GENERAL MEASURE

GM9907-L2

user's manual

GM9907-L 2 01902 0 0

V0 2 .00.00

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

Company website http://www.szgmt.com

Implementation standards of this product：GB/T 7724—2008

CE

Overview

The GM9907 Packaging Controller is a new weighing control instrument specially developed for the single scale incremental method automatic quantitative packing scale. The controller English display interface for

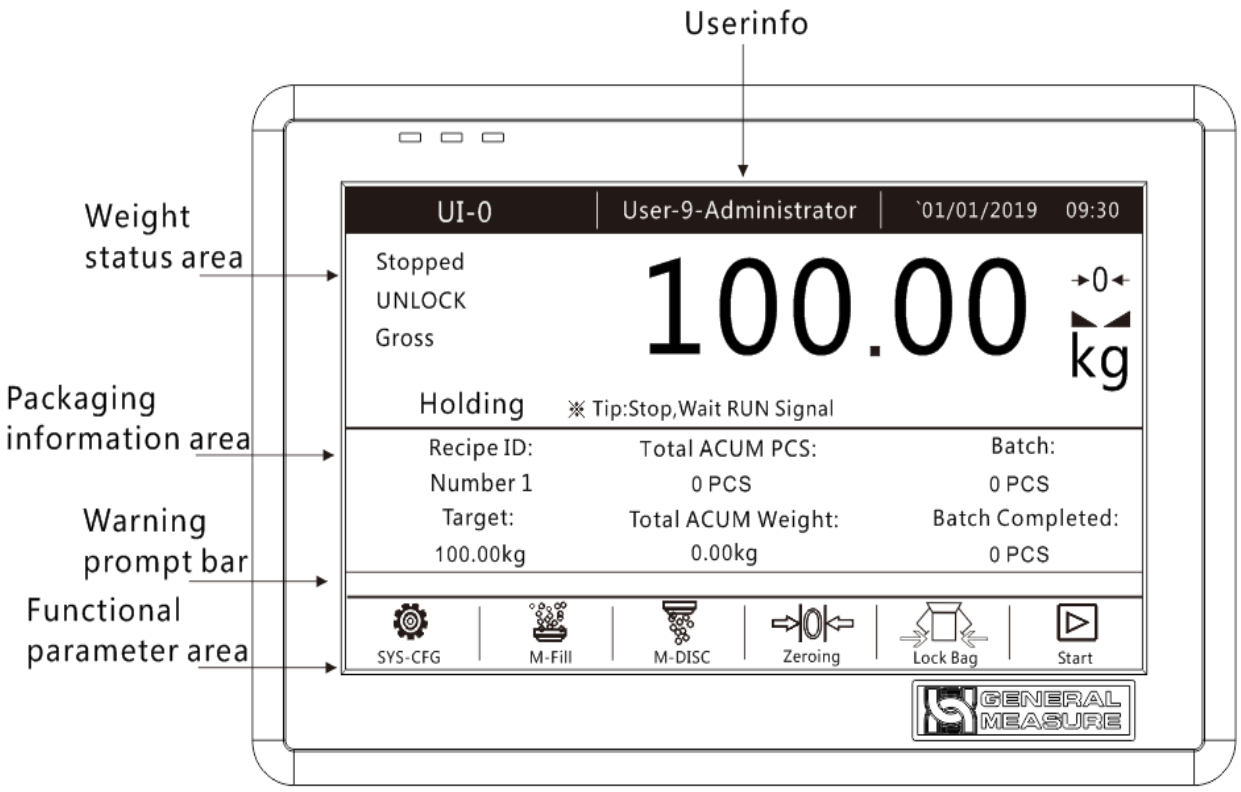
easy operation; completely new algorithm faster and more accurate control so that the load; the USB port and dual port serial device to make it easier to system interconnect. Can be widely used in feed, chemical, food and other industries that require quantitative packaging equipment.

1.1 features and features

- English display interface make operation easier and more intuitive
- There are five modes of bagging application, hopper, non hopper, big mouth, servo motor, PLC.
- **28**-digital input and output control (**12** in / **16** out), the input and output port positions can be customized.
- Switching quantity test function, convenient for debugging of packing scale
- Fully automatic double material speed, three material speed feeding control, with jog feeding function
- Twenty formulas can be stored to facilitate packaging of different range materials
- USB interface facilitates import and export of various parameters
- Feed control function, convenient control connection between packaging scale and front feeding equipment
- Feed speed adaptive function
- IO auxiliary logic programming
- Automatic drop correction function
- Multiple digital filtering
- Batch setting function
- Bag making function, suitable for packaging of powder materials
- Automatic zero tracking
- Time / date function
- Three-level user identity setting
- Dual serial port, external serial printer, computer or second display

- With network port communication function , it is convenient to communicate with the host computer

1.2 front panel description



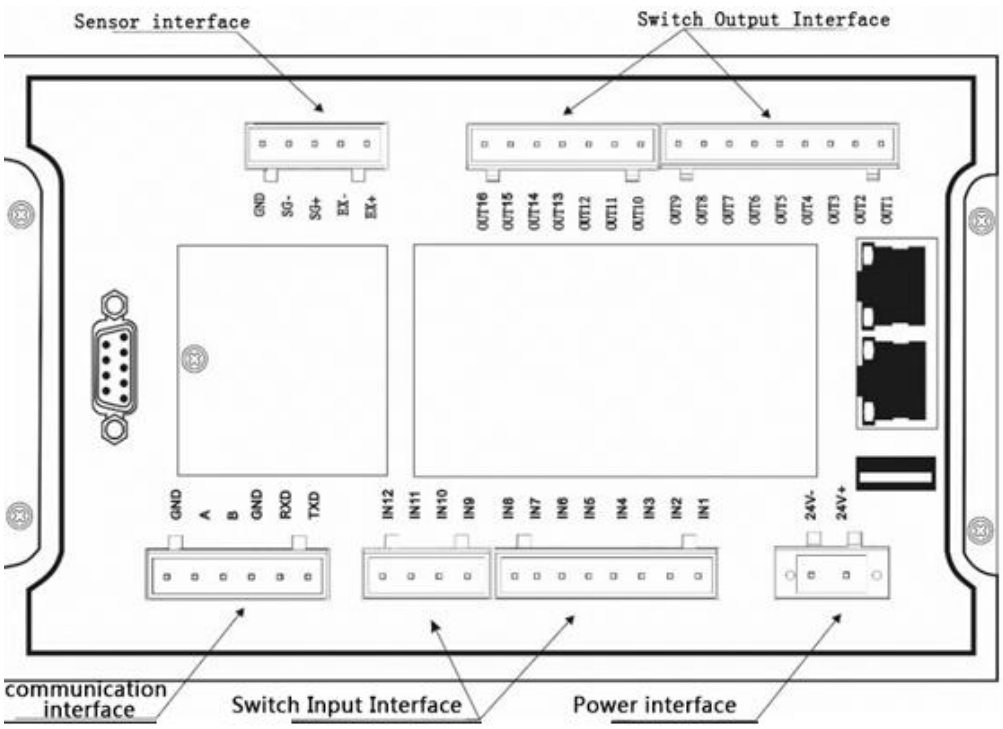
Interface 1 description ：

User information, weight status area , alarm prompt bar and function parameter area are retained . Increase the parameter display area and shortcut keys for easy setting

1 : Parameter display area : Display the relevant parameters of the current recipe.

2: Shortcuts: increased 8 customizable shortcuts, setting.

1.3 rear panel description



1.4 Technical Specifications

1.4. 1 General Specifications

Power source: **DC24V**

Power filter: included

Operating temperature: **-10 ~ 40** ℃

Maximum humidity: **90% RH** non-condensing

Power consumption : about **15 W**

Physical **dimensions: 190 mm × 124 mm × 48** mm

1.4 .2 analog part

Sensor power **source: DC 5 V 125 mA (MAX)**

Input impedance : **10MΩ**

Zero adjustment range: **0.002 ~ 15 mV** (when sensor **3mV / V**)

Input **sensitivity:** 0.02uV **/ d**

Input range

:

0.02 ~ 15mV

Conversion mode :

Sigma-Delta

A/D conversion speed: **120 , 240 , 480 , 960** times / sec

Non-linear: **0.01% FS**

Gain drift: **10PPM / ℃**

Show the highest degree of precision: 1 **/ 100,000**

1.4 .3 digital part

Display: 7 inch resistive touch screen

Negative Number Display: "-"

Overload Display: Chinese "overrange wt / sensor signal is too small."

Decimal point position: 5 optional

2. installation

2.1 General principles

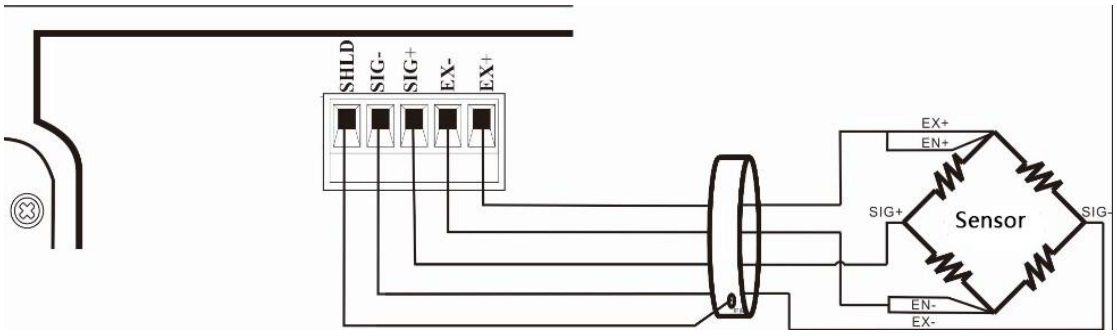
1）Open the hole in the appropriate position of the control cabinet (opening size **179（±1）mm × 113（±1）mm**）

2）Load the meter into the control cabinet.

3）Remove the side strips from the accessories, fix them on both sides of the meter, and fix them with **M3*10** screws.

2.2 Sensor connection

The GM9907 package controller can be connected to a resistive strain bridge sensor. When using a six-wire sensor, the sensor's **SN+** and **EX+** must be shorted， and **SN-** and **EX- should be** shorted .

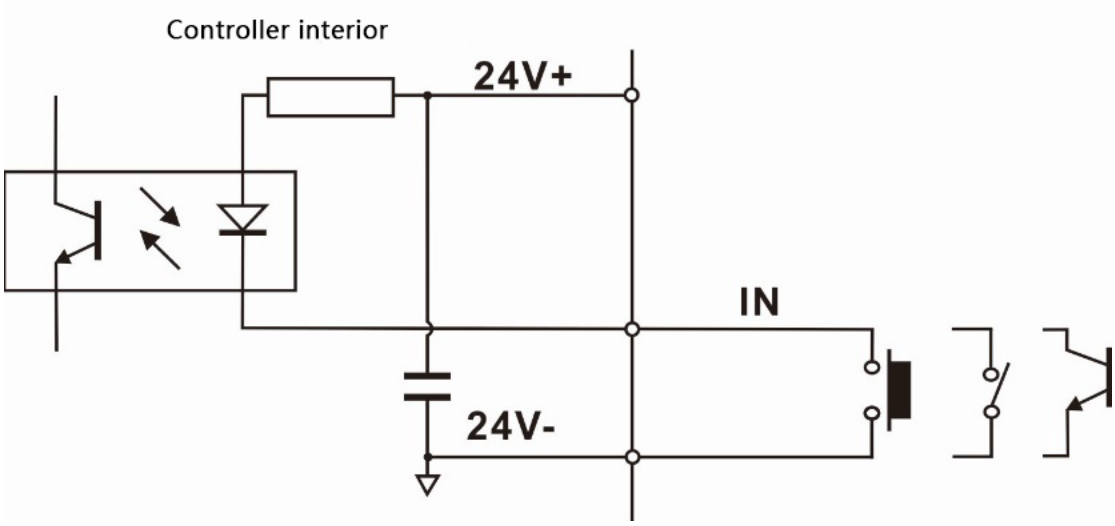


EX+：Power supply is positive **EX-**：Power negative **SN+**：Sensing positive **SN-**：Inductive negative **SIG+**：Positive signal **SIG-**：negative signal

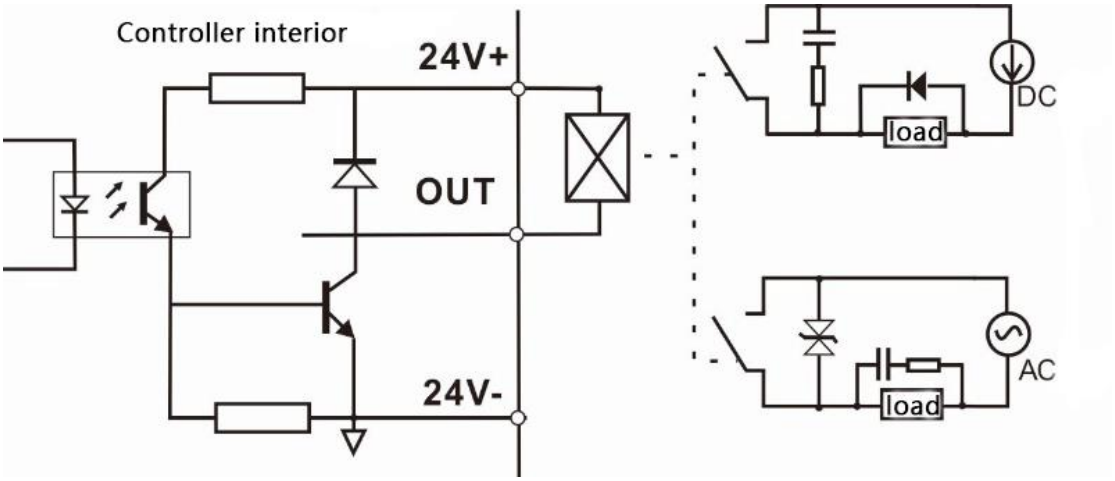
2.3 switch interface connection

GM 9907 package controller **28** comprises a switch input, output control (the 12/16). The photoelectric isolation mode is adopted, and the internal power supply of the instrument is driven. Meter switch input is active

low; output open-collector transistor output taken, each line of the drive current up to **5 00m A,** the maximum full load current of **3A.** The terminal wiring is as shown below:



Switch input interface diagram

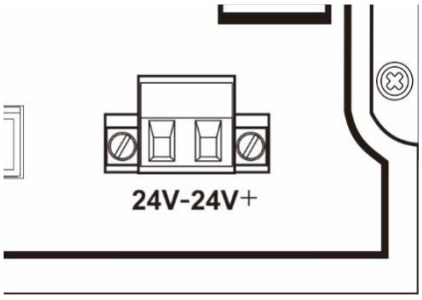


Switch output interface diagram

GM 9907 packaging controller to switch the user can customize the way, to facilitate the user lines and some special applications, digital content See Section 3.7.

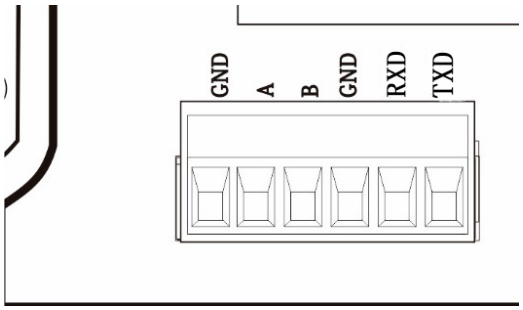
2.4 power connection

The GM9907 package controller uses a 24V DC power supply. The connection is as shown below:

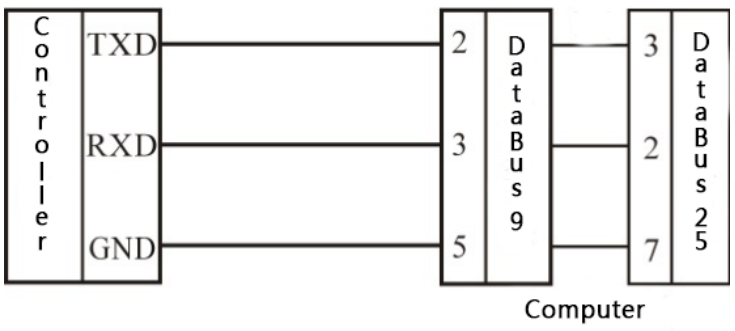


2.5 serial port connection

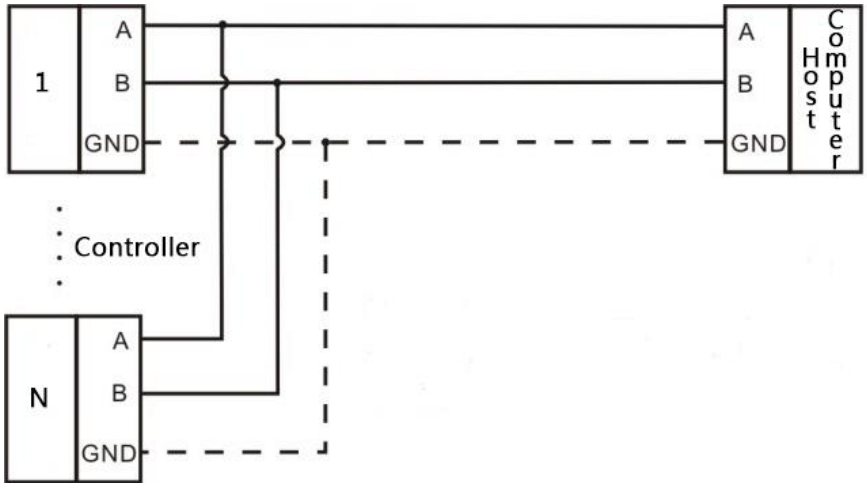
The GM9907 provides two serial communication interfaces as shown in the figure below. The serial port one is **RS - 232** mode (terminal port **TX D** , **RX D** , **GND**); the serial port 2 is **RS - 485** , (terminal port **A** , **B** , **GND**). Serial port support: **MODBUS** protocol, continuous mode and print format .



Instrument and computer connection diagram



Instrument and computer connection diagram (**RS-232** mode)



Instrument and host computer connection diagram (**RS-485** mode)

2.6 touch screen calibration

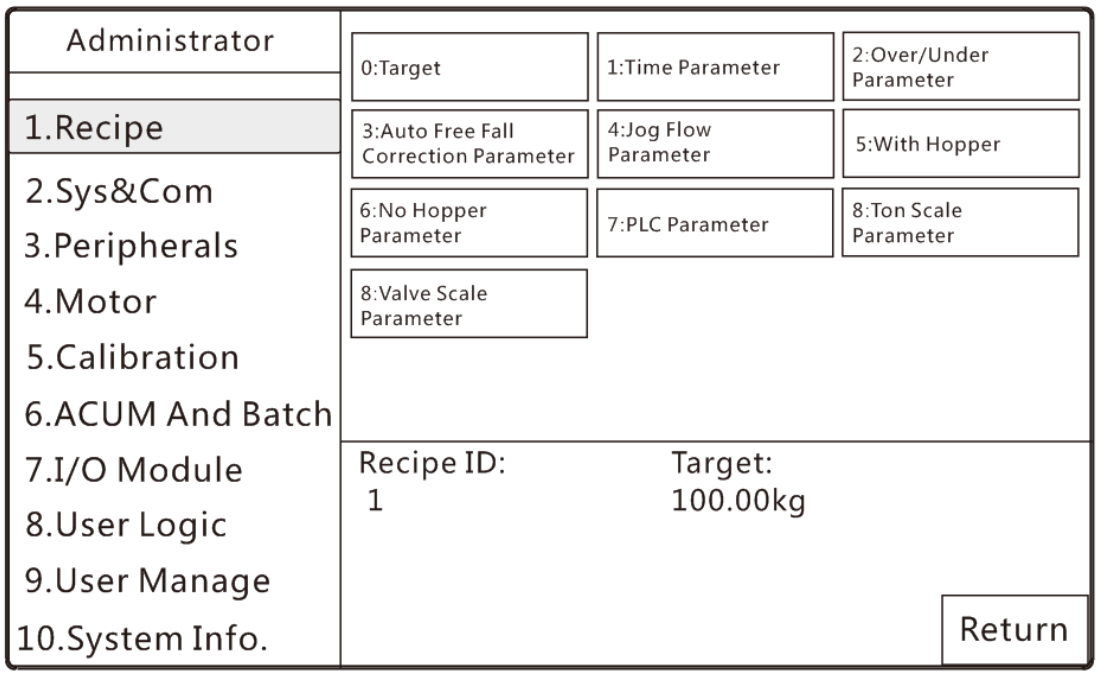
The touch screen needs to be calibrated when the new product is used for the first time or after a long time. The touch screen calibration method:

Power on the **GM9907** , and press and hold the touch screen at any time . The system **switches** to the touch screen calibration interface. Press and hold the cursor position on the screen to complete the calibration. After the coordinates of the point are displayed, the screen will automatically enter the next calibration point. Follow the change of the cursor position and press and hold, the calibration is completed, and the interface displays

the coordinates of the five calibration points, and then automatically enters the main interface of the product. If you enter the touch screen calibration interface by mistake, you can exit the interface by pressing the “Cancel” button in the lower right corner.

3 menu

Click the system menu to enter the parameter menu and query and modify each parameter.



The system menu interface is as shown in the figure above. The left side is the parameter item list, and the right side is the parameter item brief description and some parameter item information.

◆ Click the sub-option button to enter the current parameter item to view and set the attribution parameter information.

◆ Press [Back] to exit the current interface and return to the previous interface.

