

Shenzhen Rakinda Technologies Co., Ltd		<b>File Number</b>	<b>Version Number</b>	<b>Level</b>
		2021121301	V1.3	Confidential
<b>File Name</b>	F6 Face Terminal Datasheet	<b>Date</b>	2021.12.13	

# F6CS Series Face Terminal Datasheet

(Temp Measuring+QR Reader+IC Card Reader as option)

(Intallation Designs:Wall mounted/Turnstile type/Floor standing)



**Color :Dark Gun**



**Desktop Design**



**Color :Silver**

**Shenzhen Rakinda Technologies Co.,Ltd**



## Three Hot Designs



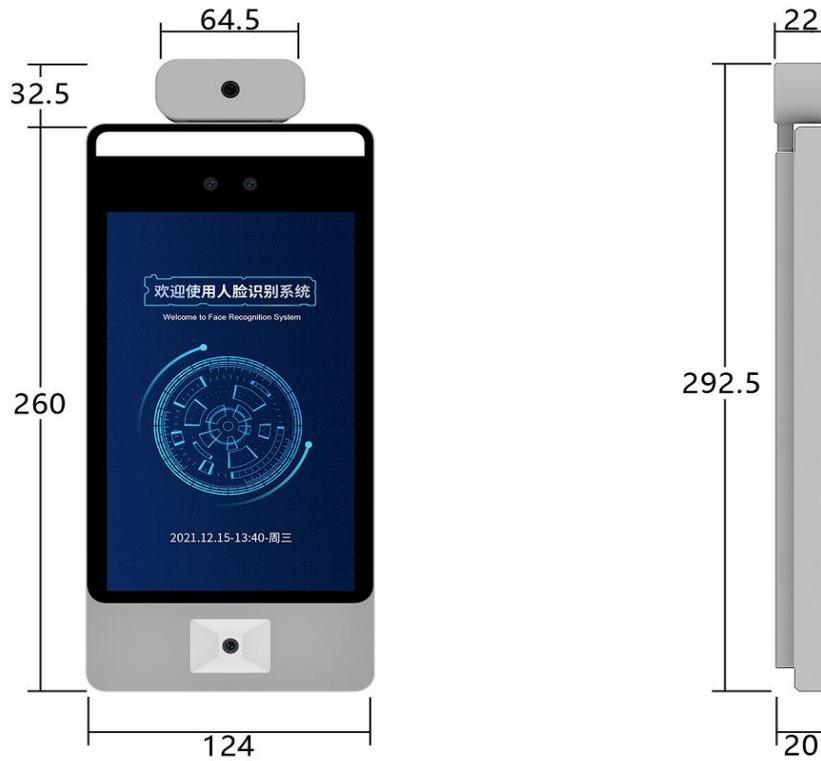
F6CS-H



F6CS-TH



F6CS-FH



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## 一、 Product specification



**F6CS** is a convenient and safe industrial-grade visual face recognition all-in-one machine. In response to the needs of large capacity, high performance, wide application, and customizability in the face recognition application process, a face recognition intelligent hardware was launched. Face dynamic recognition provides users with a safe environment.

**F6CS series** is based on 200W RGB, 200W IR binocular camera, supports WIFI+10/100M networking and rich peripheral security interfaces, meets user access control needs, and can realize personnel authentication, personnel access management and attendance management.

## 1. Application scenarios

**The F6CS series** is widely used in office buildings, office areas, hotels, schools, shopping malls, communities, public services, stations and scenic exhibition halls ,public services and management projects and other traffic scenarios that need to be used, helping to achieve intelligent security control.

NO.	Features	Contents
1	Performance	Combined with face recognition algorithm, support 10,000-level face database
2	Algorithms	Support the algorithms of top domestic AI manufacturers
3	Speed	Combined with face recognition algorithm, face recognition can be completed very quickly
4	Anti-counterfeiting	Binocular face recognition, support live detection
5	Interaction	Using live detection, 8-inch ultra-clear touch screen + voice interactive prompt
6	Environment	Super strong environmental adaptability, good performance in low light and strong backlight
7	Stability	Android 11.0 system, long-term stable operation
8	Open	Provide SDK to meet the secondary development needs of S/ISV manufacturers
9	Epidemic prevention	Infrared temperature detection and screening

## 2. Device parameters

F6 Face Terminal			
Product Features	Main function	Access control, epidemic prevention, turnstile	
	Use environment	Indoor, outdoor <b>(IP66)</b>	
	Equipment shell	Aluminum alloy material, dark gun color & silver as options	
Camera	Type	RGB	IR
	Resolution	2 million pixels	2 million pixels
	Vertical wide angle	65°	65°
	Horizontal wide angle	40°	40°
	White fill light	Supported	
	Red fill light	Supported	
Core Parameter	Operating System	<b>Android 11.0</b>	
	CPU	RK3566 4x ARM® Cortex™ A55 up to 1.8GHz	
	Storage	<b>2G+8G ( 2G+16G as option)</b>	
Human-computer interaction	Display screen	8 inches, full viewing angle, 170°IPS LCD screen, resolution 800*1280	
	Touch screen	Supported	

	Temperature measurement module <b>【Option】</b>	Test accuracy: 0.1°C
		Test accuracy: 0.1°C
		Temperature measurement distance: Recommended use distance 50cm
		Working temperature: 15°C~40°C
Communication method	RJ45	10/100Mbps Ethernet
	WIFI	Comply with IEEE802.11b/g/n standard (2.4G)
	4G <b>【optional】</b>	CAT1, domestic full Netcom
Identification method	Face	Supported
	IC card <b>【optional】</b>	Supported
	ID card	Network ID card <b>【optional】</b>
Local ID card needs to be connected to <b>【optional】</b>		
Interface	Data interface	USB 2.0*2
	Relay	*1
	Serial Port	RS485*1
	Wiegand	26bit/34bit protocol
	Exit switch	*1 <b>【Expandable】</b>
	Fire linkage	*1 <b>【Expandable】</b>
	Button	Upgrade button

