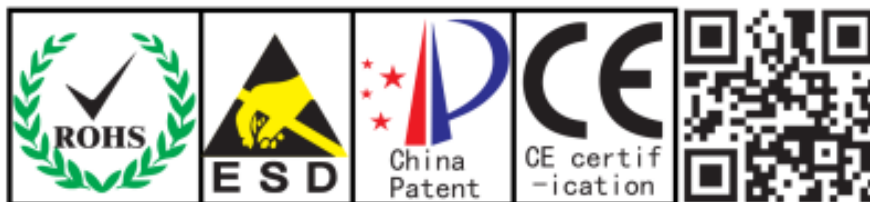


Pyroelectric Human Body Infrared Sensor Manual

XKC-003K4

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1st. Overview

XKC-003K4 is an automatic control product based on infrared technology. It has high sensitivity, strong reliability, and ultra-low voltage working mode. It is widely used in various automatic induction electrical equipment.

2nd. Product Features

1. Fully automatic sensing: when a person enters its sensing range, it outputs a high level, and when a person leaves the sensing range, it automatically delays and closes the high level and outputs a low level.
2. Photosensitive control (optional, not set at the factory): photosensitive control can be set, no induction during the day or when the light is strong.
3. Two trigger methods (selectable by jumper):
 - a. Non-repeatable trigger mode: After the high level is sensed, the output will automatically change from high to low after the delay time is over.
 - b. Repeatable trigger mode: that is, after the sensing output is high, if there is a human body moving in its sensing range during the delay period, its output will always remain high, and the delay will be high until the person leaves Change to low level (the sensor module will automatically extend a delay period after detecting each activity of the human body and use the time of the last activity as the starting point of the delay time);
4. With induction blocking time (default setting: within 1s): after each induction output (high level becomes low level), the sensor module can set a blocking time period immediately, during which the sensor Does not accept any induction signal. This function can realize the interval between "induction output time" and "blocking time", and can be applied to interval detection products. At the same time, this function can effectively suppress various interferences generated during load switching.
5. Wide working voltage range: the default working voltage is DC4.5V-20V.
6. Micro power consumption: quiescent current <200 microampere.
7. Output high and low level signal/NPN/relay output: it can be easily connected with various circuits.
8. The induction delay output time is adjustable (about 5-300 seconds), and the induction distance is adjustable (within 7 meters).

3rd. Product Applications

1. Human body induction lamps.
2. Human body induction toys.
3. Security products.
4. Industrial automation control,
5. Automatic induction electrical equipment.
6. Battery powered automatic control, etc.

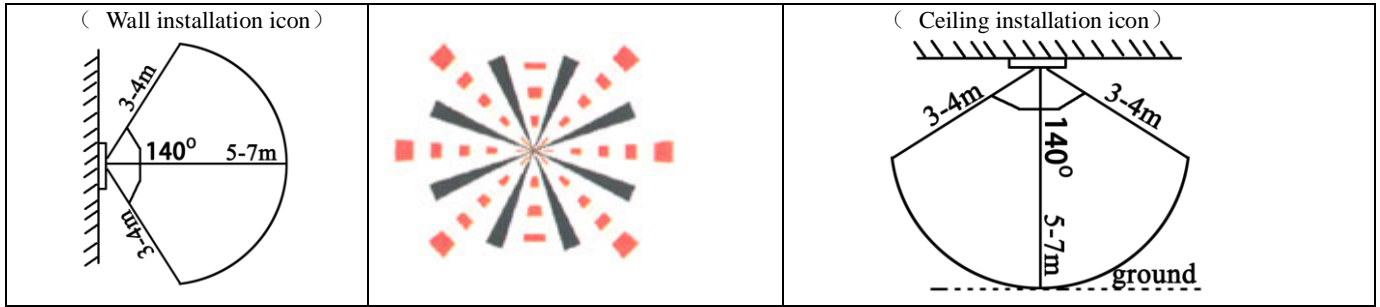
4th. Technical Parameters

Operating voltage range	DC4.5-20V
Quiescent Current	<200uA
Output type	High and low level (high 3.3V/low 0V)/NPN/relay (normally open/normally closed)/drive 2A LED
Trigger method	L can not be triggered repeatedly / H can be triggered repeatedly (default)
Delay time	Default 5S (5-300S adjustable)
Block time	The default is about 1S
Circuit board dimensions	32mm*24mm
Shell size	52L*36W*23H mm(Black), mounting holeΦ 2.5
Lead wire length	≈28 cm
Sensing angle	<110 degree cone angle
Sensing distance	Within 7 meters
Operating temperature	-20~85°C
Sensing lens size	Diameter: 23mm (default)

