GENERAL MEASURE
杰 • 曼 • 科 • 技

AT-30T/50T

Flow scale (bulk accumulation scale)
(Suitable for F01-B instrument version)

User Manual

Ver A2

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As our products have been continuously improved and updated, our company reserves the right to modify this manual at any time without prior notice. For this purpose, please visit our website frequently for timely information.

The company's Web address http://www.szgmt.com

1. overview

AT-30T/AT-50T flow scale (bulk accumulation scale) is a scale specially developed for the needs of non-continuous automatic accumulation of weighing and flow statistics. The balance feeding mechanism uses the "motor" way to achieve multi-stage feeding, unloading for the cylinder drive way to achieve fast unloading. The product has the characteristics of high speed, high precision and wide range, and can be widely used in chemical industry, food, port and other industries that need bulk material measurement.

1.1 Product parameters, functions and characteristics

1.1.1 Product parameters

Model specifications	AT-30T	AT-50T
Electrical source	AC220V±10%, 50/60Hz, 1KW	AC220V±10%, 50/60Hz, 1KW
Quantitative range	5 to 30 t/h	10 ~ 60t/h
Weighing speed	Max. 30 t/h	Max 60t/h
Measuring bucket volume	55L	86L
Operating temperature	0 to 40ºC	0 ~ 40ºC
Maximum humidity	90% R.H non-dew forming	No condensation at 90% R.H
Air source	0.4 ~ 0.6MPa 2m³/h	0.4 ~ 0.6MPa 2m³/h

1.1.2 Product function

1. Non-continuous automatic cumulative function.
2. Three speed (free blanking) feeding control.
3. Automatic zeroclearing function.
4. Process control parameter automatic correction function.
5. Cumulative and statistical functions.
6. Flow control function.

1.1.3 Product features

1. Intelligent: only set the target value, under the condition of ensuring accuracy, automatically adjust the optimal quantitative speed.
2. Simple installation: standard external interface flange, fast installation.
3. Data export: comes with USB interface, data record export more convenient.
4. Easy operation: 7 "/10" touch screen, Chinese and English display (optional).
5. Material: 304 stainless steel is used for the contact material part.
6. High speed and high precision: free blanking feeding is adopted, which is both fast and accurate.

1.2 Working principle

1.2.1 Bulk scale pattern

The equipment receives the operation instruction and runs according to the set fast, medium and slow feeding mode, first fast feeding, then adding, and finally slow feeding; Then set the value, and finally discharge the material. Then the next feeding, so the cycle repeats. The weight is added up as each scale is completed.

1.2.2 Flow scale pattern

1. When flow control is disabled:

1). Receiving mode: The working principle in this mode is consistent with that in bulk scale mode.

2). Delivery mode: Set delivery weight and cumulative weight are added on the basis of the bulk material scale. When the cumulative weight is greater than or equal to the delivery weight, the equipment will stop automatically after completion of work and pop-up window prompt.

2. When the flow control function is open:

1). Receiving mode: on the basis of bulk material scale to increase the set target flow and unloading interval time, the equipment will automatically adjust to the appropriate opening and single scale target weight for weighing, receiving.

2). Delivery mode: on the basis of bulk material scale to increase the set flow control target value, target flow and unloading interval time, the equipment will

automatically adjust to the appropriate opening and single balance target weight for weighing. When the accumulated weight is greater than or equal to the delivery weight, the equipment will stop automatically after the completion of the work, and pop-up window prompt.

2. Precautions for safe use

2.1 Safe operation

Before installing and using the product, you should read the product manual carefully and let the professional debug the equipment

2.1.1 Basic safety instructions

2. The power supply used meets the requirements of this manual, and the grounding of the equipment meets the requirements.
3. Power and air sources should be turned off before starting cleaning, maintenance and repair.
4. Only use cleaners that are not damaging to mechanical and electrical equipment.
5. The mounting rack connected with this product should be firm and secure.
6. Please cut off the power and air supply when installing the metering bucket.

6. The metering bucket, the parts connected with the sensor and the sensor are not allowed to knock, overload and other damage to the sensor behavior.

7. No part of the body is allowed to extend into the equipment during use, and the scale body door has been firmly installed before use.

8. Machines packing 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 specific details, please contact the relevant local authorities.

2.1.2 Operating safety Instructions

1. In order to avoid dangerous accidents, only one person is allowed to operate the machine, not many people at the same time.
2. Only properly trained personnel can operate the machine.
3. Before running the machine, the operator (or anyone responsible for operating the machine) must read and fully understand the operating instructions, especially the safety instructions and safety regulations.
4. Before running the machine, the operator must check that the scale is working properly and that the machine is fixed and looks properly.
5. In case of danger, please click the "emergency Stop" button on the main interface immediately or disconnect the main power supply immediately.
6. For electrical and electronic systems, unauthorized modification, replacement or any other non-standard operations are not allowed; Any updates or alterations must be made by Germain.
7. When maintaining the equipment, especially when entering the packaging area for maintenance, you must wear safety helmet and other protective devices.
8. When getting on and off the maintenance platform, pay attention to your feet.

3. Product installation and transportation protection

3.1 Product overall appearance and organization introduction

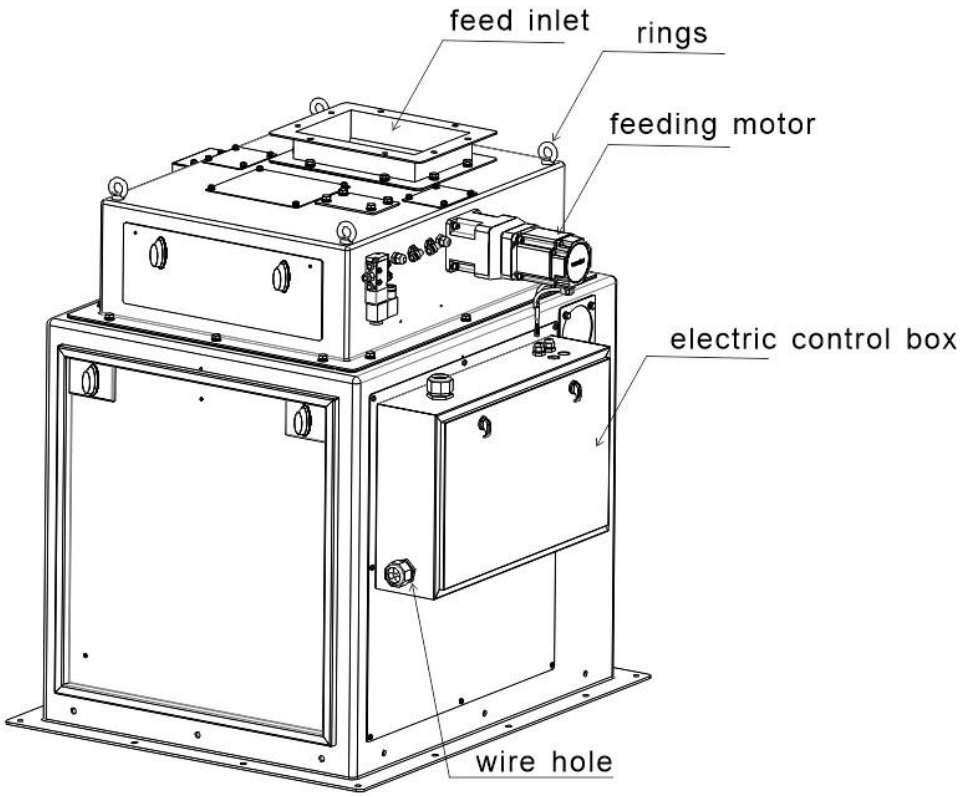


Figure 3-1 Overall appearance

Hanging ring: used to lift the device during installation.

Feed port: The material to be weighed enters the scale body.

Feeding motor: the main function of weighing is to control the feeding amount.

Electric control box: built-in circuit board and external signal connection, I/O control connection and power connection.

3.2 Installation conditions

3.2.1 Equipment installation basis, installation conditions

1. Temperature: -10~40℃.

Humidity: not more than 90%R.H.

Power supply: AC110~260V, 50Hz/60Hz, about 500W.

4. Air source: 0.4~0.5MPa 1.2m³/h.

5. Installation plane: horizontal strong steel support frame.

6. Static electricity: Ensure the equipment is grounded reliably.

7 harmful radio waves: should be far away from wireless equipment and other powerful harmful radio waves source.

8. Electric and gas technical parameters meet and in place

3.3 Unpack and check

3.3.1 Open the box for inspection

Please read this operation manual carefully before opening the box

1. Pay attention to the words and warning signs on the box before unpacking it.

2. Before opening the box, check whether the box is seriously squeezed and deformed during transportation. If the damage is serious, it is necessary to 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 connecting screws of the equipment are loose.

5. Before assembling the whole machine, check whether the metal hose is in good condition.

6. After unpacking the whole machine assembly, check whether the scale is normal and whether the movement of the moving parts is normal.

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

3.3.2 Spare parts

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

2. Unpack the box to check whether the accessories are matched and whether the equipment packaging is in good condition.

3. The original of Germain Technology Company must be used.

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

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

3.4 5. Product packaging and transportation protection

3.4.1 Packaging requirements

1 Single machine and double machine two kinds of packing cases.

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

3 To meet the anti-vibration requirements of long-distance road transportation, GB/T4857.7 transport package basic test, sine vibration (fixed frequency) test method.

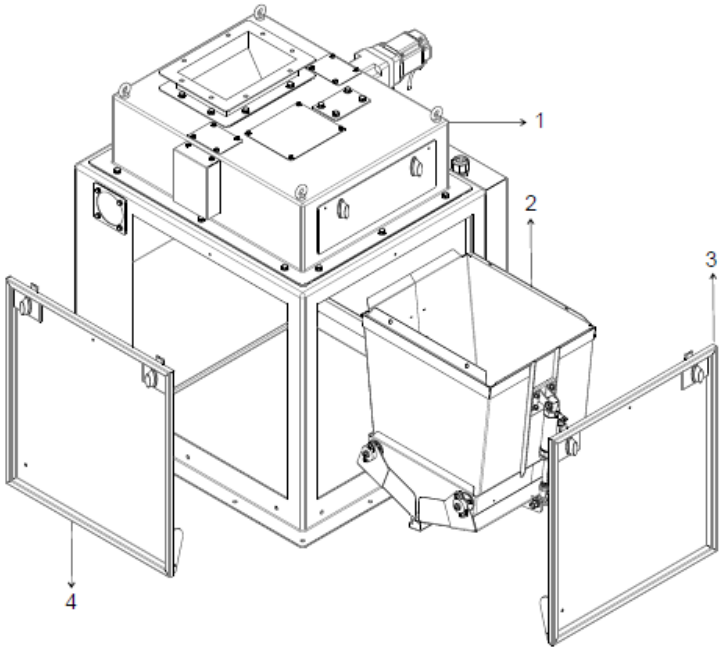
3.4.2 Transport protection

1. Before transportation, remove the measuring bucket and buckle it upside down inside the scale body frame.

2. The lower flange of the equipment is fixed with nuts to the transport wooden box, and the discharge hopper is fixed.

3. Wrap wrap film around the outside of the equipment.

3.4.3 Installation of the packaging unit



This product is for the purpose of not damaging the sensor during transportation. The measuring bucket is disassembled and inverted inside the scale body frame. After receiving the product, installation of the measuring bucket is required.

This product metering bucket adopts quick loading and quick unloading design. One person can complete the installation of the measuring bucket in 10 minutes.

As shown in the picture:

1. Open the scale frame door panel.

2. Loosen the fixing bolt of the measuring bucket.

3. Remove the measuring bucket from the scale body frame and turn it over to stand upright (as shown in the picture).

4. Insert the measuring bucket horizontally into the measuring bucket bracket (as shown by the arrow in the figure).

Note that the hypotenuse of the measuring bucket should jam the hypotenuse of the bracket.

Take care to prevent the discharge door from opening.

5. After insertion in place, align the holes and lock the four ring bolts.

6. Connect the discharge cylinder air pipe.

7. Install the door plate.

3.4.4 Requirements for equipment installation and maintenance

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

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

3. Operators must have short hair or long hair up, and clothing, shoes and hats should be easy to work with. Wear a safety helmet and insulated shoes when conducting testing or maintenance.

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

5. Before lubrication, mechanical adjustment, maintenance and repair of the equipment, it is necessary to cut off the power supply, shut off the air source, release the residual pressure in the pneumatic pipeline, and put up 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 under the condition of cut off the power and complete pressure relief.

7. The production line shall not be operated until all safety protection facilities are in place.

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

9. Do not enter dangerous areas or cross the production line while it is running.

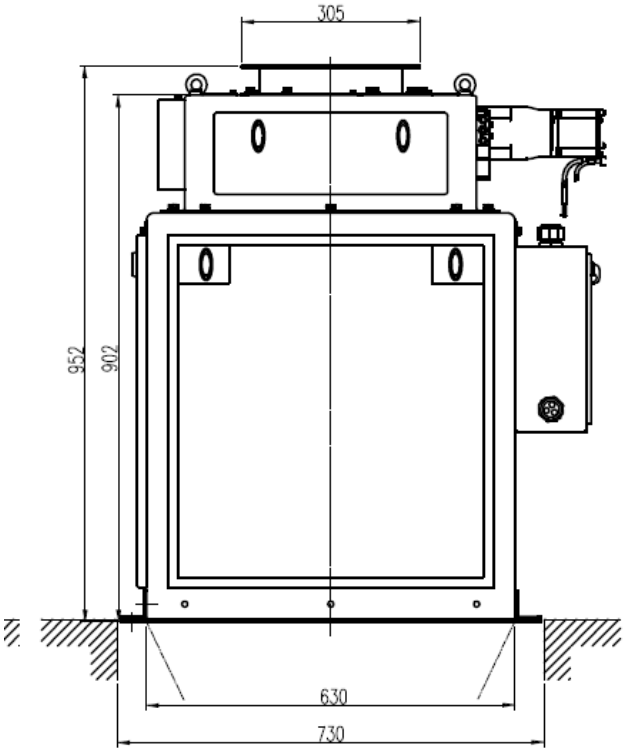
10. Prohibit irrelevant personnel to modify the wiring in the control cabinet, motherboard program, drive setting parameters.

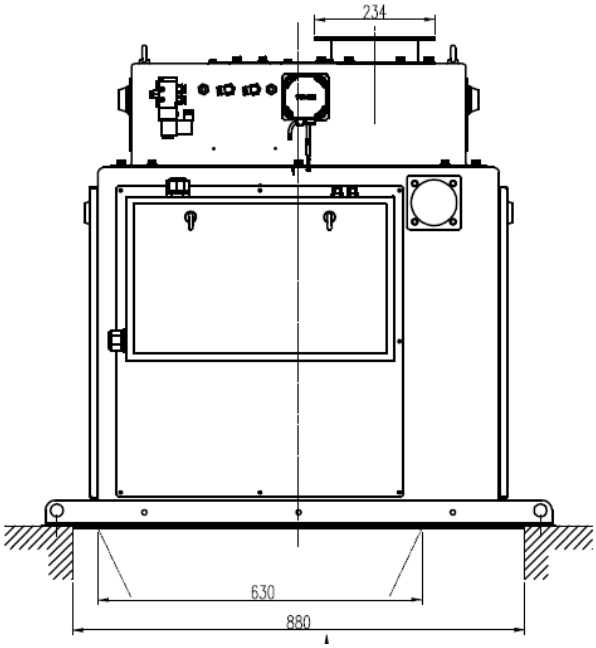
11. The installation tool is reliable and safe, and the person operating the tool understands and appreciates the full safety requirements of the tool.