Power supply	Adapter	DC12V/2A power supply
Environmental requirements	Operating temperature	-20°C ~ 60°C
	Working humidity	20% to 90% (under non-condensing water dripping state)
	Electrostatic ESD	IEC61000-4-2,LEVEL3
	Protection level	<b>IP65</b>
Installation Methods	3 methods for <b>wall mounted type/turnstile type/floor standing type</b>	

**Remarks:**

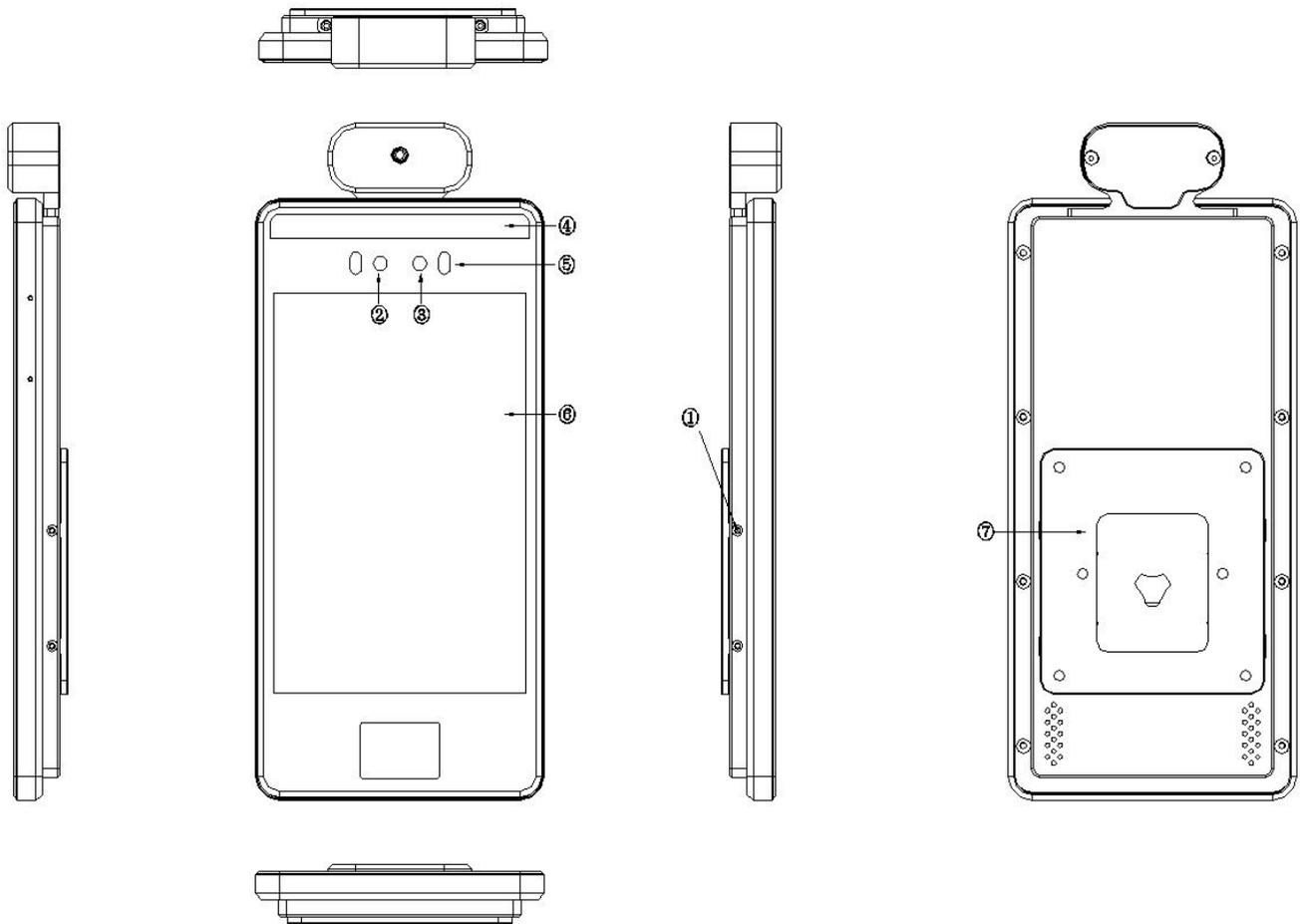
- **The equipment is forbidden to be used under strong light and not exposed to direct sunlight;**
- **Used indoors or in a semi-outdoor environment, the outdoor temperature measurement is affected by the external environment;**

## 二、Product wiring

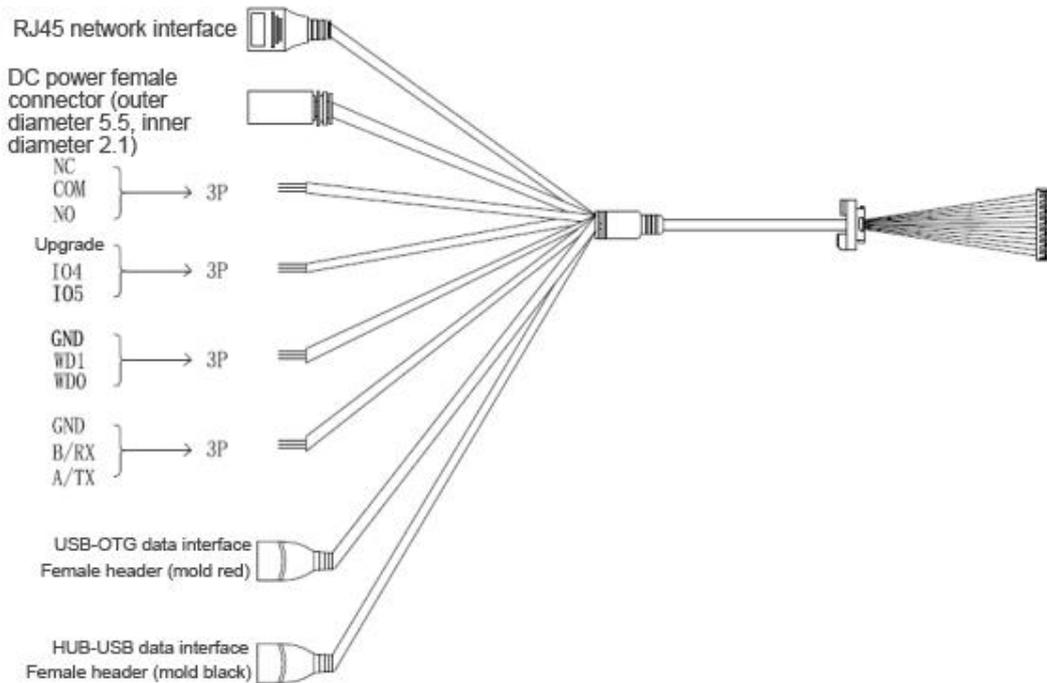
External interface hardware wiring instructions		
Type	Port	Instructions
Network port	RJ45	Supported 10/100Mbps

