Weight transmitter controller

XK3102-B1

Instructions

VER-B1.8

Please read carefully before using the product manual

Please keep this instruction manual for future reference

XK3102-B1 Photos

Directory

An overview of four

2 Installation 6

3 Operating Instructions 8

4 Maintenance and precautions 21

5 Appendix 22

Overview

XK3102-B1 Weight transmitter controller (hereinafter referred to as controller) is AC-powered, facing the field of industrial control weighing display controller. It combines weight display, RS232/485 interfaces, relay outputs, digital inputs in one. Using high-speed high-precision 24-bit Σ-ΔA / D converters, all interfaces through optical isolation process. Full account of the complexity of the industrial field, in order to elaborate hardware and software design, production and management has been favorable protection, used in building material, chemical, food, steel and other industries.

1.1 Key Features

- Embedded EMC interference immunity circuit, anti-electromagnetic interference capability, suitable for industrial field applications.
- Corrosion of stainless steel panels, all-metal shielded enclosure.
- Accuracy, high resolution - type A / D converter, the maximum A / D pulses: 1,000,000.
- Update rate selectable: 30 times / second, 60 times / second, 100 times / second, 200 times / sec.
- Sub-degree range: 1000 to 50000.
- Dividing Range: 0.001 ~ 50kg.
- Isolated digital communication interface, optional RS232 and RS485 in two ways. Supports Modbus-RTU communication.
- Four optically isolated relay output, output mode can be set to weight sorting mode or setting mode.
- 7 0.56 inches LED digital display, 10-segment bargraph, seven LED indicators.

1.2 Technical Parameters

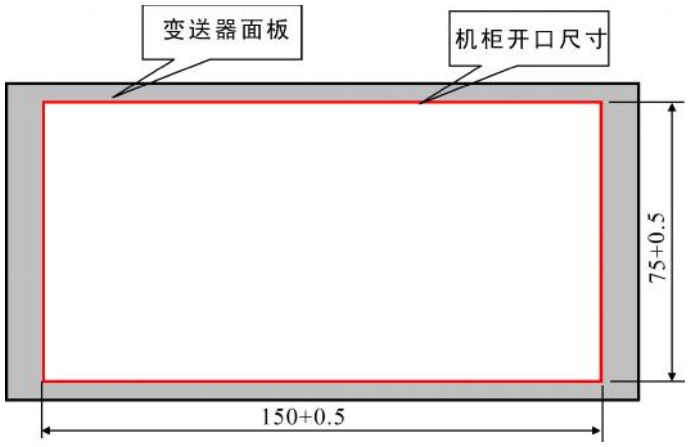
- Excitation voltage: 5.0VDC, can drive 8 350 Ω analog sensors.
- Scale signal range: 1.5 ~ 40mV.
- 0:00 signal range: - 40 ~ 38.5mV.
- Analog current output: Max 500Ω.
- Analog voltage output: Min 10 KΩ.
- Relay contact capacity: AC 7A / 250V, DC 10A / 28V.
- Full Scale Temperature Coefficient: 5PPM / ℃.
- Thermal drift: 0.06 uV / ℃.
- High sensitivity: 0.3uV / d.

- Non-linearity: better than 0.01% FS.
- Analog output offset drift (0mA or 4mA): 50PPM / ℃.
- Output drift (20mA or 24mA): 50PPM / ℃.
- Supply Voltage Range: AC 200 ~ 242V, frequency 49 ~ 51Hz, maximum power consumption 8 watts. Controller requires a good grounding line, not with motors, relays or heater power supply noise prone devices share a power supply.
- Use temperature: -20 ~50 ℃, humidity of 10% ~ 95%, non-condensing.
- Storage temperature: -30 ~60 ℃, humidity of 10% ~ 95%, non-condensing.
- Dimensions: Panel length 170mm, width 85mm, Body length 150mm, width 75mm, depth 100mm.

