Highly Accurate Thermographic Cameras

FOCUSED ON YOUR SUCCESS

HIKVISION

Product Showcase

New Product Showcase

Common Features

- All Bi-spectrum (Thermal & Optical)
- Accuracy: ± 0.5°C (0.9°F) w/o blackbody
  ± 0.3°C (0.5°F) w/ blackbody
- Bi-spectrum thermal-optical image fusion
- Automatic image capture and upload
- Use only in stable indoor, windless environment
  (Working Temperature 59° to 95° F)

Blackbody Calibration Source DS-2TE127-G4A

- Temperature resolution: 0.1°C
- Temperature stability: ± 0.1°C/h
- Effective emissivity: 0.97 ± 0.02
- Operating temperature: 0 to 30°C

DS-2TP21B-6AVF/W

- **Thermal Resolution: 160×120**
- 8 MP Optical Camera
- Bluetooth, Wi-Fi
- Touch Screen
- Measurement Range:
  - 6 mm Lens: 1.0–2.0 m
- Tripod Ready
- Color Highlight and Audio Alarms

DS-2TD2617B-6/PA

- **Thermal Resolution: 160×120**
- 4 MP Optical Camera
- Measurement Range:
  - 6 mm Lens: 1.5–3.0 m
- Tripod Adapter: DS-2909ZJ (not included)
- Audio Alarm

DS-2TD2636B-13/P

- **Thermal Resolution：384×288**
- 4 MP Optical Camera
- Measurement Range:
  - 13 mm Lens: 2.5–7.0 m
- Tripod Adapter: DS-2909ZJ (not included)

DS-2TD1217B-3/PA

- **Thermal Resolution：160×120**
- 4 MP Optical Camera
- Measurement Range:
  - 3 mm Lens: 0.8–1.5 m
- Tripod Adapter: DS-2908ZJ (not included)
- Audio Alarm

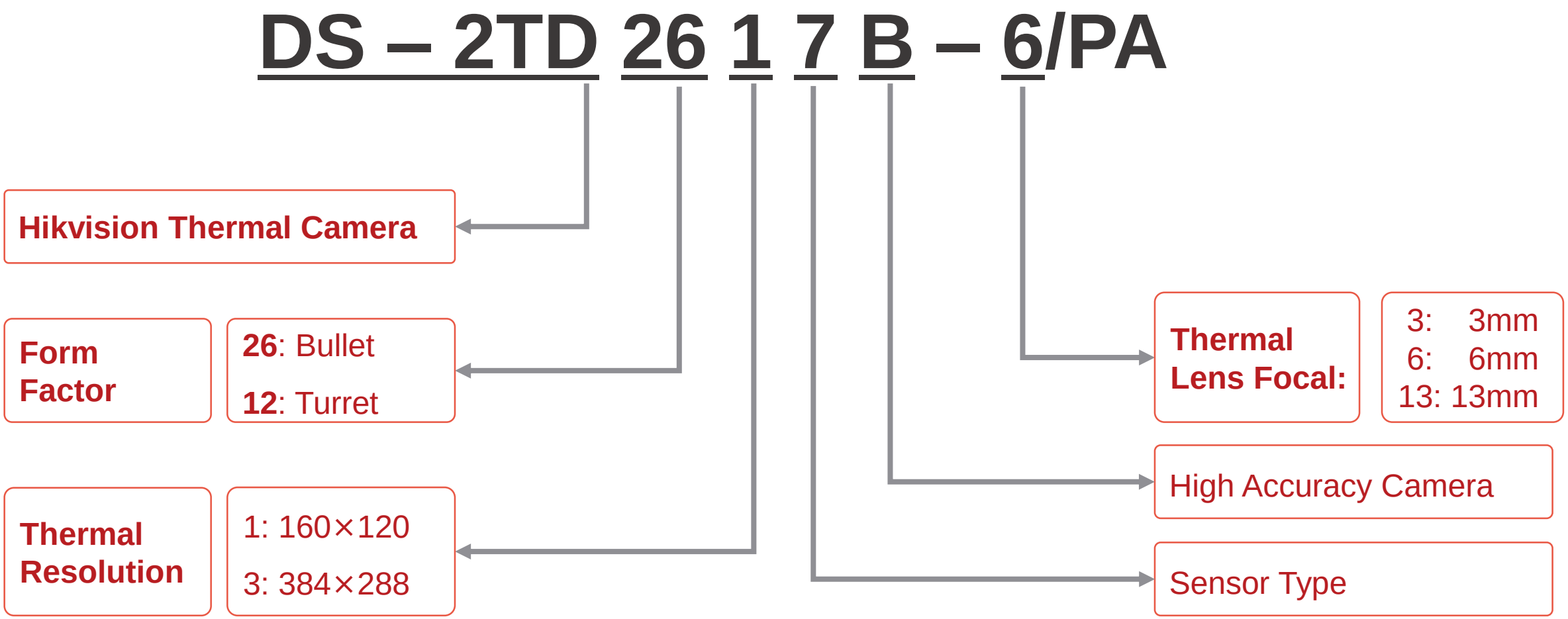
Accessories

Standard 1/4”-20 Tripod DS-2907ZJ (sold separately)
- Standard 1/4”-20 thread (can be purchase elsewhere)

Turret Tripod adapter DS-2908ZJ (sold separately)
- Connection between 1/4”-20 tripod and turret camera

Bullet Tripod adapter DS-2909ZJ (sold separately)
- Connection between 1/4”-20 tripod and Bullet camera

Model Naming Rule



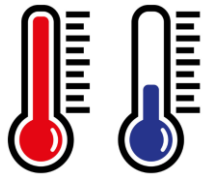
DS-2TP21B-6AVF/W is the handheld

Bi-Spectrum

Optical IMG

Thermal IMG

Face detect

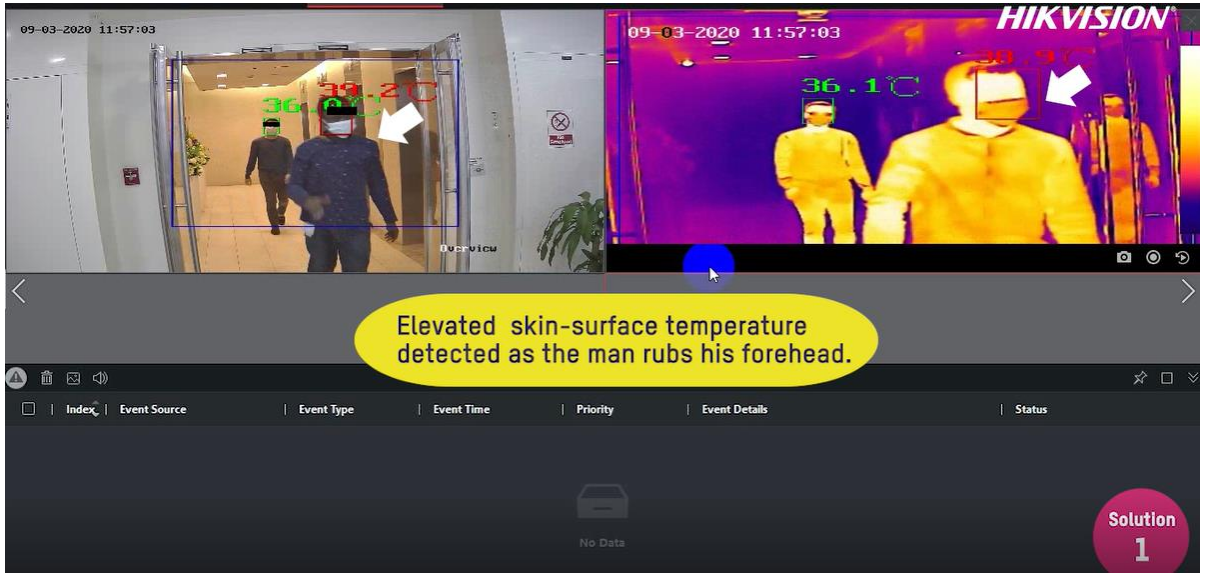


Measure Temp.