Relay	NC COM NO	Normally closed terminal/common terminal/normally open terminal of relay. Generally, the door lock power supply is positively connected to the COM terminal, and then according to the door lock type, the relay power supply is negatively connected to the NO port or the NC port. Note: The maximum relay contact load is 1A
Exit button	IO5 GND	Detect the button to open the door control signal, input
Alarm	IO4 GND	Detect the fire control linkage control signal, input
Reset	Upgrate GND	Supported manual reset and upgrade
Serial port	RS485 TX RS485 RX	Supported RS232,RS485
Wiegand	WG_D1 WG_D0 GND	Wiegand output interface, Supported 26bit/34bit protocol
Input power	GND 12V+	Power input: 12V DC
USB	USB_HOST-4P	External reserved USB interface to connect peripherals
	USBA 2.0_OTG	Equipment upgrade, debugging, U disk

## F6CS Structure

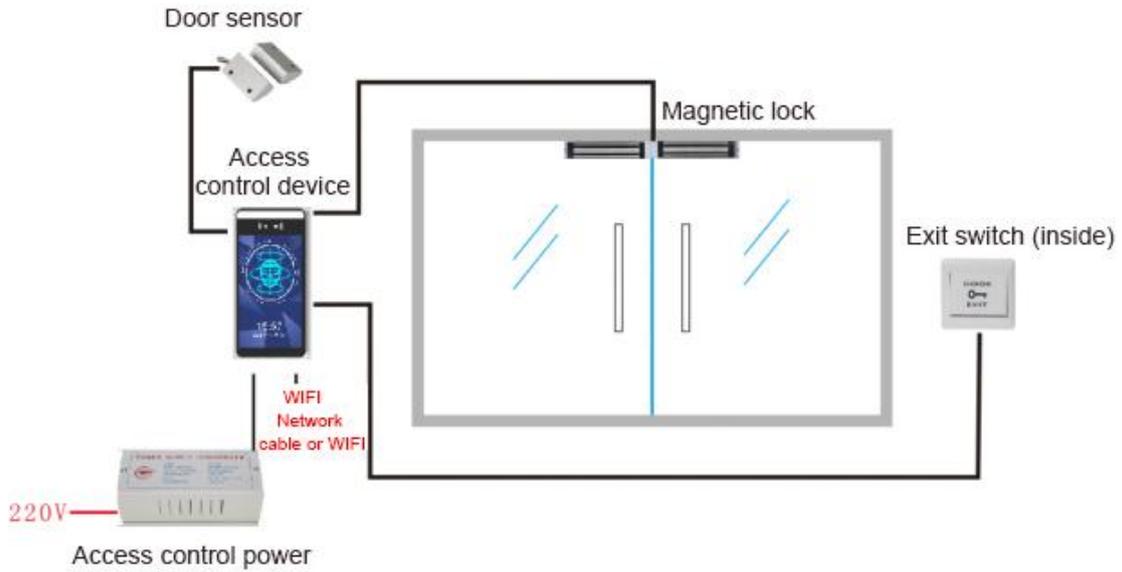


## Integrated Harness Wiring Instructions

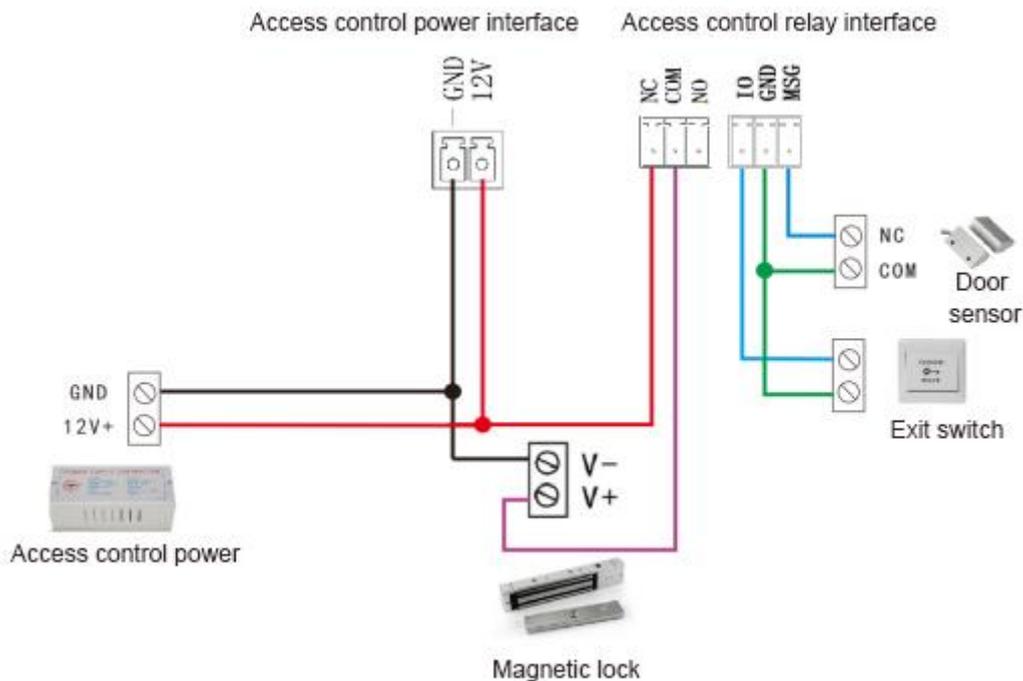


## 6.2 On-site magnetic door installation reference instructions

### 6.2.1 Magnetic door system installation diagram



### 6.2.2 Magnetic door system wiring diagram



## 一、 Installation Instructions

## Environmental requirements

In the installation and use of F6CS, all electrical regulations of the country and region must be strictly observed. If the device does not work properly, please do not disassemble and repair it by yourself, otherwise it will affect the warranty of the device. During installation and use, avoid harsh or extreme environments such as extreme high temperature (or low temperature), high humidity, strong backlight, vibration, radiation, and chemical corrosion.

 <p>Sun</p>	<p>It is recommended to install it in an indoor or semi-open air environment to ensure a good light environment, avoid direct strong light or weak light affecting the recognition speed, and avoid facing the glass door or glass wall.</p>
