XK3190-A12+(E)

Weighing indicator

Instruction Manual

(Version 1.02)

Manufacture of Shanghai Yaohua

Weighing System

沪制 00000071 号

XK319A12+(E)

Items Video

Dear user:

Please read the instructions

XK3190A12+(E)

Chapter I Main parameters

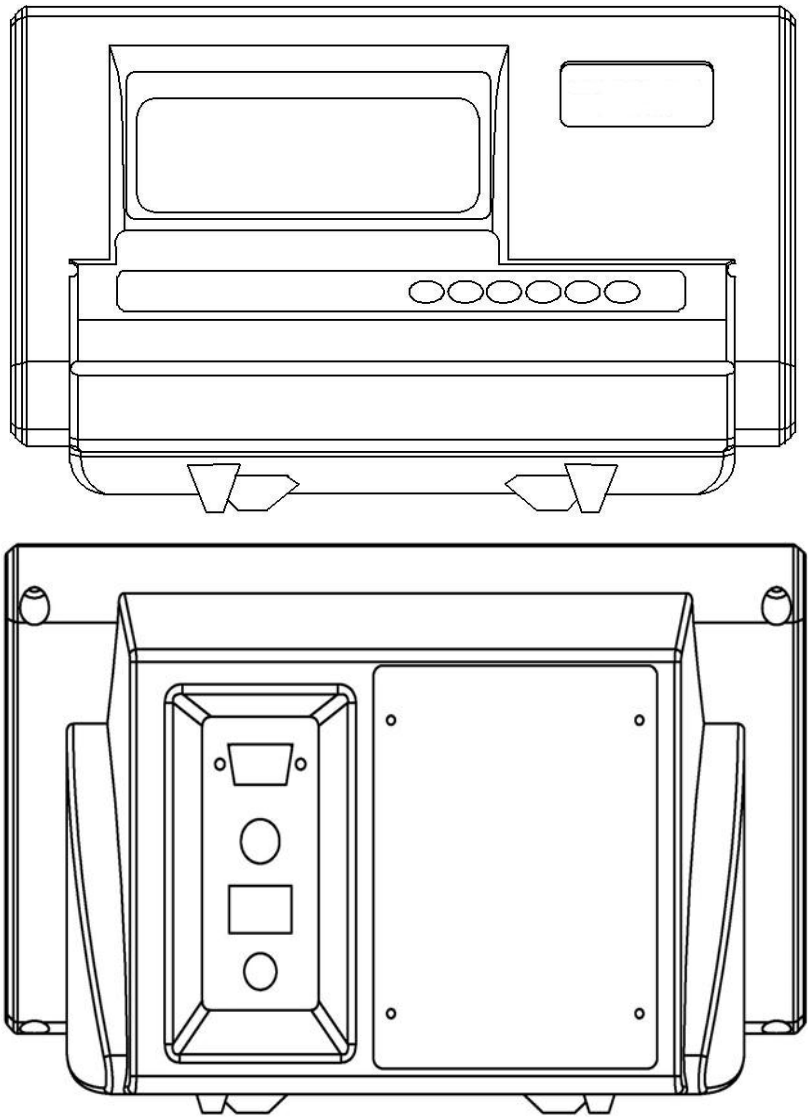
1. model: XK3190-A12+(E) Weighing indicator
2. accuracy: 3, n=3000
3. Sampling speed: 10 per second
4. Sensor sensitivity range: 1.5~3 mV /V
5. graduation: 1/2/5/10/20/50 optional
6. Display: Six digits LCD /LED, six status indicators (A12+ in ▼, A12+ in LED lights, no difference below, all in ▼)
7. large screen display interface (optional): serial output mode, current loop signal, transmission distance ≤2000m
8. communication interface (optional): RS232C; baud rate 1200/2400/4800/9600 optional
9. power: Maintenance-free lead-acid battery DC6V/4AH
10. Use temperature: 0～40℃
11. Storage temperature: -25～55℃
12. Relative humidity: RH ≤85 per cent

