

L02系列AIO模块用户手册

感谢您购买Coolmay L02系列AIO模块。本手册主要说明该模块的产品特性、一般规格和接线方法。详细使用方法请参考《Coolmay L02系列PLC编程手册》。

L02系列AIO模块具有以下特点:

- 1、与Coolmay L02系列CPU搭配使用,地址自动分配。
- 2、标准DIN导轨(35mm宽)和卡扣安装,安装便捷。
- 3、采用按压式端子,接线方便。

◆ 产品构造

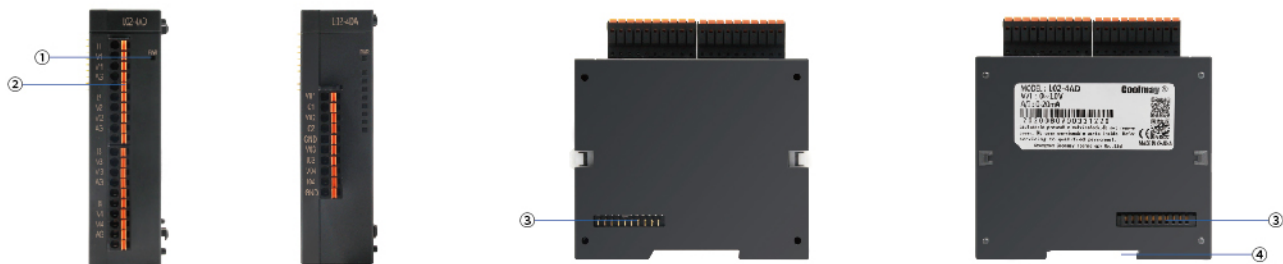


图1 产品构造

1、PWR:电源指示灯

2、模拟量输入输出端子台

3、扩展接口

4、35mm导轨安装

◆ 硬件接口

模拟输入模块	模拟输出模块	模拟输入/输出模块	温度模拟量模块	称重模块
4点	4点	4/2点	4点	2点
模拟输入/电流电压	模拟输出/电流电压	模拟输入/输出/电流电压	温度传感器/PT100	称重模块
L02-4AD	L02-4DA	L02-4AD2DA	L02-4RTD	L02-2LC