 <p>Network</p>	<p>It is recommended to install it in an environment with a smooth network to avoid the poor network affecting the recognition speed and accuracy.</p>

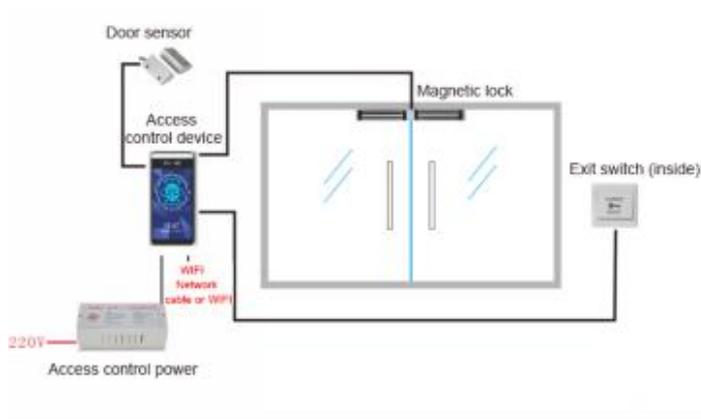
 **Precautions** Before turning on the host device, the screen protector should be torn off to avoid affecting the camera and infrared recognition accuracy.

 **Installation location** The recommended installation height of the VTO is 150cm (camera height).

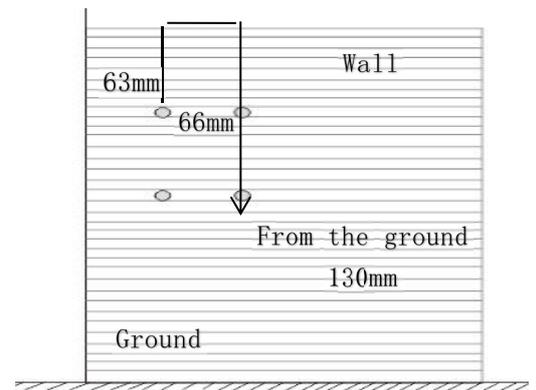
### 7.1 Wall Mount Installation Instructions

## 7.1.1 Installation location

On the wall about 130cm above the ground, start drilling the holes in the first row (using a 6mm drill bit, drilling diameter 6mm, drilling depth 4cm, second hole translation 66mm). Move up 63mm and drill two holes for the second row.



140CM



Front opening indication

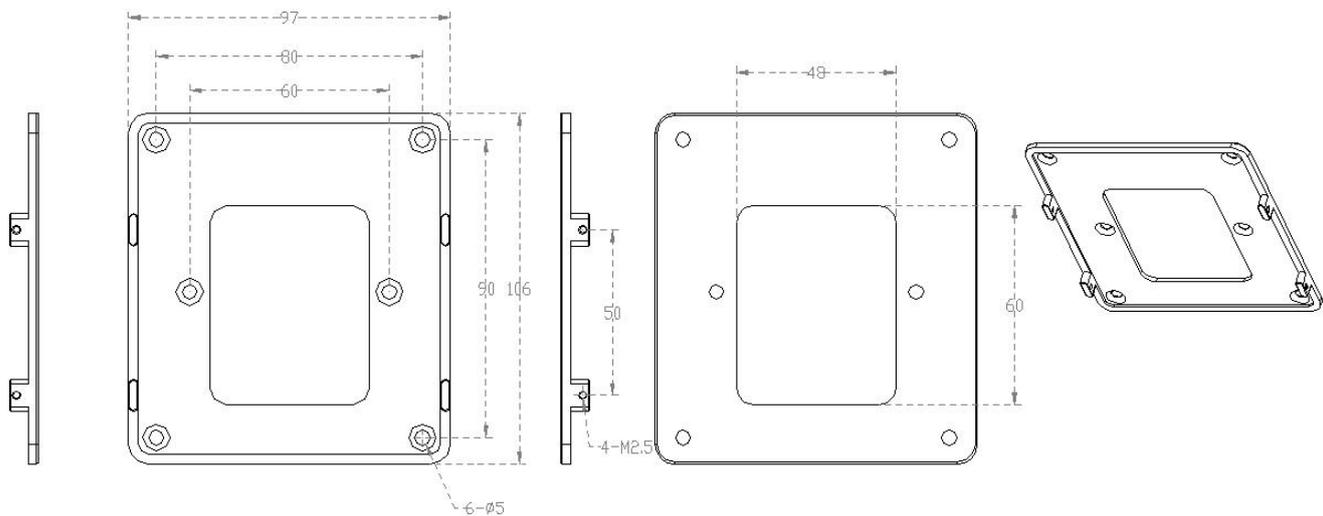
3 groups of lines need to be embedded in advance at the host equipment (the reserved line length is 10cm)

- (1) 12V power cord RVV2x1.0 standard and above, one end is at the host device, and the other end is pulled to the original special power supply for access control or the 2-hole socket of the 220V power supply on the top of the sliding door. When installing, connect the factory-built 12V2A power adapter 12V The 220V power cord of the adapter is directly inserted into the 2-pin socket of the 220V power supply.
- (2) The door opening control line is RVV2x0.5 standard and above, one end is at the host device, the other end is pulled to the original access control dedicated power supply or the sliding door top controller, and the door

opening signal interface is connected to them during installation.

