

# Uni-COM™ CX 模块

## 安装指南

UAC-CX-01RS2,  
UAC-CX-01RS4,  
UAC-CX-01CAN

本文档用于指导Uni-COM™ CX 模块的基本安装。使用这些模块为Unistream系列的PLC添加通讯口。使用此文档提及的模块，需要PLC上有对应的插口。

请务必在使用前确认是否 Uni-COM™ CX 模块是否兼容您的PLC。

UAC-CX-01RS2 提供一个 RS232 接口, UAC-CX-01RS4 提供一个 RS485 接口, 而 UAC-CX-01CAN 提供一个 CAN总线接口。

如有任何疑问，欢迎联系support@hkaco.com



## 在开始之前

在开始安装之前，请务必：


- 仔细阅读本安装指导
- 验证发货清单

## 警示符和注意事项

请仔细阅读下列符号旁的文字信息

符号	意义	描述
	危险	此类危险会造成设备和财产严重损失
	警告	此类警告可能会造成设备和财产损失
Caution	小心	小心

- 所有举例和图标都是为了帮助使用者更好的理解，而不保证运行的绝对安全，请在技术参数手册规范范围内进行安装使用
- 请在当地法律法规的允许范围内使用此设备

-  不遵守安全指南进行操作可能会造成严重的人身伤害或财产损失
- 请不要尝试接入不符合技术手册规范的设备或线缆
- 请不要在上电时接入此扩展模块

## 环境注意事项



- 设备顶部/底部与外壁之间需保持 10mm (0.4") 的间距，以供设备散热
- 不要安装在以下场所：存在过量或是导电的灰尘、腐蚀性或易燃气体、潮湿或下雨、过热、经常冲击或振动的地方，以及一切不符合产品技术参数规格书中标准的场合
- 请不要将产品放入水中或让水流进产品内部
- 在安装时请留意不要让碎屑掉入产品内部
- 请将设备安装在远离强电设备的地方

## 发货清单

### UAC-CX-01RS2

- 1 UAC-CX-01RS2 模块

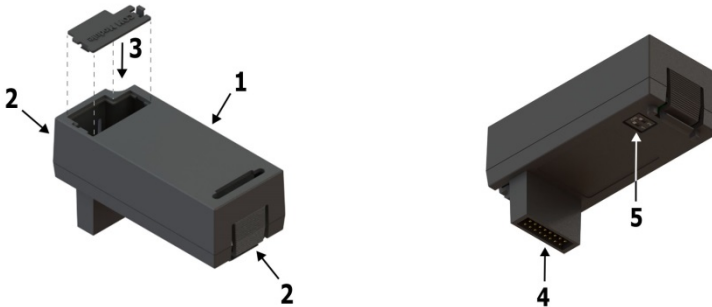
### UAC-CX-01RS4

- 1 UAC-CX-01RS4 模块
- 1 RS485 接线盒

### UAC-CX-01CAN

- 1 UAC-CX-01CAN 模块
- 1 CANbus 接线盒
- 1 CANbus 终端电阻

## Uni-COM™ CX 图示



1	接口	由选购的模组决定
2	顶部及底部夹扣	夹扣用于判断模组在PLC上安装是否到位
3	COM 模块插槽以及盖板	这是堆栈式安装的COM模块的连接点 若未使用，需盖好盖板
4	连接插头	插入COM 模块插槽中
5	拨码开关 仅适用UAC-CX-01RS4	RS485 终端电阻开关

## 安装规则



- 请在连接或拔出任何模块之前将系统电源关闭
- 请做好静电防护措施
- 模块会附赠插槽盖板，请在未用到模组插槽时将盖板盖好，防止插槽受损
- 堆栈式连接的模组最外部的插槽务必盖好盖板

### NOTE

- UAC-CX 模组只能安装在合适的 UniStream™ 控制器上
- UAC-CX 模块的安装需要遵循以下规则:
  - 若一个扩展串口通讯口被安装在了第一个位置（直接扣在 UniStream™ 控制器背部），那么它后面只能跟着安装另一个扩展串口通信模块，即总共能安装两个扩展通信模块
  - 若配置方案中包含了CAN总线的扩展通信模块，那么CAN总线通信模块必须是第一块（直接安装在UniStream控制器背部）。CAN总线模块后面可以跟着安装另外两个串口扩展模块，即总共可安装三个扩展模块。

## 安装 UAC-CX 模块步骤

将第一块模块嵌进控制器背部:

1. 检查控制器，确保插槽没有被盖板阻塞  
若此UAC-CX 模块是最后一个扩展模块，请将该模块上的插槽盖板盖好。
2. 将模块的插头插入插槽，直至固定

在第一块扩展模块上继续安装扩展模块:

1. 检查前一个模块，确保插槽没有被盖板阻塞  
若此UAC-CX模块是最后一个扩展模块，请将该模块上的插槽盖板盖好
2. 将模块的插头插入插槽，直至固定



## 移除扩展模块

需从最外侧的扩展模块开始进行移除，才可移除下一个模块:

1. 关闭控制器系统电源
2. 拔掉所有扩展模块接口上的线缆
3. 按住头尾两端的夹扣，将模块从插槽中拔出

**NOTE** 在移除安装在控制器背部的扩展模块时，若同时安装了I/O本地扩展适配器，就需要先将本地适配器 I/O Expansion Base Unit is plugged into the I/O Expansion Jack, you will have to remove the Base Unit in order to access the clips.