基本功能

50/60Hz 高速动态滤波 称重

双通道 独立取样 额定重量 0.4%

2组通道 4线 Load Cell

图2 AIO模块

A/O模块尺寸

L02-4AD、L02-4DA、L02-4AD2DA
L02-4RTD、L02-4TC、L02-2LC

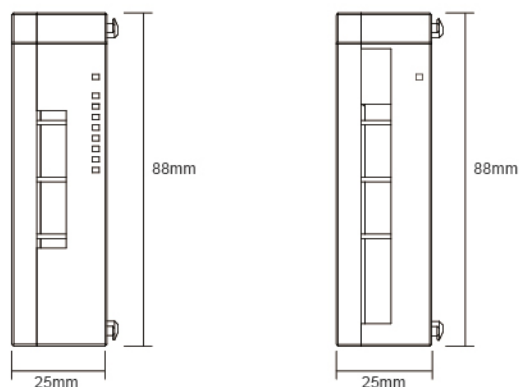


图3 AIO模块尺寸图

◆ 安装说明

卡扣安装

先打开白色卡扣,将扩展接口对齐后将模块推入,按下两端白色卡扣完成安装



图4 卡扣安装

导轨安装方法

CPU 模块和各扩展模块可直接安装在标准导轨DIN35mm上,不需背板;按下导轨卡扣,即可直接将产品锁在导轨上

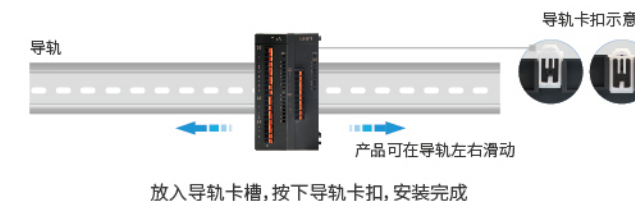


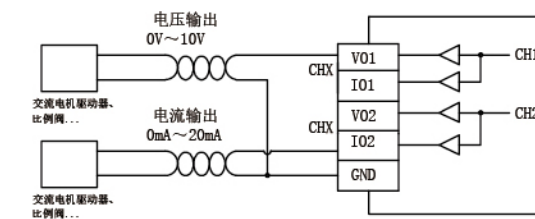
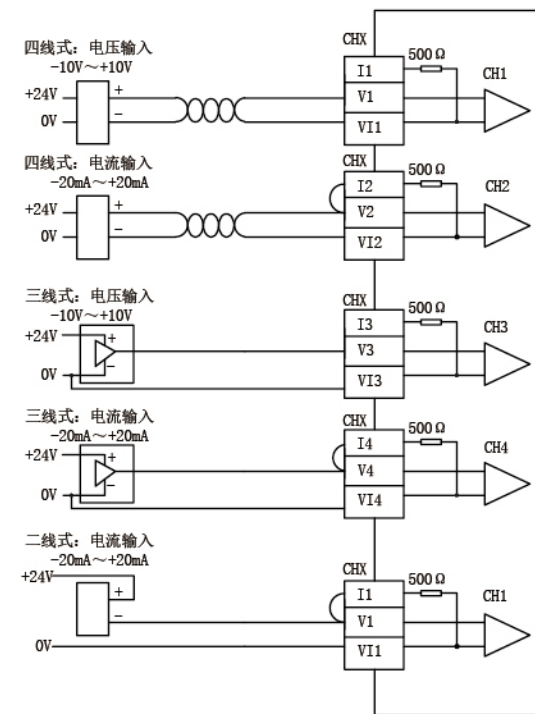
图5 导轨安装

◆ 模拟量接线

L02系列模拟量模块接线有以下几种,注意空端子请勿配线。

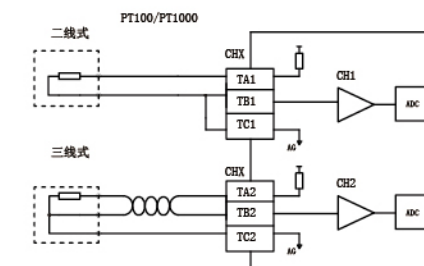
电流电压

1. 模拟输入/输出信号线请使用隔离线并和其它电源线隔离。
2. 如果连接电流信号时,Vn和In (n=1~4) 端子请务必短路。



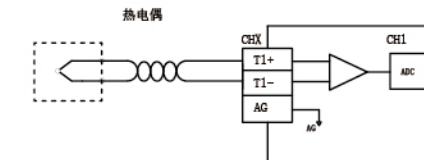
RTD

1. 使用屏蔽双绞线可减少干扰,注意应与其他电源线或可能引起噪声之接线远离。
 2. 使用 2 线式温度传感器时,请将 TAn, TBn短接 (n=1~4)。
- 注意:三线式线材长度需等长,单一线长<200m 且单一线阻<20ohm



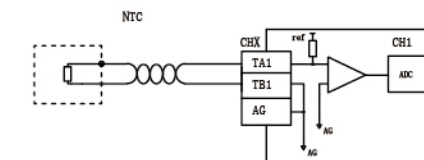
TC

采用 J、K、S、T、E 型热电偶温度传感器的连接线或双绞隔离线且与其它电源线或可能引起噪声的接线分开



NTC

使用热敏电阻时注意传感器的B值,NTC10K (B值默认3435);可在程序里面切换B值,详细参见编程手册



称重模块L02-2LC

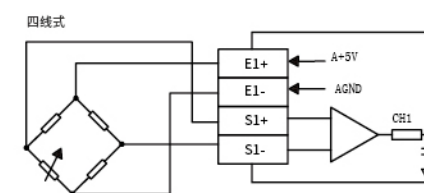


图6 模拟量接线图

L02 Series AIO Module User Manual

Thank you for purchasing Coolmay L02 series AIO modules. This manual mainly describes the product characteristics, general specifications and wiring methods of the module. For detailed usage, please refer to "Coolmay L02 Series PLC Programming Manual".

L02 series AIO modules have the following characteristics:

1. Used with Coolmay L02 series CPU, the address is automatically assigned.
2. Standard DIN rail (35mm wide) and snap-in installation, convenient installation and removal.
3. Using push-type terminals, convenient wiring.

