GENERAL MEASURE

杰 • 曼 • 科 • 技

GM9907-L2

User Manual

110608040003

V02.00.12_01

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

Contents

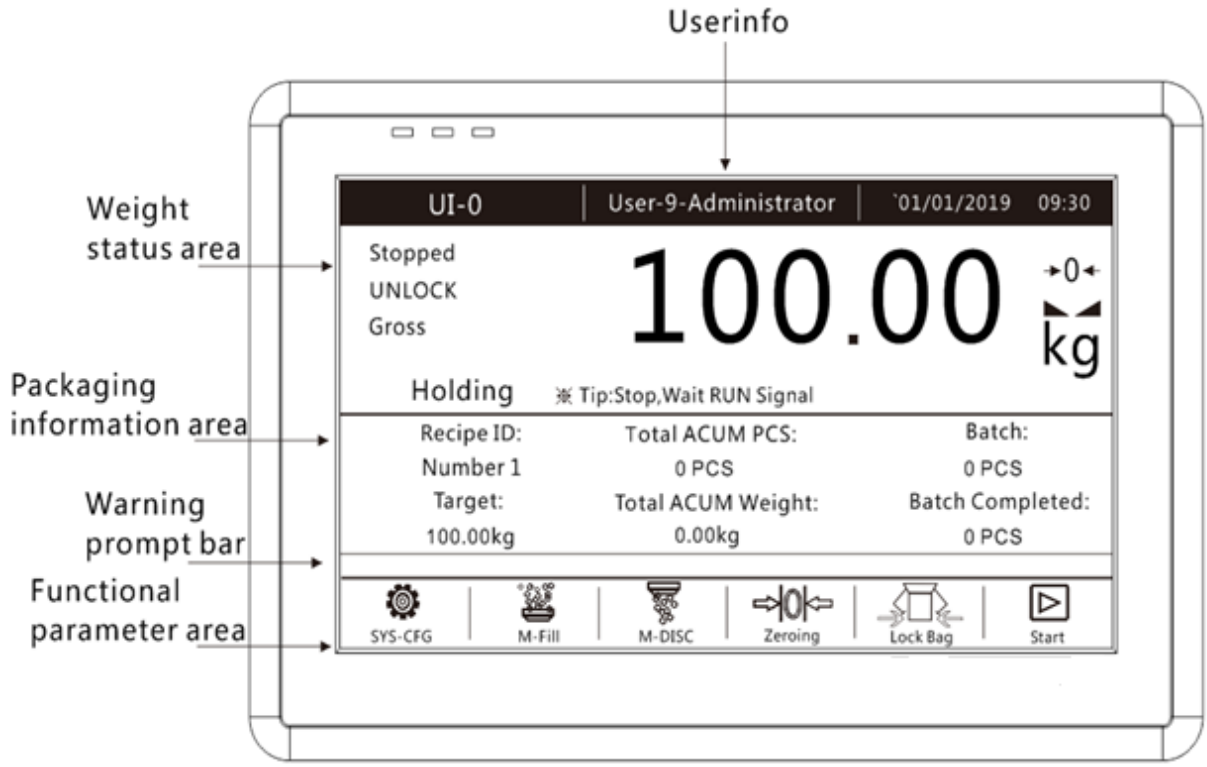
1. Outline

GM9907-L2 bagging controller is a new weighing control controller specially developed for the single scale incremental method automatic quantitative packing scale. The controller English displays 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. It can be widely used in feed, chemical, grain and other industries that require quantitative packaging equipment.

1.1 features and features

- Full English display interface, make the operation more intuitive and easy
- There are five modes of bagging application, hopper, non hopper, Ton scale, servo motor, PLC.
- **28-**digital input and output control **(**12 in **/ 16** out), input and output port positions can be customized.
- ON/OFFing 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 bagging of different range materials
- USB interface facilitates import and export of various parameters
- Feed control function, convenient control connection between bagging scale and front feeding equipment
- Feed speed adaptive function
- IO User Logic programming
- Auto free fall correction function
- Multiple digital filtering
- Batch setting function
- Bag patting function, suitable for bagging 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 single port communication function**,** it is convenient to communicate with the host computer

1.2 front panel description



Interface ON/OFF description:：click on the top left, popup option"Interface-0-Working Interface"、"Interface-1-Debug Interface"，press interface.

Interface 0 Description (Working Interface):

1：Weight status：Including weight value display, weight unit display, status display.

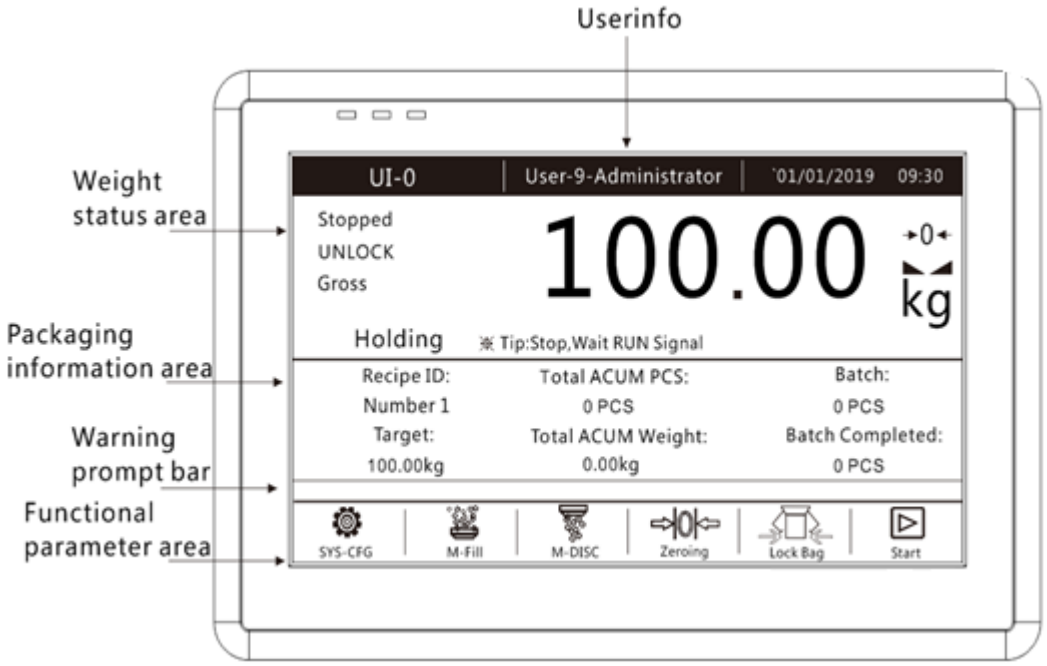
2：User Info：Display the current login user ID, system time (click to modify).

3：Packaging information area：Display the currently selected scale packaging parameters and cumulative information.

（Parameters such as recipe number can be modified by clicking）.

4：Warning prompt bar：Prompt when Controller abnormal work.

5：Functional parameter area：Controller menu parameters query Settings and the corresponding operation keys



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.

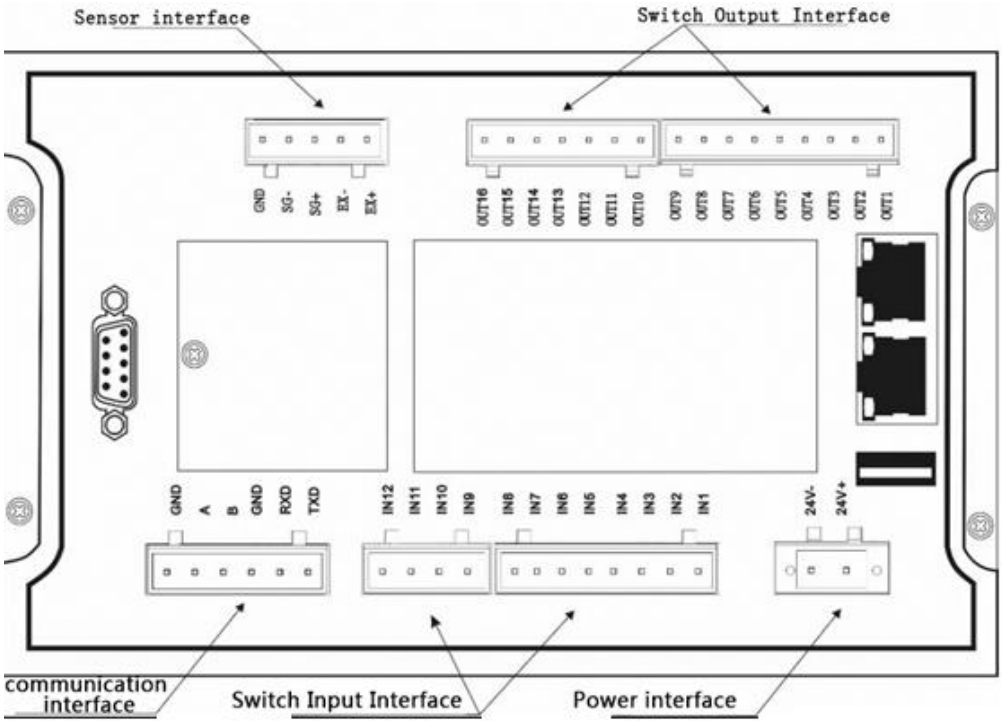
Indicator light description

Left 1: power light;

Left 2: Serial port 1-RS232 communication indicator light, the indicator light flashes during communication

Left 3: Serial port 2-RS232 communication indicator light, the indicator light flashes during communication

1.3 rear panel description



1.4 Technical Specifications

1.4.1 General Specifications

Power supply: DC24V
Power filter: included
Operating temperature: -10 ~ 40 ℃
Maximum humidity: 90% RH non-condensing
Power consumption: about 15 W
Dimensions: 199 mm × 133 mm × 46.7 mm

1.4.2 Analog part

Load cell power supply: DC 5 V 125 mA (MAX)
Input impedance: 10MΩ
Zero adjustment range: 0. 00 2 ~ 15 mV (when loal cell 3mV / V)
Input sensitivity: 0.02uV / d
Input range: 0. 0 2 ~ 15mV
Conversion: S igma- D elta
A/D conversion speed: 120, 240, 480, 960 times / sec
Non-linear: 0.01% FS
Gain drift: 10PPM / ℃
The maximum display accuracy: 1 / 100,000

1.4.3 digital part

Display: 7 inch resistive touch screen

Negative Number Display: "-"

Overload Indication: “Over Full Scale / Loadcell Input Under."

Decimal point position: 5 optional

2. Installation

2.1 General principles

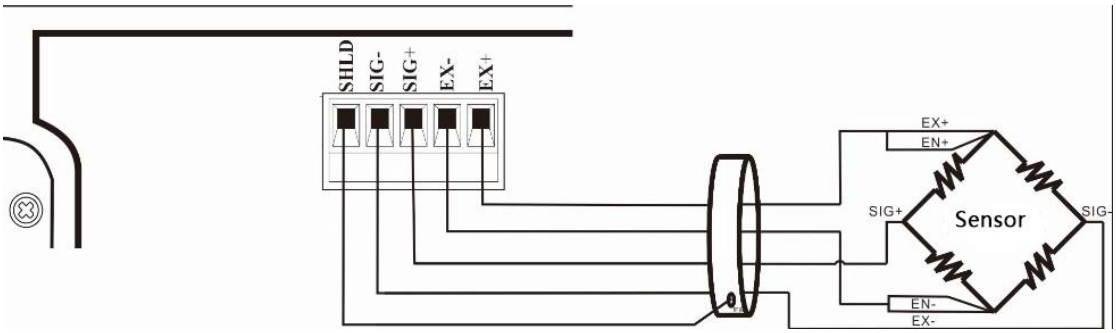
1) Make appropriate installation holes on the control box, (size: 180（+1）mm ×114（+1）mm)

2) Install GM9907-L2 into a control box.

3) Remove the fixing plates on both sides of GM9907-L2, fix it with the fixing plates and lock them with M3*10 screws.

2.2 Load Cell connection

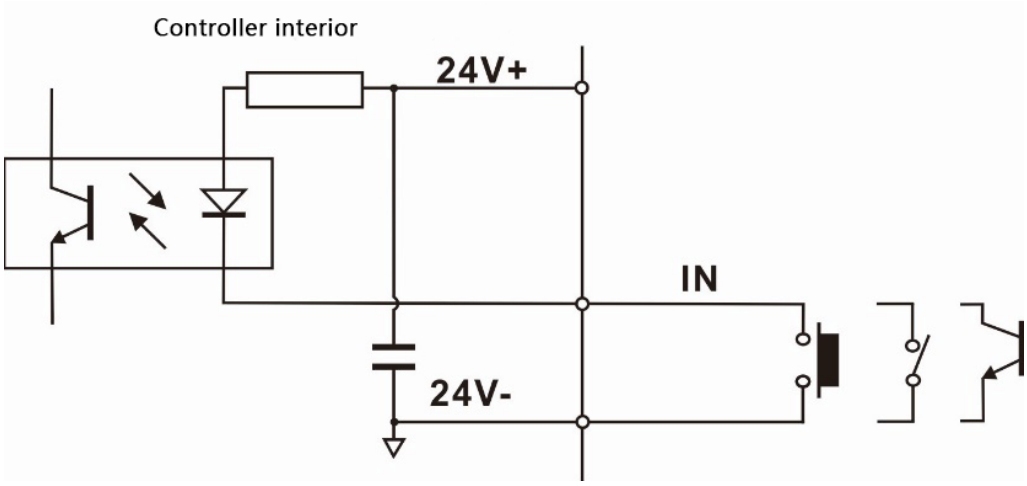
GM9907-L2 bagging controller can be connected to a resistive strain bridge load cell. When using a six-wire load cells, you must bridge the SN+ with EX+ and bridge the SN- with EX-



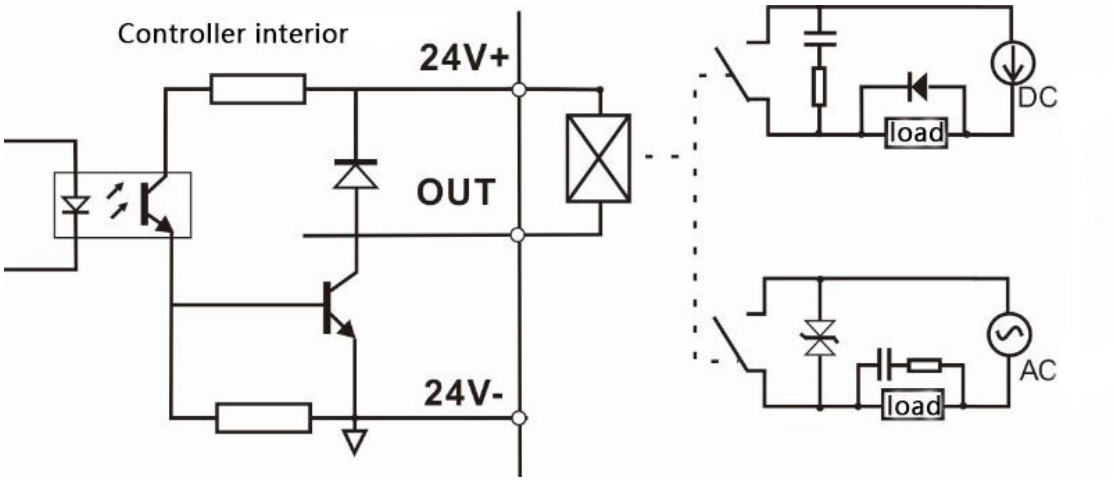
EX+: Excitation+ EX- : Excitation- **SN+** : Sense+ **SN-** : Sense- **SIG+** : Signal+ **SIG-** : Signal-

2.3 I/O Module Port connection

GM9907-L2 bagging controller controls 28 lines I/O (12 input and 16 output). It uses optoelectronic isolation technology to transfer data. The I/O signal input is low level effective, and the output is open-collector mode. The driving current can reach 500mA and the full load current is up to 3A, and Terminal connection is shown as below:



Input port diagram

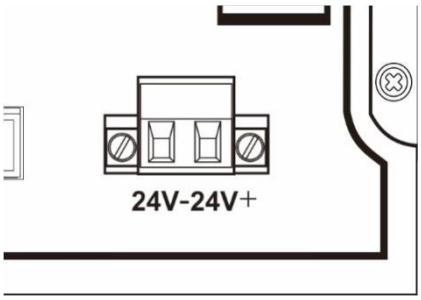


I/O Module output connection diagram

GM 9907-L2 I/O signals definitions refer Section **3.7.**

2.4 power supply connection

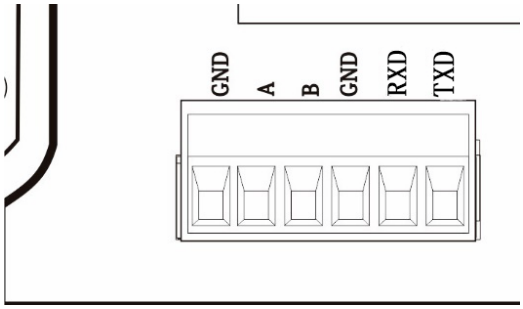
GM9907-L2 bagging controller use 24V DC power supply. The connection is as shown below:



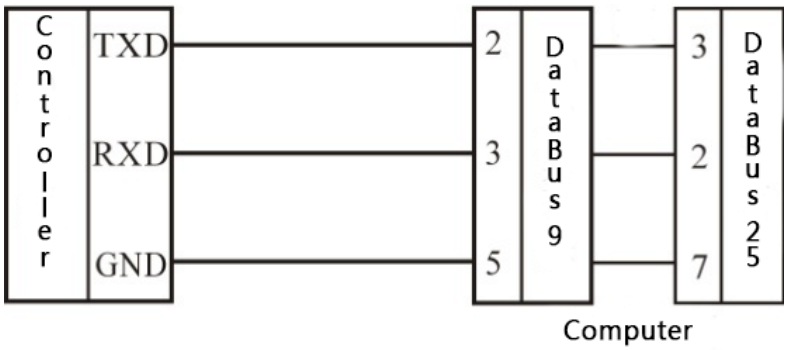
Power terminal diagram
24V+ connect DC+，24V-connect DC-.
Note：this product use 24V DC power supply，use 220V AC power supply will permanently damage the controller and cause danger

2.5 serial port connection

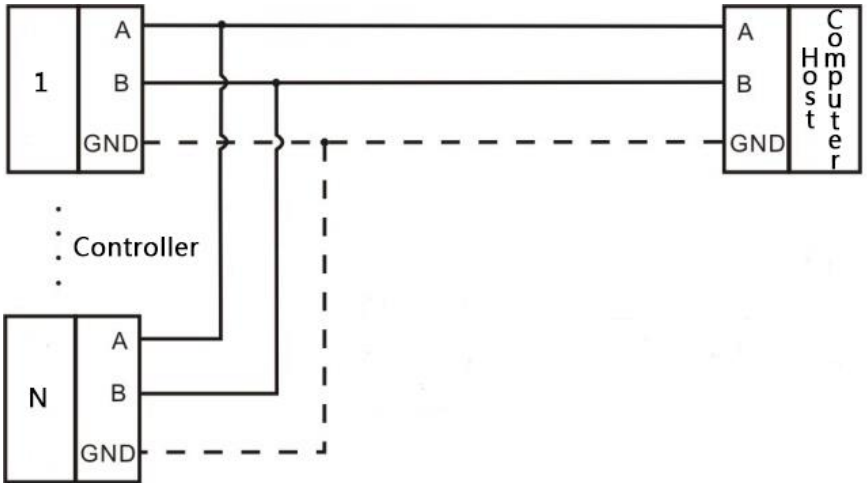
GM9907-L2 provides two serial ports as shown in the figure below. One is **RS - 232** mode (terminal port **TXD, RXD, GND**); the other is **RS - 485** , (terminal port **A** , **B** , **GND**). Serial port support: **MODBUS** protocol, continuous mode and print format.



Controller and computer connection diagram



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



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

※GND is the signal ground of RS485. In the case of severe interference, low resistance wire should be applied to connect the signal ground to make the ground potential of each node equal and improve the communication quality.

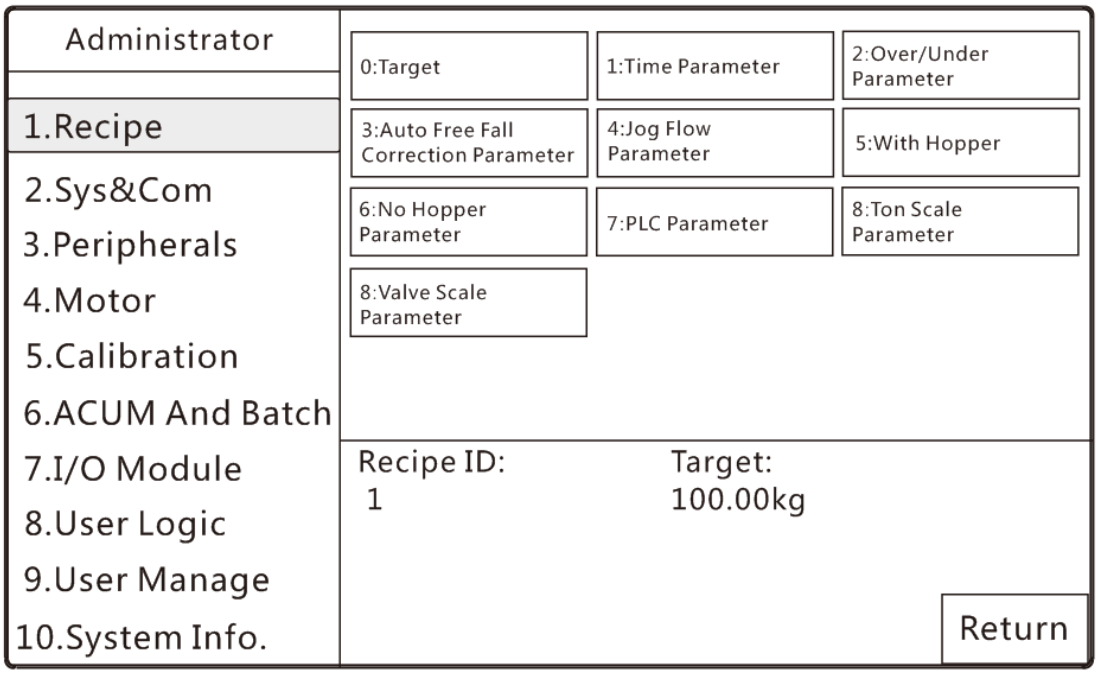
2.6 touch screen calibration

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:

GM9907-L2 power on, long press any point on the touch screen at the same time, system turn to touch screen calibration interface. Long press cursor position on touch screen, cursor position calibrate finish, after the interface displays the coordinates of this point, enter to next calibrate automatically. Follow cursor position changes long press accordingly, calibrate finish, and interface show 5 calibration point coordinates, enter to main interface automatically. If enter the calibration interface of the touch screen by mistake, press the "cancel" button in the lower right corner to exit the interface.

3. menu

Administrator and system administrator can press **M** button to enter menu for checking or revise parameters.



As figure showed above, the left side is parameter list; the right side is brief description and parameter information.

◆ Click the 【set】 button to enter the current parameter item to view and set the ownership parameter information.

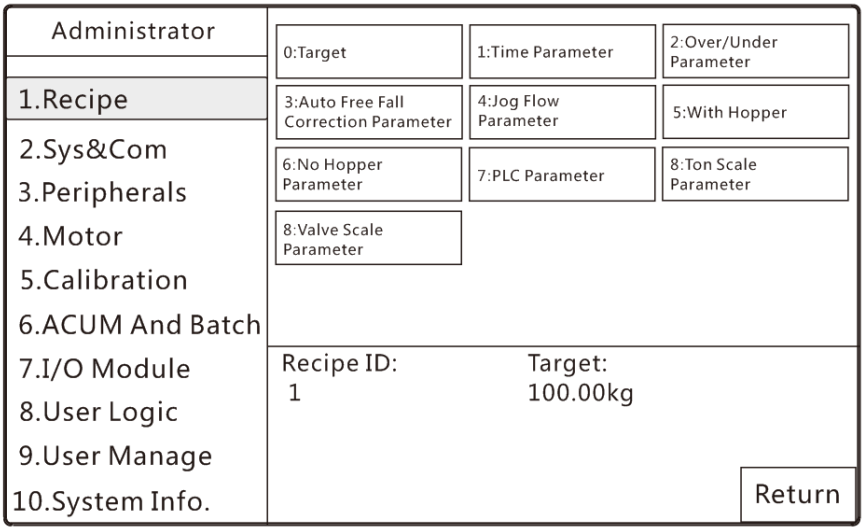
◆ Press [Return] to exit the current interface and return to the previous interface.

menu	Parameter item	parameter list	Parameter Description
System dish single	Recipe （recipe parameter）	0:Target	Set the bagging weight value related parameters
		1 : time parameter	Set the delay time related parameters of the filling process
		2 : Over/Under parameter	Set parameters such as under weight, mode, and filling
		3: Auto Free Fall Correction Parameter	Set the difference correction method, correction range and other related parameters
		4: Jop Flow parameter	Set slow jog ON/OFF, time and other related parameters
		5: With Hopper parameter	Set the relevant parameters of with hopper scale structure
		6: No hopper parameter	Set the relevant parameters of no hopper scale structure
		7: PLC parameter	Set the state of the PLC parameters
		8: ton scale parameter	Set the relevant parameters of the ton bagging scale structure
		9: Valve scale	Set the relevant parameters of the valve scale

		parameter	structure
	Sys&com(System and communication)	0: weight parameter	Set the Stable, Zeroing , and other weight parameters
		1: Filter parameter	Set Filter ON/OFF, filter level
		2: Function parameter	Set parameters such as adaptive and Result Checking Mode
		3: Weigher structure	Select Weigher Structure, Filling Mode
		4: Serial port(**232)**	Set serial port **(RS 232)**related parameters
		5: Serial port(**485**)	Set serial port **(RS485)**related parameters
		6: Ethernet Interface	Set Ethernet related parameters
		7. Host mode	communicate with Communication ID to send orders
	Peripheral parameters	0: Patting parameter	Set the patting mode, times and other parameters
		1: coding parameter	Set the relevant parameters of the coding mechanism
		2: Conveyor parameter	Set the relevant parameters of the conveyor
		3: Print parameter	Set parameters for automatic printing function
		4 : sewing parameter	Set sewing machine, cutter and other related parameters
		5: Discharge Patting parameter	Set parameters such as discharge patting time and times
		6: Filling/Discharge Overtime	Set the parameters related to the Filling/Discharge overtime
		7: Auxiliary pulse parameter	Set the relevant parameters of the auxiliary pulse
	Motor (parameter)	0: Motor parameter	Set Recipe ID, Motor Cfg ID
		1: Filling Parameter	Set filling related parameters
		2: Bag Clutch parameter	Set the relevant parameters of the bag clutch
		3: Discharge parameter	Set discharge related parameters
		4: Motor debugging	Debug feeding stepping motor pulse number
	Calibtation	0: weighing parameter	Set parameters such as unit, decimal point, range, etc.
		1: weight calibration	Performs calibration operation for calibrating the controller weight value
		2: Material calibration	Perform calibration operation to calibrate controller weight value

Total ACUM And Batch (accumulation and batch)	0: total ACUM and batch	View, clear, print the total ACUM information
	1:Recipe ACUM (1 -10)	View, clear,print recipe(1-10) bagging ACUM information
	2: Recipe ACUM (11-20)	View, clear,print recipe(11-20) bagging ACUM information
	3: User ACUM	View ACUM parameters for different users
I/O Module	0: Input Define	Define the meaning of the controller input port
	1 : Output Define	Define the meaning of the controller output port
	2: Input Test	Test whether each input port is connected properly.
	3 : Output Test	Test whether each output port is connected properly.
User Logic	0: User Logic-1	User logic 1function self-define
	1: User Logic-2	User logic 2 function self-define
	2: User Logic-3	User logic 3 function self-define
	3: User Logic-4	User logic 4 function self-define
	4: User Logic- 5	User logic 5 function self-define
	5: User Logic- 6	User logic 6 function self-define
User Manage	0: User List	View or ON/OFF users
	1: User Edit	Edit user permissions, passwords, etc.
	2: Auto Login	Set up auto login users
system Info	0: System Version	View software version and set system time
	1: Password management	Password management of various parameters (calibration, ACUM Clear Password MUST ON)
	2: Reset / Backup	Restore various parameters to factory settings and data backup
	3: USB Data Export	Out operation from the controller working, recipe, peripherals, motor, calibration, I/O Module, serial port parameters
	4: USB Data Import	Import working, recipes,peripherals, motors,calibration , I/O Module, serial port parameters to the controller
	5: Shortcut Setting	Define debug interface shortcuts
	6: Other setting	Select language, adjust screen brightness, set screen saver

3.1 Recipe parameters



Enter【M】When move to recipe parameter interface:

※Click the 【set】 button to enter the current parameter item to view and set the ownership parameter information.