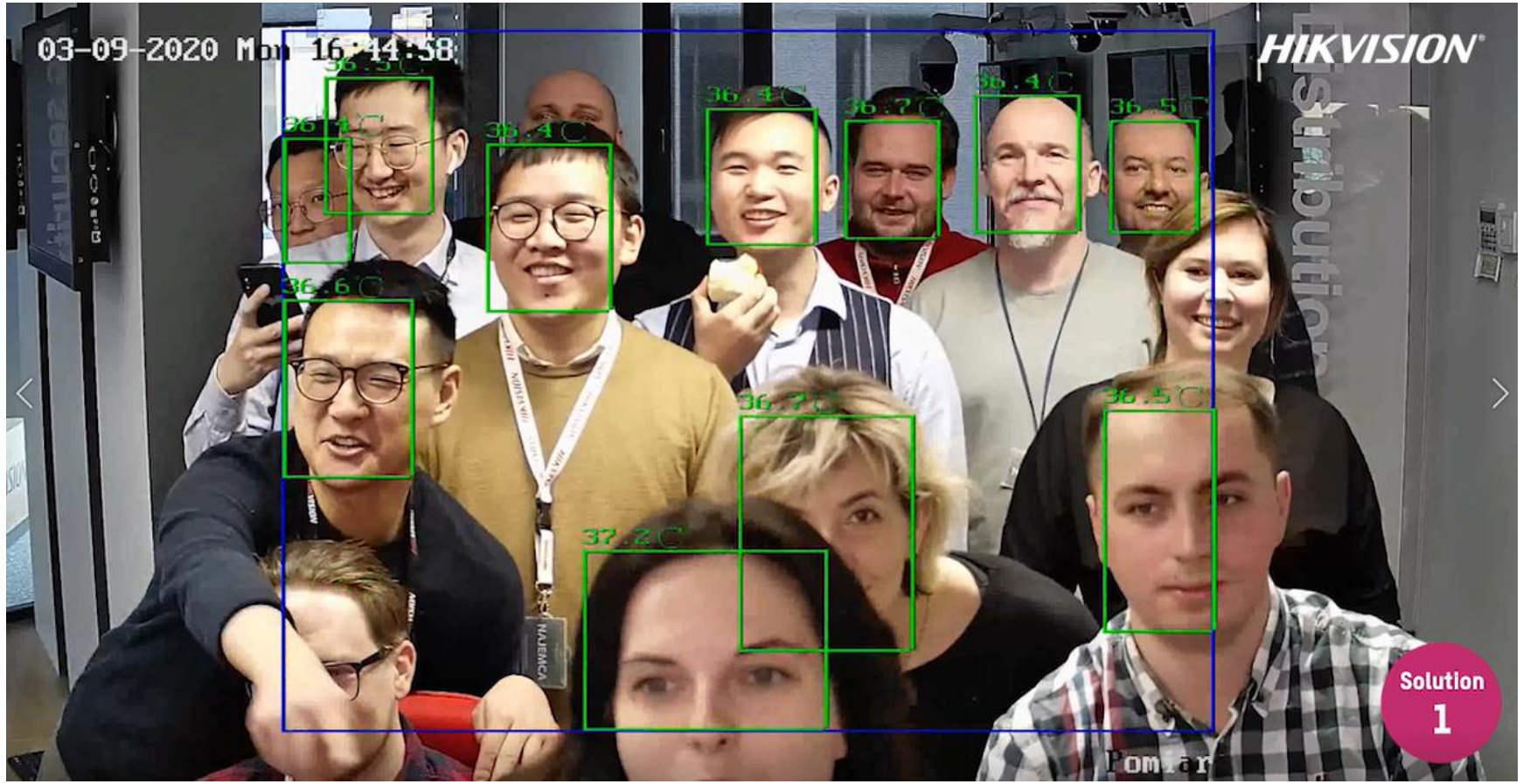
Normal

Fever

Accurate Alarm



Accurate Alarm



Detect up to **30** persons at same time

Accurate Alarm

Models Differences

Form Factor	Model name	Thermal Resolution	Thermal Lens	Detection Distance	FOV
Turret	DS-2TD1217B-3/PA	160 × 120	3 mm	0.8–1.5 m	50° × 37.2°
Bullet	DS-2TD2617B-6/PA	160 × 120	6 mm	1.5–3.0 m	25° × 18.7°
	DS-2TD2636B-13/P	384 × 288	13 mm	2.5–7.0 m	28.8° × 21.6°
Handheld	DS-2TP21B-6AVF/W	160 × 120	6 mm	1.0–2.0 m	25° × 18.7°

New Accessories	Details
DS-2TE127-G4A	Blackbody Calibration Source
DS-2907ZJ	Standard 1/4”-20 Threaded Tripod
DS-2908ZJ	Tripod Adapter for Thermal Turret Camera
DS-2909ZJ	Tripod Adapter for Thermal Bullet Camera

* Above accessories are not included in the camera box.
* Tripod also can also be purchased elsewhere. (standard 1/4”-20 thread)

Specifications

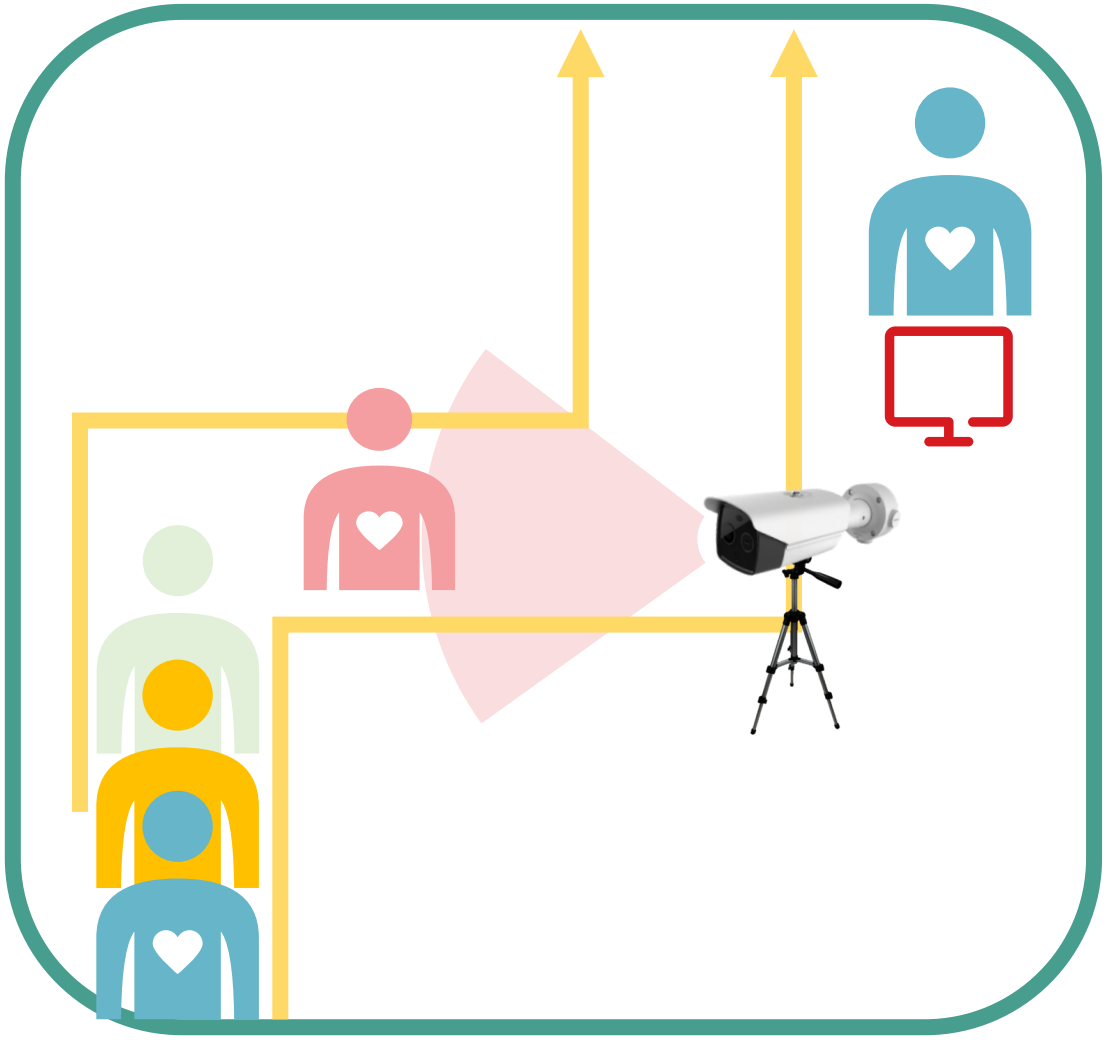
Product			
Model	**DS-2TD2636B-13/P**	**DS-2TD2617B-6/PA**	**DS-2TD1217B-3/P**
Face Detection	Yes (30 at a time)		
Accuracy	± 0.5°C (0.9°F) w/o BCS* ± 0.3°C (0.5°F) w/ BCS		
Thermal Resolution	384×288	160×120 (upscale to 320×240)	
Thermal Lens	13 mm	6 mm	3 mm
Thermal FOV	37.5°×28.5°	25°×18.7°	50°×37.2°
NETD	≤ 40 mK @ 25°C, f/1.0	≤ 40 mK @ 25°C, f/1.1	
Optical resolution	4MP (2688×1520)		
Interface	RJ45 10/100 Mbps Ethernet		
Local Storage	Supports 128 GB Micro SD		
Tripod Mount	DS-2909ZJ		DS-2908ZJ
Power	12 VDC/24 VAC/PoE, ≤ 9.5 W	12 VDC/PoE, ≤ 8 W	12 VDC/PoE, ≤ 6.5 W
Dimensions	14.10"×4.47"×4.53"	14.10"×4.47"×4.53"	5.45"×5.45"×4.85"
Weight	4.01 lb	3.88 lb	2.07 lb