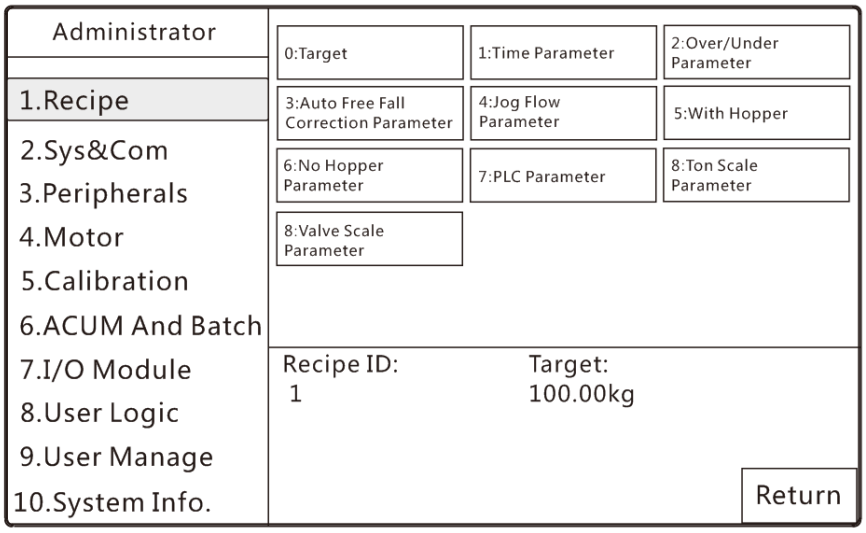
menu	Parameter item	parameter list	Parameter Description
system System dish single	Recipe parameters	0: Quantitative value	Set the package weight value related parameters
		1 : time parameter	Set the delay time related parameters of the feeding process
		2 : Super poor parameter	Set parameters such as excess weight, mode, and feeding
		3: Drop correction parameter	Set the difference correction method, correction range and other related parameters
		4: Slow plus jog parameters	Set slow plus jog switch, time and other related parameters
		5: There are bucket scale parameters	Set the relevant parameters of the bucket scale structure
		6: No hopper scale parameters	Set the relevant parameters of the hopper less scale structure

		7: PLC parameters	Set the state of the PLC parameters
		8: ton package scale parameters	Set the relevant parameters of the ton package scale structure
		9: Valve port scale parameters	Set the relevant parameters of the valve port scale structure
	System and communication	0: weight parameter	Set the judgment, clear , and other weightparameters
		1: Filter parameters	Set filter switch, filter level
		2: Function parameters	Set parameters such asadaptive and fixed value
		3: scale body structure	Select the scale body structure , feedingmethod, etc.
		4: Serial port(232)	Set serial port **(RS 232)**related parameters
		5: Serial port (485)	Set serial port **(RS485)**related parameters
		6: Network port	Set network port related parameters
	Peripheral parameters	0: bag parameters	Set the number of shots, the number of times and other parameters
		1: coding parameters	Set the relevant parameters of the coding mechanism
		2: Conveyor parameters	Set the relevant parameters of the conveyor
		3: Print parameters	Set parameters for automatic printing function
		4 : sewing machine parameters	Set sewing machine, thread cutting machine and other related parameters
		5: Unloading rapping parameters	Set parameters such as discharge rapping time and number of times
		6: Adding and discharging timeout judgment	Set the parameters related to the loading and unloading timeout
		7: Auxiliary pulse parameters	Set the relevant parameters of the auxiliary pulse
	Motor parameters	0: Motor parameters	Set recipe number, motor group number
		1; feeding parameters	Set feed related parameters
		2: Clip loose bag parameters	Set the relevant parameters of the clip loose bag
		3: Discharge parameters	Set discharge related parameters
	School scale	0: weighing parameter	Set parameters such as unit, decimal point, range, etc.

	1: weight calibration scale	Performs calibration operation for calibrating the meter weight value
Cumulative and batch	0: total accumulation and batch	View, clear, print the total cumulative information
	1: Formula accumulation (1 -10)	View, clear, print recipe(1-10) package accumulation information
	2: Formula accumulation (11-20)	View, clear, print recipe(1 1 - 20) package accumulation information
	3: User accumulation	View cumulative parameters for different users
Switch	0: Digital input definition	Define the meaning of the meter input port
	1 : Switch output definition	Define the meaning of the meter output port
	2: Switch input test	Test whether the connection of each input port is normal.
	3 : Switch output test	Test whether each output port is connected properly.
Auxiliary logic parameter	0: Auxiliary logic-1	Auxiliary logic 1function customization
	1: auxiliary logic-2	Auxiliary logic 2 function customization
	2: Auxiliary Logic-3	Auxiliary logic 3 function customization
	3: Auxiliary Logic-4	Auxiliary logic 4 function customization
	4: Auxiliary Logic- 5	Auxiliary logic 5 function customization
	5: Auxiliary Logic- 6	Auxiliary logic 6 function customization
User Management	0: User login	View or switch users
	1: User editing	Edit user permissions, passwords, etc.
	2: Automatic login	Set up automatic login users
system message	0: Version information	View software version and set system time
	1: password management	Password management of various parameters (calibration, cumulative clear password switch must be on)
	2: reset / backup	Restore various parameters to factory settings and data backup
	3: USB data export	Out operation from the instrument guide,formulation, peripherals, motor, calibration,switch parameter, the serial port parameters

		4: USB data import	Import work, recipes,peripherals, motors,calibration , switch parameters, serial parameters to the meter
		5: Short cut definition	Define debug interface shortcuts
		6: Other settings	Select language, adjust screen brightness, set screen saver

3.1 formulation parameters



Recipe parameter item	parameter	Description
Quantitative value	Used to set the package weight value related parameters	
	1 Recipe	Select the recipe number . Initial value: **1** ; Range: **1~20** .

	number	
	2. Target value	Quantify the target value.
	3. quickly increasethe amount of advance	In the quantification process, if the weighing value ⩾ the target value - fast increase the advance amount, the quick addition is turned off .
	3. before touching the amount	In the process of quantification, if the weighing value ⩾ the target value - the medium plus the advance amount, the middle plus is turned off.
	5. drop value	In the quantification process, if the weighing value ⩾ the target value - the falling value, the slow addition is turned off.
	6. zero zone value	During the quantification process, if the weighing value is ⩽ zero zone value, the discharge delay timer is started.
Time parameter	Used to set the delay time related parameters of the feeding process	
	1 beforethe addition Delay	In the metering bucket mode, when the quantitative process starts, after the delay time, the meter will judge and stabilize (if it does not meet the clear interval condition, it will not judge and not clear), and then start the feeding process; In the no-measure bucket mode, after the pocket is completed, after the delay time, the meter is judged to be stable and peeled.Initial value: **0.5** ; Range: **0.0~99.9** . (Unit: **s**)
	2. The quick feed ban sentenced to time	At the beginning of the quantification, during this time, in order to avoid overshoot, no weight judgment is made, and the quick addition is always effective.Initial value: **0.9** ; Range: **0.0~99.9** . (Unit: **s**)
	3. Canada banned sentenced to time	After the end of quick feed, in this casebetween, in order to avoid overshooting the weight determination is not performed, has been effectively added. Initial value: **0.9** ; Range: **0.0~99.9** . (Unit: **s**)
	4. slow feed ban sentenced to time	After added, this time in between, in order to avoid overshooting the weight determination is not performed, the slow feed has been effective. Initial value: **0.9** ; Range: **0.0~99.9** . (Unit: **s**)
	5. Setpoint hold time	When the setting method is selected as “delay setting”, after the slow feeding is turned off (or the super-defect difference is turned on, the super-defect alarm is finished), the setting value is started, and the holding time is passed, and the fixed value is considered to be finished, and the next process is entered. . Initial value: **0.5** ; Range: **0.0~ 99.9** . (Unit: **s**)
	6. After a	After the bag signal is given, after the delay, the meter judges

	delayfolder bag	that the bagging operation is completed. Initial value: **0.5** ; Range: **0.0~99.9** . (Unit: **s**)
	7. Pine bags before delay	After the bucket mode discharge is completed, the loose bag signal is output after the delay time; After the no-bucket mode setting (beat bag) is completed, the loose bag signal is output through this delay. Initial value: **0.5** ; Range: **0.0~99.9** . (Unit: **s**)
	8.Discharge Delay	During the unloading process, when the weight value of the weighing bucket is less than the zero zone value, the delay is started, and the time delay is closed to close the discharging signal. Initial value: **0.5** ; Range: **0.0~99.9** . (Unit: **s**)

Super poorparameter	Used to set parameters related to excess weight, mode,feeding, etc.	
	1 under super heterodynedetection switch	“ On / Off ” is optional. When this parameter is set to “ On ”, the quantitative process judges the excess error.
	2. Super owe differencepause switch	“On / Off” is optional. When it is set to “On”, when the quantitative process is over or under, the instrument pauses and waits for the user to process . The digital input is stopped urgently, returns to the stop state, and the alarm is cleared; or the digital input clear alarm can clear the alarm and continue the quantitative process.
	3. Excess Under the alarm timedifference	Without manually clear the alarm, the alarmtime difference over under its own alarm off. Initial value: **1.0;** range: **0.0 to 9. 9.9.** (unit**s**)
	4 ultradifference	In the process of quantification, if the weighing value ⩾ the target value + the excess value, it is judged to be excessive. Initial value: **0** .
	5. owe the difference	In the process of quantification, if the weighing value ⩽ target value - under-difference, it is judged as poor. Initial value: **0** .
	6. Fed under differentialswitch	Set the underfeed correction judgment switch. On: Slowly add the feed according to the

		number of feeds. Off: Do not replenish when there is a shortfall.
	7. Themaximum number of times due to poor feeding	When the quantitative process is judged to be inferior, the feed is slowly added according to this value. Initial value: **1** ; range **1~99** .
	8. Lesseffectivefeeding timedifference	When feeding the output, the effective time is added slowly during an on-off cycle **.** Initial value **: 0.5** ; range: **0.0 to 9 9 .9** . (unit**s**)
	9. invaliddue to poor feeding time	When feeding an output, a pass off the cycletime has no effect on **chronic.** Initial value **: 0.5** ; range: **0.0 to 9 9 .9** . (unit**s**)
Drop correction parameter	Used to set relevant parameters for automatic adjustment ofdrop difference	
	1. Fall correction switch	The drop value is the weight value that has not fallen into the measuring hopper after the slow plus signal is turned off. The drop correction is corrected according to the actual blanking value as required. (Note: If the drop correction and adaptive functions are turned on at the same time, the drop correction function is invalid)
	2. fallcorrection sampling times	The meter averages the difference of the set number of times as the basis for the drop correction. Initial value: **1** ; Range: **1 to 99 .**
	3. fallcorrection range	When the current drop value exceeds the set range, the drop will not be counted in the arithmetic mean range. Initial value: **2 .0** ; Range: **0.0 to 9.9 (** % of target value) .
	4. fall correction magnitude	The magnitude of each drop correction. Three ranges are available in **100% , 50% , and25%** . Initial value: **50 %** .
Slow plus jog parameters	Used to set manual slow feeding related parameters	
	1. Slow addswitch	“On / Off” is optional. When set to “On”, the meter is slowly added and jogged. Initial value: off.

	2. Inching slowly addeffective time	When the jog output is slowly added, the effective time is added slowly during an on-off cycle **.** Initial value **: 0.5** ; range: **0.0 to 9.9** . (unit **s**)
	3. Slow plusjogging inactive time	When the jog output is slowly added, the inactive period is slowly added during an on-off period **.** Initial value **: 0.5** ; range: **0.0 to 9.9** . (unit **s**)
Bucket scaleparameter	Used to set the relevant parameters of the bucket scale mode	
	1. Single scalecombination number	When there is a bucket scale structure , theloose bag is unloaded several times. If it is**0** , the meter discharges directly after the feeding is completed without judging whether the pocket is valid. Initial value : **1** ; Range: **0 to 99** .
No bucket scaleparameters	Used to set parameters related to the bucketless scale mode	
	1. Re-pocketdelay start time	Effective interlocking mode without fighting,**A** scale **B** when the front end of the conveyorscale after the rear end of the conveyor, andthe double scale bulk bags **is not the same**model as **loose bags.** If the addition is complete loose bags **B** scale, the scale is not loose bags **A, B** scale case again a bag clip, towait after the completion of the addition **A**loose scale bags, and after starting the conveyor, after **which** time delay before scale **B**Start feeding. Initial value: **4.0** ; range: **0.0 to 99.9** . (unit **s**) (Note: This parameter is only valid when the bag is not at the same time.)
PLC parameters	Used to set PLC mode related parameters	
	1. PLC- ultra difference	When the weighing value > target value + excess value, the out-of-tolerance output is valid Initial value: **0.00** ; range: **0.00~100.00 .**
	2. PLC- owe the difference	When the weighing value <target value - under-difference, the under-output is

		valid Initial value: **0.00** ; range: **0.00~100.00 .**
	3. The upper limit PLC-	When the weighing value > upper limit value, the upper limit output is valid Initial value: **0.00** ; range: **0.00~100.00 .**
	4. PLC- lower limit	When the weighing value is < lower limit, the lower limit output is valid. Initial value: **0.00** ; range: **0.00~100.00 .**
Tons of packing scaleparameters	Used to set the relevant parameters of the ton package scale mode	
	1. Delaytimepunching bags	The bag delay time until the bag is completed . Initial value **: 0.5** ; range: **0.0 to 9.9** . (unit **s**)
	2 bracketautomatic upswitch	After the hanging bag is finished, it is judged whether the bracket automatic rising switch is turned on, and waits for the manual rising bracket signal when it is not opened .
	3. The stent uplink delay time	This delay is executed after the rising signal is sent. Initial **value: 5.0;** range: **0.0 to 9.9.** (unit **s**)
	4. bracket downlinkdelay time	This delay is initiated after the quantitative delay has expired. Initial **value: 5.0;** range: **0.0 to 9.9.** (unit **s**)
	5 bracket up timeout(parameter retained)	The maximum waiting time for the metering bracket to be in position . Initial **value: 5.0;** range: **0.0 to 9.9.** (unit **s**)
	6. The stentdownlink timeout(parameter retained)	The maximum waiting time for the metering bracket to go down . Initial **value: 5.0;** range: **0.0 to 9.9.** (unit **s**)
	7. blowingtime	Blower blow output time . Initial value **: 0.5** ; range: **0.0 to 9.9** . (unit **s**)
	8. A beltrunning time(this parameter retained)	Electric mode, when the belt **A** stop signal is invalid, and the loose bags, the belt running time after punching bag **A** runningoperation has been completed, the running time after starting the belt **B.** Initial **value: 5.0;** range: **0.0 to 9.9.** (unit **s**)
	9. Belt **B**Runtime(this parameter retained)	In the electric mode , when the stop signal of the belt **B** is invalid, the belt **B** stops

		running after the belt running time . Initial **value: 5.0;** range: **0.0 to 9.9.** (unit **s**)
Valve port scaleparameter	Used to set the valve scale mode related parameters	
	1. The time delay before the bag	The delay time before the bag is started at the same time when the loose bag starts to start . Initial value **: 0.5** ; range: **0.0 to 9.9** . (unit **s**)
	2. bag effectivetime	The time is started after the delay timebefore the bag is lifted , and the bag signal output is valid. After the time is over, the bag signal output is invalid. Initial value **: 0.5** ; range: **0.0 to 9.9** . (unit **s**)
	3. Push bagsDelay Time	When the loose bag start delay starts, the delay time before pushing the bag is started at the same time. Initial value **: 0.5** ; range: **0.0 to 9.9** . (unit **s**)
	4. Push the bag effective time	The time is started after the delay timebefore pushing the bag , and the push bag signal output is valid. After the time is over, the push bag signal output is invalid . Initial value **: 0.5** ; range: **0.0 to 9.9** . (unit **s**)

3.2 system and communication parameters

Under the system and communication parameters interface:

◆ Click the sub-option button to enter the corresponding parameter item to view and set the attribution parameter information.

◆ Press [Back] to exit the current interface and return to the previous interface.

System andcommunicationparameters	parameter	Description
Weightparameter	**1.** Criteria of Stability range	During the judgment time, the weight change range is within this set value and the meter judges that the scale is stable. Initial value: **2** ; Range: **0 to 99 (d)** .
	2. Criteria of Stability time	First value: **0.3; range: 0.1 to 99.**
	3. Clear range	The range can be cleared **.** Initial value: **50** ; Range: **1 to 99 (** % of full

		scale) .
	3. Zero trackingrange	The weight value is within this range and the meter is automatically cleared.When it is **0** , zero tracking is not performed. Initial value: **0** ; range: **0 to 9 (d) .**
	5. Zero TimeTracking	First Value: **20; range: 0.1-9 9.9.** (unit **s**)
	6. A / Dsampling rate	**A/D** sampling rate. **120** times / sec, **240** times / sec, **480**times / sec, **960** times / sec. Initial value: **480** times / sec.
Filteringparameter	**1** . Stop filteringlevel	Filter strength rating in the stopped state. Initial value : **7** ; range **0 ~ 9** .
	2. Secondary filter switch	On/off optional, secondary filtering based on digital filtering. Initial value: off.
	3. Dynamic filter switch	During the packaging process, whether to perform the filter operation switch and set “On”, the following three parameters are valid.
	4. Filter feed grade	Filter parameters during feeding: **9** : The filtering effect is the strongest. Initial value: **2** ; Range: **0 to 9 .**
	5 level filter setting	Filter parameters during the setting process: **9** : The filtering effect is the strongest. Initial value: **7** ; Range: **0 to 9 .**
	6. Unloading smoothing grade	Filter parameters during unloading: **9** : The filtering effect is the strongest. Initial value: **1** ; Range: **0 to 9 .**
Functionalparameter	**1. The** power-on clear switch	On / off is optional. When it is “on”, the instrument will automatically perform the clear operation when the power is turned on (the weight inside the scale bucket meets the clearing range). Initial value: off
	2. Theinterval is automatically cleared	Clear the number of times after completing the packaging process. When entering the first packaging process in the running state, the meter is not cleared. Initial value: **0** ; Range: **0 to 99** . (Note: This parameter is valid only for the metering hopper packaging mode.)
	3. Run sentenced	Initial value: **0.0** ; range: **0 .0** ～ **9 9.9** .(unit **s**)

	stabletimeout	
	4. setting mode	Stable value: After the slow feed is turned off, the weight is stabilized and the set value process is completed. Delay setting: After the slow feeding is turned off, the fixed value is completed after the fixed value is maintained. Initial value: a stable value.
	5.Accumulated discharge switchmanually	On/Off is optional; set to “On”, the manual unloading weight value is included in the accumulated value; initial value : off .
	6. Wt hold switchsetting	On/Off is optional; set to “On”, the weight display remains unchanged after the end of the set time, and the weight changes again after the discharge starts. Initial value : off.
	7. Adaptive rating	The higher the grade , the faster thefeed rate and the lower the accuracy. Initial value: **3** ; Range: **1 to 5** .
	8 adaptiveswitch	Adaptive function, before touching the amount of slow and fast cut-off determination time during the operationof the automatic adjustment when switching on the instrument. Optional off , double speed, three speed. Initial value: off . (note: 1. All advances must be zero in order to be used normally. 2. If the drop correction and the adaptive function are turned on at the same time, the drop correction function is forcibly turned off. 3. When the first scale is adaptively started, the scale body must be stable and the current weight is zero.
Scale bodystructure	**1.** scale structure	There are bucket packaging / no bucket / PLC / ton bag / valve port packaging available. Initial value: There is a bucket packaging.
	2 operating modes	Optional single scale , interlock A, interlock B. Initial value : single scale .
	3. Packing mode	The net weight packaging mode first removes the tare weight at the beginning of the quantification and performs the quantitative

		packaging process with the net weight value.(effective in non-fighting mode) Gross weight packaging / net weight packaging is optional **.** Initial value: net weight packaging .
	4. Themovement ofthe carriageway	Available in pneumatic and electric . Initial value : pneumatic . (not changeable)
	5. feedingmethods	Optional separate feeding and combined feeding. Initial value : combined feeding.
	6. Dual modescales loose bags	In the bucketless interlock mode, the loose bag mode is optional: Not loose at the same time; At the same time loose bag **1** ; At the same time loose bag **2** . Initial value: no loose bags at the same time . **Loose bags are not simultaneously:**after completion of loose packing bags,to be **A / B** Scale all loose bags, the meter control signal output conveyor,the conveyor starts. **At the same time, the loose bag 1:** for the normal mode, the scale has been fed, and the other scale has not been fed yet. After the other scale is completed, the two scales are loose at the same time. If one scale has been fed and the other scale is not in the bag (feeding) state, then the other scale is not waiting, and the scale is directly loose. **At the same time loose bag 2:** for the quick mode in this mode, the default **A**scale is in the front **B** scale **. The**completion of the **A** scale feeding will not judge whether **B** is completed or not, and directly loose the bag. **After the B** feeding is completed, it is judged whether **A** is in the state of the bag (feeding): if **A** is feeding, **B** should wait for the A to be added and then loose the bag; if **A is** not feeding, **B does** not need to wait for the loose bag.
Serial port 485	**1.** Slave No.	Initial value: **1** ; **1 ~ 9 9** optional.
	2.Communication	Initial value: **Modbus-RTU** . **Modbus-RTU**/ Print / Continuous Mode / **MD-R**(compatible

		with **01.** version) isoptional.
	3. Baud Rate	Initial value: **38400** ; **9600/19200/38400/57600/115200** optional.
	4. Data Format	Initial value: **8-E-1 (8** -bit data bit -even parity **-1** stop bit) ; **8-E-1/8-N-1/7-E-1/7-N-1 is** optional.
	5. Modbuslevel word	**Modbus** communication display mode: Initial value: **AB-CD** (high word first); **AB-CD** (high word first) / **CD-AB** (low word first) optional.
Serial port 232	**1.** Slave No.	Initial value: **1** ; **1 ~ 9 9** optional.
	2.Communication	Initial value: **Modbus-RTU** . **Modbus-RTU** / Print / Continuous Mode / **MD-R** (compatible with version **01.**) isoptional.
	3. Baud Rate	Initial value: **38400** ; **9600/19200/38400/57600/115200 optional.**
	4. Data Format	Initial value: **8-E-1 (8** -bit data bit -even parity **-1** stop bit) ; **8-E-1/8-N-1/7-E-1/7-N-1 is** optional.
	5. Modbuslevel word	**Modbus** communication display mode: Initial value: **AB-CD** (high word first); **AB-CD** (high word first) / **CD-AB** (low word first) optional.
Network port	**1.**Communication	**M odbus-TCP/IP ,** address table viewsection **5.3.3**
	2. Modbuslevel word	**Modbus** communication display mode: Initial value: **AB-CD** (high word first); **AB-CD** (high word first) / **CD-AB** (low word first) optional.
	3. Port Number	Initial value **: 1; 1 ~ 65535** optional .
	4. IP address	Initial value **: 0; 0 ~ 255** optional **.**
	5 . **MAC**	**BC.66.41.9X.XX.XX**

3 .3 peripheral parameters

Under the peripheral parameter interface:

- Click the sub-option button to enter the current parameter item to view and set the attribution parameter information.
- Press [Back] to exit the current interface and return to the previous interface.

