Coolmay®
Automation Expert

# 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 buckle installation, convenient installation and removal.
3. Using push-type terminals, convenient wiring.

## ◆ Product Structure

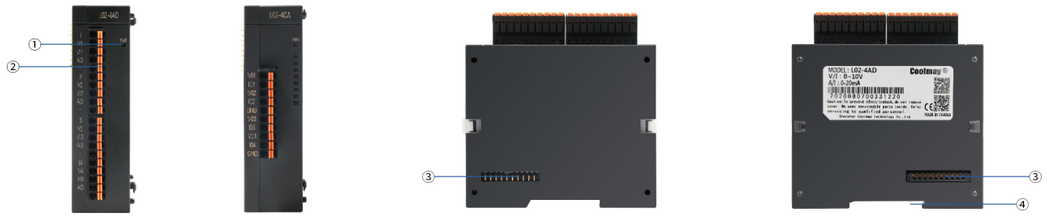
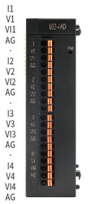



Figure 1 Product structure

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

## ◆ Hardware Port

Analog input module



| 4 point |
|---|
| Analog input/ Current and voltage |
| L02-4AD |

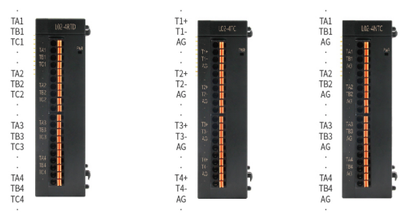
Analog output module

| 4 point |
|---|
| Analog output/ Current and voltage |
| L02-4DA |

Analog input/ output module

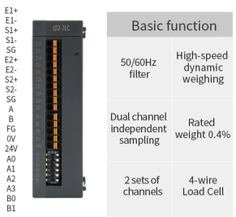
| 4/2 point |
|---|
| Analog input/output Current and voltage |
| L02-4AD2DA |

Temperature analog module



| 4 point | 4 point | 4 point |
|---|---|---|
| Temperature sensor/ PT100/PT1000 | Temperature sensor/ Thermocouple | Temperature sensor/ NTC10K/NTC50K/NTC100K |
| L02-4RTD | L02-4TC | L02-4NTC |

Weighing module



| Basic function | |
|---|---|
| 50/60Hz filter | High-speed dynamic weighing |
| Dual channel independent sampling | Rated weight 0.4% |
| 2 sets of channels | 4-wire Load Cell |

| 2 point |
|---|
| Weighing module |
| L02-2LC |

Figure 2 AIO module

### A/O Module size

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

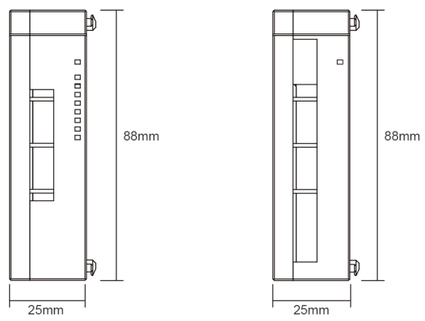



Figure 3 Dimensions of AIO module

## ◆ Installation Notes

### Snap-in buckle installation method

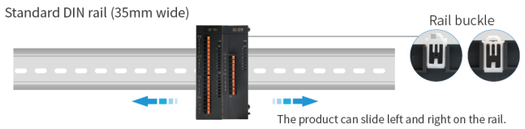
Open the white buckle, align the expansion interface and push the module directly in, press the white buckle at both ends to complete the installation.

Arrange the modules neatly　Push modules　Press the buckle

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.

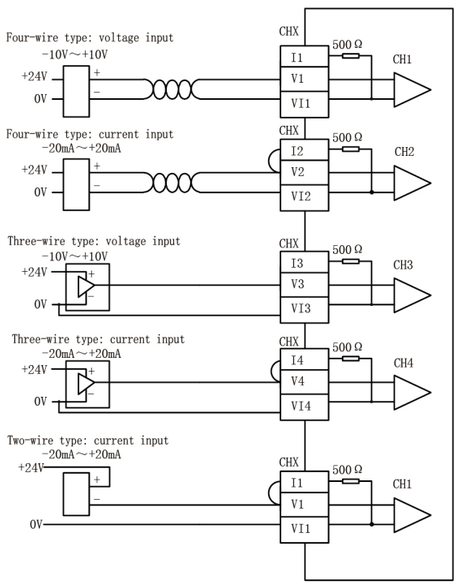
Figure 5 Rail installation

## ◆ Analog Wiring

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

### Current and voltage

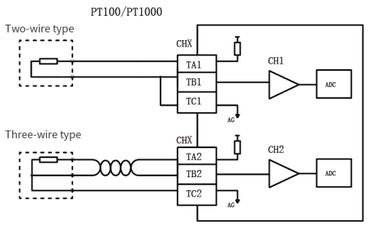
1. Please use insulated wires for analog input/output signals and separate them from other power cables.
2. If the current signal is connected, the Vn and In (n=1~4) terminals must be short-circuited.




### RTD

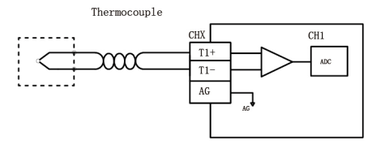
1. Use insulated twisted-pair wires to reduce interference. Be careful to keep them away from other power cables or wires that may cause noise.
2. When using 2-wire temperature sensor, please short-circuit TAn and TBn (n=1~4).

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

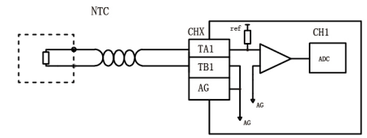
Use J, K, S, T, E type thermocouple temperature sensor connection wires or insulated twisted-pair wires, and separate them from other power cables or wires that may cause noise.




### NTC

When using thermistor, pay attention to the B value of the sensor, NTC 50K/100K (B value defaults to 3950), NTC10K (B value defaults to 3950);

The B value can be switched in the program, please refer to the programming manual for details.




### Weighing module L02-2LC

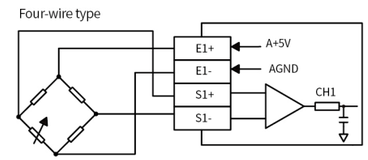



Figure 6 Analog wiring diagram