Features:

1. High precision A/D conversion, readability up to 1/30000;
2. Call the display of internal code is convenient, instead of the sensitivity weight observation and analysis of tolerance;
3. Special software technology to enhance the vibration resistance of the system;
4. Digital filtering speed, amplitude and stable time can be set;
5. Weighing and counting function (single weight with power off protection);
6. Multiple backlight modes optional;
7. Optional RS232 communication port, baud rate optional, communication mode optional;
8. Equipped with 20 mA current loop large screen communication port;
9. Customizable non-standard varieties (customizable to customer needs)
   - ① kg/lb with one-click conversion function;
   - ② Animal husbandry scale special reform type;
   - ③ A modified type with 2 fixed value output (TTL) functions;
   - ④ Restructuring with peak value;

Chapter II Appearance and connection

.A schematic diagram of the function of the instrument housing and keyboard:



(Figure 2-1) Schematic diagram of instrument case

#	Function	*	Remove skin	Zero	ON/OFF (A12+E does not have this key)

(Figure 2-2) Schematic diagram of instrument keyboard

XK319A12+(E)

.Keyboard function

1. 【 # 】: press this key to enter calibration mode.
2. [Function]: When weighing, press this key for more than 5 seconds to enter user setting mode.Press this key less than 5 seconds to enter the count state.
3. 【 * 】: In the count state, press this key to enter the sample number input state.
4. [Skin removal]: When weighing, press this key to remove skin weight.
5. [Zero]: When weighing, press this key to show zero weight.
6. [ON/OFF]: In shutdown state, press this key to boot, in boot state, press this key to shut down. (A12E does not have this key)

.Connection of three sensors to instrumentation

1 The sensor is connected with a 9-core plug seat. Figure 2-3 illustrates the meaning of each pin.

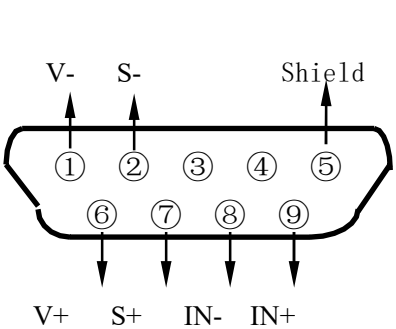
2 Instrument factory default configuration for four-wire system, that is, the instrument inside the 9-core sensor connection

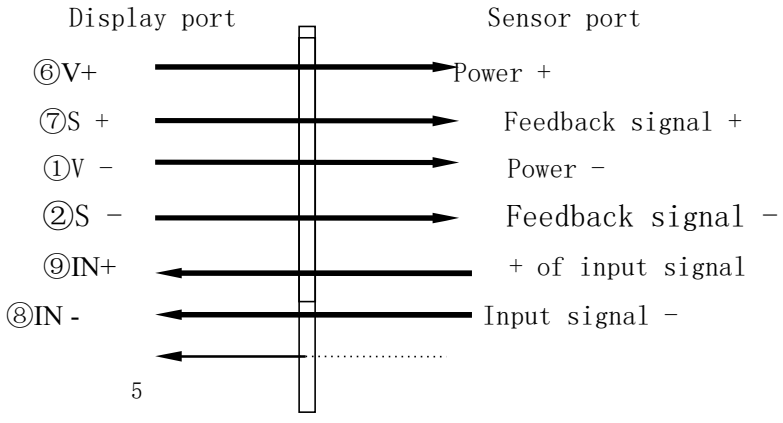
One foot (V-) and two feet (S-), Short 6 feet (V+) and 7 feet (SV+). If the sensor connection is longer (>3 m), To ensure gauge performance, Please use six lines

The short joint solder joint at the 9 core sensor joint inside the instrument is removed, and the sensor and instrument are connected with 6 core shielded cable.

▲! The connection between the sensor and the instrument must be reliable, and the shielding line of the sensor must be reliably grounded. The connection line is not allowed to be plugged in the state of the instrument to prevent electrostatic damage to the instrument or sensor.