Peripheral parameter item	parameter	Description
	1. Bag knock mode	Bag mode selection;

		Initial value: Do not knock the bag. Optional: There is a bucket mode: the bag is not available after the bag / set value; No fighting mode: Sign bag / bags after setting Sign / addition in the film bag /bags beat plus values were correctly predicted; T packet mode: Sign bag / bags after setting Sign / addition in the film bag /bags beat plus values were correctly predicted; Port mode: Sign bag / bags after setting Sign / addition in the film bag / bags beat plus values were correctly predicted; PLC mode: Sign bag / bags after setting Sign / addition in the film bag / bags beat plus values were correctly predicted;
	2. Sign bags initial weight	It is effective in the no-bucket, tonnage, and valve-mouth scale mode. When the bag is fed in the feeding mode , the current weight must be greater than or equal to the starting weight of the bag before the bag is started. Initial value: **0;** Range: **0** ~ Maximum range.
	3. In addition the bag beat frequency	Set the parameters for the number of knock in the feed . If set to 0, the bag will not be taken. Note: When the feeding process enters the slow addition, the bag is forcibly ended in the feeding, regardless of whether the bag in the feeding is completed. (Do not take the bag during the feeding after entering the small shot) Initial value: **0;** Range: **0~99** .
	4. After setting the number of knock bags	After the fixed value, the number of times the bag is set, the number of times the bag is taken. Initial value: **4 ;** Range: **0~99** .
	5 knock front pocket delay	After the bag is started, the bag output is valid after this delay time. Initial value : **0.5 ;** Range **: 0.0~99.9** . (unit**s**)

	6 knock Bag effective time	During the on-off cycle of the bag, the bag output valid time. Initial value: **0.5 ;** Range: **0.0~99.9** . (unit **s**)
	7. knock bags invalid time	In the on-off cycle of the bag, the bag output invalid time. Initial value: **0.5 ;** Range **: 0.0~99.9** . (unit **s**)
	8.Additionaloutput valid time to knock bags	Generally used in the anchor bag function. (Note: Extra shot bag is invalid in PLCmode) After all the bags are finished, the additional bag output is added once, and the effective time is set to the time. The invalid time is “the bag invalid time”. Initial value: **0 .0** . Range **: 0.0~99.9** . (unit**s**) (Note: the time when the loose bag is delayed is not changed, or the “lead bag delay” time is started after all the original bag output ends effectively , that is, the effective time of the extra bag output is started after the bag output valid time is over. To achieve the abutment function, the time and the “loose bag delay” time should be set appropriately, but the time setting shouldgenerally be greater than the “loose bag delay”, that is, the bag should be loosened first, then the bag mechanism will rise again) .
Code parameter	**1.** a code switch	On/off optional; set to “on”, the meter has a code output function; Initial value : off.
	2. Start coding delay	The pocket is completed, and the output is valid after the delay; Initial value: **0 .5** ; Range: **0.0~99.9** . (unit**s**)
	3. Coding effective time	The effective time of coding; Initial value: **0 . 5** ; Range: **0.0~99.9** . (unit**s**)
	4 shall not be allowed / unloading switch coding	On/Off is optional; set to “On”, it is not allowed to start feeding (no bucket mode) output or unloading (with bucket mode)

		output during coding . Initial value : off.
Conveyor parameters	**1.** Conveyor switch	On/off optional; set to “on”, the meter has a conveyor output function; Initial value : off. The no-bucket mode is valid.
	2. Conveyor start-up delay	After the delay of the loose bag, the meter judges that the conveyor is started. Initial value: **0.5** ; range: **0~99.9** . (unit **s**)
	3. The conveyor running time	Conveyor runtime setting. Initial value: **4.0** ; range: **0~99.9** . (unit **s**)
Print parameters	**1.** Automatic print switch	On/Off is optional; when “On” is selected, the package result will be printed out automatically every time the package is completed (the serial port should be selected as “Print”). Initial value: off.
	2. Print format	Initial value: **24** columns of printing ; **24**columns of printing / **32** columns of printing.
	3. Print language	Initial value: Chinese ; Chinese / English optional.
	4. Print the number of lines	The number of lines after the print is completed. Initial value: **3** ; **0~9** optional.
Sewing machine	**1. The** sewing machine start-up delay	After the sewing machine start switch is activated, the sewing machine delay time is started . Initial value: **0.5** . Range: **0.0~99.9** . (unit **s**)
	2. The sewing machine output time	After the delay time has elapsed, the sewing machine output is started and the sewing machine output time is continuously output . Initial value: **4.0** . Range: **0.0~99.9** . (unit **s**)
	3. Tangent output time	After the sewing machine output time is over, the thread trimmer output is started and the cutter output time is continued. Initial value: **0.5** . Range: **0.0~99.9** . (unit **s**)
	4. The sewing machine	After the work is completed and cutting

	stop delay	machine, sewing machine continues to work, sewing machine stop delay time after up to stop. Initial value: **0.5** . Range: **0.0~99.9** . (unit **s**)
Unloadingrapping parameter	**1.** Open the discharge rap (knock)	Initial value : **0** ; range **0~1** . (**0 :** open;**1** : off)
	2. The effective discharge time	When the fixed value is maintained, the discharge effective time is from the time when the discharge signal is output to the time when the discharge is completed and the discharge delay is started. If the discharge time exceeds this time, it is considered abnormal, and the discharge rapping action is started. Initial value : **2.0** ; range **0.0~9.9** . (unit **s**)
	3.Discharge rapping effective time	Initial value : **0.5** ; range **0.0~9.9** . (unit **s**).
	4.Discharge rapping ineffective time	Initial value : **0.5** ; range **0.0~9.9** . (unit **s**)
	5.Discharge rapping times	Initial value : **10** ; range **0 ~ 99** .
Adding and discharging timeout judgment	**1.** Timeout detection switch	Add and discharge timeout judgment switch. After the opening , the loading and unloading timeout judgment is performed in the running state . Initial value **:** off .
	2 Fast time feeding overtime	In the running state, after the fast output exceeds the time, the output timeout alarm is issued and the machine stops. Initial value : **5.0** ; range **0.0~99.9** . (unit**s**)
	3. Medium feeding timeout	In the running state, after the output is over this time, the output timeout alarm is issued and the machine stops. Initial value : **5.0** ; range **0.0~99.9** . (unit**s**)
	4. Slow feeding timeout	In the running state, after the slow output exceeds the time, the output timeout alarm is issued and the machine stops. Initial value : **5.0** ; range : **0.0~99.9** .(unit **s**)
	5. Discharge time out	In the running state, after the discharge output exceeds this time, the output

		timeout alarm and stop. Initial value : **5.0** ; range : **0.0~99.9** .(unit **s**)
Auxiliary pulse parameter	**1.** The auxiliary pulse **1**total execution time	Auxiliary pulse **1** performs the total time. If it is **0,** it will be executed all the time. Initial value : **0** ; range : **0.0~999.9** .(unit **s**)
	2. 1effectiveauxiliary pulse time	Initial value : **10.0** ; range : **0.0~999.9** .(unit **s**)
	3. The auxiliary pulse **1**invalid time	Initial value : **10.0** ; range : **0.0~999.9** .(unit **s**)
	4. The total run time of the auxiliary pulse **2**	Auxiliary pulse **2** performs the total time. If it is **0,** it will be executed all the time. Initial value : **0** ; range : **0.0~999.9** .(unit **s**)
	5. 2auxiliary pulse effective time	Initial value : **10.0** ; range : **0.0~999.9** .(unit **s**)
	6. Invalid auxiliary pulse time **2**	Initial value : **10.0** ; range : **0.0~999.9** .(unit **s**)
	7. The total run time of the auxiliary pulse **3**	The auxiliary pulse **3** performs the total time. If it is **0,** it will be executed all the time. Initial value : **0** ; range : **0.0~999.9** .(unit **min**)
	8. 3 the auxiliary pulse effective time	Initial value : **10.0** ; range : **0.0~999.9** .(unit **min**)
	9. invalid auxiliary pulse **3**times	Initial value : **10.0** ; range : **0.0~999.9** .(unit **min**)
	10. The total run time of the auxiliary pulse **4**	The auxiliary pulse **4** performs the total time. If it is **0,** it will be executed all the time. Initial value : **0** ; range : **0.0~999.9** .(unit **min**)
	11. 4auxiliary pulses effective time	Initial value : **10.0** ; range : **0.0~999.9** .(unit **min**)
	12. The dead time of the auxiliary pulse **4**	Initial value : **10.0** ; range : **0.0~999.9** .(unit **min**)

3 .4 motor parameters

Under the motor parameter interface:

- Click the sub-option button to enter the current parameter item to view and set the attribution parameter information.
- Press [Back] to exit the current interface and return to the previous interface.

Motor parameter item	parameter	Description
Motor parameters	**1.** Formula number	The recipe currently in use. Initial value: **1** ; Range: **1~20 .**
	2. Motor group number used in the current recipe	The feed motor group number corresponding to the current recipe. Initial value: **0** , range **0~4** .
Feeding parameter	**1.** Feed mode	Initial value: pneumatic feeding; Optional: **0** , pneumatic mode; **1** , stepper motor feeding; **2** , ordinary motor mode.
	2. Feeding door closing timeout	Initial value: **4.0** ; range: **0.0~99.9 .**
	3. Feeding door closes in place signal type	Initial value: **0** ; Type optional **:** **0** : The signal is in place when it is valid; **1** : When the signal is invalid , it is in place .
	4. Feeding motor group number	Initial value: **0** ; Range: **0~4** Feeding motor group number setting.
	5. Feeding motor frequency	Initial value: **12000** ; range: **1~50000** .
	6. Close to slow increase the number of pulses required	Initial value: **1800** ; Range: **1~60000** .
	7. Close the number of pulses required to add	Initial value: **4300** ; range: **1~60000** .
	8. Close to fast increase the number of pulses required	Initial value: **7750** ; range: **1~60000** .
	9. Adding door opening direction signal status	Feeding door opening motor rotation direction signal state Initial value: when the signal is invalid, it is the direction of opening the door;

		Optional: **When the 0** signal is invalid, the door opening direction is : when the feeding door is opened, the signal output of the feeding stepping motor is invalid, and the direction signal output is valid when thedoor is closed . **A** valid signal to the door opening direction: door open when loading operation, the rotation direction of the stepping motor to feed the signal output valid signal is output when the closing operation direction invalid.
	10. Feed motor starting frequency	Feed motor starting frequency Initial value: **2000** ; Range: **0~50000** . (Note: this value cannot be greater than the feeding motor frequency)
	11. Feed motor acceleration time	Feed motor acceleration time (in **ms**) Initial value: **200** ; range: **0~9999 .**
	12. Feed motor deceleration time	Feed motor deceleration time (in **ms**) Initial value: **50** ; range: **0~9999 .**
	13. Quickly open the door	The time it takes for the loading door to open to the quick-add (fast-add) position. Initial value: **0.8 0** ; Range: **0~99 . 99 .**(unit **s**)
	14. China and Canada opening time	The time it takes for the feed door to open to the middle (plus) position. Initial value: **0.4 0** ; Range: **0 . ~99.99 .**(unit **s**)
	15. Slow opening time	The time it takes for the feed door to open to the slow (slow plus) position. Initial value: **0.2 0** ; Range: **0~99.99 .** (unit**s**)
Clip loose bag parameters	**1** , pocket mode	Initial value: **0** , pneumatic clamp loose bag ; Optional: **0** , pneumatic clip loose bag; **1** , stepper motor clip loose bag; **2** , motor double limit clip loose bag; **3** , motor single limit clip loose bag.
	2 , loose bag process timeout	Initial value: **3.0** ; range: **0.0~99.9** . (unit **s**)
	3 , the bagging process timeout	Initial value: **3.0 ;** range: **0.0~99.9** . (unit **s**)
	4 , loose bag in place signal status	Initial value: **0** ; Optional: **0** : The signal is in place when it is valid;

		1 : When the signal is invalid, it is in place .
	5 , pocket motor frequency	Initial value: **30000** ; range: **1~50000** .
	6 , loose bag motor frequency	Initial value: **20000** ; range: **1~50000** .
	7 , the number of pulses required to pocket	Initial value: **12000** ; range: **1~60000** .
	8, the motor direction signal statefolder bag	Initial value: **0** ; Optional: **0** : the entrainment direction when the signal is invalid ; **1** : Entrainment direction when the signal is valid .
	9 , the pocket motor starting frequency	Initial value: **2000 .** (Note: this value cannot be greater than the pocket frequency)
	10 , pocket motor acceleration time	Initial value: **200** ; range: **0.0~99.99 .** (unit **m s**)
	1 1 , bag motor deceleration time	Initial value: **50** ; Range: **0.0~99.99 .** (unit **m s**)
	12 , loose bag effective time	Initial value: **0. 5** ; range: **0.0~99.99 .** (unit**s**)
Discharge parameter	**1** , unloading mode	Initial value: **0** pneumatic discharge; Optional: **0** : pneumatic mode ; **1** : Stepping motor unloading; **2** : motor single limit discharge; **3** : motor double limit discharge; **4** : The motor rotates in one direction.
	2 , discharge closing timeout time	Initial value : **3.0** ; range: **0.0~99.9** . (unit**s**)
	3 , discharge opening timeout time	Initial value : **3.0 ;** range: **0.0~99.9** . (unit**s**)
	4 , discharge in place signal type	Initial value: **0** ; Optional: **0** : The signal is in place when it is valid;

		1 : When the signal is invalid, it is in place .
	5 , discharge limit real-time detection switch	On/off is optional; when "On" is selected, the limit signal is detected in real time; when "Off", the limit signal is detected only when the feed is started . Initial value: off.
	6 , discharge door opening motor frequency	Initial value : **30000** ; range: **1~50000** .
	7 , discharge closing motor frequency	Initial value : **20000** ; range: **1~500 00** .
	8 , the number of pulses required for unloading	Initial value : **12000** ; range: **1~60000** .
	9 , the discharge direction signal status	Initial value: **0** ; Optional: **0** : the door opening direction when thesignal is invalid ; **1:** valid signal to the door opening direction.
	10 , discharge motor starting frequency	Initial value: **2000** ; range: **0~50000** . (Note: this value cannot be greater than the discharge frequency)
	11 , the discharge motor acceleration time	Initial value: **200 ;** range: **0.0~99.99 .** (in **ms**)
	12 , unloading motor deceleration time	Initial value: **50 ;** range: **0.0~99** . **99 .** (in **ms**)
	13 , discharge opening time output time	Initial value : **1.00 ;** range : **0.00~99.99 .**(unit **s**)

3 .5 calibration

The calibration scale is the calibration of the instrument. When the **GM9907** packaging controller or any part of the weighing system is changed for the first time and the current equipment calibration parameters cannot meet the user's requirements, the controller should be calibrated. The calibration scale parameter directly affects the weighing result of the instrument. To prevent personnel from mis operation, the administrator and the system administrator are required to log in to calibrate the instrument (select the identity login in the [User Login] option).

The calibration scale parameter of the national standard symmetrical heavy instrument requires password protection. Therefore, the

password must be entered correctly when entering the calibration parameters (initial password: **000000**); the calibration password is changed in the “Password Management” item of [System Information]. .

Under the calibration scale interface:

◆ Click the sub-option button to enter the current parameter item to view and set the attribution parameter information.

◆ Press [Back] to exit the current interface and return to the previous interface.

Calibration scale parameter	**School scale child**	**Description**	
Weighing parameter	**1** unit	Initial value: **kg** ; **g/kg/t/lb is**available.	
	2. Decimal point	**.** Initial value: **000; 0 to 0.0000** five kinds of options.	
	3. Minimum division	Initial value: **1** ; **1/2/5/10/20/50** six optional .	
	4. Maximum range	Initial value: **100.00** ; The range is less than or equal to the minimum division × **10 0000** can be set .	
Empty scale calibration	Current weight	Display current weighing platform weight value	In this interface, after clearing the weighing platform (scale bucket) is stable, press the [empty scale calibration] button to calibrate the current state to zero.
	Current voltage value	Display current sensor output voltage value	
Weight calibration scale	Current weight	Display current weight value	In this interface, load the weight on the weighing platform (weighing bucket). After stabilization,press [GainCalibration] to pop up the dialog box, enter the weight value of the weight, and complete the calibration of the weight value of the instrument.
	Gain voltage value	Display load weight output voltage value	

3.6 Cumulative and batch

◆ Click the sub-option button to enter the current parameter item to view and set the attribution parameter information.

◆ Press [Back] to exit the current interface and return to the previous interface.

◆ Under the “Total Accumulation and Batch” parameter, the user can view the total accumulated value and accumulated times under the formula, and clear and print the accumulated.

◆ Click [Clear Total Accumulation] on the “Total Accumulation and Batch”interface, enter the clear accumulated password to delete the total accumulated and all formula accumulations and all user accumulates.

◆ Click [Clear All Receipts] on the “Recipe Accumulation” interface , and enter the clear accumulated password to delete all recipes.

◆ Click [Clear All Users Accumulate] on the " User Accumulation" interface, and enter the clear accumulated password to delete

all user accumulates.

◆ Click the formula to be deleted in the formula accumulation interface, and enter the clear accumulated password to delete the accumulated content of the selected formula.

◆ In the user cumulative interface, click on the user to be deleted, and enter the clear accumulated password to delete the accumulated content of the selected user.

◆ If the serial port is set to print, according to a corresponding cumulative total cumulative interface [Print], [print selected recipe total], [all recipes accumulated print], [print] accumulated selected users, all users [print] accumulated; if No serial port is set to print. Pressing the above button on the corresponding cumulative interface will prompt "No serial port is set to print mode and cannot be printed"

◆ In total cumulative batch to batch interface provided [] set the number of batches, such as when the number of batches completed set, playing the instrument in the main interface box prompts**"batch** to **complete"** alarm and shutdown, the processing waits for the user, then Make the "clear alarm" input signal valid, or click the "clear alarm" button to clear the above alarm, or enter the emergency stop to return to the stop state.

Note : If you work in combination mode , the batch count counter is incremented by **1 when the** number of combinations is completed . The set number of batches and the accumulated batch number are saved after power down .

3.7 switching

The GM9907 provides **12** inputs and **16** output interfaces to interface the instrument with external devices.

The input and output factory definition contents are as follows (output **1** - **16** corresponds to the instrument **OUT1** ~ **OUT16** interface, input **1** - **12** corresponds to the instrument **IN1** ~ **12** interface).

There are hopper scales default definition:

Output		Input quantity	
Output port -**1**	**O1** running	Input port - **1**	**I1** start
Output port -**2**	**O2** stop	Input port - **2**	**I2** emergency stop
Output port -**3**	**O3** fast	Input port - **3**	**I3** slow stop
Output port -**4**	**O4** Canada	Input port - **4**	**I5** clear
Output port -**5**	**O5** slow plus	Input port - **5**	**I6** clear alarm
Output port -**6**	**O6** pocket	Input port - **6**	**I8** total accumulated
Output port -**7**	**O7** setting	Input port - **7**	**I7** clip loose bag request
Output port -**8**	**O8** scales aregood	Input port - **8**	**I9** manual unloading
Output port -**9**	**O9** unloading	Input port - **9**	**I10** manual slow addition
Output port -**10**	**O10** zone	Input port - **10**	**I11** manual fast
Output port -**11**	**O11** shot bag	Input port - **11**	**I13** formula
Output port -**12**	**O13** feeding	Input port - **12**	**I12** clearing material
Output port -**13**	**O14** lack of material	Note: In interlock mode. Input port **-12** is the interlock input. Output port - **16** is the dual scale interlock output.	
Output port -**14**	**O15** alarm		
Output port -**15**	**O17** batch completed		
Output port -**16**	**O16** super poor		

Without hopper scale default definition:

Output		Input quantity	
Output port -**1**	**O1** running	Input port - **1**	**I1** start
Output port -**2**	**O2** stop	Input port - **2**	**I2** emergency stop
Output port -**3**	**O3** fast	Input port - **3**	**I3** slow stop
Output port -**4**	**O4** Canada	Input port - **4**	**I4** suspended
Output port -**5**	**O5** slow plus	Input port - **5**	**I5** clear
Output port -**6**	**O6** pocket	Input port - **6**	**I6** clear alarm
Output port -**7**	**O7** setting	Input port - **7**	**I8** total accumulated
Output port -**8**	**O10** zone	Input port - **8**	**I7** clip loose bag request
Output port -**9**	**O11** shot bag	Input port - **9**	**I10** manual slow addition
Output port -**10**	**O15** alarm	Input port - **10**	**I11** manual fast
Output port -**11**	**O13** feeding	Input port - **11**	**I13** formula
Output port -**12**	**O27** loose bag	Input port - **12**	**I12** no definition
Output port -**13**	**O14** lack of material	Note: In interlock mode. Input port **-12 is** changed to interlock input . Output port **-12 is** changed to missing material. Output port- **13 is** changed to batch completion. Output port- **14 is** changed to the sewing machine output. Output port **-15 is** changed to conveyor output. Output port- **16 is** changed to dual scale interlock output.	
Output port -**14**	**O17** batch completed		
Output port -**15**	**O16** super poor		
Output port -**16**	**O44** sewing **machine** output		

P LC mode default definition:

Output		Input quantity	
Output port -**1**	**O3** fast	Input port - **1**	**I5** clear
Output port -**2**	**O4** Canada	Input port - **2**	**I6** clear alarm
Output port -**3**	**O5** slow plus	Input port - **3**	No definition
Output port -**4**	**O38** tolerance (PLC)	Input port - **4**	No definition
Output port -**5**	**O39** poor (PLC)	Input port - **5**	No definition
Output port -**6**	**O49** upper limit	Input port - **6**	No definition
Output port -**7**	Lower limit of **O41**	Input port - **7**	No definition
Output port -**8**	No definition	Input port - **8**	No definition
Output port -**9**	No definition	Input port - **9**	No definition
Output port -**10**	No definition	Input port - **10**	No definition

Output port -**11**	No definition	Input port - **11**	No definition
Output port -**12**	No definition	Input port - **12**	No definition
Output port -**13**	No definition		
Output port -**14**	No definition		
Output port -**15**	No definition		
Output port -**16**	No definition		

Ton scales default definition:

Output		Input quantity	
Output port -**1**	**O1** running	Input port - **1**	**I1** start
Output port -**2**	**O2** stop	Input port - **2**	**I2** emergency stop
Output port -**3**	**O3** fast	Input port - **3**	**I3** slow stop
Output port -**4**	**O4** Canada	Input port - **4**	**I4** suspended
Output port -**5**	**O5** slow plus	Input port - **5**	**I5** clear
Output port -**6**	**O6** pocket	Input port - **6**	**I6** clear alarm
Output port -**7**	**O31** hanging bag	Input port - **7**	**I8** total accumulated
Output port -**8**	**O3** measuringbracket uplink	Input port - **8**	**I7** clip loose bag request
Output port -**9**	**O7** setting	Input port - **9**	**I32** bag request
Output port -**10**	**O10** zone	Input port - **10**	**I3** manual control bracket up / down
Output port -**11**	**O33** return valve	Input port - **11**	**I19** manual slow addition
Output port -**12**	**O32** blowing	Input port - **12**	**I20** manual fast
Output port -**13**	**O15** alarm		
Output port -**14**	**O17** batch completed		
Output port -**15**	No definition		
Output port -**16**	No definition		

The valve port scale is defined by default:

Output		Input quantity	
Output port -**1**	**O1** running	Input port - **1**	**I1** start
Output port -**2**	**O2** stop	Input port - **2**	**I2** emergency stop
Output port -**3**	**O3** fast	Input port - **3**	**I3** slow stop
Output port -**4**	**O4** Canada	Input port - **4**	**I4** suspended
Output port -**5**	**O5** slow plus	Input port - **5**	**I5** clear
Output port -**6**	**O6** pocket	Input port - **6**	**I6** clear alarm
Output port -**7**	**O 7** setting	Input port - **7**	**I8** total accumulated
Output port -**8**	**O17** batch completed	Input port - **8**	**I7** clip loose bag request

Output port -**9**	**O10** zone	Input port - **9**	**I10** manual slow addition
Output port -**10**	**O11** shot bag	Input port - **10**	**I11** manual fast
Output port -**11**	**O13** feeding	Input port - **11**	**I13** formula
Output port -**12**	**O15** alarm	Input port - **12**	**I12** no definition
Output port -**13**	**O16** super poor		
Output port -**14**	**O30** push bag signal		
Output port -**15**	**O29** bag signal		
Output port -**16**	No definition		

3.7.1 Output, input port definition

The output port and input port contents can be defined according to the actual application. Under the switch interface:

- Click the sub-option button to enter the current parameter item to view and set the attribution parameter information.
- Press [Back] to exit the current interface and return to the previous interface.