5th. Product selection model

Serial number	model	output signal
1	XKC-003K4-V	High and low level (high 3.3V/low 0V) output current <3mA
2	XKC-003K4-N	NPN open collector output (normally open) load current <300mA
3	XKC-003K4-M	Relay dry contact output (normally open) contact maximum current 3A
4	XKC-003K4-MC	Relay dry contact output (normally closed) contact maximum current 3A
5	XKC-003K4-LED2A	Can directly drive LED, drive maximum current 2A

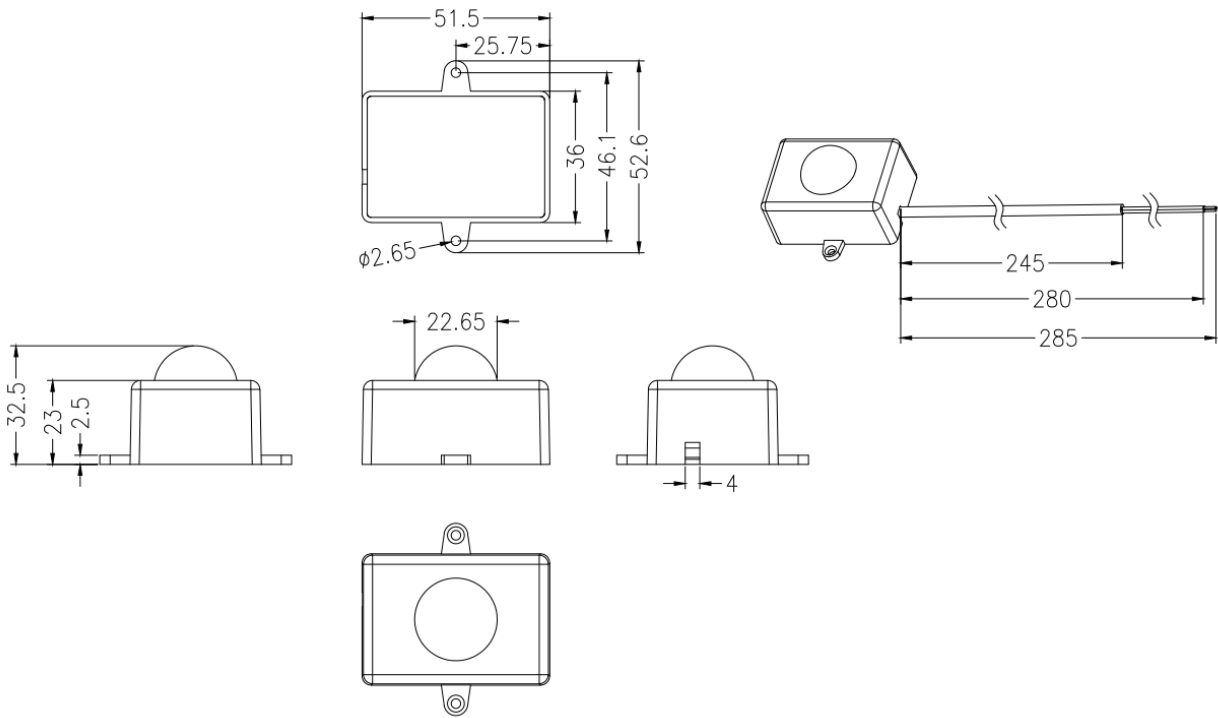
6th. Installation method



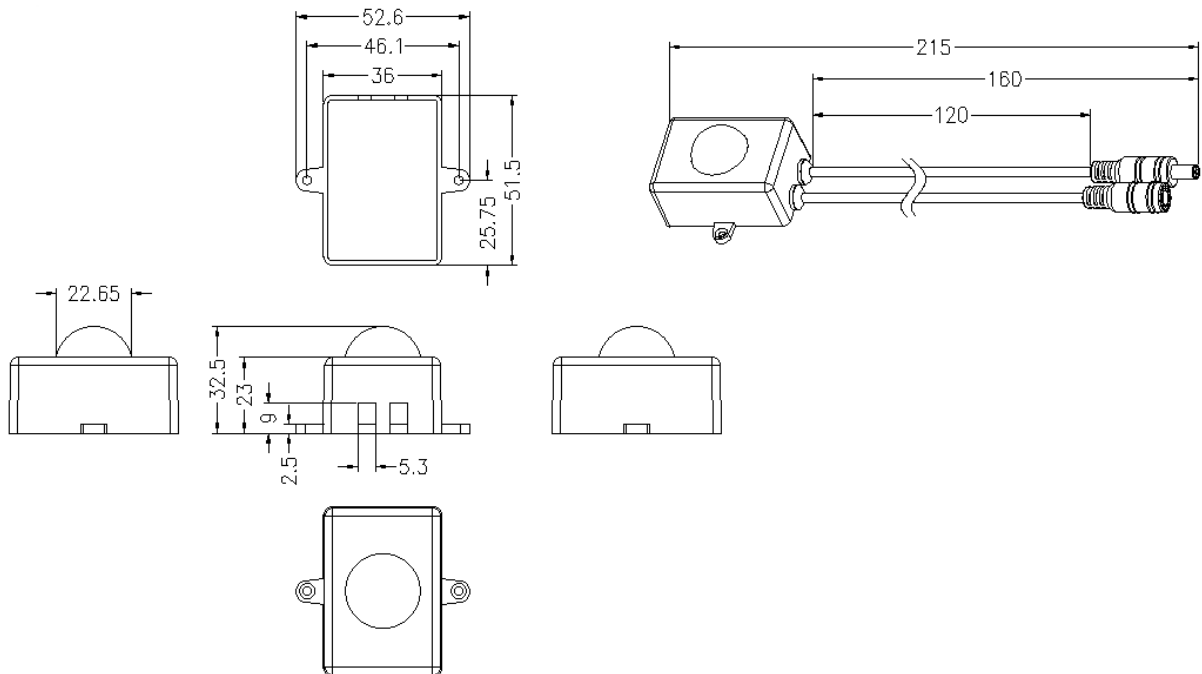
7th. Product size and physical map

XKC-003K4-V XKC-003K4-N	XKC-003K4-M XKC-003K4-MC	XKC-003K4-LED2A	
			

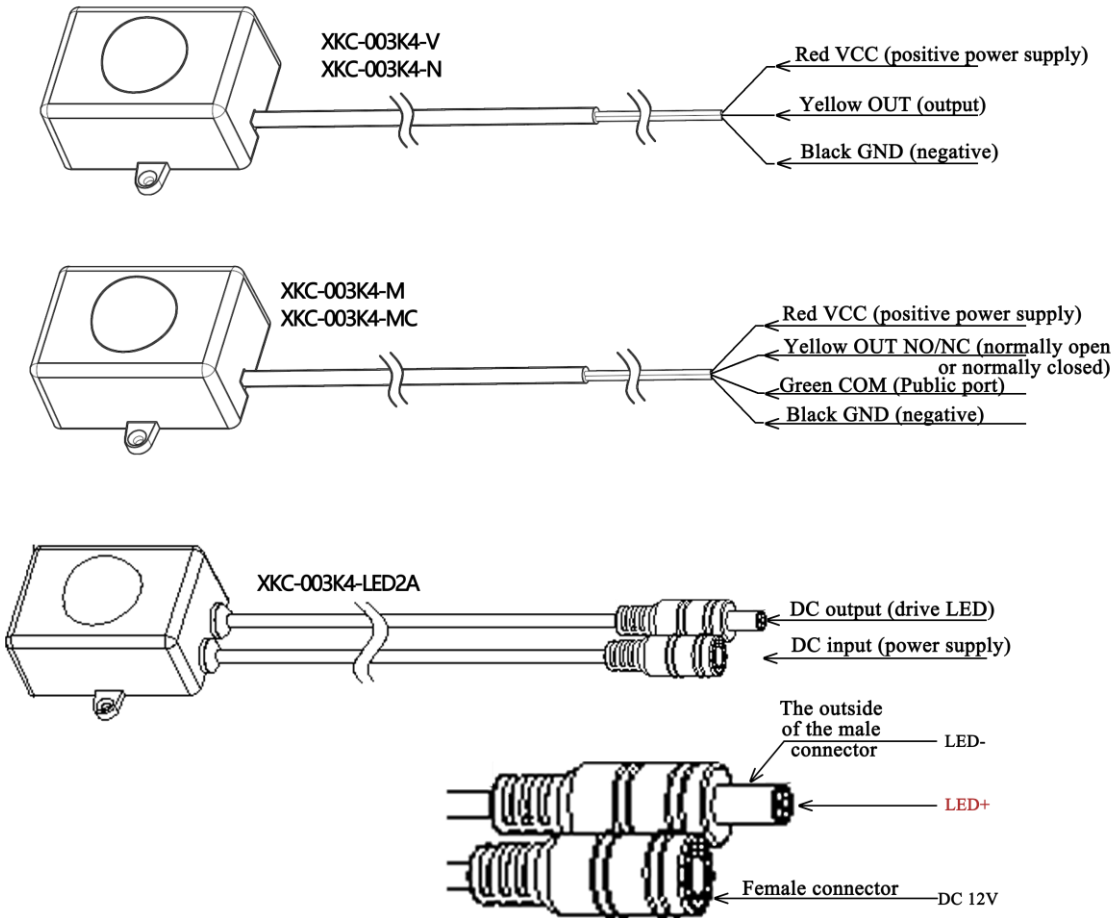
1. Note: Shell size 51.5mm(L)*52.6mm(W)*32.5mm(H) (The following is the size drawing of model 003K4-V/NPN/M/MC)



