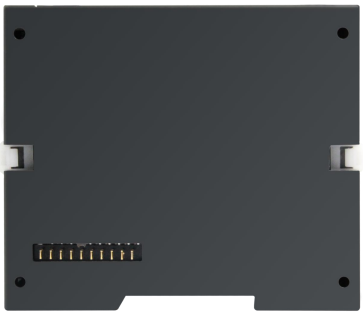
L02-2LC Weighing Module Instruction

Shenzhen Coolmay Technology Co., Ltd.

V20.121

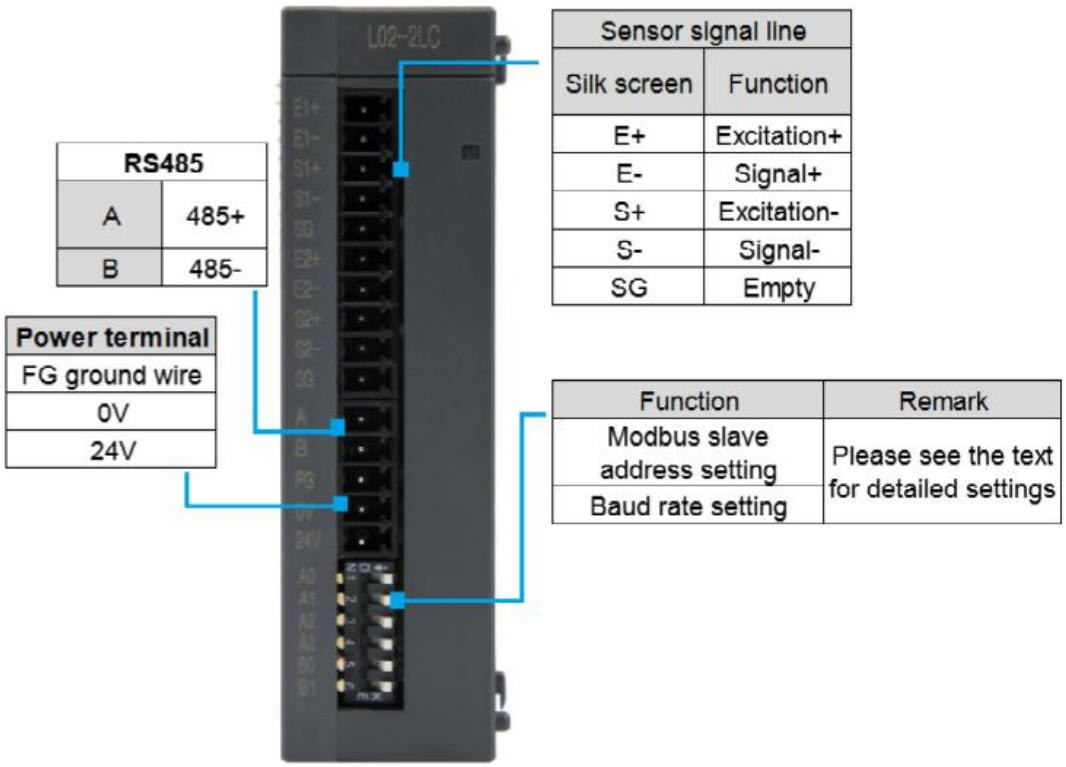
Catalog

Ⅰ. Product appearance

Stereogram	
Front view	
Left side view	
Right side view	

Ⅱ. Hardware introduction

2.1. Introduction of the front interface



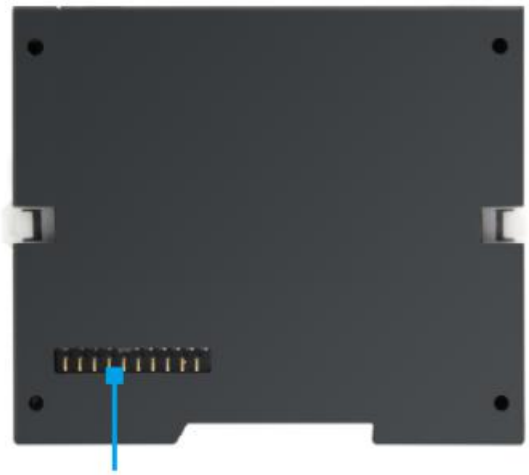
RS485	
A	485+
B	485-

Power terminal
FG ground wire
0V
24V

Sensor signal line	
Silk screen	Function
E+	Excitation+
E-	Signal+
S+	Excitation-
S-	Signal-
SG	Empty

Function	Remark
Modbus slave address setting	Please see the text for detailed settings
Baud rate setting	