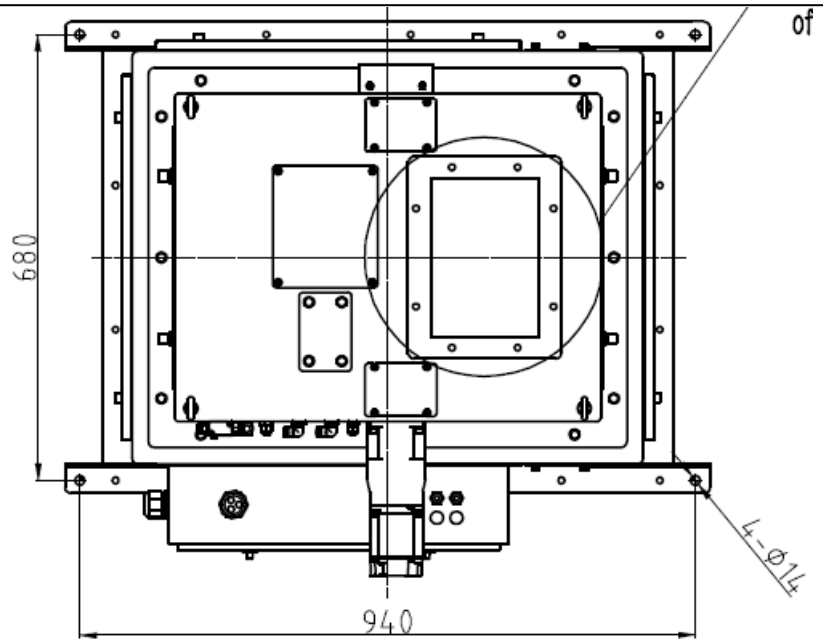
4. Product Dimensions

Product size unit: mm

4.1 AT-30T external dimensions



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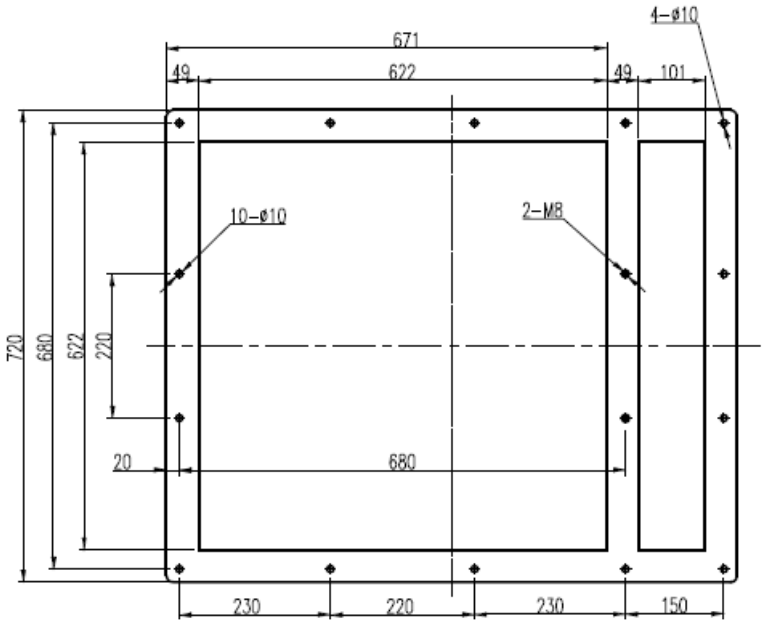
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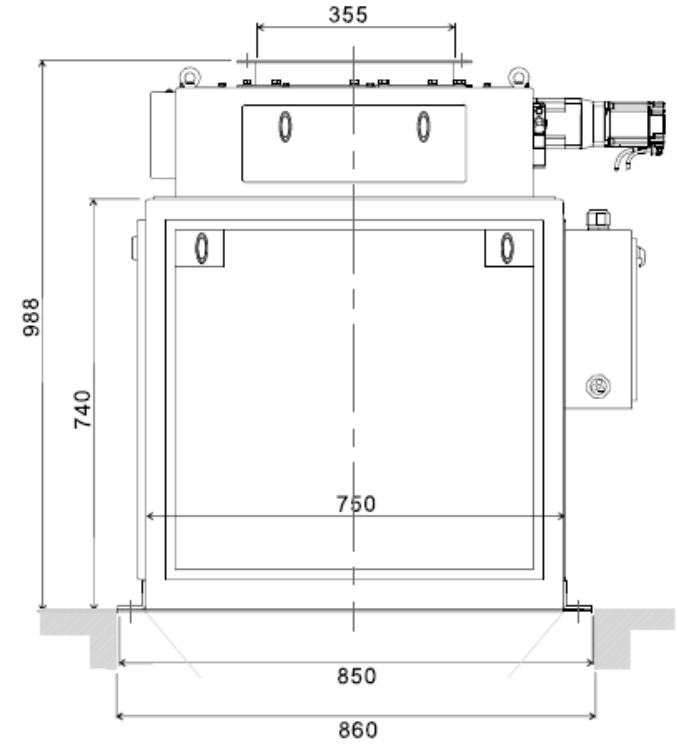
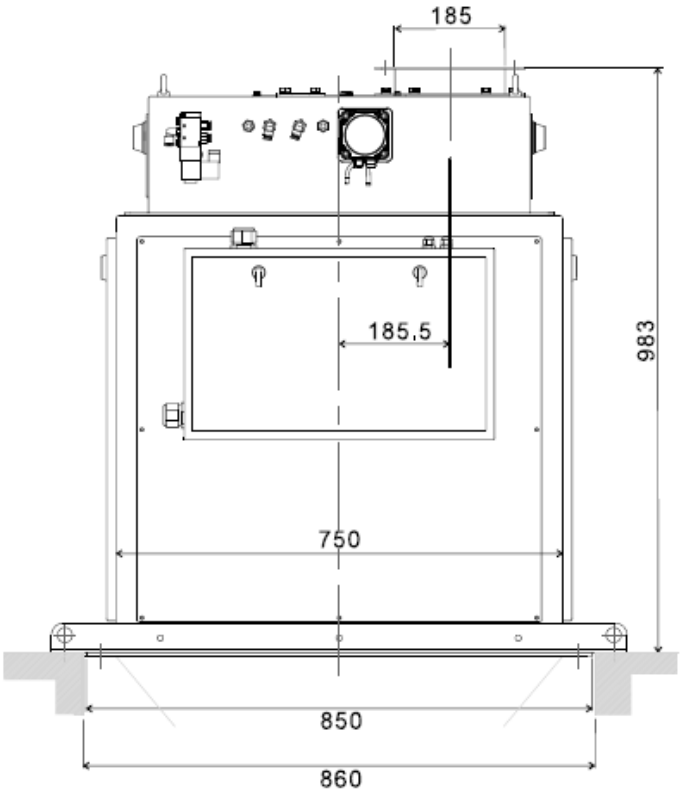
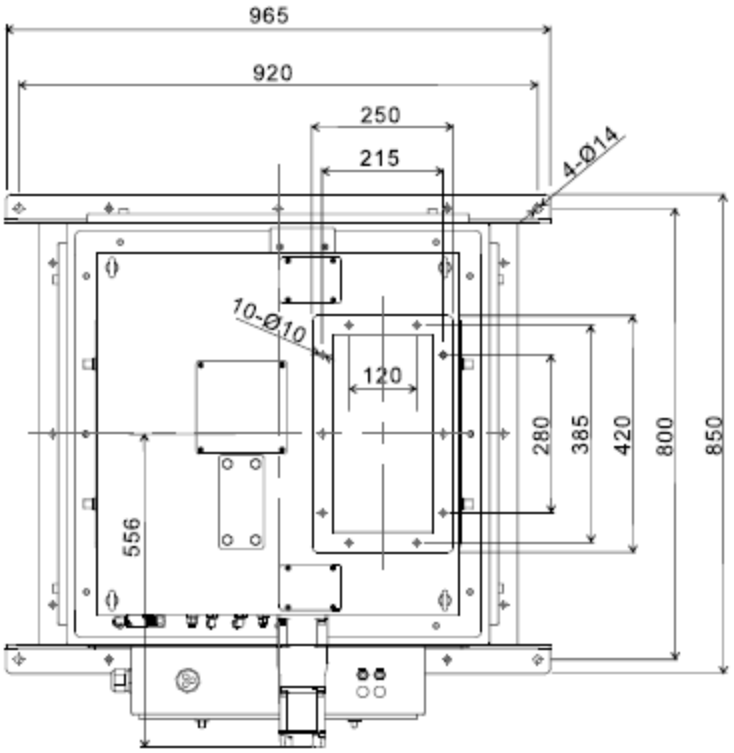
4.2 AT-50T outline dimensions



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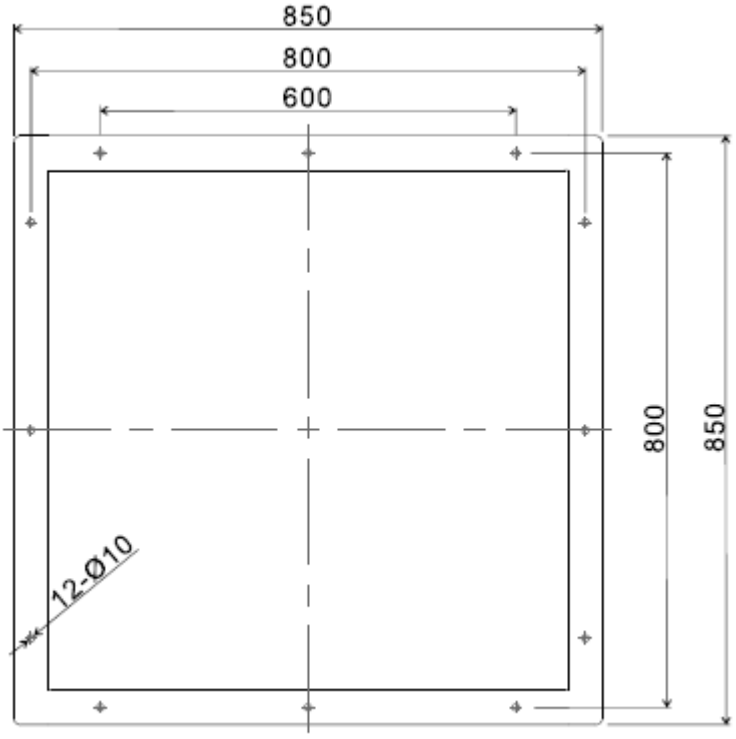
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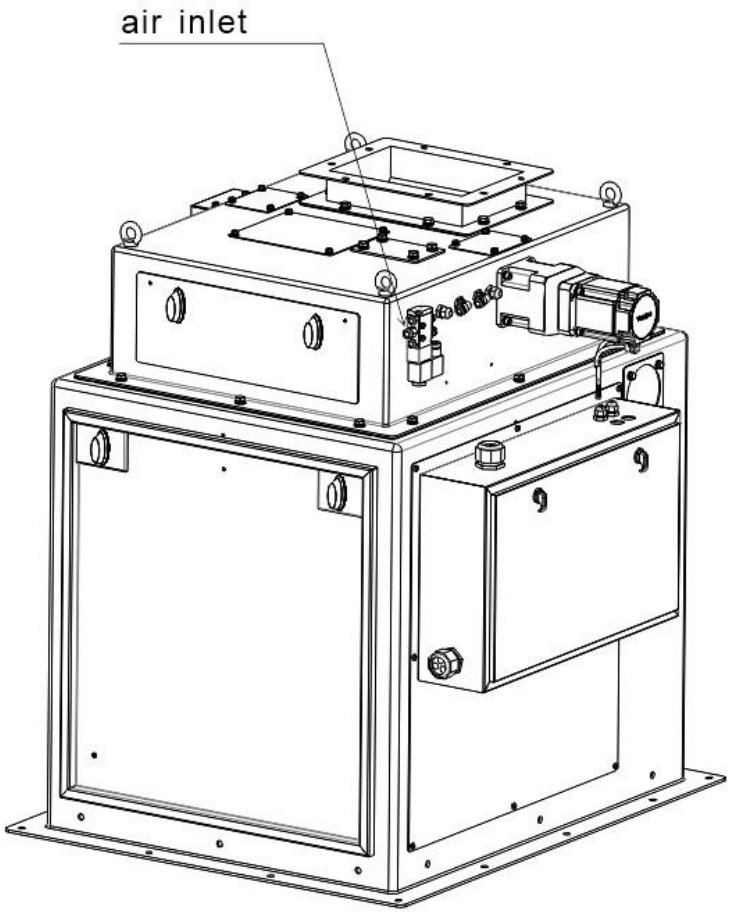
5. Electrical connections

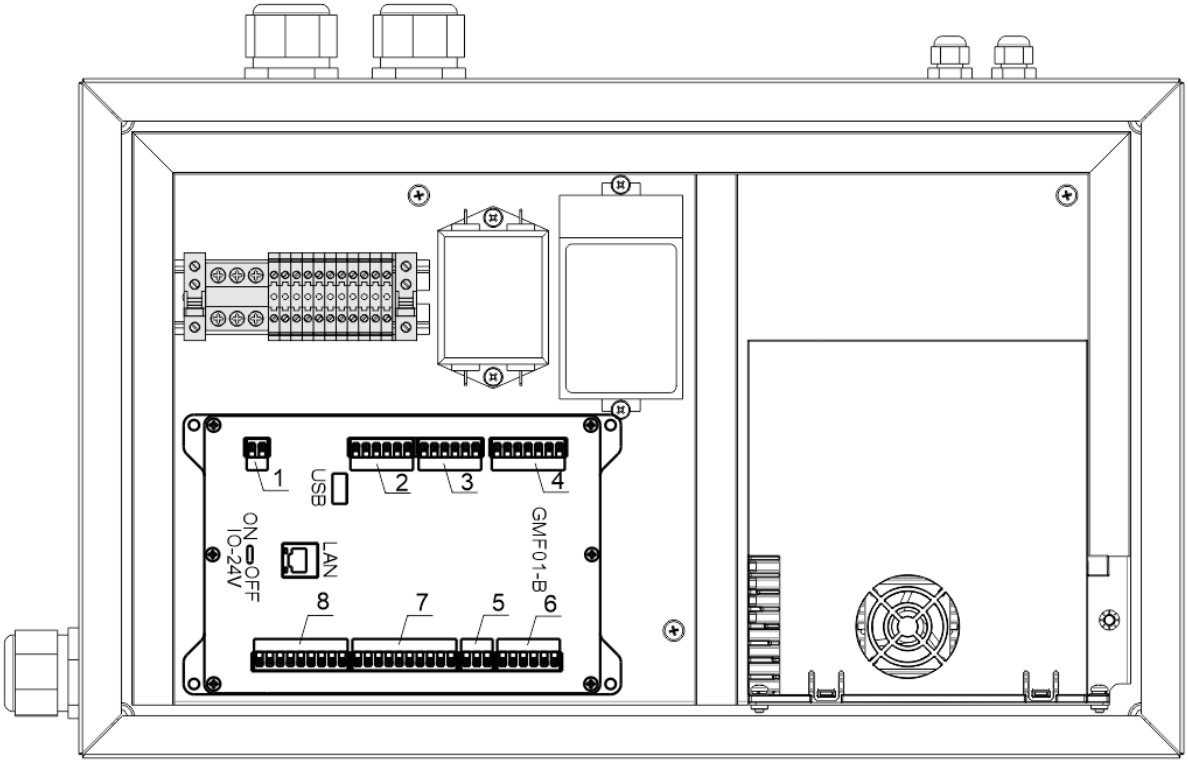
5.1 Air source connection



Air source inlet φ6 gas pipe, air source standard: 0.4~0.6MPa 2m³/h

5.2 Electrical connection

Plug the unit's single-wire 220V power supply into the field power outlet. The internal layout of the electric control box is shown in the figure below:



5.2.1 External interface definition

1: Power cord port, 24V power port of meter (24V+, 24V-).

2: motor control port 1, (M1_24V+ : 24V positive, M1_24V- : 24V negative, PU1: pulse, DR1: direction, ZT1_1: charging motor in place, ZT1_2: charging motor opening limit), can also be used as ordinary IO port, currently used as charging motor control.

3: Motor control port 2, currently used as ordinary IO port.

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.

6: two RS485 serial communication ports, serial port two (A2, B2, GND2) and serial port three (A3, B3, GND3), can be used for upper computer communication, all support Modbus communication.

7: Input port, 8 can be customized switch input interface (IN1, IN2, IN3, IN4, IN5, IN6, IN7, IN8), is low effective, the definition of each port can be selected by oneself.

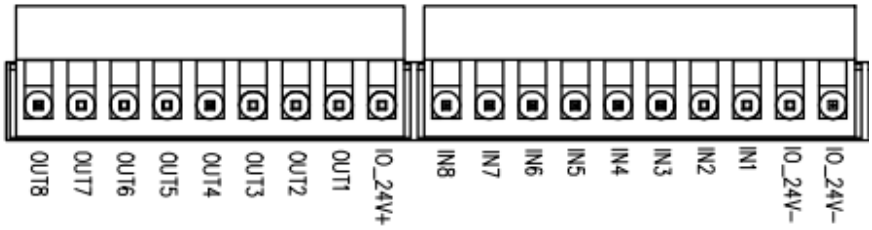
8: output port, 8 switch output interface can be customized (OUT1, OUT 2, OUT 3, OUT 4, OUT 5, OUT 6, OUT 7, OUT 8), the definition of each port can be selected by oneself.

USB: USB interface can be used for various data import and export.

LAN: Network port for networking and data transfer.

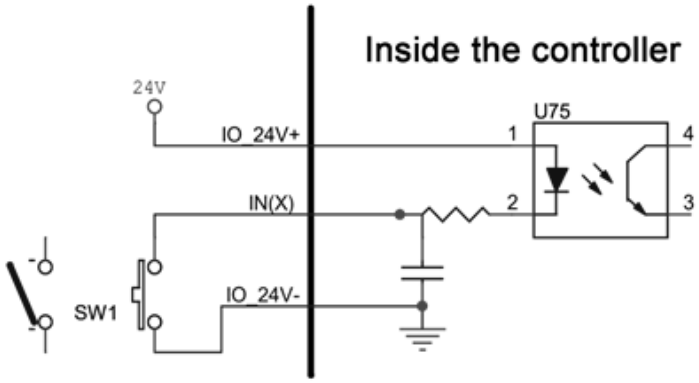
IO-24V: For internal use.

