

## Operational Manual About Counting Machine



### [1] Button operation

#### 1. Key introduction

M: function key, return to the main interface, cancel setting

SET: parameter setting, manual button switch

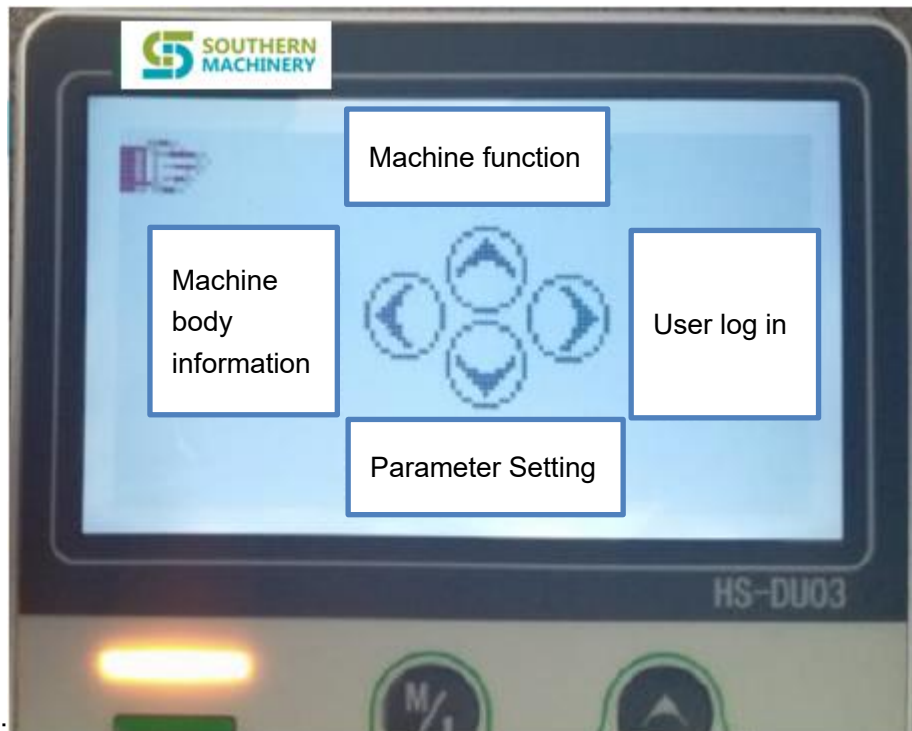
Up and down keys: In the state of parameter modification, the value can be increased or decreased, and in the state of manual operation, it can be switched

The button switch position to operate.

Left and right buttons: in the state of parameter modification, the value can be shifted, and in the state of manual operation, it can be switched

The button switch position to operate.

2. In the main interface or prompt interface (press M key to enter the main interface), the four arrows 'up, down, left, and right' quickly enter the function interface (after entering a certain function interface, when the function interface is divided into multiple pages, you can still press the up and down keys Perform page turning operation on the function

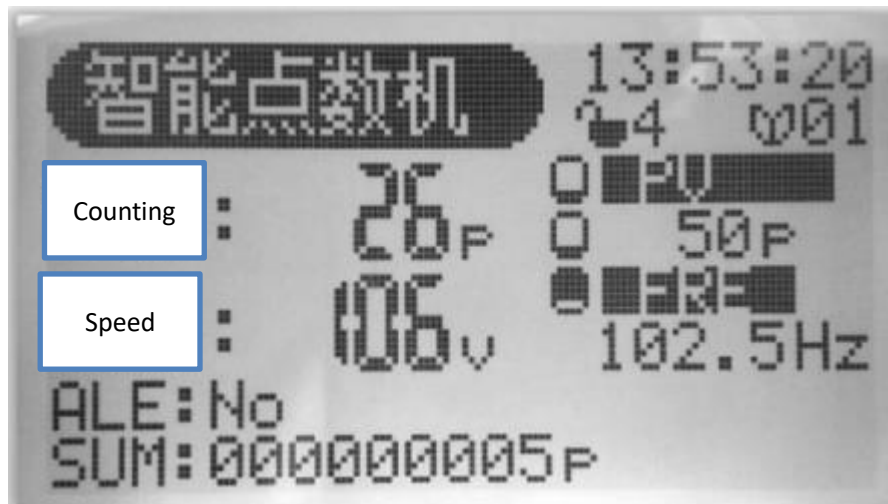


interface):

