



PUC5533-EM2

本产品必须由专业人士安装

警告:

1. 电击危险，安装维护前请务必切断电源。
2. 安装前请认真阅读本手册，不按说明操作会造成设备损坏或人身伤害。
3. 本产品应安装于标准的电气箱内，并使用Class 2 变压器供电。
4. 所有的接线应该满足当地的电气法规要求。
5. 检查本手册中的额定值以及产品上的额定值，确认该产品适合您的应用。
6. 变压器的一次侧推荐采用过载保护。
7. 保证设备的物理安全，只有授权的人员才能接触到设备及总线。
8. 保证设备的网络及上层控制器，安装部署，运维管理的安全性，详情参考上层控制器安全手册。
9. 保证设备处于隔离的内部网络。

产品型号:

型号	描述
PUC5533-EM2	IO扩展模块, MODBUS, UIx5, DIx5, AOx3, DOx3
PUC6002-EM2	IO扩展模块, MODBUS UIx6, DOx2

安装前请确认是否包含以下附件:

- 控制器 数量: 1
- 控制器安装指导 (本手册) 数量: 1

使用环境:

存储	-40 °C - 65.5 °C
运行温度	0 °C - 50 °C
湿度	5%RH - 95%RH, 不凝露
防护等级	IP20
污染等级	2

电气规格:

额定电压	24VAC, 50/60Hz
PUC5533-EM2	11VA MAX.(包含控制器与所有输入, 输出和通信)
PUC6002-EM2	7VA MAX.(包含控制器与所有输入, 输出和通信)

产品中有害物质的名称及含量:

部件名称	有害物质					
	铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
塑料件	O	O	O	O	O	O
端子	X	O	O	O	O	O
电路板组件	X	O	O	O	O	O

本表格依据SJ/T 11364的规定编制。

O: 表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。

X: 表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。

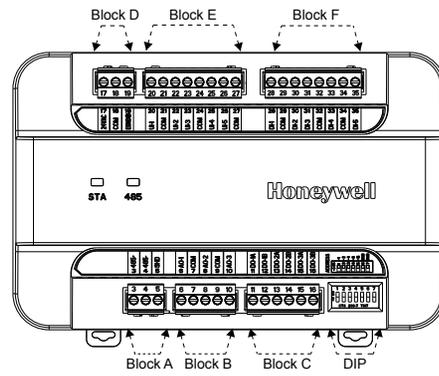
未列入表内的其他部件, 皆不含任何超出限量要求的限制使用物质。



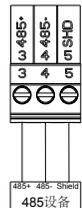
WEEE指令2012/19/EC废弃电气和电子设备指令

在产品寿命结束时将包装和产品丢弃在相应的回收中心。不要将通常的国内垃圾处理方式处理该产品。不要焚烧该产品。

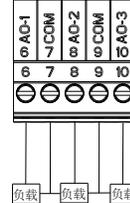
接线及端子定义(PUC5533-EM2)



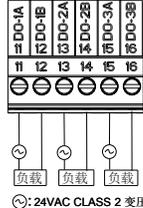
通讯 485 (Block A, 灰色)



AO模拟量输出 (Block B, 绿色)

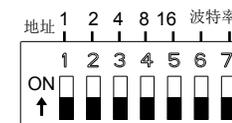


DO数字量输出 (Block C, 橙色)



拨码开关 (二进制编码)

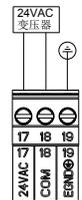
拨码拨到“ON”位置有效
1-5位拨码对应低位到高位, 用于设置地址



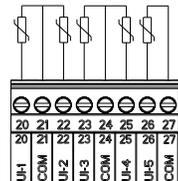
6-7位拨码用于波特率调节(默认值38400)

拨码6	拨码7	波特率
off	off	38400
on	off	19200
off	on	9600
on	on	4800

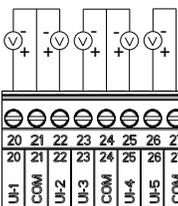
电源 (Block D, 黑色)



