

## B103B-12T

# contionous dosing machine (F01-B meter version applies) Instruction manual

杰・曼・科・技 Ver A2

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Company website http://www.gmweighing.com/

## 1. An overview

B103b-12t is a kind of dynamic batching control of granualr material distribution scale, by controlling the feeding door, discharging door, discharge door for high-speed quantitative weighing and accurate flow control;Servo motor feeding, high-speed electric push rod control of the discharge door, so as to achieve customer demand flow.

#### 1.1 Product parameters, functions and characteristics

#### 1.1.1 Product parameters

specifications	B103B-12T
Electrical source	AC220V±10%, 50/60Hz, 500W
The quantitative range	0.3 ~ 12 t/h
The weighing accuracy	≤ 0.5% (* Note)
Weighing speed	Maximum 12T /h (* note)
Metering bucket volume	15L
Ultimate load	Instantaneous ultimate load shall not exceed 20kg
Working temperature	In 0 ~ 40 DHS C
Maximum humidity	90% R.H No condensation
Gas source	0.4 ~ 0.6 MPa

\* Note: The precision and speed of rice distribution scale will fluctuate under the influence of materials, feeding and other environmental factors. The accuracy and speed are the test data of round grain rice used in the test line of our company.

#### 1.1.2 Product features

1. Automatic quantitative metering function.

- 2.Support multi-flow segment self-adjustment (0.3-12T /h).
- 3. Automatic zero clearing, alarm function.
- 4. Automatic correction function of process control parameters.
- 5. Accumulator and count function.
- 6 uniform flow material function.

#### 1.1.3 Product features

- 1. Intelligent: only set the target flow rate and the total amount of material, the equipment will automatically adjust the appropriate parameters in operation, so that the material outflow evenly.
- 2. Simple installation: standard external interface flange, fast installation.
- 3. Data export: built-in USB interface, data record export more convenient.
- 4. Simple operation: 7 inch touch screen, Chinese and English display.
- 5. Material: Contact material part adopts 304 stainless steel.
- 6. High speed and high precision quantitative ratio: servo motor drives the gate feeding (free blanking), electric push rod controls the discharge valve, which is fast and accurate.
- 7. The system has the characteristics of rapid and accurate weighing, stable and reliable flow performance, convenient operation, complete function and so on.

## 2. Precautions for safe use

#### 2.1 Safe operation

Before installing and using the product, you should read the product instruction carefully and have the professional debug the device.

#### 2.1.1 Basic Safety Instructions

- 1. The power supply complies with the requirements of this manual, and the grounding of the device complies with the requirements.
- 2. Before starting cleaning, maintenance and repair, turn off the power and air source.
- 3. Only use cleaners that do no damage to mechanical and electrical equipment.
- 4. The mounting frame connected with this product should be firm and firm.
- 5. Please cut off the power and air source when installing the metering bucket.
- 6. Metering bucket, parts connected with the sensor and sensor are not allowed to knock, overload and other damage to the sensor behavior.
- 7. The equipment is not allowed to extend any part of the body into the equipment in the process of use, and the scale body door has been installed firmly before use.
- 8. Machines that pack materials harmful to human body should be cleaned after using special protective tools according to the existing regulations of the country where the machine is operated. For details, please contact the relevant local authority.

#### 2.1.2 Operating Safety Instructions

- 1. To avoid dangerous accidents, only one person is allowed to operate the machine. Multiple people are not allowed to operate the machine at the same time.
- 2. The machine can only be operated by people who have received formal training.
- 3. Before running the machine, the operator (or whoever is responsible for operating the machine) must read and fully understand the operation instructions, especially the safety instructions and safety regulations.
- 4. Before running the machine, the operator must check that the scales are working properly and that the fixing and appearance of the machine are in order.



- 5. In case of danger, please immediately click the "emergency stop" button on the main interface or immediately disconnect the main power supply.
- For electrical and electronic systems, it is not allowed to modify, replace or carry out any other non-standard operations without permission; Any modification or modification must be carried out by General Measure Technology.
- 7. When maintaining the equipment, especially when entering the packing area, it is necessary to wear protective devices such as hard hats.
- 8. Tread carefully when maintaining the platform up and down.

## 3. Product installation and transportation protection



#### 3.1 Product overall appearance and organization introduction

This product is mainly for granular materials for quantitative proportioning, the material is entered by the feeding port, the quantitative process includes feeding control, weighing type quantitative, discharge control and discharge control, the final material by the discharge door according to the specified flow rate of uniform outflow. The control system of the equipment can automatically correct the process parameters according to the different material and measurement range, reducing the complexity of debugging and maintenance of the equipment, and facilitating the use of supporting customers. When in use, the air source access terminal of 0.4~0.6MPa is required. The power supply and signal communication and control ports (such as serial port connection, USB connection and I/O control port) are located in the electric control box.

#### Lifting ring: used for hoisting when the device is installed.

Feed inlet: the material to be weighed enters the scale body from here.

Servo motor and reducer: drive the feeding gate action, can make the feeding gate open at different angles, forming different feeding speed.

Photoelectric code plate: used for gate closing position and opening to the limit position of the test.

Main electric control box: inside the main control board, driver, power supply, collection measurement bucket weight, output control signal.

Side electric control box: inside the feeding controller, vibration plate, solenoid valve, relay.

Lower electric control box: inside step driver, M02 instrument, switching power supply.

The frame of the scale body: the outer frame, the upper and lower flange interfaces and the upper and lower stages are connected.

Hopper: Material unloaded from the loading and unloading hopper.

Discharge door: stepper motor controls the opening of the discharge door, thus controlling the flow rate of the material.

3.2 The installation conditions

3.2.1 Equipment installation base, installation conditions

- 1. Temperature: -10~40°C.
- 2. Humidity: not more than 90%R.H.
- 3. Power supply: AC110~260V, 50Hz/60Hz, about 500W.
- 4. Air source: 0.4~ 0.6mpa.
- 5. Installation plane: horizontal solid steel support frame.
- 6. Static electricity: Ensure that the device is reliably grounded.

7. Harmful waves: Keep away from the source of strong harmful waves such as wireless devices.

- 8. Electrical and gas technical parameters are in line with and in place
- 3.3 Unpack and check
  - 3.3.1 The crates



Read this manual carefully before unpacking.

1. Pay attention to the text and warning marks on the box before unpacking.

2. Before unpacking, check whether the box is seriously squeezed and deformed during transportation. If the damage is serious, consider whether the equipment is damaged.

3. Read the packing list before unpacking, and proofread it after unpacking to avoid omissions.

4. After unpacking, check whether the screws on the devices are loose.

5. Before assembling the device, check whether the metal hoses are intact.

6. After unpacking the whole machine, check whether the scales and moving parts are normal.

7. After the assembly and debugging of the unpacking machine, pay attention to whether the sealing of the part through which the material passes is reliable under the predetermined pressure. This check must be made before starting the machine.

#### 3.3.2 Spare parts for

1. Accessories: side panel opening key, packing list, invoice, product manual and quality certificate.

2. Unpack and check whether the accessories are complete and the device package is intact.

3. The original of General Measure Technology Company must be used.

4. The company is not responsible for any loss caused by the use of other parts.

If you have any problem, please contact us in time.

#### 3.4 Product packaging and transportation protection

#### 3.4.1 Product packaging requirements

1 Single, double machine two kinds of packing box.

2 Adopts wooden box packing, can be stacked in two layers, GB/T4857.3 transport package basic test, static load stacking test method.

3 Meet the vibration resistance requirements of long-distance highway transportation, GB/T4857.7 transport packaging basic test, sinusoidal vibration (fixed frequency) test method.



#### 3.4.2 Transport protection



- 1. Before transportation, install and secure the two protection plates and transportation protection screws shown in limits 1 and 2 on the drawing.(Transportation protection screw: prevent damage caused by automatic opening of the unloading door during transportation.)
- 2. The lower flange of the equipment shall be fixed with nuts to the transport wooden box
- 3. Wrap the membrane around the surface of the equipment

#### 3.4.3 Remove transport limit protection

After the equipment is unpacked and checked, remove the transportation protection plate and the transportation protection screw at the two positions of limit 1 and limit 2 as shown in the figure, and put the transportation protection plate and screw away for transportation.

## 3.4.4 Requirements for installation and maintenance of the equipment

1. The operator must accept the company's skills training and safety education, and hold a license.

2. The person responsible for operating the machine must read and fully understand this operation manual.

3.Operators must wear short hair or long hair up, clothing and shoes and hats should be easy to work.Safety helmet and insulated shoes must be worn during testing or maintenance.



4.Operators must strictly follow the operating procedures and steps specified in the user manual.

5.Before the equipment lubrication, mechanical adjustment, maintenance and repair, it is necessary to cut off the power supply, turn off the air source, release the residual pressure in the pneumatic pipeline, and hang warning signs at the electric control cabinet, power switch and air source valve.

6.The maintenance and repair of the air pressure system must be carried out in the state of cutting off the power and completely relieving the pressure.

7.Do not operate the production line before all the safety protection facilities of the production line are in place.

8.Do not touch the moving parts of the device after it is energized.

9.Do not enter hazardous areas or cross the line while the line is in operation.

10.Do not modify the control cabinet wiring, motherboard program, drive setting parameters.

11. The installation tool is reliable and safe, and the person operating the tool understands and appreciates all the safety requirements of the tool

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## 4. Product size

Product size unit: MM

#### 4.1 Overall dimensions



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## 5. Electrical connections

### 5.1 Air supply connection



Air source inlet  $\varphi$ 8 air pipe, air source standard: 0.4~ 0.6mpa.

#### 5.2 Electrical connections





#### 5.2.1 External interface definition

- 1: power cable port, 24V power port of the meter (24V+, 24V-).
- 2: motor control port 1, (M1\_24V+ : 24V positive, M1\_24V- : 24V negative, PU1: pulse, DR1: direction, ZT1\_1: origin detection input, ZT1\_2: feeding door opening limit), can also be used as ordinary IO port, currently used as feeding motor control.
- 3: motor control port 2, (M2\_24V+ : 24V positive, M2\_24V- : 24V negative, PU2: pulse, DR2: direction, ZT2\_1: discharge electric mechanism in place, ZT2\_2: undefined), can also be used as an ordinary IO port, the current use to make material motor control.
- 4: sensor wire port, sensor wiring port (SHLD, EX+, EX-, SN+, SN-, SIG+, SIG-).
- 5: RS485 serial communication port. Serial port 1 (A1, B1, GND1) is generally used for local HMI communication, and serial port 2 (A2, B2, GND2) has been used for M02 instrument communication.
- 6: RS485 serial communication port, serial port three (A3, B3, GND3), can be used for host computer communication, support Modbus communication.
- 7: input port, 8 can be customized switch input interface (IN1, IN2, IN3, IN4, IN5, IN6, IN7, IN8), for low level effective, IN3 is set as emergency stop, IN4 is defined as servo alarm input. The definition of all other ports can be selected by yourself.
- 8: Output port, 8 customizable switch quantity output interface (OUT1, OUT 2, OUT 3, OUT 4, OUT5, OUT 6, OUT 7, OUT 8), in which OUT5 is set to discharge, the definition of all other ports can be selected.

USB: USB interface can carry out a variety of data import and export.

LAN: Network port for networking and data transfer.

lo-24v: Internal use.

#### 5.2.2 Wiring instructions for switch quantity interface



Diagram of switch gauge interface

Switching quantity adopts photoelectric isolation mode. If users need to use the switching interface, they need to provide and access the DC24V power supply. The switching quantity input is valid at low level; Output adopts transistor collector open-circuit output mode, each drive current up to 500mA.