3. In the interface with settable parameters, press the 'SET' key to enter the setting state, The flashing value indicates the value being modified.
4. In the interface with manually operated button switches, press the 'SET' key to enter the manual
  - In the state of manual operation, the indicator light or switch graphic flashes.
5. When setting numerical parameters:
  - i. 'Up and down arrow' keys for addition and subtraction
  - ii. 'Left and right arrow' keys to shift values
  - iii. Press the 'SET' key to confirm, and automatically jump to the modification position of the next parameter
  - iv. 'M' key can cancel this modification and exit the parameter setting state.
6. When setting numerical parameters:
  - i. 'Up and down arrow' or 'left and right arrow' keys to select other operable switches
  - ii. 'SET' key to switch ON/OFF
  - iii. 'M' key to exit the manual operation state.
7. In any interface, press the 'M' key to return to the main interface.
8. Vibration switch (F0) button can manually open/stop the vibration plate operation (when stopped, close automatic operation is closed, and the startup is invalid).
9. Clear/reset button (CLR/RESET):
  - i. When an alarm occurs, press once to clear or reset the abnormal information.
  - ii. Short press once to clear the current count, long press for 2 seconds to clear the total count

## [2] Interface description

### 1. Main interface



Count: the current number of points

PV [setting value]: the number of points required (maximum 9999pcs)

Speed [set value]: Vibration plate conveying speed (vibration voltage, 0~200v)

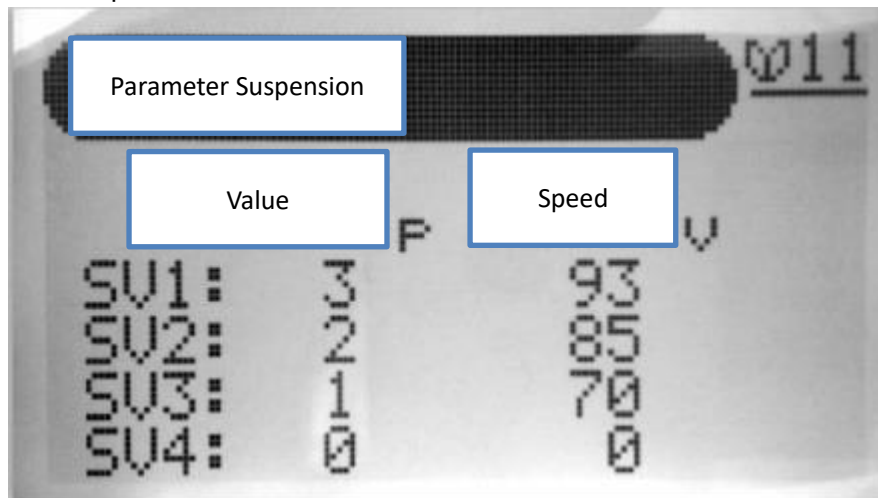
FRE 【Setting value】 : Vibration plate control frequency (common model 50/100Hz, upgrade model 40.0~400.0Hz)

ALE: Abnormal information, 'No' means no abnormality (when the abnormal information is displayed, the

Display the information code, and scroll to the right to display the abnormal content)

SUM: the number of points to run (press and hold the 'CLR' key for 2 seconds to reset)

### 2. Ease parameters



i. Set the parameters for the deceleration and stop of the counting machine, the user can according to the actual situation

Set according to the conditions, so that the running speed is first high speed and then low speed. While counting points, ensure the accuracy of the points.

ii. Four-stage dot speed (SV1~SV4):

'Value' (that is, the number of points) [setting value]: unit P, table Displays the countdown.