2.2. Introduction of the left interface



When communicating with L02 series products, the left communication interface

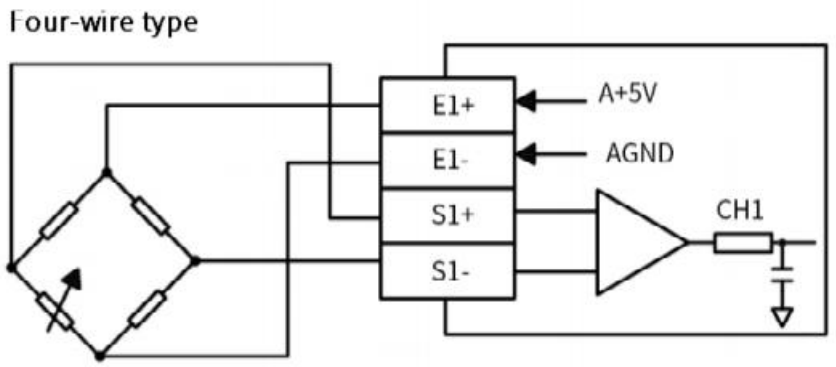
2.3. Introduction of the right interface

When communicating with L02 series products, the right communication interface

Ⅲ. Introduction of communication parameter and wiring

3.1. Sensor wiring

Sensor signal line	
Silk screen	Function
E+	Excitation+
E-	Signal+
S+	Excitation-
S-	Signal-
SG	Empty



3.2. Modbus address setting A3-A0

This weighing module can be used in two ways, it can be used with the L02 host, or it can be used with other products.

3.2.1. Use with L02 host

When this weighing module is used with the L02 host, its power cord, 485 communication line, Modbus address and baud rate are all internally powered and communicated with the L02 host. Therefore, the ports whose silk screen is A\B\FG\0V\24V\A0-A3\B0-B1 do not need to be wired.

When used with the L02 host, the reading method of the weighing module data is the same as that of the L02 series analog module. The D8055 register self-identifies the number of analog input words (ie the number of analog channels), and the address is automatically assigned in sequence by the L02 host. The read value of the extension register is shown in the table below.

Number	Register value
AD0	R23700
AD1	R23701
AD2	R23702
AD3	R23703
...	...
AD49	R23749

Special attention: The reading of weighing analog input is 32 bits, so each weighing occupies two registers.

For example:

If L02M32R+L02-2LC is used, the two input weighing data of L02-2LC will be read in R23700 and R23702.

If L02M32R+L02-4AD+L02-2LC is used, the two input weighing data of L02-2LC will be read in R23704 and R23706.

Before using with the L02 host, you need to use [L02-2LC weighing module parameter setting software] to set the module's weighing coefficient. Refer to section IV of this manual for the setting steps of software usage.

3.2.2. Use with other products through RS-485 communication

When used with other products, the load cell line, 485 signal line, and 24V power line of this module need external wiring. Modbus address and baud rate need to be set by dial switch. The silk screen explanation of this weighing module is shown in the table below.

Silk screen	Function	Remark
E1+	Excitation+	The first weighing sensor signal line
E1-	Excitation-	
S1+	Signal+	
S1-	Signal-	
SG	Shield/Empty	
E2+	Excitation+	The second weighing sensor signal line
E2-	Excitation-	
S2+	Signal+	
S2-	Signal-	
SG	Shield/Empty	
A	485+	RS485 communication route
B	485-	
FG	24V power ground wire, optional	DC24V power supply
0V	0V power cord	
24V	24V power cord	
A0	Modbus address setting switch	See the following table for detailed settings
A1		
A2		
A3		
B0	Baud rate setting switch	See the following table for detailed settings
B1		

Modbus address setting: Dip switch A0-A3 is the address setting dial code, as shown in the table below.

A3A2A1A0	Modbus slave address
0000	1
0001	2
0010	3
0011	4
0100	5
0101	6
0110	7
0111	8
1000	9
1001	10
1010	11
1011	12

1100	13
1101	14
1110	15
1111	16

Baud rate setting: Dip switch B0-B1 is the baud rate setting dial code, as shown in the table below.