◆ Product Structure

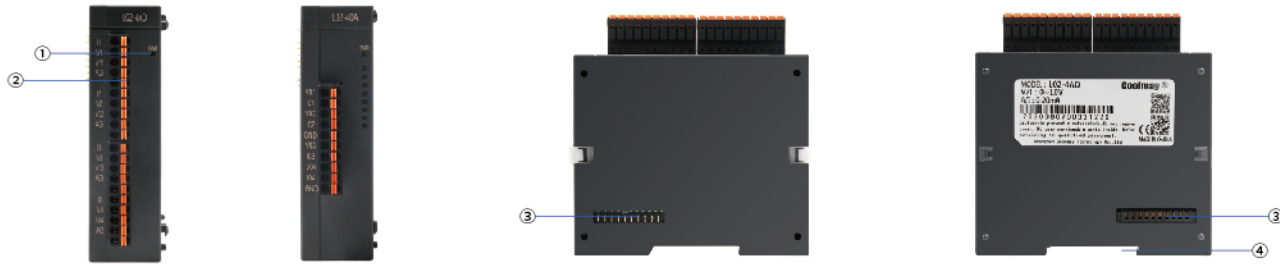


Figure 1 Product structure

1. PWR: power indicator
2. Analog input and output terminal block
3. Expansion interface
4. Standard DIN rail installation

◆ Hardware Port

Analog input module	Analog output module	Analog input/output module	Temperature analog module	Weighing module
I1 V1 W1 AG I2 V2 W2 AG I3 V3 W3 AG I4 V4 W4 AG	VO1 IO1 GND VO2 IO2 GND VO3 IO3 GND VO4 IO4 GND	I1 V1 W1 AG I2 V2 W2 AG I3 V3 W3 AG I4 V4 W4 AG GND	TA1 TB1 TC1 TA2 TB2 TC2 TA3 TB3 TC3 TA4 TB4 TC4	EI+ EI- S1+ S1- S2+ S2- S3+ S3- A B FG OV AV A1 A2 A3 B0 B1
4 point	4 point	4/2 point	4 point	2 point
Analog input/ Current and voltage	Analog output/ Current and voltage	Analog input/output Current and voltage	Temperature sensor/ PT100	Weighing module
L02-4AD	L02-4DA	L02-4AD2DA	L02-4RTD	L02-2LC

Figure 2 AIO module

A/O Module size

L02-4AD, L02-4DA, L02-4AD2DA
L02-4RTD, L02-4TC, L02-2LC

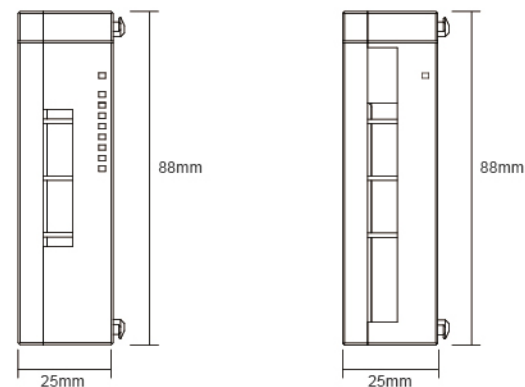


Figure 3 Dimensions of AIO module

◆ Installation Notes

Snap-in buckle installation method

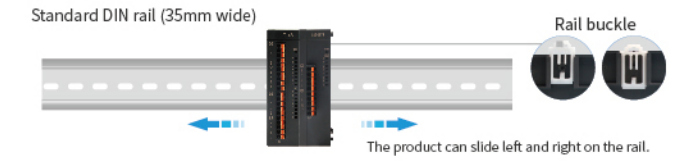
Open the white buckle, align the expansion interface and push the module directly in, press the white buckle at both ends to complete the installation.



Figure 4 Snap-in buckle installation

Rail installation method

The CPU module and each expansion module can be directly installed on the standard rail DIN35mm without a backplane; the product can be directly locked on the rail by pressing the rail buckle...



Put the module into the rail card slot, press the rail buckle to complete the installation.

