

Fi5L-2FP

Integrated Panel for Two-Factor Authentication (2FA) by both Face Recognition and RFID Card on top of Automatic Thermal Body Temperature Detection



Body Temperature
Detection Module

Indicate Body
Temperature

Access Right
Indication



Artificial Intelligence (A.I.) Facial Recognition

- Body temp. detection and facial recognition are processed concurrently
- Authenticate identity from system data and grant access

WiFi-Enabled and Support Remote Access /
Download of Data Across Internet Gateway

Query record									
☐ ID		☐ Score							
☒ Name	Paroni Ma	☐ Age							
☐ DateTime	2018-01-01 00:00:00 - 2020-05-03 13:46:23	☐ Quality							
de	aptur	Export progress	24%	Close	is	mer	se	lgr	DateTim
5...	98/394					no...	n...	n...	2020-...
5...	202005...	Paroni Ma	98	93	none	no...	n...	n...	2020-...
5...	202005...	Paroni	95	92	none	no...	n...	n...	2020-...
5...	202005...	98	92	none	no...	n...	n...	2020-...	

Report and Data Analysis

- Record up to 20,000 data with pictures
- Support extension to 50,000 records (SD card)
- Record time, body temperature, name, card ID, etc.

Objectives

- Remotely measure body temperature by means of **medical grade thermal sensor**
- Emit **voice alert** in case of abnormal body temperature detected
- Process 2FA of facial recognition plus RFID for **strict visitor accreditation**
- Capture face, access and temperature **data for future analysis**
- **Minimize physical contact** between staff and visitors
- Enhance **higher efficiency in visitor management** at high people traffic spots, for e.g. building entrances, schools, shopping malls, restaurants, etc, during health control

Professional Design

High Performance A.I. Chip

- Advanced neural network processing unit with capacity up to 1000Gops

Powerful Recognition Algorithm

- Face recognition accuracy 99% or above
- Recognize the face even with mask on
- Make voice alert to wear mask if no mask is detected (optional)

Quick Temperature Detection

- Detection done in less than 70ms

Comprehensive Report

- Access report showing name, time, temperature, successful access or not and picture comparison (optional)

Expandable Design for More Integrated Access Control Functions

- Link with access controllers for more time attendance and event visitor management
- Trigger opening of door / turnstile when integrated with full access control system
- Optional to add sanitizing machine
- **Optional to choose different RFID format**

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Technical Specifications:

Model	Fi5L-2FP
Hardware & Platform	
Processor	28nm processor, equipped 1Tops AI computing capability, support 4-megapixel@30fps
Operating System	Linux
Sensor	Medical grade thermal heat map sensing, unique algorithm for temperature compensation based on measuring distance and surrounding temperature
Camera	1/2.8" progressive scanning CMOS
DDR	4GB
Flash	8GB eMMC
Screen Display	5" IPS screen, 720 x 1280 resolution; 1920 x 1080: pixel
Operation Capacity	
Front End Storage	20,000 (with images)
Library Capacity	Support 50,000 images
Ambient Light	0 - 50,000 Lux with compensation light automatically on in case of insufficient lighting
Verification	
Verification Angle	360° verification angle
Unmasked Face Recognition Rate	> 99.5%; False Recognition Rate < 1%
Verification Time	≤ 70ms
Detection Rate w/o Mark	> 99.5%; False Recognition Rate < 1%
Face Recognition Rate with Mask	> 95%; False Recognition Rate < 1%
Temperature Measuring Distance	Max. 0.5 m
Face Detection Range	0.3 – 0.5 m
Verification Mode	1:1; 1:N
2FA Authentication Mode	Face Recognition plus RFID Card (Mifare and optional to tailor-make for other RFID format)



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Operational Features

Offline Operation	Support
Voice Notification	Support
Real Time Clock	Support
WIFI	Enabled
Languages	English / Simplified Chinese / Traditional Chinese / Japanese
Voice Alert	English / Cantonese / Putonghua / Spanish
Access Control Support	Wiegand 26 or 34 bit / Relay

Interface

RJ45	x 1, TCP/IP 100M Ethernet interface
Wiegand Output	D0, D1
RS485	x 2
Alarm Input	x 2
Relay	NO, NC
Card Slot	MicroSD, Support 64G
Video Output	HDMI

Environmental

Operating Temperature	-20 °C ~ to +70 °C
Operating Humidity	20% to 90%

Power

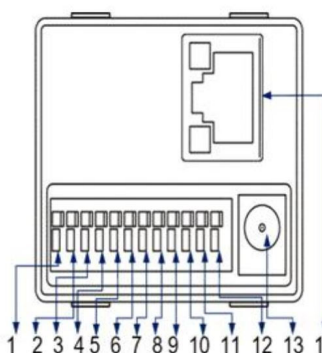
Power Supply	DC 12V, ± 25%
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Certification

Rating	CE,
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Physical

Dimension	179 (L) x 132.5 (W) x 28 (H) mm
Weight	2 Kg



1	RS485A	8	ALARM ON (relay normally close end)
2	RS485B	9	ALARM COM (central tapping end)
3	GND	10	ALARM OFF (relay normally open end)
4	WIEGAND 1	11	GND_IN (12V power ground)
5	WIEGAND 0	12	12V0_IN (12V power supply)
6	GND	13	POWER (power supply interface)
7	ALARM IN	14	RJ45

Design and specifications are subject to change without notice