5.2.2 Wiring instructions for the switching quantity interface

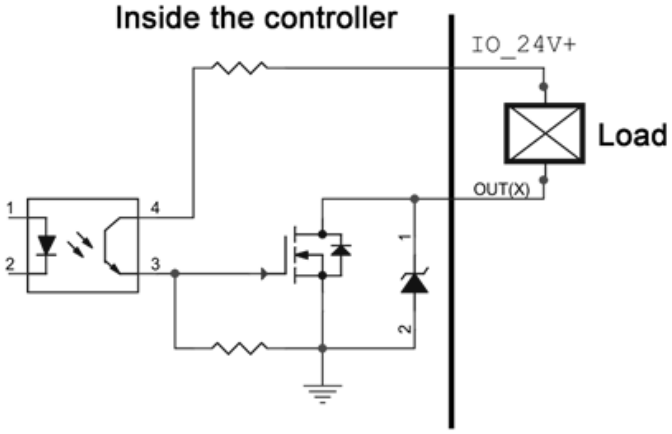


Switch quantity interface diagram

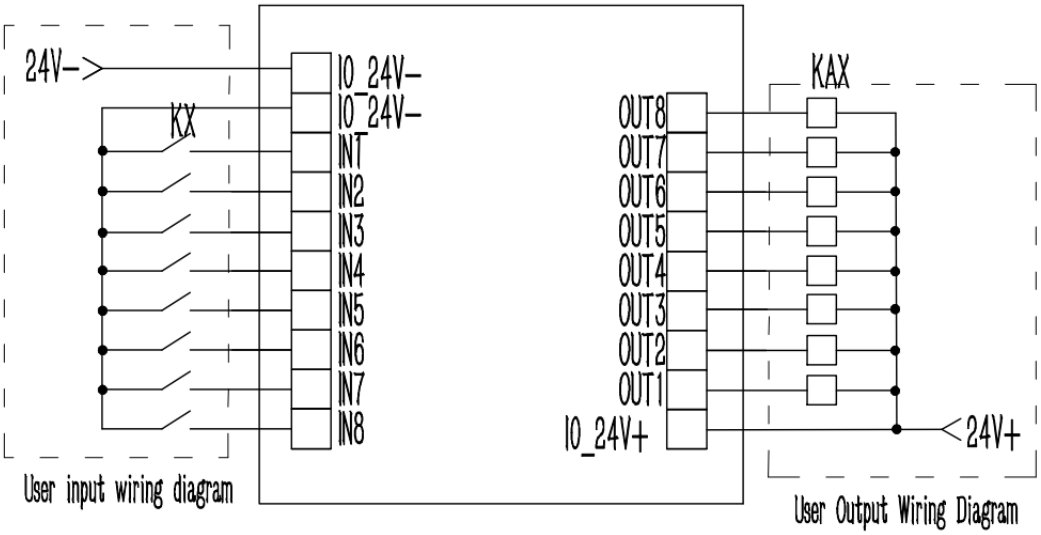
Switching quantity adopts photoelectric isolation mode. If the user needs to use the switching quantity interface, it needs to provide and access the DC24V power supply by itself. The switching quantity input is active at low level; Output takes transistor collector open output mode, each drive current up to 500mA.



Schematic diagram of input interface



Output interface schematic



Schematic diagram of user input and output connection

6. Modbus address table

The Modbus address table is detailed in Appendix A.

If the device is equipped with a 7-inch or 10-inch touch screen, read all the content in Chapter 7. If the device does not have a touch screen, you do not need to read Chapter 7.

7. Operating Instructions for Touch Screen (Optional)

7.1 Login interface

Interface Description: The interface is displayed after startup and before login.

Operating instructions for buttons and operation boxes (applicable to all operating interfaces of the device):

1. Setting Click this button to enter the parameter setting interface.
2. Auto Setting Click this button to enter the automatic scale adjustment interface.
3. Histroy Data Click this button to enter the historical data interface to view relevant data.
4. Zeroing Click this button to perform a reset operation.
5. Stop Click this button to make the device emergency stop.
6. Stop Click this button to start and stop the device.

7. 0.300s Click this type of operation box to modify this value.

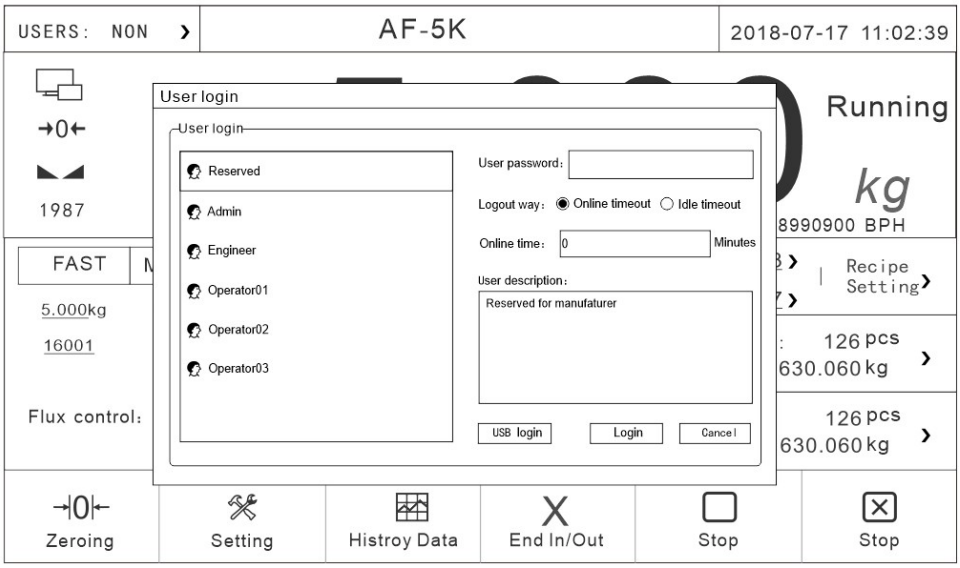
8. RUN Click this type of operation box to select and set this definition.

9. Auto Feeding Click this type of operation box to perform corresponding operations.

10. Click this type of operation box to set the opening and closing of corresponding functions.

11. ❮ Previous Page Click this type of operation box to switch pages.

7.2 Touch screen login permission description



Parameter description:

1: Login information, showing the level of the current logged-in user.

2: system date time, the date and time of the current system.

3: Device working status, current device status indication.

4: Weight display area, display the current weight and weight unit, if the weight overflow or sensor overflow, there will be text prompts in this area, such as: "positive weight overflow", "negative weight overflow" and so on.

5: Login user selection area, display all users currently available for selection.

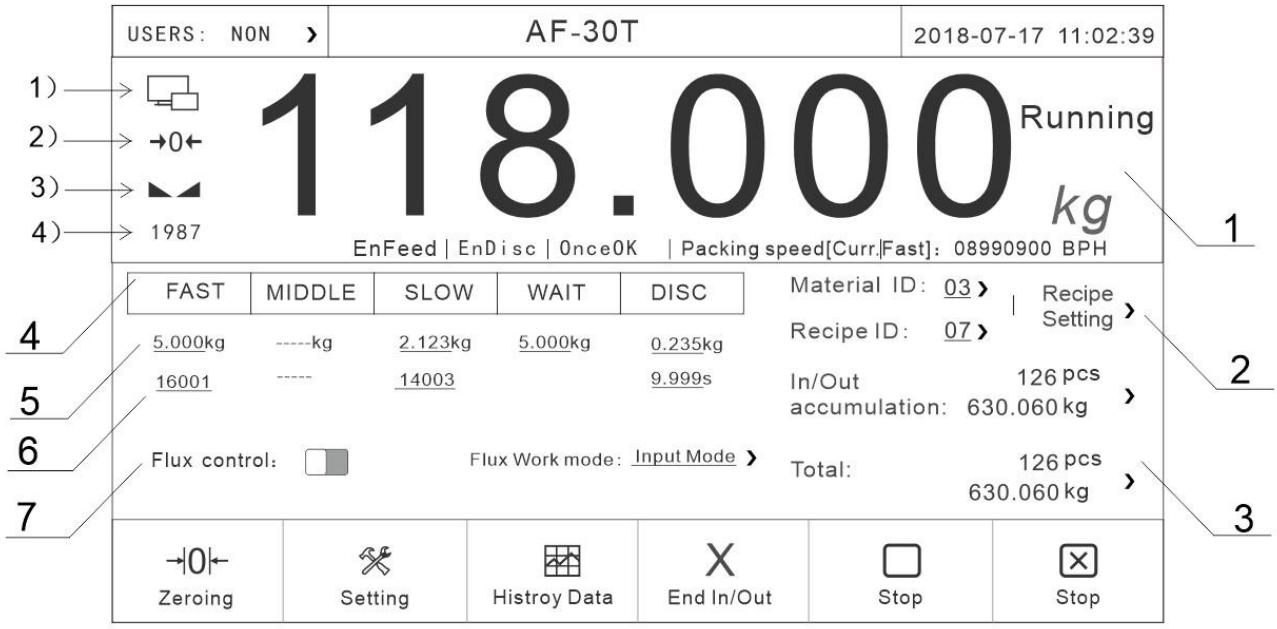
6: User password input box, select the user account and enter the corresponding user password

Description of user name and password:

User name	User	Password	Permissions
Admin	Admin	0	Not available: calibrating scale/switching quantity/motor parameters, etc
Operator01	Operator 01	1	Do not: calibrating scale/switching volume/motor parameters/system information, etc.
Operator02	Operator 02	2	
Operator03	Operator 03	3	
Engineer	Engineer	Obtain the password from the manufacturer	Unlimited operation
Reserved	reserve	No action required by user	User no action

For details, refer to section 7.1 "Buttons and Operation Frame Instructions".

7.3 Description of the Home Screen



Parameter description:

1. Current weight and equipment status, where:
   1）Communication status. This icon is green when communication is normal.
   2）Zero mark. When the current weight is zero, the icon is green.
   3）Weight stabilization sign, when the current weight is stable, the indicating icon is green.
   4）Opening mark, the opening of the current material door.

In addition, allow feeding, allow unloading, single completion, blocking, current flow, running or stop state display.

2. The current material number and formula number can be set, and the formula or material can be changed. Click the "Formula Setting" button on the right, and the current formula parameters can be modified.

3. For the accumulation of the current formula and the total accumulation, click the right button to clear the record data.

4. Each state of the device when it is running, when the device is stopped, the corresponding manual operation can be carried out (operation is invalid when it is running).

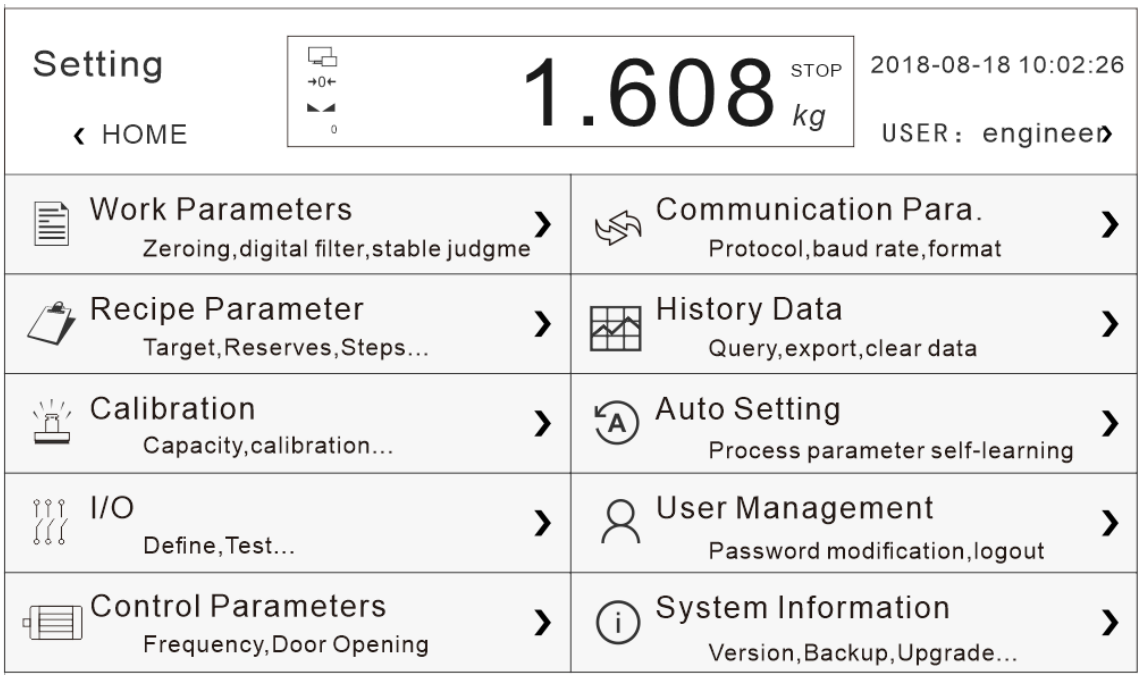
5. The setting of feeding cut-off advance value, target value and discharging time under the current formula.

6. Feeding door opening setting under the current formula.

7. Parameters related to the current working mode.

For details, refer to section 7.1 "Operation Instructions on Buttons and Operation Frames".

7.4 Parameter setting interface description



Sample interface

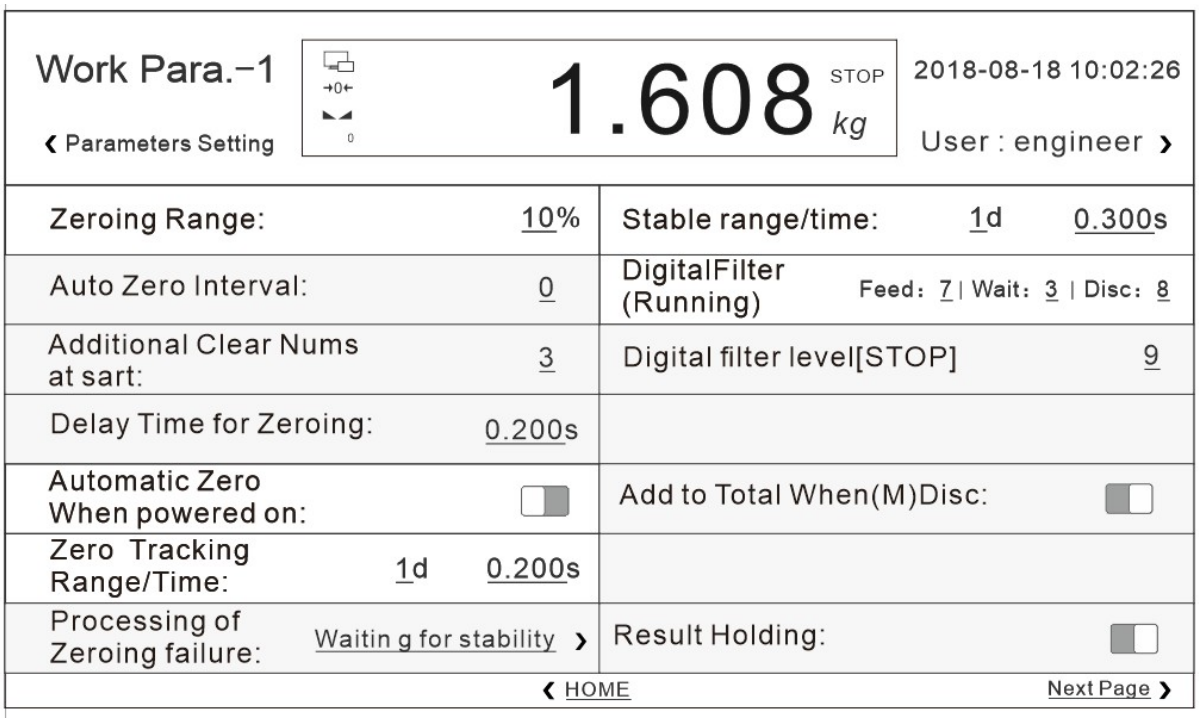
Parameter description:

parameter	illustrate
Working parameters	basic parameters of the product can be set, such as zero clearance range, zero clearance time, unloading mode and so on.
Recipe Parameter	can modify the current formula number, as well as the parameter value of the current formula to modify, such as modify the lead quantity, material door opening, unloading time, etc.
Auto Setting	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, The debugging data is restored to the factory default data.
Control parameters	parameters of the feeding motor can be set.
Historical data	You can query previous packing records on the historical data screen and export the packing records to a USB flash drive.
Calibration scale	zero calibration, weight calibration, material calibration, and maximum range setting.
I/O	Users can define and set the input quantity and output quantity according to their own requirements. The control board has 8 inputs and 8 outputs (for details, see 7.12 Switch Quantity Description).
Communication	the communication parameters of the product can be set. Serial port 1 is used to communicate with the

parameters	touch screen. The parameters cannot be modified, but can be adjusted automatically through the serial port.Serial port 2 canbe used as an external serial communication interface. The communication parameters can be set by oneself, but should be consistent with the communication equipment (see 7.10 Communication Interface description for details).
User management	Switch user rights.
System information	Displays the current touch screen software version and control board software version. You can also update the control board program using the USB flash drive (for details, see 7.14 USB Flash Drive Upgrade Description).

For details, refer to section 7.1 "Operation Instructions on Buttons and Operation Frames".