*BCS means blackbody calibration source. This is a constant temperature thermal radiation source placed in the view of the thermal camera for calibration of thermal drift compensation.

Product	
Model	**DS-2TP21B-6AVF/W**
Accuracy:	±0.5°C(0.9 °F)
Measurement Range:	30°C to 45°C(86–113 °F)
Thermal Detector:	VOx UFPA, 17μm pitch
Thermal Resolution:	160×120
Thermal Lens:	6.2 mm focal length, 25° HFOV
NETD:	≤40 mK @ 25°C
Optical Camera:	8 MP
Display Resolution:	640x480
Touchscreen:	Yes
Interfaces:	USB-C, Bluetooth, Wi-Fi
Local Storage:	**16 GB Built-in**
Battery:	4 to 5 hours, Removable
Tripod Mounting:	¼-20 UNC
Drop Safe:	2 m
IP Rating	IP54
Dimensions	9.6"×3.9"×4.1"
Weight	1.13 lb

Solutions

Elevated Skin-Surface Temperature Detection Process



1. Set up a screening checkpoint

inside an entrance

2. Perform preliminary screening

using thermal camera to quickly detect elevated skin-surface temperatures

3. Perform secondary check

using qualified personnel with approved devices

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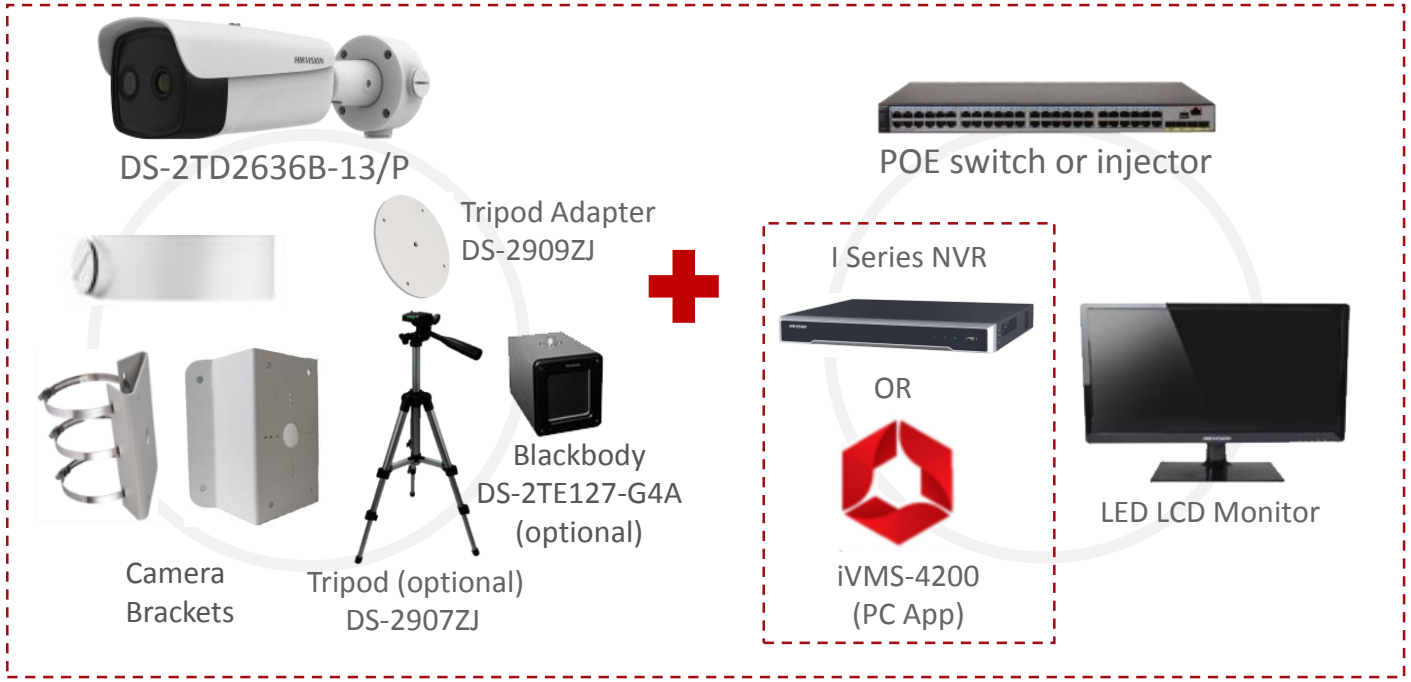
Long-Range Solution with TD2636B

Solution Composition

384x288 resolution thermographic camera + mounting bracket(s) + NVR or iVMS-4200 (PC) + PoE switch + monitor + blackbody (optional)



Solution Advantages

- Thermal resolution of 384x288 supports farther and wider detection area
- Measures at distances of 8.2 to 23 ft (2.5 to 7 m)
- Mountable on tripod/pole or building structure for temporary or long-term use
- Accuracy of ± 0.5°C (0.9°F) w/o blackbody
  ± 0.3°C (0.5°F) w/ blackbody
- Integrated 4 MP optical camera satisfies normal monitoring requirement

Setup Tips

- Set up the solution in a stable indoor environment without wind or direct sunlight
- Mount the camera at a height of 5.6 to 8.2 ft (1.7 to 2.5 m)
- Power on for 30 minutes before screening