※click【Esc】Exit key, to exit the current interface and return to the previous screen.

※"Recipe ID" is set under "Target".

Recipe parameter item	parameter	Description
Target	Used to set the bagging weight value related parameters	
	1 Recipe ID	Select the recipe ID . Initial value: **1** ; Range: **1~20** .
	2. Target	Quantify the target value.
	3. Coarse Flow Remains	In the quantification process, if the weighing value ≥ the target value - Coarse Flow Remains, Coarse Fill is turned off.
	4. Medium Flow Remains	In the quantification process, if the weighing value ≥ the target value - Medium Flow Remains, Medium Fill is turned off.
	5.Free Fall	In the quantification process, if the weighing value ≥ the target value – Free Fall, Fine fill is turned off.
	6. Near Zero Band	In the quantification process, if the weighing value ≤Near Zero Band, Discharge Delay Timer is started.
	7. Adaptive Level	The higher the level, the faster the feeding speed, the lower the accuracy. Initial value: 3; Range: 1 ~ 5.
	8. Adaptive ON/OFF	Adaptive function, automatically adjust the coarse, medium and fine speed of the controller in the running process after the ON/OFF is turned on. Optional ON/OFF, off, double speed, triple speed. Initial value: off. (note: 1. All Remains must be zero before normal use. 2. If Auto Free Fall Correction and the adaptive function are opened at the same time, the Auto Free Fall Correction will be closed forcibly. 3. When the first balance is self-adaptive, the balance body must be stable and the current weight is zero.)

Time parameter	Used to set the delay timer related parameters of the filling process	
	1.Filling Start Delay	In with hopper mode, when the quantification process starts, after the delay time, the controller will stable and zeroing (if it does not meet the Zero Interval condition, it will not stable and not zeroing), and then start the filling process; In no hopper mode, after lock bag is finished, after the delay time, the controller is to be stable and tare. Initial value: **0.5**; Range: **0.0~99.9**. (Unit: **s**)
	2. COMP. Inhibit Timer(Co-F)	When the quantification process starts, during this time, in order to avoid overshoot, no weight judgment is made, coarse filling is always valid. Initial value: **0.9** ; Range: **0.0~99.9** . (Unit: **s**)
	3. COMP. Inhibit Timer(Me-F)	After coarse filling is finished, during this time, in order to avoid overshoot no weight judgment is made, medium filling is always valid. Initial value: **0.9**; Range: **0.0~99.9**. (Unit: **s**)
	4. COMP. Inhibit Timer(Fi-F)	After medium filling is finished, during this time, in order to avoid overshoot no weight judgment is made, fine filling is always valid. Initial value: **0.9**; Range: **0.0~99.9**. (Unit: **s**)
	5. Result Waiting Timer	Result Checking Mode chose "Delay Timer", after the fine filling is turned off (or the Over/Under is turned on, the Over/Under alarm is finished), quantification process is started, and the holding time is passed, and the quantification process is finished, enter to next process. Initial value: **0.5**; Range: **0.0~ 99.9**. (Unit: **s**)
	6. Bag Locked Delay Timer	After the clutch bag signal is given, after the delay, controller judges that the bagging operation is completed. Initial value: **0.5**; Range: **0.0~99.9**. (Unit: **s**)
	7. Unlock Bag Pre-Delay Timer	After with hopper mode discharge is completed, the unlock bag signal is output after the delay time; After the no hopper mode setting (patting bag) is completed, the unlock bag signal is output after this delay. Initial value: **0.5**; Range: **0.0~99.9**. (Unit: **s**)
	8.Discharge Delay Timer	During the discharge process, when the weight value of the weighing hopper is less than the Near Zero Band, the delay is started, when delay time is finished, discharge signal is closed. Initial value: **0.5**; Range: **0.0~99.9**. (Unit: **s**)
Over/Under Parameter	Used to set parameters related to Over/Under weight, mode, Compensation, etc.	
	1.OVER/UNDER ON/OFF	"On / Off" is optional. When this parameter is set to "On", the quantification process judges the Over/Under.
	2. OVER/UNDER Pause	"On / Off" is optional. When it is set to "On", when the quantitative process is over or under, controller pauses and waits for the user to process. I/O Module enter Emergency Stop, returns to the stop state, and clear alarm; or I/O Module enter clear alarm, continue quantitative process.
	3. OVER/UNDER Alarm Timer	Without manually clear alarm, Over/Under alarm close alarm time. Initial value: **1.0;** range: **0.0 to 9. 9.9.** (unit**s**)
	4. OVER Limit Value	In the quantification process, if the weighing value ≥ the target value + Over value, it is judged as Over.

		Initial value: **0**.
	5. Under Limit Value	In the quantification process, if the weighing value ≤ target value – Under value, it is judged as Under. Initial value: **0**.
	6. Compensation ON/OFF	Set the Compensation ON/OFF On: Slowly add the feed according to the number of feeds. Off: Do not replenish when there is a shortfall.
	7. Compensation Times	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. Flow-ON Times	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. Flow-OFF times	When feeding an output, a pass off the cycle time has no effect on **chronic.** Initial value **: 0.5** ; range: **0.0 to 9 9 .9** . (unit**s**)
Auto Free Fall Correction ON/OFF	Used to set relevant parameters for automatic adjustment ofdrop difference	
	1. Auto Free Fall Correction ON/OFF	The drop value is the weight value that has not fallen into the measuring hopper after the slow feeding 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. Reference Samples PCS	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. Correction Effective 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. Correction Percentage	The magnitude of each drop correction. Three ranges are available in **100% , 50% , and25%** . Initial value: **50 %** .
Jog Flow Parameter	Used to set manual slow feeding related parameters	
	1. Jog Flow ON/OFF	“On / Off” is optional. When set to “On”, the meter is slowly added and jogged. Initial value: off.
	2. Jog Flow-ON Timer	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. Jop Flow-on Timer	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**)
With Hopper Parameter	Used to set the relevant parameters of the bucket scale mode	
	1. Filling Combination Times	When there is a hopper scale structure , the loose 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** .
	Used to set parameters related to the bucketless scale mode	

No Hopper Parameter	**1.** Next Lock Bag Start Delay Time	Effective interlocking mode without fighting,**A** scale **B** when the front end of the conveyorscale after the rear end of the conveyor, and the double scale bulk bags **is not the same** model as discharge **bags.** If the addition is complete discharge bags **B** scale, the scale is not discharge bags **A, B** scale case again a bag clip, to wait after the completion of the addition **A** discharge 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 parameter	Used to set PLC mode related parameters	
	1. PLC-OverLimit Value	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-UnderLimit Value	When the weighing value <target value - under-difference, the under-output is valid Initial value: **0.00** ; range: **0.00~100.00 .**
	3. PLC-UpperLimit Value	When the weighing value > upper limit value, the upper limit output is valid Initial value: **0.00** ; range: **0.00~100.00 .**
	4. PLC-LowerLimit Value	When the weighing value is < lower limit, the lower limit output is valid. Initial value: **0.00** ; range: **0.00~100.00 .**
Ton package scale Para meter	Used to set the relevant parameters of the ton package scale mode	
	1. Delay time of hanging bag	The bag delay time until the bag is completed . Initial value **: 0.5** ; range: **0.0 to 99.9** . (unit **s**)
	2. Hanger control mode	Optional auto rise, auto drop; auto rise, manual drop; manual rise, auto drop; manual rise, manual drop. Default: auto rise, auto drop
	3. Delay Before Hanger Rise	This delay is executed after the rising signal is sent. Initial **value: 5.0;** range: **0.0 to 99.9.** (unit **s**) Note: only valid at Air Drive-unlimit space mode.
	4. Delay Before Hanger Drop	This delay is initiated after the quantitative delay has expired. Initial **value: 5.0;** range: **0.0 to 99.9.** (unit **s**) Note: only valid at Air Drive-unlimit mode.
	5.Hanger Rise Overtime	The maximum waiting time for the controller hanger in place . Initial **value: 5.0;** range: **0.0 to 99.9.** (unit **s**) Note: only valid at Motor-Dual-Limit/Air Drive-Dual-Limit mode.
	6. Hanger Drop Overtime	The maximum waiting time for the controller hanger to drop . Initial **value: 5.0;** range: **0.0 to 99.9.** (unit **s**) Note: only valid at Motor-Dual-Limit/Air Drive-Dual-Limit mode.
	7. Fan Rotating Time	Blower blow output time . Initial value **: 0.5** ; range: **0.0 to 99.9** . (unit **s**)
	8. Bag Reset delay	Filling finish, bag output invalid time, continue output is valid. Initial **value: 0.0;** range: **0.0 to 99.9.** (unit **s**) Note: Paremeter setting is not 0, bag output invalid, starts bag reset delay, continue ouput is valid.(controller run the first scale need manual hang bag

		signal once) when parameter set to 0, before controller filling everytime, needs hang bag signal.
	9. Air Blow mode	Before rise delay air blow: air blow output valid，hanger rise output is valid. After rise delay air blow, after hanger output continue hanger rise delay time starts air blow. Initial value:Before Rise delay starts blowing
	10. Return valve mode	Close the return valve after feeding: after closing the fine feed, the return valve output is invalid. Close return valve after bag loosening: return valve output is invalid after bag loosening. Initial value: Close the return valve after feeding.
	11. Decoupled up I/O	ON: When is on. OFF: When is off. Initial value:OFF
	12. Delay before decoupling	When is on, after decoup, need to delay the time hanger to rise. Initial value:0.0s Range: 0.0~99.9 (unit s)
	13. Decoupling rise time	When the rise I/O is on and the rise support output needs to last for this time after the rise is executed Initial value:0.0s Range: 0.0~99.9 (unit s)
	14. Decoupling rise pause time	When the rise I/O is on, and after the decoupling rise is over, it is necessary to wait for the time before descending. Initial value:0.0s Range: 0.0~99.9 (unit s)
	15. Uncoupled alarm I/O	ON: Uncoupled alarm I/O is ON. OFF: Uncoupled alarm I/O is OFF Initial value: OFF
	16. Decoupling alarm conveyor reversal time	The uncoupled alarm I/O is on. When the uncoupled alarm is complete, the conveyor will perform the reversal immediately for the duration. Initial value:0.0s Range: 0.0~99.9 (unit s) (Set to 0: means the conveyor does not reverse)
	17. Weight value of decoupling alarm	The uncoupled alarm I/O is on. If the current weight is greater than the value of the decoupling alarm during the period of decoupling ascending, controller will output the decoupling alarm signal. Initial value:0, range: 0~Maximum range
Valve Scale Paameter	Used to set the valve scale mode related parameters	
	1.Delay Before Lifting 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 99.9** . (unit **s**)
	2. Lifting Bag Timer	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 99.9** . (unit **s**)
	3. Delay Before Pusing Bag	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 99.9** . (unit **s**)
	4. Pushing Bag Timer	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 99.9** . (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 [Return] to exit the current interface and return to the previous interface.

Sys&Com	parameter	Description
Weight Parameter	**1.** Stable 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. Stable Timer	First value: **0.3; range: 0.1 to 99.**
	3. Zero Range	The range can be cleared **.** Initial value: **50** ; Range: **1 to 99 (** % of full scale) .
	4. Zero Track Range	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 Track Timer	First Value: **20; range: 0.1-9 9.9.** (unit **s**)
	6. A/D Sampling Rate	**A/D** sampling rate. **120** times / sec, **240** times / sec, **480**times / sec, **960** times / sec. Initial value: **240** times / sec.
Filter Parameter	**1**. Digital Filter	Filter strength rating in the stopped state. Initial value: **7**; range **0 ~ 9** .
	2. Advance Filter ON/OFF	On/off optional, secondary filtering based on digital filtering. Initial value: off.
	3. Dynamic Filter	During the bagging process, whether to perform the filter operation ON/OFF and set “On”, the following three parameters are valid. Initial value: on.
	4.Filling Filter Level	Filter parameters during feeding: **9**: The filtering effect is the strongest. Initial value: **4**; Range: **0 to 9**.
	5.Waiting Process Filter	Filter parameters during the setting process: **9**: The filtering effect is the strongest. Initial value: **7**; Range: **0 to 9**.
	6. Dischange Process Filter	Filter parameters during unloading: **9**: The filtering effect is the strongest. Initial value: **1**; Range: **0 to 9**.
Function Parameter	**1. P**ower-Up Zero	On / off is optional. When it is “on”, the controller 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. Auto Zeor Interval	Clear the number of times after completing the bagging process. When entering the first bagging 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 bagging mode.)
	3. Running Stable Timeout	Initial value: **0.0** ; range: **0 .0 ～ 9 9.9** .(unit **s**)
	4. Result Checking 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.Add to Total When Manual Discharge	On/Off is optional; set to "On", the manual unloading weight value is included in the accumulated value; initial value: off.
	6. Result Holding	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. Manual Unlock bag I/O	I/O optional, when set to on, running, need manal to control unlock bag. Initial value: off.
	8.Hang bag running control ON/OFF	I/O optional, when set to on, when in ton bag mode, after start, allow hang bag, not allow hang bag off. Initial value: off.
	9. Reverse logic I/O of hanging bag	I/O optional, when set to on, when in ton bag mode, when hang bag output is valid, I/O module is invalid, when hang bag output is invalid, I/O module output is valid. Initial value: off.
	10. Tare weight detection I/O	I/O optional, when set to on, when in ton bag mode, When running, it will return to the stop state without feeding to the fixed value. When it starts again, it does not need to remove the tare to start feeding directly. Note: This function will only record tare if the current weight is greater than 0. Initial value: off.
Weigher Structure	**1.** Valve Scale	There are hopper bagging / no hopper/ PLC / big bag / valve port bagging selection available. Initial value: There is a hopper bagging.
	2.Working Mode	Optional single scale , interlock A, interlock B. Initial value : single scale .
	3. Packing mode	The net weight bagging mode first removes the tare weight at the beginning of the quantification and performs the quantitative bagging process with the net weight value.(effective in non-fighting mode) Gross weight bagging / net weight bagging is optional **.**

		Initial value: net weight bagging .
	4. Hanger Movement Type	Available in Air Drive-unlimit/ electric drive-dual limit/ Air Drive- dual limit Initial value : Air Drive- unlimit
	5. Filling Mode	Optional separate feeding and combined feeding. Initial value : combined feeding.
	6. Dual Scale Unlock Bag Mode	In the hopperless 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.** Communication ID	Initial value: **1** ; **1 ~ 9 9** optional.
	2.Communication Mode	Initial value: **Modbus-RTU** . **Modbus-RTU**/ Print / Continuous Mode / **MD-R**(compatible with **01.** version) isoptional.
	3. Baudrate	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. Dword Format	**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.** Communication ID	Initial value: **1** ; **1 ~ 9 9** optional.
	2.Communication Mode	Initial value: **Modbus-RTU** . **Modbus-RTU** / Print / Continuous Mode / **MD-R** (compatible with version **01.**) isoptional.
	3. Baudrate	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. Dword Format	**Modbus** communication display mode: Initial value: **AB-CD** (high word first); **AB-CD** (high word first) / **CD-AB** (low word first) optional.
Ethernet Interface	**1.**Communication Mode	**M odbus-TCP/IP ,** address table viewsection **5.3.3**
	2. Dword Format	**Modbus** communication display mode: Initial value: **AB-CD** (high word first); **AB-CD** (high word first) / **CD-AB** (low word first) optional.
	3. Server Port	Initial value **: 1; 1 ~ 65535** optional .
	4. IP-address	Initial value **: 0; 0 ~ 255** optional **.**
	5 . **MAC**-address	**BC.66.41.9X.XX.XX**
Host Mode	1. Communication ID	Initial value : 1; 1 ~ 99 optional .
	2. Initial address	Initial value: 1;1~9999 is optional, starting at 0X0001 by default.
	3. data length	Initial value: single word; Single/double word is optional.
	4. Setting paremeter	Initial value : 0; 0 ~ 999999 optional .

* note:

1. The communication parameters of serial port 2 are fixed in the host mode. Only when the mode of communication is modbus-rtu can the host mode be used.
2. In host mode, the initial address is fixed as 1.
3. Successful data writing will return successful data sending; Failure to write data returns failure to send; A send timeout is returned when there is no return for a long time.
4. In the host mode, modifying the high and low bytes of serial port ii will change the storage order of the data sent to the slave machine. The high and low bytes correspond to each other, and the data length can be used when it is double word.

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 [Return] to exit the current interface and return to the previous interface.

Peripherals	parameter	Description
Patting Parameter	**1.** Patting Mode	Bag mode selection; Initial value: Do not pat bag. Optional: With hopper mode: the bag is not available after the bag / set value; No jogging mode: Sign bag / bags after setting Sign / addition in the film bag /bags jog plus values were correctly predicted; T packet mode: Sign bag / bags after setting Sign / addition in the film

		bag /bags jog plus values were correctly predicted; Port mode: Sign bag / bags after setting Sign / addition in the film bag / bags jog plus values were correctly predicted; PLC mode: Sign bag / bags after setting Sign / addition in the film bag / bags jog plus values were correctly predicted;
	2. Start-Up Weight	It is effective in the no-bucket, big bag, 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.Patting Times(Filling)	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 value) Initial value: **0;** Range: **0~99** .
	4.Patting Times(Waiting	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. Patting Start Delay Timer	After the b ag is started, the bag output is valid after this delay time. Initial value : **0.5 ;** Range **: 0.0~99.9** . (unit**s**)
	6.Patting ON Timer	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. Patting OFF Timer	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.Extra ON Timer	Generally used in the anchor bag function. 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) .
	9. Pat bag start up weight 1	Under without hopper,ton bag, valve scale mode are valid, choose Feeding medium pat bag mode, current weight must >=pat bag start up weight, starts pat bag. Initial value: **0**; Range: **0** ~ Maximum range
	10. Feeding medium pat bag	Set parameters while feeding pat bag times. Set to 0, do not pat bag.Note: When the feeding process enters into fine feeding, end the

	time 1	pat bag while feeding, no matter whether the pat bag in feeding is completed or not.(After entering the fine feeding, do not process the feeding in pat bag) Initial value: **0**; Range: **0~99**
	11. Feeding medium pat bag time 2	Set parameters while feeding pat bag times. Set to 0, do not pat bag.Note: When the feeding process enters into fine feeding, end the pat bag while feeding, no matter whether the pat bag in feeding is completed or not.(After entering the fine feeding, do not process the feeding in pat bag) Initial value: **0**; Range: **0~99**
Code parameter	**1.** Coding Device ON/OFF	On/off optional; set to "on", the meter has a code output function; Initial value : off.
	2. Coding Start Delay Timer	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 Duration Timer	The effective time of coding; Initial value: **0 . 5** ; Range: **0.0~99.9** . (unit**s**)
	4.Not Allow Fill/Discharge When 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 parameter	**1.** Conveyor ON/OFF	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 Delay Timer	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. Conveyor Running Timer	Conveyor runtime setting. Initial value: **4.0** ; range: **0~99.9** . (unit **s**)
Print parameters	**1.** Auto Print	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. Printer Format	Initial value: **24** columns of printing ; **24**columns of printing / **32** columns of printing.
	3. Printing Language	Initial value: Chinese ; Chinese / English optional.
	4. Printing Line Nos.	The number of lines after the print is completed. Initial value: **3** ; **0~9** optional.
Sewing Parameter	**1.** Sewing Start Delay Timer	After the sewing machine start ON/OFF is activated, the sewing machine delay time is started . Initial value: **0.5** . Range: **0.0~99.9** . (unit **s**)
	2. Sewing ON Timer	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.Cutter Delay Timer	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.Cutter ON Timer	After the start up of the cutter, start the output of the cutter and continue the output time of the cutter. Initial value: 0.5.Range: 0.0~99.9.(unit s)
	5. Sewing Stop Delay	After the work is completed and cutting 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**)
	6. Sewing Debounce Timer	Prevent the photoelectric jitter of the sewing machine from starting and cause the sewing machine to work abnormally. During the debounce time, the sewing machine photoelectric jitter, but the sewing machine output is still valid at this time.Initial value: **0.3** . Range: **0.0~99.9** . (unit **s**)
Discharge Patting Parameter	**1.** Discharge Patting ON/OFF	Initial value : **0** ; range **0~1** . (**0 :** open;**1** : off)
	2. Discharge ON Timer	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 Patting ON Timer	Initial value : **0.5** ; range **0.0~9.9** . (unit **s**).
	4.Discharge Patting OFF Timer	Initial value : **0.5** ; range **0.0~9.9** . (unit **s**)
	5.Discharge Patting Times	Initial value : **10** ; range **0 ~ 99** .
Filling/Dischage Overtime	**1.** Overtime Checking ON/OFF	Add and discharge timeout judgment ON/OFF. After the opening , the loading and unloading timeout judgment is performed in the running state . Initial value **:** off .
	2 Coarse Flow 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 Flow Overtime	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. Manual Fine Overtime	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 Overtime	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. Auxiliary pulse 1 mode	0: Auxiliary pulse; 1: Level mode Initial value:0; Auxiliary pulse
	2. Auxiliary Pulse 1 Execute Total Timer	Auxiliary Pulse 1 Execute Total Timer. If 0, keeps running. Initial value : **0** ; range : **0.0~999.9** .(unit **s**)
	3. Auxiliary Pulse 1 On Timer	Initial value : **10.0** ; range : **0.0~999.9** .(unit **s**)
	4. Auxiliary Pulse 1 Off Timer	Initial value : **10.0** ; range : **0.0~999.9** .(unit **s**)
	5. Auxiliary pulse 2 mode	0: Auxiliary pulse; 1: Level mode Initial value:0; Auxiliary pulse
	6. Auxiliary Pulse 2 Execute Total Timer	Auxiliary Pulse 2 Execute Total Timer. If 0, keeps running. Initial value : **0** ; range : **0.0~999.9** .(unit **s**)
	7. Auxiliary Pulse 2 On Timer	Initial value : **10.0** ; range : **0.0~999.9** .(unit **s**)
	8. Auxiliary Pulse 2 Off Timer	Initial value : **10.0** ; range : **0.0~999.9** .(unit **s**)
	9.Auxiliary pulse 3 mode	0: Auxiliary pulse; 1: Level mode Initial value:0; Auxiliary pulse
	10. Auxiliary Pulse 3 Execute Total Timer	Auxiliary Pulse 3 Execute Total Timer. If 0, keeps running. Initial value : **0** ; range : **0.0~999.9** .(unit **s**)
	11. Auxiliary Pulse 3 On Timer	Initial value : **10.0** ; range : **0.0~999.9** .(unit **s**)
	12. Auxiliary Pulse 3 Off Timer	Initial value : **10.0** ; range : **0.0~999.9** .(unit **s**)
	13. Auxiliary pulse 4 mode	0: Auxiliary pulse; 1: Level mode Initial value:0; Auxiliary pulse
	14. Auxiliary Pulse 4 Execute Total Timer	Auxiliary Pulse 4 Execute Total Timer. If 0, keeps running. Initial value : **0** ; range : **0.0~999.9** .(unit **s**)

	15. Auxiliary Pulse 4 On Timer	Initial value : **10.0** ; range : **0.0~999.9** .(unit **s**)
	16. Auxiliary Pulse 4 Off Timer	Initial value : **10.0** ; range : **0.0~999.9** .(unit **s**)

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 [Return] to exit the current interface and return to the previous interface.

Motor	parameter	Description
Motor parameters	**1.** Repice ID	The recipe currently in use. Initial value: **1** ; Range: **1~20 .**
	2.Current Filler Motor Cfg ID	The feed motor group number corresponding to the current recipe. Initial value: **0** , range **0~4** .
Filling parameter	**1.** Filling mode	Initial value: pneumatic feeding; Optional: **0** , pneumatic mode; **1** , stepper motor feeding; **2** , ordinary motor mode.
	2. Filler Gate Close Overtime	Initial value: **4.0** ; range: **0.0~99.9 .**
	3. Filling Gate Limit 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. Filler Motor Cfg ID	Initial value: **0** ; Range: **0~4** Feeding motor group number setting.
	5. Filler Motor Frequency	Initial value: **12000** ; range: **1~50000** .
	6. Steps For Filler Open to Fi-F	Initial value: **1800** ; Range: **1~60000** .
	7. Steps For Filler Open to Me-F	Initial value: **4300** ; range: **1~60000** .
	8. Steps For Filler Open to	Initial value: **7750** ; range: **1~60000** .

	Co-F	
	9. Filler Motor DR	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. Filler Motor Start Frequency	Feed motor starting frequency Initial value: **2000** ; Range: **0~50000** . (Note: this value cannot be greater than the feeding motor frequency)
	11. Filler Motor ACC Time	Feed motor acceleration time (in **ms**) Initial value: **200** ; range: **0~9999 .**
	12. Filler Motor DEC Time	Feed motor deceleration time (in **ms**) Initial value: **50** ; range: **0~9999 .**
	13. Co-F Gate Open Time	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. Me-F Gate Open 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. Fi-F Gate Open 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**)
Bag Discharge Parameter	**1** , Lock 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 , Bag Release Overtime	Initial value: **3.0** ; range: **0.0~99.9** . (unit **s**)
	3 , Bag Lock Overtime	Initial value: **3.0 ;** range: **0.0~99.9** . (unit **s**)
	4 , Discharge Limit 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	Initial value: **30000** ; range: **1~50000** .

