

## **F3-M34-F Long-distance Face Recognition Thermal Imaging Temperature Measuring Device (Wall-mounted)**

Shenzhen Rakinda Technologies Co.,Ltd.	File No.: 2020301H	Version: V1.1	Level:
File Name	F3-M34-F Specification	Date	2020.03.01

### **Thermal Imaging Mask Recognition Long-distance Temperature Detection**





## Application Field

F3-M34-F is suitable for office areas, hotel, office buildings, schools, shops, communities, public services and management projects.

## Features

- Dynamic detection, solve the deception of photos on various carriers
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  - Recognition Height: 1.2-2.2m
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  - Recognition Distance: 0.3-1.2m
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  - Detection Rate: 1-2sec/person-time
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  - Precision:  $\pm 0.5$  °C
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  - Support external QR code scanner, ID card reader
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  - Support RS232 serial port, Wiegand 26 output, support configuration of output content
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  - Adopting dynamic face detection and tracking recognition algorithm based on video stream
  - Support storage of 30,000 libraries locally;
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  - Fast recognition:
    - (a) Face tracking and detection takes about 20ms
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    - (b) Face feature extraction takes about 200ms
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    - (c) The live detection face comparison takes 0.6ms (1000 people library, average value for multiple recognition), 0.8ms (10000 people library, average value for multiple recognition)
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  - Support public network and local area network
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  - Support HTTP interface connection;
  - Support screen display content configuration, status display, custom content display, custom broadcast content
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<b>F3-M34-F Face Recognition Access Control Terminal</b>			
Model No.		F3-M34-F	
Display		8 inches, Full viewing angle, 170IPS LCD screen	
Screen Resolution		800*1200	
<b>Camera</b>	Type	RGB	Thermal Imaging
	Resolution	2 Million Pixels	256*192
	Aperture	F2.8	F2.8
	Focal Length	3.18mm	3.18mm
	White Balance	Automatic	Automatic
	Wide dynamic	Support	Support
	Vertical Wide Angle		
	Horizontal Wide Angle		
<b>Basic Specification</b>	Operating System	Android9.0 or above	
	Power Supply	DC12V(±10%)3A	
	Power Consumption	15w MAX	
	Relative Humidity	0% 90% (In the State of Non-condensing Drops)	

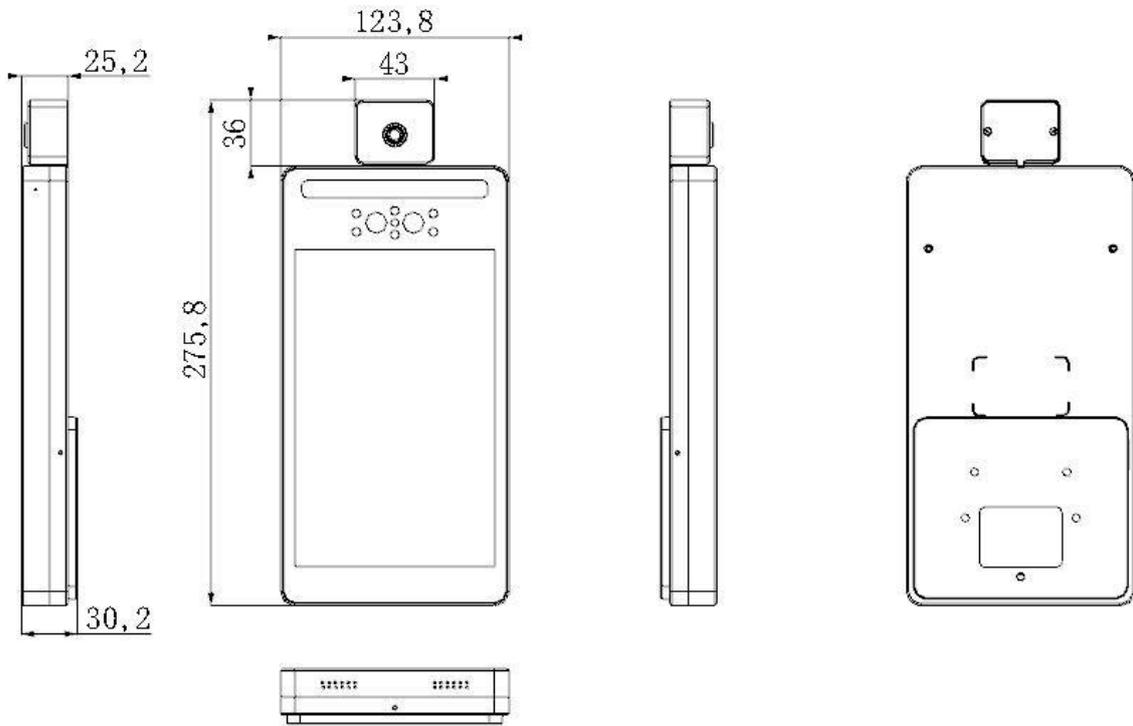
	Operating Temperature	5°C-50°C
	IP Grade	IP55 (Wall Mounting, Water is Not Allowed at the Junction with the Outlet Box, and a Ceiling Can Be Added)
	Working Environment	Indoor and Outdoor (with sunshade) Environment (no wind and direct sunlight)
	Size	275.2MM*123.2MM*30.2MM
<b>Hardware Configuration</b>	Recognition Method	<input type="checkbox"/> Face Recognition
		<input type="checkbox"/> Mifare Card (Optional)
		<input type="checkbox"/> IC Card (Optional)
	Face Recognition Parameters	<input type="checkbox"/> Face Verification Accuracy >99%
		<input type="checkbox"/> Face Recognition Distance 0.5m-1.5m
		<input type="checkbox"/> Card Verification Time 600MS
		Local Storage 30000 faces
	Interface	Micro USB 1pc
		RJ45 Gigabit Network 1pc
		Relay Output
		Wiegand Interface
		RS-232
		Door Contact
Exit Switch		
Power Supply		
White Fill Light	Support	