'Speed' [set value]: the running speed under the set 'value' (vibration voltage, 0~200v).

iii. Examples:

When the value 'SV1' is set to 3, after starting to run, the last 3 points will follow the speed set by 'SV1' at 93v Work; when the 'PV' value of the main interface is 20, then, when the number of points reaches 17 (20-3=17), follow the 'SV1'

Set speed work. When the value 'SV2' is set to 2, after the operation is started, the last one of the number of points will follow the speed set by 'SV2' at 85v Work; when the 'PV' value of the main interface is 20, then, when the number of points reaches 18 (20-2=18), follow the 'SV2' Set speed work.

In the same way as above, you can set a total of 4 speeds from SV1 to SV4. If the number set later is 0, the speed change will not be performed.

iv. Precautions:

When setting the 'value' and 'speed' of 'SV1~SV4', set it from 'top to bottom' to 'large to small', and all the settings of 'SV1~SV4'

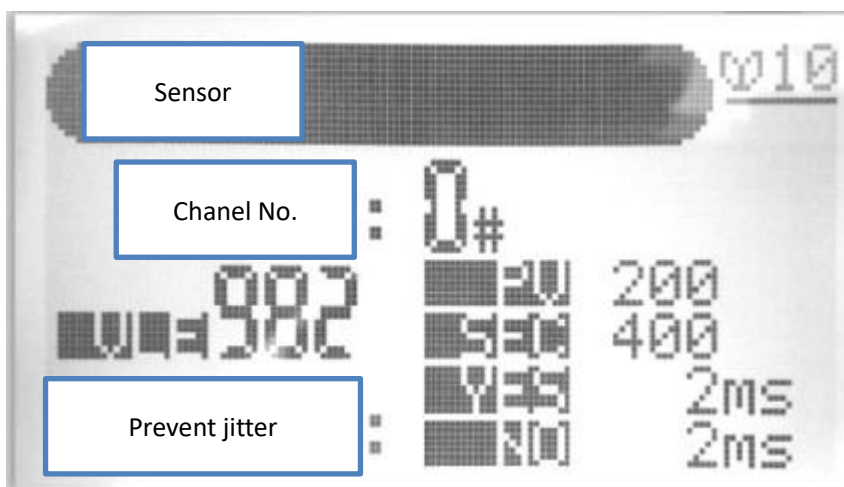
The values are all smaller than the values on the main interface. If the order of the set values is reversed, it will not be able to play the role of point slow stop.

Please set the 'value' and 'speed' of 'SV1~SV4' according to the actual situation, because there will be some

Fixed inertia, the faster the speed, the greater the inertia, even if it is closed, it cannot stop the flow of materials immediately, so it needs a

Factors such as setting the slow stop time, setting the slow stop 'value' too small or setting the 'speed' too fast may lead to inaccurate points.

## Sensors



- i. Channel number: sensor interface number
- ii. VLE: current detection value
- iii. PV [maintenance value]: when it is lower than this value, it will prompt maintenance (optional)
- iv. SET 【Setting value】 : Sensitivity setting (this parameter is invalid when using the external fiber amplifier detection method)
- v. YES [Setting value]: The anti-shake time with light, in milliseconds
- vi. NO [Setting value]: Anti-shake time of shading, in milliseconds
- vii. Points to note:

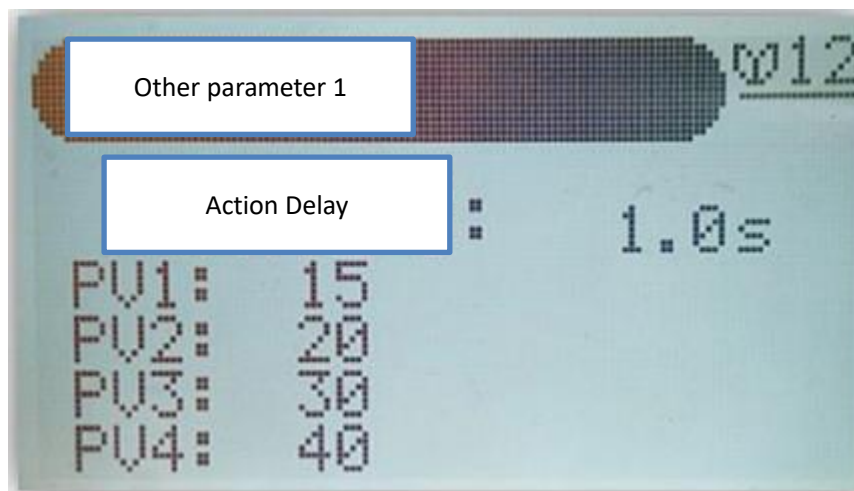
Please set according to the actual situation such as material size and point speed requirements:

The larger the anti-shake value is set, the more accurate the points will be, but the points will be slower, which is suitable for objects that require slow points and are relatively large material.

The smaller the anti-shake value is set, the faster the dot speed, but the worse the dot anti-shake effect. When the material jump is relatively large, it will cause miscounting.

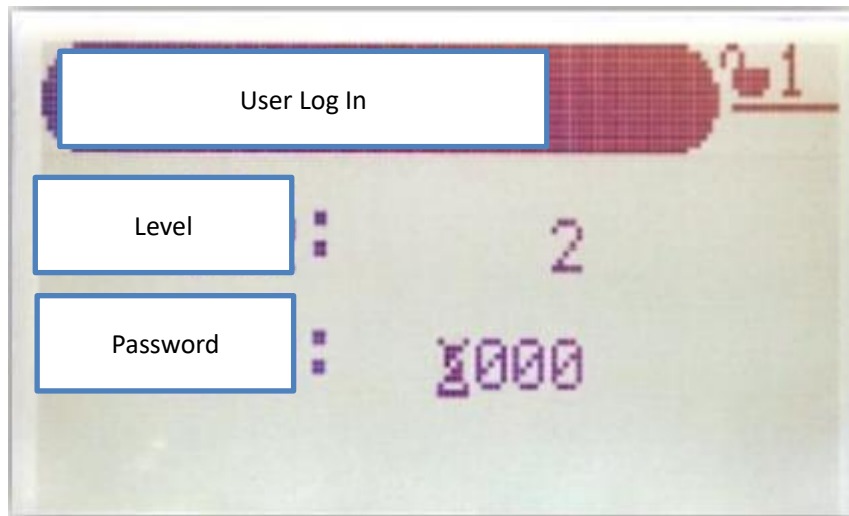
According to on-site debugging experience, usually set YES to 3ms and NO to 3ms.

## Other parameters



- i. Feeding time [set value]: when starting, the baffle cylinder (optional)  
After the action is in place, wait for the time for bagging and feeding.
- ii. Action delay 【Setting value】 : Reserved
- iii. PV1~PV4 [set value]: preset value of points (optional),  
Different count values can be quickly selected via an external button