Switch content description

Output		
Code	**content**	**Description**
O0	No definition	If the port number is defined as **0**, this output port is undefined.
O1	run	When the meter is in the running state, the output port signal is valid.
O2	stop	When the meter is in the stop state, the output port signal is valid.
O3	Quick add	Used to control the large discharge port of the feeding mechanism. During the feeding process, when the current weight is less than the target value -faster advance amount, the output port signal is defined as valid.
O4	China and Canada	Used to control the middle discharge port of the feeding mechanism. During the addition, the current weight is less than the target value - added inadvance during the definition output signal is active.
O5	Slow plus	Used to control the small discharge port of the feeding mechanism. During the feeding process, when the current weight is less than the target value -fall difference, the output port signal is defined as valid.
O6	Pocket	It is used to control the pocket mechanism, and the signal effectively realizes the pocket; the signal is invalid, that is, the loose bag.
O7	Value	Used to indicate the end of the feeding process. The output port signal is valid before the end of the slow addition to the discharge (with bucket) or the bag (no bucket).
O8	Weigh	After the setting is completed, the output port signal is valid.
O9	Unloading	A discharge door for controlling the measuring bucket. The defined output port signal is valid when the discharge is started, so that the material is discharged from the measuring bucket into the package.
O10	Zero zone	When the current weight of the scale is less than the set near zero value, the output port signal is valid.
O11	Shooting bag	Used to control the bag making machine. A pulse signal with a controlled pulse width and number of times.

O12	Cutting	This output is valid during the feed and is not valid during the non-feed period .
O13	supply	The feeding mechanism for controlling the front end of the packaging scale, when the feeding hopper lower level input (the lower material level input is defined) is invalid, the output is valid; when the feeding hopper upper material level (the loading level input is defined) is valid, The meter invalidates this output.
O14	Missing material	When the blanking input is defined and the input is invalid, the output is valid. When the hopper lowering level (the lowering input is defined) is valid, the meter invalidates the output.
O15	Call the police	When the meter has an out-of-tolerance, batch number, etc. alarm, the output port signal is valid.
O16	Super poor	When the tolerance or undershoot is exceeded, the output signal is defined as valid.
O17	Batch completion	When the set number of batches is completed, the output port signal is valid.
O18	Double scaleinterlock output	Used in the double scale mode, connected to the switch “Double scale interlock input” of another meter.
O19	Feed pulse output	When the feeding mode is set to stepper motor mode to control the feeding door switch: This signal isused as a pulse signal output to the feeding stepper motor driver to control the motor rotation. **Note: This function can only be defined on one of the ports of OUT12~16 .**
O20	Feeding direction signal	When the feeding mode is set to stepper motor mode to control the feeding door switch: This signal isused as the motor rotation direction signal output to the feeding stepping motor driver to control themotor to reverse. **Note: This function can only be defined on one output port. There can be no multiple output ports to define this function. And can only be defined to one of the ports OUT1~11 .**
O21	Pinch bag pulse output	When the bag mode is set to the stepping motor mode control clip loose bag: This signal is used as the output pulse signal to the pinch stepper motor driver to control the motor rotation. **Note: This function can only be defined on one of the ports of OUT12~16 .**
O22	Clip pocket direction signal	When the bag mode is set to the stepping motor mode control clip loose bag: This signal is used as the motor

		rotation direction signal output to the pinch bag stepping motor driver to control the motor to reverse. (No bucket mode is valid) **Note: This function can only be defined on one output port. There can be no multiple output ports to define this function. And can only be defined to one of the ports OUT1~11 .**
O23	Discharge pulse output	When the unloading mode is set to stepper motor mode to control unloading: this signal is used as a pulse signal output to the discharge stepper motor driver to control the motor rotation. **Note: This function can only be defined on one of the ports of OUT12~16 .**
O24	Discharge direction signal	When the unloading mode is set to stepper motor mode to control unloading: this signal is used as the motor rotation direction signal output to the discharge stepper motor driver to control the motor to reverse. **Note: This function can only be defined on one output port. There can be no multiple output ports to define this function. And can only be defined to one of the ports OUT1~11 .**
O25	Adding a door	When the feeding mode is set to the normal motor mode to control the feeding door switch: the large discharging port for controlling the weighing mechanism is opened. This signal is active at the beginning of the feeding process and the effective time is set in the motor parameters.
O26	Adding material closes	When the feeding mode is set to the normal motor mode to control the feeding door switch: it is used to control the action of closing the feeding port of the feeding mechanism. The signals are valid at the time of fast addition, medium addition and slow addition respectively. The effective time is based on the time parameter set in the motor parameters. It is decided that the signal is valid at the end of the feed until it becomes invalid when the feed limit is valid.
O27	Loose bag	When the bag mode is set to the ordinary motor control clip loose bag: it is used to control the loose bag. When the signal is valid, the motor is driven to perform the loose bag action. When the signal is invalid, the loose bag action stops.
O28	Discharge closing	When the unloading mode is set to normal motor forward and reverse control discharge, it is used to control the closing action of the metering bucket discharge door. When the signal is valid, the motor is driven to open and

		close the door. When the signal is invalid, the door closing action stops.
O29	Bag signal	It is used to control the bag-making mechanism, and this signal effectively realizes the bag-liftingaction .
O30	Push bag signal	It is used to control the push bag mechanism, and the signal effectively realizes the push bag action.
O31	Hanging bag	It is used to control the bag mechanism, and the signal effectively realizes the hanging bag; the signal is invalid and the hook is loose.
O32	Blowing	For controlling the operation of the blowing means,at the end of the metering bracket upward, the signal is valid.
O33	Return valve	Return valve for controlling the run, at the end of blowing, the signal is valid.
O34	Meteringbracket up(this parameter is reserved)	Used to control the upstream of the metering bracket. This signal is valid until the upper limit is valid if both the bag and the bag have been completed before feeding. This signal output is valid after the loose bag is completed. Until the lower limit input is valid.
O35	Measuring bracket down (electric)(this parameter is reserved)	Used to control the downstream of the metering bracket . (When there is a bag making function, it needs to be started after the bag is finished) .
O36	Belt **A** (this parameter is reserved)	Electric mode, for controlling the operation of the belt **A,** the loose bags, the hook after the song, the signal is valid.
O37	Belt **B** (this parameter is reserved)	Electric mode, for controlling operation of the belt**B,** the belt **A** is stopped, the signal is valid.
O38	Out of tolerance (**PLC**)	This signal is valid when it is out of tolerance (**PLC**) .
O39	Undershoot (**PLC**)	This signal is valid when there is a short circuit (**PLC**) .
O40	Upper limit (**PLC**)	When the weighing value > upper limit value, the upper limit output is valid .
O41	Lower limit (**PLC**)	When the weighing value < lower limit, the lower limit output is valid .
O42	Conveyorconveyor	In the bucketless mode, it is used to control the start and stop of the conveyor. The signal is effectively activated by the conveyor and the signal is invalid and the conveyor is stopped.
O43	add mosaic	The code signal is output when the pocket signal output is valid and the code delay is over.
O44	Sewing machineoutput	When the sewing machine input is valid, the sewing machine output is valid.
O45	Tangential	After the sewing machine output time is over, the output is

	machine output	valid, and the effective time is the tangential machine output time .
O46	Auxiliary pulse output **1**	After the auxiliary pulse **input** effective, the output pulse signal (valid for the auxiliary pulse **an**effective time, dead time of the auxiliary pulse **a**dead time), and outputs the total time to stop the output (the total time is set to **0,** it has been by Pulse output) .
O47	Auxiliary pulse output **2**	After the auxiliary pulse **2** input is active, the output pulse signal (valid for the auxiliary pulse **2**effective time, dead time of the auxiliary pulse **2**dead time), and outputs the total time to stop the output (the total time is set to **0,** it has been by Pulse output) .
O48	Auxiliary pulse output **3**	After the auxiliary pulse **3** input is valid, the pulse signal is output (the effective time is theauxiliary pulse **3** valid time, the invalid time is the auxiliary pulse **3** invalid time), and after the output execution total time is reached, the output is stopped (the total execution time is set to **0** , then the button is pressed. Pulse output) .
O49	Auxiliary pulse output **4**	After the auxiliary pulse **4** input is valid, the pulse signal is output (the effective time is theauxiliary pulse **4** valid time, the invalid time is the auxiliary pulse **4** invalid time), and after the output execution total time is reached, the output is stopped (the total execution time is set to **0** , then the button is pressed. Pulse output) .
O50	Unloading rapping	The output of the discharge rapping function.
O51	Auxiliary logic output **1**	Auxiliary logic **1** output signal.
O52	Auxiliary logic output **2**	Auxiliary logic output signal **2.**
O53	Auxiliary logic output **3**	The output signal of the auxiliary logic output **3** .
O54	Auxiliary logic output **4**	The output signal of the auxiliary logic output **4** .
O55	Auxiliary logic output **5**	The output signal of the auxiliary logic output **5** .
O56	Auxiliary logic output **6**	The output signal of the auxiliary logic output **6** .
Input quantity		
I0	No definition	If the port number is defined as **0** , this input port is undefined.
I1	start up	The signal valid meter will enter the running state.This input

		is a pulse input signal.
I2	Emergency stop	The signal valid meter will return to the stop state. This input is a pulse input signal.
I3	Slow stop	The signal valid meter will return to the stop state after completing the current packaging process. This input is a pulse input signal.
I4	time out	The signal valid meter will suspend work, retain the current state, and resume working after receiving the start signal . This input is a pulse input signal.
I5	Clear	The signal valid meter will clear the weight. This input is a pulse input signal.
I6	Clear alarm	Used to clear the alarm output of the meter. This input is a pulse input signal.
I7	Clip loose bag request	It is used to control the action of the pocket mechanism. This input is effective for one pocket output, and the effective pocket output is invalid again (ie: loose bag).
I8	Total accumulation	Clearing the total accumulated weight and number of times will also clear the recipe accumulation and user accumulation .
I9	Manual unloading	Used to manually remove material from the measuring hopper. The input is effective once, the discharge output is valid, and the effective discharge output is invalid again.
I10	Manual slow addition	The input is valid once and the output is valid, and the effective slow input is invalid again.
I11	Manually add	Pulse type signal. Function in the stop state, used to manually turn the meter on and off. Effective once, it is effectively turned off again.
I12	Clear material	Pulse type signal. Acting in the stop state, used toempty the storage hopper while opening the discharge door and the feed door. Effective once , it is effectively turned off again. (No action in bucket, PLC, valve port, ton package mode)
I13	Selection formula	This input is valid once, the recipe number is changed to the next target whose value is not zero, and the recipe number with the target value of zero is skipped.
I14	Feed level	Used to connect the upper level of the hopper, this input should be level input.
I1 5	Cutting level	Used to connect the lower level of the hopper, this input should be level input. The blanking bit input is invalid or left blank to indicate the material shortage. The blanking level input is valid to indicate that there is no shortage of

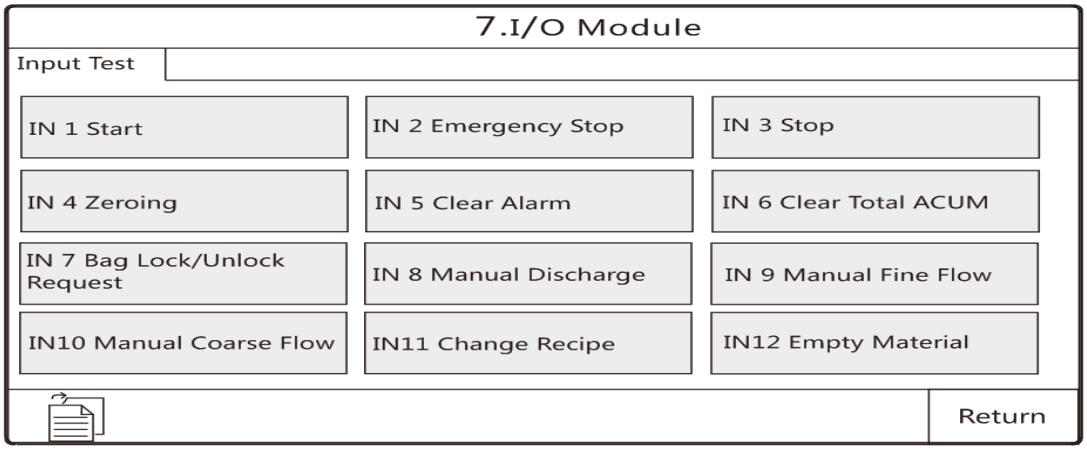
		material.
I16	Start/emergency stop (level)	The signal is valid and the instrument enters the running state. If it is invalid, it returns to the stop state. This input is a level signal.
I17	Start/slow stop (level)	The signal valid instrument enters the running state, and if it is invalid, it returns to the stop state after completing the current packaging process. This input is a level signal.
I18	Manualunloading (level)	Used to manually remove material from the measuring hopper. The input effective discharge output is valid, and the input invalid discharge output is invalid.
I19	Manual slow addition (level)	The signal is effectively slow and the signal output is valid. The signal is invalid and the slow signal output is invalid.
I20	Manual quick addition (level)	The signal is valid and the signal output is valid. The signal is invalid and the signal output is invalid.
I21	Pocket in place (level)	If this input is defined, it effectively indicates that the pocket is in place, and vice versa . No fighting mode: the folder bag has state, the instrument must be detected "bag-in place" input active material began to increase, the process ofadding material, detecting whether the signal is notvalid. This input should be a level input.
I22	Discharge door opening door (level)	The unloading mode is set to the normal motor forward and reverse double limit mode to control the unloading: this signal is used as the limit input signal of the discharge door opening door. When theinstrument detects that the signal is valid, it considers that the discharge door has been opened.
I23	Feeding door closes in place(level)	When the unloading mode is set to normal motor forward and reverse double limit mode to control unloading: this signal is used as the limit input signal of the feeding door closing door. When theinstrument detects that the signal is valid, it considers that the feeding door has been closed.
I24	Discharge door closes in place(level)	This signal acts as a limit input signal for the discharge door to close the door. When theinstrument detects that the signal is valid, it considers that the discharge door has been closed.
I25	Loose bag in place (level)	The pocket mode is set to stepper motor clip loose bag / motor double limit clip loose bag mode control clip loose bag: This signal is used as the limit input signal of the pocket bag loose bag in place. (Note: This signal is determined by the type of in-position signal and is set to positive logic: when the input signal is valid, it is considered that the pocket mechanism has

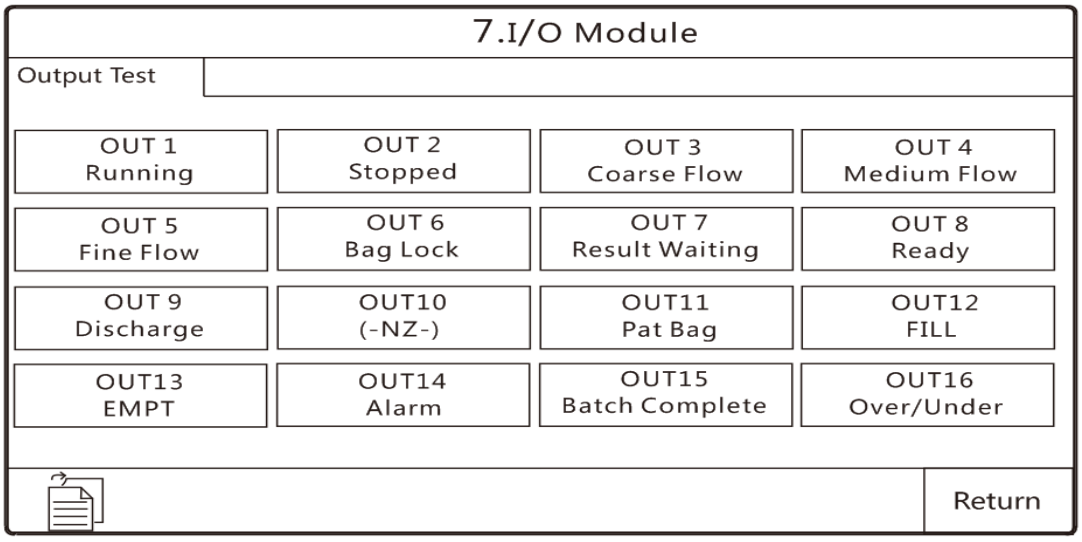
		been loosened in place ; set to reverse logic: when the input signal is invalid, it is considered that the pocket mechanism has beenloosened in place.)
I26	Sewing machine start	When the digital input is valid, the effective output of the sewing machine is started.
I27	Sewing machineemergency stop	When the digital input is valid, the sewing machine stops outputting.
I28	Auxiliary pulseinput **1**	A custom trigger input signal for auxiliary logic **1** .
I29	Auxiliary pulseinput **2**	A custom trigger input signal for auxiliary logic **2** .
I 30	Auxiliary pulseinput **3**	A custom trigger input signal for auxiliary logic **3** .
I 3 1	Auxiliary pulseinput **4**	A custom trigger input signal for auxiliary logic **4** .
I 3 2	Sling bag request	Used to control the movement of the bag mechanism.
I 3 3	Stand up in place	The upper limiter for connecting the metering bracket, this input should be a pulse input .
I 3 4	Bracket down in place	The lower limiter used to connect the metering bracket, which should be a pulse input .
I 3 5	Bracket down limit	The lower limiter for connecting the metering bracket, this input should be a pulse input .
I 3 6	Belt **A** stopsinput (this parameter is reserved)	In the electric mode , the stop detection sensor for connecting the belt **A** , which should be a pulse input .
I37	Belt **B** stops input (this parameter is reserved)	In the electric mode, the stop detection sensor for connecting the belt **B** should be a pulse input.
I38	Manual bracketup /down input	Used to control the motion of the stand, this input is a pulse input. The motion of the stand can be controlled in the stopped state. In the running state, it is the start signal of the motion of the bracket.
I39	Interlock input	Used in the double scale mode, the switch "double scale interlock output" used to connect another meter.
I40	Auxiliary logic output **1**	A custom trigger input signal for auxiliary logic **1** .
I41	Auxiliary logic output **2**	A custom trigger input signal for auxiliary logic **2** .
I42	Auxiliary logic output **3**	A custom trigger input signal for auxiliary logic **3** .
I43	Auxiliary logic output **4**	A custom trigger input signal for auxiliary logic **4** .
I44	Auxiliary logic	A custom trigger input signal for auxiliary logic **5** .

	output **5**	
I45	Auxiliary logic output **6**	The custom logic **6** 's custom trigger input signal.

3 .7 .2IO test

The user can check whether the instrument output and the input interface are connected to the external device through the **IO** test. **The IO** test interface is shown below: **Output port test** : In the **IO**test interface, the output test is started. After clicking the corresponding output port button, the interface port color is lit, and the corresponding external connection output status should be valid. If it is invalid, the connection is indicated. Abnormal, check the switching power supply input, wiring, etc. **Input test:** the test interface **IO,** when the external input signal is active, the interface corresponding to the input port defined light blue color lights. When the external input is valid, the interface does not respond, indicating that the connection is abnormal, check the switching power supply input, wiring, and so on.





3. 8 auxiliary logic programming

Auxiliary logic programming function, up to 6 sets of auxiliary logic trigger signals can be defined , and the effective time and output port after the auxiliary logic signal is triggered can be set. The simple logic signal output can be configured to control other

auxiliary devices, and 6 sets of auxiliary logic signals. They can also control each other.

Under the auxiliary logic programming interface:

- Click the sub-option button to enter the current parameter item to view and set the attribution parameter information.
- Press [Back] to exit the current interface and return to the previous interface.