7.5 Work parameter interface description



Example Work Parameter Interface

Parameter description:

parameter	illustrate
Zeroing range	Zeroing range (1% to 20% of full scale).
Automatic reset interval	During operation, the device automatically resets after completing the set number of packets.
Start additional reset times	After the device enters the operating state, the second scale starts and continues to reset before feeding. The number of executions is equal to the set value of this parameter. For example, if the start additional reset times are 2, then after starting, the second and third scales are all reset before feeding.
Zeroing additional delay	When it is necessary to reset (whether it is an automatic reset interval or an additional reset), before resetting, the device completes the pre feeding delay and after this delay, the reset operation begins.
Power on automatic reset:	When the device is powered on, it automatically performs a reset operation.
Zero point tracking range/time	The zero point tracking range is optional from 0 to 9d. If it is 0, zero point tracking will not be performed. The zero point tracking time can be set from 0.001 to 9.999.
Automatic Zeroing Failure Handling	The handling method after automatic cleaning failure, including: next package cleaning, three package failure suspension, continuous stabilization, and immediate suspension.
Stability range/time:	The stability range is optional from 0 to 99d. If the change in weight within the stability time does not exceed the stability range, it is considered stable. Otherwise, it is considered unstable.
Operation filtering level:	The filtering level used during operation, ranging from 0 to 9 levels, can be divided into three situations: feeding, constant value, and unloading. The larger the value, the better the filtering effect, but the greater the lag.

Stop filtering level:	The filtering level used in the stop state, ranging from 0 to 9 levels. The larger the value, the better the filtering effect, but the greater the lag.
When manually unloading, the packaging	Accumulated manual unloading: weight is included in the accumulation.
Fixed value weight maintenance	weight display remains unchanged until the unloading is completed.
Feeding timeout time	Feeding timeout, even if the amount is not enough, immediately end the feeding, and set the value directly (set 0 do not use this function!))
Unloading mode	divided into two modes: time controlled unloading and zero zone delayed unloading. The former is to close the unloading door when the unloading time is reached, while the latter is to start the "delay after unloading to zero zone" when the weight is less than the zero zone value. When the delay time is reached, the unloading door is closed.
Delay after unloading to the zero zone	When the weight of the material reaches the zero zone value, delay the time to close the unloading door.
Unloading timeout time	If the unloading process exceeds the set time, the device will prompt a unloading timeout alarm message and automatically return to the stop state.
Fixed value mode	divided into two modes: time fixed value and stable value judgment.
Fixed value timeout time	If the fixed value is not completed within this time, it enters the fixed value timeout processing.

Fixed value timeout processing	You can choose to not pause the timeout alarm, only pause the three guarantees alarm, continue to alarm and wait for stability, and continue to alarm and pause.
Over range feeding protection	zero point (plus the part that has been cleared from zero) and has a large weight.If it is equal to 1.2 times the upper limit of the quantitative range, it enters an overrange protection state. This function can prevent the occurrence of a situation where the weight is displayed as small but has actually overflowed after clearing the larger weight to 0.
Operating frequency of discharge motor	Working frequency of discharge motor, initial value: 10; Range: 1-50 Unit: kHz (discharge machine Available when the construction type is servo motor)
Starting frequency of discharge motor	Starting frequency of discharge motor, initial value: 5; Range: 1-50 Unit: kHz (discharge mechanism Available when the type is servo motor)
Unloading door closing timeout	During operation, if the unloading door is not detected to be closed in place within this time, it is judged that the unloading door has exceeded the limit Time. Initial value: 3; Range: 0.0~9.9. Unit: s (discharge mechanism type is servo electric) Available during machine hours)
The discharge motor closes the door to replenish the number of pulses	The number of pulses that go forward after triggering the signal to close the door in place
Flow scale mode	There are both receiving and shipping modes to choose from.
The length of the flow window sample	Calculate the flow rate with the set packet number data, range: 1~6.
When you switch the receiving and shipping mode,	When you change a recipe or a shipping and receiving mode, the Accrual and Total Amount functions are automatically cleared.

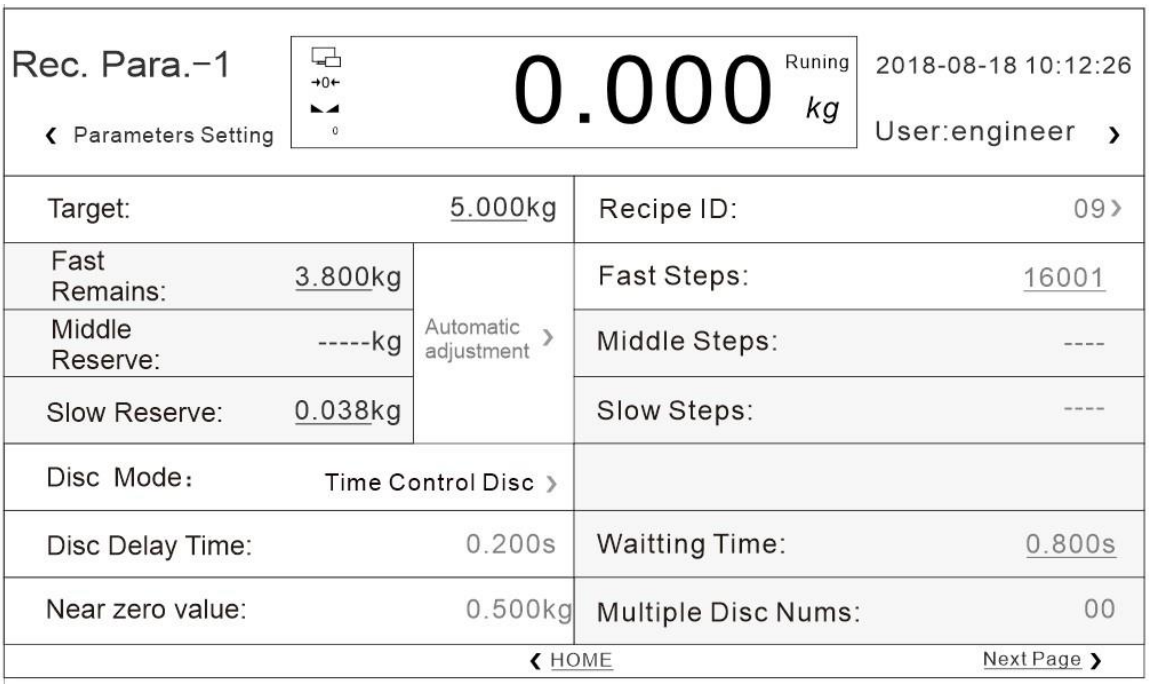
the cumulative and total amount of receiving and shipping are automatically cleared	
You must manually clear the receipt-and-delivery accrual at start-up	The Accrual and Receipts feature enable switch must be manually cleared at startup.
The target value is adjusted in real time	It means that after this switch is turned on, the program will adjust the sampling length in real time according to the target value to automatically correct and adjust the target value, and this function is aimed at the real-time control of the total amount of shipments.
The target value adjusts the sample length in real time	Calculate the flow rate with the set packet number data, range: 1~6.
Insufficient flow alarm switch	Turn on this switch to enable the insufficient traffic alarm.
Statistics on the number of insufficient traffic alarms	Statistics on the number of insufficient traffic alarms.
The cumulative preset value for receiving and shipping	When the cumulative weight of the receipt and delivery is greater than or equal to the preset value of the cumulative value of the receipt and delivery, the output is valid. The receiving and shipping process continues. When the receipt and delivery are completed, there is an output of the receipt and delivery of the delivery.
Scale	Set the function for the manufacturer, not for the engineer user

specifications, vibrating plate, motor type	
Feeding switch output mode	Stand-alone, combinatory. The independent is only effective in fast plus, and the combination is fast plus medium plus slow plus
Type of feeding mechanism	Pneumatic and servo motors are optional
Charging motor type	There are stepper motor-shaft drive, servo motor-shaft drive, and stepper motor-connecting rod options
The starting frequency of the charging motor	Initial value: 5; Range: 1~50 units: kHz
The working frequency of the charging motor	Initial value: 10; Range: 1~50 units: kHz
The timeout period for the charging power to shut off the door	During operation, if the feeding door is not detected in place during this time, it is judged that the feeding door is overclosed Time. Initial value: 3; Range: 0.0~9.9. Unit: s
Power-On Initialization Motor Delay (42S)	It is only used for use with Siemens servos
Type of discharge mechanism	Pneumatic and servo motors are optional
The working frequency of the discharge motor	Discharge motor working frequency, initial value: 10; Range: 1~50 Units: kHz (Unloader Available when the structure type is servo motor)

The starting frequency of the discharge motor	Discharge motor starting frequency, initial value: 5; Range: 1~50 Units: kHz (Discharge mechanism Available when the type is servo motor)
When the discharge motor closes the door and times out space	During operation, if the discharge door is not detected in place during this time, it is judged that the discharge door is overclosed Time. Initial value: 3; Range: 0.0~9.9. Unit: S (The type of discharging mechanism is servo electric.)Machine time available)
The discharge motor opens the door to replenish the pulse Number of punches	The number of pulses that go forward after triggering the signal to close the door in place

For details, please refer to section 7.1 "Operation Instructions on Buttons and Operation Frames".

7.6 Recipe parameter interface description



Example Recipe Parameter Interface

Parameter description:

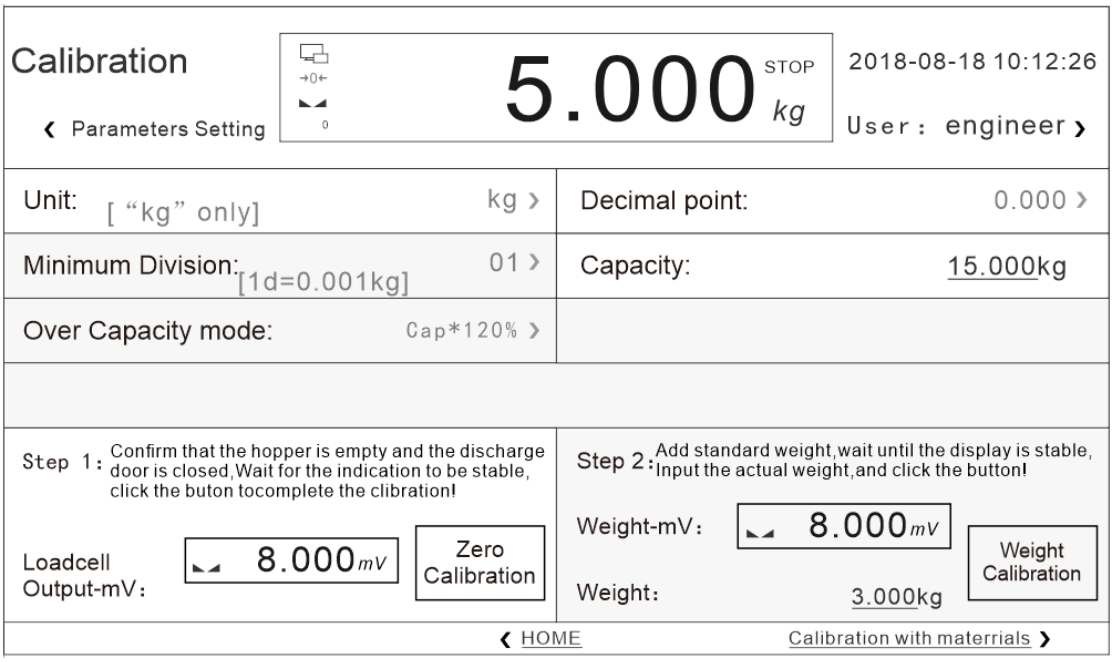
parameter	illustrate

Target value	A quantitative weight is required.
Fast acceleration advance	During the quantitative process, if the weighing value is ≥ the target value - fast acceleration advance, the fast acceleration will be turned off.
Intermediate plus advance	During the quantitative process, if the weighing value is ≥ the target value - intermediate plus advance, the intermediate plus will be turned off.
Drop value	During the quantitative process, if the weighing value is ≥ the target value - drop value, the slow acceleration will be turned off.
Unloading mode	Time controlled unloading or zero zone delayed unloading can be selected.
Unloading time	The unloading signal output stops after this time.
Zero zone value	During the quantitative process, if the weighing value is less than or equal to the zero zone value, the unloading delay timer will be activated.
Recipe Number	The number of the current recipe.
Quick feeding opening	No setup required
Medium opening	No setup required
Slow feeding opening	No setup required
Discharge opening	No setup required
Fixed value time	The time to determine the weight after the feeding is completed.
Combination	This is a reserved parameter, and the current device does not support the multi scale combination function.

times	
Delay T1 before feeding	At the beginning of the quantitative process, the feeding process only starts after a delay T1 time;
Flow control	The flow control function enables the switch.
Target traffic	Here you can set the target traffic value.
Maximum flow rate	Here you can set the maximum flow value.
Discharge interval	This time is the time between the two discharge actions.

For specific operation methods, please refer to section 7.1 "Operation Instructions on Buttons and Operation Frames".

7.7 Calibration scale interface description



Sample interface

Parameter description:

parameter	illustrate
Unit	The fixed value is kg
Minimum score	1 2 5 10 20 50 Optional.
Display mode of overrange	there are three options: when the current weight is greater than: maximum range + 9D, maximum range *120%, and maximum range *150%, the device will prompt weight overflow.
Decimal point	fixed value 0.000, that is, three decimal places after the decimal point.
Maximum range	maximum range of the device (do not set it to more than 20.00kg).

For details, see section 7.1 "Operation Instructions on Buttons and Operation Frames".

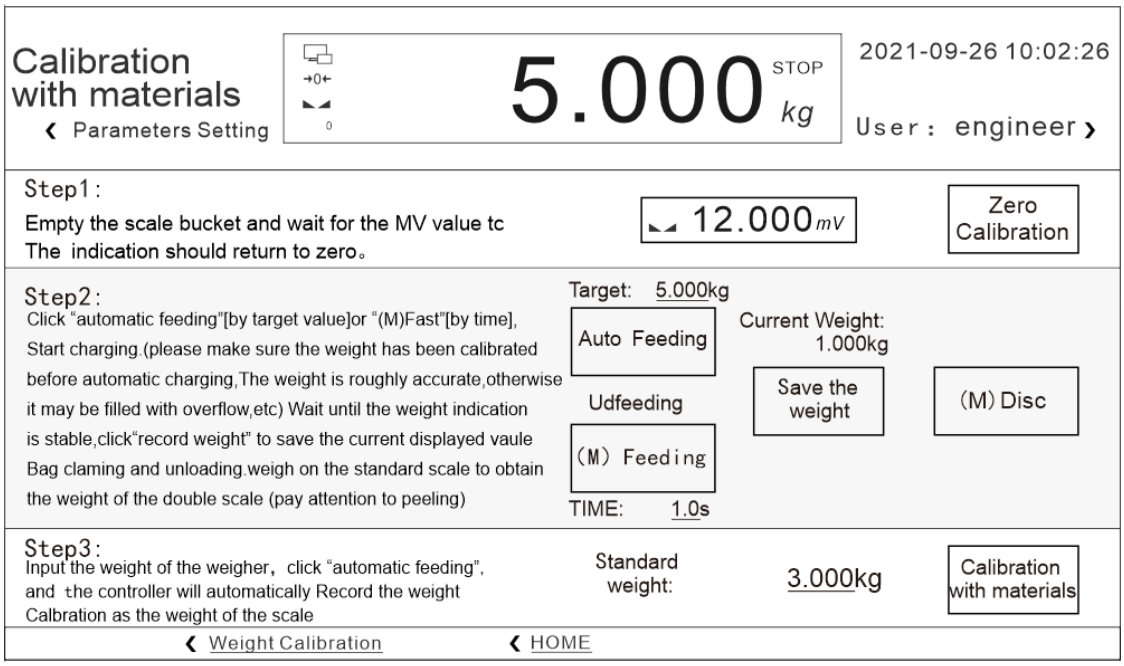
7.8 Steps for weight calibration

1. Zero point calibration: empty the hopper and close the discharge door. Click "Zero point Calibration" when the weight is stabilized. During the calibration process, the weight display area above will display the calibration result. After successful calibration, it will show stability.

2, Gain calibration: Add the weight on the weighing mechanism, after the weight is stable, click the weight weight input box, enter the weight of the weight, click "weight calibration", the upper weight display area in the calibration process will also display the calibration result. After successful calibration, the weight displayed in the weight display area is the weight of the input weight. Otherwise, gain calibration fails, try again.

For details, refer to section 7.1 "Buttons and Operation Frame Instructions".