	Lock Frequency	
	6 , Discharge Release Frequency	Initial value: **20000** ; range: **1~50000** .
	7 , Steps to Lock Bag	Initial value: **12000** ; range: **1~60000** .
	8, Discharge Motor DR	Initial value: **0** ; Optional: **0** : the entrainment direction when the signal is invalid ; **1** : Entrainment direction when the signal is valid .
	9 ,Discharge Motor Start Frequency	Initial value: **2000 .** (Note: this value cannot be greater than the pocket frequency)
	10 ,Discharge Motor ACC Time	Initial value: **200** ; range: **0.0~99.99 .** (unit **m s**)
	1 1 , Dicharge Motor DEC Time	Initial value: **50** ; Range: **0.0~99.99 .** (unit **m s**)
	12 , Bag Release time	Initial value: **0. 5** ; range: **0.0~99.99 .** (unit**s**)
Discharge parameter	**1** , Discharge 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 , DISC Gate Close Overtime	Initial value : **3.0** ; range: **0.0~99.9** . (unit**s**)
	3 , DISC Gate Open Overtime	Initial value : **3.0 ;** range: **0.0~99.9** . (unit**s**)
	4 , DISC Gate Limit 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 ,Realtime Detecting When Discharge	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 , DISC Motor Open Frequency	Initial value : **30000** ; range: **1~50000** .
	7 , DISC Motor Close Frequency	Initial value : **20000** ; range: **1~500 00** .
	8 , Discharge Steps	Initial value : **12000** ; range: **1~60000** .
	9 ,DISC Motor DR	Initial value: **0** ; Optional: **0** : the door opening direction when thesignal is invalid ; **1:** valid signal to the door opening direction.
	10 , DISC Motor Start Frequency	Initial value: **2000** ; range: **0~50000** . (Note: this value cannot be greater than the discharge frequency)
	11 ,DISC Motor ACC Time	Initial value: **200 ;** range: **0.0~99.99 .** (in **ms**)
	12 , DISC Motor DEC Time ration time	Initial value: **50 ;** range: **0.0~99** . **99 .** (in **ms**)
	13 , DISC Gate Open Timer	Initial value : **1.00 ;** range : **0.00~99.99 .**(unit **s**)
Motor debugging	Current formula feeding group number	Initial value : 0; range:0~4
	fine flow pulse	Initial value : 1800; range:1~60000
	medium flow pulse	Initial value : 4300; range:1~60000
	coarse flow pulse	Initial value : 7750; range:1~60000

3.5 calibration

The calibration scale is the calibration of the controller. When the **GM9907** bagging 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 controller. To prevent personnel from mis operation, the Technician and the administrator are required to log in to calibrate the controller (select the identity login in the [User Login] option).

The calibration scale parameter of the national standard symmetrical heavy controller 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 [Return] to exit the current interface and return to the previous interface.

Calibration scale parameter	**parameter**	**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. Resolution	Initial value: **1** ; **1/2/5/10/20/50** six optional .	
	4. Full Scale	Initial value: **100.00** ; The range is less than or equal to the minimum division × **10 0000** can be set .	
Zero Calibration	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.
	Loadcell voltage	Display current sensor output voltage value	
Weight Calibration	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 controller.
	Weight Voltage	Display load weight output voltage value	
Material calibration	Zero Calibration	The function of material calibration is to use the calibration method when it is inconvenient to use the calibration method of weight on site.The steps are as follows: Step 1: empty the measuring hopper and click "empty scale calibration".This step is zero calibration, requirements: metering bucket empty, weighing body stability. Step 2: click " Manual Flow ".At this time, the feeding door will be opened and some materials will be added to the metering hopper. Click "manual feeding" again and the feeding door will be closed.(note: if the "manual feeding time" in the weighing parameter is not set to 0, the feeding door will be automatically closed after the manual feeding time is up.) Step 3: click “Manual Discharge ".When the discharge door is opened, the background records the current relative millivolts.The discharge material is weighed and recorded electronically. Step 4: click "material calibration", input the weighing data, and click	
	Manual Coarse Flow		
	Manual Discharge		
	Material calibration		

		ok.Material calibration is finished.

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 [Return] 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 controller 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 I/O Module

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

The input and output factory definition contents are as follows (output **1 - 16** corresponds to the controller **OUT1** ~ **OUT16** interface, input **1 - 12** corresponds to the controller **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** Stoped	Input port - **2**	**I2** Emergency Stop
Output port -**3**	**O3** Coarse Flow	Input port - **3**	**I3** Stop
Output port -**4**	**O4** Medium Flow	Input port - **4**	**I5** Zeroing
Output port -**5**	**O5** Fine Flow	Input port - **5**	**I6** Clear Alarm
Output port -**6**	**O6** Bag Lock	Input port - **6**	**I8** Clear Total ACUM
Output port -**7**	**O7** Result Waiting	Input port - **7**	**I7** Bag Lock/Unlock Request
Output port -**8**	**O8** Ready	Input port - **8**	**I9** Manual Discharge

Output port -**9**	**O9** Discharge	Input port - **9**	**I10** Manual Fine Flow
Output port -**10**	**O10** (-NZ-)	Input port - **10**	**I11** Manual Coarse Flow
Output port -**11**	**O11** Pag Bag	Input port - **11**	**I13** Change Recipe
Output port -**12**	**O13** FILL	Input port - **12**	**I12** Empty Material
Output port -**13**	**O14** EMPT	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 Complete		
Output port -**16**	**O16**Over/Under		

Without hopper scale default definition:

Output		Input quantity	
Output port -**1**	**O1** Running	Input port - **1**	**I1** Start
Output port -**2**	**O2** Stopped	Input port - **2**	**I2** Emergency Stop
Output port -**3**	**O3** Coarse Flow	Input port - **3**	**I3** Stop
Output port -**4**	**O4** Medium Flow	Input port - **4**	**I4** Pause
Output port -**5**	**O5** Fine Flow	Input port - **5**	**I5** Zeroing
Output port -**6**	**O6** Bag Lock	Input port - **6**	**I6** Clear Alarm
Output port -**7**	**O7** Result Waiting	Input port - **7**	**I7** BagLock/Unlock Request
Output port -**8**	**O10** (-NZ-)	Input port - **8**	**I8** Clear Total ACUM
Output port -**9**	**O11** Pat Bag	Input port - **9**	**I10** ,Manual Fine Flow
Output port -**10**	**O15** Alarm	Input port - **10**	**I11** Manual Coarse Flow
Output port -**11**	**O13** FILL	Input port - **11**	**I13** Change Recipe
Output port -**12**	**O27** Bag Release	Input port - **12**	**I12** Empty Material
Output port -**13**	**O14** EMPT	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 Complete		
Output port -**15**	**O16** Over/Under		
Output port -**16**	**O44** Sewing Output		

P LC mode default definition:

Output		Input quantity	
Output port -**1**	**O3** Coarse Flow	Input port - **1**	**I5** Zeroing
Output port -**2**	**O4** Medium Flow	Input port - **2**	**I6** Clear Alarm
Output port -**3**	**O5** Fine Flow	Input port - **3**	None(No definition)
Output port -**4**	**O38** Over (PLC)	Input port - **4**	None
Output port -**5**	**O39** Under(PLC)	Input port - **5**	None
Output port -**6**	**O49** upper limite(PLC)	Input port - **6**	None
Output port -**7**	**O41**Lower limite(PLC)	Input port - **7**	None
Output port -**8**	None	Input port - **8**	None
Output port -**9**	None	Input port - **9**	None
Output port -**10**	None	Input port - **10**	None

Output port -**11**	None	Input port - **11**	None
Output port -**12**	None	Input port - **12**	None
Output port -**13**	None	None:No Definition	
Output port -**14**	None		
Output port -**15**	None		
Output port -**16**	None		

Ton scales default definition:

Output		Input quantity	
Output port -**1**	**O1** Running	Input port - **1**	**I1** Start
Output port -**2**	**O2** Stoped	Input port - **2**	**I2** Emergency Stop
Output port -**3**	**O3** Coarse Flow	Input port - **3**	**I3** Stop
Output port -**4**	**O4** Medium Flow	Input port - **4**	**I4** Pause
Output port -**5**	**O5** Fine Flow	Input port - **5**	**I5** Zeroing
Output port -**6**	**O6** Bag Lock	Input port - **6**	**I6** Clear Alarm
Output port -**7**	**O31** Hanging Bag	Input port - **7**	**I8** Clear Total ACUM
Output port -**8**	**O3** Hanger Up	Input port - **8**	**I7** Bag Lock/Unlock Request
Output port -**9**	**O7** Result Waiting	Input port - **9**	**I32** Hanging Request
Output port -**10**	**O10** (-NZ-)	Input port - **10**	**I3** Manual Hanger Up/Down
Output port -**11**	**O33** Return Valve	Input port - **11**	**I19** Manual Fine Flow
Output port -**12**	**O32** AirBlow	Input port - **12**	**I20** Manual Coarse Flow
Output port -**13**	**O15** Alarm	None:No Definition	
Output port -**14**	**O17** Batch Complete		
Output port -**15**	None		
Output port -**16**	None		

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** Coarse Flow	Input port - **3**	**I3** Stop
Output port -**4**	**O4** Medium Flow	Input port - **4**	**I4** Pause
Output port -**5**	**O5** Fine Flow	Input port - **5**	**I5** Zeroing
Output port -**6**	**O6** Bag Lock	Input port - **6**	**I6** Clear Alarm
Output port -**7**	**O 7** Result Waiting	Input port - **7**	**I8** Clear Total ACUM
Output port -**8**	**O17** Batch Completed	Input port - **8**	**I7** Bag Lock/Unlock Request
Output port -**9**	**O10** (-NZ-)	Input port - **9**	**I10** Manual Fine Flow
Output port -**10**	**O11** Pag Bag	Input port - **10**	**I11** Manual Coarse Flow
Output port -**11**	**O13** FILL	Input port - **11**	**I13** Change Recipe
Output port -**12**	**O15** Alarm	Input port - **12**	**I12** None
Output port -**13**	**O16** Over/Under		
Output port -**14**	**O30** Pushing Bag Signal		
Output port -**15**	**O29** Lifting Bag Signal		
Output port -**16**	**O42** Conveyor Start		

3.7.1 Output, input port definition

The output port and input port contents can be defined according to the actual application. Under the ON/OFF

interface:

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

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

ON/OFF content description

Output		
Code	**content**	**Description**
O0	None	If the port number is defined as **0** , this output port is undefined.
O1	Running	When the meter is in the running state, the output port signal is valid.
O2	Stopper	When the meter is in the stop state, the output port signal is valid.
O3	Coarse Flow	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	Medium Flow	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	Fine Flow	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	Bag Lock	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	Result Waiting	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	Ready	After the setting is completed, the output port signal is valid.
O9	Discharge	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	(-NZ-)	When the current weight of the scale is less than the set near zero value, the output port signal is valid.
O11	Pat Bag	Used to control the bag making machine. A pulse signal with a controlled pulse width and number of times.
O12	Cutting Material	This output is valid during the feed and is not valid during the non-feed period .
O13	FILL	The feeding mechanism for controlling the front end of the bagging 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	EMPT	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	Alarm	When the meter has an out-of-tolerance, batch number, etc. alarm, the output port signal is valid.

O16	Over/Under	When the tolerance or undershoot is exceeded, the output signal is defined as valid.
O17	Batch complete	When the set number of batches is completed, the output port signal is valid.
O18	Interlock Output	Used in the double scale mode, connected to the ON/OFF "Double scale interlock input" of another meter.
O19	Filling O/P PU	When the feeding mode is set to stepper motor mode to control the feeding door ON/OFF: 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	Filling O/P DR	When the feeding mode is set to stepper motor mode to control the feeding door ON/OFF: 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	Bag Clutch O/P PU	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	Bag Discharge O/P DR	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	DISC O/P PU	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	DISC O/P DR	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	Filler Open	When the feeding mode is set to the normal motor mode to control the feeding door ON/OFF: 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	Filler Close	When the feeding mode is set to the normal motor mode to control the feeding door ON/OFF: 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	Bag Release	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	DISC Gate Close	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	Lifting Bag Signal	It is used to control the bag-making mechanism, and this signal effectively realizes the bag-lifting action .
O30	Pushing 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	AirBlow	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	Hanger 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	Hanger Down (motor)(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	Convery **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	Convery **B** (this parameter is reserved)	Electric mode, for controlling operation of the belt**B,** the belt **A** is stopped, the signal is valid.
O38	Over(**PLC**)	This signal is valid when it is out of tolerance (**PLC**) .
O39	Under(**PLC**)	This signal is valid when there is a short circuit (**PLC**) .
O40	Upper Limite (**PLC**)	When the weighing value > upper limit value, the upper limit output is valid .
O41	Lower Limite (**PLC**)	When the weighing value < lower limit, the lower limit output is valid .
O42	Conveyor Start	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	Coding	The code signal is output when the pocket signal output is valid and the code delay is over.
O44	Sewing Output	When the sewing machine input is valid, the sewing machine output is valid.
O45	Cutter Output	After the sewing machine output time is over, the output is valid, and the effective time is the tangential machine output time .
O46	Auxiliary PU 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 PU 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 PU 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 PU 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	DISC Patting Output	The output of the discharge rapping function.
O51	User Logic Output **1**	Auxiliary logic **1** output signal.
O52	User Logic Output **2**	Auxiliary logic output signal **2.**
O53	User Logic Output **3**	The output signal of the auxiliary logic output **3** .
O54	User Logic Output **4**	The output signal of the auxiliary logic output **4** .
O55	User Logic Output **5**	The output signal of the auxiliary logic output **5** .
O56	User Logic Output **6**	The output signal of the auxiliary logic output **6** .
O57	Multi-function support control patting bag (ton bag scale mode)	For one - piece control bracket and patting bag. When the patting bag is not executed: this I/O Module is the same as the uplink state of the measuring bracket. When the function of patting bag is on: this I/O Module is opposite to the state of patting bag.(valid patting bag support is invalid, invalid patting bag support is valid).
O58	Conveyor 2 output	Control conveyor 2 output is valid
O59	Conveyor 3 output	Control conveyor 3 output is valid
O60	Conveyor 1 reverse output	Control conveyor 1 reverse output is valid
Input quantity		
I0	None	If the port number is defined as **0** , this input port is undefined.
I1	Start	The signal valid meter will enter the running state.This input is a pulse input signal.

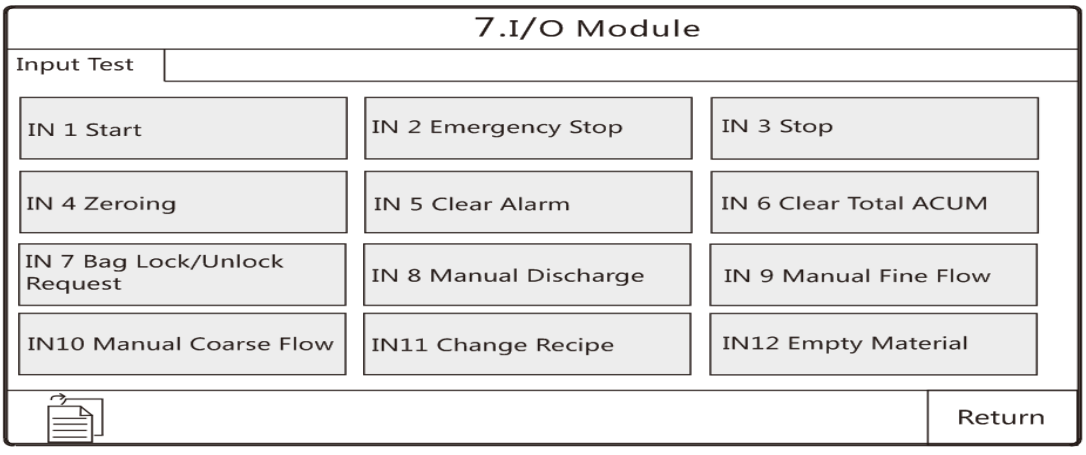
I2	Emergency Stop	The signal valid meter will return to the stop state. This input is a pulse input signal.
I3	Stop	The signal valid meter will return to the stop state after completing the current bagging process. This input is a pulse input signal.
I4	Pause	The signal valid meter will suspend work, retain the current state, and resume working after receiving the start signal. This input is a pulse input signal.
I5	Zeroing	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	Bag Lock/Unlock	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	Clear Total ACUM	Clearing the total accumulated weight and number of times will also clear the recipe accumulation and user accumulation .
I9	Manual Discharge	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 Fine Flow	The input is valid once and the output is valid, and the effective slow input is invalid again.
I11	Manual Coarse Flow	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	Empty 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	Change Recipe	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	Supplement Full	Used to connect the upper level of the hopper, this input should be level input.
I1 5	Supplement Empty	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/E-stop (level Signal)	The signal is valid and the controller enters the running state. If it is invalid, it returns to the stop state. This input is a level signal.
I17	Start/Stop (level Signal)	The signal valid controller enters the running state, and if it is invalid, it returns to the stop state after completing the current bagging process. This input is a level signal.
I18	M Discharge (level Signal)	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	M Fine Flow (level Signal)	The signal is effectively slow and the signal output is valid. The signal is invalid and the slow signal output is invalid.

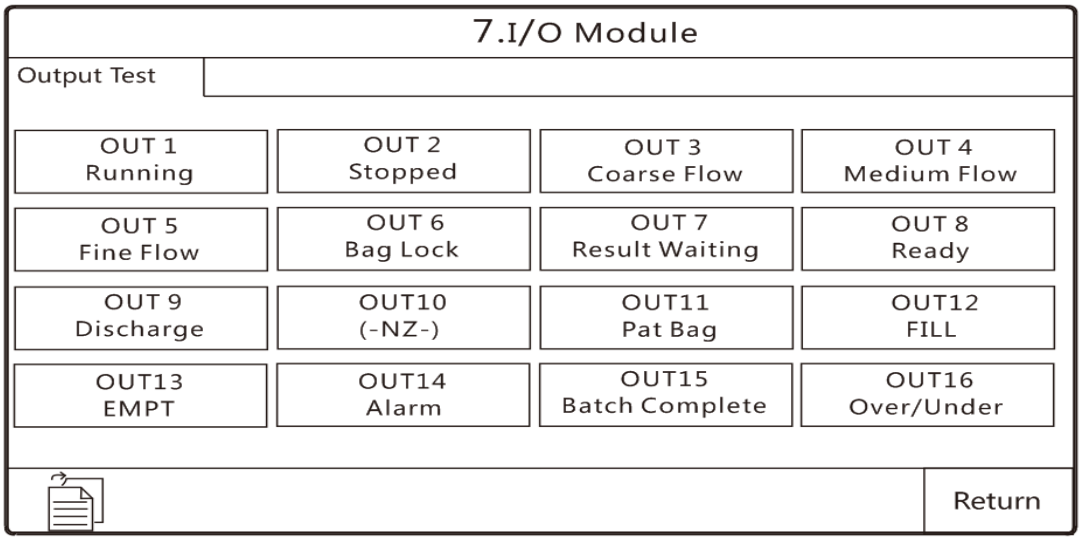
I20	M Coarse Flow(level Signal)	The signal is valid and the signal output is valid. The signal is invalid and the signal output is invalid.
I21	Bag Locked (level Signal)	If this input is defined, it effectively indicates that the pocket is in place, and vice versa . No fighting mode: the folder bag has state, the controller 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	DISC Gate Opended (level Signal)	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 thecontroller detects that the signal is valid, it considers that the discharge door has been opened.
I23	Filler Gate Closed (level Signal)	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 thecontroller detects that the signal is valid, it considers that the feeding door has been closed.
I24	DISC Gate Closed (level Signal)	This signal acts as a limit input signal for the discharge door to close the door. When thecontroller detects that the signal is valid, it considers that the discharge door has been closed.
I25	Bag Released (level Signal)	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 Input	When the digital input is valid, the effective output of the sewing machine is started.
I27	Sewing Emergency	When the digital input is valid, the sewing machine stops outputting.
I28	Auxiliary PU Input **1**	Auxiliary PU Input 1 self defined trigger input signal
I29	Auxiliary PU Input **2**	Auxiliary PU Input 2 self defined trigger input signal
I30	Auxiliary PU Input **3**	Auxiliary PU Input 3 self defined trigger input signal
I31	Auxiliary PU Input **4**	Auxiliary PU Input 4 self defined trigger input signal
I32	Hanger Request	Used to control the movement of the bag mechanism.
I33	Hanger Up Done	The upper limiter for connecting the metering bracket, this input should be a pulse input .
I34	Hanger Down Done	The lower limiter used to connect the metering bracket, which should be a pulse input .
I35	Hanger Lower Limitation	The lower limiter for connecting the metering bracket, this input should be a pulse input .
I36	Convery **A** Stop (this parameter is reserved)	In the electric mode , the stop detection sensor for connecting the belt **A** , which should be a pulse input .
I37	Convery **A** Stop (this parameter is reserved)	In the electric mode, the stop detection sensor for connecting the belt **B** should be a pulse input.

I38	Manual Hanger Up/Dowm	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 ON/OFF "double scale interlock output" used to connect another meter.
I40	Auxiliary logic input 1	Auxiliary PU Input 1 self defined trigger input signal.
I41	Auxiliary logic input 2	Auxiliary PU Input 2 self defined trigger input signal.
I42	Auxiliary logic input 3	Auxiliary PU Input 3 self defined trigger input signal.
I43	Auxiliary logic input 4	Auxiliary PU Input 4 self defined trigger input signal.
I44	Auxiliary logic input 5	Auxiliary PU Input 5 self defined trigger input signal.
I45	Auxiliary logic input 6	Auxiliary PU Input 6 self defined trigger input signal.
I46	Feeding allow input	If the Feeding allow input is defined in the I/O Module, judge whether the Feeding allow input is valid before the feeding process. If it is valid, start the feeding process; if not, wait.
I47	Discharge allow input	Discharge allow input is only for the hopper structure. If discharge allow input is defined in the I/O Module, it is necessary to judge whether the discharge allow input is valid after setting the value. If it is valid, the discharge process will start; if it is not, it will wait.
I48	Conveyor 1 is turning forward	At stop status, manual control conveyor starts turning forward(When the emergency stop signal is valid, the forward turning output of conveyor 1 is invalid)
I49	Conveyor 1 is turning reversal	Control conveyor starts reversal (When the emergency stop signal is valid, the reversal turning output of conveyor 1 is invalid)
I50	Conveyor 2 limit input	Conveyor 2 Limit Signal Type
I51	Conveyor 3 limit input	Conveyor 3 Limit Signal Type

3.7.2 IO test

The user can check whether the controller 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 ON/OFFing 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 ON/OFFing power supply input, wiring, and so on.





3.8 User Logic

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 [Return] to exit the current interface and return to the previous interface.

Auxiliary logic(1~ 6) Programming parameter	parameter	Description
1.Logic Type (1-6)	CLOSE	The type of auxiliary logic programming signal is selected based on the logic to be implemented.
	Delay ON	
	Delay Off	
	Delay ON And OFF	
	OFF-ON,Edge Trigger	
	ON-OFF,Edge Trigger	
2. User Logic **(1-6)** Trigger Define	Self-Define Trigger (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.
	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	After the trigger condition is set , the current weight

	Value Trigger	value is compared with the set weight threshold , and theoutput is triggered when the condition is met .
3. Logic(1-6) Trigger 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. Logic(1-6) Output 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. Logic(1-6) Delay ON Timer	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. Logic(1-6) Delay OFF Timer	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. Logic(1-6) Output ON Timer	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(1-6) Trigger 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 ON/OFF 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 ON/OFF 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:

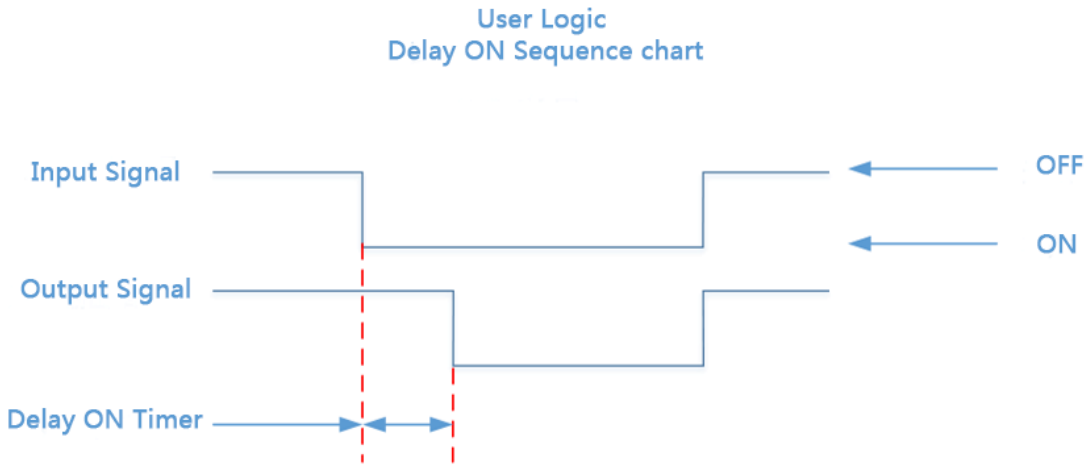
● When the delay is turned on [fixed input port trigger], the operation is as follows:

1. Set parameters and ON/OFF 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 ON/OFF 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 controller 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.

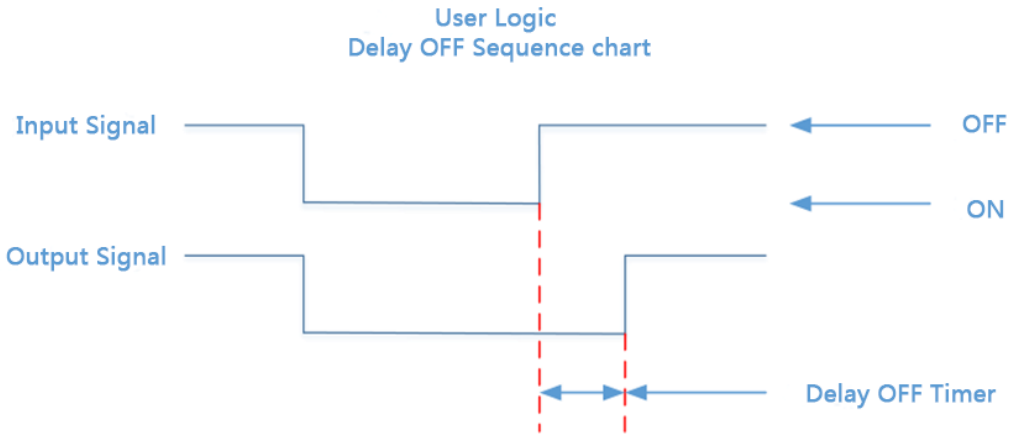
● When the delay is turned on [ON/OFF output definition trigger], the operation is as follows:
1. Set parameters and ON/OFF quantity: trigger signal select “Run” (ON/OFF output can define or not define running signal), logic output port is defined as 1 (can see that ON/OFF output port 1 is displayed 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 ON/OFF 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 .