	Indicator Light	Support Green Light for Authentication Success and Red Light for Authentication Failure
	Speaker	Dual Speakers, 1.0w
	Microphone	Non-noise Reduction
<b>Basic Parameters</b>	WIFI	2.4G 802.11b/g/n
	Bluetooth	Bluetooth 4.0
<b>Temperature Measurement Module</b>	Operating Temperature	5°C ~ +50°C
	Operating Temperature	-20°C ~ +55°C
	Power consumption	< 0.3w
	Pixel	256*192 Real-time Temperature Output
	Measurement Accuracy	± 0.5°C
	Measuring Distance	0.3 ~ 1.0m
<b>MTK Motherboard</b>	Chip	Octa-core A73
	Operating System	Android9.0
	RAM	2GLPDDR4
	Storage	16GB eMMC
	Power Input	12V/2A
	Display	MIPI DSI Maximum Support Resolution 2400 * 1080
	WiFi	2.4GHz and 5GHz;802.11a/b/g/n/ac
	USB	Micro USB Type A Host*1;Micro USB Type A Device*1 USB 2.0 Host*2(1.25mm wafer)
	Microphone	2W*2 Speaker output



- ① It is forbidden to use the device under strong light and direct sunlight;
- ② Indoor use, or semi-outdoor environment, outdoor temperature measurement is affected by the external environment;

(1) Wall-mounted version shape and size (275.8mm\*123.8mm\*30.2mm);