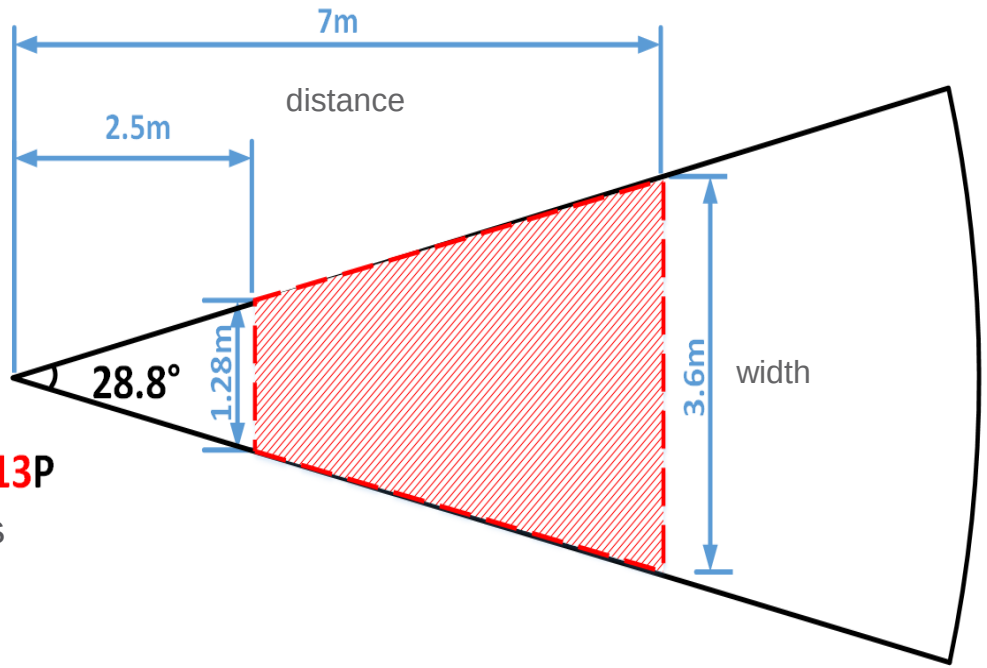
Long-Range Solution — Setup

Temporary Setup

Effective Detection Area

DS-2TD2636B-13P

13 mm Lens



The camera can also be mounted on the wall at a height of 5.6 to 8.2 ft (1.7 to 2.5 m)

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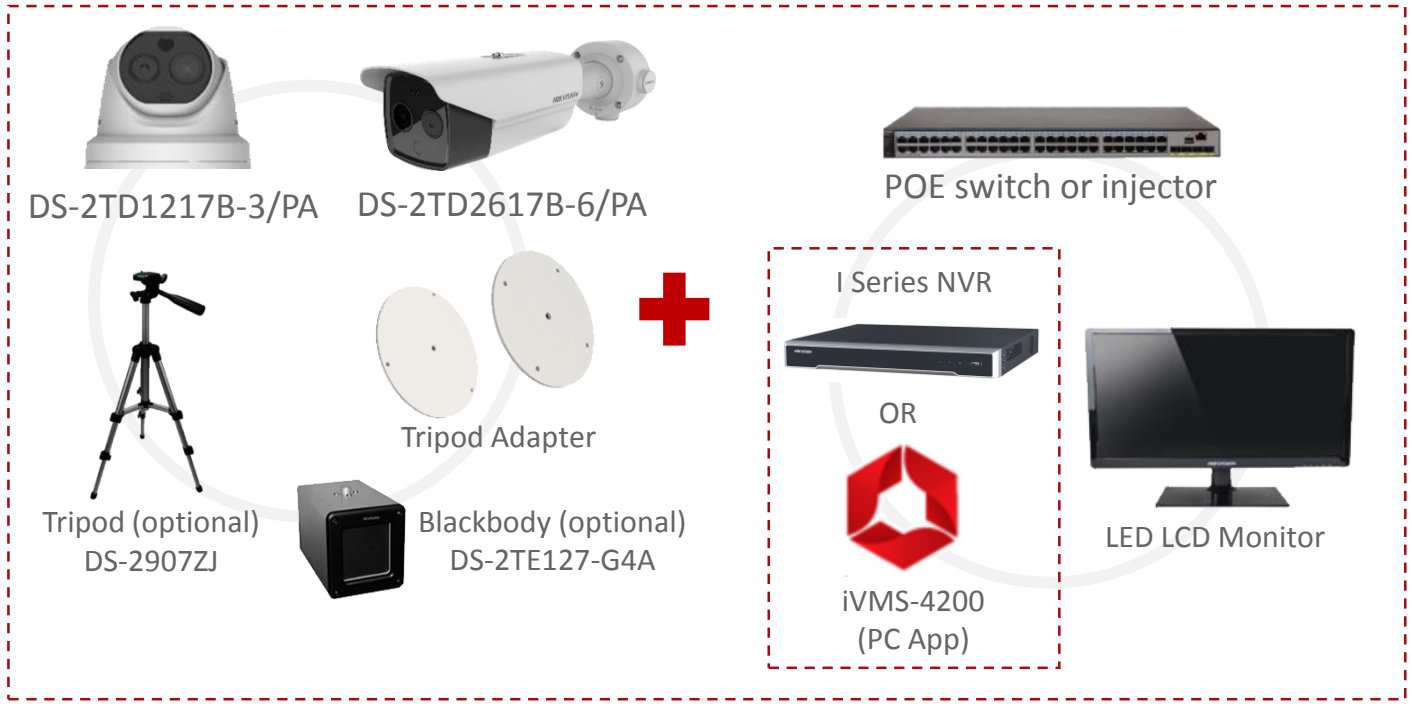
Short/Mid-Range Solutions with TD1217B and TD2617B

Solution Composition

160x120 resolution thermographic camera + tripod + tripod adaptor + NVR or iVMS-4200 (PC) + PoE switch + monitor + blackbody (optional)



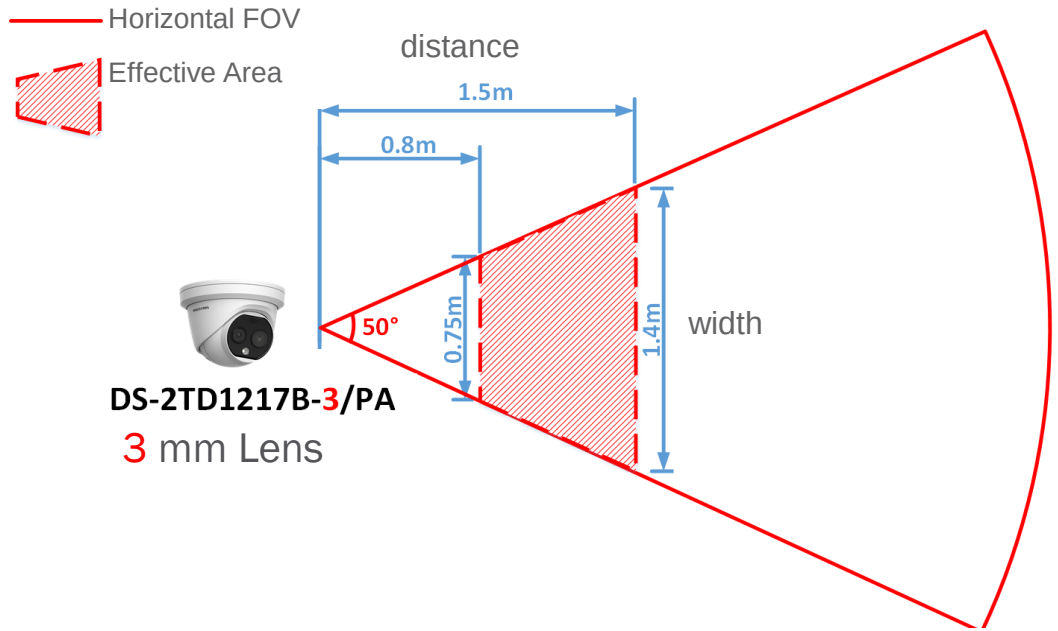
Solution Advantages

- Embedded audio alarm can immediately notify operators of elevated skin-surface temperature
- Mountable on tripod/pole or building structure for temporary or long-term use
- Accuracy of ± 0.5°C (0.9°F) w/o blackbody
  ± 0.3°C (0.5°F) w/ blackbody
- Integrated 4 MP optical camera satisfies normal monitoring requirement

