Hikvision
Temperature Screening Solution
Human Skin-Surface temperature is an important indicator of physical health.

In many scenarios, people with abnormal skin-surface temperature need to be detected quickly and accurately in order to take measures to prevent a situation from becoming dangerous.
Current Situation

Traditional methods like using the ear thermometer or mercury thermometer perform well in detecting people with abnormal skin-surface temperature. However, all of these methods have obvious and significant deficiencies:

Close Contact, High Risk
- Close contact among users, leading to high risk of infection.

High Cost, Low Efficiency
- Lots of manpower invested.
- Person-by-person inspection is inefficient.

Difficult to Collect Statistics
- Manual registration is required, which may lead to human error and not so timely feedback.
Better Approach

Using machines instead of manpower alone is a much better choice in many aspects.

• Reducing the contact among people. The detection process can be fast and convenient, as imperceptible as possible, and can minimize the impact on people's daily travel.

• Effectively reducing manpower and the duration of skin-surface temperature measurement.

• Producing real-time and accurate temperature measurement data for management and decision-making.
Solution Business Flow

1. Entering
2. Human skin-surface temperature measurement
3. Locating potential elevated temperature
4. Double check with mercury or ear thermometers.

Fast preliminary temperature screening without contact

AFE
- Distant and accurate check without physical contact, reducing cross-infection possibilities.

EFFICIENT
- Automatic alarm triggering, reducing manpower invested.

ADAPTABLE
- Multiple product types, easy to deploy, and suitable for different scenarios.

RACEABLE
- Combining temperature, image and face identification for easy management and query.
Solution Overview

Solution 1: Temperature Screening with Fast Deployment

✓ Entrances with short-term requirements
✓ Unsuitable for complicated wiring and installation

1-1 Thermographic Cameras
Visualized Bi-spectrum Live View
- With Thermographic Camera

1-2 Wireless Devices
Easy Connection, Cable Free
- With Handheld Thermographic Camera

1-3 Metal Detector Doors
Real-time Sound and Light Alarm
- With Metal Detector Door
Solution Overview

Solution 2  Temperature Screening with Access Control
✓ Indoor space without wind
✓ Security control and Temperature screening at the entrance which has a route to guide people flow

Touch-Free, Access is Easier but Safer
- With MinMoe Wall-Mounting Touch-free Temperature Screening Terminal

Solution 3  Group Temperature Screening
✓ Indoor open space without wind
✓ Large people flow
✓ Temperature screening on crowds

High-risk Group Screening with High Efficiency
- With Thermographic Bullet Camera
Solution Overview

Solution 4  
**Temperature Screening on Patrol**

✓ Indoor open space without wind
✓ Patrolling without a fixed route

Anytime, Anywhere, Just one click.

- With Handheld Thermographic Camera

Solution 5  
**Temperature Screening & Mask Detection**

✓ Indoor open space without wind
✓ Face recognition with mask on

Intuitive Demonstration

- With Thermographic Camera & DeepinMind NVR
Temperature Screening with Fast Deployment – Thermographic Cameras

Visualized Bi-spectrum Live View

**Solution Introduction**

- Indoor space without wind
- Route for passenger flow is recommended
- 5 minutes’ stay after entrance is recommended
- Use the Black Body calibrator to improve the accuracy to ±0.3℃
- **Local video storage** with HikCentral & pStor, no need for NVR

**Product Design**

- Thermal: 160 × 120, lens: 3 mm / 6 mm
- Optical: 2688 × 1520, lens: 4 mm / 8 mm
- Accuracy: ±0.5℃ (± 0.3℃ with black body)
- Measurement range: 30-45℃
- Working temperature: 10-35℃
- Embedded audio alarm for abnormal temperatures
- AI detection to reduce false alarms by other heat resources

**DS-2TD1217B-3/6 PA**
**DS-2TD2617B-3/6 PA**

Note: HikCentral Professional & Pstor only need i5 & 16G RAM Laptop
Temperature Screening with Fast Deployment - Wireless Devices

Easy Connection, Cable Free

**Solution Introduction**

- For building entrances, elevator halls, airport security checks, etc.
- **Wireless** deployment without cables (by the app or the iVMS-4200 client)
- Indoor space without wind
- Route for passenger flow is recommended
- 5 minutes’ stay after entrance is recommended

**Product Design**

- Thermal resolution: 160 × 120
- Optical resolution: 640 × 480
- Accuracy: ±0.5°C
- Measurement range: 30-45°C
- 3.5” LCD touch screen
- Supports Wi-Fi hotspot, live view on PC or mobile client for less eye fatigue
- Supports real-time audio alarm and automatic uploading of screen captures

- Distance between camera and people: 1 - 2m
- Installation height is 1.5 m
- Double check by mercury thermometer, ear thermometer etc.
**Solution Introduction**

- Long-term Temperature screening with metal detector door for entrances of police station, subway station, airport security check, etc.
- Indoor space without wind.
- Thermographic turret camera fixed on walk-through metal detector door.