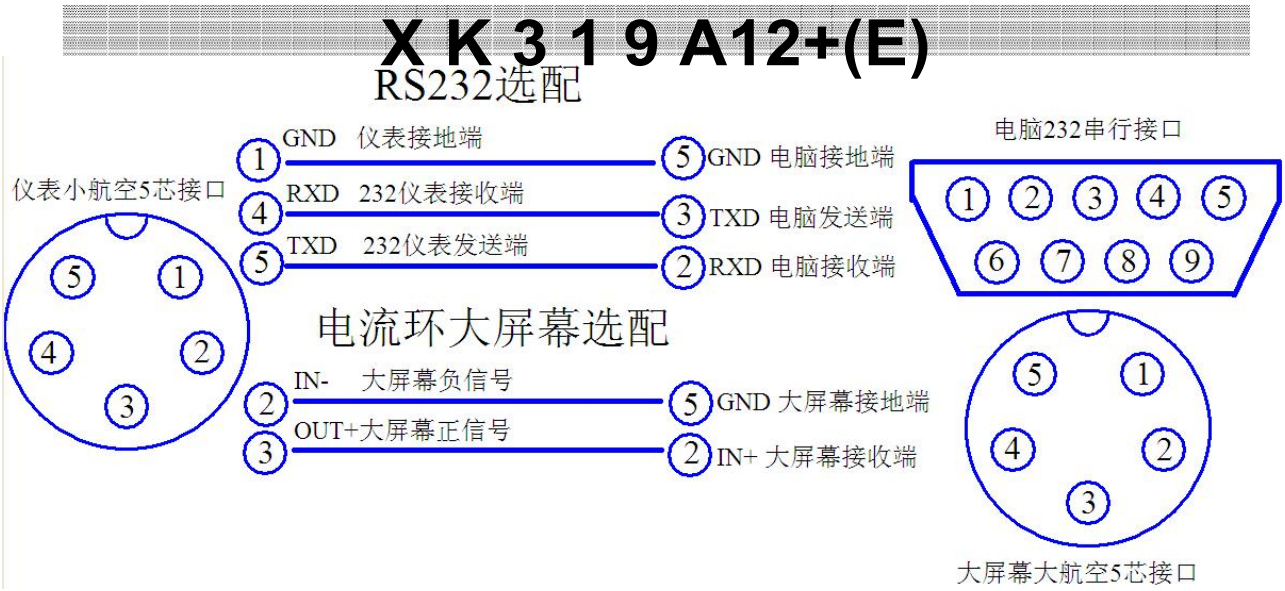
▲! Sensors and instruments are electrostatic sensitive equipment, anti-static





5 Shield Shield line

(Figure 2-3) Sensor connection diagram



(Figure 2-4) Diagram of connection between instrument and computer and large screen

.Connection of four screens to instrumentation (optional)

A current loop signal of 20 mA constant current with a large screen signal output serially in binary code with a baud rate of 600. Please refer to figure 2-4

The connection between the large screen output lead of the instrument and the large screen display must be accurate. If the connection is wrong, it will damage the output port of the instrument or the input port of the large

for the connection between the instrument and the large screen.

.Connection of five serial communication interface to instrument (optional function)

The connection between the output lead of the communication interface and the computer must be accurate. If the connection is wrong, the output port of the instrument or the input port of the computer communication will be damaged, and

XK3190-A12+(E) instrument has RS232 serial communication interface and can communicate with computer. Please refer to figure 2-4 for the connection between the instrument and the computer.

The communication interface adopts RS232C, all data are ASCII codes. Data format for 1 start bit ,8 data bits ,1 stop bit, no check. There are two types of communication:

(1) Continuous mode: the data transmitted is the current weighing (gross weight, net weight or leather weight).

Gross weight in ww000.000kg or ww000.000lb format Net weight format: wn000.000kg or wn000.000lb

Leather weight format: wt000.000kg wt000.000lb or

Note: the above decimal point position is determined according to the decimal point position of the instrument.