Setup Tips

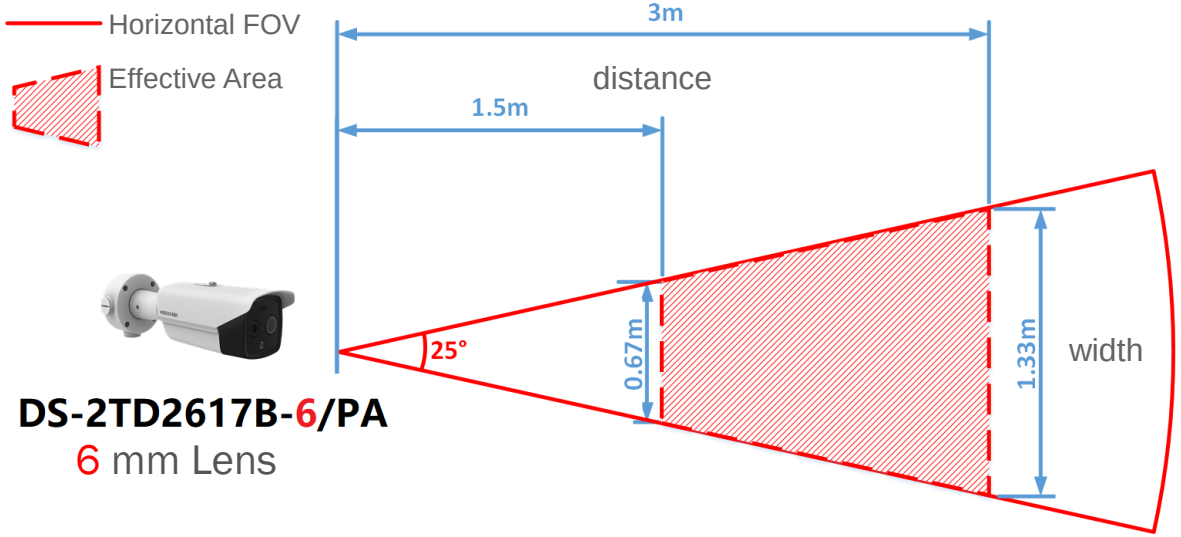
- Set up the solution in a stable indoor environment without wind or direct sunlight
- Mount the camera at a height of about 4.9 ft (1.5 m)
- Power on for 30 minutes before screening

Short/Mid-Range Solutions — Setup



DS-2TD1217B-3/PA

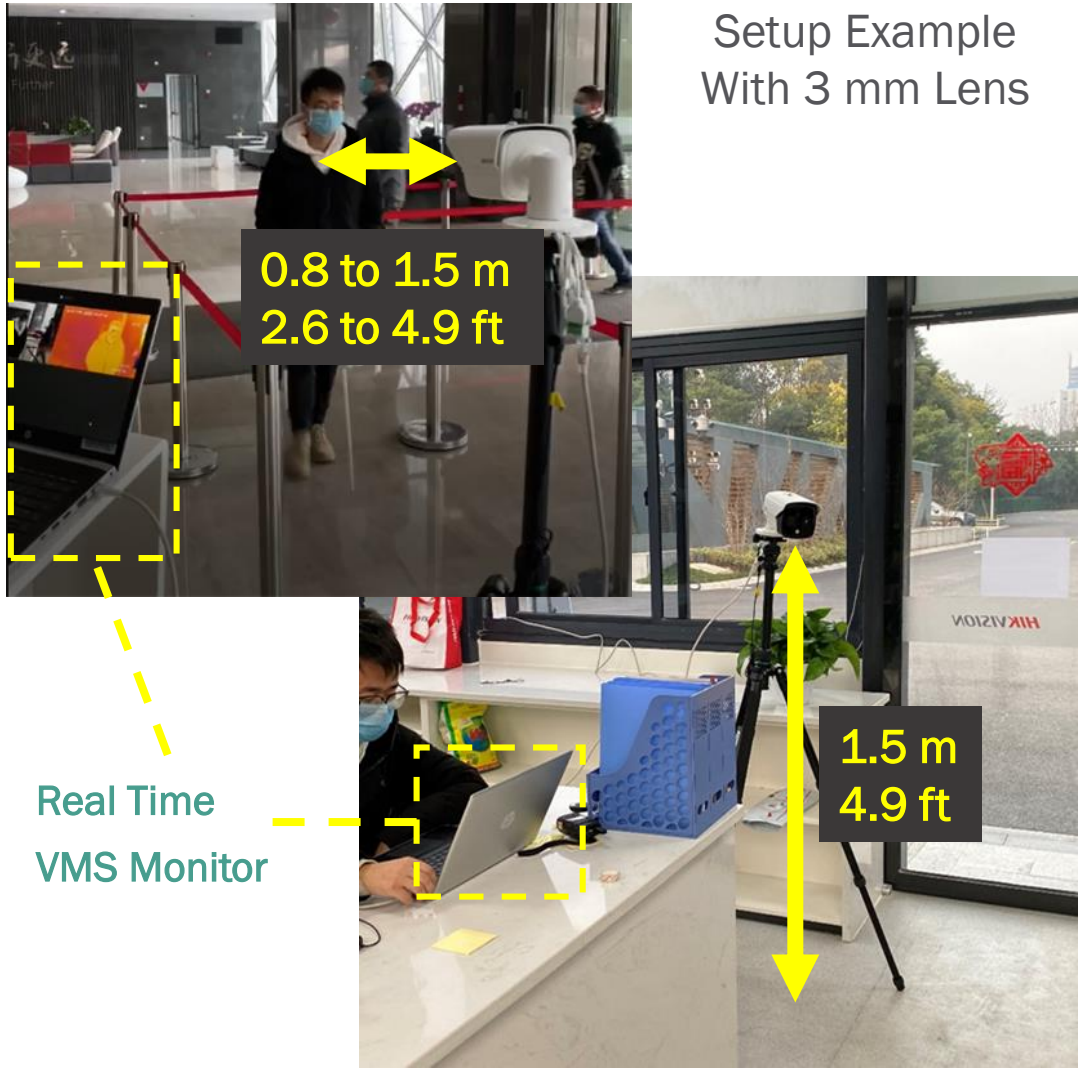
3 mm Lens



DS-2TD2617B-6/PA

6 mm Lens

Setup Example
With 3 mm Lens



Mid-Range Handheld Solution with TP21B

DS-2TP21B-6AVF/W

Tripod
DS-2907ZJ

iVMS-4200
(PC APP)

Hik-Thermal
(Mobile App)

Solution Composition

Professional thermographic handheld camera + tripod (optional)

Solution Advantages

- Camera connects via Wi-Fi with PC / Mobile client
- Carry in hand or mount on a tripod for mobile measurement
- Embedded audio alarm can immediately notify operators of temperature alarm
- Touch screen provides ease of use
- Accuracy of ± 0.5°C (0.9°F)
- Integrated 8 MP optical camera satisfies normal monitoring requirement

Setup Tips

- Measure from about 3.3 to 6.6 ft (1.0 to 2.0 m) away
- Set up the solution in a stable indoor environment without wind or direct sunlight
- Power on for 5 minutes before screening