**Product Design**

**ISD-SMG318LT-F**
- 18 independent detection zones,
- 7-inch LCD temperature indicator
- 2,200 mm * 850 mm * 480 mm
- Thermal imaging resolution: 160 * 120
- Temperature measurement accuracy: ±0.5 ℃
- Temperature measurement range: 30-45 ℃
- Onboard audio alarm for abnormal temperature or metal.

**Real-time alarm monitoring**
- Double check by mercury thermometer, ear thermometer etc.
- Measurement distance: 0.8 m – 1.5 m
- LCD screen to display the temperature
- Human height between 1.45 m - 1.85 m
Application Scenarios

School

- Entrance of college building
- Entrance of dormitory

Retail

- Entrance of supermarket
- Entrance of restaurant

Office Building

- Elevator hall of parking lot
- Entrance of office building

Airport

- Security Check at Airport
- Entrance of terminal

Recommended for indoor scenarios, as large fluctuations of outdoor temperature will influence the temperature measurement accuracy.
Temperature Screening with Access Control

Touch-Free, Access is Easier but Safer

Solution Introduction

- Long-term Temperature screening with access control for building related projects
- Indoor space
- Centralized management for access control with temperature records

Product Design

- 7-inch LCD touch screen, 2 Mega pixel wide-angle lens
- Built-in Mifare card reading module;
- Max. 50,000 faces capacity, Max. 50,000 cards;
- Temperature range: 30-45°C, accuracy: ±0.5°C;
- Supports 6 attendance status, including check in, check out, break in, break out, overtime in, overtime out
- Face Recognition Duration (1:N) ≤0.2s
- Authentication Distance: 0.5m ~ 1.5m

Note: The NVR and HikCentral are both customized in this solution.
Application Scenarios

Entrance of Office

Entrance of Restriction Area

Entrance of Meeting Room

Recommended for indoor scenarios, as large fluctuations of outdoor temperature will influence the temperature measurement accuracy.
3

Group Temperature Screening
High-risk Group Screening with High Efficiency

Solution Introduction

- Temperature screening of crowd with high efficiency (indoor), simultaneous temperature screening of multiple people.
- The Black Body calibrator is used to improve the accuracy to ±0.3°C.
- Centralized management for CCTV with temperature record.

Product Design

- Thermal: 384 × 288, lens: 10/13/15 mm
- Optical: 2688 × 1520, lens: 4/6/6 mm
- Accuracy: ±0.5°C
- Measurement range: 30-45°C
- Working temperature: 10-35°C
- AI detection to reduce false alarms.

Note: The NVR and HikCentral are both customized in this solution.
Application Scenarios

Railway Station  
Airport  
Factory

Recommended for indoor scenarios, as large fluctuations of outdoor temperature will influence the temperature measurement accuracy.
Temperature Screening on Patrol
Anytime, Anywhere. Just One Click

Solution Introduction

- For preliminary Temperature screening by spot-checking inspectors (indoor)
- Temperature screening without disturbing a person

Product Design

- Thermal resolution: 160 × 120;
- Optical resolution: 640 × 480;
- **Accuracy**: ±0.5°C
- Measurement range: 30-45°C
- 3.5" LCD touch screen
- Supports **Wi-Fi hotspot**, automatic screenshots of a person with Temperature & uploading to the Mobile Client (Hik-Thermal) as evidence
- Supports real-time **audio alarm**
- Operation time: **4-5 hours**

Hik-Thermal app
iVMS-4200
Handheld Thermographic camera

DS-2TP21B-6AVF/W
Application Scenarios

Recommended for indoor scenarios, as large fluctuations of outdoor temperature will influence the temperature measurement accuracy.
Temperature Screening & Mask Detection

Intuitive Demonstration

Solution Introduction

- **Temperature Screening**: Simultaneous Temperature screening for multiple persons (indoor), contact-free
- **Mask Detection**: Detecting whether people wear masks, and timely giving alarms on people without masks
- **Identity Verification & Stranger Alarm**: Confirming identity, *even with mask*, and giving alarms on strangers

Product Design

- **Number of People**: total number, abnormal temperature, no mask, normal temperature

➢ **Visualized GUI & Voice Broadcast**:  
  - Special interface in DeepinMind NVR, visually displaying all kinds of information  
  - Supporting voice broadcast upon mask and temperature status

➢ **Efficient Search & Report**:  
  - Fast video search of target people, such as people with abnormal temperatures, without masks and so on;  
  - Exporting reports with ID, skin-surface temperature and mask status

Note: The DeepinMind NVR and thermographic cameras are customized in this solution.
Application Scenarios

Recommended for indoor scenarios, as large fluctuations of outdoor temperature will influence the temperature measurement accuracy.
### Thermographic bullet camera
- **Thermal:** 160 × 120
- **Lens:** 3 mm / 6 mm
- **Optical:** 2688 × 1520
- **Optical lens:** 4 mm / 8 mm
- **Video mode:** Bi-spectrum image fusion
- **Accuracy:** ±0.5°C (± 0.3°C with black body)
- **Measurement range:** 30-45°C
- **Supports audio alarms**