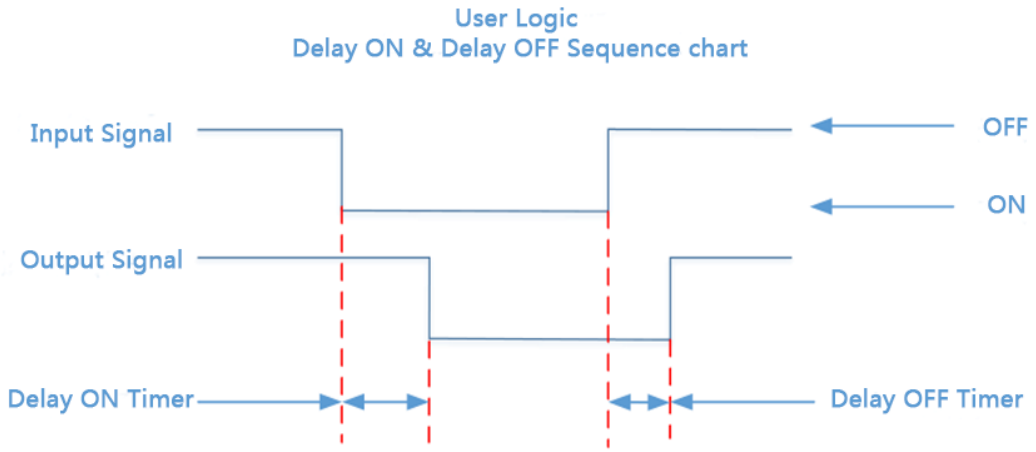
3.8.2 delay off

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:



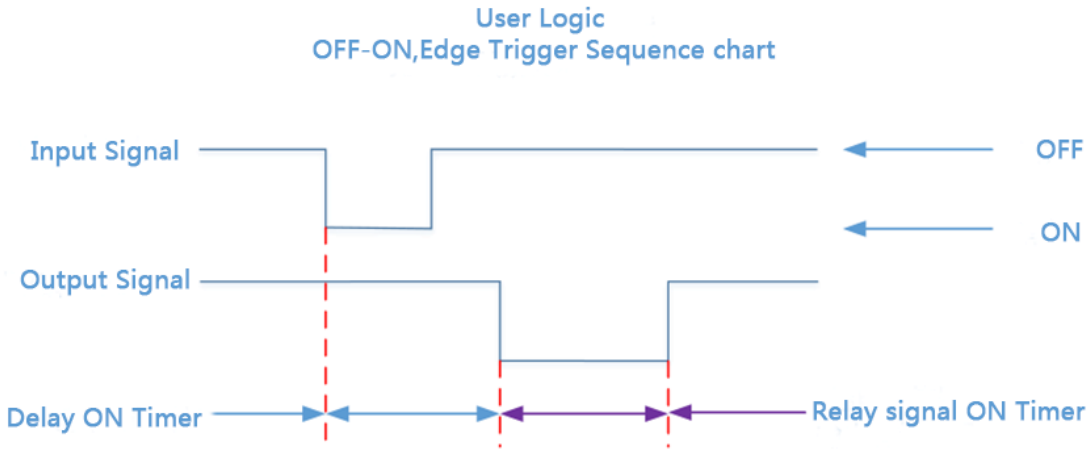
3.8.3 delay on and delay off

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:



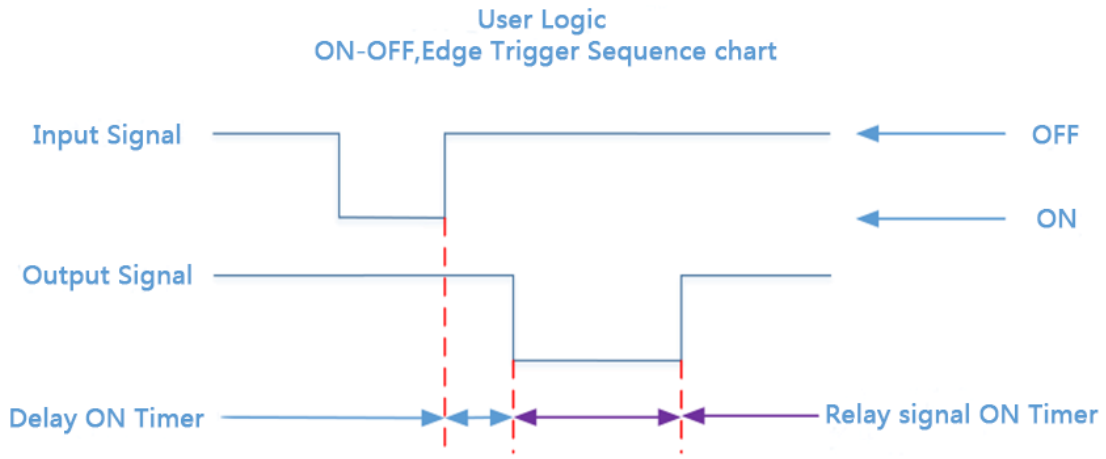
3.8.4 invalid - valid edge triggered

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 Manage

Technician and administrator can use the "User Management" item to perform user ON/OFFing , 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 [Return] 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 controller caused by the malfunction of the controller, the **GM9907** bagging controller provides **three** levels of authority (operator, Technician and administrator) to choose: where the **administrator can perform all operations on the meter** (not open to the user) . Operator and Technician permissions are as follows:

User level	**Permission**
Operator	Quantitative values of the parameters can be set, can be calibrated, can be modified, the test ON/OFF, and is not limited in cumulative batch menu. Otherparameters can be viewed, but not to modify.
Technician	You can not perform all the functions of "Reset / Backup" page.
Administrator	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 theTechnician, **9** is Administrator (highest authority).
User Edit	**1.** User Login	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 ON/OFF	"On/Off" is optional. When set to off, the current login user does not need to enter a password when logging in.
	4. Logic 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.
Auto Logic	Auto Logic	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 Info.

Technician and administrator 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 [Return] to exit the current interface and return to the previous interface.

System information	**Information child**	**Description**
System Version	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 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 ON/OFF is fixed to "on". Initial password:**000000**
	2. Sys&Com Password	
	3. Peripherals Parameter Password	
	4. Motor Parameter Password	
	5.Calibration Password	
	6. ACUM Clear Password	
	7. I/O Module Setting Password	
	8. User Logic Password	
	9. System Info. Password	
Reset/ Backup	**1.** Reset All (including calibration)	Click this to restore all the parameter values of the controller to the factory settings. Brightness reset to 70% (except system information)
	2. Reset All (Except calibration)	Click the recovery in addition to the calibration parameter other parameters to the factory defaults.Brightness reset to 70% (except system information)
	3. Reset Recipe Parameter	Click this to restore the recipe parameter value to the factory setting.
	4. Reset Sys&Com Parameter	Click this to restore thesystem and communicationparameter values to the factory settings.

	5.Reset Peripherals Parameter	Click this to restore the peripheral parameter values to the factory settings.	
	6. Reset Motor Parameter	Click this to restore the motor parameter value to the factory setting.	
	7. Reset Calibration Parameter	Click this to restore the calibration scale parameter value to the factory setting value.	
	8 Reset I/O Module	Click this to restore the ON/OFF definition parameter value to the factory setting value.	
	9. Reset User Logic Parameter	Click this to restore theauxiliary logic parameter value to the factory setting value.	
	10.Reset Shortcut Setting	Click this to restore the shortcut key to the factory setting value.	
	11. Execute Parameter Backup	Click on the meter to back up the current parameter settings.	
	12. Execute Recovery From Backup	Click the meter to restore the parameter value to the most recent backup value.	
	13. Execute Delete Backup	Click the meter to delete the backed up parameters.	
USB Data Export	**1.** All parameter	Export all parameters from **USB** .	
	2. Recipe Parameter	Export recipe parameters from**USB** .	
	3. Sys&com parameter	Export system and communication parameter from **USB** .	
	4. Peripherals parameter	Export peripheral parametersfrom **USB** .	
	5. Motor parameter	Export motor parameters from **USB**.	
	6. Calibration Parameter	Export calibration scaleparameters from **USB** .	
	7. ACUM Data	Cumulative export parametersfrom **US B.**	
	8. I/O Module	Export the ON/OFF parametersfrom **USB** .	
	9.User Logic Parameter	Export auxiliary logicparameters from **USB** .	
	10. Shortcut Setting	Export shortcut key parametersfrom **USB** .	
USB Data Import	**1.** All parameter	Import all parameters from **USB** .	
	2. Recipe Parameter	Import recipe parameters from**USB** .	
	3. Sys&com parameter	Import system and communication parameter from **USB** .	
	4. Peripherals Parameter	Import peripheral parameter from **USB** .	
	5. Motor parameter	Import motor parameters from **USB**.	
	6. Calibration Parameter	Import calibration scale parameter from **USB** .	
	7. I/O Module	Import cumulative parametersfrom **USB** .	
	8. User Logic Parameter	Import the ON/OFF parametersfrom **USB** .	
	9. shortcut Setting	Import auxiliary logicparameters from **USB** .	
Shortcut Setting	**1.** Shortcuts - **1**	value	This is Initial 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
	2. Shortcuts - **2**	time parameter	
	3. Shortcuts - **3**	weighing parameter	
	4. Shortcuts - **4**	Weighting Calibration	
	5. Shortcuts - **5**	Motor Parameter	

	6. Shortcuts - **6**	Filling parameter	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.
	7. Shortcuts - **7**	Input Test	
	8. Shortcuts - **8**	Output Test	
Other Setting	**1.** Language	ON/OFF between Chinese and English. Initial value: Simplified Chinese; **0** : Simplified Chinese; **1** :**English .**	
	2. Brightness	Screen brightness selection.Initial value: **3:70%** Optional: **0:10%** ; **1:30% ; 2:50%** ; **3:70%** ; **4:80%** ; **5: 100%** .	
	3. Screen Save 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	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, Ton 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 controller has a feeding control function, and the control principle is: when the upper and lower material level inputs are invalid, the controller 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.

4.3.2 Single Level

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

(Note: this controller does not support NTFS format usb flash drive)

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 controller display screen and stopped the U disk plug in the controller's USB port, it will automatically pop-up "system prompt" dialog box: "○ Update firmware ○ Change Logo screen Enter cancel”
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 controller 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 controller 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 controller display screen and stopped the U disk plug in the controller's USB port, it will automatically pop-up "system prompt" dialog box: "○ Update firmware ○ Change Logo screen Enter cancel ";

4.	According to remind click Update [boot interface], it becomes ○ ●,pictures start the update process, after the upgrade, the controller 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 controller automatically restarts.

4.8 Decoupling function

Decoupling formula parameters of ton bag scale parameters, the decoupling upstream ON/OFF is opened:

Setting value after feeding, unlock bag, control equipment bracket downward, downward after, take off the hook, the conveyor start, after decoupling before delay on bracket start up, decoupling upward duration, then execute the uplink pause time, pause time arrives, stent decline, time duration for decoupling.

Decoupling alarm:

If the uncoupled alarm ON/OFF is opened, during this process, if the current weight value is greater than the uncoupled alarm weight value, the machine will stop and the uncoupled alarm will be stopped.The conveyor performs reversal.

Note: This function is mainly used for prevention. After the feeding, the bag can't take off the hook completely. When the conveyor is running, the current weight value will suddenly increase, resulting in controller damage

4.9 Running mode of bracket

Running mode of bracket：Air Drive-unlimit、Motor Drive-dual limit、Air Drive-dual limit

Air Drive-unlimit

I/O Module: bracket uplink

When the metering bracket is mounted, the uplink output of the metering bracket is effective. After the uplink delay time of the metering bracket, the uplink of the metering bracket is in place. (During operation, after ascending to position, the meter can start peeling and feeding, etc.)

When the measuring support goes down, the uplink output of the measuring support is invalid. After the delay time of the measuring support goes down, the support goes down in place.(In operation, the meter can start to take off the hook after the downlink is in place)

Motor Drive-dual limit：

I/O Module input: support up in place, support down in place. I/O Module output: metering support up, metering support down.

When the measuring support is mounted, the uplink output of the measuring support is effective, while the downlink output of the measuring support is invalid. Wait for the uplink of the measuring support to be in place. If the support is still not in place within the uplink timeout period, the rising timeout alarm will be given.After the up-flow is in place, the up-flow output of the metering support and the down-flow output of the metering support are invalid

When the metering support is in the downward direction, the downstream output of the metering support is effective, while the upstream output of the metering support is invalid. If the support is still not in the downward direction within the downward timeout period of the support, the downward timeout alarm will be given.When the downlink is in place, the downlink output of the metering support and the uplink output of the metering support are both invalid

Air Drive-dual limit：

I/O Module input: support up in place, support down in place. I/O Module output: metering support up, metering support down.

When the measuring support is mounted, the uplink output of the measuring support is effective, while the downlink output of the measuring support is invalid. Wait for the uplink of the measuring support to be in place. If the support is still not in place within the uplink timeout period, the rising timeout alarm will be given.After the up-flow is in place, the up-flow output of the metering support is effective, while the down-flow output of the metering support is invalid

When the metering support is in the downward direction, the downstream output of the metering support is effective, while the upstream output of the metering support is invalid. If the support is still not in the downward direction within the downward timeout period of the support, the downward timeout alarm will be given.When the downlink is in place, the downlink output of the metering support is effective, while the up-link output of the metering support is invalid

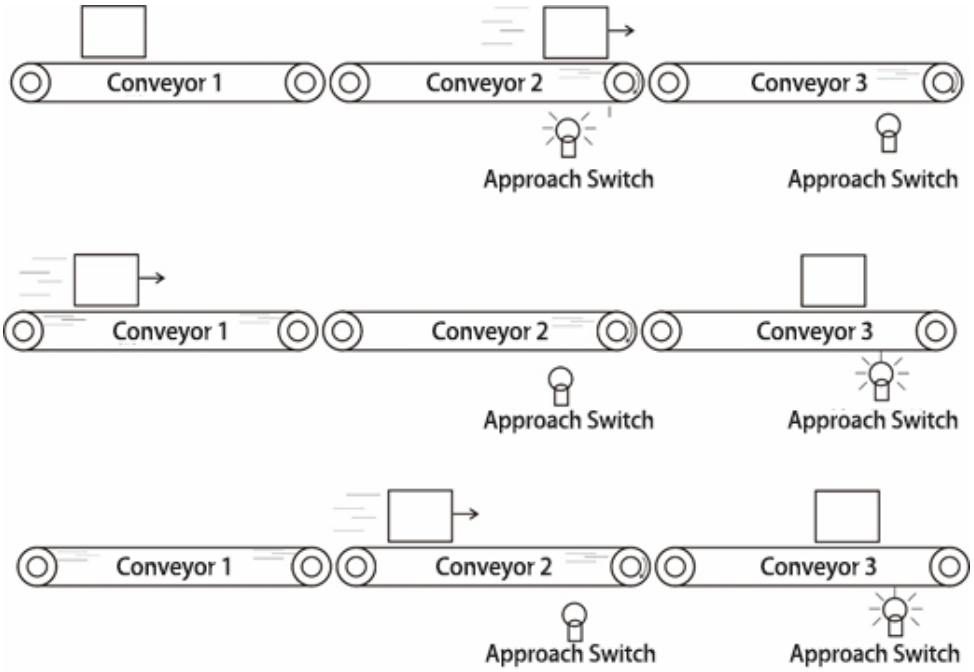
4.10 Use method of 3- class conveyor for ton baling scale

Three conveyors are placed under the ton-bale balance. Conveyor No. 1 is placed under the ton-bale balance. One bag of materials is placed on conveyor 1 after decoupling.Conveyer 2 is behind conveyer 1.Conveyer 3 is behind conveyer 2.There is a limit switch (approach switch) at the end of conveyor 2 and 3 respectively.

1) If the limit switch (approach switch) of conveyor 3 is invalid, then conveyor 2 and Conveyor 3 will rotate to transport materials to conveyor 3. When the limit switch (approach switch) of conveyor 3 is effective, the rotation of conveyor 3 will stop.Similarly, conveyor 1 transports materials to conveyor 2.

2) When the upper limit switch (proximity switch) of conveyor 2 is in effect, conveyor 1 cannot start operation even though it has been disconnected.When the limit switch (proximity switch) of conveyor 2 is invalid, conveyor 1 rotates to transport materials to conveyor 2.

3) When there are materials in conveyor 3 and Conveyor 2, the forklift truck can shovel the materials away and wait for the next start and rotation.



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 - 23 2** 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 Auto print

In the **print** mode, the automatic print ON/OFF 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 English 24 column print format is as follows:	**The English 32 column print format is as follows:**
Packing Detail Unit : kg Recipe ID : 20 Total ACUM PCS Result ---------- 1 5.50 2 5.50	Packing schedule Unit: kg Recipe number: 20 Total ACUM PCS Target Result ---------- 3 5.60 5.50 4 6.00 5.80

5.1.2 total cumulative printing

The English 24 column print format is as follows:	**The English 32 column print format is as follows:**
Total ACUM report Time: 2018/6/19 13:28 Unit: kg ---------- PCS: 18 Wt: 84.16 ----------	Total ACUM report Time: 2018/6/19 13:36 Unit: kg ---------- PCS: 24 Wt: 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 controller will automatically skip the cumulative recipe **0** does not print. The format is as follows:

The English 24 column print format is as follows:	**The English 32 column print format is as follows:**
All Recipe ACUM Report Time: 2018/6/19 13:29 Unit: kg ------------------------ Recipe ID: 20 PCS: 18 Wt: 84.16 ------------------------	All Recipe ACUM Report Time: 2018/6/19 13:36 Unit: kg -------------------------------- Recipe ID: 20 PCS: 24 Wt: 129.40 --------------------------------

5.1.4 user cumulative printing

In the printing mode, stop the state and enter the “Accumulate and Batch” interface. ON/OFF 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 English 24 column print format is as follows:	**The English 32 column print format is as follows:**
All User ACUM Report Time : 2018/6/19 13:29 Unit : kg ------------------------ User ID : 9 PCS : 16 Wt : 72.26 ------------------------	All User ACUM Report Time: 2018/6/19 13:37 Unit: kg -------------------------------- User ID: 9 PCS: 22 Wt: 117.50 --------------------------------

5.2 continuous mode data frame format

STX	**COM ID.**	**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 Re-cont specific protocol

In this way, there is no need to send any command to the weighing display, and the display will automatically send the collected data to the computer

Return data frame format description:

State	,	**GS/NT**	,	+/-	Displayed value	Unit	**CR**	**LF**
2Units	**2C**	**47 53/4E 54**	**2C**	**2B/2D**	**7Units**	**20 67(g)/ 6B 67(kg)/ 20 74(t)/ 6C 62(lb)**	**0D**	**0A**

Note:

State—2Units, OL(spill): 4FH 4CH;ST(stable):**53H 54H;US**(unstable):**55H 53H**

GW/NW——**2**Units，**GS/NT**: **47 53/4E 54**

Displayed value—— **7** Units，Include decimal point，If there is no decimal point, the high value is a space

For example:

When the weighing display automatically sends the following frame of data:

53 54 2C 47 53 2C 2B30 31 31 2E 31 32 306B 67 0D 0A

The current state is stable, the data value is positive, and the display value is 11.120kg

5.3.1 abnormal function code and code

◆ Function code supported by the controller:

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 controller 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 controller only supports the above MODBUS function code. When the controller performs other function codes, the meter will not respond.

◆ MODBUS exception code response

Code	name	meaning
02	Illegal data address	For the controller, 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 (single /double) byte	**COM ID.**	**function code**	**Data address**	**Number of data read**	**CRC check 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	**COM ID.**	**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	The meter displays the gross weight value, signed integer	
0001	**4 000 2**			
0002	**4 000 3**	net	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	Coarse Flow
			. 3	Medium Flow
			. 4	Fine Flow
			. 5	Result Checking
			. 6	Ready
			. 7	Discharge
			. 8	(-NZ-)
			. 9	Over
			. 10	Under
			. 11	Qualified(合格)
000 9	**4 0 0 10**		**. 12**	OVER/UNDER Pause
			. 13	Bag Lock
			. 14	Lifting Bag (valve)
			. 15	Pushing bag (valve)
			. 16	Hanging bag (ton pack)
			. 17	AirBlowing (ton pack)
			. 18	Return Valve (ton pack)

			. 19	Hanger Up (ton pack)
			. 20	Hanger Down (ton pack)
			. 21	Upper limite (**PLC**mode)
			. 22	Lower limite (**PLC**mode)
			. 23	Batch complete
			. 24	Alarm
			. 25	Gross weight status: **1 :** Net **:0** : Gross
00 10	**4 0 0 11**	Control state **2**	**. 0**	Dual scale Interlock Output (interlock mode)
			. 1	Supplement Full
			. 2	Supplement Empty
			. 3	FILL
			. 4	EMPT
			. 5	Cutting Material
			. 6	Pat Bag
			. 7	Coding
			. 8	DISC Patting Output
			. 9	Conveyor Start
			. 10	Sewing output
			. 11	Cutter Output
			. 12	Auxiliary PU Output **1**
00 11	**4 0 0 12**		**. 13**	Auxiliary PU Output **2**
			. 14	Auxiliary PU Output **3**
			. 15	Auxiliary PU Output **4**
			. 16	User Logic Output **1**
			. 17	User Logic Output **2**
			. 18	User Logic Output **3**
			. 19	User Logic Output **4**
			. 20	User Logic Output **5**
			. 21	User Logic Output **6**
			. 22	Convery **A** (ton pack)
			. 23	Convery **B** (ton pack)
			. 24	Manual Fine Flow
			. 25	Manual Discharge
00 12 ~0 013	**4 0 0 13 ~ 4 00 14**	Reserved		
00 14	**4 0 0 15**	Automatic clear alarm	**. 0**	Target Value Can Not Be 0
			. 1	Can Not Run When Weight OFL
			. 2	Over Zero Range!
			. 3	Non-Stable
			. 4	Over/Under Alarm
			. 5	Beyond Discharge gate

				Limitation
			. 6	Reserved
			. 7	Running，Zero Disabled
			. 8	Over Zero Range When AutoZero
			. 9	Automatic zeroing instability
			. 10	Filler Gate Close Err
			. 11	DISC Gate Close Err
			. 12	Fi-Filling Gate Open Width Not be 0
0 0 15	**4 0 0 16**		**. 13**	Me-Filling Gate Open Can Not Narrower Than Fi-Filling
			. 14	Co-Filling Gate Open Can Not Narrower Than Me-Filling
			. 15	Co-Filling Gate Open Can Not Narrower Than Fi-Filling
			. 16	Running Stable Timeout
00 16 ~0 019	**4 00 17 ~ 4 00 20**	Reserved		
			. 0	Batch Completed!
			. 1	Over/Under Pause
			. 2	Filling Gate Close OverTime t
			. 3	Bag Lock OT
0020	**4 00 21**		**. 4**	Bag Unlock OT
			. 5	DISC Gate Close Overtime
			. 6	DISC Gate Open OverTime
		Manually clear the alarm	**. 7**	Reserved
			. 8	Reserved
			. 9	Internal Communication Failed
			. 10	Coarse Flow OT
0021	**4 0 0 22**		**. 11**	Medium Flow OT
			. 12	Manual Fine OT
			. 13	Discharge OT
			. 14	Discharge Patting OT
0022 ~0025	**4 0 0 2 3 ~ 4 00 26**	Reserved		
			N/A	
			.1	Capacity Low
			.2	Capacity Over
			.3	Zero Voltage Over
0026	**4 0 0 27**	Calibration alarm	.4	Zero Voltage Low
			.5	Input Unstable
			.6	Gain Voltage Over
			.7	Gain Voltage Low
			.8	Input Unstable

			.9	Weight Error
			.10	Over Resolution
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 00 55**	Previous package time		Coarse timer + medium timer +fine timer + Result Waiting timer + Discharge timer + Filling Start Delay timer
0055	**4 00 56**	Previous bag weight		
0056	**4 00 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	**4 00 62**	Filling Start Delay		
0062~0099	**40063~ 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** ; **1： 0.0**; **2： 0.00**;**3： 0.000**；**4： 0.0000** .	
0 102	**4 0103**	Resolution	Initial value: **1** ; Optional: (**1/ 2/ 5/ 10/ 20/ 50**) .	
0103	**4 0104**	Full Scale	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 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 0111**			
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**	Controller 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**		
0118	**40119**	Feeding time	Initial Value:0.0s Write range:0~99.9s
0119	**40120**		
0120	**40121**	Material calibration	Write the weight value corresponding to the gain millivolts;Press "manual discharge" to record the current relative millivolt, and use the two to calibrate the gain when writing this register; Return 0000H on read.
0121	**40122**		
0 122~ 0199	**4 0123~ 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**	Stable Timer	Initial value: **0.3** ; range: **0.1~9.9**. (unit **s**)
0 202	**4 0203**	Zero Range	Initial value: **50** ; Range : **1 -99**units: %
0 203	**4 0204**	Zero Track Range	Initial value: **0** ; Range : **0-9**Unit: d
0 204	**4 0205**	Zero Track Time	Initial value: **2.0** ; range:**0.1~99.9** . (unit **s**)
0 205	**4 0206**	Sampling Rate（SPS）	Initial value: **2 ;** Optional: **0: 120** times / sec; **1**:**24 0** times / sec; **2**: **480** times / sec; **3: 960** times / sec.
0206 ~ 0249	**4 0207~ 40250**	Reserved	
System and communication parameters - filter parameters			
0 250	**4 0251**	Digital Filter	Initial value: **7** ; Range: **0 to 9**
0 251	**4 0252**	Advance Filter ON/OFF	Initial value: **0** ; **1** : On **0** : Off
0 252	**4 0253**	Dynamic Filter	Initial value: **0** ; **1** : On ; **0** : Off
0 253	**4 0254**	Filling Filter Level	Initial value: **2** ; Range: **0 to 9**
0254	**4 0255**	Waiting Process Filter	Initial value: **7** ; Range: **0 to 9**
0 255	**4 0256**	Discharge Process Filter	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-Up Zero	Initial value: **0** ; **1** : On ; **0** : Off
0 301	**40302**	Auto Zero Interval	Initial value: **0** ; Range : **0-99** has the bucket tocomplete the packing and then clear the current weight.
0 302	**40303**	Running Stable Timeout	The initial value is **0** ; therange is **0 to 9 9.9 .** (unit **s**)