Schematic diagram of input interface



Output interface schematic



Schematic diagram of user input and output port wiring



## 6. Touch screen operation instructions

#### 6.1Login screen

User Login		0.00 stop → 0.00 t/h	2022-09-26 11:39:44 User: NON >
		General Measure Co. Ltd. B103B-12T Serov Rice Balance Scale	
选择 Select La 中文 Chinese	语言: anguage: English 英文	Login	
		Support Hotline: (+8	36)0000-00000000

**Parameter description: After boot before login interface.** The display information can be customized in the system information page, and automatic login can be set in the user interface.



#### 6.2Touch screen login permission description

		4 3
User Login	01# 5	0 00 STOP 2022-09-26 11:40:57
8	& User login	× User: NON >
	2 Admin	User password:
	Operator01	Logout way.  Online timeout  Idle timeout
	Derator02	Online time: 0 Minutes
洪探道	1 Operator03	User description:
Select Lan	1 Engineer	Admin,Initial password="0"
<b>中</b> 文	2 Reserved	USB login Login Cancel
Chinese		Caller
		Support Hatling: (186)0000 0000000

#### **Parameter Description:**

- 1: Login information, showing the level of the currently logged in user.
- 2: System date and time, the date and time of the current system.
- 3: device working status, current device status indication.
- 4: weight display area, showing the current weight and weight unit, if the weight overflow or sensor overflow, there will be text prompt in this area, such as: "weight positive overflow", "weight negative overflow", etc.
- 5: Log in to the user selection area and display all the current selectable users.

6: User password input box, select the user account and enter the corresponding user password

The user name	The user	password	permissions
Admin	The administrator	0	Do not: calibrate scale/switch



			quantity/motor
			parameters, etc
Operator01	01 operators	1	Do not: calibration
Operator02	The operator.	2	scale/switch/motor
	<b>T</b> I ( 00		parameters/system
	The operator 03	3	,
Operator03			information and other
			Settings.
Engineer	The engineer	Obtain the password	Unlimited operation
		from the manufacturer	
Reserved	keen	No action for the user	No action for the user
T Cool veu			

**6.3Home Screen Instructions** 



#### **Parameter Description:**

- 1. Identification box ① indicates the number of the current device (scale number) :
- 2. Logo box ② Communication status: When the communication is normal, the icon is green.

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**3.** Logo box ③ shows formula, material number and work order.

4. The upper part of the identification frame is the weight display of the feed hopper, and the lower part is the weight display of the discharge hopper.

5. ⑤ Main function key area: including work order, setting, data, user, linkage, start and stop,

etc

The key.

- 6. Identifier box (6) System time area: Used to display the system time.
- 7. Identifier box ⑦ Current user information: display the current login user ID.
- 8. Identifier box (8) Traffic display area: used to display the current traffic.
- 9. Logo box (9) Current Status display area: displays the current working status.
- 10. Logos box (1) Level display area: Displays the current level.
- 11. Shortcut parameter setting area of the marker box: you can quickly set parameters closely related to the running of the meter.

After clicking on the parameters, the current dialog box will be displayed in the upper left corner

Set the name of the parameter.

12. Identifier Box (12) Recipe information display area: You can view the total amount of current tasks and current traffic, task workers

Total time spent on tasks.

#### 6.4Parameter setting interface description

Setti	ng OME	01# 도급		0.00 stop 2022-09-26 11:43 User: Reserve	8:36 ed <b>&gt;</b>
	Work Paramete Zeroing,digital f	r <b>s</b> ilter, stable judgment	>	Communication Para. Protocol, baud rate, format	>
1	Recipe Parame Target, Reserve	<b>ter</b> s,Steps	>	History Data Query, export, clear data	>
<u>کظر</u>	Calibration Range, Weight	calibration	>	Auto Setting Process parameter self-learning	>
	I/O Define,Test		>	A User Management Password modification, logout	>
•	Control Parame Frequency, Do	<b>ters</b> or Opening	>	i System Information Version, Backup, Upgrade	>

#### Parameter description:

- Working parameters: the basic parameters of this product can be set, such as clearing range, clearing time, unloading mode and so on.
- Communication parameters: the communication parameters of this product can be set. The serial port 1 is used to communicate with its own touch screen, the parameters can not be modified, but can be adjusted automatically through the serial port; The serial port 2 can be used as an external serial communication interface, and the communication parameters can be set by themselves, but they should be unified with the communication device (see 6.10 Communication interface description for details).
- Formula parameters: the current formula number can be modified, as well as the current formula parameter value modification, such as modification of the lead, the opening of the material door, unloading time, etc.
- Historical data: the historical data interface can query the previous packaging records, and the packaging record data can be exported to the U disk.
- Calibration scale: zero calibration, weight calibration, material calibration, and maximum range setting.
- Automatic scale adjustment: Can only set up the target and the scale number, click the start after adjustment scale button, the equipment is up and running, in setting the number of times to adjust the value of each schedule, after

completing the scale number, if meet the needs of users, the user can press the save button, will automatically adjust the data as the current formula value after the nc data, if give up, If abandoned, the debugging data will be restored to the factory default data.

On/off quantity: the user can define and set the input quantity and output quantity according to their own needs. The control board has 4 input and 6 output channels (see 6.8 Switch Quantity description for details).

User management: User rights can be switched.

Control parameters: the parameters of the feeding motor can be set.

System information: display the current touch screen software version and control board software version, also can use the USB flash drive to update the control board program (for details, see 6.14 USB flash drive upgrade instructions).

The user can also reset the parameters, the time and screen display related Settings. 6.5 Working parameter interface description

Work Para1	01# 또급	0.00 <sup>stop</sup> t/h	2022-09-26 14:52:40 User: Reserved >
Zeroing Range:	15 %	Stable range / time:	8 d   2.000 s
Auto Zero Interval:	2	Digital Filter (Running): Feed: 7	Wait: <u>3</u> Disc: <u>9</u>
Additional Clear Nums at start:	9	Digital filter level[STOP]:	9
Delay Time for Zeroing:	0.500 s	SUM When (M)Disc:	
Automatic Zero when powered on:		Result Holding:	
Zero Tracking Range / Time:	0 d 6.000 s	Self Adaption:	
Processing of Zeroing failure:	Waiting for stability >	Auto Setting/ Self Adaption Level:	Level2[balanced] >
	<b>〈</b> H(	OME	Next Page 🄰

Working Parameters 1 Figure



Work Para2	01# 	0.00 <sup>STOP</sup> t/h	2022-09-26 14:53:31 User: Reserved >
Disc mechanism Type:	Air-operated >	Disable Feeding When OFL:	
Disc Mode:	Near zero + delay >	Positive Deviation:	
Disc Delay Time:	9.999 s	Scale Work Mode:	Output Mode >
Disc Overtime:	9.000 s	Flux Control Mode:	Target Change >
Feed End Wait Mode:	Time Dealy >	Flow calculation Sampling times:	6
Wait Over Time:	5.0 s	Auto Clear SUM(When RecII or Work Mode Changed)	
Deal with Wait Over Time:	Alarm&Stop >	Input/Output SUM Must be Cle by Manual(when Started)	ear
Previous Page	<b>(</b> <u>H</u> (	OME	Next Page >

#### Working Parameter 2 figure

Work Para3	<b>1#</b> 3	0.00 <sup>stop</sup> t/h	2022-09-26 14:56:52 User: Reserved >
working Frequency of pushing rod of Disc. hopper:	0.0 kHz	PID_P:	0
start Frequency of pushing rod of Disc. hopper:	0.0 kHz	PID_I:	0
HI Weight of Disc. hopper:	0.000 kg	PID_D:	0
LO Weight of Disc. hopper:	0.000 kg	Clear Total and All Rec. accumulation	Clear Total accumulation
Initial steps of Disc. hopper	0	Clear c	urrent
Auto Stop When Lack Alarm		Rec. accu	
Scale Range Type :	<b>12T &gt;</b>	Clear Total &IN/OUT Accumulation	Clear IN/OUT Accumulation
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#### Working parameter 3 figure

#### Parameter description:

- (1) Clear range: Clear range (1% to 20% of full scale).
- (2) Automatic zeroing interval: in the process of operation, the device automatically zeroing after completing the set number of packets.

(3) Start additional zeroing times: after the equipment enters the running state, the second scale begins, continuous zeroing is performed before feeding, and the execution times are equal to the set value of this parameter. For example, start additional zeroing

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times for 2, then after the start, the second, three scales before feeding are zeroing.

(4) Zeroing additional delay: when the need for zeroing (whether automatic zeroing interval to or additional zeroing), zeroing before the completion of the equipment feeding delay + this delay after the start of zeroing operation.

(5) Automatic zero clearing on power: When the device is powered on, it automatically performs zero clearing operation.

(6) Zero tracking range/time: The zero tracking range is 0 to 9 days. If the value is 0, zero tracking is not performed. The zero tracking time can be set from 0.001 to 9.999.

(7) Automatic zeroing failure processing: processing methods after automatic zeroing failure, including: re-clearing the next packet, suspending the three-packet failure, continuing to wait for stability, and suspending immediately.

(8) Stability range/time: The stability range is optional from 0 to 99d. If the weight change within the stability time does not exceed the stability range, it is considered stable; otherwise, it is considered unstable.

(9) Operation filtering level: the filtering level used in the operation process, 0-9 level, is divided into feeding, fixed value and unloading three cases, the higher the value, the better the filtering effect, but the greater the lag.

(10) Stop filtering level: the filtering level used in the stop state, 0~9 level, the higher the value, the better the filtering effect, but the greater the lag.

(11) Manual unloading accumulation: when manual unloading, the packing weight is included in the accumulation.

(12) Fixed weight retention: after the end of the fixed value time, the weight display remains unchanged until the unloading is completed.

(13) Adaptive switch: If this switch is turned on during the operation of the equipment, the equipment will automatically adjust the scale according to the adaptive level.

(14) Adaptive & automatic scale adjustment level: it can be divided into five levels: zero level is the best speed, the first level is slightly better speed, the second level is balanced adjustment, the third level is slightly better accuracy, the fourth level is the best accuracy.

(15) Type of unloading mechanism: divided into pneumatic and electric, can be selected according to the specific structure of the equipment.

(16) Unloading mode: It is divided into two modes: time controlled unloading and zero zone delay unloading. The former is to close the unloading door when the unloading time is

to discharge, and the latter is to start the "delay after unloading to zero zone" when the delay time is to.

(17) Delay after unloading to zero zone: when the weight of the material reaches zero zone value, the delay time is used to close the unloading door.

(18) Unloading timeout time: If the unloading process exceeds the set time, the equipment will prompt the unloading timeout alarm information and automatically return to the stop state.

(19) Fixed value mode: It is divided into two modes: time fixed value and stable value.

(20) Fixed value timeout: If the fixed value is not completed within this time, it will enter the fixed value timeout processing.

(21) Fixed timeout processing: You can choose not to suspend the timeout alarm, pause the three packets alarm, continue to alarm and wait for stability, continue to alarm and pause.

(22) Overrange feeding protection: when opened, calculated from the calibration zero (plus the part cleared by zero), the weight is large

When it is equal to 1.2 times of the upper limit of the quantitative range, it will enter the state of over-range protection. This function can prevent the situation that the larger weight is cleared to 0 by zero cleaning, and the weight is shown to be small, but the actual feeding overflow occurs.