Auxiliary logic programming parameter items **1~ 6**	parameter	Description
A logic **(1-6)**Type	Close (default)	The type of auxiliary logic programming signal is selected based on the logic to be implemented.
	Delayed on	
	Delayed disconnection	
	Delay on time delay	
	Invalid - valid edge triggered	
	Valid-invalid edge-triggered	
2. Logical **(1-6)** a trigger signal	Custom trigger input (default)	After setting any of the **1~ 12** channels as the trigger signal, the input port will be fixed as the trigger signal.
	IN port **1~12**	Set any of the **1~ 1 2** input ports as the trigger signal, then the input can be either the trigger signal or the function signal of the input port.
	Switch output definition	After the trigger signal is set to “an internal function signal”, the trigger output is performed according to the function signal.
	> = or < = weight valuetrigger	After the trigger condition is set , the current weight value is compared with the set weight threshold , and theoutput is triggered when the condition is met .
3. Thetrigger input port	**IN1~12**	Initial value: no definition. Select the digital input port corresponding to the function signal. The input port “ **0 is** not defined” means that the function is not defined.
4. The output signal port	**OUT1~16**	Initial value: no definition. Select the digital output port corresponding to the function signal. The output port “ **0 is** not defined” means that the function is not defined.
5. Delay on time	Unit **s**	Initial value: **0.0** ; Range: **0.0~99.9** . After the trigger signal is valid, the logic output

		signal is valid after the delay.
6. Delayed disconnection time	Unit **s**	Initial value: **0.0** ; Range: **0.0~99.9** . After the trigger signal is invalid, the logic output signal will be invalid after the delay.
7. Output effective time	Unit **s**	Initial value: **0.0** ; Range: **0.0~99.9** . The duration after the logic output signal is valid, and becomes invalid after the end of the time.
8. Logic threshold weight	Unit **KG**	Initial value: **0.0 0** ; Range: **0.0~ 100.00** . Set the weight value, the current weight and the threshold weight comparison , and trigger when theweight value trigger condition is met .(When the trigger select "> =, or <=weight value" valid).

3. 8 .1 delay on

● When the delay is turned on [Custom Input Port Trigger], the operation is as follows:

1. Set parameters and switch quantity: type selection [delay turn-on], trigger signal If [Custom trigger input] is selected, the trigger input port is defined as " 1 " (you can see that the switch input port 1 is displayed as "auxiliary logic" Trigger input 1 ”), the logic output port is defined as “ 1 ” (you can see that the digital output port 1 is displayed as “auxiliary logic output 1 ”), and the [delay on time] is set to 2 seconds.

2. Execute operation: make the trigger signal input 1 valid, start the delay delay on time, and continue to be valid until the delay on time 2s ends, the logic output signal port 1 output is valid until the trigger signal input 1 is invalid, the logic output Signal port 1 also becomes invalid. See the timing diagram below:

● When the delay is turned on [fixed input port trigger], the operation is as follows:

1. Set parameters and switch quantity: trigger signal to select “input port 1 ” (you can see that the digital input port 1 is displayed as “the original unchanged definition”, assuming the original definition is start, the function of input port 1 can be “start” "It can also be "signal trigger"), the logic output port is defined as 1 (the switch output port 1 can be seen as "auxiliary logic output 1 "), and the [delay on time] is set to 2 seconds.

2. Execution operation: make the trigger signal input 1 valid (starting is also valid, the instrument running output is valid), start the delay-on time, and remain valid until the delay-on time is2s , the logic output signal port 1 output is valid. Until the trigger signal input 1 is invalid, the logic output signal port 1 also becomes invalid. The meter will continue to run until an emergency stop signal is given.

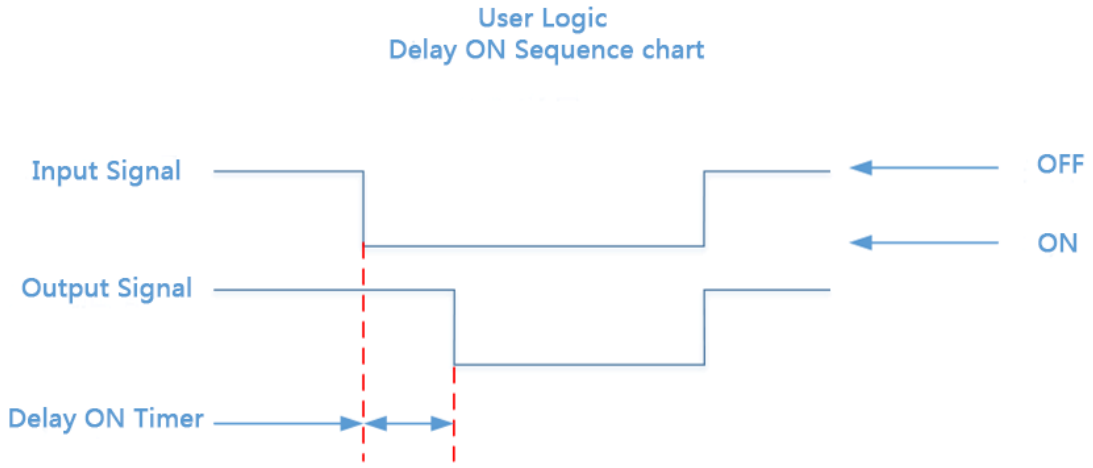
● When the delay is turned on [switch output definition trigger], the operation is as follows:

1. Set parameters and switch quantity: trigger signal select “Run” (switch output can define or not define running signal), logic output port is defined as 1 (can see that switch output port 1 isdisplayed as auxiliary logic output 1), [Delayed On Time] is set for 2 seconds.

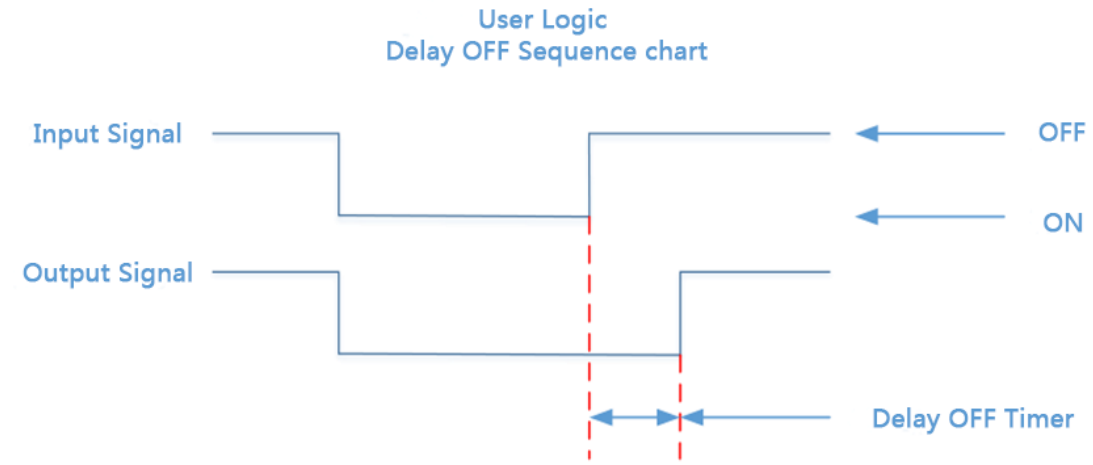
2. Execution operation: After the external input "start", when the "run" output signal is valid, it starts to go [delayed on time], and remains valid until the end of the delay on time 2s , the output of the logic output signal port 1 is valid. The logic output signal port 1 becomes invalid until the "Emergency stop or pause" is valid and the "Run" output signal is invalid.

● When the delay is turned on [> = or < = weight value trigger], the operation is as follows:

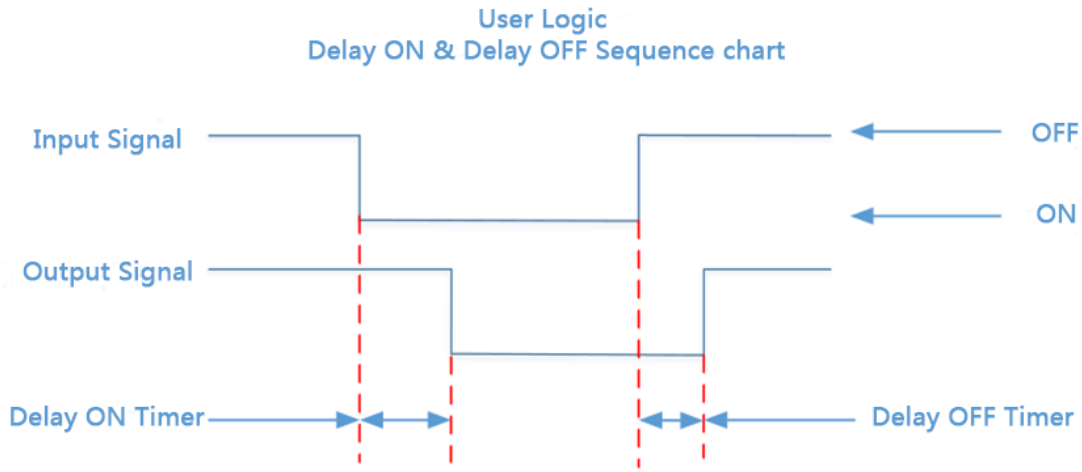
1. Set the corresponding threshold weight, the logic output port is defined as 1 (you can see that the switch output port 1 is displayed as the auxiliary logic output 1), and the [delayed on time] is set to 2 seconds.
2. Execution operation: current weight value > = or < = logic 1 threshold weight is valid when setting value , start to go [delay on time], it is valid until the end of delay on time 2s , logic output signal port 1 The output is valid until the current weight < or > logic 1 threshold weight setting value is invalid for logic output signal port 1 .



3. 8 .2 delay off
Related parameters: Type selection [delay disconnect], select [trigger signal], set [trigger input port], [logic output port definition], [delay disconnect time]. Operation Reference "3.8 .1-Delay."Its output function is shown below:

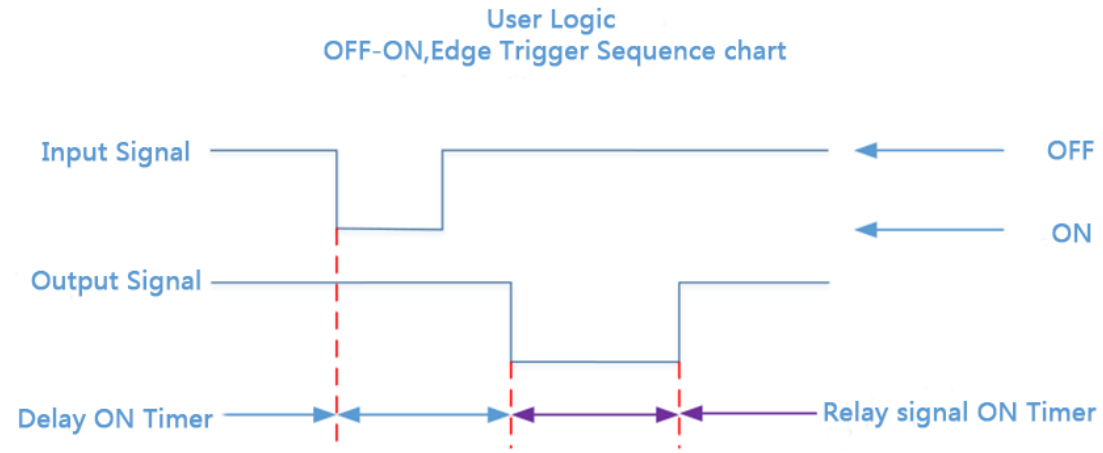


3. 8 .3 delay on and delay off
Related parameters: Type selection [delay on and delay off], select [trigger signal], set [trigger input port], [logic output port definition], [delay on time], [delayed off time】. Operation Reference "3.8 .1-Delay." Its output function is shown below:



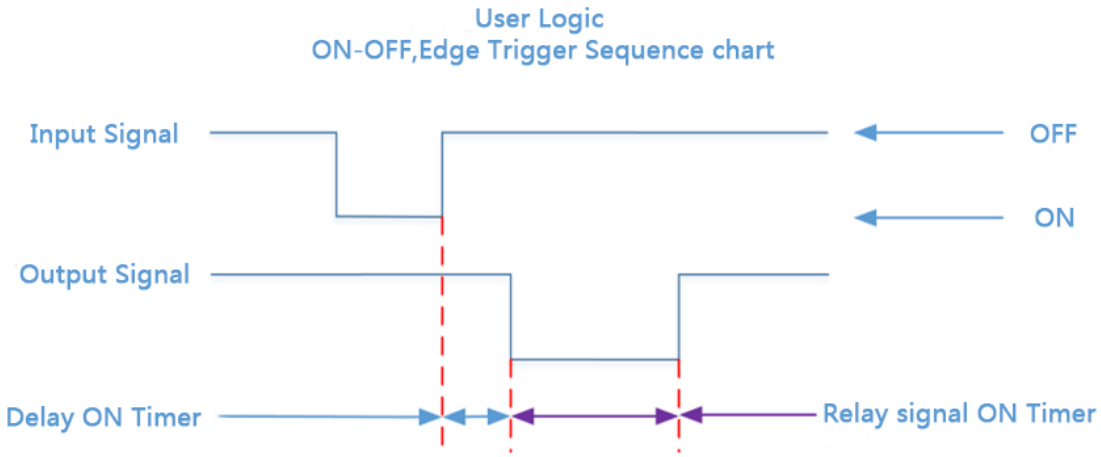
3. 8 .4 invalid - valid edge triggered

Related parameters: Type selection [invalid - valid edge trigger], select [trigger signal], set [trigger input port], [logic output port definition], [delay on time]. Operation Reference "3.8 .1-Delay." Its output function is shown below:



3. 8 .5 valid - invalid edge trigger

Related parameters: Type selection [valid - invalid edge trigger], select [trigger signal], set [trigger input port], [logic output port definition], [delay on time]. Operation Reference "3.8 .1-Delay." Its output function is shown below:



3.9 User Management

Administrators and system administrators can use the "User Management" item to perform user switching , user editing, and setting up automatic login users.

Under the user management interface

- Click the sub-option button to enter the current parameter item to view and set the attribution parameter information.
- Press [Back] to exit the current interface and return to the previous interface.
- After the meter is powered on, the default is to log in with “operator” privileges.
- Click the user to log in. The operator and administrator login initial password is **000000 (six zeros).**
- Under [User Management], you can manage user passwords and implement hierarchical management of permissions.

In order to prevent the malfunction of the instrument caused by the malfunction of the instrument, the **GM9907** packaging controller provides **three** levels of authority (operator, administrator and system administrator) to choose: where the **system administrator can perform all operations on the meter** (not open to the user) . Operator and administrator permissions are as follows:

User level	**Permission**
operator	Quantitative values of the parameters can be set, can be calibrated, can be modified, the test switch, and is not limited in cumulative batch menu. Otherparameters can be viewed, but not to modify.
administrator	You can not perform all the functions of "Reset / Backup" page.
Systemadministrator	All operations are not restricted .

User Management	**Information child**	**Description**
user list	user list	Show logged in users. **0 ~ 7** for the operator, **8** for the administrator, **9** is the system administrator (highest authority).
User editing	**1.** Login user	The currently logged in user is displayed. This item is not allowed to be modified.

	2. ID	Write the user **ID** to be edited .
	2. Permissions	Both administrator/operator options are available .
	3. Password switch	“On/Off” is optional. When set to off, the current login user does not need to enter a password when logging in.
	4. Password	Set/modify the login password. When setting the password, you need to enter the original password correctly. For the new password, you need to enter the same password twice, and fix **6** digits.
automatic log-in	automatic log-in	Set the automatic login user **0 ~ 8**or the last login user . (Note: When logging in as the system administrator last time, the default login is operator **0**).

3.10 System Information

Administrators and system administrators can view meter version, password management, data recovery and backup, and shortcut key definitions through the System Information item.

Under the system information interface

- Click the sub-option button to enter the current parameter item to view and set the attribution parameter information.
- Press [Back] to exit the current interface and return to the previous interface.

System information item	**Information child**	**Description**
Version Information	Version Information	View the compilation date andtime of the front and back , the corresponding versioninformation , **S/N** code, **P/N** code and current date and time (you can modify the current date andtime on this interface) .
Password management	**1.** Recipe parameter password	“On/Off” is optional. When set to off, the user does not need to enter a password to enter the corresponding parameters. Set to On to modify the password value of the selected parameter item. The user needs to enter the password to enter the corresponding parameter. Note: The national standard requires that the calibration scale parameters of the metered product must be protected by a password, so the calibration scale password
	2. System and communicationpassword	
	3. Peripheral parameter password	
	4. Motor parameter password	
	5. School scale password	
	6. Accumulation clear	

	password	switch is fixed to “on”. Initial password:**000000**
	7. Switch password	
	8 auxiliary logic password parameter	
	9. System information password	
Recovery/backup	**1.** Reset all parameters(including calibration scale)	Click this to restore all the parameter values of the instrument to the factory settings. (except system information)
	2. All parameters are reset (not including school scale)	Click the recovery in additionto the school scale parameterother parameters to the factory defaults. (except system information)
	3. Resetformulation parameters	Click this to restore the recipe parameter value to the factory setting.
	4. Communication system resetparameters	Click this to restore thesystem and communicationparameter values to the factory settings.
	5. PeripheralReset parameter	Click this to restore the peripheral parameter values to the factory settings.
	6. Reset motor parameters	Click this to restore the motor parameter value to the factory setting.
	7. Reset the school scaleparameter	Click this to restore the calibration scale parameter value to the factory setting value.
	8 Reset switchparameters	Click this to restore the switch definition parameter value to the factory setting value.
	9. auxiliary resetlogic parameters	Click this to restore theauxiliary logic parameter value to the factory setting value.
	10 Reset defined shortcuts	Click this to restore the shortcut key to the factory setting value.
	11. backupexecutionparameter	Click on the meter to back up the current parameter settings.
	12. Perform arecovery backup	Click the meter to restore the parameter value to the most recent backup value.
	13. Delete backup	Click the meter to delete the backed up parameters.
USB data export	**1.** All parameters	Export all parameters from **USB** .
	2. formulation parameters	Export recipe parameters from**USB** .
	3. System and communicationparameters	Export system and communicationparameters from **USB** .
	4. Peripheral parameters	Export peripheral parametersfrom **USB** .
	5. The motor parameters	Export motor parameters from **USB**.
	6. The school scale data	Export calibration scaleparameters from **USB** .

	7. Cumulative data	Cumulative export parametersfrom **US B.**	
	8. binary parameters	Export the switch parametersfrom **USB** .	
	9. Auxiliary logicparameters	Export auxiliary logicparameters from **USB** .	
	10. Shortcut Keys	Export shortcut key parametersfrom **USB** .	
USB data export	**1.** All parameters	Import all parameters from **USB** .	
	2. formulation parameters	Import recipe parameters from**USB** .	
	3. System and communicationparameters	Import system and communicationparameters from **USB** .	
	4. Peripheral parameters	Import peripheral parametersfrom **USB** .	
	5. The motor parameters	Import motor parameters from **USB**.	
	6. The school scale data	Import calibration scaleparameters from **USB** .	
	7. binary parameters	Import cumulative parametersfrom **USB** .	
	8 auxiliary logicparameters	Import the switch parametersfrom **USB** .	
	9. shortcutsparameters	Import auxiliary logicparameters from **USB** .	
Shortcut definition	**1.** Shortcuts - **1**	Initial value:quantitative value	Click to select the button function. Use the [Previous] key and the [Next] key to select the page to be searched (**9** pages intotal) **Note** : For the defined shortcut keys, in the shortcut key view interface, click the corresponding button to enter the corresponding parameters, such as: theshortcut key **1**initially defaults to “quantitative value”, in the shortcut key view interface, press the shortcut key **1**to enter "quantitativevalue" screen.If the shortcut key **1 is** defined as "start", click Start to start the meter.
	2. Shortcuts - **2**	Initial value: time parameter	
	3. Shortcuts - **3**	Initial value:weighing parameter	
	4. Shortcuts - **4**	Initial value: weight calibration scale	
	5. Shortcuts - **5**	Initial value: motor parameters	
	6. Shortcuts - **6**	Initial value: feeding parameters	
	7. Shortcuts - **7**	Initial value: digital input test	
	8. Shortcuts - **8**	Initial value: switch output test	
other settings	**1.** Language mode	Switch between Chinese and English. Initial value: Simplified Chinese; **0** : Simplified Chinese; **1** :**English .**	

	2. Screen brightness	Screen brightness selection.Initial value: **100%** ; Optional: **0:10%** ; **1:30% ; 2:50%** ; **3:70%** ; **4:80%** ; **5: 100%** .
	3. Screen saver time	Screen saver time setting.Initial value: **5** points; Optional: **0** : always on; **1** : **1**point; **2** : **2** points; **3** : **3** points; **4** : **5** points; **5** : **10**points.
	4. Screen saver selection	The screen is displayed when the screen saver is displayed. Initial value: display time; Optional: **0** : None; **1** : Display weight; **2** : Display time.

4. Function

4.1 Setting the working mode

The GM9907- L2 has **five** scale body structures . Choose between the system and the communication - scale structure.

They are : hopper scale, hopper less scale, **PLC** mode , big mouth scales, valve scales .

(Note: Among them, the working mode of the bucket scale and the bucketless scale supports the dual scale interlock mode. Other scales do not support the dual scale interlock mode)

4 .2 batches

The batch number is used for reminder of the number of packages. When the set number of batches is completed during the automatic running process, the meter issues the batch number to the alarm and stops, waiting for the user to process, the batch number and the alarm output are valid. At this time, press the clear alarm button or make The “clear alarm” input signal is valid and the meter will clear the above alarm. If the batch number is set to **0** , the batch number judgment is not performed.

The batch number ranges from **0 to 50000** . The initial default value is **0** (no batch count judgment).

4. 3 level control

Due to the different application conditions, the filling device of the storage scale storage bin is divided into **two** types: double material level (upper and lower material level), single material level (lower material level) and no level positioner.

4 .3.1 double digit

The upper and lower material levels are defined, corresponding to the double material level. At this time, the instrument has a feeding control function, and the control principle is: when the upper and lower material level inputs are invalid, the instrument feeding output is valid; when the feeding level input is valid, the feeding output is invalid. At the same time, before each feeding (fast , medium, slow), the meter will check whether the lower level is valid. If it is invalid, wait for this signal; only when this signal is valid, the feeding process starts. During the feeding process, the meter does not detect whether the material level signal is valid.