0 303	**40304**	Result Checking Mode	Initial value: **0 ;** (range: **0** , **1**) **0 :** Stable Status ; **1 :** Delay Timer
0 304	**40305**	Add toTotal When Manual Discharge	Initial value: **0** ; **1** : On ; **0** : Off
0 305	**40306**	Result Holding	Initial value: **0** ; **1** : On ; **0** : Off
0 306	**40307**	Adaptive Level	Initial value: **3** ; Range: **1 ~ 5**
0 307	**40308**	Adaptive ON/OFF	Initial value: **0** ; Range: **0 ~ 2**
0308	**40309**	Manual clutch ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off
0309	**40310**	Bracket running control ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off
0310	**40311**	Hang bag running control ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off
0311	**40312**	Hang bag OFF logic ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off
0312	**40313**	Gross weight detect ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off
0313 ~ 0349	**40314 ~ 40350**	Reserved	
System and communication parameters - structural parameters			
0 350	**40351**	Weigher Structure	Initial value: **0** ; **0 :** With Hopper; **1 :** No Hopper; **2 : PLC** mode; **3:** ton scale; **4 :** Valve scale.
0 351	**40352**	Working Mode	Initial value **: 0 ;** **0:** single scale; **1:** Dual Scale: Master **;2:** Dual Scale: Slave
0 352	**40353**	Packing Mode	Initial value: **1 ;** **0:** Gross ; **1:**Net
0 353	**40354**	Hanger Movement Type	Initial value: **0 ;** **0** : Air Drive; **1** : Motor Drive
0 354	**40355**	Filling Mode	Initial value: **1 ;** **0** : Solo Filling; **1** : Combination Filling
0 355	**40356**	Dual Scale Unlock Bag Mode	Initial value: **0 ;** **0** : Asynchro Unlock; **1** : Synchro Unlock1; **2** : Synchro Unlock2.
0 356~ 0499	**4035 7~ 40500**	Reserved	
Recipe parameters - quantitative value parameters (reserved **500~100 0**)			
0 500	**40501**	Recipe ID	Initial value **1** ; range: **1 to 20**
0 501	**40502**		
0 502	**40503**	Target	Weight value writing range : ≤**maximum range**
0 503	**40504**		
0 504	**40505**	Coarse Flow Remains	
0 505	**40506**		

0 506	**40507**	Medium Flow Remains	
0 507	**40508**		
0 508	**40509**	Free Fall	
0 509	**40510**		
0 510	**40511**	Near Zero Band	
0 511	**40512**		
0512	**40513**	Adaptive Level	Initial value **3** ; range: **1 to 5**
0513	**40514**		
0514	**40515**	Adaptive ON/OFF	Initial value **0** ; range: **0 to 2**
0515	**40516**		
0 516~ 0549	**40517 ~ 40550**	Reserved	
Recipe parameter - time parameter			
0 550	**40551**	Filling Start Delay	Initial value: **0. 5** ; range: **0 to99.9 .** (unit **s**)
0 551	**40552**	COMP.Inhibit Timer(Co-F)	**.** Initial value: **09;** range: **0 to99.9.** (unit **s**)
0 552	**40553**	COMP.Inhibit Timer(Me-F)	Initial value: **0. 9** ; range: **0 to99.9 .** (unit **s**)
0 553	**40554**	COMP.Inhibit Timer(Fi-F)	Initial value: **0. 9** ; range: **0 to99.9 .** (unit **s**)
0 554	**40555**	Result Waiting Timer	Initial value: **0. 5** ; range: **0 to99.9 .** (unit **s**)
0 555	**40556**	Bag Locked Delay Timer	Initial value: **0. 5** ; range: **0 to99.9 .** (unit **s**)
0 556	**4 0557**	Unlock Bag Pre-Delay Timer	Initial value: **0. 5** ; range: **0 to99.9 .** (unit **s**)
0 557	**40558**	Discharge Delay Timer	Initial value: **0. 5** ; range: **0 to99.9 .** (unit **s**)
0 558~ 0599	**40559~40600**	Reserved	
Over/Under Parameter			
0 600	**40601**	OVER/UNDER ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off
0 601	**40602**	OVER/UNDER Pause	Initial value: **0** ; **1** : On ; **0** : Off
0 602	**40603**	OVER/UNDER Alarm Timer	Initial value: **10; range: 0 ~999.** (unit **s**)
0 603	**40604**	Over Limit Value	Weight value writing range : ≤**maximum range**
0 604	**40605**		
0 605	**40606**	Under Limit Value	
0 606	**40607**		
0 607	**40608**	Compensation ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off.
0 608	**40609**	Compensation Times	First: **1;** range: **1 ~ 99.**

0 609	**40610**	Flow-ON Times	Initial value: **0.5** ; range: **0 to 99 .9** . (unit **s**)
0 610	**40611**	Flow-OFF Times	Initial value: **0.5** ; range: **0 to 99 .9** . (unit **s**)
Auto Free Fall Correction Parameter			
0 611	**40612**	Auto Free Fall Correction ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off .
0 612	**40613**	Reference Samples PCS	Initial value: **1** ; Range: **1~99** .
0 613	**40614**	Correction Effective Range	Range: **2.0** ; Range: **0 to 9.9** (unit:**%**)
0 614	**40615**	Correction Percentage	Initial value: **1** ; Optional: **0--100 %** correction; **1--50%** correction; **2 - 25%**correction.
Jog Flow Parameter			
0 615	**40616**	Jog Flow ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off .
0 616	**40617**	Jog Flow-ON Timer	Initial value **: 0.5** ; range: **0 to9.9** . (unit **s**)
0 617	**40618**	Jog Flow-OFF Timer	Initial value **: 0.5** ; range: **0 to9.9** . (unit **s**)
With Hopper Parameter			
0 618	**40619**	Single scale combination Times	First: **1;** range: **0 ~ 99.**
0 619~ 0649	**40620 ~ 40650**	Reserved	
No Hopper Scale Parameter			
0 650	**40651**	Next Lock Bag Start Delay Time	Initial value : **4.0** ; range: **0 to 99 .9** . (unit **s**)
0 651~ 0699	**40652~40700**	Reserved	
PLC Parameter			
0 700	**40701**	PLC-OverLimit Value	**0 ~ Full Scale**
0 701	**40702**		
0 702	**40703**	PLC-UnderLimit Value	**0 ~ Full Scale**
0 703	**40704**		
0 704	**40705**	PLC-UpperLimit Value	**0 ~ Full Scale**
0 705	**40706**		
0 706	**40707**	PLC-LowerLimit Value	**0 ~ Full Scale**
0 707	**40708**		
0 708~ 0749	**40709~40750**	Reserved	
Ton Scale Parameter			
0 750	**40751**	Hang Up Bag Delay	Initial value **: 0.5** ; range: **0 to 99.9** . (unit **s**)
0 751	**40752**	Auto Hanger ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off
0 752	**40753**	Delay Before Hanger Rise	Initial **value: 5.0;** range: **0 ~ 99.9.** (unit **s**)

0 753	**40754**	Delay Before Hanger Drop	Initial **value: 5.0;** range: **0 ~ 99.9.** (unit **s**)
0 754	**40755**	Hanger Rise Time Limitation	Initial **value: 5.0;** range: **0 ~ 99.9.** (unit **s**)
0 755	**40756**	Hanger Drop Time Limitation	Initial **value: 5.0;** range: **0 ~ 99.9.** (unit **s**)
0 756	**40757**	Fan Rotating Time	Initial value **: 0.5** ; range: **0 to 99.9** . (unit **s**)
0 757	**40758**	Decoupled up ON/OFF	Initial value: **0**; **1**: On; **0**: Off.
0 758	**40759**	Uncoupled alarm ON/OFF	Initial value: **0**; **1**: On; **0**: Off.
0759	**40760**	Hang bag reset delay	Initial value: **0.0**; range: **0 to 99.9**. (unit **s**)
0760	**40761**	Blow	Initial value: 0. 0: Uplink delay before blowing 1: Uplink delay after blowing
0761	**40762**	Selection of return valve mode	Initial value: 0; 0: Close the return valve after feeding; 1: close the return valve after unlock bag
0762	**40763**	Second unlink delay	Initial value: **0.0**; range: **0 to 99.9**. (unit **s**)
0763	**40764**	Second unlink timer	Initial value: **0.0**; range: **0 to 99.9**. (unit **s**)
0764	**40765**	Second uplink pause timer	Initial value: **0.0**; range: **0 to 99.9**. (unit **s**)
0765	**40766**	Conveyor reversal timer	Initial value: **0.0**; range: **0 to 99.9**. (unit **s**)
0766	**40767**	Weight value of decoupling alarm	0~maximum range
0766	**40768**		
0 767~ 0799	**40769~40800**	Reserved	
Valve Scale Parameter			
0 800	**40801**	Delay Before Lifting Bag	Initial value **: 0.5** ; range: **0 to 99.9** . (unit **s**)
0 801	**40802**	Lifting Bag Timer	Initial value **: 0.5** ; range: **0 to 99.9** . (unit **s**)
0 802	**40803**	Delay Before Pusing Bag	Initial value **: 0.5** ; range: **0 to 99.9** . (unit **s**)
0 803	**40804**	Pushing Bag Timer	Initial value **: 0.5** ; range: **0 to 99.9** . (unit **s**)
0 804~ 0999	**40 805~ 41000**	Reserved	
Patting Parameter (reserved **1000~1200**)			
1000	**41001**	Patting Mode	Initial value: **0** ; Optional: **0** : Disable ; **1 :** After Waiting ; **2 :** When Filling ; **3:** All time . With Hopper Can Write: **0,1 ;**

			No Hopper Can Write: **0~3 .**
1001	**41002**	Start-Up Weight	Initial value: **0** ; Range: **0** ~Maximum range.
1002	**41003**		
1003	**41004**	Patting Times(Filling)	Initial value: **0** ; range: **0~99** . Set the parameters for the number of shots in the feed .
1004	**41005**	Patting Times(Waiting)	Initial value: **4** ; Range: **0~99** . Set the parameters for the number of shots after the value is set .
1005	**41006**	Patting Start Delay Timer	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**	Patting ON Timer	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**	Patting OFF Timer	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 ON Timer	Initial value: **0** ; range **: 0~99.9** .(unit **s**)
1009	**41010**	Pat bag starting weight 1	
1010	**41011**		
1011	**41012**	During feeding pat bag 1	
1012	**41013**	Pat bag starting weight 2	
1013	**41014**		
1014	**41015**	During feeding pat bag 2	
1015~1019	**41016~ 41020**	Reserved	
Coding Parameter			
1020	**41021**	Coding Device ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off .
1021	**41022**	Coding Start Delay Timer	Initial value: **0. 5** ; range: **0 to 99 .9** . (unit **s**)
1022	**41023**	Coding Duration Timer	Initial value: **0. 5** ; range: **0 to 99 .9** . (unit **s**)
1023	**41024**	Not Allow Fill/Discharge When Coding	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	
Sewing Parameter			
1030	**41031**	Sewing Start Delay Timer	Initial value: **0. 5** ; range: **0 to 99 .9** . (unit **s**)

1031	**41032**	Sewing ON Timer	Initial value: **4.0** ; range: **0 to 99 .9** . (unit **s**)
1032	**41033**	Cutter ON Timer	Initial value: **0. 5** ; range: **0 to 99 .9** . (unit **s**)
1033	**41034**	Sewing Stop Delay	Initial value: **0. 5** ; range: **0 to 99 .9** . (unit **s**)
1034	**41035**	Cutter Start Delay	Initial value: **0. 5** ; range: **0 to 99 .9** . (unit **s**)
1035	**41036**	Sewing Debounce Timer	Initial value: **0. 3** ; range: **0 to 99 .9** . (unit **s**)
1036~1039	**41037~41040**	Reserved	
Discharge Patting Parameter			
1040	**41041**	Discharge Patting ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off .
1041	**41042**	Discharge ON Timer	Initial value: **2. 0** ; range: **0 to9.9** . (unit **s**)
1042	**41043**	Discharge Patting ON Timer	Initial value: **0. 5** ; range: **0 to9.9** . (unit **s**)
1043	**41044**	Discharge Patting OFF Timer	Initial value: **0. 5** ; range: **0 to9.9** . (unit **s**)
1044	**41045**	Discharge Patting Times	Initial value: **10** ; Range: **0 to 99 .**
1045~1049	**41046~41050**	Reserved	
Filling/Discharge Overtime			
1050	**41051**	Overtime Checking ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off .
1051	**41052**	Coarse Flow Overtime	Initial value: **5.0 ;** range: **0 to 99 .9** . (unit **s**)
1052	**41053**	Medium Flow Overtime	Initial value: **5.0 ;** range: **0 to 99 .9** . (unit **s**)
1053	**41054**	Manual Fine Overtime	Initial value: **5.0 ;** range: **0 to 99 .9** . (unit **s**)
1054	**41055**	Discharge Overtime	Initial value: **5.0 ;** range: **0 to 99 .9** . (unit **s**)
1055~1059	**41056~41060**	Reserved	
Auxiliary Pulse Parameter			
1060	**41061**	Auxiliary Pulse 1 Execute Total Timer	Initial value: **0.0** ; Range: **0 to 9 9 9.9** . (unit **s**)
1061	**41062**	Auxiliary Pulse 1 ON Timer	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **s**)
1062	**41063**	Auxiliary Pulse 1 OFF Timer	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **s**)
1063	**41064**	Auxiliary Pulse 2 Execute Total Timer	Initial value: **0.0** ; Range: **0 to 9 9 9.9** . (unit **s**)
1064	**41065**	Auxiliary Pulse 2 ON Timer	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **s**)
1065	**41066**	Auxiliary Pulse 2 OFF Timer	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **s**)
1066	**41067**	Auxiliary Pulse 3	Initial value: **0.0** ;

		Execute Total Timer	Range: **0 to 9 9 9.9** . (unit **min**)
1067	**41068**	Auxiliary Pulse 3 ON Timer	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **min**)
1068	**41069**	Auxiliary Pulse 3 OFF Timer	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **min**)
1069	**41070**	Auxiliary Pulse 4 Execute Total Timer	Initial value: **0.0** ; Range: **0 to 9 9 9.9** . (unit **min**)
1070	**41071**	Auxiliary Pulse 4 ON Timer	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **min**)
1071	**41072**	Auxiliary Pulse 4 OFF Timer	Initial value: **10.0** ; Range: **0 to 9 9 9.9** . (unit **min**)
1072	**41073**	Auxiliary Pulse 1	Initial value：0； 0—Pulse Mode , 1—Level Mode
1073	**41074**	Auxiliary Pulse 2	
1074	**41075**	Auxiliary Pulse 3	
1075	**41076**	Auxiliary Pulse 4	
1076~1079	**41077~41080**	Reserved	
Conveyor Parameter			
1080	**41081**	Conveyor ON/OFF	Initial value: **0** ; **1** : On ; **0** : Off .
1081	**41082**	Conveyor Start Delay Timer	Initial value: **0. 5** ; range: **0 to 99 .9** . (unit **s**)
1082	**41083**	Conveyor Running Timer	Initial value: **4.0** ; range: **0 to 99 .9** . (unit **s**)
108 3 ~ 1089	**4108**4 ~ **41090**	Reserved	
Print Parameter			
1090	**41091**	Auto Print	Initial value: **0** , **1** : On ; **0** : Off
1091	**41092**	Printer Format	Initial value : **0** ; **0** : **24** columns printing ; **1** :**32** columns printing .
1092	**41093**	Printing Language	Initial value : **0** ; **0** : Chinese; **1**: **E nglish .**
1093	**41094**	Printing Line Nos.	Initial value: **3** ; Range: **0 to 9 .**
1094~1199	**4 1095 ~41200**	Reserved	
User Logic- **1** (User Logic-1-6 reserved **1200~1400**)			
1200	**41201**	Logic Type	Initial value : **0** ; range **0~5** .
			0 : CLOSE
			1 : Delay on
			2 : Delay OFF
			3 : Delay ON & Delay OFF
			4 : OFF-ON,Edge Trigger
			5 : ON-OFF,Edge Trigger
1201	**41202**	Trigger Define	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	**41203**	Trigger Input 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	**41204**	Output 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	**41205**	Delay ON Timer	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	**41206**	Delay OFF Timer	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	**41207**	Output ON Timer	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	**41208**	Trigger Weight	Initial value: **0** ; Range:**0~999999** When the trigger signal selects "Threshold Weight", the current weight is compared to this value.
1208	**41209**		
1209 ~ 1219	**41 210 ~41220**	Reserved	
User Logic- **2**			
1220	**41221**	Logic Type	Initial value : 0 ; range 0~5 . 0 : CLOSE 1 : Delay on 2 : Delay OFF 3 : Delay ON & Delay OFF 4 : OFF-ON,Edge Trigger 5 : ON-OFF,Edge Trigger
1221	**41222**	Trigger Define	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	**41223**	Trigger Input 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	**41224**	Output 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	**41225**	Delay ON Timer	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	**41226**	Delay OFF Timer	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	**41227**	Output ON Timer	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**	Trigger 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	**41230 ~ 41240**	Reserved	
User Logic- **3**			
1240	**41241**	Logic Type	Initial value : **0** ; range **0~5** .
			0 : CLOSE
			1 : Delay on
			2 : Delay OFF
			3 : Delay ON & Delay OFF
			4 : OFF-ON,Edge Trigger
			5 : ON-OFF,Edge Trigger
1241	**41242**	Trigger Define	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	**41243**	Trigger Input 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	**41244**	Output 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	**41245**	Delay ON Timer	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	**41246**	Delay OFF Timer	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	**41247**	Output ON Timer	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**	Trigger Weight	Initial value: **0** ; range: **0~999999.** When the trigger signal selects "Threshold Weight", the current weight is compared to this
1248	**41249**		

			value.
1249 ~ 1259	**41250 ~41260**	Reserved	
User Logic- **4**			
1260	**41261**	Logic Type	Initial value : **0** ; range **0~5** .
			0 : CLOSE
			1 : Delay on
			2 : Delay OFF
			3 : Delay ON & Delay OFF
			4 : OFF-ON,Edge Trigger
			5 : ON-OFF,Edge Trigger
1261	**41262**	Trigger Define	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	**41263**	Trigger Input 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	**41264**	Output 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	**41265**	Delay ON Timer	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	**41266**	Delay OFF Timer	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	**41267**	Output ON Timer	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**	Trigger Weight	Initial value: **0** , range:**0~999999 .** When the trigger signal selects "Threshold Weight", the current weight is compared to this value.
1268	**41269**		
1269 ~ 1279	**41 270 ~ 41280**	Reserved	
User Logic- **5**			
1280	**41281**	Logic Type	Initial value : **0** ; range **0~5** .
			0 : CLOSE
			1 : Delay on
			2 : Delay OFF
			3 : Delay ON & Delay OFF
			4 : OFF-ON,Edge Trigger
			5 : ON-OFF,Edge Trigger

1281	**41282**	Trigger Define	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 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 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 Timer	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**	Delay OFF Timer	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**	Output ON Timer	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**	Trigger 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	
User Logic- **6**			
1300	**41301**	Logic Type	Initial value : **0** ; range **0~5** .
			0 : CLOSE
			1 : Delay on
			2 : Delay OFF
			3 : Delay ON & Delay OFF
			4 : OFF-ON,Edge Trigger
			5 : ON-OFF,Edge Trigger
1301	**41302**	Trigger Define	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 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 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 Timer	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**	Delay OFF Timer	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**	Output ON Timer	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**	Trigger 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**	Current Filler Motor Cfg ID	Initial value: **0** ; Range: **0~4**
1401	**41402**	Filling Mode	Initial value **: 0** ; Optional: **0** : Air Drive ; **1** : Step Motor Drive; **2** : Motor Drive.
1402	**41403**	Filler Gate Close Overtime	Initial value: **4.0** ; range: **0~99.9.** (unit **s**)
1403	**41404**	Filler Gate Limit Signal Type	Initial value: **0** ; Optional: **0** : In Position When Have Signal; **1** : In Position When No Signal
1404	**41405**	Filler Motor Cfg ID	Initial value: **0** , range: **0~4**
1405	**41406**	Filler Motor Frequency	Initial value : **12000** , range:**1~50000Hz**
1406	**41407**	Steps For Filler Open to Fi-F	Initial value : **1800** ; range:**1~60000 .**
1407	**41408**		
1408	**41409**	Steps For Filler Open to Me-F	Initial value : **4300** ; range:**1~60000 .**
1409	**41410**		
1410	**41411**	Steps For Filler Open to Co-F	Initial value : **7750** ; range:**1~60000 .**
1411	**41412**		

1412	**41413**	Filler Motor DR	Initial value : **0** ; Optional: **0** : Gate Open When Signal ON ; **1** : Gate Open When Signal OFF
1413	**41414**	Filler Motor Start Frequency	Initial value : **2000** ; Range: **0~50000Hz** (This value should preferably not be greater than the feeding motor frequency)
1414	**41415**	Filler Motor ACC Time	Feed motor acceleration time Initial value: **200** ; Range: **0~9999 .** (unit **s**)
1415	**41416**	Filler Motor DEC Time	Feed motor deceleration time Initial value: **50** ; Range: **0~9999 .** (in **ms**)
1416	**41417**	Co-F,Gate Open Time	Initial value: **0.80** ; Range : **0~99.99 .** (unit **s**)
1417	**41418**	Me-F,Gate Open Time	Initial value: **0.40** ; Range: **0~99.99 .** (unit **s**)
1418	**41419**	Fi-F,Gate Open Time	Initial value: **0.20** ; Range: **0~99.99** . (unit **s**)
1419	**41420**	Lock Mode	Initial value: **0** ; Optional: **0** : Air Drive **1** : Step Motor Drive **2** : MotorDrive Dual-Limit; **3** : MotorDrive Single-Limit .
1420	**41421**	Bag Release Overtime	Initial value: **3.0** ; Range: **0 ~ 99.9 .** (unit **s**)
1421	**41422**	Bag Lock Overtime	Initial value: **3.0 ;** range: **0~99.9 .** (unit **s**)
1422	**41423**	Clutch Limit Signal Type	Initial value: **0 ;**Optional: **0** : In Position When Have Signal **1** : In Position When No Signal.
1423	**41424**	Clutch Lock Frequency	Initial value: **30000** ; Range: **1~50000 Hz .**
1 424	**41425**	Clutch Release Frequency	Initial value: **20000 ;** range: **1~50000 Hz .**
1425	**41426**	Steps to Lock Bag	Initial value: **12000** ; range: **1~60000 .**
1426	**41427**		
1427	**41428**	Clutch Motor DR	Initial value: **0** ; Optional: **0** : Lock Bag When Signal OFF; **1** : Lock Bag When Signal ON.
1428	**41429**	Clutch Motor Start Frequency	Initial value: **2000 ;** range: **0 ~ 50000 Hz .**

			(This value cannot be greater than the pocket frequency)
1429	**41430**	Clutch Motor ACC Time	Initial value: **200** ; Range: **0~9999 .** (in **ms**)
1430	**41431**	Clutch Motor DEC Time	Initial value: **50** ; Range: **0~9999** (in **ms**) **.**
1431	**41432**	Bag Release Time	Initial value: **0.5** , range: **0~99.99** . (unit **s**)
1432	**41433**	Discharge mode	Initial value: pneumatic mode; **0** , Air Drive; **1.** Step Motor Drive **2** , MotorDrive Single-Limit; **3** , MotorDrive Dual-Limit; **4.** MotorDrive Rotating.
1433	**41434**	DISC Gate Close Overtime	Initial value : **3.0** ; range: **0 ~ 99.9 .** (unit **s**)
1434	**41435**	DISC Gate Open Overtime	Initial value : **3.0** ; range: **0 ~ 99 .9 .** (unit **s**)
1435	**41436**	DISC Gate Limit Signal Type	Initial value: **0** ; Optional: **0** , In Position When Have Signal. **1.** In Position When No Signal.
1436	**41437**	Realtime Detecting When Discharge	Initial value : **0** ; **0** : off ; **1** : on.
1437	**41438**	DISC Motor Open Frequency	Initial value : **30000** ; range: **1~50000** (**Hz**) **.**
1438	**41439**	DISC Motor Close Frequency	Initial value : **20000** ; range: **1~50000** (**Hz**) **.**
1439	**41410**	Discharge Steps	Initial value : **12000** ; range: **1~60000 .**
1440	**41411**		
144 1	**41412**	DISC Motor DR	Initial value : **0** ; Optional: **0** : Gate Open When Signal OFF **1:** Gate Open When Signal ON
1442	**41416**	DISC Motor Start Frequency	Initial value: **2000** ; range: **1~50000** (**Hz**) **.** (This value cannot be greater than the discharge frequency)
1443	**41414**	DISC Motor ACC Time	Initial value: **200** ; Range: **0~9999 .** (in **ms**)
1444	**41415**	DISC Motor DEC Time	Initial value: **50 ;** Range: **0~9999 .** (in **ms**)
1445	**41416**	DISC Gate Open Timer	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**	Communication ID	Initial value: **1** ; **1 ~ 9 9** optional.
1601	**41602**	Communication Mode	**0** : **Modbus-RTU** ; **1** : Printing Mode **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**	Dword Format	Initial value : **0 :** Range : **0-1** **0 : AB-CD**; **1 :CD-AB** .
Communication parameters - serial port **2** parameters **232**			
1605	**41606**	Communication ID	Initial value: **1** ; **1 ~ 9 9** optional.
1606	**41607**	Communication Mode	**0** : **Modbus-RTU** ; **1** : Printing Mode **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**	Dword Format	Initial value : **0 :** Range : **0-1** **0 : AB-CD**; **1 :CD-AB** .
Communication parameters - Ethernet Interface parameters			
1610	**41611**	Dword Format	Initial value : **0 :** Range : **0-1** **0 : AB-CD**; **1 :CD-AB** .