## User password login

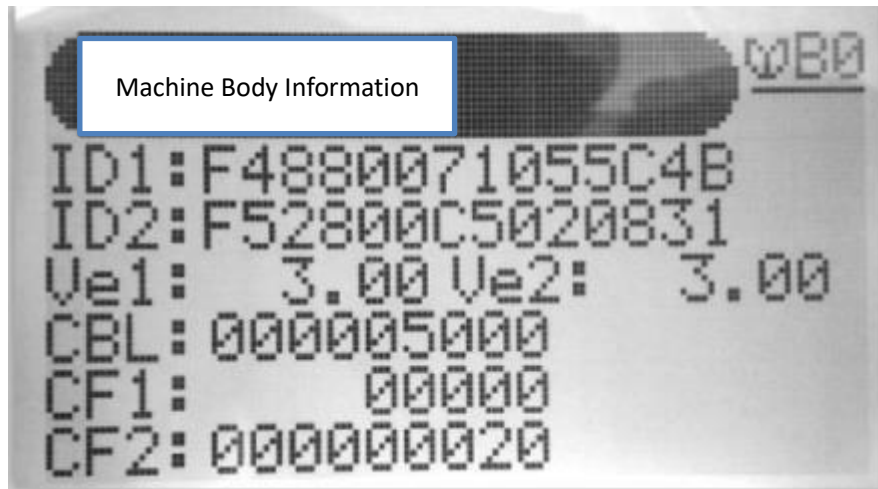


- i. After entering the 'level' to log in, enter the correct 'password' to automatically Jump to the parameter setting interface automatically.
- ii. Each 'level' has an independent password, high 'level' authority operation Operate all functions including lower 'level' permissions.
- iii. If you have successfully logged in, how to log out: on this page You can log out when you enter any permission and wrong password record, or log out by turning off the power and restarting.
- iv. Factory password: 1 for level 1, 2 for level 2.
- v. The passwords of Level 1 and Level 2 can be changed, please keep them safe.

## User password modification (Level 1 and above can only enter this page to operate)

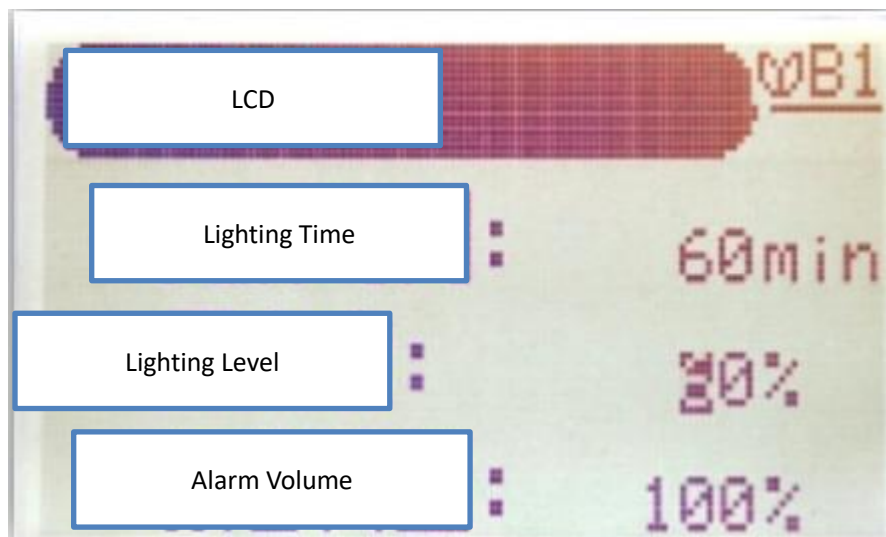
- i. Enter the 'Level' to modify the password, enter the 'New' twice to modify Password' is correct.
- ii. Maximum 4-digit password can be set.
- iii. Passwords with low privileges cannot be modified with high privileges.

## Machine body information



- i. ID1: Display production number
- ii. ID2: Control board production number
- iii. Ve1: Display software version number
- iv. Ve2: Control board software version number
- v. CBL: Factory setting quantity
- vi. CF1: Abnormal record (press the 'CLR' key for 2 seconds to reset)
- vii. CF2: Operation history (permanent memory, not clearable)