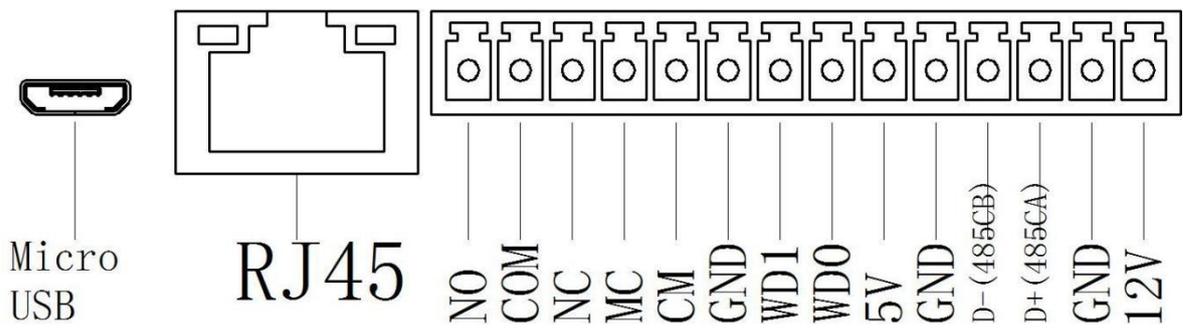


## Indication of Appearance and Wiring Instructions

The front part of the access control machine



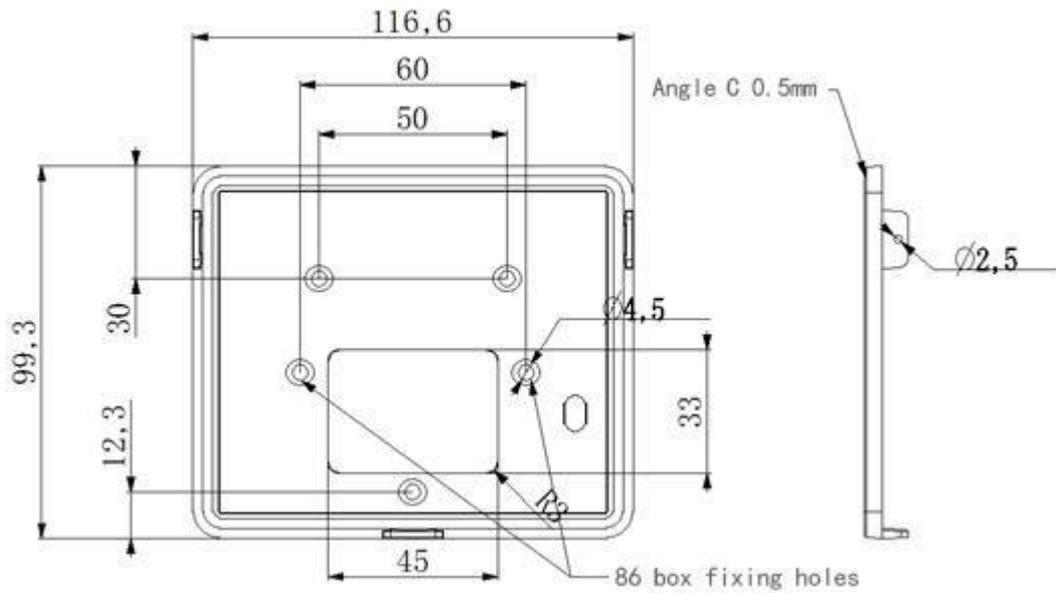
## Access control wall-mounted version-wiring instructions



## Installation Steps

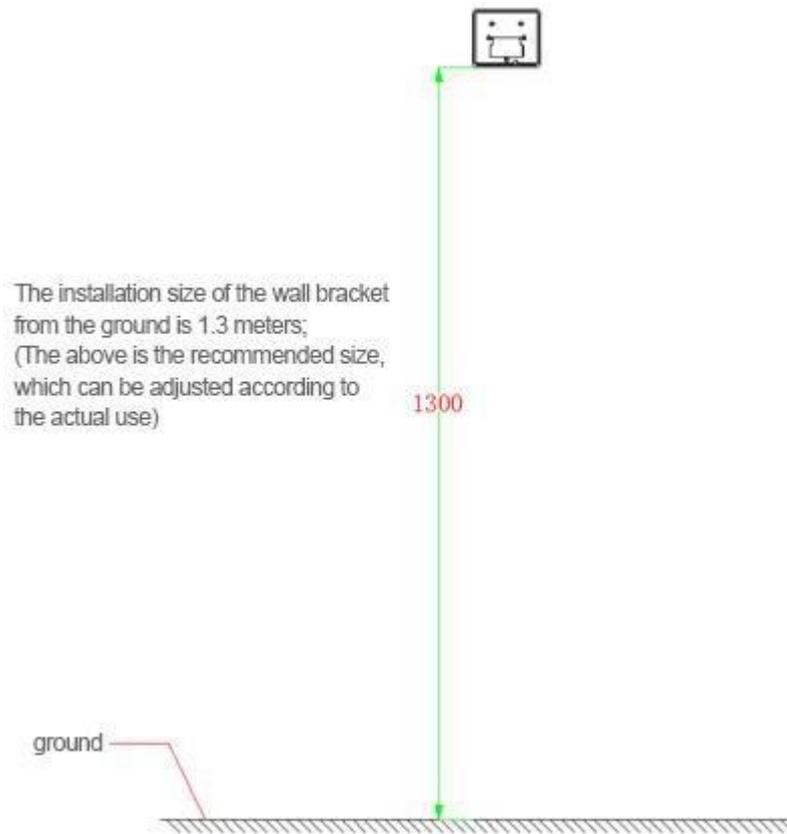
### Installation of access control wall-mounted version