2 Installation

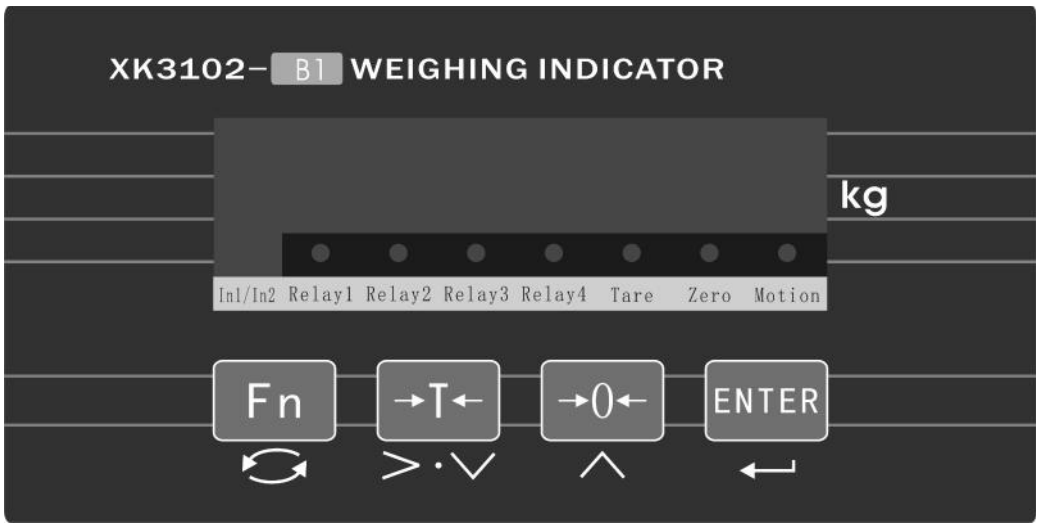
2.1 Controller fixed

Controller with panel installation, cabinet installation requirements before wall thickness less than 4 mm is appropriate, the cabinet opening dimensions are as follows: (dimensions in millimeters)



Before installation, please remove the mandrel on both sides of the casing, and then weighing terminal into the cabinet, the two ejector fixed on both sides of the weighing terminal, requiring top tight control housing to ensure secure installation.

2.2 Front Panel



- Relay1: B1 version to do with power indicator.
- Relay2: B1 version Unused
- Relay3: Relay 3 action indicator.
- Relay4: Relay 4 action indicator.
- Tare: tare indicator.
- Zero: Zero indicator.
- Motion: Dynamic light when light weight data is unstable.

2.3 Wiring Instructions

No.	Tag	Explanation	Remark
1.	Spare	Unused	
2.	RELAY4	Relay 4 normally open contacts	Four normally open relay contact output
3.	RELAY4	Relay 4 normally open contacts	
4.	RELAY3	Normally open contact relay 3	
5.	RELAY3	Normally open contact relay 3	

6.	RELAY2	Relay 2 normally open contacts	
7.	RELAY2	Relay 2 normally open contacts	
8.	RELAY1	Relay 1 normally open contact	
9.	RELAY1	Relay 1 normally open contact	
10.	Spare	Unused	
11.	Spare	Unused	
12.	Spare	Unused	
13.	Spare	Unused	
14.	Letter B	RS485-B	! Non-hot plug welding. ! Please connect professionals, debugging serial port. ! Controller must be grounded reliably. (Note 1)
15.	Letter A	RS485-A	
16.	Reference	Ground	
17.	Letter R	Connect bit machine RS232 transmitter (meter reception)	
18.	Letter T	Connect bit machine RS232 receiver (instrument sent)	
19.	Spare	Unused	
20.	Shielded	Sensor shield wire	Note 2

21.	Negative shock	Sensors negative incentive	
22.	Negative letter	Sensor signal input negative	
23.	Masanobu	Sensor signal input is	
24.	Forward	Sensors positive excitation	

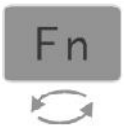
Note 1: The controller has two kinds of RS232 and RS485 communication, two means of communication the same data format. The factory default selection RS485 communication.

Note 2: ▲! Sensor connection to the controller must be reliable, the sensor shield wire and metal housing must be grounded. Connect the power cord does not allow the controller plug under the state, to prevent electrostatic damage to the controller or sensor.

▲! Sensors and controllers are static sensitive devices, in use must adopt anti-static measures, is prohibited in the bench scale operation or other strong electric welding operation, thunderstorm season, reliable lightning protection measures must be implemented to prevent the sensor caused by lightning and damage to the controller, to ensure the safety of the operator and controller devices and related equipment for safe operation.