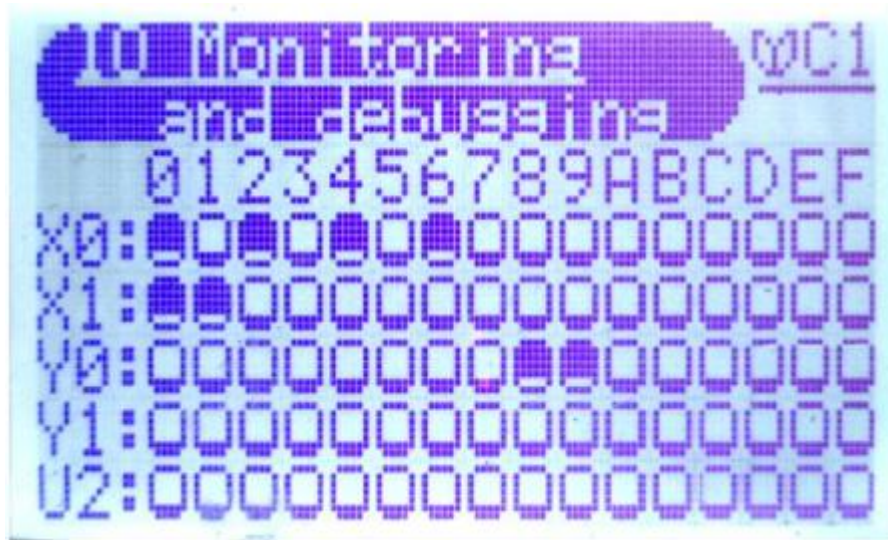
## LCD screen parameters (level 1 or higher to enter this page to operate)



- i. Screen bright time [setting value]: the unit is minutes, the backlight of the screen will be turned off when the time comes, and the backlight will be turned on automatically when an alarm occurs
- ii. Screen Brightness [Setting Value]: Screen backlight brightness, maximum 100%.
- iii. Alarm volume [setting value]: The volume of the buzzer when alarming, setting 0%

means mute, the maximum is 100%.

## **IO port monitoring and debugging (level 2 or higher authority can enter this page to operate manually)**



i. Numbers and letters in the first line indicate the number: 0~F, each line has a maximum 16 (0 1 2 3 4 5 6 7 8 9 A B C D E F).

ii. The first column of letters and numbers indicates the type:

X0, X1 (X0~XF; X10~X1F): Indicates the input port of the control board.

Y0 (Y0~YF; Y10~Y1F): Indicates the output port of the control board.

U2 (U20~U2F): Indicates the program action status, extended module control, and advanced debugging. The indicator light is white for no signal, black for signal, and flashing '\*' for manual operation.