7.9 Steps of material balancing



Sample interface

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

2. Gain calibration:

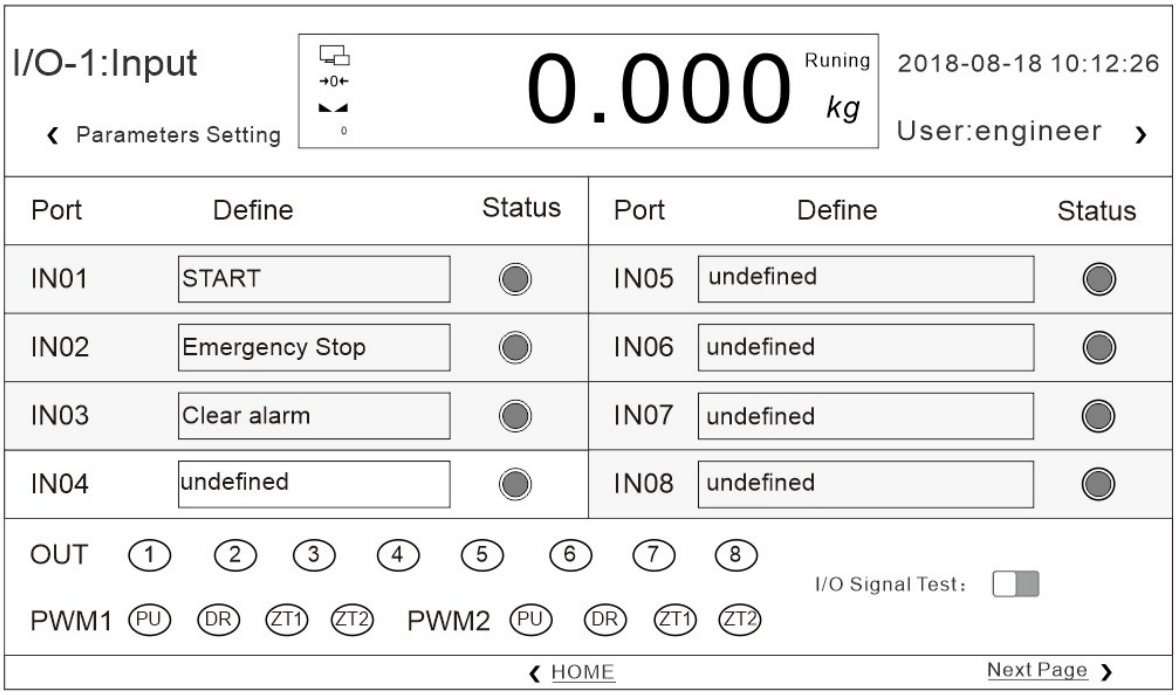
A. Use "automatic feeding" (automatically run a scale according to the current formula target value) or "manual feeding" (click once to start fast feeding, click again to close fast feeding), stop feeding and wait for the weight to stabilize, click "Record weight" to save the current displayed value.

b. After placing the pre-prepared bag or container at the discharge port, click "Manual discharge" to unload all the materials in the hopper into the bag or container, and weigh the materials in the bag or container (pay attention to removing the weight of the bag or container).

c. Click the input box of "double weighing weight", enter the material weight obtained by double weighing and click "Material Calibration" for calibration, wait for the calibration to succeed, if not, retry step c. After successful weight calibration is completed, exit the menu.

Refer to section 7.1 "Operation Instructions for Buttons and Operation Frames" for specific operation methods.

7.10 Switch quantity interface description



Example Switching Quantity interface

Parameter description:

parameter	illustrate
Input	Input ports (IN01, IN02, IN03, IN04, IN05, IN06, IN07, IN08) can be customized by customers
	(PWM1-ZT1_1, PWM1-ZT1_2) is fixed as the photoelectric signal of the motor in place; Input Port (PWM2-ZT2_1, PWM2-ZT2_2) is a universal switching value, where PWM2-ZT2_ 1 has been set as servo alarm by default, PWM2-ZT2_ 2 Customizable by customers (When the corresponding PWM port function is set to motor control, PWM1-ZT1_1, PWM1-ZT1_2, PWM2-ZT2_1, and PWM2-ZT2_2 are fixed as motor in position photoelectric and cannot be set. When set to switch value, they are used as ordinary input ports)
Output	(OUT01, OUT02, OUT03, OUT04, OUT5, OUT6, OUT7, OUT8) can be customized by customers
	(DR1, PU1) is the direction signal and pulse signal of the motor; The output ports (DR2, PU2) are general-purpose switching variables, The default setting for DR2 is slow acceleration, while the default setting for PU2 is unloading

	(DR1, PU1, DR2, and PU2 are fixed to the motor direction and pulse when the corresponding PWM port function is set to motor control) Impulse output, cannot be set. When set to a switching value, as a normal input port)
Switching Value test	After being turned on, you can test whether the corresponding switching value signal is normal.

For specific operation methods, please refer to section 7.1 "Operation Instructions on Buttons and Operation Frames".

Input terminal definition:

Port number	Initial value	Custom list
IN1	**1**	**I00**: Undefined **I01**: Start **I02**: Emergency stop **I03**: Stop **I04**: Charging stepper motor origin (close door to Bit level) **I05**: Feeding allowed **I06**: Discharge allowed **I07**: Clear alarm **I08**: Hold **I09**: Open/close discharge door [original manual discharge Function, switch unloading output state] **I10**: Manual unloading **I11**: Manual slow loading **I12**: Add manually **I13**: manual fast add [press fast add opening to open
IN2	2	
IN3	5	
IN4	6	
IN5	0	
IN6	0	
IN7	0	

IN8	0	Door] **I14**: Manual clearing [Open at maximum opening
ZT1_1	4	Door] **I15**: Start/stop (Double edge: effective edge, Start; Invalid edge, stop)
ZT1_2	24	**I16**: Start/Emergency Stop (double edge) **I17**: Manual discharge (double edge) **I18**: Manual slow loading (double edge)
ZT2_1	31	**I19**: Manual addition (double edge) **I20**: Manual quick add (double edge)
ZT2_2	0	**I21**: Manual clearing (double edge) **I22**: Clear to zero **I23**: Emergency stop [level](Active, then no Start allowed, manual feeding not allowed, not allowed Manual unloading is allowed) **I24**: feeding stepper motor opening limit point. **I25**: origin of unloading stepper motor. **I26**: opening limit point of unloading stepper motor. **I27**: Plug the input. This signal is valid. Disengage The hopper under the material door is blocked and unloading is not allowed Material. Judge the signal only before unloading begins **I28**: End of collection and delivery.(Running status immediately Stop feeding, direct value, discharge accumulated

		Process, take delivery to complete the process. Stop form State directly go to complete the receiving and delivery process) **I29**: feeding mechanism open in place **I30**: **The** discharging mechanism opens in place **I31**: Feeding motor alarm input detection (level) **I32**: Feeding motor normal input detection (level) **I33**: Discharge motor normal input detection (level) **I34**: The discharge door is closed in place and the detection point 1 is in place **I35**: The discharge door is closed in place to detect point 2 **I36**: Loading level **I37**: Middle level **I38**: Blanking level

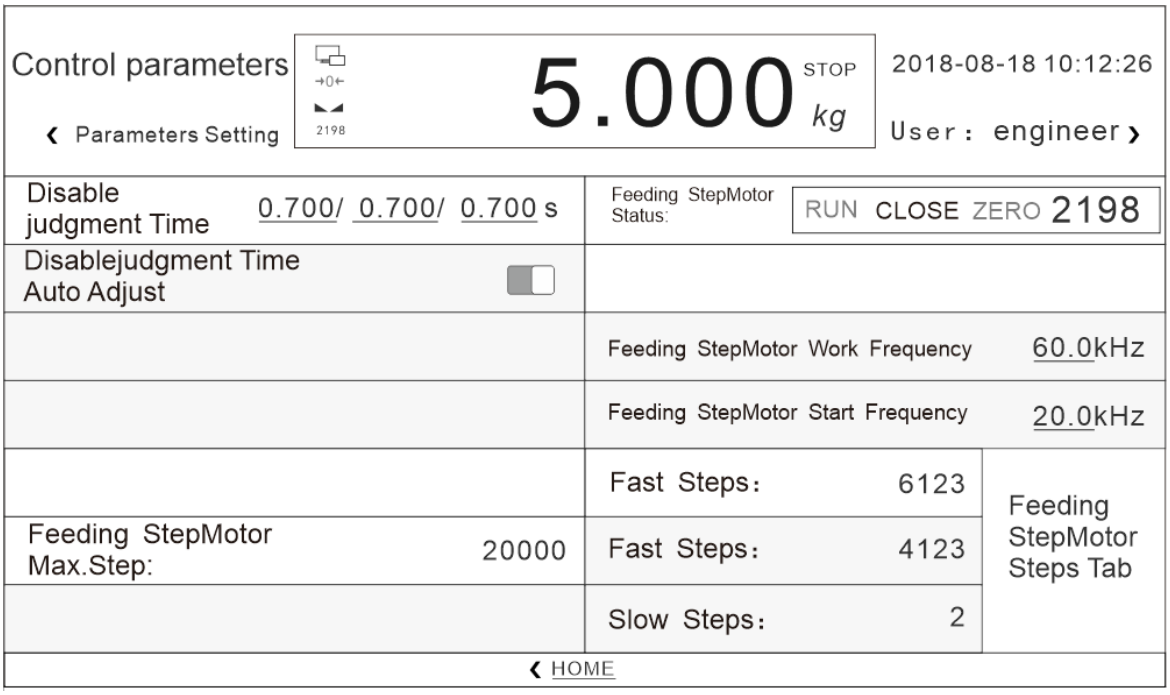
Output definition:

Port number	Initial value	Custom list
OUT1	**1**	**O00**: Undefined **O01**: Run **O02**: Feeding request **O03**: Charging stepper motor direction [has PW Signal is set to feed PWM] **O04**: Fast feed **O05**: China Canada **O06**: Slow Add
OUT2	**4**	
OUT3	**5**	
OUT4	**6**	
OUT5	**7**	
OUT6	**0**	
OUT7	**0**	
OUT8	**0**	

DR1	**3**	**O07**: Set value **O08**: Discharge L **O09**: overshoot and undershoot **O10**: Alarm **O11**: Hold **O12**: Preset number of packages completed **O13**: One packing completed (discharge completed After output **1s** clock) **O14**: Stop **O15**: Discharge stepper motor direction **O16**: Discharge motor running/forward **O17**: The discharge motor is in reverse **O18**: Feeding PWM[OUT7/OUT8 only available Set] **O19**: Discharge PWM[OUT7/OUT8 only available Set] **O20**: Last scale **O21**: End of collection and delivery **O22**: servo motor alarm output **O23**: Fixed value to complete the output **O24**: Discharge motor alarm **O25**: The preset is accumulated **O26**: Feed output **O27**: Lack of material output **O28**: Loading level **O29**: Mid-fill level **O30**: Blanking level
PU1	**18**	
DR2	**6**	
PU2	**8**	
PWM1 Features	**1**	

PWM2 function	0	**1**: universal switching quantity **2**: feeding motor control **3**: unloading motor control

7.11 Control parameter interface description



Sample interface

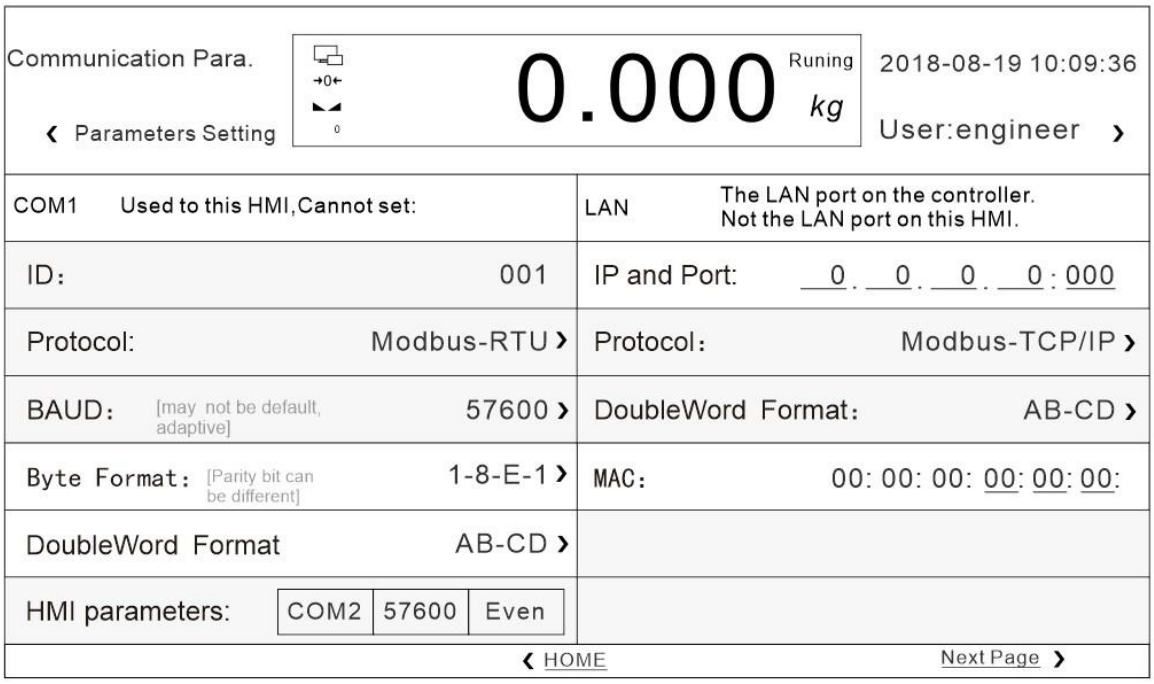
Parameter description:

parameter	illustrate
Prohibition time for fast, medium, and slow acceleration	At the beginning of quantification, to avoid overshoot, weight judgment is not performed at this time. Fast acceleration, medium acceleration, and slow acceleration are always effective
Slow acceleration intelligent prohibition switch	When this switch is turned on, the slow acceleration intelligent prohibition function is enabled.
Motor Subdivision	Set value of motor subdivision
Reducer	The reduction ratio of the current reducer.

reduction ratio	
Maximum angle of feeding gate	the maximum opening angle of the current feeding gate.
Maximum opening degree of charging motor (pulse number)	To protect the motor, the maximum opening degree allowed after starting the motor is allowed.
Initial Opening Calibration Value	The calibration value of the current initial opening
Feeding motor status	four states can be seen: stop, open, origin, and opening.
Feeding motor operating frequency	the frequency at which the feeding motor operates normally.
Starting frequency of charging motor	the frequency at which the charging motor is started.
Quick heater opening	No setup required.
Medium Plus Opening	No setup required
Slow heater opening degree	No setup required

For details, refer to section 7.1 "Operation Instructions for Buttons and Operation Frames".

7.12 Communication parameters interface description



Example Communication Parameters Interface

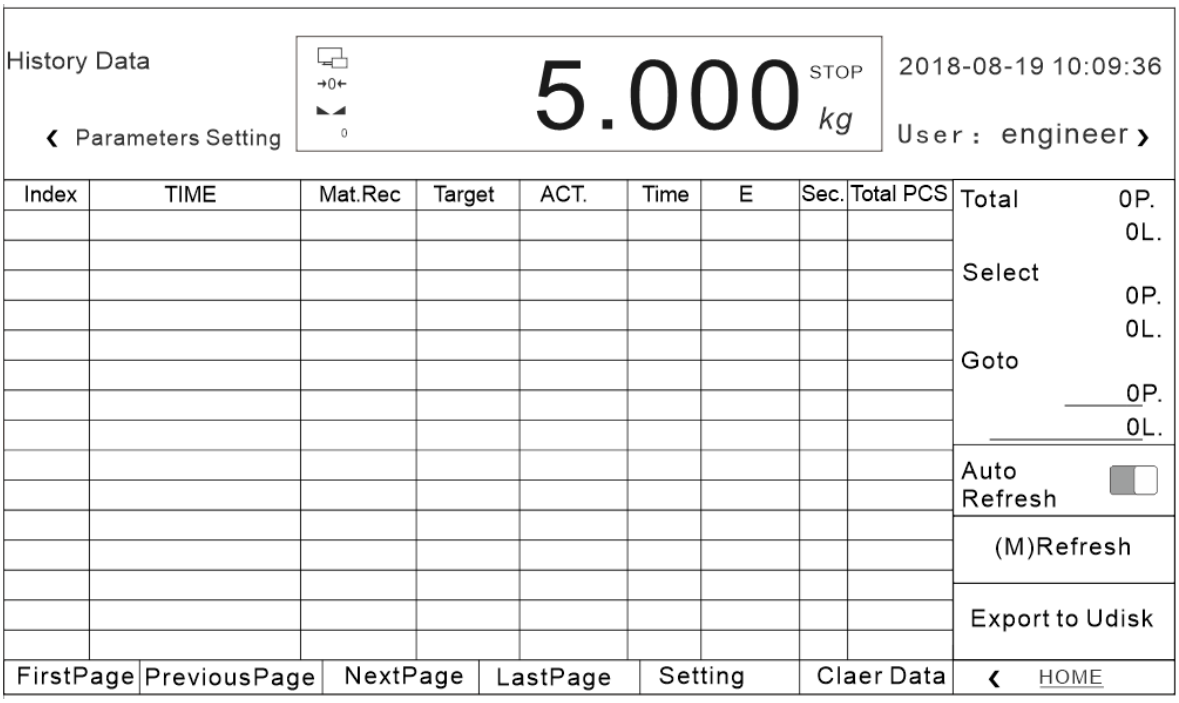
Parameter Description:

parameter	illustrate
Address number	Slave number. The ID number of the serial communication
Protocol Type	Communication protocol. Select the protocol for serial communication
Baud Rate	Select the baud rate of the serial port.
Byte Format	Data format. Initial value; 1-8-E-1 (8-bit data bit-even parity - 1-bit stop bit;)
Double word register order	Modbus high and low words The order in which high words come first is AB-CD, and the order in which low words come first is CDAB.
Current HMI communication parameters	Displays the current communication parameters of the touch screen.
IP and Port	IP address.

MAC	MAC address.

For details, see section 7.1 "Buttons and Operation Frame Instructions".