1611	**41612**	Server Port	Initial value: **502 ;** Range: **1 ~ 65535**
1 612	**41613**	IP-address	Initial value: **192.168.1 01 . 246 .** Range: **0 ~ 255 .**
1613	**41614**		
1614	**41615**		
1615	**41616**		
1616~1699	**41617~41700**	Reserved	
I/O Module 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 ON/OFF 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**	ON/OFF output port **1**definition	write: Write function corresponding value . If **OUT is** defined as running, write **1** in the corresponding register of **OUT.** read: Returns the current ON/OFF custom state
1713	**41714**	ON/OFF output port **2**definition	
1714	**41715**	ON/OFF output port **3**definition	
1715	**41716**	ON/OFF output port **4**definition	
1716	**41717**	ON/OFF output port **5**definition	
1717	**41718**	ON/OFF output port **6**definition	

1718	**41719**	ON/OFF output port **7**definition	
1719	**41720**	ON/OFF output port **8**definition	
1720	**41721**	ON/OFF output port **9**definition	
1721	**41722**	ON/OFF output port **10**definition	
1722	**41723**	ON/OFF output port **11**definition	
1723	**41724**	ON/OFF output port **12**definition	
1724	**41725**	ON/OFF output port **13**definition	
1725	**41726**	ON/OFF output port **14**definition	
1726	**41727**	ON/OFF output port **15**definition	
1727	**41728**	ON/OFF output port **16**definition	
1728	**41729**	Start / end ON/OFF test	write: The stop state can be written . Write **1 to** start the ON/OFF test . The ON/OFF test state. Press input and output ports the input and output test registers, defined functions not performed. In the ON/OFF test state, write **0** to exit the ON/OFF test state . The input and output ports perform the defined functions . Read: Returns the status of the current ON/OFF test ON/OFF .
1729	**41730**	Input 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	**41731**	Output test	Write: The ON/OFF test ON/OFF 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 ON/OFF 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**	Print Total ACUM	Read as **0** Write **1** , Print Total ACUM
1801	**41802**	Print recipe ACUM	Read as **0** Write **100** to print the current recipe ACUM Write **1-20** , print the corresponding formula ACUM Write **101** to Print All Recipe ACUM
1802	**41803**	Print user ACUM	Read as **0** Write **100** to Print Choose User ACUM Write **0-9** , print the corresponding user ACUM Write **101** , Print All User ACUM
1803	**41804**	reset	**8800** Reset All(Including Calibration) **8801** Reset All(Except Calibration) **8802** Reset Recipe Parameter **8803** Reset Sys&Com Paramter **8804** Reset Peripherals Parameter **8805** Reset Motor Parameter **880 6** Reset Calibration Parameter **880 7** Reset I/O Module **880 8** Reset User Logic Parameter
1804	**41805**	backup	read: 0: No Backup Data; 1: Have Backup Data. write: Write **9900** to Execute Parameter Backup; Write **9901 to** Execute Recovery From Backup Write **9902 to** p Execute Delete Backup.
1805	**41806**	Backup date	Read only
1806	**41807**		
1807	**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 All Recipes ACUM	Write **1** clear total accumulation

1816	**41817**	Clear recipe ACUM	Write **1-20 to** clear the Recipe ID ACUM; Write **100 to** Clear Choose Recipe ACUM; Write **10**1 to Clear All Recipe ACUM .
1817	**41818**	Clear user ACUM	Read as **0.** Write **0-9 to** clear the user ID ACUM ; Write **100 to** clear choose user ACUM ; Write **101** to clears all user ACUM .
1818	**41819**	User ID	Read out current ID, parameter ready only
1819 **……** **1949**	**41820** **……** **41950**	Reserved	
Batch setting			
1950	**41951**	Batch	Initial value: **0** ; range: **0 ~ 50000 .**
1951	**41952**	Remain PCS	Read only
1952~1999	**41953~42000**	Reserved	
Formula target value (reserved **2000~2300**)			
2000	**42001**	Recipe **1** target	Initial value **: 0 .**
2001	**42002**		
2002	**42003**	Recipe**2**target	Initial value **: 0 .**
2003	**42004**		
.....		**.....**	
2038	**42039**	Recipe **20** target	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**		

2197	**42198**	User **5**cumulative weight is **6**digits	
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**	Logic Version	For example **: 0 1000 0**
9001	**49002**		
9002	**49003**	Logic Compile Date	For example **: 161201**
9003	**49004**		
9004	**49005**	Logic Compile Time	For example **: 130805**
9005	**49006**		
9006	**49007**	IO Board Version	For example **: 100**
9007	**49008**		
9008~9099	**49009~49100**	Reserved (reserved **9100~9200**)	
Coil address (reserved **0~100**)			

0	**00001**	Start	Write：**FF00H** =Valid（Only write **FF00H**）; Read：**0001H** = On **0000H** = Off
1	**00002**	Emergency stop	
2	**00003**	stop	
3	**00004**	Pause	
4	**00005**	Zeroing	
5	**00006**	Clear Alarm	
6	**00007**	Lock/Unlock Request	
7	**00008**	Change Recipe	
8	**00009**	Manual Fine Flow	
9	**00010**	Manual Coarse Flow	
10	**00011**	Manual Discharge	
11	**00012**	Manual Empty Material	
12	**00013**	Hanging bag	
13	**00014**	Sewing Input	
14	**00015**	Sewing Emergency Stop	
15	**00016**	Auxiliary PU Input **1**	
16	**00017**	Auxiliary PU Input **2**	
17	**00018**	Auxiliary PU Input **3**	
18	**00019**	Auxiliary PU Input1**4**	
19	**00020**	Clear For Adaptive	
20	**00021**	Manual Medium Flow	This address can only be written to 1. Read 1 is valid, 0 is invalid.
21	**00022**	Manual Flow(Only for material Calibration)	This address can only be written to 1. Read 1 is valid, 0 is invalid.
22	**00023**	Manual Discharge(Only for material Calibration)	This address can only be written to 1. Read 1 is valid, 0 is invalid.
...	**...**	**...**	
80	**00081**	Clear Choose user ACUM	Write：**FF00H** = valid; read **0000H.**
81	**00082**	Clear all users ACUM	
82	**00083**	Clear Choose Repice ACUM	
83	**00084**	Clear all Repice ACUM	
84	**00085**	Clear Total ACUM	
...	**...**	**...**	
100	**00101**	Reset All	Write: **FF00H** = valid; read **0000H.** Run time can write but not effective, need stop run then write valid
101	**00102**	Reset Calibration	
102	**00103**	Reset Sys&Com Parameter (not including communication parameters)	
103	**00104**	Reset Recipe Parameter	
104	**00105**	Reset Peripherals Parameter	

105	**00106**	Reset I/O Module	
106	**00107**	Reset Motor Parameter	
107	**00108**	Reset User Logic Parameter	
108	**00109**	Execute Parameter Backup	
109	**00110**	Execute Recovery From Backup	
110	**00111**	Execute Delete Backup	Write: **FF00H** = delet back up parameter read：**0001H=**have back up parameter；**0000H**=no back up parameter。
Coil ON/OFF test (reserved 200~250)			
150	**00151**	IO test ON/OFF: writing 1 into the IO test**; 0** is exit. Not writable at runtime	
151	**00152**	When input port **1 is** valid, it reads **1** ; if it is invalid, it is **0** .	Does not take effect when writing .
152	**00153**	When input port **2 is** valid, it reads **0** ; if it is invalid, it is **0** .	
153	**00154**	When input port **3 is** valid, it is read as **1** ; if it is invalid, it is **0** .	
154	**00155**	When input port **4 is** valid, it reads **1** ; if it is invalid, it is **0** .	
155	**00156**	When input port **5 is** valid, it reads **1** ; if it is invalid, it is **0** .	
156	**00157**	When input port **6 is** valid, it reads **1** ; if it is invalid, it is **0** .	
157	**00158**	When input port **7 is** valid, it reads **1** ; if it is invalid, it is **0** .	
158	**00159**	When input port **8 is** valid, it reads **1** ; if it is invalid, it is **0** .	
159	**00160**	When input port **9 is** valid, it reads **1** ; if it is invalid, it is **0** .	
160	**00161**	When input port **10 is** valid, it is read as **1** ; if it is invalid, it is **0** .	
161	**00162**	When input port **11 is** valid, it is read as **1** ; if it is invalid, it is **0** .	
162	**00163**	When input port **12 is** valid, it reads **1** ; if it is invalid, it is **0** .	
163	**00164**	When writing **1** , output port **1 is** valid; when writing **0** , output port **1 is** invalid.	
164	**00165**	When writing **1** , output port **2 is** valid; when writing **0** , output port **2 is** invalid.	
165	**00166**	When writing **1** , the output port **3 is** valid; when writing **0** , the output port **3 is** invalid.	
166	**0016 7**	When writing **1** , the output port **4 is** valid; when writing **0** , the output port **4 is** invalid.	
167	**00168**	When writing **1** , output port **5 is** valid; when writing **0** , output port **5 is** invalid.	
168	**00169**	When writing **1** , the output port **6 is** valid; when writing **0** , the output port **6 is** invalid.	
169	**00170**	When writing **1** , the output port **7 is** valid; when writing **0** , the output port **7 is** invalid.	

170	**00171**	When writing **1** , output port **8 is** valid; when writing **0** , output port **8 is** invalid.
171	**00172**	When writing **1** , the output port **9 is** valid; when writing **0** , the output port **9 is** invalid.
172	**00173**	When writing **1** , the output port **10 is** valid; when writing **0** , the output port **10 is** invalid.
173	**00174**	When writing **1** , the output port **11 is** valid; when writing **0** , the output port **11 is** invalid.
174	**00175**	When writing **1** , the output port **12 is** valid; when writing **0** , the output port **12 is** invalid.
175	**00176**	When writing **1** , the output port **13 is** valid; when writing **0** , the output port **13 is** invalid.
176	**00177**	When writing **1** , the output port **14 is** valid; when writing **0** , the output port **14 is** invalid.
177	**00178**	When writing **1** , the output port **15 is** valid; when writing **0** , the output port **15 is** invalid.
178	**00179**	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.

M ODBUS communication address table:

<table>
<tr><th>PLC address</th><th>Functional address</th><th>meaning</th><th colspan="2">Description</th></tr>
<tr><td colspan="5">The following is a read-only register (function code 0x03)</td></tr>
<tr><td colspan="5">Read-only parameter item</td></tr>
<tr><td rowspan="2">40001</td><td rowspan="2">00000</td><td rowspan="2">Controller current status 1</td><td>Bit</td><td>Description</td></tr>
<tr><td>.0</td><td>Reserved</td></tr>
</table>

			.1~1 4	Reserved
			. 15	Lock status: 1 lock machine
40002	**00001**	Controller current status 2	**.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	Weight overflow
			.4	Negative weight overflow
			.5	Sensor is overflowing
			.6	Sensor negative overflow
			. 7	Millivolts stable : **1**unstable : **0**
			. 8 ~ 15	Reserved
40003	**00002**	Weight	4 bytes, signed number (display weight) . Note: When the weight overflows, that is, when the meter displays **OFL** , the weight value is fixed to return **0xFFFFFFFF** .	
40004	**00003**			
40005	**00004**	Total cumulative weight	4 bytes, unsigned, indicating the cumulative package weight.	
40006	**00005**			
40007	**00006**	Total cumulative count	4 bytes, unsigned, indicating the cumulative number of packages.	
40008	**00007**			
40009	**00008**	The total number of ultra-poor	The cumulative number of historical tolerances ,range: **0~9999**	
40010	**00009**			
40011	**00010**	Total number of underruns	Cumulative number of historical deficits , range:**0~9999**	
40012	**00011**			
40013	**00012**	Before a fast packet plusthe time	4 bytes, in milliseconds . Rapid addition with the upper bag	The previous pack of historical data isupdated when" thispack age is completed ".
40014	**00013**			
40015	**00014**	Add time in the previous package	4 bytes, in milliseconds . Mediumspeed feeding time	
40016	**00015**			
40017	**00016**	Previous package plus slowtime	4 bytes, in milliseconds . When the	
40018	**00017**			

<table>
<tr><td></td><td></td><td></td><td colspan="2">packet with the slow addition</td></tr>
<tr><td>40019</td><td>00018</td><td rowspan="2">Previous package settingtime</td><td colspan="2" rowspan="2">4 bytes, in milliseconds . Time for setting value</td></tr>
<tr><td>40020</td><td>00019</td></tr>
<tr><td>40021</td><td>00020</td><td rowspan="2">Previous bag weight</td><td colspan="2" rowspan="2">4 bytes, signed number, indicatingthe weight of the previous package.</td></tr>
<tr><td>40022</td><td>00021</td></tr>
<tr><td>40023</td><td>00022</td><td rowspan="2">Previous package time</td><td colspan="2" rowspan="2">4 bytes, in milliseconds .Indicates the time of the previous package .</td></tr>
<tr><td>40024</td><td>00023</td></tr>
<tr><td>40025</td><td>00024</td><td>Remaining batches</td><td colspan="2">Remaining batches</td></tr>
<tr><td>40026</td><td>00025</td><td>Packing speed</td><td colspan="2">Updated once every half minute</td></tr>
<tr><td>40027
.....
40041</td><td>00026
.....
00040</td><td>Reserved</td><td colspan="2"></td></tr>
<tr><td rowspan="14">4 0042</td><td rowspan="14">0041</td><td rowspan="14">Operating status</td><td>Bit</td><td>Description</td></tr>
<tr><td>.0</td><td>Run : 1 stop : 0</td></tr>
<tr><td>.1</td><td>Before feeding : 1</td></tr>
<tr><td>.2</td><td>Coarse Flow: 1</td></tr>
<tr><td>.3</td><td>Medium Flow : 1</td></tr>
<tr><td>.4</td><td>Fine Flow : 1</td></tr>
<tr><td>.5</td><td>S Result Checking : 1</td></tr>
<tr><td>.6</td><td>OVER/UNDER Pause : 1</td></tr>
<tr><td>.7</td><td>Over : 1</td></tr>
<tr><td>.8</td><td>Under : 1</td></tr>
<tr><td>.9</td><td>Due to poor feeding: 1</td></tr>
<tr><td>.10</td><td>Ready: 1</td></tr>
<tr><td>.11</td><td>Discharge : 1</td></tr>
<tr><td>.1 2</td><td>(-NZ-) : 1</td></tr>
<tr><td>.13</td><td>Bag Lock</td></tr>
</table>

			.14	Pat Bag
			.15	Reserved
40043	**0042**	Conditional state	**.0**	Gross : **0** ; net : **1**
			.1	Reserved
			.2	Batch complete : **1**
			.3	FILL : **1**
			.4	EMPT : **1**
			.5	Supplement Full : **1**
			.6	Reserved
			.7	Supplement Empty : **1**
			.8	The discharge door is closed : **1**
			. 9	Reserved
			. 10	Coding : **1**
			. 1 1 ~ 15	Reserved
40044	**00043**	General alarm information (need to be manually cleared)	**0-** No alarm; **1-** Batch Completed!d; **2-** Over/Under Pause	
40045	**00044**	Calibration alarm information (Automatically cleared after 3 seconds)	**0-** No alarm **1-** Capacity Low **2-** Capacity Over **3-** Zero Voltage Over **4-** Zero Voltage Low **5-** Input Unstable **6-** Gain Voltage Over **7-** Gain Voltage Low **8-** Stable **9-** Weight input error **10-** Over Resolution (not enough accuracy)	
40046 **.....** **40093**	**00045** **.....** **00092**	Reserved		
40094	**00093**	Actual sampling Rate （SPS）	The number of times AD actually samples per second .	
4009 5	**0009 4**	System Version	4-byte, unsigned number is converted to decimal value such as **10,000,** it is **01.00.00.**	
4009 6	**00095**			

40097	**00096**	Compile Date	4-byte, unsigned number is converted to decimal as **150,611,** as the **June 11, 2015.**
40098	**00097**		
40099	**00098**	Compile time	4-byte, unsigned number is converted to decimal as **150,611,** as is **15:06:11.**
40100	**00099**		
The following content is readable and writable (Write a single register function code is 0x06 , write multiple register function code is 0 x10 , read function code is 0x03)			
System parameter item (transmission part)			
40101	**00100**	Compile Date	Initial value: off, range : **0- 1** (**0 :** off ; **1 :**on)
40102	**00101**	Zero Track Range	Initial value: **0** ; range : **0-9 .** Unit d
40103	**00102**	Zero Track Timer	Initial value: **2.0** ; range: **0.1~99.9** . (unit **s**)
40104	**00103**	Stable Range	Initial value : **2 ;** Range : **0 ~ 9 9 (d)** . When set to **0** , the steady state is always valid.
40105	**00104**	Stable Timer	Initial value: **0.3** ; range: **0.1~9.9** . (unit **s**)
40106	**00105**	Zero Range	Initial value: **50** ; range : **1 -99 . (** Unit: %)
40107	**00106**	Filter series	Initial value: **7** ; Range : **0-9 .**
40108	**00107**	Advance Filter ON/OFF	Initial value : **1** ; Range : **0- 1** (**0 :** Off ; **1 :** On)
401 09	**001 08**	Sampling Rate（SPS）	Initial value: **2 ;** Optional: **0: 120** times / sec; **1** : **24 0** times / sec; **2** : **480** times / sec; **3** : **960** times / sec.
4 0 1 10 **.....** **40120**	**00109** **.....** **00119**	Reserved	
Calibration parameter item			
401 2 1	**001 2 0**	unit	Initial value **: 1 ;** **0 : g; 1 : kg ; 2 : t ; 3 : lb** (lbs)
401 2 2	**001 2 1**	Decimal point	Initial value : **3** ; **0 : 0** ; **1 : 0.1** ; **2 : 0.00**; **3 :** 0.000; **4 :** 0.0000
401 23	**001 22**	Sensor sensitivity	(fixed 3 read only) (unit: mv/v)
401 24	**001 23**	Resolution	Initial value: **0 ;** **0: 1 ; 1:2 ; 2: 5 ;3:10 ; 4:20 ; 5:50.**
401 25	**001 24**	Full Scale	Initial value: **10000** ; Write range (maximum range value minimum scale ≤ × **10 0000,** and not more than **999,999).**
401 26	**001 25**		
401 27	**001 26**		

401 28	**001 27**	Calibration with weights	Zero Calibration	Write **1** to treat the current weight as zero, and allow the writing when the weight of the weighing platform is stable; Returns the absolute millivolts of thecalibration when reading .
401 29	**001 28**		Weight calibration	Enter the standard weight weight (≤ maximum range) ; Read as the current sensor relative zero millivolts
401 30	**001 29**			
401 31	**001 30**	Calibration without weights	Zero Calibration	Enter zero millivolts; Write range: The sensor is **3mV/V** : **5V** bridge **0.002-15.625mV** Read as current sensor zero millivolts
401 32	**001 31**			
401 33	**001 32**		Weight Voltage	Write range: sensor is **3mV/V:** **0.000** <millivolts ≤ **15.624mV .** The controller is temporarily stored after beingwritten ; Read as the current sensor relative zero millivolts
401 34	**001 33**			
401 35	**001 34**		weight calibration	Input gain weight value (≤maximum range) ; must write the gain millivolts before writing this value, use both to perform gain calibration when writing this register; Read out as the weight of the gain calibration
401 36	**001 35**			
4 0 137 **.....** **40 16 0**	**0 0 1 36** **.....** **001 5 9**	Reserved		
40151	**00150**	Reset		Read **: 0** Write : **8800:** Reset All(Including Calibration) **8801:** Reset All(Except Calibration) **8802:** Reset Recipe Parameter **8803:** Reset System Paramter **8804:** Reset system parameters **8805:** Reset Calibration Parameter **8806:** Reset I/O Module Not writable at runtime
40152	**00151**	Backup		Read : **0:** No Backup Data **1:** Have Backup Data Write :

			8800: Execute Parameter Backup (including recipe parameters , system and communication parameters ,peripheral parameters, motor parameters, ON/OFF parameters , auxiliary logic parameters, shortcut key definitions) **8801:** Execute Recovery From Backup **8802:** Execute Delete Backup Not writable at runtime
40153	**00152**	Backed up Date	**4-byte,** unsigned number is converted to decimal as **150,611,** as the **June 11, 2015** (read-only, no backup returns **0)**
40154	**00153**		
4015 5	**00154**	backed up Time	**4-byte,** unsigned number, is converted to a decimal value such as **150611,** for the **June 11, 2015** (read-only, no backup returns **0)**
40156	**00155**		
40157 **……** **40160**	**00156** **…….** **00159**	Reserved	
Mode parameter (structure)			
40161	**00160**	Weigher Structure	Initial value: **0** ; **0** : With Hopper； **1** : No Hopper； **2** : PLC mode； **3** : Ton Scale； **4** : valve Scale
40162	**00161**	Working Mode	Initial value: **0** ; **0** : single scale； **1** : Dual Scale: Master; **2** : iDual Scale: Slave
40 163	**00 162**	Filling Mode	Initial value **: 0 ; 0 :** Solo Filling； **1 :** Combination filling
40164	**00163**	Dual Scale Unlock Bag Mode	Initial value **: 0 ;** **0** : Asynchro Unlock**; 1** : Synchro Unlock1 **;** **2** : Synchro Unlock2
40165	**00164**	Conveyor Running Timer **t13**	Initial value **: 0 ;** range: **0~99.9 .** (unit **s**)
40166	**00165**	Conveyor running time **t 14**	Initial value **: 0 ;** range: **0~99.9** . (unit **s**)
40167	**00166**	Next Lock Bag Start Delay Time**t 15**	The initial value is **: 0 ;** **A** weighing scale **B** the front end of the conveyorin the rear end of the conveyor, the bag andsimultaneously release ON/OFF is **not simultaneously 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, etc.**A** scale to loose the bag after the addition was completed, the conveyor and the start delay time **t15** after **B** Scale It is the feeding.
40168 **.....** **40200**	**00167** **.....** **00199**	Reserved	
Product parameter item			
Recipe parameters (non- public parameters)			
40201	**00200**	Target	Weight value writing range : ≤ maximum range
40202	**00201**		
40203	**00202**	Coarse Flow Remains	
40204	**00203**		
40205	**00204**	Medium Flow Remains	
40206	**00205**		
40207	**00206**	Free Fall	
40208	**00207**		
40209	**00208**	Over Limit Value	
40210	**00209**		
40211	**00210**	Under Limit Value	
40212	**00211**		
40213	**00212**	Near Zero Band	
40214	**00213**		
40215	**00214**	Start-Up Weight(patting start weight)	
40216	**00215**		
402 17	**002 16**	Filling Start Delay	Initial value: **0.5 ;** range: **0 to 9 9 .9 .** (unit **s**)
402 18	**002 17**	COMP.Inhibit Timer(Co-F)	Initial value: **0. 9 ;** range: **0 to 9 9 .9** . (unit **s**)
402 19	**002 18**	COMP.Inhibit Timer(Me-F)	Initial value: **0. 9 ;** range: **0 to 9 9 .9 .** (unit **s**)
402 20	**002 19**	COMP.Inhibit Timer(Fi-F)	Initial value: **0. 9 ;** range: **0 to 9 9 .9** . (unit **s**)
402 21	**002 20**	OVER/UNDER Alarm Timer	**.** Initial value: **10;** range: **0 to 9. 9.9.** (unit **s**)
402 22	**002 21**	Result Waiting Timer	Initial value: **0. 5** ; range: **0 to 9 9 .9** . (unit **s**)
402 23	**002 22**	Discharge duration **t7**	Initial value: **0.5** ; range: **0 to 9 9 .9** . (unit **s**)

402 24	**002 23**	Unlock Bag Pre-Delay Timer	Initial value: **0.5** ; range: **0 to 9 9 .9** . (unit **s**)
40225	**00224**	Unlock Bag Pre-Delay Timer	Initial value: **0.5** ; range: **0 to 9 9 .9** . (unit **s**)
40226	**00225**	Jog Flow ON/OFF	Initial value: **0** ; Range : **0~ 1** (**0 :** Off ; **1 :** On).
40 227	**00 226**	Jog Flow-ON Timer	Initial value: **0.5** ; range: **0 ~ 9 9 .9 .** (unit **s**)
40228	**00227**	Jog Flow-OFF Timer	Initial value: **0.5** ; range: **0 ~ 9 9 .9 .** (unit **s**)
40229	**00228**	Compensation Times	Initial value: **1** ; Range: **1~99** .
40230	**00229**	Flow-ON Times	Initial value: **0.5** ; range: **0 ~ 9 9 .9** . (unit **s**)
402 31	**00230**	Flow-OFF Times	Initial value: **0.5** ; range: **0 ~ 9 9 .9** . (unit **s**)
402 32	**00231**	Reference Samples PCS	Initial value: **1** ; Range: **1~ 99 .** .
40233	**00232**	Correction Effective Range	Initial value: **2.0** ; range: **0 ~ 9.9 . (** Unit: **%)**
402 34	**002 33**	Correction Percentage	Initial value: **2 ;** Optional: **0--100%;** corrected correction **1--50%; 2-25%**correction.
402 35	**002 34**	Patting Mode	Initial value: **0** **0** : Disable; **1** : After Waiting ; **2** : When Filling ; **3** : All time
40236	**00235**	Patting Times(Filling)	Initial value: **0** ; range: **0 ~ 9 9 .**
40237	**00236**	Patting Times(Waiting)	Initial value: **4** ; Range: **0 ~ 9 9 .**
40238	**00237**	Patting Start Delay Timer	Initial value: **0.5** ; range: **0 ~ 9 9 .9** . (unit **s**)
402 39	**0023 8**	Patting ON Timer(Level Signal)	Initial value: **0.5** ; range **: 0 ~ 9 9 .9 .** (unit **s**) The effective time of each shot of the bag during the bag
40240	**00239**	Patting OFF Timer(Level Signal)	Initial value: **0.5 ;** range **: 0 ~ 9 9 .9 .** (unit **s**) Invalid time for each shot of the bag during the bag
40241	**00240**	Extra ON Timer	Initial value: **0 ;** range: **0 ~ 9 9 .9** . (unit **s**)
40242	**00241**	Continuous discharge times(Time of single scale/combinations)	Initial value: **1 ;** Range: **0 ~ 9 9 .** That is: in the metering bucket mode, the loose 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.

40 243	**00 242**	PLC-OverLimit Value	**4** bytes, unsigned number
40 244	**00 243**		
40 245	**00 244**	PLC-UnderLimit Value	**4** bytes, unsigned number
40 246	**00 245**		
40 247	**00 246**	PLC-UpperLimit Value	**4** bytes, unsigned number
40 248	**00 247**		
40 249	**00 248**	PLC-LowerLimit Value	**4** bytes, unsigned number
40 250	**00 249**		
40 251	**00 250**	Upper limit output flag	**4** bytes, **0** or **1**
40 252	**00 251**		
40 253	**00 252**	Lower limit output flag	**4** bytes, **0** or **1**
40 254	**00 253**		
40255	**00254**	Sewing Start Delay Timer	Initial value: **0. 5** ; range: **0** to **9 9 .9 .** (unit **s**)
40256	**0 0255**	Sewing ON Timer	Initial value: **4.0** ; range: **0** to **9 9 .9 .** (unit **s**)
40257	**0 0256**	Cutter ON Timer	Initial value: **0. 5** ; range: **0** to **9 9 .9 .** (unit **s**)
40258	**0 0257**	Sewing Stop Delay	Initial value: **0. 5** ; range: **0** to **9 9 .9 .** (unit **s**)
402 59 **.....** **40300**	**002 58** **.....** **00299**	Reserved	
System parameter (public parameter)			
40 301	**00 300**	Recipe ID	Initial value: **1** ; Range **: 1-20 .**
40 302	**00301**	Filling Filter Level	Initial value: **4** ; Range: **0 to 9 .**
40 303	**00302**	Discharge Process Filter	Initial value: **3** ; Range: **0 to 9 .**
40 304	**00303**	Waiting Process Filter	Initial value: **5** ; Range: **0 to 9 .**
40305	**00304**	Batch	Initial value: **0** ; Range: **0 ~ 50000**
40 306	**00 305**	Result Checking Mode	Initial value: **0 ;** Range: **0~1 .** **0 : a** stable value ; **1 :** Delay Timer .
40307	**00306**	Auto Zero Interval	Initial value: **0** ; range : **0-99 .** The current weight is cleared after several packages have been completed. When set to **0** , it means that it is not cleared during operation.