(2) Instruction mode (command words are ASCII characters): the instrument according to the instructions sent by the host computer, perform the corresponding operation. Command RThe meter receives commands and sends

weight data once (in the same format as continuous mode)

Command T Instrument receiving command: peeling operation (same as peeling key). Instrument returns CR LF when command is invalid

Command Z Instrument receiving command: zero setting operation (same zero key). Instrument returns CR LF when command is invalid

Chapter III Instrument calibration

I. General calibration methods

During boot initialization, press the [#] key until the end of the stroke self-check, the instrument will enter the calibration state, display [d]. The X]. Step by step,

1. indexing setting:

Display [d X] Press [peel] key to select 1,2,5,10,20,50, press [#] key to confirm, from

Move into the next parameter setting. Press the peeling key to automatically step the loop display.

Display [d X]

Display [d 1 】

Display [d 2 】

Display [d 5 】

Display [d 10 】

Display [d 20 】

Display [d 50 】

Display [d 1 】

For example, show d When 5], press [#] key, the indexing value is set to 5, and automatically into the decimal point setting state.2. decimal point setting:

Displ [P X] Press [peel] key to select 0,1,2,3 decimal places, press [#] key to confirm automatically

ay

[P 0】 Enter the setting of the next parameter. Press the peeling key to automatically step the loop display.

Disp lay

Displ [P 0.0】

ay

Displ [P 0.00】

ay

Displ [P 0.000】

ay

Displ [P 0】

ay

For example, when displaying [P 0.000], press the [#] key, the decimal point is set to 0.000, and automatically enter the maximum scale setting state.

3. maximum scale setting:

Display [FULL 】 Press the [peel] key to enter the digital input state.

Display 【0 0 0 0 0 0】 Press [peel] key, flag ▼ move right to select digital input position, press [zero] key corresponding bit automatically step add one, until the

required number appears, press [peel] key marker ▼ move right to select digital input position, press [zero] key corresponding bit automatically step add one, until the maximum scale value appears, press [#] key to confirm, automatically enter the next parameter setting.

For example, show 0 2 5 0 0 Press [#] to confirm and automatically enter the zero calibration state. 4. zero calibration:

Display [nOLOAD] If there is nothing on the scale, wait until ▼ stable marker appears, press [#] key, zero point is calibrated

Into the range calibration state.

5. full range calibration:

Display [AdLOAD] Place weights on the scale and press the peeling key to enter the input state.

Display 【0 0 0 0 0 0 】 Press [peel] key, flag ▼ turn right to select the digital input position, press set

The zero] key corresponds to one bit automatically, until the desired number appears, then press the [peel] key identifier ▼ move to the right to select the digital input position, press the zero key corresponds to one bit automatically, until the displayed number and weight are equal. Press [#] to confirm that the range is calibrated.

Display 【 End]

6. touch the calibration switch button on the back side of the instrument, the instrument will save the parameters and return to the weighing state.

II. Rapid calibration

During boot initialization, press [#] until the stroke self-check is over, the instrument will enter the calibration state, display [d X]. Step by step,

1. Fast Zero Calibration:

At any time before the display [nOLOAD]], press the [function] key to retain the original indexing value, decimal point, maximum scale parameter setting unchanged, the instrument directly into the zero calibration state. When the stable marker ▼ appears, press the zero key to display the parameters that retain the original full range calibration, touch the calibration switch button on the back side of the instrument, and the instrument will save the parameters and return to the weighing state.

2. directly into the full range calibration state:

At any time before the display [AdLOAd]], press the [*] key to retain the original indexing value, decimal point, maximum weighing parameter setting unchanged, retain the original zero point parameter unchanged, directly into the full range calibration state.

Chapter IV Operational instructions

.One boot and automatic zero setting

1. After power supply, the instrument carries on "000000~999999" stroke self-check, after initialization completes enters weighing state.