3 Operating Instructions

3.1 Key Description

Button	Function 1	Function 2	Function 3
	Setting state function key to cycle. (Directly to the next function without setting the	Weighing mode cycle through parameters.	Weighing mode and other key while pressing a function used to enter the setting status.

	current function)		
	Weighing mode to achieve clear skin peeled and functions	FN6 function parameter setting state reduction	Setting state numeric flashes bit right shift
	Weighing clear function to achieve a state	Set the parameters of the state to change the settings or numerical increase	No
	Setting state to enter the current function sub-functions	Set to save the current state of the function set parameters and go to the next function items	Setting state to determine the next execution of the current function and functional items

3.2 Function Item Description

Function item type of a function key and two functional items, functional items is a function of two items of sub-functions by a function key press ENTER Key to enter the two functional items, when you select items from the last two functions function item, press Fn Or ENTER Key to enter the next menu level items. For convenience, the table lists the total functional items for reference.

No.	A function key symbol (name)	No.	Two function key symbol (name)
1	FN1 (weight calibration)		DCXXXXX (sub-degree setting)
			DXXX (division value set)
			CAL-NOD (zero calibration)

			CAL-LD1 (first point calibration)
			INPUT LD1 (Enter the first point weight value)
2	FN2 (operating parameter settings)		FN2.1X (ADC conversion rate setting)
			FN2.2X (button tare parameter settings)
			FN2.3X (button clears parameter settings)
			FN2.4X (auto zero tracking range setting)
			FN2.5X (motion detection parameter settings)
			FN2.6X (digital filter parameter settings)
			FN2.7X (boot automatically zero range parameter settings)
9	FN3 (communication parameter settings)		FN3.1X (baud rate)
			FN3.2X (communication settings)
			FN3.3XXX (mailing address is set)
			FN3.4X (weight data type settings)
1	FN5 (relay outputs)		FN5.1X (relay output mode setting)
			AXXXXXX (relay 1 output point value is set)

			bXXXXXX (Relay 2 output point value is set)
			CXXXXXX (Relay 3 output point value is set)
			EXXXXXX (relay 4 output point value is set)
1	ESC (exit setting mode)		

3.3 Weight Calibration FN1

To determine the number of calibration parameters before: namely, the largest weighing, the largest sub-degree and sub-degree values. Their relationship is:

Maximum weighing = Maximum number of divisions × maximum scale value

Sub-degree range is generally from 1000 - 10000, dividing the value taken 1×10^{n}, 2×10^{n} or $5 \times 10^{n,n}$ value of -3, -2, -1, 1. In certain circumstances, the largest weighing, select the appropriate scale value, to ensure that the number of each sub-degree uV not less than 0.6uV / d. By the following formula V / d:

Dividing the value (kg) × sensor output sensitivity (mV / V) × excitation voltage (V) × 1000

μV / d =

Sensor Capacity (kg) × number of sensors

Common sensor sensitivity 2 mV / V, specific indicators refer to the sensor manual.

Ready before the corresponding calibration weight weight. Calibration weight you need to enter the correct password, enter the correct password once within 5 minutes after the need to re-enter, five minutes later if you need to re-set the parameters again enter the password. Specific calibration procedure below.

Step	Show	Function name (symbol)	Explanation
1. **1**	[FN1]	Weight calibration (FN1)	FN1 for the weight calibration function, including sub-functions, sub-functions in the modified parameters need to enter the calibration password. In weighing mode press Fn And →0← Enter FN1. Press Fn Enter FN2; Press ENTER Key to enter the calibration password input interface.
2.	[P-00000]	Calibration password (PASSWORD)	The correct password is 12111 Calibration Press > Key allows flashing digit moves to the right; Press ^ Keys to change the flashing digit numerical size; Press Fn Exit the password setting mode, return to weighing mode; Press ENTER If the password is correct, the next step, if the wrong password is prompted ERR 06.
3. **2**	[DCXXXXX]	Sub-degree setting	Where **XXXXX** is sub-degree, degree can set points are: 1000, 1500,

		(DCXXXXX)	2000, 2500, 3000, 4000, 5000, 6000, 8000, 10000, 12000, 15000, 20000, 50000. Press ^ Keys to select the desired number of divisions; Press Fn Key to discard your settings, skip this step to the next step; Press ENTER Key to save the set of divisions and enter the next step.
4. **3**	[D XXX]	Dividing the value set (DXXX)	Where **XXX** is the scale value can be set indexing values are: 1, 0.1, 0.01, 0.001, 2, 0.2, 0.02, 0.002, 5, 0.5, 0.05, 0.005, 10, 20, 50. Press ^ Keys to select the desired scale value; Press Fn Key to discard your settings, skip this step to the next step; Press ENTER Key to save the set point value and enter the next step.
5. **5**	[CAL-NOD]	Zero calibration (CAL-NOD)	Said it would be corrected zero, then check whether the empty scale units. Press Fn Key to discard your settings, skip this step to the next step;