- (3) Super Category 5 network cable 8x0.5 oxygen-free copper standard and above, one end is at the host equipment, and the other end is pulled to the switch in the weak current room to connect to the Internet during installation. In special cases, if it is difficult to increase the wired network, the wireless network at the door will also be connected. Very stable, can consider using wireless.

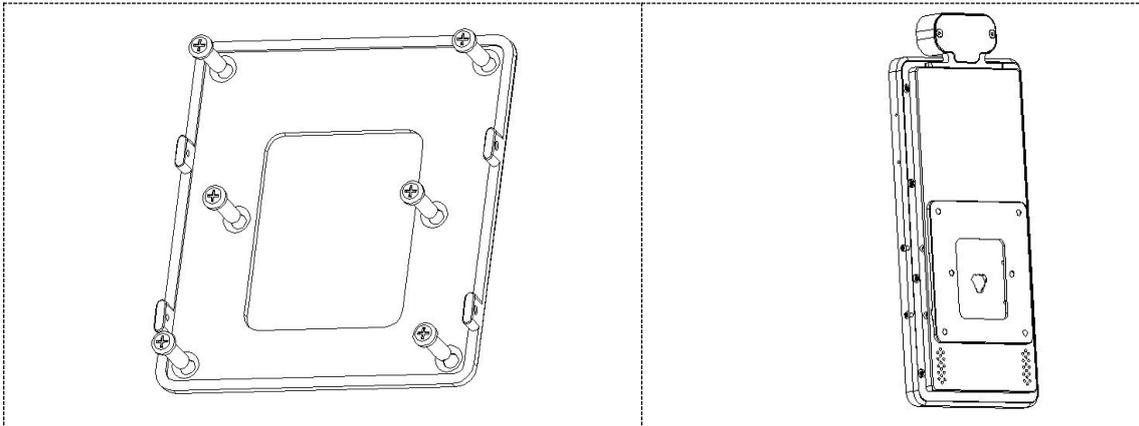
### 7.1.2 Dimensions and hole positions of the wall bracket



Fix the wall-mounted board and the host with a machine tooth cup head socket head cap screw M3\*6 (package is equipped), be careful not to short-circuit the wire head.

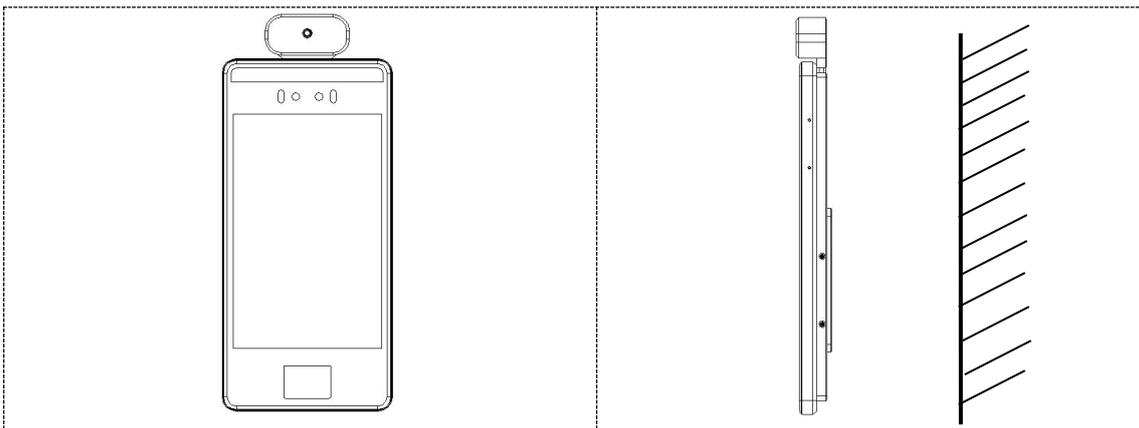
**Remarks: If the installation environment is a glass plate or a smooth stone wall surface that is inconvenient to open holes, it needs to be fixed with adhesive backing, and the cable outlet will come out from the bottom;**

### 7.1.3 Installation steps



**Step 1: Fix.** Fix the wall mount accessories to the wall with screws.

**Step 2: Wiring.** Refer to "Wiring Instructions" to connect the wires to the device



**Step 3: Adjust.** Use screws to tighten the accessories and fixing screws on the fixed device.

**Step 4: Lock.** Fasten the device with the main unit and the wall mount with screws.wire, adjust the wiring length until the device can be snapped into the wall mount.

### Three、 Device Installation



2-1 F6 series scan two-dimensional code installation equipment video

### Four、 Face machine setup operation guide

On the face recognition system interface, double-click the top middle position of the screen to pop up the user login window, enter the password (rakinda), and click OK, as shown in the following figure:



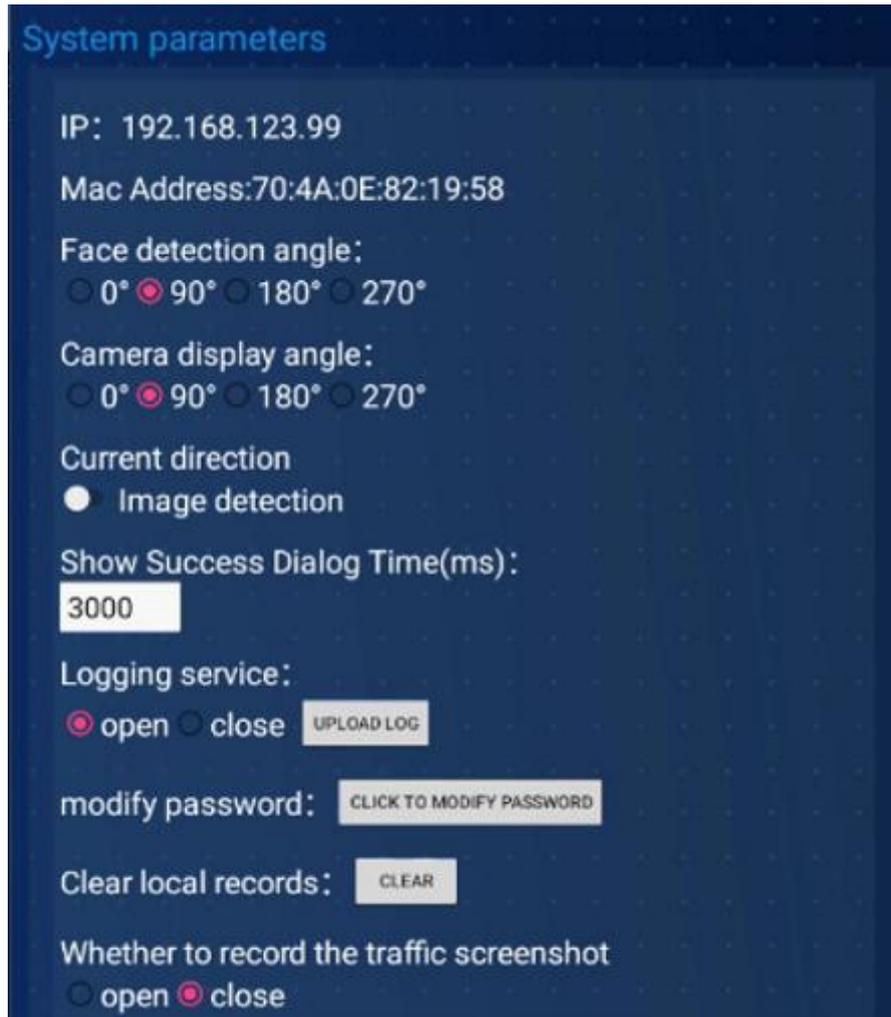
#### 1. System parameter setting

A. IP: Check whether an IP address has been obtained

➤ Face detection angle and camera video stream echo angle: generally

default. If you find that there is an inverted or horizontal portrait, you need to modify the camera video reflow angle.

- Recognition success interface stay time: the default is 3000 milliseconds, this parameter is related to gates or access control, if the passing speed is fast, it is recommended to set to 1000 or 500 milliseconds.
- Timing restart: Turn on the timing restart switch, the software will restart automatically
- Logging service: closed by default. If there is a problem with the device, turn on the log switch, and then reproduce the problem and grab the log. Log storage path: Settings--"Resource file management (file management)--"faceinfo--"log content, and use the mailbox to send the log to R&D location analysis.

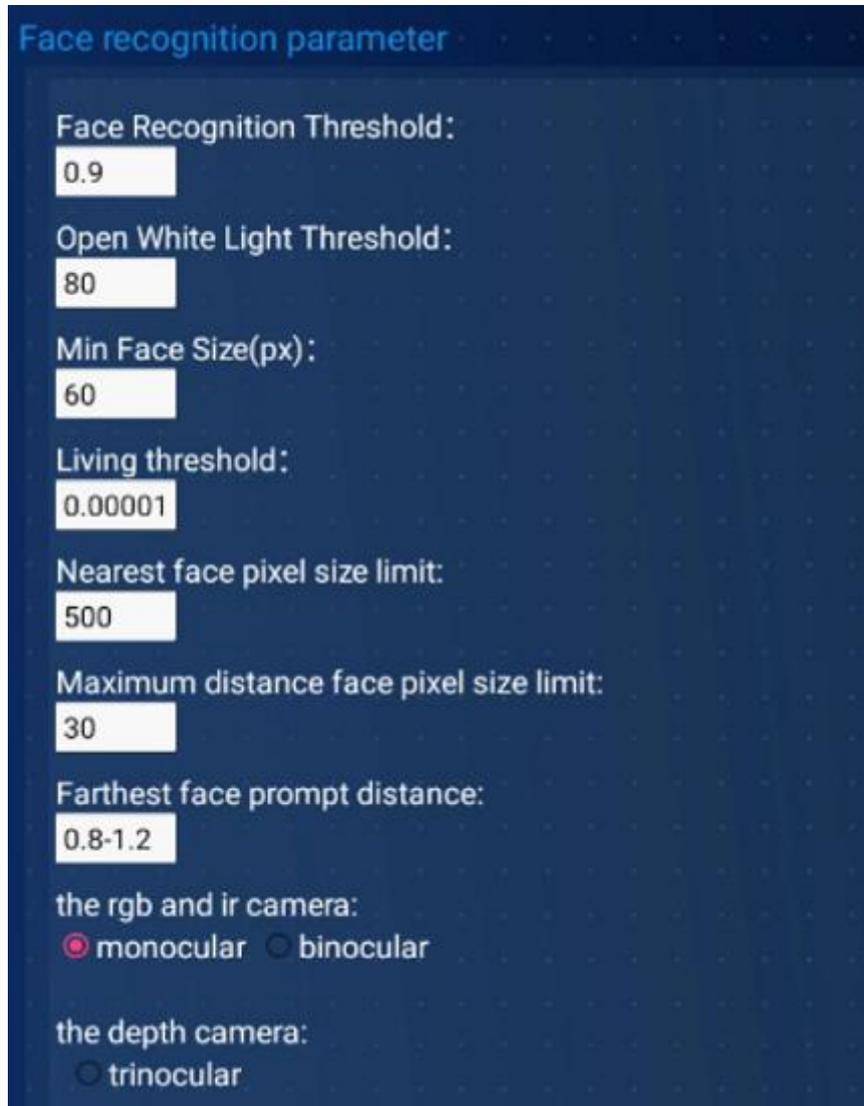


## 1. Face recognition parameters

A. Face recognition threshold: 0.9 by default

- Living body threshold: The default is 0.0003. If there is a misrecognition problem when a human face is sent, it is recommended to set the living body threshold to 0.97 to reduce the false recognition rate.
- The minimum detection face recognition size, the nearest face and the farthest face pixel size limit are kept by default and do not need to be modified.