## Wiring



- All wiring activities should be performed while power is OFF.
- Unused points should not be connected (unless otherwise specified). Ignoring this directive may damage the device.
- Double-check all wiring before turning on the power supply.

### Caution

- To avoid damaging the wire, use a maximum torque of 0.5 N·m (5 kgf·cm).
- Do not use tin, solder, or any substance on stripped wire that might cause the wire strand to break.
- Install at maximum distance from high-voltage cables and power equipment.

## Wiring Procedures

### UAC-CX-01RS4, UAC-CX-01CAN - RS485/CANbus terminal block

Use crimp terminals for wiring; use 26-12 AWG wire (0.13 mm<sup>2</sup> –3.31 mm<sup>2</sup>).

1. Strip the wire to a length of 7±0.5mm (0.275±0.020 inches).
2. Unscrew the terminal to its widest position before inserting a wire.
3. Insert the wire completely into the terminal to ensure a proper connection.
4. Tighten enough to keep the wire from pulling free.

## Wiring Guidelines

In order to ensure that the device will operate properly and to avoid electromagnetic interference:

- Use a metal cabinet. Make sure the cabinet and its doors are properly earthed.
- Use shielded cables.

**NOTE** For detailed information on avoiding EMI, refer to the document System Wiring Guidelines, located in the Technical Library in the Unitronics' website.



-Turn off power before making any communications connections.

## UAC-CX-01RS2 - RS232 module

- Use shielded cable

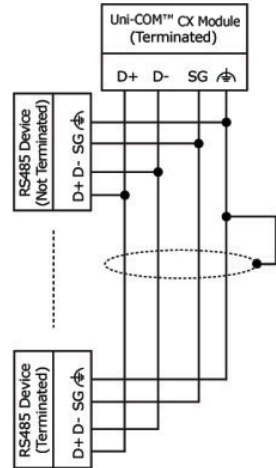
Pin Number	Pin Name	Direction	Description
1	-	-	Not connected
2	RXD	In	Receive Data
3	TXD	Out	Transmit Data
4	-	-	Not connected
5	SG	Return	Signal Ground
6 (see note)	-	-	Connected to Pin 7
7 (see note)	-	-	Connected to Pin 6
8, 9	-	-	Not connected

**NOTE** Pins 6 and 7 are not connected to internal circuits.

## UAC-CX-01RS4 – RS485 module

Use the RS485 port to create a multi-drop network.

The UAC-CX-01RS4 is shipped with a 4 pin RS485 terminal block. This connector is marked with a pin assignment that is identical to the corresponding marking on the module.



### RS485 Wiring

D+	Tx/Rx+ (B)
D-	Tx/Rx- (A)
SG	Signal Ground
	Functional Ground



- Use shielded twisted-pair cable, in compliance with EIA RS485 specifications.
- When wiring each node, connect the cable shield to the functional ground point of the RS485 terminal block.

**Caution** In order to avoid ground-loops, do not connect the RS485 functional ground terminal to the earth of the system, as it is internally connected to the controller's functional ground point.

### RS485 Termination

Use the DIP switches shown in the Uni-COM diagram on page 2 to set the RS485 termination according to the accompanying table.


The device is shipped with both its DIP switches set to ON; change settings if the device is not at one of the ends of the RS485 network.

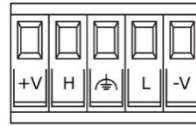
Position		DIP Switch State
1	2	
ON	ON	Terminated (factory default)
OFF	OFF	Not Terminated

## UAC-CX-01CAN - CANbus module

Use the CANbus port for all CANbus communications including integration of Remote I/Os via EX-RC1.

### CANbus Wiring

- +V CANbus Power Supply (see Note)
- H CAN High
-  Functional Ground
- L CAN Low
- V CANbus Power & Signal Common



- Use a shielded twisted-pair cable. DeviceNet<sup>®</sup>, shielded twisted-pair cable is recommended.
- When wiring each node, connect the cable shield to the functional ground point of the CANbus terminal block.
- Connect the CANbus cable shield to the system earth at only one point near the power supply.

DeviceNet<sup>®</sup>  
cable connection:

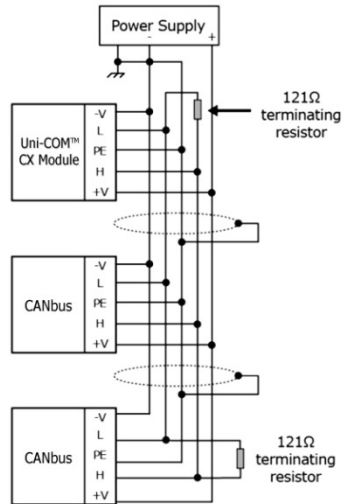


**NOTE** The Uni-COM<sup>™</sup> CANbus port is internally powered and does not require an external power-supply. This means that you can either connect the +V point in the CPU's CANbus connector to an external power supply, or leave it unconnected.

Do not use the +V point for any other purpose.

### CANbus Termination

Place termination resistors at each end of the CANbus network. Resistance must be set to 121Ω, 1/4W, 1%.



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