7.13 Historical data interface description



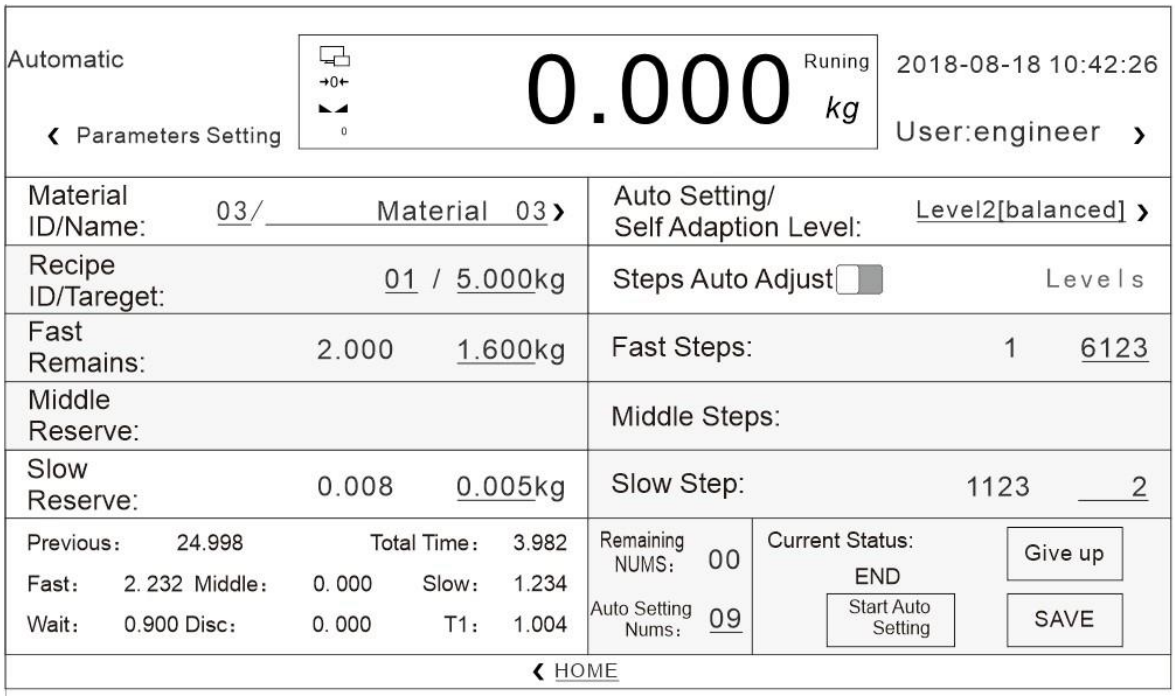
Sample interface

Parameter description:

parameter	illustrate
Automatic refresh/Manual refresh	Refreshes data.
Usb disk export	You can export historical data.
Clear data	Clear historical data.
setting	Can set the time range for data storage

For details, refer to section 7.1 "Operation Instructions on Buttons and Operation Frames".

7.14 Automatic balance interface description



Sample interface

Parameter description:

parameter	illustrate
Material No./Name	You can set the material number and name
Recipe Number/Target Value:	Set the recipe number and target value
Adaptive& Automatic Scaling Level	There are four levels in total, with Level 0 being the fastest, and the higher the level, the slower the speed
Automatic adjustment of opening	automatic adjustment function switch for the opening of the feeding door
Feeding Level	Two or three levels of feeding, automatically set by the system based on the target value
Quick charging	No setup required

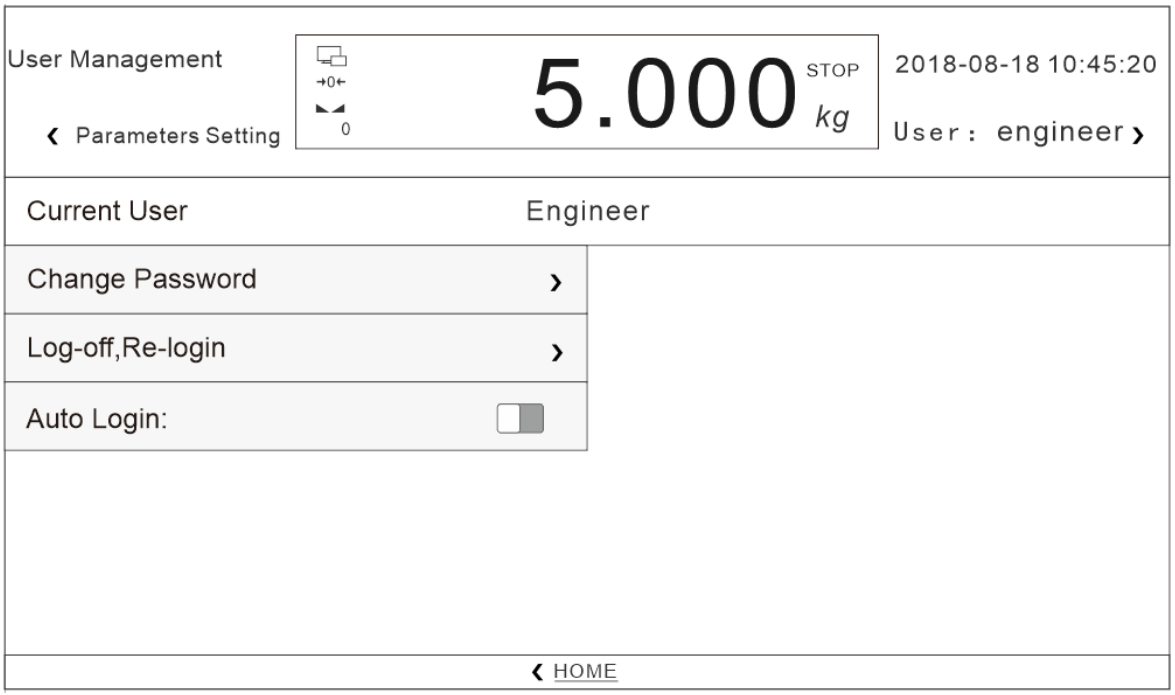
opening	
Medium feeding opening	No setup required
Slow feeding opening	tNo setup required
Scale adjustment times	You can set the scale adjustment times.

Automatic scale adjustment steps and instructions

The leading amount and opening are divided into two columns, as shown in the figure above. The value in the front is the value before automatic balance adjustment, and the value in the back is the value after automatic balance adjustment. Users only need to set the number of balance adjustment (range 3-10) and click "Start balance adjustment" to enter the process of automatic balance adjustment, and the equipment will automatically adjust the balance according to the set level of automatic balance adjustment. The device will stop automatically after the number of adjusting scales is reached. At the same time, the user can choose to save or give up according to the adjusting value of automatic adjusting scale. Save the adjusting value of automatic adjusting scale to be saved in the current formula, and give up the value before automatic adjusting scale is still used. If the balance is not up to the user's requirements after completion, the customer can start the automatic balance again, and the equipment will adjust and correct the balance again on the basis of the last adjustment. The user can also manually modify the lead and opening parameters.

For details, refer to section 7.1 "Operation Instructions on Buttons and Operation Frames".

7.15 User management interface description



Sample interface

Parameter description:

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

The user levels of this system are divided into 4 levels, from high to low: retained user (used by manufacturers), engineer, administrator, operator.

（1） Logout Relogin: After the user logs in, if you want to log out or switch users, you can click the user to log out→

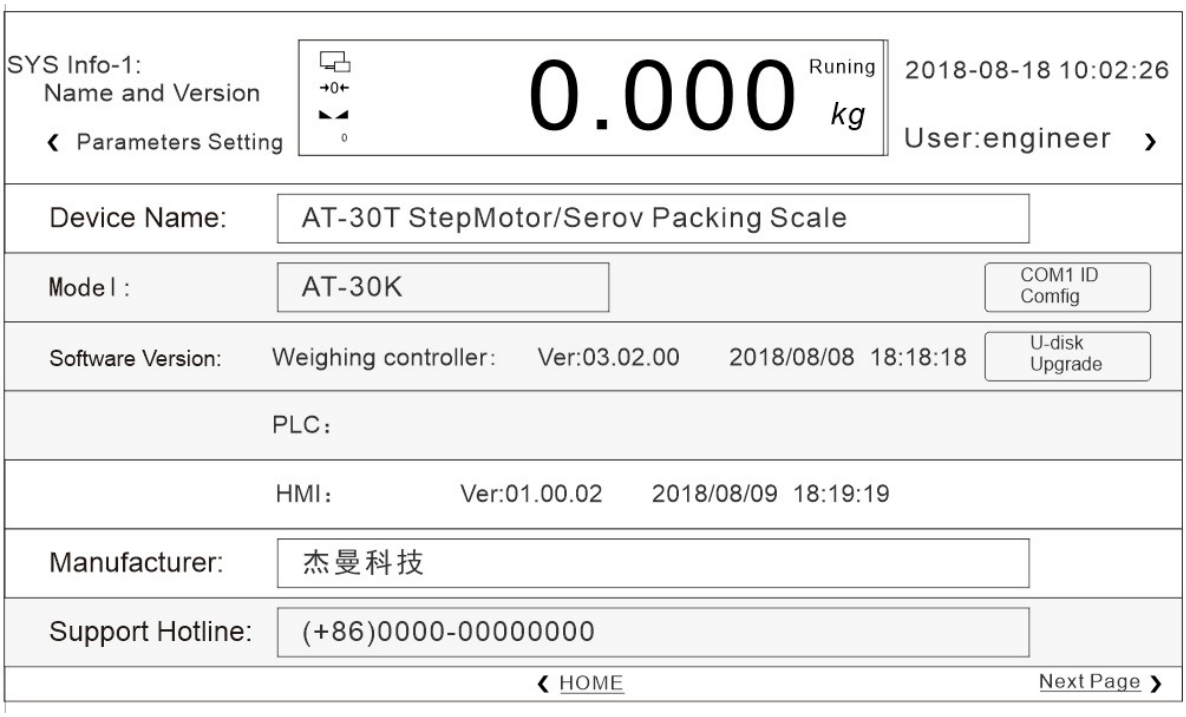
To change the user, after logging out in the user management interface, in the login interface, enter the corresponding user number and password to enter the corresponding user

（2） Change the password: Path: Parameter Setting User Management Change the password Click the password input box and follow the prompts.→→→→

（3） Power-on Automatic login: Turn on this switch to enable the power-on automatic login function.

（4） Forbid operator to modify parameters: Turning this switch on will forbid operator to modify parameters.

7.16 System information interface description



Example System Information Interface

Parameter description:

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

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

Restore factory Settings - Reset all parameters of the system to the default configuration.
Working Parameter Reset -- Reset basic system parameters to default configurations.
Calibration parameter reset -- Reset the parameters associated with system calibration scale to default Settings.
Formula parameter reset -- Resets system formula parameters to default Settings.
Motor parameter reset -- Resets system motor parameters to default Settings.
Communication parameter reset -- Reset system communication parameters to default Settings.
Switch quantity Definition Reset -- Reset the system switch quantity definition to the default configuration.

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

Upgrade system with USB disk:

This operation is very important, not necessary operation. If it is necessary to operate, please contact the company and complete under the guidance of professional personnel.

8. Basic function description

8.1 Basic operation procedure

When the external input running signal is effective, the equipment will enter the running state and begin the automatic quantitative process. The specific process is described as follows:

1. Before startup, check whether the target traffic is set properly. If the target traffic is set, check whether the target traffic is set properly.
2. Delay time before starting feeding.
3. After the feeding delay is over, the equipment will carry out corresponding actions according to the set fast feeding lead and fast opening, that is, open the feeding door to the fast opening and carry out the fast feeding process.
4. When the equipment detects that the current weight of the weighing bucket is greater than the target weight - fast adding amount, the feeding action is carried out, that is, the feeding door is closed to the middle of the opening, and the feeding process is carried out.
5. When the equipment detects that the current weight of the weighing bucket is greater than the target weight - adding the leading amount, it will carry out the slow feeding action, that is, close the feeding door to the slow opening, and carry out the slow feeding process.
6. When the weight of the weighing bucket is detected to be greater than the target weight - slow increase in advance, the setting process is static weighing process, weighing method can choose fixed time or stable mode.
7. After the setting is completed, the unloading process is entered. After the unloading is completed, the process 2-7 is carried out, so as to repeat.

8.2 The function of over and under error detection

After opening the over and under error switch, judge the current feeding result after the feeding completes the fixed holding time in the running process:

Target value - underdifference $\leqslant$ feeding result $\leqslant$ target value + overdifference value, it is judged as qualified.

If the feeding result > the target value + out of tolerance, it is judged to be out of tolerance, and the output alarm signal of out of tolerance is out of tolerance.

If the feeding result is < the target value - underdifference value, it will be judged as underdifference and output alarm signal of overdifference.

When the situation of over or under error occurs, if the over or under error suspension switch is opened, the controller will temporarily schedule the packaging operation, prompt the over or under error suspension and wait for the user to deal with it. The user can enter the clear alarm signal to continue the packaging operation, or enter the emergency stop signal to enter the stop state and no longer continue the packaging operation.

9. Analysis and elimination of common faults

The common faults in the process of use, causes and treatment methods.

Serial number	Fault phenomenon	Cause	Handling
1	Equipment starts without blanking	1. There is no material in the storage bin 2. The closure door of the storage bin is not open 3. Air source leakage 4. The air source pressure is too low or no pressure	1. Feed the storage bin 2. Open the storage bin closure door 3. Connect the air source 4. Increase the air pressure or turn on the pressure switch
2	Do not unload after weighing	1. The equipment cannot receive the pinch bag signal 2. The number of combinations of single scales is not set to 0	1. Check and exclude 2. Set the number of combinations according to specific needs
3	The actual weighing has been out of whack	1. Equipment not calibrated 2. Fast increase the ban time setting is too large	1. reweighing 2. Speed up the ban time to appropriate reduction
4	The indication value is not stable	1.Strong wind or strong vibration in the surrounding environment 2.Weight sensor failure	1.Check and rule out 2.Check the sensor and replace it if necessary
5	Weighing weight is not up to standard	1.Weight sensor failure 2.Not zeroed out before use 3.Equipment 4.not calibrated 5.Discharge is not complete	1.Check the sensor and replace it if necessary 2.Shutdown to clear 3.Recalibration 4.Increase discharge time appropriately

6	Data cannot be exported	1.Usb flash drive damaged 2.The USB flash drive interface of the electric cabinet is damaged	1.Replace the USB flash drive 2.Check the port

10. Maintenance, warranty

In order to ensure the weighing accuracy of the equipment, do not place the equipment in a cold and damp environment. Clean the dust caused by materials inside the equipment regularly according to the use condition. Remember to close the electric cabinet door after daily use or maintenance.

