

STAINLESS STEEL

WATERPROOF WEIGHING INDICATOR

USER'S MANUAL

Catalogue

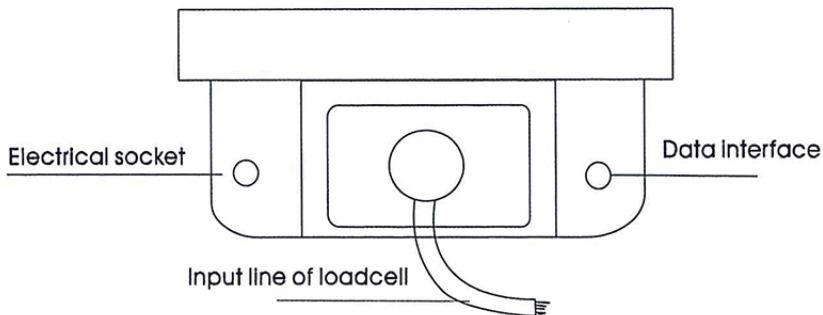
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1. Technical Parameters

- 1.1 A/D Conversion principle: $\Delta-\Sigma$
- 1.2 Display accuracy: 1/3000 ----1/30000
- 1.3 A/D Resolution: 300000
- 1.4 Bridge voltage: DC 5V, could connect 4 pcs 350 Ω loadcells
- 1.5 Capacity: 15、30、60、100、150、200、300、600、1000、1500、2000、3000kg
- 1.6 Serial communication interface: RS-232、Baud rate 1200、2400、4800、9600 optional
- 1.7 Print: RS-232 or RS-485 Serial print output
- 1.8 Output value amount of three-way switch
- 1.9 Power supply: AC 110~240V 50 or 60 Hz / inner 6V4Ah sealed rechargeable battery
- 1.10 Working temperature: -5 ~ 35 $^{\circ}$ C
- 1.11 Storage temperature: -25 ~ 55 $^{\circ}$ C
- 1.12 Size: 212 \times 136 \times 105mm
- 1.13 Weight: 2.5kg

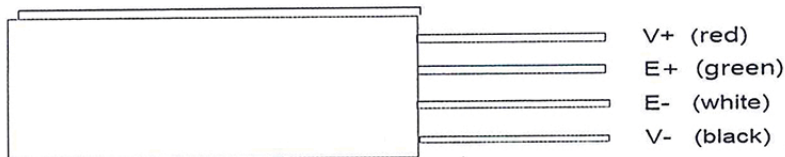
2. Installation

2.1 Bottom schematic drawing of indicator



2.2 Connection between indicator and loadcell

2.2.1 Input signal line of loadcell:



2.2.2 Operation: Slip input line of loadcell on to waterproof heat pipe, slip four input signal line on to thinner heat pipe, then weld the corresponding four input signal lines and four output signal lines. Then, use heat dry to blow the pipe contraction.

Note: When install we must cut off the power supply of loadcell, must unite securely.

Note: Preventing static electricity, welding on platform is prohibited!


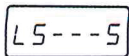
3. Calibration

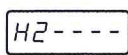

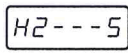
3.1 Random point calibration.





3.2 When it displays 0, press **SET PRT** + **TARE** + **ZERO** the same time, enter to calibration.

3.3 When it displays **P 150**, repeat to press **TARE**, it displays **15 → 30 → 60 → 100 → 150 → 200 → 300 → 600 → 1000 → 1500 → 2000 → 3000** (Means Max. capacity is: 15kg, 30 kg, 60 kg, 100kg, 150 kg, 200kg, 300 kg, 600 kg, 1000kg, 1500 kg, 2000kg , 3000 kg), press **ZERO** to confirm.

3.4 When it displays **L5----**, confirm no weight on plate and press

 , display  , the last number is 2 → 1, if the zero is stable, after display 1, now into next step.

3.5 When it displays  , put any weight on centre of plate, press  , display  , the last number is 2 → 1, if the data is stable, after display 1, now into next step.

3.6 When it displays  , input the value of weight on plate: press  to change the flashing digit, press  to change the number, press  to choose.

Now finish and show the weight value.

- Default unit is kg after into calibration.
- it could be most accurately when use a weight approach 1/2 Max. capacity.
- Please use a loadcell fit in the max. capacity.

