface)		COM2/COM3 串行通讯接口 (COM2/COM3 serial communication interface)		
	Pin	信号 (Signal)		
	1	RS485 (COM1)	A	
	2	B	B	
	Pin	信号 (Signal)		
	1	RS485 (COM2)	B	Rx-
	2	-	-	RxD
	3	-	-	TxD
	4	-	Tx-	-
	5	SG	SG	SG
	6	A	Rx+	-
	7	-	-	-
	8	-	-	-
	9	-	Tx+	-

### RS485接线 (RS485 wiring)



### RS232接线 (RS232 wiring)      RS422接线 (RS422 wiring)