- **Warranty principle**

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

5. Equipment failure caused by the following circumstances is not covered by our warranty:

- Failure to operate according to the instructions
- Install without professional instruction
- Make structural changes to the equipment
- Unauthorized damage to equipment
- Faulty programming and operation
- Natural damage to equipment

Appendix A

PLC address	Functional address	Meaning	Instructions	
The following is a read-only register (function code 0x03)				
Instrument status parameter				
40001	00000	Current weight	4 bytes, signed number	
40002	00001			
40003	00002	Meter Status 1	position	Instructions
			.00:	The AD collection module is abnormal
			.01:	Memory failure
			.02:	Reserved
			.03:	Abnormal sensor signal
			.04:	Weight spill
			.05:	Weight stable
			.06:	Zero point
			.07:	Minus sign
			.08:	Millivolts stable
			.09:	Lock state
			.10~.15:	Reserved
40004	00003	Meter Status 2	.00	Run
			.01	Before feeding
			.02	Quickadd
			.03	China Canada
			.04	Slow add

			.05	Set the value
			.06	Out of tolerance
			.07	Owe difference
			.08	Call the police
			.09	Reservations
			.10	Reservations
			.11	Unloading
			.12	Feeding allowed
			.13	Discharge allowed
			.14	Clog
			.15	Reservations
40005	00004	Instrument status 3	.00:	Reserved
			.01	Reservations
			.02:	One pack complete (duration 1S)
			.03:	Set value complete wait discharge signal
			.04:	Mark of feed function in operation
			.05~.15:	Reserved
40006	00005	Alarm Queue 1	.00	No alarm
			.01	Batch completed
			.02	Clear out of range (2s)
			.03	Unstable on clearing (2s)
			.04	Target value 0 cannot open (2s)

			. 05	Over/under pause
			. 06	Reservations
			. 07	Zero clearing forbidden in operation (2s)
			. 08	Over and under alarm
			. 09	Reservations
			. 10.	Reservations
			. 11	Discharge failure
			. 12	Unloading timeout
			. 13	The feeding motor runs out of time
			. 14	Discharge motor runs out of time
			. 15	Failure to run during emergency stop (2S)
			. 16	Zeroing failure (zeroing before running charging)
			. 17	Feeding timeout
			. 18	Fixed value stability timeout (stable value method)
			. 19	Collection/delivery completed
			. 20	Run time target traffic setting is less than the target value
			. 21	Collection and delivery accumulative not cleared at startup
			. 22	Insufficient flow alarm

			. 23	Feeding servo motor alarm (stop)
			. 24	Motor alarm for lack of material (stop)
			. 25	The flow calculated after the adjustment is large Alarm for maximum flow allowed (2S)
			. 26	Weight over zero zone before three consecutive feedings Weight alarm (stop)
			. 99	Software certification failure
40007	00006	Alarm Queue 2	Same alarm queue 1. When there are more than one alarm at the same time, press Front and back queue. Up to three alarms are displayed at the same time.	
40008	00007	Alarm Queue 3		
40009	00008	Total amount received/shipped	Initial value: **0**, range: **0** to **99,999**	
40010	00009			
40011	00010	Reservations	Reservations	
40012	00011			
40013	00012	Current gross weight value	The difference with **40001** is that this register is not held by a fixed weight Switch control, when the switch is on, even during unloading, also Return actual weight	
40014	00013			
40015	00014	Cumulative number of packages received and shipped	The maximum number of packets is 3999999999, and the next packet counts back to zero.	
40016	00015			
40017	00016	Accumulated		

40018	00017	weight of goods received and delivered	The maximum weight is 3999999999, assuming the cumulative value of this time is 1000, then the accumulated weight is 999. If it overflows once, it will alarm once. The accumulated overflow of receipt and delivery/total overflow alarm/formula overflow alarm/total overflow alarm.
40019	00018	Total cumulative number of packets	
40020	00019		
40021	00020	Total accumulated weight	
40022	00021		
40023	00022	Number of packages accumulated for current recipe	
40024	00023		
40025	00024	Current recipe accumulated weight	
40026	00025		
40027	00026	Total cumulative number of packets in the system (Not clear)	
40028	00027		
40029	00028	Total accumulated weight of the system (cannot be cleared)	
40030	00029		
40031	00030	Years (readable and written)	Range: **2000 to 2099**
40032	00031	Month (readable and written)	Range: **1 to 12**
40033	00032	Day (readable and written)	Range: **1 to 31**
40034	00033	Weeks	Range: **1 to 7**

40035	00034	Hour (readable and written)	Range: **0 to 23**
40036	00035	Points (readable and written)	Range: **0 to 59**
40037	00036	Seconds (readable and written)	Range: **0 to 59**
40038	00037	Time the system has been up	Integer maximum of **0 to 4** bytes in length, over natural rollover, in milliseconds
40039	00038		
40038 ... 40050	00037 ... 00049	Reserved	
40051	00050	Pack the recipe number	The recipe number and target value when the "upper pack result weight" is produced, Manual unloading, also do a result save, but the formula number is equal to **0**
40052	00051	Pack the target value	
40053	00052		
40054	00053	Pack the result weight	The weight unit is the system unit and is updated at the end of unloading
40055	00054		
40056	00055	Actual packing time on the package (including waiting time)	Update at the end of unloading, in milliseconds
40057	00056		
40058	00057	Upper pack theory packing time (Wait time not included)	
40059	00058		
40060	00059	Delay before feeding (incl. clear	
40061			

	00060	Zero additional delay)	
40062	00061	Fast add time	
40063	00062		
40064	00063	Add time	
40065	00064		
40066	00065	Slow add time	
40067	00066		
40068	00067	Set time (slow add end to Discharge start)	
40069	00068		
40070	00069	Wait for clip bag (discharge allowed) time	
40071	00070		
40072	00071	Unloading time	
40073	00072		
40074	00073	Actual packing speed	Update at end of discharge, unit: bph
40075	00074		
40076	00075	Theoretical packing speed	
40077	00076		
40078	00077	Deviation	Signed double word, uncombined pattern: Up packet Result - up packet target value. Combined mode: First time, fixed to 0, second time: Combined total result - set target value
40079	00078		
40080	00079	Number of speed sampling packets Nspeed (readable and writable)	Initial value: **6,** range: **6 to 12**
40081	00080	Date the packet	

40082	00081	data was produced	
40083	00082	Packet data generation time	
40084	00083		
40085	00084	Flow theoretical flow after adjustment value	
40086	00085		
40087	00086	Current actual traffic	
40088	00087		
40089	00088	Unit of flow	According to the system unit is fixed to kg, the decimal point is fixed to 3 decimal points, the flow unit is fixed to t/h
40090	00089	Flow point	According to the system unit, the decimal point is fixed to kg, the decimal point is fixed to 3 decimal points, and the decimal point of the flow is fixed to 2 decimal points
40091 ... 40100	00090 ... 00099	Reserved	
The following is readable and writable (Write a single register function code 0x06, write multiple registers function code 0x10, read function code 0x03)			
Calibrate parameters			
40101	00100	Zero point calibration	Write **1** to calibrate zero and read to return **0**
40102	00101		
40103	00102	Have weight gain	Range: **0 to 999,999**, unit: grams

<table>
<tr><td>40104</td><td>00103</td><td>calibration
(Input weight)</td><td colspan="2"></td></tr>
<tr><td>40105</td><td>00104</td><td rowspan="2">Material gain calibration
(register
Record current AD code</td><td colspan="2" rowspan="2">Enter 1 to record the gain AD code, read back 0</td></tr>
<tr><td>40106</td><td>00105</td></tr>
<tr><td>40107</td><td>00106</td><td rowspan="2">Material gain calibration
(Input weight)</td><td colspan="2" rowspan="2">Range: 0 to 999,999, unit: grams</td></tr>
<tr><td>40108</td><td>00107</td></tr>
<tr><td>40109</td><td>00108</td><td rowspan="2">Absolute millivolts
(Read only)</td><td colspan="2" rowspan="2">Default 3 decimal points, in millivolts
A value of 12345 represents 12.345</td></tr>
<tr><td>40110</td><td>00109</td></tr>
<tr><td>40111</td><td>00110</td><td rowspan="2">Gain millivolts
(Read only)</td><td colspan="2" rowspan="2">The default is 3 decimal points, in millivolts
A value of 12345 represents 12.345</td></tr>
<tr><td>40112</td><td>00111</td></tr>
<tr><td rowspan="9">40113</td><td rowspan="9">00112</td><td rowspan="9">Calibration result information (Read only)</td><td>Results</td><td>Instructions</td></tr>
<tr><td>0</td><td>No information</td></tr>
<tr><td>1</td><td>Successful calibration</td></tr>
<tr><td>2</td><td>The current sensor voltage is unstable</td></tr>
<tr><td>3</td><td>The input weight is incorrect</td></tr>
<tr><td>4</td><td>The current sensor voltage is too high</td></tr>
<tr><td>5</td><td>The current sensor voltage is too low</td></tr>
<tr><td>6</td><td>High calibration resolution</td></tr>
<tr><td colspan="2">The alarm message will be automatically eliminated after 2 seconds. Before elimination, no Allow to operate the calibration again</td></tr>
</table>

40114 ... 40130	00113 ... 00129	Reserved	
40131	00130	The year of the last successful calibration	
40132	00131	Month of last successful calibration	
40133	00132	Date of last successful calibration	
40134	00133	Week	
40135	00134	The last time it was successfully calibrated	
40136	00135	Score of last successful calibration	
40137	00136	Seconds of last successful calibration	
40138 ... 40200	00137 ... 00199	Reserved	
Basic parameters			
40201	00200	Units	Initial value: **1**,0**:** g; 1**:** kg; 2**:** t; 3**:** b
40202	00201	Decimal point	Initial value: **3,** range: **0 to 4**
40203	00202	Dividing value	Initial value: **1,** range: **1, 2, 5, 10, 20, 50**

40204	00203	Maximum range	When the equipment model is AF-5K, initial value: **10000** When the device model is AF-10K, the initial value is **20000** Range: **1~999999,** unit: gram
40205	00204		
40206	00205	OFL indicates type	Initial value: **0**, **0**:[maximum range +**9d**] that is, display OFL; **1**:[maximum range + 9d] to display OFL; **2**:[maximum range *__150%__] to display OFL
40207	00206	Scale body range pattern	Initial value: **0**,**0:5K; 1:25K; 2:50K**; **3:10K;** 4**: reserved**
40208	00207	Automatic zero clearance interval	Initial value: **80**, range: **0~9999**, unit: milliseconds
40209	00208	Start additional zeroing times	Initial value: **2,** range: **0~9**
40210	00209	Additional clearance time	Initial value: **1000**, range: **0~9999**, unit: millisecond
40211	00210	Zeroing failure handling method	Initial value: **0**, **0**: alarm only, lasts 1S, give up zero clearing this time, and clear again next time; **1**: only alarm, last 1S, this time to give up zero, next time to clear, even Continue three times can not clear zero, return to stop state! Continuous alarm **2**: Alarm, but continue to wait for stability, once stable, eliminate the alarm, Automatic continuing operation; **3**: Alarm and return to the stopped state immediately.
40212	00211	Clearing range	Initial value: **10**, range: **0~99**, unit: **%**
40213	00212	Range of judgment	Initial value: **5**, range: **0~99**, unit: **d**

40214	00213	Holding time	Initial value: **300,** range: **100~9999,** unit: milliseconds
40215	00214	Zero tracking range	Initial value: **3**, range: **0~9**, unit: **d**
40216	00215	Zero point tracking time	Initial value: **2000**, range: **0~9999**, unit: millisecond
40217	00216	Stop AD filtering series	Initial value: **9,** range: **0 to 9**
40218	00217	Feed AD filter series	Initial value: **2,** range: **0~9**
40219	00218	Constant AD filtering series	Initial value: **5,** range: **0~9**
40220	00219	Unloading AD filter series	Initial value: **2,** range: **0~9**
40221	00220	Power on automatic reset switch	Initial value: **0,** range: **0~1**
40222	00221	Manual discharge accumulator switch	Initial value: **0,** range: **0~1**
40223	00222	Fixed weight hold switch	Initial value: **1,** range: **0~1**
40224	00223	Discharge mechanism model	Initial value: **0**,0: pneumatic, 1**:** ordinary motor unidirectional, **2**: common motor bidirectional, **3**: one-way stepper motor
40225	00224	Unloading working mode	**0**: timing mode, unloading signal output continuous unloading time (formula Set in the parameters) that is off. Discharge

			abnormal after the end of unloading Judge; **1**: Judge the zero zone mode and signal output until the weight is below zero zone Value, then start unloading delay time, when the time is up, close unloading Material signal. After entering the unloading delay, there is no need to judge the weight.
40226	00225	Unloading delay	Initial value: **200,** range: **0~9999,** unit: milliseconds
40227	00226	Unloading timeout	Initial value: **2000,** range: **0~20000,** unit: ms
40228	00227	Feeding mechanism pattern	Initial value: **0**,0**:** Motor. 1: Pneumatic
40229	00228	Feeding timeout	If the time is greater than or equal to this time, even if the weight is not reached, it will enter the fixed unloading. If it is set to 0, this function will be turned off
40230	00229	Switch quantity independent output	**0**: combination of fast overtime output fast medium slow; **1**: independent fast extra time only Output Quickadd only
40231	00230	Over range feed protection switch	Initial value: **1**, **0**: Off; **1**: On. When on, count from demarcated zero (plus clear zero Be cleared part), weight is greater than or equal to the specification *__1.2__, then judge

			Is OFL, whether it exceeds the maximum range or not. Prevent zeroing will be larger After the weight is cleared to **0**, the weight will appear smaller, but actually already At the same time, adjust the setting value of the clear range from **99%** Set it to **20%**.
40232	00231	Reserved	Reserved
40233	00232	Type of feeding motor	0: Step; 1: servo
40234	00233	Intelligent ban switch	0: forbid intelligent ban, using the set ban time.1: intelligent Ban open: automatically according to the change of feeding speed to determine the ban time Between.
40235	00234	Setting method	0: Time setting; 1: judge the stable value
40236	00235	Set the value to hold the timeout	The maximum time allowed to wait for stability when judging stability is greater than The time is not stable, according to the "fixed value to determine the stability timeout processing side Method "processing.0, does not work.
40237	00236	Fixed value call timeout treatment method	0: The meter will consider the current weight to be stable after the weight Continue the following steps and alarm [set timeout] for 1S.1: The meter will consider the current weight to be the weight after stabilization, continue Next step, and alarm, continue 1S. After three

			consecutive times, return Back to stop state, continuous alarm [continuous value timeout].2: report Alert but continue to wait for stabilization, once stabilized, eliminate the alarm automatically Continue running.3: Alarm and return to the stopped state immediately.
40238	00237	Reserved	Reserved
40239	00238	Set the flow scale to send/receive mode	0: General packaging scale 1: flow scale Receiving mode 2: flow scale sending mode Cargo mode
40240	00239	Flow sampling window length	Length of traffic sampling window
40241	00240	Switch recipe/collect and ship mode After whether to clear the collect and ship cumulative And the total amount of shipments	0: Not cleared.1: cleared
40242	00241	Manually clear last time when starting Collect and dispatch cumulative switch	0: No 1: yes
40243	00242	Whether the last stop was for collection and	1: The collection and delivery are complete. 0: The last collection and delivery are complete

		delivery Finished	
40244	00243	Flow control mode	0: Time control mode 1: target value conversion mode (target Traffic converted to target value, fixed the time of each packet)
40245	00244	Target value self-adjusting sampling length Switch	Flow adaptive switch :0~1,0: off; 1: on, set The total amount shipped, and the flow mode is the target value switch mode, root According to the remaining shipments, automatically adjust the target flow. Make residual shipments The quantity is completed within the theoretical time. Assuming the target flow rate is 10t/h, The total volume is 10t. Then theoretically it will take 1 hour to complete the shipment. However, After the first half hour flow is low, the actual accumulation is 4t. Then, control The controller will automatically adjust the flow target value to (10-4)/0.5=12t, that is, run the rest with the remaining 0.5 hours 6t, that is, the overall delivery is still completed within 1h 10t. The flow is suitable Sampling window length: Set this parameter based on the length of the nearest sampling window Set the number of packets to calculate the adaptive traffic target value.
40246	00245	Target value self-adjusting sampling	Flow Automatic Control Adjust Target value feature sampling window length

		window Length	(Target value conversion mode)
40247	00246	Insufficient flow alarm function switch	The actual discharge interval time continuously exceeds the calculated discharge interval If the number of time exceeds the "statistical number of insufficient flow alarm", report Alarm (time control mode)
40248	00247	Number of times that traffic is insufficient	Consecutive times of discharge interval timeout, and the number of times To the setting times of insufficient flow, the meter output insufficient flow alarm (time control mode)
40249	00248	Insufficient flow (excessive discharge interval When) after automatic adjustment function open close	The switch is on if there is a timeout between discharge intervals, then The meter automatically adjusts to shorten the immediate discharge interval , until the timeout is offset. (Time control mode)
40250	00249	Reserved	Reserved
40251	00250	Start/stop no-load test	Write **1**: Enter the no-load test; Write **0**: exits the no-load test
40252	00251	No load test detects input	**0**: The no-load test does not need to test the feeding permit or unloading permit; **1**: Need to test feed allowance and discharge allowance
40253	00252	Delay before loading test	When entering the no-load test state, do not

40254	00253	No load test fast increase time	determine the weight, directly press this Delay each step, and output corresponding output, unit: milli seconds
40255	00254	Add time to no-load test	
40256	00255	Slow add time for no-load test	
40257	00256	No-load test setting time	
40258	00257	Test unloading time with no load	
40259 ... 40300	00258 ... 00299	Reserved	
User parameters			
40301	00300	Material number	Initial value: **1,** range: **0 to 10**
40302	00301	Recipe number	Initial value: **1,** range: **0 to 20**
40303	00302	Target value	Initial value: **0**, range: **0~999999**, unit: gram
40304	00303		
40305	00304	Add the lead quickly	Initial value: **0**, range: **0**~ maximum range, unit: gram
40306	00305		
40307	00306	Plus advance	Initial value: **0**, range: **0**~ maximum range, unit: gram
40308	00307		
40309	00308	Add the lead slowly	Initial value: **0**, range: **0**~ maximum range, unit: gram
40310	00309		
40311	00310	Zero zone value	Initial value: **0**, range: **0**~ maximum range, unit: gram
40312	00311		

40313	00312	Unloading time	Initial value: **300,** range: **0~99999,** unit: milliseconds
40314	00313		
40315	00314	Delay before feeding	Initial value: **0**, range: **0~99999**, unit: milliseconds
40316	00315		
40317	00316	Set the hold time	Initial value: **900**, range: **0~99999**, unit: milliseconds
40318	00317		
40319	00318	Over and under detection switch	Initial value: **0**, ranging from **0** to **1**
40320	00319	out-of-tolerance	Update at the end of discharge, range: **0**~ maximum range, in:g
40321	00320		
40322	00321	underdifference	Update at the end of unloading, range: **0**~ maximum range, in:g
40323	00322		
40324	00323	Over and under alarm time	Initial value: **0**, range: **0~99999**, unit: milliseconds
40325	00324		
40326	00325	Over/under pause switch	Initial value: **0**, range: **0~1**
40327	00326	Number of consecutive discharges	
40328	00327	Feed progression (Read only)	Initial value: Automatically determined according to the target value Charging level,**2**: two-stage charging; **3**: three-stage charging. Controller will Automatically select whether it is two or three stage feeding according to the range Feed.[**2** level, fast + slow add, add the amount of advance and the opening of the medium Significance][Level **3**, fast plus + plus + slow

			plus, but add or add fast The lead-up is **0** or the opening is set to **0**, still do not go fast plus or medium Plus]
40329	00328	Independent configuration opening	Initial value: **0**, range: **0~1**
40330	00329	This recipe opens fast	Initial value: **8000**, range: **0**~ maximum opening
40331	00330	The opening degree is added in this formula	Initial value: **5000**, range: **1**~ maximum opening
40332	00331	This recipe opens slowly	Initial value: **1800**, range: **2**~ maximum opening
40333	00332	Discharge opening of this recipe	Initial value: **5000**, **range**: 2~20000
40334 ... 40340	00333 ... 00339	reserve	
40341	40340	Target flow function switch	Initial value: **0**, range: **0~1**
40342	40341	Target traffic value	The unit is P1H or per hour. This parameter cannot be set beyond ". Maximum flow limit ". Initial value: **0**, range: **0** to **999999**
40343	40342		
40344	40343	Maximum flow limit	The maximum flow rate the device can achieve. The setting used to limit the target traffic, cannot exceed this value. Initial value: **0**, range: **0** to **999999**
40345	40344		
40346	40345	Fixed discharge intervals	Fixed interval time between packets Target value control mode interval time. Initial value:
40347	40346		