4. Function and Operating

4.1 Button Function

 Turn on/off.

 Confirm function while Setting and calibration.

 Choose function while Setting and calibration.

 Displace digital function while Setting and calibration.

 Add up current weight, times and total value.




Change units; Clear total data while adding up; Quit function while setting.





Enter and quit counting.

4.2 Zero

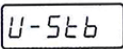

G.W. data is in zero range ($\pm 4\%$ Max. capacity), press  to zero. Cannot zero when there have a tare.

4.3 Tare


While stable, no Negative number and not at zero, press , tare lamp lights.

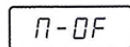
If it is zero and with a tare, press  to quit N.W., tare is zero, tare lamp off.

4.4 Print

When data transmission is  (see 5.8), press  to send current data to PC or printer.

4.5 Add up

4.5.1 When data is stable and stable lamp lights, press  to add current data (weight or quantities) to memory, now display add up times and total value. Add up should at zero, Max. 255 times. Exceed Max. times it will show



, Exceed Max. memory capacity it will show .

4.5.2 At zero, press  to show add up times and total value, return to zero after one second.

4.5.2 Press  to clear total data.

4.5.3 While changing between weighing and counting or turn on scale again, auto clear total data.

4.6 Change unit

Under weighing state, press **UNIT MC** to change units (see 5.4), under counting state, cannot change units.

4.7 Counting

4.7.1 Press **PCS**, counting indicate lights, show sample number

SAP 10, press **TARE** to choose sample number $10 \rightarrow 20 \rightarrow 50 \rightarrow$

$100 \rightarrow 200 \rightarrow 500 \rightarrow 1000$, press **ZERO** to confirm, now show

LoAd C, now place the corresponding sample number, press **ZERO** to finish,

now display the sample number.

4.7.2 While counting, press **PCS** to quit counting and return to weighing.

•Cannot save sample data after quit counting.

•While sampling, press **PCS** to return to weighing.

4.8 Weight value alarm

4.8.1 When it displays 0, press **SET PRT** + **ZERO** the same time, enter to set up weight value alarm.

4.8.2 Choose weight value alarm mode: press **TARE**, now repeat display

-No- \rightarrow **-1N-** \rightarrow **-oUt-**, press **ZERO** to confirm.

$\Pi \square$ close weight value alarm.

$I \Pi$ Open weight value alarm function, alarm in the set range, it sounds di-di-di.

$\square U \square$ Open weight value alarm function, alarm out of the set range, it sounds di-di-di.

4.8.3 Low limit indicate lights, enter to set up low limit, press **SET PRT**, change the flashing digit from left \rightarrow right \rightarrow left, press **TARE** to choose 0 \rightarrow 9. Press **ZERO** to confirm and high limit indicate lights, enter to set up high limit (same as set up low limit) . After Setup completes, start alarming.

4.8.4 $0 < \text{Weight} \leq \text{low limit}$: Low limit indicate lights .

Low limit $< \text{Weight} \leq \text{high limit}$: Accept indicate lights.

Weight $> \text{high limit}$: high limit indicate lights.

- High limit is equal or less than low limit, invalid.
- Data saves to next set.
- Data will change while unit changing.
- This function will be closed when close counting function.

4.9 Save power (see 5.6)

4.9.1 LED display: More than 5 seconds at zero or 30 seconds at any other value, display is dimming; When Indication changes, the brightness is back to normal. After 10 minutes after indication is stable, auto power off.

4.9.2 LCD display: More than 5 seconds at zero or 30 seconds at any other value, backlight will close; When Indication changes, the backlight is opening. After 10 minutes after indication is stable, auto power off.

4.10 Charge

4.10.1 This indicator is supplied power by built-in 6V4Ah non-maintaining sealed lead-acid battery. When voltage is lower than 5.8V, charge indicate is flicking (LED display) or battery indicate is flicking (LCD display) , please charge immediately. When voltage is lower than 5.5V, it will be auto-off.

4.10.2 LED display: When charging, charge indicate is flicking (flicking

frequency is slower than low voltage flicking); When fully charging, charge indicate is always lighting. LCD display: When charging, Battery graphics within the square circulation changes. When fully charging, Battery graphics within blocks all light.