(23) Positive error mode: in the feeding process after opening, the error generated by the feeding result will be biased to positive value.

(24) Flow scale mode: delivery mode, receiving mode is optional.

(25) Flow scale control mode: target value switch, time control is optional.

(26) Flow window sampling length: 1 ~ 6 optional.

(27) When changing the formula or the delivery mode, the collection and delivery accumulative amount and total amount are automatically cleared: The default value is off.

(28) When starting, you must manually clear the collection and delivery accumulation: The default is off.

(29) Hopper push rod frequency: 1 ~ 25KHz optional.

(30) Hopper push rod start frequency: 10 ~ 25KHz optional.

(31) Hopper feeding level weight: 8 ~ 17KG optional, hopper loaded material upper limit;Out of the hopper

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After the material weight reaches the set feeding level value for a period of time, start to enlarge the hopper mouth.

(32) Hopper lower level weight: 0.5 ~ 17KG optional, hopper loaded material lower limit;Out of the hopper

After the material weight reaches the set discharging level value for a period of time, start to close the hopper mouth.

(33) Initial opening of hopper: 5000 ~ 45,000 optional.

(34) Automatic pause after lack of material alarm: it is closed by default, and the lack of material alarm will be suspended after opening.

(35) Scale specification: 12T.

(36) PID parameter \_P value: 10 ~ 1000 Optional.

(37) PID parameter \_I value: 10 to 1000 Optional.

(38) PID parameter \_D value: 10 to 1000 Optional.

(39) Clear Total Accumulations and all formulations accumulations: You can clear total accumulations and all formulations accumulations

(40) Clear Total Accumulations: Clear total accumulations.

(41) Clear Current Cumulative: Can clear the current cumulative.

(42) Clear Total Accumulator and collection and Delivery accumulator: You can clear total accumulator and collection and delivery accumulator

(43) Clear Collection and Delivery Accumulator: The collection and delivery accumulator can be cleared



#### 6.6Recipe parameter interface description

Rec. Para1	# 2	0.00 stop 2022-09-26 t/h User: R			':41 ed <b>&gt;</b>
Target:	5.000kg	Recipe ID:		02	>
Fast Remains:	1.200kg	Fast Steps:	6123		
Middle Reserve:	Need to be Zero	Middle Steps:	4123	Feeding StepMotor Steps Tab	>
Slow Reserve:	Need to be Zero	Slow Steps:	1123		
Disc Mode: [for All Recipe]	Near zero + delay »	Recipe Own Steps Para			🕂
Disc Delay Time: [for All Recipe]	9.999s	Waitting Time:		0.612	2 <mark>s</mark>
Near zero value:	0.235kg	Before Feeding time[T1]	-	0.300	S
	<b>८</b> मा	DME_	Next	Page 💙	

**Recipe Parameters 1 Figure** 

Rec. Para2	01# 도급		0.00 <sup>stop</sup> t/h	2022-09-26 14:58:35 User: Reserved >
Flow Control:				
Flux Target:		63.00 t/h		
Max Flux:		63.00 t/h		
Flux Low Alarm:				
Trigger times of Flux Low Alarm:		99		
Auto Adjust When Flux Low:				
Disc. Interval Time: (Target Change Mode)		5.000 s		
Previous Page		<b>К</b> <u>Н</u> (	OME	

**Recipe Parameter 2 figure** 

#### **Description of Parameters:**

- (1) Target value: Weight to be quantified.
- (2) Quick add advance: in the quantification process, if the weight value  $\geq$  the target value
- quick add advance, then close the quick add.
  - (3) Add advance: in the quantitative process, if the weighing value is  $\geq$  the target value -

GENERAL MEASURE

add advance, then close the add.

(4) Drop value: in the quantitative process, if the weighing value is greater than or equal to the target value - drop value, the slow addition will be closed.

(5) Unloading mode: time controlled unloading or zero zone delay unloading can be selected.

(6) Discharge delay time: the discharge signal is output after the delay time.

(7) Zero zone value: in the quantitative process, if the weighing value is less than or equal to zero zone value, the unloading delay timer will be started.

(8) Formula No. : The number of the current formula.

(9) Fast opening: the opening of the feeding door when the material is fast adding.

(10) Medium opening: the opening of the feeding door when the material is added.

(11) Slow opening: the opening of the feeding door when the material is slowly added.

(12) Formula independent opening: if this switch is open, the independent opening of this formula is used, otherwise the opening under the opening table.

(13) Set time: the time to determine the weight after the completion of feeding.

(14) Delay T1 before feeding: at the beginning of the quantitative process, after the delay T1 time, the feeding process begins;

(15) Flow control: the default is on, and the mode is rice mixing.

(16) Target Flow: Sets the current target flow.

(17) Maximum traffic: The maximum amount of traffic the device can receive while it is running.

(18) Insufficient flow alarm switch: displays alarm information when insufficient flow occurs.

(19) Insufficient flow alarm statistics: the number of alarms caused by insufficient flow.

(20) Automatic adjustment after insufficient flow: automatic adjustment after opening.

(21) Fixed discharge interval: 2 ~ 10S optional



#### 6.7Calibration scale interface description



#### Parameters that

- (1) Unit: Fixed in kg
- (2) Minimum fractions: 1 2 5 10 20 50 Optional.

(3) Over range display: There are three options, namely, the device displays a weight overflow when the current weight is greater than: maximum range + 9D, maximum range x 120%, and maximum range x 150%.

(4) Number of decimal points: fixed at 0.000, that is, three decimal places.

(5) Maximum range: Maximum range of the device (it is recommended not to set more than 20.00kg).

(6) Real-time weight of bucket: Real-time display of the weight of the material into the bucket.

#### 6.8Weight calibration scale step

1. Zero point calibration: empty the hopper and close the unloading door. When the weight is stable, click "zero calibration". During the calibration process, the weight display area above will show the calibration result, and it will show stability after successful calibration.

2. Gain calibration: Add a weight to the weighing mechanism. After the weight is stable, click the weight input box of the weight. After successful calibration, the weight displayed in



the weight display area is the weight of the input weight. Otherwise, the gain calibration fails. Try again.

6.9Material calibration steps

Calibration with materials 〈 Parameters Setting	01# 	2022-09-26 15:01:14 User: Reserved >		
Step1: Empty the scale bucket and w to stabilize. Click "zero calibra The indication should return to	rait for the MV value tion" 9 zero	►<12.000 n	nV	Zero Calibration
Step2: Click "automatic feeding" [by targ Start charging. (please make sure before automatic charging,The we it may be filled with overflow, etc.) is stable, click "record weight" to Bag clamping and unloading. Wei the weight of the double scale (pa	et value] or "(M)Fast" [by time], the weight has been calibrated ight is roughly accurate, otherwise Wait until the weight indication save the current displayed value gh on the standard scale to obtain y attention to peeling)	Target: 5.000 kg Auto Feeding UnFeeding (M)Feeding TIME: 1.0 s	Current Weight: 29.627 kg Save the weight	DISC
Step3: Input the weight of the weigher, cli and the controller will automatical calibration as the weight of the sc	ck "material calibration", ly Record the weight ale.	Standard Weight:	3.000 kg	Calibration with materials
✓ Weight Calibrat	ion <b>〈</b> <u>H</u>	OME		

1. Zero calibration: the method is the same as the zero calibration of the weight calibration scale.

2, gain calibration:

A, use "automatic feeding" (automatically run a scale according to the current formula target value) or "manual feeding" (click once to open quick feeding, click again to close quick feeding), stop feeding and wait for the weight to stabilize, click "record weight" to save the current display value.

B, will be prepared in advance of the bag or container as the discharge port, click "manual discharge", the material in the hopper into the bag or container, the material in the bag or container weigh (pay attention to remove the weight of the bag or container).

C. Click the "Balance Weight" input box, enter the material weight obtained by the balance and click "Material Calibration" for calibration. Wait for the calibration to be successful, if not, try Step C again. After successful weight calibration is complete, exit the menu.



### 6.10 Switch weight interface description

I/О-1: <b>∢</b> Ра	Input rameters Setting	01# 도급		0.0	00 <sup>STOP</sup> t/h	2022-09-26 15:02:40 User: Reserved >
Port	Define		Status	Port	Define	Status
IN01	Blocking Input			IN07	undefined	
IN02	End receipt and	shipment		IN08	undefined	
IN03	Blocking Input					
IN04	Blocking Input					
IN05	undefined					n#• 🔲
IN06	undefined				I/O SIGNAL TE	51.
			<b>&lt;</b> <u>H</u> (	OME		Next Page >

Switch Quantity 1 Figure

I/O-2:Output <ul> <li>Parameters Setting</li> </ul>	01# 		0.00 <sup>stop</sup> t/h	2022-09-26 15:03:31 User: Reserved >
Port Define		Status	Port Define	Status
OUT01 Last Bag			OUT07 undefined	
OUT02 Batch End			OUT08 undefined	
OUT03 FAST				
OUT04 Middle				
OUT05 SLOW				
OUT06 WAIT			1/0 Signal tes	DL.
Previous Page		<b>〈</b> H	OME	Next Page >

Switching quantity 2 figure



IO-3: P∖ ∢ Param	WM Port 01# 		0.0	00 stop t/h	2022-09-26 15:04:18 User: Reserved >
Port	Define	Status	Port	Define	Status
PWM1-ZT1-1	Feeding Motor Closed		PWM1-PU1	Feeding Motor PU	
PWM1-ZT1-2	Feeding Motor Limit		PWM1-DR1	Feeding Motor DR	
PWM2-ZT2-1	undefined		PWM2-PU2	Batch End	
PWM2-ZT2-2	undefined		PWM2-DR2	Last Bag	
PWM1 Por	t Feeding Motor >				
PWM2 Por	t IO >			no olgridi test.	
	evious Page	<b>(</b> H	OME		

Switching quantity 3 Figure

(1) Input port (IN01, IN02, IN03, IN04, IN05, IN06, IN07, IN08) where IN3 is set as emergency stop, IN4 is defined as servo alarm input, other customers can customize:

(2) The input port (PWM1-ZT1\_1, PWM1-ZT1\_2, PWM2-ZT2\_1, PWM2-ZT2\_2) is fixed for the motor photoelectric signal in place;

(3) Output port (OUT01, OUT02, OUT03, OUT04, OUT5, OUT6, OUT7, OUT8), where OUT5 is set as discharge, other customers can customize:

(4) Output port (DR1, DR2, PU1, PU2) is the direction signal and pulse signal of the motor.

(5) Switch quantity test: After opening, you can test whether the signal of the corresponding switch quantity is normal

#### Input end definition:

The port number	The initial value	Custom list
IN1	1	I00: Undefined I01: start I02: stop
IN2	2	I03: stop



IN3	5	I04: feeding stepper motor origin (close the door in place level)
		106: Discharging allowed
IN4	6	107: Clearing alarm
	, , , , , , , , , , , , , , , , , , ,	I08: keep
IN5	0	I09: Open/close discharging door [original manual discharging function, switch discharging output state]
		I10: manual discharging
IN6	0	I11: Manual slow loading
		I12: Add manually
		I13: Manual quick add [press quick add to open the door]
	U	I14: Manual cleaning [open the door according to the maximum opening]
IN8 <b>0</b>		I15: Start/stop (double edge: effective edge, start;Invalid edge, stop)
		I16: Start/emergency stop (double edge)
		I17: Manual discharge (double edge)
ZT1_1	4	118: Manual slow loading (double edge)
		I19: Manual add (double edge)
7T1 2	24	I20: Manual Quick Add (double edge)
211_2		I21: Manual cleaning (double edge)
		- I22: reset
ZT2_1	0	I23: emergency stop [level](effective, then do not allow start, do not allow manual feeding, do not allow manual unloading)
7T2 2	n	I24: feeding stepper motor opening limit point.
212_2	U	I25: origin of discharging stepper motor.