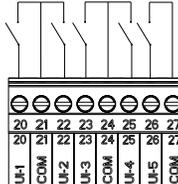
UI电阻输入 (Block E, 蓝色)



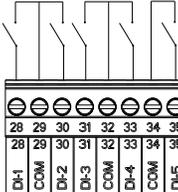
UI电压输入 (Block E, 蓝色)



UI干接点输入 (Block E, 蓝色)



DI数字量输入 (Block F, 黄色)



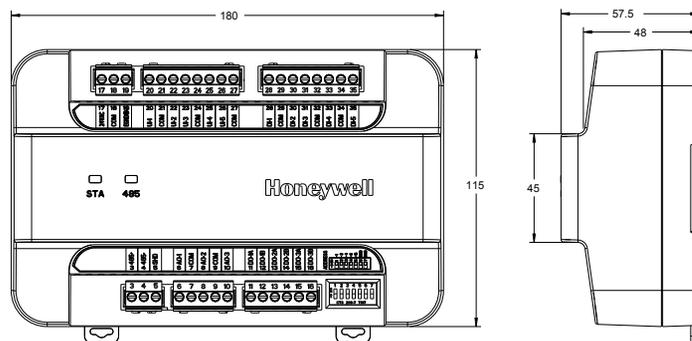
STA LED 状态

STA LED 状态	控制器状态说明
不亮	未供电, LED损坏, 供电不足, 初始上电, 引导程序固件损坏
常亮	没有足够的电源启动: 检查电源, 这需要大约3.5秒; 并在上电, 复位和重新刷新时发生。
慢闪烁模式1-1秒亮, 1秒灭	正常工作状态
慢闪烁模式2-0.5秒亮, 0.5秒灭	设备报警中, 下载配置中, 配置丢失

485 LED 状态

485 LED 状态	通讯状态说明
常亮	设备死机, 故障
常灭	未供电, 设备故障, 死机。
常灭中每2.5秒亮一下	控制器工作中, 没有modbus通讯
常灭中每2.5秒亮两下	控制器工作中, 有modbus通讯
常灭中每2.5秒亮三下	控制器工作中, 下载配置中
快速亮灭闪烁	设备故障, 死机。

产品尺寸 (单位: mm)



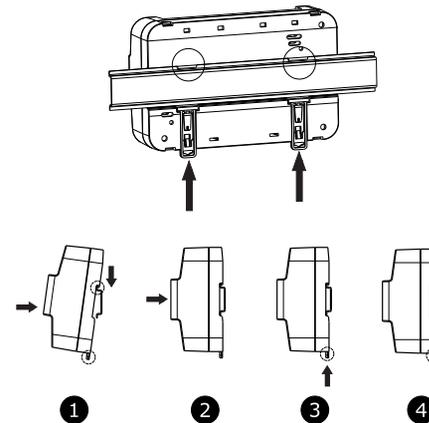
产品安装

安装说明:

- 可拆卸端子, 让产品安装维护更加容易;
- 控制器必须安装在有足够空间进行布线, 维修和拆卸的位置;
- 产品支持导轨安装, 导轨规格: EN50022 7.5mm X 35mm

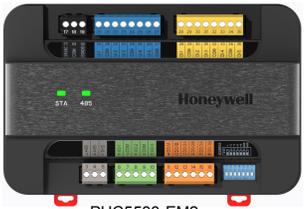
安装步骤:

1. 拉出控制器底部的两个卡钩, 倾斜控制器, 并把控制器顶部的卡钩固定在导轨上;
2. 下压控制器使控制器贴合导轨;
3. 推入底部两个卡钩, 固定控制器;
4. 卡钩推入后如图4所示。



IO Extended Module PUC Series

INSTALLATION GUIDE



PUC5533-EM2

The Installation should be carried out by an electrician.