2. The following is the size drawing of model XKC-003K4-LED2A



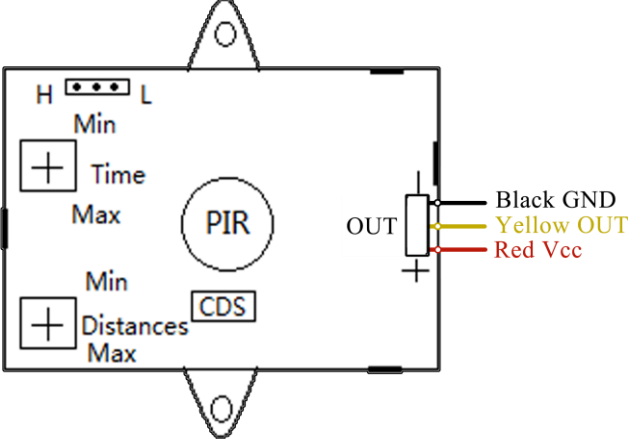
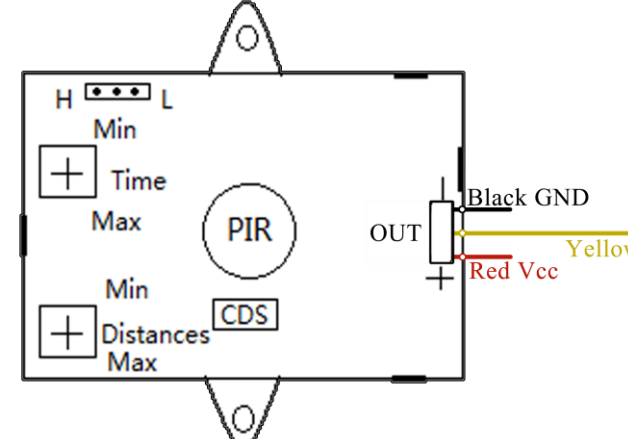
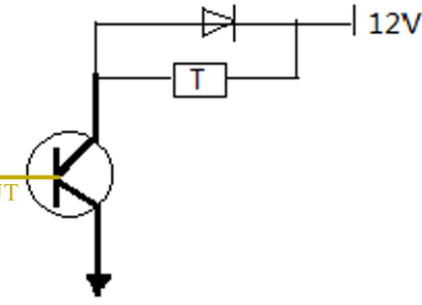
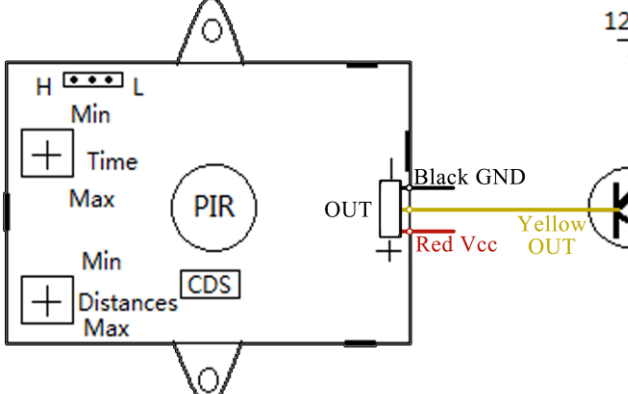
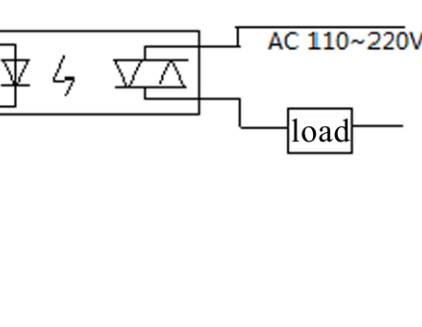
8th. Wiring instructions