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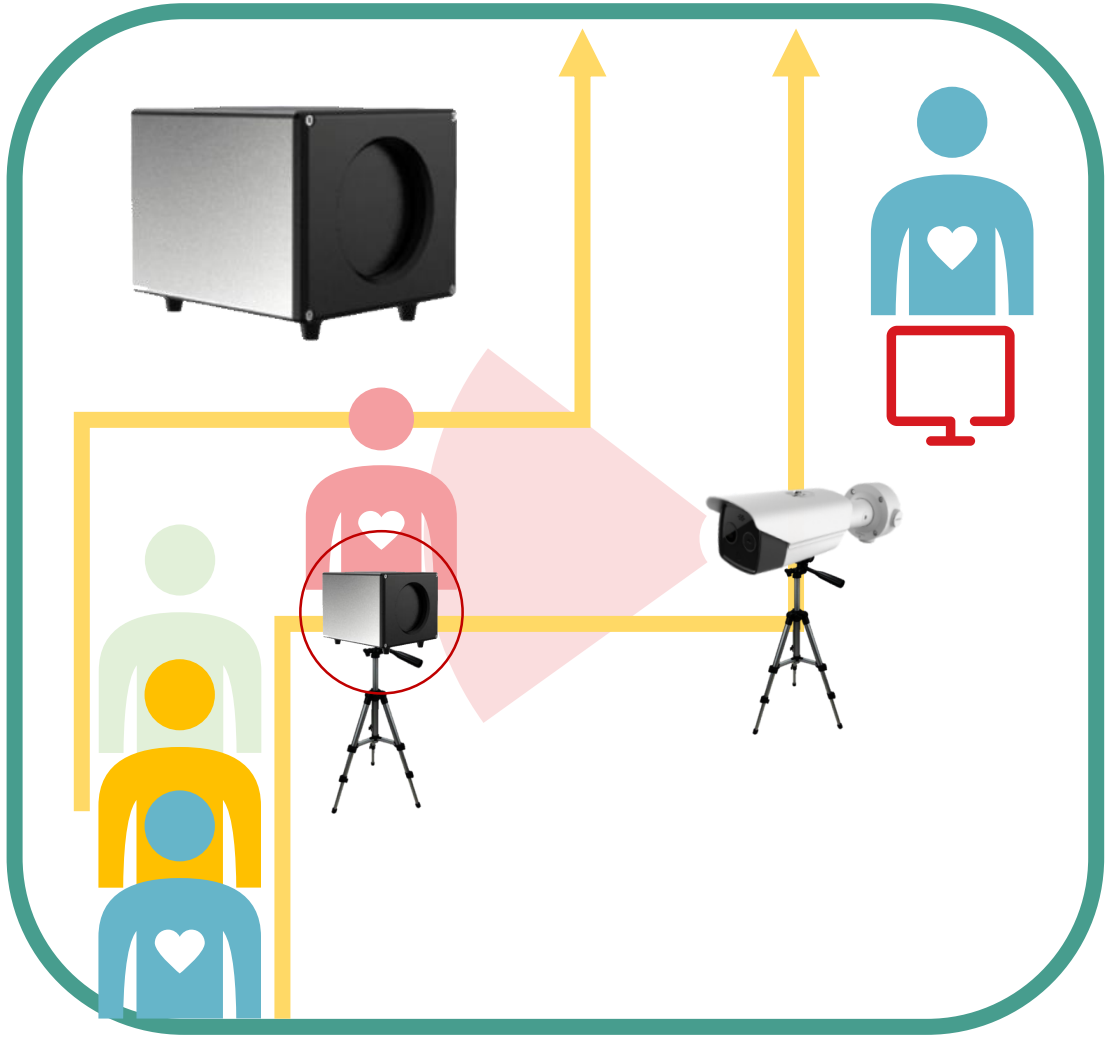
Handheld

Boost Accuracy Using Blackbody Calibration Source



Advantages

- Increase measurement accuracy from ± 0.5°C (0.9°F) to **± 0.3°C (0.5°F)**
- **Reduce missing alarms** due to understated temperature

Requirements

- **Turret or bullet solution** (not supported by handheld camera)
- Blackbody calibration source: **DS-2TE127-G4A**
  This device maintains a constant temperature and emissivity as a reference for camera calibration
- Power source: 100 to 240 VAC
- Tripod: DS-2907ZJ (optional)

Installation Tips

- Distance the blackbody calibrator according to your camera lens:
  1 m for 3 mm lens, 2 m for 6 mm lens, 3 m for 13 mm lens
- Ensure the blackbody calibrator is always in the camera's view.
- Ensure the blackbody calibrator **will not be blocked** during measurements
- Perform measurement in a stable **indoor** environment without wind

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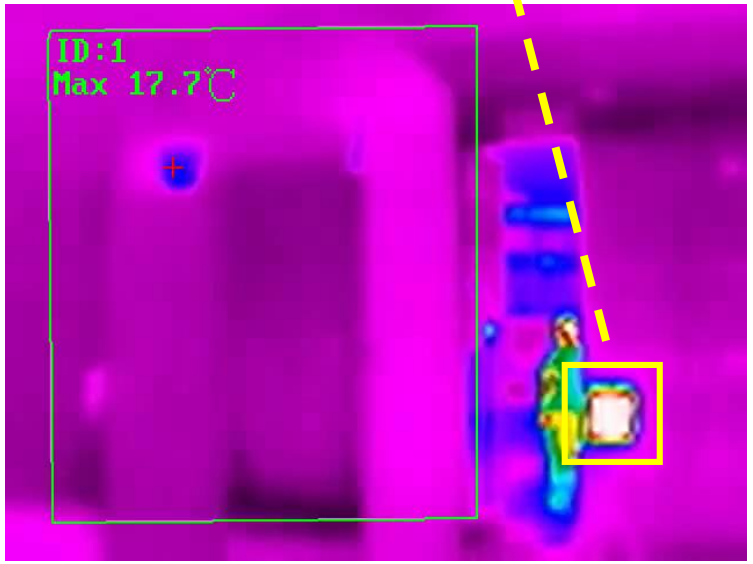
Boost Accuracy Using Blackbody Calibration Source



Video of Thermal &
Optical Channels

Temporary Installation

Long-term Installation

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Products Introduction - Highlights

MinMoe Temperature screening terminal

Flexible deployment
Supporting ***wall mounting*** and ***floor standing with mounting pole***.

Visualized temperature screening
7-inch touch screen.
Temperature screening with ***visional results*** and ***audio prompt.***

Mask detection
Supporting ***face mask wearing alert*** and ***forced mask wearing alert.***
Temperature screening with mask.

DS-K1T671TM-3XF

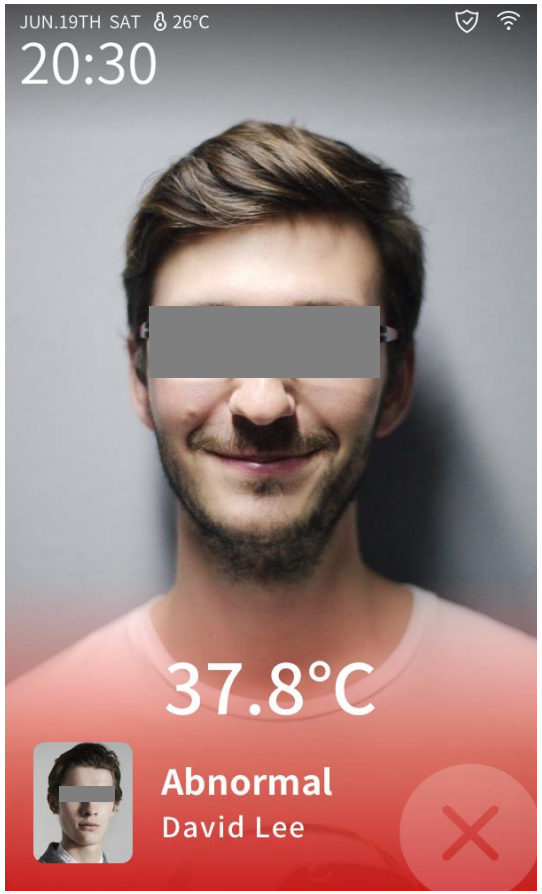
Thermographic technology
Measuring the temperature of ***forehead*** by thermographic after ***face detection.***

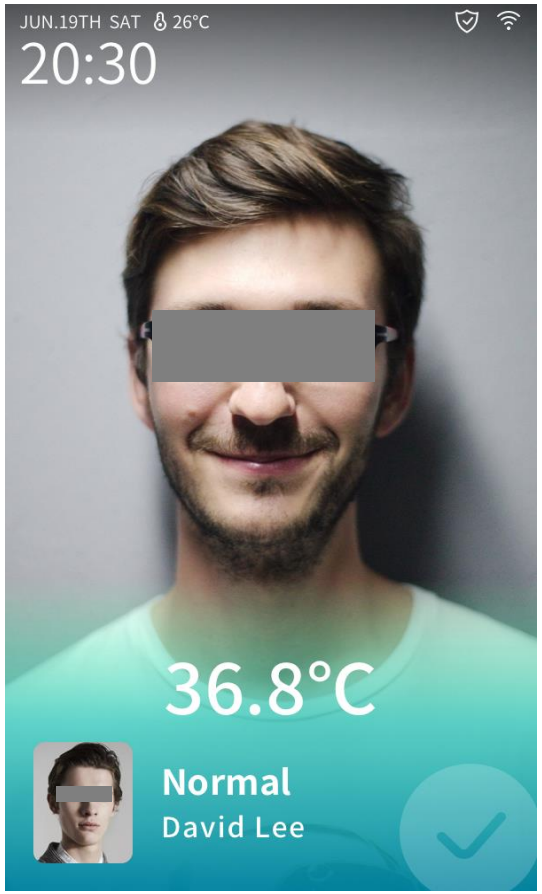
Touch-free temperature screening
Authentication distance: ***0.5-1.5 m***.
Authentication height: ***1.4-1.9m***.