4.10.3 Please charge in time while loss power, try to charge full to save battery life.

4.11 Extra Function

When it displays 0:

Press **M+** to turn on, enter to relative zero-source display mode,

Press **UNIT MC** to turn on, enter to absolute zero-source display mode,

Press **SET PRT** + **M+** to display voltage.

Under the above three status, press **UNIT MC** to return weighing or counting.

5. Set up Parameters

When it displays 0, press **SET PRT** + **TARE** the same time, enter to set up parameters.

Press **TARE** to choose parameter, press **ZERO** to confirm and enter to next step.

5.1 *P r E* (Display accuracy) **1** means n=3000 **2** means n=6000 **3** means n=15000 **4** means n=30000, default is **2**

5.2 *d E C* (The display places behind the decimal point) **0 ~ 4** means 0~4 place (It is available only when the weight unit is kg. If not, there is no function.) **0** means NO decimal point; **1** means 0.0; **2** means 0.00; **3** means 0.000; **4** means 0.0000

5.3 *Z E r* (Zero range) **0 ~ 6** (0~6 display division), default is **2**

5.4 *U N I T* (Units) **1** means kg **2** means kg 、lb.lb **3** means kg 、lb.oz **4** means kg、lb.lb 、lb.oz, default is **1**

5.5 *brt* (Display brightness) 1 ~ 4, default is 2 (LCD display has no this function)


5.6 *SAU* (Save power) 0 ~ 3, 0 means close this function (LCD backlight is still on), 1 means if the scale is at zero for 40 seconds, the screen will show 0 and it returns to normal when weighing. (LCD backlight is off until weighing again), 2 means if the scale is at zero for 40 seconds, the screen will show 0 and it returns to normal when weighing. (LCD backlight is off until weighing again) and then if it stays steady for 10 minutes, the scale will be Auto-off. 3 LCD backlight is off (LED display has no this function), default is 2

5.7 *FLt* (Filter coefficients): 1 ~ 3, different display speed and stability. default is 2

5.8 *SPd* (Display update speed) 0 is Slow Speed, 1 is Fast Speed, default is 1

5.9 *drl* (Creep tracking range) 0 ~ 4, larger number means larger range, default is 1

5.10 *U* (Data transmission) *SHUt* is close, *SEr* is continuous Send, *Stb* is

send after stable, *Etb* is press  to send, *dl SP* Send what the indicator shows, *485* RS485 communication mode. default is *SHUt*

5.11 *b* (Baud rate): 1200, 2400, 4800, 9600, default is 9600 (When choose *SHUt* for 5.10, there is no function.)

After setting, return to normal status.

5.12 *FAt* (Output data type): 1 ~ 8, 1 is Weighing data, 2 is Chinese data, 3 is English data, 4 ~ 8 is Weighing data.

5.13 *StAb* (Stability criteria): 1 ~ 5, The weight data with a change of less than 1d were maintained for 5, 10, 15, 20 and 25 times continuously.

- During set up, press  could quit set.

6. Data Transmission Function

6.1 Weighing Data Format: 18 bytes in total

Output Data	ST	*XXXXXXXX	SP	g	CR	LF
Note	A	B	C	D	E	H

A (2 bytes) State Code. ST ; stable US: unstable OL: overload

B (8 bytes) Display the weight [* is (-) or (SP),X is digit or point]

C (1 byte) SP; spacebar (ASCII 20H)

D (5 bytes) Weight Unit: g or kg or lb.lb; For example: g SP SP SP SP

E (1 bytes) CR : enter (ASCII 0DH)

H (1 bytes) LF : Line Feed (ASC II 0AH)

6.2 Print Format

6.2.1 English Print Format

EENO: xxxx

DATA: xxxx/xx/xx (Y/M/D)

TIME: xx:xx:xx (H/M/S)

W.T.: xxx.x

6.2.2 Chinese Print Format

Number: xxxx

Date: xxxx/xx/xx

Time: xx:xx:xx

Weight: xxx.x

7. Character Prompt

JY-100 Software version number

nnnnnnn

Indicate that the weighing object is overloaded.

LLLLLL

Output of load cell is lower

HHHHHH

Output of load cell is higher or Turn on zero is higher

-Lo-

A reminder that it will shut off in 1 minute, power should be charged since the power voltage is too low.

FULL

Power has been charged fully.

init

Data is abnormal, press

SET
PRT

 to turn on and re-calibrate