40 308	**00307**	Running Stable Timeout	Initial value: **0 ;** range **: 0 to 9 9 .9** . (unit **s**)
40 309	**00 308**	OVER/UNDER ON/OFF	Initial value: **0 ; 1 :** On ; **0 :** Off .
40 310	**00 309**	OVER/UNDER Pause	Initial value: **0 ; 1 :** On ; **0 :** Off .
40 311	**00 310**	Add toTotal When Manual Discharge	Initial value: **0** ; **1 :** On ; **0 :** Off .
40 312	**00 311**	Result Holding	Initial value: **0** ; **1 :** On ; **0 :** Off .
40313	**00312**	Coding Device ON/OFF	Initial value: **0** ; **1 :** On ; **0 :** Off .
40314	**00313**	Coding Start Delay Timer	Initial value: **0. 5** ; range: **0 to 9 9 .9** . (unit **s**)
40315	**00314**	Coding Duration Timer	Initial value: **0. 5** ; range: **0 to 9 9 .9** . (unit **s**)
40316	**00315**	Not Allow Fill/Discharge When Coding	Initial value: **OFF (0)** **ON** : The discharge output or feed output is not allowed to start during the coding process. **OFF** : Turn off this feature.
40317	**00316**	Choice of Gross and Net Packing mode without Hopper	Initial value: **1** (net weight) **0 :** No bucket scale gross weight bagging mode (start directly after bagging : feeding) **1 :** Net weightless bagging mode without bucket scale (wait for the system to be stable after peeling and then start feeding)
40318	**00317**	Reserved	
40319 **.....** **40400**	**00318** **.....** **00399**	Reserved	
Recipe target value parameter item			
40501	**00500**	Recipe 1 target value	Initial value **: 0**
40502	**00501**		
40503	**00502**	Recipe 2 target value	Initial value **: 0**
40504	**00503**		
40505	**00504**	Recipe 3 target value	Initial value **: 0**
40506	**00505**		
40507	**00506**	Recipe 4 target value	Initial value **: 0**
40508	**00507**		
40509	**00508**	Recipe 5 target value	Initial value **: 0**

40510	**00509**		
40511	**00510**	Recipe 6 target value	Initial value **: 0**
40512	**00511**		
40513	**00512**	Recipe 7 target value	Initial value **: 0**
40514	**00513**		
40515	**00514**	Recipe 8 target value	Initial value **: 0**
40516	**00515**		
40517	**00516**	Recipe 9 target value	Initial value **: 0**
40518	**00517**		
40519	**00518**	Recipe 10 target value	Initial value **: 0**
40520	**00519**		
40521	**00520**	Recipe 1 1 target value	Initial value **: 0**
40522	**00521**		
40523	**00522**	Recipe 1 2 target value	Initial value **: 0**
40524	**00523**		
40525	**00524**	Recipe 1 3 target value	Initial value **: 0**
40526	**00525**		
40527	**00526**	Recipe 1 4 target value	Initial value **: 0**
40528	**00527**		
40529	**00528**	Recipe 1 5 target value	Initial value **: 0**
40530	**00529**		
40531	**00530**	Recipe 1 6 target value	Initial value **: 0**
40532	**00531**		
40533	**00532**	Recipe 1 7 target value	Initial value **: 0**
40534	**00533**		
40535	**00534**	Recipe 1 8 target value	Initial value **: 0**
40536	**00535**		
40537	**00536**	Recipe 1 9 target value	Initial value **: 0**
40538	**00537**		
40539	**00538**	Recipe 20 target value	Initial value **: 0**
40540	**00539**		
4 0 541	**0 0 540 .....**	Reserved	

40600	**00599**		
Historical cumulative parameter			
40601	**00600**	Recipe **1** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40602	**00601**		
40603	**00602**	Recipe **1** cumulative count	Write **0 to** clear the cumulative number and weight of the formula
40604	**00603**		
40605	**00604**	Recipe **2** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40606	**00605**		
40607	**00606**	Recipe **2** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40608	**00607**		
40609	**00608**	Recipe **3** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40610	**00609**		
40611	**00610**	Recipe **3** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40612	**00611**		
40613	**00612**	Recipe **4** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40614	**00613**		
40615	**00614**	Recipe **4** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40616	**00615**		
40617	**00616**	Recipe **5** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40618	**00617**		
40619	**00618**	Recipe **5** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40620	**00619**		
40621	**00620**	Recipe **6** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40622	**00621**		
40623	**00622**	Recipe **6** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40624	**00623**		
40625	**00624**	Recipe **7** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40626	**00625**		
40627	**00626**	Recipe **7** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40628	**00627**		
40629	**00628**	Recipe **8** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40630	**00629**		
40631	**00630**		

40632	**00631**	Recipe **8** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40633	**00632**	Recipe **9** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40634	**00633**		
40635	**00634**	Recipe **9** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40636	**00635**		
40637	**00636**	F Recipe **10** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40638	**00637**		
40639	**00638**	Recipe **10** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40640	**00639**		
40641	**00640**	Recipe **11** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40642	**00641**		
40643	**00642**	Recipe **11** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40644	**00643**		
40645	**00644**	Recipe **12** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40646	**00645**		
40647	**00646**	Recipe **12** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40648	**00647**		
40649	**00648**	Recipe **13** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40650	**00649**		
40651	**00650**	Recipe **13** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40652	**00651**		
40653	**00652**	Recipe **14** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40654	**00653**		
40655	**00654**	Recipe **14** cumulative count	Write **0 to** clear the cumulative number and weight of the formula
40656	**00655**		
40657	**00656**	Recipe **15** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40658	**00657**		
40659	**00658**	Recipe **15** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40660	**00659**		
40661	**00660**	Recipe **16** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40662	**00661**		
40663	**00662**		

40664	**00663**	Recipe **16** cumulative count	Write **0 to** clear the cumulative number and weight of the formula
40665	**00664**	Recipe **17** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40666	**00665**		
40667	**00666**	Recipe **17** cumulative count	Write **0 to** clear the cumulative number and weight of the formula
40668	**00667**		
40669	**00668**	Recipe **18** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40670	**00669**		
40671	**00670**	Recipe **18** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40672	**00671**		
40673	**00672**	Recipe **19** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40674	**00673**		
40675	**00674**	Recipe **19** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40673	**00675**		
40677	**00676**	Recipe **20** cumulative weight	Write **0 to** clear the cumulative number and weight of the formula
40678	**00677**		
40679	**00678**	Recipe **20** cumulative times	Write **0 to** clear the cumulative number and weight of the formula
40680	**00679**		
40681	**00680**	User **0** cumulative weight	Write **0 to** clear the accumulated number and weight of the user
40682	**00681**		
40683	**00682**	User **0** cumulative times	Write **0 to** clear the accumulated number and weight of the user
40684	**00683**		
40685	**00684**	User **1** cumulative weight	Write **0 to** clear the accumulated number and weight of the user
40686	**00685**		
40687	**00686**	User **1** cumulative count	Write **0 to** clear the accumulated number and weight of the user
40688	**00687**		
40689	**00688**	User **2** cumulative weight	Write **0 to** clear the accumulated number and weight of the user
40690	**00689**		
40691	**00690**	User **2** cumulative times	Write **0 to** clear the accumulated number and weight of the user
40692	**00691**		
40693	**00692**	User **3** cumulative weight	Write **0 to** clear the accumulated number and weight of the user
40694	**00693**		
40695	**00694**		

40696	**00695**	User **3** cumulative times	Write **0 to** clear the accumulated number and weight of the user
40697	**00696**	User **4** cumulative weight	Write **0 to** clear the accumulated number and weight of the user
40698	**00697**		
40699	**00698**	User **4** cumulative times	Write **0 to** clear the accumulated number and weight of the user
40700	**00699**		
40701	**00700**	User **5** cumulative weight	Write **0 to** clear the accumulated number and weight of the user
40702	**00701**		
40703	**00702**	User **5** cumulative times	Write **0 to** clear the accumulated number and weight of the user
40704	**00703**		
40705	**00704**	User **6** cumulative weight	Write **0 to** clear the accumulated number and weight of the user
40706	**00705**		
40707	**00706**	User **6** cumulative times	Write **0 to** clear the accumulated number and weight of the user
40708	**00707**		
40709	**00708**	User **7** cumulative weight	Write **0 to** clear the accumulated number and weight of the user
40710	**00709**		
40711	**00710**	User **7** cumulative times	Write **0 to** clear the accumulated number and weight of the user
40712	**00711**		
40713	**00712**	User **8** cumulative weight	Write **0 to** clear the accumulated number and weight of the user
40714	**00713**		
40715	**00714**	User **8** cumulative times	Write **0 to** clear the accumulated number and weight of the user
40716	**00715**		
40717	**00716**	User **9** cumulative weight	Write **0 to** clear the accumulated number and weight of the user
40718	**00717**		
40719	**00718**	User **9** cumulative times	Write **0 to** clear the accumulated number and weight of the user
40720	**00719**		
ON/OFFing custom parameter item			
40801	**00800**	The digital input port **1 is**defined .	write: Write function corresponding value . If **IN is**defined as running, write **1** in the corresponding register of **IN.** read: Returns the current ON/OFF custom state
40802	**00801**	The digital input port **2 is**defined .	
40803	**00802**	The digital input port **3 is**defined .	

40804	**00803**	The digital input port **4 is**defined .	
40805	**00804**	Digital input port **5**definition	
40806	**00805**	Digital input port **6**definition	
4080 7	**0080 6**	Digital input port **7**definition	
4080 8	**0080 7**	Digital input port **8**definition	
408 09	**008 08**	The digital output port **1 is**defined.	write: Write function corresponding value . If **OUT is**defined as running, write **1** in the corresponding register of **OUT.** read: Returns the current ON/OFF custom state .
408 10	**008 09**	The digital output port **2 is**defined.	
408 11	**008 10**	The digital output port **3 is**defined.	
4081 2	**008 11**	The digital output port **4 is**defined.	
4081 3	**0081 2**	The digital output port **5 is**defined.	
4081 4	**0081 3**	The digital output port **6 is**defined.	
4081 5	**0081 4**	The digital output port **7 is**defined.	
408 16	**0081 5**	The digital output port **8 is**defined.	
408 17	**008 16**	The digital output port **9 is**defined.	
408 18	**008 17**	The digital output port **10 is** defined.	
408 19	**008 18**	The digital output port **11 is** defined.	
408 20	**008 19**	The digital output port **12 is** defined.	
4 0 8 21	**00820**	Output test	※ Note: The ON/OFF can be written only when the ON/OFF test ON/OFF is turned on. Write: The ON/OFF test ON/OFF can be written in the open state, and the output from the low to the high port corresponds to the

			port **OUT1 ~OUT12** . **1** is valid for output, **0** is invalid for output. Read: Returns the status of the current output ON/OFF port.
4 0 8 22	**0 08 2 1**	Input test	Write: Write is not allowed. Read: From the low to the high, the corresponding port **IN1 ~ IN8** input, **1** is valid for input, **0** is invalid for input. (starting the ON/OFF test state)
4 0 8 23 **.....** **409 70**	**008 22** **.....** **00 969**	Reserved	
40971	**0970**	Dword Format	Set the **MODBUS** high and low byte order.
40972	**00971**	Server Port	Range : **1 - 65535**
40973	**00972**	**IP** address **1**	Initial value: **192.168. 101 . 246**
4097 4	**00973**	**IP** address **2**	
4097 5	**0097 4**	**IP** address **3**	
4097 6	**0097 5**	**IP** address **4**	
4097 7	**0097 6**	**MAC** address **1**	**BC6641 9* ** **,** only the last three **digits** are allowed to be modified
4097 8	**0097 7**	**MAC** address **2**	
4097 9	**0097 8**	**MAC** address **3**	
4098 0	**0097 9**	**MAC** address **4**	
4098 1	**0098 0**	**MAC** address **5**	
40982	**0098 1**	**MAC** address **6**	
40983	**00982**	Additional board type	For debugging use only(Reserved)
The following content is read-only (function code: 0x01)			
00001	**0 0000**	**OFF** : Stop; **ON** : Run	
00002	**0 0001**	**OFF** : unstable; **ON** : stable	
00003	**0 0002**	**OFF** : Normal; **ON** : Overflow	
00004	**0 0003**	**OFF** : positive sign; **ON** : negative sign (symbol of current display weight)	
0 0005	**0 0004**	**OFF** : Non-zero; **ON** : Zero	
0000 6 **....** **00016**	**0 000 5** **.....** **00015**	**Reserved**	
The following content is readable and writable (read function code: 0x01 , write function code: 0x05)			
00017	**00016**	Power-Up Zero ON/OFF / / runtime write does not take effect	Write **ON is**valid and**OFF is**invalid .

				Read out astheir respective ON/OFFstates
00018	**00017**	OVER/UNDER ON/OFF / / runtime write does not take effect		
00019	**00018**	OVER/UNDER Pause / / runtime write does not take effect		
00020	**00019**	Jog Flow ON/OFF		
00021	**00020**	Auto Print // runtime write does not take effect		
00022 **....** **00031**	**00021** **.....** **00030**	Reserved		
00032	**00031**	Reset all (excluding calibration)		Write **ON is**valid and**OFF is**invalid . Read as **OFF .** It can be written at runtime but does not take effect. It needs to stop running and write is valid.
00033	**00032**	Reset all		
00034	**00033**	Reset Calibration Parameter		
00035	**00034**	Reset Sys&Com Paramter t (System)		
00036	**00035**	Reset Recipe Parameter		
00037	**00036**	Reset I/O Module		
00038	**00037**	System parameter reset (advanced)		
00039	**00038**	Execute Recovery From Backup		
00040	**00039**	Execute Delete Backup		
00041 **.....** **000 45**	**0 0040** **.....** **0 0044**	Reserved		
0 00 4 6	**0 00 4 5**	start		Pulse input type . Write **ON is**valid and**OFF is**invalid . Read out as**OFF**
0 00 4 7	**0 00 4 6**	stop		
0 00 4 8	**0 00 4 7**	Emergency stop		
0 00 4 9	**0 00 4 8**	Zeroing	Runtime write does not take effect	

0 0050	**0 00 4 9**	Clear alarm		
0 0051	**0 0050**	Manual Discharge	Runtime writed oes not take effect	
0 0052	**0 0051**	Manual Fine Flow		
00053	**00052**	Manual Coarse Flow		
0 00 54	**00053**	manual feeding once		
0 00 55	**0 00 54**	Clear All Recipes ACUM		
000 56	**0 00 55**	Clear Choose Recipes ACUM		
0 00 57	**0 00 56**	Gross / net weight mode ON/OFFing		**ON** is thenet weight ,**OFF** is thegross weight
00058	**0 00 5 7**	Bag Lock/Unlock Request		
00059	**00058**	Clear All User ACUM		
00060	**00059**	Clear Choose User ACUM		
00061 **.....** **000 80**	**0 0060** **.....** **0 0079**	Reserved		
0 0 0 81	**0 0 0 80**	ON/OFFing test ON/OFF : Enter the ON/OFF test when writing **ON** ; exit when writing **OFF** . Not writable at runtime		
0 0082	**0 0 0 81**	When IN **1 is** valid, read is **ON** ; if it is invalid, it is**OFF** .		Does not take effect when writing.
0 0083	**0 0082**	When IN **2 is** valid, read is **ON** ; if it is invalid, it is**OFF** .		
000 84	**0 0083**	When IN **3 is** valid, read is **ON** ; if it is invalid, it is**OFF** .		
0 0 0 85	**000 84**	When IN **4 is** valid, read is **ON** ; if it is invalid, it is**OFF** .		
0 0 0 86	**0 0 0 85**	When IN **5 is** valid, read is **ON** ; if it is invalid, it is**OFF** .		
0 0 0 87	**000 86**	When IN **6 is** valid, read is **ON** ; if it is invalid, it is**OFF** .		
0 0 0 88	**0 0 0 87**	When IN **7 is** valid, read is **ON** ; if it is invalid, it is**OFF** .		
0 0089	**0 0 0 88**	When IN **8 is** valid, read is **ON** ; if it is invalid, it is**OFF** .		
0 0090	**0 0089**	Write **ON** , Out **1 is** valid; when the write is **OFF** , **is** invalid.		
000 91	**0 0090**	Write **ON**, Out **2 is** valid; when the write is **OFF** , **is** invalid.		
00092	**000 91**	Write **ON** , Out **3 is** valid; when the write is **OFF** , **is** invalid.		

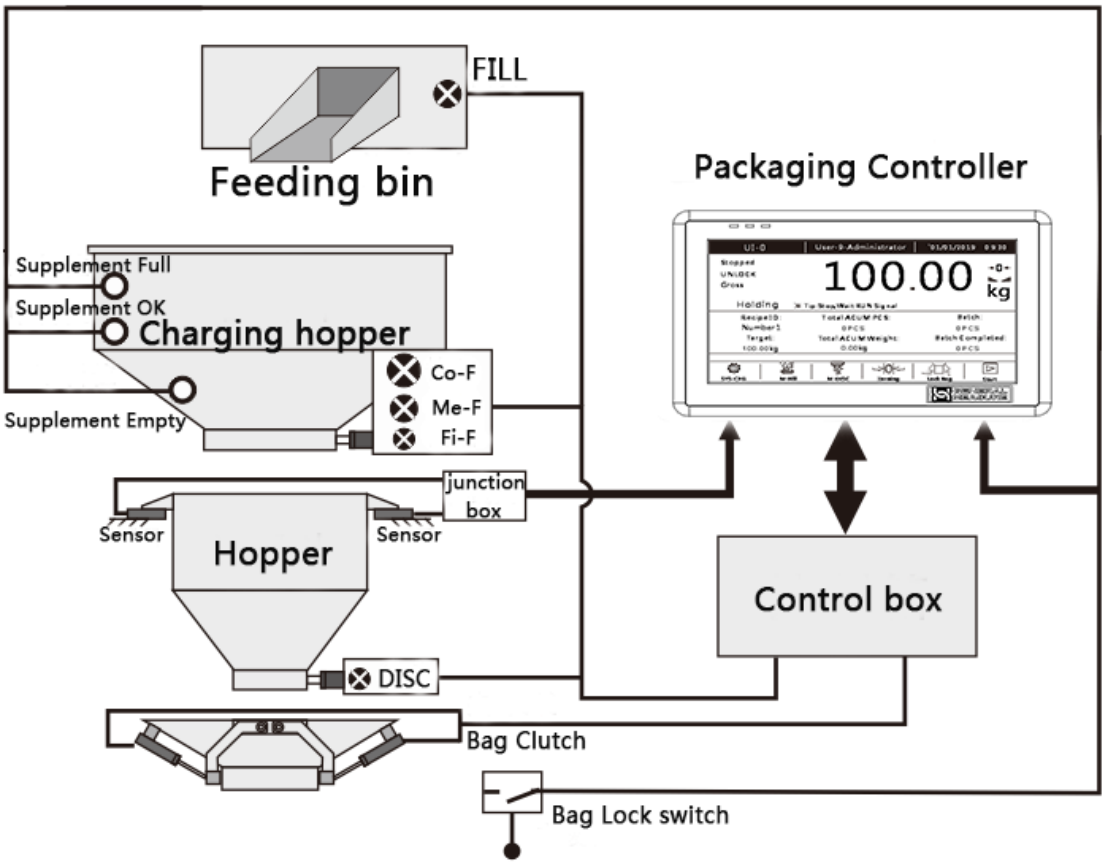
000 93	**0 0092**	Write **ON** , Out **4 is** valid; when the write is **OFF** , **is** invalid.
00094	**000 93**	Write **ON** , Out **5 is** valid; when the write is **OFF** , **is** invalid.
00095	**00094**	Write **ON** , Out **6 is** valid; when the write is **OFF** , **is** invalid.
00096	**00095**	Write **ON** , Out **7 is** valid; when the write is **OFF** , **is** invalid.
000 97	**0 0096**	Write **ON** , Out **8 is** valid; when the write is **OFF** , **is** invalid.
00098	**000 97**	Write **ON** , Out **9 is** valid; when the write is **OFF** , **is** invalid.
00099	**00098**	Write **ON**, Out **10 is** valid; when the write is **OFF** , **is** invalid.
00100	**00099**	Write **ON**, Out **11 is** valid; when the write is **OFF** , **is** invalid.
00101	**00100**	Write **ON,** Out **12 is** valid; when the write is **OFF** , **is** invalid.

6. Automatic bagging process

The GM9907 bagging controller automatically controls the entire bagging process of fast, medium and slow feeding and unloading in the automatic bagging state. Supports a variety of modes including bucket, bucketless scale, ton pack scale, valve port scale and **PLC** . The scale structure and working mode are selected in the system and communication parameters.

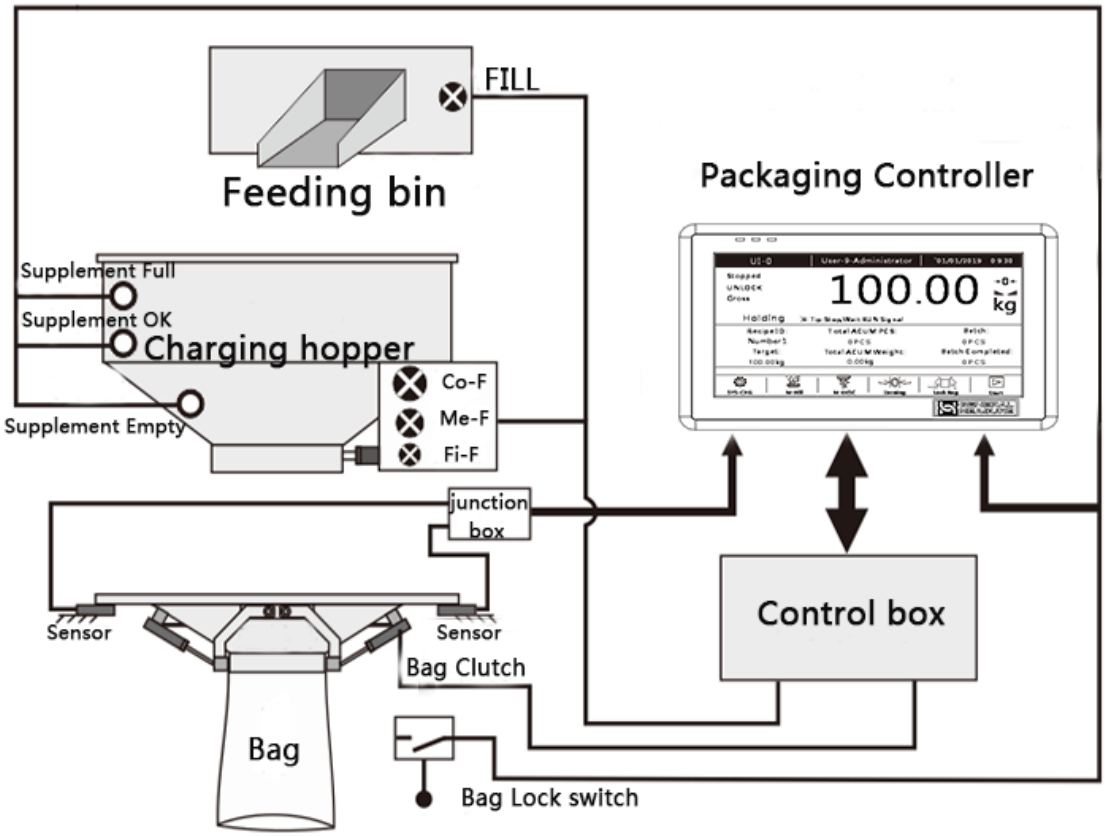
6.1 with a single scale hopper

In this mode, the material is fed from the preparation hopper to the measuring hopper through the feeding mechanism (fast, medium and slow), and the weight sampling of the metering control process is completed in the measuring hopper (the weighing sensor is mounted on the measuring hopper). After the metering is completed, the material is discharged into the package through the unloading mechanism on the measuring hopper. Its structure is shown in the following figure:



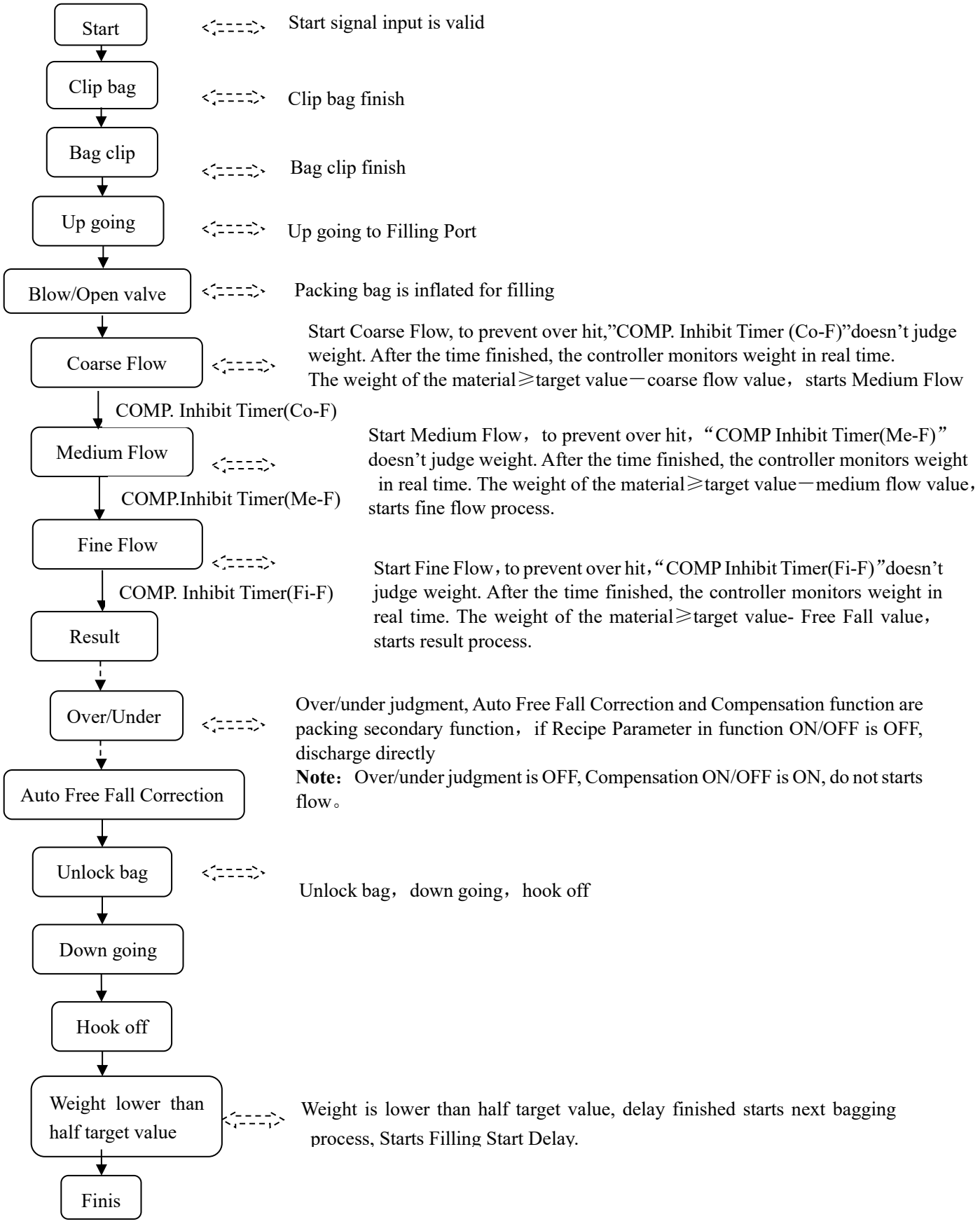
6.2 No metering hopper

In this mode, the material is directly fed into the package from the hopper through the feeding mechanism (fast, medium, and slow), and the weight sampling of the metering control process is completed in the package (the weighing sensor is mounted on the hopper). After the metering is completed, the meter controls the loose bag directly. Its structure is shown in the following figure:



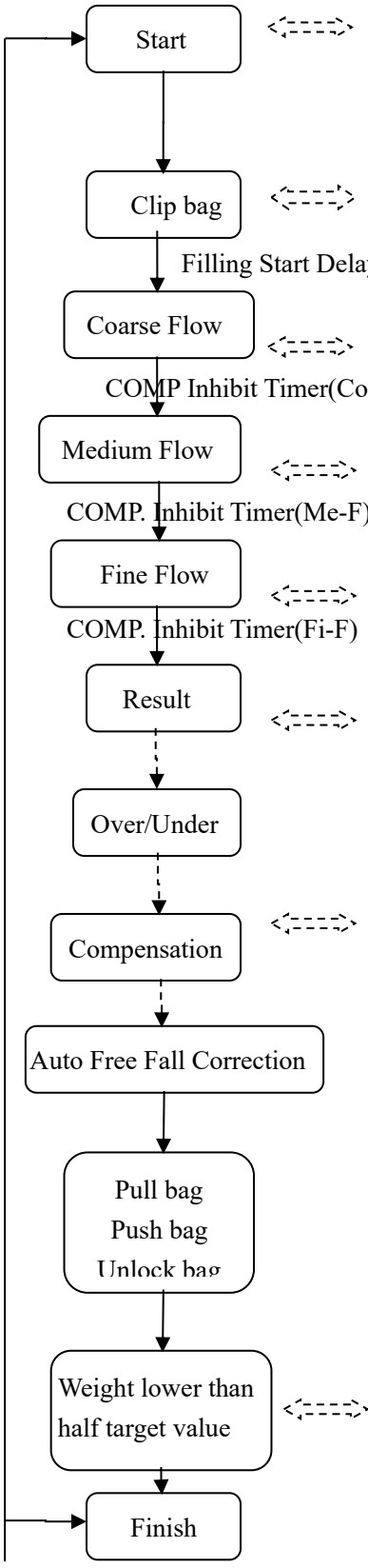
6.3 Tons of package scale

Process Description：



6.4 Valve port scale

Process Description：



Start signal input is valid, controller starts Filling Start Delay. When delay time is finished, starts coarse flow.