- The farthest face prompt distance: 0.8-1.2 meters by default
- Keep other options as default.



## 2. Server parameters

A. Official website cloud platform website:

<https://fk.rakinda.cn/admin/login>

- Verification server: <https://fk.rakinda.cn:7443>
- MQ server port: 120.79.115.108:1883
- Upload interface of door opening record: <https://fk.rakinda.cn:7443>

- Upload Log address and port: <https://fk.rakinda.cn>

B.Neutral Cloud Platform URL: <https://fkzx.rakinda.cn/admin/login>

- Verification server: <https://fkzx.rakinda.cn:7443>

- MQ server port: 47.106.208.183:1883

- Upload interface of door opening record:

<https://fkzx.rakinda.cn:7443>

- Upload Log address and port: <https://fkzx.rakinda.cn>

The image shows a configuration interface with a dark blue background. It is divided into two main sections: "Server parameters" and "MQTT Setting".

**Server parameters**

- Verify Server and Port:
- MQ Server and Port:
- Log file upload server address and port:
- Upload Record server:

**MQTT Setting**

- MQTT Login ID:
- MQTT Login Password:
- MQTT Limit The Number Of Messages:

### 3. Business logic parameters

- A. Whether to open the QR code: open by default; if closed, the scanning code function is not supported.
- B. Whether to turn on mask detection: off by default; if turned on, you need to wear a mask to pass.
- C. Whether to turn on the emergency mode: off by default, if it is turned on, only the face temperature measurement will be used
- D. Whether to measure temperature: it is enabled by default. If it is turned off, you need to close the "broadcast temperature value option", and the temperature measurement will not be started.
- E. Allowed access type: default owner, if you need Supported face recognition, you need to select authorized users; business logic (Supported face recognition)
- F. Set the correction offset parameter, if the body temperature is before 38°-48°, set it to -0.5°; if it is greater than 48°, set it to -8°
- G. Whether to use the neutral version: the default is neutral, if you need to customize your own LOGO or standby picture, select the basic logo
- H. Set the alarm temperature to 37.3 degrees by default, Supported custom
- I. Other options remain unchanged by default.

temperature parameters

Temperature switch  
 open  close

check mask:  
 open  close

speak temperature value  
 open  close

Display thermal imaging Preview  
 open  close

Temperature correction offset:

Temperature unit  
 Celsius  Fahrenheit

Temperature warning threshold

lowest temperature

Type of Temperature measuring equipment:

Detect temperature sensor:  
 open  close

The screenshot shows a configuration window titled "Business Logic Parameter" with a dark blue background. It contains several settings:

- Set Attendance Voice:** Two radio buttons, "Default" (selected) and "Personnel Carried Voice".
- Set face frame:** Two radio buttons, "YES" and "Cancel" (selected).
- traffic type:** Three radio buttons: "granted user", "all user" (selected), and "Authorized users and owners".
- Identification failure tolerance times:** A text input field containing the number "6". Below it is a small blue note: "Unit number, if the number exceeds this time, it will be handled by visitors (when the access right is the owner)".
- Play opening voice:** Two radio buttons, "open" (selected) and "close".
- The logo of version:** Two radio buttons, "Basics logo" and "Neutral logo" (selected).

#### 4. System parameters

A. Set the software version: the default network version, note: if you choose the stand-alone version, the pass data will not be synchronized to the cloud platform.

B. The serial port of the card reader is monitored, which is closed by default, if it is an IC card reader, select to open

C. Set the hardware version: the default is the gate, set according to the business scenario

D. Set the virtual button state: open by default, if it is closed after the

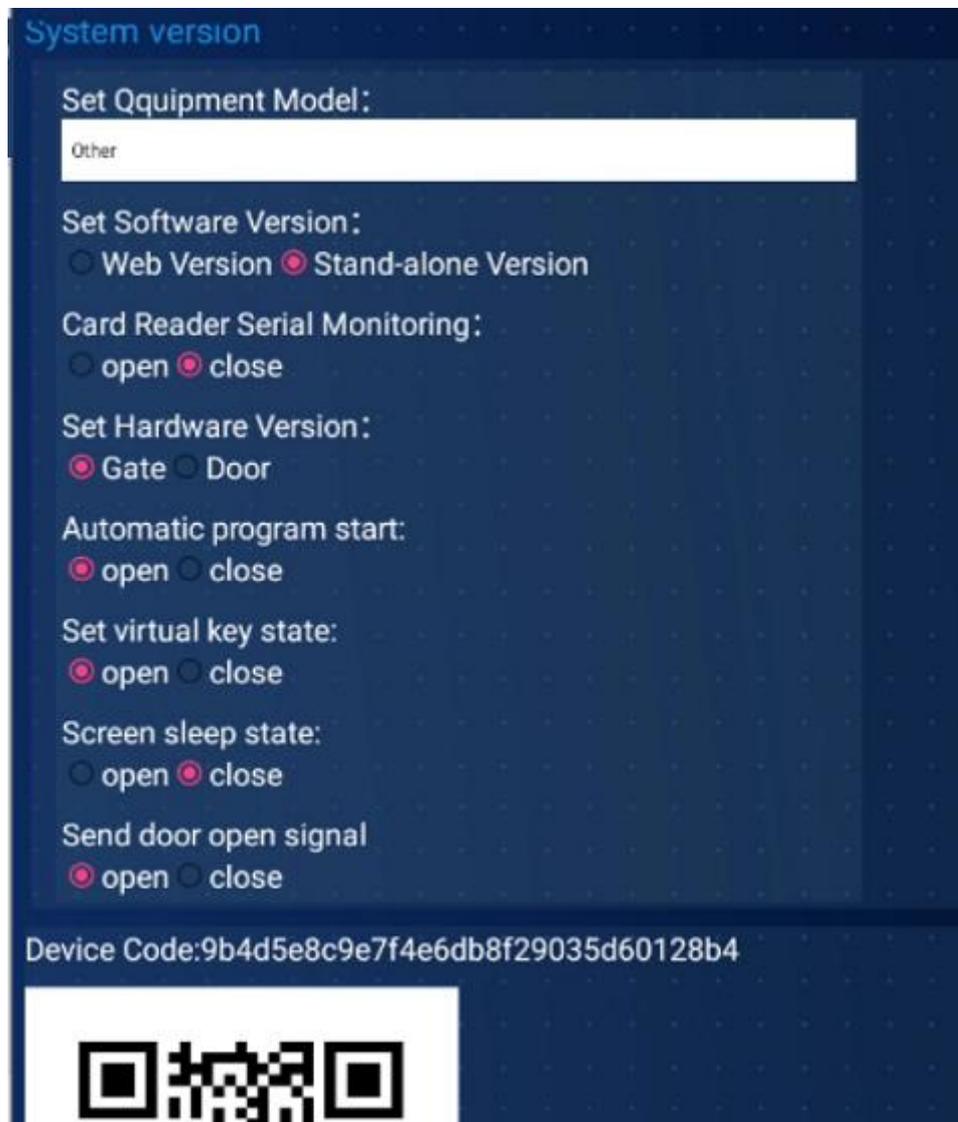
setting is completed, it is forbidden for others to set it randomly.