2. If the weight of the scale deviates from the zero point, but it is still within the set zero range, the instrument will automatically set zero; if outside the set zero range, the instrument will alarm "Err 3", prompt out of the zero range ," At this time, the weight on the scale should be removed or the scale zero should be adjusted or recalibrated or set.

.Second-hand moving zero (semi-automatic zero)

1. In weighing state, if there is a deviation in the empty scale, press the zero key to make the instrument return to zero.

2. When the display value deviates from zero but is still within zero range, press zero key to play a role, otherwise press zero key does not play a role.(Zero range parameter must be recalibrated or set at this point)

3. Only when the stable flag is bright can zero operation be carried out.

.III. Dedermal function

When the weight is positive and stable, the current weight can be deducted as leather weight by pressing the [peeling] key. At this time, the net weight of the instrument is 0 and the net weight symbol is bright.

.Four Counting Functions

When weighing and displaying state, press [function] key to enter count state, display count, put a certain number of heavy objects, after stabilization, press [*] key, display C00000, press [peel] key corresponding small triangle move selection bit, press [set zero] key, small triangle corresponding bit add increment, input sample number, press [*] key, enter count state, corresponding count state small triangle light. Press

The [function] key returns the weighing state.After entering the count state, the display count, press [* Key twice, directly into the count state, the instrument will be based on the results of the last sampling calculation display. (During this process ," ERR 4" indicates that this sampling failed and the instrument retains the results of the last sampling)

V. Cumulative function

In weighing state, press [*] key, instrument accumulates current weight, press [*] key again to return weighing state; press [*] key in zero state to display current accumulative value; in accumulative state, press [function] key to clear zero.**Note: each accumulative front scale must return to zero! Otherwise, the next cumulative operation can not be carried out.**

VI. User function settings

At weighing state, press [function] key more than 5 seconds, enter user setting mode, user setting mode has P1~P12 twelve parameter settings, press [peel] key to make numerical change, press [*] key to select the next parameter. The parameters are described as follows:

1.P1x kg Lb

conversion x=1: kg

display

x=2: Lb display

2.P2x Automatic shutdown settings (A12+E without

this feature) xA12+E 1: No automatic shutdown

function

x=2: 10 minutes

x=3: 20 minutes

x=4: 30 minutes

3.P3 x baud rate

setting x=1:9600

x=2: 4800

x=3: 2400

x=4: 1200

4.P4 x RS232 output net weight,

gross weight selection x=1:Net output

x=2: Gross weight

output x=3: Output

leather weight

5.P5 x Select RS232

output mode x=1: Do not send

(RS232 stop)

x=2: Continuous transmission

x=3: Continuous transmission in stable condition

x=4: Order mode (Z： zero, T： peel, R： send weight

data once) x=5: Large screen display

x=6: Big screen and RS232 used simultaneously

6.P6 x A12+: Backlight setting ; A12+E：

power saving function setting xA12+E：1:A12+: No backlight

A12+E： no power saving function

x=2: A12+: Automatic backlight A12+E： power saving function

x=3: A12+: Chang Liang A12+E：

No P7 7 x Zero-point tracking

range

x=1: 0.5 e

x=2: 1.0 e

x=3: 1.5 e

x=4: 2.0 e

x=5: 2.5 e

x=6: 3.0 e

x=7: 5.0 e

x=8: Prohibition of tracking

8.P8 x Zero key

range x=1: FS 2 per

cent

x=2: FS 4 per cent

x=3: FS 10 per cent

x=4: FS 20 per cent

x=5: 100 per cent FS

9.P9 x Boot zero

range x=1: FS 2 per

cent

x=2: FS 4 per cent

x=3: FS 10 per cent

x=4: FS 20 per cent

x=5: 100 per cent FS

x=6: No boot zero

P10 10 x Digital filter time intensity

x=1: Hurry

x=2: Middle East

x=3: Slow

P11 11 X Stable time

x=1: Hurry

X=2: Middle East

X=3 Slow

P12 12 X Stable range

X=1: Low

X=2: Middle East

X=3 High

Chapter V Maintenance and precautions

I. In order to ensure the clarity and service life of the instrument, the instrument should not be used in direct sunlight, and the place should be flat.II. Should not be used in dust and vibration, avoid use in wet environment.