I26: opening limit point of discharging stepper motor.
I27: jam
I28: End of collection and delivery
I29: Manual discharge
I30: servo motor alarm

### Output side definition:

The port number	The initial value	Custom list
OUT1	1	O00: Undefined
OUT2	4	- Run O01: O02: refueling request
OUT3	5	O03: Direction of feeding stepper motor [PW
OUT4	6	signal is set to feeding PWM]
OUT5	7	O04: quick to add
OUT6	8	
OUT7	0	O07: fixed value
OUT8	0	O08: Unloading L
DR1	0	O09: over/under
PU1	0	O10: alarm
DR2	3	11: clip bag
PU2	8	
		O12: Preset number of bags completed
		O13: one packaging completed (output 1s after unloading)
		O14: stop
		O15: Unloading stepper motor direction
		O16: Discharge motor running/forward
		O17: Reversal of discharging motor



		O18: Feeding PWM[only available fo OUT7/OUT8]							
		O19: Discharging PWM[only available fo OUT7/OUT8]							
		O20: Last scale							
		O21: End of receipt and delivery							
		O22: servo motor alarm							
		O23: Set value complete							
PWM1 function	1	1: Universal switching quantity							
PWM2 function	0	2: feeding motor control 3: discharge motor control							

# 6.11 Control parameters interface description

Control Parameters <ul> <li>Parameters Setting</li> </ul>	01# 	0.00 <sup>stop</sup> t/h	2022 U	2-09-26 15:05:34 Iser: Reserved >
Disable judgment Time:	017 / 0.924 / 0.925 s	Feeding StepMotor Status:	CLOSE	zero 1987
		JOG De	ebug	
Motor subdivision:	6400	Feeding StepMotor Work Fre	quency	60.0 kHz
Reducer-i	15	Feeding StepMotor Start Fre	quency	kHz
Feeding Gate Opening Max. Angle	60.0	Fast Steps:	6123	
Feeding StepMotor Max. Steps:	20000	Middle Steps:	4123	Feeding StepMotor > Steps Tab
Initial Steps Cal value:	0	Slow Steps:	1123	
Previous Page	<b>र</b> <u>म</u>	OME	Next	Page <b>&gt;</b>

### Parameters that

(1) Fast, medium and slow add forbidden time: At the beginning of quantification, in order to avoid overshooting, the weight is not judged at this time, fast add, add and slow add are always effective

(2) Maximum opening of feeding motor (pulse number) : To protect the motor, the maximum opening of the motor is allowed after the motor is started.

(3) The state of the feeding motor: stop, open, the origin and the opening of four states



can be seen.

(4) Feeding motor working frequency: feeding motor when the frequency of normal work.

(5) Feeding motor start frequency: feeding motor start frequency.

6.12 Communication parameter interface description

Commu Para. < Para	inication meters Setting	<b>01#</b> 다음			0.0	0 stop	2022- Us	09-26 15 er: Res	5:05:55 erved <b>&gt;</b>
COM1:	COM1 is used to Parameter canno	connect thi t be set.	s HMI,	Force to Modify	LAN:	The LAN port Not the LAN	on the contro port on this H	oller, MI.	
ID:	[247 and 25 broadcast a	5 are fixed ddresses]		001	IP&Port:		0.234	<u>176</u> :	172
Protocol			Мо	dbus-RTU	Protocol:			÷	未知 义
BAUD:	[may not be defa adaptive]	ult,		57600	DWord For	rmat:		AB-	CD 义
Byte For	mat: [Parity bit c be differen	an t]		1-8-E-1	MAC:	00:00:	00 : 00	: <u>00</u> :	00
DWord F	ormat:			AB-CD					
HMI para	ameters:	COM2	19200	Non					
				<b>с</b> <u>н</u>	OME		Nex	t Page	>

### Communication parameter 1 Figure

Communication Para. 〈 Parameters Setting	01# 도급	0.00 t/h	2022-09-26 15:06:06 User: Reserved >
COM2: COM2 is used to cannot be set by	connect M02, User.	COM3: Can be used by us can be set as follo	sers,Parameters ws.
ID:	003	ID: [1~246]	8096
Protocol:	Modbus-RTU	Protocol:	未知 >
BAUD:	57600	BAUD:	未知 》
Byte Format:	1-8-E-1	Byte Format:	1-8-N-2 >
DWord Format:	AB-CD	DWord Format:	AB-CD >
HMI parameters:	COM2 19200 Non		
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### Communication parameter 2 figure

### Parameter description:



(1) Address number: Slave number. That is, the serial port communication ID number

(2) Protocol Type: Communication protocol. Select the serial port communication protocol.

(3) Baud Rate: Select the baud rate of the serial port.

(4) Byte format: data format. Initial value.1-8-e-1 (8-bit data bits - parity - 1-bit stop bits;)

(5) Two-word register order: Modbus high-low word. The order of high and low words first is ABCD, and the order of low and high words first is CDAB.

(6) HMI Current Communication parameters: Displays the current communication parameters of the touch screen.

(7) IP and Port: indicates the IP address.

(8) MAC: MAC address.

\* Description: Serial port one has been used for HMI connection and serial port two has been used for M02 meter connection. Serial port three and network port can be used by customers for external communication.

### 6.13 User management interface Description

01# 뎍급	0.00 t/h	2022-09-26 15:06:59 User: Reserved >
Res	erved	
>		
>		
	01# C Res > > - - - - - - - - - - - - -	Concertain Store the store of t

### Parameter description:

Displays the user currently logged in and can change password and set automatic login.

There are four user levels in this system, from high to low: Reserved user (used by the manufacturer), engineer, administrator, and operator.

### The cancellation

After a user logs in, if you want to log out or switch users, click Log Out-



To switch users, log out of the user management interface and enter the corresponding user number and password on the login interface to access the corresponding user

### Change the password

Path: Parameter Settings User Management Change Password Click the password entry box to follow the prompts  $\rightarrow \rightarrow \rightarrow \rightarrow$ 

# 6.14 Description of the historical data interface

Histo K F	ory Data Parameters Setting	01# 도			(	).(	00	) st t/l	гор h	2	2022 U	-09-26 15:( ser: Reser	06:23 ved <b>&gt;</b>
Index	TIME	Mat. Rec	Target	Act.	Time	T(Fast)	T(Middle)	T(Slow)	E	Sec.	~	Total:	0 P.
												Select	0 L.
<u> </u>											-	Select.	0 P.
													0 L.
												Goto:	
<u> </u>											-		0P.
													0L.
												Auto Refresh	
												(M)Refre	esh
<										>	•	Export to l	Jdisk
First	Page Previous P	age Ne	xt Page	La	st Page	;	Settin	g	Clear E	)ata		<pre> HOME</pre>	

### Parameter description:

- (1) Auto Refresh/Manual Refresh: How to refresh the data.
- (2) Usb disk export: Historical data can be exported.
- (3) Clear data: Clear historical data.



## 6.15 Automatic scale adjustment interface description

Auto Setting <ul> <li>Parameters Setting</li> </ul>	01# 	(	2022-09-26 15:06:45 User: Reserved >						
Material03 //		物料03 >	Auto Setting/ Self Adaption Level:	Level2[balanced] >					
Recipe ID Tareget:	02 /	5.000kg	Steps Auto Adjust:						
Fast 25.000 Remains:	7.000	1.200 kg	Fast Steps: 1						
Middle 0.000	0.000	→ 0.000 kg	Middle Steps: 0						
Slow 0.009 Reserve: 0.009	0.321	0.000 kg	Feeding Levels:	2Levels[Fast+Slow]					
Previous: 5.001	Total T	Fime: 4.562	Remaining 00 Current Sta	atus: Give up					
Fast: 2.232 Middle:	3.233 S	Slow: 4.234	Auto Setting OO	Start CAVE					
Wait: 5.235 Disc:	7.237	T1: 1.004	Nums:Auto	Setting SAVE					
	K HOME								

#### Parameter description:

(1) Material Number/Name: Material number and material name can be set;

(2) Recipe number/Target value: set recipe number and target value;

(3) Adaptive & automatic scale adjustment level: a total of four levels, level 0 for the fastest, the higher the speed is slower;

(4) Opening automatic adjustment: the opening of the feeding door automatic adjustment function switch;

(5) Feeding level: two or three levels of feeding, the system according to the target value automatically set;

### Automatic scale adjustment steps and instructions

Schedule and the opening is divided into two columns, as shown in the above, in front of its value for the automatic tuning weigh the value of the former at the back of the numerical value for automatic adjustment scale, users only need to set the number of scales (range 3-10), click on "start adjustment scale" can be in the process of automatic adjustment scale, equipment according to set automatically adjustable scale level



automatically adjustable scale, After the number of adjusting scales arrives, the equipment will stop automatically. At the same time, the user can choose to save or give up according to the adjustment value of the automatic adjusting scale, save the adjustment value of the automatic adjusting scale, save the adjustment value of the automatic adjusting scale to the current formula, and give up that is, still use the value before the automatic adjusting scale. If the balance is completed, does not meet the requirements of the user, the customer can start the automatic balance again, the equipment will be adjusted and corrected again on the basis of the last time the balance is completed. The user can also manually modify the lead-time and opening parameters.

# 6.16 System information interface description

SYS Info-1: Name and Version 〈 Parameters Setting	01# 도급	0.0	<b>)0</b> <sup>sтор</sup> t/h	2022-0 Use	9-26 15:07:14 r: Reserved >
Device Name:	B103B-12T Serov F	Rice Balance Scale			
Model:	B103B-12T				COM1 ID Config
Software Version:	Weighing controller:	Ver: 03.02.00	2018/08/08 18	:18:18	U-disk Upgrade
	PLC:				
	HMI:	Ver: 1.00.08B	2022/09/16 10	:30:30	
Manufacturer:	General Measure C	o. Ltd.			
Support Hotline:	(+86)0000-0000000	0			
		<b>(</b> HOME		Next P	age 🖒

System Information 1 Figure



SYS Info-2: Reset Para. 〈 Parameters Setting	01# ⊑3		0.00 <sup>stop</sup> t/h	2022-09-26 15:0 User: Reserv	)7:43 /ed <b>&gt;</b>
All Parameters Reset:	(Engineer)	>	Reset Work Parameters	(Engineer)	>
Recipe Parameter Reset	(Admin,Engine	er) >	Calibration parameters F	Reset (Engineer)	>
Reset Flux Para.:	(Engineer)	>	Communication Para.Re	eset (Engineer)	>
Reset I/O Define	(Engineer)	>	Reset Self-Adaption & Motor Para.	(Engineer)	>
be careful: If you perform this operation, th	ne original parameters v	vill be lo	ost		
	g condition of equipment	n		Restore factory settings (Customer do not Use ):	>
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System Info 2 figure

SYS Info-3: HMI Para. 〈 Parameters Setting	01# 도		0.00	sтор t/h	2	2022-09 User:	-26 15:07:59 Reserved >
Auto screen closing witho	ut operation:		Auto Off Scree	en Delay Ti	ime:		15 s
				OFF	15	5	1
Auto Screen Save:			Auto Screen S	ave Time:			15 s
			Hidden Langua	age Select	Menu:		
HMI Time: 2022-09-;	26 15:07:59	Setting					
GMF01 Time: 2022-09-	26 15:00:08	Setting	Auto Sync(Por	wer ON):			
(M)Time Sync: HMI -> G	GMF01 GMF	0 1-> HMI	Sync Direction	1:	I	HMI -> (	GMF01-B 义
Previous Page		<b>с</b> <u>н</u> с	OME				

System Info 3 Figure

#### **Parameter Description:**

System Information 1 Shows the device information diagram. You can see the device's name, model, software version, manufacturer, technical support phone number and more.