WARNING:

1. Disconnect power outage before installation and maintenance to prevent electrical shock.
2. Read instruction carefully, failure to follow instruction will damage the product or cause a hazardous condition.
3. The controller must be installed in the standard electric box and get power from class 2 transformer.
4. All wiring must comply with national and local electrical code regulations.
5. Check the nominal parameter of the controller with the installation guide and make sure the controller is suitable.
6. Overload protection is recommended for the Primary side of the transformer.
7. Ensure the security of the device physical connection, only authorized user can get access to the device and its service.
8. Ensure the device network as well as associated upper layer controllers to be deployed and maintained in such a manner complied with group security policy, please refer to the user instruction of upper level controller for detail description.
9. Ensure a safe and secure network environment isolated from external connection for the device.

Model Name and Information

Model	Description
PUC5533-EM2	IO Module, MODBUS, UIx5, DIx5, AOx3, DOx3
PUC6002-EM2	IO Module, MODBUS UIx6, DOx2

Pre-installation Checklist:

Check to make sure your package includes the following items:

- Controller 1 SET
- Installation guide 1 PCS

Product application environment:

Storage Temperature	-40 °C - 65.5 °C
Operation Temperature	0 °C - 50 °C
Humidity	5%RH - 95%RH, Non condensation.
IP	IP20
Pollution Degree	2

Electrical:

Voltage	24VAC, 50/60Hz
PUC5533-EM2 Power Consumption	11VA MAX.(Controller including input, output and communication)
PUC6002-EM2 Power Consumption	7VA MAX.(Controller including input, output and communication)

Hazardous Substances and Content of the Product :

Parts	Hazardous substances					
	Pb	Hg	Cd	Cr(VI)	PBB	PBDE
Plastic Parts	O	O	O	O	O	O
Terminal	X	O	O	O	O	O
PCBA	X	O	O	O	O	O

This table is based on SJ/T 11364.

O: The hazardous substances content in the related part are less than the limit in GB/T 26572 standard.

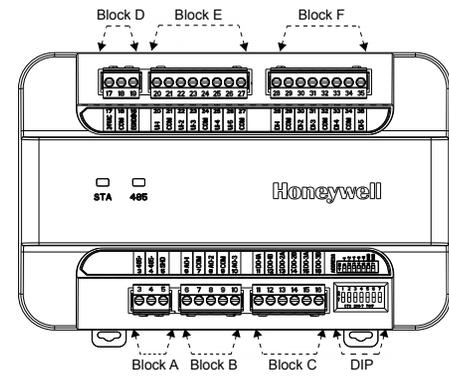
X: The hazardous substances content in the related part are more than the limit in GB/T 26572 standard.

Other parts all conform to China RoHS requirements.

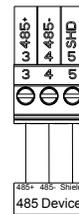


WEEE Directive 2012/19/EC Waste Electrical and Electronic Equipment directive
At the end of the product life dispose of the packaging and product in a corresponding recycling centre. Do not dispose of the unit with the usual domestic refuse. Do not burn the product.

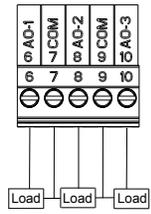
Terminal Definition and Wiring(PUC5533-EM2)



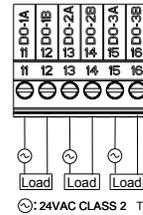
Communication 485 (Block A, Gray)



AO Analog Output (Block B, Green)



DO Digital Output (Block C, Orange)

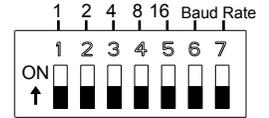


DIP Switch (Binary Coding)

Switch "ON" is active.

1-5 switches are for setting up MAC address and equal to low-high address.

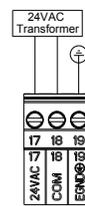
MAC Address



6-7 Switches are for setting up baud rate, the default baud rate is 38400.