Single Level 4 .3.2

The blanking level is defined, and the loading level is not defined, corresponding to the single material level. At this point the meter will not perform feed control. Only the feed level is detected before feeding. If the material level is invalid, wait for this signal; only when this signal is valid, the feeding process starts. During the feeding process, the meter does not detect whether the material level signal is valid.

The upper and lower material levels are not defined, corresponding to the situation without the positioner. At this time, the meter does not perform the feeding control, and the raw material level is not detected before the feeding.

4 .4 quick setup

In the stopped state, the quickly modified recipe data is saved in real time.

The data modified during operation, the zero zone value is saved in real time, and other recipe parameters are automatically updated when the next scale is started after exiting the quick setting interface (the combination mode is to be released after the loose bag is started and the next scale target value is updated).

The recipe parameters are modified during operation , but when the next scale is updated, the emergency stop signal is entered and the meter is stopped and the recipe is updated immediately.

M odbus can also be carried out at runtime when communicating recipe quantitative value changes, but can not modify the recipe number.

4.5 Adaptive function

The adaptive function is a convenient function to adjust the feeding speed when the user first uses the meter. When this function is turned on, it will automatically adjust the parameters such as the fast increase advance amount, the medium increase advance amount, the slow increase advance amount, the fast add ban time, the medium plus ban time, and the slow add time. The feeding process is optimized.

note:

1. All advances must be zero in order to be used normally.
2. If the drop correction and the adaptive function are turned on at the same time, the drop correction function is forcibly turned off.
3. When the first scale is adaptively started, the scale body must be stable and the current weight is zero.

4.6 U disk upgrade software

Proceed as follows:

1.	Insert the **USB** flash drive into the computer and create a new "GM9907-L2" folder in the **USB** flash drive;
2.	Save the "GM9907-L -Upload.gm" upgrade file to the "GM9907-L2" folder;
3.	In the main instrument display screen and stopped the U disk plug in the instrument's USB port, it will automatically pop-up "system prompt" dialog box: "○ Update [firmware] ○ Update [boot screen] confirm cancellation";
4.	Click the update [Firmware] as prompted , then ○ becomes ● , click "OK" to start the firmware update process, wait for the progress bar to finish, the upgrade is successful, the instrument automatically restarts. It is

	not allowed to power off or unplug the USB flash driveduring the upgrade process . If the upgrade process is interrupted or the U disk is removed, after the power is turned back on, the software version before the upgrade will be retained, and the U disk update will be inserted again . After the progress bar is finished, the upgrade is successful and the instrument automatically restarts. .

4 . 7 U disk upgrade boot interface

Proceed as follows:

1.	Insert the **USB** flash drive into the computer and create a new ″ GM9907-L2 ″ folder in the **USB** flash drive ;
2.	Save the image of “ GM9907-L - Logo .bmp ” (resolution 1024*600) into the “ GM9907-L2 ” folder;
3.	In the main instrument display screen and stopped the U disk plug in the instrument's USB port, it will automatically pop-up ″system prompt″ dialog box: ″○ Update [firmware] ○ Update [boot screen] confirm cancellation″;
4.	According to remind click Update [boot interface], it becomes ○ ●, pictures start the update process, after the upgrade, the instrument automatically restart after clicking ″OK.″ It is not allowed to power off or unplug the USB flash drive during the upgrade process . If the upgrade process is interrupted or the U disk is removed, after the power is turned back on, the picture

	before the upgrade will be retained, and the U disk update will be inserted again. After the upgrade is successful, the instrument automatically restarts.

5. Serial communication

GM9907 provides two serial communication interface, and serial port **1** and **2** can be selected in a continuous manner, **Modbus** mode and printed three kinds of functions. The first serial port of the meter is **RS-232** and the second serial port of the meter is **RS-485**.

5.1 printing method

When the serial port serial port **1** or serial port **2 is** selected as the **printing** mode, the corresponding serial port can realize the printing of the related accumulated content by connecting the serial printer.

The communication parameters related to the printing method refer to the serial port parameter items, among which are noted:

1) **Baud Rate** - This parameter should be selected in accordance with the printer settings used for the connection.

2) **Communication Format** - This parameter should be selected in accordance with the printer settings used for the connection.

Note: When the print language is selected as Chinese, the data bit cannot be used in 7-bit format, otherwise there will be an error in printing.

3) **Print Format** - The peripheral **format** allows you to set the print format to **24** columns or **32** columns. In addition, the print language of the peripheral parameters is set to Chinese or English.

5.1.1 Automatic printing

In the **print** mode, the automatic print switch for peripheral parameters is set to **On**. Then, each time the weighing of the meter is completed, the weighing result will be printed automatically. The format is as follows:

The Chinese 24 column print format is as follows:	The Chinese 32 column print format is as follows:
Packing schedule Unit：kg Recipe number：20 Total cumulative results ------------------------ 1 5.50 2 5.50	Packing schedule Unit: kg Recipe number: 20 Total cumulative count target value result -------------------------------- 3 5.60 5.50 4 6.00 5.80

5 .1.2 total cumulative printing

The Chinese 24 column print format is as follows:	The Chinese 32 column print format is as follows:
Total cumulative report Time: 2018/6/19 13:28 Unit: kg ------------------------ Number of times: 18 Weight: 84.16 ------------------------	Total cumulative report Time: 2018/6/19 13:36 Unit: kg -------------------------------- Number of times: 24 Weight: 129.40 --------------------------------

In the **printing** mode, stop the state, enter the “Accumulate and Batch” interface, and click “Print Total Accumulation”. The format is as follows:

5 .1. 3 formula cumulative printing

In the printing mode, stop the state and enter the “Accumulate and Batch” interface. Select “Recipe Accumulation” and click “Print Selected Receipts”.

Click the "Print all the recipes rolled-up" to print all the recipes **(1 to 20)** accumulated, the instrument will automatically skip the cumulative recipe **0** does not print. The format is as follows:

The Chinese 24 column print format is as follows:	**The Chinese 32 column print format is as follows:**
All formula accumulation report Time: 2018/6/19 13:29 Unit: kg ------------------------ Recipe number: 20 Number of times: 18 Weight: 84.16 ------------------------	All formula accumulation report Time: 2018/6/19 13:36 Unit: kg -------------------------------- Recipe number: 20 Number of times: 24 Weight: 129.40 --------------------------------

5 .1.4 user cumulative printing

In the printing mode, stop the state and enter the "Accumulate and Batch" interface. Switch to the user cumulative interface and press "Print Selected User Accumulation".

Click "Print All Users Accumulate" to print the total of all users (0~9). The meter will automatically skip users whose user accumulation is 0 and will not print. The format is as follows:

The Chinese 24 column print format is as follows:	**The Chinese 32 column print format is as follows:**
Cumulative report for all users Time : 2018/6/19 13:29 Unit : kg ------------------------ User Number : 9 Number of times : 16 Weight : 72.26 ------------------------	Cumulative report for all users Time: 2018/6/19 13:37 Unit: kg -------------------------------- User Number: 9 Number of times : 22 Weight: 117.50

5.2 continuous mode data frame format

STX	Scale number	R	T	SP	SP	Cumulative number	,	Cumulative weight	CRC	CR	LF

among them:

R —— **52H**

T —— **54H**

SP —— **20 H**

Cumulative number - **9** digits, **000000000~999999999**

Cumulative weight - **10** digits, including decimal point

For example, the meter sends the following data (in hexadecimal form):

02 30 31 52 54 20 20 20 20 20 20 20 20 31 30 30 2C 20 20 20 20 30 2E 35 30 30 30 32 39 0D 0A

It means: **1#** scale, the current total cumulative number is **100** times, the total cumulative weight is **0.5000** .

5 .3 Modbus-RTU protocol

The communication mode selected on serial port **1** or serial port **2** is **Modbus. -RTU** mode .

Note : This address is not available if MD-R (compatible with 01. version) communication mode is selected .

5 3.1 abnormal function code and code

◆ Function code supported by the instrument:

function code	name	Description
03	Read register	Read up to **125** registers in a single pass .
06	Write a single register	Use this function code to write a single holding register.
10	Write multiple registers	This instrument only supports writing double registers. It must be aligned when writing. It is not allowed to write only a part of dual registers. Read-only part is allowed when reading.
01	Reading coil	Note that this length is in bits .

05	Write coil	

Note: This instrument only supports the above MODBUS function code. When the instrument performs other function codes, the meter will not respond.

◆ MODBUS exception code response

Code	name	meaning
02	Illegal data address	For the instrument, the error code indicates that the data address received is an address that is not allowed.
03	Illegal data value	The portion of data written and the allowed range.
04	Slave failure	An unrecoverable error occurs when the meter is attempting to perform the requested operation.
07	Unsuccessful programming request	For the meter, the received command cannot be executed under the current conditions.

5. 3.2 MODBUS transmission mode

The **MODBUS** transmission mode is the **RTU** mode.

When communication with the **RTU** mode, information of each **8-bit** byte is divided into two 4-bit transmission character **hexadecimal.**

Data format: **8** -bit data bit, **1** stop bit, even parity (**8-E-1**)

8 -bit data bit, **1** stop bit, no parity (**8-N-1**)

Baud rate: **9600/19200/38400/57600/115200** (optional)

Code: **RTU**

Example :

Read command:

Command function	Slave number	function code	Data address	Number of data read	**CRC** check

(single /double) byte					code	
Read weight (double)	**01**	**03**	**0002**	**0002**	**65**	**CB**
Target value (double)	**01**	**03**	**01F6**	**0002**	**25**	**C5**
Zero voltage (double)	**01**	**03**	**0069**	**0002**	**14**	**17**
Gain voltage (double)	**01**	**03**	**006B**	**0002**	**B5**	**D7**

Write command:

(Note: Write weight data with 50 as an example. When it is displayed as two decimal places, it should be written to 5000)

Command function (single /double) byte	Slave number	function code	Data address	Write register number	Write bytes	data input	CRCcheck code	
Write target value (double)	**01**	**10**	**01F6**	**0002**	**04**	**0000 1388**	**7C**	**07**
Zero calibration (double)	**01**	**10**	**0069**	**0002**	**04**	**0000 0001**	**F4**	**2D**
Gain calibration (double)	**01**	**10**	**006B**	**0002**	**04**	**0000 1388**	**B9**	**62**

5. 3.3 MODBUS address allocation

Protocol address	**PLC address**	**meaning**	**Description**	
000 0	**4 0001**	Gross weight	The meter displays the gross weight value, signed integer	
0001	**4 000 2**			
0002	**4 000 3**	net weight	The meter displays the net weight value, signed integer	
0003	**4 000 4**			
0004	**4 000 5**	Tare	Tare value	
0005	**4 000 6**			
000 6	**4 000 7**	Control status (bit)	**Bit**	Description
			. 0	Unstable weight : **0**; stable : **1**
			. 1	Non-zero : **0** ; zero :**1**
			. 2	Currently showing the weight of the symbol +/- Positive sign : **0** ; minus sign : **1**
			. 3	overflow
000 7	**4 000 8**		**. 4**	Weight overflow
			. 5	Negative weight overflow
			. 6	Sensor is overflowing
			. 7	Sensor negative overflow
			. 8	Millivolts stable:**1** unstable: **0**
			. 9~ . 31	Reserved
000 8	**4 000 9**	Operating status	**. 0**	**0** : stop; **1** : run
			. 1	Before feeding
			. 2	Quick add
			. 3	China and Canada
			. 4	Slow plus
			. 5	Value
			. 6	Weigh
			. 7	Unloading
			. 8	Zero zone
			. 9	Very bad
			. 10	Poor
			. 11	qualified
000 9	**4 0 0 10**		**. 12**	Super short break
			. 13	Clip pocket
			. 14	Bag signal (valve)
			. 15	Push bag signal (valve)
			. 16	Hanging bag (ton pack)

			. 17	Blowing (ton pack)
			. 18	Return air valve (ton pack)
			. 19	Metering bracket up(ton pack)
			. 20	Measuring bracket down (electric) (ton pack)
			. 21	Upper limit (**PLC**mode)
			. 22	Lower limit (**PLC**mode)
			. 23	Batch completion
			. 24	Call the police
			. 25	Gross weight status: **1 :** Net weight, **:0** : Gross weight
00 10	**4 0 0 11**	Control state **2**	**. 0**	Double scale interlock output (interlock mode)
			. 1	Feed level
			. 2	Cutting level
			. 3	supply
			. 4	Missing material
			. 5	Cutting
			. 6	Shooting bag
			. 7	add mosaic
			. 8	Unloading rapping
			. 9	Conveyor output
			. 10	Sewing machine output
			. 11	Tangential machine output
			. 12	Auxiliary pulse **1**
00 11	**4 0 0 12**		**. 13**	Auxiliary pulse **2**
			. 14	Auxiliary pulse **3**
			. 15	Auxiliary pulse **4**
			. 16	Auxiliary logic output **1**
			. 17	Auxiliary logic output **2**
			. 18	Auxiliary logic output **3**
			. 19	Auxiliary logic output **4**
			. 20	Auxiliary logic output **5**
			. 21	Auxiliary logic output **6**
			. 22	Belt **A** (ton pack)(retained)
			. 23	Belt **B** (ton pack)(retained)
			. 24	Manual slow addition
			. 25	Manual unloading
00 12 ~0 013	**4 0 0 13 ~ 4 00 14**	Reserved		
00 14	**4 0 0 15**	Automatic clear	**. 0**	Target value is 0, unable to start

		alarm	**. 1**	Weight overflow atstartup
			. 2	Clear over range
			. 3	Clearing instability
			. 4	Super low alarm
			. 5	Disconnecting the discharge limit alarm
			. 6	Reserved
			. 7	Cleared during operation
			. 8	Automatic clearing overrange
0 0 15	**4 0 0 16**		**. 9**	Automatic zeroing instability
			. 10	Feeding door is not closed in place alarm
			. 11	The discharge door is not closed in place.
			. 12	Ordinary motor feeding, slow plus opening time setting cannot be**0**
			. 13	Ordinary motor feeding, the opening time of the medium plus can not be less than the slow opening time
			. 14	Ordinary motor feeding, fast opening time can not be less than the time of opening the door
			. 15	Ordinary motor feeding, fast opening time can not be less than slow opening time
			. 16	Running stability timeout
00 16 ~0 019	**4 00 17 ~ 4 00 20**	Reserved		
0020	**4 00 21**	Manually clear the alarm	**. 0**	Batch completion
			. 1	Super short break
			. 2	Motor feed door closes timeout
			. 3	Pocket timeout
			. 4	Loose bag timeout
			. 5	Discharge closing timeout
			. 6	Unloading timeout
			. 7	Reserved
			. 8	Reserved
0021	**4 0 0 22**		**. 9**	Motherboard add-on board communication failed
			. 10	Fast feed timeout
			. 11	Medium feed timeout
			. 12	Slow feed timeout
			. 13	Unloading timeout
			. 14	Unloading rapping timeout
0022 ~0025	**4 0 0 2 3 ~ 4 00 26**	Reserved		

0026	**4 0 0 27**	Calibration alarm		
			1 : The maximum range is too small	
			2 : The maximum range is too large	
			3 : Zero voltage is too high	
			4 : Zero voltage is too low	
			5 : Zero voltage instability	
			6 : The gain voltage is too large	
			7 : The gain voltage is too small	
			8 : Gain voltage instability	
			9 : Weight input error	
			10 : The resolution is too small after calibration (not enough accuracy)	
0027	**4 00 28**			
0028	**4 0 0 29**	Alarm **3**	Reserved	
0029	**4 0 0 30**			
0030	**4 0 0 31**	Total cumulative weight is **6**digits	(real time parameters) Read only	
0031	**4 0 0 32**			
0032	**4 0 0 33**	The total cumulative weight low **9**		
0033	**4 0 0 34**			
0034	**4 0 0 35**	Total accumulated number of packets		
0035	**4 00 36**			
0036	**4 0 0 37**	Current formula cumulative weight is **6** digits high		
0037	**4 0 0 38**			
0038	**4 0 0 39**	The current recipe cumulative weight low **9**		
0039	**4 0 0 40**			
0040	**4 00 41**	Current formula cumulative number of packages		
0041	**4 0 0 42**			
0042	**4 0 0 43**	User cumulative weight is **6**digits		
0043	**4 0 0 44**			
0044	**4 0 0 45**	User cumulative weight is **9**digits lower		
0045	**4 0 0 46**			
004 6	**4 00 47**	User cumulative number of packets		
0047	**4 00 48**			
0048	**4 0 0 49**	Batch remaining		
0049	**4 0 0 50**	Fast time		
0050	**4 0 0 51**	China-Canada time		
0051	**4 00 52**	Slow time		

0052	**4 0 0 53**	Setting time		
0053	**4 00 54**	Discharge time		
0054	**4 000 55**	Previous package time		
0055	**4 00 56**	Previous bag weight		
0056	**4 0 0 57**			
0057	**4 0 0 58**	Packing speed		Package / hour
0058	**4 0 0 59**			
0059	**4 0 0 60**	Flow rate		(unit) / hour
0060	**4 0 0 61**			
0061 ~0099	**4 0 0 62 ~ 40100**	Reserved		
Readable and writable register				
Calibration parameters (reserved **100~200**)				
0 100	**4 0101**	unit	Initial value **: 1 ;** **0 — g , 1 — kg , 2 — t , 3 :lb (lbs)**	
0 101	**4 0102**	Decimal point	Initial value **: 2 ;** Optional: **0 — 0** digits; **1 — 1**digit; **2 — 2** digits; **3 － 3** digits; **4 － 4** digits .	
0 102	**4 0103**	Graduation value	Initial value: **1** ; Optional: (**1/ 2/ 5/ 10/ 20/ 50**) .	
0103	**4 0104**	Maximum range	Initial value: **10000** ; Write range (maximum range value minimum scale ≤ × **10 0000,** andnot more than **999,999)**	
0 104	**4 0105**			
0 105	**4 0106**	Zero calibration	When writing **1** to the current weight as zero, the weighing is allowed to be written when the weighing platform is stable; the current zero millivolt is returned when reading.	
0106	**4 0107**			
0107	**4 0108**	Weight gain calibration	Enter the standard weight weight (≤ maximum range) ; Read as the current sensorrelative zero millivolts	
0108	**4 0109**			
0109	**4 0110**	Weightless Gain Calibration (Millivolts)	Write the millivolts corresponding to the gain weight, the meter is temporarily stored; **when reading, it returns the absolute millivolts corresponding to the current weight** (if the current millivolt is too small or too large, it cannot be calibrated and returns**0XFFFF** .).	
0110	**4 00111**			

0111	**4 0112**	No code gain calibration (weight)	Write and gain the weight value corresponding to millivolts. Before writing this value, you must first write the gain millivolts. When writing this register, use both to perform gain calibration. Returns **0000H** when read **.**
0 112	**4 0113**		
0113	**4 0114**	Sensor sensitivity	**3mV/V** (Note **2**) **.**
0114	**4 0115**	Instrument sensor voltage	The multimeter measures the voltage between **EX** + and **EX** - . (**Note 2**) **.**
0115	**4 0116**		
0 116	**4 0117**	Sensor maximum range	Initial value: **10000** ; (**Note 2**)**.** Write range (maximum range value minimum scale ≤ × **10 0000,** andnot more than **999,999)**
0 117	**4 0118**		
0 118~ 0199	**4 0119~ 40200**	Reserved	
System and communication parameters - weight parameters (reserved **200~500**)			
0 200	**4 0201**	Stable range	Initial value : **2 ;** Stable range **(0 ~ 9 9 d** optional **)**Unit: **d**
0 201	**4 0202**	Judgment time	Initial value: **0.3** ; range: **0.1~9.9**. (unit **s**)
0 202	**4 0203**	Clear range	Initial value: **50** ; Range : **1 -99**units: %
0 203	**4 0204**	Zero tracking range	Initial value: **0** ; Range : **0-9**Unit: d
0 204	**4 0205**	Zero tracking time	Initial value: **2.0** ; range:**0.1~99.9** . (unit **s**)
0 205	**4 0206**	**A/D** conversion rate	Initial value: **2 ;** Optional: **0: 120** times / sec; **1** :**24 0** times / sec; **2** : **480** times / sec; **3: 9600** times / sec .
0206 ~ 0249	**4 0207~ 40250**	Reserved	
System and communication parameters - filter parameters			
0 250	**4 0251**	Stop filter level	Initial value: **7** ; Range: **0 to 9**
0 251	**4 0252**	Secondary filter switch	Initial value: **0** ; **1** : On **0** : Off
0 252	**4 0253**	Dynamic filter switch	Initial value: **0** ; **1** : On ; **0** : Off
0 253	**4 0254**	Feed filter level	Initial value: **2** ; Range: **0 to 9**
0254	**4 0255**	Fixed filter level	Initial value: **7** ; Range: **0 to 9**
0 255	**4 0256**	Unloading filter level	Initial value: **1** ; Range: **0 to 9**
0 256~ 0299	**4 0257 ~ 40300**	Reserved	
System and communication parameters - function parameters			
0 300	**4 0301**	Power-on automatic	Initial value: **0** ; **1** : On ; **0** : Off

		clear	
0 301	**40302**	Automatic clear interval	Initial value: **0** ; Range : **0-99** has the bucket tocomplete the packing and then clear the current weight.
0 302	**40303**	Running stability timeout	The initial value is **0** ; therange is **0 to 9 9.9 .** (unit **s**)
0 303	**40304**	Setting method	Initial value: **0 ;** (range: **0** , **1**) **0 :** judgment stable value ; **1 :**delay setting
0 304	**40305**	Manual unloading	Initial value: **0** ; **1** : On ; **0** : Off
0 305	**40306**	Fixed weight retention	Initial value: **0** ; **1** : On ; **0** : Off
0 306	**40307**	Adaptive level	Initial value: **3** ; Range: **1 ~ 5**
0 307	**40308**	Adaptive switch	Initial value: **0** ; Range: **0 ~ 2**
0308 ~ 0349	**40309 ~ 4 0350**	Reserved	
System and communication parameters - structural parameters			
0 350	**40351**	Scale body structure	Initial value: **0** ; **0 :** There are bucket scales; **1 :**No bucket scale; **2 : PLC** mode; **3:** ton pack scale; **4 :** Valve scale.
0 351	**40352**	Operating mode	Initial value **: 0 ;** **0:** single scale; **1:** Interlock **A;2:** interlock **B.**
0 352	**40353**	Packaging mode	Initial value: **1 ;** **0:** Gross weight packaging; **1:**Net weight package.
0 353	**40354**	Bracket movement	Initial value: **0 ;** **0** : pneumatic; **1** : electric.
0 354	**40355**	Feeding method	Initial value: **1 ;** **0** : separate feeding ; **1** :combined feeding .
0 355	**40356**	Double scale loose bag mode	Initial value: **0 ;** **0** : no loose bag at the same time ; **1** : At the same time loose bag **1**; **2** : At the same time loose bag**2** .
0 356~ 0499	**4035 7~ 40500**	Reserved	
Recipe parameters - quantitative value parameters (reserved **500~100 0**)			
0 500	**40501**	Recipe number	Initial value **1** ; range: **1 to 20**
0 501	**40502**		
0 502	**40503**	Target value	Weight value writing range : ≤**maximum range**
0 503	**40504**		
0 504	**40505**	Faster advance	
0 505	**40506**		
0 506	**40507**	Medium and early advance	
0 507	**40508**		
0 508	**40509**	Drop difference	