System information 2 shows the factory Settings restoration diagram. Engineers and reserve users can reset all parameters. The details are as follows:

Restore Factory Settings - Reset all system parameters to their default Settings. Working Parameter Reset - Resets the basic system parameters to their default Settings. Calibration parameter reset -- reset the system calibration scale related parameters to the default Settings.

Formula parameter reset -- Reset system formula parameters to default Settings.

Peripheral Parameter Reset - Resets system peripheral parameters to default Settings.

Adaptive parameter reset - Resets system adaptive parameters to their default Settings.

Communication parameter Reset -- Resets the system communication parameters to their default Settings.

Reset by Switch Quantity definition - Reset the system switch quantity definition to the default configuration.

System Info 3 shows the touch screen Settings diagram. The engineer can set the parameters of the touch screen.

### Usb disk upgrade system:

This operation is very important and should not be performed unless necessary.If

necessary, please contact the company and complete the operation under the guidance of professional personnel.



# 7. The Modbus address table

In [Communication Parameters], if Modbus-RTU mode is selected for serial communication, and the communication parameters are consistent with those of the host computer, ModBUS-RTU protocol is used for communication.

The PLC address	Function	meaning		instructions	
	The foll	owing are read-only reg	isters (funct	ion code 0x03)	
	l	Meter status P	arameters		
40001	00000	The current weight		1 bytes signed number	
40002	00001	The outlent weight			
	00002	Meter Status 1	position	instructions	
			00:	The AD collection module is abnormal	
			. 01:	Memory failure	
			. 02:	keep	
			. 03:	Abnormal sensor signal	
40003			. 04:	The weight of overflow	
			.05:	Weight is stable	
			. 6:	zero	
			07:	Minus sign	
			. 08:	Millivolts are stable	
			. 09 ~. 15:	keep	
40004	00003	Motor Status 2	00.	run	
40004	00003	Meter Status 2	.01	Before loading	



		. 02	Quickly add	
			.03	To add
			. 04	Slowly add
			.05	Constant value
			. 6	Super poor
			07.	Owe less
			. 08	Call the police
			The 09	Waiting for the clip bag
			10.	Clip bag
			11.	discharge
			12.	Charging to allow
			13.	Discharge allow
			14.	jam
			15.	keep
			00:	keep
			.01	keep
			. 02	One wrap done (1S duration)
			.03	Collection and delivery completed
40005	00004	Meter Status 3	. 04	The consignor
			.05	The final balance
			. 6	Lack of material (1: lack of material, 0: no shortage)
			07.	Lower limit of discharge hopper (1: weight lower than discharge





				Bit. 0: weight higher than the
				feeding level)
			. 08	Hopper upper limit (1: weight higher than feeding
				Bit, 0: weight below feeding level)
			The 09	Medium limit of hopper (1: weight on top and bottom
				Between bits, 0: weight is not in the upper and lower material
				A)
			10.	Outlet hopper zero (1: zero, 0: non-zero)
			11.	Hopper stability (1: stable, 0: unstable)
		12.	Blocking material (1: blocking material, 0: not blocking)	
			, 13 ~ 15:	keep
			00.	No alarm
			.01	Batch to complete
			. 02	Clear out of range (2S)
			.03	Unstable when clearing (2S)
40006	00005		. 04	Cannot start with a target value of 0 (2s)
40000	40006 00005 Alarm Queue 1	.05	Over and under time out	
			. 6	keep
			07.	No zero clearing operation in operation (2S)
			. 08	Over/under alarm
			The 09	keep





			10.	keep
			11.	Discharge fault
			12.	Discharging timeout
			13.	Feeding motor runs out of time
			14.	Discharge motor running out of time
			15.	Unable to operate at emergency stop (2S)
			16.	Failed to clear zero (clear zero before running refill)
			17.	Charging a timeout
			18.	Fixed value stability timeout (stable value method)
			19.	Receipt and delivery completed
			20.	Run-time target traffic set less than the target value
			21.	Do you need to clear the accumulated receipt and delivery of the last time when starting the switch is turned on, the accumulated receipt and delivery of the last time is not cleared when starting
			22.	Insufficient flow alarm
			23.	In the police
			24.	Plugging material alarm
			25.	Servo motor alarm
			99.	Software authentication failed
40007	00006	Alarm Queue 2	Same alarm	queue 1. When there are
40008	00007	Alarm queue 3		press Happen



			Queue up front and back. Up to three alarms are displayed at the same time.
40009	00008	The default package	Initial values 0, repress 0 to 00000
40010	00009	number	Tillial value. 0, Talige. 0 to 99999
40011	00010	Number of preset	Initial value: 0, range: 0 to 00000
40012	00011	packets remaining	Initial value. 0, range. 0 to 99999
40013	00012		The difference from 40001 is that this register
40014	00013	Current gross weight value	Switch control, when the switch is turned on, even during unloading, also Return the actual weight
40015	00014	Total number of	
40016	00015	delivered	
40017	00016	Accumulated weight	
40018	00017	(accumulated weight)	
40019	00018	Total cumulative	
40020	00019	Total number of accumulations)	
40021	00020	Total cumulative	
40022	00021	4 places higher in cumulative weight)	
40023	00022	Number of current	
40024	00023	ve packs (when Previous recipe	
	cum		



		weight is lower by 9	
		A)	
40025	00024	Current recipe	
40026	00025	Use)	
40027	00026	Total cumulative	
40028	00027	number of packets in the system (No Clear) (Current task remaining Weight)	
40029	00028	System total	
40030	00029	Clear) (current weight of the discharge hopper The amount)	
40031	00030	Years (readable and writable)	Scope: 2000 ~ 2099
40032	00031	Month (readable and writable)	Scope: 1 ~ 12
40033	00032	Day (readable and writable)	Scope: 1 ~ 31
40034	00033	week	Scope: 1 ~ 7
40035	00034	Hour (readable and writable)	Scope: 0 ~ 23
40036	00035	Points (readable and writable)	Scope: 0 ~ 59
40037	00036	Seconds (readable and writable)	Scope: 0 ~ 59



40038	00037		The timer starts when the system is powered on, and the unit is S. It can be		
40039	00038	System elapsed time	used to monitor faults such as restarts.		
40040	00039				
		The reserved			
40050	00049				
40051	00050	Top pack recipe number	The recipe number and target value when the "upper pack result weight" is		
40052	00051		produced,		
40053	00052	Upper package target value	Manual discharge, also do a result save, but the formula number is equal to 0		
40054	00053	Top packet result weight	Weight units are system units and are updated at the end of unloading		
40055	00054				
40056	00055	The actual packing			
40057	00056	time of the upper package			
		(includes waiting time)			
40058	00057	Upper wrap theory			
40059	00058	(Does not include waiting time)	Updated at the end of unloading, in		
40060	00059	Delay before feeding (includes clear	miniseconds		
40004					
40061	00060	Zero additional delay)			
40062	00061	Quickly add time			
40063	00062				
40064	00063	To odd time			
40065	00064	I O add time			



40066	00065	Cloudy add time	
40067	00066	Slowly add time	
40068	00067	Fixed time (Slow plus	
40069	00068	Discharge start)	
40070	00069	Wait for the clip bag	
40071	00070	(discharging allowed) time	
40072	00071	Discharging time	
40073	00072	Discharging time	
40074	00073	Actual packing speed	
40075	00074	Actual packing speed	Updated at the end of unloading, in: BPH
40076	00075	Theoretical packing	
40077	00076	speed	
40078	00077		Signed double word, non-combined pattern:
40079	00078	deviation	value. Combined mode: first time, fixed to 0, second time: Combined total result - Set target value
40080	00079	Number of speed sampling packets Nspeed (Readable and writable)	Initial value: 6, range: 6 to 12
40081	00080	Current traffic (does	Decimal 8 digit year month day such as:
40082	00081	to be displayed)	20160111 (2016/01/11)
40083	00082	Flow unit	
40084	00083	Flow decimal point	
40085	00082		



40086	00083	Current opening of outlet hopper	The number of pulses corresponding to the current opening of the hopper door
40087	00082	Package head current	Average current flow rate of the scale
40088	00083	flow	
40089	00082	Current instantaneous	
40090	00083	of hopper	
40091	00082	Feeding level weight	The opening corresponding to the first opening
40092	00091	(readable readable Write)	of the outlet hopper after the start
40093	00092	Feeding level weight	
40094	00093	(readable readable Write)	
40095	00094	Initial opening of outlet	
40096	00095	hopper	
40097	00096	Out hopper forbidden time	
40098	00097	Task run time	
40099	00098	ed	
40100	00099	The reserved	
The following content is readable and writable (Write a single register function code 0x06, write multiple registers function code 0x10. read			

function code 0x03)

Calibration parameters					
40101	00100	The zero calibration	Write 1 to calibrate zero and read to return		
40102	00101		zero		
40103	00102		Range: 0 to 999999, in grams		



40104	00103	Have weight gain calibration (Input weight)		
40105	00104	Material gain		
40106	00105	(r Record the current AD code	Enter 1 to re	ecord the gain AD code and read back 0
40107	00106	Material gain		
40108	00107	(input weight)	Range: 0 to	999999, in grams
40109	00108	Absolute millivolts	Default 3 de	cimal places, in millivolts
40110	00109	(read only)	A value of 1	2345 represents 12.345
40111	00110	Gain millivolts (read	Default 3 decimal places, in millivolts	
40112	00111	only)	A value of 1	2345 represents 12.345
40113	113 00112 Calil	Calibration result informatio n (read only)	1 ne results 0 1 2 3 4	There is no information Calibration is successful The current sensor voltage is unstable The input weight is not reasonable The current sensor has too much voltage
			5	The current sensor voltage is too low
			The alarm	message will be automatically eliminated after 2 seconds.Before elimination, no
			Allow to ope	erate calibration again



40114  40200	00113  00199	The reserved	
		The basic par	rameters
40201	00200	unit	Initial value: 1,0: g; <b>1 kg;2: t;3: b</b>
40202	00201	The decimal point	Initial value: 3, range: 0 to 4
40203	00202	Dividing the value	Initial value: 1, range: 1, 2, 5, 10, 20, 50
40204	00203		When the equipment model is AF-5K, initial value: 10000
40205	00204	Maximum range	When the device model is AF-10K, initial value: 20,000
			Range: 1 to 999999, unit: g
			Initial values: 0,
40206	00205	OFL indicates type	0:[maximum range + 9D] indicates OFL;
			2:[maximum range *150%] to display OFL,
40207	00206	Scale range mode	Initial values: 0, 0, 5 k; <b>1:25K;2:50K;3:10K;4:</b> the reserved
40208	00207	Automatic zero clearance interval	Initial value: 80, range: 0 to 9999, in milliseconds
40209	00208	Start additional zeroing times	Initial value: 2, range: 0 to 9
40210	00209	Additional zero clearing time	Initial value: 1000, range: 0 to 9999, in milliseconds
			Initial values: 0,
40211	00210	How to handle zeroing failure	0: alarm only, for 1S, this time give up the zero, the next time;
			1: only alarm, for 1S, this time to give up clearing, the next time to clear, even