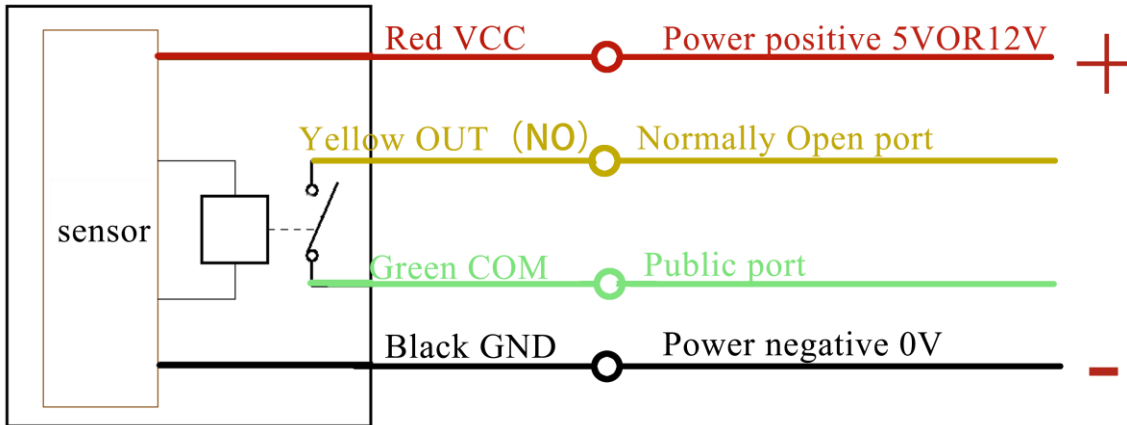
Adjust the distance potentiometer to rotate clockwise, the sensing distance is reduced (about 3 meters); on the contrary, the sensing distance is increased (about 7 meters);

Adjust the delay potentiometer to rotate clockwise, the induction delay is shortened (about 5S); on the contrary, the induction delay is extended (about 300S).

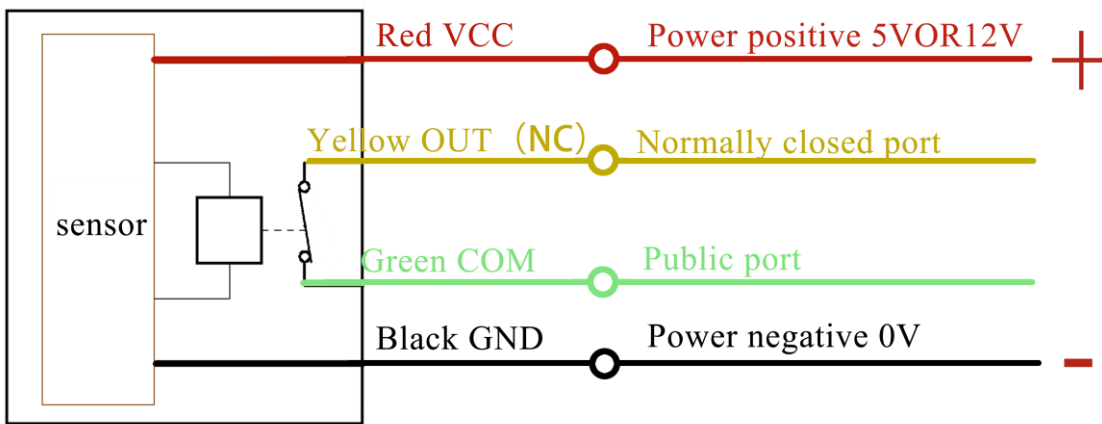
9th. wiring diagram of various models

<p>1. Product external diagram</p>		<ol style="list-style-type: none"> 1. The negative pole of the black wire power supply; 2. OUT yellow wire signal output; 3. Red wire power supply positive; 4. L can not trigger the port repeatedly; 5. CDS photoresistor; 6. Time delay adjustment; 7. Distances distance adjustment.
<p>2. DC load circuit diagram</p>		
<p>3. AC load circuit diagram</p>		

Relay normally open output (dry contact signal), that is, the relay is off when there is no induction, and the relay is closed when there is induction.