Switch 6	Switch 7	Baud Rate
off	off	38400
on	off	19200
off	on	9600
on	on	4800

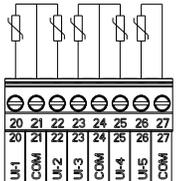
Power (Block D, Black)



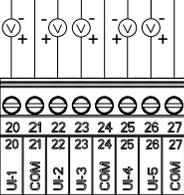
24VAC Transformer

24VAC CLASS 2 Transformer

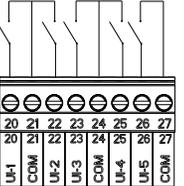
UI Resistance Input (Block E, Blue)



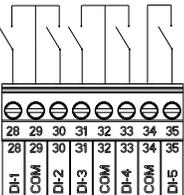
UI Voltage Input (Block E, Blue)



UI Dry Contact Input (Block E, Blue)



DI Digital Input (Block F, Yellow)



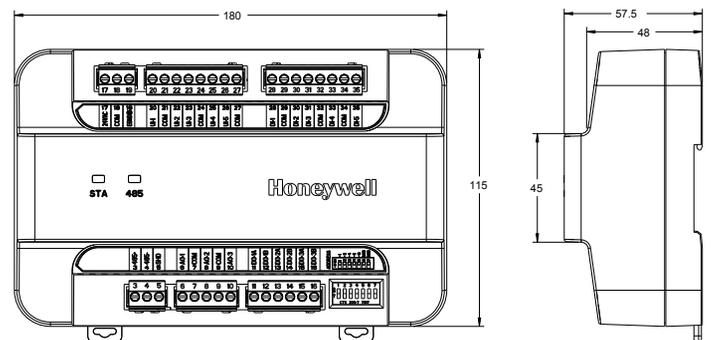
STA LED Status

LED Status	Controller Status Description
Off	No power to processor, LED damaged, low voltage to board, first second of power up, or boot loader damaged.
On	No sufficient power supply to start up, power supply being checked, this takes about 3.5 second and occurs on power up, reset and reflash.
Very Slow Blink-continuously Blinks 1 second on, 1 second off.	Controller operating normally.
Slow Blink-continuously Blinks 0.5 second on, 0.5 second off.	Controller alarm is active, controller in process of download, controller lost its configuration.

485 LED Status

LED Status	Modbus Status Description
Solid on	The processor is not running, or the processor is dead
Solid off	There is no power, the processor is not running, or the processor is dead
Solid off, blinking on once in 2.5 sec	Controller is running, no modbus communication.
Solid off, blinking on twice in 2.5 sec	Controller is running and there is an Modbus communication.
Solid off, blinking on thrice in 2.5 sec	Controller is running and there is an modbus communication file transfer in progress.
Quick on and off blink.	The processor is not running, or the processor is dead

Dimensions (mm)



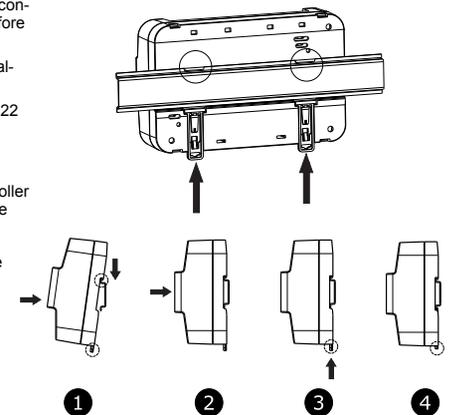
Mounting

NOTE:

- Removable terminal blocks are used for all wiring connections, which allow the controller to be wired before or after mounting.
- The controller must be mounted in a position that allows clearance for wiring, servicing, and removal.
- The controller mounts to DIN rail (standard EN50022 7.5mm x 35mm).

Installation

1. Pull out the two rail hooks at the bottom of the controller
Holding the controller with its top tilted in towards the DIN rail, hook the two top tabs on the back of the controller onto the top of the DIN rail.
2. Push the bottom of the controller and make sure the controller tightly attach on the DIN rail.
3. Push two rail hooks up and lock the controller.
4. Reset DIN rail hooks and lock the rail.



Wiring Note:

1. PUC6002-EM2 model without DI, AO terminals
UI, DO wirings are same with PUC5533-EM2.
2. Communication 485: Recommended to use 18-22AWG shield twisted pair wire. Solid or stranded copper wire, strip length 7-8mm insulation, terminal screw torque value: 0.5N·m.
3. AO, DO, UI, DI:
Recommended to use 18-22AWG wire.
Solid or stranded copper wire, strip length 7-8mm insulation, terminal screw torque value: 0.5N·m.