E. Whether the setting program is self-starting: open by default, if you need to set other parameters, you can close it, open it after setting

F. The QR code is the device code, which can be scanned by WeChat, and then the device license number can be traced back.

G.Version: software version number

H. Keep other parameters as default



## 四、Platform binding

A. Open a browser window, enter <https://fkzx.rakinda.cn/admin/login> in the address bar, log in to the system background according to the account password provided by the customer;



- A. Enter the system homepage, click on the left navigation bar [Access Control Management]-[Device Management]
- B. Enter the device management interface, click on the upper right corner [Add]
- C. Enter the device name, device number, device type, and organization, and click save



## 五、Summary of common problems

- A. How to find and activate the device license:
  - Enter the face setting item--"Explorer (file

management)--"Intenal Memory--"FacelInfo--"License, find the corresponding device activation code;

- The network connection of the device is normal; Remarks: Baidu can be accessed normally
- A.3 Click Activate, if the activation process fails, there will be a Toast prompt

B. The device cannot recognize the temperature measurement

- Turn on the thermal imaging preview switch on the device side to confirm whether the thermal imaging can be used normally.

C. How to connect the face machine to the gate:



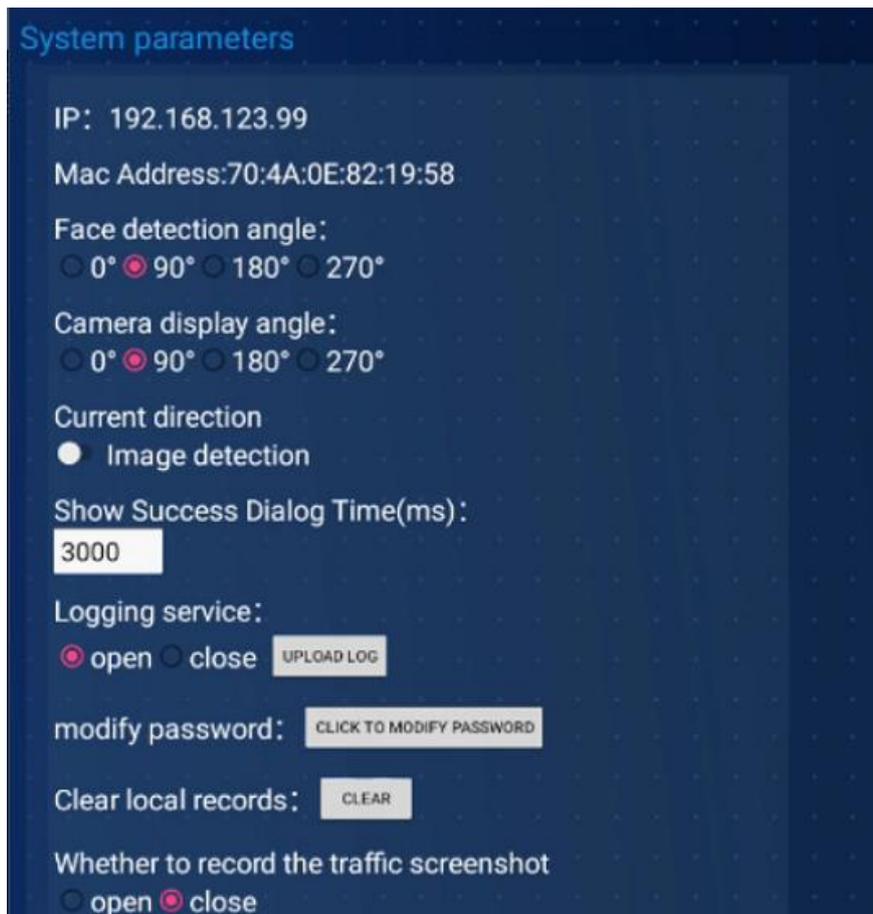
F6CS series products: 3P, COM and NO are respectively connected to the receiving and sending instructions of the gate. If the connection is found to be normally open or normally closed, the wiring is exchanged and tested.

D. Misrecognition of other people due to face recognition:

- Check the quality of the face photo, if it is blurred or the distance is too far, you need to change the face avatar again;
- Adjust the living body threshold to 0.75 or 0.9.5, and then test again;

E. There is a problem with the equipment, if you get the problem log?

- Use the administrator account (rakinda) or operator account (123456) to enter the settings.
- Turn on the log switch, as shown in the figure below, and then click OK to reproduce the problem.



- Take out the log that reproduces the problem ("log in to QQ mailbox (<https://mail.qq.com/>), send log by mailbox"), log storage path: Settings--"File Management"--"FaceInfo-- » Log