Description of the size of the wall bracket;

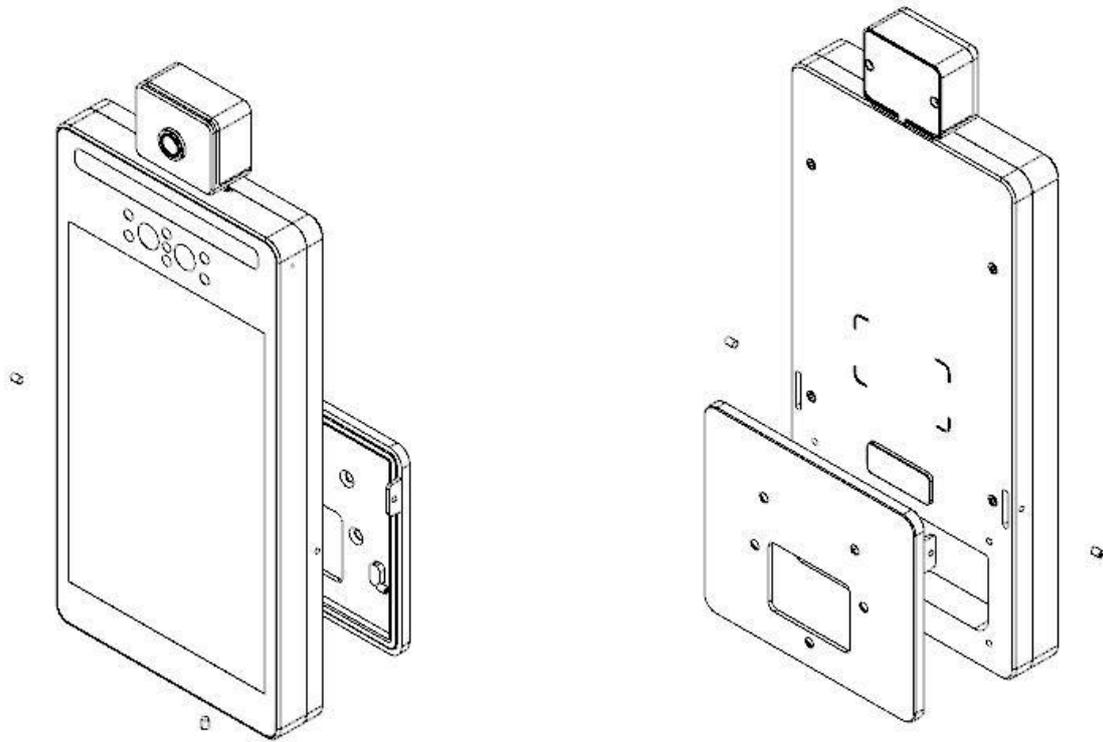


**Note: The product packaging comes with 86 boxes of machine screws and plastic expansion screws;**

Description of the installation location of the wall bracket;



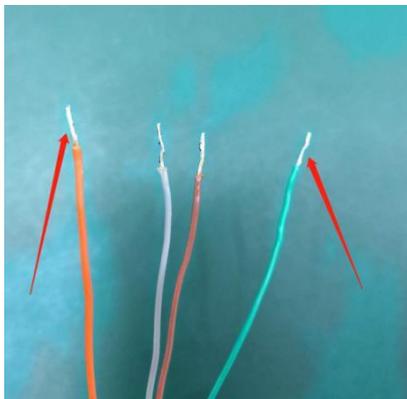
Fixing method of hanging bracket and product terminal



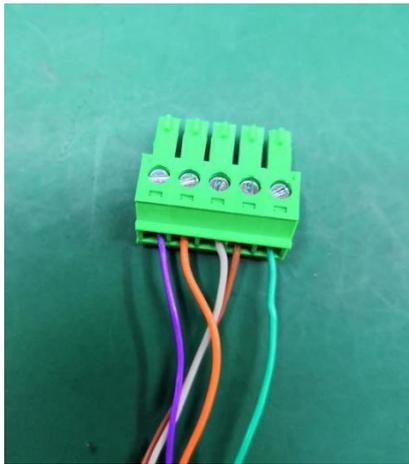
**Note: Use three set screws M3 \* 5 to fix the terminal. There are matching screws in the package.**