			Press ENTER Key to start the implementation of internal zero calibration, the controller displays "- - - - - - -"At the same light beam gradually extinguished, during which the data is unstable, the light beam will restore full brightness. Beam all off, the controller automatically enter the next step.
6. **6**	[CAL-LD1]	The first point calibration (CAL-LD1)	Represents the first point to be calibrated. If you do not perform this step, press Fn Key to enter the function key FN2 To perform this step, the scale platform load standard weights, recommended load weight is heavier than 20% of the maximum weighing, weight evenly distributed, or placed in the center of the weighing platform. Press ENTER The first point to start to perform internal calibration, the controller displays "- - - - - - -"At the same light beam gradually extinguished, during which the data is unstable, the light beam will restore full brightness. Beam all off, the controller automatically enter the next step.

7. 7	[XXXXXXX]	Enter the first point weight value (INPUT LD1)	Controller displays the maximum weight value XXXXXXX, this time to enter its load weight value. Press > Key allows flashing digit moves to the right; Press ^ Keys to change the flashing digit numerical size; Press ENTER Key internal calibration, handling is completed automatically return to weighing mode.

3.4 Operating parameters FN2

Users can modify the controller operating parameters, these parameters include: ADC conversion rate, buttons, peeled, buttons cleared, auto-zero tracking range settings, motion detection, digital filter options and boot automatically set to zero range, the specific setup steps below.

Step	Show	Function name (symbol)	Explanation
1.	[FN2]	Operating parameter settings (FN2)	FN2 for the operating parameters setting function, with sub-functions. In weighing mode press Fn And →0← Enter FN1, and then press Fn Key to cycle to the display FN2. Press Fn Enter FN3;

			Press ENTER Key to enter the next step.
2.	[FN2.1 X]	ADC conversion rate setting (FN2.1X)	X can be set to a value of 0, 1, 2, 3. 0 = 30Hz; 1 = 60Hz; 2 = 100Hz; 3 = 200Hz. The factory default value is 1. (Parameter changes take effect immediately) Press ^ Keys to select the desired ADC conversion rate; Press Fn Key to discard your settings, skip this step to the next step; Press ENTER Key to save the settings and enter the next ADC conversion rate.
3.	[FN2.2 X]	Button tare parameter settings (FN2.2X)	X can be set to a value of 0, 1. 0 = disabled; 1 = Tare Range 100% FS. The factory default value is 1. Press ^ Keys to select the desired button peeled parameters; Press Fn Key to discard your settings, skip this step to the next step;

			Press ENTER Key to save the parameters that have been set tare button and enter the next step.
4.	[FN2.3 X]	Button to clear parameter settings (FN2.3X)	X can be set to a value of 0, 1, 2, 3. 0 = disabled; 1 = Allow Zero range ± 50% FS; 2 = Allow Zero range ± 100% FS; 3 = Allow zero range limit The factory default value is 3. Press ^ Keys to select the desired button clears parameters; Press Fn Key to discard your settings, skip this step to the next step; Press ENTER Key to save the parameters you have set clear button and enter the next step.
5.	[FN2.4 X]	Automatic zero tracking range setting (FN2.4X)	X can be set to a value of 0, 1, 2, 3. 0 = disabled 1 = Allows automatic zero tracking 1d / sec 2 = Allow automatic zero tracking 2d / sec

			3 = Allow automatic zero tracking 3d / sec. The factory default value is 2. Press ^ Keys to select the desired auto zero tracking range parameters; Press Fn Key to discard your settings, skip this step to the next step; Press ENTER Key to save the set parameters of the automatic zero tracking range and enter the next step.
6.	[FN2.5 X]	Motion detection parameter settings (FN2.5X)	X can be set to a value of 0, 1, 2, 3. 0 = disable motion detection 1 = allow dynamic detection sensitivity 1d 2 = allow dynamic detection sensitivity 2d 3 = Allow 3d motion detection sensitivity The factory default value is 3. Press ^ Keys to select the required dynamic testing parameters; Press Fn Key to discard your