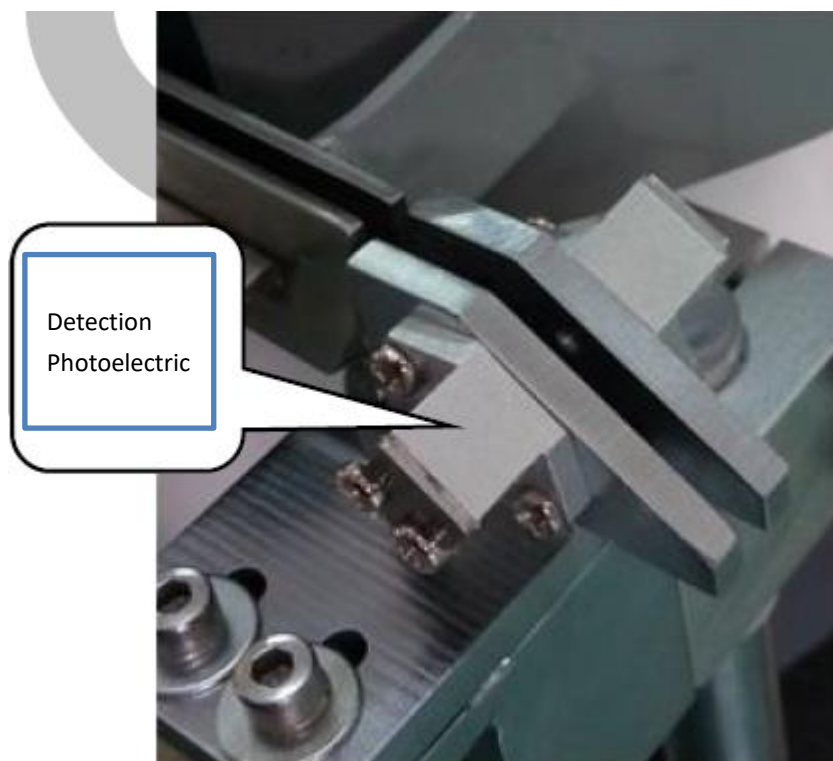
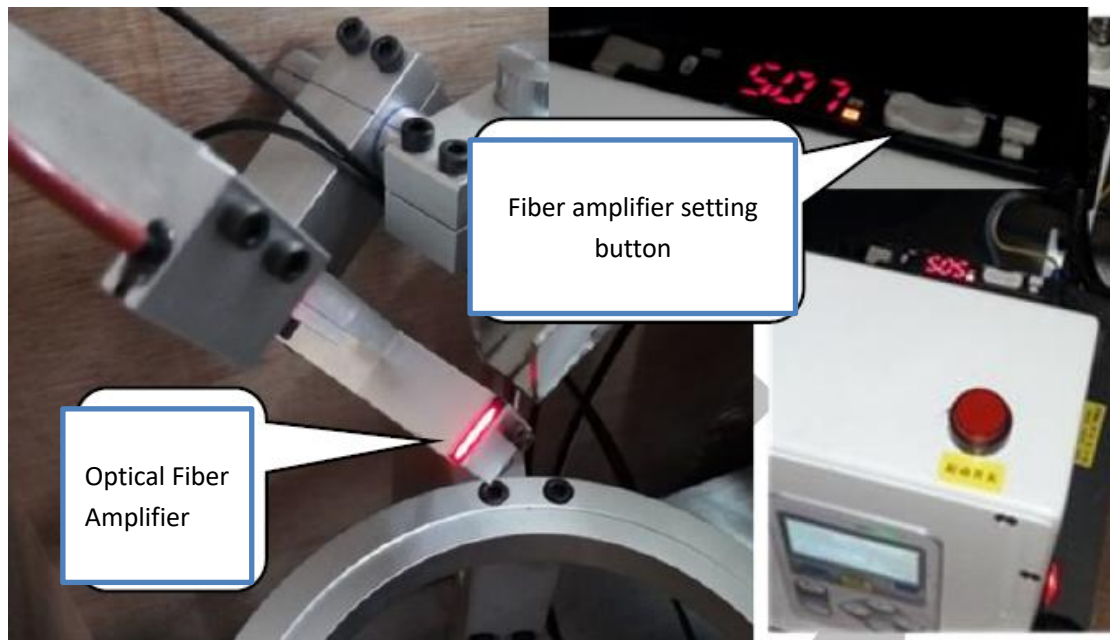
### **[3] Indicator Light**

1. When in standby mode, the yellow light is breathing.
2. During normal operation, the green light is on.
3. When abnormal, the red light flashes.
4. When the communication is abnormal, the blue light and red light flash alternately.

### **[4] Installation of electrical components (different models, different detection and control methods, the following are only for reference)**

1. Photoelectric through-beam sensor: for point detection, installed parallel to straight, please clean the dust regularly (install different detection devices according to material specifications, sensitivity and anti-shake time can be set by parameters, external optical

fiber sensitivity can be set by external amplifier button set up).



2. Start photoelectric switch (optional, parameters such as detection sensitivity cannot be set, and foot switch and start button can be configured in addition): when the movable baffle of material is moved, touch the trough-shaped photoelectric start point to work.

3. Automatic discharge mechanism part (optional): Cylinder magnetic sensor, with home position and action position. When the cylinder moves, the sensor at the corresponding position should light up, and the position when the cylinder retracts indicates the original position. Change the position of the sensor, and do not connect the wrong air pipe connected to the cylinder and solenoid valve.