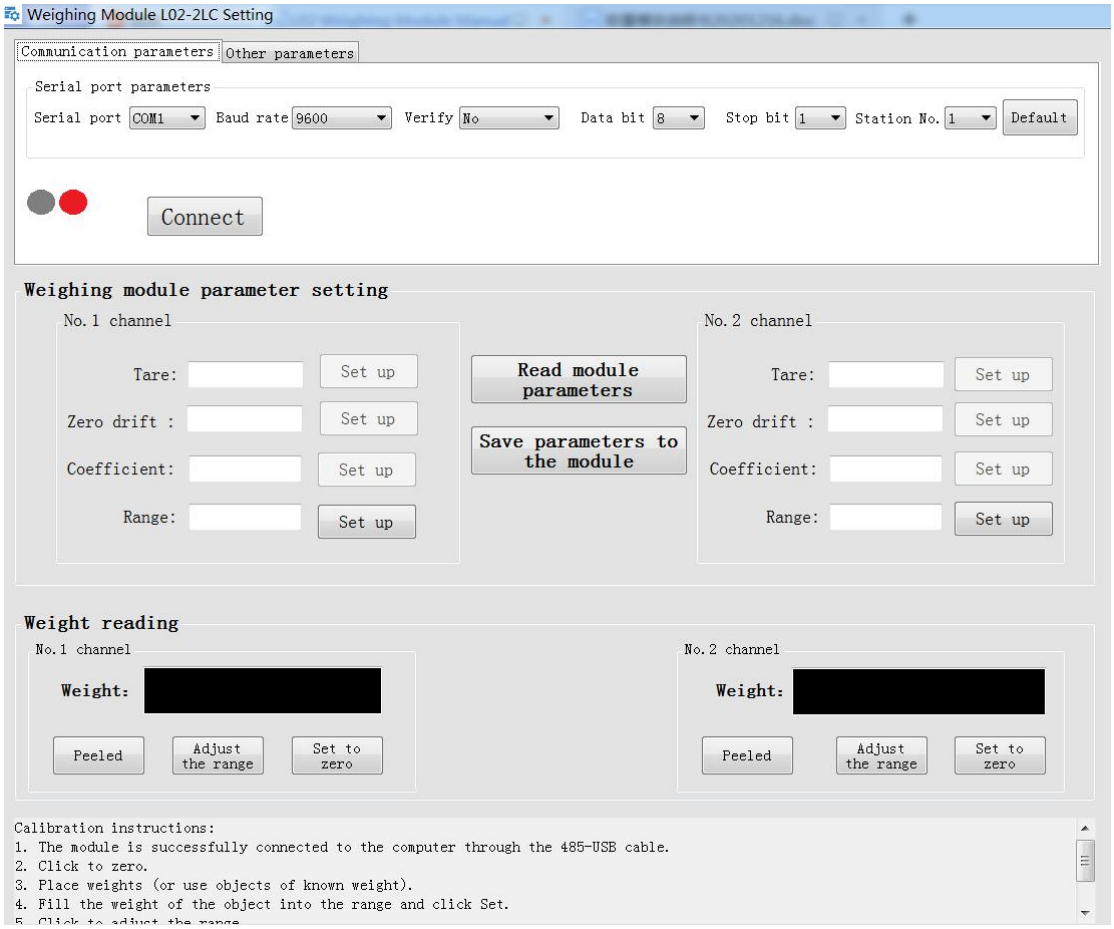
B1B0	**Baud rate**
00	9600
01	19200
10	38400
11	115200

Parameter read

Parameter address	**Location**	**Function description**	**Remark**
4x90-91	First channel	Tare weight (32 bits)	Each power-on=0
4x92-93	Second channel		Each power-on=0
4x100	First channel	coefficient	Power off retention
4x101	Second channel		Power off retention
4x104-105	First channel	Zero drift correction (32 bit)	Power off retention
4x106-107	Second channel		Power off retention
4x110-111	First channel	Range (32 bits)	Power off retention
4x112-113	Second channel		Power off retention
4x280-281	First channel	Weight (32 bits)	
4x282-283	Second channel		
0x303	First channel	Mark zero	OFF->ON
0x304	Second channel		
0x305	First channel	Adjust the range	OFF->ON
0x306	Second channel		
0x307	First channel	Peeled	OFF->ON
0x308	Second channel		
0X300	First and second two-channel	When OFF->ON, save 4x100-4x107 data to the module	

Ⅳ. L02-2LC weighing module parameter setting software

This setting software is only for weighing coefficient setting, so package installation is not carried out. Double-click to open the executable file L02-2LC, the setting interface is shown in the figure below：



Setting steps:

1. Connect 2LC to the computer via RS485;

2. Connect the signal line of the load cell to the corresponding E+E-S+S- of 2LC;

3. Set the module A3-A0 Modbus slave address and B1B0 baud rate, refer to chapter 3.2 for the introduction of slave address and baud rate;

4. Power on the module;

5. Click the [Connect] button to connect the computer and 2LC. When the connection is successful, the button is displayed as [Connected], and the two indicator lights on the left are flashing;

6. At the corresponding sensor channel, click the [Set to Zero] button to make the sensor reading of the corresponding channel 0;

7. Put the weighing code or material of known weight on the load cell;

8. Fill in the weight of the item in the [Range] (don't fill in the unit);

9. Click the [Set up] button to write the range parameters into the module;

10. Click the [Adjust the range] button, and the module will calculate the weighing coefficient of the load cell;

11. Click the [Save parameters to module] button. At this time, the range, coefficient and other information have been saved in the module;

12. The setting is complete.

The module can be used with a load cell. When communicating with a non-L02 host, please refer to chapter 3.2.2 for data reading.

If the module is connected to the L02 host, you can directly read the data in the corresponding R register when weighing. Refer to chapter 3.2.1 for detailed registers.