### Thermographic turret camera
- **Thermal:** 160 × 120
- **Lens:** 3 mm / 6 mm
- **Optical:** 2688 × 1520
- **Optical lens:** 4 mm / 8 mm
- **Video mode:** Bi-spectrum image fusion
- **Accuracy:** ±0.5°C (± 0.3°C with black body)
- **Measurement range:** 30-45°C
- **Supports audio alarms**

### Black body Calibrator
- **Temperature resolution:** 0.1°C
- **Accuracy:** ±0.1°C
- **Temperature stability:** ±0.1°C/h
- **Effective emissivity:** 0.97±0.02
- **Operating temperature:** 0-30°C

### Handheld thermographic camera
- **Thermal resolution:** 160 × 120
- **Optical resolution:** 640 × 480
- **Measurement range:** 30-45°C
- **Touch screen**
- **Accuracy:** ±0.5°C
- **Bi-spectrum image fusion**
- **Supports Wi-Fi**
- **Supports audio alarms**
- **Automatic screenshots & uploading**
MinMoe Wall-Mounting Touch-free Temperature Screening Terminal

• Face identification, Temperature screening, mask detection
• Voice reminder of not-wearing masks, and no-mask entrance is prohibited
• Face capacity: 50,000
• Temperature accuracy: ±0.5℃, range: 30~45℃
• Face Recognition Duration(1:N) ≤0.2s
• Face Recognition Distance: 0.5m ~ 1.5m

Monitoring Tablet

• 7” Touch-Screen Android Indoor Station
• Display resolution: 1024 * 600
• Wi-Fi 802.11b/g/n
• Remote Temperature screening & records checking, real time preview
• Centralized data management, max to 100,000 records
• Abnormal temperature alarm
• Remote access control & video intercom

Metal detector door

• 18 independent detection zones, LCD screen
• Thermal camera resolution: 160 x 120
• Temperature range: 30~45℃
• Temperature accuracy: ±0.5℃
**Monitor**

- 1080P, HDMI/VGA input, plastic casing, VESA, base bracket included, 7*24h

![Monitor](DS-D5024FN.png) (23.8")

![Monitor](DS-D5032QE.png) (31.5")

![Monitor](DS-D5043QE.png) (43")

**DeepinMind NVR**

- 8 channels of picture or video streaming; 32-library capacity with up to 100,000 face pictures in total.

![DeepinMind NVR](iDS-6708NXI-I8F(B)(STD)(T).png)

- 16 channels of picture or 8 channels video streaming; 32-library capacity with up to 100,000 face pictures in total.

![DeepinMind NVR](iDS-7716/(32)NXI-I4/(16P)/X(B)(STD)(T).png)

![DeepinMind NVR](iDS-9616/(32)NXI-I8/X(B)(STD)(T).png)

**POE switch**

- L2, Unmanaged, 10/100M RJ45 PoE ports, 1 10/100M RJ45 uplink port, 802.3af/at, PoE power budget. 300m long distance transmission, 6KV surge protection

![POE switch](DS-3E0105P-E(B).png)

![POE switch](DS-3E0109P-E(C).png)

**Monitor**

- 1080P, HDMI/VGA input, **build-in speaker**, plastic casing, VESA, base bracket included, 7*24h

![Monitor](DS-D5024FC.png) (23.8")

![Monitor](DS-D5032FC-A.png) (31.5")

![Monitor](DS-D5043UC.png) (43")

**DeepinMind NVR**

- 8 channels of picture or video streaming; 32-library capacity with up to 100,000 face pictures in total.

![DeepinMind NVR](iDS-6708NXI-I8F(B)(STD)(T).png)

- 16 channels of picture or 8 channels video streaming; 32-library capacity with up to 100,000 face pictures in total.

![DeepinMind NVR](iDS-7716/(32)NXI-I4/(16P)/X(B)(STD)(T).png)

![DeepinMind NVR](iDS-9616/(32)NXI-I8/X(B)(STD)(T).png)
HikCentral Professional

- Flexible, scalable, reliable and powerful central surveillance system.
- Supports live view, play back, access control, alarm management, personnel identification, temperature data storage, abnormal temperature trend analysis etc.

Management of Registered Identities

Personnel Access Management & Skin-temperature Measurement

- HikCentral links personnel skin-temperature and corresponding identity;
- Access status and temperature live display / recording on HikCentral;
- Administrators can grant the access remotely

Abnormal Status Management

- Detected abnormal temperature from multiple sites will be centralized into HikCentral and displayed on GIS map / E-map;
- Batch attendance handling of people in quarantine

Management of Unregistered Identities

Abnormal Status Registration

- Once abnormal temperature appears, inspectors can type in the identity information and register it to HikCentral;
- All registrations are traceable, and can be easily searched and exported;
- Visualized statistic report helps administrators to assign and adjust manpower;
Interactive Group Temperature Screening with AI

1. Temperature and mask status
   Intuitive Local Monitoring

2. Instant & Interactive Alarm
   No mask detection or abnormal detection

3. Quick evidencing
   Filter by tag 'Abnormal Temperature' and export video

2. AI-based personnel attendance management and statistics dashboard

1. Viewing Statistics & Trends
   Temperature statistical trends of staff

2. Records retrieving
   Multi-site records available at center
Thanks
See far, go further