Figure 5 Rail installation

◆ Analog Wiring

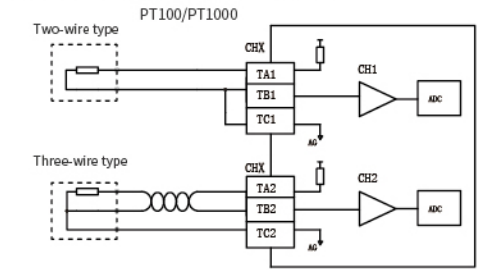
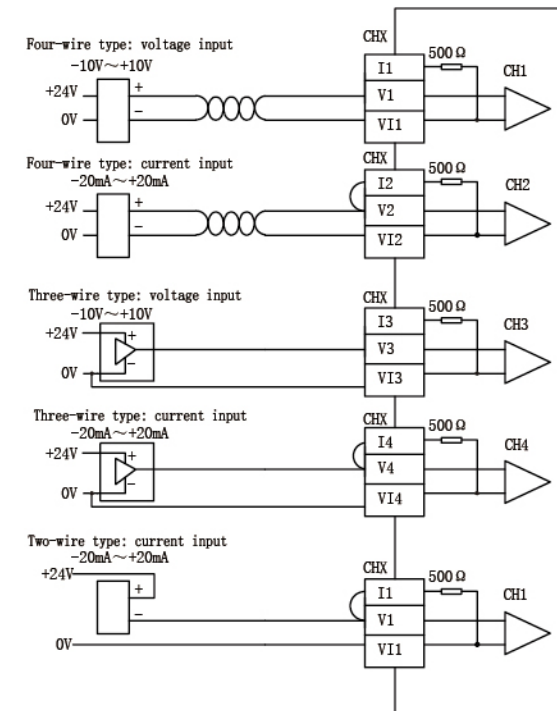
The L02 series analog modules have the following wiring methods. Please do not wire the empty terminals.

Current and voltage

1. Please use insulated wires for analog input/output signals and separate them from other power cables.
2. If the current signal is connected, the Vn and In (n=1~4) terminals must be short-circuited.

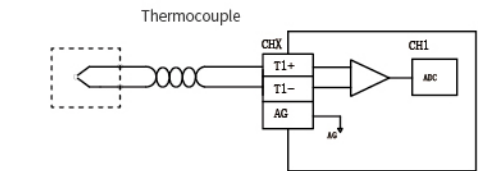
RTD

1. Use insulated twisted-pair wires to reduce interference. Be careful to keep them away from other power cables or wires that may cause noise.
2. When using 2-wire temperature sensor, please short-circuit TA_n and TB_n (n=1~4).
Note: The length of the three-wire type wire must be equal, the single wire length is less than 200m and the single wire resistance is less than 20ohm.



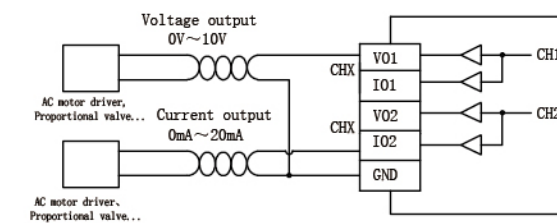
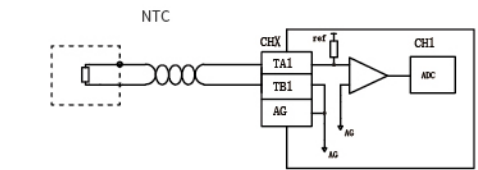
TC

Use J, K, S, T, E type thermocouple temperature sensor connection wires or insulated twisted-pair wires, and separate them from other power cables or wires that may cause noise.



NTC

When using thermistor, pay attention to the B value of the sensor, NTC10K (B value defaults to 3435); The B value can be switched in the program, please refer to the programming manual for details.



Weighing module L02-2LC

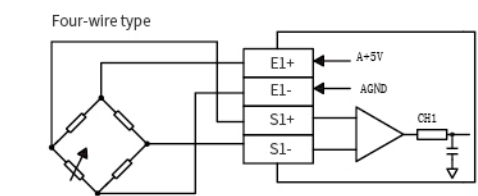


Figure 6 Analog wiring diagram