			settings, skip this step to the next step; Press ENTER Button to save the motion detection parameters have been set and the next step.
7.	[FN2.6 X]	Digital filter parameter settings (FN2.6X)	X can be set to a value from 0 to 9. Figures represent the filtering strength, greater value, the stronger the degree of filtering, the corresponding settling time becomes longer. The factory default value is 2. Press ^ Keys to select the desired digital filter parameters; Press Fn Key to discard your settings, skip this step to the next step; Press ENTER Key to save the set of digital filtering parameters and enter the next step.
8.	[FN2.7 X]	Boot automatically set to zero range parameter settings (FN2.7X)	X can be set to a value of 0, 1, 2, 3. 0 = disabled 1 = Boot automatically set to zero range ± 4% FS 2 = boot automatically zero range ± 10% FS 3 = boot automatically set to zero range ± 20% FS

			The factory default value is 3. Press ^ Keys to select the desired boot automatically zero range parameters; Press Fn Key to discard your settings, skip this step into FN3; Press ENTER Key to save the set boot auto-zero range parameter and enter FN3.

3.5 Communication parameter setting FN3

You can set the communication parameters including baud rate, communication, mailing address, and weight data types. Baud rate can be set to 1200bps, 2400bps, 4800bps, 9600bps, 19200bps, communication can choose to send the command mode or continuous mode, the controller communication address of the machine can be set, in addition to a choice of communications transmitted or dividing the value of the weight value, specific setup steps below.

Step	Show	Function name (symbol)	Explanation
1.	[FN3]	Communication parameter setting (FN3)	FN3 for the communication parameter setting functions, including sub-functions. In weighing mode press Fn And →0← Enter FN1, and then press Fn Key to cycle to the display FN3. Press Fn Enter FN4; Press ENTER Key to enter the next step.
2.	[FN3.1 X]	Baud Rate Setting (FN3.1X)	X can be set to a value of 0, 1, 2, 3, 4. (Parameter changes take effect immediately) 0 = 1200bps; 1 = 2400bps; 2 = 4800bps;

			3 = 9600bps; 4 = 19200bps; The factory default value is 4. Press ^ Keys to select the desired baud rate; Press Fn Key to discard your settings, skip this step to the next step; Press ENTER Key to save the baud rate and the next step.
3.	[FN3.2 X]	Communication settings (FN3.2X)	X can be set to a value of 0, 1. 0 = command mode (see Appendix: 5.1 command mode); 1 = continuous transmission mode (see Appendix: 5.2 continuous transmission mode); The factory default value is 0. Press ^ Keys to select the desired means of communication; Press Fn Key to discard your settings, skip this step to the next step; Press ENTER Key to save the set of communication and enter the next step.

4.	[FN3.3XXX]	Address setting (FN3.3XXX)	XXX indicates the command mode multi-machine communication address of the machine, you can set a value from 0 to 255. Press > Key allows flashing digit moves to the right; Press ^ Keys to change the flashing digit numerical size; Press Fn Key to discard your settings, skip this step to the next step; Press ENTER Key to save the mailing address has been set and the next step.
5.	[FN3.4 X]	Weight data type settings (FN3.4X)	Indicates that the command mode transmission weight value or scale value X can be set to a value of 0, 1 0: Transfer weight data 1: Data transfer weight of divisions When the weight data contains decimal or weight greater than 32,767 kg when the election 1. Press ^ Keys to select the desired weight data types; Press Fn Key to discard your settings, skip this step into FN4;

			Press ENTER Key to save the settings and enter the weight of the data type FN4.

3.6 Relay Output Settings FN5

Controller built two normally closed relay contact output, relay operation mode can be set to: 0 = relay no action; 1 = weight sorting mode; 2 = fixed value mode. Another point threshold relay outputs can also be set,

Weight sorting mode:

1 relay:

When the weight <Relay 1 output point value, closed;

When the weight> = Relay 1 output point value, disconnected.

2 # Relay:

When the weight <Relay 2 output points value, closed;

When the weight> = Relay 2 output points value, disconnected.

3 # relay:

When the weight <Relay 3 output point value, disconnect

When the weight> = Relay 3 output point value, is closed.

4 # relay:

When the weight is <4 relay output point value, disconnect

When the weight> = Relay 4 output point value, is closed.

Setting mode:

1 relay:

When the weight <Relay 1 output point value, disconnected.

When the weight> = Relay 1 output point value, is closed.