High accuracy of temperature screening
Temperature range: ***30℃ to 45℃,***
Temperature accuracy: ***±0.5 ℃***.

Solution Introduction

Results display





*(*Above display images are only for reference)*

Products Introduction - Highlights

Monitoring tablet

Openness
Operating system: ***Android***.

Live view
Live view of door station camera.

Convenience
One-click unlock
One-click calling the center.

DS-KC001

Alarm and counting
Supporting ***abnormal temperature alarm. people counting, abnormal temperature counting.***

Visualized temperature screening data
7-inch touch screen.
Real-time temperature display, abnormal temperature filter.

Data storage
Built-in ***32G*** TF card,
Temperature recording storage,
Max to ***100,000 records***

Products Introduction – Thermographic Technology

Comparison between thermographic and thermopile technology

HIKVISION Hikvision Thermographic	Other Solutions Thermopile
Full screen measurement	Fixed limited area measurement
Measurement by AI tracking can be accurate	Measurement in the limited fixed area can be wrong or missed
Measurement distance: 0.5 m~1.5 m	Measurement distance: 0.3 m~0.5 m
Efficiency: 1 s/person	Efficiency: 5 s/person

Note: Non-medical device.

Products Introduction – Thermographic Technology

Comparison between thermographic and thermopile technology

Type	Thermopile	Thermographic technology	Comments
Resolution	32X32	120X160	——
Measurement distance	0.3m~0.5m	0.5m~1.5m(depends on focus of device)	——
Measurement scale	Small, fixed area of the screen	Large scale, any area within the screen	
Adaptability	Asking for high adaptability of personnel	No need deliberate cooperating, except for entering the screen	
Efficiency	5 s/person	1 s/person	
Measurement accuracy	Detecting only the highest temperature in the fixed area.	Face detection tracking, guaranteed that the measurement is the temperature of the person's forehead.	
Labor cost	Requiring the management personnel to participate in the whole guide, the labor cost is high.	Requires little involvement of managers, the labor cost is low.	

Thermopile:

- Limited measurement scale,
- Low accuracy and efficiency of temperature screen.

Thermographic :

- Bigger measurement scale,
- AI algorithm for face detection,
- High accuracy and efficiency of temperature screen.

Note: Non-medical device.

Access Control Application

DS-K1T671TM-3XF

DS-KAB671-B

DS-KC001

I Series NVR

OR

GuardingVision (PC)

POE Switch

LED LCD Monitor

Solution Composition:

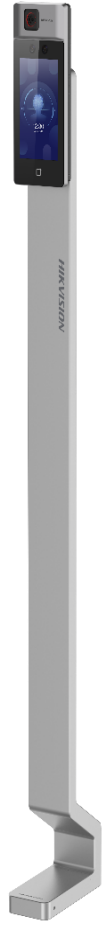
Thermographic Terminal + Monitering Tablet + Floor Standing Bracket (optional) + NVR or Guarding Vision(PC) + PoE switch + monitor

Solution Advantages:

- Live view
- Display Temperatur Results
- Voice Reminder
- Accuracy of **±0.5°C (± 0.9°F)**

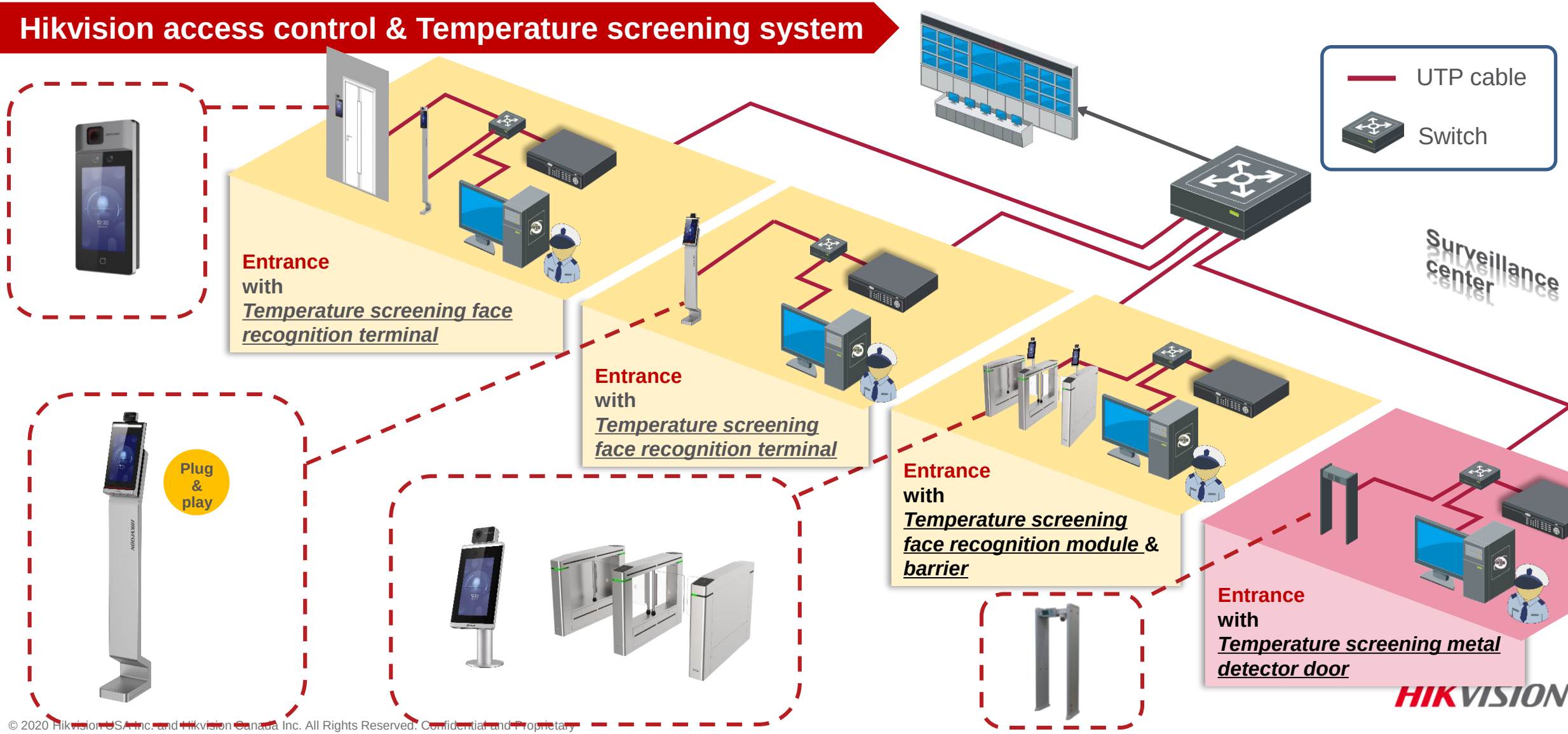
Set Up Tips:

- Measure from about **0.5 to 1.5 m away**
- Set up the solution in a stable **indoor** environment without wind or direct sunlight



System Topology

Hikvision access control & Temperature screening system



Industry Solutions

School

01 School Gate Temperature Screening

School gate is the major spot to screen abnormal temperatures. However, considering the dense people flow, screening procedure should be fast and convenient. No crowding or commotion is tolerable.