0 509	**40510**		
0 510	**40511**	Zero zone value	
0 511	**40512**		
0 512~ 0549	**40513 ~ 40550**	Reserved	
Recipe parameter - time parameter			
0 550	**40551**	Delay before feeding	Initial value: **0. 5** ; range: **0 to99.9 .** (unit **s**)
0 551	**40552**	Quickly add time	**.** Initial value: **09;** range: **0 to99.9.** (unit **s**)
0 552	**40553**	Sino-Canada banned time	Initial value: **0. 9** ; range: **0 to99.9 .** (unit **s**)
0 553	**40554**	Slowly add time	Initial value: **0. 9** ; range: **0 to99.9 .** (unit **s**)
0 554	**40555**	Fixed value retention time	Initial value: **0. 5** ; range: **0 to99.9 .** (unit **s**)
0 555	**40556**	Delay after pocket	Initial value: **0. 5** ; range: **0 to99.9 .** (unit **s**)
0 556	**4 0557**	Time before loose bag	Initial value: **0. 5** ; range: **0 to99.9 .** (unit **s**)
0 557	**40558**	Unloading delay	Initial value: **0. 5** ; range: **0 to99.9 .** (unit **s**)
0 558~ 0599	**40559~40600**	Reserved	
Recipe parameters - super low error detection parameters			
0 600	**40601**	Super low detection switch	Initial value: **0** ; **1** : On ; **0** : Off
0 601	**40602**	Super low pause switch	Initial value: **0** ; **1** : On ; **0** : Off
0 602	**40603**	Super low alarm time	**.** Initial value: **10; range: 0 ~999.** (unit **s**)
0 603	**40604**	Tolerance value	Weight value writing range : ≤**maximum range**
0 604	**40605**		
0 605	**40606**	Due to thedifference	
0 606	**40607**		
0 607	**40608**	Underfeed switch	Initial value: **0** ; **1** : On ; **0** : Off.
0 608	**40609**	Undershoot maximum replenishment times	First: **1;** range: **1 ~ 99.**
0 609	**40610**	Feeding effective time	Initial value: **0.5** ; range: **0 to 99 .9** . (unit **s**)
0 610	**406011**	Invalid feeding time	Initial value: **0.5** ; range: **0 to 99 .9** . (unit **s**)
Recipe parameters - drop correction parameters			
0 611	**406012**	Drop correction switch	Initial value: **0** ; **1** : On ; **0** : Off .
0 612	**406013**	Drop correction	Initial value: **1** ; Range: **1~99** .
0 613	**406014**	Drop correction range	Range: **2.0** ; Range: **0 to 9.9** (unit:**%**)

0 614	**406015**	Drop correction	Initial value: **1** ; Optional: **0--100 %** correction; **1--50%** correction; **2 - 25%**correction.
Recipe parameters - slow plus jog			
0 615	**406016**	Slow plus jog switch	Initial value: **0** ; **1** : On ; **0** : Off .
0 616	**406017**	Jog effective time	Initial value **: 0.5** ; range: **0 to9.9** . (unit **s**)
0 617	**406018**	Jog invalid time	Initial value **: 0.5** ; range: **0 to9.9** . (unit **s**)
Recipe parameters - there are bucket parameters			
0 618	**406019**	Single combination number	First: **1;** range: **0 ~ 99.**
0 619~ 0649	**40620 ~ 40650**	Reserved	
Recipe parameters - no bucket parameters			
0 650	**406051**	Bagging delay start time again	Initial value : **4.0** ; range: **0 to 99 .9** . (unit **s**)
0 651~ 0699	**406052~40700**	Reserved	
Recipe parameters - **PLC** mode			
0 700	**40701**	Super difference	**0 ~ maximum range**
0 701	**40702**		
0 702	**40703**	Underbalance	**0 ~ maximum range**
0 703	**40704**		
0 704	**40705**	Upper limit	**0 ~ maximum range**
0 705	**40706**		
0 706	**40707**	lower limit	**0 ~ maximum range**
0 707	**40708**		
0 708~ 0749	**40709~40750**	Reserved	
Recipe parameters - tons of scale mode			
0 750	**40751**	Hanger delay time	Initial value **: 0.5** ; range: **0 to 99.9** . (unit **s**)
0 751	**40752**	Bracket automatic rise switch	Initial value: **0** ; **1** : On ; **0** : Off
0 752	**40753**	Bracket uplink delay time	Initial **value: 5.0;** range: **0 ~ 99.9.** (unit **s**)
0 753	**40754**	Bracket down delay time	Initial **value: 5.0;** range: **0 ~ 99.9.** (unit **s**)
0 754	**40755**	Metering bracket uplink timeout	Initial **value: 5.0;** range: **0 ~ 99.9.** (unit **s**)
0 755	**40756**	Metering bracket downlink timeout	Initial **value: 5.0;** range: **0 ~ 99.9.** (unit **s**)
0 756	**40757**	Blowing time	Initial value **: 0.5** ; range: **0 to 99.9** . (unit **s**)
0 757	**40758**	Belt **A** running time (reserved)	Initial **value: 5.0;** range: **0 ~ 99.9.** (unit **s**)

0 758	**40759**	Belt **B** running time (reserved)	Initial **value: 5.0;** range: **0 ~ 99.9.** (unit **s**)
0 759~ 0799	**40760~40800**	Reserved	
Recipe parameters - valve port mode			
0 800	**40801**	Bag delay time	Initial value **: 0.5** ; range: **0 to 99.9** . (unit **s**)
0 801	**40802**	Bag effective time	Initial value **: 0.5** ; range: **0 to 99.9** . (unit **s**)
0 802	**40803**	Push bag delay time	Initial value **: 0.5** ; range: **0 to 99.9** . (unit **s**)
0 803	**40804**	Push bag effective time	Initial value **: 0.5** ; range: **0 to 99.9** . (unit **s**)
0 804~ 0999	**40 804~ 41000**	Reserved	
Peripheral parameters - beat (dock) bag parameters (reserved **1000~1200**)			
1000	**41001**	Bag mode	Initial value: **0** ; Optional: **0** : Do not shoot the bag ; **1 : After the** fixed value, the bag is taken ; **2 :** Shooting bag in the feeding ; **3:** After the addition averagevalue and shot bags. There are buckets to set: **0,1 ;** No bucket can be set: **0~3 .**
1001	**41002**	Bag start weight	Initial value: **0** ; Range: **0** ~Maximum range.
1002	**41003**		
1003	**41004**	Number of shots in the feed	Initial value: **0** ; range: **0~99** . Set the parameters for the number of shots in the feed .
1004	**41005**	Number of shots after setting	Initial value: **4** ; Range: **0~99** . Set the parameters for the number of shots after the value is set .
1005	**41006**	Delay before the bag	Initial value: **0.5** ; range **: 0~99.9**. (unit **s**) After the bag is started , the bag output is valid after this delay time.
1006	**41007**	Bag time	Initial value: **0.5** ; range: **0~99.9**. (unit **s**) During the on-off cycle of the bag, the bag output valid time.
1007	**41008**	Bag time invalid	Initial value: **0.5** ; range **: 0~99.9**. (unit **s**) In the on-off cycle of the bag, the bag output invalid time.
1008	**41009**	Extra shot bag output effective time	Initial value: **0** ; range **: 0~99.9** .(unit **s**)
1009~1019	**41010 ~ 41020**	Reserved	
Peripheral parameters - coding parameters			
1020	**41021**	Code switch	Initial value: **0** ; **1** : On ; **0** : Off .
1021	**41022**	Code start delay	Initial value: **0. 5** ; range: **0 to 99 .9** . (unit **s**)
1022	**41023**	Code valid time	Initial value: **0. 5** ; range: **0 to 99 .9** . (unit **s**)
1023	**41024**	Not be allowed to add a code whenunloading	Initial value: **0 ;** **0** : The discharge output or the feed output is allowed to start during the coding process;

			1 : The discharge output or feed output is not allowed to start during the coding process.
1024~1029	**41025~41030**	Reserved	
Peripheral parameters - sewing machine parameters			
1030	**41031**	Sewing machine start delay	Initial value: **0. 5** ; range: **0 to 99 .9** . (unit **s**)
1031	**41032**	Sewing machine output effective time	Initial value: **4.0** ; range: **0 to 99 .9** . (unit **s**)
1032	**41033**	Tangent output time	Initial value: **0. 5** ; range: **0 to 99 .9** . (unit **s**)
1033	**41034**	Delay before sewing machine	Initial value: **0. 5** ; range: **0 to 99 .9** . (unit **s**)
1034~1039	**41035~41040**	Reserved	
Peripheral parameters - unloading rapping parameters			
1040	**41041**	Unloading rapping switch	Initial value: **0** ; **1** : On ; **0** : Off .
1041	**41042**	Unloading effective time	Initial value: **2. 0** ; range: **0 to9.9** . (unit **s**)
1042	**41043**	Unloading rapping effective time	Initial value: **0. 5** ; range: **0 to9.9** . (unit **s**)
1043	**41044**	Unloading rapping invalid time	Initial value: **0. 5** ; range: **0 to9.9** . (unit **s**)
1044	**41045**	Unloading frequency	Initial value: **10** ; Range: **0 to 99 .**
1045~1049	**41046~41050**	Reserved	
Peripheral parameters - loading and unloading timeout judgment parameters			
1050	**41051**	Loading and unloading timeout judgment switch	Initial value: **0** ; **1** : On ; **0** : Off .
1051	**41052**	Fast timeout	Initial value: **5.0 ;** range: **0 to 99 .9** . (unit **s**)
1052	**41053**	Medium plus timeout	Initial value: **5.0 ;** range: **0 to 99 .9** . (unit **s**)
1053	**41054**	Slow plus timeout	Initial value: **5.0 ;** range: **0 to 99 .9** . (unit **s**)
1054	**41055**	Discharge timeout	Initial value: **5.0 ;** range: **0 to 99 .9** . (unit **s**)
1055~1059	**41056~41060**	Reserved	
Peripheral parameters - auxiliary pulse parameters			
1060	**41061**	Auxiliary pulse 1execution total time	Initial value: **0.0** ; Range: **0 to 9 9 9.9** . (unit **s**)
1061	**41062**	Auxiliary pulse 1effective time	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **s**)

1062	**41063**	Auxiliary pulse 1invalid time	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **s**)
1063	**41064**	Auxiliary pulse 2execution total time	Initial value: **0.0** ; Range: **0 to 9 9 9.9** . (unit **s**)
1064	**41065**	Auxiliary pulse 2effective time	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **s**)
1065	**41066**	Auxiliary pulse 2invalid time	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **s**)
1066	**41067**	Auxiliary pulse 3execution total time	Initial value: **0.0** ; Range: **0 to 9 9 9.9** . (unit **min**)
1067	**41068**	Auxiliary pulse 3effective time	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **min**)
1068	**41069**	Auxiliary pulse 3invalid time	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **min**)
1069	**41070**	Auxiliary pulse 4execution total time	Initial value: **0.0** ; Range: **0 to 9 9 9.9** . (unit **min**)
1070	**41071**	Auxiliary pulse 4effective time	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **min**)
1071	**41072**	Auxiliary pulse 4 invalid time	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **min**)
1072~1079	**41073~41080**	Reserved	
Peripheral parameters - conveyor			
1080	**41081**	Conveyor switch	Initial value: **0** ; **1** : On ; **0** : Off .
1081	**41082**	Conveyor start delay	Initial value: **0. 5** ; range: **0 to 99 .9** . (unit **s**)
1082	**41083**	Conveyor running time	Initial value: **4.0** ; range: **0 to 99 .9** . (unit **s**)
108 3 ~ 1089	**4108 4 ~ 41090**	Reserved	
Peripheral parameters - print parameters			
1090	**1091**	Automatic print switch	Initial value: **0** , **1** : On ; **0** : Off
1091	**1092**	Print format	Initial value : **0** ; **0** : **24** columns of printing ; **1** :**32** columns of printing .
1092	**1093**	Print language	Initial value : **0** ; **0** : Chinese; **1**: **E nglish .**
1093	**1094**	Print the number of lines	Initial value: **3** ; Range: **0 to 9 .**
1094~1199	**4 1095 ~41200**	Reserved	

Auxiliary logic programming **1 -6** (reserved **1200~1400**)			
1200	**41 201**	Types of	Initial value : **0** ; range **0~5** .
			0 : off
			1 : Delay on
			2 : Delayed disconnection
			3 : Delay on and delay off
			4 : Invalid - valid edge trigger
			5 : valid - invalid edge trigger
1201	**41 202**	Trigger signal	Initial value : **0** ; range: **0~64** . Can be selected from the definition of the trigger input port , fixed digital input port**1~12** , digital output definition, weight value trigger.
1202	**41 203**	Trigger input signal port	Initial value : **0** ; range **0~12** . Select the digital input port **0~12**corresponding to this function signal , and input port **0** means that this function is not defined.
1203	**41 204**	Output signal port	Initial value : **0** ; range **0~16** . Select the digital output port**0~16** corresponding to the function signal , and the output port- **0** means that the function is not defined.
1204	**41 205**	Delay on time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) After the trigger signal is valid, the logic output signal is valid after the delay.
1205	**41 206**	Delayed off time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) After the trigger signal is invalid, the logic output signal will be invalid after the delay.
1206	**41 207**	Signal output effective time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) The duration after the logic output signal is valid, and becomes invalid after the end of the time.
1207	**41 208**	Threshold weight	Initial value: **0** ; Range:**0~999999** When the trigger signal selects "Threshold Weight", the current weight is compared to this value.
1208	**41 209**		
1209 ~ 1219	**41 210 ~41220**	Reserved	
Auxiliary logic programming **2**			
1220	**41 221**	Types of	Initial value : **0** ; range **0~5** .
			0 : off
			1 : Delay on
			2 : Delayed disconnection
			3 : Delay on and delay off
			4 : Invalid - valid edge trigger
			5 : valid - invalid edge trigger
1221	**41 222**	Trigger signal	Initial value : **0** ; range: **0~64** . Can be selected from the definition of the trigger input port , fixed

			digital input port**1~12** , digital output definition, weight value trigger.
1222	**41 223**	Trigger input signal port	Initial value : **0** ; range **0~12** . Select the digital input port **0~12**corresponding to this function signal , and input port **0** means that this function is not defined.
1223	**41 224**	Output signal port	Initial value : **0** ; range **0~16** . Select the digital output port**0~16** corresponding to the function signal , and the output port- **0** means that the function is not defined.
1224	**41 225**	Delay on time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) After the trigger signal is valid, the logic output signal is valid after the delay.
1225	**41 226**	Delayed off time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) After the trigger signal is invalid, the logic output signal will be invalid after the delay.
1226	**41 227**	Signal output effective time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) The duration after the logic output signal is valid, and becomes invalid after the end of the time.
1227	**41228**	Threshold weight	Initial value: **0** ; Range: **0~999999** When the trigger signal selects "Threshold Weight", the current weight is compared to this value.
1228	**41229**		
1229 ~1239	**41 230 ~ 41240**	Reserved	
Auxiliary logic programming **3**			
1240	**41 241**	Types of	Initial value : **0** ; range **0~5** .
			0 : off
			1 : Delay on
			2 : Delayed disconnection
			3 : Delay on and delay off
			4 : Invalid - valid edge trigger
			5 : valid - invalid edge trigger
1241	**41 242**	Trigger signal	Initial value : **0** ; range: **0~64** . Can be selected from the definition of the trigger input port , fixed digital input port**1~12** , digital output definition, weight value trigger.
1242	**41 243**	Trigger input signal port	Initial value : **0** ; range **0~12** . Select the digital input port **0~12**corresponding to this function signal , and input port **0** means that this function is not defined.
1243	**41 244**	Output signal port	Initial value : **0** ; range **0~16** . Select the digital output port**0~16** corresponding to the function signal , and the output port- **0** means that the function is not defined.
1244	**41 245**	Delay on time	Initial value : **0** ; range: **0~99.9 .**(unit **s**)

			After the trigger signal is valid, the logic output signal is valid after the delay.
1245	**41 246**	Delayed off time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) After the trigger signal is invalid, the logic output signal will be invalid after the delay.
1246	**41 247**	Signal output effective time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) The duration after the logic output signal is valid, and becomes invalid after the end of the time.
1247	**41248**	Threshold weight	Initial value: **0** ; range: **0~999999.** When the trigger signal selects "Threshold Weight", the current weight is compared to this value.
1248	**41249**		
1249 ~ 1259	**41 250 ~41260**	Reserved	
Auxiliary logic programming **4**			
1260	**41 261**	Types of	Initial value : **0** ; range **0~5** .
			0 : off
			1 : Delay on
			2 : Delayed disconnection
			3 : Delay on and delay off
			4 : Invalid - valid edge trigger
			5 : valid - invalid edge trigger
1261	**41 262**	Trigger signal	Initial value : **0** ; range: **0~64** . Can be selected from the definition of the trigger input port , fixed digital input port**1~12** , digital output definition, weight value trigger.
1262	**41 263**	Trigger input signal port	Initial value : **0** ; range **0~12** . Select the digital input port **0~12**corresponding to this function signal , and input port **0** means that this function is not defined.
1263	**41 264**	Output signal port	Initial value : **0** ; range **0~16** . Select the digital output port**0~16** corresponding to the function signal , and the output port- **0** means that the function is not defined.
1264	**41 265**	Delay on time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) After the trigger signal is valid, the logic output signal is valid after the delay.
1265	**41 266**	Delayed off time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) After the trigger signal is invalid, the logic output signal will be invalid after the delay.
1266	**41 267**	Signal output effective time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) The duration after the logic output signal is valid, and becomes invalid after the end of the time.
1267	**41268**	Threshold weight	Initial value: **0** , range:**0~999999 .** When the trigger signal selects "Threshold Weight", the current
1268	**41269**		

			weight is compared to this value.
1269 ~ 1279	**41 270 ~ 41280**	Reserved	
Auxiliary logic programming **5**			
1280	**41281**	Types of	Initial value : **0** ; range **0~5** . **0** : off **1** : Delay on **2** : Delayed disconnection **3** : Delay on and delay off **4** : Invalid - valid edge trigger **5** : valid - invalid edge trigger
1281	**41282**	Trigger signal	Initial value : **0** ; range: **0~64** . Can be selected from the definition of the trigger input port , fixed digital input port**1~12** , digital output definition, weight value trigger.
1282	**41283**	Trigger input signal port	Initial value : **0** ; range **0~12** . Select the digital input port **0~12**corresponding to this function signal , and input port **0** means that this function is not defined.
1283	**41284**	Output signal port	Initial value : **0** ; range **0~16** . Select the digital output port**0~16** corresponding to the function signal , and the output port- **0** means that the function is not defined.
1284	**41285**	Delay on time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) After the trigger signal is valid, the logic output signal is valid after the delay.
1285	**41286**	Delayed off time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) After the trigger signal is invalid, the logic output signal will be invalid after the delay.
1286	**41287**	Signal output effective time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) The duration after the logic output signal is valid, and becomes invalid after the end of the time.
1287	**41288**	Threshold weight	Initial value: **0** ; Range: **0~**Maximum range. When the trigger signal selects "Threshold Weight", the current weight is compared to this value.
1288	**41289**		
1289 ~1299	**41290~41300**	Reserved	
Auxiliary logic programming 6			
1300	**41301**	Types of	Initial value : **0** ; range **0~5** . **0** : off **1** : Delay on **2** : Delayed disconnection **3** : Delay on and delay off **4** : Invalid - valid edge trigger **5** : valid - invalid edge trigger

1301	**41302**	Trigger signal	Initial value : **0** ; range: **0~64** . Can be selected from the definition of the trigger input port , fixed digital input port**1~12** , digital output definition, weight value trigger.
1302	**41303**	Trigger input signal port	Initial value : **0** ; range **0~12** . Select the digital input port **0~12**corresponding to this function signal , and input port **0** means that this function is not defined.
1303	**41304**	Output signal port	Initial value : **0** ; range **0~16** . Select the digital output port 0~16 corresponding to the function signal, and the output port- **0** means that the function is not defined.
1304	**41305**	Delay on time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) After the trigger signal is valid, the logic output signal is valid after the delay.
1305	**41306**	Delayed off time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) After the trigger signal is invalid, the logic output signal will be invalid after the delay.
1306	**41307**	Signal output effective time	Initial value : **0** ; range: **0~99.9 .**(unit **s**) The duration after the logic output signal is valid, and becomes invalid after the end of the time.
1307	**41308**	Threshold weight	Initial value: **0** ; range: **0~999999.** When the trigger signal selects "Threshold Weight", the current weight is compared to this value.
1308	**41309**		
1309 ~ 1399	**41310~41400**	Reserved	
Motor parameters - feeding mode (reserved 1400~1600)			
1400	**41400**	Motor group number used in the current recipe	Initial value: **0** ; Range: **0~4**
1401	**41402**	Feed mode	Initial value **: 0** ; Optional: **0** : pneumatic feeding ; **1** :stepping motor feeding; **2** : Ordinary motor feeding .
1402	**41403**	Feeding gate closing timeout	Initial value: **4.0** ; range: **0~99.9.** (unit **s**)
1403	**41404**	Feed gate in-position signal type	Initial value: **0** ; Optional: **0** : The signal is in place when it is valid; **1** : When the signal is invalid, it is in place .
1404	**41405**	Motor group number	Initial value: **0** , range: **0~4**
1405	**41406**	Feed motor frequency	Initial value : **12000** , range:**1~50000Hz**