2 # Relay:

When the weight <Relay 2 output points value, disconnected.

When the weight> = Relay 2 output point value, is closed.

3 # relay:

When the weight <Relay 3 output point value, disconnected.

When the weight> = Relay 3 output point value, is closed.

4 # relay:

When the weight is <4 relay output point value, disconnected.

When the weight> = Relay 4 output point value, is closed.

Specific setup steps below.

Step	Show	Function name (symbol)	Explanation
1.	[FN5]	Relay output settings (FN5)	FN5 setting function for the relay output, with sub-functions. In weighing mode press Fn And →0← Enter FN1, and then press Fn Key to cycle to the display FN5.

			Press Fn Key to enter the ESC; Press ENTER Key to enter the next step.
2.	[FN5.1 X]	Relay output mode setting (FN5.1X)	X can be set to a value of 0, 1, 2. 0 = relay no action; A = weight sorting mode; 2 = fixed value mode; If users do not use the relay output function, we recommend the relay output mode is set to 0 The factory default value is 2. Press ^ Keys to select the desired relay output mode; Press Fn Key to discard your settings, skip this step to the next step; Press ENTER Key to save the set of relay output mode and enter the next step.
3.	[AXXXXXX]	Relay 1 output point value is set (AXXXXXX)	Press > Key allows flashing digit moves to the right; Press ^ Keys to change the flashing digit numerical size; Press Fn Key to discard your settings, skip this step to the

			next step; Press ENTER Key to save the set point value and relay 1 output to the next step.
4.	[BXXXXXX]	Relay 2 output point value is set (bXXXXXX)	Press > Key allows flashing digit moves to the right; Press ^ Keys to change the flashing digit numerical size; Press Fn Key to discard your settings, skip this step into the ESC; Press ENTER Key to save the set point value output relay 2 and enter the next step.
5.	[CXXXXXX]	Relay 3 output point value is set (AXXXXXX)	Press > Key allows flashing digit moves to the right; Press ^ Keys to change the flashing digit numerical size; Press Fn Key to discard your settings, skip this step to the next step; Press ENTER Key to save the output relay 3 has been set point value and enter the next step.
6.	[EXXXXXX]	Relay 4 output point value is set (bXXXXXX)	Press > Key allows flashing digit moves to the right; Press ^ Keys to change the

			flashing digit numerical size; Press Fn Key to discard your settings, skip this step into the ESC; Press ENTER Key to save the set point value output relay 4 and enter the next step.
7.	[ESC]	Exit setting mode (ESC)	Press Fn Enter FN1; Press ENTER Key to exit the settings, return to the weighing mode.

3.7 Some parameters Quick View

In weighing mode, press Fn Key to quickly view some parameters, each parameter display for about 3 seconds, the display automatically after a time to return to weighing state. Parameters can be viewed below.

No.	Show	Parameter name
1.	[DCXXXXX]	Current controller of divisions
2.	[D XXX]	Dividing the value of the current controller
3.	[AXXXXXX]	Relay 1 output point value
4.	[BXXXXXX]	Relay 2 output point value
5.	[CXXXXXX]	Relay 3 output point value

6.	[EXXXXXX]	Relay 4 output point value
7.	[BpXXXXX]	Current controller baud rate
8.	[AddrXXX]	Command mode controller address

4 Maintenance and precautions

- In order to ensure clarity and longevity controller, the controller should not be used in direct sunlight, place the site should be relatively flat.
- Should not be placed in places with serious dust and vibration, to avoid in a wet environment!
- Sensors and controllers to be reliably connected, the system should have a good grounding, away from strong electric field, magnetic field, sensors and controllers should be away from strong corrosive substances, away from flammable materials! Do not use flammable gas or flammable vapors occasions, not use canned in a pressure vessel system!
- In areas of frequent lightning, lightning arrester must be installed by a reliable, in order to ensure operator safety, to prevent lightning damage the controller and the corresponding equipment!
- Sensors and controllers are static sensitive devices, in use must adopt anti-static measures, is prohibited in the bench scale welding operations or other strong electric field operations; during lightning season, a reliable lightning protection measures must be implemented to prevent the sensor caused by lightning and damage to the controller, ensure operator safety and weighing devices and related equipment for safe operation!
- Do not use strong solvents (such as: benzene, nitro oils) wash cabinet!
- Shall not be liquid or other conductive particles injected into the controller so as to prevent damage to the controller and an electric shock!
- Plug the controller and external devices in the cable, you must power off the controller and the corresponding equipment! In front of the line connecting the sensor plug must be cut off power to the controller! Plug the big screen in the connecting line must be cut off power supply controller and the big screen! Communication link line before the plug must be cut off the controller and PC Power!
- External interface controller operating instructions must be strictly in accordance with the labeling methods used, are not allowed to change the link to the table in the course of the event of failure, you should unplug it immediately and send professional plant maintenance, general non-weighing

manufacturer Do to repair to avoid greater damage, the controller does not allow arbitrary open, otherwise no warranty.