			Continue three times can not clear, return to stop state!Continue to report to the police
			2: Alarm, but keep waiting for stability, once stable, eliminate the alarm,
			Automatically continue to run;
			3: alarm, immediately return to stop state.
40212	00211	Reset the scope	Initial value: 10, range: 0 to 99, unit: %
40213	00212	Sentenced to stabilizing range	Initial value: 5, range: 0 to 99, unit: D
40214	00213	Sentenced to stabilizing time	Initial value: 300, range: 100 to 9999, in milliseconds
40215	00214	Zero tracking range	Initial value: 3, range: 0 to 9, unit: D
40216	00215	Zero tracking time	Initial value: 2000, range: 0 to 9999, in milliseconds
40217	00216	Stop AD filter progressio n	Initial value: 9, range: 0 to 9
40218	00217	Feed AD filter progressio n	Initial value: 2, range: 0~9
40219	00218	Fixed value AD filter series	Initial value: 5, range: 0~9
40220	00219	Discharge AD filter level	Initial value: 2, range: 0~9
40221	00220	Power on the automatic zero clearing switch	Initial value: 0, range: 0~1
40222	00221	Manual discharge accumulat or switch	Initial value: 0, range: 0~1





40223	00222	Fixed weight hold switch	Initial value: 1, range: 0~1
40224	00223	Unloading mechanism mode	<ul> <li>Initial value: 0,0: pneumatic, 1: ordinary motor one-way,</li> <li>2: common motor two-way, 3: one-way stepper motor</li> </ul>
40225	00224	Unloading working mode	<ul> <li>0: timing mode, discharging signal output continuous discharging time (formula</li> <li>Set in parameter) is off. Discharge is abnormal after the end of unloading</li> <li>Judge;</li> <li>1: Judge zero zone mode, signal output, until the weight is below zero zone</li> <li>Value, and then start unloading delay time, time to close the unloading</li> <li>Material signal. After entering the unloading delay, there is no need to judge the weight.</li> </ul>
40226	00225	Discharge delay	Initial value: 200, range: 0 to 9999, in milliseconds
40227	00226	Discharge timeout	Initial value: 2000, range: 0 to 20000, unit: millisecond
40228	00227	Loose bag model	0: automatic bag loosening after unloading. 1: manual bag loosening is required after unloading bag
40229	00228	Feeding allows discriminan t mode	0: only start feeding judgment, feeding process is no longer judged;1: charging Judge all the way through.



40230	00229	Discharge allows discriminan t mode	0: judge only when starting unloading, no longer judge during unloading;1: discharge Judge all the way through.
40231	00230	Over range feeding protection	<ul> <li>Initial value: 1,</li> <li>0: close;</li> <li>1: open. When open, count from the calibration zero (plus clear zero</li> <li>If the weight is greater than or equal to the specification *1.2, it will be judged</li> <li>OFL, whether or not it exceeds the maximum range. Prevent clearing will be larger</li> <li>After the weight is cleared to 0, the weight is shown to be smaller, but the actual weight has been</li> <li>At the same time, adjust the adjustable value of the zero clearing range from 99%</li> <li>The whole of 20%</li> </ul>
40232  40240	00231  00239	The reserved	
40241	00240	Collection and delivery mode	<ul> <li>Initial value: 1, range: 0 to 2</li> <li>0: ordinary packing scale. Address 40009 is the number of batches.</li> <li>1: Delivery mode of flow scale. Address 40009 is the total amount received and</li> </ul>



		1	1
			delivered. Receipt mode, the total amount of
			receipt and delivery is meaningless.
			2: flow scale delivery mode. Address 40009 is the total amount of receipt and delivery.
40242	00241	Length of traffic sampling window	Initial value: 3, range: 1~6, calculate the traffic with the set packet number data.
40243	00242	Fixed value method       Initial value: 0, range: 0~ 1,0: time value         stable value	
40244	00243	Set the value to determine the timeout	Initial value: 0, range: 0 to 999, unit: 100ms The maximum time allowed to wait for stability when the stable value is determined is exceeded If the time is not stable, it will be processed according to the "fixed value judgment timeout processing method". Does not work.
40245	00244	Fixed value decision timeout handling method	<ul> <li>Initial value: 0, range: 0~3,</li> <li>0: The meter will consider the current weight as the stabilized weight and continue below</li> <li>Step, and alarm [fixed value timeout], for 1S.</li> <li>1: The meter will consider the current weight as the weight after stabilization, continue below</li> <li>Step and alarm for 1S. After three consecutive times, return to stop shape</li> </ul>



			State, continuous alarm [continuous fixed value timeout].
			2: alarm, but continue to wait for stability, once stable, eliminate the alarm, automatic relay
			Continue to run.
			3: Alarm and return to stop state immediately.
40246	00245	Switch recipe/collect and ship mode is No Clear the collection and delivery accumulati ons and shipments The total	Initial value: 0, range: 0 to 1, 0: Do not clear 1: clear
40247	00246	You need to manually clear the last post when starting Service collection and delivery accumulati on	Initial value: 0. The value ranges from 0 to 1. 0: This parameter is not required remove
40248	00247	Flow control mode selection	Initial value: 0, range: 0~1, 0: time control, 1: target value conversion
40249	00248	Automatically adjust target weight switch	Initial value: 0, range: 0~1, 0: no adjustment, 1: self-adjustment
40250	00249	Self-adjust target weight sampling window length	Initial value: 10, range: 10~50, After the adjustment switch is opened, proceed to the next time according to the length of the window



			Standard weight adjustment		
40251	00252	Start/stop no-load test	Initial value: 0, range: 0~1, write 1: enter the no-load test;write 0: Exit the no-load test		
40252	00253	No load test detects input	Initial value: 0, range: 0~ 1,0: no load test does not need to detect feeding allowed or unloading allowed;1: need to detect feeding allow and discharge allow		
40253	00254	Delay before feeding for no-load test			
40254	00255	No load test fast add time	MS is the unit, when entering the no-load test		
40255	00254	Add time to the no-load test	state, do not judge the weight, straight		
40256	00255	No load test slow add time	Then carry out each step according to this delay, and output corresponding output.		
40257	00256	No load test set time			
40258	00257	No load test unloading time			
40259  40300	00258  00299	The reserved			
		User prefe	rences		
40301	00300	Material no.	Initial value: 1, range: 0 to 10		
40302	00301	The formula,	Initial value: 1, range: 0 to 20		
40303	00302	The torget	Initial values 0, ranges 0 to 000000, units grom		
40304	00303	i ne target			
40305	00304	Add the advance	Initial value: 0, range: 0~ maximum range, unit:		
40306	00305	quickly	gram		



40307	00306	Canada ahead of the	Initial value: 0, range: 0~ maximum range, unit:	
40308	00307	curve	gram	
40309	00308	Slow plus advance	Initial value: 0, range: 0 to maximum range,	
40310	00309	Slow plus advance	unit: gram	
40311	00310	Zero value	Initial value: 0, range: 0 to maximum range,	
40312	00311		unit: gram	
40313	00312	Discharging time	Initial value: 300, range: 0 to 99999, in	
40314	00313	Discharging time	milliseconds	
40315	00314	Delay before feeding	Initial value: 0, range: 0~99999, unit:	
40316	00315	Delay before reeding	milliseconds	
40317	00316	Sat hald time	Initial value: 900, range: 0 to 99999, in	
40318	00317	Set hold lime	milliseconds	
40319	00318			
		The reserved		
40326	00325			
40327	00326	Combination Mode (read only)	Initial value: 1, Read only 1 or 2:1 non-combined mode 2	
			Combined mode	
		Refill progression (read only)	Initial value: Automatically determined based on the target value	
	00327		Feeding series,2: two levels of feeding;3: three level feeding. Controller will	
40328			Automatically choose whether to feed two or three stages according to the range	
			Material.[2 level, fast + slow add, add advance and middle add no	
			Meaning][Level 3, fast plus + plus + slow plus, but add or add fast	
			The lead is 0 or the opening is set to 0 and still does not go fast plus or medium	



			Add]	
40329	00328	Separate configuration opening	Initial value: 0, range: 0~1	
40330	00329	This recipe is quick to add degrees	Initial value: 8000, range: 0~ maximum opening	
40331	00330	Add extra degrees to this recipe	Initial value: 5000, range: 1 to maximum opening	
40332	00331	This recipe is slow to open	Initial value: 1800, range: 2 to maximum opening	
40333  40340	00332  00339	The reserved		
40341	00340	Target flow function switch	Initial value: 1, range: 0~1. This function is enabled by default in meter scale mode	
40342	00341		Initial value: 0, range: 0 to 999999, unit: P1H (per hour).This parameter cannot be set beyond" "Maximum traffic limit".	
40343	00342	Target traffic value		
40344	00343		Initial value: 12, range: 0 to 999999,	
40345	00344	Maximum traffic limit	maximum flow the device can achieve.Used to limit the target flow The setting cannot exceed this value.(The default is 12T/H.)	
40346	00345	Insufficient flow alarm function switch	Initial value: 0, range: 0~1, the actual discharging interval time continuously exceeds the calculated discharging interval time times more than "insufficient flow alarm statistics", then alarm	
40347	00346	Insufficient traffic alarm statistics times	Initial value: 10, range: 0~99, several consecutive feeding interval Time out, and the number of times reached the value set by F5.4, instrument output flow insufficient alarm	
40348	00347	Automatic adjustment function switch	Initial value: 0, range: 0~1, the switch is turned on, if there is a timeout in the unloading interval, the instrument will adjust	



		after insufficient flow (discharge interval timeout)	automatically, shorten the unloading interval time after, until the timeout time offset.
40349	00348	Packat interval	Initial value: 2500, range: 2000 to 10000, unit: ms:
40350	00349	Facket Interval	Fixed interval time between each packet
40351	00350	Current task work	
40352	00351	number (readable Can write)	Initial value: 0, range: 0 to 999999999
40353	00352	Hopper push rod	Initial value: 10000, range: 2500 to 25000
40354	00353	353 frequency (Readable and writable)	Frequency of electric push rod during operation
40355	00354	PID scaling coefficient P	
40356	00355	PID coefficient k.	
40357	00356	PID coefficient D	
40358	00357	Lack of material stop switch	
40359	00358	Hopper push rod start	Initial value: 10000, range: 10000~25000
40360	00359	(Readable and writable)	Frequency at which the electric push rod starts
40361	00360		
		The reserved	
40400	00399	Curitabina autoriti	
		Switching quantit	y parameters
40401	00400	Start/end switch volume test	Write 1 Start switch volume test;Write 0 to end the switch measurement



			try	
40402	00401	Input switch quantity test (read only)	From low to	high each bit represents an input state
40403	00402	Output switch quantity test	From low to	high, each bit represents an output state
40404	00403	IN1	The initial	instructions
			1	Enter the definition list:
40405	00404	IN2	2	100: No definition
40406	00405	IN3	5	101: start
40407	00406	IN4	6	102: stop
40408	00407	(1-ZT1)	4	104: feeding stepper motor
40409	00408	(1-ZT2)	23	door to
40410	00409	(2-ZT1)		Bit, level)
40411	00/10	(2-772)		105: Feed allowed
40411	00410	(2-212)		106: Discharging allowed
40412	00411	IN5		108: keep
40413	00412	IN6		I09: Open/close discharge
40414	00413	IN7		door [original manual discharge
				Function, switch the discharging output state] I10: Manual discharging
40415				I11: Manual slow loading
	00414	IN8		I12: Add manually
				I13: Manual quick add [press the quick add opening to open
				The door]