1406	**41407**	Adding material to slow down and adding the required number of pulses	Initial value : **1800** ; range:**1~60000 .**
1408	**41409**	The number of pulses required for feeding to close	Initial value : **4300** ; range:**1~60000 .**
1410	**41411**	Feeding off to fast increase the number of pulses required	Initial value : **7750** ; range:**1~60000 .**
1412	**41413**	Feed switch direction signal status	Initial value : **0** ; Optional: **0** : the door opening directionwhen the signal is valid ; **1** : The door opening directionis when the signal is invalid .
1413	**41414**	Feed motor starting frequency	Initial value : **2000** ; Range: **0~50000Hz** (This value should preferably not be greater than the feeding motor frequency)
1414	**41415**	Feed motor acceleration time	Feed motor acceleration time Initial value: **200** ; Range: **0~9999 .** (unit **s**)
1415	**41416**	Feed motor deceleration time	Feed motor deceleration time Initial value: **50** ; Range: **0~9999 .** (in **ms**)
1416	**41417**	Quickly open the door	Initial value: **0.80** ; Range : **0~99.99 .** (unit **s**)
1417	**41418**	China and Canadaopening time	Initial value: **0.40** ; Range: **0~99.99 .** (unit **s**)
1418	**41419**	Slow opening time	Initial value: **0.20** ; Range: **0~99.99** . (unit **s**)

1419	**41420**	Bag mode	Initial value: **0** ; Optional: **0** : pneumatic clamp loose bag; **1** : stepper motor clip loose bag ; **2** : motor double limit clip loose bag; **3** : Motor single limit clip loose bag .
1420	**41421**	Loose bagprocesstimeout	Initial value: **3.0** ; Range: **0 ~ 99.9 .** (unit **s**)
1421	**41422**	Baggingprocesstimeout	Initial value: **3.0 ;** range: **0~99.9 .** (unit **s**)
1422	**41423**	Loose bag in place signal type	Initial value: **0 ;**

			Optional: **0** : The signal is in place when it is valid ; **1** : When the signal is invalid, it is in place .
1423	**41424**	Bag motorfrequency	Initial value: **30000** ; Range: **1~50000 Hz .**
1 424	**41425**	Matsumotomotorfrequency	Initial value: **20000 ;** range: **1~50000 Hz .**
1425	**41426**	The number of pulses required for the bag	Initial value: **12000** ; range: **1~60000 .**
1426	**41427**		
1427	**41428**	Bag direction signal status	Initial value: **0** ; Optional: **0** : when the signal is invalid, it is the direction of the pocket; **1** : When the signal is valid, it is the direction of the pocket.
1428	**41429**	Bag motor starting frequency	Initial value: **2000 ;** range: **0 ~ 50000 Hz .** (This value cannot be greater than the pocket frequency)
1429	**41430**	Bag motor acceleration time	Initial value: **200** ; Range: **0~9999 .** (in **ms**)
1430	**41431**	Bag motor deceleration time	Initial value: **50** ; Range: **0~9999** (in **ms**) **.**
1431	**41432**	Loose bageffective time	Initial value: **0.5** , range: **0~99.99** . (unit **s**)
1432	**41433**	Discharge mode	Initial value: pneumatic mode; **0** , pneumatic mode; **1.** Stepper motor unloading; **2** , motor single limit discharge; **3** , the motor double limit discharge; **4. The** motor rotates and unloads in one direction.
1433	**41434**	Discharge closing timeout	Initial value : **3.0** ; range: **0 ~ 99.9 .** (unit **s**)
1434	**41435**	Unloading timeout	Initial value : **3.0** ; range: **0 ~ 99 .9 .** (unit **s**)
1435	**41436**	Discharge in place signal type	Initial value: **0** ; Optional: **0** , the signal is in place when it is valid . **1. When the** signal is invalid, it is in place .
1436	**41437**	Unloading limit real-time detection switch	Initial value : **0** ; **0** : off ; **1** : on.
1437	**41438**	Unloading door motor frequency	Initial value : **30000** ; range: **1~50000** (**Hz**) **.**
1438	**41439**	Discharge closing motor frequency	Initial value : **20000** ; range: **1~50000** (**Hz**) **.**
1439	**41410**	Number ofpulsesrequired for unloading	Initial value : **12000** ; range: **1~60000 .**
1440	**41411**		

144 1	**41412**	Discharge direction signal status	Initial value : **0** ; Optional: **0** : the door opening direction when the signal is invalid **1:** valid signal to the door opening direction
1442	**41416**	Unloading motor starting frequency	Initial value: **2000** ; range: **1~50000** (**Hz**) **.** (This value cannot be greater than the discharge frequency)
1443	**41414**	Unloading motor acceleration time	Initial value: **200** ; Range: **0~9999 .** (in **ms**)
1444	**41415**	Unloading motor deceleration time	Initial value: **50 ;** Range: **0~9999 .** (in **ms**)
1445	**41416**	Unloading door opening time	Initial value: **1.00 ;** Range: **0~99.99** . (unit **s**)
1446~1599	**41417~41600**	Reserved	
Communication parameters - serial port **1** parameters (reserved **1600~1700**) **485**			
1600	**41601**	Slave number	Initial value: **1** ; **1 ~ 9 9** optional.
1601	**41602**	communication method	**0** : **Modbus-RTU** ; **1** : Print **2** : continuous mode **3** : **MD-R** (compatible with **01.** version)
1602	**41603**	Baud rate	**0** : **9600** **1** : **119200** **2** : **38400** **3** : **57600** **4** : **115200**
1603	**41604**	Data Format	Communication data format selection (data bit, parity bit, stop bit . **E** : even parity; **N** : no parity) **0** : **8-E-1** **1** : **8-N-1** **2** : **7-E-1** **3** : **7-N-1**
1604	**41605**	High and low words	Initial value : **0 : The** high word is in the front low word after ; Range : **0-1** **0 : the** high word is in the front low word after ; **1 : The** low word is in the front high word .
Communication parameters - serial port **2** parameters **232**			
1605	**41606**	Slave number	Initial value: **1** ; **1 ~ 9 9** optional.
1606	**41607**	communication method	**0** : **Modbus-RTU** ; **1** : Print **2** : continuous mode **3** : **MD-R** (compatible with **01.** version)

1607	**41608**	Baud rate	**0** : **9600** **1** : **119200** **2** : **38400** **3** : **57600** **4** : **115200**
1 608	**41609**	Data Format	Communication data format selection (data bit, parity bit, stop bit . **E** : even parity; **N** : no parity) **0** : **8-E-1** **1** : **8-N-1** **2** : **7-E-1** **3** : **7-N-1**
1609	**41610**	High and low words	Initial value : **0 :** high word in front of low word after Range : **0-1 .** **0 : the** high word is in the front low word after ; **1 : The** low word is in the front high word .
Communication parameters - network port parameters			
1610	**41611**	High and low byte	Initial value : **0 : The** high word is in the front low word after ; Range : **0-1 .** **0 : the** high word is in the front low word after ; **1 : The** low word is in the front high word .
1611	**41612**	The port number	Initial value: **502 ;** Range: **1 ~ 65535**
1 612	**41613**	**IP**	Initial value: **192.168.1 01 . 246 .** Range: **0 ~ 255 .**
1613	**41614**		
1614	**41615**		
1615	**41616**		
1616~1699	**41617~41700**	Reserved	
Switching custom parameters (reserved **1800~1900**)			
1700	**41701**	Digital input port **1**definition	write: Write the function corresponding value . If **IN is** defined as running, write **1** in the corresponding register of **IN.** read: Returns the current switch custom state
1701	**41702**	Digital input port **2**definition	
1702	**41703**	Digital input port **3**definition	
1703	**41704**	Digital input port **4**definition	
1704	**41705**	Digital input port **5**definition	
1705	**41706**	Digital input port **6**definition	
1706	**41707**	Digital input port **7**definition	
1707	**41708**	Digital input port **8**definition	
1708	**41709**	Digital input port **9**definition	
1709	**41710**	Digital input port **10**definition	
1710	**41711**	Digital input port **11**definition	
1711	**41712**	Digital input port **12**definition	
1712	**41713**	Switch output port **1**definition	write:

1713	**41714**	Switch output port **2**definition	Write function corresponding value . If **OUT is** defined as running, write **1** in the corresponding register of **OUT.** read: Returns the current switch custom state
1714	**41715**	Switch output port **3**definition	
1715	**41716**	Switch output port **4**definition	
1716	**41717**	Switch output port **5**definition	
1717	**41718**	Switch output port **6**definition	
1718	**41719**	Switch output port **7**definition	
1719	**41720**	Switch output port **8**definition	
1720	**41721**	Switch output port **9**definition	
1721	**41722**	Switch output port **10**definition	
1722	**41723**	Switch output port **11**definition	
1723	**41724**	Switch output port **12**definition	
1724	**41725**	Switch output port **13**definition	
1725	**41726**	Switch output port **14**definition	
1726	**41727**	Switch output port **15**definition	
1727	**41728**	Switch output port **16**definition	
1728	**41729**	Start / end switch test	write: The stop state can be written . Write **1 to** start the switch test . The switch test state. Press input and output ports the input and output test registers, defined functions not performed. In the switch test state, write **0** to exit the switch test state . The input and output ports perform the defined functions . Read: Returns the status of the current switch test switch .
1729	**41730**	Input switch test	Write: not allowed to write Read: From the low to the high, the corresponding port **IN1~12** input . **1** is valid for input, **0** is invalid for input .
1730	**4173**	Output switching test	Write: The switch test switch can be written in the open state, and the output from the low to the high port corresponds to the port **OUT1~16** . **1** is valid for output, **0** is invalid for output . Read: Returns the status of the current output switch port, from the low to the high, respectively, corresponding to the port **OUT1~16** output **. 1** is valid for output, **0** is invalid for output .
1731	**41732**		
1732~1799	**41733~41800**	Reserved	
Other parameter settings (reserved **1900~2000**)			
1800	**41801**	Total print total	Read as **0** Write **1** , total print total

1801	**41802**	Print recipe accumulation	Read as **0** Write **100** to print the current recipe accumulation Write **1-20** , print the corresponding formula accumulation Write **101** to print all recipes	
1802	**41803**	Print user accumulation	Read as **0** Write **100** to print the current user cumulative Write **0-9** , print the corresponding user cumulative Write **101** , print all user cumulative	
1803	**41804**	reset	**8800** all parameters (including school scales) **8801** all parameters (excluding calibration scales included) **8802** reset recipe parameters **8803** reset system and communication **8804** reset peripheral parameters **8805** reset motor parameters **880 6** reset calibration scale **880 7** reset switch **880 8** reset auxiliary logic parameters	
1804	**41805**	Parameter backup	read: 0: There is no backup parameter currently; 1: There are currently backup parameters. write: Write **9900** execution parameter backup; Write **9901 to** perform a recovery backup; Write **9902 to** perform a delete backup .	
1805	**41806**	Backup date		Read only
1806	**41807**			
18 07	**41808**	Backup time		
1808	**41809**			
1809	**41810**	year	**0 -99**	
1810	**41811**	month	**1 -12**	
1811	**41812**	day	**1 -31**	
1812	**41813**	Time	**0-23**	
1813	**41814**	Minute	**0 -59**	
1814	**41815**	second	**0 -59**	
1815	**41816**	Clear total accumulation	Write **1** clear total accumulation	
1816	**41817**	Clear recipe accumulation	Write **1-20 to** clear the corresponding accumulated data ; Write **100 to** clear the current recipe accumulation ; Write **101** clears all recipe accumulations .	

1817	**41818**	Clear user accumulation	Read as **0.** Write **0-9 to** clear the corresponding user accumulation ; Write **100 to** clear the current user accumulation ; Write **101** clears all user accumulations .
Batch setting			
1950	**41951**	batch	Initial value: **0** ; range: **0 ~ 50000 .**
1951	**41952**	Remaining batch	Read only
1952~1999	**41953~42000**	Reserved	
Formula target value (reserved **2000~2300**)			
2000	**42001**	Formula **1**target value	Initial value **: 0 .**
2001	**42002**		
2002	**42003**	Recipe **2**target value	Initial value **: 0 .**
2003	**42004**		
……		**……**	
2038	**42039**	Recipe **20**target value	Initial value **: 0 .**
2039	**42040**		
Cumulative weight			
2040	**42041**	Total cumulative weight is **6**digits	Read only
2041	**42042**		
2042	**42043**	The total cumulative weight low **9**	
2043	**42044**		
2044	**42045**	Total accumulated number of packets	Read only
2045	**42046**		
2046	**42047**	Formula **1**cumulative weight is **6**digits high	Read only
2047	**42048**		
2048	**42049**	Formulation **1**cumulative weight low **9**	
2049	**42050**		
2050	**42051**	Formula **1**cumulative count	
2051	**42052**		
……		……	
2160	**42161**	Formulation **6**High **20**cumulative weight	
2161	**42162**		
2162	**42163**	Formulation**20** cumulative weight low **9**	
2163	**42164**		
2164	**42165**	Formula **20**cumulative times	
2165	**42166**		

User cumulative weight and number of times			
2166	**42167**	User **0**cumulative weight is **6**digits high	Read only
2167	**42168**		
2168	**42169**	User **0**cumulative weight is **9**digits lower	
2169	**42170**		
2170	**42171**	User **0**cumulative times	
2171	**42172**		
2172	**42173**	User **1 has a**cumulative weight of **6**digits	
2173	**42174**		
2174	**42175**	**1** usercumulative weight low **9**	
2175	**42176**		
2176	**42177**	User **1**cumulative count	
2177	**42178**		
2178	**42179**	User **2**cumulative weight is **6**digits high	
2179	**42180**		
2180	**42181**	**2** usersaccumulated weight low **9**	
2181	**42182**		
2182	**42183**	User **2**cumulative times	
2183	**42184**		
2184	**42185**	User **3**cumulative weight is **6**digits	
2185	**42186**		
2186	**42187**	Usercumulative weight low **93**	
2187	**42188**		
2188	**42189**	User **3**cumulative times	
2189	**42190**		
2190	**42191**	User **4**cumulative weight is **6**digits	
2191	**42192**		
2192	**42193**	**4** usersaccumulated weight low **9**	
2193	**42194**		
2194	**42195**	User **4**cumulative times	
2195	**42196**		
2196	**42197**	User **5**cumulative weight is **6**digits	
2197	**42198**		
2198	**42199**	Usercumulative weight low **95**	
2199	**42200**		
2200	**42201**	User **5**cumulative times	
2201	**42202**		
2202	**42203**	User **6**cumulative weight is **6**digits	
2203	**42204**		

2204	**42205**	**6** usersaccumulated weight low **9**	
2205	**42206**		
2206	**42207**	User **6**cumulative times	
2207	**42208**		
2208	**42209**	User **7**cumulative weight is **6**digits	
2209	**42210**		
2210	**42211**	Usercumulative weight low **97**	
2211	**42212**		
2212	**42213**	User **7**cumulative times	
2213	**42214**		
2214	**42215**	User **8**cumulative weight is **6**digits	
2215	**42216**		
2216	**42217**	**8** userscumulative weight low **9**	
2217	**42218**		
2218	**42219**	User **8**cumulative times	
2219	**42220**		
2220	**42221**	User **9**cumulative weight is **6**digits	
2221	**42222**		
2222	**42223**	Usercumulative weight low **99**	
2223	**42224**		
2224	**42225**	User **9**cumulative times	
2225	**42226**		
2226~2299	**42227~42300**	Reserved	
Compile information (reserved 9000~9100)			
9000	**49001**	Background version number	For example **: 0 1000 0**
9001	**49002**		
9002	**49003**	Background compilation date	For example **: 161201**
9003	**49004**		
9004	**49005**	Background compile time	For example **: 130805**
9005	**49006**		
9006	**49007**	Additional version number	For example **: 100**
9007	**49008**		
9008~9099	**49009~49100**	Reserved (reserved **9100~9200**)	
Coil address (reserved **0~100**)			
0	**40001**	start up	
1	**40002**	Emergency stop	
2	**40003**	Slow stop	
3	**40004**	time out	
4	**40005**	Clear	
5	**40006**	Clear alarm	

6	**40007**	Clip pocket	This address can only be written to 1 . Read 1 is valid and 0 is invalid.
7	**40008**	Selection formula	
8	**40009**	Manual slow addition	
9	**40010**	Manually add	
10	**40011**	Manual unloading	
11	**40012**	Manual cleaning	
12	**40013**	Hanging bag	
13	**40014**	Sewing machine start	
14	**40015**	Sewing machine emergency stop	
15	**40016**	Auxiliary pulse function **1**	
16	**40017**	Auxiliary pulse function **2**	
17	**40018**	Auxiliary pulse function **3**	
18	**40019**	Auxiliary pulse function **4**	
19	**40020**	Clear advance information	
...	**...**	**...**	
80	**40081**	Clear current user accumulation	Write **1 is** valid.
81	**40082**	Clear all users	
82	**40083**	Clear current formula accumulation	
83	**40084**	Clear all formula accumulation	
84	**40085**	Total accumulation	
...	**...**	**...**	
100	**40101**	Reset all parameters	Write **1 is** valid
101	**40102**	Calibration parameter reset	
102	**40103**	System and communication parameters reset (not including communication parameters)	
103	**40104**	Recipe parameter reset	
104	**40105**	Peripheral parameter reset	
105	**40106**	Switching parameter reset	
106	**40107**	Motor parameter reset	
107	**40108**	Auxiliary logic parameter reset	
108	**40109**	Perform parameter backup	
109	**40110**	Restore backup parameters	
110	**40111**	Delete backup parameters	This address can only be written to **1 to** delete backup parameters. Read **1** has backup parameters; Read **0** as no backup parameter .
Coil switch test (reserved 200~250)			
150	**40151**	Switching test switch: When writing into the test switch **1; 0** is written to exit. Not writable at runtime	
151	**40152**	When input port **1 is** valid, it reads **1** ; if it is invalid, it is **0** .	Does not take effect when writing.
152	**40153**	When input port **2 is** valid, it reads **0** ; if it is invalid, it is **0** .	

153	**40154**	When input port **3 is** valid, it is read as **1** ; if it is invalid, it is **0** .	
154	**40155**	When input port **4 is** valid, it reads **1** ; if it is invalid, it is **0** .	
155	**40156**	When input port **5 is** valid, it reads **1** ; if it is invalid, it is **0** .	
156	**40157**	When input port **6 is** valid, it reads **1** ; if it is invalid, it is **0** .	
157	**40158**	When input port **7 is** valid, it reads **1** ; if it is invalid, it is **0** .	
158	**40159**	When input port **8 is** valid, it reads **1** ; if it is invalid, it is **0** .	
159	**40160**	When input port **9 is** valid, it reads **1** ; if it is invalid, it is **0** .	
160	**40161**	When input port **10 is** valid, it is read as **1** ; if it is invalid, it is **0** .	
161	**40162**	When input port **11 is** valid, it is read as **1** ; if it is invalid, it is **0** .	
162	**40163**	When input port **12 is** valid, it reads **1** ; if it is invalid, it is **0** .	
163	**40164**	When writing **1** , output port **1 is** valid; when writing **0** , output port **1 is** invalid.	
164	**40165**	When writing **1** , output port **2 is** valid; when writing **0** , output port **2 is** invalid.	
165	**40166**	When writing **1** , the output port **3 is** valid; when writing **0** , the output port **3 is** invalid.	
166	**4016 7**	When writing **1** , the output port **4 is** valid; when writing **0** , the output port **4 is** invalid.	
167	**40168**	When writing **1** , output port **5 is** valid; when writing **0** , output port **5 is** invalid.	
168	**40169**	When writing **1** , the output port **6 is** valid; when writing **0** , the output port **6 is** invalid.	
169	**40170**	When writing **1** , the output port **7 is** valid; when writing **0** , the output port **7 is** invalid.	
170	**40171**	When writing **1** , output port **8 is** valid; when writing **0** , output port **8 is** invalid.	
171	**40172**	When writing **1** , the output port **9 is** valid; when writing **0** , the output port **9 is** invalid.	
172	**40173**	When writing **1** , the output port **10 is** valid; when writing **0** , the output port **10 is** invalid.	
173	**40174**	When writing **1** , the output port **11 is** valid; when writing **0** , the output port **11 is** invalid.	
174	**40175**	When writing **1** , the output port **12 is** valid; when writing **0** , the output port **12 is** invalid.	
175	**40176**	When writing **1** , the output port **13 is** valid; when writing **0** , the output port **13 is** invalid.	
176	**40177**	When writing **1** , the output port **14 is** valid; when writing **0** , the output port **14 is** invalid.	
177	**40178**	When writing **1** , the output port **15 is** valid; when writing **0** , the output port **15 is** invalid.	
178	**40179**	When writing **1** , the output port **16 is** valid; when writing **0** , the output port **16 is** invalid.	

Note 2: The meter will perform the weightless gain calibration according to the currently stored sensor power supply voltage, sensor sensitivity, and sensor maximum range (where the maximum range input cannot be greater than the maximum range set in the meter calibration (modbus addresses 10104 and 40105)).

Calibration principle:

Zero calibration: Zero calibration can be performed via modbus (40106 and 40107) addresses. (If you skip the zero calibration and directly perform the weightless gain calibration, the last recorded zero will be used as the current zero calibration)

Gain calibration: Gain millivolts is the input sensor power multiplied by the sensor sensitivity, and the gain weight is the sensor's maximum range. The gain millivolts and gain weight used for gain scaling here are referenced below.

The first type of weightless gain calibration method: when the sensor power supply (5000mv) is input separately, the weightless calibration operation will be directly performed.

The second type of weightless gain calibration method: input sensor sensitivity (2mv/v) and input the sensor's maximum range (1000kg) will carry out the weightless calibration operation (note here, please input only the sensor sensitivity or only input the maximum When the range is measured, the entered value is not saved immediately. Only when both values are entered and the two values entered are reasonable, the data is saved and then the gain calibration is performed.