Temperature Screening & Security Surveillance – Visualized Bi-spectrum Live View

- The visualized bi-spectrum (thermal & optical) live view provides both temperature measurement and basic surveillance at the same time.
- Tripod mounting and simple wiring make for easy installation and use.

Thermal Image

Optical Image

Mask Detection & Intuitive Demonstration

With DeepinMind NVRs and thermal cameras, users will enjoy additional functions:

1) Mask Detection
2) Intuitive Demonstration
3) Search by Picture

DeepinMind NVR

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

iDS-9616(/32)NXI-I8/X(B)(T)

School

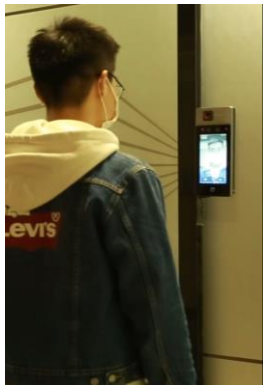
02 Classroom/Dormitory Temperature Screening

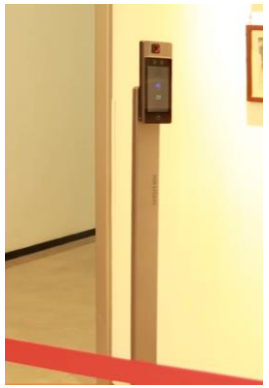
At the corridors outside **classrooms**, temperature screening can be performed along with course attendance statistics.

The Dormitory is the place where students spend the most of their time in school. Dormitory space is small but people density stays at a high level.

Temperature Screening with Access Control

- Access control with built-in thermal cameras for temperature measurement, realizing access control and temperature measuring at the same time.
- Detects people with abnormal temperatures while ensuring rapid passing as well.
- Real-time results will display on video intercom's screen as live notification.
- Mask detection supported.





Typical Application

Normal

Alarm

Supermarket

01 Passenger Entrance

Passenger entrance is where everyone walks into the supermarket. It is always the most crowded spot. People flow keeps at a high level. The measurement procedure should be fast and convenient to avoid commotion and crowding.

Temperature Screening & Security Surveillance – Visualized Bi-spectrum Live View

- The visualized bi-spectrum (thermal & optical) live view provides both temperature measurement and basic surveillance at the same time.
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Thermal Image

Optical Image

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iDS-9616(/32)NXI-I8/X(B)(T)

Supermarket

02 Indoor Vehicle Entrance & Exit

Many people drive to the supermarket. They enter the supermarket from the parking lot. Thus, it is essential to measure everyone’s temperature at the vehicle entrance.

Convenient Temperature Screening for Drivers and Passengers

- When the vehicle enters the supermarket, he or she should stop the car and lower the window. Security can then check temperature for the driver and passenger using thermographic handheld camera.
- It's recommended to use this device in an indoor environment, such as entrances of indoor parking lots, to shield wind and reduce external influence.

Typical Application

Real Image

Building

01 Temperature Screening for Entrances

Entrance is where everyone enters and exits buildings. To prevent crowding, a quick and convenient setup is recommended for preliminary temperature screening.

Temperature Screening & Security Surveillance – Visualized Bi-spectrum Live View

- The visualized bi-spectrum (thermal & optical) live view provides both temperature measurement and basic surveillance at the same time.
- Tripod mounting and simple wiring make for easy installation and use.

Thermal Image

Optical Image

Easy Supplemental Temperature Screening – Simple Wireless Connection

- Handheld thermographic cameras can be added at entrances for temporary temperature screening with secondary queues during busy periods.

Typical Application

Real Image

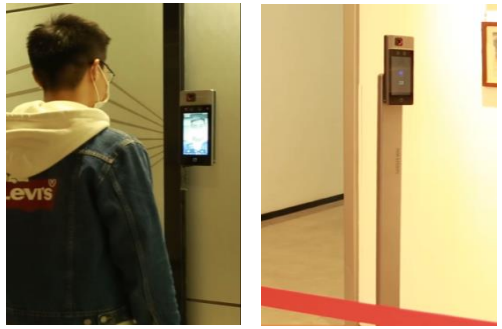
Building

02 Temperature Screening for Office Areas

Office Area is the place where employees work and stay. Taking into consideration of attendance check and personnel permission control, Hikvision introduces temperature screening solution with access control, with an optional choice of patrol temperature screening with thermographic handheld cameras.

Temperature Screening with Access Control

- Access control with built-in thermal cameras for temperature measurement, realizing access control and temperature measuring at the same time.
- Detects people with abnormal temperatures while ensuring rapid passing as well.
- Real-time results will display on video intercom's screen as live notification.
- Mask detection supported.



Typical Application

Normal

Alarm

Temperature Screening on Patrol –Anytime, Anywhere. Just One Click

- Portable handheld device for easy indoor on-spot checks.

Thermographic Handheld Camera

- Thermal resolution: 160 × 120
- Optical resolution: Max 8 MP
- Accuracy: ±0.5℃
- Measurement range: 30-45℃
- 3.5" LCD touch screen

DS-2TP21B-6AVF/W

Hospital

01 Entrance Temperature Screening & Security Surveillance

Hospital sees large number of people, healthy or ill, going in and out everyday.
Entrance is one of the most crucial places in the hospital as everyone need to pass through.
Hikvision offers comprehensive and effective temperature screening solution for such scenario.

Temperature Screening & Security Surveillance – Visualized Bi-spectrum Live View

- The visualized bi-spectrum (thermal & optical) live view provides both temperature measurement and basic surveillance at the same time.
- Tripod mounting and simple wiring make for easy installation and use.

Thermal Image

Optical Image

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iDS-9616(/32)NXI-I8/X(B)(T)

Hospital

02 Entrance Wireless Temperature Screening

Cable Free for Fast Deployment

- Handheld thermographic cameras can be added at entrances for temporary temperature screening with secondary queues during busy periods.

Typical Application

Real Image

Thermographic Handheld Camera

- Thermal resolution: 160 × 120
- Optical resolution: Max 8 MP
- Accuracy: ±0.5℃
- Measurement range: 30-45℃
- 3.5” LCD touch screen

DS-2TP21B-6AVF/W

FAQ

Q: Can the thermographic camera be installed outdoors?

A: To ensure accuracy, we strongly recommend installing the solution indoors.
Hot or cold air and direct sunlight can affect an individual's skin-surface temperature as well as the working status of the camera, resulting in a deviation in the measured temperature.

Q: Can the accuracy of screening thermographic cameras reach ±0.1°C?

A: No. At present, cameras with accuracy higher than ±0.5°C require real-time calibration with a blackbody and intelligent compensation. The accuracy of a blackbody calibrator is currently ±0.1°C, which makes it impossible for the camera to achieve ±0.1°C accuracy. Solutions with higher accuracy of ±0.3°C are available.

Q: Can the camera detect human bodies for temperature measurement?

A: The camera detects human bodies when screening. It detects up to 30 persons at a time. However, Hikvision recommends screening only one person at a time.

Q: Will other heat sources, such as a coffee cup, cause false alarms?

A: The turret and bullet cameras are able to use human body detection technology and avoid detecting the temperature of other heat sources.

Q: Can I screen immediately after turning the camera on?

A: The cameras need to be warmed up before screening. Turn them on and wait for 5 minutes (handheld camera) or 30 minutes (bullet/turret camera).

Q: What is a blackbody calibration source?

A: A blackbody calibration source maintains a constant temperature with a known emissivity as a reference. The thermographic cameras are able to automatically and continuously calibrate thermal drift compensation based on the detected radiation.
The blackbody only needs to be powered by 100 to 240 VAC. No network connection is required.
Hikvision thermographic cameras are available with a blackbody calibration source to increase surface temperature measurement accuracy.

Thank you!

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