			I14: Manual cleaning [open at maximum opening
			The door]
			I15: Start/Stop (Double edge: effective edge,
			Start;Invalid edge, stop)
			I16: Start/emergency stop (double edge)
			I17: Manual discharge (double edge)
			I18: Manual slow loading (double edge)
			119: Manual add (double edge)
			I20: Manual Quick Add (double edge)
			I21: Manual cleaning (double edge)
			I22: reset
			I23: Emergency stop [level](valid, then not
			Start allowed, manual refilling not allowed, not allowed
			Manual unloading is allowed)
			I24: feeding stepper motor opening limit point.
			I25: origin of discharging stepper motor.
			I26: opening limit point of discharging stepper motor.
			127: jam
			I28: End of collection and delivery
			129: Manual discharge
			I30: servo motor alarm
40416	00415	OUT1	Output definition list:

# 

40417	00416	OUT2	O00: None defined
40449	00447		Run 001:
40418	00417	0013	O02: refueling request
40419	00418	OUT4	O03: feeding stepper motor direction [has PW
40420	00419	OUT5	Signal is set to feed PWM]
40421	00420	OUT6	O04: quick to add
40422	00421	[DR1]	I add O05:
40423	00422	IDR21	O06: slow
	00122		O07: fixed value
40424	00423	[PWM1]	O08: Unloading L
			O09: over/under
			O10: alarm
			11: clip bag
			O12: Preset number of bags completed
			O13: One packaging completed (unloading finished
			Rear output 1s minutes)
			O14: stop
			O15: Unloading stepper motor direction
40425	00424	[PWM2]	O16: Discharge motor running/forward
			O17: Reversal of discharging motor
			O18: Feeding PWM[only available for OUT7/OUT8]
			O19: Discharging PWM[only available for OUT7/OUT8]
			O20: Last scale
			O21: End of receipt and delivery
			O22: servo motor alarm



			O23: Set value complete
40426	00425	PWM1 function	0~2
40427	00426	PWM2 function	0~2
40428	00427	Start the	Writing: 1. Read: 1 Running status.0: stopped state.
40429	00428	scram	Writing: 1. Read: 1 Stop state.0: Running state.
40430	00429	stop	<ul> <li>Writing: 1.</li> <li>Read: 1 Stop signal has been entered (this time</li> <li>It will stop after the wrapping process is finished).</li> <li>0: The stop signal is not entered.</li> </ul>
40431	00430	reset	Writing: 1. Read: 1 Weight is 0.0: Weight is not 0.
40432	00431	Remove alarm	Writing: 1. Read: 1 No alarm.0: Alarm reported.
40433	00432	Choose the formula	Writing: 1. Read: 0.
40434	00433	Loose bag	Writing: 1. Read: 1 has clipped the bag.0: Bag not clipped.
40435	00434	Open/close the discharge door	Write: 1: Switch discharge door status: valid -> Invalid, invalid -> valid Read: 1: Unloading is valid.0: Unloading none Effect.
40436	00435	Slowly add manually	Writing: 1. Read: 1 Slow plus effective.0: Slow plus does not work.
40437	00436	Manually add	Writing: 1. Read: 1 Add valid.0: Add invalid.



40438	00437	Quickly add manually	Writing: 1. Read: 1 Quick add valid.0: Quick plus does not work.
40439	00438	Manual cleaning (storage hopper cleaning)	<ul> <li>Write: 1: Switch the clearing state</li> <li>Read: 1 Clear material is valid.0: Clearing is not effective.</li> <li>Clear material effective: quick add effective, discharge has</li> <li>Effect.Clear material invalid: fast add ineffective, discharge</li> <li>Is invalid.The quick loading and discharging states are not consistent,</li> <li>Take the feeding state as the judgment</li> </ul>
40440	00439	Manual Max Open Quick Add	Writing: 1. Read: 1 Quick add valid.0: Quick plus does not work.
40441	00440	Automatic feeding once (stop after setting the value)	Writing: 1. Read: 1 Being refilled automatically.0: not automatic Charging.
40442	00441	Emergency stop	Write: 0/1: Exit/enter Emergency stop lock Set the state. Read: 1 has made an emergency stop.0: not urgent Stop.
40443	00442	Manually unload once	Writing: 1. Read: 1 Unloading.0: Unloading is not working.
40444	00443	Allowed to add	Read/Write 1: Allow plus works.Read/write 0: enable Add is invalid.
40445	00444	Allow unloading	Read/Write 1: Allow unloading to work.Read/write 0: enable Discharge is invalid.



40446	00445	End of collection and delivery	Go to I28: to end the function of receiving and sending the same volume switch	
40447	00446	Discharge hopper manually	Write: 1 Take the discharge door of the hopper upside down. Read: 1 Discharge door open, 0 closed	
40448	00447	The whole balance discharging	<ul> <li>Write: 1. Metering bucket discharge door, discharge hopper discharge door to take reverse. Used for empty</li> <li>Two buckets of memory material in this scale.</li> <li>Read: 1 manual discharge open, 0 closed</li> </ul>	
40449	00448	Clear out hopper	<ul> <li>Write: 1. The discharge hopper performs zero clearing. Make sure that the outlet hopper material has been cleared</li> <li>Empty. Please note that the zero clearing operation will not be saved by power failure. Power on again,</li> <li>Will display non-zero.</li> </ul>	
40450	00449	Outlet hopper marked zero	Write: 1. The discharge hopper is calibrated to zero. Please make sure that the hopper material is already Empty.	
40451  40460	00450  00459	The reserved		
40461	00460	OUT7		
40462	00461	OUT8	With the OUT1 - OUT6	
40463  40500	00462  00499	The reserved		
.Communication parameters				
40501	00500	Serial Port 1 Slave number (read only)	Initial value, 1, range: 1 to 99	
40502	00501	Serial Port 1 Communic ation	Initial values, 0,0: modbus-rtu, 1: Modbus- ASCII, 2: serial printer	



		protocol (only	
		Read)	
40503	00502	Serial Port 1 Baud rate (read only)	Initial values, 3, 0:9600, 1:19200, 2:38400, <b>3:57600, 4:115,200</b>
40504	00503	Serial Port 1 Data Format (only Read)	Initial values, 1, 0:18N2, 1:18E1, 2:18O1, 3: 18N1
40505	00504	Serial port 1Modbus double word mail Memory sequence (read only)	Initial values, 0,0: ABCD, 1: CDAB
40506	00505	Serial Port 2 Slave number	Initial value, 1, range: 1 to 99
40507	00506	Serial Port 2 Communic ation protocol	Initial value, 0,0: modbus-rtu, 1: Modbus- ASCII, 2: serial printer
40508	00507	Serial port 2 Baud rate	Initial values, 3, 0:9600, 1:19200, 2: 38400, 3:57,600, 4:115,200
40509	00508	Serial port 2 Data format	Initial values, 1, 0:18N2, 1:18E1, 2: 18O1, 3:18N1
40510	00509	2 high modbus serial port Low word order	Initial values, 0,0: ABCD, 1: CDAB
40511	00510	Serial Port 3 Slave number	Initial value, 1, range: 1 to 99
40512	00511	Serial port 3 Communic ation protocol	Initial value, 0,0: modbus-rtu, 1: Modbus- ASCII, 2: serial printer
40513	00512	Serial port 3 Baud rate	Initial values, 3, 0:9600, 1:19200, 2: <b>38400, 3:57,600, 4:115,200</b>


40514	00513	Serial port 3 Data format	Initial values, 1, 0:18N2, 1:18E1, 2: 18O1, 3:18N1	
40515	00514	Serial port 3Modbus highland word order	Initial value, 0,0: ABCD, 1: CDAB	
40516	00515	Network port IP Group 1	0 ~ 255	
40517	00516	Network port IP Group 2	0 ~ 255	
40518	00517	Network port IP Group 3	0 ~ 255	
40519	00518	Network Port IP Group 4	0 ~ 255	
40520	00519	Network Port Number	0 ~ 65535	
40521	00520	Network Port Communic ation Protocol		
40522	00521	Network port high and low byte order		
40523	00522	MAC1	0~0xFF	
40524	00523	MAC2	0~0xFF	
40525	00524	MAC3	0~0xFF	
40526	00525	MAC4	0~0xFF	
40527	00526	MAC5	0~0xFF	
40528	00527	MAC6	0~0xFF	
40529	00528			
 40600	 00599	The reserved		
System parameters				



40701	00700		'G'+'M'
40702	00701		'-'+'F'
40703	00702		'0' + '1'
40704	00703		0
40705	00704	Device model (ASCII	0
40706	00705	Characters) (read only)	0
40707	00706		0
40708	00707		0
40709	00708		0
40710	00709		0
40711	00710		4 bytes, unsigned number, such as
40712	00711	Version number (read only)	123456, the value is 12.34.56. The range is 0 to 999999
40713	00712	Compiled date: Year (read only)	2000 ~ 2099
40714	00713	Compiled date: Month (read only)	1 ~ 12
40715	00714	Compile Date: Day (read only)	1 to 31
40716	00715	Compile Date: Hour (read only)	0 ~ 23
40717	00716	Compile Date: minutes (read only)	0 ~ 59
40718	00717	Compile date: seconds (read only)	0 ~ 59
40719	00718	Parameters of the reset	Write: <b>0 Reset all (production used, contains all below additionally also</b> There are statistics clear, cumulative clear,
			putter-related parameters)



		(Superuser)	
			(Super User) 1 Reset all (customers) including all below
		2 Reset the basic parameters	
		3 Reset the calibration parameters	
		4 Reset user parameters	
			5 Reset peripheral parameters
			6 Reset the adaptive parameters
			7 Reset the communication parameters
		8 Reset switch quantity Custo parameters	
			9 Reset adaptive statistics
			Read: 0
40720	00719	keep	
40721	00720	Turn USB on/off	1: Turn USB on, 0: turn USB off
40722	00721	USB device connected (only	0: USB device is connected, 1: USB device is not connected
		Read)	
		USB mass storage	0: USB mass storage device is connected
40723	00722	device Connected (read only)	1: USB mass storage device is not connected
			Write
			10: All parameters
			11: Calibration parameters
			12: basic parameters
			13: User parameters
			14: IO custom
40724	00723	Export data	15: communication parameters
			16: peripheral parameters
			17: adaptive parameter
			18: Putting parameters
			19: Advanced hidden parameters
			50: All Statistics (Super user)



			51: All statistics (non-super users)
			52: Cumulative statistics
			53: Packaging Record statistics (Superuser)
			54: Packaging Record Statistics (non- superuser)
			55: Parameter modification statistics
			Read: 0
			0: No information
		Data export result	1: Export successfully
40725	00724	informatio	2: Export failed
			(Message lasts 2 seconds and then automatically cancels)
			Write:
		Data import	10: All parameters
			11: Calibration parameters
	00725		12: basic parameters
			13: User parameters
			14: IO custom
40726			15: communication parameters
			16: peripheral parameters
			17: adaptive parameter
			18: Putting parameters
			19: Advanced hidden parameters
			Read: 0
			0: no information
			1: imported successfully
40707	00726	Data import result	2: Import failed
40/2/	00720	n n n	3: Import file does not exist
			(Message lasts 2 seconds and then
			automatically cancels)
40728	00727		
		The reserved	
40750	00749		