Wiring operation instructions (take the gate wire as an example, other wiring can be deduced by analogy)

(1) Strip the signal wire (use a wire stripper and other tools) to expose the metal wire, about 5mm, if possible, add solder, as shown in the figure;



(2) Loosen the screws at each corresponding interface, insert the metal wire end into the hole, tighten the screws to fix, and do a tensile test after locking to ensure stability, as shown in the figure;



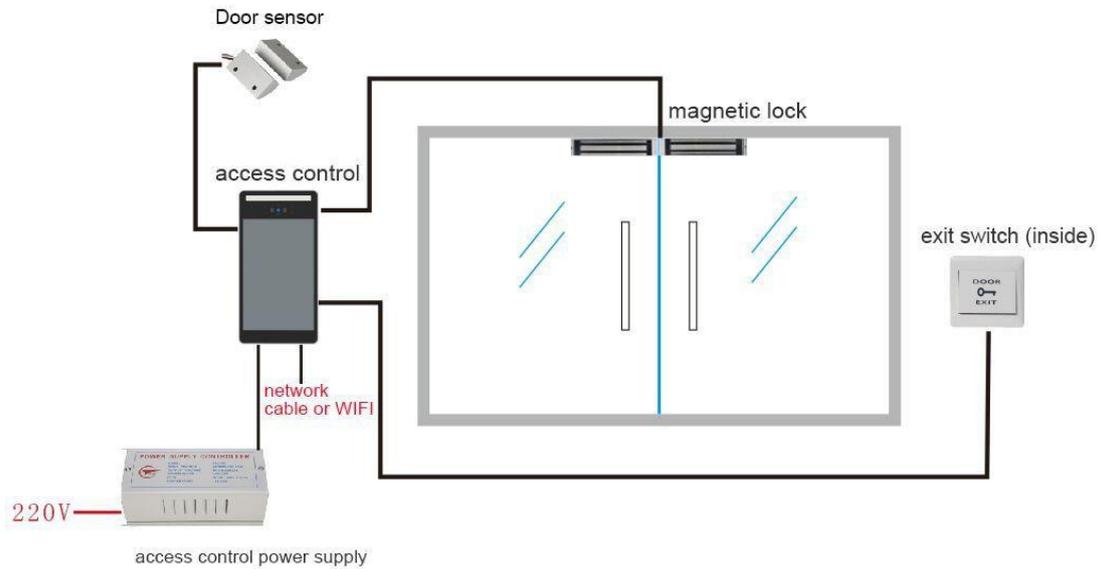
### Packing and usage instruction

#### Materials and tools list

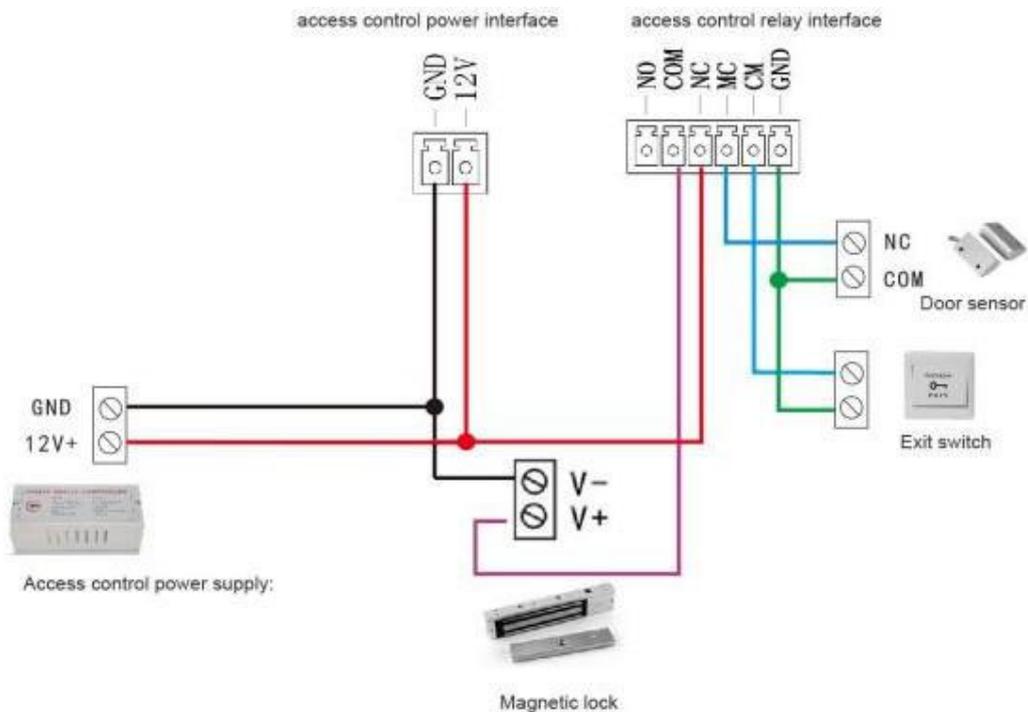
Serial number	Material / tool name	Quantity	Explanation
1	Host and its own accessories	1	Comes with accessories including: 12V adapter, wall bracket, expansion tube, self-tapping screws, allen wrench, allen screws, etc.
2	Exit switch (optional)	1	Use when exit (no need for more if it already exists)
3	Electromagnetic lock (optional)	1	Open the door after power off, and lock when power on (no need for more if it already exists)
4	Magnetic lock power supply (optional)	1	Supply power to electromagnetic lock, and also can supply power to Uface host at the same time (If you already have it, you don't need more)
5	Network cable (optional)	Several	Used to arrange Ethernet and other wiring
6	Network cable pliers, network tester, diagonal pliers, electrical tape, wire buckle	Several	Used to arrange Ethernet and other wiring
7	Drilling tools	Several	Used for equipment installation and wiring

# Magnetic Door Wiring

## 1. Schematic diagram of magnetic door system installation;

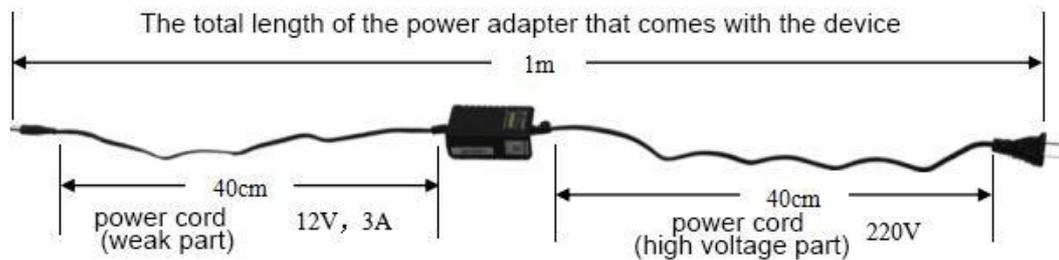