The relay normally closed output (dry contact signal) means that the relay is closed when there is no induction, and the relay is open when there is induction.



10th. Installation and use instructions

1. After the sensor is powered on, there is about one minute of initialization time, during which the module will output 0-3 times at intervals, and enter the normal standby state after one minute.
2. When installing, try to avoid interference sources such as lights directly on the lens on the surface of the module to avoid introducing interference signals to cause misoperation; try to avoid flowing wind in the use environment, which will also cause interference to the sensor.
3. Pay attention to the direction angle during installation, otherwise it will affect the sensing distance. The sensing window of the sensor is as parallel as possible to the direction of the most human activity, so as to achieve a better sensing effect.
4. When the ambient temperature rises close to the surface temperature of the human body during use (30-32 °C), the detection distance will be slightly shorter, which is a result of the influence of temperature factors.

11th. Product warranty terms and instructions

(A) .Warranty service

1. Warranty period maintenance: from the date of purchase, the product host has a one-year free warranty. The company has the right to decide to repair or replace the faulty part. If it is replaced, the replacement part may be a new device or a

repair product of the same category, function, and quality. The replaced faulty part belongs to the company; the product Resale and repair do not affect the warranty period. Products that have been repaired or replaced continue to enjoy the original remaining warranty period service. If the warranty period is less than three months after the repair, the repaired or replaced part shall be shipped from the date of delivery Warranty for three months; all products of the company are guaranteed for repair.

2. Loss upon arrival (DOA) replacement: From the day of purchase, you can enjoy a free replacement service within 7 days. Products with the following problems are defined as DOA equipment: the packing and packing list do not match after the first unpacking of the product; some or all of the components cannot be used normally after the first unpacking of the product (surface scratches or other things that do not affect the function of the device) Defects are not included); other hardware failures identified by our company's engineers remotely or locally.

(B). Applicable limitations of warranty

For the following situations, the company does not assume warranty responsibility:

1. The product is out of warranty; the surface of the product is fragile and damaged; the appearance of the product is seriously damaged, installation/use in abnormal environment, unauthorized disassembly and repair/modification, external power supply damage and other abnormal damage;
2. Damage caused by incorrect installation and use of the product by the user not following the requirements of the manual;
3. Damage caused by natural disasters and human negligence (fire, lightning, flooding, impact, etc.).

(C) .Accessories and consumables are not covered by the warranty.

(D) .Non-free warranty service

Within two years of product purchase, for non-warranty product (including components) failures and damages, you can choose paid maintenance services (free labor costs), and we will charge the transportation cost of repairing parts and accessories according to the actual situation.

(E). Ways to obtain warranty service

It is recommended that you contact the dealer who purchased this product to obtain the warranty service. For the warranty, please present a valid warranty card (the dealer's stamp is required to take effect) or the purchase invoice/receipt: if you can't show it, the product's free warranty period 12 months from the product shipment date, and the latest DOA application deadline is 7 days from the product shipment date.

(F). Statement

1. The copyright of this manual belongs to Shenzhen Xingkechuang Technology Co., Ltd. (Xingkechuang) and its authorized licensors. Shenzhen Xingkechuang Technology Co., Ltd. (Xingkechuang) reserves all rights.
2. Without the written permission of the company, no unit or individual may excerpt or copy part or all of the contents of this manual, and shall not spread it in any form.
3. The customer recognizes that the purpose of the design and production of the company's products does not involve use in products related to life support or other systems or products used in other dangerous activities or environments. Personal injury or death, property or environmental damage due to product failure (collectively referred to as high-risk activities). The company's products are artificially used in high-risk activities, and the company does not guarantee it and is not liable to customers or third parties.

4. Due to product version upgrades or other reasons, the contents of this manual may change. Xingkechuang reserves the right to modify the contents of this manual without any notice or prompt. This manual is only used as a guide. Xingkechuang makes every effort to provide accurate information in this manual. However, Xingkechuang does not guarantee that the contents of the manual are completely free of errors. All statements, information and suggestions in this manual do not constitute any express or Implied guarantee.

5. Not all models are available in all countries/regions.

Please keep this manual properly. Before using the product, please read this manual carefully. When using the product, please be sure to operate in accordance with this manual. The company is not responsible for injuries and accidents caused by operations that do not follow this manual.

(G).Environmental protection This product meets the design requirements for environmental protection.The storage, use and disposal should comply with relevant national laws and regulations.Seek to proceed.

12th. Manual version

Version	Release date
V16	September 28, 2020