			2500, range: 2000 to **10000**, unit: milliseconds	
40348 40349	40347 40348	Judge the zero zone value before feeding	Not the first scale, need to judge the zero zone value before feeding, prevent The last discharge is incomplete or scraping situation, judge before feeding. If the current weight is greater than the set value of the zero zone, then scraping Alarm 0: Turn this feature off. Initial value: **0**, range: **0~999999**	
40350 ... 40400	00349 ... 00399	Reserved		
Switching quantity parameter				
40401	00400	Start/end switch quantity test	Write **1** Start the switch quantity test; Write **0** to end the switch measurement try	
40402	00401	Input switching quantity test (read only)	From low to high each digit represents one input state	
40403	00402	Output switching quantity test	From low to high each represents an output state	
40404	00403	IN1	Initial	Instructions
			1	Enter the list of definitions: **I00**: None defined **I01**: Start **I02**: Emergency stop **I03**: Stop
40405	00404	IN2	**2**	
40406	00405	IN3	**7**	
40407	00406	IN4	**6**	

40408	00407	(1-ZT1)	**4**	**I04**: Charging stepper motor origin (close door to Bit level) **I05**: Feeding allowed **I06**: Discharge allowed **I07**: Clear alarm **I08**: Hold **I09**: Open/close discharge door [original manual discharge Function, switch unloading output state] **I10**: Manual unloading **I11**: Manual slow loading **I12**: Add manually **I13**: manual fast add [press fast add opening to open Door] **I14**: Manual clearing [Open at maximum opening Door] **I15**: Start/stop (Double edge: active edge, Start; Invalid edge, stop) **I16**: Start/Emergency Stop (double edge) **I17**: Manual discharge (double edge) **I18**: Manual slow loading (double edge) **I19**: Manual add (double edge) **I20**: Manual quick add (double edge) **I21**: Manual clearing (double edge) **I22**: Clear to zero **I23**: Emergency stop [level](Active, then no
40409	00408	(1-ZT2)	**24**	
40410	00409	(2-ZT1)	**25**	
40411	00410	(2-ZT2)	**26**	
40412	00411	IN5	**0**	
40413	00412	IN6	**0**	
40414	00413	IN7	**0**	
40415	00414	IN8	**0**	

				Start allowed, manual feeding not allowed, not allowed Manual unloading is allowed) **I24**: feeding stepper motor opening limit point. **I25**: origin of unloading stepper motor. **I26**: opening limit point of unloading stepper motor. **I27**: Plug the input. This signal is valid. Disengage The hopper under the material door is blocked and unloading is not allowed Material. Judge the signal only before unloading begins **I28**: End of collection and delivery.(Running status immediately Stop feeding, direct value, discharge accumulated Process, take delivery to complete the process. Stop form State directly go to complete the process of receiving and shipping) **I29**: feeding mechanism open in place **I30**: **The** discharging mechanism opens in place **I31**: Feeding motor alarm input detection (level) **I32**: Feeding motor normal input detection (level) **I33**: Discharge motor normal

				input detection (level)
40416	00415	OUT1	**1**	Output definition list: **O00**: None defined **O01**: Run **O02**: Feeding request **O03**: Charging stepper motor direction [has PW Signal is set to feed PWM] **O04**: Fast feed **O05**: China Canada **O06**: Slow Add **O07**: Set value **O08**: Discharge L **O09**: overshoot and undershoot **O10**: Alarm **O11**: Hold **O12**: Preset number of packages completed **O13**: One pack completed (discharge completed After output **1s** clock) **O14**: Stop **O15**: Discharge stepper motor direction **O16**: Discharge motor running/forward **O17**: The discharge motor is in reverse **O18**: Feeding PWM[OUT7/OUT8 only available Set] **O19**: Discharge PWM[OUT7/OUT8 only availableSet]
40417	00416	OUT2	**4**	
40418	00417	OUT3	**5**	
40419	00418	OUT4	**6**	
40420	00419	OUT5	**7**	
40421	00420	OUT6	**8**	
40422	00421	DR1	**3**	
40423	00422	DR2	**8**	
40424	00423	PWM1	**0**	
40425	00424	PWM2	**0**	

				O20: Last scale **O21**: End of collection and delivery **O22**: servo motor alarm output **O23**: Fixed value to complete the output **O24**: Discharge motor alarm
40426	00425	PWM1 Features	Initial value, **1**,0**:** off; 1: feeding PWM; 2: unloading PWM	
40427	00426	PWM2 function	Initial value, **0**,0**:** Off; 1: feeding PWM; 2: unloading PWM	
40428	00427	Starting	Write: **1**, read: **1**: running state, **0**: stopped state	
40429	00428	Emergency stop	Write: **1**, read: **1**: running state, 0: stopped state	
40430	00429	Stop	Write: **1**, read: **1**: Stop signal has been entered (this packaging It will stop at the end of the process), **0**: Stop signal has not been entered	
40431	00430	Zeroing	Write: **1**, read: **1**: Weight is **0**, **0**: weight is not **0**	
40432	00431	Clear alarm	Write: **1**, read: **1**: No alarm, **0**: there is alarm	
40433	00432	Choose the recipe	Write: **1**, read: **0**	
40434	00433	Pinch-loose bag	Write: **1**, read: **1**: clipped bag, **0**: unclipped bag.	
40435	00434	Open/close the discharge door	Write: **1**, switch discharge door status, Valid -> Invalid, invalid -> Yes Effect. Read: **1**: Discharge valid, **0**: discharge invalid	
40436	00435	Manual slow Add	Write: **1**, read: **1**: Slow add is valid, **0**: slow	

			add is not valid.
40437	00436	Add manually	Write: **1**, read: **1**: Add valid, **0**: add invalid.
40438	00437	Manual Quickadd	Write: **1**, read: **1**: Quickadd works, **0**: Quickadd doesn't work
40439	00438	Manual cleaning	Write: **1**, read: **1**: Cleaning works, **0**: cleaning doesn't work
40440	00439	Manual Max opening fast add	Write: **1**, read: **1**: Fast add is valid, **0**: Fast add is not valid
40441	00440	Automatic feed once (set knot Stop after bunching)	Write: **1**, read: **1**: Auto feeding is taking place, **0**: not auto feeding material
40442	00441	Emergency stop	Write :**0/1**, exit/enter Emergency Stop lock state Read :**1**: emergency stopped, **0**: not emergency stopped
40443	00442	Manually unload once	Write: **1**, read: **1**: Unloading in progress, **0**: unloading invalid
40444	00443	Yunga	Read/write a **1**, Yuna is valid, read/write a **0**, Yuna is not valid
40445	00444	discharge	Read/write **1**, allow is valid, read/write **0**, allow is not valid
40446	00445	End of collection and delivery	Perform I28: End the same amount of delivery switch
40447	00446	OUT7	Same as OUT1-OUT6
40448	00447	OUT8	
40449 ... 40500	00448 ... 00499	Reserved	

Communication parameters			
40501	00500	Serial Port 1 Slave number (Read only)	Initial value**, 1,** range: **1 to 255**
40502	00501	Serial Port 1 Communication Protocol (only Read)	Initial value, **0**,0**:** modbus-rtu, 1**:** Modbus-ASCII, **2**: Serial printer
40503	00502	Serial Port 1 Baud rate (Read only)	Initial value, **3**, **0:9600**, **1:19200, 2:38400**, 3:57,600**,** 4:115,200
40504	00503	Serial Port 1 Data Format (only Read)	Initial value, **1**,**0:18N2**, **1:18E1**, **2:18O1**, 3: **18N1**
40505	00504	Serial port 1Modbus double word mail Depositor Sequence (Read only)	Initial value, **0**,0**: ABCD, 1**: **CDAB**
40506	00505	Serial port 2 Slave number	Initial value**, 1,** range: **1 to 255**
40507	00506	Serial Port 2 Communication protocol	Initial value, **0**,0**:** modbus-rtu, 1**:** Modbus-ASCII, **2**: Serial printer
40508	00507	Serial Port 2 Baud rate	Initial value, **3**, **0:9600**, **1:19200**, 2: **38400,** 3:57,600**,** 4:115,200
40509	00508	Serial Port 2 Data format	Initial value, **1**, **0:18n2**, **1:18E1**, 2: **18O1,** 3:18N1
40510	00509	Serial port	Initial values, **0**,0**: ABCD, 1**: **CDAB**

		2Modbus high Low word order	
40511	00510	Serial port 3 Slave number	Initial value**, 1,** range: **1 to 99**
40512	00511	Serial Port 3 Communication protocol	Initial value, **0**,0**:** modbus-rtu, 1**:** Modbus-ASCII, **2**: Serial printer
40513	00512	Serial Port 3 Baud rate	Initial value, **3**, **0:9600**, **1:19200**, 2: **38400,** 3:57,600**,** 4:115,200
40514	00513	Serial Port 3 Data format	Initial value, **1**,**0:18N2**, 1:18 **E1**, 2: **18O1,** 3:18N1
40515	00514	Serial Port 3Modbus High word order	Initial value**,** 0,0**: AB-CD, 1**: CD-AB
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 communication Protocol	0: Modbus-TCP/IP 1: Minicenter 2: Web
40522	00521	Network port high and low byte order	0: AB-CD 1: CD-AB

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 ... 40600	00528 ... 00599	Reserved	
System parameters			
40701	00700	Device model number (ASCII code Characters) (Read only)	**'G'+'M'**
40702	00701		**'-'+'F'**
40703	00702		**'0' + '1'**
40704	00703		**0**
40705	00704		**0**
40706	00705		**0**
40707	00706		**0**
40708	00707		**0**
40709	00708		**0**
40710	00709		**0**
40711	00710	Version number (Read only)	4 bytes, unsigned number, such as convert 5 decimal value to **123456**, the value is **12.34.56**. The value ranges from **0 to 999999**
40712	00711		
40713	00712	Compile Date: Year (Read only)	**2000 ~ 2099**

40714	00713	Compile 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	Parameter reset	Write: **0** Reset all (production used, contains all of the following additional also There are statistical data clearing, cumulative clearing, putter related parameters) (Superuser) **(Superuser) 1** Reset All (customer) contains all below **2** Reset the base parameters **3** Reset the calibration parameters **4** Reset user parameters **5** Reset peripheral parameters **6** Reset the adaptive parameters **7** Reset the communications parameters **8** Reset the switch quantity custom parameters **9** Reset adaptive statistics Read: **0**
40720	00719	Reservations	

40721	00720	Turn USB on/off	**1**: USB on, **0**: USB off
40722	00721	USB device connected (only Read)	**0**: USB device is connected, **1**: USB device is not connected
40723	00722	USB mass storage device Connected (Read only)	**0**: USB mass storage device is connected **1**: The USB mass storage device is not connected
40724 ... 40750	00723 ... 00749	Reserved	
"Flash Drive Update Application" function parameters			
40751	00750	Enter/exit Bootloader	Read: **0**: Wait for a delay **of 3** seconds to automatically enter the main program **1**: The Bootloader has entered Write: **1:** Go to Bootloader **2**: Exit Bootloader to enter the main program
40752	00751	USB device connected (only Read)	**0**: The USB device is connected **1**: The USB device is not connected
40753	00752	USB mass storage device has Connect (Read only)	**0**: USB mass storage device is connected **1**: The USB mass storage device is not connected
40754	00753	Upgrade file scan results (only Read)	**0**: No upgrade file **1**: The controller upgrade file **is available**
40755	00754	Control panel	**0**: None

		program upgrade information (Read only)	**1**: The control board is being upgraded **2**: The control board is being upgraded **3**: The controller board is successfully upgraded **4**: The control board upgrade file does not match the meter model **5**: There is an error in the control board upgrade file **6**: The control board upgrade file does not exist
40756	00755	Reserve (Read only)	
40757	00756	Control board upgrade file version number	Read: Version number (6-digit decimal number) Write: 1 Upgrade this version of the program
40758	00757		
40759	00758	Reserve (Read only)	
40760	00759		
40761	00760	Reserved (Read only)	
40762	00761		
40763	00762	Bootloader version number	
40764	00763		
40765	00764	Bootloader Version Compilation date – year	
40766	00765	Bootloader version compile date – month	
40767	00766	Bootloader version compilation date – day	

40768 ... 40800	00767 ... 00799	Reserved	
Adaptive related 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 ... 40900	00803 ... 00899	Reserved	
Target value data parameter **[Only the target value for each recipe under the current material number, reading the target value for each recipe number for different materials is not supported]**			
41101	01100	Target value (Recipe 1)	Range: **0 to 999,999**, in grams, read only
41102	01101		
41103	01102	Target value (Recipe 2)	Range: **0 to 999,999**, in grams, read only
41104	01103		
41105	01104	Target value (Recipe 3)	Range: **0 to 999,999**, in grams, read only
41106	01105		
41107	01106	Target value (Recipe 4)	The value ranges from **0 to 999999**, expressed in grams. Read only
41108	01107		
41109	01108	Target value (Recipe 5)	Range: **0 to 999,999**, in grams, read only
41110	01109		

41111	01110	Target value (Recipe 6)	Range: **0 to 999,999**, in grams, read only
41112	01111		
41113	01112	Target value (Recipe 7)	Range: **0 to 999,999**, in grams, read only
41114	01113		
41115	01114	Target value (Recipe 8)	Range: **0 to 999,999**, in grams, Read only
41116	01115		
41117	01116	Target value (Recipe 9)	Range: **0 to 999,999**, in grams, Read only
41118	01117		
41119	01118	Target value (recipe 10)	Range: **0 to 999,999**, in grams, Read only
41120	01119		
41121 . . . 41200	01120 . . . 01199	Reserved	
Cumulative data parameters			
41201	01200	Clear total accumulated data	Write 1 Clear total cumulative data and all recipe cumulative data Write 2 only clears total cumulative data and does not clear recipe cumulative data Write 3 only clears the total accumulated data for receipt and shipment
41202	01201	Clear recipe cumulative data	Writer **0** clears all recipe accumulations Write **1** to **10** to **clear** the accumulated data of corresponding recipe 1 to 10
41203	01202	Total accumulated times	Maximum 9 decimal digits
41204	01203		
41205	01204	Total accumulated weight (high 4	Maximum 13 decimal digits
41206	01205		

		bits)	
41207	01206	Total accumulated weight (low 9 places)	
41208	01207		
Automatically adjust scale parameters			
42001	02000	Automatically adjust the scale status	Read: Auto scale Status :**0/1**: Stop/**Run.2**. Auto scale Done.[abort to **0**, not **2**], read only
42002	02001	Maximum type of material	**10~40**. Fixed at **10 temporarily**. Adjust later. That is, the maximum support guarantee **10** different materials, read only
42003	02002	=40301, current type of material	Read Only
42004	02003	=40302, current recipe number	Read Only
42005	02004	=41050, the most current scale = large scale count	Read only
42006	02005	=41096, current target value At range point	Read only
42007	02006	Automatic scale adjustment times	Initial value: **6,** range **3 to 10**
42008	02007	Remaining times	
42009	02008	Number of qualified	
42010	02009	Automatically adjust scale level	Initial value: **1**, range: **0~4**, the smaller the grade, the better the speed First, every level increase, small cast time is about **0.2S longer**

42011	02010	Start/stop automatic scale adjustment	Read: Auto-adjust scale Status :**0/1**: Stop/Run (Finished status Classified as **0**), write :**1/0**: Start/stop auto scale
42012	02011	Save the results of the auto scale	Write **1**: Save autoscale results to current current material number current Under the recipe number, write **2**: abandon the save and restore the debugging result to Mo Acknowledge the value.
42013 ... 42020	01207 ... 02019	Reserved	
42021	02020	Material XSegY quick plus advance Results	X= Material number,Y segment number, material number change, target value change [span Range segment], then the value of this area may change automatically
42022	02021		
42023	02022	Material XSegY Plus Plus in advance Measurement results	
42024	02023		
42025	02024	Material XSegY Slow increase advance Results	
42026	02025		
42027	02026	Material XSegY Quick opening knot fruit	
42028	02027	Material XSegY plus open knot fruit	

42029	02028	Material XSegY Slow opening knot fruit	