Filling after clip bag finished

Start Coarse Flow, to prevent over hit, "COMP. Inhibit Timer (Co-F)"doesn't judge weight. After the time finished, the controller monitors weight in real time. The weight of the material≥target value－coarse flow value，starts Medium Flow process.

Start Medium Flow，to prevent over hit，"COMP Inhibit Timer(Me-F)" doesn't judge weight. After the time finished, the controller monitors weight in real time. The weight of the material≥target value－medium flow value，starts fine flow process.

Start Fine Flow，to prevent over hit，"COMP Inhibit Timer(Fi-F)" doesn't judge weight. After the time finished, the controller monitors weight in real time. The weight of the material≥target value- Free Fall value，starts result process.

Two ways of Result Checking Mode: Stable Status and Delay Timer (select in system and communication), according to selected mode finish result process enters to Over/Under and Auto Free Fall Correction process.

Over/under judgment, Auto Free Fall Correction and Compensation function are packing secondary function，if Recipe Parameter in function ON/OFF is OFF, discharge directly

Note： Over/under judgment is OFF, Compensation ON/OFF is ON, do not starts flow。

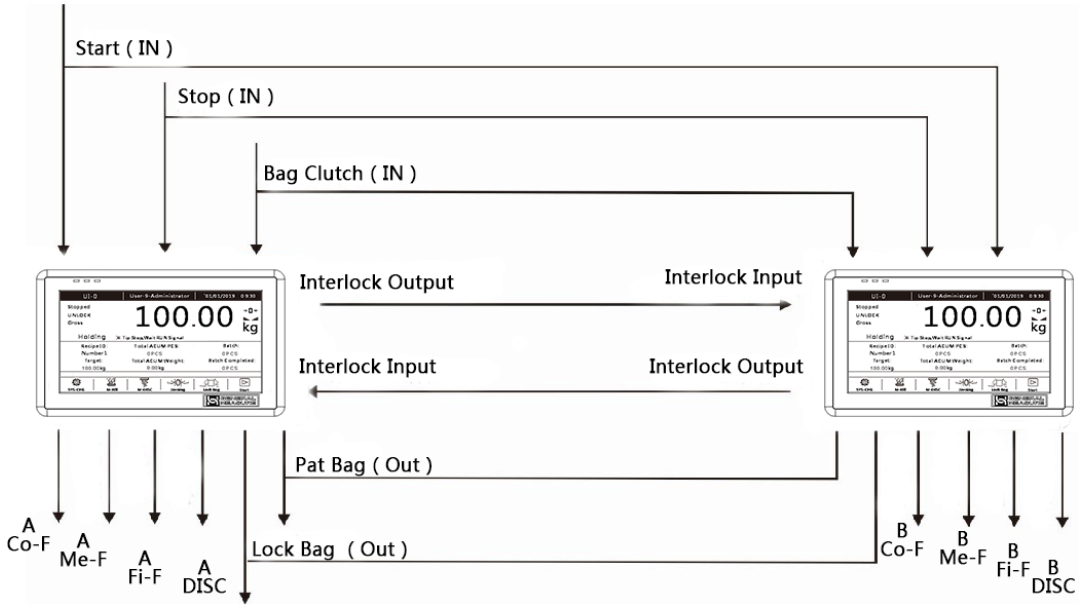
Weight is lower than half target value, packing is finished

6.5 PLC mode

In the PLC mode, the status displayed on the main page of the meter is changed to: fast add, medium add, slow add, over tolerance, undershoot, upper limit, lower limit, zero zone.
When the weighing process starts , the quick addition, medium addition, and slow addition output are effective, and the main interface displays the fast addition, medium addition, and slow addition in sequence.
When the weighing value > target value + excess value, the out-of-tolerance output is valid.
The under output is valid when the weighing value < target value - underbalance value.
When the weighing value > upper limit value, the upper limit output is valid.
When the weighing value < lower limit, the lower limit output is valid.
When the weighing value < zero zone value, the zero zone output is valid.

6.6 double scale interlocking bagging mode

The two controllers can be combined into two pairs of buckets and double bucketless scales by setting and wiring. The two measuring buckets can be weighed at the same time and connected to the same pocket mechanism. The two scales can be fed at the same time to improve the bagging speed. Setting 2 aspects, the working mode of the controller system and the communication parameter scale body structure are two controllers: interlocking **A** scale and interlocking **B** scale. **Note: The pockets are delayed by two meters to be set the same** . Its structure is shown in the following figure:
Refer to the following figure for ON/OFFing wiring:



If the scale body mode selects the double bucket scale interlock mode, the target values of the **A** scale and the **B** scale should be set separately , the quick addition, the medium addition value, and the drop value, and the materials are separately measured from the storage hopper through the two feeding mechanisms. Feeding in the bucket (fast, medium and slow feeding), under the operating state, it can independently control the feeding speed of **A** scale and **B** scale, the whole bagging process of unloading and automatic loose bag. **The A** and **B** scales are first quantitatively completed before the unloading process.

- Pocket

There are buckets: A scale or **B** scale, first judge the pocket signal before unloading, start the pocket delay when the pocket signal is valid, the mechanism clamps the bag after the delay is over , and then starts the unloading

action, who is **A** and **B** scale First, quantify who will discharge first. If one is discharging scale, the other scale even quantitatively complete, also need to wait for the next bag-scale signal is valid before unloading.

No bucket : judge the pocket signal before feeding. When the pocket signal is valid, both scalesstart the pocket delay. After the delay , the mechanism clamps the bag. After the bag is completed, the delay before feeding is started to avoid leakage of materials. After the delay time of the bag is reached, the meter judges the stability, peels after stabilization, and the weight of the bag is used as the tare weight. Then the meter changes from the gross weight state to the net weight state and starts the feeding process.

- Loose bag

There is a bucket : the meter judges whether the material in the **A** scale or the **B** scale hopper is lower than the near zero value . If it is lower, the timer discharge delay is started . After the delay time is reached, the meter closes the unloading and starts the loose bag delay. The loose bag is automatically released after the delay of the loose bag.

No bucket: Start the loose bag start delay after the setting , and automatically release the bag after the delay . (If there is a bag patting function, start the loose bag start delay after the bag is finished). The meter controls the conveyor signal output and starts the conveyor.

7. Motor working process

7.1 Motor feeding section

7.1.1 Stepper motor feeding

Stepper motor mode control feed door ON/OFF: The ON/OFF quantity involved is: **(feed pulse output) / (feed direction signal), (feed gate closes in place), (signal in-position signal type determines)** .

Take the process of fast feeding and slow adding as an example:

- Fast addition process: controller control **(motor rotation direction signal)** output, to ensure that the motor rotation direction is the door opening direction, then **(feed pulse output)** according to the set **feeding motor frequency** to output pulses, control the feeding stepper motor to turn in the door opening direction, **(When the** number of **feeding pulse output** reaches the set value, the output pulse signal is stopped, and the feeding door stops rotating. At this time, it is in the fast-adding state. Then the meter changes **(motor rotation direction signal)** output to the door closing direction.
- In the process of adding: **(feed pulse output)** according to the set **feeding motor frequency** to output pulses, control the feeding stepper motor to turn in the closing direction, **(the feeding pulse output)** reaches the set value and stops outputting the pulse signal, the feeding gate Stop turning, this time is in the middle state.
- Slow addition process: **(feed pulse output)** according to the set **feed motor frequency** to output pulses, control feeding stepper motor continues to turn in the closing direction, **(feed pulse output)** number reaches the set value and then stop output pulse signal, feeding door stops rotating, in this case the slow feed state.
- Feeding off: **(feeding pulse output)** According to the set **feeding motor frequency** , the pulse is output, and the feeding stepping motor continues to rotate in the closing direction until the detection **(feeding door closes in place). The** input pulse is stopped after the input is valid, and the feeding gate stops. Rotate, at this point the feed is completely closed.
- Note: If the closing process time exceeds the **feeding door closing timeout time** set by the feeding closing timeout time, the meter has not detected **(the feeding door is closed in place)**, then the meter will stop **(feed pulse output)** , and the alarm **feeding will close the timeout** .

7.1.2 Ordinary motor feeding

Ordinary motor mode control feed door ON/OFF: The I/O Module involved is: **(adding material to open the door) / (adding material to close the door), (the feeding door is closed in place).**

Take the process of fast feeding and slow adding as an example:

- Coarse feeding process: The feeding process starts after the delay time. The controller first makes the (feeding and opening) signal output valid, the effective time is the coarse opening time , and the coarse feeding process begins.
- In the process of medium feeding: When the weight of the material in the hopper ≥ the single scale target value - fast increase the advance amount, the signal output (feeding closes) is valid, and the effective time is "coarse opening time - medium opening time".
- Fine feeding process: When the material weight in the hopper ≥ single scale target value - medium advance amount, the (feeding closes) signal output is valid, the effective time is "medium plus door opening time - fine plus door opening time"
- Feeding off: When the material weight in the hopper ≥ single scale target value - slow plus advance, the **(feed closing)** signal output is valid until the **feed door in-position signal is detected (the feed door is closed)** .
- Note: If the process of closing **the door closing** time exceeds **the timeout addition,** the controller has not been detected **(entry doors closed in place),** then the meter will stop **(closed feed), addition** and **closing** alarm **timeout.**

- Note: When the controller is started, it is necessary to check whether the feeding door and the discharging door are in the limit position. If it is not in the limit position, it will alarm and it will not start.

7.2 motor pocket part

7.2.1 stepper motor clip loose bag

Stepper motor mode control clip loose bag: The ON/OFF quantity involved is: **(clip bag pulse output) / (clip bag direction signal) / (loose bag in place),** (**signal is determined by the type of in-position signal**).
Take the process of clamping the loose bag in the measuring bucket mode as an example:

- The bagging process: the controller control **(clip bag direction signal)** output, to ensure that the motor rotation direction is the bag direction, and then **(clip bag pulse output)** according to the set **bag motor frequency** to output pulses, control clip loose bag stepping The motor rotates in the direction of the **pocket, and the** number of **pulses required** to set the **pocket is** stopped after the **number** of **pulses required** to set the **pocket is** stopped. At this time, the pocket mechanism is in the pocket state. Then the meter changes **(the signal of the pinch pocket direction) and the** output is in the direction of the loose bag.
- The loose bag process: **(pinch bag pulse output)** according to the set **loose bag motor frequency**to output pulses, control the loose bag stepper motor to the direction of the loose bag, until the detection **(loose bag in place)** input is valid, stop output pulse signal In this case the bag is loose state. Note: If the loose bag process time exceeds the set **loose bag process timeout period** , the meter has not detected **(the loose bag is in place)** , then the meter will stop output **(clip bag pulse output)** , and the alarm will **call the loose bag timeout.**

7.2.2 Motor double limit clip loose bag

Ordinary motor double limit control clip loose bag: The ON/OFF quantity involved is: **(clip bag) / (loose bag), (clip bag in place) / (loose bag in place)** . **(The signal is determined by the type of signal in place)** .
Take the process of adding a loose bag in the measuring bucket mode as an example:

- Process folder bags: a signal meter output control clip folder bag to bag-bulk bags motor rotational direction, until a bag-detected signal and outputs the stop bit input signal is active folder bag, the bag clamp mechanism is in this case the bag sandwiched state. Note: If the bagging process time exceeds the set **bagging process timeout period** , the meter has not detected the bag in place signal, then the meter will stop outputting the bagging signal and the alarm **bagging process will time out** .
- Process loose bags: loose bags signal meter output control clip loose bulk bags of rotation of the motor direction of the bag, the bag in place until detecting loose bulk bags stops outputting the signal after the input signal is active, whereupon the bag-state mechanism is loose bags. Note:If the loose bag process time exceeds the set **loose bag process timeout period** and the meter hasnot detected the loose bag in-position signal, the meter will stop outputting the loose bag signaland the alarm **loose bag process will time out** .

7.2.3 Motor single limit clip loose bag

Ordinary motor dual output control control clip loose bag: the amount of ON/OFF involved is: **(clip bag) / (loose bag), (clip bag in place).**
Take the process of adding a loose bag in the measuring bucket mode as an example:

- The bagging process: the meter controls the ON/OFF output signal, and the output signal until the detection of the pocket in-position signal input is valid, the output signal output is invalid, and the device pocket is realized.
- The loose bag process: the meter controls the ON/OFF output signal to realize the loose bag of the device, and the output signal duration is the loose bag output, and the output signal output is invalid.
- **Note:** If the bagging process time exceeds the set **bagging process timeout period** and the meter hasnot detected the bag in place signal, the meter will stop outputting and the alarm **bagging process will time out** .

7.3 Motor discharge part

7.3.1 Stepper motor discharge

Stepper motor control discharge: The ON/OFF quantity involved is: **(discharge pulse output), (discharge direction signal), (discharge opening door is in place).**

Take the unloading as an example:

- Discharge opening process: controller control **(discharge direction signal)** output, to ensure that the motor rotation direction is the door opening direction, and then **(discharge pulse output)**according to the set **discharge door motor frequency** to output pulses, control the discharge stepper motor to the direction of rotation of the discharge door, stops outputting a pulse signal**(output pulse discharge)** the value of the number reaches **the number of pulses required to** set **the discharge,** the discharge mechanism is in the open state at this time
- Discharge closing process: After the discharge door is opened, if the weight of the controllerdetection hopper is lower than the **near zero value** , the **discharge delay time** will be started . After the discharge delay time is over, the controller change **(discharge direction signal)** output is closed. Direction, **(discharge pulse output)** according to the set **discharge motor frequency** to output the pulse, control the discharge stepper motor to rotate in the closing direction, until the detection **(discharge door open in place)** input is valid, stop output pulse signal, this The time is closed. Note: If the door closing process time exceeds the set **discharge closing timeout time** , themeter has not detected the door closing in-position signal **(the discharge door is in place)** , then the meter will stop output **(discharge pulse output)** , and the alarm **unloading closes the door timeout** .

7.3.2 Motor single limit discharge

Ordinary motor forward and reverse single limit mode to control unloading: the ON/OFF quantity involved is: **(unloading to open the door), (unloading to close the door in place).**

Take the unloading process as an example:

- Discharge opening process: At the beginning of the unloading process, the controller output discharge signal controls the unloading motor to rotate in the direction of the discharge opening, and continuously **discharges the door opening output effective time** set discharge motor door opening signal output time, and then closes the unloading signal Output.
- Closing the discharge process: After the discharge door is opened, the controlleration near the hopper weight is less than zero, then the discharge start delay time, delay time after the discharge, the discharge door closing output signal, to control the discharge motor closing the discharge direction of rotation until the sensed discharge doors close off the discharge stops outputting the input signal is position signal active, whereupon the discharge door in a closed state. **Note** : If the discharge door closing process time exceeds the set **discharge closing timeout time** , the meter has not detected the discharge door closing in-position signal, then the meter will stop output and the alarm **discharge closes the timeout** .

7.3.3 Motor double limit discharge

Ordinary motor forward and reverse double limit mode control discharge: the ON/OFF quantity involved is: **(unloading) (unloading closes the door), (unloading closes the door) / (unloading opens the door in place).**

Take the unloading process as an example:

- Discharge opening process: At the beginning of the unloading process, the controller output discharge signal controls the unloading motor to rotate in the direction of the unloading door opening, until the discharge door in-position signal input is detected to stop outputting the discharge signal, and the discharge door is discharged. Is open. Note: If the discharge door opening process time exceeds the set **discharge opening timeout**

time , the meter has not detected the discharge door open door in-position signal, then the meter will stop output, and the alarm**unloading will open the door timeout** .

- Discharge closing process: After the discharge door is opened, The controlleration near the hopper weight is less than zero, then the discharge start delay time, delay time after the discharge, the discharge output closing signals to control the discharge motor is rotated in the closing direction of the discharge until the sensed discharge Close door input valid signal in place to close the discharge stop signal is output, when the discharge doors in a closed state.Note: If the discharge door closing process time exceeds the set **discharge closing timeout time** , the meter has not detected the discharge door closing in-position signal, then the meter will stop output and the alarm **discharge closes the timeout** .

7.3.4 Motor one-way rotary discharge

Ordinary motor one-way rotation one-week single limit mode control discharge: the ON/OFF quantity involved is: **(unloading), (unloading closes the door in place)** .

Take the unloading process as an example:

- Discharge opening process: At the beginning of the unloading process, the controller output discharge signal controls the unloading motor to rotate in the direction of the discharge opening, and continuously sets the **discharge motor to open the door signal output time** , and then closes the discharge signal output.
- Discharging and closing process: After the unloading door is opened, if the controller detects that the weight in the hopper is lower than the near zero value, the discharge delay time isstarted. After the discharge delay time is over, the discharge signal is output , and the unloading motor continues to be controlled. closing the discharge direction of rotation until the sensed discharge doors closing the discharge stops outputting the input signal is position signal active,whereupon the discharge door in a closed state.
- **Note** : If the discharge door closing process time exceeds the **discharge closing timeout time** , the meter has not detected the discharge door closing in-position signal, then the meter will stop output and the alarm **discharge closes the timeout.**

7.3.5 Motor debug function

- Motor debug function is for the convenience of users quickly determine the door size of coarse, medium, fine flow. Take door size of debug fine flow for example as below.

  Steps as below：
- 1：The left side of the interface is the current coarse, medium, fine pulse count. You can modify the data in fine flow pulse input box.
- 2：Click“Open fine flow”buttom，then controller ouput fine flow signal. User can determine whether the current pulse is appropriate by checking the opening size of the charging door. (Note: click "close fine flow" again to close fine flow.Controller can only be in a state, can not be in the state of coarse flow or medium flow at the same time),
- 3： If the pulse number has been modified，press the "save" button to save the modified pulse number，If do not want to save the modified pulse number, exit the motor debugging interface to restore the previous coarse ,medium , fine pulse number.

8. Peripheral workflow

8.1 patting bag

The amount of ON/OFF involved in the bag making function is: "patting bag".
The bag-making function consists of three optional processes: “Bag in the feeding”, “Bag after setting”, “and extra bag ” .
(Note: The extra bag function is not available in PLC mode).
If you want to use the bag making function, first set the bag shooting function in the bag parameters under the peripheral parameters. Different scale body structures are different depending on the optional bag mode.

In the feeding bag:
During the feeding process, if the bag in the feeding is set, when the current weight is greater than the starting weight of the bag, the bag in the feeding starts, and the output of the bag effective time and the bag invalid time are regarded as one bag at a time. After the "number of shots in the feeding" is reached, the output of the shot bag in the feeding is stopped.

After the value is taken, the bag is:
After the fixed value is over, if the set value is set and the bag is taken, the bag will be taken directly after the fixed value is set, and the output of the "bag valid time" and the "bag invalid time" will be regarded as one shot at a time, after reaching the "set value". After the number of times the bag is taken, the bag output is stopped after the fixed value is stopped.

Extra patting bag:
After all the bags are output, an additional bag output is performed. The effective time is the effective time of the extra bag output, and the invalid time is the bag invalid time. End the extra shot output after the bag is taken once.

8.2 coding

The amount of ON/OFFing involved in the coding function is: "code".
After the pocket is completed, if the code ON/OFF is turned on and the “code valid time” is not 0 , the “code start delay” will be started. After the delay is over, the code delay will be started. The time is “coded effectively”. Time", after the time is up, the coding process ends.
(Note: If "Do not allow unloading ON/OFF when coding" is turned on, the loading and unloading function is prohibited during the code process)

8.3 conveyor

The amount of ON/OFF involved in the conveyor function is: "conveyor output".
After the fixed value is over, check whether the “conveyor ON/OFF” is turned on. When it is turned on, run the “conveyor start delay time”. After the delay time, the conveyor starts to run, and the “conveyor running time” is counted. Stop running.
Under the bucket scale structure, if the previous scale conveyor is still running, stop the conveyor before unloading.

Under the structure without bucket scale, if the conveyor of the previous scale is still running, stop the conveyor before the loose bag.

8.4 printing

After connecting the printer, you need to set the communication parameters of the meter and select the communication method as the printing method. The print format is available in 24 columns and 32 columns. The language is available in both English and Chinese, and the number of lines to be printed can be set.

8.5 sewing machine

The number of ON/OFFes involved in the sewing machine function is: “sewing machine output”, “cutting machine output”, “sewing machine start”, “sewing machine emergency stop”.

When the sewing machine ON/OFF is effective, the sewing machine starts to delay. When the delay time reaches, the sewing machine starts to work.The continuous output time is the output time of the sewing machine. After the output time of the sewing machine arrives, the delay time before the sewing machine is started and the delay time of the cutting machine is started.Sewing machine continues to work output, the duration of the sewing machine shutdown delay time.Tangent machine start delay time, when the tangent machine start delay time arrives, the tangent machine begins to work, the working time is the output time of the tangent machine, the tangent machine stops working after the output time arrives.

8.6 Unloading rapping

The ON/OFF quantity involved in the unloading rapping function is: “unloading rapping”.

When the discharge rapping ON/OFF is turned on, if the current discharge time is greater than the set discharge effective time, the discharge rapping output is started, and the unloading rapping effective time and the unloading rapping invalid time are combined as one unloading. When the material is rapping, when the number of unloading rapping reaches the set number of unloading rapping, the unloading rapping process ends and the alarm is stopped.

8.7 Loading / discharge timeout judgment

If the “loading and discharging timeout detection ON/OFF” is turned on, in the running state, during the fast, medium and slow loading and unloading process, the current process delay is greater than the set fast, medium and slow loading and discharging timeout time, then the timeout alarm is output and the machine is stopped.

8.8 auxiliary pulse

The amount of ON/OFFing involved in the auxiliary pulse function is: "auxiliary pulse input 1~4 ", "auxiliary pulse output 1~4 ".

Take auxiliary pulse 1 as an example:

Pulse Mode

When the meter input is stopped or running, when the digital input “ auxiliary pulse input **1** ” is valid, the digital output “ auxiliary pulse output 1 ” starts to output, and the output “ set pulse 1valid time” is continuously output **. After the** time is up, stop. Output, wait for the set "Auxiliary Pulse1 Invalid Time" to arrive, and start output again. The output is stopped until the "Auxiliary Pulse 1Execution Total Time" arrives, and the auxiliary pulse ON/OFF is turned off.

If the "Auxiliary Pulse 1 Execution Total Time" is set to 0 , the output process will continue to execute.

If the digital input auxiliary pulse input 1 is valid during the auxiliary pulse execution , the auxiliary pulse 1 output will stop output.

Level Mode

1. Set parameters and I/O Module: on the interface of [Peripherals Parameter] of [Auxiliary Pulse Parameter], select [level mode] type, set [Auxiliary Pulse valid time] for 2 seconds, set [auxiliary pulse invalid time] for 2 seconds, set the required input and output as [auxiliary pulse input] and [auxiliary pulse output] on the [I/O Module] interface.

2. Perform the operation: select [level mode], and continue to give the high level at the set input. Give the high level and start the effective time of the auxiliary pulse until the end of the effective time 2s of the auxiliary pulse.At this point, the output of the trigger signal becomes invalid until the auxiliary pulse's invalid time 2s ends.After the invalid time of the auxiliary pulse is over, the output end is valid again, and the effective time of the auxiliary pulse is resumed, so as to cycle.Until the input end no longer input high level, output signal port no longer output high and low level.

9. Meter size (mm)