	"Usb Flash Drive Update App" function parameters			
40751	00750	Enter/exit the Bootloader	<ul> <li>Read:</li> <li>0: Automatically enter the main program after waiting for 3 seconds delay</li> <li>1: the Bootloader has been entered</li> <li>Write:</li> <li>1: Go to Bootloader</li> <li>2: Exit the Bootloader and enter the main program</li> </ul>	
40752	00751	USB device connected (only Read)	0: USB device is connected 1: USB device is not connected	
40753	00752	USB mass storage device has Connected (read only)	0: USB mass storage device is connected 1: USB mass storage device is not connected	
40754	00753	Upgrade file scan results (only Read)	0: No upgrade file 1: There is a control panel upgrade file	
40755	00754	Control panel program upgrade informatio n (read-only)	<ul> <li>Zero: no</li> <li>1: The control panel is being upgraded</li> <li>2: The control panel upgrade failed</li> <li>3: The control board is upgraded successfully</li> <li>4: The control panel upgrade file does not match the instrument model</li> <li>5: There is an error in the control panel upgrade file</li> <li>6: The control panel upgrade file does not exist</li> </ul>	
40756	00755	Reserved (read only)		
40757	00756	Control panel upgrade	Read: Version number (6-digit decimal	
40758	00757	number	Write: 1 Upgrade this version of the program	





		-		
40759  40800	00758  00799	The reserved		
		Adaptive relevant	t parameters	
40801	00800	Adaptive master switch	Initial value: 1. range: 0~1	
40802	00801	Adaptive & automatic scale grading	Initial value: 1, range: 0~4	
40803	00802	Positive error function switch	Initial value: 0, range: 0~1	
40804	00803			
 40900	 00899	The reserved		
	Internal reservation parameters			
40901	00900			
 40916	 00915	The reserved		
40917	00916	Add time to the embargo quickly	Initial value: 700, range: 0 to 9999, in milliseconds	
40918	00917			
 40923	 00922	The reserved		
40924	00923	Canada-china ban time	Initial value: 700, range: 0 to 9999, in milliseconds	
40925	00924	Slow plus time off	Initial value: 700, range: 0 to 9999, in milliseconds	
40926	00925			
		The reserved		
41100	01099			
Target value data parameters				

[Only the target value of each formula under the current material number, do not support reading the target value of each formula number of different materials]					
41101	01100	Target value (Recipe	Denge: 0 to 000000 in grame read only		
41102	01101	1)	Range. 0 to 999999, in grams, read only		
41103	01102	Target Value (Formula	Pange: 0 to 000000 in grame road only		
41104	01103	2)	Kange. 0 to 999999, in grains, read only		
41105	01104	Target Value (Formula	Pango: 0 to 000000 in grams, road only		
41106	01105	3)	Kange. 0 to 999999, in grains, read only		
41107	01106	Target Value (Formula	Pango: 0 to 000000 in grams, road only		
41108	01107	4)	Kange. 0 to 999999, in grains, read only		
41109	01108	Target Value (Formula 5)	Range: 0 to 999999, in grams, read only		
41110	01109				
41111	01110	Target value (Recipe	Range: 0 to 999999 in grams read only		
41112	01111	6)	Range. 0 to 999999, in grams, read only		
41113	01112	Target value (Formula	Range: 0 to 999999 in grams read only		
41114	01113	7)			
41115	01114	Target value (Formula	Range: 0 to 999999 in grams read only		
41116	01115	8)	Range. 0 to 999999, in grams, read only		
41117	01116	Target value (Recipe	Range: 0 to 999999 in grams read only		
41118	01117	9)			
41119	01118	Target value (Recipe	The value ranges from 0 to 999999 (unit:		
41120	01119	10)	gram)		
41121	01120	_			
		The reserved			
41200					
Cumulative data parameters					



41201	01200	Clear the total cumulative data	<ul> <li>Write 1 Clear the total cumulative data and all recipe cumulative data</li> <li>Write 2 only clears total cumulative data but not recipe cumulative data</li> <li>Write 3 clears the receipt and delivery accumulations and the total accumulations</li> <li>Write 4 clears the collection and shipment accumulations</li> </ul>
41202	01201	Clear recipe accumulati on data	<ul> <li>Write person 0 to clear all recipe accumulations</li> <li>Write 1 to 20 to clear the corresponding recipe 1 to 20 cumulative data</li> </ul>
41203	01202	Total cumulative times	A maximum of 9 decimal digits
41205	01204	Total cumulative times	Write person 0 to clear all recipe accumulations Write 1 to 20 to clear the corresponding recipe 1 to 20 cumulative data
41207	01206	Total cumulative weight (high 4 places)	Maximum 13-digit decimal number
41208  42000	01207  01999	The reserved	
		Automatically adjust	scale parameters
42001	02000	Automatically adjust scale status	Read: Automatic scale adjustment status :0/1: Stop/run.2. Automatic scale adjustment Done.[midrun abort set back to 0, not 2], read only
42002	02001	Maximum type of material	10~40.Temporarily fixed to 10.Later adjustment.adjustment.That is, the maximum support is guaranteedStore 10 different materials, read only



42003	02002	=40301, current material type	read-only
42004	02003	=40302, current recipe number	read-only
42005	02004	=41050, current specificati on scales the most Large range points	read-only
42006	02005	=41096, current target value In the range point	read-only
42007	02006	Automatic scale adjustmen t times	Initial value: 6, range 3 to 10
42008	02007	How many	
42009	02008	Qualified times	
42010	02009	Automatic scale grading	Initial value: 1, range: 0~4, the smaller the grade, the better the speed First, the small casting time is about 0.2s longer for each level increase
42011	02010	Start/stop automatic scale adjustmen t	Read: Automatic scale adjustment status :0/1: Stop/run (complete status Ascribed to 0), write :1/0: start/shut down autoscale
42012	02011	Save the automatic scale adjustmen t results	<ul> <li>Write 1: Save autoscale result to current current material number current</li> <li>Under recipe number, write 2: give up saving and restore debugging result to silent</li> <li>Value.</li> </ul>
42013  42020	01207  02019	The reserved	



42021	02020	Material XSegY quick	
42022	02021	Increase in advance The results of	
42023	02022	Material XSegY plus	
42024	02023	plus advance The results	
42025	02024	Material XSegY slow	
42026	02025	add advance The results of	X= material number,Y segment numbe material number change, targe
42027	02026	Material XSegY Quick opening knot fruit	value change [span Range section], then the value of this area may change automatically
42028	02027	Material XSegY in the added opening knot fruit	
42029	02028	Material XSegY slow opening knot fruit	

# 8. Basic function instructions

#### 8.1 Working principle and operation process

Working principle of rice distribution scale: rice distribution scale is divided into two parts, the upper part is divided into flow scale, servo motor fast feeding, used for accurate weighing, automatic adjustment of opening and advance for flow control and cumulative

# GENERAL

weight record. The lower part is divided into weightlessness weighing, according to the current hopper weight real-time control of the feeding cylinder, to ensure the uniform outflow of material, will not produce the phenomenon of disconnection or large impulse. The upper and lower parts cooperate with each other, which can not only ensure the accuracy and flow control through the flow balance of the upper part, but also ensure the continuity of the material through the weight loss balance of the lower part.

Rice distribution scale operation process: set the target flow rate and the total amount of material, the equipment will automatically calculate and generate the corresponding target value and opening of each scale, start feeding, namely: Fast feeding, the system automatically calculates the amount of lead generated as a control cut-off point, the second step, after the end of feeding, into the value process, the value of time can be set, after the end of the value, the equipment through the switch output "feeding complete" signal;The third step, the device receives the external "allow unloading" effective switch signal, the device will drive the cylinder to open the unloading door of the metering bucket, when the weight of the material in the metering bucket is lower than the zero zone value set before, the device drives the cylinder to close the unloading door, complete a quantitative process;The fourth step, the material into the hopper after the electric push rod action, the discharge door opened to a certain opening so that the material outflow evenly;Before starting the next quantitative process, the equipment first carries out a period of delay before feeding, and then carries out the next feeding, discharging, and the material flows out evenly, so that the cycle repeats.

The working principle of the push rod: the stepping motor controls the expansion of the push rod, and then controls the size of the opening of the hopper.

The operation process of the push rod: 1. When starting, the push rod will not be opened directly at first, but wait for some materials in the hopper to start and open (to prevent the flow interruption and overshooting fluctuations when the material is less at the beginning). At this time, the opening degree is matched by the set target flow.2. When working normally, the hopper weighing controller will adjust the push rod in real time according to the weight in the hopper to control the weight of the hopper to maintain a relatively dynamic and stable state, so as to control the material flow in a relatively uniform outflow state.

#### 8.2 Multi - scale linkage operation process

When this match meter scale factory has multiple water balance function, users only need to insert the linkage of the scale body navigation at the scene according to the cable requires the use of our design by the interconnection between multiple scales, multiple water balance can be realized, that is: as long as there is a bench scale start or stop, and the interconnection of other scales in lockstep start or stop.

## 8.3 Example for Parameter Setting

If the material is rice, the parameters of the rice distribution scale have been restored to factory Settings. If you want to run at a flow rate of 12T /h and control the total amount to 10T, you need to set the following parameters:

Working parameters:

- 1. Set the "automatic zero failure processing" to continue to be stable.
- 2. Set the "loading level weight of the hopper" to 13kg.
- 3. Set the "weight of discharging hopper level" to 6kg.
- 4. Set the "initial opening of hopper" to 40000.
- 5, set the "scale specification" to 12T.

Control parameters: Set the "initial opening calibration value" to 4000.

Main interface parameters: 1. Set "Target flow" to 12T /h.

2. Set "Target Value" to 10T.

After completing the above parameter Settings, start the rice distribution scale.



# 9. Common fault analysis and troubleshooting

Common faults in use, causes and handling methods.

The seria I num ber	The fault phenomeno n	why	To deal with
1	The device starts without blanking	<ol> <li>There is no material in the storage bin</li> <li>The closure door of the storage bin is not opened</li> <li>Air source leakage</li> <li>Air source pressure is too low or flat</li> </ol>	<ol> <li>Feed the storage bin</li> <li>Open the closure door of the storage bin</li> <li>Connect the air source</li> <li>Increase the air pressure or turn on the air pressure switch</li> </ol>
2	Plugging material	The discharging motor does not operate or the opening of the discharging hopper is inconsistent with the set target flow opening	The pushrod needs to be replaced if the power-off restart cannot be solved
4	Abnormal weight display	<ol> <li>Faulty weight sensor</li> <li>Not cleared before use</li> <li>Equipment not calibrated</li> <li>Incomplete unloading</li> </ol>	<ul> <li>1.Check the sensor and replace it if necessary</li> <li>2.Stop reset</li> <li>3.recalibrate</li> <li>4.Increase the unloading time appropriately</li> </ul>
5	Data cannot be exported	1.U disk is damaged 2.The USB flash drive interface of the electric control box is damaged	1.Replace the U disk 2.Check the interface

### 10. Maintenance, warranty

In order to ensure the weighing accuracy of the equipment, do not place the equipment in a cold and damp environment. According to the use situation, clean the dust generated by the material inside the equipment regularly. After daily use or maintenance, remember to close the electric control box door.

#### • Warranty principles

In principle, the first installation and commissioning should be carried out by our professional and technical personnel or by a company entrusted by our company.



The equipment failure caused by the following circumstances is not covered by our warranty:

- Failure to operate according to the instructions
- Install without professional guidance
- Make structural changes to the equipment
- Damaging equipment without permission
- Programming and operation errors
- Natural damage to equipment