- The controller from the date of sale within one year, under normal conditions of use, the warranty of non-human failure.
- Corporate counsel customers: use our controller detects the controller is necessary prior to acceptance. The Company is only responsible for the quality controller itself, the maximum amount of compensation value of the controller itself, a system in which the controller is not responsible for the problem.

5 Appendix

5.1 command mode

Parameters [FN3.2 = 0] is selected Modbus compatible communication, RS232 or RS485 bus can only select mode is selected by an internal jumper. MODBUS master-slave form of network communication protocols, the weighing terminal in the network as a slave MODBUS be the host system call, the data format for the RTU mode, support 03, 06 and 16 functions. Holding register 40001, the data in the message address register 0000. Function code area for the holding register operation, therefore, "4XXXX" is the default address type.

For example: Holding register 40001 is addressed as register 0000hex (+ hex 0); Holding register 40011 is addressed as register 000Ahex (10 hex 10).

Use a maximum of 03 functions can be read two successive internal registers. 16 functions each successive writes two registers.

Weighing data in modbus mapping address:

Content Address	Explanation	Remark
40001	GW (Signed 16) -32768 to 32767 (Note 1)	Read (function code 03)
40002	NW (Signed 16) -32768 to 32767 (Note 1)	Read (function code 03)
40003-40004	GW (signed long integer)	Read (function code 03)
40005-40006	NW (signed long integer)	Read (function code 03)
40007	Dividing the value (1, 2, 5, 10, 20, 50)	Read (function code

			03)
40008		Decimal point (0, 1, 2, 3)	Read (function code 03)
40009-40010		Relay 1 output point value, the written data is simultaneously written internal EEPROM	Read, write (function code 03, 16)
40011-40012		Relay 2 output point value, the written data is simultaneously written internal EEPROM	Read, write (function code 03, 16)
40013-40014		Relay 1 output point value, the written data after power is lost, it is recommended to use frequently modified	Write (function code 16)
40015-40016		Relay 2 output point value, the written data after power is lost, it is recommended to use frequently modified	Write (function code 16)
40017-40018		Relay 3 output point value, the written data is simultaneously written to the internal EEPROM	Read, write (function code 03, 16)
40019-40020		Relay 4 output point value, the written data is simultaneously written internal EEPROM	Read, write (function code 03, 16)
40021-40022		Relay 3 output point value written data after power is lost, it is recommended to use frequently modified	Write (function code 16)
40023-40024		Relay 4 output point value, the written data after power is lost, it is recommended to use frequently modified	Write (function code 16)
40097	Bit 0	Cleared (1 active)	Write only (function code 06)
	Bit 1	Peeled (1 active)	Write only (function code 06)
	Bit 2	Clear tare (1 active)	Write only (function code 06)
	Other unused		

5.2 Continuous transmission mode

Baud Rate: 1200/2400/4800/9600/19200 (optional)

8 data bits, 1 start bit, 1 stop bit, no parity.

Data also appear in RS232 and RS485 bus. The weight data and the controller displays consistent, each data contains 8, the first frame is a data frame start character "=" followed by seven data frames, the high petty invalid "0" padding, if the displayed value is negative, the highest bit data frames transmitted "-."

Start character	Symbol	Weight							
=	0 or -	High					Low	0D	0A

For example: controller displays: "12345", the serial port to send data "= 0,012,345."

Start character	Symbol	Weight							
=	0	0	1	2	3	4	5	0D	0A

Controller displays: "1234.5", the serial port to send data "= 01234.5."

Start character	Symbol	Weight							
=	0	1	2	3	4	.	5	0D	0A

Controller displays: "-1234.5", the serial port to send data "= - 1234.5."

Start character	Symbol	Weight							
=	-	1	2	3	4	.	5	0D	0A