## 2. Schematic diagram of magnetic door system wiring;



### Installation Notice:

1. During wiring, if the 12V power supply line of the host does not use the "special power supply extension line" and the distance is long, the cable equivalent resistance will be too high, then it is possible to occur: terminal insufficient voltage ( $\leq 11V$ ), repeated restart of the host, and crash phenomenon.
2. The device has a built-in relay device. The maximum load voltage of the magnetic lock (or other access control unit) cannot exceed DC12V, and the maximum current cannot exceed 3A. If it exceeds, it will break the relay and cause the door to fail to open.
3. The device comes with a power adapter as shown in the figure, with a total length of 1 meter. Its weak current part is 40cm and the high voltage part is 40cm.



The extension of the power cord (weak current part) should not exceed 3 meters, otherwise it will cause insufficient power supply to the host, and abnormal phenomena such as repeated restarts and crashes. If the power supply is far away from the device, the power cord (strong electric part) can be extended.

- If you use other adapters, such as 9V and 1A, insufficient voltage and low current will cause the device to restart repeatedly.
- The cable used should not be too thin (such as a thin network cable), it is recommended to connect multiple strands of the same cable in parallel or use thick copper cables to ensure that the voltage  $> 11V$

**i** Note: If using a network cable, please use 4 strands of network cable as the positive pole and 4 strands as the negative pole.

- If it is not clear how to extend, please contact the supplier to replace the "dedicated power extension cable".