III. Sensors and instruments should be reliably connected, the system should be well grounded, away from strong electric field, strong magnetic field, sensors and instruments should be away from strong corrosive objects, away from flammable and explosive items.

▲! Do not use in places with flammable gases or combustible steam; do not use in pressure vessel canning systems.

▲! In areas where lightning occurs frequently, reliable arresters must be installed to ensure the personal safety of operators and prevent lightning from damaging instruments and corresponding equipment.

▲! Sensors and instruments are electrostatic sensitive equipment, anti-static

.It is strictly forbidden to use strong solvent (such as benzene, nitro oil) to clean the casing.

.Liquid or other conductive particles shall not be injected into the instrument to

prevent damage and electric shock.

.Before plugging the instrument and the external equipment connection line, must first cut off the instrument and the corresponding equipment power supply!

▲! Before plugging the sensor connection line, must first cut off the instrument power supply (shut down)!

▲! Before plugging the large screen connection line, you must first cut off the instrument and large screen power supply!

VII. Company advice to customers: before the use of the company's instruments should be the instrument inspection and acceptance. The company is only responsible for the quality of the instrument itself, the maximum compensation is less than 2 times the value of the faulty instrument itself, and is not responsible for the system problems in the instrument.

VIII. The external interface of the instrument shall be used strictly in accordance with the method indicated in the instructions, and the connection shall not be changed without authorization. This form in the use of failure, should immediately unplug, sent to professional factory maintenance. General non-scale professional manufacturers do not repair themselves to avoid greater damage.This instrument is not allowed to open at will, otherwise no warranty.

IX. Within one year from the date of sale, under normal service conditions, non-human failure is covered by warranty. Please send the product and warranty card (number consistent) to the special maintenance point or supplier. The factory carries out life-long maintenance of the instrument.

X. Instrument charging instructions: A12+ the instrument charging needs to plug in AC, open the ship switch behind the instrument, the green AC indicator light on the instrument panel, the instrument will enter the charging state. When the liquid crystal display is turned on and the instrument works normally, if the AC is plugged in, the instrument also enters the charging state. The charging mode is constant voltage current limiting charging. The charging time is about 10 hours.A12+E the instrument charge, it is necessary to plug in the AC first, turn on the ship switch behind the instrument, the red AC indicator light on the instrument panel, and the instrument will enter the charging state.Note that A12+E instrument needs to be turned on to charge, when charging, LED digital tube will also show weight. The charging mode is constant voltage current limiting charging. The charging time is about 10 hours.

Chapter VI Information Tips

Error operation information tips and countermeasures:

1. Err 1 Exposition: the AD value is small when the full amount is calibrated.(Select the appropriate scale sensor)
2. Err 2 Indicates that the zero point exceeds the allowable range when the

zero point is calibrated. (Please check if there is any weight on the scale)

3 Err 3 Indicates that the zero bit exceeds the set range when boot. (Keep the weight on the scale zero when turning on)

4 Err 4 Represents: count state, sample sampling, input sample number is zero. (ERR 4 1 second after the display, enter the count state, this time according to the results of the last sample sampling, re-sampling sample number input can not be zero)

Err 5

5 Represents: calibration state, full calibration, input weight is zero. (Please enter the same weight data as the weights on the scale)

Err 6

6 Count state, when sample is sampled, the weight of a single piece is less than 0.25 e.(Please re-enter sample size)

7. bAt-Lo The battery voltage is insufficient. (Please charge as soon as possible)

8 Err7 Expression: sensor connection failure, calibration loading AD code negative growth. (Please check if the sensor signal line is reversed)

Warning: after assembling this instrument into an electronic weighing device, the product must be marked in accordance with the relevant regulations of the state.